

PROJECT NARRATIVE

April 8, 2022

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

Re: Request of DISH Wireless LLC for an Order to Approve the Shared Use of an Existing Tower
2 Sunny Lane, Westport, CT 06880
Latitude: 41°9'46.5" / Longitude: -73°22'23.1"

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes ("C.G.S.") §16-50aa, as amended, DISH Wireless LLC ("DISH") hereby requests an order from the Connecticut Siting Council ("Council") to approve the shared use by DISH of an existing telecommunication tower at 2 Sunny Lane in Westport (the "Property"). The existing 130-foot monopole is owned by American Tower Corporation ("ATC"). The underlying property is owned by Cellco Partnership. DISH requests that the Council find that the proposed shared use of the ATC tower satisfies the criteria of C.G.S. §16-50aa and issue an order approving the proposed shared use. A copy of this filing is being sent to Jennifer Tooker, First Selectwoman for the Town of Westport, Steve Smith, Town of Westport Building Official, and Cellco Partnership as the property owner.

Background

This facility was originally approved by the Council under Docket No. 188 on December 17, 1998. A copy of this decision is included in this filing. The existing ATC facility consists of a 130-foot monopole located within an existing leased area. Verizon Wireless currently maintains antennas at the 128 and 75-foot levels. Sprint Nextel currently maintains antennas at the 120-foot level. T-Mobile currently maintains antennas at the 110 and 80-foot levels. AT&T Mobility currently maintains antennas at the 100 and 68-foot levels. Equipment associated with these antennas are located at various positions within the tower and compound.

DISH is licensed by the Federal Communications Commission ("FCC") to provide wireless services throughout the State of Connecticut. DISH and ATC have agreed to the proposed shared use of the 2 Sunny Lane tower pursuant to mutually acceptable terms and conditions. Likewise, DISH and ATC have agreed to the proposed installation of equipment cabinets on the ground within the existing compound. ATC has authorized DISH to apply for all necessary permits and approvals that may be required to share the existing tower.
(See attached Letter of Authorization)

DISH proposes to install three (3) antennas, (1) Tower platform mount, (6) Remote radio units at the 86-foot level along with, (1) over voltage protection device (OVP) and (1) Hybrid cable. DISH will install an equipment cabinet on a 5'x7' equipment platform. DISH's Construction Drawings provide project specifications for all proposed site improvement locations. The construction drawings also include specifications for DISH's proposed antenna and groundwork.

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such a shared use." DISH respectfully submits that the shared use of the tower satisfies these criteria.

A. Technical Feasibility. The existing ATC tower is structurally capable of supporting DISH's proposed improvements. The proposed shared use of this tower is, therefore, technically feasible. A Feasibility Structural Analysis Report ("Structural Report") prepared for this project confirms that this tower can support DISH's proposed loading. A copy of the Structural Report has been included in this application.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue order approving the shared use of an existing tower such as the ATC tower. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. In addition, § 16-50x(a) directs the Council to "give such consideration to the other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use of the ATC tower would have a minimal environmental effect for the following reasons:

1. The proposed installation will have no visual impact on the area of the tower. DISH's equipment cabinet would be installed within the existing facility compound. DISH's shared use of this tower therefore will not cause any significant change or alteration in the physical or environmental characteristics of the existing site.
2. Operation of DISH's antennas at this site would not exceed the RF emissions standard adopted by the Federal Communications Commission ("FCC"). Included in the EME report of this filing are the approximation tables that demonstrate that DISH's proposed facility will operate well within the FCC RF emissions safety standards.
3. Under ordinary operating conditions, the proposed installation would not require the use of any water or sanitary facilities and would not generate air emissions or discharges to water bodies or sanitary facilities. After construction is complete the proposed installations would not generate any increased traffic to the ATC facility other than periodic maintenance. The proposed shared use of the ATC tower, would, therefore, have a minimal environmental effect, and is environmentally feasible.

D. **Economic Feasibility.** As previously mentioned, DISH has entered into an agreement with ATC for the shared use of the existing facility subject to mutually agreeable terms. The proposed tower sharing is, therefore, economically feasible.

E. **Public Safety Concerns.** As discussed above, the tower is structurally capable of supporting DISH's full array of three (3) antennas, (1) Tower platform mount, (6) Remote radio units, (1) over voltage protection device (OVP) and (1) Hybrid cable and all related equipment. DISH is not aware of any public safety concerns relative to the proposed sharing of the existing ATC tower.

Conclusion

For the reasons discussed above, the proposed shared use of the existing ATC tower at 2 Sunny Lane satisfies the criteria stated in C.G.S. §16-50aa and advances the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The Applicant, therefore, respectfully requests that the Council issue an order approving the proposed shared use.

Sincerely,

David Hoogasian

David Hoogasian
Project Manager

LETTER OF AUTHORIZATION



AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

I, Margaret Robinson, Senior Counsel for American Tower*, owner/operator of the tower facility located at the address identified above (the “Tower Facility”), do hereby authorize **DISH WIRELESS L.L.C.**, its successors and assigns, and/or its agent, **NETWORK BUILDING + CONSULTING** (collectively, the “Licensee”) to act as American Tower’s non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee’s telecommunications’ installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee’s installation and any such conditions of approval or modifications will be Licensee’s sole responsibility.

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

Project Number	Site Address	Customer Site Number	Tower Number	Site Name
13685414	5 High Ridge Park Road, Stamford CT	NJER01080B	302515	SMFR - North
13685427	1069 Connecticut Avenue, Bridgeport CT	NJER01130A	302469	Bridgeport CT 2
13688395	25 Meridian Ridge Drive, Newton CT	NJER01081B	302518	Newtown CT 3
13699598	100 Old Redding Road, Redding CT	NJER01161A	302522	Redding
13699607	22 Titicus Mtn Road, New Fairfield CT	NJER01162A	88014	New Fairfield
13700310	2 SUNNY LANE, Westport CT	NJER01082B	411189	CRANBURYSU CT
13700315	515 Morehouse Road, Easton CT	NJER01097B	207956	Easton
13700320	100 Pocono Road, Brookfield CT	NJER01099B	209271	Brookfield 2
13700322	320 Old Stagecoach Road, Ridgefield CT	NJER01100B	209115	Ridgefield 2
13705673	20 Post Office Lane, Westport CT	NJER01139B	302511	WSPT - South



AMERICAN TOWER®
CORPORATION

13709691	180A Bayberry Lane, Westport CT	NJER01140B	310968	WSPT- WESTPORT REBUILD CT
13709692	1000 Trumbull Avenue, Bridgeport CT	NJER01150B	383598	Tartaglia
13710333	168 Catoona Lane, Stamford CT	NJER01123B	88018	Stamford (Katoona)
13712876	23 Stonybrook Road, Stratford CT	NJER02048A	283420	STONEBROOK RD CT
13735391	15 Soundview Avenue, Shelton CT	NJER02055A	415438	Brownson Country Club CT

Print Name: Margaret Robinson
Senior Counsel, American Tower*

LETTER OF AUTHORIZATION

DISH WIRELESS L.L.C., its successors and assigns, and/or its agent, NETWORK BUILDING + CONSULTING

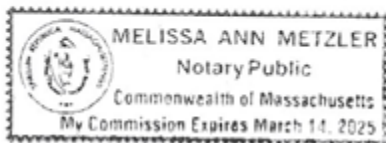
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 19th day of November 2021.

NOTARY SEAL



Notary Public
My Commission Expires: March 14, 2025

ORIGINAL FACILITY APPROVAL

Connecticut Siting Council^(/CSC)

[CT.gov Home](#) [\(/\)](#) [Connecticut Siting Council](#) [\(/CSC\)](#) DOCKET NO. 188

[Decisions \(/CSC/Decisions/Decisions\)](#)



[Meetings and Minutes \(/CSC/Common-Elements/v4-template/Council-Activity\)](#)



[Pending Matters \(/CSC/1_Applications-and-Other-Pending-Matters/Pending-Matters\)](#)



[About Us \(/CSC/Common-Elements/Common-Elements/Connecticut-Siting-Council---Description\)](#)



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Search Connecticut Siting Council



DOCKET NO. 188 - An application by Cellco Partnership d/b/a Bell Atlantic Mobile for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a proposed telecommunications tower and associated equipment located at 2 Sunny Lane or on a parcel located immediately south of the intersection of Clinton Avenue and the Merritt Parkway in Westport, Connecticut.

Connecticut Siting Council

December 17, 1998

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 tower and equipment buildings at the proposed prime site in Westport, Connecticut, 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 Bell Atlantic Mobile (BAM) for the construction, operation, and maintenance of a telecommunications tower, and

associated equipment at the proposed prime site, located at 2 Sunny Lane, Westport, Connecticut. We find the effects on scenic resources and adjacent residences of the proposed alternate site to be significant, and therefore deny certification of that site.

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 as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of BAM, Springwiche Cellular Limited Partnership (SCLP), Sprint PCS (Sprint), Omnipoint Communications, and Nextel Communications of the Mid-Atlantic, Inc. (Nextel); and such tower, excluding appurtenances, shall not exceed a height of 130 feet above ground level (AGL).
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 final site plan(s) for site development detailing: relocation of the tower to the northwestern corner of the parcel to protect a nearby watercourse and wetlands, and to be closer to the commuter parking area; tower compound reduced in area to the minimum necessary for tower security; construction of the cable tray below grade; placement of a stockade or other architecturally treated fence around the compound; the location and specifications for the tower foundation, antennas, emergency generator and fuel tank, security fence, accessway, and vegetative screening; placement of underground utilities; construction plans for tree trimming, water drainage, and erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended; provisions for the tower finish that may include painting; and provisions for the prevention and containment of spills and/or other discharge into surface water and ground water bodies.
3. Upon the establishment of any new State or federal radiofrequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
4. The Certificate Holder shall provide the Council a recalculated report of electromagnetic radiofrequency power density for all transmitting antennas on the proposed tower as ordered in this Decision and Order, and again for any proposed change in the operation of the tower.
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. The Certificate Holder shall comply with the Town of Westport’s recommendations for site development, including: proper abandonment of the existing septic system; removal of a portion of the existing driveway to accommodate for increased lot coverage; planting a dense vegetative buffer north of the Poplar Plains Brook; and relocation of the above-ground fuel tank to a distance at least 60 feet away from the waterway protection lines.

7. If the facility does not initially provide, or permanently ceases to provide cellular services following completion of construction, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or re-application for any continued or new use shall be made to the Council before any such use is made.

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

9. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

10. The Certificate Holder shall provide to the Council the Federal Aviation Administration’s determination for obstruction or hazard to air navigation.

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 Hartford Courant, Westport News, and Connecticut Post.

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
Bell Atlantic Mobile	Kenneth C. Baldwin, Esq. Brian C. S. Freeman, Esq. Robinson & Cole One Commercial Plaza Hartford, CT 06103-3597 Mr. David S. Malko, P.E. Jennifer Young Gaudet Bell Atlantic Mobile 20 Alexander Drive Wallingford, CT 06492

PARTIES

Town of Westport
Residents of Clinton Avenue Westport

INTERVENORS

Sprint Spectrum, L.P. d/b/a Sprint PCS
Nextel Communications of the Mid-
Atlantic
Springwich Cellular Limited Partnership

INTERVENORS

Residents of Sunny Lane, Westport
Omnipoint Communications, Inc.

ITS REPRESENTATIVE

Ira W. BloomTown Attorney
Town Hall, 110 Myrtle Avenue
Westport, CT 06880
203) 341-1040
Robert Sullivan, Esq.
Law Offices of Robert Sullivan
190 Main StreetWestport, CT 06880
(203) 227-1404

ITS REPRESENTATIVE

Julie M. Cashin, Esq.
Hurwitz & Sagarin, PC
147 North Broad Street
Milford, CT 06460
(203) 877-8000
Christopher B. Fisher, Esq.
d/b/a Nextel Communications
Cuddy, Feder & Worby, Esq.
90 Maple Avenue
White Plains, NY 10601
Peter J. Tyrrell, Esq.
General Counsel
500 Enterprise Drive
Rocky Hill, CT 06067-3900

ITS REPRESENTATIVE

Lawrence P. Weisman
Weisman & Lubell
5 Sylvan Road South
P.O. Box 3184
Westport, CT 06880
(203) 226-8307
Brian Weinstein
Omnipoint Communications, Inc.
25 Van Zant Street, Suite 18E
East Norwalk, CT 06855
(203) 855-5450

ENGINEERING DRAWINGS



DISH Wireless L.L.C. SITE ID:

NJJER01082B

DISH Wireless L.L.C. SITE ADDRESS:

**2 SUNNY LANE
WESTPORT, CT 06880**

THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION REMOVAL AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR 1.61000 (B)(7).

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

- 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 SAFETY SWITCH (IF REQUIRED)
 - INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
 - INSTALL (1) PROPOSED METER SOCKET

SITE INFORMATION

PROPERTY OWNER: CELCO PARTNERSHIP
ADDRESS: PO BOX 2549
ADDISON, TX 75001

TOWER TYPE: MONOPOLE

TOWER CO SITE ID: 411189

TOWER APP NUMBER: 13700310

COUNTY: FAIRFIELD

LATITUDE (NAD 83): 41° 9' 46.5" N
41.162917 N

LONGITUDE (NAD 83): 73° 22' 23.1" W
73.3730829999 W

ZONING JURISDICTION: CONNECTICUT SITING COUNCIL

ZONING DISTRICT: UNZONED

PARCEL NUMBER: B13026000

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: II-B

POWER COMPANY: EVERSOURCE

TELEPHONE COMPANY: AT&T

PROJECT DIRECTORY

APPLICANT: DISH Wireless L.L.C.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

TOWER OWNER: AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN, MA 01801
(781) 926-4500

SITE DESIGNER: B+T GROUP

SITE ACQUISITION: WILLIAM SNIDER
WILLIAM.SNIDER@DISH.COM

CONST. MANAGER: VICTOR CORREA
VICTOR.CORREA@DISH.COM

RF ENGINEER: MURUGABIRAN JAYAPAL
MURUGABIRAN.JAYAPAL@DISH.COM



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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

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

DRAWN BY: CHECKED BY: APPROVED BY:

RPA MRE ---

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

CONNECTICUT CODE OF 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

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL AND ENLARGED SITE PLAN
A-2	ELEVATION, ANTENNA LAYOUT AND SCHEDULE
A-3	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-4	EQUIPMENT DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

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.

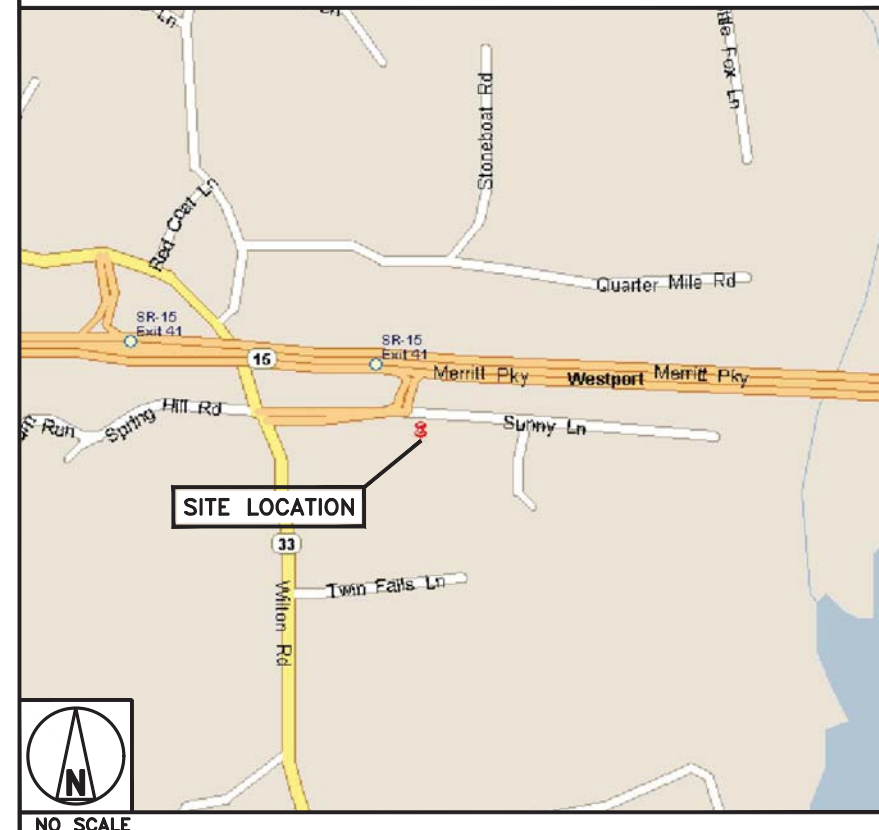
11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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.

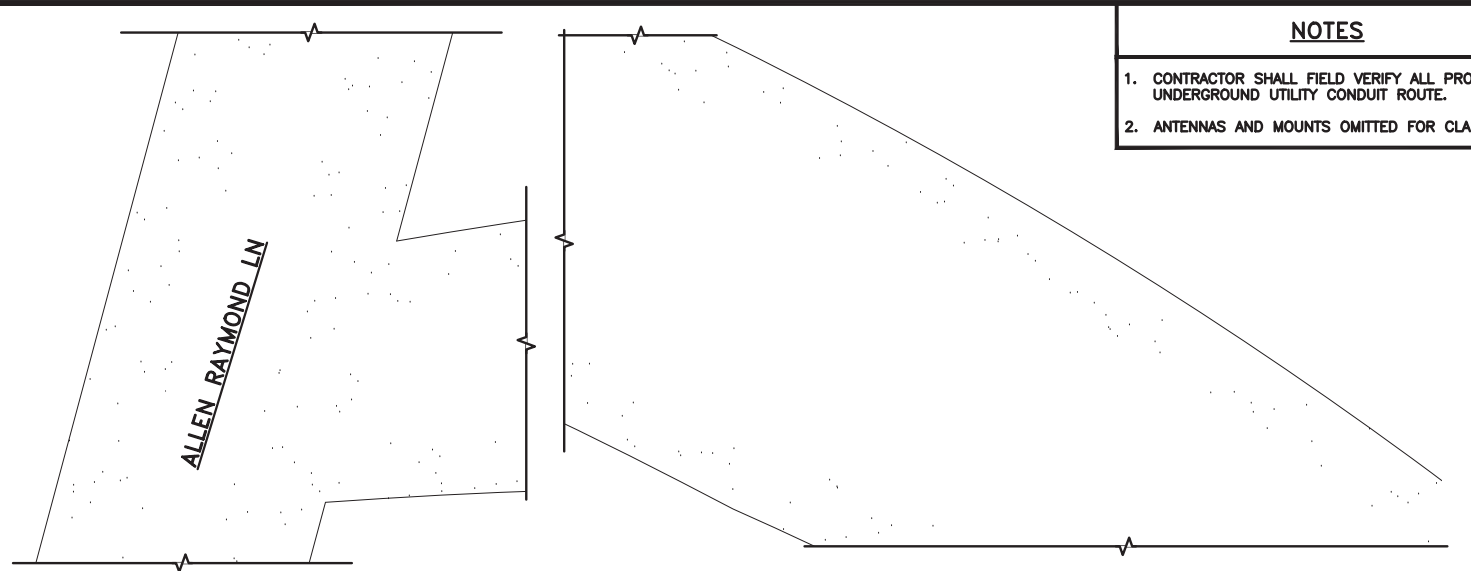
DIRECTIONS

DIRECTIONS FROM 3 ADP BOULEVARD, ROSELAND, NJ 07068:
GET ON I-280 E FROM LIVINGSTON AVE. TURN LEFT TOWARD ADP BLVD. TURN LEFT TOWARD ADP BLVD. TURN LEFT ONTO ADP BLVD. TURN RIGHT TOWARD CHOCTAW WAY. SLIGHT RIGHT ONTO CHOCTAW WAY. USE THE LEFT LANE TO TURN RIGHT ONTO LIVINGSTON AVE. USE THE RIGHT LANE TO TAKE THE RAMP ONTO I-280 E. CONTINUE ON I-280 E. TAKE GARDEN STATE PKWY. I-287 E AND CT-15 N TO EXIT 41 IN WESTPORT. MERGE WITH I-280 E AND KEEP LEFT TO STAY ON I-280 E. TAKE EXIT 12 TOWARD ORATON PKWY KEEP LEFT. FOLLOW SIGNS FOR GARDEN STATE PARKWAY AND MERGE ONTO GARDEN STATE PKWY. KEEP RIGHT TO STAY ON GARDEN STATE PKWY. KEEP LEFT TO STAY ON GARDEN STATE PKWY. CONTINUE ONTO NJ-444 N/GARDEN STATE PKWY ENTERING NEW YORK. CONTINUE ONTO GARDEN STATE PARKWAY CONNECTOR. USE ANY LANE TO TAKE EXIT 14-1 TO MERGE WITH I-287 E/I-87 S KEEP LEFT AT THE Y JUNCTION TO CONTINUE ON I-287 E. FOLLOW SIGNS FOR WHITE PLAINS/RYE. TAKE EXIT 9 S-N TOWARD HUTCHINSON PKWY/MERRITT PKWY MERGE WITH WESTCHESTER AVE. USE THE RIGHT LANE TO TAKE THE RAMP TO WESTCHESTER AVE/NORTH HUTCHINSON PKWY/MERRITT PKWY. MERGE WITH HUTCHINSON RIVER PKWY N. KEEP RIGHT AT THE Y JUNCTION TO STAY ON HUTCHINSON RIVER PKWY N ENTERING CONNECTICUT. CONTINUE ONTO CT-15 N. TAKE EXIT 41 TOWARD STATE HWY 33/WESTPORT/WILTON, ARRIVE AT NJJER01082B.

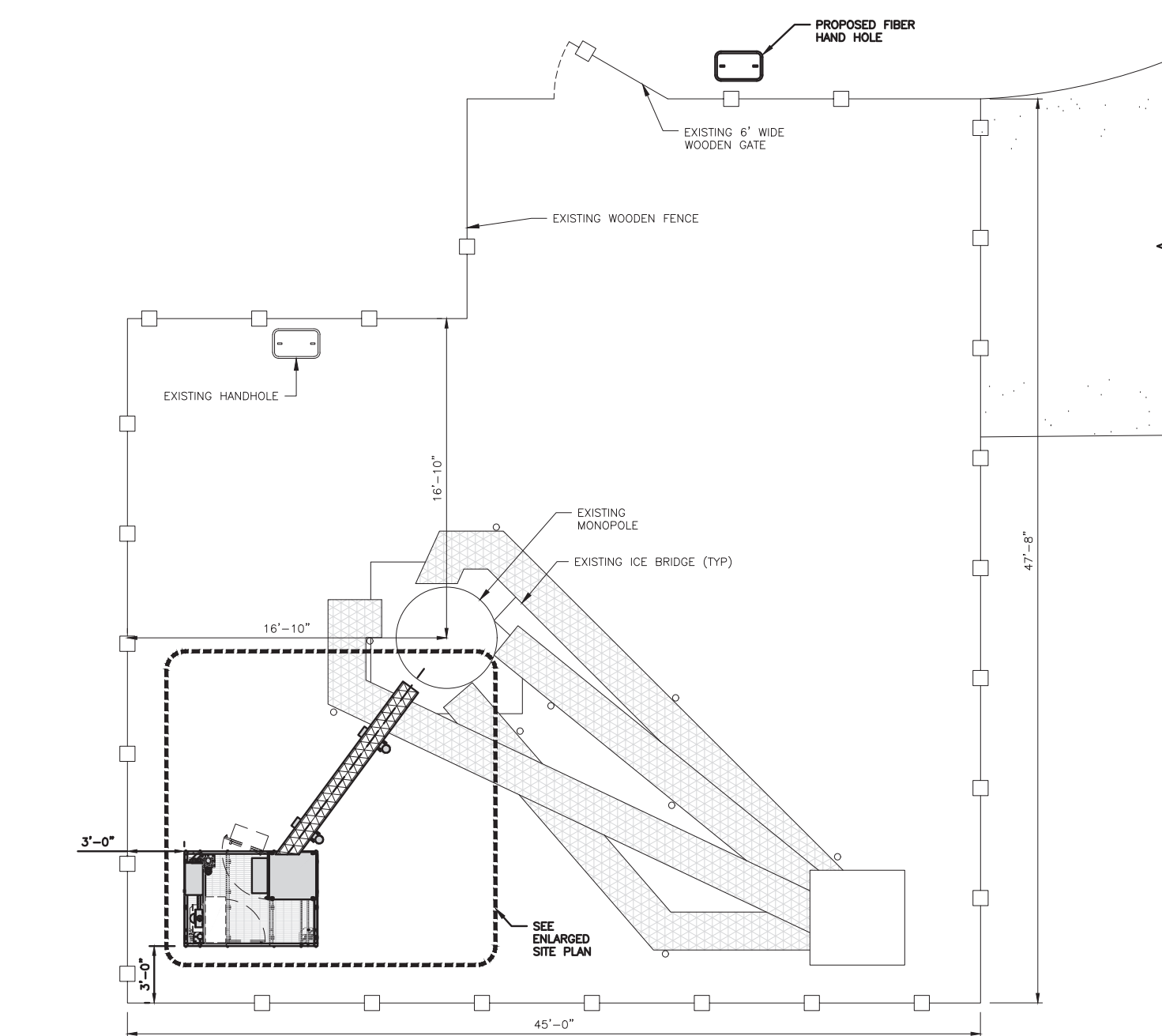
VICINITY MAP



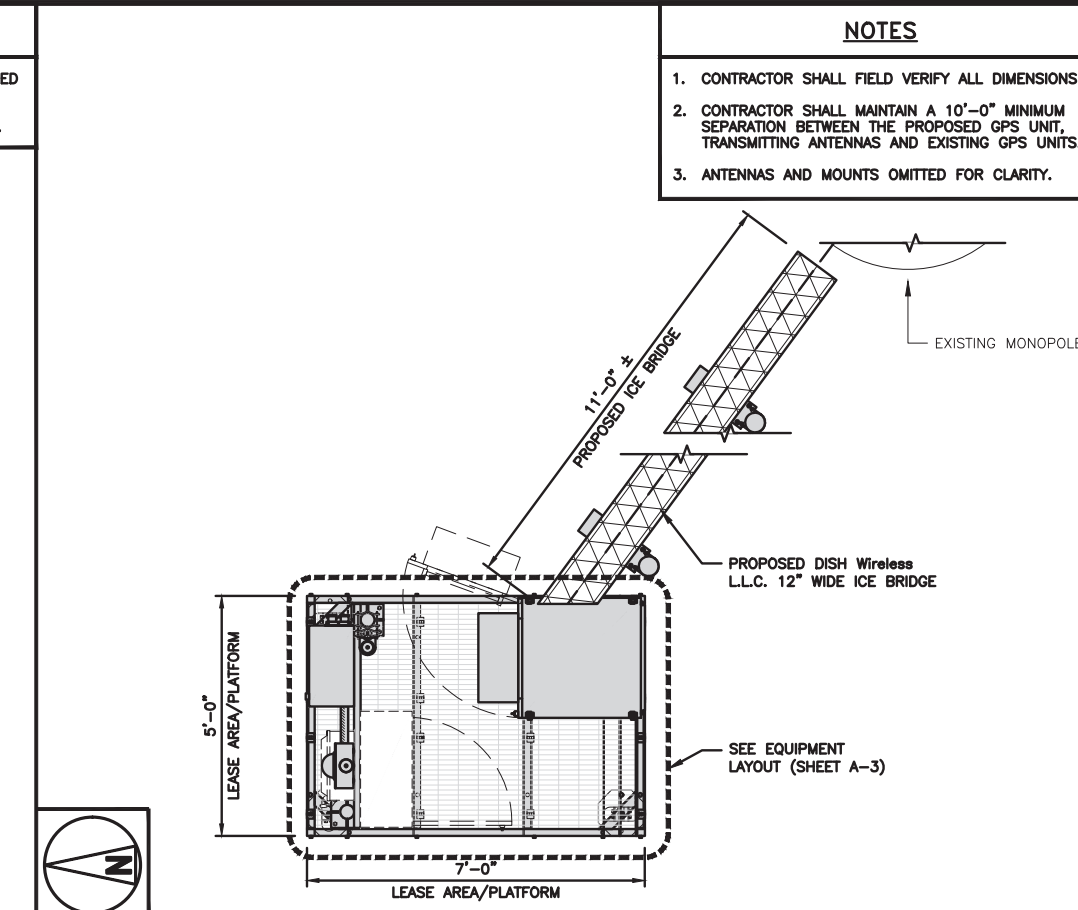
NO SCALE



- NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
 2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



- 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.



ENLARGED SITE PLAN 1/2" = 1'-0" 2



AERIAL IMAGE NO SCALE 3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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

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DRAWN BY:	CHECKED BY:	APPROVED BY:
RPA	MRE	---
RFDS REV #:	1	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
D	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

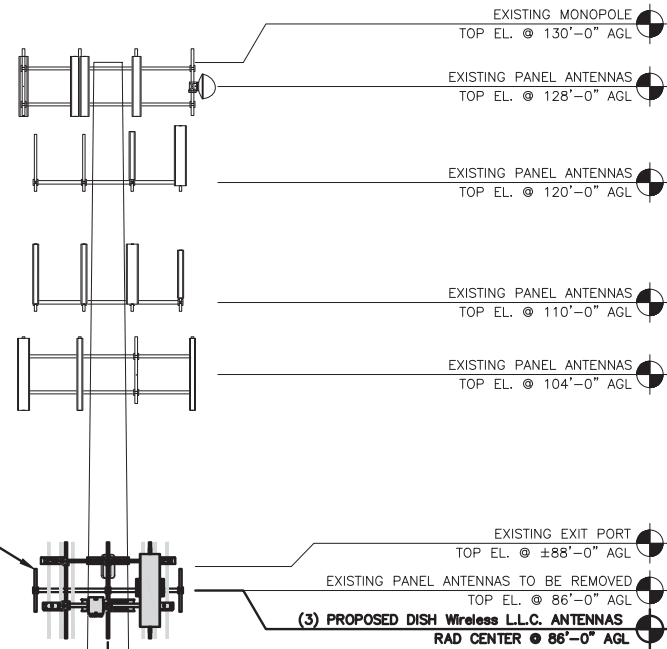
SHEET TITLE
OVERALL AND ENLARGED
SITE PLAN

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.

EXISTING ANTENNA, MOUNTS, CABLES, AND ALL OTHER EQUIPMENT AT THIS LEVEL TO BE REMOVED PRIOR TO INSTALLATION OF NEW EQUIPMENT



(1) PROPOSED DISH Wireless L.L.C. HYBRID CABLE ROUTED INSIDE POLE

EXISTING MONOPOLE

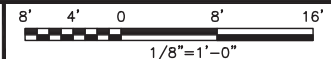
PROPOSED DISH Wireless L.L.C. ICE BRIDGE

PROPOSED DISH Wireless L.L.C. EQUIPMENT ON PROPOSED STEEL PLATFORM

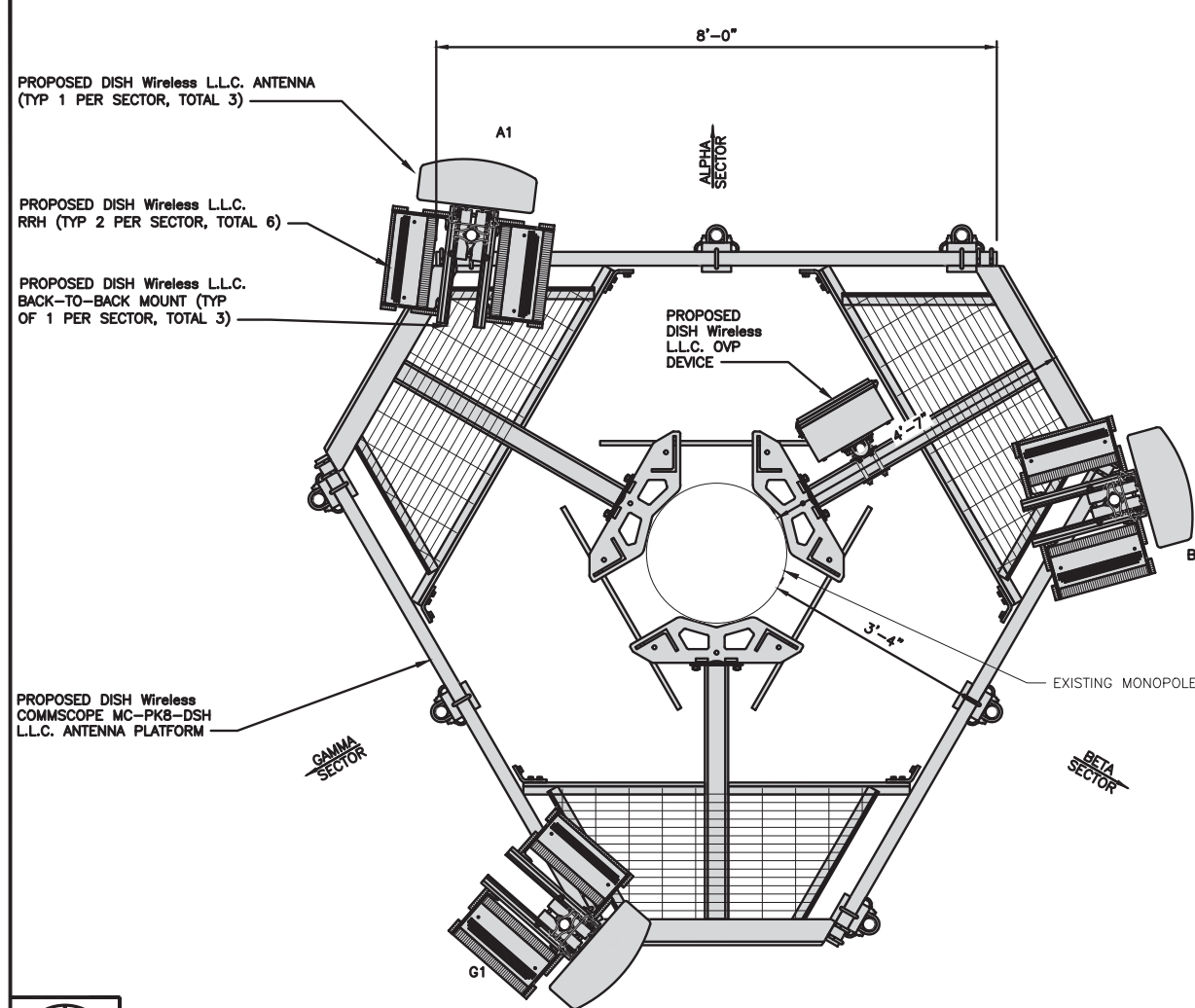
PROPOSED DISH Wireless L.L.C. GPS UNIT

EXISTING ENTRY PORT

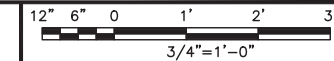
PROPOSED SOUTH ELEVATION



1



ANTENNA LAYOUT



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 WIRELESS-MX08FRO665-21	5G	72" x 20"	80°	86'-0"	(1) HIGH-CAPACITY HYBRID CABLE (120' LONG)
BETA	B1	PROPOSED	JMA WIRELESS-MX08FRO665-21	5G	72" x 20"	200°	86'-0"	
GAMMA	G1	PROPOSED	JMA WIRELESS-MX08FRO665-21	5G	72" x 20"	320°	86'-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	G1	FUJITSU - TA08025-B604	5G
	G1	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.

EXISTING OR PROPOSED	OVP	
	MANUFACTURER - MODEL NUMBER	SIZE (HxWxD)
PROPOSED	RAYCAP-RDIDC-9181-PF-48	16"x14"x8"

ANTENNA SCHEDULE

NO SCALE

3



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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DRAWN BY:	CHECKED BY:	APPROVED BY:
RPA	MRE	---
RFDS REV #:	1	

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C. PROJECT INFORMATION
NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER
A-2



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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RFDS REV #: 1

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A&E PROJECT NUMBER
155670.001.01

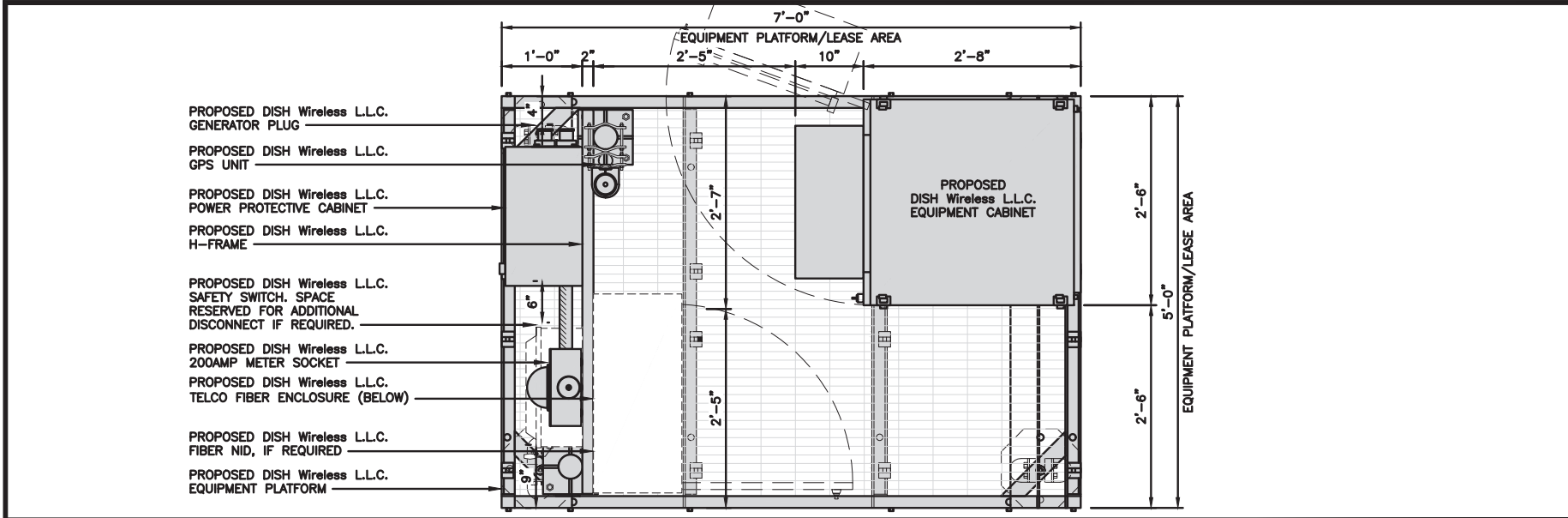
DISH Wireless L.L.C.
PROJECT INFORMATION
NJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

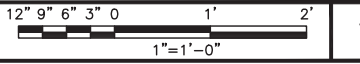
SHEET NUMBER
A-3

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 L.L.C. 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



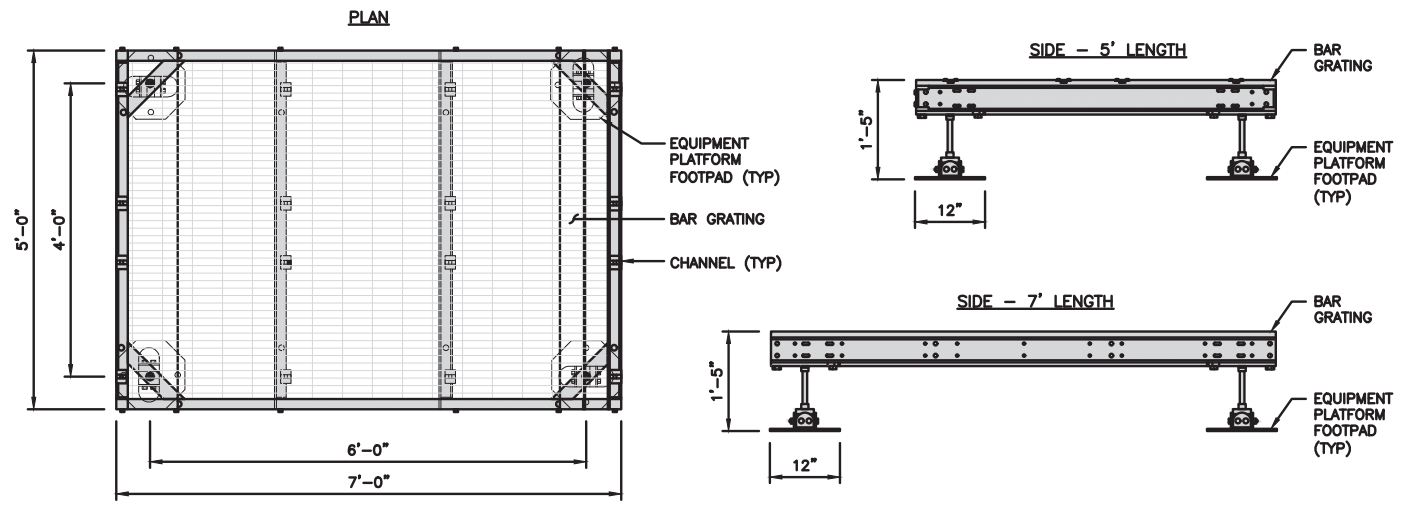
PLATFORM EQUIPMENT PLAN



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"

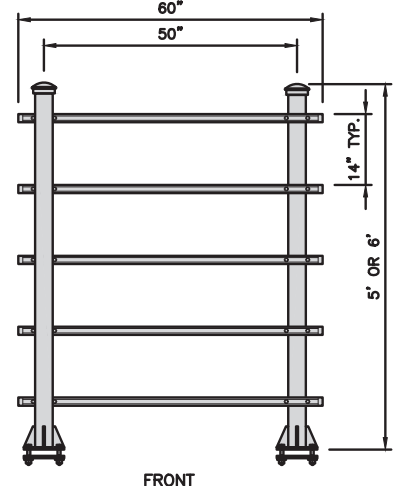
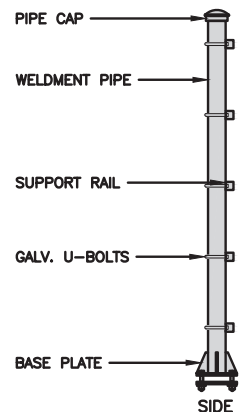


PLATFORM DETAIL

NO SCALE 2

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

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

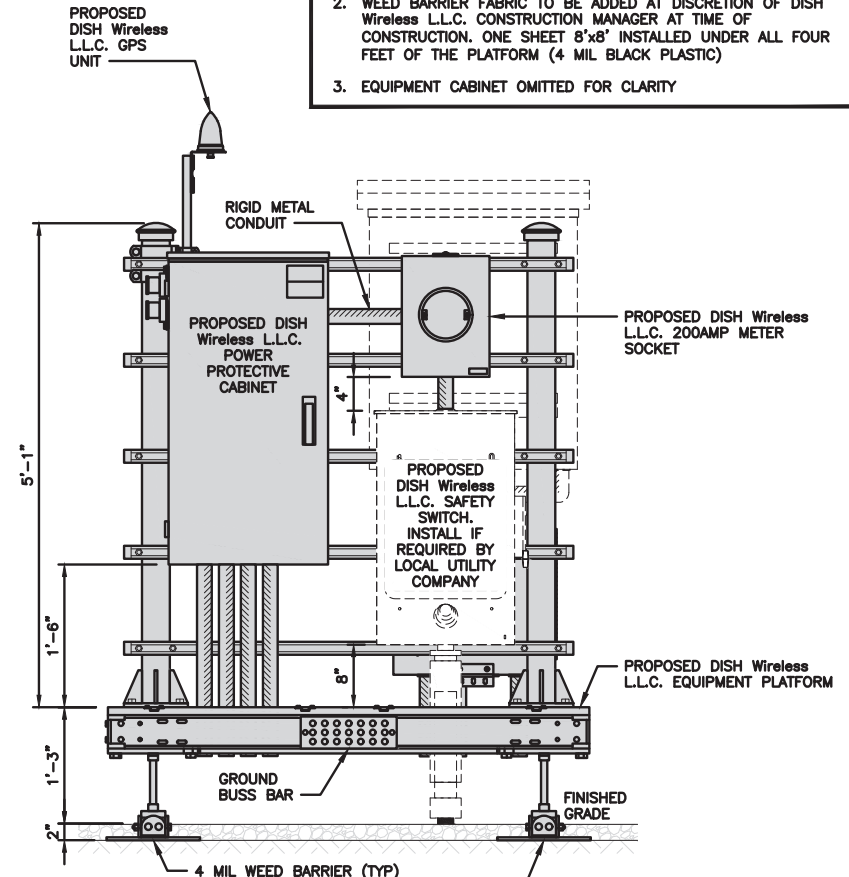


H-FRAME DETAIL

NO SCALE 3

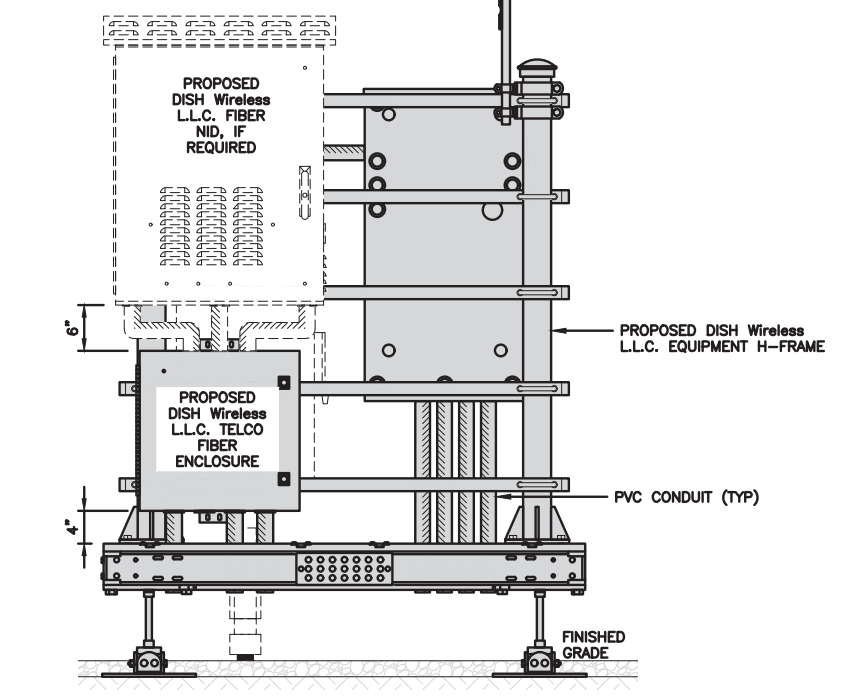
NOT USED

NO SCALE 4



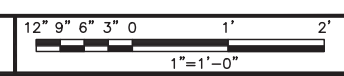
FRONT ELEVATION

PROPOSED DISH Wireless L.L.C. 200AMP METER SOCKET
PROPOSED DISH Wireless L.L.C. EQUIPMENT PLATFORM
PROPOSED DISH Wireless L.L.C. GPS UNIT



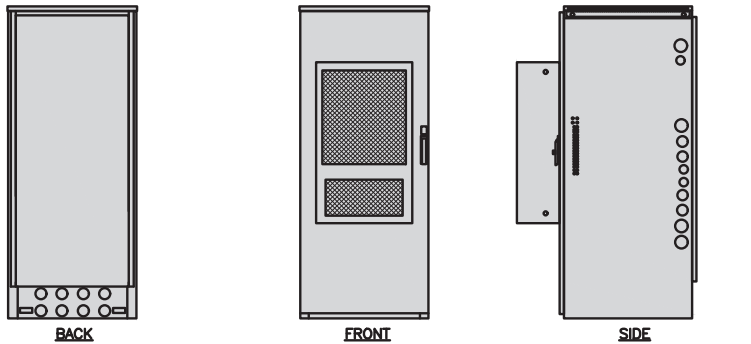
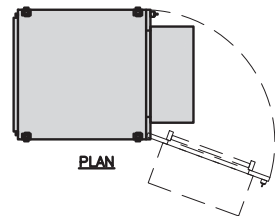
BACK ELEVATION

PROPOSED DISH Wireless L.L.C. FIBER NID, IF REQUIRED
PROPOSED DISH Wireless L.L.C. EQUIPMENT H-FRAME
PVC CONDUIT (TYP)



5

ENERSYS HEX CABINET 2000005996	
DIMENSIONS (HxWxD):	73"x30"x32"
WEIGHT EMPTY:	376 lbs
HEATER	800W
POWER SYSTEM	-48V ALPHA/600A

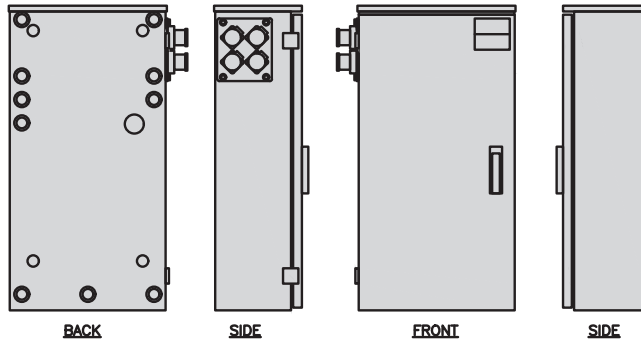
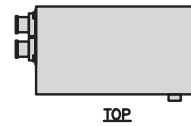


CABINET DETAIL

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

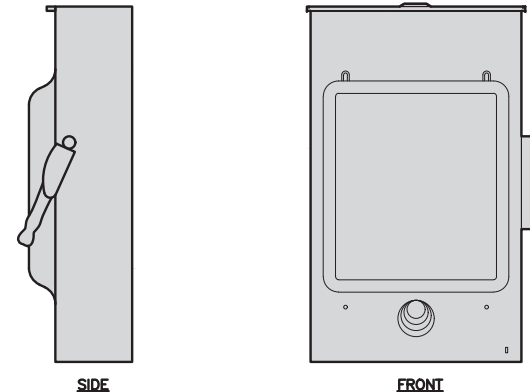
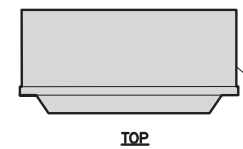


POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

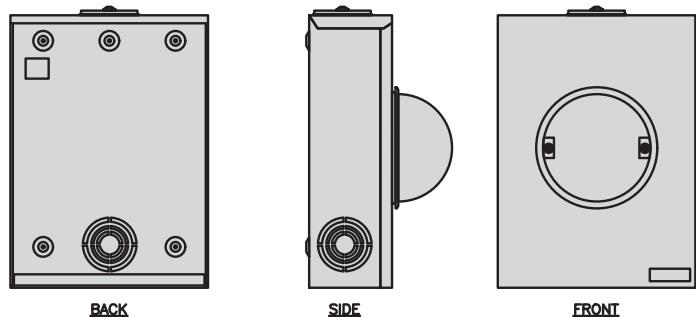
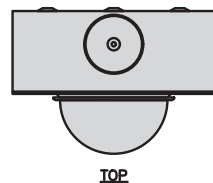


SAFETY SWITCH DETAIL

NO SCALE

3

EATON METER SOCKET UNRRS213BEUSE	
DIMENSIONS (HxWxD)	16"x12"x6"
TYPE	RING
AMPERAGE RATING	200 CONT. AMP
WEIGHT	18 lbs

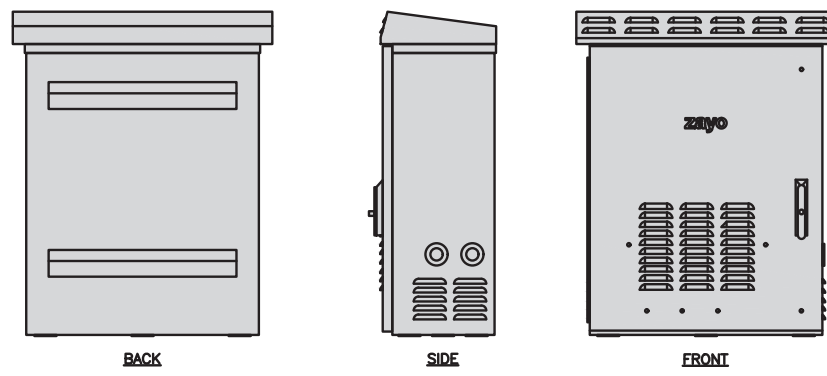
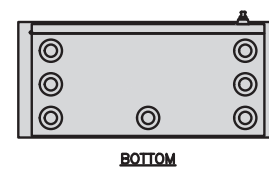


METER BANK DETAIL

NO SCALE

4

ZAYO 5RU (LEFT SWING DOOR) FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs

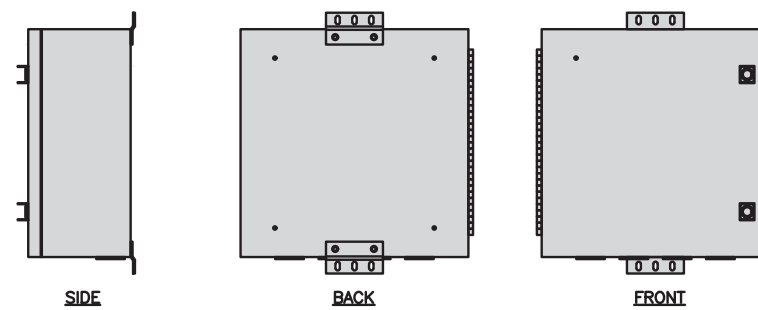


FIBER NID ENCLOSURE DETAIL

NO SCALE

5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

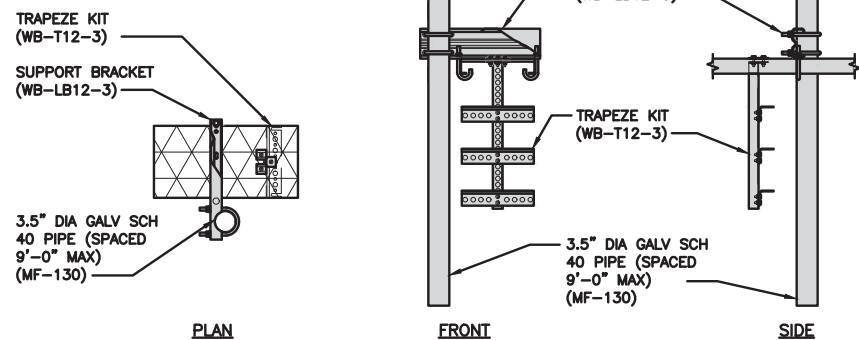


FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

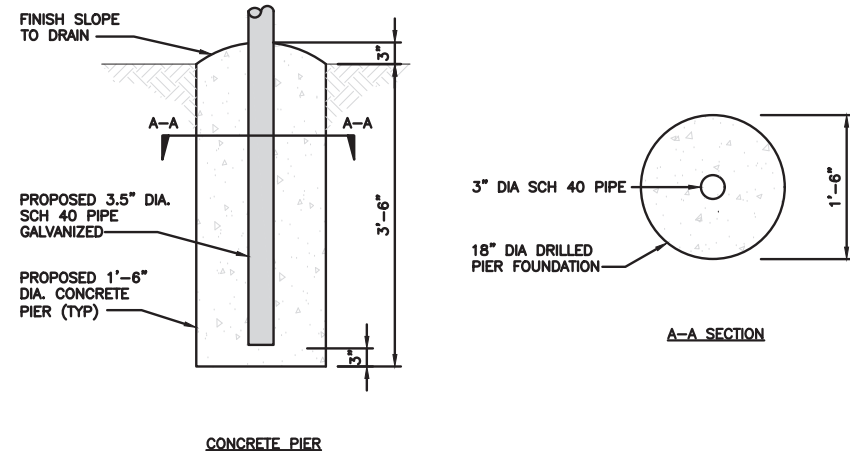
COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT		INCLUDED PRODUCTS:
DIMENSIONS (HxL)	160"x10'	WB-T12-3 TRAPEZE KIT, 3 RUNGS
WEIGHT/ VOLUME	325.0 LBS	WB-LB12-3 SUPPORT BRACKET
CABLE RUN (QTY)	12	MF-130 DIRECT BURIAL PIPE COLUMN, 13'-4"



ICE BRIDGE DETAIL

NO SCALE

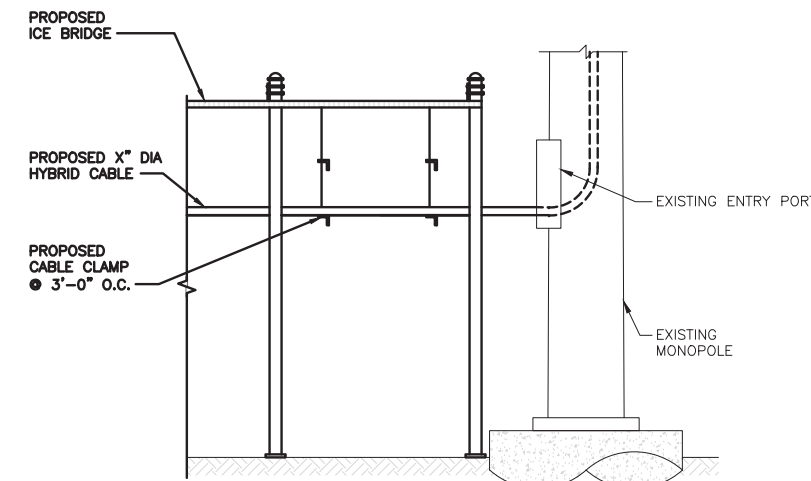
7



TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8



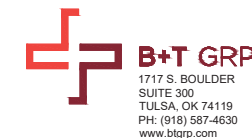
HYBRID CABLE RUN

NO SCALE

9



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DRAWN BY: CHECKED BY: APPROVED BY:

RPA

MRE

RFDS REV #:

1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
EQUIPMENT DETAILS

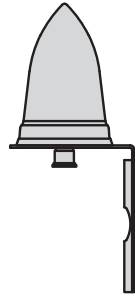
SHEET NUMBER

A-4

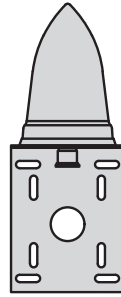
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



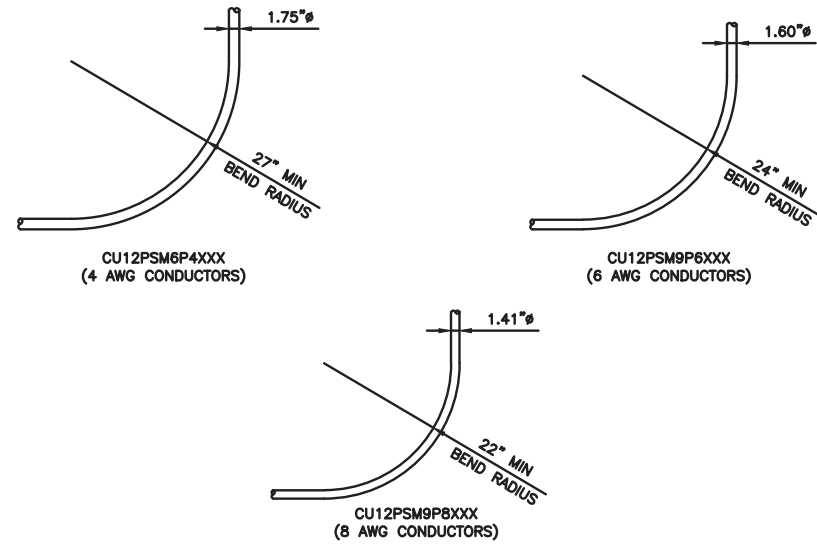
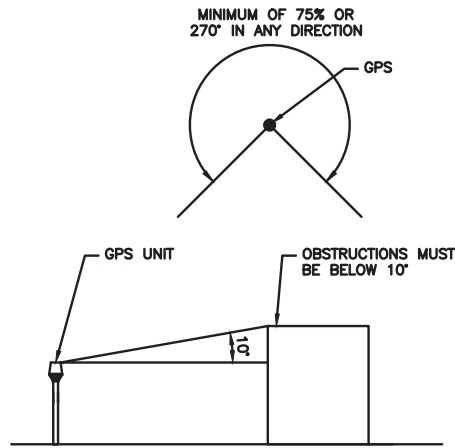
TOP



BACK



SIDE



GPS DETAIL

NO SCALE

1

GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE

2

CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUS

NO SCALE

3

NOT USED

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

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

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RPA	MRE	---

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
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A	9/13/21	ISSUED FOR REVIEW
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A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

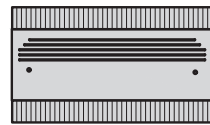
NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
EQUIPMENT DETAILS

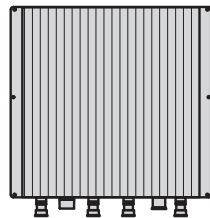
SHEET NUMBER

A-5

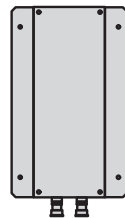
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



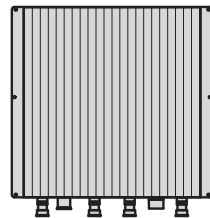
PLAN



BACK



SIDE



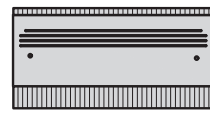
FRONT

RRH DETAIL

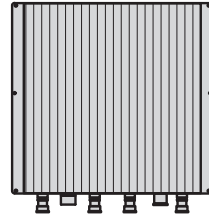
NO SCALE

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



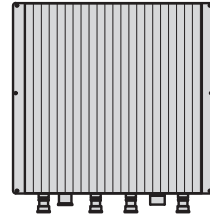
PLAN



BACK



SIDE



FRONT

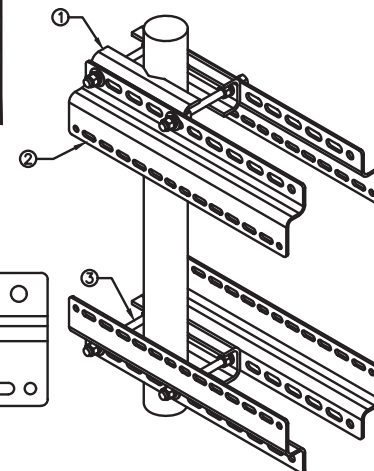
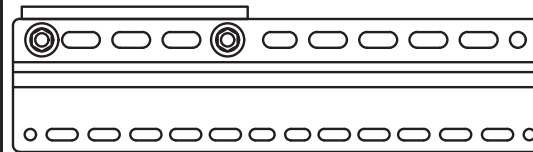
RRH DETAIL

NO SCALE

2

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

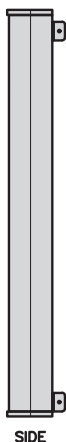
NO SCALE

3

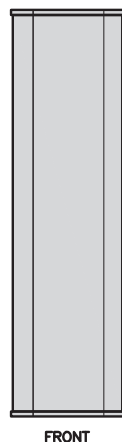
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN



SIDE



FRONT

ANTENNA DETAIL

NO SCALE

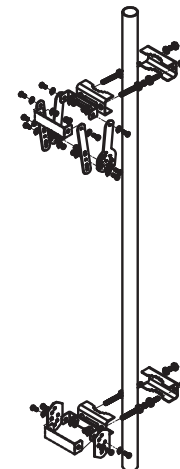
4

NOT USED

NO SCALE 5

JMA ANTENNA MOUNT BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:
KIT #91900318: TOP AND BOTTOM BRACKETS
FOR 4-, 6-, AND 8-FOOT ANTENNAS
ANTENNA BRACKET NOT PART OF KIT



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

ANTENNA BRACKET DETAIL

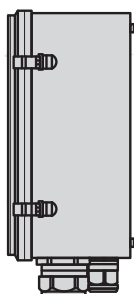
NO SCALE

6

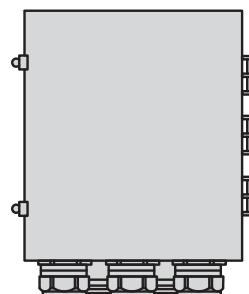
RAYCAP RDIC-9181-PF-48 DC SURGE PROTECTION (OVP)	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



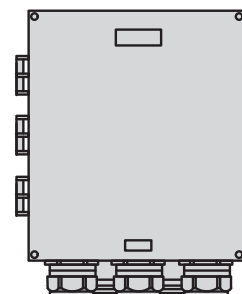
PLAN



SIDE



BACK



FRONT

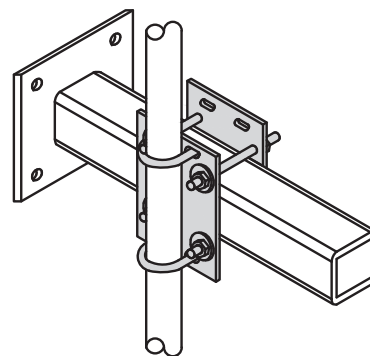
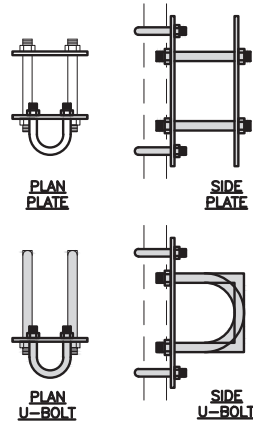
SURGE SUPPRESSION DETAIL (OVP)

NO SCALE

7

COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

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



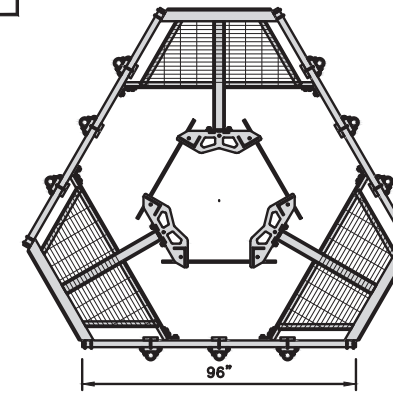
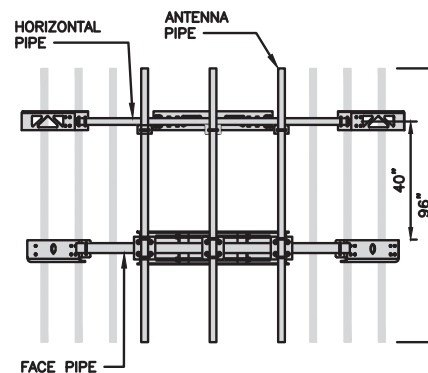
RRH/OVP MOUNT DETAIL

NO SCALE

8

COMMSCOPE MC-PK8-DSH	
FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	

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



ANTENNA PLATFORM DETAIL

NO SCALE

9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

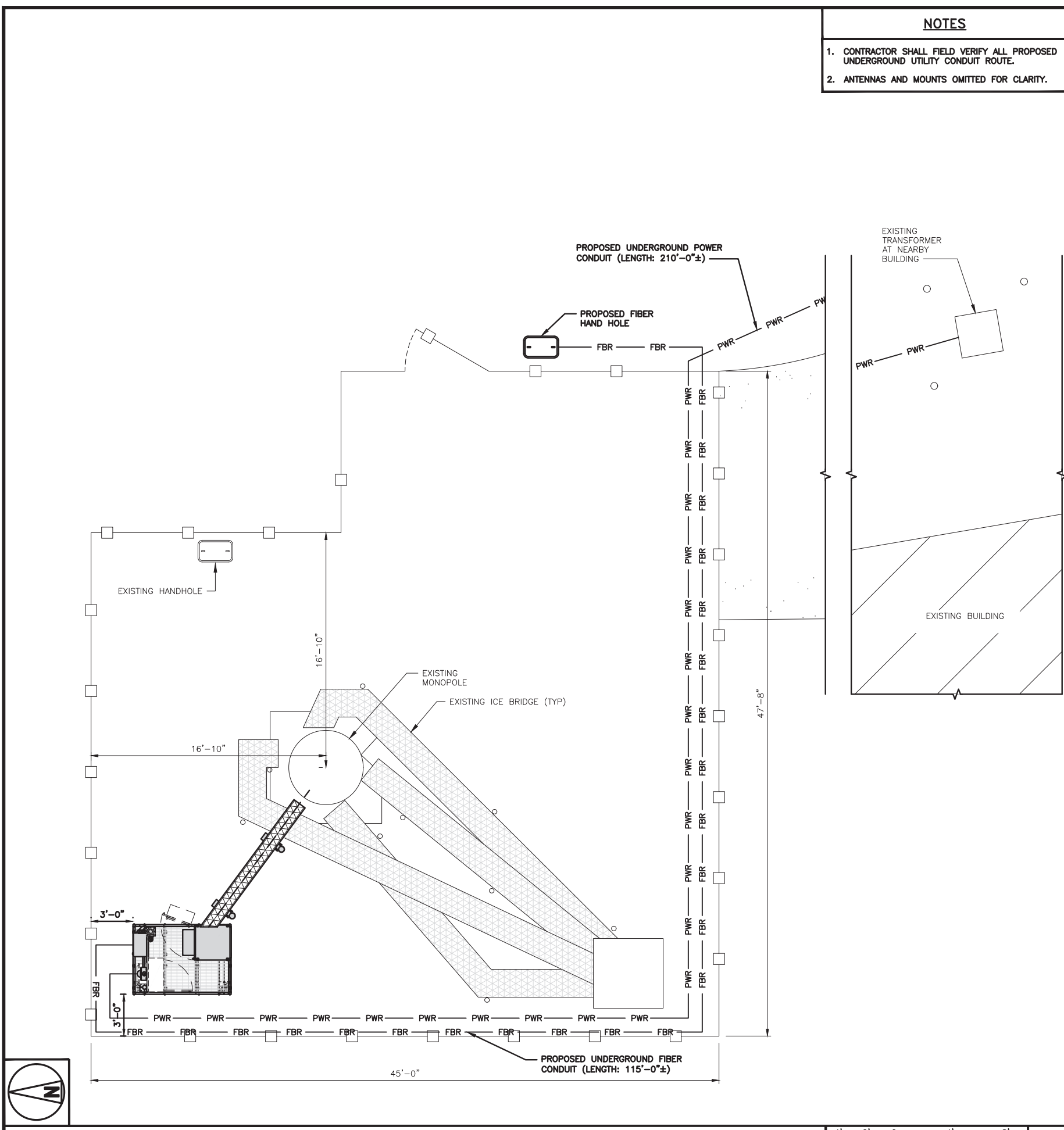
DISH Wireless L.L.C.
PROJECT INFORMATION

NJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-6



NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

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



AN EXISTING CONDITIONS SURVEY WAS NOT AVAILABLE AT THE TIME THIS DRAWING'S CREATION.

UTILITY ROUTE PLAN

ELECTRICAL NOTES



5701 SOUTH SANTA FE DRIVE
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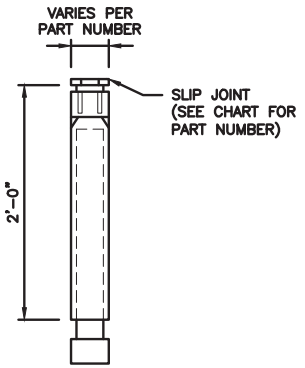
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2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
ELECTRICAL/FIBER ROUTE
PLAN AND NOTES

SHEET NUMBER
E-1

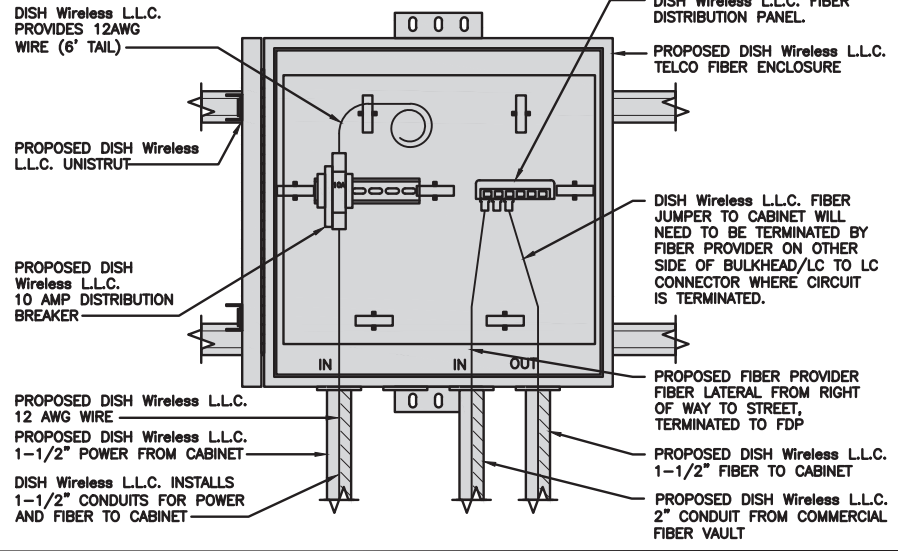
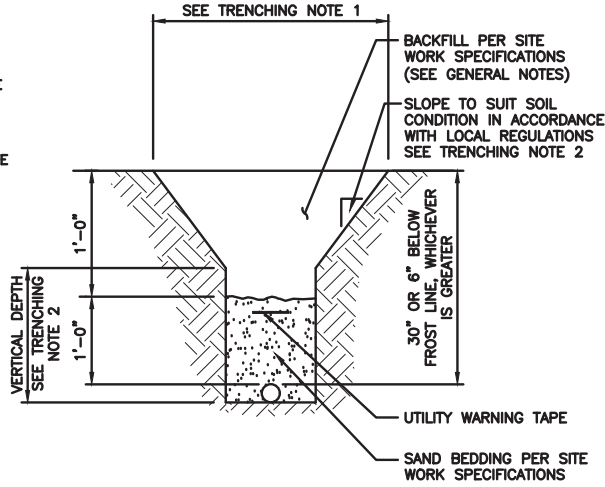
CARLON EXPANSION FITTINGS				
COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
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.

TRENCHING NOTES

- 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.
- TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
- 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.



EXPANSION JOINT DETAIL

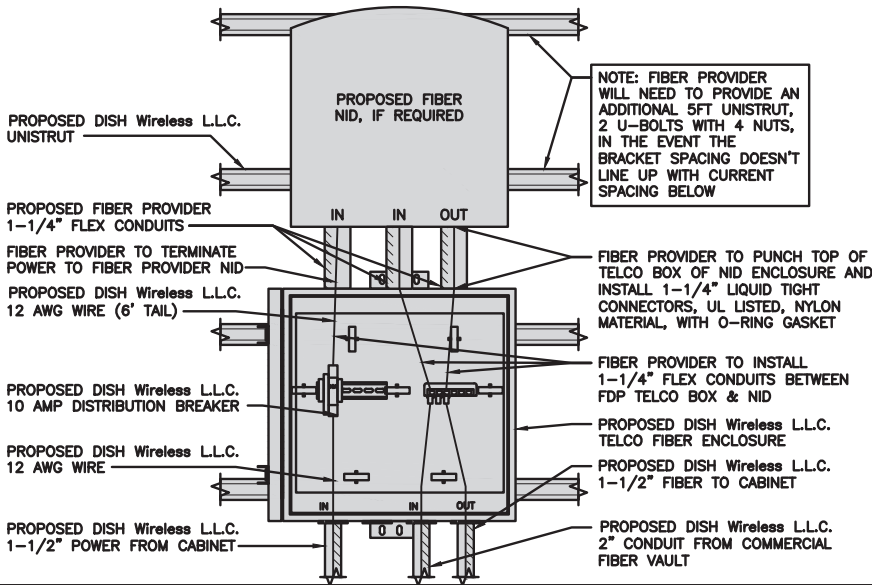
NO SCALE 1

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



5701 SOUTH SANTA FE DRIVE
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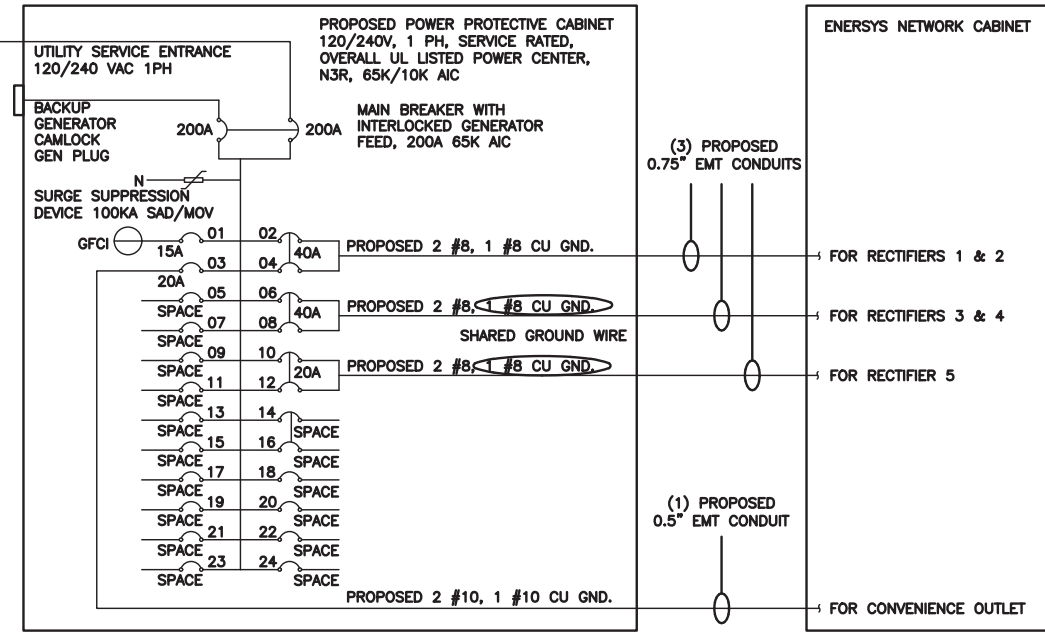
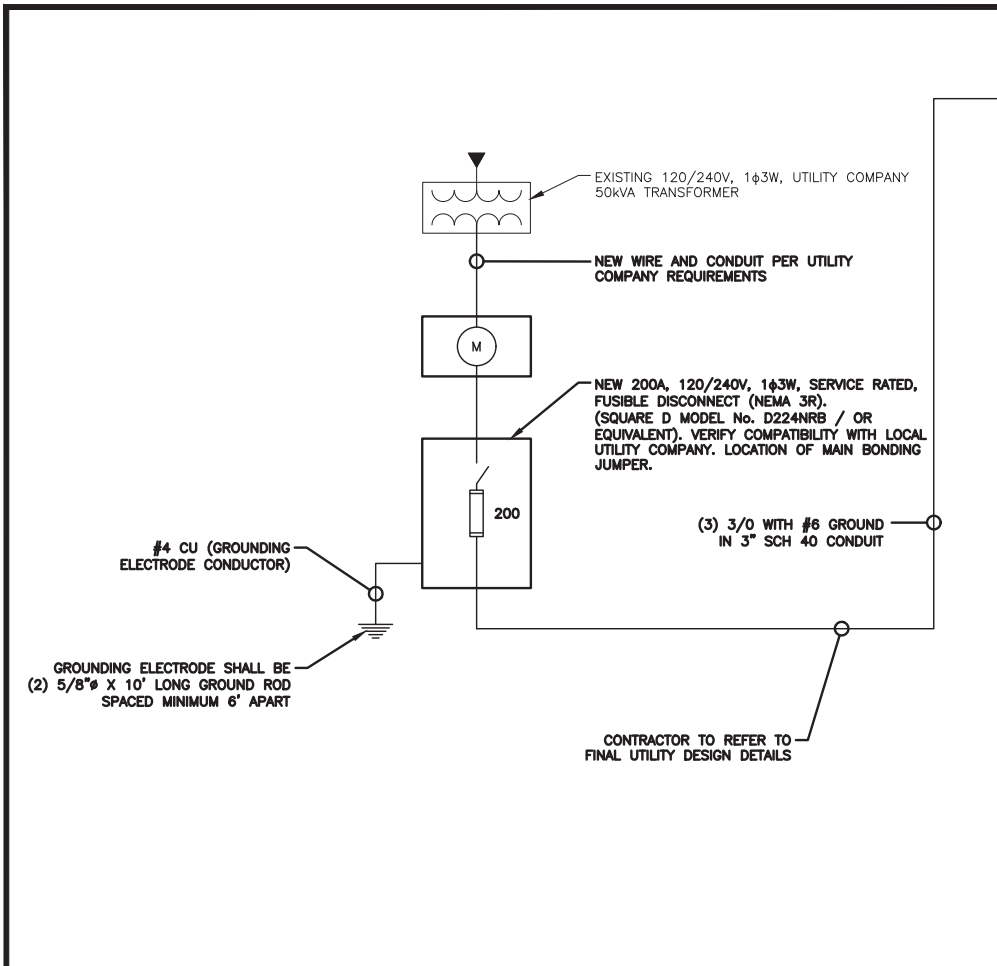
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DISH Wireless L.L.C.
PROJECT INFORMATION
NJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

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:

(2) 40A, 2P BREAKER - SQUARE D P/N:Q0240

(1) 20A, 2P BREAKER - SQUARE D P/N:Q0220

(1) 20A, 1P BREAKER - SQUARE D P/N:Q0120

NOTES

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 (3 CONDUITS): USING UL1015, CU.

#8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN

#8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND

TOTAL = 0.1234 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) 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 ENERSYS PANEL SCHEDULE											
LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED	
	L1	L2						L1	L2		
PPC GFCI OUTLET	180	180	15A	1	A	2	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIERS 1 & 2	
ENERSYS GFCI OUTLET			20A	3	B	4	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4	
-SPACE-				5	A	6	40A	3840	3840	ENERSYS ALPHA CORDEX RECTIFIER 3 & 4	
-SPACE-				7	B	8	20A	1920	1920	ENERSYS ALPHA CORDEX RECTIFIER 5	
-SPACE-				9	A	10				-SPACE-	
-SPACE-				11	B	12				-SPACE-	
-SPACE-				13	A	14				-SPACE-	
-SPACE-				15	B	16				-SPACE-	
-SPACE-				17	A	18				-SPACE-	
-SPACE-				19	B	20				-SPACE-	
-SPACE-				21	A	22				-SPACE-	
-SPACE-				23	B	24				-SPACE-	
VOLTAGE AMPS		180	180					9500	9500		
200A MCB, 1ϕ, 24 SPACE, 120/240V				L1	L2						
MB RATING: 65,000 AIC				9680	9680						
				81	81	VOLTAGE AMPS					
						AMPS					
						MAX AMPS					
						MAX 125%					

PANEL SCHEDULE

NO SCALE 2

NOT USED

NO SCALE 3



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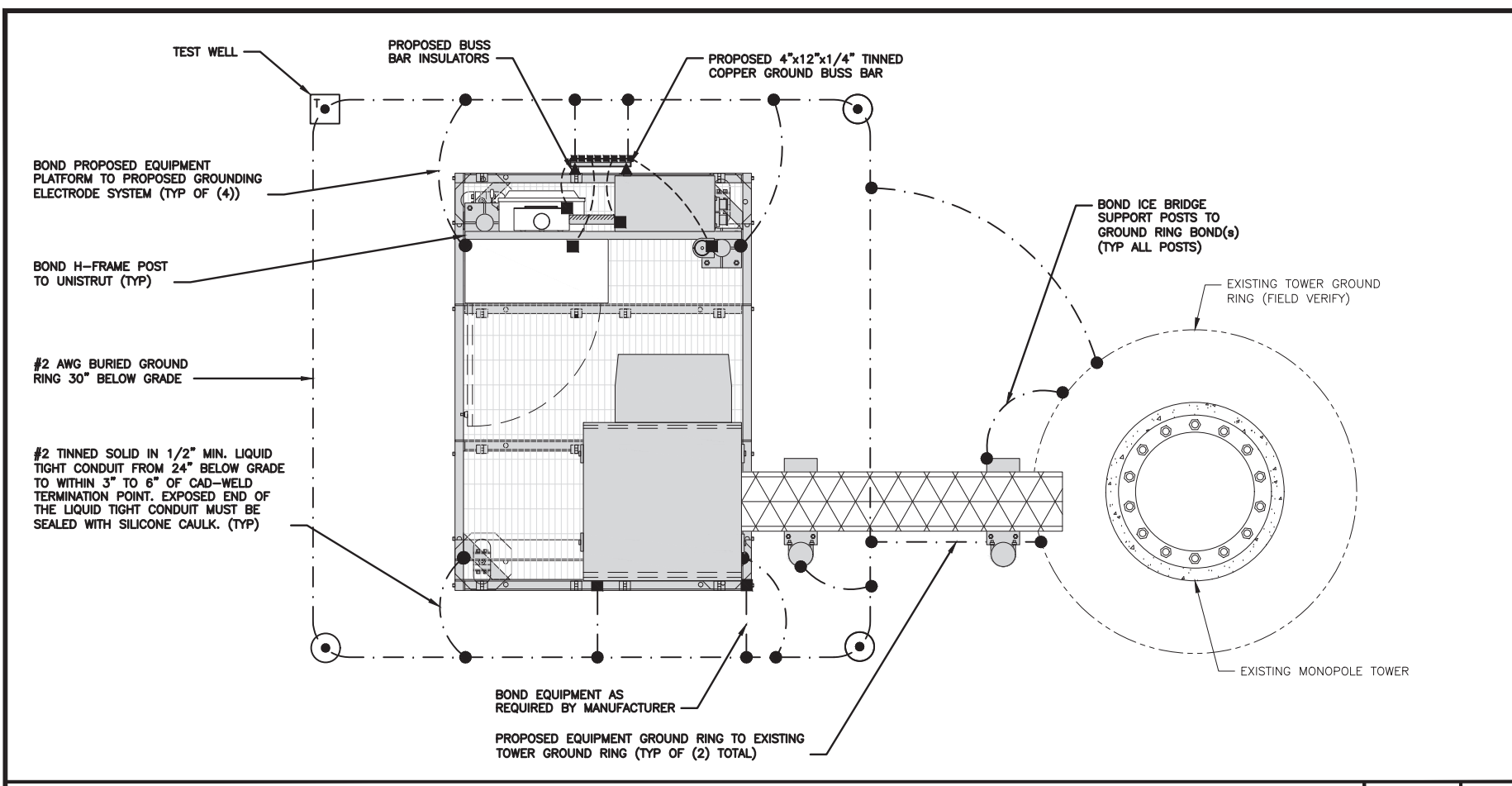
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DISH Wireless L.L.C.
PROJECT INFORMATION

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2 SUNNY LANE
WESTPORT, CT 06880

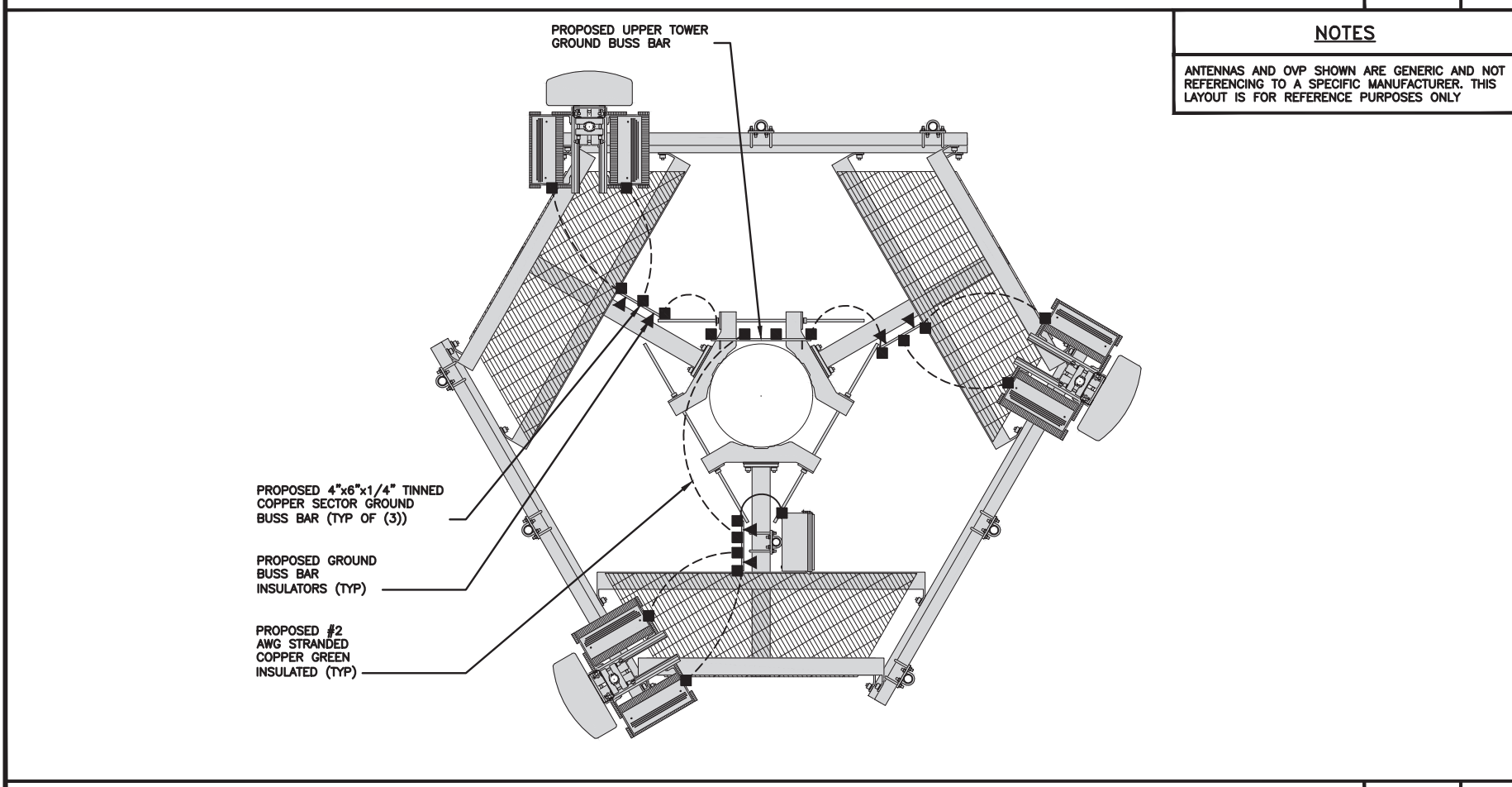
SHEET TITLE
ELECTRICAL ONE-LINE, FAULT
CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3



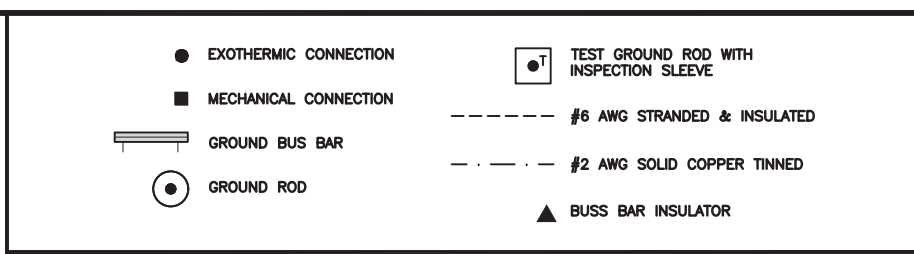
TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2



GROUNDING LEGEND

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
- 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 L.L.C. GROUNDING NOTES.**

GROUNDING KEY NOTES

NO SCALE 3



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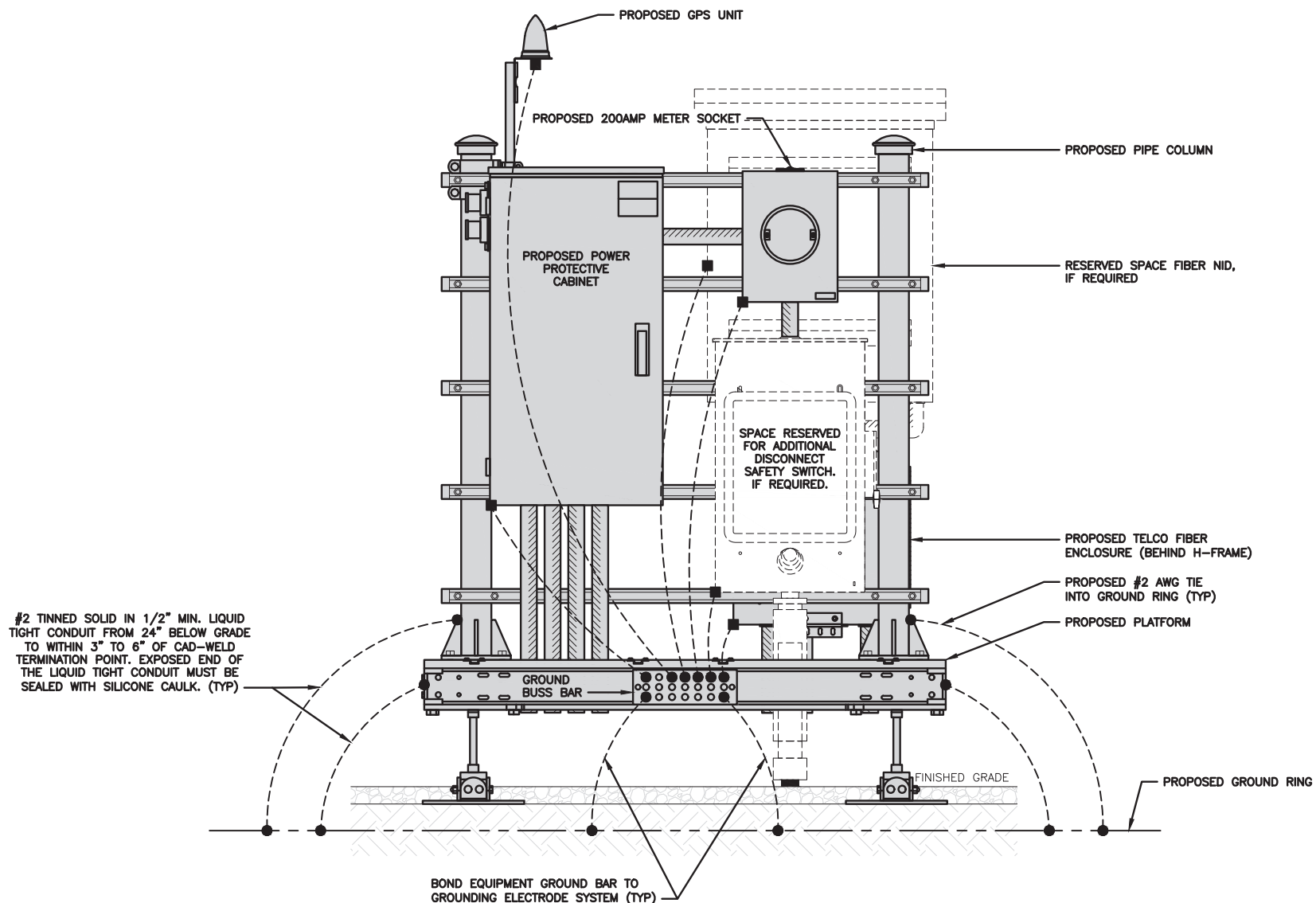
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SHEET TITLE
GROUNDING PLANS AND NOTES

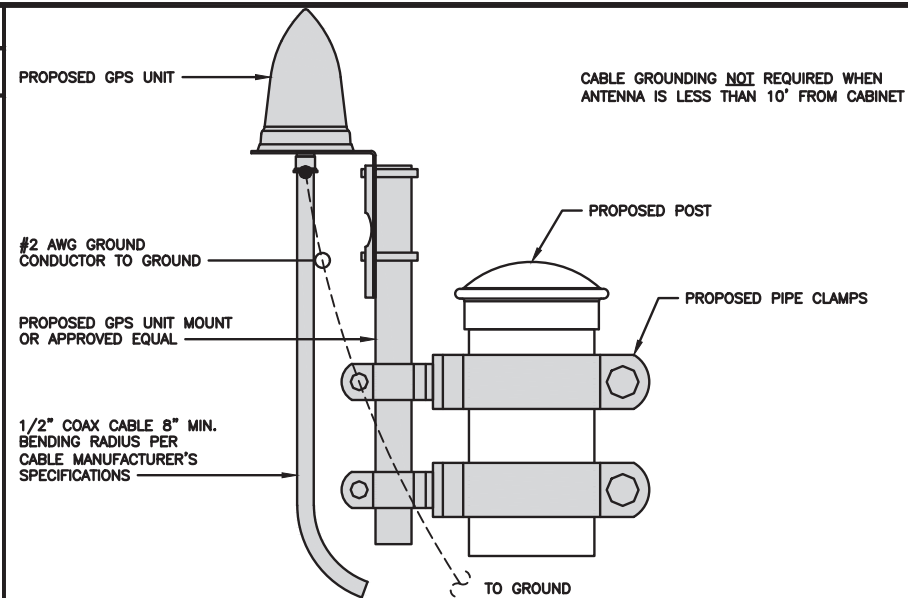
SHEET NUMBER
G-1

NOTES
EQUIPMENT CABINET OMITTED FOR CLARITY



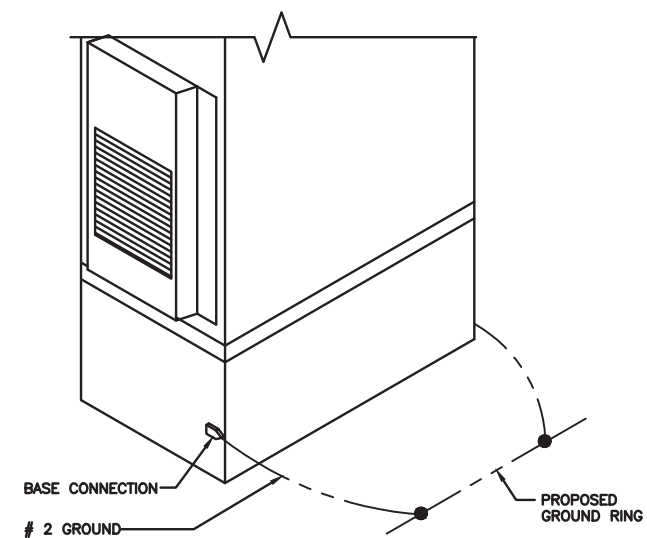
H-FRAME GROUNDING DETAIL

NO SCALE 1



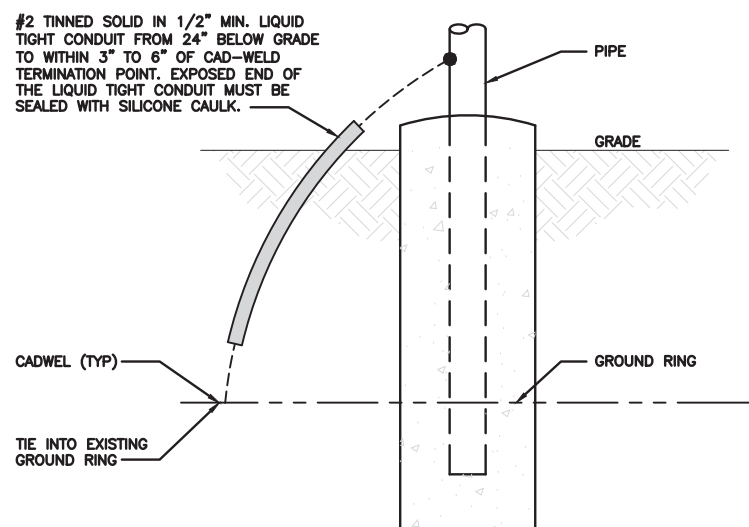
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



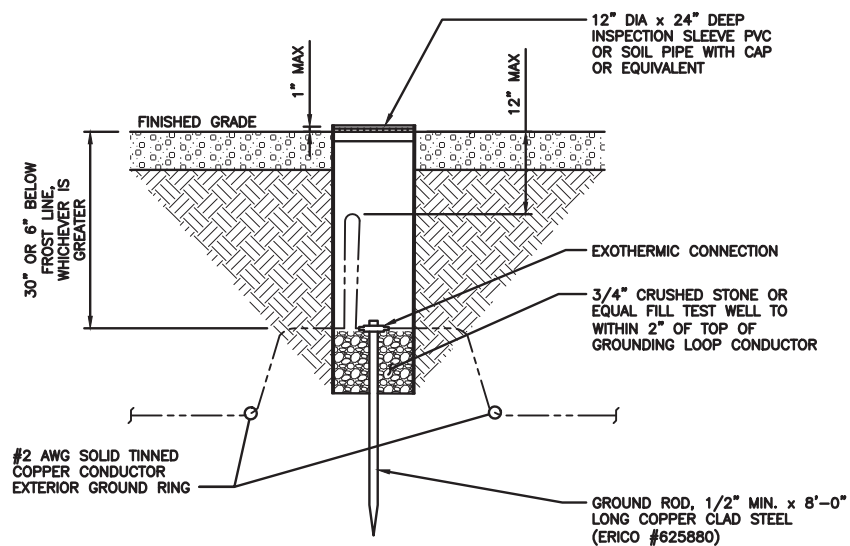
OUTDOOR CABINET GROUNDING

NO SCALE 3



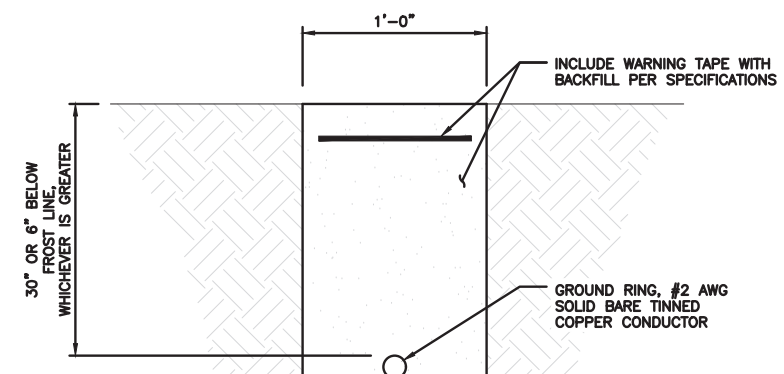
TRANSITIONING GROUND DETAIL

NO SCALE 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



TYPICAL GROUND RING TRENCH

NO SCALE 6

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wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

AMERICAN TOWER
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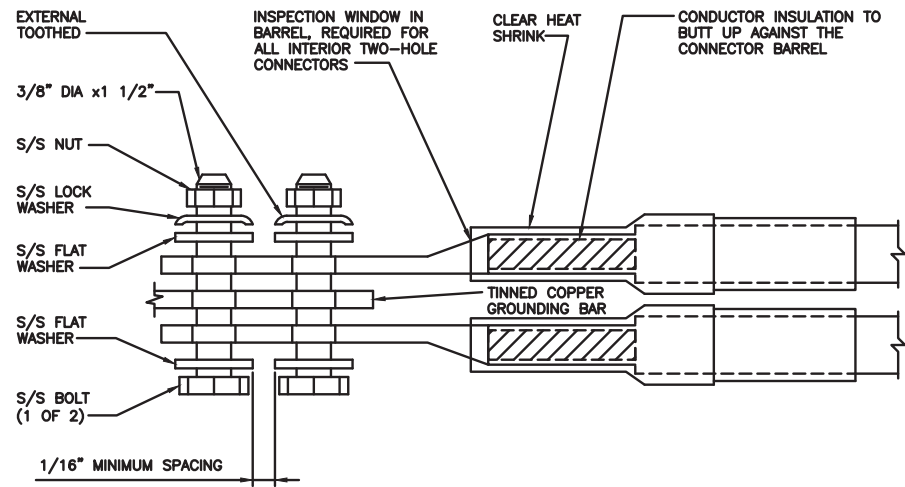
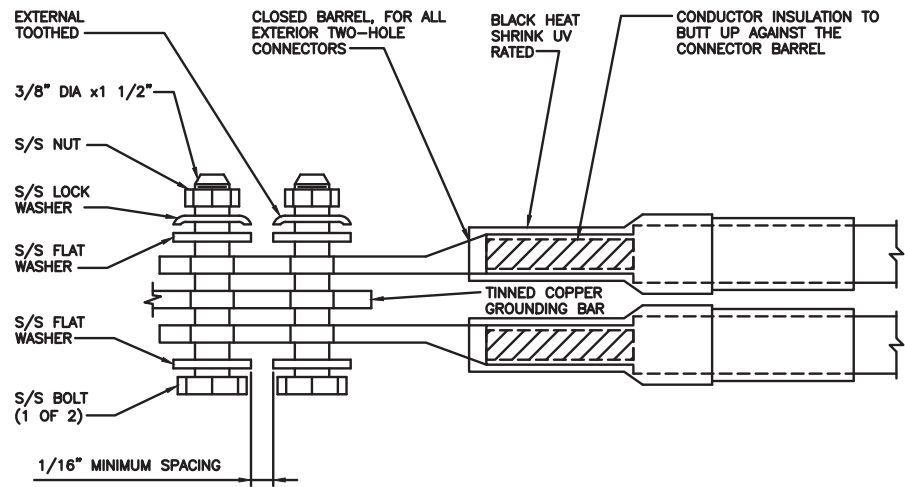
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SHEET TITLE
GROUNDING DETAILS

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

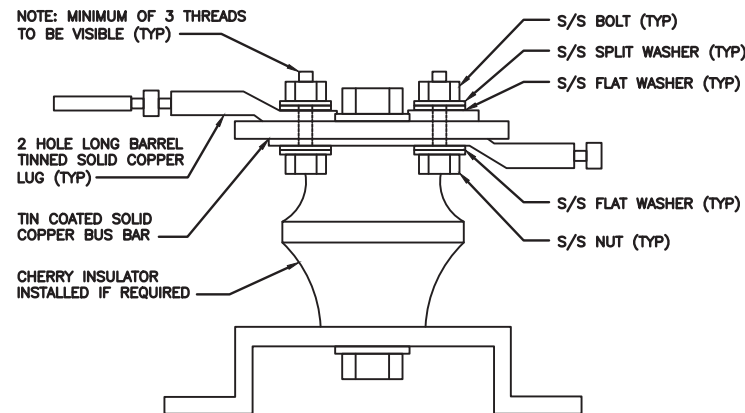
NO SCALE 1

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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

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DRAWN BY: RPA
CHECKED BY: MRE
APPROVED BY: ---

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

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)

ALPHA RRH				BETA RRH				GAMMA RRH			
PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT	PORT 1 + SLANT	PORT 2 - SLANT	PORT 3 + SLANT	PORT 4 - SLANT
RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
	WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE		WHITE (-) PORT	ORANGE	ORANGE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

MID-BAND RRH -
(AWS BANDS N66+N70)

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

RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
	WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE		WHITE (-) PORT	PURPLE	PURPLE
			WHITE (-) PORT				WHITE (-) PORT				WHITE (-) PORT

HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED
ALONG 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

EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
RED	RED	RED
BLUE	BLUE	
GREEN	GREEN	ORANGE
ORANGE	YELLOW	PURPLE
PURPLE		

CONTRACTOR TO REFER TO FINAL
CONSTRUCTION RFDS FOR ALL RD DETAILS.
FINAL RFDS IS IN NEXSYSONE.

FIBER JUMPERS TO RRHs

LOW-BAND RRH FIBER CABLES HAVE SECTOR
STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR
STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	HIGH BAND RRH
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

RET MOTORS AT ANTENNAS

ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"	ANTENNA 1 LOW BAND/ "IN"	ANTENNA 1 HIGH BAND/ "IN"
RED	RED	BLUE	BLUE	GREEN	GREEN
	PURPLE		PURPLE		PURPLE

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

FORWARD AZIMUTH OF 0-120 DEGREES		FORWARD AZIMUTH OF 120-240 DEGREES		FORWARD AZIMUTH OF 240-360 DEGREES	
PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
RED	RED	BLUE	BLUE	GREEN	GREEN
WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
	RED		BLUE		GREEN
	WHITE		WHITE		WHITE

RF CABLE COLOR CODES

NO SCALE

1

LOW BANDS (N71+N26)
OPTIONAL - (N29)



CBRS TECH
(3 GHz)



AWS
(N66+N70+H-BLOCK)



NEGATIVE SLANT PORT
ON ANT/RRH



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR



COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

3

NOT USED

NO SCALE

4



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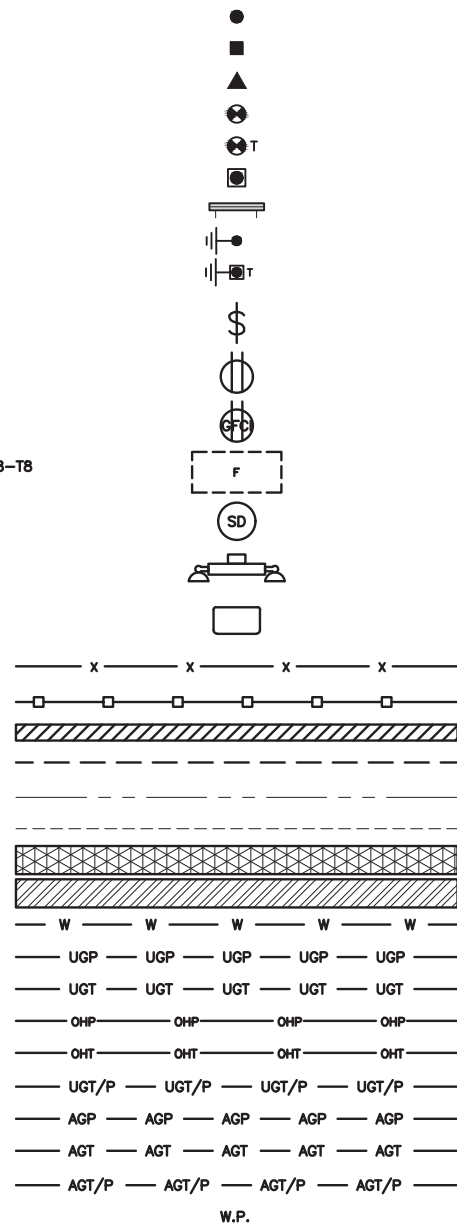
A&E PROJECT NUMBER
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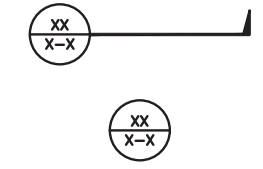
SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

EXOTHERMIC CONNECTION
 MECHANICAL CONNECTION
 BUSS BAR INSULATOR
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 EXOTHERMIC WITH INSPECTION SLEEVE
 GROUNDING BAR
 GROUND ROD
 TEST GROUND ROD WITH INSPECTION SLEEVE
 SINGLE POLE SWITCH
 DUPLEX RECEPTACLE
 DUPLEX GFCI RECEPTACLE
 FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8
 SMOKE DETECTION (DC)
 EMERGENCY LIGHTING (DC)
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
 LED-1-25A400/51K-SR4-120-PE-DBBTXD
 CHAIN LINK FENCE
 WOOD/WROUGHT IRON FENCE
 WALL STRUCTURE
 LEASE AREA
 PROPERTY LINE (PL)
 SETBACKS
 ICE BRIDGE
 CABLE TRAY
 WATER LINE
 UNDERGROUND POWER
 UNDERGROUND TELCO
 OVERHEAD POWER
 OVERHEAD TELCO
 UNDERGROUND TELCO/POWER
 ABOVE GROUND POWER
 ABOVE GROUND TELCO
 ABOVE GROUND TELCO/POWER
 WORKPOINT



SECTION REFERENCE
 DETAIL REFERENCE



LEGEND

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

ABBREVIATIONS



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DISH Wireless L.L.C.
 PROJECT INFORMATION
 NJJER01082B
 2 SUNNY LANE
 WESTPORT, CT 06880

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 L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH Wireless L.L.C. 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 L.L.C. AND DISH Wireless L.L.C. 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 L.L.C. 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 L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. 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 L.L.C. 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 L.L.C. 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 L.L.C.
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 L.L.C. 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.



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PEC.0001564
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DRAWN BY:	CHECKED BY:	APPROVED BY:
RPA	MRE	---
RFDS REV #:		1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	9/13/21	ISSUED FOR REVIEW
0	9/28/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
155670.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

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



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01082B
2 SUNNY LANE
WESTPORT, CT 06880

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.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



AMERICAN TOWER
10 PRESIDENTIAL WAY
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B&T ENGINEERING, INC.
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DISH Wireless L.L.C.
PROJECT INFORMATION

NJGER01082B
2 SUNNY LANE
WESTPORT, CT 06880

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-4

ENGINEERING:
STRUCTURAL ANALYSIS
MOUNT ANALYSIS



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 130 ft Monopole
ATC Site Name : CRANBURYSU CT,CT
ATC Site Number : 411189
Engineering Number : 13700310_C3_02
Proposed Carrier : DISH WIRELESS L.L.C.
Carrier Site Name : NJJER01082B
Carrier Site Number : NJJER01082B
Site Location : 2 SUNNY LANE
WESTPORT, CT 06880-1906
41.1629, -73.3731
County : Fairfield
Date : August 27, 2021
Max Usage : 42%
Result : Pass

Prepared By:

Faisal Wakid
Structural Engineer

Faisal Wakid

Reviewed By:



COA : PEC.0001553



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Supporting Documents	3
Analysis	3
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Deflection and Sway*	6
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Calculations	Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 130 ft Monopole to reflect the change in loading by DISH WIRELESS L.L.C..

Supporting Documents

Tower Drawings	EEI Job #10847, dated June 7, 2002
Foundation Drawing	EEI Project #10847, dated June 10, 2002
Geotechnical Report	Clarence Welti Association Project Name 2 Sunny Lane, dated January 29, 1999

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	117 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.23$, $S_i = 0.06$
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
128.0	1	VZW Unused Reserve (4849.41 sqin)	Triangular Platform with Handrails	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung RT4401-48A			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	3	Commscope TD-850B-LTE78-43			
	1	Raycap RCMD-6627-PF-48			
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	3	Samsung MT6407-77A			
	6	Quintel QS6656-5			
120.0	3	Alcatel-Lucent RRH2x50-08	Low Profile Platform	(3) 0.78" (19.7mm) 8 AWG 6 (3) 1 1/4" Hybriflex Cable (6) 1 5/8" Coax (1) 1.7" (43.2mm) Hybrid (1) 1/2" Coax (2) 2" conduit	SPRINT NEXTEL
	3	Alcatel-Lucent 800MHz RRH			
	3	Alcatel-Lucent 1900MHz RRH			
	3	Nokia 2.5G MAA - AAHC(64T64R)			
	1	Generic 24" x 24" Junction Box			
	1	Andrew Microwaves VHLP800-11 (49 lbs)			
	3	Commscope NNVV-65B-R4			
110.0	3	Ericsson Radio 4449 B12,B71	Low Profile Platform	(3) 1 1/4" (1.25"-31.8mm) Fiber (9) 1 5/8" Coax (6) 7/8" Coax	T-MOBILE
	3	Ericsson KRY 112 71			
	3	EMS RR90-17-02DP			
	3	RFS APXVAARR24_43-U-NA20			
	3	Ericsson AIR-32 B2A/B66Aa			
	3	Ericsson AIR 21, 1.3 M, B2A B4P			
100.0	6	Kathrein Scala 860-10025	Low Profile Platform	(1) 0.39" (10mm) Fiber Trunk (1) 0.39" (9.8mm) Cable (4) 0.78" (19.7mm) 8 AWG 6 (6) 1 5/8" Coax (2) 3" conduit	AT&T MOBILITY
	1	Kathrein Scala 860 10006			
	3	CCI OPA65R-BU6D			
	3	CCI DMP65R-BU6DA			
	1	Generic GPS			
	1	Raycap DC6-48-60-18-8F			
	3	Ericsson RRUS 8843 B2, B66A			
	3	Ericsson Radio 4415 B30			
	3	Ericsson RRUS 4449 B5, B12			
	1	Raycap DC9-48-60-24-8C-EV			
	3	Powerwave Allgon 7770.00			
	3	CCI HPA-65R-BUU-H6			
80.0	1	Generic GPS	Low Profile Platform	(1) 1/2" Coax	T-MOBILE
75.0	2	Generic 2" x 8" GPS	Low Profile Platform	(2) 0.63" (16mm) LDF4-50A	VERIZON WIRELESS
68.0	1	Generic GPS	Stand-Off	(1) 1/2" Coax	AT&T MOBILITY

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
No loading was considered as removed as part of this analysis.					



Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
86.0	1	Commscope RDIDC-9181-PF-48	Triangular Platform with Handrails	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604			
	3	Fujitsu TA08025-B605			
	3	JMA Wireless MX08FRO665-21			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	41%	Pass
Shaft	36%	Pass
Base Plate	31%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2737.6	42%
Axial (Kips)	64.8	37%
Shear (Kips)	28.9	22%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
120.0	Andrew Microwaves VHLP800-11 (49 lbs)	SPRINT NEXTEL	0.513	0.450
86.0	JMA Wireless MX08FRO665-21	DISH WIRELESS L.L.C.	0.264	0.360
	Fujitsu TA08025-B605			
	Commscope RDIDC-9181-PF-48			
	Fujitsu TA08025-B604			

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H

Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

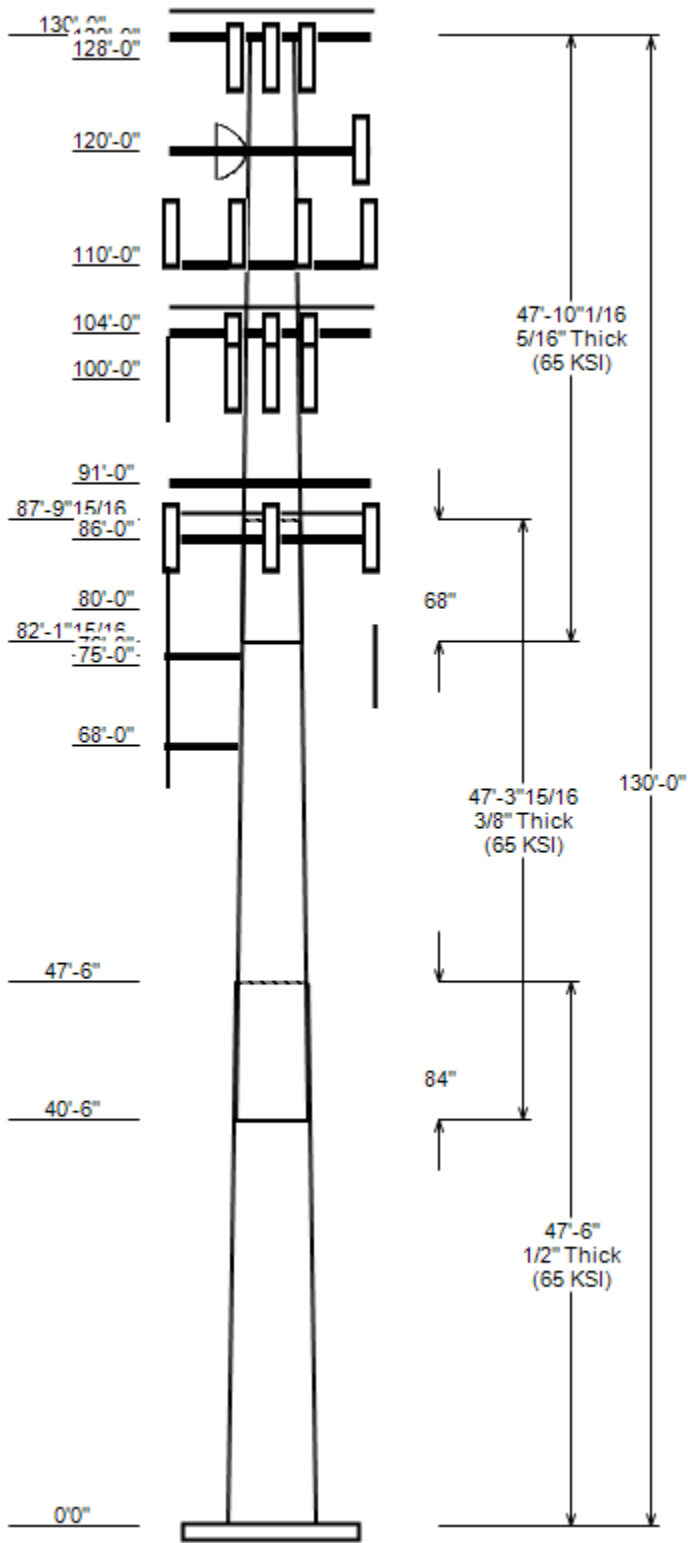
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively “American Tower”) are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

Asset : 411189, CRANBURYSU CT
 Client : DISH WIRELESS L.L.C.
 Code : ANSI/TIA-222-H

Height : 130 ft
 Base Width : 62
 Shape : 18 Sides



SITE PARAMETERS

Base Elev (ft): 0.00 Structure Class: II
 Taper : 0.27100 (In/ft) Exposure : B
 Topographic Category : 1 Topographic Feature:
 Topo Method : Method 1

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			
1	47.500	49.14	62.00	0.500	0.000	18 Sides 65
2	47.330	38.97	51.78	0.375	84.000	Slip Joint 18 Sides 65
3	47.837	28.18	41.13	0.312	68.000	Slip Joint 18 Sides 65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
130.0	130.0	1	Generic Flat Platform with Han
129.0	129.0	1	VZW Unused Reserve (4849.41 sq
128.0	128.0	3	Samsung Outdoor CBRS 20W RRH -
128.0	128.0	3	Samsung RT4401-48A
128.0	128.0	3	Samsung B5/B13 RRH-BR04C
128.0	128.0	3	Samsung B2/B66A RRH-BR049
128.0	128.0	3	Commscope TD-850B-LTE78-43
128.0	128.0	1	Raycap RCMDC-6627-PF-48
128.0	128.0	3	Samsung MT6407-77A
128.0	128.0	6	Quintel QS6656-5
120.0	120.0	3	Alcatel-Lucent RRH2x50-08
120.0	120.0	3	Alcatel-Lucent 800MHz RRH
120.0	120.0	3	Alcatel-Lucent 1900MHz RRH
120.0	120.0	3	Nokia 2.5G MAA - AAHC(64T64R)
120.0	120.0	1	Generic 24" x 24" Junction Box
120.0	120.0	1	Andrew Microwaves VHLP800-11 (
120.0	120.0	3	Commscope NNVV-65B-R4
120.0	120.0	1	Flat Low Profile Platform
110.0	110.0	3	Ericsson KRY 112 71
110.0	113.0	3	Ericsson Radio 4449 B12,B71
110.0	113.0	3	EMS RR90-17-02DP
110.0	113.0	3	Ericsson AIR 21, 1.3 M, B2A B4
110.0	113.0	3	Ericsson AIR-32 B2A/B66Aa
110.0	113.0	3	RFS APXVAARR24_43-U-NA20
110.0	110.0	1	Flat Low Profile Platform
104.0	104.0	1	Generic Flat Platform with Han
100.0	100.0	6	Kathrein Scala 860-10025
100.0	100.0	1	Kathrein Scala 860 10006
100.0	100.0	1	Generic GPS
100.0	104.0	1	Raycap DC6-48-60-18-8F
100.0	100.0	3	Ericsson RRUS 8843 B2, B66A
100.0	100.0	3	Ericsson Radio 4415 B30
100.0	100.0	3	Ericsson RRUS 4449 B5, B12
100.0	100.0	1	Raycap DC9-48-60-24-8C-EV
100.0	104.0	3	Powerwave Allgon 7770.00
100.0	104.0	3	CCI HPA-65R-BUU-H6
100.0	100.0	3	CCI DMP65R-BU6DA
100.0	100.0	3	CCI OPA65R-BU6D
91.0	91.0	1	Empty Flat Low Profile Platfor
86.0	86.0	1	Commscope RDIDC-9181-PF-48
86.0	86.0	3	Fujitsu TA08025-B604
86.0	86.0	3	Fujitsu TA08025-B605
86.0	86.0	3	JMA Wireless MX08FRO665-21
86.0	86.0	1	Generic Flat Platform with Han
80.0	80.0	1	Generic GPS

JOB INFORMATION

Asset : 411189, CRANBURYSU CT
 Client : DISH WIRELESS L.L.C.
 Code : ANSI/TIA-222-H

Height : 130 ft
 Base Width : 62
 Shape : 18 Sides

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
76.0	76.0	1	Stand-Off
75.0	75.0	2	Generic 2" x 8" GPS
68.0	68.0	1	Generic GPS
68.0	68.0	1	Side Arm

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	128.0	1 5/8" Hybriflex	No
0.0	128.0	1 5/8" Coax	Yes
0.0	128.0	1 5/8" Coax	Yes
0.0	120.0	2" conduit	No
0.0	120.0	1/2" Coax	No
0.0	120.0	1.7" (43.2mm) Hybrid	No
0.0	120.0	1 5/8" Coax	No
0.0	120.0	1 1/4" Hybriflex Cable	No
0.0	120.0	0.78" (19.7mm) 8 AWG 6	No
0.0	110.0	7/8" Coax	No
0.0	110.0	1 5/8" Coax	No
0.0	110.0	1 1/4" (1.25" - 31.8mm) Fiber	No
0.0	100.0	3" conduit	No
0.0	100.0	1 5/8" Coax	No
0.0	100.0	0.78" (19.7mm) 8 AWG 6	No
0.0	100.0	0.39" (9.8mm) Cable	No
0.0	100.0	0.39" (10mm) Fiber Trunk	No
0.0	86.0	1.75" (44.5mm) Hybrid	No
0.0	80.0	1/2" Coax	No
0.0	75.0	0.63" (16mm) LDF4-50A	No
0.0	68.0	1/2" Coax	No

LOAD CASES

1.2D + 1.0W Normal	117 mph wind with no ice
0.9D + 1.0W Normal	117 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	2737.59	28.92	64.80
0.9D + 1.0W Normal	2720.80	28.90	48.60
1.2D + 1.0Di + 1.0Wi Normal	708.56	7.66	85.93
1.2D + 1.0Ev + 1.0Eh Normal	202.72	2.02	65.02
0.9D - 1.0Ev + 1.0Eh Normal	201.13	2.02	44.24
1.0D + 1.0W Service Normal	641.58	6.80	54.02

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	120.00	6.145	0.451

ASSET: 411189, CRANBURYSU CT
CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
ENG NO: 13700310_C3_02

ANALYSIS PARAMETERS

Location:	Fairfield County,CT	Height:	130 ft
Type and Shape:	Taper, 18 Sides	Base Diameter:	62.00 in
Manufacturer:	EEL	Top Diameter:	28.18 in
K _d (non-service):	0.95	Taper:	0.2710 in/ft
K _e :	1.00	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	Design Wind Speed w/o Ice:	117 mph
Risk Category:	II	Design Wind Speed w/Ice:	50 mph
Topo Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	51.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	1.60		
T _L (sec):	6	P:	1	C _s :	0.037
S _s :	0.233	S ₁ :	0.056	C _s Max:	0.037
F _a :	1.600	F _v :	2.400	C _s Min:	0.030
S _{ds} :	0.249	S _{d1} :	0.090		

LOAD CASES

1.2D + 1.0W Normal	117 mph wind with no ice
0.9D + 1.0W Normal	117 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 411189, CRANBURYSU CT
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13700310_C3_02

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Bottom						Top							
						Weight (lb)	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	47.50	0.5000	65		0.00	14,125	62.00	0.000	97.60	46,638.0	20.45	124.00	49.14	47.50	77.19	23,072.0	15.92	98.28	0.2707
2-18	47.33	0.3750	65	Slip	84.00	8,626	51.78	40.500	61.19	20,432.2	22.94	138.09	38.97	87.83	45.94	8,645.4	16.91	103.92	0.2707
3-18	47.84	0.3125	65	Slip	68.00	5,544	41.13	82.163	40.48	8,521.7	21.80	131.62	28.18	130.00	27.64	2,711.5	14.49	90.17	0.2707

Shaft Weight 28,295

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor
130.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3669.43	56.206	1.00
129.00	VZW Unused Reserve (4849.41 sq	1	0.75	0.000	0.00	33.676	0.90	0.00	49.108	0.90
128.00	Raycap RCMDC-6627-PF-48	1	0.75	0.000	32.00	4.056	1.00	115.47	4.952	1.00
128.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.875	0.50	107.87	2.468	0.50
128.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.875	0.50	126.30	2.468	0.50
128.00	Samsung RT4401-48A	3	0.75	0.000	18.60	0.996	0.50	36.33	1.445	0.50
128.00	Samsung Outdoor CBRS 20W RRH -	3	0.75	0.000	4.40	0.892	0.50	16.22	1.312	0.50
128.00	Samsung MT6407-77A	3	0.75	0.000	81.60	4.709	0.61	148.54	5.707	0.61
128.00	Quintel QS6656-5	6	0.75	0.000	65.00	8.133	0.74	195.85	9.964	0.74
128.00	Commscope TD-850B-LTE78-43	3	0.75	0.000	53.00	1.964	0.50	87.92	2.569	0.50
120.00	Commscope NNVV-65B-R4	3	0.80	0.000	77.40	12.271	0.64	241.21	14.099	0.64
120.00	Flat Low Profile Platform	1	1.00	0.000	1500.00	26.100	1.00	1922.37	38.546	1.00
120.00	Generic 24" x 24" Junction Box	1	0.80	0.000	20.00	4.800	1.00	94.85	5.726	1.00
120.00	Andrew Microwaves VHLP800-11 (1	1.00	0.000	49.00	7.760	1.00	152.79	8.824	1.00
120.00	Nokia 2.5G MAA - AAHC(64T64R)	3	0.80	0.000	103.60	4.203	0.64	177.09	5.077	0.64
120.00	Alcatel-Lucent 1900MHz RRH	3	0.80	0.000	44.00	3.258	0.72	115.02	4.033	0.72
120.00	Alcatel-Lucent 800MHz RRH	3	0.80	0.000	53.00	2.134	0.67	101.12	2.772	0.67
120.00	Alcatel-Lucent RRH2x50-08	3	0.80	0.000	52.90	1.701	0.50	91.53	2.263	0.50
110.00	RFS APXVAARR24_43-U-NA20	3	0.80	3.000	127.90	20.243	0.63	381.57	22.640	0.63
110.00	Flat Low Profile Platform	1	1.00	0.000	1500.00	26.100	1.00	1918.63	38.436	1.00
110.00	Ericsson AIR-32 B2A/B66Aa	3	0.80	3.000	132.20	6.510	0.71	235.33	7.925	0.71
110.00	Ericsson AIR 21, 1.3 M, B2A B4	3	0.80	3.000	83.00	6.049	0.71	177.30	7.446	0.71
110.00	EMS RR90-17-02DP	3	0.80	3.000	13.50	4.356	0.64	70.58	4.971	0.64
110.00	Ericsson Radio 4449 B12,B71	3	0.80	3.000	74.00	1.639	0.50	110.18	2.184	0.50
110.00	Ericsson KRY 112 71	3	0.80	0.000	13.20	0.583	0.50	25.03	0.941	0.50
104.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3641.85	55.880	1.00
100.00	CCI OPA65R-BU6D	3	0.75	0.000	63.20	12.871	0.63	230.43	14.661	0.63
100.00	CCI DMP65R-BU6DA	3	0.75	0.000	79.40	12.709	0.63	244.23	14.494	0.63
100.00	CCI HPA-65R-BUU-H6	3	0.75	4.000	51.00	9.658	0.69	191.38	11.432	0.69
100.00	Powerwave Allgon 7770.00	3	0.75	4.000	35.00	5.508	0.65	114.33	6.165	0.65
100.00	Raycap DC9-48-60-24-8C-EV	1	0.75	0.000	16.00	4.788	1.00	98.61	5.729	1.00
100.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	112.24	2.566	0.50
100.00	Ericsson Radio 4415 B30	3	0.75	0.000	43.00	1.650	0.50	69.97	2.194	0.50
100.00	Ericsson RRUS 8843 B2, B66A	3	0.75	0.000	72.00	1.639	0.50	111.22	2.180	0.50
100.00	Raycap DC6-48-60-18-8F	1	0.75	4.000	20.00	1.260	1.00	53.69	1.681	1.00
100.00	Generic GPS	1	0.75	0.000	10.00	0.900	1.00	28.72	1.309	1.00
100.00	Kathrein Scala 860-10025	6	0.75	0.000	1.10	0.140	0.50	4.53	0.334	0.50
100.00	Kathrein Scala 860 10006	1	0.75	0.000	3.00	0.269	1.00	22.38	0.668	1.00
91.00	Empty Flat Low Profile Platfor	1	1.00	0.000	1500.00	26.100	1.00	1911.49	38.226	1.00
86.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	57.84	2.435	1.00
86.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3621.88	55.644	1.00
86.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	226.82	14.264	0.64
86.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	114.56	2.543	0.50
86.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	100.73	2.543	0.50
80.00	Generic GPS	1	1.00	0.000	10.00	0.900	1.00	28.31	1.300	1.00
76.00	Stand-Off	1	1.00	0.000	100.00	3.000	1.00	130.42	3.978	1.00
75.00	Generic 2" x 8" GPS	2	1.00	0.000	10.00	0.141	1.00	13.44	0.351	1.00
68.00	Generic GPS	1	1.00	0.000	10.00	0.900	1.00	28.02	1.294	1.00
68.00	Side Arm	1	1.00	0.000	126.00	5.000	1.00	180.06	7.145	1.00

Totals Num Loadings: 49 114 17,949.50 30,201.12

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : _

Elev From	Elev To	Qty	Description	Coax Dia	Coax Wt	Max Flat	Dist Coax/ Between	Dist Between	Azimuth (deg)	Dist From	Exposed To Wind	Carrier
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ASSET: 411189, CRANBURYSU CT
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13700310_C3_02

(ft)	(ft)		(in)	(lb/ft)		Row	Rows(in)	Cols(in)	Face (in)				
0.00	128.00	6	1 5/8" Coax	1.98	0.82	N	6	1	1	90	1	Y	VERIZON WIREL
0.00	128.00	6	1 5/8" Coax	1.98	0.82	N	6	1	1	90	1	Y	VERIZON WIREL
0.00	128.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIREL
0.00	120.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	120.00	3	1 1/4" Hybriflex Cabl	1.54	1	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	120.00	3	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	120.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	120.00	1	1.7" (43.2mm) Hybrid	1.7	1.78	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	120.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	110.00	9	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	110.00	6	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	T-MOBILE
0.00	110.00	3	1 1/4" (1.25"- 31.8mm	1.25	1.05	N	0	0	0	0	0	N	T-MOBILE
0.00	100.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	2	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	1	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	1	0.39" (9.8mm) Cable	0.39	0.07	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	86.00	1	1.75" (44.5mm) Hybrid	1.75	2.72	N	0	0	0	0	0	N	DISH WIRELESS
0.00	80.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	T-MOBILE
0.00	75.00	2	0.63" (16mm) LDF4-50A	0.63	0.15	N	0	0	0	0	0	N	VERIZON WIREL
0.00	68.00	1	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	AT&T MOBILITY

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.5000	62.000	97.597	46,638.00	20.45	124.00	77.3	1481.6	0.0	0.0
5.00		0.5000	60.646	95.449	43,625.50	19.98	121.29	77.9	1416.8	0.0	1,642.2
10.00		0.5000	59.293	93.300	40,745.70	19.50	118.59	78.5	1353.5	0.0	1,605.7
15.00		0.5000	57.939	91.152	37,995.40	19.02	115.88	79	1291.6	0.0	1,569.1
20.00		0.5000	56.585	89.004	35,371.80	18.54	113.17	79.6	1231.2	0.0	1,532.6
25.00		0.5000	55.231	86.856	32,871.80	18.07	110.46	80.2	1172.2	0.0	1,496.0
30.00		0.5000	53.878	84.707	30,492.50	17.59	107.76	80.7	1114.7	0.0	1,459.5
35.00		0.5000	52.524	82.559	28,230.90	17.11	105.05	81.3	1058.6	0.0	1,422.9
40.00		0.5000	51.170	80.411	26,083.90	16.63	102.34	81.8	1004.0	0.0	1,386.4
40.50	Bot - Section 2	0.5000	51.035	80.196	25,875.40	16.59	102.07	81.9	998.6	0.0	136.6
45.00		0.5000	49.816	78.262	24,048.70	16.16	99.63	82.4	950.8	0.0	2,139.0
47.50	Top - Section 1	0.3750	49.890	58.933	18,254.80	22.05	133.04	75.5	720.7	0.0	1,166.0
50.00		0.3750	49.213	58.127	17,516.30	21.73	131.23	75.8	701.0	0.0	497.9
55.00		0.3750	47.859	56.516	16,099.70	21.09	127.62	76.6	662.6	0.0	975.3
60.00		0.3750	46.505	54.905	14,761.70	20.46	124.01	77.3	625.2	0.0	947.8
65.00		0.3750	45.152	53.293	13,499.90	19.82	120.40	78.1	588.9	0.0	920.4
68.00		0.3750	44.339	52.327	12,778.40	19.44	118.24	78.5	567.6	0.0	539.1
70.00		0.3750	43.798	51.682	12,312.10	19.18	116.79	78.8	553.7	0.0	353.9
75.00		0.3750	42.444	50.071	11,196.10	18.55	113.18	79.6	519.6	0.0	865.6
76.00		0.3750	42.173	49.749	10,981.30	18.42	112.46	79.7	512.9	0.0	169.8
80.00		0.3750	41.090	48.460	10,149.70	17.91	109.57	80.3	486.5	0.0	668.4
82.16	Bot - Section 3	0.3750	40.505	47.763	9,717.90	17.63	108.01	80.7	472.6	0.0	354.2
85.00		0.3750	39.737	46.849	9,170.60	17.27	105.96	81.1	454.6	0.0	843.7
86.00		0.3750	39.466	46.526	8,982.70	17.15	105.24	81.2	448.3	0.0	293.6
87.83	Top - Section 2	0.3125	39.596	38.962	7,596.40	20.93	126.71	76.8	377.9	0.0	532.0
90.00		0.3125	39.008	38.380	7,260.60	20.60	124.83	77.2	366.6	0.0	285.5
91.00		0.3125	38.737	38.111	7,109.30	20.45	123.96	77.4	361.5	0.0	130.1
95.00		0.3125	37.654	37.037	6,525.00	19.84	120.49	78.1	341.3	0.0	511.4
100.00		0.3125	36.301	35.694	5,840.80	19.07	116.16	79	316.9	0.0	618.7
104.00		0.3125	35.218	34.620	5,329.20	18.46	112.70	79.7	298.0	0.0	478.5
105.00		0.3125	34.947	34.352	5,206.10	18.31	111.83	79.9	293.4	0.0	117.3
110.00		0.3125	33.593	33.009	4,619.20	17.54	107.50	80.8	270.8	0.0	573.0
115.00		0.3125	32.239	31.666	4,078.20	16.78	103.17	81.7	249.1	0.0	550.2
120.00		0.3125	30.886	30.324	3,581.10	16.02	98.83	82.6	228.4	0.0	527.3
125.00		0.3125	29.532	28.981	3,126.10	15.25	94.50	82.6	208.5	0.0	504.5
128.00		0.3125	28.720	28.175	2,872.60	14.79	91.90	82.6	197.0	0.0	291.7
129.00		0.3125	28.449	27.907	2,791.30	14.64	91.04	82.6	193.2	0.0	95.4
130.00		0.3125	28.178	27.638	2,711.50	14.49	90.17	82.6	189.5	0.0	94.5

Totals: 28,295.8

Load Case: 1.2D + 1.0W Normal	117 mph wind with no ice	19 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-64.80	-28.92	0.00	-2,737.6	0.00	2,737.59	6,793.61	1,712.83	9,514.56	8,594.34	0	0	0.328
5.00	-62.37	-28.52	0.00	-2,593.0	0.00	2,593.02	6,692.31	1,675.12	9,100.36	8,278.33	0.04	-0.08	0.323
10.00	-59.99	-28.14	0.00	-2,450.4	0.00	2,450.41	6,588.83	1,637.42	8,695.37	7,965.37	0.17	-0.16	0.317
15.00	-57.65	-27.75	0.00	-2,309.7	0.00	2,309.73	6,483.18	1,599.72	8,299.60	7,655.67	0.39	-0.25	0.311
20.00	-55.35	-27.38	0.00	-2,171.0	0.00	2,170.96	6,375.36	1,562.02	7,913.05	7,349.39	0.69	-0.33	0.304
25.00	-53.10	-27.00	0.00	-2,034.1	0.00	2,034.08	6,265.37	1,524.32	7,535.72	7,046.72	1.09	-0.42	0.297
30.00	-50.90	-26.63	0.00	-1,899.1	0.00	1,899.06	6,153.21	1,486.61	7,167.60	6,747.85	1.57	-0.5	0.290
35.00	-48.73	-26.25	0.00	-1,765.9	0.00	1,765.90	6,038.88	1,448.91	6,808.70	6,452.96	2.14	-0.59	0.282
40.00	-46.63	-26.03	0.00	-1,634.6	0.00	1,634.65	5,922.38	1,411.21	6,459.02	6,162.22	2.8	-0.67	0.273
40.50	-46.41	-25.84	0.00	-1,621.6	0.00	1,621.63	5,910.61	1,407.44	6,424.56	6,133.39	2.87	-0.68	0.273
45.00	-43.45	-25.53	0.00	-1,505.4	0.00	1,505.38	5,803.70	1,373.51	6,118.56	5,875.83	3.55	-0.76	0.264
47.50	-41.82	-25.31	0.00	-1,441.6	0.00	1,441.55	4,002.81	1,034.27	4,625.51	4,079.20	3.96	-0.8	0.364
50.00	-40.99	-25.02	0.00	-1,378.3	0.00	1,378.27	3,967.67	1,020.13	4,499.93	3,987.71	4.39	-0.84	0.357
55.00	-39.36	-24.62	0.00	-1,253.2	0.00	1,253.17	3,895.77	991.85	4,253.95	3,806.08	5.33	-0.95	0.340
60.00	-37.77	-24.21	0.00	-1,130.1	0.00	1,130.08	3,821.70	963.58	4,014.88	3,626.44	6.39	-1.06	0.322
65.00	-36.22	-23.88	0.00	-1,009.0	0.00	1,009.03	3,745.46	935.30	3,782.73	3,448.96	7.55	-1.16	0.303
68.00	-35.14	-23.47	0.00	-937.4	0.00	937.40	3,698.67	918.33	3,646.76	3,343.58	8.3	-1.22	0.291
70.00	-34.53	-23.19	0.00	-890.5	0.00	890.46	3,667.05	907.02	3,557.49	3,273.81	8.82	-1.26	0.282
75.00	-33.03	-22.92	0.00	-774.5	0.00	774.49	3,586.46	878.75	3,339.16	3,101.20	10.19	-1.36	0.260
76.00	-32.62	-22.62	0.00	-751.6	0.00	751.57	3,570.09	873.09	3,296.33	3,066.99	10.48	-1.38	0.255
80.00	-31.46	-22.33	0.00	-661.1	0.00	661.08	3,503.71	850.47	3,127.75	2,931.29	11.67	-1.45	0.235
82.16	-30.84	-22.12	0.00	-612.8	0.00	612.78	3,467.23	838.23	3,038.42	2,858.66	12.33	-1.49	0.224
85.00	-29.58	-21.94	0.00	-550.0	0.00	550.04	3,418.78	822.19	2,923.25	2,764.27	13.23	-1.54	0.208
86.00	-25.45	-19.42	0.00	-528.1	0.00	528.10	3,401.54	816.54	2,883.18	2,731.23	13.56	-1.55	0.201
87.83	-24.66	-19.25	0.00	-492.6	0.00	492.55	2,692.45	683.79	2,426.19	2,176.03	14.16	-1.58	0.236
90.00	-24.14	-19.11	0.00	-450.8	0.00	450.79	2,665.65	673.56	2,354.17	2,121.90	14.89	-1.62	0.222
91.00	-22.12	-17.94	0.00	-431.7	0.00	431.68	2,653.16	668.85	2,321.35	2,097.06	15.23	-1.63	0.215
95.00	-21.18	-17.57	0.00	-359.9	0.00	359.92	2,602.34	650.00	2,192.36	1,998.45	16.63	-1.7	0.189
100.00	-18.56	-14.57	0.00	-268.6	0.00	268.58	2,536.86	626.44	2,036.30	1,876.95	18.45	-1.77	0.151
104.00	-14.82	-12.71	0.00	-210.3	0.00	210.31	2,482.92	607.58	1,915.61	1,781.28	19.95	-1.81	0.124
105.00	-14.63	-12.47	0.00	-197.6	0.00	197.61	2,469.21	602.87	1,886.01	1,757.59	20.33	-1.82	0.119
110.00	-10.40	-8.69	0.00	-128.4	0.00	128.43	2,399.39	579.31	1,741.47	1,640.54	22.27	-1.87	0.083
115.00	-9.56	-8.30	0.00	-85.0	0.00	84.97	2,327.39	555.74	1,602.70	1,525.98	24.24	-1.9	0.060
120.00	-5.77	-4.99	0.00	-43.5	0.00	43.49	2,252.90	532.18	1,469.69	1,413.90	26.25	-1.93	0.033
125.00	-5.10	-4.68	0.00	-18.6	0.00	18.56	2,153.14	508.62	1,342.44	1,290.85	28.28	-1.94	0.017
128.00	-3.14	-2.73	0.00	-4.5	0.00	4.51	2,093.29	494.48	1,268.86	1,219.72	29.49	-1.94	0.005
129.00	-3.05	-1.78	0.00	-1.8	0.00	1.78	2,073.34	489.76	1,244.79	1,196.45	29.9	-1.94	0.003
130.00	0.00	-1.68	0.00	0.0	0.00	0.00	2,053.39	485.05	1,220.95	1,173.41	30.31	-1.94	0.000

Load Case: 0.9D + 1.0W Normal	117 mph wind with no ice	19 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.60	-28.90	0.00	-2,720.8	0.00	2,720.80	6,793.61	1,712.83	9,514.56	8,594.34	0	0	0.324
5.00	-46.77	-28.49	0.00	-2,576.3	0.00	2,576.28	6,692.31	1,675.12	9,100.36	8,278.33	0.04	-0.08	0.318
10.00	-44.97	-28.08	0.00	-2,433.8	0.00	2,433.84	6,588.83	1,637.42	8,695.37	7,965.37	0.17	-0.16	0.313
15.00	-43.20	-27.68	0.00	-2,293.4	0.00	2,293.44	6,483.18	1,599.72	8,299.60	7,655.67	0.39	-0.24	0.307
20.00	-41.47	-27.28	0.00	-2,155.0	0.00	2,155.05	6,375.36	1,562.02	7,913.05	7,349.39	0.69	-0.33	0.300
25.00	-39.77	-26.90	0.00	-2,018.6	0.00	2,018.63	6,265.37	1,524.32	7,535.72	7,046.72	1.08	-0.41	0.293
30.00	-38.11	-26.51	0.00	-1,884.2	0.00	1,884.15	6,153.21	1,486.61	7,167.60	6,747.85	1.56	-0.5	0.286
35.00	-36.48	-26.11	0.00	-1,751.6	0.00	1,751.61	6,038.88	1,448.91	6,808.70	6,452.96	2.12	-0.58	0.278
40.00	-34.90	-25.88	0.00	-1,621.0	0.00	1,621.05	5,922.38	1,411.21	6,459.02	6,162.22	2.78	-0.67	0.269
40.50	-34.73	-25.69	0.00	-1,608.1	0.00	1,608.10	5,910.61	1,407.44	6,424.56	6,133.39	2.85	-0.68	0.268
45.00	-32.50	-25.38	0.00	-1,492.5	0.00	1,492.52	5,803.70	1,373.51	6,118.56	5,875.83	3.52	-0.75	0.260
47.50	-31.28	-25.16	0.00	-1,429.1	0.00	1,429.08	4,002.81	1,034.27	4,625.51	4,079.20	3.93	-0.8	0.359
50.00	-30.65	-24.85	0.00	-1,366.2	0.00	1,366.18	3,967.67	1,020.13	4,499.93	3,987.71	4.36	-0.84	0.351
55.00	-29.42	-24.44	0.00	-1,241.9	0.00	1,241.92	3,895.77	991.85	4,253.95	3,806.08	5.29	-0.94	0.334
60.00	-28.21	-24.02	0.00	-1,119.7	0.00	1,119.72	3,821.70	963.58	4,014.88	3,626.44	6.34	-1.05	0.317
65.00	-27.05	-23.68	0.00	-999.6	0.00	999.61	3,745.46	935.30	3,782.73	3,448.96	7.49	-1.15	0.298
68.00	-26.24	-23.28	0.00	-928.6	0.00	928.57	3,698.67	918.33	3,646.76	3,343.58	8.24	-1.21	0.285
70.00	-25.77	-22.99	0.00	-882.0	0.00	882.02	3,667.05	907.02	3,557.49	3,273.81	8.75	-1.25	0.277
75.00	-24.65	-22.72	0.00	-767.1	0.00	767.08	3,586.46	878.75	3,339.16	3,101.20	10.12	-1.35	0.255
76.00	-24.33	-22.41	0.00	-744.4	0.00	744.36	3,570.09	873.09	3,296.33	3,066.99	10.4	-1.37	0.250
80.00	-23.46	-22.12	0.00	-654.7	0.00	654.72	3,503.71	850.47	3,127.75	2,931.29	11.58	-1.44	0.231
82.16	-22.99	-21.91	0.00	-606.9	0.00	606.87	3,467.23	838.23	3,038.42	2,858.66	12.24	-1.48	0.220
85.00	-22.05	-21.73	0.00	-544.7	0.00	544.73	3,418.78	822.19	2,923.25	2,764.27	13.13	-1.52	0.204
86.00	-18.96	-19.24	0.00	-523.0	0.00	523.00	3,401.54	816.54	2,883.18	2,731.23	13.45	-1.54	0.198
87.83	-18.37	-19.07	0.00	-487.8	0.00	487.79	2,692.45	683.79	2,426.19	2,176.03	14.05	-1.57	0.232
90.00	-17.98	-18.93	0.00	-446.4	0.00	446.42	2,665.65	673.56	2,354.17	2,121.90	14.77	-1.6	0.218
91.00	-16.47	-17.77	0.00	-427.5	0.00	427.49	2,653.16	668.85	2,321.35	2,097.06	15.11	-1.62	0.211
95.00	-15.76	-17.40	0.00	-356.4	0.00	356.40	2,602.34	650.00	2,192.36	1,998.45	16.5	-1.68	0.185
100.00	-13.81	-14.41	0.00	-265.9	0.00	265.91	2,536.86	626.44	2,036.30	1,876.95	18.3	-1.75	0.148
104.00	-11.02	-12.58	0.00	-208.2	0.00	208.25	2,482.92	607.58	1,915.61	1,781.28	19.79	-1.8	0.122
105.00	-10.88	-12.35	0.00	-195.7	0.00	195.67	2,469.21	602.87	1,886.01	1,757.59	20.17	-1.81	0.116
110.00	-7.73	-8.60	0.00	-127.1	0.00	127.11	2,399.39	579.31	1,741.47	1,640.54	22.09	-1.85	0.081
115.00	-7.10	-8.21	0.00	-84.1	0.00	84.10	2,327.39	555.74	1,602.70	1,525.98	24.05	-1.89	0.058
120.00	-4.29	-4.93	0.00	-43.0	0.00	43.04	2,252.90	532.18	1,469.69	1,413.90	26.04	-1.91	0.032
125.00	-3.79	-4.64	0.00	-18.4	0.00	18.37	2,153.14	508.62	1,342.44	1,290.85	28.04	-1.92	0.016
128.00	-2.33	-2.70	0.00	-4.5	0.00	4.46	2,093.29	494.48	1,268.86	1,219.72	29.25	-1.92	0.005
129.00	-2.28	-1.76	0.00	-1.8	0.00	1.76	2,073.34	489.76	1,244.79	1,196.45	29.66	-1.92	0.003
130.00	0.00	-1.68	0.00	0.0	0.00	0.00	2,053.39	485.05	1,220.95	1,173.41	30.06	-1.92	0.000

Load Case: 1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice		18 Iterations
Gust Response Factor: 1.10	Ice Dead Load Factor	1.00	
Dead load Factor: 1.20			Ice Importance Factor 1.00
Wind Load Factor: 1.00			

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-85.93	-7.66	0.00	-708.6	0.00	708.56	6,793.61	1,712.83	9,514.56	8,594.34	0	0	0.095
5.00	-83.12	-7.55	0.00	-670.2	0.00	670.24	6,692.31	1,675.12	9,100.36	8,278.33	0.01	-0.02	0.093
10.00	-80.31	-7.43	0.00	-632.5	0.00	632.51	6,588.83	1,637.42	8,695.37	7,965.37	0.05	-0.04	0.092
15.00	-77.53	-7.32	0.00	-595.4	0.00	595.36	6,483.18	1,599.72	8,299.60	7,655.67	0.1	-0.06	0.090
20.00	-74.79	-7.20	0.00	-558.8	0.00	558.78	6,375.36	1,562.02	7,913.05	7,349.39	0.18	-0.09	0.088
25.00	-72.09	-7.09	0.00	-522.8	0.00	522.78	6,265.37	1,524.32	7,535.72	7,046.72	0.28	-0.11	0.086
30.00	-69.44	-6.98	0.00	-487.3	0.00	487.33	6,153.21	1,486.61	7,167.60	6,747.85	0.4	-0.13	0.084
35.00	-66.83	-6.86	0.00	-452.5	0.00	452.46	6,038.88	1,448.91	6,808.70	6,452.96	0.55	-0.15	0.081
40.00	-64.27	-6.79	0.00	-418.2	0.00	418.16	5,922.38	1,411.21	6,459.02	6,162.22	0.72	-0.17	0.079
40.50	-64.01	-6.73	0.00	-414.8	0.00	414.76	5,910.61	1,407.44	6,424.56	6,133.39	0.74	-0.18	0.078
45.00	-60.63	-6.64	0.00	-384.5	0.00	384.47	5,803.70	1,373.51	6,118.56	5,875.83	0.91	-0.19	0.076
47.50	-58.78	-6.57	0.00	-367.9	0.00	367.87	4,002.81	1,034.27	4,625.51	4,079.20	1.02	-0.21	0.105
50.00	-57.74	-6.48	0.00	-351.4	0.00	351.43	3,967.67	1,020.13	4,499.93	3,987.71	1.13	-0.22	0.103
55.00	-55.67	-6.36	0.00	-319.0	0.00	319.01	3,895.77	991.85	4,253.95	3,806.08	1.37	-0.24	0.098
60.00	-53.65	-6.24	0.00	-287.2	0.00	287.20	3,821.70	963.58	4,014.88	3,626.44	1.64	-0.27	0.093
65.00	-51.66	-6.13	0.00	-256.0	0.00	256.01	3,745.46	935.30	3,782.73	3,448.96	1.94	-0.3	0.088
68.00	-50.27	-6.02	0.00	-237.6	0.00	237.61	3,698.67	918.33	3,646.76	3,343.58	2.13	-0.31	0.085
70.00	-49.49	-5.93	0.00	-225.6	0.00	225.58	3,667.05	907.02	3,557.49	3,273.81	2.27	-0.32	0.082
75.00	-47.55	-5.85	0.00	-195.9	0.00	195.92	3,586.46	878.75	3,339.16	3,101.20	2.62	-0.35	0.076
76.00	-47.03	-5.76	0.00	-190.1	0.00	190.07	3,570.09	873.09	3,296.33	3,066.99	2.69	-0.35	0.075
80.00	-45.52	-5.67	0.00	-167.0	0.00	167.04	3,503.71	850.47	3,127.75	2,931.29	3	-0.37	0.070
82.16	-44.72	-5.60	0.00	-154.8	0.00	154.77	3,467.23	838.23	3,038.42	2,858.66	3.17	-0.38	0.067
85.00	-43.22	-5.55	0.00	-138.9	0.00	138.88	3,418.78	822.19	2,923.25	2,764.27	3.4	-0.39	0.063
86.00	-37.50	-4.94	0.00	-133.3	0.00	133.33	3,401.54	816.54	2,883.18	2,731.23	3.48	-0.4	0.060
87.83	-36.55	-4.89	0.00	-124.3	0.00	124.28	2,692.45	683.79	2,426.19	2,176.03	3.63	-0.4	0.071
90.00	-35.85	-4.85	0.00	-113.7	0.00	113.67	2,665.65	673.56	2,354.17	2,121.90	3.82	-0.41	0.067
91.00	-33.41	-4.52	0.00	-108.8	0.00	108.82	2,653.16	668.85	2,321.35	2,097.06	3.91	-0.42	0.065
95.00	-32.13	-4.40	0.00	-90.7	0.00	90.74	2,602.34	650.00	2,192.36	1,998.45	4.26	-0.43	0.058
100.00	-27.29	-3.70	0.00	-68.0	0.00	67.97	2,536.86	626.44	2,036.30	1,876.95	4.73	-0.45	0.047
104.00	-22.29	-3.23	0.00	-53.2	0.00	53.15	2,482.92	607.58	1,915.61	1,781.28	5.11	-0.46	0.039
105.00	-22.02	-3.16	0.00	-49.9	0.00	49.92	2,469.21	602.87	1,886.01	1,757.59	5.21	-0.47	0.037
110.00	-15.61	-2.23	0.00	-32.7	0.00	32.70	2,399.39	579.31	1,741.47	1,640.54	5.7	-0.48	0.026
115.00	-14.37	-2.10	0.00	-21.5	0.00	21.54	2,327.39	555.74	1,602.70	1,525.98	6.2	-0.49	0.020
120.00	-8.70	-1.27	0.00	-11.0	0.00	11.03	2,252.90	532.18	1,469.69	1,413.90	6.72	-0.49	0.012
125.00	-7.64	-1.17	0.00	-4.7	0.00	4.67	2,153.14	508.62	1,342.44	1,290.85	7.23	-0.49	0.007
128.00	-4.22	-0.70	0.00	-1.2	0.00	1.15	2,093.29	494.48	1,268.86	1,219.72	7.54	-0.49	0.003
129.00	-4.07	-0.44	0.00	-0.4	0.00	0.44	2,073.34	489.76	1,244.79	1,196.45	7.65	-0.49	0.002
130.00	0.00	-0.41	0.00	0.0	0.00	0.00	2,053.39	485.05	1,220.95	1,173.41	7.75	-0.49	0.000

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	18 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-54.02	-6.80	0.00	-641.6	0.00	641.58	6,793.61	1,712.83	9,514.56	8,594.34	0	0	0.083
5.00	-52.03	-6.71	0.00	-607.6	0.00	607.58	6,692.31	1,675.12	9,100.36	8,278.33	0.01	-0.02	0.081
10.00	-50.07	-6.61	0.00	-574.0	0.00	574.05	6,588.83	1,637.42	8,695.37	7,965.37	0.04	-0.04	0.080
15.00	-48.15	-6.52	0.00	-541.0	0.00	540.99	6,483.18	1,599.72	8,299.60	7,655.67	0.09	-0.06	0.078
20.00	-46.27	-6.43	0.00	-508.4	0.00	508.40	6,375.36	1,562.02	7,913.05	7,349.39	0.16	-0.08	0.076
25.00	-44.42	-6.34	0.00	-476.3	0.00	476.27	6,265.37	1,524.32	7,535.72	7,046.72	0.25	-0.1	0.075
30.00	-42.61	-6.25	0.00	-444.6	0.00	444.58	6,153.21	1,486.61	7,167.60	6,747.85	0.37	-0.12	0.073
35.00	-40.83	-6.16	0.00	-413.4	0.00	413.35	6,038.88	1,448.91	6,808.70	6,452.96	0.5	-0.14	0.071
40.00	-39.10	-6.10	0.00	-382.6	0.00	382.57	5,922.38	1,411.21	6,459.02	6,162.22	0.66	-0.16	0.069
40.50	-38.93	-6.06	0.00	-379.5	0.00	379.52	5,910.61	1,407.44	6,424.56	6,133.39	0.67	-0.16	0.068
45.00	-36.47	-5.98	0.00	-352.3	0.00	352.27	5,803.70	1,373.51	6,118.56	5,875.83	0.83	-0.18	0.066
47.50	-35.13	-5.93	0.00	-337.3	0.00	337.31	4,002.81	1,034.27	4,625.51	4,079.20	0.93	-0.19	0.092
50.00	-34.46	-5.86	0.00	-322.5	0.00	322.48	3,967.67	1,020.13	4,499.93	3,987.71	1.03	-0.2	0.090
55.00	-33.13	-5.77	0.00	-293.2	0.00	293.18	3,895.77	991.85	4,253.95	3,806.08	1.25	-0.22	0.086
60.00	-31.83	-5.67	0.00	-264.4	0.00	264.35	3,821.70	963.58	4,014.88	3,626.44	1.5	-0.25	0.081
65.00	-30.56	-5.59	0.00	-236.0	0.00	236.01	3,745.46	935.30	3,782.73	3,448.96	1.77	-0.27	0.077
68.00	-29.68	-5.49	0.00	-219.2	0.00	219.25	3,698.67	918.33	3,646.76	3,343.58	1.94	-0.29	0.074
70.00	-29.18	-5.43	0.00	-208.3	0.00	208.26	3,667.05	907.02	3,557.49	3,273.81	2.07	-0.3	0.072
75.00	-27.95	-5.36	0.00	-181.1	0.00	181.13	3,586.46	878.75	3,339.16	3,101.20	2.39	-0.32	0.066
76.00	-27.61	-5.29	0.00	-175.8	0.00	175.77	3,570.09	873.09	3,296.33	3,066.99	2.45	-0.32	0.065
80.00	-26.65	-5.22	0.00	-154.6	0.00	154.61	3,503.71	850.47	3,127.75	2,931.29	2.73	-0.34	0.060
82.16	-26.15	-5.17	0.00	-143.3	0.00	143.31	3,467.23	838.23	3,038.42	2,858.66	2.89	-0.35	0.058
85.00	-25.11	-5.13	0.00	-128.6	0.00	128.64	3,418.78	822.19	2,923.25	2,764.27	3.1	-0.36	0.054
86.00	-21.62	-4.54	0.00	-123.5	0.00	123.51	3,401.54	816.54	2,883.18	2,731.23	3.17	-0.36	0.052
87.83	-20.96	-4.50	0.00	-115.2	0.00	115.19	2,692.45	683.79	2,426.19	2,176.03	3.32	-0.37	0.061
90.00	-20.53	-4.47	0.00	-105.4	0.00	105.42	2,665.65	673.56	2,354.17	2,121.90	3.49	-0.38	0.057
91.00	-18.84	-4.20	0.00	-101.0	0.00	100.95	2,653.16	668.85	2,321.35	2,097.06	3.57	-0.38	0.055
95.00	-18.06	-4.11	0.00	-84.2	0.00	84.17	2,602.34	650.00	2,192.36	1,998.45	3.89	-0.4	0.049
100.00	-15.81	-3.40	0.00	-62.8	0.00	62.80	2,536.86	626.44	2,036.30	1,876.95	4.32	-0.41	0.040
104.00	-12.66	-2.97	0.00	-49.2	0.00	49.18	2,482.92	607.58	1,915.61	1,781.28	4.67	-0.42	0.033
105.00	-12.50	-2.92	0.00	-46.2	0.00	46.21	2,469.21	602.87	1,886.01	1,757.59	4.76	-0.43	0.031
110.00	-8.88	-2.03	0.00	-30.0	0.00	30.03	2,399.39	579.31	1,741.47	1,640.54	5.21	-0.44	0.022
115.00	-8.18	-1.94	0.00	-19.9	0.00	19.86	2,327.39	555.74	1,602.70	1,525.98	5.68	-0.45	0.017
120.00	-4.94	-1.17	0.00	-10.2	0.00	10.17	2,252.90	532.18	1,469.69	1,413.90	6.15	-0.45	0.009
125.00	-4.37	-1.09	0.00	-4.3	0.00	4.34	2,153.14	508.62	1,342.44	1,290.85	6.62	-0.45	0.005
128.00	-2.68	-0.64	0.00	-1.0	0.00	1.05	2,093.29	494.48	1,268.86	1,219.72	6.9	-0.45	0.002
129.00	-2.59	-0.42	0.00	-0.4	0.00	0.42	2,073.34	489.76	1,244.79	1,196.45	7	-0.45	0.002
130.00	0.00	-0.40	0.00	0.0	0.00	0.00	2,053.39	485.05	1,220.95	1,173.41	7.09	-0.45	0.000

EQUIVALENT LATERAL FORCES METHOD ANALYSIS
(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.233
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.056
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_a):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.249
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.090
Seismic Response Coefficient (C_s):	0.037
Upper Limit C_s :	0.037
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	1.600
Redundancy Factor (ρ):	1.000
Seismic Force Distribution Exponent (k):	1.550
Total Unfactored Dead Load:	54.020 k
Seismic Base Shear (E):	2.020 k

1.2D + 1.0Ev + 1.0Eh Normal Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	129.5	95	176	0.004	8	118
36	128.5	95	176	0.004	8	119
35	126.5	329	592	0.013	27	411
34	122.5	567	970	0.022	44	708
33	117.5	684	1,098	0.024	49	855
32	112.5	707	1,061	0.024	48	884
31	107.5	792	1,108	0.025	50	990
30	104.5	161	216	0.005	10	201
29	102	654	843	0.019	38	817
28	97.5	951	1,143	0.025	51	1,188
27	93	777	869	0.019	39	971
26	90.5	197	211	0.005	9	246
25	88.915	430	448	0.010	20	537
24	86.915	654	658	0.015	30	817
23	85.5	363	356	0.008	16	453
22	83.5817	1,040	985	0.022	44	1,300
21	81.0817	504	455	0.010	20	630
20	78	946	805	0.018	36	1,182
19	75.5	239	194	0.004	9	299
18	72.5	1,214	922	0.020	41	1,517
17	69	493	347	0.008	16	616
16	66.5	748	498	0.011	22	935
15	62.5	1,269	767	0.017	34	1,586
14	57.5	1,297	688	0.015	31	1,620
13	52.5	1,324	610	0.014	27	1,655
12	48.75	672	276	0.006	12	840
11	46.25	1,340	508	0.011	23	1,675
10	42.75	2,453	823	0.018	37	3,065
9	40.25	172	52	0.001	2	214
8	37.5	1,735	475	0.011	21	2,168
7	32.5	1,772	389	0.009	17	2,214
6	27.5	1,808	306	0.007	14	2,260
5	22.5	1,845	229	0.005	10	2,305
4	17.5	1,881	158	0.004	7	2,351

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
3	12.5	1,918	96	0.002	4	2,397
2	7.5	1,954	44	0.001	2	2,443
1	2.5	1,991	8	0.000	0	2,488
Generic Flat Platform with Handrails	130	2,500	4,693	0.104	211	3,124
Generic Flat Platform with Handrails	104	2,500	3,322	0.074	149	3,124
Generic Flat Platform with Handrails	86	2,500	2,475	0.055	111	3,124
VZW Unused Reserve (4849.41 sqin)	129	0	0	0.000	0	0
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	128	13	24	0.000	1	16
Samsung RT4401-48A	128	56	102	0.002	5	70
Samsung B2/B66A RRH-BR049	128	253	464	0.010	21	316
Samsung B5/B13 RRH-BR04C	128	211	387	0.009	17	264
Commscope TD-850B-LTE78-43	128	159	291	0.006	13	199
Raycap RCMDC-6627-PF-48	128	32	59	0.001	3	40
Samsung MT6407-77A	128	245	449	0.010	20	306
Quintel QS6656-5	128	390	715	0.016	32	487
Alcatel-Lucent RRH2x50-08	120	159	263	0.006	12	198
Alcatel-Lucent 800MHz RRH	120	159	264	0.006	12	199
Alcatel-Lucent 1900MHz RRH	120	132	219	0.005	10	165
Nokia 2.5G MAA - AAHC(64T64R)	120	311	515	0.012	23	388
Generic 24" x 24" Junction Box	120	20	33	0.001	1	25
Andrew Microwaves VHLP800-11 (49 lbs)	120	49	81	0.002	4	61
Commscope NNVV-65B-R4	120	232	385	0.009	17	290
Flat Low Profile Platform	120	1,500	2,488	0.055	112	1,875
Flat Low Profile Platform	110	1,500	2,174	0.048	98	1,875
Ericsson KRY 112 71	110	40	57	0.001	3	49
Ericsson Radio 4449 B12,B71	110	222	322	0.007	14	277
EMS RR90-17-02DP	110	40	59	0.001	3	51
Ericsson AIR 21, 1.3 M, B2A B4P	110	249	361	0.008	16	311
Ericsson AIR-32 B2A/B66Aa	110	397	575	0.013	26	496
RFS APXVAARR24_43-U-NA20	110	384	556	0.012	25	480
Kathrein Scala 860-10025	100	7	8	0.000	0	8
Kathrein Scala 860 10006	100	3	4	0.000	0	4
Generic GPS	100	10	13	0.000	1	12
Generic GPS	80	10	9	0.000	0	12
Generic GPS	68	10	7	0.000	0	12
Raycap DC6-48-60-18-8F	100	20	25	0.001	1	25
Ericsson RRUS 8843 B2, B66A	100	216	270	0.006	12	270
Ericsson Radio 4415 B30	100	129	161	0.004	7	161
Ericsson RRUS 4449 B5, B12	100	213	266	0.006	12	266
Raycap DC9-48-60-24-8C-EV	100	16	20	0.000	1	20
Powerwave Allgon 7770.00	100	105	131	0.003	6	131
CCI HPA-65R-BUU-H6	100	153	191	0.004	9	191
CCI DMP65R-BU6DA	100	238	298	0.007	13	298
CCI OPA65R-BU6D	100	190	237	0.005	11	237
Empty Flat Low Profile Platform	91	1,500	1,621	0.036	73	1,875
Commscope RDIDC-9181-PF-48	86	22	22	0.000	1	27
Fujitsu TA08025-B604	86	192	190	0.004	9	240
Fujitsu TA08025-B605	86	225	223	0.005	10	281
JMA Wireless MX08FRO665-21	86	194	192	0.004	9	242
Stand-Off	76	100	82	0.002	4	125
Generic 2" x 8" GPS	75	20	16	0.000	1	25
Side Arm	68	126	87	0.002	4	157
		54,020	44,966	1.000	2,020	67,509

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	129.5	95	176	0.004	8	80
36	128.5	95	176	0.004	8	81
35	126.5	329	592	0.013	27	280
34	122.5	567	970	0.022	44	482

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
33	117.5	684	1,098	0.024	49	582
32	112.5	707	1,061	0.024	48	601
31	107.5	792	1,108	0.025	50	674
30	104.5	161	216	0.005	10	137
29	102	654	843	0.019	38	556
28	97.5	951	1,143	0.025	51	809
27	93	777	869	0.019	39	661
26	90.5	197	211	0.005	9	167
25	88.915	430	448	0.010	20	365
24	86.915	654	658	0.015	30	556
23	85.5	363	356	0.008	16	308
22	83.5817	1,040	985	0.022	44	884
21	81.0817	504	455	0.010	20	428
20	78	946	805	0.018	36	804
19	75.5	239	194	0.004	9	203
18	72.5	1,214	922	0.020	41	1,032
17	69	493	347	0.008	16	419
16	66.5	748	498	0.011	22	636
15	62.5	1,269	767	0.017	34	1,079
14	57.5	1,297	688	0.015	31	1,103
13	52.5	1,324	610	0.014	27	1,126
12	48.75	672	276	0.006	12	572
11	46.25	1,340	508	0.011	23	1,140
10	42.75	2,453	823	0.018	37	2,086
9	40.25	172	52	0.001	2	146
8	37.5	1,735	475	0.011	21	1,475
7	32.5	1,772	389	0.009	17	1,506
6	27.5	1,808	306	0.007	14	1,538
5	22.5	1,845	229	0.005	10	1,569
4	17.5	1,881	158	0.004	7	1,600
3	12.5	1,918	96	0.002	4	1,631
2	7.5	1,954	44	0.001	2	1,662
1	2.5	1,991	8	0.000	0	1,693
Generic Flat Platform with Handrails	130	2,500	4,693	0.104	211	2,126
Generic Flat Platform with Handrails	104	2,500	3,322	0.074	149	2,126
Generic Flat Platform with Handrails	86	2,500	2,475	0.055	111	2,126
VZW Unused Reserve (4849.41 sqin)	129	0	0	0.000	0	0
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	128	13	24	0.000	1	11
Samsung RT4401-48A	128	56	102	0.002	5	47
Samsung B2/B66A RRH-BR049	128	253	464	0.010	21	215
Samsung B5/B13 RRH-BR04C	128	211	387	0.009	17	179
Commscope TD-850B-LTE78-43	128	159	291	0.006	13	135
Raycap RCMD-6627-PF-48	128	32	59	0.001	3	27
Samsung MT6407-77A	128	245	449	0.010	20	208
Quintel QS6656-5	128	390	715	0.016	32	332
Alcatel-Lucent RRH2x50-08	120	159	263	0.006	12	135
Alcatel-Lucent 800MHz RRH	120	159	264	0.006	12	135
Alcatel-Lucent 1900MHz RRH	120	132	219	0.005	10	112
Nokia 2.5G MAA - AAHC(64T64R)	120	311	515	0.012	23	264
Generic 24" x 24" Junction Box	120	20	33	0.001	1	17
Andrew Microwaves VHLP800-11 (49 lbs)	120	49	81	0.002	4	42
Commscope NNVV-65B-R4	120	232	385	0.009	17	197
Flat Low Profile Platform	120	1,500	2,488	0.055	112	1,275
Flat Low Profile Platform	110	1,500	2,174	0.048	98	1,275
Ericsson KRY 112 71	110	40	57	0.001	3	34
Ericsson Radio 4449 B12,B71	110	222	322	0.007	14	189
EMS RR90-17-02DP	110	40	59	0.001	3	34
Ericsson AIR 21, 1.3 M, B2A B4P	110	249	361	0.008	16	212
Ericsson AIR-32 B2A/B66Aa	110	397	575	0.013	26	337
RFS APXVAARR24_43-U-NA20	110	384	556	0.012	25	326
Kathrein Scala 860-10025	100	7	8	0.000	0	6
Kathrein Scala 860 10006	100	3	4	0.000	0	3
Generic GPS	100	10	13	0.000	1	9
Generic GPS	80	10	9	0.000	0	9
Generic GPS	68	10	7	0.000	0	9
Raycap DC6-48-60-18-8F	100	20	25	0.001	1	17
Ericsson RRUS 8843 B2, B66A	100	216	270	0.006	12	184
Ericsson Radio 4415 B30	100	129	161	0.004	7	110
Ericsson RRUS 4449 B5, B12	100	213	266	0.006	12	181

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Raycap DC9-48-60-24-8C-EV	100	16	20	0.000	1	14
Powerwave Allgon 7770.00	100	105	131	0.003	6	89
CCI HPA-65R-BUU-H6	100	153	191	0.004	9	130
CCI DMP65R-BU6DA	100	238	298	0.007	13	203
CCI OPA65R-BU6D	100	190	237	0.005	11	161
Empty Flat Low Profile Platform	91	1,500	1,621	0.036	73	1,275
Commscope RDIDC-9181-PF-48	86	22	22	0.000	1	19
Fujitsu TA08025-B604	86	192	190	0.004	9	163
Fujitsu TA08025-B605	86	225	223	0.005	10	191
JMA Wireless MX08FRO665-21	86	194	192	0.004	9	165
Stand-Off	76	100	82	0.002	4	85
Generic 2" x 8" GPS	75	20	16	0.000	1	17
Side Arm	68	126	87	0.002	4	107
		54,020	44,966	1.000	2,020	45,933

1.2D + 1.0Ev + 1.0Eh Normal Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-65.02	-2.02	0.00	-202.72	0.00	202.72	6,793.61	1,712.83	9,515	8,594.34	0.00	0.00	0.03
5.00	-62.58	-2.03	0.00	-192.61	0.00	192.61	6,692.31	1,675.12	9,100	8,278.33	0.00	-0.01	0.03
10.00	-60.18	-2.03	0.00	-182.47	0.00	182.47	6,588.83	1,637.42	8,695	7,965.37	0.01	-0.01	0.03
15.00	-57.83	-2.03	0.00	-172.32	0.00	172.32	6,483.18	1,599.72	8,300	7,655.67	0.03	-0.02	0.03
20.00	-55.52	-2.02	0.00	-162.19	0.00	162.19	6,375.36	1,562.02	7,913	7,349.39	0.05	-0.02	0.03
25.00	-53.26	-2.01	0.00	-152.07	0.00	152.07	6,265.37	1,524.32	7,536	7,046.72	0.08	-0.03	0.03
30.00	-51.05	-2.00	0.00	-142.00	0.00	142.00	6,153.21	1,486.61	7,168	6,747.85	0.12	-0.04	0.03
35.00	-48.88	-1.98	0.00	-132.00	0.00	132.00	6,038.88	1,448.91	6,809	6,452.96	0.16	-0.04	0.03
40.00	-48.67	-1.98	0.00	-122.09	0.00	122.09	5,922.38	1,411.21	6,459	6,162.22	0.21	-0.05	0.03
40.50	-45.60	-1.95	0.00	-121.09	0.00	121.09	5,910.61	1,407.44	6,425	6,133.39	0.21	-0.05	0.03
45.00	-43.93	-1.93	0.00	-112.33	0.00	112.33	5,803.70	1,373.51	6,119	5,875.83	0.26	-0.06	0.03
47.50	-43.09	-1.91	0.00	-107.52	0.00	107.52	4,002.81	1,034.27	4,626	4,079.20	0.29	-0.06	0.04
50.00	-41.43	-1.89	0.00	-102.73	0.00	102.73	3,967.67	1,020.13	4,500	3,987.71	0.33	-0.06	0.04
55.00	-39.81	-1.86	0.00	-93.29	0.00	93.29	3,895.77	991.85	4,254	3,806.08	0.40	-0.07	0.04
60.00	-38.22	-1.83	0.00	-83.97	0.00	83.97	3,821.70	963.58	4,015	3,626.44	0.48	-0.08	0.03
65.00	-37.29	-1.81	0.00	-74.82	0.00	74.82	3,745.46	935.30	3,783	3,448.96	0.56	-0.09	0.03
68.00	-36.50	-1.79	0.00	-69.39	0.00	69.39	3,698.67	918.33	3,647	3,343.58	0.62	-0.09	0.03
70.00	-34.99	-1.75	0.00	-65.80	0.00	65.80	3,667.05	907.02	3,557	3,273.81	0.66	-0.09	0.03
75.00	-34.66	-1.74	0.00	-57.04	0.00	57.04	3,586.46	878.75	3,339	3,101.20	0.76	-0.10	0.03
76.00	-33.35	-1.70	0.00	-55.30	0.00	55.30	3,570.09	873.09	3,296	3,066.99	0.78	-0.10	0.03
80.00	-32.71	-1.68	0.00	-48.48	0.00	48.48	3,503.71	850.47	3,128	2,931.29	0.87	-0.11	0.03
82.16	-31.41	-1.64	0.00	-44.83	0.00	44.83	3,467.23	838.23	3,038	2,858.66	0.92	-0.11	0.03
85.00	-30.96	-1.62	0.00	-40.18	0.00	40.18	3,418.78	822.19	2,923	2,764.27	0.99	-0.11	0.02
86.00	-26.23	-1.45	0.00	-38.56	0.00	38.56	3,401.54	816.54	2,883	2,731.23	1.01	-0.12	0.02
87.83	-25.69	-1.43	0.00	-35.91	0.00	35.91	2,692.45	683.79	2,426	2,176.03	1.05	-0.12	0.03
90.00	-25.45	-1.42	0.00	-32.82	0.00	32.82	2,665.65	673.56	2,354	2,121.90	1.11	-0.12	0.03
91.00	-22.60	-1.30	0.00	-31.40	0.00	31.40	2,653.16	668.85	2,321	2,097.06	1.13	-0.12	0.02
95.00	-21.41	-1.25	0.00	-26.20	0.00	26.20	2,602.34	650.00	2,192	1,998.45	1.24	-0.13	0.02
100.00	-18.97	-1.13	0.00	-19.96	0.00	19.96	2,536.86	626.44	2,036	1,876.95	1.37	-0.13	0.02
104.00	-15.65	-0.97	0.00	-15.42	0.00	15.42	2,482.92	607.58	1,916	1,781.28	1.48	-0.13	0.02
105.00	-14.66	-0.92	0.00	-14.45	0.00	14.45	2,469.21	602.87	1,886	1,757.59	1.51	-0.14	0.01
110.00	-10.23	-0.67	0.00	-9.88	0.00	9.88	2,399.39	579.31	1,741	1,640.54	1.66	-0.14	0.01
115.00	-9.38	-0.62	0.00	-6.51	0.00	6.51	2,327.39	555.74	1,603	1,525.98	1.80	-0.14	0.01
120.00	-5.47	-0.38	0.00	-3.39	0.00	3.39	2,252.90	532.18	1,470	1,413.90	1.95	-0.14	0.01
125.00	-5.06	-0.35	0.00	-1.50	0.00	1.50	2,153.14	508.62	1,342	1,290.85	2.10	-0.14	0.00
128.00	-3.24	-0.23	0.00	-0.45	0.00	0.45	2,093.29	494.48	1,269	1,219.72	2.19	-0.14	0.00
129.00	-3.12	-0.22	0.00	-0.22	0.00	0.22	2,073.34	489.76	1,245	1,196.45	2.22	-0.14	0.00
130.00	0.00	-0.21	0.00	0.00	0.00	0.00	2,053.39	485.05	1,221	1,173.41	2.25	-0.14	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg	Pu	Vu	Tu	Mu	Mu	Resultant	Phi	Phi	Phi	Phi	Total	Rotation	Ratio
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ASSET: 411189, CRANBURYSU CT
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13700310_C3_02

Elev (ft)	FY (-) (kips)	FX (-) (kips)	MY (ft-kips)	MZ (fr-kips)	Mx (ft-kips)	Moment (ft-kips)	Pn (kips)	Vn (kips)	Tn (kips)	Mn (kips)	Deflect (in)	(deg)	
0.00	-44.24	-2.02	0.00	-201.13	0.00	201.13	6,793.61	1,712.83	9,515	8,594.34	0.00	0.00	0.03
5.00	-42.58	-2.02	0.00	-191.02	0.00	191.02	6,692.31	1,675.12	9,100	8,278.33	0.00	-0.01	0.03
10.00	-40.95	-2.02	0.00	-180.90	0.00	180.90	6,588.83	1,637.42	8,695	7,965.37	0.01	-0.01	0.03
15.00	-39.35	-2.02	0.00	-170.78	0.00	170.78	6,483.18	1,599.72	8,300	7,655.67	0.03	-0.02	0.03
20.00	-37.78	-2.01	0.00	-160.68	0.00	160.68	6,375.36	1,562.02	7,913	7,349.39	0.05	-0.02	0.03
25.00	-36.24	-2.00	0.00	-150.61	0.00	150.61	6,265.37	1,524.32	7,536	7,046.72	0.08	-0.03	0.03
30.00	-34.73	-1.99	0.00	-140.59	0.00	140.59	6,153.21	1,486.61	7,168	6,747.85	0.12	-0.04	0.03
35.00	-33.26	-1.97	0.00	-130.65	0.00	130.65	6,038.88	1,448.91	6,809	6,452.96	0.16	-0.04	0.03
40.00	-33.11	-1.97	0.00	-120.80	0.00	120.80	5,922.38	1,411.21	6,459	6,162.22	0.21	-0.05	0.03
40.50	-31.03	-1.93	0.00	-119.82	0.00	119.82	5,910.61	1,407.44	6,425	6,133.39	0.21	-0.05	0.03
45.00	-29.89	-1.91	0.00	-111.12	0.00	111.12	5,803.70	1,373.51	6,119	5,875.83	0.26	-0.06	0.02
47.50	-29.31	-1.90	0.00	-106.34	0.00	106.34	4,002.81	1,034.27	4,626	4,079.20	0.29	-0.06	0.03
50.00	-28.19	-1.87	0.00	-101.59	0.00	101.59	3,967.67	1,020.13	4,500	3,987.71	0.32	-0.06	0.03
55.00	-27.09	-1.85	0.00	-92.22	0.00	92.22	3,895.77	991.85	4,254	3,806.08	0.39	-0.07	0.03
60.00	-26.01	-1.81	0.00	-83.00	0.00	83.00	3,821.70	963.58	4,015	3,626.44	0.47	-0.08	0.03
65.00	-25.37	-1.79	0.00	-73.93	0.00	73.93	3,745.46	935.30	3,783	3,448.96	0.56	-0.09	0.03
68.00	-24.83	-1.77	0.00	-68.55	0.00	68.55	3,698.67	918.33	3,647	3,343.58	0.61	-0.09	0.03
70.00	-23.80	-1.73	0.00	-65.01	0.00	65.01	3,667.05	907.02	3,557	3,273.81	0.65	-0.09	0.03
75.00	-23.58	-1.72	0.00	-56.34	0.00	56.34	3,586.46	878.75	3,339	3,101.20	0.75	-0.10	0.03
76.00	-22.69	-1.68	0.00	-54.62	0.00	54.62	3,570.09	873.09	3,296	3,066.99	0.77	-0.10	0.02
80.00	-22.26	-1.66	0.00	-47.88	0.00	47.88	3,503.71	850.47	3,128	2,931.29	0.86	-0.11	0.02
82.16	-21.37	-1.62	0.00	-44.28	0.00	44.28	3,467.23	838.23	3,038	2,858.66	0.91	-0.11	0.02
85.00	-21.06	-1.60	0.00	-39.69	0.00	39.69	3,418.78	822.19	2,923	2,764.27	0.98	-0.11	0.02
86.00	-17.85	-1.43	0.00	-38.08	0.00	38.08	3,401.54	816.54	2,883	2,731.23	1.00	-0.11	0.02
87.83	-17.48	-1.41	0.00	-35.47	0.00	35.47	2,692.45	683.79	2,426	2,176.03	1.04	-0.12	0.02
90.00	-17.31	-1.40	0.00	-32.41	0.00	32.41	2,665.65	673.56	2,354	2,121.90	1.10	-0.12	0.02
91.00	-15.38	-1.28	0.00	-31.01	0.00	31.01	2,653.16	668.85	2,321	2,097.06	1.12	-0.12	0.02
95.00	-14.57	-1.23	0.00	-25.87	0.00	25.87	2,602.34	650.00	2,192	1,998.45	1.23	-0.12	0.02
100.00	-12.91	-1.12	0.00	-19.71	0.00	19.71	2,536.86	626.44	2,036	1,876.95	1.36	-0.13	0.02
104.00	-10.64	-0.96	0.00	-15.23	0.00	15.23	2,482.92	607.58	1,916	1,781.28	1.47	-0.13	0.01
105.00	-9.97	-0.90	0.00	-14.28	0.00	14.28	2,469.21	602.87	1,886	1,757.59	1.50	-0.13	0.01
110.00	-6.96	-0.67	0.00	-9.76	0.00	9.76	2,399.39	579.31	1,741	1,640.54	1.64	-0.14	0.01
115.00	-6.38	-0.62	0.00	-6.43	0.00	6.43	2,327.39	555.74	1,603	1,525.98	1.78	-0.14	0.01
120.00	-3.72	-0.37	0.00	-3.35	0.00	3.35	2,252.90	532.18	1,470	1,413.90	1.93	-0.14	0.00
125.00	-3.44	-0.35	0.00	-1.48	0.00	1.48	2,153.14	508.62	1,342	1,290.85	2.08	-0.14	0.00
128.00	-2.21	-0.22	0.00	-0.44	0.00	0.44	2,093.29	494.48	1,269	1,219.72	2.17	-0.14	0.00
129.00	-2.13	-0.22	0.00	-0.22	0.00	0.22	2,073.34	489.76	1,245	1,196.45	2.20	-0.14	0.00
130.00	0.00	-0.21	0.00	0.00	0.00	0.00	2,053.39	485.05	1,221	1,173.41	2.23	-0.14	0.00

ASSET: 411189, CRANBURYSU CT
 CUSTOMER: DISH WIRELESS L.L.C.

CODE: ANSI/TIA-222-H
 ENG NO: 13700310_C3_02

ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	28.92	0.00	64.80	0.00	0.00	2737.59	47.50	0.36
0.9D + 1.0W Normal	28.90	0.00	48.60	0.00	0.00	2720.80	47.50	0.36
1.2D + 1.0Di + 1.0Wi Normal	7.66	0.00	85.93	0.00	0.00	708.56	47.50	0.1
1.2D + 1.0Ev + 1.0Eh Normal	2.03	0.00	65.02	0.00	0.00	202.72	47.50	0.04
0.9D - 1.0Ev + 1.0Eh Normal	2.02	0.00	44.24	0.00	0.00	201.13	47.50	0.03
1.0D + 1.0W Service Normal	6.80	0.00	54.02	0.00	0.00	641.58	47.50	0.09



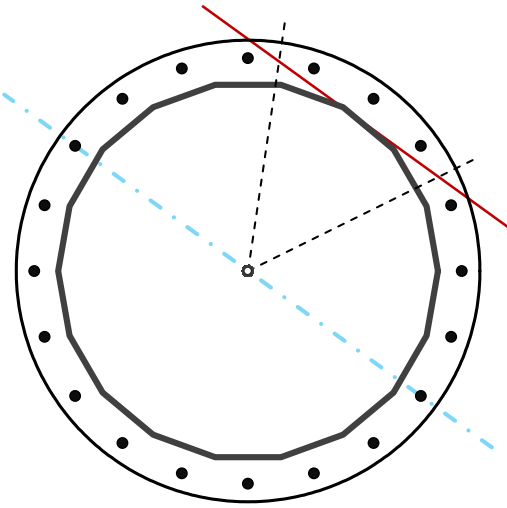
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	18	-
Diameter	62	in
Thickness	1/4	in
Orientation Offset		°

Base Reactions		
Moment, Mu	2,737.6	k-ft
Axial, Pu	64.8	k
Shear, Vu	28.9	k
Neutral Axis	324	°

Report Capacities		
Component	Capacity	Result
Base Plate	31%	Pass
Anchor Rods	41%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ϕ	77	in
Thickness	2	in
Grade	A572-60	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip		in
Orientation Offset	0	°
Anchor Rod Detail	d	$\eta=0.5$
Clear Distance	3	in
Applied Moment, Mu	617.6	k
Bending Stress, ϕMn	1977.8	k



Original Anchor Rods		
Arrangement	Radial	-
Quantity	20	-
Diameter, ϕ	2 1/4	in
Bolt Circle	71	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	11.2	in
Orientation Offset	0	°
Applied Force, Pu	98.9	k
Anchor Rods, ϕPn	243.6	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	28.9	2737.6	1.00
Anchor Rod Forces	28.9	2737.6	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in ²	in ²	in ⁴	#	in ⁴
Pole	48.2525	2.6807	0.0560		22999.73
Bolt	3.9761	3.2477	0.8393	4.5	38253.38
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	77	in
Thickness, t	2	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	45.662	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	20	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	71	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	98.9	k
Applied Shear, Vu	0.7	k
Compressive Capacity, φPn	243.6	k
Tensile Capacity, φRnt	0.406	OK
Interaction Capacity	0.412	OK

External Base Plate		
Chord Length AA	39.278	in
Additional AA	4.000	in
Section Modulus, Z	43.278	in ³
Applied Moment, Mu	617.6	k-ft
Bending Capacity, φMn	2337.0	k-ft
Capacity, Mu/φMn	0.264	OK
Chord Length AB	37.719	in
Additional AB	4.000	in
Section Modulus, Z	41.719	in ³
Applied Moment, Mu	479.9	k-ft
Bending Capacity, φMn	2252.8	k-ft
Capacity, Mu/φMn	0.213	OK
Bend Line Length	36.625	in
Additional Bend Line	0.000	in
Section Modulus, Z	36.625	in ³
Applied Moment, Mu	617.6	k-ft
Bending Capacity, φMn	1977.8	k-ft
Capacity, Mu/φMn	0.312	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in ³
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Site Name: CRANBURYSU CT, CT
Site Number: 411189
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

Monolithic Mat & Pier Foundation Analysis

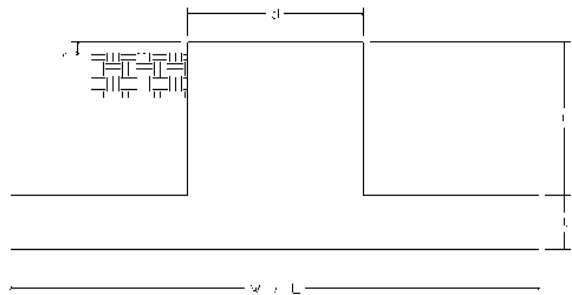
Foundation Analysis Parameters		
Design / Analysis / Mapping:	Analysis	-
Compression/Leg:	64.8	k
Uplift/Leg:		k
Total Shear:	28.9	k
Moment:	2,737.6	k-ft
Tower + Appurtenance Weight:	64.8	k
Depth to Base of Foundation (l + t - h):	4.5	ft
Diameter of Pier (d):	8	ft
Length of Pier (l):	2.5	ft
Height of Pier above Ground (h):	1	ft
Width of Pad (W):	29.5	ft
Length of Pad (L):	29.5	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	6	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	100	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	37.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.6	-
Ultimate Compressive Bearing Pressure:	6,000	psf
Ultimate Passive Pressure on Pad Face:	0	psf
$f_{\text{Soil and Concrete Weight}}$:	0.9	-
f_{Soil} :	0.75	-

Overturning Moment Usage		
Design OTM:	2896.6	k-ft
OTM Resistance:	7906.3	k-ft
Design OTM / OTM Resistance:	37%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	1680	psf
Factored Nominal Bearing Pressure:	4500	psf
Factored Nominal (Net) Bearing Pressure:	37%	Pass
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety		
Ultimate Friction Resistance:	352.5	k
Ultimate Passive Pressure Resistance:	0.0	k
Total Factored Sliding Resistance:	264.4	k
Sliding Design / Sliding Resistance:	11%	Pass

Foundation Steel Parameters		
Shear/Leg (Compression):	19.3	k
Shear/Leg (Uplift):	15.9	k
Concrete Strength (f_c):	4,000	psi
Pad Tension Steel Depth:	32.50	in
Dead Load Factor:	0.9	-
f_{Shear} :	0.75	-
$f_{\text{Flexure / Tension}}$:	0.9	-
$f_{\text{Compression}}$:	0.65	-
b:	0.85	-
Bottom Pad Rebar Size #:	8	-
# of Bottom Pad Rebar:	44	-
Pad Bottom Steel Area:	34.76	in ²
Pad Steel F_y :	60,000	psi
Top Pad Rebar Size #:	8	-
# of Top Pad Rebar:	28	-
Pad Top Steel Area:	22.12	in ²
Pier Rebar Size #:	8	-
Pier Steel Area (Single Bar):	0.79	in ²
# of Pier Rebar:	44	-
Pier Steel F_y :	60,000	psi
Pier Cage Diameter:	88.0	in
Rebar Strain Limit:	0.008	-
Steel Elastic Modulus:	29,000	ksi
Tie Rebar Size #:	4	-
Tie Steel Area (Single Bar):	0.20	in ²
Tie Spacing:	8	in
Tie Steel F_y :	60,000	psi
Clear Cover:	3	in



Pad Strength Capacity			
Factored One Way Shear (V_u):	241.7	k	
One Way Shear Capacity (fV_n):	1091.5	k	ACI 318-14 25.5.5.1
V_u / fV_n :	22%	Pass	
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge		
Lower Steel Pad Factored Moment (M_u):	1782.7	k-ft	
Lower Steel Pad Moment Capacity (fM_n):	4968.5	k-ft	ACI 318-14 22.3.1.1
M_u / fM_n :	36%	Pass	
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge		
Upper Steel Pad Factored Moment (M_u):	795.1	k-ft	
Upper Steel Pad Moment Capacity (fM_n):	3188.4	k-ft	
M_u / fM_n :	25%	Pass	
Lower Pad Flexural Reinforcement Ratio:	0.0030		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Upper Pad Flexural Reinforcement Ratio:	0.0019		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Pad Shrinkage Reinforcement Ratio:	0.0049		OK - ACI 318-14 24.4.3.2
Lower Pad Reinforcement Spacing:	8.1	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Upper Pad Reinforcement Spacing:	12.9	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Ultimate Punching Shear Stress, v_u :	26.04	psi	ACI 318-14 R8.4.4.2.3
Nominal Punching Shear Capacity ($f_c v_c$):	189.7	psi	ACI 318-14 22.6.5.2
$v_u / f_c v_c$:	14%	Pass	
Pier Moment Pad Flexure Transfer Ratio, γ_f :	0.60		TIA-222-H 9.4.2
Moment Transfer Effective Flexural Width, B_{eff} :	17.00	ft	TIA-222-H 9.4.2
Moment Transfer Through Pad Flexure:	20230.92	k-in	TIA-222-H 9.4.2
Moment Transfer Flexural Capacity ($fM_{sc,f}$):	35531.52	k-in	
$g_f M_{sc} / fM_{sc,f}$:	0%	Pass	

Pier Strength Capacity			
Factored Moment in Pier (M_u):	2809.9	k-ft	
Pier Moment Capacity (fM_n):	6730.8	k-ft	
M_u / fM_n :	42%	Pass	
Factored Shear in Pier (V_u):	28.9	k	
Pier Shear Capacity (fV_n):	862.6	k	ACI 318-14 22.5.1.1
V_u / fV_n :	3%	Pass	
Pier Shear Reinforcement Ratio:	0.0003		OK - No Ties Necessary for Shear - ACI 11.5.6.1
Factored Tension in Pier (T_u):	0.0	k	
Pier Tension Capacity (fT_n):	1877.0	k	
T_u / fT_n :	0%	Pass	
Factored Compression in Pier (P_u):	64.8	k	
Pier Compression Capacity (fP_n):	12760.4	k	ACI 318-14 22.4.2.1
P_u / fP_n :	1%	Pass	
Minimum Depth to Develop Vertical Rebar:	29	in	ACI 318-14 25.4.2.3
Minimum Hook Development Length:	19	in	ACI 318-14 25.4.3.1
Minimum Mat Thickness / Edge Distance from Pier:	22.0	in	
Minimum Foundation Depth:	4.02	ft	
$M_u / f_B M_n + T_u / f_T T_n$:	42%	Pass	



AMERICAN TOWER®
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Antenna Mount Analysis Report

ATC Site Name : CRANBURYSU CT
ATC Site Number : 411189
Engineering Number : 13700310_C08_04
ETS, PLLC Job Number : 22104998.STR.2077
Mount Elevation : 86 ft
Carrier : DISH WIRELESS L.L.C.
Carrier Site Name : NJJER01082B
Carrier Site Number : NJJER01082B
Site Location : 2 SUNNY LANE
WESTPORT, CT 06880-1906
41.16293506°, -73.37309115°
County : Fairfield
Date : March 18, 2022
Max Usage : 63%
Result : Pass

Prepared By:
Kousthub Mahendra, EI
Structural Engineer III

Reviewed By:
Frederic Geoffrey Bost, PE
CTO





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Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for DISH Wireless L.L.C. at 86.0 ft.

Supporting Documents

Spec. Sheet	Spec sheet for SitePro 1 SNP8HR-396
--------------------	-------------------------------------

Analysis

This antenna mount was analyzed using RISA-3D v17.0.4 analysis software.

Basic Wind Speed:	117mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.0" radial ice concurrent
Codes:	ANSI/TIA-222-H
Structure Class:	II
Exposure Category:	B
Topographic Procedure:	Method 2
Topographic Feature:	Flat
Crest Height:	0 ft
Crest Length:	0 ft
Spectral Response:	$S_s = 0.233, S_1 = 0.056$
Site Class:	D - Default
Live Loads:	$L_m = 500 \text{ lbs}, L_v = 250 \text{ lbs}$

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed. The mount can support the equipment as described in this report. Analysis is based on new SitePro 1 SNP8HR-396 Mount.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

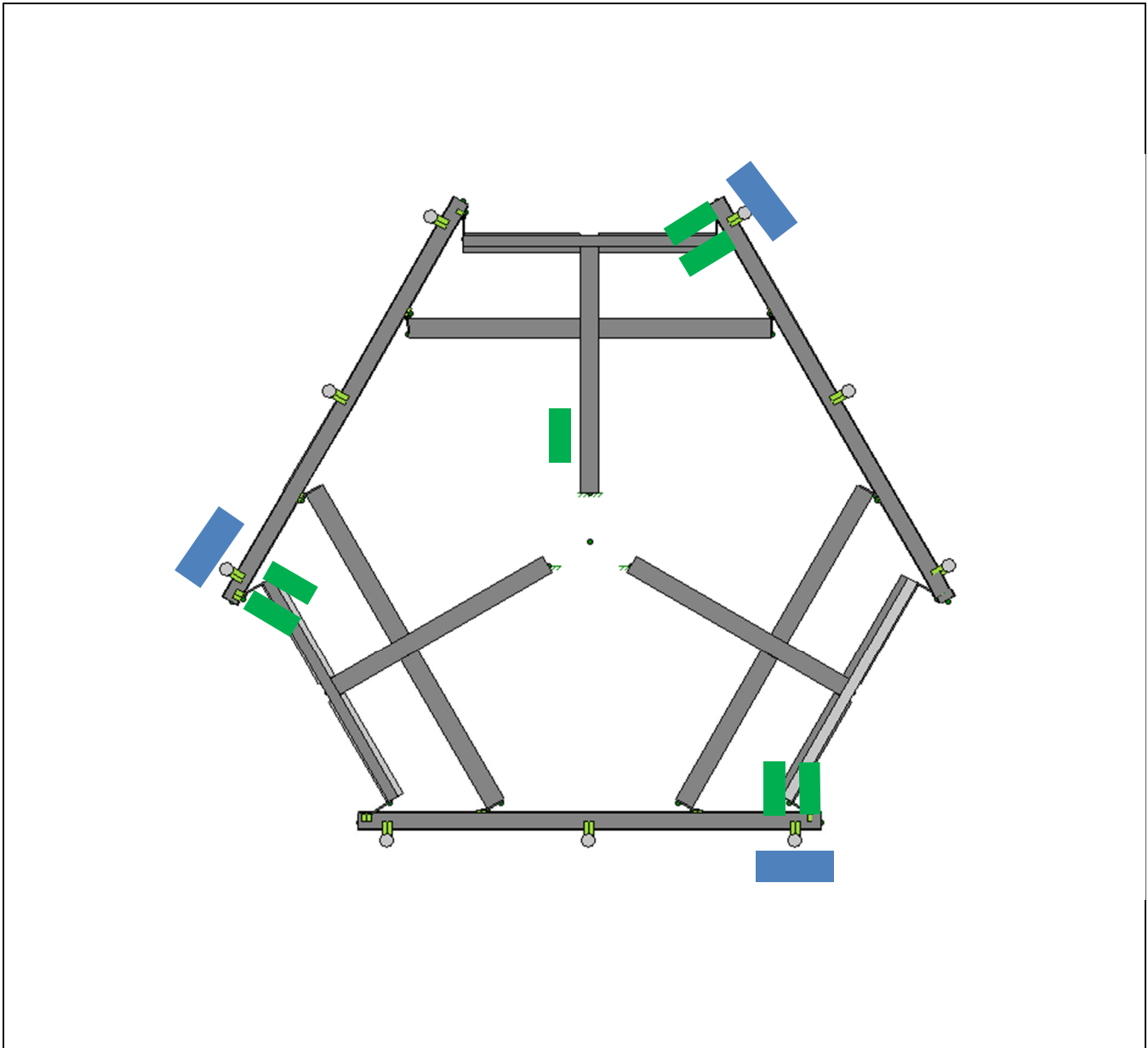
Antenna Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
86.0	86.0	3	JMA Wireless MX08FRO665-21
		1	Commscope RDIDC-9181-PF-48
		3	Fujitsu TA08025-B604
		3	Fujitsu TA08025-B605

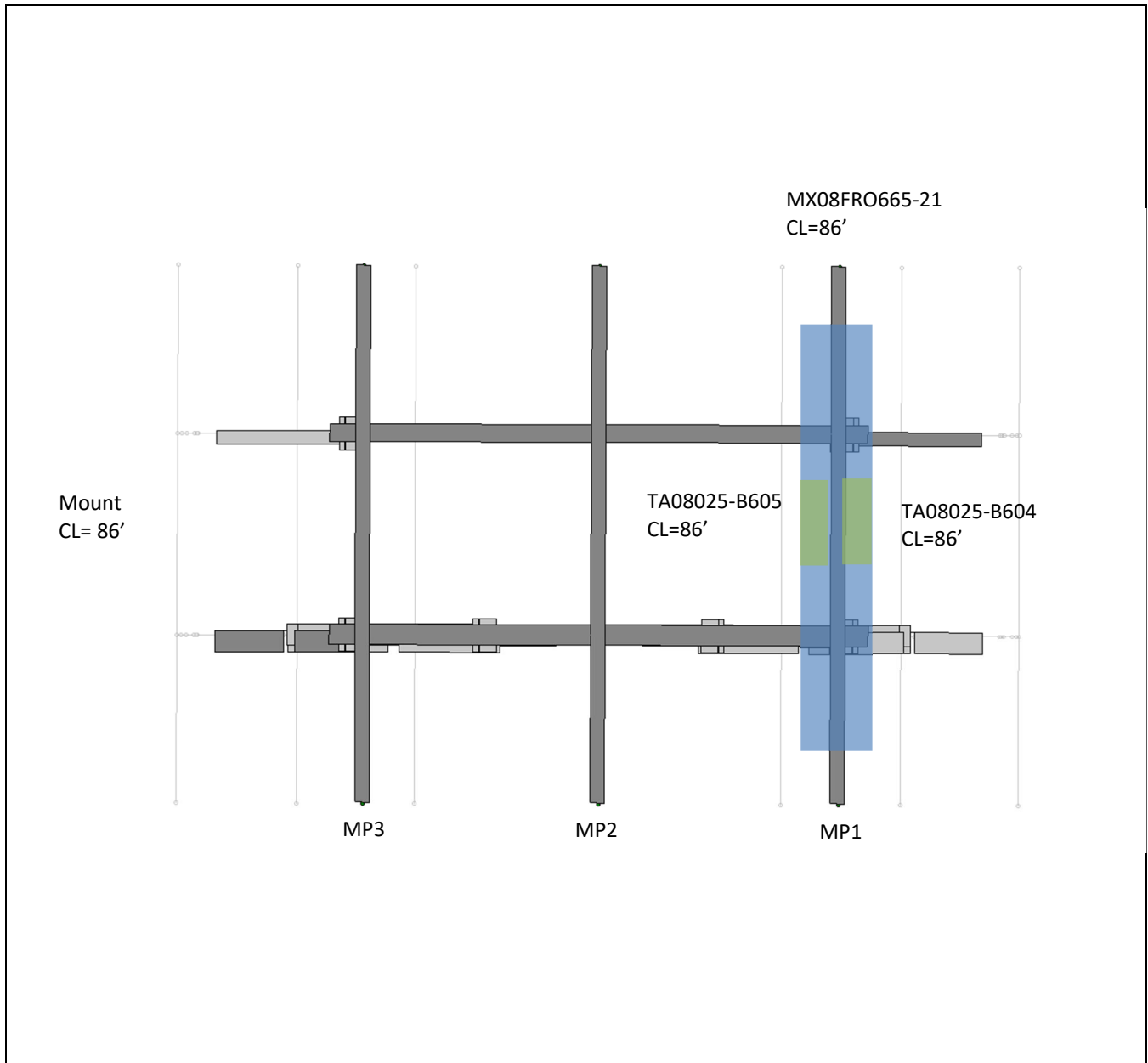
Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontals	56%	Pass
Mount Pipes	30%	Pass
Support Rails	10%	Pass
Mount to Tower Connection	63%	Pass

Mount Layout



Equipment Layout



Standard Conditions

All engineering services performed by Engineered Tower Solutions, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ETS, PLLC

It is the responsibility of the client to ensure that the information provided to ETS, PLLC and used in the performance of our engineering services is correct and complete.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate, Threaded Rod	ASTM A36 (Gr. 36)
HSS (Rectangular)	ASTM A500 (Gr. B-46)
HSS (Round)	ASTM A500 (Gr. B-42)
Pipe	ASTM A53 (Gr. 35)
Connection Bolts	ASTM A325
U-Bolt	SAE J429 (Gr. 2)

Unless explicitly agreed by both the client and ETS, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ETS, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

Site Inputs	
Mount Support (Tower, or Building Support)?	Tower
Risk Category (TIA Table 2-1)	II
Exposure Category	B
Basic Wind Speed without Ice, V	117 mph
Basic Wind Speed with Ice, V _i	50 mph
Design of Ice, δ _{ice}	56 pcf
Design Ice Thickness, t _i	1.00 in
Basic Wind Speed (Maintenance)	30 mph
Maintenance Load, L _m	500 lb
Maintenance Load, L _v	250 lb
Height of Structure, h	130.0 ft
Mount Centerline, h _m	86.0 ft
Topographic Factor, K _{zt}	1.00
Rooftop Wind Speed-Up Factor, K _r	1.00
Mean Elevation of base of structure above sea level, z _s	51 ft
Ground Elevation Factor, K _g	1.00
Wind Direction Probability Factor, K _d	0.95
Gust Response Factor, G _s	1.00
Shielding Factor for Appurtenances, K _s	0.90

TIA-222-H Mount Load Generator

Seismic Design Input/Output	
0.233	Spectral response acceleration at short periods, S _s
0.056	Spectral response acceleration at a period of 1 second, S ₁
D	Soil Site Class
1.600	Short-period site coefficient, F _s
2.400	Long-period site coefficient, F _l
0.249	Design spectral response acceleration at short periods, S _{DS}
0.090	Design spectral response acceleration at a period of 1 second, S _{DS1}
2.00	Response modification coefficient, R
1.00	Earthquake amplification factor, A _s
1.00	Importance Factor
0.1243	Seismic Response Coefficient, C _s
Eh = 0.124 W	Total Seismic Shear Force, E _s = ρ Q _s (Q _s = ρ C _s W A _s & ρ = 1.0)
Ev = 0.050 D	Vertical Seismic Load Effect, E _v = 0.2 S _{DS1} D A _s



Output File Name: 411189_13700310_Dish

Mount Pipe Information							Mount Pipe Forces					
Mount Pipe	Mount Location	Vertical Offset	Length	Diameter	Weight	Shape	Front Design Wind Force, F _w	Side Design Wind Force, F _{sw}	Design Ice Thickness, t _{ice}	Ice Weight	Front Design Wind Force on Ice, F _{wi}	Side Design Wind Force on Ice, F _{swi}
P 2 SCH 40 x 96	MP1	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	12.45 lb	59.76 lb	1.101 in	37.38 lb	4.78 lb	20.10 lb
P 2 SCH 40 x 96	MP2	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
P 2 SCH 40 x 96	MP3	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
P 2 SCH 40 x 96	MP4	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	12.45 lb	59.76 lb	1.101 in	37.38 lb	4.78 lb	20.10 lb
P 2 SCH 40 x 96	MP5	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
P 2 SCH 40 x 96	MP6	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
P 2 SCH 40 x 96	MP7	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	12.45 lb	59.76 lb	1.101 in	37.38 lb	4.78 lb	20.10 lb
P 2 SCH 40 x 96	MP8	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
P 2 SCH 40 x 96	MP9	0.00 ft	96.00 in	2.38 in	29.25 lb	Round	59.76 lb	59.76 lb	1.101 in	37.38 lb	20.10 lb	20.10 lb
On Member	MP10	0.00 ft	9.00 in	1.00 in	0.00 lb	Round	0.00 lb	0.00 lb	0.000 in	0.00 lb	0.00 lb	0.00 lb

Appurtenance Information - MP1							Appurtenance Forces - MP1					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{ice}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
JMA WIRELESS / MX08FRO665-21	1	0.00 ft	72.00 in	20.00 in	8.00 in	64.50 lb	392.82 lb	184.53 lb	1.101 in	182.65 lb	75.76 lb	38.20 lb
FUJITSU / TA08025-B604	1	0.00 ft	15.70 in	7.90 in	15.00 in	63.90 lb	32.51 lb	0.00 lb	1.101 in	31.76 lb	7.04 lb	2.02 lb
FUJITSU / TA08025-B605	1	0.00 ft	15.70 in	9.10 in	15.00 in	75.00 lb	37.45 lb	61.73 lb	1.101 in	32.80 lb	7.94 lb	13.30 lb

Appurtenance Information - MP4							Appurtenance Forces - MP4					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{ice}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
JMA WIRELESS / MX08FRO665-21	1	0.00 ft	72.00 in	20.00 in	8.00 in	64.50 lb	392.82 lb	184.53 lb	1.101 in	182.65 lb	75.76 lb	38.20 lb
FUJITSU / TA08025-B604	1	0.00 ft	15.70 in	7.90 in	15.00 in	63.90 lb	32.51 lb	0.00 lb	1.101 in	31.76 lb	7.04 lb	2.02 lb
FUJITSU / TA08025-B605	1	0.00 ft	15.70 in	9.10 in	15.00 in	75.00 lb	37.45 lb	61.73 lb	1.101 in	32.80 lb	7.94 lb	13.30 lb

Appurtenance Information - MP7							Appurtenance Forces - MP7					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{ice}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
JMA WIRELESS / MX08FRO665-21	1	0.00 ft	72.00 in	20.00 in	8.00 in	64.50 lb	392.82 lb	184.53 lb	1.101 in	182.65 lb	75.76 lb	38.20 lb
FUJITSU / TA08025-B604	1	0.00 ft	15.70 in	7.90 in	15.00 in	63.90 lb	32.51 lb	0.00 lb	1.101 in	31.76 lb	7.04 lb	2.02 lb
FUJITSU / TA08025-B605	1	0.00 ft	15.70 in	9.10 in	15.00 in	75.00 lb	37.45 lb	61.73 lb	1.101 in	32.80 lb	7.94 lb	13.30 lb

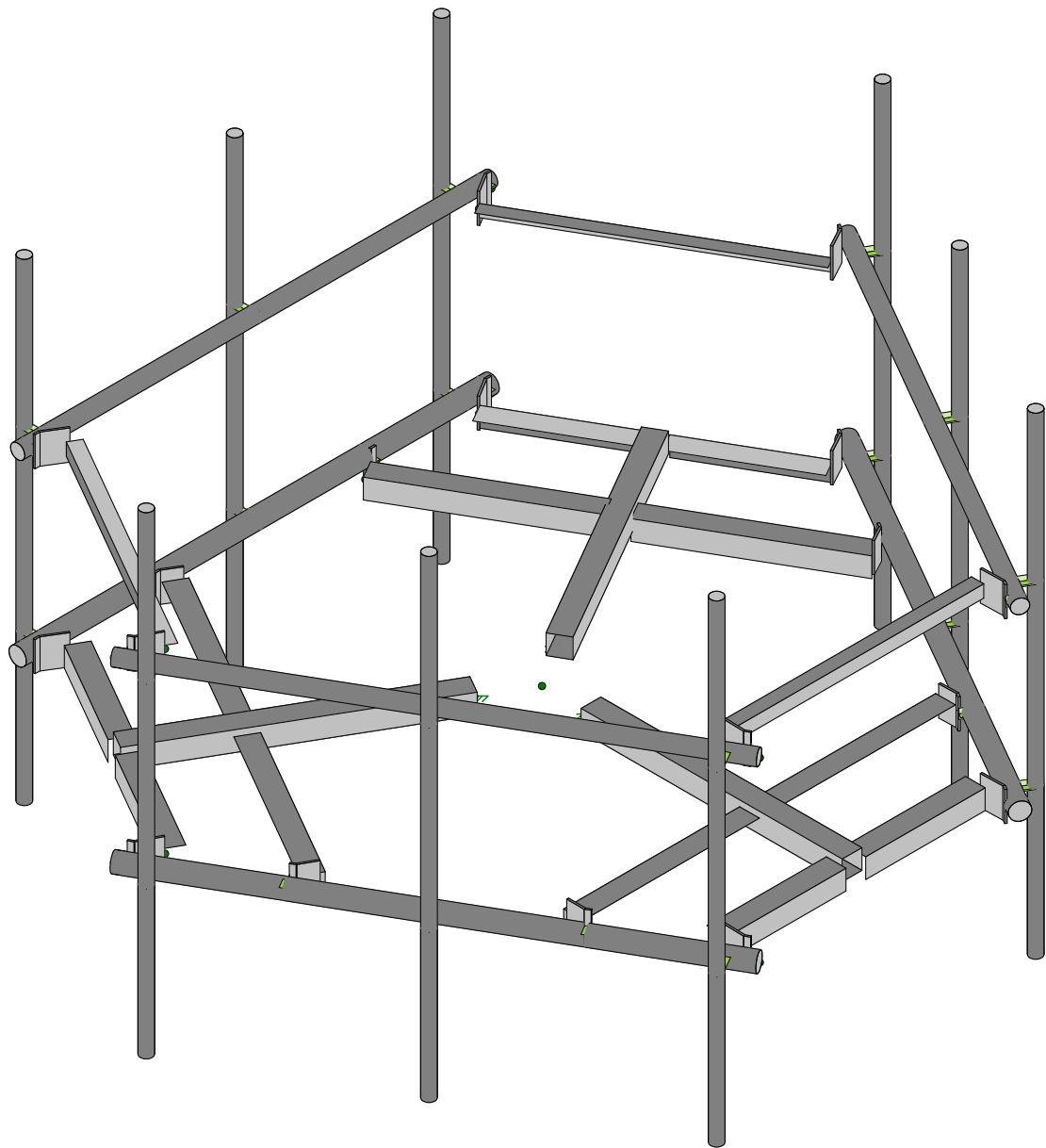
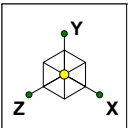
Appurtenance Information - MP10							Appurtenance Forces - MP10					
Appurtenance	Quantity	Vertical Offset	Length	Width	Depth	Weight	Front Design Wind Force, F_A	Side Design Wind Force, F_A	Design Ice Thickness, t_{ice}	Ice Weight	Front Design Wind Force on Ice, F_A	Side Design Wind Force on Ice, F_A
COMMSCOPE / RDIDC-9181-PF-48	1	0.00 ft	16.00 in	14.00 in	8.00 in	21.90 lb	58.71 lb	33.55 lb	1.101 in	30.88 lb	12.57 lb	7.74 lb

Member Distributed Loads Mount Members	Member Information			Member Forces		
	Width/Diameter (in)	Depth/Diameter (in)	Length (in)	Ka * Force / Length, No Ice	Ice Weight (plf)	Ka * Force / Length, Ice
PIPE 3.0	3.500 in	3.500 in	96.0 in	9.9 lb/ft	6.2 lb/ft	2.8 lb/ft
HSS 4x4	4.000 in	4.000 in	53.0 in	9.6 lb/ft	9.1 lb/ft	2.6 lb/ft
L4x4-1	4.000 in	4.000 in	35.8 in	13.8 lb/ft	9.1 lb/ft	3.3 lb/ft
L4x4-2	4.000 in	4.000 in	24.2 in	12.8 lb/ft	9.1 lb/ft	3.0 lb/ft
PIPE 2.5	2.880 in	2.880 in	96.0 in	8.2 lb/ft	5.4 lb/ft	2.5 lb/ft
L2.5x2.5	2.500 in	2.500 in	52.0 in	11.0 lb/ft	6.2 lb/ft	2.9 lb/ft
PL 6x3/8	6.000 in	0.375 in	4.5 in	17.0 lb/ft	9.6 lb/ft	3.8 lb/ft

Member Lookup	Member Label	Position	Maintenance Load
L4x4-1	BRACE-1-1A	210°	
L4x4-1	BRACE-1-1B	210°	
L4x4-2	BRACE-1-2A	210°	
L4x4-2	BRACE-1-2B	210°	
L4x4-1	BRACE-2-1A	330°	
L4x4-1	BRACE-2-1B	330°	
L4x4-2	BRACE-2-2A	330°	
L4x4-2	BRACE-2-2B	330°	
L4x4-1	BRACE-3-1A	90°	
L4x4-1	BRACE-3-1B	90°	
L4x4-2	BRACE-3-2A	90°	
L4x4-2	BRACE-3-2B	90°	
PIPE 3.0	FM-0	90°	Start/Mid/End
PIPE 3.0	FM-120	210°	Start/Mid/End
PIPE 3.0	FM-240	330°	Start/Mid/End
PIPE 2.5	HR-0	90°	Start/Mid/End

Member Lookup	Member Label	Position	Maintenance Load
PIPE 2.5	HR-120	210°	Start/Mid/End
PIPE 2.5	HR-240	330°	Start/Mid/End
L2.5x2.5	HR-BRACE-1	210°	
L2.5x2.5	HR-BRACE-2	330°	
L2.5x2.5	HR-BRACE-3	90°	
HSS 4x4	SA-1	300°	
HSS 4x4	SA-2	60°	
HSS 4x4	SA-3	180°	
PL 6x3/8	PL1	90°	
PL 6x3/8	PL2	302°	
PL 6x3/8	PL3	90°	
PL 6x3/8	PL4	302°	
PL 6x3/8	PL5	90°	
PL 6x3/8	PL6	302°	
PL 6x3/8	PL7	90°	
PL 6x3/8	PL8	59°	
PL 6x3/8	PL9	90°	
PL 6x3/8	PL10	59°	
PL 6x3/8	PL11	90°	
PL 6x3/8	PL12	59°	
PL 6x3/8	PL13	210°	
PL 6x3/8	PL14	62°	
PL 6x3/8	PL15	210°	
PL 6x3/8	PL16	62°	
PL 6x3/8	PL17	210°	
PL 6x3/8	PL18	62°	
PL 6x3/8	PL19	210°	
PL 6x3/8	PL20	179°	
PL 6x3/8	PL21	210°	
PL 6x3/8	PL22	179°	
PL 6x3/8	PL23	210°	
PL 6x3/8	PL24	179°	
PL 6x3/8	PL25	330°	
PL 6x3/8	PL26	182°	
PL 6x3/8	PL27	330°	
PL 6x3/8	PL28	182°	
PL 6x3/8	PL29	330°	
PL 6x3/8	PL30	182°	
PL 6x3/8	PL31	330°	
PL 6x3/8	PL32	299°	
PL 6x3/8	PL33	330°	
PL 6x3/8	PL34	299°	

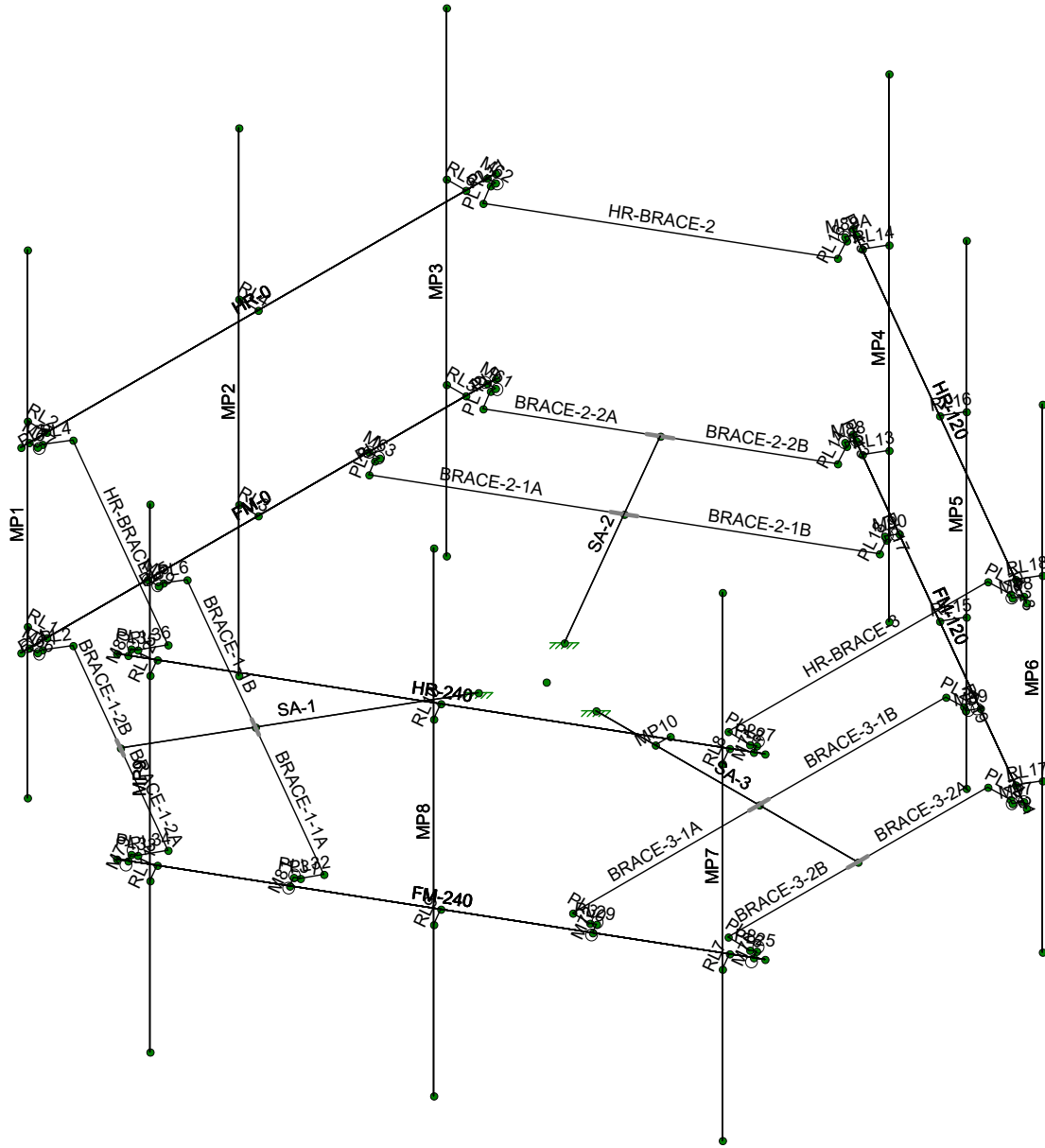
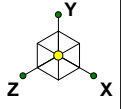
Member Lookup	Member Label	Position	Maintenance Load
PL 6x3/8	PL35	330°	
PL 6x3/8	PL36	299°	



ETS, PLLC
KM
ETS#22104998.STR.207

CRANBURYSU CT

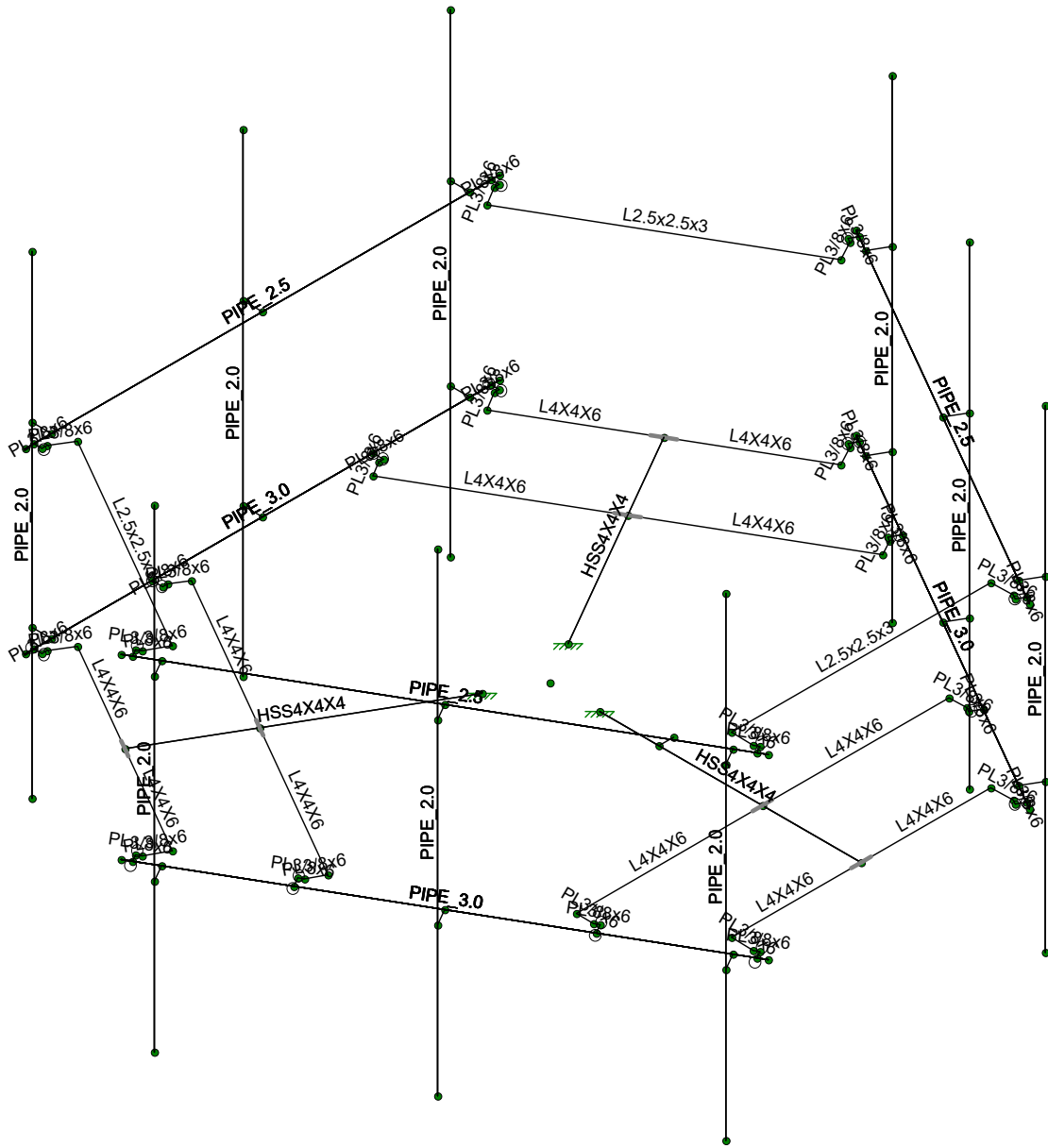
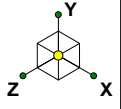
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CRANBURYSU CT

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ETS, PLLC

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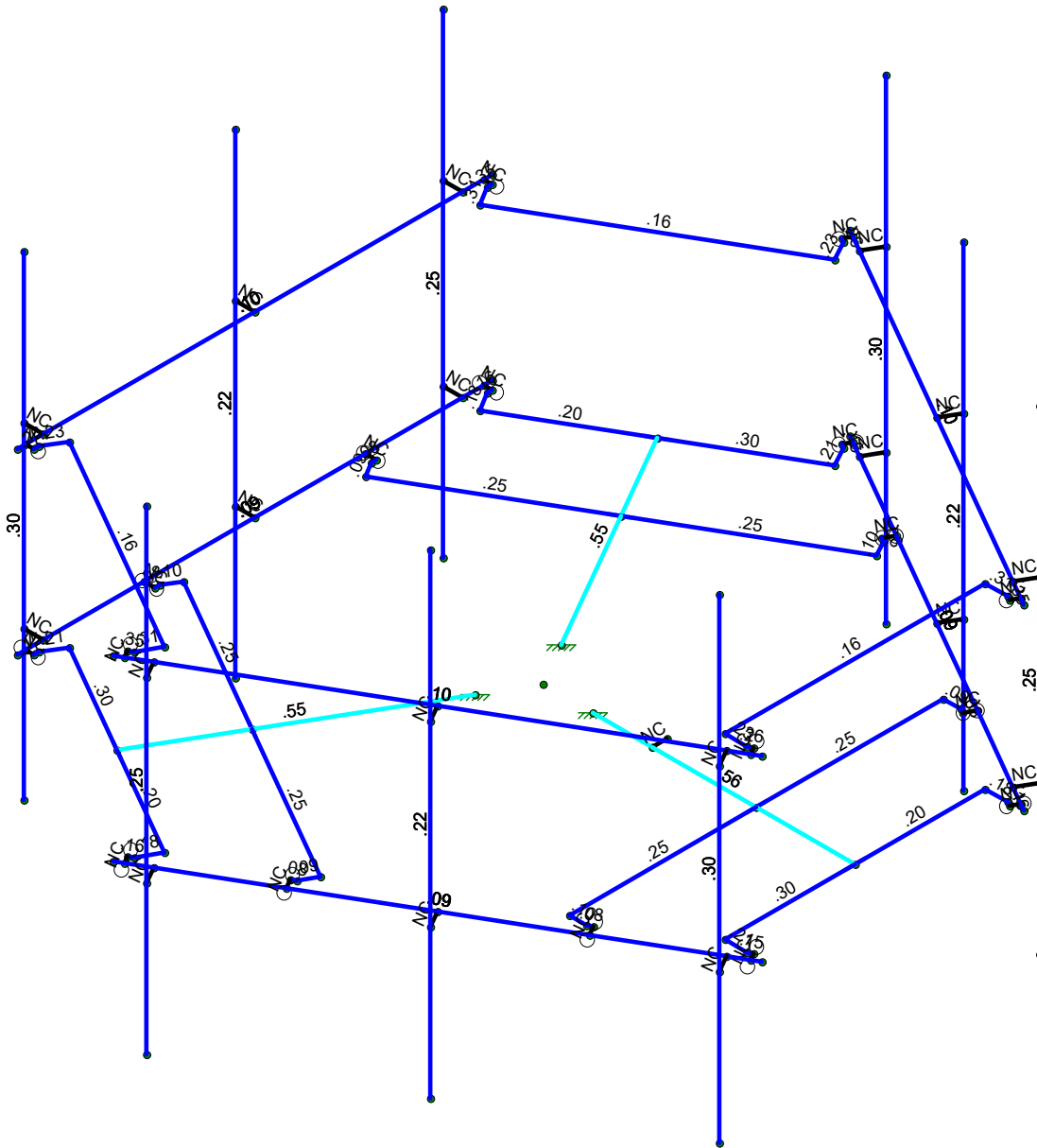
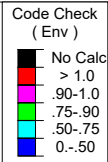
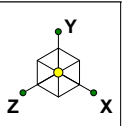
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CRANBURY SU CT

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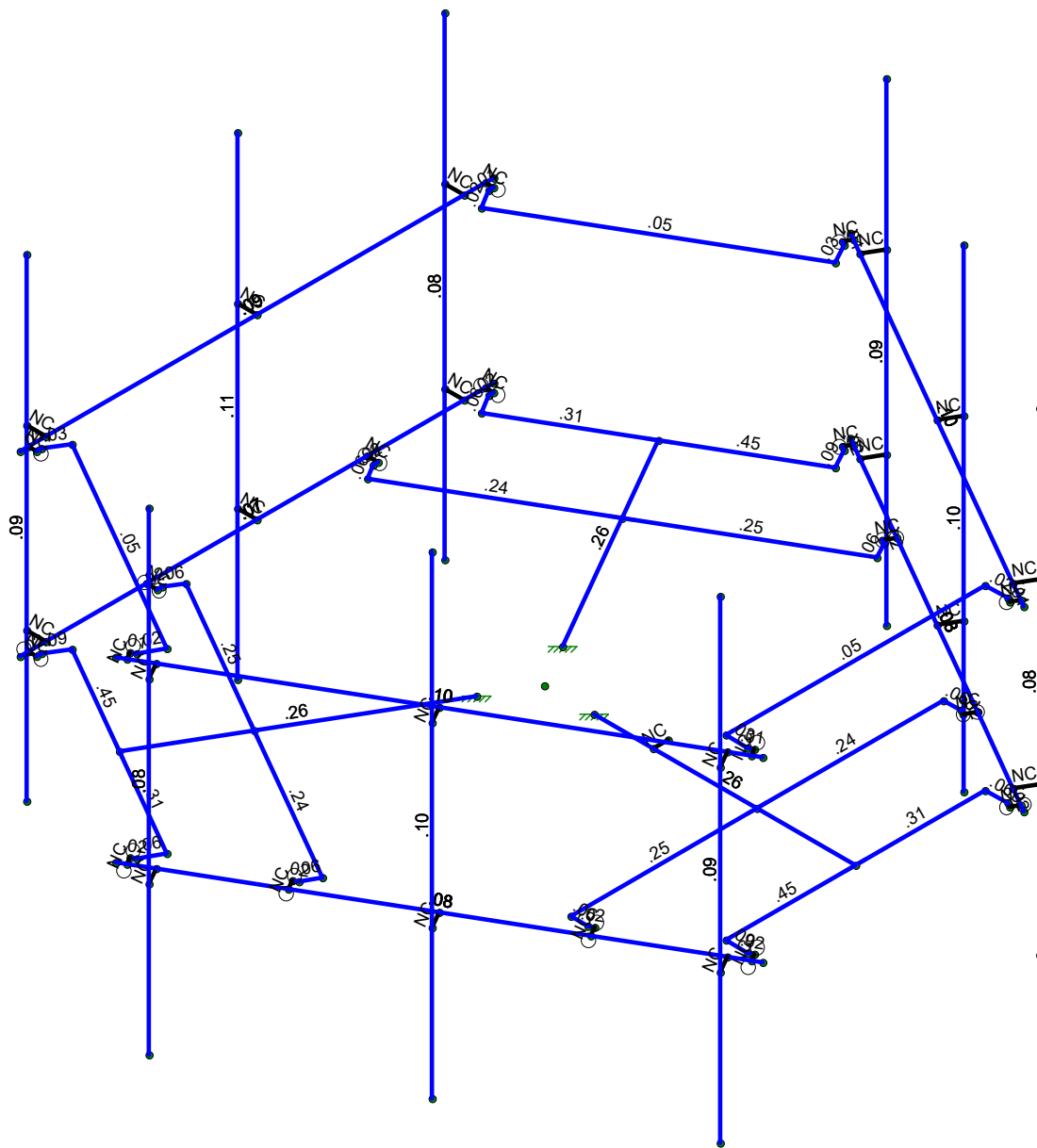
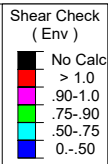
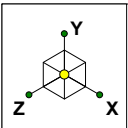
Mar 18, 2022 at 12:04 PM

411189_13700310_Dish.r3d



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.4D

ETS, PLLC	CRANBURY SU CT	SK - 1
KM		Mar 22, 2022 at 11:38 AM
ETS#22104998.STR.207		411189_13700310_Dish.r3d



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.4D

ETS, PLLC	CRANBURY SU CT	SK - 2
KM		Mar 22, 2022 at 11:38 AM
ETS#22104998.STR.207		411189_13700310_Dish.r3d



Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N149A						
5	N150A						

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N1	-5.03	0	8.713	0	
2	N2	-5.03	0	-8.713	0	
3	N3	10.061	0	-0.	0	
4	N4	-21.532	0	37.294	0	
5	N5	-21.534	0	-37.293	0	
6	N6	43.063	0	-0.	0	
7	N7	-31.532	0	54.614	0	
8	N8	-31.535	0	-54.612	0	
9	N9	63.063	0	-0.	0	
10	N10	-54.265	0	-41.489	0	
11	N14	-8.798	0	-67.739	0	
12	N15	-12.438	0	-74.456	0	
13	N18	63.063	0	-26.25	0	
14	N19	70.7	0	-26.456	0	
15	N20	43.063	0	-37.797	0	
16	N22	63.063	0	26.25	0	
17	N23	70.7	0	26.456	0	
18	N24	43.152	0	37.797	0	
19	N26	-8.798	0	67.739	0	
20	N27	-12.438	0	74.456	0	
21	N28	11.202	0	56.192	0	
22	N30	-54.265	0	41.489	0	
23	N32	-54.265	0	18.395	0	
24	N34	29.131	0	50.456	0	
25	N35	-58.29	0	-0.008	0	
26	N36	29.131	0	-50.456	0	
27	N37	-7.242	0	71.456	0	
28	N38	-58.29	0	-42.015	0	
29	N39	65.504	0	-29.456	0	
30	N40	66.154	0	29.081	0	
31	N41	-58.29	0	42.749	0	
32	N42	-7.892	0	-71.831	0	
33	N43	63.063	36	-26.25	0	
34	N44	70.7	36	-26.456	0	
35	N45	65.504	36	-29.456	0	
36	N46	29.131	36	-50.456	0	
37	N47	-7.892	36	-71.831	0	
38	N48	-12.438	36	-74.456	0	
39	N49	-8.798	36	-67.739	0	
40	N50	-54.265	36	-41.489	0	
41	N52	-58.29	36	-42.015	0	
42	N53	-58.29	36	-0.008	0	
43	N54	-58.29	36	42.749	0	
44	N56	-54.265	36	41.489	0	
45	N57	-8.798	36	67.739	0	
46	N58	-12.438	36	74.456	0	



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
47	N59	-7.242	36	71.456	0	
48	N60	29.131	36	50.456	0	
49	N61	66.154	36	29.081	0	
50	N62	70.7	36	26.456	0	
51	N63	63.063	36	26.25	0	
52	N64	-62.216	0	-0.008	0	
53	N65	-62.228	0	-42.015	0	
54	N66	-62.203	0	42.749	0	
55	N67	-62.228	36	-42.015	0	
56	N68	-62.216	36	-0.008	0	
57	N69	-62.203	36	42.749	0	
58	N70	-62.228	66	-42.015	0	
59	N71	-62.216	66	-0.008	0	
60	N72	-62.203	66	42.749	0	
61	N73	-62.228	-30	-42.015	0	
62	N74	-62.216	-30	-0.008	0	
63	N75	-62.203	-30	42.749	0	
64	N76	0	0	0	0	
65	N77	31.101	0	53.885	0	
66	N78	-5.272	0	74.899	0	
67	N79	68.124	0	32.495	0	
68	N80	-5.272	36	74.899	0	
69	N81	31.101	36	53.885	0	
70	N82	68.124	36	32.495	0	
71	N83	-5.272	66	74.899	0	
72	N84	31.101	66	53.885	0	
73	N85	68.124	66	32.495	0	
74	N86	-5.272	-30	74.899	0	
75	N87	31.101	-30	53.885	0	
76	N88	68.124	-30	32.495	0	
77	N89	31.115	0	-53.877	0	
78	N90	67.501	0	-32.884	0	
79	N91	-5.92	0	-75.244	0	
80	N92	67.501	36	-32.884	0	
81	N93	31.115	36	-53.877	0	
82	N94	-5.92	36	-75.244	0	
83	N95	67.501	66	-32.884	0	
84	N96	31.115	66	-53.877	0	
85	N97	-5.92	66	-75.244	0	
86	N98	67.501	-30	-32.884	0	
87	N99	31.115	-30	-53.877	0	
88	N100	-5.92	-30	-75.244	0	
89	N101	-56.619	0	45.324	0	
90	N102	-56.619	36	45.324	0	
91	N113	-56.619	0	46.324	0	
92	N114	-56.619	36	46.324	0	
93	N115	-58.29	0	46.324	0	
94	N116	-58.29	36	46.324	0	
95	N137	-56.096	0	21.378	0	
96	N137A	-56.096	0	22.378	0	
97	N138A	-58.29	0	22.378	0	
98	N145B	-58.261787	0	47.999624	0	
99	N146B	-58.261568	0	-47.999996	0	
100	N147A	-58.261568	36	-47.999996	0	
101	N148	-58.261787	36	47.999624	0	
102	N103	-54.264699	0	-18.394783	0	
103	N104	11.201963	0	-56.192369	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
104	N107	-56.619	0	-45.324	0	
105	N108	-56.619	36	-45.324	0	
106	N109	-56.619	0	-46.324	0	
107	N110	-56.619	36	-46.324	0	
108	N111	-58.29	0	-46.324	0	
109	N112	-58.29	36	-46.324	0	
110	N113A	-56.096	0	-21.378	0	
111	N114A	-56.096	0	-22.378	0	
112	N115A	-58.29	0	-22.378	0	
113	N119	67.561235	0	26.371492	0	
114	N120	67.561235	36	26.371492	0	
115	N121	68.427261	0	25.871492	0	
116	N122	68.427261	36	25.871492	0	
117	N123	69.262761	0	27.318621	0	
118	N124	69.262761	36	27.318621	0	
119	N125	46.651958	0	37.839561	0	
120	N126	47.517983	0	37.339561	0	
121	N127	48.614983	0	39.239621	0	
122	N129	-10.942235	0	71.695492	0	
123	N130	-10.942235	36	71.695492	0	
124	N131	-11.808261	0	72.195492	0	
125	N132	-11.808261	36	72.195492	0	
126	N133	-10.972761	0	73.642621	0	
127	N134	-10.972761	36	73.642621	0	
128	N135	9.534109	0	59.269561	0	
129	N136	8.668084	0	59.769561	0	
130	N137B	9.765084	0	61.669621	0	
131	N144	-10.942235	0	-71.695492	0	
132	N145	-10.942235	36	-71.695492	0	
133	N146	-11.808261	0	-72.195492	0	
134	N147	-11.808261	36	-72.195492	0	
135	N148A	-10.972761	0	-73.642621	0	
136	N149	-10.972761	36	-73.642621	0	
137	N150	9.534109	0	-59.269561	0	
138	N151	8.668084	0	-59.769561	0	
139	N152	9.765084	0	-61.669621	0	
140	N154	67.561235	0	-26.371492	0	
141	N155	67.561235	36	-26.371492	0	
142	N156	68.427261	0	-25.871492	0	
143	N157	68.427261	36	-25.871492	0	
144	N158	69.262761	0	-27.318621	0	
145	N159	69.262761	36	-27.318621	0	
146	N160	46.561891	0	-37.891561	0	
147	N161	47.427916	0	-37.391561	0	
148	N162	48.524916	0	-39.291621	0	
149	N149A	22.061	0	-0.	0	
150	N150A	22.061	0	-3	0	

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design L...	Material	Design ...
1	BRACE-1-1A	N28	N4		180	L4X4X6	None	None	Q235	Typical
2	BRACE-1-1B	N4	N32		180	L4X4X6	None	None	Q235	Typical
3	BRACE-1-2A	N7	N26		180	L4X4X6	None	None	Q235	Typical
4	BRACE-1-2B	N30	N7		180	L4X4X6	None	None	Q235	Typical
5	BRACE-2-1A	N103	N5		180	L4X4X6	None	None	Q235	Typical



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design L...	Material	Design ...
6	BRACE-2-1B	N5	N104		180	L4X4X6	None	None	Q235	Typical
7	BRACE-2-2A	N10	N8		90	L4X4X6	None	None	Q235	Typical
8	BRACE-2-2B	N8	N14		90	L4X4X6	None	None	Q235	Typical
9	BRACE-3-1A	N6	N24		180	L4X4X6	None	None	Q235	Typical
10	BRACE-3-1B	N20	N6		180	L4X4X6	None	None	Q235	Typical
11	BRACE-3-2A	N9	N18		180	L4X4X6	None	None	Q235	Typical
12	BRACE-3-2B	N22	N9		180	L4X4X6	None	None	Q235	Typical
13	FM-0	N146B	N145B			PIPE 3.0	None	None	A53 Gr.B	Typical
14	FM-120	N19	N15			PIPE 3.0	None	None	A53 Gr.B	Typical
15	FM-240	N27	N23			PIPE 3.0	None	None	A53 Gr.B	Typical
16	HR-0	N147A	N148			PIPE 2.5	None	None	A53 Gr.B	Typical
17	HR-120	N44	N48			PIPE 2.5	None	None	A53 Gr.B	Typical
18	HR-240	N58	N62			PIPE 2.5	None	None	A53 Gr.B	Typical
19	HR-BRACE-1	N57	N56		90	L2.5x2.5x3	None	None	Q235	Typical
20	HR-BRACE-2	N49	N50		180	L2.5x2.5x3	None	None	Q235	Typical
21	HR-BRACE-3	N63	N43		180	L2.5x2.5x3	None	None	Q235	Typical
22	M61	N109	N111			RIGID	None	None	RIGID	Typical
23	M62	N110	N112			RIGID	None	None	RIGID	Typical
24	M63	N114A	N115A			RIGID	None	None	RIGID	Typical
25	M66	N113	N115			RIGID	None	None	RIGID	Typical
26	M67	N114	N116			RIGID	None	None	RIGID	Typical
27	M70	N121	N123			RIGID	None	None	RIGID	Typical
28	M71	N122	N124			RIGID	None	None	RIGID	Typical
29	M72	N126	N127			RIGID	None	None	RIGID	Typical
30	M79	N131	N133			RIGID	None	None	RIGID	Typical
31	M80	N132	N134			RIGID	None	None	RIGID	Typical
32	M81	N136	N137B			RIGID	None	None	RIGID	Typical
33	M88	N146	N148A			RIGID	None	None	RIGID	Typical
34	M89	N137A	N138A			RIGID	None	None	RIGID	Typical
35	M89A	N147	N149			RIGID	None	None	RIGID	Typical
36	M90	N151	N152			RIGID	None	None	RIGID	Typical
37	M97	N156	N158			RIGID	None	None	RIGID	Typical
38	M98	N157	N159			RIGID	None	None	RIGID	Typical
39	M99	N161	N162			RIGID	None	None	RIGID	Typical
40	MP1	N75	N72			PIPE 2.0	None	None	A53 Gr.B	Typical
41	MP2	N74	N71			PIPE 2.0	None	None	A53 Gr.B	Typical
42	MP3	N73	N70			PIPE 2.0	None	None	A53 Gr.B	Typical
43	MP4	N100	N97			PIPE 2.0	None	None	A53 Gr.B	Typical
44	MP5	N99	N96			PIPE 2.0	None	None	A53 Gr.B	Typical
45	MP6	N98	N95			PIPE 2.0	None	None	A53 Gr.B	Typical
46	MP7	N88	N85			PIPE 2.0	None	None	A53 Gr.B	Typical
47	MP8	N87	N84			PIPE 2.0	None	None	A53 Gr.B	Typical
48	MP9	N86	N83			PIPE 2.0	None	None	A53 Gr.B	Typical
49	PL1	N101	N113			PL3/8x6	Beam	RECT	Q235	Typical
50	PL2	N30	N101			PL3/8x6	None	None	Q235	Typical
51	PL3	N102	N114			PL3/8x6	Beam	RECT	Q235	Typical
52	PL4	N56	N102			PL3/8x6	None	None	Q235	Typical
53	PL5	N137	N137A			PL3/8x6	Beam	RECT	Q235	Typical
54	PL6	N32	N137			PL3/8x6	None	None	Q235	Typical
55	PL7	N113A	N114A			PL3/8x6	Beam	RECT	Q235	Typical
56	PL8	N103	N113A			PL3/8x6	None	None	Q235	Typical
57	PL9	N107	N109			PL3/8x6	Beam	RECT	Q235	Typical
58	PL10	N10	N107			PL3/8x6	None	None	Q235	Typical
59	PL11	N108	N110			PL3/8x6	Beam	RECT	Q235	Typical
60	PL12	N50	N108			PL3/8x6	None	None	Q235	Typical
61	PL13	N144	N146			PL3/8x6	Beam	RECT	Q235	Typical
62	PL14	N14	N144			PL3/8x6	None	None	Q235	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design L...	Material	Design ...
63	PL15	N145	N147			PL3/8x6	Beam	RECT	Q235	Typical
64	PL16	N49	N145			PL3/8x6	None	None	Q235	Typical
65	PL17	N150	N151			PL3/8x6	Beam	RECT	Q235	Typical
66	PL18	N104	N150			PL3/8x6	None	None	Q235	Typical
67	PL19	N160	N161			PL3/8x6	Beam	RECT	Q235	Typical
68	PL20	N20	N160			PL3/8x6	None	None	Q235	Typical
69	PL21	N154	N156			PL3/8x6	Beam	RECT	Q235	Typical
70	PL22	N18	N154			PL3/8x6	None	None	Q235	Typical
71	PL23	N155	N157			PL3/8x6	Beam	RECT	Q235	Typical
72	PL24	N43	N155			PL3/8x6	None	None	Q235	Typical
73	PL25	N119	N121			PL3/8x6	Beam	RECT	Q235	Typical
74	PL26	N22	N119			PL3/8x6	None	None	Q235	Typical
75	PL27	N120	N122			PL3/8x6	Beam	RECT	Q235	Typical
76	PL28	N63	N120			PL3/8x6	None	None	Q235	Typical
77	PL29	N125	N126			PL3/8x6	Beam	RECT	Q235	Typical
78	PL30	N24	N125			PL3/8x6	None	None	Q235	Typical
79	PL31	N135	N136			PL3/8x6	Beam	RECT	Q235	Typical
80	PL32	N28	N135			PL3/8x6	None	None	Q235	Typical
81	PL33	N129	N131			PL3/8x6	Beam	RECT	Q235	Typical
82	PL34	N26	N129			PL3/8x6	None	None	Q235	Typical
83	PL35	N130	N132			PL3/8x6	Beam	RECT	Q235	Typical
84	PL36	N57	N130			PL3/8x6	None	None	Q235	Typical
85	RL1	N41	N66			RIGID	None	None	RIGID	Typical
86	RL2	N54	N69			RIGID	None	None	RIGID	Typical
87	RL3	N35	N64			RIGID	None	None	RIGID	Typical
88	RL4	N53	N68			RIGID	None	None	RIGID	Typical
89	RL5	N38	N65			RIGID	None	None	RIGID	Typical
90	RL6	N52	N67			RIGID	None	None	RIGID	Typical
91	RL7	N40	N79			RIGID	None	None	RIGID	Typical
92	RL8	N61	N82			RIGID	None	None	RIGID	Typical
93	RL9	N34	N77			RIGID	None	None	RIGID	Typical
94	RL10	N60	N81			RIGID	None	None	RIGID	Typical
95	RL11	N37	N78			RIGID	None	None	RIGID	Typical
96	RL12	N59	N80			RIGID	None	None	RIGID	Typical
97	RL13	N42	N91			RIGID	None	None	RIGID	Typical
98	RL14	N47	N94			RIGID	None	None	RIGID	Typical
99	RL15	N36	N89			RIGID	None	None	RIGID	Typical
100	RL16	N46	N93			RIGID	None	None	RIGID	Typical
101	RL17	N39	N90			RIGID	None	None	RIGID	Typical
102	RL18	N45	N92			RIGID	None	None	RIGID	Typical
103	SA-1	N1	N7			HSS4X4X4	None	None	Q235	Typical
104	SA-2	N2	N8			HSS4X4X4	None	None	Q235	Typical
105	SA-3	N3	N9			HSS4X4X4	None	None	Q235	Typical
106	MP10	N149A	N150A			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical Defl Ra...	Analysis Offset[in]	Inactive	Seismi...
1	BRACE-1-...				2		Yes ** NA **			None
2	BRACE-1-...			2			Yes ** NA **			None
3	BRACE-1-...			2			Yes ** NA **			None
4	BRACE-1-...				2		Yes ** NA **			None
5	BRACE-2-...				2		Yes ** NA **			None
6	BRACE-2-...			2			Yes ** NA **			None
7	BRACE-2-...				2		Yes ** NA **			None
8	BRACE-2-...			2			Yes ** NA **			None



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ra...	Analysis Offset[in]	Inactive	Seismi...
9	BRACE-3-...			2			Yes	** NA **			None
10	BRACE-3-...				2		Yes	** NA **			None
11	BRACE-3-...			2			Yes	** NA **			None
12	BRACE-3-...				2		Yes	** NA **			None
13	FM-0						Yes	** NA **			None
14	FM-120						Yes	** NA **			None
15	FM-240						Yes	** NA **			None
16	HR-0						Yes	** NA **			None
17	HR-120						Yes	** NA **			None
18	HR-240						Yes	** NA **			None
19	HR-BRAC...						Yes	** NA **			None
20	HR-BRAC...						Yes	** NA **			None
21	HR-BRAC...						Yes	** NA **			None
22	M61	00000X	000XOX				Yes	** NA **			None
23	M62		000000				Yes	** NA **			None
24	M63	00000X	000XOX				Yes	** NA **			None
25	M66	00000X	000XOX				Yes	** NA **			None
26	M67		000000				Yes	** NA **			None
27	M70	00000X	000XOX				Yes	** NA **			None
28	M71		000000				Yes	** NA **			None
29	M72	00000X	000XOX				Yes	** NA **			None
30	M79	00000X	000XOX				Yes	** NA **			None
31	M80		000000				Yes	** NA **			None
32	M81	00000X	000XOX				Yes	** NA **			None
33	M88	00000X	000XOX				Yes	** NA **			None
34	M89	00000X	000XOX				Yes	** NA **			None
35	M89A		000000				Yes	** NA **			None
36	M90	00000X	000XOX				Yes	** NA **			None
37	M97	00000X	000XOX				Yes	** NA **			None
38	M98		000000				Yes	** NA **			None
39	M99	00000X	000XOX				Yes	** NA **			None
40	MP1						Yes	** NA **			None
41	MP2						Yes	** NA **			None
42	MP3						Yes	** NA **			None
43	MP4						Yes	** NA **			None
44	MP5						Yes	** NA **			None
45	MP6						Yes	** NA **			None
46	MP7						Yes	** NA **			None
47	MP8						Yes	** NA **			None
48	MP9						Yes	** NA **			None
49	PL1						Yes				None
50	PL2						Yes	** NA **			None
51	PL3						Yes				None
52	PL4						Yes	** NA **			None
53	PL5						Yes				None
54	PL6						Yes	** NA **			None
55	PL7						Yes				None
56	PL8						Yes	** NA **			None
57	PL9						Yes				None
58	PL10						Yes	** NA **			None
59	PL11						Yes				None
60	PL12						Yes	** NA **			None
61	PL13						Yes				None
62	PL14						Yes	** NA **			None
63	PL15						Yes				None
64	PL16						Yes	** NA **			None
65	PL17						Yes				None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ra...	Analysis Offset[in]	Inactive	Seismi...
66	PL18						Yes	** NA **			None
67	PL19						Yes				None
68	PL20						Yes	** NA **			None
69	PL21						Yes				None
70	PL22						Yes	** NA **			None
71	PL23						Yes				None
72	PL24						Yes	** NA **			None
73	PL25						Yes				None
74	PL26						Yes	** NA **			None
75	PL27						Yes				None
76	PL28						Yes	** NA **			None
77	PL29						Yes				None
78	PL30						Yes	** NA **			None
79	PL31						Yes				None
80	PL32						Yes	** NA **			None
81	PL33						Yes				None
82	PL34						Yes	** NA **			None
83	PL35						Yes				None
84	PL36						Yes	** NA **			None
85	RL1						Yes	** NA **			None
86	RL2						Yes	** NA **			None
87	RL3						Yes	** NA **			None
88	RL4						Yes	** NA **			None
89	RL5						Yes	** NA **			None
90	RL6						Yes	** NA **			None
91	RL7						Yes	** NA **			None
92	RL8						Yes	** NA **			None
93	RL9						Yes	** NA **			None
94	RL10						Yes	** NA **			None
95	RL11						Yes	** NA **			None
96	RL12						Yes	** NA **			None
97	RL13						Yes	** NA **			None
98	RL14						Yes	** NA **			None
99	RL15						Yes	** NA **			None
100	RL16						Yes	** NA **			None
101	RL17						Yes	** NA **			None
102	RL18						Yes	** NA **			None
103	SA-1						Yes	** NA **			None
104	SA-2						Yes	** NA **			None
105	SA-3						Yes	** NA **			None
106	MP10						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Lengt...	Lbby[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Func...
1	BRACE-1-1A	L4X4X6	37.797									Late...
2	BRACE-1-1B	L4X4X6	37.797									Late...
3	BRACE-1-2A	L4X4X6	26.251									Late...
4	BRACE-1-2B	L4X4X6	26.25									Late...
5	BRACE-2-1A	L4X4X6	37.795									Late...
6	BRACE-2-1B	L4X4X6	37.8									Late...
7	BRACE-2-2A	L4X4X6	26.246									Late...
8	BRACE-2-2B	L4X4X6	26.254									Late...
9	BRACE-3-1A	L4X4X6	37.797									Late...
10	BRACE-3-1B	L4X4X6	37.797									Late...
11	BRACE-3-2A	L4X4X6	26.25									Late...



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Hot Rolled Steel Design Parameters (Continued)

Label	Shape	Lengt...	Lbvy[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Func...
12	BRACE-3-2B	L4X4X6	26.25								Late...
13	FM-0	PIPE 3.0	96	44.756	44.756						Late...
14	FM-120	PIPE 3.0	96	44.756	44.756						Late...
15	FM-240	PIPE 3.0	96	44.756	44.756						Late...
16	HR-0	PIPE 2.5	96	92.648	Segment						Late...
17	HR-120	PIPE 2.5	96	92.648	Segment						Late...
18	HR-240	PIPE 2.5	96	92.648	Segment						Late...
19	HR-BRACE-1	L2.5x2.5x3	52.501								Late...
20	HR-BRACE-2	L2.5x2.5x3	52.501								Late...
21	HR-BRACE-3	L2.5x2.5x3	52.5								Late...
22	MP1	PIPE 2.0	96								Late...
23	MP2	PIPE 2.0	96								Late...
24	MP3	PIPE 2.0	96								Late...
25	MP4	PIPE 2.0	96								Late...
26	MP5	PIPE 2.0	96								Late...
27	MP6	PIPE 2.0	96								Late...
28	MP7	PIPE 2.0	96								Late...
29	MP8	PIPE 2.0	96								Late...
30	MP9	PIPE 2.0	96								Late...
31	PL1	PL3/8x6	1								Late...
32	PL2	PL3/8x6	4.5								Late...
33	PL3	PL3/8x6	1								Late...
34	PL4	PL3/8x6	4.5								Late...
35	PL5	PL3/8x6	1								Late...
36	PL6	PL3/8x6	3.5								Late...
37	PL7	PL3/8x6	1								Late...
38	PL8	PL3/8x6	3.5								Late...
39	PL9	PL3/8x6	1								Late...
40	PL10	PL3/8x6	4.5								Late...
41	PL11	PL3/8x6	1								Late...
42	PL12	PL3/8x6	4.5								Late...
43	PL13	PL3/8x6	1								Late...
44	PL14	PL3/8x6	4.5								Late...
45	PL15	PL3/8x6	1								Late...
46	PL16	PL3/8x6	4.5								Late...
47	PL17	PL3/8x6	1								Late...
48	PL18	PL3/8x6	3.5								Late...
49	PL19	PL3/8x6	1								Late...
50	PL20	PL3/8x6	3.5								Late...
51	PL21	PL3/8x6	1								Late...
52	PL22	PL3/8x6	4.5								Late...
53	PL23	PL3/8x6	1								Late...
54	PL24	PL3/8x6	4.5								Late...
55	PL25	PL3/8x6	1								Late...
56	PL26	PL3/8x6	4.5								Late...
57	PL27	PL3/8x6	1								Late...
58	PL28	PL3/8x6	4.5								Late...
59	PL29	PL3/8x6	1								Late...
60	PL30	PL3/8x6	3.5								Late...
61	PL31	PL3/8x6	1								Late...
62	PL32	PL3/8x6	3.5								Late...
63	PL33	PL3/8x6	1								Late...
64	PL34	PL3/8x6	4.5								Late...
65	PL35	PL3/8x6	1								Late...
66	PL36	PL3/8x6	4.5								Late...
67	SA-1	HSS4X4X4	53.002	33.003							Late...
68	SA-2	HSS4X4X4	53.002	33.003							Late...



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Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Func...
69	SA-3	HSS4X4X4	53.002	33.003								Late...

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...)	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.B R...	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.B Rect	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	Y	0	%50
2	MP2	Y	0	%50
3	MP3	Y	0	%50
4	MP4	Y	0	%50
5	MP5	Y	0	%50
6	MP6	Y	0	%50
7	MP7	Y	0	%50
8	MP8	Y	0	%50
9	MP9	Y	0	%50
10	MP10	Y	0	%50
11	MP10	Y	-21.9	%50
12	MP1	Y	-63.9	%50
13	MP1	Y	-75	%50
14	MP4	Y	-63.9	%50
15	MP4	Y	-75	%50
16	MP7	Y	-63.9	%50
17	MP7	Y	-75	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	11.2	%50
2	MP2	X	53.8	%50
3	MP3	X	53.8	%50
4	MP4	X	43.1	%50
5	MP5	X	53.8	%50
6	MP6	X	53.8	%50
7	MP7	X	43.1	%50
8	MP8	X	53.8	%50
9	MP9	X	53.8	%50
10	MP10	X	0	%50
11	MP10	X	30.2	%50
12	MP1	X	29.3	%50
13	MP1	X	33.7	%50
14	MP4	X	7.3	%50
15	MP4	X	50.1	%50
16	MP7	X	7.3	%50
17	MP7	X	50.1	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	18.9	%50
2	MP2	X	46.6	%50
3	MP3	X	46.6	%50
4	MP4	X	46.6	%50
5	MP5	X	46.6	%50
6	MP6	X	46.6	%50
7	MP7	X	18.9	%50
8	MP8	X	46.6	%50
9	MP9	X	46.6	%50
10	MP10	X	0	%50
11	MP10	X	31.1	%50
12	MP1	X	19	%50
13	MP1	X	33.9	%50
14	MP4	X	0	%50
15	MP4	X	48.1	%50
16	MP7	X	19	%50
17	MP7	X	33.9	%50
18	MP1	Z	10.9	%50
19	MP2	Z	26.9	%50
20	MP3	Z	26.9	%50
21	MP4	Z	26.9	%50
22	MP5	Z	26.9	%50
23	MP6	Z	26.9	%50
24	MP7	Z	10.9	%50
25	MP8	Z	26.9	%50
26	MP9	Z	26.9	%50
27	MP10	Z	0	%50
28	MP10	Z	17.9	%50
29	MP1	Z	11	%50
30	MP1	Z	19.6	%50
31	MP4	Z	0	%50
32	MP4	Z	27.8	%50
33	MP7	Z	11	%50
34	MP7	Z	19.6	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	21.6	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
2	MP2	X	26.9	%50
3	MP3	X	26.9	%50
4	MP4	X	21.6	%50
5	MP5	X	26.9	%50
6	MP6	X	26.9	%50
7	MP7	X	5.6	%50
8	MP8	X	26.9	%50
9	MP9	X	26.9	%50
10	MP10	X	0	%50
11	MP10	X	23.6	%50
12	MP1	X	3.7	%50
13	MP1	X	25	%50
14	MP4	X	3.7	%50
15	MP4	X	25	%50
16	MP7	X	14.6	%50
17	MP7	X	16.9	%50
18	MP1	Z	37.4	%50
19	MP2	Z	46.6	%50
20	MP3	Z	46.6	%50
21	MP4	Z	37.4	%50
22	MP5	Z	46.6	%50
23	MP6	Z	46.6	%50
24	MP7	Z	9.7	%50
25	MP8	Z	46.6	%50
26	MP9	Z	46.6	%50
27	MP10	Z	0	%50
28	MP10	Z	40.9	%50
29	MP1	Z	6.3	%50
30	MP1	Z	43.4	%50
31	MP4	Z	6.3	%50
32	MP4	Z	43.4	%50
33	MP7	Z	25.3	%50
34	MP7	Z	29.2	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	53.8	%50
19	MP2	Z	53.8	%50
20	MP3	Z	53.8	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
21	MP4	Z	21.9	%50
22	MP5	Z	53.8	%50
23	MP6	Z	53.8	%50
24	MP7	Z	21.9	%50
25	MP8	Z	53.8	%50
26	MP9	Z	53.8	%50
27	MP10	Z	0	%50
28	MP10	Z	52.8	%50
29	MP1	Z	0	%50
30	MP1	Z	55.6	%50
31	MP4	Z	21.9	%50
32	MP4	Z	39.2	%50
33	MP7	Z	21.9	%50
34	MP7	Z	39.2	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-21.6	%50
2	MP2	X	-26.9	%50
3	MP3	X	-26.9	%50
4	MP4	X	-5.6	%50
5	MP5	X	-26.9	%50
6	MP6	X	-26.9	%50
7	MP7	X	-21.6	%50
8	MP8	X	-26.9	%50
9	MP9	X	-26.9	%50
10	MP10	X	0	%50
11	MP10	X	-23.6	%50
12	MP1	X	-3.7	%50
13	MP1	X	-25	%50
14	MP4	X	-14.6	%50
15	MP4	X	-16.9	%50
16	MP7	X	-3.7	%50
17	MP7	X	-25	%50
18	MP1	Z	37.4	%50
19	MP2	Z	46.6	%50
20	MP3	Z	46.6	%50
21	MP4	Z	9.7	%50
22	MP5	Z	46.6	%50
23	MP6	Z	46.6	%50
24	MP7	Z	37.4	%50
25	MP8	Z	46.6	%50
26	MP9	Z	46.6	%50
27	MP10	Z	0	%50
28	MP10	Z	40.9	%50
29	MP1	Z	6.3	%50
30	MP1	Z	43.4	%50
31	MP4	Z	25.3	%50
32	MP4	Z	29.2	%50
33	MP7	Z	6.3	%50
34	MP7	Z	43.4	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-18.9	%50
2	MP2	X	-46.6	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
3	MP3	X	-46.6	%50
4	MP4	X	-18.9	%50
5	MP5	X	-46.6	%50
6	MP6	X	-46.6	%50
7	MP7	X	-46.6	%50
8	MP8	X	-46.6	%50
9	MP9	X	-46.6	%50
10	MP10	X	0	%50
11	MP10	X	-31.1	%50
12	MP1	X	-19	%50
13	MP1	X	-33.9	%50
14	MP4	X	-19	%50
15	MP4	X	-33.9	%50
16	MP7	X	0	%50
17	MP7	X	-48.1	%50
18	MP1	Z	10.9	%50
19	MP2	Z	26.9	%50
20	MP3	Z	26.9	%50
21	MP4	Z	10.9	%50
22	MP5	Z	26.9	%50
23	MP6	Z	26.9	%50
24	MP7	Z	26.9	%50
25	MP8	Z	26.9	%50
26	MP9	Z	26.9	%50
27	MP10	Z	0	%50
28	MP10	Z	17.9	%50
29	MP1	Z	11	%50
30	MP1	Z	19.6	%50
31	MP4	Z	11	%50
32	MP4	Z	19.6	%50
33	MP7	Z	0	%50
34	MP7	Z	27.8	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-11.2	%50
2	MP2	X	-53.8	%50
3	MP3	X	-53.8	%50
4	MP4	X	-43.1	%50
5	MP5	X	-53.8	%50
6	MP6	X	-53.8	%50
7	MP7	X	-43.1	%50
8	MP8	X	-53.8	%50
9	MP9	X	-53.8	%50
10	MP10	X	0	%50
11	MP10	X	-30.2	%50
12	MP1	X	-29.3	%50
13	MP1	X	-33.7	%50
14	MP4	X	-7.3	%50
15	MP4	X	-50.1	%50
16	MP7	X	-7.3	%50
17	MP7	X	-50.1	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-18.9	%50
2	MP2	X	-46.6	%50
3	MP3	X	-46.6	%50
4	MP4	X	-46.6	%50
5	MP5	X	-46.6	%50
6	MP6	X	-46.6	%50
7	MP7	X	-18.9	%50
8	MP8	X	-46.6	%50
9	MP9	X	-46.6	%50
10	MP10	X	0	%50
11	MP10	X	-31.1	%50
12	MP1	X	-19	%50
13	MP1	X	-33.9	%50
14	MP4	X	0	%50
15	MP4	X	-48.1	%50
16	MP7	X	-19	%50
17	MP7	X	-33.9	%50
18	MP1	Z	-10.9	%50
19	MP2	Z	-26.9	%50
20	MP3	Z	-26.9	%50
21	MP4	Z	-26.9	%50
22	MP5	Z	-26.9	%50
23	MP6	Z	-26.9	%50
24	MP7	Z	-10.9	%50
25	MP8	Z	-26.9	%50
26	MP9	Z	-26.9	%50
27	MP10	Z	0	%50
28	MP10	Z	-17.9	%50
29	MP1	Z	-11	%50
30	MP1	Z	-19.6	%50
31	MP4	Z	0	%50
32	MP4	Z	-27.8	%50
33	MP7	Z	-11	%50
34	MP7	Z	-19.6	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-21.6	%50
2	MP2	X	-26.9	%50
3	MP3	X	-26.9	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
4	MP4	X	-21.6	%50
5	MP5	X	-26.9	%50
6	MP6	X	-26.9	%50
7	MP7	X	-5.6	%50
8	MP8	X	-26.9	%50
9	MP9	X	-26.9	%50
10	MP10	X	0	%50
11	MP10	X	-23.6	%50
12	MP1	X	-3.7	%50
13	MP1	X	-25	%50
14	MP4	X	-3.7	%50
15	MP4	X	-25	%50
16	MP7	X	-14.6	%50
17	MP7	X	-16.9	%50
18	MP1	Z	-37.4	%50
19	MP2	Z	-46.6	%50
20	MP3	Z	-46.6	%50
21	MP4	Z	-37.4	%50
22	MP5	Z	-46.6	%50
23	MP6	Z	-46.6	%50
24	MP7	Z	-9.7	%50
25	MP8	Z	-46.6	%50
26	MP9	Z	-46.6	%50
27	MP10	Z	0	%50
28	MP10	Z	-40.9	%50
29	MP1	Z	-6.3	%50
30	MP1	Z	-43.4	%50
31	MP4	Z	-6.3	%50
32	MP4	Z	-43.4	%50
33	MP7	Z	-25.3	%50
34	MP7	Z	-29.2	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	-53.8	%50
19	MP2	Z	-53.8	%50
20	MP3	Z	-53.8	%50
21	MP4	Z	-21.9	%50
22	MP5	Z	-53.8	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
23	MP6	Z	-53.8	%50
24	MP7	Z	-21.9	%50
25	MP8	Z	-53.8	%50
26	MP9	Z	-53.8	%50
27	MP10	Z	0	%50
28	MP10	Z	-52.8	%50
29	MP1	Z	0	%50
30	MP1	Z	-55.6	%50
31	MP4	Z	-21.9	%50
32	MP4	Z	-39.2	%50
33	MP7	Z	-21.9	%50
34	MP7	Z	-39.2	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	21.6	%50
2	MP2	X	26.9	%50
3	MP3	X	26.9	%50
4	MP4	X	5.6	%50
5	MP5	X	26.9	%50
6	MP6	X	26.9	%50
7	MP7	X	21.6	%50
8	MP8	X	26.9	%50
9	MP9	X	26.9	%50
10	MP10	X	0	%50
11	MP10	X	23.6	%50
12	MP1	X	3.7	%50
13	MP1	X	25	%50
14	MP4	X	14.6	%50
15	MP4	X	16.9	%50
16	MP7	X	3.7	%50
17	MP7	X	25	%50
18	MP1	Z	-37.4	%50
19	MP2	Z	-46.6	%50
20	MP3	Z	-46.6	%50
21	MP4	Z	-9.7	%50
22	MP5	Z	-46.6	%50
23	MP6	Z	-46.6	%50
24	MP7	Z	-37.4	%50
25	MP8	Z	-46.6	%50
26	MP9	Z	-46.6	%50
27	MP10	Z	0	%50
28	MP10	Z	-40.9	%50
29	MP1	Z	-6.3	%50
30	MP1	Z	-43.4	%50
31	MP4	Z	-25.3	%50
32	MP4	Z	-29.2	%50
33	MP7	Z	-6.3	%50
34	MP7	Z	-43.4	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	18.9	%50
2	MP2	X	46.6	%50
3	MP3	X	46.6	%50
4	MP4	X	18.9	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
5	MP5	X	46.6	%50
6	MP6	X	46.6	%50
7	MP7	X	46.6	%50
8	MP8	X	46.6	%50
9	MP9	X	46.6	%50
10	MP10	X	0	%50
11	MP10	X	31.1	%50
12	MP1	X	19	%50
13	MP1	X	33.9	%50
14	MP4	X	19	%50
15	MP4	X	33.9	%50
16	MP7	X	0	%50
17	MP7	X	48.1	%50
18	MP1	Z	-10.9	%50
19	MP2	Z	-26.9	%50
20	MP3	Z	-26.9	%50
21	MP4	Z	-10.9	%50
22	MP5	Z	-26.9	%50
23	MP6	Z	-26.9	%50
24	MP7	Z	-26.9	%50
25	MP8	Z	-26.9	%50
26	MP9	Z	-26.9	%50
27	MP10	Z	0	%50
28	MP10	Z	-17.9	%50
29	MP1	Z	-11	%50
30	MP1	Z	-19.6	%50
31	MP4	Z	-11	%50
32	MP4	Z	-19.6	%50
33	MP7	Z	0	%50
34	MP7	Z	-27.8	%50

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	Y	-37.4	%50
2	MP2	Y	-37.4	%50
3	MP3	Y	-37.4	%50
4	MP4	Y	-37.4	%50
5	MP5	Y	-37.4	%50
6	MP6	Y	-37.4	%50
7	MP7	Y	-37.4	%50
8	MP8	Y	-37.4	%50
9	MP9	Y	-37.4	%50
10	MP10	Y	0	%50
11	MP10	Y	-30.9	%50
12	MP1	Y	-31.8	%50
13	MP1	Y	-32.8	%50
14	MP4	Y	-31.8	%50
15	MP4	Y	-32.8	%50
16	MP7	Y	-31.8	%50
17	MP7	Y	-32.8	%50

Member Point Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	4.3	%50
2	MP2	X	18.1	%50
3	MP3	X	18.1	%50



Member Point Loads (BLC 15 : Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
4	MP4	X	14.6	%50
5	MP5	X	18.1	%50
6	MP6	X	18.1	%50
7	MP7	X	14.6	%50
8	MP8	X	18.1	%50
9	MP9	X	18.1	%50
10	MP10	X	0	%50
11	MP10	X	7	%50
12	MP1	X	6.3	%50
13	MP1	X	7.1	%50
14	MP4	X	2.9	%50
15	MP4	X	10.8	%50
16	MP7	X	2.9	%50
17	MP7	X	10.8	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

Member Point Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	6.7	%50
2	MP2	X	15.7	%50
3	MP3	X	15.7	%50
4	MP4	X	15.7	%50
5	MP5	X	15.7	%50
6	MP6	X	15.7	%50
7	MP7	X	6.7	%50
8	MP8	X	15.7	%50
9	MP9	X	15.7	%50
10	MP10	X	0	%50
11	MP10	X	7	%50
12	MP1	X	4.5	%50
13	MP1	X	7.2	%50
14	MP4	X	1.6	%50
15	MP4	X	10.4	%50
16	MP7	X	4.5	%50
17	MP7	X	7.2	%50
18	MP1	Z	3.9	%50
19	MP2	Z	9	%50
20	MP3	Z	9	%50
21	MP4	Z	9	%50
22	MP5	Z	9	%50



Member Point Loads (BLC 16 : Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
23	MP6	Z	9	%50
24	MP7	Z	3.9	%50
25	MP8	Z	9	%50
26	MP9	Z	9	%50
27	MP10	Z	0	%50
28	MP10	Z	4	%50
29	MP1	Z	2.6	%50
30	MP1	Z	4.2	%50
31	MP4	Z	.9	%50
32	MP4	Z	6	%50
33	MP7	Z	2.6	%50
34	MP7	Z	4.2	%50

Member Point Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	7.3	%50
2	MP2	X	9	%50
3	MP3	X	9	%50
4	MP4	X	7.3	%50
5	MP5	X	9	%50
6	MP6	X	9	%50
7	MP7	X	2.2	%50
8	MP8	X	9	%50
9	MP9	X	9	%50
10	MP10	X	0	%50
11	MP10	X	5.1	%50
12	MP1	X	1.5	%50
13	MP1	X	5.4	%50
14	MP4	X	1.5	%50
15	MP4	X	5.4	%50
16	MP7	X	3.2	%50
17	MP7	X	3.6	%50
18	MP1	Z	12.7	%50
19	MP2	Z	15.7	%50
20	MP3	Z	15.7	%50
21	MP4	Z	12.7	%50
22	MP5	Z	15.7	%50
23	MP6	Z	15.7	%50
24	MP7	Z	3.7	%50
25	MP8	Z	15.7	%50
26	MP9	Z	15.7	%50
27	MP10	Z	0	%50
28	MP10	Z	8.9	%50
29	MP1	Z	2.6	%50
30	MP1	Z	9.3	%50
31	MP4	Z	2.6	%50
32	MP4	Z	9.3	%50
33	MP7	Z	5.5	%50
34	MP7	Z	6.2	%50

Member Point Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50



Member Point Loads (BLC 18 : Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	18.1	%50
19	MP2	Z	18.1	%50
20	MP3	Z	18.1	%50
21	MP4	Z	7.8	%50
22	MP5	Z	18.1	%50
23	MP6	Z	18.1	%50
24	MP7	Z	7.8	%50
25	MP8	Z	18.1	%50
26	MP9	Z	18.1	%50
27	MP10	Z	0	%50
28	MP10	Z	11.3	%50
29	MP1	Z	1.8	%50
30	MP1	Z	12	%50
31	MP4	Z	5.2	%50
32	MP4	Z	8.4	%50
33	MP7	Z	5.2	%50
34	MP7	Z	8.4	%50

Member Point Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-7.3	%50
2	MP2	X	-9	%50
3	MP3	X	-9	%50
4	MP4	X	-2.2	%50
5	MP5	X	-9	%50
6	MP6	X	-9	%50
7	MP7	X	-7.3	%50
8	MP8	X	-9	%50
9	MP9	X	-9	%50
10	MP10	X	0	%50
11	MP10	X	-5.1	%50
12	MP1	X	-1.5	%50
13	MP1	X	-5.4	%50
14	MP4	X	-3.2	%50
15	MP4	X	-3.6	%50
16	MP7	X	-1.5	%50
17	MP7	X	-5.4	%50
18	MP1	Z	12.7	%50
19	MP2	Z	15.7	%50
20	MP3	Z	15.7	%50
21	MP4	Z	3.7	%50
22	MP5	Z	15.7	%50
23	MP6	Z	15.7	%50



Member Point Loads (BLC 19 : Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
24	MP7	Z	12.7	%50
25	MP8	Z	15.7	%50
26	MP9	Z	15.7	%50
27	MP10	Z	0	%50
28	MP10	Z	8.9	%50
29	MP1	Z	2.6	%50
30	MP1	Z	9.3	%50
31	MP4	Z	5.5	%50
32	MP4	Z	6.2	%50
33	MP7	Z	2.6	%50
34	MP7	Z	9.3	%50

Member Point Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-6.7	%50
2	MP2	X	-15.7	%50
3	MP3	X	-15.7	%50
4	MP4	X	-6.7	%50
5	MP5	X	-15.7	%50
6	MP6	X	-15.7	%50
7	MP7	X	-15.7	%50
8	MP8	X	-15.7	%50
9	MP9	X	-15.7	%50
10	MP10	X	0	%50
11	MP10	X	-7	%50
12	MP1	X	-4.5	%50
13	MP1	X	-7.2	%50
14	MP4	X	-4.5	%50
15	MP4	X	-7.2	%50
16	MP7	X	-1.6	%50
17	MP7	X	-10.4	%50
18	MP1	Z	3.9	%50
19	MP2	Z	9	%50
20	MP3	Z	9	%50
21	MP4	Z	3.9	%50
22	MP5	Z	9	%50
23	MP6	Z	9	%50
24	MP7	Z	9	%50
25	MP8	Z	9	%50
26	MP9	Z	9	%50
27	MP10	Z	0	%50
28	MP10	Z	4	%50
29	MP1	Z	2.6	%50
30	MP1	Z	4.2	%50
31	MP4	Z	2.6	%50
32	MP4	Z	4.2	%50
33	MP7	Z	.9	%50
34	MP7	Z	6	%50

Member Point Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-4.3	%50
2	MP2	X	-18.1	%50
3	MP3	X	-18.1	%50
4	MP4	X	-14.6	%50
5	MP5	X	-18.1	%50



Member Point Loads (BLC 21 : Wind on Ice (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
6	MP6	X	-18.1	%50
7	MP7	X	-14.6	%50
8	MP8	X	-18.1	%50
9	MP9	X	-18.1	%50
10	MP10	X	0	%50
11	MP10	X	-7	%50
12	MP1	X	-6.3	%50
13	MP1	X	-7.1	%50
14	MP4	X	-2.9	%50
15	MP4	X	-10.8	%50
16	MP7	X	-2.9	%50
17	MP7	X	-10.8	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

Member Point Loads (BLC 22 : Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-6.7	%50
2	MP2	X	-15.7	%50
3	MP3	X	-15.7	%50
4	MP4	X	-15.7	%50
5	MP5	X	-15.7	%50
6	MP6	X	-15.7	%50
7	MP7	X	-6.7	%50
8	MP8	X	-15.7	%50
9	MP9	X	-15.7	%50
10	MP10	X	0	%50
11	MP10	X	-7	%50
12	MP1	X	-4.5	%50
13	MP1	X	-7.2	%50
14	MP4	X	-1.6	%50
15	MP4	X	-10.4	%50
16	MP7	X	-4.5	%50
17	MP7	X	-7.2	%50
18	MP1	Z	-3.9	%50
19	MP2	Z	-9	%50
20	MP3	Z	-9	%50
21	MP4	Z	-9	%50
22	MP5	Z	-9	%50
23	MP6	Z	-9	%50
24	MP7	Z	-3.9	%50



Member Point Loads (BLC 22 : Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
25	MP8	Z	-9	%50
26	MP9	Z	-9	%50
27	MP10	Z	0	%50
28	MP10	Z	-4	%50
29	MP1	Z	-2.6	%50
30	MP1	Z	-4.2	%50
31	MP4	Z	-9	%50
32	MP4	Z	-6	%50
33	MP7	Z	-2.6	%50
34	MP7	Z	-4.2	%50

Member Point Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-7.3	%50
2	MP2	X	-9	%50
3	MP3	X	-9	%50
4	MP4	X	-7.3	%50
5	MP5	X	-9	%50
6	MP6	X	-9	%50
7	MP7	X	-2.2	%50
8	MP8	X	-9	%50
9	MP9	X	-9	%50
10	MP10	X	0	%50
11	MP10	X	-5.1	%50
12	MP1	X	-1.5	%50
13	MP1	X	-5.4	%50
14	MP4	X	-1.5	%50
15	MP4	X	-5.4	%50
16	MP7	X	-3.2	%50
17	MP7	X	-3.6	%50
18	MP1	Z	-12.7	%50
19	MP2	Z	-15.7	%50
20	MP3	Z	-15.7	%50
21	MP4	Z	-12.7	%50
22	MP5	Z	-15.7	%50
23	MP6	Z	-15.7	%50
24	MP7	Z	-3.7	%50
25	MP8	Z	-15.7	%50
26	MP9	Z	-15.7	%50
27	MP10	Z	0	%50
28	MP10	Z	-8.9	%50
29	MP1	Z	-2.6	%50
30	MP1	Z	-9.3	%50
31	MP4	Z	-2.6	%50
32	MP4	Z	-9.3	%50
33	MP7	Z	-5.5	%50
34	MP7	Z	-6.2	%50

Member Point Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50



Member Point Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	-18.1	%50
19	MP2	Z	-18.1	%50
20	MP3	Z	-18.1	%50
21	MP4	Z	-7.8	%50
22	MP5	Z	-18.1	%50
23	MP6	Z	-18.1	%50
24	MP7	Z	-7.8	%50
25	MP8	Z	-18.1	%50
26	MP9	Z	-18.1	%50
27	MP10	Z	0	%50
28	MP10	Z	-11.3	%50
29	MP1	Z	-1.8	%50
30	MP1	Z	-12	%50
31	MP4	Z	-5.2	%50
32	MP4	Z	-8.4	%50
33	MP7	Z	-5.2	%50
34	MP7	Z	-8.4	%50

Member Point Loads (BLC 25 : Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	7.3	%50
2	MP2	X	9	%50
3	MP3	X	9	%50
4	MP4	X	2.2	%50
5	MP5	X	9	%50
6	MP6	X	9	%50
7	MP7	X	7.3	%50
8	MP8	X	9	%50
9	MP9	X	9	%50
10	MP10	X	0	%50
11	MP10	X	5.1	%50
12	MP1	X	1.5	%50
13	MP1	X	5.4	%50
14	MP4	X	3.2	%50
15	MP4	X	3.6	%50
16	MP7	X	1.5	%50
17	MP7	X	5.4	%50
18	MP1	Z	-12.7	%50
19	MP2	Z	-15.7	%50
20	MP3	Z	-15.7	%50
21	MP4	Z	-3.7	%50
22	MP5	Z	-15.7	%50
23	MP6	Z	-15.7	%50
24	MP7	Z	-12.7	%50
25	MP8	Z	-15.7	%50



Member Point Loads (BLC 25 : Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
26	MP9	Z	-15.7	%50
27	MP10	Z	0	%50
28	MP10	Z	-8.9	%50
29	MP1	Z	-2.6	%50
30	MP1	Z	-9.3	%50
31	MP4	Z	-5.5	%50
32	MP4	Z	-6.2	%50
33	MP7	Z	-2.6	%50
34	MP7	Z	-9.3	%50

Member Point Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	6.7	%50
2	MP2	X	15.7	%50
3	MP3	X	15.7	%50
4	MP4	X	6.7	%50
5	MP5	X	15.7	%50
6	MP6	X	15.7	%50
7	MP7	X	15.7	%50
8	MP8	X	15.7	%50
9	MP9	X	15.7	%50
10	MP10	X	0	%50
11	MP10	X	7	%50
12	MP1	X	4.5	%50
13	MP1	X	7.2	%50
14	MP4	X	4.5	%50
15	MP4	X	7.2	%50
16	MP7	X	1.6	%50
17	MP7	X	10.4	%50
18	MP1	Z	-3.9	%50
19	MP2	Z	-9	%50
20	MP3	Z	-9	%50
21	MP4	Z	-3.9	%50
22	MP5	Z	-9	%50
23	MP6	Z	-9	%50
24	MP7	Z	-9	%50
25	MP8	Z	-9	%50
26	MP9	Z	-9	%50
27	MP10	Z	0	%50
28	MP10	Z	-4	%50
29	MP1	Z	-2.6	%50
30	MP1	Z	-4.2	%50
31	MP4	Z	-2.6	%50
32	MP4	Z	-4.2	%50
33	MP7	Z	-9	%50
34	MP7	Z	-6	%50

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
 11:37 AM
 Checked By: DHK

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	21.9	%50
12	MP1	X	63.9	%50
13	MP1	X	75	%50
14	MP4	X	63.9	%50
15	MP4	X	75	%50
16	MP7	X	63.9	%50
17	MP7	X	75	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

Member Point Loads (BLC 28 : Horizontal Seismic, Eh (30))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	19	%50
12	MP1	X	55.3	%50
13	MP1	X	65	%50
14	MP4	X	55.3	%50
15	MP4	X	65	%50
16	MP7	X	55.3	%50
17	MP7	X	65	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50



Member Point Loads (BLC 28 : Horizontal Seismic, Eh (30)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
27	MP10	Z	0	%50
28	MP10	Z	10.9	%50
29	MP1	Z	31.9	%50
30	MP1	Z	37.5	%50
31	MP4	Z	31.9	%50
32	MP4	Z	37.5	%50
33	MP7	Z	31.9	%50
34	MP7	Z	37.5	%50

Member Point Loads (BLC 29 : Horizontal Seismic, Eh (60))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	11	%50
12	MP1	X	32	%50
13	MP1	X	37.5	%50
14	MP4	X	32	%50
15	MP4	X	37.5	%50
16	MP7	X	32	%50
17	MP7	X	37.5	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	19	%50
29	MP1	Z	55.3	%50
30	MP1	Z	65	%50
31	MP4	Z	55.3	%50
32	MP4	Z	65	%50
33	MP7	Z	55.3	%50
34	MP7	Z	65	%50

Member Point Loads (BLC 30 : Horizontal Seismic, Eh (90))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50



Member Point Loads (BLC 30 : Horizontal Seismic, Eh (90)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	21.9	%50
29	MP1	Z	63.9	%50
30	MP1	Z	75	%50
31	MP4	Z	63.9	%50
32	MP4	Z	75	%50
33	MP7	Z	63.9	%50
34	MP7	Z	75	%50

Member Point Loads (BLC 31 : Horizontal Seismic, Eh (120))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	-10.9	%50
12	MP1	X	-31.9	%50
13	MP1	X	-37.5	%50
14	MP4	X	-31.9	%50
15	MP4	X	-37.5	%50
16	MP7	X	-31.9	%50
17	MP7	X	-37.5	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50



Member Point Loads (BLC 31 : Horizontal Seismic, Eh (120)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
28	MP10	Z	19	%50
29	MP1	Z	55.3	%50
30	MP1	Z	65	%50
31	MP4	Z	55.3	%50
32	MP4	Z	65	%50
33	MP7	Z	55.3	%50
34	MP7	Z	65	%50

Member Point Loads (BLC 32 : Horizontal Seismic, Eh (150))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	-19	%50
12	MP1	X	-55.3	%50
13	MP1	X	-65	%50
14	MP4	X	-55.3	%50
15	MP4	X	-65	%50
16	MP7	X	-55.3	%50
17	MP7	X	-65	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	10.9	%50
29	MP1	Z	31.9	%50
30	MP1	Z	37.5	%50
31	MP4	Z	31.9	%50
32	MP4	Z	37.5	%50
33	MP7	Z	31.9	%50
34	MP7	Z	37.5	%50

Member Point Loads (BLC 33 : Horizontal Seismic, Eh (180))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50



Member Point Loads (BLC 33 : Horizontal Seismic, Eh (180)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
10	MP10	X	0	%50
11	MP10	X	-21.9	%50
12	MP1	X	-63.9	%50
13	MP1	X	-75	%50
14	MP4	X	-63.9	%50
15	MP4	X	-75	%50
16	MP7	X	-63.9	%50
17	MP7	X	-75	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	0	%50
29	MP1	Z	0	%50
30	MP1	Z	0	%50
31	MP4	Z	0	%50
32	MP4	Z	0	%50
33	MP7	Z	0	%50
34	MP7	Z	0	%50

Member Point Loads (BLC 34 : Horizontal Seismic, Eh (210))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	-19	%50
12	MP1	X	-55.3	%50
13	MP1	X	-65	%50
14	MP4	X	-55.3	%50
15	MP4	X	-65	%50
16	MP7	X	-55.3	%50
17	MP7	X	-65	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	-11	%50



Member Point Loads (BLC 34 : Horizontal Seismic, Eh (210)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
29	MP1	Z	-32	%50
30	MP1	Z	-37.5	%50
31	MP4	Z	-32	%50
32	MP4	Z	-37.5	%50
33	MP7	Z	-32	%50
34	MP7	Z	-37.5	%50

Member Point Loads (BLC 35 : Horizontal Seismic, Eh (240))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	-11	%50
12	MP1	X	-32	%50
13	MP1	X	-37.5	%50
14	MP4	X	-32	%50
15	MP4	X	-37.5	%50
16	MP7	X	-32	%50
17	MP7	X	-37.5	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	-19	%50
29	MP1	Z	-55.3	%50
30	MP1	Z	-65	%50
31	MP4	Z	-55.3	%50
32	MP4	Z	-65	%50
33	MP7	Z	-55.3	%50
34	MP7	Z	-65	%50

Member Point Loads (BLC 36 : Horizontal Seismic, Eh (270))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50



Member Point Loads (BLC 36 : Horizontal Seismic, Eh (270)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
11	MP10	X	0	%50
12	MP1	X	0	%50
13	MP1	X	0	%50
14	MP4	X	0	%50
15	MP4	X	0	%50
16	MP7	X	0	%50
17	MP7	X	0	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	-21.9	%50
29	MP1	Z	-63.9	%50
30	MP1	Z	-75	%50
31	MP4	Z	-63.9	%50
32	MP4	Z	-75	%50
33	MP7	Z	-63.9	%50
34	MP7	Z	-75	%50

Member Point Loads (BLC 37 : Horizontal Seismic, Eh (300))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	11	%50
12	MP1	X	32	%50
13	MP1	X	37.5	%50
14	MP4	X	32	%50
15	MP4	X	37.5	%50
16	MP7	X	32	%50
17	MP7	X	37.5	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	-19	%50
29	MP1	Z	-55.3	%50



Member Point Loads (BLC 37 : Horizontal Seismic, Eh (300)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
30	MP1	Z	-65	%50
31	MP4	Z	-55.3	%50
32	MP4	Z	-65	%50
33	MP7	Z	-55.3	%50
34	MP7	Z	-65	%50

Member Point Loads (BLC 38 : Horizontal Seismic, Eh (330))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	%50
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%50
5	MP5	X	0	%50
6	MP6	X	0	%50
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%50
10	MP10	X	0	%50
11	MP10	X	19	%50
12	MP1	X	55.3	%50
13	MP1	X	65	%50
14	MP4	X	55.3	%50
15	MP4	X	65	%50
16	MP7	X	55.3	%50
17	MP7	X	65	%50
18	MP1	Z	0	%50
19	MP2	Z	0	%50
20	MP3	Z	0	%50
21	MP4	Z	0	%50
22	MP5	Z	0	%50
23	MP6	Z	0	%50
24	MP7	Z	0	%50
25	MP8	Z	0	%50
26	MP9	Z	0	%50
27	MP10	Z	0	%50
28	MP10	Z	-11	%50
29	MP1	Z	-32	%50
30	MP1	Z	-37.5	%50
31	MP4	Z	-32	%50
32	MP4	Z	-37.5	%50
33	MP7	Z	-32	%50
34	MP7	Z	-37.5	%50

Member Point Loads (BLC 39 : Maintenance Load, Lm (MP1))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	Y	-500	%50

Member Point Loads (BLC 40 : Maintenance Load, Lm (MP2))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP2	Y	-500	%50

Member Point Loads (BLC 41 : Maintenance Load, Lm (MP3))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP3	Y	-500	%50



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Member Point Loads (BLC 42 : Maintenance Load, Lm (MP4))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP4	Y	-500	%50

Member Point Loads (BLC 43 : Maintenance Load, Lm (MP5))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP5	Y	-500	%50

Member Point Loads (BLC 44 : Maintenance Load, Lm (MP6))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP6	Y	-500	%50

Member Point Loads (BLC 45 : Maintenance Load, Lm (MP7))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP7	Y	-500	%50

Member Point Loads (BLC 46 : Maintenance Load, Lm (MP8))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP8	Y	-500	%50

Member Point Loads (BLC 47 : Maintenance Load, Lm (MP9))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP9	Y	-500	%50

Member Point Loads (BLC 75 : Maintenance Load, Lv (Pos. 1))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-0	Y	-250	0

Member Point Loads (BLC 76 : Maintenance Load, Lv (Pos. 2))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-0	Y	-250	%50

Member Point Loads (BLC 77 : Maintenance Load, Lv (Pos. 3))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-0	Y	-250	%100

Member Point Loads (BLC 78 : Maintenance Load, Lv (Pos. 4))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-120	Y	-250	0

Member Point Loads (BLC 79 : Maintenance Load, Lv (Pos. 5))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-120	Y	-250	%50

Member Point Loads (BLC 80 : Maintenance Load, Lv (Pos. 6))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-120	Y	-250	%100

Member Point Loads (BLC 81 : Maintenance Load, Lv (Pos. 7))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-240	Y	-250	0



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Member Point Loads (BLC 82 : Maintenance Load, Lv (Pos. 8))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-240	Y	-250	%50

Member Point Loads (BLC 83 : Maintenance Load, Lv (Pos. 9))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM-240	Y	-250	%100

Member Point Loads (BLC 84 : Maintenance Load, Lv (Pos. 10))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-0	Y	-250	0

Member Point Loads (BLC 85 : Maintenance Load, Lv (Pos. 11))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-0	Y	-250	%50

Member Point Loads (BLC 86 : Maintenance Load, Lv (Pos. 12))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-0	Y	-250	%100

Member Point Loads (BLC 87 : Maintenance Load, Lv (Pos. 13))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-120	Y	-250	0

Member Point Loads (BLC 88 : Maintenance Load, Lv (Pos. 14))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-120	Y	-250	%50

Member Point Loads (BLC 89 : Maintenance Load, Lv (Pos. 15))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-120	Y	-250	%100

Member Point Loads (BLC 90 : Maintenance Load, Lv (Pos. 16))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-240	Y	-250	0

Member Point Loads (BLC 91 : Maintenance Load, Lv (Pos. 17))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-240	Y	-250	%50

Member Point Loads (BLC 92 : Maintenance Load, Lv (Pos. 18))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR-240	Y	-250	%100

Member Point Loads (BLC 175 : Antenna Dead Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	Y	-32.2	%18.75
2	MP1	Y	-32.2	%81.25
3	MP4	Y	-32.2	%18.75
4	MP4	Y	-32.2	%81.25
5	MP7	Y	-32.2	%18.75
6	MP7	Y	-32.2	%81.25



Member Point Loads (BLC 176 : Antenna Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	176.8	%18.75
2	MP1	X	176.8	%81.25
3	MP4	X	106.5	%18.75
4	MP4	X	106.5	%81.25
5	MP7	X	106.5	%18.75
6	MP7	X	106.5	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 177 : Antenna Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	132.8	%18.75
2	MP1	X	132.8	%81.25
3	MP4	X	71.9	%18.75
4	MP4	X	71.9	%81.25
5	MP7	X	132.8	%18.75
6	MP7	X	132.8	%81.25
7	MP1	Z	76.7	%18.75
8	MP1	Z	76.7	%81.25
9	MP4	Z	41.5	%18.75
10	MP4	Z	41.5	%81.25
11	MP7	Z	76.7	%18.75
12	MP7	Z	76.7	%81.25

Member Point Loads (BLC 178 : Antenna Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	53.2	%18.75
2	MP1	X	53.2	%81.25
3	MP4	X	53.2	%18.75
4	MP4	X	53.2	%81.25
5	MP7	X	88.4	%18.75
6	MP7	X	88.4	%81.25
7	MP1	Z	92.2	%18.75
8	MP1	Z	92.2	%81.25
9	MP4	Z	92.2	%18.75
10	MP4	Z	92.2	%81.25
11	MP7	Z	153.1	%18.75
12	MP7	Z	153.1	%81.25

Member Point Loads (BLC 179 : Antenna Wind Load (90 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0
7	MP1	Z	83	%18.75
8	MP1	Z	83	%81.25
9	MP4	Z	153.3	%18.75
10	MP4	Z	153.3	%81.25



Member Point Loads (BLC 179 : Antenna Wind Load (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
11	MP7	Z	153.3	%18.75
12	MP7	Z	153.3	%81.25

Member Point Loads (BLC 180 : Antenna Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-53.2	%18.75
2	MP1	X	-53.2	%81.25
3	MP4	X	-88.4	%18.75
4	MP4	X	-88.4	%81.25
5	MP7	X	-53.2	%18.75
6	MP7	X	-53.2	%81.25
7	MP1	Z	92.2	%18.75
8	MP1	Z	92.2	%81.25
9	MP4	Z	153.1	%18.75
10	MP4	Z	153.1	%81.25
11	MP7	Z	92.2	%18.75
12	MP7	Z	92.2	%81.25

Member Point Loads (BLC 181 : Antenna Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-132.8	%18.75
2	MP1	X	-132.8	%81.25
3	MP4	X	-132.8	%18.75
4	MP4	X	-132.8	%81.25
5	MP7	X	-71.9	%18.75
6	MP7	X	-71.9	%81.25
7	MP1	Z	76.7	%18.75
8	MP1	Z	76.7	%81.25
9	MP4	Z	76.7	%18.75
10	MP4	Z	76.7	%81.25
11	MP7	Z	41.5	%18.75
12	MP7	Z	41.5	%81.25

Member Point Loads (BLC 182 : Antenna Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-176.8	%18.75
2	MP1	X	-176.8	%81.25
3	MP4	X	-106.5	%18.75
4	MP4	X	-106.5	%81.25
5	MP7	X	-106.5	%18.75
6	MP7	X	-106.5	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 183 : Antenna Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-132.8	%18.75
2	MP1	X	-132.8	%81.25
3	MP4	X	-71.9	%18.75
4	MP4	X	-71.9	%81.25
5	MP7	X	-132.8	%18.75



Member Point Loads (BLC 183 : Antenna Wind Load (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
6	MP7	X	-132.8	%81.25
7	MP1	Z	-76.7	%18.75
8	MP1	Z	-76.7	%81.25
9	MP4	Z	-41.5	%18.75
10	MP4	Z	-41.5	%81.25
11	MP7	Z	-76.7	%18.75
12	MP7	Z	-76.7	%81.25

Member Point Loads (BLC 184 : Antenna Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-53.2	%18.75
2	MP1	X	-53.2	%81.25
3	MP4	X	-53.2	%18.75
4	MP4	X	-53.2	%81.25
5	MP7	X	-88.4	%18.75
6	MP7	X	-88.4	%81.25
7	MP1	Z	-92.2	%18.75
8	MP1	Z	-92.2	%81.25
9	MP4	Z	-92.2	%18.75
10	MP4	Z	-92.2	%81.25
11	MP7	Z	-153.1	%18.75
12	MP7	Z	-153.1	%81.25

Member Point Loads (BLC 185 : Antenna Wind Load (270 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0
7	MP1	Z	-83	%18.75
8	MP1	Z	-83	%81.25
9	MP4	Z	-153.3	%18.75
10	MP4	Z	-153.3	%81.25
11	MP7	Z	-153.3	%18.75
12	MP7	Z	-153.3	%81.25

Member Point Loads (BLC 186 : Antenna Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	53.2	%18.75
2	MP1	X	53.2	%81.25
3	MP4	X	88.4	%18.75
4	MP4	X	88.4	%81.25
5	MP7	X	53.2	%18.75
6	MP7	X	53.2	%81.25
7	MP1	Z	-92.2	%18.75
8	MP1	Z	-92.2	%81.25
9	MP4	Z	-153.1	%18.75
10	MP4	Z	-153.1	%81.25
11	MP7	Z	-92.2	%18.75
12	MP7	Z	-92.2	%81.25

Member Point Loads (BLC 187 : Antenna Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
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Member Point Loads (BLC 187 : Antenna Wind Load (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	132.8	%18.75
2	MP1	X	132.8	%81.25
3	MP4	X	132.8	%18.75
4	MP4	X	132.8	%81.25
5	MP7	X	71.9	%18.75
6	MP7	X	71.9	%81.25
7	MP1	Z	-76.7	%18.75
8	MP1	Z	-76.7	%81.25
9	MP4	Z	-76.7	%18.75
10	MP4	Z	-76.7	%81.25
11	MP7	Z	-41.5	%18.75
12	MP7	Z	-41.5	%81.25

Member Point Loads (BLC 188 : Antenna Ice Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	Y	-91.3	%18.75
2	MP1	Y	-91.3	%81.25
3	MP4	Y	-91.3	%18.75
4	MP4	Y	-91.3	%81.25
5	MP7	Y	-91.3	%18.75
6	MP7	Y	-91.3	%81.25

Member Point Loads (BLC 189 : Antenna Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	34.1	%18.75
2	MP1	X	34.1	%81.25
3	MP4	X	21.4	%18.75
4	MP4	X	21.4	%81.25
5	MP7	X	21.4	%18.75
6	MP7	X	21.4	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 190 : Antenna Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	25.9	%18.75
2	MP1	X	25.9	%81.25
3	MP4	X	14.9	%18.75
4	MP4	X	14.9	%81.25
5	MP7	X	25.9	%18.75
6	MP7	X	25.9	%81.25
7	MP1	Z	14.9	%18.75
8	MP1	Z	14.9	%81.25
9	MP4	Z	8.6	%18.75
10	MP4	Z	8.6	%81.25
11	MP7	Z	14.9	%18.75
12	MP7	Z	14.9	%81.25

Member Point Loads (BLC 191 : Antenna Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	10.7	%18.75



Member Point Loads (BLC 191 : Antenna Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
2	MP1	X	10.7	%81.25
3	MP4	X	10.7	%18.75
4	MP4	X	10.7	%81.25
5	MP7	X	17	%18.75
6	MP7	X	17	%81.25
7	MP1	Z	18.5	%18.75
8	MP1	Z	18.5	%81.25
9	MP4	Z	18.5	%18.75
10	MP4	Z	18.5	%81.25
11	MP7	Z	29.5	%18.75
12	MP7	Z	29.5	%81.25

Member Point Loads (BLC 192 : Antenna Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0
7	MP1	Z	17.2	%18.75
8	MP1	Z	17.2	%81.25
9	MP4	Z	29.9	%18.75
10	MP4	Z	29.9	%81.25
11	MP7	Z	29.9	%18.75
12	MP7	Z	29.9	%81.25

Member Point Loads (BLC 193 : Antenna Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-10.7	%18.75
2	MP1	X	-10.7	%81.25
3	MP4	X	-17	%18.75
4	MP4	X	-17	%81.25
5	MP7	X	-10.7	%18.75
6	MP7	X	-10.7	%81.25
7	MP1	Z	18.5	%18.75
8	MP1	Z	18.5	%81.25
9	MP4	Z	29.5	%18.75
10	MP4	Z	29.5	%81.25
11	MP7	Z	18.5	%18.75
12	MP7	Z	18.5	%81.25

Member Point Loads (BLC 194 : Antenna Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-25.9	%18.75
2	MP1	X	-25.9	%81.25
3	MP4	X	-25.9	%18.75
4	MP4	X	-25.9	%81.25
5	MP7	X	-14.9	%18.75
6	MP7	X	-14.9	%81.25
7	MP1	Z	14.9	%18.75
8	MP1	Z	14.9	%81.25
9	MP4	Z	14.9	%18.75
10	MP4	Z	14.9	%81.25
11	MP7	Z	8.6	%18.75



Member Point Loads (BLC 194 : Antenna Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
12	MP7	Z	8.6	%81.25

Member Point Loads (BLC 195 : Antenna Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-34.1	%18.75
2	MP1	X	-34.1	%81.25
3	MP4	X	-21.4	%18.75
4	MP4	X	-21.4	%81.25
5	MP7	X	-21.4	%18.75
6	MP7	X	-21.4	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 196 : Antenna Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-25.9	%18.75
2	MP1	X	-25.9	%81.25
3	MP4	X	-14.9	%18.75
4	MP4	X	-14.9	%81.25
5	MP7	X	-25.9	%18.75
6	MP7	X	-25.9	%81.25
7	MP1	Z	-14.9	%18.75
8	MP1	Z	-14.9	%81.25
9	MP4	Z	-8.6	%18.75
10	MP4	Z	-8.6	%81.25
11	MP7	Z	-14.9	%18.75
12	MP7	Z	-14.9	%81.25

Member Point Loads (BLC 197 : Antenna Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-10.7	%18.75
2	MP1	X	-10.7	%81.25
3	MP4	X	-10.7	%18.75
4	MP4	X	-10.7	%81.25
5	MP7	X	-17	%18.75
6	MP7	X	-17	%81.25
7	MP1	Z	-18.5	%18.75
8	MP1	Z	-18.5	%81.25
9	MP4	Z	-18.5	%18.75
10	MP4	Z	-18.5	%81.25
11	MP7	Z	-29.5	%18.75
12	MP7	Z	-29.5	%81.25

Member Point Loads (BLC 198 : Antenna Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0



Member Point Loads (BLC 198 : Antenna Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
7	MP1	Z	-17.2	%18.75
8	MP1	Z	-17.2	%81.25
9	MP4	Z	-29.9	%18.75
10	MP4	Z	-29.9	%81.25
11	MP7	Z	-29.9	%18.75
12	MP7	Z	-29.9	%81.25

Member Point Loads (BLC 199 : Antenna Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	10.7	%18.75
2	MP1	X	10.7	%81.25
3	MP4	X	17	%18.75
4	MP4	X	17	%81.25
5	MP7	X	10.7	%18.75
6	MP7	X	10.7	%81.25
7	MP1	Z	-18.5	%18.75
8	MP1	Z	-18.5	%81.25
9	MP4	Z	-29.5	%18.75
10	MP4	Z	-29.5	%81.25
11	MP7	Z	-18.5	%18.75
12	MP7	Z	-18.5	%81.25

Member Point Loads (BLC 200 : Antenna Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	25.9	%18.75
2	MP1	X	25.9	%81.25
3	MP4	X	25.9	%18.75
4	MP4	X	25.9	%81.25
5	MP7	X	14.9	%18.75
6	MP7	X	14.9	%81.25
7	MP1	Z	-14.9	%18.75
8	MP1	Z	-14.9	%81.25
9	MP4	Z	-14.9	%18.75
10	MP4	Z	-14.9	%81.25
11	MP7	Z	-8.6	%18.75
12	MP7	Z	-8.6	%81.25

Member Point Loads (BLC 201 : Ant. Horiz. Seismic, Eh (0))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	32.2	%18.75
2	MP1	X	32.2	%81.25
3	MP4	X	32.2	%18.75
4	MP4	X	32.2	%81.25
5	MP7	X	32.2	%18.75
6	MP7	X	32.2	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 202 : Ant. Horiz. Seismic, Eh (30))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	27.9	%18.75



Member Point Loads (BLC 202 : Ant. Horiz. Seismic, Eh (30)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
2	MP1	X	27.9	%81.25
3	MP4	X	27.9	%18.75
4	MP4	X	27.9	%81.25
5	MP7	X	27.9	%18.75
6	MP7	X	27.9	%81.25
7	MP1	Z	16.1	%18.75
8	MP1	Z	16.1	%81.25
9	MP4	Z	16.1	%18.75
10	MP4	Z	16.1	%81.25
11	MP7	Z	16.1	%18.75
12	MP7	Z	16.1	%81.25

Member Point Loads (BLC 203 : Ant. Horiz. Seismic, Eh (60))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	16.1	%18.75
2	MP1	X	16.1	%81.25
3	MP4	X	16.1	%18.75
4	MP4	X	16.1	%81.25
5	MP7	X	16.1	%18.75
6	MP7	X	16.1	%81.25
7	MP1	Z	27.9	%18.75
8	MP1	Z	27.9	%81.25
9	MP4	Z	27.9	%18.75
10	MP4	Z	27.9	%81.25
11	MP7	Z	27.9	%18.75
12	MP7	Z	27.9	%81.25

Member Point Loads (BLC 204 : Ant. Horiz. Seismic, Eh (90))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0
7	MP1	Z	32.2	%18.75
8	MP1	Z	32.2	%81.25
9	MP4	Z	32.2	%18.75
10	MP4	Z	32.2	%81.25
11	MP7	Z	32.2	%18.75
12	MP7	Z	32.2	%81.25

Member Point Loads (BLC 205 : Ant. Horiz. Seismic, Eh (120))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-16.1	%18.75
2	MP1	X	-16.1	%81.25
3	MP4	X	-16.1	%18.75
4	MP4	X	-16.1	%81.25
5	MP7	X	-16.1	%18.75
6	MP7	X	-16.1	%81.25
7	MP1	Z	27.9	%18.75
8	MP1	Z	27.9	%81.25
9	MP4	Z	27.9	%18.75
10	MP4	Z	27.9	%81.25
11	MP7	Z	27.9	%18.75



Member Point Loads (BLC 205 : Ant. Horiz. Seismic, Eh (120)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
12	MP7	Z	27.9	%81.25

Member Point Loads (BLC 206 : Ant. Horiz. Seismic, Eh (150))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-27.9	%18.75
2	MP1	X	-27.9	%81.25
3	MP4	X	-27.9	%18.75
4	MP4	X	-27.9	%81.25
5	MP7	X	-27.9	%18.75
6	MP7	X	-27.9	%81.25
7	MP1	Z	16.1	%18.75
8	MP1	Z	16.1	%81.25
9	MP4	Z	16.1	%18.75
10	MP4	Z	16.1	%81.25
11	MP7	Z	16.1	%18.75
12	MP7	Z	16.1	%81.25

Member Point Loads (BLC 207 : Ant. Horiz. Seismic, Eh (180))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-32.2	%18.75
2	MP1	X	-32.2	%81.25
3	MP4	X	-32.2	%18.75
4	MP4	X	-32.2	%81.25
5	MP7	X	-32.2	%18.75
6	MP7	X	-32.2	%81.25
7	MP1	Z	0	0
8	MP1	Z	0	0
9	MP4	Z	0	0
10	MP4	Z	0	0
11	MP7	Z	0	0
12	MP7	Z	0	0

Member Point Loads (BLC 208 : Ant. Horiz. Seismic, Eh (210))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-27.9	%18.75
2	MP1	X	-27.9	%81.25
3	MP4	X	-27.9	%18.75
4	MP4	X	-27.9	%81.25
5	MP7	X	-27.9	%18.75
6	MP7	X	-27.9	%81.25
7	MP1	Z	-16.1	%18.75
8	MP1	Z	-16.1	%81.25
9	MP4	Z	-16.1	%18.75
10	MP4	Z	-16.1	%81.25
11	MP7	Z	-16.1	%18.75
12	MP7	Z	-16.1	%81.25

Member Point Loads (BLC 209 : Ant. Horiz. Seismic, Eh (240))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-16.1	%18.75
2	MP1	X	-16.1	%81.25
3	MP4	X	-16.1	%18.75
4	MP4	X	-16.1	%81.25
5	MP7	X	-16.1	%18.75
6	MP7	X	-16.1	%81.25



Member Point Loads (BLC 209 : Ant. Horiz. Seismic, Eh (240)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
7	MP1	Z	-27.9	%18.75
8	MP1	Z	-27.9	%81.25
9	MP4	Z	-27.9	%18.75
10	MP4	Z	-27.9	%81.25
11	MP7	Z	-27.9	%18.75
12	MP7	Z	-27.9	%81.25

Member Point Loads (BLC 210 : Ant. Horiz. Seismic, Eh (270))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP4	X	0	0
4	MP4	X	0	0
5	MP7	X	0	0
6	MP7	X	0	0
7	MP1	Z	-32.2	%18.75
8	MP1	Z	-32.2	%81.25
9	MP4	Z	-32.2	%18.75
10	MP4	Z	-32.2	%81.25
11	MP7	Z	-32.2	%18.75
12	MP7	Z	-32.2	%81.25

Member Point Loads (BLC 211 : Ant. Horiz. Seismic, Eh (300))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	16.1	%18.75
2	MP1	X	16.1	%81.25
3	MP4	X	16.1	%18.75
4	MP4	X	16.1	%81.25
5	MP7	X	16.1	%18.75
6	MP7	X	16.1	%81.25
7	MP1	Z	-27.9	%18.75
8	MP1	Z	-27.9	%81.25
9	MP4	Z	-27.9	%18.75
10	MP4	Z	-27.9	%81.25
11	MP7	Z	-27.9	%18.75
12	MP7	Z	-27.9	%81.25

Member Point Loads (BLC 212 : Ant. Horiz. Seismic, Eh (330))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	27.9	%18.75
2	MP1	X	27.9	%81.25
3	MP4	X	27.9	%18.75
4	MP4	X	27.9	%81.25
5	MP7	X	27.9	%18.75
6	MP7	X	27.9	%81.25
7	MP1	Z	-16.1	%18.75
8	MP1	Z	-16.1	%81.25
9	MP4	Z	-16.1	%18.75
10	MP4	Z	-16.1	%81.25
11	MP7	Z	-16.1	%18.75
12	MP7	Z	-16.1	%81.25



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

	Member Label	Direction	Start Magnitude[lb/ft,F.psf]	End Magnitude[lb/ft,F.psf]	Start Location[in,%]	End Location[in,%]
1	BRACE-1-1A	X	6.9	6.9	0	0
2	BRACE-1-1B	X	6.9	6.9	0	0
3	BRACE-1-2A	X	6.4	6.4	0	0
4	BRACE-1-2B	X	6.4	6.4	0	0
5	BRACE-2-1A	X	6.9	6.9	0	0
6	BRACE-2-1B	X	6.9	6.9	0	0
7	BRACE-2-2A	X	6.4	6.4	0	0
8	BRACE-2-2B	X	6.4	6.4	0	0
9	BRACE-3-1A	X	13.8	13.8	0	0
10	BRACE-3-1B	X	13.8	13.8	0	0
11	BRACE-3-2A	X	12.8	12.8	0	0
12	BRACE-3-2B	X	12.8	12.8	0	0
13	FM-0	X	9.9	9.9	0	0
14	FM-120	X	5	5	0	0
15	FM-240	X	5	5	0	0
16	HR-0	X	8.2	8.2	0	0
17	HR-120	X	4.1	4.1	0	0
18	HR-240	X	4.1	4.1	0	0
19	HR-BRACE-1	X	5.5	5.5	0	0
20	HR-BRACE-2	X	5.5	5.5	0	0
21	HR-BRACE-3	X	11	11	0	0
22	SA-1	X	8.3	8.3	0	0
23	SA-2	X	8.3	8.3	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	17	17	0	0
26	PL2	X	14.5	14.5	0	0
27	PL3	X	17	17	0	0
28	PL4	X	14.5	14.5	0	0
29	PL5	X	17	17	0	0
30	PL6	X	14.5	14.5	0	0
31	PL7	X	17	17	0	0
32	PL8	X	14.5	14.5	0	0
33	PL9	X	17	17	0	0
34	PL10	X	14.5	14.5	0	0
35	PL11	X	17	17	0	0
36	PL12	X	14.5	14.5	0	0
37	PL13	X	8.5	8.5	0	0
38	PL14	X	14.9	14.9	0	0
39	PL15	X	8.5	8.5	0	0
40	PL16	X	14.9	14.9	0	0
41	PL17	X	8.5	8.5	0	0
42	PL18	X	14.9	14.9	0	0
43	PL19	X	8.5	8.5	0	0
44	PL20	X	.4	.4	0	0
45	PL21	X	8.5	8.5	0	0
46	PL22	X	.4	.4	0	0
47	PL23	X	8.5	8.5	0	0
48	PL24	X	.4	.4	0	0
49	PL25	X	8.5	8.5	0	0
50	PL26	X	.4	.4	0	0
51	PL27	X	8.5	8.5	0	0
52	PL28	X	.4	.4	0	0
53	PL29	X	8.5	8.5	0	0
54	PL30	X	.4	.4	0	0
55	PL31	X	8.5	8.5	0	0
56	PL32	X	14.9	14.9	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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 Checked By: DHK

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

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
57	PL33	X	8.5	8.5	0 0
58	PL34	X	14.9	14.9	0 0
59	PL35	X	8.5	8.5	0 0
60	PL36	X	14.9	14.9	0 0
61	BRACE-1-1A	Z	0	0	0 0
62	BRACE-1-1B	Z	0	0	0 0
63	BRACE-1-2A	Z	0	0	0 0
64	BRACE-1-2B	Z	0	0	0 0
65	BRACE-2-1A	Z	0	0	0 0
66	BRACE-2-1B	Z	0	0	0 0
67	BRACE-2-2A	Z	0	0	0 0
68	BRACE-2-2B	Z	0	0	0 0
69	BRACE-3-1A	Z	0	0	0 0
70	BRACE-3-1B	Z	0	0	0 0
71	BRACE-3-2A	Z	0	0	0 0
72	BRACE-3-2B	Z	0	0	0 0
73	FM-0	Z	0	0	0 0
74	FM-120	Z	0	0	0 0
75	FM-240	Z	0	0	0 0
76	HR-0	Z	0	0	0 0
77	HR-120	Z	0	0	0 0
78	HR-240	Z	0	0	0 0
79	HR-BRACE-1	Z	0	0	0 0
80	HR-BRACE-2	Z	0	0	0 0
81	HR-BRACE-3	Z	0	0	0 0
82	SA-1	Z	0	0	0 0
83	SA-2	Z	0	0	0 0
84	SA-3	Z	0	0	0 0
85	PL1	Z	0	0	0 0
86	PL2	Z	0	0	0 0
87	PL3	Z	0	0	0 0
88	PL4	Z	0	0	0 0
89	PL5	Z	0	0	0 0
90	PL6	Z	0	0	0 0
91	PL7	Z	0	0	0 0
92	PL8	Z	0	0	0 0
93	PL9	Z	0	0	0 0
94	PL10	Z	0	0	0 0
95	PL11	Z	0	0	0 0
96	PL12	Z	0	0	0 0
97	PL13	Z	0	0	0 0
98	PL14	Z	0	0	0 0
99	PL15	Z	0	0	0 0
100	PL16	Z	0	0	0 0
101	PL17	Z	0	0	0 0
102	PL18	Z	0	0	0 0
103	PL19	Z	0	0	0 0
104	PL20	Z	0	0	0 0
105	PL21	Z	0	0	0 0
106	PL22	Z	0	0	0 0
107	PL23	Z	0	0	0 0
108	PL24	Z	0	0	0 0
109	PL25	Z	0	0	0 0
110	PL26	Z	0	0	0 0
111	PL27	Z	0	0	0 0
112	PL28	Z	0	0	0 0
113	PL29	Z	0	0	0 0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
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 Checked By: DHK

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

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
114	PL30	Z	0	0	0	0
115	PL31	Z	0	0	0	0
116	PL32	Z	0	0	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	0	0	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	0	0	0	0

Member Distributed Loads (BLC 3 : Wind Load (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	10.4	10.4	0	0
6	BRACE-2-1B	X	10.4	10.4	0	0
7	BRACE-2-2A	X	9.6	9.6	0	0
8	BRACE-2-2B	X	9.6	9.6	0	0
9	BRACE-3-1A	X	10.4	10.4	0	0
10	BRACE-3-1B	X	10.4	10.4	0	0
11	BRACE-3-2A	X	9.6	9.6	0	0
12	BRACE-3-2B	X	9.6	9.6	0	0
13	FM-0	X	7.4	7.4	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	7.4	7.4	0	0
16	HR-0	X	6.1	6.1	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	6.1	6.1	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	8.2	8.2	0	0
21	HR-BRACE-3	X	8.2	8.2	0	0
22	SA-1	X	8.3	8.3	0	0
23	SA-2	X	4.2	4.2	0	0
24	SA-3	X	4.2	4.2	0	0
25	PL1	X	12.7	12.7	0	0
26	PL2	X	14.7	14.7	0	0
27	PL3	X	12.7	12.7	0	0
28	PL4	X	14.7	14.7	0	0
29	PL5	X	12.7	12.7	0	0
30	PL6	X	14.7	14.7	0	0
31	PL7	X	12.7	12.7	0	0
32	PL8	X	7	7	0	0
33	PL9	X	12.7	12.7	0	0
34	PL10	X	7	7	0	0
35	PL11	X	12.7	12.7	0	0
36	PL12	X	7	7	0	0
37	PL13	X	0	0	0	0
38	PL14	X	7.7	7.7	0	0
39	PL15	X	0	0	0	0
40	PL16	X	7.7	7.7	0	0
41	PL17	X	0	0	0	0
42	PL18	X	7.7	7.7	0	0
43	PL19	X	0	0	0	0
44	PL20	X	7.7	7.7	0	0
45	PL21	X	0	0	0	0
46	PL22	X	7.7	7.7	0	0



Member Distributed Loads (BLC 3 : Wind Load (30 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
47	PL23	X	0	0	0
48	PL24	X	7.7	7.7	0
49	PL25	X	12.7	12.7	0
50	PL26	X	7	7	0
51	PL27	X	12.7	12.7	0
52	PL28	X	7	7	0
53	PL29	X	12.7	12.7	0
54	PL30	X	7	7	0
55	PL31	X	12.7	12.7	0
56	PL32	X	14.7	14.7	0
57	PL33	X	12.7	12.7	0
58	PL34	X	14.7	14.7	0
59	PL35	X	12.7	12.7	0
60	PL36	X	14.7	14.7	0
61	BRACE-1-1A	Z	0	0	0
62	BRACE-1-1B	Z	0	0	0
63	BRACE-1-2A	Z	0	0	0
64	BRACE-1-2B	Z	0	0	0
65	BRACE-2-1A	Z	6	6	0
66	BRACE-2-1B	Z	6	6	0
67	BRACE-2-2A	Z	5.5	5.5	0
68	BRACE-2-2B	Z	5.5	5.5	0
69	BRACE-3-1A	Z	6	6	0
70	BRACE-3-1B	Z	6	6	0
71	BRACE-3-2A	Z	5.5	5.5	0
72	BRACE-3-2B	Z	5.5	5.5	0
73	FM-0	Z	4.3	4.3	0
74	FM-120	Z	0	0	0
75	FM-240	Z	4.3	4.3	0
76	HR-0	Z	3.5	3.5	0
77	HR-120	Z	0	0	0
78	HR-240	Z	3.5	3.5	0
79	HR-BRACE-1	Z	0	0	0
80	HR-BRACE-2	Z	4.7	4.7	0
81	HR-BRACE-3	Z	4.7	4.7	0
82	SA-1	Z	4.8	4.8	0
83	SA-2	Z	2.4	2.4	0
84	SA-3	Z	2.4	2.4	0
85	PL1	Z	7.4	7.4	0
86	PL2	Z	8.5	8.5	0
87	PL3	Z	7.4	7.4	0
88	PL4	Z	8.5	8.5	0
89	PL5	Z	7.4	7.4	0
90	PL6	Z	8.5	8.5	0
91	PL7	Z	7.4	7.4	0
92	PL8	Z	4.1	4.1	0
93	PL9	Z	7.4	7.4	0
94	PL10	Z	4.1	4.1	0
95	PL11	Z	7.4	7.4	0
96	PL12	Z	4.1	4.1	0
97	PL13	Z	0	0	0
98	PL14	Z	4.4	4.4	0
99	PL15	Z	0	0	0
100	PL16	Z	4.4	4.4	0
101	PL17	Z	0	0	0
102	PL18	Z	4.4	4.4	0
103	PL19	Z	0	0	0



Member Distributed Loads (BLC 3 : Wind Load (30 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
104	PL20	Z	4.4	4.4	0	0
105	PL21	Z	0	0	0	0
106	PL22	Z	4.4	4.4	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	4.4	4.4	0	0
109	PL25	Z	7.4	7.4	0	0
110	PL26	Z	4.1	4.1	0	0
111	PL27	Z	7.4	7.4	0	0
112	PL28	Z	4.1	4.1	0	0
113	PL29	Z	7.4	7.4	0	0
114	PL30	Z	4.1	4.1	0	0
115	PL31	Z	7.4	7.4	0	0
116	PL32	Z	8.5	8.5	0	0
117	PL33	Z	7.4	7.4	0	0
118	PL34	Z	8.5	8.5	0	0
119	PL35	Z	7.4	7.4	0	0
120	PL36	Z	8.5	8.5	0	0

Member Distributed Loads (BLC 4 : Wind Load (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	3.5	3.5	0	0
2	BRACE-1-1B	X	3.5	3.5	0	0
3	BRACE-1-2A	X	3.2	3.2	0	0
4	BRACE-1-2B	X	3.2	3.2	0	0
5	BRACE-2-1A	X	6.9	6.9	0	0
6	BRACE-2-1B	X	6.9	6.9	0	0
7	BRACE-2-2A	X	6.4	6.4	0	0
8	BRACE-2-2B	X	6.4	6.4	0	0
9	BRACE-3-1A	X	3.5	3.5	0	0
10	BRACE-3-1B	X	3.5	3.5	0	0
11	BRACE-3-2A	X	3.2	3.2	0	0
12	BRACE-3-2B	X	3.2	3.2	0	0
13	FM-0	X	2.5	2.5	0	0
14	FM-120	X	2.5	2.5	0	0
15	FM-240	X	5	5	0	0
16	HR-0	X	2	2	0	0
17	HR-120	X	2	2	0	0
18	HR-240	X	4.1	4.1	0	0
19	HR-BRACE-1	X	2.7	2.7	0	0
20	HR-BRACE-2	X	5.5	5.5	0	0
21	HR-BRACE-3	X	2.7	2.7	0	0
22	SA-1	X	4.2	4.2	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	4.2	4.2	0	0
25	PL1	X	4.2	4.2	0	0
26	PL2	X	7.5	7.5	0	0
27	PL3	X	4.2	4.2	0	0
28	PL4	X	7.5	7.5	0	0
29	PL5	X	4.2	4.2	0	0
30	PL6	X	7.5	7.5	0	0
31	PL7	X	4.2	4.2	0	0
32	PL8	X	.2	.2	0	0
33	PL9	X	4.2	4.2	0	0
34	PL10	X	.2	.2	0	0
35	PL11	X	4.2	4.2	0	0
36	PL12	X	.2	.2	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 4 : Wind Load (60 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
37	PL13	X	4.2	4.2	0	0
38	PL14	X	.2	.2	0	0
39	PL15	X	4.2	4.2	0	0
40	PL16	X	.2	.2	0	0
41	PL17	X	4.2	4.2	0	0
42	PL18	X	.2	.2	0	0
43	PL19	X	4.2	4.2	0	0
44	PL20	X	7.5	7.5	0	0
45	PL21	X	4.2	4.2	0	0
46	PL22	X	7.5	7.5	0	0
47	PL23	X	4.2	4.2	0	0
48	PL24	X	7.5	7.5	0	0
49	PL25	X	8.5	8.5	0	0
50	PL26	X	7.2	7.2	0	0
51	PL27	X	8.5	8.5	0	0
52	PL28	X	7.2	7.2	0	0
53	PL29	X	8.5	8.5	0	0
54	PL30	X	7.2	7.2	0	0
55	PL31	X	8.5	8.5	0	0
56	PL32	X	7.2	7.2	0	0
57	PL33	X	8.5	8.5	0	0
58	PL34	X	7.2	7.2	0	0
59	PL35	X	8.5	8.5	0	0
60	PL36	X	7.2	7.2	0	0
61	BRACE-1-1A	Z	6	6	0	0
62	BRACE-1-1B	Z	6	6	0	0
63	BRACE-1-2A	Z	5.5	5.5	0	0
64	BRACE-1-2B	Z	5.5	5.5	0	0
65	BRACE-2-1A	Z	12	12	0	0
66	BRACE-2-1B	Z	12	12	0	0
67	BRACE-2-2A	Z	11.1	11.1	0	0
68	BRACE-2-2B	Z	11.1	11.1	0	0
69	BRACE-3-1A	Z	6	6	0	0
70	BRACE-3-1B	Z	6	6	0	0
71	BRACE-3-2A	Z	5.5	5.5	0	0
72	BRACE-3-2B	Z	5.5	5.5	0	0
73	FM-0	Z	4.3	4.3	0	0
74	FM-120	Z	4.3	4.3	0	0
75	FM-240	Z	8.6	8.6	0	0
76	HR-0	Z	3.5	3.5	0	0
77	HR-120	Z	3.5	3.5	0	0
78	HR-240	Z	7.1	7.1	0	0
79	HR-BRACE-1	Z	4.7	4.7	0	0
80	HR-BRACE-2	Z	9.5	9.5	0	0
81	HR-BRACE-3	Z	4.7	4.7	0	0
82	SA-1	Z	7.2	7.2	0	0
83	SA-2	Z	0	0	0	0
84	SA-3	Z	7.2	7.2	0	0
85	PL1	Z	7.4	7.4	0	0
86	PL2	Z	12.9	12.9	0	0
87	PL3	Z	7.4	7.4	0	0
88	PL4	Z	12.9	12.9	0	0
89	PL5	Z	7.4	7.4	0	0
90	PL6	Z	12.9	12.9	0	0
91	PL7	Z	7.4	7.4	0	0
92	PL8	Z	.4	.4	0	0
93	PL9	Z	7.4	7.4	0	0



Member Distributed Loads (BLC 4 : Wind Load (60 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
94	PL10	Z	.4	.4	0	0
95	PL11	Z	7.4	7.4	0	0
96	PL12	Z	.4	.4	0	0
97	PL13	Z	7.4	7.4	0	0
98	PL14	Z	.4	.4	0	0
99	PL15	Z	7.4	7.4	0	0
100	PL16	Z	.4	.4	0	0
101	PL17	Z	7.4	7.4	0	0
102	PL18	Z	.4	.4	0	0
103	PL19	Z	7.4	7.4	0	0
104	PL20	Z	12.9	12.9	0	0
105	PL21	Z	7.4	7.4	0	0
106	PL22	Z	12.9	12.9	0	0
107	PL23	Z	7.4	7.4	0	0
108	PL24	Z	12.9	12.9	0	0
109	PL25	Z	14.7	14.7	0	0
110	PL26	Z	12.5	12.5	0	0
111	PL27	Z	14.7	14.7	0	0
112	PL28	Z	12.5	12.5	0	0
113	PL29	Z	14.7	14.7	0	0
114	PL30	Z	12.5	12.5	0	0
115	PL31	Z	14.7	14.7	0	0
116	PL32	Z	12.5	12.5	0	0
117	PL33	Z	14.7	14.7	0	0
118	PL34	Z	12.5	12.5	0	0
119	PL35	Z	14.7	14.7	0	0
120	PL36	Z	12.5	12.5	0	0

Member Distributed Loads (BLC 5 : Wind Load (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	0	0	0	0
10	BRACE-3-1B	X	0	0	0	0
11	BRACE-3-2A	X	0	0	0	0
12	BRACE-3-2B	X	0	0	0	0
13	FM-0	X	0	0	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	0	0	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	0	0	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	0	0	0	0
26	PL2	X	0	0	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 5 : Wind Load (90 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
27	PL3	X	0	0	0
28	PL4	X	0	0	0
29	PL5	X	0	0	0
30	PL6	X	0	0	0
31	PL7	X	0	0	0
32	PL8	X	0	0	0
33	PL9	X	0	0	0
34	PL10	X	0	0	0
35	PL11	X	0	0	0
36	PL12	X	0	0	0
37	PL13	X	0	0	0
38	PL14	X	0	0	0
39	PL15	X	0	0	0
40	PL16	X	0	0	0
41	PL17	X	0	0	0
42	PL18	X	0	0	0
43	PL19	X	0	0	0
44	PL20	X	0	0	0
45	PL21	X	0	0	0
46	PL22	X	0	0	0
47	PL23	X	0	0	0
48	PL24	X	0	0	0
49	PL25	X	0	0	0
50	PL26	X	0	0	0
51	PL27	X	0	0	0
52	PL28	X	0	0	0
53	PL29	X	0	0	0
54	PL30	X	0	0	0
55	PL31	X	0	0	0
56	PL32	X	0	0	0
57	PL33	X	0	0	0
58	PL34	X	0	0	0
59	PL35	X	0	0	0
60	PL36	X	0	0	0
61	BRACE-1-1A	Z	12	12	0
62	BRACE-1-1B	Z	12	12	0
63	BRACE-1-2A	Z	11.1	11.1	0
64	BRACE-1-2B	Z	11.1	11.1	0
65	BRACE-2-1A	Z	12	12	0
66	BRACE-2-1B	Z	12	12	0
67	BRACE-2-2A	Z	11.1	11.1	0
68	BRACE-2-2B	Z	11.1	11.1	0
69	BRACE-3-1A	Z	0	0	0
70	BRACE-3-1B	Z	0	0	0
71	BRACE-3-2A	Z	0	0	0
72	BRACE-3-2B	Z	0	0	0
73	FM-0	Z	0	0	0
74	FM-120	Z	8.6	8.6	0
75	FM-240	Z	8.6	8.6	0
76	HR-0	Z	0	0	0
77	HR-120	Z	7.1	7.1	0
78	HR-240	Z	7.1	7.1	0
79	HR-BRACE-1	Z	9.5	9.5	0
80	HR-BRACE-2	Z	9.5	9.5	0
81	HR-BRACE-3	Z	0	0	0
82	SA-1	Z	4.8	4.8	0
83	SA-2	Z	4.8	4.8	0



Member Distributed Loads (BLC 5 : Wind Load (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
84	SA-3	Z	9.6	9.6	0	0
85	PL1	Z	0	0	0	0
86	PL2	Z	8.9	8.9	0	0
87	PL3	Z	0	0	0	0
88	PL4	Z	8.9	8.9	0	0
89	PL5	Z	0	0	0	0
90	PL6	Z	8.9	8.9	0	0
91	PL7	Z	0	0	0	0
92	PL8	Z	8.9	8.9	0	0
93	PL9	Z	0	0	0	0
94	PL10	Z	8.9	8.9	0	0
95	PL11	Z	0	0	0	0
96	PL12	Z	8.9	8.9	0	0
97	PL13	Z	14.7	14.7	0	0
98	PL14	Z	8.1	8.1	0	0
99	PL15	Z	14.7	14.7	0	0
100	PL16	Z	8.1	8.1	0	0
101	PL17	Z	14.7	14.7	0	0
102	PL18	Z	8.1	8.1	0	0
103	PL19	Z	14.7	14.7	0	0
104	PL20	Z	17	17	0	0
105	PL21	Z	14.7	14.7	0	0
106	PL22	Z	17	17	0	0
107	PL23	Z	14.7	14.7	0	0
108	PL24	Z	17	17	0	0
109	PL25	Z	14.7	14.7	0	0
110	PL26	Z	17	17	0	0
111	PL27	Z	14.7	14.7	0	0
112	PL28	Z	17	17	0	0
113	PL29	Z	14.7	14.7	0	0
114	PL30	Z	17	17	0	0
115	PL31	Z	14.7	14.7	0	0
116	PL32	Z	8.1	8.1	0	0
117	PL33	Z	14.7	14.7	0	0
118	PL34	Z	8.1	8.1	0	0
119	PL35	Z	14.7	14.7	0	0
120	PL36	Z	8.1	8.1	0	0

Member Distributed Loads (BLC 6 : Wind Load (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-6.9	-6.9	0	0
2	BRACE-1-1B	X	-6.9	-6.9	0	0
3	BRACE-1-2A	X	-6.4	-6.4	0	0
4	BRACE-1-2B	X	-6.4	-6.4	0	0
5	BRACE-2-1A	X	-3.5	-3.5	0	0
6	BRACE-2-1B	X	-3.5	-3.5	0	0
7	BRACE-2-2A	X	-3.2	-3.2	0	0
8	BRACE-2-2B	X	-3.2	-3.2	0	0
9	BRACE-3-1A	X	-3.5	-3.5	0	0
10	BRACE-3-1B	X	-3.5	-3.5	0	0
11	BRACE-3-2A	X	-3.2	-3.2	0	0
12	BRACE-3-2B	X	-3.2	-3.2	0	0
13	FM-0	X	-2.5	-2.5	0	0
14	FM-120	X	-5	-5	0	0
15	FM-240	X	-2.5	-2.5	0	0
16	HR-0	X	-2	-2	0	0



Member Distributed Loads (BLC 6 : Wind Load (120 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
17	HR-120	X	-4.1	-4.1	0	0
18	HR-240	X	-2	-2	0	0
19	HR-BRACE-1	X	-5.5	-5.5	0	0
20	HR-BRACE-2	X	-2.7	-2.7	0	0
21	HR-BRACE-3	X	-2.7	-2.7	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	-4.2	-4.2	0	0
24	SA-3	X	-4.2	-4.2	0	0
25	PL1	X	-4.2	-4.2	0	0
26	PL2	X	-2	-2	0	0
27	PL3	X	-4.2	-4.2	0	0
28	PL4	X	-2	-2	0	0
29	PL5	X	-4.2	-4.2	0	0
30	PL6	X	-2	-2	0	0
31	PL7	X	-4.2	-4.2	0	0
32	PL8	X	-7.5	-7.5	0	0
33	PL9	X	-4.2	-4.2	0	0
34	PL10	X	-7.5	-7.5	0	0
35	PL11	X	-4.2	-4.2	0	0
36	PL12	X	-7.5	-7.5	0	0
37	PL13	X	-8.5	-8.5	0	0
38	PL14	X	-7.2	-7.2	0	0
39	PL15	X	-8.5	-8.5	0	0
40	PL16	X	-7.2	-7.2	0	0
41	PL17	X	-8.5	-8.5	0	0
42	PL18	X	-7.2	-7.2	0	0
43	PL19	X	-8.5	-8.5	0	0
44	PL20	X	-7.2	-7.2	0	0
45	PL21	X	-8.5	-8.5	0	0
46	PL22	X	-7.2	-7.2	0	0
47	PL23	X	-8.5	-8.5	0	0
48	PL24	X	-7.2	-7.2	0	0
49	PL25	X	-4.2	-4.2	0	0
50	PL26	X	-7.5	-7.5	0	0
51	PL27	X	-4.2	-4.2	0	0
52	PL28	X	-7.5	-7.5	0	0
53	PL29	X	-4.2	-4.2	0	0
54	PL30	X	-7.5	-7.5	0	0
55	PL31	X	-4.2	-4.2	0	0
56	PL32	X	-2	-2	0	0
57	PL33	X	-4.2	-4.2	0	0
58	PL34	X	-2	-2	0	0
59	PL35	X	-4.2	-4.2	0	0
60	PL36	X	-2	-2	0	0
61	BRACE-1-1A	Z	12	12	0	0
62	BRACE-1-1B	Z	12	12	0	0
63	BRACE-1-2A	Z	11.1	11.1	0	0
64	BRACE-1-2B	Z	11.1	11.1	0	0
65	BRACE-2-1A	Z	6	6	0	0
66	BRACE-2-1B	Z	6	6	0	0
67	BRACE-2-2A	Z	5.5	5.5	0	0
68	BRACE-2-2B	Z	5.5	5.5	0	0
69	BRACE-3-1A	Z	6	6	0	0
70	BRACE-3-1B	Z	6	6	0	0
71	BRACE-3-2A	Z	5.5	5.5	0	0
72	BRACE-3-2B	Z	5.5	5.5	0	0
73	FM-0	Z	4.3	4.3	0	0



Member Distributed Loads (BLC 6 : Wind Load (120 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
74	FM-120	Z	8.6	8.6	0	0
75	FM-240	Z	4.3	4.3	0	0
76	HR-0	Z	3.5	3.5	0	0
77	HR-120	Z	7.1	7.1	0	0
78	HR-240	Z	3.5	3.5	0	0
79	HR-BRACE-1	Z	9.5	9.5	0	0
80	HR-BRACE-2	Z	4.7	4.7	0	0
81	HR-BRACE-3	Z	4.7	4.7	0	0
82	SA-1	Z	0	0	0	0
83	SA-2	Z	7.2	7.2	0	0
84	SA-3	Z	7.2	7.2	0	0
85	PL1	Z	7.4	7.4	0	0
86	PL2	Z	.4	.4	0	0
87	PL3	Z	7.4	7.4	0	0
88	PL4	Z	.4	.4	0	0
89	PL5	Z	7.4	7.4	0	0
90	PL6	Z	.4	.4	0	0
91	PL7	Z	7.4	7.4	0	0
92	PL8	Z	12.9	12.9	0	0
93	PL9	Z	7.4	7.4	0	0
94	PL10	Z	12.9	12.9	0	0
95	PL11	Z	7.4	7.4	0	0
96	PL12	Z	12.9	12.9	0	0
97	PL13	Z	14.7	14.7	0	0
98	PL14	Z	12.5	12.5	0	0
99	PL15	Z	14.7	14.7	0	0
100	PL16	Z	12.5	12.5	0	0
101	PL17	Z	14.7	14.7	0	0
102	PL18	Z	12.5	12.5	0	0
103	PL19	Z	14.7	14.7	0	0
104	PL20	Z	12.5	12.5	0	0
105	PL21	Z	14.7	14.7	0	0
106	PL22	Z	12.5	12.5	0	0
107	PL23	Z	14.7	14.7	0	0
108	PL24	Z	12.5	12.5	0	0
109	PL25	Z	7.4	7.4	0	0
110	PL26	Z	12.9	12.9	0	0
111	PL27	Z	7.4	7.4	0	0
112	PL28	Z	12.9	12.9	0	0
113	PL29	Z	7.4	7.4	0	0
114	PL30	Z	12.9	12.9	0	0
115	PL31	Z	7.4	7.4	0	0
116	PL32	Z	.4	.4	0	0
117	PL33	Z	7.4	7.4	0	0
118	PL34	Z	.4	.4	0	0
119	PL35	Z	7.4	7.4	0	0
120	PL36	Z	.4	.4	0	0

Member Distributed Loads (BLC 7 : Wind Load (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-10.4	-10.4	0	0
2	BRACE-1-1B	X	-10.4	-10.4	0	0
3	BRACE-1-2A	X	-9.6	-9.6	0	0
4	BRACE-1-2B	X	-9.6	-9.6	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0



Member Distributed Loads (BLC 7 : Wind Load (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	-10.4	-10.4	0	0
10	BRACE-3-1B	X	-10.4	-10.4	0	0
11	BRACE-3-2A	X	-9.6	-9.6	0	0
12	BRACE-3-2B	X	-9.6	-9.6	0	0
13	FM-0	X	-7.4	-7.4	0	0
14	FM-120	X	-7.4	-7.4	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	-6.1	-6.1	0	0
17	HR-120	X	-6.1	-6.1	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	-8.2	-8.2	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	-8.2	-8.2	0	0
22	SA-1	X	-4.2	-4.2	0	0
23	SA-2	X	-8.3	-8.3	0	0
24	SA-3	X	-4.2	-4.2	0	0
25	PL1	X	-12.7	-12.7	0	0
26	PL2	X	-7	-7	0	0
27	PL3	X	-12.7	-12.7	0	0
28	PL4	X	-7	-7	0	0
29	PL5	X	-12.7	-12.7	0	0
30	PL6	X	-7	-7	0	0
31	PL7	X	-12.7	-12.7	0	0
32	PL8	X	-14.7	-14.7	0	0
33	PL9	X	-12.7	-12.7	0	0
34	PL10	X	-14.7	-14.7	0	0
35	PL11	X	-12.7	-12.7	0	0
36	PL12	X	-14.7	-14.7	0	0
37	PL13	X	-12.7	-12.7	0	0
38	PL14	X	-14.7	-14.7	0	0
39	PL15	X	-12.7	-12.7	0	0
40	PL16	X	-14.7	-14.7	0	0
41	PL17	X	-12.7	-12.7	0	0
42	PL18	X	-14.7	-14.7	0	0
43	PL19	X	-12.7	-12.7	0	0
44	PL20	X	-7	-7	0	0
45	PL21	X	-12.7	-12.7	0	0
46	PL22	X	-7	-7	0	0
47	PL23	X	-12.7	-12.7	0	0
48	PL24	X	-7	-7	0	0
49	PL25	X	0	0	0	0
50	PL26	X	-7.7	-7.7	0	0
51	PL27	X	0	0	0	0
52	PL28	X	-7.7	-7.7	0	0
53	PL29	X	0	0	0	0
54	PL30	X	-7.7	-7.7	0	0
55	PL31	X	0	0	0	0
56	PL32	X	-7.7	-7.7	0	0
57	PL33	X	0	0	0	0
58	PL34	X	-7.7	-7.7	0	0
59	PL35	X	0	0	0	0
60	PL36	X	-7.7	-7.7	0	0
61	BRACE-1-1A	Z	6	6	0	0
62	BRACE-1-1B	Z	6	6	0	0
63	BRACE-1-2A	Z	5.5	5.5	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 7 : Wind Load (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,°]	End Location[in,°]
64	BRACE-1-2B	Z	5.5	5.5	0	0
65	BRACE-2-1A	Z	0	0	0	0
66	BRACE-2-1B	Z	0	0	0	0
67	BRACE-2-2A	Z	0	0	0	0
68	BRACE-2-2B	Z	0	0	0	0
69	BRACE-3-1A	Z	6	6	0	0
70	BRACE-3-1B	Z	6	6	0	0
71	BRACE-3-2A	Z	5.5	5.5	0	0
72	BRACE-3-2B	Z	5.5	5.5	0	0
73	FM-0	Z	4.3	4.3	0	0
74	FM-120	Z	4.3	4.3	0	0
75	FM-240	Z	0	0	0	0
76	HR-0	Z	3.5	3.5	0	0
77	HR-120	Z	3.5	3.5	0	0
78	HR-240	Z	0	0	0	0
79	HR-BRACE-1	Z	4.7	4.7	0	0
80	HR-BRACE-2	Z	0	0	0	0
81	HR-BRACE-3	Z	4.7	4.7	0	0
82	SA-1	Z	2.4	2.4	0	0
83	SA-2	Z	4.8	4.8	0	0
84	SA-3	Z	2.4	2.4	0	0
85	PL1	Z	7.4	7.4	0	0
86	PL2	Z	4.1	4.1	0	0
87	PL3	Z	7.4	7.4	0	0
88	PL4	Z	4.1	4.1	0	0
89	PL5	Z	7.4	7.4	0	0
90	PL6	Z	4.1	4.1	0	0
91	PL7	Z	7.4	7.4	0	0
92	PL8	Z	8.5	8.5	0	0
93	PL9	Z	7.4	7.4	0	0
94	PL10	Z	8.5	8.5	0	0
95	PL11	Z	7.4	7.4	0	0
96	PL12	Z	8.5	8.5	0	0
97	PL13	Z	7.4	7.4	0	0
98	PL14	Z	8.5	8.5	0	0
99	PL15	Z	7.4	7.4	0	0
100	PL16	Z	8.5	8.5	0	0
101	PL17	Z	7.4	7.4	0	0
102	PL18	Z	8.5	8.5	0	0
103	PL19	Z	7.4	7.4	0	0
104	PL20	Z	4.1	4.1	0	0
105	PL21	Z	7.4	7.4	0	0
106	PL22	Z	4.1	4.1	0	0
107	PL23	Z	7.4	7.4	0	0
108	PL24	Z	4.1	4.1	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	4.4	4.4	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	4.4	4.4	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	4.4	4.4	0	0
115	PL31	Z	0	0	0	0
116	PL32	Z	4.4	4.4	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	4.4	4.4	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	4.4	4.4	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 8 : Wind Load (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-6.9	-6.9	0	0
2	BRACE-1-1B	X	-6.9	-6.9	0	0
3	BRACE-1-2A	X	-6.4	-6.4	0	0
4	BRACE-1-2B	X	-6.4	-6.4	0	0
5	BRACE-2-1A	X	-6.9	-6.9	0	0
6	BRACE-2-1B	X	-6.9	-6.9	0	0
7	BRACE-2-2A	X	-6.4	-6.4	0	0
8	BRACE-2-2B	X	-6.4	-6.4	0	0
9	BRACE-3-1A	X	-13.8	-13.8	0	0
10	BRACE-3-1B	X	-13.8	-13.8	0	0
11	BRACE-3-2A	X	-12.8	-12.8	0	0
12	BRACE-3-2B	X	-12.8	-12.8	0	0
13	FM-0	X	-9.9	-9.9	0	0
14	FM-120	X	-5	-5	0	0
15	FM-240	X	-5	-5	0	0
16	HR-0	X	-8.2	-8.2	0	0
17	HR-120	X	-4.1	-4.1	0	0
18	HR-240	X	-4.1	-4.1	0	0
19	HR-BRACE-1	X	-5.5	-5.5	0	0
20	HR-BRACE-2	X	-5.5	-5.5	0	0
21	HR-BRACE-3	X	-11	-11	0	0
22	SA-1	X	-8.3	-8.3	0	0
23	SA-2	X	-8.3	-8.3	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	-17	-17	0	0
26	PL2	X	-14.5	-14.5	0	0
27	PL3	X	-17	-17	0	0
28	PL4	X	-14.5	-14.5	0	0
29	PL5	X	-17	-17	0	0
30	PL6	X	-14.5	-14.5	0	0
31	PL7	X	-17	-17	0	0
32	PL8	X	-14.5	-14.5	0	0
33	PL9	X	-17	-17	0	0
34	PL10	X	-14.5	-14.5	0	0
35	PL11	X	-17	-17	0	0
36	PL12	X	-14.5	-14.5	0	0
37	PL13	X	-8.5	-8.5	0	0
38	PL14	X	-14.9	-14.9	0	0
39	PL15	X	-8.5	-8.5	0	0
40	PL16	X	-14.9	-14.9	0	0
41	PL17	X	-8.5	-8.5	0	0
42	PL18	X	-14.9	-14.9	0	0
43	PL19	X	-8.5	-8.5	0	0
44	PL20	X	-4	-4	0	0
45	PL21	X	-8.5	-8.5	0	0
46	PL22	X	-4	-4	0	0
47	PL23	X	-8.5	-8.5	0	0
48	PL24	X	-4	-4	0	0
49	PL25	X	-8.5	-8.5	0	0
50	PL26	X	-4	-4	0	0
51	PL27	X	-8.5	-8.5	0	0
52	PL28	X	-4	-4	0	0
53	PL29	X	-8.5	-8.5	0	0
54	PL30	X	-4	-4	0	0
55	PL31	X	-8.5	-8.5	0	0
56	PL32	X	-14.9	-14.9	0	0
57	PL33	X	-8.5	-8.5	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 8 : Wind Load (180 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
58	PL34	X	-14.9	-14.9	0	0
59	PL35	X	-8.5	-8.5	0	0
60	PL36	X	-14.9	-14.9	0	0
61	BRACE-1-1A	Z	0	0	0	0
62	BRACE-1-1B	Z	0	0	0	0
63	BRACE-1-2A	Z	0	0	0	0
64	BRACE-1-2B	Z	0	0	0	0
65	BRACE-2-1A	Z	0	0	0	0
66	BRACE-2-1B	Z	0	0	0	0
67	BRACE-2-2A	Z	0	0	0	0
68	BRACE-2-2B	Z	0	0	0	0
69	BRACE-3-1A	Z	0	0	0	0
70	BRACE-3-1B	Z	0	0	0	0
71	BRACE-3-2A	Z	0	0	0	0
72	BRACE-3-2B	Z	0	0	0	0
73	FM-0	Z	0	0	0	0
74	FM-120	Z	0	0	0	0
75	FM-240	Z	0	0	0	0
76	HR-0	Z	0	0	0	0
77	HR-120	Z	0	0	0	0
78	HR-240	Z	0	0	0	0
79	HR-BRACE-1	Z	0	0	0	0
80	HR-BRACE-2	Z	0	0	0	0
81	HR-BRACE-3	Z	0	0	0	0
82	SA-1	Z	0	0	0	0
83	SA-2	Z	0	0	0	0
84	SA-3	Z	0	0	0	0
85	PL1	Z	0	0	0	0
86	PL2	Z	0	0	0	0
87	PL3	Z	0	0	0	0
88	PL4	Z	0	0	0	0
89	PL5	Z	0	0	0	0
90	PL6	Z	0	0	0	0
91	PL7	Z	0	0	0	0
92	PL8	Z	0	0	0	0
93	PL9	Z	0	0	0	0
94	PL10	Z	0	0	0	0
95	PL11	Z	0	0	0	0
96	PL12	Z	0	0	0	0
97	PL13	Z	0	0	0	0
98	PL14	Z	0	0	0	0
99	PL15	Z	0	0	0	0
100	PL16	Z	0	0	0	0
101	PL17	Z	0	0	0	0
102	PL18	Z	0	0	0	0
103	PL19	Z	0	0	0	0
104	PL20	Z	0	0	0	0
105	PL21	Z	0	0	0	0
106	PL22	Z	0	0	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	0	0	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	0	0	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	0	0	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	0	0	0	0



Member Distributed Loads (BLC 8 : Wind Load (180 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/..]	Start Location[in.%]	End Location[in.%]
115	PL31	Z	0	0	0	0
116	PL32	Z	0	0	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	0	0	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	0	0	0	0

Member Distributed Loads (BLC 9 : Wind Load (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/..]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	-10.4	-10.4	0	0
6	BRACE-2-1B	X	-10.4	-10.4	0	0
7	BRACE-2-2A	X	-9.6	-9.6	0	0
8	BRACE-2-2B	X	-9.6	-9.6	0	0
9	BRACE-3-1A	X	-10.4	-10.4	0	0
10	BRACE-3-1B	X	-10.4	-10.4	0	0
11	BRACE-3-2A	X	-9.6	-9.6	0	0
12	BRACE-3-2B	X	-9.6	-9.6	0	0
13	FM-0	X	-7.4	-7.4	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	-7.4	-7.4	0	0
16	HR-0	X	-6.1	-6.1	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	-6.1	-6.1	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	-8.2	-8.2	0	0
21	HR-BRACE-3	X	-8.2	-8.2	0	0
22	SA-1	X	-8.3	-8.3	0	0
23	SA-2	X	-4.2	-4.2	0	0
24	SA-3	X	-4.2	-4.2	0	0
25	PL1	X	-12.7	-12.7	0	0
26	PL2	X	-14.7	-14.7	0	0
27	PL3	X	-12.7	-12.7	0	0
28	PL4	X	-14.7	-14.7	0	0
29	PL5	X	-12.7	-12.7	0	0
30	PL6	X	-14.7	-14.7	0	0
31	PL7	X	-12.7	-12.7	0	0
32	PL8	X	-7	-7	0	0
33	PL9	X	-12.7	-12.7	0	0
34	PL10	X	-7	-7	0	0
35	PL11	X	-12.7	-12.7	0	0
36	PL12	X	-7	-7	0	0
37	PL13	X	0	0	0	0
38	PL14	X	-7.7	-7.7	0	0
39	PL15	X	0	0	0	0
40	PL16	X	-7.7	-7.7	0	0
41	PL17	X	0	0	0	0
42	PL18	X	-7.7	-7.7	0	0
43	PL19	X	0	0	0	0
44	PL20	X	-7.7	-7.7	0	0
45	PL21	X	0	0	0	0
46	PL22	X	-7.7	-7.7	0	0
47	PL23	X	0	0	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 9 : Wind Load (210 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,%]	End Location[in,%]
48	PL24	X	-7.7	-7.7	0 0
49	PL25	X	-12.7	-12.7	0 0
50	PL26	X	-7	-7	0 0
51	PL27	X	-12.7	-12.7	0 0
52	PL28	X	-7	-7	0 0
53	PL29	X	-12.7	-12.7	0 0
54	PL30	X	-7	-7	0 0
55	PL31	X	-12.7	-12.7	0 0
56	PL32	X	-14.7	-14.7	0 0
57	PL33	X	-12.7	-12.7	0 0
58	PL34	X	-14.7	-14.7	0 0
59	PL35	X	-12.7	-12.7	0 0
60	PL36	X	-14.7	-14.7	0 0
61	BRACE-1-1A	Z	0	0	0 0
62	BRACE-1-1B	Z	0	0	0 0
63	BRACE-1-2A	Z	0	0	0 0
64	BRACE-1-2B	Z	0	0	0 0
65	BRACE-2-1A	Z	-6	-6	0 0
66	BRACE-2-1B	Z	-6	-6	0 0
67	BRACE-2-2A	Z	-5.5	-5.5	0 0
68	BRACE-2-2B	Z	-5.5	-5.5	0 0
69	BRACE-3-1A	Z	-6	-6	0 0
70	BRACE-3-1B	Z	-6	-6	0 0
71	BRACE-3-2A	Z	-5.5	-5.5	0 0
72	BRACE-3-2B	Z	-5.5	-5.5	0 0
73	FM-0	Z	-4.3	-4.3	0 0
74	FM-120	Z	0	0	0 0
75	FM-240	Z	-4.3	-4.3	0 0
76	HR-0	Z	-3.5	-3.5	0 0
77	HR-120	Z	0	0	0 0
78	HR-240	Z	-3.5	-3.5	0 0
79	HR-BRACE-1	Z	0	0	0 0
80	HR-BRACE-2	Z	-4.7	-4.7	0 0
81	HR-BRACE-3	Z	-4.7	-4.7	0 0
82	SA-1	Z	-4.8	-4.8	0 0
83	SA-2	Z	-2.4	-2.4	0 0
84	SA-3	Z	-2.4	-2.4	0 0
85	PL1	Z	-7.4	-7.4	0 0
86	PL2	Z	-8.5	-8.5	0 0
87	PL3	Z	-7.4	-7.4	0 0
88	PL4	Z	-8.5	-8.5	0 0
89	PL5	Z	-7.4	-7.4	0 0
90	PL6	Z	-8.5	-8.5	0 0
91	PL7	Z	-7.4	-7.4	0 0
92	PL8	Z	-4.1	-4.1	0 0
93	PL9	Z	-7.4	-7.4	0 0
94	PL10	Z	-4.1	-4.1	0 0
95	PL11	Z	-7.4	-7.4	0 0
96	PL12	Z	-4.1	-4.1	0 0
97	PL13	Z	0	0	0 0
98	PL14	Z	-4.4	-4.4	0 0
99	PL15	Z	0	0	0 0
100	PL16	Z	-4.4	-4.4	0 0
101	PL17	Z	0	0	0 0
102	PL18	Z	-4.4	-4.4	0 0
103	PL19	Z	0	0	0 0
104	PL20	Z	-4.4	-4.4	0 0



Member Distributed Loads (BLC 9 : Wind Load (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
105	PL21	Z	0	0	0	0
106	PL22	Z	-4.4	-4.4	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	-4.4	-4.4	0	0
109	PL25	Z	-7.4	-7.4	0	0
110	PL26	Z	-4.1	-4.1	0	0
111	PL27	Z	-7.4	-7.4	0	0
112	PL28	Z	-4.1	-4.1	0	0
113	PL29	Z	-7.4	-7.4	0	0
114	PL30	Z	-4.1	-4.1	0	0
115	PL31	Z	-7.4	-7.4	0	0
116	PL32	Z	-8.5	-8.5	0	0
117	PL33	Z	-7.4	-7.4	0	0
118	PL34	Z	-8.5	-8.5	0	0
119	PL35	Z	-7.4	-7.4	0	0
120	PL36	Z	-8.5	-8.5	0	0

Member Distributed Loads (BLC 10 : Wind Load (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-3.5	-3.5	0	0
2	BRACE-1-1B	X	-3.5	-3.5	0	0
3	BRACE-1-2A	X	-3.2	-3.2	0	0
4	BRACE-1-2B	X	-3.2	-3.2	0	0
5	BRACE-2-1A	X	-6.9	-6.9	0	0
6	BRACE-2-1B	X	-6.9	-6.9	0	0
7	BRACE-2-2A	X	-6.4	-6.4	0	0
8	BRACE-2-2B	X	-6.4	-6.4	0	0
9	BRACE-3-1A	X	-3.5	-3.5	0	0
10	BRACE-3-1B	X	-3.5	-3.5	0	0
11	BRACE-3-2A	X	-3.2	-3.2	0	0
12	BRACE-3-2B	X	-3.2	-3.2	0	0
13	FM-0	X	-2.5	-2.5	0	0
14	FM-120	X	-2.5	-2.5	0	0
15	FM-240	X	-5	-5	0	0
16	HR-0	X	-2	-2	0	0
17	HR-120	X	-2	-2	0	0
18	HR-240	X	-4.1	-4.1	0	0
19	HR-BRACE-1	X	-2.7	-2.7	0	0
20	HR-BRACE-2	X	-5.5	-5.5	0	0
21	HR-BRACE-3	X	-2.7	-2.7	0	0
22	SA-1	X	-4.2	-4.2	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	-4.2	-4.2	0	0
25	PL1	X	-4.2	-4.2	0	0
26	PL2	X	-7.5	-7.5	0	0
27	PL3	X	-4.2	-4.2	0	0
28	PL4	X	-7.5	-7.5	0	0
29	PL5	X	-4.2	-4.2	0	0
30	PL6	X	-7.5	-7.5	0	0
31	PL7	X	-4.2	-4.2	0	0
32	PL8	X	-2	-2	0	0
33	PL9	X	-4.2	-4.2	0	0
34	PL10	X	-2	-2	0	0
35	PL11	X	-4.2	-4.2	0	0
36	PL12	X	-2	-2	0	0
37	PL13	X	-4.2	-4.2	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
 11:37 AM
 Checked By: DHK

Member Distributed Loads (BLC 10 : Wind Load (240 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,%]	End Location[in,%]
38	PL14	X	-2	-2	0 0
39	PL15	X	-4.2	-4.2	0 0
40	PL16	X	-2	-2	0 0
41	PL17	X	-4.2	-4.2	0 0
42	PL18	X	-2	-2	0 0
43	PL19	X	-4.2	-4.2	0 0
44	PL20	X	-7.5	-7.5	0 0
45	PL21	X	-4.2	-4.2	0 0
46	PL22	X	-7.5	-7.5	0 0
47	PL23	X	-4.2	-4.2	0 0
48	PL24	X	-7.5	-7.5	0 0
49	PL25	X	-8.5	-8.5	0 0
50	PL26	X	-7.2	-7.2	0 0
51	PL27	X	-8.5	-8.5	0 0
52	PL28	X	-7.2	-7.2	0 0
53	PL29	X	-8.5	-8.5	0 0
54	PL30	X	-7.2	-7.2	0 0
55	PL31	X	-8.5	-8.5	0 0
56	PL32	X	-7.2	-7.2	0 0
57	PL33	X	-8.5	-8.5	0 0
58	PL34	X	-7.2	-7.2	0 0
59	PL35	X	-8.5	-8.5	0 0
60	PL36	X	-7.2	-7.2	0 0
61	BRACE-1-1A	Z	-6	-6	0 0
62	BRACE-1-1B	Z	-6	-6	0 0
63	BRACE-1-2A	Z	-5.5	-5.5	0 0
64	BRACE-1-2B	Z	-5.5	-5.5	0 0
65	BRACE-2-1A	Z	-12	-12	0 0
66	BRACE-2-1B	Z	-12	-12	0 0
67	BRACE-2-2A	Z	-11.1	-11.1	0 0
68	BRACE-2-2B	Z	-11.1	-11.1	0 0
69	BRACE-3-1A	Z	-6	-6	0 0
70	BRACE-3-1B	Z	-6	-6	0 0
71	BRACE-3-2A	Z	-5.5	-5.5	0 0
72	BRACE-3-2B	Z	-5.5	-5.5	0 0
73	FM-0	Z	-4.3	-4.3	0 0
74	FM-120	Z	-4.3	-4.3	0 0
75	FM-240	Z	-8.6	-8.6	0 0
76	HR-0	Z	-3.5	-3.5	0 0
77	HR-120	Z	-3.5	-3.5	0 0
78	HR-240	Z	-7.1	-7.1	0 0
79	HR-BRACE-1	Z	-4.7	-4.7	0 0
80	HR-BRACE-2	Z	-9.5	-9.5	0 0
81	HR-BRACE-3	Z	-4.7	-4.7	0 0
82	SA-1	Z	-7.2	-7.2	0 0
83	SA-2	Z	0	0	0 0
84	SA-3	Z	-7.2	-7.2	0 0
85	PL1	Z	-7.4	-7.4	0 0
86	PL2	Z	-12.9	-12.9	0 0
87	PL3	Z	-7.4	-7.4	0 0
88	PL4	Z	-12.9	-12.9	0 0
89	PL5	Z	-7.4	-7.4	0 0
90	PL6	Z	-12.9	-12.9	0 0
91	PL7	Z	-7.4	-7.4	0 0
92	PL8	Z	-4	-4	0 0
93	PL9	Z	-7.4	-7.4	0 0
94	PL10	Z	-4	-4	0 0



Member Distributed Loads (BLC 10 : Wind Load (240 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
95	PL11	Z	-7.4	-7.4	0	0
96	PL12	Z	-4	-4	0	0
97	PL13	Z	-7.4	-7.4	0	0
98	PL14	Z	-4	-4	0	0
99	PL15	Z	-7.4	-7.4	0	0
100	PL16	Z	-4	-4	0	0
101	PL17	Z	-7.4	-7.4	0	0
102	PL18	Z	-4	-4	0	0
103	PL19	Z	-7.4	-7.4	0	0
104	PL20	Z	-12.9	-12.9	0	0
105	PL21	Z	-7.4	-7.4	0	0
106	PL22	Z	-12.9	-12.9	0	0
107	PL23	Z	-7.4	-7.4	0	0
108	PL24	Z	-12.9	-12.9	0	0
109	PL25	Z	-14.7	-14.7	0	0
110	PL26	Z	-12.5	-12.5	0	0
111	PL27	Z	-14.7	-14.7	0	0
112	PL28	Z	-12.5	-12.5	0	0
113	PL29	Z	-14.7	-14.7	0	0
114	PL30	Z	-12.5	-12.5	0	0
115	PL31	Z	-14.7	-14.7	0	0
116	PL32	Z	-12.5	-12.5	0	0
117	PL33	Z	-14.7	-14.7	0	0
118	PL34	Z	-12.5	-12.5	0	0
119	PL35	Z	-14.7	-14.7	0	0
120	PL36	Z	-12.5	-12.5	0	0

Member Distributed Loads (BLC 11 : Wind Load (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	0	0	0	0
10	BRACE-3-1B	X	0	0	0	0
11	BRACE-3-2A	X	0	0	0	0
12	BRACE-3-2B	X	0	0	0	0
13	FM-0	X	0	0	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	0	0	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	0	0	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	0	0	0	0
26	PL2	X	0	0	0	0
27	PL3	X	0	0	0	0



Member Distributed Loads (BLC 11 : Wind Load (270 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,%]	End Location[in,%]
28	PL4	X	0	0	0
29	PL5	X	0	0	0
30	PL6	X	0	0	0
31	PL7	X	0	0	0
32	PL8	X	0	0	0
33	PL9	X	0	0	0
34	PL10	X	0	0	0
35	PL11	X	0	0	0
36	PL12	X	0	0	0
37	PL13	X	0	0	0
38	PL14	X	0	0	0
39	PL15	X	0	0	0
40	PL16	X	0	0	0
41	PL17	X	0	0	0
42	PL18	X	0	0	0
43	PL19	X	0	0	0
44	PL20	X	0	0	0
45	PL21	X	0	0	0
46	PL22	X	0	0	0
47	PL23	X	0	0	0
48	PL24	X	0	0	0
49	PL25	X	0	0	0
50	PL26	X	0	0	0
51	PL27	X	0	0	0
52	PL28	X	0	0	0
53	PL29	X	0	0	0
54	PL30	X	0	0	0
55	PL31	X	0	0	0
56	PL32	X	0	0	0
57	PL33	X	0	0	0
58	PL34	X	0	0	0
59	PL35	X	0	0	0
60	PL36	X	0	0	0
61	BRACE-1-1A	Z	-12	-12	0
62	BRACE-1-1B	Z	-12	-12	0
63	BRACE-1-2A	Z	-11.1	-11.1	0
64	BRACE-1-2B	Z	-11.1	-11.1	0
65	BRACE-2-1A	Z	-12	-12	0
66	BRACE-2-1B	Z	-12	-12	0
67	BRACE-2-2A	Z	-11.1	-11.1	0
68	BRACE-2-2B	Z	-11.1	-11.1	0
69	BRACE-3-1A	Z	0	0	0
70	BRACE-3-1B	Z	0	0	0
71	BRACE-3-2A	Z	0	0	0
72	BRACE-3-2B	Z	0	0	0
73	FM-0	Z	0	0	0
74	FM-120	Z	-8.6	-8.6	0
75	FM-240	Z	-8.6	-8.6	0
76	HR-0	Z	0	0	0
77	HR-120	Z	-7.1	-7.1	0
78	HR-240	Z	-7.1	-7.1	0
79	HR-BRACE-1	Z	-9.5	-9.5	0
80	HR-BRACE-2	Z	-9.5	-9.5	0
81	HR-BRACE-3	Z	0	0	0
82	SA-1	Z	-4.8	-4.8	0
83	SA-2	Z	-4.8	-4.8	0
84	SA-3	Z	-9.6	-9.6	0



Member Distributed Loads (BLC 11 : Wind Load (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
85	PL1	Z	0	0	0	0
86	PL2	Z	-8.9	-8.9	0	0
87	PL3	Z	0	0	0	0
88	PL4	Z	-8.9	-8.9	0	0
89	PL5	Z	0	0	0	0
90	PL6	Z	-8.9	-8.9	0	0
91	PL7	Z	0	0	0	0
92	PL8	Z	-8.9	-8.9	0	0
93	PL9	Z	0	0	0	0
94	PL10	Z	-8.9	-8.9	0	0
95	PL11	Z	0	0	0	0
96	PL12	Z	-8.9	-8.9	0	0
97	PL13	Z	-14.7	-14.7	0	0
98	PL14	Z	-8.1	-8.1	0	0
99	PL15	Z	-14.7	-14.7	0	0
100	PL16	Z	-8.1	-8.1	0	0
101	PL17	Z	-14.7	-14.7	0	0
102	PL18	Z	-8.1	-8.1	0	0
103	PL19	Z	-14.7	-14.7	0	0
104	PL20	Z	-17	-17	0	0
105	PL21	Z	-14.7	-14.7	0	0
106	PL22	Z	-17	-17	0	0
107	PL23	Z	-14.7	-14.7	0	0
108	PL24	Z	-17	-17	0	0
109	PL25	Z	-14.7	-14.7	0	0
110	PL26	Z	-17	-17	0	0
111	PL27	Z	-14.7	-14.7	0	0
112	PL28	Z	-17	-17	0	0
113	PL29	Z	-14.7	-14.7	0	0
114	PL30	Z	-17	-17	0	0
115	PL31	Z	-14.7	-14.7	0	0
116	PL32	Z	-8.1	-8.1	0	0
117	PL33	Z	-14.7	-14.7	0	0
118	PL34	Z	-8.1	-8.1	0	0
119	PL35	Z	-14.7	-14.7	0	0
120	PL36	Z	-8.1	-8.1	0	0

Member Distributed Loads (BLC 12 : Wind Load (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	6.9	6.9	0	0
2	BRACE-1-1B	X	6.9	6.9	0	0
3	BRACE-1-2A	X	6.4	6.4	0	0
4	BRACE-1-2B	X	6.4	6.4	0	0
5	BRACE-2-1A	X	3.5	3.5	0	0
6	BRACE-2-1B	X	3.5	3.5	0	0
7	BRACE-2-2A	X	3.2	3.2	0	0
8	BRACE-2-2B	X	3.2	3.2	0	0
9	BRACE-3-1A	X	3.5	3.5	0	0
10	BRACE-3-1B	X	3.5	3.5	0	0
11	BRACE-3-2A	X	3.2	3.2	0	0
12	BRACE-3-2B	X	3.2	3.2	0	0
13	FM-0	X	2.5	2.5	0	0
14	FM-120	X	5	5	0	0
15	FM-240	X	2.5	2.5	0	0
16	HR-0	X	2	2	0	0
17	HR-120	X	4.1	4.1	0	0



Member Distributed Loads (BLC 12 : Wind Load (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
18	HR-240	X	2	2	0	0
19	HR-BRACE-1	X	5.5	5.5	0	0
20	HR-BRACE-2	X	2.7	2.7	0	0
21	HR-BRACE-3	X	2.7	2.7	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	4.2	4.2	0	0
24	SA-3	X	4.2	4.2	0	0
25	PL1	X	4.2	4.2	0	0
26	PL2	X	.2	.2	0	0
27	PL3	X	4.2	4.2	0	0
28	PL4	X	.2	.2	0	0
29	PL5	X	4.2	4.2	0	0
30	PL6	X	.2	.2	0	0
31	PL7	X	4.2	4.2	0	0
32	PL8	X	7.5	7.5	0	0
33	PL9	X	4.2	4.2	0	0
34	PL10	X	7.5	7.5	0	0
35	PL11	X	4.2	4.2	0	0
36	PL12	X	7.5	7.5	0	0
37	PL13	X	8.5	8.5	0	0
38	PL14	X	7.2	7.2	0	0
39	PL15	X	8.5	8.5	0	0
40	PL16	X	7.2	7.2	0	0
41	PL17	X	8.5	8.5	0	0
42	PL18	X	7.2	7.2	0	0
43	PL19	X	8.5	8.5	0	0
44	PL20	X	7.2	7.2	0	0
45	PL21	X	8.5	8.5	0	0
46	PL22	X	7.2	7.2	0	0
47	PL23	X	8.5	8.5	0	0
48	PL24	X	7.2	7.2	0	0
49	PL25	X	4.2	4.2	0	0
50	PL26	X	7.5	7.5	0	0
51	PL27	X	4.2	4.2	0	0
52	PL28	X	7.5	7.5	0	0
53	PL29	X	4.2	4.2	0	0
54	PL30	X	7.5	7.5	0	0
55	PL31	X	4.2	4.2	0	0
56	PL32	X	.2	.2	0	0
57	PL33	X	4.2	4.2	0	0
58	PL34	X	.2	.2	0	0
59	PL35	X	4.2	4.2	0	0
60	PL36	X	.2	.2	0	0
61	BRACE-1-1A	Z	-12	-12	0	0
62	BRACE-1-1B	Z	-12	-12	0	0
63	BRACE-1-2A	Z	-11.1	-11.1	0	0
64	BRACE-1-2B	Z	-11.1	-11.1	0	0
65	BRACE-2-1A	Z	-6	-6	0	0
66	BRACE-2-1B	Z	-6	-6	0	0
67	BRACE-2-2A	Z	-5.5	-5.5	0	0
68	BRACE-2-2B	Z	-5.5	-5.5	0	0
69	BRACE-3-1A	Z	-6	-6	0	0
70	BRACE-3-1B	Z	-6	-6	0	0
71	BRACE-3-2A	Z	-5.5	-5.5	0	0
72	BRACE-3-2B	Z	-5.5	-5.5	0	0
73	FM-0	Z	-4.3	-4.3	0	0
74	FM-120	Z	-8.6	-8.6	0	0



Member Distributed Loads (BLC 12 : Wind Load (300 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
75	FM-240	Z	-4.3	-4.3	0 0
76	HR-0	Z	-3.5	-3.5	0 0
77	HR-120	Z	-7.1	-7.1	0 0
78	HR-240	Z	-3.5	-3.5	0 0
79	HR-BRACE-1	Z	-9.5	-9.5	0 0
80	HR-BRACE-2	Z	-4.7	-4.7	0 0
81	HR-BRACE-3	Z	-4.7	-4.7	0 0
82	SA-1	Z	0	0	0 0
83	SA-2	Z	-7.2	-7.2	0 0
84	SA-3	Z	-7.2	-7.2	0 0
85	PL1	Z	-7.4	-7.4	0 0
86	PL2	Z	-4	-4	0 0
87	PL3	Z	-7.4	-7.4	0 0
88	PL4	Z	-4	-4	0 0
89	PL5	Z	-7.4	-7.4	0 0
90	PL6	Z	-4	-4	0 0
91	PL7	Z	-7.4	-7.4	0 0
92	PL8	Z	-12.9	-12.9	0 0
93	PL9	Z	-7.4	-7.4	0 0
94	PL10	Z	-12.9	-12.9	0 0
95	PL11	Z	-7.4	-7.4	0 0
96	PL12	Z	-12.9	-12.9	0 0
97	PL13	Z	-14.7	-14.7	0 0
98	PL14	Z	-12.5	-12.5	0 0
99	PL15	Z	-14.7	-14.7	0 0
100	PL16	Z	-12.5	-12.5	0 0
101	PL17	Z	-14.7	-14.7	0 0
102	PL18	Z	-12.5	-12.5	0 0
103	PL19	Z	-14.7	-14.7	0 0
104	PL20	Z	-12.5	-12.5	0 0
105	PL21	Z	-14.7	-14.7	0 0
106	PL22	Z	-12.5	-12.5	0 0
107	PL23	Z	-14.7	-14.7	0 0
108	PL24	Z	-12.5	-12.5	0 0
109	PL25	Z	-7.4	-7.4	0 0
110	PL26	Z	-12.9	-12.9	0 0
111	PL27	Z	-7.4	-7.4	0 0
112	PL28	Z	-12.9	-12.9	0 0
113	PL29	Z	-7.4	-7.4	0 0
114	PL30	Z	-12.9	-12.9	0 0
115	PL31	Z	-7.4	-7.4	0 0
116	PL32	Z	-4	-4	0 0
117	PL33	Z	-7.4	-7.4	0 0
118	PL34	Z	-4	-4	0 0
119	PL35	Z	-7.4	-7.4	0 0
120	PL36	Z	-4	-4	0 0

Member Distributed Loads (BLC 13 : Wind Load (330 deg))

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
1	BRACE-1-1A	X	10.4	10.4	0 0
2	BRACE-1-1B	X	10.4	10.4	0 0
3	BRACE-1-2A	X	9.6	9.6	0 0
4	BRACE-1-2B	X	9.6	9.6	0 0
5	BRACE-2-1A	X	0	0	0 0
6	BRACE-2-1B	X	0	0	0 0
7	BRACE-2-2A	X	0	0	0 0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 13 : Wind Load (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,%]	End Location[in,%]
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	10.4	10.4	0	0
10	BRACE-3-1B	X	10.4	10.4	0	0
11	BRACE-3-2A	X	9.6	9.6	0	0
12	BRACE-3-2B	X	9.6	9.6	0	0
13	FM-0	X	7.4	7.4	0	0
14	FM-120	X	7.4	7.4	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	6.1	6.1	0	0
17	HR-120	X	6.1	6.1	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	8.2	8.2	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	8.2	8.2	0	0
22	SA-1	X	4.2	4.2	0	0
23	SA-2	X	8.3	8.3	0	0
24	SA-3	X	4.2	4.2	0	0
25	PL1	X	12.7	12.7	0	0
26	PL2	X	7	7	0	0
27	PL3	X	12.7	12.7	0	0
28	PL4	X	7	7	0	0
29	PL5	X	12.7	12.7	0	0
30	PL6	X	7	7	0	0
31	PL7	X	12.7	12.7	0	0
32	PL8	X	14.7	14.7	0	0
33	PL9	X	12.7	12.7	0	0
34	PL10	X	14.7	14.7	0	0
35	PL11	X	12.7	12.7	0	0
36	PL12	X	14.7	14.7	0	0
37	PL13	X	12.7	12.7	0	0
38	PL14	X	14.7	14.7	0	0
39	PL15	X	12.7	12.7	0	0
40	PL16	X	14.7	14.7	0	0
41	PL17	X	12.7	12.7	0	0
42	PL18	X	14.7	14.7	0	0
43	PL19	X	12.7	12.7	0	0
44	PL20	X	7	7	0	0
45	PL21	X	12.7	12.7	0	0
46	PL22	X	7	7	0	0
47	PL23	X	12.7	12.7	0	0
48	PL24	X	7	7	0	0
49	PL25	X	0	0	0	0
50	PL26	X	7.7	7.7	0	0
51	PL27	X	0	0	0	0
52	PL28	X	7.7	7.7	0	0
53	PL29	X	0	0	0	0
54	PL30	X	7.7	7.7	0	0
55	PL31	X	0	0	0	0
56	PL32	X	7.7	7.7	0	0
57	PL33	X	0	0	0	0
58	PL34	X	7.7	7.7	0	0
59	PL35	X	0	0	0	0
60	PL36	X	7.7	7.7	0	0
61	BRACE-1-1A	Z	-6	-6	0	0
62	BRACE-1-1B	Z	-6	-6	0	0
63	BRACE-1-2A	Z	-5.5	-5.5	0	0
64	BRACE-1-2B	Z	-5.5	-5.5	0	0



Member Distributed Loads (BLC 13 : Wind Load (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
65	BRACE-2-1A	Z	0	0	0	0
66	BRACE-2-1B	Z	0	0	0	0
67	BRACE-2-2A	Z	0	0	0	0
68	BRACE-2-2B	Z	0	0	0	0
69	BRACE-3-1A	Z	-6	-6	0	0
70	BRACE-3-1B	Z	-6	-6	0	0
71	BRACE-3-2A	Z	-5.5	-5.5	0	0
72	BRACE-3-2B	Z	-5.5	-5.5	0	0
73	FM-0	Z	-4.3	-4.3	0	0
74	FM-120	Z	-4.3	-4.3	0	0
75	FM-240	Z	0	0	0	0
76	HR-0	Z	-3.5	-3.5	0	0
77	HR-120	Z	-3.5	-3.5	0	0
78	HR-240	Z	0	0	0	0
79	HR-BRACE-1	Z	-4.7	-4.7	0	0
80	HR-BRACE-2	Z	0	0	0	0
81	HR-BRACE-3	Z	-4.7	-4.7	0	0
82	SA-1	Z	-2.4	-2.4	0	0
83	SA-2	Z	-4.8	-4.8	0	0
84	SA-3	Z	-2.4	-2.4	0	0
85	PL1	Z	-7.4	-7.4	0	0
86	PL2	Z	-4.1	-4.1	0	0
87	PL3	Z	-7.4	-7.4	0	0
88	PL4	Z	-4.1	-4.1	0	0
89	PL5	Z	-7.4	-7.4	0	0
90	PL6	Z	-4.1	-4.1	0	0
91	PL7	Z	-7.4	-7.4	0	0
92	PL8	Z	-8.5	-8.5	0	0
93	PL9	Z	-7.4	-7.4	0	0
94	PL10	Z	-8.5	-8.5	0	0
95	PL11	Z	-7.4	-7.4	0	0
96	PL12	Z	-8.5	-8.5	0	0
97	PL13	Z	-7.4	-7.4	0	0
98	PL14	Z	-8.5	-8.5	0	0
99	PL15	Z	-7.4	-7.4	0	0
100	PL16	Z	-8.5	-8.5	0	0
101	PL17	Z	-7.4	-7.4	0	0
102	PL18	Z	-8.5	-8.5	0	0
103	PL19	Z	-7.4	-7.4	0	0
104	PL20	Z	-4.1	-4.1	0	0
105	PL21	Z	-7.4	-7.4	0	0
106	PL22	Z	-4.1	-4.1	0	0
107	PL23	Z	-7.4	-7.4	0	0
108	PL24	Z	-4.1	-4.1	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	-4.4	-4.4	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	-4.4	-4.4	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	-4.4	-4.4	0	0
115	PL31	Z	0	0	0	0
116	PL32	Z	-4.4	-4.4	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	-4.4	-4.4	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	-4.4	-4.4	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 14 : Ice Load)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
1	BRACE-1-1A	Y	-9.1	-9.1	0	0
2	BRACE-1-1B	Y	-9.1	-9.1	0	0
3	BRACE-1-2A	Y	-9.1	-9.1	0	0
4	BRACE-1-2B	Y	-9.1	-9.1	0	0
5	BRACE-2-1A	Y	-9.1	-9.1	0	0
6	BRACE-2-1B	Y	-9.1	-9.1	0	0
7	BRACE-2-2A	Y	-9.1	-9.1	0	0
8	BRACE-2-2B	Y	-9.1	-9.1	0	0
9	BRACE-3-1A	Y	-9.1	-9.1	0	0
10	BRACE-3-1B	Y	-9.1	-9.1	0	0
11	BRACE-3-2A	Y	-9.1	-9.1	0	0
12	BRACE-3-2B	Y	-9.1	-9.1	0	0
13	FM-0	Y	-6.2	-6.2	0	0
14	FM-120	Y	-6.2	-6.2	0	0
15	FM-240	Y	-6.2	-6.2	0	0
16	HR-0	Y	-5.4	-5.4	0	0
17	HR-120	Y	-5.4	-5.4	0	0
18	HR-240	Y	-5.4	-5.4	0	0
19	HR-BRACE-1	Y	-6.2	-6.2	0	0
20	HR-BRACE-2	Y	-6.2	-6.2	0	0
21	HR-BRACE-3	Y	-6.2	-6.2	0	0
22	SA-1	Y	-9.1	-9.1	0	0
23	SA-2	Y	-9.1	-9.1	0	0
24	SA-3	Y	-9.1	-9.1	0	0
25	PL1	Y	-9.6	-9.6	0	0
26	PL2	Y	-9.6	-9.6	0	0
27	PL3	Y	-9.6	-9.6	0	0
28	PL4	Y	-9.6	-9.6	0	0
29	PL5	Y	-9.6	-9.6	0	0
30	PL6	Y	-9.6	-9.6	0	0
31	PL7	Y	-9.6	-9.6	0	0
32	PL8	Y	-9.6	-9.6	0	0
33	PL9	Y	-9.6	-9.6	0	0
34	PL10	Y	-9.6	-9.6	0	0
35	PL11	Y	-9.6	-9.6	0	0
36	PL12	Y	-9.6	-9.6	0	0
37	PL13	Y	-9.6	-9.6	0	0
38	PL14	Y	-9.6	-9.6	0	0
39	PL15	Y	-9.6	-9.6	0	0
40	PL16	Y	-9.6	-9.6	0	0
41	PL17	Y	-9.6	-9.6	0	0
42	PL18	Y	-9.6	-9.6	0	0
43	PL19	Y	-9.6	-9.6	0	0
44	PL20	Y	-9.6	-9.6	0	0
45	PL21	Y	-9.6	-9.6	0	0
46	PL22	Y	-9.6	-9.6	0	0
47	PL23	Y	-9.6	-9.6	0	0
48	PL24	Y	-9.6	-9.6	0	0
49	PL25	Y	-9.6	-9.6	0	0
50	PL26	Y	-9.6	-9.6	0	0
51	PL27	Y	-9.6	-9.6	0	0
52	PL28	Y	-9.6	-9.6	0	0
53	PL29	Y	-9.6	-9.6	0	0
54	PL30	Y	-9.6	-9.6	0	0
55	PL31	Y	-9.6	-9.6	0	0
56	PL32	Y	-9.6	-9.6	0	0
57	PL33	Y	-9.6	-9.6	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 14 : Ice Load) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
58	PL34	Y	-9.6	-9.6	0	0
59	PL35	Y	-9.6	-9.6	0	0
60	PL36	Y	-9.6	-9.6	0	0

Member Distributed Loads (BLC 15 : Wind on Ice (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	1.6	1.6	0	0
2	BRACE-1-1B	X	1.6	1.6	0	0
3	BRACE-1-2A	X	1.5	1.5	0	0
4	BRACE-1-2B	X	1.5	1.5	0	0
5	BRACE-2-1A	X	1.6	1.6	0	0
6	BRACE-2-1B	X	1.6	1.6	0	0
7	BRACE-2-2A	X	1.5	1.5	0	0
8	BRACE-2-2B	X	1.5	1.5	0	0
9	BRACE-3-1A	X	3.3	3.3	0	0
10	BRACE-3-1B	X	3.3	3.3	0	0
11	BRACE-3-2A	X	3	3	0	0
12	BRACE-3-2B	X	3	3	0	0
13	FM-0	X	2.8	2.8	0	0
14	FM-120	X	1.4	1.4	0	0
15	FM-240	X	1.4	1.4	0	0
16	HR-0	X	2.5	2.5	0	0
17	HR-120	X	1.3	1.3	0	0
18	HR-240	X	1.3	1.3	0	0
19	HR-BRACE-1	X	1.4	1.4	0	0
20	HR-BRACE-2	X	1.4	1.4	0	0
21	HR-BRACE-3	X	2.9	2.9	0	0
22	SA-1	X	2.2	2.2	0	0
23	SA-2	X	2.2	2.2	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	3.8	3.8	0	0
26	PL2	X	3.2	3.2	0	0
27	PL3	X	3.8	3.8	0	0
28	PL4	X	3.2	3.2	0	0
29	PL5	X	3.8	3.8	0	0
30	PL6	X	3.2	3.2	0	0
31	PL7	X	3.8	3.8	0	0
32	PL8	X	3.2	3.2	0	0
33	PL9	X	3.8	3.8	0	0
34	PL10	X	3.2	3.2	0	0
35	PL11	X	3.8	3.8	0	0
36	PL12	X	3.2	3.2	0	0
37	PL13	X	1.9	1.9	0	0
38	PL14	X	3.3	3.3	0	0
39	PL15	X	1.9	1.9	0	0
40	PL16	X	3.3	3.3	0	0
41	PL17	X	1.9	1.9	0	0
42	PL18	X	3.3	3.3	0	0
43	PL19	X	1.9	1.9	0	0
44	PL20	X	.1	.1	0	0
45	PL21	X	1.9	1.9	0	0
46	PL22	X	.1	.1	0	0
47	PL23	X	1.9	1.9	0	0
48	PL24	X	.1	.1	0	0
49	PL25	X	1.9	1.9	0	0
50	PL26	X	.1	.1	0	0



Member Distributed Loads (BLC 15 : Wind on Ice (0 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
51	PL27	X	1.9	1.9	0
52	PL28	X	.1	.1	0
53	PL29	X	1.9	1.9	0
54	PL30	X	.1	.1	0
55	PL31	X	1.9	1.9	0
56	PL32	X	3.3	3.3	0
57	PL33	X	1.9	1.9	0
58	PL34	X	3.3	3.3	0
59	PL35	X	1.9	1.9	0
60	PL36	X	3.3	3.3	0
61	BRACE-1-1A	Z	0	0	0
62	BRACE-1-1B	Z	0	0	0
63	BRACE-1-2A	Z	0	0	0
64	BRACE-1-2B	Z	0	0	0
65	BRACE-2-1A	Z	0	0	0
66	BRACE-2-1B	Z	0	0	0
67	BRACE-2-2A	Z	0	0	0
68	BRACE-2-2B	Z	0	0	0
69	BRACE-3-1A	Z	0	0	0
70	BRACE-3-1B	Z	0	0	0
71	BRACE-3-2A	Z	0	0	0
72	BRACE-3-2B	Z	0	0	0
73	FM-0	Z	0	0	0
74	FM-120	Z	0	0	0
75	FM-240	Z	0	0	0
76	HR-0	Z	0	0	0
77	HR-120	Z	0	0	0
78	HR-240	Z	0	0	0
79	HR-BRACE-1	Z	0	0	0
80	HR-BRACE-2	Z	0	0	0
81	HR-BRACE-3	Z	0	0	0
82	SA-1	Z	0	0	0
83	SA-2	Z	0	0	0
84	SA-3	Z	0	0	0
85	PL1	Z	0	0	0
86	PL2	Z	0	0	0
87	PL3	Z	0	0	0
88	PL4	Z	0	0	0
89	PL5	Z	0	0	0
90	PL6	Z	0	0	0
91	PL7	Z	0	0	0
92	PL8	Z	0	0	0
93	PL9	Z	0	0	0
94	PL10	Z	0	0	0
95	PL11	Z	0	0	0
96	PL12	Z	0	0	0
97	PL13	Z	0	0	0
98	PL14	Z	0	0	0
99	PL15	Z	0	0	0
100	PL16	Z	0	0	0
101	PL17	Z	0	0	0
102	PL18	Z	0	0	0
103	PL19	Z	0	0	0
104	PL20	Z	0	0	0
105	PL21	Z	0	0	0
106	PL22	Z	0	0	0
107	PL23	Z	0	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 15 : Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
108	PL24	Z	0	0	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	0	0	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	0	0	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	0	0	0	0
115	PL31	Z	0	0	0	0
116	PL32	Z	0	0	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	0	0	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	0	0	0	0

Member Distributed Loads (BLC 16 : Wind on Ice (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	2.4	2.4	0	0
6	BRACE-2-1B	X	2.4	2.4	0	0
7	BRACE-2-2A	X	2.3	2.3	0	0
8	BRACE-2-2B	X	2.3	2.3	0	0
9	BRACE-3-1A	X	2.4	2.4	0	0
10	BRACE-3-1B	X	2.4	2.4	0	0
11	BRACE-3-2A	X	2.3	2.3	0	0
12	BRACE-3-2B	X	2.3	2.3	0	0
13	FM-0	X	2.1	2.1	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	2.1	2.1	0	0
16	HR-0	X	1.9	1.9	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	1.9	1.9	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	2.1	2.1	0	0
21	HR-BRACE-3	X	2.1	2.1	0	0
22	SA-1	X	2.2	2.2	0	0
23	SA-2	X	1.1	1.1	0	0
24	SA-3	X	1.1	1.1	0	0
25	PL1	X	2.8	2.8	0	0
26	PL2	X	3.3	3.3	0	0
27	PL3	X	2.8	2.8	0	0
28	PL4	X	3.3	3.3	0	0
29	PL5	X	2.8	2.8	0	0
30	PL6	X	3.3	3.3	0	0
31	PL7	X	2.8	2.8	0	0
32	PL8	X	1.6	1.6	0	0
33	PL9	X	2.8	2.8	0	0
34	PL10	X	1.6	1.6	0	0
35	PL11	X	2.8	2.8	0	0
36	PL12	X	1.6	1.6	0	0
37	PL13	X	0	0	0	0
38	PL14	X	1.7	1.7	0	0
39	PL15	X	0	0	0	0
40	PL16	X	1.7	1.7	0	0



Member Distributed Loads (BLC 16 : Wind on Ice (30 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
41	PL17	X	0	0	0
42	PL18	X	1.7	1.7	0
43	PL19	X	0	0	0
44	PL20	X	1.7	1.7	0
45	PL21	X	0	0	0
46	PL22	X	1.7	1.7	0
47	PL23	X	0	0	0
48	PL24	X	1.7	1.7	0
49	PL25	X	2.8	2.8	0
50	PL26	X	1.6	1.6	0
51	PL27	X	2.8	2.8	0
52	PL28	X	1.6	1.6	0
53	PL29	X	2.8	2.8	0
54	PL30	X	1.6	1.6	0
55	PL31	X	2.8	2.8	0
56	PL32	X	3.3	3.3	0
57	PL33	X	2.8	2.8	0
58	PL34	X	3.3	3.3	0
59	PL35	X	2.8	2.8	0
60	PL36	X	3.3	3.3	0
61	BRACE-1-1A	Z	0	0	0
62	BRACE-1-1B	Z	0	0	0
63	BRACE-1-2A	Z	0	0	0
64	BRACE-1-2B	Z	0	0	0
65	BRACE-2-1A	Z	1.4	1.4	0
66	BRACE-2-1B	Z	1.4	1.4	0
67	BRACE-2-2A	Z	1.3	1.3	0
68	BRACE-2-2B	Z	1.3	1.3	0
69	BRACE-3-1A	Z	1.4	1.4	0
70	BRACE-3-1B	Z	1.4	1.4	0
71	BRACE-3-2A	Z	1.3	1.3	0
72	BRACE-3-2B	Z	1.3	1.3	0
73	FM-0	Z	1.2	1.2	0
74	FM-120	Z	0	0	0
75	FM-240	Z	1.2	1.2	0
76	HR-0	Z	1.1	1.1	0
77	HR-120	Z	0	0	0
78	HR-240	Z	1.1	1.1	0
79	HR-BRACE-1	Z	0	0	0
80	HR-BRACE-2	Z	1.2	1.2	0
81	HR-BRACE-3	Z	1.2	1.2	0
82	SA-1	Z	1.3	1.3	0
83	SA-2	Z	.6	.6	0
84	SA-3	Z	.6	.6	0
85	PL1	Z	1.6	1.6	0
86	PL2	Z	1.9	1.9	0
87	PL3	Z	1.6	1.6	0
88	PL4	Z	1.9	1.9	0
89	PL5	Z	1.6	1.6	0
90	PL6	Z	1.9	1.9	0
91	PL7	Z	1.6	1.6	0
92	PL8	Z	.9	.9	0
93	PL9	Z	1.6	1.6	0
94	PL10	Z	.9	.9	0
95	PL11	Z	1.6	1.6	0
96	PL12	Z	.9	.9	0
97	PL13	Z	0	0	0



Member Distributed Loads (BLC 16 : Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
98	PL14	Z	1	1	0	0
99	PL15	Z	0	0	0	0
100	PL16	Z	1	1	0	0
101	PL17	Z	0	0	0	0
102	PL18	Z	1	1	0	0
103	PL19	Z	0	0	0	0
104	PL20	Z	1	1	0	0
105	PL21	Z	0	0	0	0
106	PL22	Z	1	1	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	1	1	0	0
109	PL25	Z	1.6	1.6	0	0
110	PL26	Z	.9	.9	0	0
111	PL27	Z	1.6	1.6	0	0
112	PL28	Z	.9	.9	0	0
113	PL29	Z	1.6	1.6	0	0
114	PL30	Z	.9	.9	0	0
115	PL31	Z	1.6	1.6	0	0
116	PL32	Z	1.9	1.9	0	0
117	PL33	Z	1.6	1.6	0	0
118	PL34	Z	1.9	1.9	0	0
119	PL35	Z	1.6	1.6	0	0
120	PL36	Z	1.9	1.9	0	0

Member Distributed Loads (BLC 17 : Wind on Ice (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	.8	.8	0	0
2	BRACE-1-1B	X	.8	.8	0	0
3	BRACE-1-2A	X	.8	.8	0	0
4	BRACE-1-2B	X	.8	.8	0	0
5	BRACE-2-1A	X	1.6	1.6	0	0
6	BRACE-2-1B	X	1.6	1.6	0	0
7	BRACE-2-2A	X	1.5	1.5	0	0
8	BRACE-2-2B	X	1.5	1.5	0	0
9	BRACE-3-1A	X	.8	.8	0	0
10	BRACE-3-1B	X	.8	.8	0	0
11	BRACE-3-2A	X	.8	.8	0	0
12	BRACE-3-2B	X	.8	.8	0	0
13	FM-0	X	.7	.7	0	0
14	FM-120	X	.7	.7	0	0
15	FM-240	X	1.4	1.4	0	0
16	HR-0	X	.6	.6	0	0
17	HR-120	X	.6	.6	0	0
18	HR-240	X	1.3	1.3	0	0
19	HR-BRACE-1	X	.7	.7	0	0
20	HR-BRACE-2	X	1.4	1.4	0	0
21	HR-BRACE-3	X	.7	.7	0	0
22	SA-1	X	1.1	1.1	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	1.1	1.1	0	0
25	PL1	X	.9	.9	0	0
26	PL2	X	1.7	1.7	0	0
27	PL3	X	.9	.9	0	0
28	PL4	X	1.7	1.7	0	0
29	PL5	X	.9	.9	0	0
30	PL6	X	1.7	1.7	0	0



Member Distributed Loads (BLC 17 : Wind on Ice (60 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
31	PL7	X	.9	.9	0
32	PL8	X	0	0	0
33	PL9	X	.9	.9	0
34	PL10	X	0	0	0
35	PL11	X	.9	.9	0
36	PL12	X	0	0	0
37	PL13	X	.9	.9	0
38	PL14	X	0	0	0
39	PL15	X	.9	.9	0
40	PL16	X	0	0	0
41	PL17	X	.9	.9	0
42	PL18	X	0	0	0
43	PL19	X	.9	.9	0
44	PL20	X	1.7	1.7	0
45	PL21	X	.9	.9	0
46	PL22	X	1.7	1.7	0
47	PL23	X	.9	.9	0
48	PL24	X	1.7	1.7	0
49	PL25	X	1.9	1.9	0
50	PL26	X	1.6	1.6	0
51	PL27	X	1.9	1.9	0
52	PL28	X	1.6	1.6	0
53	PL29	X	1.9	1.9	0
54	PL30	X	1.6	1.6	0
55	PL31	X	1.9	1.9	0
56	PL32	X	1.6	1.6	0
57	PL33	X	1.9	1.9	0
58	PL34	X	1.6	1.6	0
59	PL35	X	1.9	1.9	0
60	PL36	X	1.6	1.6	0
61	BRACE-1-1A	Z	1.4	1.4	0
62	BRACE-1-1B	Z	1.4	1.4	0
63	BRACE-1-2A	Z	1.3	1.3	0
64	BRACE-1-2B	Z	1.3	1.3	0
65	BRACE-2-1A	Z	2.8	2.8	0
66	BRACE-2-1B	Z	2.8	2.8	0
67	BRACE-2-2A	Z	2.6	2.6	0
68	BRACE-2-2B	Z	2.6	2.6	0
69	BRACE-3-1A	Z	1.4	1.4	0
70	BRACE-3-1B	Z	1.4	1.4	0
71	BRACE-3-2A	Z	1.3	1.3	0
72	BRACE-3-2B	Z	1.3	1.3	0
73	FM-0	Z	1.2	1.2	0
74	FM-120	Z	1.2	1.2	0
75	FM-240	Z	2.4	2.4	0
76	HR-0	Z	1.1	1.1	0
77	HR-120	Z	1.1	1.1	0
78	HR-240	Z	2.2	2.2	0
79	HR-BRACE-1	Z	1.2	1.2	0
80	HR-BRACE-2	Z	2.5	2.5	0
81	HR-BRACE-3	Z	1.2	1.2	0
82	SA-1	Z	1.9	1.9	0
83	SA-2	Z	0	0	0
84	SA-3	Z	1.9	1.9	0
85	PL1	Z	1.6	1.6	0
86	PL2	Z	2.9	2.9	0
87	PL3	Z	1.6	1.6	0



Member Distributed Loads (BLC 17 : Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
88	PL4	Z	2.9	2.9	0	0
89	PL5	Z	1.6	1.6	0	0
90	PL6	Z	2.9	2.9	0	0
91	PL7	Z	1.6	1.6	0	0
92	PL8	Z	.1	.1	0	0
93	PL9	Z	1.6	1.6	0	0
94	PL10	Z	.1	.1	0	0
95	PL11	Z	1.6	1.6	0	0
96	PL12	Z	.1	.1	0	0
97	PL13	Z	1.6	1.6	0	0
98	PL14	Z	.1	.1	0	0
99	PL15	Z	1.6	1.6	0	0
100	PL16	Z	.1	.1	0	0
101	PL17	Z	1.6	1.6	0	0
102	PL18	Z	.1	.1	0	0
103	PL19	Z	1.6	1.6	0	0
104	PL20	Z	2.9	2.9	0	0
105	PL21	Z	1.6	1.6	0	0
106	PL22	Z	2.9	2.9	0	0
107	PL23	Z	1.6	1.6	0	0
108	PL24	Z	2.9	2.9	0	0
109	PL25	Z	3.3	3.3	0	0
110	PL26	Z	2.8	2.8	0	0
111	PL27	Z	3.3	3.3	0	0
112	PL28	Z	2.8	2.8	0	0
113	PL29	Z	3.3	3.3	0	0
114	PL30	Z	2.8	2.8	0	0
115	PL31	Z	3.3	3.3	0	0
116	PL32	Z	2.8	2.8	0	0
117	PL33	Z	3.3	3.3	0	0
118	PL34	Z	2.8	2.8	0	0
119	PL35	Z	3.3	3.3	0	0
120	PL36	Z	2.8	2.8	0	0

Member Distributed Loads (BLC 18 : Wind on Ice (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	0	0	0	0
10	BRACE-3-1B	X	0	0	0	0
11	BRACE-3-2A	X	0	0	0	0
12	BRACE-3-2B	X	0	0	0	0
13	FM-0	X	0	0	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	0	0	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	0	0	0	0



Member Distributed Loads (BLC 18 : Wind on Ice (90 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,ft]	End Location[in,ft]
21	HR-BRACE-3	X	0	0	0
22	SA-1	X	0	0	0
23	SA-2	X	0	0	0
24	SA-3	X	0	0	0
25	PL1	X	0	0	0
26	PL2	X	0	0	0
27	PL3	X	0	0	0
28	PL4	X	0	0	0
29	PL5	X	0	0	0
30	PL6	X	0	0	0
31	PL7	X	0	0	0
32	PL8	X	0	0	0
33	PL9	X	0	0	0
34	PL10	X	0	0	0
35	PL11	X	0	0	0
36	PL12	X	0	0	0
37	PL13	X	0	0	0
38	PL14	X	0	0	0
39	PL15	X	0	0	0
40	PL16	X	0	0	0
41	PL17	X	0	0	0
42	PL18	X	0	0	0
43	PL19	X	0	0	0
44	PL20	X	0	0	0
45	PL21	X	0	0	0
46	PL22	X	0	0	0
47	PL23	X	0	0	0
48	PL24	X	0	0	0
49	PL25	X	0	0	0
50	PL26	X	0	0	0
51	PL27	X	0	0	0
52	PL28	X	0	0	0
53	PL29	X	0	0	0
54	PL30	X	0	0	0
55	PL31	X	0	0	0
56	PL32	X	0	0	0
57	PL33	X	0	0	0
58	PL34	X	0	0	0
59	PL35	X	0	0	0
60	PL36	X	0	0	0
61	BRACE-1-1A	Z	2.8	2.8	0
62	BRACE-1-1B	Z	2.8	2.8	0
63	BRACE-1-2A	Z	2.6	2.6	0
64	BRACE-1-2B	Z	2.6	2.6	0
65	BRACE-2-1A	Z	2.8	2.8	0
66	BRACE-2-1B	Z	2.8	2.8	0
67	BRACE-2-2A	Z	2.6	2.6	0
68	BRACE-2-2B	Z	2.6	2.6	0
69	BRACE-3-1A	Z	0	0	0
70	BRACE-3-1B	Z	0	0	0
71	BRACE-3-2A	Z	0	0	0
72	BRACE-3-2B	Z	0	0	0
73	FM-0	Z	0	0	0
74	FM-120	Z	2.4	2.4	0
75	FM-240	Z	2.4	2.4	0
76	HR-0	Z	0	0	0
77	HR-120	Z	2.2	2.2	0



Member Distributed Loads (BLC 18 : Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
78	HR-240	Z	2.2	2.2	0	0
79	HR-BRACE-1	Z	2.5	2.5	0	0
80	HR-BRACE-2	Z	2.5	2.5	0	0
81	HR-BRACE-3	Z	0	0	0	0
82	SA-1	Z	1.3	1.3	0	0
83	SA-2	Z	1.3	1.3	0	0
84	SA-3	Z	2.6	2.6	0	0
85	PL1	Z	0	0	0	0
86	PL2	Z	2	2	0	0
87	PL3	Z	0	0	0	0
88	PL4	Z	2	2	0	0
89	PL5	Z	0	0	0	0
90	PL6	Z	2	2	0	0
91	PL7	Z	0	0	0	0
92	PL8	Z	2	2	0	0
93	PL9	Z	0	0	0	0
94	PL10	Z	2	2	0	0
95	PL11	Z	0	0	0	0
96	PL12	Z	2	2	0	0
97	PL13	Z	3.3	3.3	0	0
98	PL14	Z	1.8	1.8	0	0
99	PL15	Z	3.3	3.3	0	0
100	PL16	Z	1.8	1.8	0	0
101	PL17	Z	3.3	3.3	0	0
102	PL18	Z	1.8	1.8	0	0
103	PL19	Z	3.3	3.3	0	0
104	PL20	Z	3.8	3.8	0	0
105	PL21	Z	3.3	3.3	0	0
106	PL22	Z	3.8	3.8	0	0
107	PL23	Z	3.3	3.3	0	0
108	PL24	Z	3.8	3.8	0	0
109	PL25	Z	3.3	3.3	0	0
110	PL26	Z	3.8	3.8	0	0
111	PL27	Z	3.3	3.3	0	0
112	PL28	Z	3.8	3.8	0	0
113	PL29	Z	3.3	3.3	0	0
114	PL30	Z	3.8	3.8	0	0
115	PL31	Z	3.3	3.3	0	0
116	PL32	Z	1.8	1.8	0	0
117	PL33	Z	3.3	3.3	0	0
118	PL34	Z	1.8	1.8	0	0
119	PL35	Z	3.3	3.3	0	0
120	PL36	Z	1.8	1.8	0	0

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-1.6	-1.6	0	0
2	BRACE-1-1B	X	-1.6	-1.6	0	0
3	BRACE-1-2A	X	-1.5	-1.5	0	0
4	BRACE-1-2B	X	-1.5	-1.5	0	0
5	BRACE-2-1A	X	-8	-8	0	0
6	BRACE-2-1B	X	-8	-8	0	0
7	BRACE-2-2A	X	-8	-8	0	0
8	BRACE-2-2B	X	-8	-8	0	0
9	BRACE-3-1A	X	-8	-8	0	0
10	BRACE-3-1B	X	-8	-8	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
 11:37 AM
 Checked By: DHK

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
11	BRACE-3-2A	X	-8	-8	0	0
12	BRACE-3-2B	X	-8	-8	0	0
13	FM-0	X	-7	-7	0	0
14	FM-120	X	-1.4	-1.4	0	0
15	FM-240	X	-7	-7	0	0
16	HR-0	X	-6	-6	0	0
17	HR-120	X	-1.3	-1.3	0	0
18	HR-240	X	-6	-6	0	0
19	HR-BRACE-1	X	-1.4	-1.4	0	0
20	HR-BRACE-2	X	-7	-7	0	0
21	HR-BRACE-3	X	-7	-7	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	-1.1	-1.1	0	0
24	SA-3	X	-1.1	-1.1	0	0
25	PL1	X	-9	-9	0	0
26	PL2	X	0	0	0	0
27	PL3	X	-9	-9	0	0
28	PL4	X	0	0	0	0
29	PL5	X	-9	-9	0	0
30	PL6	X	0	0	0	0
31	PL7	X	-9	-9	0	0
32	PL8	X	-1.7	-1.7	0	0
33	PL9	X	-9	-9	0	0
34	PL10	X	-1.7	-1.7	0	0
35	PL11	X	-9	-9	0	0
36	PL12	X	-1.7	-1.7	0	0
37	PL13	X	-1.9	-1.9	0	0
38	PL14	X	-1.6	-1.6	0	0
39	PL15	X	-1.9	-1.9	0	0
40	PL16	X	-1.6	-1.6	0	0
41	PL17	X	-1.9	-1.9	0	0
42	PL18	X	-1.6	-1.6	0	0
43	PL19	X	-1.9	-1.9	0	0
44	PL20	X	-1.6	-1.6	0	0
45	PL21	X	-1.9	-1.9	0	0
46	PL22	X	-1.6	-1.6	0	0
47	PL23	X	-1.9	-1.9	0	0
48	PL24	X	-1.6	-1.6	0	0
49	PL25	X	-9	-9	0	0
50	PL26	X	-1.7	-1.7	0	0
51	PL27	X	-9	-9	0	0
52	PL28	X	-1.7	-1.7	0	0
53	PL29	X	-9	-9	0	0
54	PL30	X	-1.7	-1.7	0	0
55	PL31	X	-9	-9	0	0
56	PL32	X	0	0	0	0
57	PL33	X	-9	-9	0	0
58	PL34	X	0	0	0	0
59	PL35	X	-9	-9	0	0
60	PL36	X	0	0	0	0
61	BRACE-1-1A	Z	2.8	2.8	0	0
62	BRACE-1-1B	Z	2.8	2.8	0	0
63	BRACE-1-2A	Z	2.6	2.6	0	0
64	BRACE-1-2B	Z	2.6	2.6	0	0
65	BRACE-2-1A	Z	1.4	1.4	0	0
66	BRACE-2-1B	Z	1.4	1.4	0	0
67	BRACE-2-2A	Z	1.3	1.3	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
 11:37 AM
 Checked By: DHK

Member Distributed Loads (BLC 19 : Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/ft.F,psf]	Start Location[in,%]	End Location[in,%]
68	BRACE-2-2B	Z	1.3	1.3	0	0
69	BRACE-3-1A	Z	1.4	1.4	0	0
70	BRACE-3-1B	Z	1.4	1.4	0	0
71	BRACE-3-2A	Z	1.3	1.3	0	0
72	BRACE-3-2B	Z	1.3	1.3	0	0
73	FM-0	Z	1.2	1.2	0	0
74	FM-120	Z	2.4	2.4	0	0
75	FM-240	Z	1.2	1.2	0	0
76	HR-0	Z	1.1	1.1	0	0
77	HR-120	Z	2.2	2.2	0	0
78	HR-240	Z	1.1	1.1	0	0
79	HR-BRACE-1	Z	2.5	2.5	0	0
80	HR-BRACE-2	Z	1.2	1.2	0	0
81	HR-BRACE-3	Z	1.2	1.2	0	0
82	SA-1	Z	0	0	0	0
83	SA-2	Z	1.9	1.9	0	0
84	SA-3	Z	1.9	1.9	0	0
85	PL1	Z	1.6	1.6	0	0
86	PL2	Z	.1	.1	0	0
87	PL3	Z	1.6	1.6	0	0
88	PL4	Z	.1	.1	0	0
89	PL5	Z	1.6	1.6	0	0
90	PL6	Z	.1	.1	0	0
91	PL7	Z	1.6	1.6	0	0
92	PL8	Z	2.9	2.9	0	0
93	PL9	Z	1.6	1.6	0	0
94	PL10	Z	2.9	2.9	0	0
95	PL11	Z	1.6	1.6	0	0
96	PL12	Z	2.9	2.9	0	0
97	PL13	Z	3.3	3.3	0	0
98	PL14	Z	2.8	2.8	0	0
99	PL15	Z	3.3	3.3	0	0
100	PL16	Z	2.8	2.8	0	0
101	PL17	Z	3.3	3.3	0	0
102	PL18	Z	2.8	2.8	0	0
103	PL19	Z	3.3	3.3	0	0
104	PL20	Z	2.8	2.8	0	0
105	PL21	Z	3.3	3.3	0	0
106	PL22	Z	2.8	2.8	0	0
107	PL23	Z	3.3	3.3	0	0
108	PL24	Z	2.8	2.8	0	0
109	PL25	Z	1.6	1.6	0	0
110	PL26	Z	2.9	2.9	0	0
111	PL27	Z	1.6	1.6	0	0
112	PL28	Z	2.9	2.9	0	0
113	PL29	Z	1.6	1.6	0	0
114	PL30	Z	2.9	2.9	0	0
115	PL31	Z	1.6	1.6	0	0
116	PL32	Z	.1	.1	0	0
117	PL33	Z	1.6	1.6	0	0
118	PL34	Z	.1	.1	0	0
119	PL35	Z	1.6	1.6	0	0
120	PL36	Z	.1	.1	0	0

Member Distributed Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/ft.F,psf]	Start Location[in,%]	End Location[in,%]
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Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 20 : Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-2.4	-2.4	0	0
2	BRACE-1-1B	X	-2.4	-2.4	0	0
3	BRACE-1-2A	X	-2.3	-2.3	0	0
4	BRACE-1-2B	X	-2.3	-2.3	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	-2.4	-2.4	0	0
10	BRACE-3-1B	X	-2.4	-2.4	0	0
11	BRACE-3-2A	X	-2.3	-2.3	0	0
12	BRACE-3-2B	X	-2.3	-2.3	0	0
13	FM-0	X	-2.1	-2.1	0	0
14	FM-120	X	-2.1	-2.1	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	-1.9	-1.9	0	0
17	HR-120	X	-1.9	-1.9	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	-2.1	-2.1	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	-2.1	-2.1	0	0
22	SA-1	X	-1.1	-1.1	0	0
23	SA-2	X	-2.2	-2.2	0	0
24	SA-3	X	-1.1	-1.1	0	0
25	PL1	X	-2.8	-2.8	0	0
26	PL2	X	-1.6	-1.6	0	0
27	PL3	X	-2.8	-2.8	0	0
28	PL4	X	-1.6	-1.6	0	0
29	PL5	X	-2.8	-2.8	0	0
30	PL6	X	-1.6	-1.6	0	0
31	PL7	X	-2.8	-2.8	0	0
32	PL8	X	-3.3	-3.3	0	0
33	PL9	X	-2.8	-2.8	0	0
34	PL10	X	-3.3	-3.3	0	0
35	PL11	X	-2.8	-2.8	0	0
36	PL12	X	-3.3	-3.3	0	0
37	PL13	X	-2.8	-2.8	0	0
38	PL14	X	-3.3	-3.3	0	0
39	PL15	X	-2.8	-2.8	0	0
40	PL16	X	-3.3	-3.3	0	0
41	PL17	X	-2.8	-2.8	0	0
42	PL18	X	-3.3	-3.3	0	0
43	PL19	X	-2.8	-2.8	0	0
44	PL20	X	-1.6	-1.6	0	0
45	PL21	X	-2.8	-2.8	0	0
46	PL22	X	-1.6	-1.6	0	0
47	PL23	X	-2.8	-2.8	0	0
48	PL24	X	-1.6	-1.6	0	0
49	PL25	X	0	0	0	0
50	PL26	X	-1.7	-1.7	0	0
51	PL27	X	0	0	0	0
52	PL28	X	-1.7	-1.7	0	0
53	PL29	X	0	0	0	0
54	PL30	X	-1.7	-1.7	0	0
55	PL31	X	0	0	0	0
56	PL32	X	-1.7	-1.7	0	0
57	PL33	X	0	0	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
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Member Distributed Loads (BLC 20 : Wind on Ice (150 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
58	PL34	X	-1.7	-1.7	0	0
59	PL35	X	0	0	0	0
60	PL36	X	-1.7	-1.7	0	0
61	BRACE-1-1A	Z	1.4	1.4	0	0
62	BRACE-1-1B	Z	1.4	1.4	0	0
63	BRACE-1-2A	Z	1.3	1.3	0	0
64	BRACE-1-2B	Z	1.3	1.3	0	0
65	BRACE-2-1A	Z	0	0	0	0
66	BRACE-2-1B	Z	0	0	0	0
67	BRACE-2-2A	Z	0	0	0	0
68	BRACE-2-2B	Z	0	0	0	0
69	BRACE-3-1A	Z	1.4	1.4	0	0
70	BRACE-3-1B	Z	1.4	1.4	0	0
71	BRACE-3-2A	Z	1.3	1.3	0	0
72	BRACE-3-2B	Z	1.3	1.3	0	0
73	FM-0	Z	1.2	1.2	0	0
74	FM-120	Z	1.2	1.2	0	0
75	FM-240	Z	0	0	0	0
76	HR-0	Z	1.1	1.1	0	0
77	HR-120	Z	1.1	1.1	0	0
78	HR-240	Z	0	0	0	0
79	HR-BRACE-1	Z	1.2	1.2	0	0
80	HR-BRACE-2	Z	0	0	0	0
81	HR-BRACE-3	Z	1.2	1.2	0	0
82	SA-1	Z	.6	.6	0	0
83	SA-2	Z	1.3	1.3	0	0
84	SA-3	Z	.6	.6	0	0
85	PL1	Z	1.6	1.6	0	0
86	PL2	Z	.9	.9	0	0
87	PL3	Z	1.6	1.6	0	0
88	PL4	Z	.9	.9	0	0
89	PL5	Z	1.6	1.6	0	0
90	PL6	Z	.9	.9	0	0
91	PL7	Z	1.6	1.6	0	0
92	PL8	Z	1.9	1.9	0	0
93	PL9	Z	1.6	1.6	0	0
94	PL10	Z	1.9	1.9	0	0
95	PL11	Z	1.6	1.6	0	0
96	PL12	Z	1.9	1.9	0	0
97	PL13	Z	1.6	1.6	0	0
98	PL14	Z	1.9	1.9	0	0
99	PL15	Z	1.6	1.6	0	0
100	PL16	Z	1.9	1.9	0	0
101	PL17	Z	1.6	1.6	0	0
102	PL18	Z	1.9	1.9	0	0
103	PL19	Z	1.6	1.6	0	0
104	PL20	Z	.9	.9	0	0
105	PL21	Z	1.6	1.6	0	0
106	PL22	Z	.9	.9	0	0
107	PL23	Z	1.6	1.6	0	0
108	PL24	Z	.9	.9	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	1	1	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	1	1	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	1	1	0	0



Member Distributed Loads (BLC 20 : Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
115	PL31	Z	0	0	0	0
116	PL32	Z	1	1	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	1	1	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	1	1	0	0

Member Distributed Loads (BLC 21 : Wind on Ice (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-1.6	-1.6	0	0
2	BRACE-1-1B	X	-1.6	-1.6	0	0
3	BRACE-1-2A	X	-1.5	-1.5	0	0
4	BRACE-1-2B	X	-1.5	-1.5	0	0
5	BRACE-2-1A	X	-1.6	-1.6	0	0
6	BRACE-2-1B	X	-1.6	-1.6	0	0
7	BRACE-2-2A	X	-1.5	-1.5	0	0
8	BRACE-2-2B	X	-1.5	-1.5	0	0
9	BRACE-3-1A	X	-3.3	-3.3	0	0
10	BRACE-3-1B	X	-3.3	-3.3	0	0
11	BRACE-3-2A	X	-3	-3	0	0
12	BRACE-3-2B	X	-3	-3	0	0
13	FM-0	X	-2.8	-2.8	0	0
14	FM-120	X	-1.4	-1.4	0	0
15	FM-240	X	-1.4	-1.4	0	0
16	HR-0	X	-2.5	-2.5	0	0
17	HR-120	X	-1.3	-1.3	0	0
18	HR-240	X	-1.3	-1.3	0	0
19	HR-BRACE-1	X	-1.4	-1.4	0	0
20	HR-BRACE-2	X	-1.4	-1.4	0	0
21	HR-BRACE-3	X	-2.9	-2.9	0	0
22	SA-1	X	-2.2	-2.2	0	0
23	SA-2	X	-2.2	-2.2	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	-3.8	-3.8	0	0
26	PL2	X	-3.2	-3.2	0	0
27	PL3	X	-3.8	-3.8	0	0
28	PL4	X	-3.2	-3.2	0	0
29	PL5	X	-3.8	-3.8	0	0
30	PL6	X	-3.2	-3.2	0	0
31	PL7	X	-3.8	-3.8	0	0
32	PL8	X	-3.2	-3.2	0	0
33	PL9	X	-3.8	-3.8	0	0
34	PL10	X	-3.2	-3.2	0	0
35	PL11	X	-3.8	-3.8	0	0
36	PL12	X	-3.2	-3.2	0	0
37	PL13	X	-1.9	-1.9	0	0
38	PL14	X	-3.3	-3.3	0	0
39	PL15	X	-1.9	-1.9	0	0
40	PL16	X	-3.3	-3.3	0	0
41	PL17	X	-1.9	-1.9	0	0
42	PL18	X	-3.3	-3.3	0	0
43	PL19	X	-1.9	-1.9	0	0
44	PL20	X	-1	-1	0	0
45	PL21	X	-1.9	-1.9	0	0
46	PL22	X	-1	-1	0	0
47	PL23	X	-1.9	-1.9	0	0



Member Distributed Loads (BLC 21 : Wind on Ice (180 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in, %]	End Location[in, %]
48	PL24	X	-1	-1	0 0
49	PL25	X	-1.9	-1.9	0 0
50	PL26	X	-1	-1	0 0
51	PL27	X	-1.9	-1.9	0 0
52	PL28	X	-1	-1	0 0
53	PL29	X	-1.9	-1.9	0 0
54	PL30	X	-1	-1	0 0
55	PL31	X	-1.9	-1.9	0 0
56	PL32	X	-3.3	-3.3	0 0
57	PL33	X	-1.9	-1.9	0 0
58	PL34	X	-3.3	-3.3	0 0
59	PL35	X	-1.9	-1.9	0 0
60	PL36	X	-3.3	-3.3	0 0
61	BRACE-1-1A	Z	0	0	0 0
62	BRACE-1-1B	Z	0	0	0 0
63	BRACE-1-2A	Z	0	0	0 0
64	BRACE-1-2B	Z	0	0	0 0
65	BRACE-2-1A	Z	0	0	0 0
66	BRACE-2-1B	Z	0	0	0 0
67	BRACE-2-2A	Z	0	0	0 0
68	BRACE-2-2B	Z	0	0	0 0
69	BRACE-3-1A	Z	0	0	0 0
70	BRACE-3-1B	Z	0	0	0 0
71	BRACE-3-2A	Z	0	0	0 0
72	BRACE-3-2B	Z	0	0	0 0
73	FM-0	Z	0	0	0 0
74	FM-120	Z	0	0	0 0
75	FM-240	Z	0	0	0 0
76	HR-0	Z	0	0	0 0
77	HR-120	Z	0	0	0 0
78	HR-240	Z	0	0	0 0
79	HR-BRACE-1	Z	0	0	0 0
80	HR-BRACE-2	Z	0	0	0 0
81	HR-BRACE-3	Z	0	0	0 0
82	SA-1	Z	0	0	0 0
83	SA-2	Z	0	0	0 0
84	SA-3	Z	0	0	0 0
85	PL1	Z	0	0	0 0
86	PL2	Z	0	0	0 0
87	PL3	Z	0	0	0 0
88	PL4	Z	0	0	0 0
89	PL5	Z	0	0	0 0
90	PL6	Z	0	0	0 0
91	PL7	Z	0	0	0 0
92	PL8	Z	0	0	0 0
93	PL9	Z	0	0	0 0
94	PL10	Z	0	0	0 0
95	PL11	Z	0	0	0 0
96	PL12	Z	0	0	0 0
97	PL13	Z	0	0	0 0
98	PL14	Z	0	0	0 0
99	PL15	Z	0	0	0 0
100	PL16	Z	0	0	0 0
101	PL17	Z	0	0	0 0
102	PL18	Z	0	0	0 0
103	PL19	Z	0	0	0 0
104	PL20	Z	0	0	0 0



Member Distributed Loads (BLC 21 : Wind on Ice (180 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
105	PL21	Z	0	0	0	0
106	PL22	Z	0	0	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	0	0	0	0
109	PL25	Z	0	0	0	0
110	PL26	Z	0	0	0	0
111	PL27	Z	0	0	0	0
112	PL28	Z	0	0	0	0
113	PL29	Z	0	0	0	0
114	PL30	Z	0	0	0	0
115	PL31	Z	0	0	0	0
116	PL32	Z	0	0	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	0	0	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	0	0	0	0

Member Distributed Loads (BLC 22 : Wind on Ice (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	-2.4	-2.4	0	0
6	BRACE-2-1B	X	-2.4	-2.4	0	0
7	BRACE-2-2A	X	-2.3	-2.3	0	0
8	BRACE-2-2B	X	-2.3	-2.3	0	0
9	BRACE-3-1A	X	-2.4	-2.4	0	0
10	BRACE-3-1B	X	-2.4	-2.4	0	0
11	BRACE-3-2A	X	-2.3	-2.3	0	0
12	BRACE-3-2B	X	-2.3	-2.3	0	0
13	FM-0	X	-2.1	-2.1	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	-2.1	-2.1	0	0
16	HR-0	X	-1.9	-1.9	0	0
17	HR-120	X	0	0	0	0
18	HR-240	X	-1.9	-1.9	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	-2.1	-2.1	0	0
21	HR-BRACE-3	X	-2.1	-2.1	0	0
22	SA-1	X	-2.2	-2.2	0	0
23	SA-2	X	-1.1	-1.1	0	0
24	SA-3	X	-1.1	-1.1	0	0
25	PL1	X	-2.8	-2.8	0	0
26	PL2	X	-3.3	-3.3	0	0
27	PL3	X	-2.8	-2.8	0	0
28	PL4	X	-3.3	-3.3	0	0
29	PL5	X	-2.8	-2.8	0	0
30	PL6	X	-3.3	-3.3	0	0
31	PL7	X	-2.8	-2.8	0	0
32	PL8	X	-1.6	-1.6	0	0
33	PL9	X	-2.8	-2.8	0	0
34	PL10	X	-1.6	-1.6	0	0
35	PL11	X	-2.8	-2.8	0	0
36	PL12	X	-1.6	-1.6	0	0
37	PL13	X	0	0	0	0



Member Distributed Loads (BLC 22 : Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,°]	End Location[in,°]
38	PL14	X	-1.7	-1.7	0	0
39	PL15	X	0	0	0	0
40	PL16	X	-1.7	-1.7	0	0
41	PL17	X	0	0	0	0
42	PL18	X	-1.7	-1.7	0	0
43	PL19	X	0	0	0	0
44	PL20	X	-1.7	-1.7	0	0
45	PL21	X	0	0	0	0
46	PL22	X	-1.7	-1.7	0	0
47	PL23	X	0	0	0	0
48	PL24	X	-1.7	-1.7	0	0
49	PL25	X	-2.8	-2.8	0	0
50	PL26	X	-1.6	-1.6	0	0
51	PL27	X	-2.8	-2.8	0	0
52	PL28	X	-1.6	-1.6	0	0
53	PL29	X	-2.8	-2.8	0	0
54	PL30	X	-1.6	-1.6	0	0
55	PL31	X	-2.8	-2.8	0	0
56	PL32	X	-3.3	-3.3	0	0
57	PL33	X	-2.8	-2.8	0	0
58	PL34	X	-3.3	-3.3	0	0
59	PL35	X	-2.8	-2.8	0	0
60	PL36	X	-3.3	-3.3	0	0
61	BRACE-1-1A	Z	0	0	0	0
62	BRACE-1-1B	Z	0	0	0	0
63	BRACE-1-2A	Z	0	0	0	0
64	BRACE-1-2B	Z	0	0	0	0
65	BRACE-2-1A	Z	-1.4	-1.4	0	0
66	BRACE-2-1B	Z	-1.4	-1.4	0	0
67	BRACE-2-2A	Z	-1.3	-1.3	0	0
68	BRACE-2-2B	Z	-1.3	-1.3	0	0
69	BRACE-3-1A	Z	-1.4	-1.4	0	0
70	BRACE-3-1B	Z	-1.4	-1.4	0	0
71	BRACE-3-2A	Z	-1.3	-1.3	0	0
72	BRACE-3-2B	Z	-1.3	-1.3	0	0
73	FM-0	Z	-1.2	-1.2	0	0
74	FM-120	Z	0	0	0	0
75	FM-240	Z	-1.2	-1.2	0	0
76	HR-0	Z	-1.1	-1.1	0	0
77	HR-120	Z	0	0	0	0
78	HR-240	Z	-1.1	-1.1	0	0
79	HR-BRACE-1	Z	0	0	0	0
80	HR-BRACE-2	Z	-1.2	-1.2	0	0
81	HR-BRACE-3	Z	-1.2	-1.2	0	0
82	SA-1	Z	-1.3	-1.3	0	0
83	SA-2	Z	-6	-6	0	0
84	SA-3	Z	-6	-6	0	0
85	PL1	Z	-1.6	-1.6	0	0
86	PL2	Z	-1.9	-1.9	0	0
87	PL3	Z	-1.6	-1.6	0	0
88	PL4	Z	-1.9	-1.9	0	0
89	PL5	Z	-1.6	-1.6	0	0
90	PL6	Z	-1.9	-1.9	0	0
91	PL7	Z	-1.6	-1.6	0	0
92	PL8	Z	-9	-9	0	0
93	PL9	Z	-1.6	-1.6	0	0
94	PL10	Z	-9	-9	0	0



Member Distributed Loads (BLC 22 : Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
95	PL11	Z	-1.6	-1.6	0	0
96	PL12	Z	-9	-9	0	0
97	PL13	Z	0	0	0	0
98	PL14	Z	-1	-1	0	0
99	PL15	Z	0	0	0	0
100	PL16	Z	-1	-1	0	0
101	PL17	Z	0	0	0	0
102	PL18	Z	-1	-1	0	0
103	PL19	Z	0	0	0	0
104	PL20	Z	-1	-1	0	0
105	PL21	Z	0	0	0	0
106	PL22	Z	-1	-1	0	0
107	PL23	Z	0	0	0	0
108	PL24	Z	-1	-1	0	0
109	PL25	Z	-1.6	-1.6	0	0
110	PL26	Z	-9	-9	0	0
111	PL27	Z	-1.6	-1.6	0	0
112	PL28	Z	-9	-9	0	0
113	PL29	Z	-1.6	-1.6	0	0
114	PL30	Z	-9	-9	0	0
115	PL31	Z	-1.6	-1.6	0	0
116	PL32	Z	-1.9	-1.9	0	0
117	PL33	Z	-1.6	-1.6	0	0
118	PL34	Z	-1.9	-1.9	0	0
119	PL35	Z	-1.6	-1.6	0	0
120	PL36	Z	-1.9	-1.9	0	0

Member Distributed Loads (BLC 23 : Wind on Ice (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	-8	-8	0	0
2	BRACE-1-1B	X	-8	-8	0	0
3	BRACE-1-2A	X	-8	-8	0	0
4	BRACE-1-2B	X	-8	-8	0	0
5	BRACE-2-1A	X	-1.6	-1.6	0	0
6	BRACE-2-1B	X	-1.6	-1.6	0	0
7	BRACE-2-2A	X	-1.5	-1.5	0	0
8	BRACE-2-2B	X	-1.5	-1.5	0	0
9	BRACE-3-1A	X	-8	-8	0	0
10	BRACE-3-1B	X	-8	-8	0	0
11	BRACE-3-2A	X	-8	-8	0	0
12	BRACE-3-2B	X	-8	-8	0	0
13	FM-0	X	-7	-7	0	0
14	FM-120	X	-7	-7	0	0
15	FM-240	X	-1.4	-1.4	0	0
16	HR-0	X	-6	-6	0	0
17	HR-120	X	-6	-6	0	0
18	HR-240	X	-1.3	-1.3	0	0
19	HR-BRACE-1	X	-7	-7	0	0
20	HR-BRACE-2	X	-1.4	-1.4	0	0
21	HR-BRACE-3	X	-7	-7	0	0
22	SA-1	X	-1.1	-1.1	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	-1.1	-1.1	0	0
25	PL1	X	-9	-9	0	0
26	PL2	X	-1.7	-1.7	0	0
27	PL3	X	-9	-9	0	0



Member Distributed Loads (BLC 23 : Wind on Ice (240 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
28	PL4	X	-1.7	-1.7	0	0
29	PL5	X	-9	-9	0	0
30	PL6	X	-1.7	-1.7	0	0
31	PL7	X	-9	-9	0	0
32	PL8	X	0	0	0	0
33	PL9	X	-9	-9	0	0
34	PL10	X	0	0	0	0
35	PL11	X	-9	-9	0	0
36	PL12	X	0	0	0	0
37	PL13	X	-9	-9	0	0
38	PL14	X	0	0	0	0
39	PL15	X	-9	-9	0	0
40	PL16	X	0	0	0	0
41	PL17	X	-9	-9	0	0
42	PL18	X	0	0	0	0
43	PL19	X	-9	-9	0	0
44	PL20	X	-1.7	-1.7	0	0
45	PL21	X	-9	-9	0	0
46	PL22	X	-1.7	-1.7	0	0
47	PL23	X	-9	-9	0	0
48	PL24	X	-1.7	-1.7	0	0
49	PL25	X	-1.9	-1.9	0	0
50	PL26	X	-1.6	-1.6	0	0
51	PL27	X	-1.9	-1.9	0	0
52	PL28	X	-1.6	-1.6	0	0
53	PL29	X	-1.9	-1.9	0	0
54	PL30	X	-1.6	-1.6	0	0
55	PL31	X	-1.9	-1.9	0	0
56	PL32	X	-1.6	-1.6	0	0
57	PL33	X	-1.9	-1.9	0	0
58	PL34	X	-1.6	-1.6	0	0
59	PL35	X	-1.9	-1.9	0	0
60	PL36	X	-1.6	-1.6	0	0
61	BRACE-1-1A	Z	-1.4	-1.4	0	0
62	BRACE-1-1B	Z	-1.4	-1.4	0	0
63	BRACE-1-2A	Z	-1.3	-1.3	0	0
64	BRACE-1-2B	Z	-1.3	-1.3	0	0
65	BRACE-2-1A	Z	-2.8	-2.8	0	0
66	BRACE-2-1B	Z	-2.8	-2.8	0	0
67	BRACE-2-2A	Z	-2.6	-2.6	0	0
68	BRACE-2-2B	Z	-2.6	-2.6	0	0
69	BRACE-3-1A	Z	-1.4	-1.4	0	0
70	BRACE-3-1B	Z	-1.4	-1.4	0	0
71	BRACE-3-2A	Z	-1.3	-1.3	0	0
72	BRACE-3-2B	Z	-1.3	-1.3	0	0
73	FM-0	Z	-1.2	-1.2	0	0
74	FM-120	Z	-1.2	-1.2	0	0
75	FM-240	Z	-2.4	-2.4	0	0
76	HR-0	Z	-1.1	-1.1	0	0
77	HR-120	Z	-1.1	-1.1	0	0
78	HR-240	Z	-2.2	-2.2	0	0
79	HR-BRACE-1	Z	-1.2	-1.2	0	0
80	HR-BRACE-2	Z	-2.5	-2.5	0	0
81	HR-BRACE-3	Z	-1.2	-1.2	0	0
82	SA-1	Z	-1.9	-1.9	0	0
83	SA-2	Z	0	0	0	0
84	SA-3	Z	-1.9	-1.9	0	0



Member Distributed Loads (BLC 23 : Wind on Ice (240 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
85	PL1	Z	-1.6	-1.6	0	0
86	PL2	Z	-2.9	-2.9	0	0
87	PL3	Z	-1.6	-1.6	0	0
88	PL4	Z	-2.9	-2.9	0	0
89	PL5	Z	-1.6	-1.6	0	0
90	PL6	Z	-2.9	-2.9	0	0
91	PL7	Z	-1.6	-1.6	0	0
92	PL8	Z	-1	-1	0	0
93	PL9	Z	-1.6	-1.6	0	0
94	PL10	Z	-1	-1	0	0
95	PL11	Z	-1.6	-1.6	0	0
96	PL12	Z	-1	-1	0	0
97	PL13	Z	-1.6	-1.6	0	0
98	PL14	Z	-1	-1	0	0
99	PL15	Z	-1.6	-1.6	0	0
100	PL16	Z	-1	-1	0	0
101	PL17	Z	-1.6	-1.6	0	0
102	PL18	Z	-1	-1	0	0
103	PL19	Z	-1.6	-1.6	0	0
104	PL20	Z	-2.9	-2.9	0	0
105	PL21	Z	-1.6	-1.6	0	0
106	PL22	Z	-2.9	-2.9	0	0
107	PL23	Z	-1.6	-1.6	0	0
108	PL24	Z	-2.9	-2.9	0	0
109	PL25	Z	-3.3	-3.3	0	0
110	PL26	Z	-2.8	-2.8	0	0
111	PL27	Z	-3.3	-3.3	0	0
112	PL28	Z	-2.8	-2.8	0	0
113	PL29	Z	-3.3	-3.3	0	0
114	PL30	Z	-2.8	-2.8	0	0
115	PL31	Z	-3.3	-3.3	0	0
116	PL32	Z	-2.8	-2.8	0	0
117	PL33	Z	-3.3	-3.3	0	0
118	PL34	Z	-2.8	-2.8	0	0
119	PL35	Z	-3.3	-3.3	0	0
120	PL36	Z	-2.8	-2.8	0	0

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	0	0	0	0
2	BRACE-1-1B	X	0	0	0	0
3	BRACE-1-2A	X	0	0	0	0
4	BRACE-1-2B	X	0	0	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	0	0	0	0
10	BRACE-3-1B	X	0	0	0	0
11	BRACE-3-2A	X	0	0	0	0
12	BRACE-3-2B	X	0	0	0	0
13	FM-0	X	0	0	0	0
14	FM-120	X	0	0	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	0	0	0	0
17	HR-120	X	0	0	0	0



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 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	0	0	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	0	0	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	0	0	0	0
24	SA-3	X	0	0	0	0
25	PL1	X	0	0	0	0
26	PL2	X	0	0	0	0
27	PL3	X	0	0	0	0
28	PL4	X	0	0	0	0
29	PL5	X	0	0	0	0
30	PL6	X	0	0	0	0
31	PL7	X	0	0	0	0
32	PL8	X	0	0	0	0
33	PL9	X	0	0	0	0
34	PL10	X	0	0	0	0
35	PL11	X	0	0	0	0
36	PL12	X	0	0	0	0
37	PL13	X	0	0	0	0
38	PL14	X	0	0	0	0
39	PL15	X	0	0	0	0
40	PL16	X	0	0	0	0
41	PL17	X	0	0	0	0
42	PL18	X	0	0	0	0
43	PL19	X	0	0	0	0
44	PL20	X	0	0	0	0
45	PL21	X	0	0	0	0
46	PL22	X	0	0	0	0
47	PL23	X	0	0	0	0
48	PL24	X	0	0	0	0
49	PL25	X	0	0	0	0
50	PL26	X	0	0	0	0
51	PL27	X	0	0	0	0
52	PL28	X	0	0	0	0
53	PL29	X	0	0	0	0
54	PL30	X	0	0	0	0
55	PL31	X	0	0	0	0
56	PL32	X	0	0	0	0
57	PL33	X	0	0	0	0
58	PL34	X	0	0	0	0
59	PL35	X	0	0	0	0
60	PL36	X	0	0	0	0
61	BRACE-1-1A	Z	-2.8	-2.8	0	0
62	BRACE-1-1B	Z	-2.8	-2.8	0	0
63	BRACE-1-2A	Z	-2.6	-2.6	0	0
64	BRACE-1-2B	Z	-2.6	-2.6	0	0
65	BRACE-2-1A	Z	-2.8	-2.8	0	0
66	BRACE-2-1B	Z	-2.8	-2.8	0	0
67	BRACE-2-2A	Z	-2.6	-2.6	0	0
68	BRACE-2-2B	Z	-2.6	-2.6	0	0
69	BRACE-3-1A	Z	0	0	0	0
70	BRACE-3-1B	Z	0	0	0	0
71	BRACE-3-2A	Z	0	0	0	0
72	BRACE-3-2B	Z	0	0	0	0
73	FM-0	Z	0	0	0	0
74	FM-120	Z	-2.4	-2.4	0	0



Member Distributed Loads (BLC 24 : Wind on Ice (270 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
75	FM-240	Z	-2.4	-2.4	0
76	HR-0	Z	0	0	0
77	HR-120	Z	-2.2	-2.2	0
78	HR-240	Z	-2.2	-2.2	0
79	HR-BRACE-1	Z	-2.5	-2.5	0
80	HR-BRACE-2	Z	-2.5	-2.5	0
81	HR-BRACE-3	Z	0	0	0
82	SA-1	Z	-1.3	-1.3	0
83	SA-2	Z	-1.3	-1.3	0
84	SA-3	Z	-2.6	-2.6	0
85	PL1	Z	0	0	0
86	PL2	Z	-2	-2	0
87	PL3	Z	0	0	0
88	PL4	Z	-2	-2	0
89	PL5	Z	0	0	0
90	PL6	Z	-2	-2	0
91	PL7	Z	0	0	0
92	PL8	Z	-2	-2	0
93	PL9	Z	0	0	0
94	PL10	Z	-2	-2	0
95	PL11	Z	0	0	0
96	PL12	Z	-2	-2	0
97	PL13	Z	-3.3	-3.3	0
98	PL14	Z	-1.8	-1.8	0
99	PL15	Z	-3.3	-3.3	0
100	PL16	Z	-1.8	-1.8	0
101	PL17	Z	-3.3	-3.3	0
102	PL18	Z	-1.8	-1.8	0
103	PL19	Z	-3.3	-3.3	0
104	PL20	Z	-3.8	-3.8	0
105	PL21	Z	-3.3	-3.3	0
106	PL22	Z	-3.8	-3.8	0
107	PL23	Z	-3.3	-3.3	0
108	PL24	Z	-3.8	-3.8	0
109	PL25	Z	-3.3	-3.3	0
110	PL26	Z	-3.8	-3.8	0
111	PL27	Z	-3.3	-3.3	0
112	PL28	Z	-3.8	-3.8	0
113	PL29	Z	-3.3	-3.3	0
114	PL30	Z	-3.8	-3.8	0
115	PL31	Z	-3.3	-3.3	0
116	PL32	Z	-1.8	-1.8	0
117	PL33	Z	-3.3	-3.3	0
118	PL34	Z	-1.8	-1.8	0
119	PL35	Z	-3.3	-3.3	0
120	PL36	Z	-1.8	-1.8	0

Member Distributed Loads (BLC 25 : Wind on Ice (300 deg))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	1.6	1.6	0
2	BRACE-1-1B	X	1.6	1.6	0
3	BRACE-1-2A	X	1.5	1.5	0
4	BRACE-1-2B	X	1.5	1.5	0
5	BRACE-2-1A	X	.8	.8	0
6	BRACE-2-1B	X	.8	.8	0
7	BRACE-2-2A	X	.8	.8	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 25 : Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,%]	End Location[in,%]
8	BRACE-2-2B	X	.8	.8	0	0
9	BRACE-3-1A	X	.8	.8	0	0
10	BRACE-3-1B	X	.8	.8	0	0
11	BRACE-3-2A	X	.8	.8	0	0
12	BRACE-3-2B	X	.8	.8	0	0
13	FM-0	X	.7	.7	0	0
14	FM-120	X	1.4	1.4	0	0
15	FM-240	X	.7	.7	0	0
16	HR-0	X	.6	.6	0	0
17	HR-120	X	1.3	1.3	0	0
18	HR-240	X	.6	.6	0	0
19	HR-BRACE-1	X	1.4	1.4	0	0
20	HR-BRACE-2	X	.7	.7	0	0
21	HR-BRACE-3	X	.7	.7	0	0
22	SA-1	X	0	0	0	0
23	SA-2	X	1.1	1.1	0	0
24	SA-3	X	1.1	1.1	0	0
25	PL1	X	.9	.9	0	0
26	PL2	X	0	0	0	0
27	PL3	X	.9	.9	0	0
28	PL4	X	0	0	0	0
29	PL5	X	.9	.9	0	0
30	PL6	X	0	0	0	0
31	PL7	X	.9	.9	0	0
32	PL8	X	1.7	1.7	0	0
33	PL9	X	.9	.9	0	0
34	PL10	X	1.7	1.7	0	0
35	PL11	X	.9	.9	0	0
36	PL12	X	1.7	1.7	0	0
37	PL13	X	1.9	1.9	0	0
38	PL14	X	1.6	1.6	0	0
39	PL15	X	1.9	1.9	0	0
40	PL16	X	1.6	1.6	0	0
41	PL17	X	1.9	1.9	0	0
42	PL18	X	1.6	1.6	0	0
43	PL19	X	1.9	1.9	0	0
44	PL20	X	1.6	1.6	0	0
45	PL21	X	1.9	1.9	0	0
46	PL22	X	1.6	1.6	0	0
47	PL23	X	1.9	1.9	0	0
48	PL24	X	1.6	1.6	0	0
49	PL25	X	.9	.9	0	0
50	PL26	X	1.7	1.7	0	0
51	PL27	X	.9	.9	0	0
52	PL28	X	1.7	1.7	0	0
53	PL29	X	.9	.9	0	0
54	PL30	X	1.7	1.7	0	0
55	PL31	X	.9	.9	0	0
56	PL32	X	0	0	0	0
57	PL33	X	.9	.9	0	0
58	PL34	X	0	0	0	0
59	PL35	X	.9	.9	0	0
60	PL36	X	0	0	0	0
61	BRACE-1-1A	Z	-2.8	-2.8	0	0
62	BRACE-1-1B	Z	-2.8	-2.8	0	0
63	BRACE-1-2A	Z	-2.6	-2.6	0	0
64	BRACE-1-2B	Z	-2.6	-2.6	0	0



Member Distributed Loads (BLC 25 : Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
65	BRACE-2-1A	Z	-1.4	-1.4	0	0
66	BRACE-2-1B	Z	-1.4	-1.4	0	0
67	BRACE-2-2A	Z	-1.3	-1.3	0	0
68	BRACE-2-2B	Z	-1.3	-1.3	0	0
69	BRACE-3-1A	Z	-1.4	-1.4	0	0
70	BRACE-3-1B	Z	-1.4	-1.4	0	0
71	BRACE-3-2A	Z	-1.3	-1.3	0	0
72	BRACE-3-2B	Z	-1.3	-1.3	0	0
73	FM-0	Z	-1.2	-1.2	0	0
74	FM-120	Z	-2.4	-2.4	0	0
75	FM-240	Z	-1.2	-1.2	0	0
76	HR-0	Z	-1.1	-1.1	0	0
77	HR-120	Z	-2.2	-2.2	0	0
78	HR-240	Z	-1.1	-1.1	0	0
79	HR-BRACE-1	Z	-2.5	-2.5	0	0
80	HR-BRACE-2	Z	-1.2	-1.2	0	0
81	HR-BRACE-3	Z	-1.2	-1.2	0	0
82	SA-1	Z	0	0	0	0
83	SA-2	Z	-1.9	-1.9	0	0
84	SA-3	Z	-1.9	-1.9	0	0
85	PL1	Z	-1.6	-1.6	0	0
86	PL2	Z	-1	-1	0	0
87	PL3	Z	-1.6	-1.6	0	0
88	PL4	Z	-1	-1	0	0
89	PL5	Z	-1.6	-1.6	0	0
90	PL6	Z	-1	-1	0	0
91	PL7	Z	-1.6	-1.6	0	0
92	PL8	Z	-2.9	-2.9	0	0
93	PL9	Z	-1.6	-1.6	0	0
94	PL10	Z	-2.9	-2.9	0	0
95	PL11	Z	-1.6	-1.6	0	0
96	PL12	Z	-2.9	-2.9	0	0
97	PL13	Z	-3.3	-3.3	0	0
98	PL14	Z	-2.8	-2.8	0	0
99	PL15	Z	-3.3	-3.3	0	0
100	PL16	Z	-2.8	-2.8	0	0
101	PL17	Z	-3.3	-3.3	0	0
102	PL18	Z	-2.8	-2.8	0	0
103	PL19	Z	-3.3	-3.3	0	0
104	PL20	Z	-2.8	-2.8	0	0
105	PL21	Z	-3.3	-3.3	0	0
106	PL22	Z	-2.8	-2.8	0	0
107	PL23	Z	-3.3	-3.3	0	0
108	PL24	Z	-2.8	-2.8	0	0
109	PL25	Z	-1.6	-1.6	0	0
110	PL26	Z	-2.9	-2.9	0	0
111	PL27	Z	-1.6	-1.6	0	0
112	PL28	Z	-2.9	-2.9	0	0
113	PL29	Z	-1.6	-1.6	0	0
114	PL30	Z	-2.9	-2.9	0	0
115	PL31	Z	-1.6	-1.6	0	0
116	PL32	Z	-1	-1	0	0
117	PL33	Z	-1.6	-1.6	0	0
118	PL34	Z	-1	-1	0	0
119	PL35	Z	-1.6	-1.6	0	0
120	PL36	Z	-1	-1	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 26 : Wind on Ice (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	X	2.4	2.4	0	0
2	BRACE-1-1B	X	2.4	2.4	0	0
3	BRACE-1-2A	X	2.3	2.3	0	0
4	BRACE-1-2B	X	2.3	2.3	0	0
5	BRACE-2-1A	X	0	0	0	0
6	BRACE-2-1B	X	0	0	0	0
7	BRACE-2-2A	X	0	0	0	0
8	BRACE-2-2B	X	0	0	0	0
9	BRACE-3-1A	X	2.4	2.4	0	0
10	BRACE-3-1B	X	2.4	2.4	0	0
11	BRACE-3-2A	X	2.3	2.3	0	0
12	BRACE-3-2B	X	2.3	2.3	0	0
13	FM-0	X	2.1	2.1	0	0
14	FM-120	X	2.1	2.1	0	0
15	FM-240	X	0	0	0	0
16	HR-0	X	1.9	1.9	0	0
17	HR-120	X	1.9	1.9	0	0
18	HR-240	X	0	0	0	0
19	HR-BRACE-1	X	2.1	2.1	0	0
20	HR-BRACE-2	X	0	0	0	0
21	HR-BRACE-3	X	2.1	2.1	0	0
22	SA-1	X	1.1	1.1	0	0
23	SA-2	X	2.2	2.2	0	0
24	SA-3	X	1.1	1.1	0	0
25	PL1	X	2.8	2.8	0	0
26	PL2	X	1.6	1.6	0	0
27	PL3	X	2.8	2.8	0	0
28	PL4	X	1.6	1.6	0	0
29	PL5	X	2.8	2.8	0	0
30	PL6	X	1.6	1.6	0	0
31	PL7	X	2.8	2.8	0	0
32	PL8	X	3.3	3.3	0	0
33	PL9	X	2.8	2.8	0	0
34	PL10	X	3.3	3.3	0	0
35	PL11	X	2.8	2.8	0	0
36	PL12	X	3.3	3.3	0	0
37	PL13	X	2.8	2.8	0	0
38	PL14	X	3.3	3.3	0	0
39	PL15	X	2.8	2.8	0	0
40	PL16	X	3.3	3.3	0	0
41	PL17	X	2.8	2.8	0	0
42	PL18	X	3.3	3.3	0	0
43	PL19	X	2.8	2.8	0	0
44	PL20	X	1.6	1.6	0	0
45	PL21	X	2.8	2.8	0	0
46	PL22	X	1.6	1.6	0	0
47	PL23	X	2.8	2.8	0	0
48	PL24	X	1.6	1.6	0	0
49	PL25	X	0	0	0	0
50	PL26	X	1.7	1.7	0	0
51	PL27	X	0	0	0	0
52	PL28	X	1.7	1.7	0	0
53	PL29	X	0	0	0	0
54	PL30	X	1.7	1.7	0	0
55	PL31	X	0	0	0	0
56	PL32	X	1.7	1.7	0	0
57	PL33	X	0	0	0	0



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 26 : Wind on Ice (330 deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
58	PL34	X	1.7	0	0
59	PL35	X	0	0	0
60	PL36	X	1.7	0	0
61	BRACE-1-1A	Z	-1.4	0	0
62	BRACE-1-1B	Z	-1.4	0	0
63	BRACE-1-2A	Z	-1.3	0	0
64	BRACE-1-2B	Z	-1.3	0	0
65	BRACE-2-1A	Z	0	0	0
66	BRACE-2-1B	Z	0	0	0
67	BRACE-2-2A	Z	0	0	0
68	BRACE-2-2B	Z	0	0	0
69	BRACE-3-1A	Z	-1.4	0	0
70	BRACE-3-1B	Z	-1.4	0	0
71	BRACE-3-2A	Z	-1.3	0	0
72	BRACE-3-2B	Z	-1.3	0	0
73	FM-0	Z	-1.2	0	0
74	FM-120	Z	-1.2	0	0
75	FM-240	Z	0	0	0
76	HR-0	Z	-1.1	0	0
77	HR-120	Z	-1.1	0	0
78	HR-240	Z	0	0	0
79	HR-BRACE-1	Z	-1.2	0	0
80	HR-BRACE-2	Z	0	0	0
81	HR-BRACE-3	Z	-1.2	0	0
82	SA-1	Z	-6	0	0
83	SA-2	Z	-1.3	0	0
84	SA-3	Z	-6	0	0
85	PL1	Z	-1.6	0	0
86	PL2	Z	-9	0	0
87	PL3	Z	-1.6	0	0
88	PL4	Z	-9	0	0
89	PL5	Z	-1.6	0	0
90	PL6	Z	-9	0	0
91	PL7	Z	-1.6	0	0
92	PL8	Z	-1.9	0	0
93	PL9	Z	-1.6	0	0
94	PL10	Z	-1.9	0	0
95	PL11	Z	-1.6	0	0
96	PL12	Z	-1.9	0	0
97	PL13	Z	-1.6	0	0
98	PL14	Z	-1.9	0	0
99	PL15	Z	-1.6	0	0
100	PL16	Z	-1.9	0	0
101	PL17	Z	-1.6	0	0
102	PL18	Z	-1.9	0	0
103	PL19	Z	-1.6	0	0
104	PL20	Z	-9	0	0
105	PL21	Z	-1.6	0	0
106	PL22	Z	-9	0	0
107	PL23	Z	-1.6	0	0
108	PL24	Z	-9	0	0
109	PL25	Z	0	0	0
110	PL26	Z	-1	0	0
111	PL27	Z	0	0	0
112	PL28	Z	-1	0	0
113	PL29	Z	0	0	0
114	PL30	Z	-1	0	0



Member Distributed Loads (BLC 26 : Wind on Ice (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
115	PL31	Z	0	0	0	0
116	PL32	Z	-1	-1	0	0
117	PL33	Z	0	0	0	0
118	PL34	Z	-1	-1	0	0
119	PL35	Z	0	0	0	0
120	PL36	Z	-1	-1	0	0

Member Distributed Loads (BLC 213 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	Y	-0.23	-0.549	0	4.475
2	BRACE-1-1A	Y	-0.549	-1.11	4.475	8.949
3	BRACE-1-1A	Y	-1.11	-1.395	8.949	13.424
4	BRACE-1-1A	Y	-1.395	-1.523	13.424	17.899
5	BRACE-1-1A	Y	-1.523	-1.699	17.899	22.373
6	BRACE-1-1A	Y	-1.699	-1.424	22.373	26.848
7	BRACE-1-1A	Y	-1.424	-0.964	26.848	31.323
8	BRACE-1-1A	Y	-0.964	-0.704	31.323	35.797
9	BRACE-1-1B	Y	-0.704	-0.965	2	6.475
10	BRACE-1-1B	Y	-0.965	-1.423	6.475	10.949
11	BRACE-1-1B	Y	-1.423	-1.693	10.949	15.424
12	BRACE-1-1B	Y	-1.693	-1.516	15.424	19.899
13	BRACE-1-1B	Y	-1.516	-1.421	19.899	24.373
14	BRACE-1-1B	Y	-1.421	-1.145	24.373	28.848
15	BRACE-1-1B	Y	-1.145	-0.559	28.848	33.322
16	BRACE-1-1B	Y	-0.559	-0.23	33.322	37.797
17	BRACE-1-2A	Y	-0.14	-0.697	2	6.042
18	BRACE-1-2A	Y	-0.697	-1.189	6.042	10.084
19	BRACE-1-2A	Y	-1.189	-1.535	10.084	14.125
20	BRACE-1-2A	Y	-1.535	-1.538	14.125	18.167
21	BRACE-1-2A	Y	-1.538	-1.584	18.167	22.209
22	BRACE-1-2A	Y	-1.584	-1.938	22.209	26.251
23	BRACE-1-2B	Y	-1.976	-1.608	0	4.042
24	BRACE-1-2B	Y	-1.608	-1.552	4.042	8.083
25	BRACE-1-2B	Y	-1.552	-1.541	8.083	12.125
26	BRACE-1-2B	Y	-1.541	-1.188	12.125	16.167
27	BRACE-1-2B	Y	-1.188	-0.697	16.167	20.208
28	BRACE-1-2B	Y	-0.697	-0.139	20.208	24.25
29	FM-0	Y	-0.019	-0.019	67.2	71.04
30	FM-0	Y	-0.019	-0.257	71.04	74.88
31	FM-0	Y	-0.257	-0.638	74.88	78.72
32	FM-0	Y	-0.638	-0.496	78.72	82.56
33	FM-0	Y	-0.496	-0.019	82.56	86.4
34	FM-240	Y	-0.019	-0.49	9.6	13.44
35	FM-240	Y	-0.49	-0.649	13.44	17.28
36	FM-240	Y	-0.649	-0.273	17.28	21.12
37	FM-240	Y	-0.273	-0.019	21.12	24.96
38	FM-240	Y	-0.019	-0.019	24.96	28.8
39	M81	Y	-1.797	-1.797	0	1.001
40	M89	Y	-0.97	-0.97	0	1.001
41	PL6	Y	-0.201	-0.201	1.262	3.262
42	SA-1	Y	-0.34	-0.929	35.002	37.002
43	SA-1	Y	-0.929	-1.512	37.002	39.002
44	SA-1	Y	-1.512	-2.374	39.002	41.002
45	SA-1	Y	-2.374	-2.93	41.002	43.002
46	SA-1	Y	-2.93	-2.613	43.002	45.002
47	SA-1	Y	-2.613	-2.017	45.002	47.002



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 213 : BLC 1 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
48	SA-1	Y	-2.017	-1.434	47.002 49.002
49	SA-1	Y	-1.434	-864	49.002 51.002
50	SA-1	Y	-.864	-.301	51.002 53.002
51	BRACE-2-1A	Y	-.024	-.564	0 4.474
52	BRACE-2-1A	Y	-.564	-1.157	4.474 8.949
53	BRACE-2-1A	Y	-1.157	-1.438	8.949 13.423
54	BRACE-2-1A	Y	-1.438	-1.534	13.423 17.897
55	BRACE-2-1A	Y	-1.534	-1.701	17.897 22.372
56	BRACE-2-1A	Y	-1.701	-1.424	22.372 26.846
57	BRACE-2-1A	Y	-1.424	-.965	26.846 31.32
58	BRACE-2-1A	Y	-.965	-.704	31.32 35.795
59	BRACE-2-1B	Y	-.704	-.964	2 6.475
60	BRACE-2-1B	Y	-.964	-1.423	6.475 10.95
61	BRACE-2-1B	Y	-1.423	-1.691	10.95 15.425
62	BRACE-2-1B	Y	-1.691	-1.507	15.425 19.9
63	BRACE-2-1B	Y	-1.507	-1.376	19.9 24.375
64	BRACE-2-1B	Y	-1.376	-1.098	24.375 28.85
65	BRACE-2-1B	Y	-1.098	-.545	28.85 33.325
66	BRACE-2-1B	Y	-.545	-.023	33.325 37.8
67	BRACE-2-2A	Y	-1.943	-1.587	0 4.041
68	BRACE-2-2A	Y	-1.587	-1.54	4.041 8.082
69	BRACE-2-2A	Y	-1.54	-1.536	8.082 12.123
70	BRACE-2-2A	Y	-1.536	-1.189	12.123 16.164
71	BRACE-2-2A	Y	-1.189	-.697	16.164 20.205
72	BRACE-2-2A	Y	-.697	-.14	20.205 24.246
73	BRACE-2-2B	Y	-.139	-.697	2 6.042
74	BRACE-2-2B	Y	-.697	-1.189	6.042 10.085
75	BRACE-2-2B	Y	-1.189	-1.541	10.085 14.127
76	BRACE-2-2B	Y	-1.541	-1.551	14.127 18.17
77	BRACE-2-2B	Y	-1.551	-1.606	18.17 22.212
78	BRACE-2-2B	Y	-1.606	-1.97	22.212 26.254
79	FM-0	Y	-.019	-.492	9.6 13.44
80	FM-0	Y	-.492	-.633	13.44 17.28
81	FM-0	Y	-.633	-.256	17.28 21.12
82	FM-0	Y	-.256	-.019	21.12 24.96
83	FM-0	Y	-.019	-.019	24.96 28.8
84	FM-120	Y	-.019	-.019	67.2 71.04
85	FM-120	Y	-.019	-.274	71.04 74.88
86	FM-120	Y	-.274	-.653	74.88 78.72
87	FM-120	Y	-.653	-.495	78.72 82.56
88	FM-120	Y	-.495	-.019	82.56 86.4
89	M63	Y	-.959	-.959	0 1.001
90	M90	Y	-1.797	-1.797	0 1.001
91	PL8	Y	-.199	-.199	1.266 3.266
92	SA-2	Y	-.34	-.929	35.002 37.002
93	SA-2	Y	-.929	-1.512	37.002 39.002
94	SA-2	Y	-1.512	-2.374	39.002 41.002
95	SA-2	Y	-2.374	-2.93	41.002 43.002
96	SA-2	Y	-2.93	-2.613	43.002 45.002
97	SA-2	Y	-2.613	-2.017	45.002 47.002
98	SA-2	Y	-2.017	-1.434	47.002 49.002
99	SA-2	Y	-1.434	-.864	49.002 51.002
100	SA-2	Y	-.864	-.301	51.002 53.002
101	BRACE-3-1A	Y	-.702	-.962	2 6.475
102	BRACE-3-1A	Y	-.962	-1.419	6.475 10.949
103	BRACE-3-1A	Y	-1.419	-1.686	10.949 15.424
104	BRACE-3-1A	Y	-1.686	-1.502	15.424 19.899



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

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Member Distributed Loads (BLC 213 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
105	BRACE-3-1A	Y	-1.502	-1.371	19.899	24.373
106	BRACE-3-1A	Y	-1.371	-1.094	24.373	28.848
107	BRACE-3-1A	Y	-1.094	-.543	28.848	33.322
108	BRACE-3-1A	Y	-.543	-.023	33.322	37.797
109	BRACE-3-1B	Y	-.023	-.548	0	4.475
110	BRACE-3-1B	Y	-.548	-1.109	4.475	8.949
111	BRACE-3-1B	Y	-1.109	-1.393	8.949	13.424
112	BRACE-3-1B	Y	-1.393	-1.522	13.424	17.898
113	BRACE-3-1B	Y	-1.522	-1.696	17.898	22.373
114	BRACE-3-1B	Y	-1.696	-1.421	22.373	26.848
115	BRACE-3-1B	Y	-1.421	-.963	26.848	31.322
116	BRACE-3-1B	Y	-.963	-.702	31.322	35.797
117	BRACE-3-2A	Y	-.139	-.696	2	6.042
118	BRACE-3-2A	Y	-.696	-1.187	6.042	10.083
119	BRACE-3-2A	Y	-1.187	-1.533	10.083	14.125
120	BRACE-3-2A	Y	-1.533	-1.537	14.125	18.167
121	BRACE-3-2A	Y	-1.537	-1.583	18.167	22.208
122	BRACE-3-2A	Y	-1.583	-1.937	22.208	26.25
123	BRACE-3-2B	Y	-1.963	-1.6	0	4.042
124	BRACE-3-2B	Y	-1.6	-1.546	4.042	8.083
125	BRACE-3-2B	Y	-1.546	-1.536	8.083	12.125
126	BRACE-3-2B	Y	-1.536	-1.185	12.125	16.167
127	BRACE-3-2B	Y	-1.185	-.695	16.167	20.208
128	BRACE-3-2B	Y	-.695	-.139	20.208	24.25
129	FM-120	Y	-.019	-.49	9.6	13.44
130	FM-120	Y	-.49	-.649	13.44	17.28
131	FM-120	Y	-.649	-.273	17.28	21.12
132	FM-120	Y	-.273	-.019	21.12	24.96
133	FM-120	Y	-.019	-.019	24.96	28.8
134	FM-240	Y	-.019	-.019	67.2	71.04
135	FM-240	Y	-.019	-.273	71.04	74.88
136	FM-240	Y	-.273	-.651	74.88	78.72
137	FM-240	Y	-.651	-.493	78.72	82.56
138	FM-240	Y	-.493	-.019	82.56	86.4
139	M72	Y	-1.79	-1.79	0	1.001
140	M99	Y	-1.795	-1.795	0	1.001
141	SA-3	Y	-.34	-.93	35.045	37.04
142	SA-3	Y	-.93	-1.513	37.04	39.035
143	SA-3	Y	-1.513	-2.374	39.035	41.03
144	SA-3	Y	-2.374	-2.931	41.03	43.025
145	SA-3	Y	-2.931	-2.613	43.025	45.02
146	SA-3	Y	-2.613	-2.017	45.02	47.015
147	SA-3	Y	-2.017	-1.434	47.015	49.01
148	SA-3	Y	-1.434	-.864	49.01	51.005
149	SA-3	Y	-.864	-.301	51.005	53

Member Distributed Loads (BLC 214 : BLC 14 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]
1	BRACE-1-1A	Y	-.136	-3.22	0	4.475
2	BRACE-1-1A	Y	-3.22	-6.516	4.475	8.949
3	BRACE-1-1A	Y	-6.516	-8.185	8.949	13.424
4	BRACE-1-1A	Y	-8.185	-8.94	13.424	17.899
5	BRACE-1-1A	Y	-8.94	-9.969	17.899	22.373
6	BRACE-1-1A	Y	-9.969	-8.355	22.373	26.848
7	BRACE-1-1A	Y	-8.355	-5.66	26.848	31.323
8	BRACE-1-1A	Y	-5.66	-4.131	31.323	35.797



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 Designer : KM
 Job Number : ETS#22104998.STR.207
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Member Distributed Loads (BLC 214 : BLC 14 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,ft]	End Location[in,ft]
9	BRACE-1-1B	Y	-4.132	-5.662	2	6.475
10	BRACE-1-1B	Y	-5.662	-8.351	6.475	10.949
11	BRACE-1-1B	Y	-8.351	-9.933	10.949	15.424
12	BRACE-1-1B	Y	-9.933	-8.899	15.424	19.899
13	BRACE-1-1B	Y	-8.899	-8.337	19.899	24.373
14	BRACE-1-1B	Y	-8.337	-6.722	24.373	28.848
15	BRACE-1-1B	Y	-6.722	-3.278	28.848	33.322
16	BRACE-1-1B	Y	-3.278	-.138	33.322	37.797
17	BRACE-1-2A	Y	-.82	-4.091	2	6.042
18	BRACE-1-2A	Y	-4.091	-6.975	6.042	10.084
19	BRACE-1-2A	Y	-6.975	-9.011	10.084	14.125
20	BRACE-1-2A	Y	-9.011	-9.028	14.125	18.167
21	BRACE-1-2A	Y	-9.028	-9.297	18.167	22.209
22	BRACE-1-2A	Y	-9.297	-11.375	22.209	26.251
23	BRACE-1-2B	Y	-11.594	-9.438	0	4.042
24	BRACE-1-2B	Y	-9.438	-9.109	4.042	8.083
25	BRACE-1-2B	Y	-9.109	-9.042	8.083	12.125
26	BRACE-1-2B	Y	-9.042	-6.975	12.125	16.167
27	BRACE-1-2B	Y	-6.975	-4.088	16.167	20.208
28	BRACE-1-2B	Y	-4.088	-.817	20.208	24.25
29	FM-0	Y	-.113	-.113	67.2	71.04
30	FM-0	Y	-.113	-1.511	71.04	74.88
31	FM-0	Y	-1.511	-3.744	74.88	78.72
32	FM-0	Y	-3.744	-2.913	78.72	82.56
33	FM-0	Y	-2.913	-.113	82.56	86.4
34	FM-240	Y	-.112	-2.875	9.6	13.44
35	FM-240	Y	-2.875	-3.808	13.44	17.28
36	FM-240	Y	-3.808	-1.603	17.28	21.12
37	FM-240	Y	-1.603	-.112	21.12	24.96
38	FM-240	Y	-.112	-.112	24.96	28.8
39	M81	Y	-10.543	-10.543	0	1.001
40	M89	Y	-5.69	-5.69	0	1.001
41	PL6	Y	-1.178	-1.178	1.262	3.262
42	SA-1	Y	-1.995	-5.454	35.002	37.002
43	SA-1	Y	-5.454	-8.875	37.002	39.002
44	SA-1	Y	-8.875	-13.93	39.002	41.002
45	SA-1	Y	-13.93	-17.197	41.002	43.002
46	SA-1	Y	-17.197	-15.333	43.002	45.002
47	SA-1	Y	-15.333	-11.835	45.002	47.002
48	SA-1	Y	-11.835	-8.414	47.002	49.002
49	SA-1	Y	-8.414	-5.069	49.002	51.002
50	SA-1	Y	-5.069	-1.764	51.002	53.002
51	BRACE-2-1A	Y	-.138	-3.308	0	4.474
52	BRACE-2-1A	Y	-3.308	-6.792	4.474	8.949
53	BRACE-2-1A	Y	-6.792	-8.439	8.949	13.423
54	BRACE-2-1A	Y	-8.439	-9.001	13.423	17.897
55	BRACE-2-1A	Y	-9.001	-9.984	17.897	22.372
56	BRACE-2-1A	Y	-9.984	-8.359	22.372	26.846
57	BRACE-2-1A	Y	-8.359	-5.662	26.846	31.32
58	BRACE-2-1A	Y	-5.662	-4.133	31.32	35.795
59	BRACE-2-1B	Y	-4.131	-5.66	2	6.475
60	BRACE-2-1B	Y	-5.66	-8.349	6.475	10.95
61	BRACE-2-1B	Y	-8.349	-9.923	10.95	15.425
62	BRACE-2-1B	Y	-9.923	-8.843	15.425	19.9
63	BRACE-2-1B	Y	-8.843	-8.077	19.9	24.375
64	BRACE-2-1B	Y	-8.077	-6.446	24.375	28.85
65	BRACE-2-1B	Y	-6.446	-3.201	28.85	33.325



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Member Distributed Loads (BLC 214 : BLC 14 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[in,ft]	End Location[in,ft]
66	BRACE-2-1B	Y	-3.201	-1.136	33.325 37.8
67	BRACE-2-2A	Y	-11.402	-9.315	0 4.041
68	BRACE-2-2A	Y	-9.315	-9.037	4.041 8.082
69	BRACE-2-2A	Y	-9.037	-9.013	8.082 12.123
70	BRACE-2-2A	Y	-9.013	-6.975	12.123 16.164
71	BRACE-2-2A	Y	-6.975	-4.091	16.164 20.205
72	BRACE-2-2A	Y	-4.091	-.82	20.205 24.246
73	BRACE-2-2B	Y	-.817	-4.089	2 6.042
74	BRACE-2-2B	Y	-4.089	-6.975	6.042 10.085
75	BRACE-2-2B	Y	-6.975	-9.042	10.085 14.127
76	BRACE-2-2B	Y	-9.042	-9.105	14.127 18.17
77	BRACE-2-2B	Y	-9.105	-9.422	18.17 22.212
78	BRACE-2-2B	Y	-9.422	-11.563	22.212 26.254
79	FM-0	Y	-.112	-2.886	9.6 13.44
80	FM-0	Y	-2.886	-3.716	13.44 17.28
81	FM-0	Y	-3.716	-1.5	17.28 21.12
82	FM-0	Y	-1.5	-.112	21.12 24.96
83	FM-0	Y	-.112	-.112	24.96 28.8
84	FM-120	Y	-.113	-.113	67.2 71.04
85	FM-120	Y	-.113	-1.609	71.04 74.88
86	FM-120	Y	-1.609	-3.833	74.88 78.72
87	FM-120	Y	-3.833	-2.904	78.72 82.56
88	FM-120	Y	-2.904	-.113	82.56 86.4
89	M63	Y	-5.628	-5.628	0 1.001
90	M90	Y	-10.547	-10.547	0 1.001
91	PL8	Y	-1.168	-1.168	1.266 3.266
92	SA-2	Y	-1.995	-5.454	35.002 37.002
93	SA-2	Y	-5.454	-8.875	37.002 39.002
94	SA-2	Y	-8.875	-13.93	39.002 41.002
95	SA-2	Y	-13.93	-17.197	41.002 43.002
96	SA-2	Y	-17.197	-15.333	43.002 45.002
97	SA-2	Y	-15.333	-11.835	45.002 47.002
98	SA-2	Y	-11.835	-8.414	47.002 49.002
99	SA-2	Y	-8.414	-5.069	49.002 51.002
100	SA-2	Y	-5.069	-1.764	51.002 53.002
101	BRACE-3-1A	Y	-4.121	-5.645	2 6.475
102	BRACE-3-1A	Y	-5.645	-8.325	6.475 10.949
103	BRACE-3-1A	Y	-8.325	-9.892	10.949 15.424
104	BRACE-3-1A	Y	-9.892	-8.813	15.424 19.899
105	BRACE-3-1A	Y	-8.813	-8.048	19.899 24.373
106	BRACE-3-1A	Y	-8.048	-6.422	24.373 28.848
107	BRACE-3-1A	Y	-6.422	-3.189	28.848 33.322
108	BRACE-3-1A	Y	-3.189	-.136	33.322 37.797
109	BRACE-3-1B	Y	-.136	-3.218	0 4.475
110	BRACE-3-1B	Y	-3.218	-6.511	4.475 8.949
111	BRACE-3-1B	Y	-6.511	-8.178	8.949 13.424
112	BRACE-3-1B	Y	-8.178	-8.93	13.424 17.898
113	BRACE-3-1B	Y	-8.93	-9.956	17.898 22.373
114	BRACE-3-1B	Y	-9.956	-8.342	22.373 26.848
115	BRACE-3-1B	Y	-8.342	-5.649	26.848 31.322
116	BRACE-3-1B	Y	-5.649	-4.122	31.322 35.797
117	BRACE-3-2A	Y	-.818	-4.084	2 6.042
118	BRACE-3-2A	Y	-4.084	-6.964	6.042 10.083
119	BRACE-3-2A	Y	-6.964	-8.999	10.083 14.125
120	BRACE-3-2A	Y	-8.999	-9.018	14.125 18.167
121	BRACE-3-2A	Y	-9.018	-9.29	18.167 22.208
122	BRACE-3-2A	Y	-9.29	-11.369	22.208 26.25



Member Distributed Loads (BLC 214 : BLC 14 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.%]	End Location[in.%]	
123	BRACE-3-2B	Y	-11.518	-9.388	0	4.042
124	BRACE-3-2B	Y	-9.388	-9.075	4.042	8.083
125	BRACE-3-2B	Y	-9.075	-9.014	8.083	12.125
126	BRACE-3-2B	Y	-9.014	-6.956	12.125	16.167
127	BRACE-3-2B	Y	-6.956	-4.078	16.167	20.208
128	BRACE-3-2B	Y	-4.078	-.816	20.208	24.25
129	FM-120	Y	-.112	-2.874	9.6	13.44
130	FM-120	Y	-2.874	-3.806	13.44	17.28
131	FM-120	Y	-3.806	-1.602	17.28	21.12
132	FM-120	Y	-1.602	-.112	21.12	24.96
133	FM-120	Y	-.112	-.112	24.96	28.8
134	FM-240	Y	-.113	-.113	67.2	71.04
135	FM-240	Y	-.113	-1.603	71.04	74.88
136	FM-240	Y	-1.603	-3.818	74.88	78.72
137	FM-240	Y	-3.818	-2.893	78.72	82.56
138	FM-240	Y	-2.893	-.113	82.56	86.4
139	M72	Y	-10.507	-10.507	0	1.001
140	M99	Y	-10.536	-10.536	0	1.001
141	SA-3	Y	-1.995	-5.455	35.045	37.04
142	SA-3	Y	-5.455	-8.877	37.04	39.035
143	SA-3	Y	-8.877	-13.933	39.035	41.03
144	SA-3	Y	-13.933	-17.201	41.03	43.025
145	SA-3	Y	-17.201	-15.336	43.025	45.02
146	SA-3	Y	-15.336	-11.837	45.02	47.015
147	SA-3	Y	-11.837	-8.415	47.015	49.01
148	SA-3	Y	-8.415	-5.071	49.01	51.005
149	SA-3	Y	-5.071	-1.764	51.005	53

Member Area Loads (BLC 1 : Dead Load)

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]	
1	N26	N30	N32	N28	Y	Two Way	-1.75
2	N10	N14	N104	N103	Y	Two Way	-1.75
3	N22	N24	N20	N18	Y	Two Way	-1.75

Member Area Loads (BLC 14 : Ice Load)

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]	
1	N26	N30	N32	N28	Y	Two Way	-10.27
2	N10	N14	N104	N103	Y	Two Way	-10.27
3	N22	N24	N20	N18	Y	Two Way	-10.27

Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Dead Load	None	-1			17		3	
2	Wind Load (0 deg)	None				34	120		
3	Wind Load (30 deg)	None				34	120		
4	Wind Load (60 deg)	None				34	120		
5	Wind Load (90 deg)	None				34	120		
6	Wind Load (120 deg)	None				34	120		
7	Wind Load (150 deg)	None				34	120		
8	Wind Load (180 deg)	None				34	120		
9	Wind Load (210 deg)	None				34	120		
10	Wind Load (240 deg)	None				34	120		
11	Wind Load (270 deg)	None				34	120		



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
12	Wind Load (300 deg)	None					34	120		
13	Wind Load (330 deg)	None					34	120		
14	Ice Load	None					17	60	3	
15	Wind on Ice (0 deg)	None					34	120		
16	Wind on Ice (30 deg)	None					34	120		
17	Wind on Ice (60 deg)	None					34	120		
18	Wind on Ice (90 deg)	None					34	120		
19	Wind on Ice (120 deg)	None					34	120		
20	Wind on Ice (150 deg)	None					34	120		
21	Wind on Ice (180 deg)	None					34	120		
22	Wind on Ice (210 deg)	None					34	120		
23	Wind on Ice (240 deg)	None					34	120		
24	Wind on Ice (270 deg)	None					34	120		
25	Wind on Ice (300 deg)	None					34	120		
26	Wind on Ice (330 deg)	None					34	120		
27	Horizontal Seismic, Eh (0)	None	1				34			
28	Horizontal Seismic, Eh (30)	None	.866		.5		34			
29	Horizontal Seismic, Eh (60)	None	.5		.866		34			
30	Horizontal Seismic, Eh (90)	None			1		34			
31	Horizontal Seismic, Eh (120)	None	-.5		.866		34			
32	Horizontal Seismic, Eh (150)	None	-.866		.5		34			
33	Horizontal Seismic, Eh (180)	None	-1				34			
34	Horizontal Seismic, Eh (210)	None	-.866		-.5		34			
35	Horizontal Seismic, Eh (240)	None	-.5		-.866		34			
36	Horizontal Seismic, Eh (270)	None			-1		34			
37	Horizontal Seismic, Eh (300)	None	.5		-.866		34			
38	Horizontal Seismic, Eh (330)	None	.866		-.5		34			
39	Maintenance Load, Lm (MP1)	None					1			
40	Maintenance Load, Lm (MP2)	None					1			
41	Maintenance Load, Lm (MP3)	None					1			
42	Maintenance Load, Lm (MP4)	None					1			
43	Maintenance Load, Lm (MP5)	None					1			
44	Maintenance Load, Lm (MP6)	None					1			
45	Maintenance Load, Lm (MP7)	None					1			
46	Maintenance Load, Lm (MP8)	None					1			
47	Maintenance Load, Lm (MP9)	None					1			
48	Maintenance Load, Lm (MP10)	None								
49	Maintenance Load, Lm (MP11)	None								
50	Maintenance Load, Lm (MP12)	None								
51	Maintenance Load, Lm (MP13)	None								
52	Maintenance Load, Lm (MP14)	None								
53	Maintenance Load, Lm (MP15)	None								
54	Maintenance Load, Lm (MP16)	None								
55	Maintenance Load, Lm (MP17)	None								
56	Maintenance Load, Lm (MP18)	None								
57	Maintenance Load, Lm (MP19)	None								
58	Maintenance Load, Lm (MP20)	None								
59	Maintenance Load, Lm (MP21)	None								
60	Maintenance Load, Lm (MP22)	None								
61	Maintenance Load, Lm (MP23)	None								
62	Maintenance Load, Lm (MP24)	None								
63	Maintenance Load, Lm (MP25)	None								
64	Maintenance Load, Lm (MP26)	None								
65	Maintenance Load, Lm (MP27)	None								
66	Maintenance Load, Lm (MP28)	None								
67	Maintenance Load, Lm (MP29)	None								
68	Maintenance Load, Lm (MP30)	None								



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
69	Maintenance Load, Lm (MP31)	None								
70	Maintenance Load, Lm (MP32)	None								
71	Maintenance Load, Lm (MP33)	None								
72	Maintenance Load, Lm (MP34)	None								
73	Maintenance Load, Lm (MP35)	None								
74	Maintenance Load, Lm (MP36)	None								
75	Maintenance Load, Lv (Pos. 1)	None					1			
76	Maintenance Load, Lv (Pos. 2)	None					1			
77	Maintenance Load, Lv (Pos. 3)	None					1			
78	Maintenance Load, Lv (Pos. 4)	None					1			
79	Maintenance Load, Lv (Pos. 5)	None					1			
80	Maintenance Load, Lv (Pos. 6)	None					1			
81	Maintenance Load, Lv (Pos. 7)	None					1			
82	Maintenance Load, Lv (Pos. 8)	None					1			
83	Maintenance Load, Lv (Pos. 9)	None					1			
84	Maintenance Load, Lv (Pos. 10)	None					1			
85	Maintenance Load, Lv (Pos. 11)	None					1			
86	Maintenance Load, Lv (Pos. 12)	None					1			
87	Maintenance Load, Lv (Pos. 13)	None					1			
88	Maintenance Load, Lv (Pos. 14)	None					1			
89	Maintenance Load, Lv (Pos. 15)	None					1			
90	Maintenance Load, Lv (Pos. 16)	None					1			
91	Maintenance Load, Lv (Pos. 17)	None					1			
92	Maintenance Load, Lv (Pos. 18)	None					1			
93	Maintenance Load, Lv (Pos. 19)	None								
94	Maintenance Load, Lv (Pos. 20)	None								
95	Maintenance Load, Lv (Pos. 21)	None								
96	Maintenance Load, Lv (Pos. 22)	None								
97	Maintenance Load, Lv (Pos. 23)	None								
98	Maintenance Load, Lv (Pos. 24)	None								
99	Maintenance Load, Lv (Pos. 25)	None								
100	Maintenance Load, Lv (Pos. 26)	None								
101	Maintenance Load, Lv (Pos. 27)	None								
102	Maintenance Load, Lv (Pos. 28)	None								
103	Maintenance Load, Lv (Pos. 29)	None								
104	Maintenance Load, Lv (Pos. 30)	None								
105	Maintenance Load, Lv (Pos. 31)	None								
106	Maintenance Load, Lv (Pos. 32)	None								
107	Maintenance Load, Lv (Pos. 33)	None								
108	Maintenance Load, Lv (Pos. 34)	None								
109	Maintenance Load, Lv (Pos. 35)	None								
110	Maintenance Load, Lv (Pos. 36)	None								
111	Maintenance Load, Lv (Pos. 37)	None								
112	Maintenance Load, Lv (Pos. 38)	None								
113	Maintenance Load, Lv (Pos. 39)	None								
114	Maintenance Load, Lv (Pos. 40)	None								
115	Maintenance Load, Lv (Pos. 41)	None								
116	Maintenance Load, Lv (Pos. 42)	None								
117	Maintenance Load, Lv (Pos. 43)	None								
118	Maintenance Load, Lv (Pos. 44)	None								
119	Maintenance Load, Lv (Pos. 45)	None								
120	Maintenance Load, Lv (Pos. 46)	None								
121	Maintenance Load, Lv (Pos. 47)	None								
122	Maintenance Load, Lv (Pos. 48)	None								
123	Maintenance Load, Lv (Pos. 49)	None								
124	Maintenance Load, Lv (Pos. 50)	None								
125	Maintenance Load, Lv (Pos. 51)	None								



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 Job Number : ETS#22104998.STR.207
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Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
126	Maintenance Load, Lv (Pos. 52)	None								
127	Maintenance Load, Lv (Pos. 53)	None								
128	Maintenance Load, Lv (Pos. 54)	None								
129	Maintenance Load, Lv (Pos. 55)	None								
130	Maintenance Load, Lv (Pos. 56)	None								
131	Maintenance Load, Lv (Pos. 57)	None								
132	Maintenance Load, Lv (Pos. 58)	None								
133	Maintenance Load, Lv (Pos. 59)	None								
134	Maintenance Load, Lv (Pos. 60)	None								
135	Maintenance Load, Lv (Pos. 61)	None								
136	Maintenance Load, Lv (Pos. 62)	None								
137	Maintenance Load, Lv (Pos. 63)	None								
138	Maintenance Load, Lv (Pos. 64)	None								
139	Maintenance Load, Lv (Pos. 65)	None								
140	Maintenance Load, Lv (Pos. 66)	None								
141	Maintenance Load, Lv (Pos. 67)	None								
142	Maintenance Load, Lv (Pos. 68)	None								
143	Maintenance Load, Lv (Pos. 69)	None								
144	Maintenance Load, Lv (Pos. 70)	None								
145	Maintenance Load, Lv (Pos. 71)	None								
146	Maintenance Load, Lv (Pos. 72)	None								
147	Maintenance Load, Lv (Pos. 73)	None								
148	Maintenance Load, Lv (Pos. 74)	None								
149	Maintenance Load, Lv (Pos. 75)	None								
150	Maintenance Load, Lv (Pos. 76)	None								
151	Maintenance Load, Lv (Pos. 77)	None								
152	Maintenance Load, Lv (Pos. 78)	None								
153	Maintenance Load, Lv (Pos. 79)	None								
154	Maintenance Load, Lv (Pos. 80)	None								
155	Maintenance Load, Lv (Pos. 81)	None								
156	Maintenance Load, Lv (Pos. 82)	None								
157	Maintenance Load, Lv (Pos. 83)	None								
158	Maintenance Load, Lv (Pos. 84)	None								
159	Maintenance Load, Lv (Pos. 85)	None								
160	Maintenance Load, Lv (Pos. 86)	None								
161	Maintenance Load, Lv (Pos. 87)	None								
162	Maintenance Load, Lv (Pos. 88)	None								
163	Maintenance Load, Lv (Pos. 89)	None								
164	Maintenance Load, Lv (Pos. 90)	None								
165	Maintenance Load, Lv (Pos. 91)	None								
166	Maintenance Load, Lv (Pos. 92)	None								
167	Maintenance Load, Lv (Pos. 93)	None								
168	Maintenance Load, Lv (Pos. 94)	None								
169	Maintenance Load, Lv (Pos. 95)	None								
170	Maintenance Load, Lv (Pos. 96)	None								
171	Maintenance Load, Lv (Pos. 97)	None								
172	Maintenance Load, Lv (Pos. 98)	None								
173	Maintenance Load, Lv (Pos. 99)	None								
174	Maintenance Load, Lv (Pos. 100)	None								
175	Antenna Dead Load	None					6			
176	Antenna Wind Load (0 deg)	None					12			
177	Antenna Wind Load (30 deg)	None					12			
178	Antenna Wind Load (60 deg)	None					12			
179	Antenna Wind Load (90 deg)	None					12			
180	Antenna Wind Load (120 deg)	None					12			
181	Antenna Wind Load (150 deg)	None					12			
182	Antenna Wind Load (180 deg)	None					12			



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
183 Antenna Wind Load (210 deg)	None					12			
184 Antenna Wind Load (240 deg)	None					12			
185 Antenna Wind Load (270 deg)	None					12			
186 Antenna Wind Load (300 deg)	None					12			
187 Antenna Wind Load (330 deg)	None					12			
188 Antenna Ice Load	None					6			
189 Antenna Wind on Ice (0 deg)	None					12			
190 Antenna Wind on Ice (30 deg)	None					12			
191 Antenna Wind on Ice (60 deg)	None					12			
192 Antenna Wind on Ice (90 deg)	None					12			
193 Antenna Wind on Ice (120 deg)	None					12			
194 Antenna Wind on Ice (150 deg)	None					12			
195 Antenna Wind on Ice (180 deg)	None					12			
196 Antenna Wind on Ice (210 deg)	None					12			
197 Antenna Wind on Ice (240 deg)	None					12			
198 Antenna Wind on Ice (270 deg)	None					12			
199 Antenna Wind on Ice (300 deg)	None					12			
200 Antenna Wind on Ice (330 deg)	None					12			
201 Ant. Horiz. Seismic, Eh (0)	None					12			
202 Ant. Horiz. Seismic, Eh (30)	None					12			
203 Ant. Horiz. Seismic, Eh (60)	None					12			
204 Ant. Horiz. Seismic, Eh (90)	None					12			
205 Ant. Horiz. Seismic, Eh (120)	None					12			
206 Ant. Horiz. Seismic, Eh (150)	None					12			
207 Ant. Horiz. Seismic, Eh (180)	None					12			
208 Ant. Horiz. Seismic, Eh (210)	None					12			
209 Ant. Horiz. Seismic, Eh (240)	None					12			
210 Ant. Horiz. Seismic, Eh (270)	None					12			
211 Ant. Horiz. Seismic, Eh (300)	None					12			
212 Ant. Horiz. Seismic, Eh (330)	None					12			
213 BLC 1 Transient Area Loads	None						149		
214 BLC 14 Transient Area Loads	None						149		

Load Combinations

Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
1 1.4D	Yes	Y	1	1.4	175	1.4																
2 1.2D + 1.0W (0 de...	Yes	Y	1	1.2	2	1	175	1.2	176	1												
3 1.2D + 1.0W (30 d...	Yes	Y	1	1.2	3	1	175	1.2	177	1												
4 1.2D + 1.0W (60 d...	Yes	Y	1	1.2	4	1	175	1.2	178	1												
5 1.2D + 1.0W (90 d...	Yes	Y	1	1.2	5	1	175	1.2	179	1												
6 1.2D + 1.0W (120 ...	Yes	Y	1	1.2	6	1	175	1.2	180	1												
7 1.2D + 1.0W (150 ...	Yes	Y	1	1.2	7	1	175	1.2	181	1												
8 1.2D + 1.0W (180 ...	Yes	Y	1	1.2	8	1	175	1.2	182	1												
9 1.2D + 1.0W (210 ...	Yes	Y	1	1.2	9	1	175	1.2	183	1												
10 1.2D + 1.0W (240 ...	Yes	Y	1	1.2	10	1	175	1.2	184	1												
11 1.2D + 1.0W (270 ...	Yes	Y	1	1.2	11	1	175	1.2	185	1												
12 1.2D + 1.0W (300 ...	Yes	Y	1	1.2	12	1	175	1.2	186	1												
13 1.2D + 1.0W (330 ...	Yes	Y	1	1.2	13	1	175	1.2	187	1												
14 1.2D + Di + Wi (0 ...	Yes	Y	1	1.2	14	1	15	1	175	1.2	188	1	189	1								
15 1.2D + Di + Wi (30...	Yes	Y	1	1.2	14	1	16	1	175	1.2	188	1	190	1								
16 1.2D + Di + Wi (60...	Yes	Y	1	1.2	14	1	17	1	175	1.2	188	1	191	1								
17 1.2D + Di + Wi (90...	Yes	Y	1	1.2	14	1	18	1	175	1.2	188	1	192	1								
18 1.2D + Di + Wi (12...	Yes	Y	1	1.2	14	1	19	1	175	1.2	188	1	193	1								
19 1.2D + Di + Wi (15...	Yes	Y	1	1.2	14	1	20	1	175	1.2	188	1	194	1								
20 1.2D + Di + Wi (18...	Yes	Y	1	1.2	14	1	21	1	175	1.2	188	1	195	1								

Load Combinations (Continued)

Id	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
135	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	3	.066	175	1.2	177	.066									
136	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	4	.066	175	1.2	178	.066									
137	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	5	.066	175	1.2	179	.066									
138	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	6	.066	175	1.2	180	.066									
139	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	7	.066	175	1.2	181	.066									
140	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	8	.066	175	1.2	182	.066									
141	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	9	.066	175	1.2	183	.066									
142	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	10	.066	175	1.2	184	.066									
143	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	11	.066	175	1.2	185	.066									
144	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	12	.066	175	1.2	186	.066									
145	1.2D + 1.5Lm9 + ...	Yes	Y		1	1.2	47	1.5	13	.066	175	1.2	187	.066									
146	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	2	.066	175	1.2	176	.066									
147	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	3	.066	175	1.2	177	.066									
148	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	4	.066	175	1.2	178	.066									
149	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	5	.066	175	1.2	179	.066									
150	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	6	.066	175	1.2	180	.066									
151	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	7	.066	175	1.2	181	.066									
152	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	8	.066	175	1.2	182	.066									
153	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	9	.066	175	1.2	183	.066									
154	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	10	.066	175	1.2	184	.066									
155	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	11	.066	175	1.2	185	.066									
156	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	12	.066	175	1.2	186	.066									
157	1.2D + 1.5Lm10 + ...	Yes	Y		1	1.2	48	1.5	13	.066	175	1.2	187	.066									
158	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	2	.066	175	1.2	176	.066									
159	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	3	.066	175	1.2	177	.066									
160	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	4	.066	175	1.2	178	.066									
161	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	5	.066	175	1.2	179	.066									
162	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	6	.066	175	1.2	180	.066									
163	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	7	.066	175	1.2	181	.066									
164	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	8	.066	175	1.2	182	.066									
165	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	9	.066	175	1.2	183	.066									
166	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	10	.066	175	1.2	184	.066									
167	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	11	.066	175	1.2	185	.066									
168	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	12	.066	175	1.2	186	.066									
169	1.2D + 1.5Lm11 + ...		Y		1	1.2	49	1.5	13	.066	175	1.2	187	.066									
170	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	2	.066	175	1.2	176	.066									
171	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	3	.066	175	1.2	177	.066									
172	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	4	.066	175	1.2	178	.066									
173	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	5	.066	175	1.2	179	.066									
174	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	6	.066	175	1.2	180	.066									
175	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	7	.066	175	1.2	181	.066									
176	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	8	.066	175	1.2	182	.066									
177	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	9	.066	175	1.2	183	.066									
178	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	10	.066	175	1.2	184	.066									
179	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	11	.066	175	1.2	185	.066									
180	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	12	.066	175	1.2	186	.066									
181	1.2D + 1.5Lm12 + ...		Y		1	1.2	50	1.5	13	.066	175	1.2	187	.066									
182	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	2	.066	175	1.2	176	.066									
183	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	3	.066	175	1.2	177	.066									
184	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	4	.066	175	1.2	178	.066									
185	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	5	.066	175	1.2	179	.066									
186	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	6	.066	175	1.2	180	.066									
187	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	7	.066	175	1.2	181	.066									
188	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	8	.066	175	1.2	182	.066									
189	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	9	.066	175	1.2	183	.066									
190	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	10	.066	175	1.2	184	.066									
191	1.2D + 1.5Lm13 + ...		Y		1	1.2	51	1.5	11	.066	175	1.2	185	.066									

Load Combinations (Continued)

Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
192	1.2D + 1.5Lm13 +...		Y		1	1.2	51	1.5	12	.066	175	1.2	186	.066														
193	1.2D + 1.5Lm13 +...		Y		1	1.2	51	1.5	13	.066	175	1.2	187	.066														
194	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	2	.066	175	1.2	176	.066														
195	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	3	.066	175	1.2	177	.066														
196	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	4	.066	175	1.2	178	.066														
197	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	5	.066	175	1.2	179	.066														
198	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	6	.066	175	1.2	180	.066														
199	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	7	.066	175	1.2	181	.066														
200	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	8	.066	175	1.2	182	.066														
201	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	9	.066	175	1.2	183	.066														
202	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	10	.066	175	1.2	184	.066														
203	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	11	.066	175	1.2	185	.066														
204	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	12	.066	175	1.2	186	.066														
205	1.2D + 1.5Lm14 +...		Y		1	1.2	52	1.5	13	.066	175	1.2	187	.066														
206	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	2	.066	175	1.2	176	.066														
207	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	3	.066	175	1.2	177	.066														
208	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	4	.066	175	1.2	178	.066														
209	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	5	.066	175	1.2	179	.066														
210	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	6	.066	175	1.2	180	.066														
211	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	7	.066	175	1.2	181	.066														
212	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	8	.066	175	1.2	182	.066														
213	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	9	.066	175	1.2	183	.066														
214	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	10	.066	175	1.2	184	.066														
215	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	11	.066	175	1.2	185	.066														
216	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	12	.066	175	1.2	186	.066														
217	1.2D + 1.5Lm15 +...		Y		1	1.2	53	1.5	13	.066	175	1.2	187	.066														
218	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	2	.066	175	1.2	176	.066														
219	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	3	.066	175	1.2	177	.066														
220	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	4	.066	175	1.2	178	.066														
221	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	5	.066	175	1.2	179	.066														
222	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	6	.066	175	1.2	180	.066														
223	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	7	.066	175	1.2	181	.066														
224	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	8	.066	175	1.2	182	.066														
225	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	9	.066	175	1.2	183	.066														
226	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	10	.066	175	1.2	184	.066														
227	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	11	.066	175	1.2	185	.066														
228	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	12	.066	175	1.2	186	.066														
229	1.2D + 1.5Lm16 +...		Y		1	1.2	54	1.5	13	.066	175	1.2	187	.066														
230	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	2	.066	175	1.2	176	.066														
231	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	3	.066	175	1.2	177	.066														
232	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	4	.066	175	1.2	178	.066														
233	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	5	.066	175	1.2	179	.066														
234	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	6	.066	175	1.2	180	.066														
235	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	7	.066	175	1.2	181	.066														
236	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	8	.066	175	1.2	182	.066														
237	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	9	.066	175	1.2	183	.066														
238	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	10	.066	175	1.2	184	.066														
239	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	11	.066	175	1.2	185	.066														
240	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	12	.066	175	1.2	186	.066														
241	1.2D + 1.5Lm17 +...		Y		1	1.2	55	1.5	13	.066	175	1.2	187	.066														
242	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	2	.066	175	1.2	176	.066														
243	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	3	.066	175	1.2	177	.066														
244	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	4	.066	175	1.2	178	.066														
245	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	5	.066	175	1.2	179	.066														
246	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	6	.066	175	1.2	180	.066														
247	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	7	.066	175	1.2	181	.066														
248	1.2D + 1.5Lm18 +...		Y		1	1.2	56	1.5	8	.066	175	1.2	182	.066														

Load Combinations (Continued)

Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...		
249	1.2D + 1.5Lm18 +...	Y	1	1.2	56	1.5	9	.066	175	1.2	183	.066											
250	1.2D + 1.5Lm18 +...	Y	1	1.2	56	1.5	10	.066	175	1.2	184	.066											
251	1.2D + 1.5Lm18 +...	Y	1	1.2	56	1.5	11	.066	175	1.2	185	.066											
252	1.2D + 1.5Lm18 +...	Y	1	1.2	56	1.5	12	.066	175	1.2	186	.066											
253	1.2D + 1.5Lm18 +...	Y	1	1.2	56	1.5	13	.066	175	1.2	187	.066											
254	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	2	.066	175	1.2	176	.066											
255	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	3	.066	175	1.2	177	.066											
256	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	4	.066	175	1.2	178	.066											
257	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	5	.066	175	1.2	179	.066											
258	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	6	.066	175	1.2	180	.066											
259	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	7	.066	175	1.2	181	.066											
260	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	8	.066	175	1.2	182	.066											
261	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	9	.066	175	1.2	183	.066											
262	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	10	.066	175	1.2	184	.066											
263	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	11	.066	175	1.2	185	.066											
264	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	12	.066	175	1.2	186	.066											
265	1.2D + 1.5Lm19 +...	Y	1	1.2	57	1.5	13	.066	175	1.2	187	.066											
266	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	2	.066	175	1.2	176	.066											
267	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	3	.066	175	1.2	177	.066											
268	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	4	.066	175	1.2	178	.066											
269	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	5	.066	175	1.2	179	.066											
270	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	6	.066	175	1.2	180	.066											
271	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	7	.066	175	1.2	181	.066											
272	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	8	.066	175	1.2	182	.066											
273	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	9	.066	175	1.2	183	.066											
274	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	10	.066	175	1.2	184	.066											
275	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	11	.066	175	1.2	185	.066											
276	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	12	.066	175	1.2	186	.066											
277	1.2D + 1.5Lm20 +...	Y	1	1.2	58	1.5	13	.066	175	1.2	187	.066											
278	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	2	.066	175	1.2	176	.066											
279	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	3	.066	175	1.2	177	.066											
280	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	4	.066	175	1.2	178	.066											
281	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	5	.066	175	1.2	179	.066											
282	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	6	.066	175	1.2	180	.066											
283	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	7	.066	175	1.2	181	.066											
284	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	8	.066	175	1.2	182	.066											
285	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	9	.066	175	1.2	183	.066											
286	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	10	.066	175	1.2	184	.066											
287	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	11	.066	175	1.2	185	.066											
288	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	12	.066	175	1.2	186	.066											
289	1.2D + 1.5Lm21 +...	Y	1	1.2	59	1.5	13	.066	175	1.2	187	.066											
290	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	2	.066	175	1.2	176	.066											
291	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	3	.066	175	1.2	177	.066											
292	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	4	.066	175	1.2	178	.066											
293	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	5	.066	175	1.2	179	.066											
294	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	6	.066	175	1.2	180	.066											
295	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	7	.066	175	1.2	181	.066											
296	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	8	.066	175	1.2	182	.066											
297	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	9	.066	175	1.2	183	.066											
298	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	10	.066	175	1.2	184	.066											
299	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	11	.066	175	1.2	185	.066											
300	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	12	.066	175	1.2	186	.066											
301	1.2D + 1.5Lm22 +...	Y	1	1.2	60	1.5	13	.066	175	1.2	187	.066											
302	1.2D + 1.5Lm23 +...	Y	1	1.2	61	1.5	2	.066	175	1.2	176	.066											
303	1.2D + 1.5Lm23 +...	Y	1	1.2	61	1.5	3	.066	175	1.2	177	.066											
304	1.2D + 1.5Lm23 +...	Y	1	1.2	61	1.5	4	.066	175	1.2	178	.066											
305	1.2D + 1.5Lm23 +...	Y	1	1.2	61	1.5	5	.066	175	1.2	179	.066											



Company : ETS, PLLC
 Designer : KM
 Job Number : ETS#22104998.STR.207
 Model Name : CRANBURYSU CT

Mar 22, 2022
 11:37 AM
 Checked By: DHK

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

Member	Shape	Code Che...	Loc[in]	LC	Shea...	Loc[in]	Dir	LC	phi*Pn...	phi*...	phi*...	phi*...	Cb	Eqn	
5	PL23	PL3/8x6	.354	1	3	.011	1	y	21	70566...	708...	553...	885...	1.08	H1-...
6	PL35	PL3/8x6	.354	1	7	.011	1	y	25	70566...	708...	553...	885...	1.08	H1-...
7	PL12	PL3/8x6	.309	4.5	11	.022	4.5	y	25	64876...	708...	553...	885...	2.247	H1-...
8	PL24	PL3/8x6	.309	4.5	3	.022	4.5	y	17	64876...	708...	553...	885...	2.247	H1-...
9	PL36	PL3/8x6	.308	4.5	7	.022	4.5	y	21	64875...	708...	553...	885...	2.248	H1-...
10	BRACE-2-...	L4X4X6	.303	0	80	.448	0	z	81	85729...	900...	427...	961...	1.653	H2-1
11	BRACE-1-...	L4X4X6	.303	24.25	40	.449	24.25	y	41	85730...	900...	427...	961...	1.653	H2-1
12	BRACE-3-...	L4X4X6	.303	24.25	120	.448	24.25	y	121	85730...	900...	427...	961...	1.653	H2-1
13	MP7	PIPE 2.0	.298	30	12	.086	30		13	14916...	321...	187...	187...	1.355	H1-...
14	MP4	PIPE 2.0	.297	30	8	.086	30		9	14916...	321...	187...	187...	3.44	H1-...
15	MP1	PIPE 2.0	.297	30	4	.086	30		5	14916...	321...	187...	187...	3.311	H1-...
16	PL3	PL3/8x6	.262	1	11	.011	0	z	6	70566...	708...	553...	885...	1.055	H1-...
17	PL15	PL3/8x6	.261	1	3	.011	0	z	10	70566...	708...	553...	885...	1.055	H1-...
18	PL27	PL3/8x6	.261	1	7	.011	0	z	2	70566...	708...	553...	885...	1.055	H1-...
19	MP3	PIPE 2.0	.252	30	11	.077	30		4	14916...	321...	187...	187...	3.616	H1-...
20	MP6	PIPE 2.0	.252	30	3	.077	30		8	14916...	321...	187...	187...	2.29	H1-...
21	MP9	PIPE 2.0	.252	30	7	.077	30		12	14916...	321...	187...	187...	4.387	H1-...
22	BRACE-3-...	L4X4X6	.252	0	110	.249	0	y	121	80860...	900...	427...	961...	1.68	H2-1
23	BRACE-2-...	L4X4X6	.251	0	82	.248	0	y	81	80859...	900...	427...	961...	1.678	H2-1
24	BRACE-1-...	L4X4X6	.251	0	42	.248	0	y	41	80860...	900...	427...	961...	1.678	H2-1
25	BRACE-1-...	L4X4X6	.250	35.797	138	.242	35.7...	y	139	80860...	900...	427...	961...	1.68	H2-1
26	BRACE-2-...	L4X4X6	.250	35.795	70	.242	35.7...	y	71	80862...	900...	427...	961...	1.68	H2-1
27	BRACE-3-...	L4X4X6	.250	35.797	98	.242	35.7...	y	99	80860...	900...	427...	961...	1.68	H2-1
28	PL4	PL3/8x6	.228	0	8	.031	4.5	y	14	64876...	708...	553...	885...	1.812	H1-...
29	PL28	PL3/8x6	.228	0	4	.031	4.5	y	22	64876...	708...	553...	885...	1.812	H1-...
30	PL16	PL3/8x6	.228	0	12	.031	4.5	y	18	64875...	708...	553...	885...	1.812	H1-...
31	MP2	PIPE 2.0	.225	30	11	.105	30		11	14916...	321...	187...	187...	2.544	H1-...
32	MP5	PIPE 2.0	.224	30	3	.105	30		3	14916...	321...	187...	187...	4.285	H1-...
33	MP8	PIPE 2.0	.224	30	7	.105	30		7	14916...	321...	187...	187...	4.78	H1-...
34	PL2	PL3/8x6	.213	0	5	.092	0	y	41	64876...	708...	553...	885...	1.51	H1-...
35	PL26	PL3/8x6	.213	0	13	.092	0	y	121	64876...	708...	553...	885...	1.51	H1-...
36	PL14	PL3/8x6	.213	0	9	.092	0	y	81	64875...	708...	553...	885...	1.51	H1-...
37	BRACE-1-...	L4X4X6	.202	0	140	.309	0	y	139	85730...	900...	427...	961...	1.655	H2-1
38	BRACE-3-...	L4X4X6	.202	0	100	.308	0	y	99	85730...	900...	427...	961...	1.655	H2-1
39	BRACE-2-...	L4X4X6	.202	24.246	72	.308	24.2...	z	71	85732...	900...	427...	961...	1.655	H2-1
40	PL22	PL3/8x6	.182	0	2	.063	0	y	99	64876...	708...	553...	885...	1.514	H1-...
41	PL10	PL3/8x6	.182	0	10	.063	0	y	71	64876...	708...	553...	885...	1.514	H1-...
42	PL34	PL3/8x6	.181	0	6	.064	0	y	139	64875...	708...	553...	885...	1.514	H1-...
43	HR-BRAC...	L2.5x2.5x3	.160	52.501	8	.053	0	y	39	15463...	283...	848...	182...	1.878	H2-1
44	HR-BRAC...	L2.5x2.5x3	.160	0	4	.053	0	z	119	15464...	283...	848...	182...	1.88	H2-1
45	HR-BRAC...	L2.5x2.5x3	.160	0	12	.053	0	z	79	15463...	283...	848...	182...	1.88	H2-1
46	PL21	PL3/8x6	.160	1	2	.016	0	y	99	70566...	708...	553...	885...	1.668	H1-...
47	PL9	PL3/8x6	.159	1	10	.016	0	y	71	70566...	708...	553...	885...	1.668	H1-...
48	PL33	PL3/8x6	.159	1	6	.016	0	y	139	70566...	708...	553...	885...	1.668	H1-...
49	PL1	PL3/8x6	.155	1	5	.024	0	y	41	70566...	708...	553...	885...	1.667	H1-...
50	PL25	PL3/8x6	.154	1	13	.024	0	y	121	70566...	708...	553...	885...	1.667	H1-...
51	PL13	PL3/8x6	.154	1	9	.024	0	y	81	70566...	708...	553...	885...	1.667	H1-...
52	PL30	PL3/8x6	.102	0	5	.061	0	y	121	67182...	708...	553...	885...	1.475	H1-...
53	PL18	PL3/8x6	.102	0	13	.062	0	y	81	67182...	708...	553...	885...	1.476	H1-...
54	PL6	PL3/8x6	.102	0	9	.062	0	y	41	67182...	708...	553...	885...	1.476	H1-...
55	HR-0	PIPE 2.5	.101	90	11	.094	48		10	31137...	507...	359...	359...	1.762	H1-...
56	HR-120	PIPE 2.5	.101	90	3	.100	6		2	31137...	507...	359...	359...	1.762	H1-...
57	HR-240	PIPE 2.5	.101	90	7	.100	6		6	31137...	507...	359...	359...	1.762	H1-...
58	PL20	PL3/8x6	.094	0	11	.060	0	y	99	67182...	708...	553...	885...	1.476	H1-...
59	PL32	PL3/8x6	.094	0	3	.060	0	y	139	67181...	708...	553...	885...	1.476	H1-...
60	PL8	PL3/8x6	.094	0	7	.060	0	y	71	67181...	708...	553...	885...	1.477	H1-...
61	FM-240	PIPE 3.0	.093	48	127	.075	6		6	60525...	652...	574...	574...	1.617	H1-...



Company : ETS, PLLC
 Designer : KM
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Mar 22, 2022
 11:37 AM
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Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code Che...	Loc[in]	LC	Shea..	Loc[in]	Dir	LC	phi*Pn...	phi*...	phi*...	phi*...	Cb	Eqn	
62	FM-120	PIPE 3.0	.093	48	87	.076	6		2	60525...	652...	574...	574...	1.618	H1-...
63	FM-0	PIPE 3.0	.090	48	53	.067	48		11	60525...	652...	574...	574...	1.615	H1-...
64	PL29	PL3/8x6	.083	1	5	.016	0	y	121	70566...	708...	553...	885...	1.668	H1-...
65	PL17	PL3/8x6	.083	1	13	.016	0	y	81	70566...	708...	553...	885...	1.668	H1-...
66	PL5	PL3/8x6	.083	1	9	.016	0	y	41	70566...	708...	553...	885...	1.668	H1-...
67	PL19	PL3/8x6	.078	1	5	.015	0	y	99	70566...	708...	553...	885...	1.668	H1-...
68	PL31	PL3/8x6	.078	1	9	.015	0	y	139	70566...	708...	553...	885...	1.668	H1-...
69	PL7	PL3/8x6	.078	1	13	.015	0	y	71	70566...	708...	553...	885...	1.668	H1-...

TIA-222-H 4-Bolt Connection Check

Connection Details	
Bolt Diameter =	0.625 in
Bolt Quantity =	4
Bolt Threads/Inch, n =	11
Vertical Bolt Spacing =	6.000 in
Horizontal Bolt Spacing =	6.000 in
Bolt Grade =	A325
Plate Height =	8.000 in
Plate Width =	8.000 in
Plate Thickness =	0.75
Plate Grade =	A36
Standoff Member Type =	HSS
Member Height =	4.000 in
Member Width =	4.000 in
Member Thickness =	0.250 in
Use TIA-222-H Section 15.5?	No
Weld Size =	1/4 in

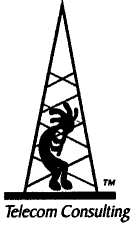
Connection Check (Bolts)		
ϕ =	0.75	Strength Reduction Factor
A_n =	0.226 in ²	Net Bolt Area (AISC Table 7-17)
A_b =	0.307 in ²	Gross Bolt Area
$F_{u\text{bolt}}$ =	120 ksi	Bolt Ultimate Stress Capacity
ϕR_{nt} =	20.34 kip	Bolt Nominal Tensile Capacity (TIA-H 4.9.6.1)
ϕR_{nv} =	13.81 kip	Bolt Nominal Shear Capacity (TIA-H 4.9.6.3)
$V_{u\text{bolt}}$ =	3.295 kip	Shear Force Per Bolt
$T_{u\text{bolt}}$ =	5.966 kip	Tension Force Per Bolt
CSR =	29.3%	OK (TIA 4.9.6.4)

Connection Check (Plate)		
ϕ =	0.9	Strength Reduction Factor
F_y =	36 ksi	Plate Yield Capacity
Y_{LH} =	7.48 in	Horizontal plate yield line
Y_{LV} =	7.48 in	Vertical plate yield line
Y_{LD} =	5.66 in	Diagonal plate yield line
M_{max} =	8.4 kip-in	Plate Bending Moment
F_b =	32.4 ksi	Nominal Plate Yield Capacity
f_b =	10.6 ksi	Plate Bending Stress Demand
CSR =	32.7%	OK

Connection Check (Welds)		
ϕ =	0.75	Strength Reduction Factor
F_{EXX} =	70 ksi	Filler Metal Strength (70 ksi assumed)
$F_{u\text{bm}}$ =	58 ksi	Base Metal Strength
ϕR_n =	5.6 k/in	Nominal Weld Capacity
R_u =	3.5 k/in	Weld Shear Demand
CSR =	62.7%	OK



POWER DENSITY STUDY



PINNACLE TELECOM GROUP

Professional and Technical Services

ANTENNA SITE FCC RF COMPLIANCE ASSESSMENT AND REPORT FOR MUNICIPAL SUBMISSION



PREPARED FOR:

Dish Wireless, LLC

SITE ID:

NJJER01082B

SITE ADDRESS:

2 SUNNY LANE
WESTPORT, CT

LATITUDE:

N 41.162917

LONGITUDE:

W 73.373083

STRUCTURE TYPE:

MONOPOLE

REPORT DATE:

MARCH 8, 2022

COMPLIANCE CONCLUSION:

Dish Wireless, LLC will be in compliance with the rules and regulations as described in OET BULLETIN 65, following the implementation of the proposed mitigation as detailed in the report.

14 RIDGEDALE AVENUE - SUITE 260 • CEDAR KNOLLS, NJ 07927 • 973-451-1630

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COMPLIANCE CONCLUSION	18

CERTIFICATION

APPENDIX A. DOCUMENTS USED TO PREPARE THE ANALYSIS

APPENDIX B. BACKGROUND ON THE FCC MPE LIMIT

APPENDIX C. PROPOSED SIGNAGE

APPENDIX D. SUMMARY OF EXPERT QUALIFICATIONS

INTRODUCTION AND SUMMARY

At the request of Dish Wireless, LLC (“Dish”), Pinnacle Telecom Group has performed an independent expert assessment of radiofrequency (RF) levels and related FCC compliance for proposed wireless base station antenna operations on an existing monopole located at 2 Sunny Lane in Westport, CT. Dish refers to the antenna site by the code “NJJER01082B”, and its proposed operation involves directional panel antennas and transmission in the 600 MHz, 2000 MHz and 2100 MHz frequency bands licensed to it by the FCC.

The FCC requires all wireless antenna operators to perform an assessment of potential human exposure to radiofrequency (RF) fields emanating from all the transmitting antennas at a site whenever antenna operations are added or modified, and to ensure compliance with the Maximum Permissible Exposure (MPE) limit in the FCC’s regulations. In this case, the compliance assessment needs to take into account the RF effects of other existing antenna operations at the site by AT&T, Sprint, T-Mobile and Verizon Wireless. Note that FCC regulations require any future antenna collocators to assess and assure continuing compliance based on the cumulative effects of all then-proposed and then-existing antennas at the site.

This report describes a mathematical analysis of RF levels resulting around the site in areas of unrestricted public access, that is, at street level around the site. The compliance analysis employs a standard FCC formula for calculating the effects of the antennas in a very conservative manner, in order to overstate the RF levels and to ensure “safe-side” conclusions regarding compliance with the FCC limit for safe continuous exposure of the general public.

The results of a compliance assessment can be described in layman’s terms by expressing the calculated RF levels as simple percentages of the FCC MPE limit. If the normalized reference for that limit is 100 percent, then calculated RF levels higher than 100 percent indicate the MPE limit is exceeded and there is a need to mitigate the potential exposure. On the other hand, calculated RF levels consistently below 100 percent serve as a clear and sufficient demonstration of

compliance with the MPE limit. We can (and will) also describe the overall worst-case result via the “plain-English” equivalent “times-below-the-limit” factor.

The result of the RF compliance assessment in this case is as follows:

- ❑ At street level, the conservatively calculated maximum RF level from the combination of proposed and existing antenna operations at the site is 7.1262 percent of the FCC general population MPE limit – well below the 100-percent reference for compliance. In other words, the worst-case calculated RF level – intentionally and significantly overstated by the calculations – is still more than 13 times below the FCC limit for safe, continuous exposure of the general public.
- ❑ A supplemental analysis of the RF levels at the same height as the Dish antennas indicate that the FCC MPE limit is potentially exceeded. Therefore, it is recommended that two Caution signs be installed six feet below the antennas. In addition, NOC Information signs are to be installed at the base of the monopole.
- ❑ The results of the calculations, along with the proposed mitigation, combine to satisfy the FCC requirements and associated guidelines on RF compliance at street level around the site and on the subject roof. Moreover, because of the significant conservatism incorporated in the analysis, RF levels actually caused by the antennas will be lower than these calculations indicate.

The remainder of this report provides the following:

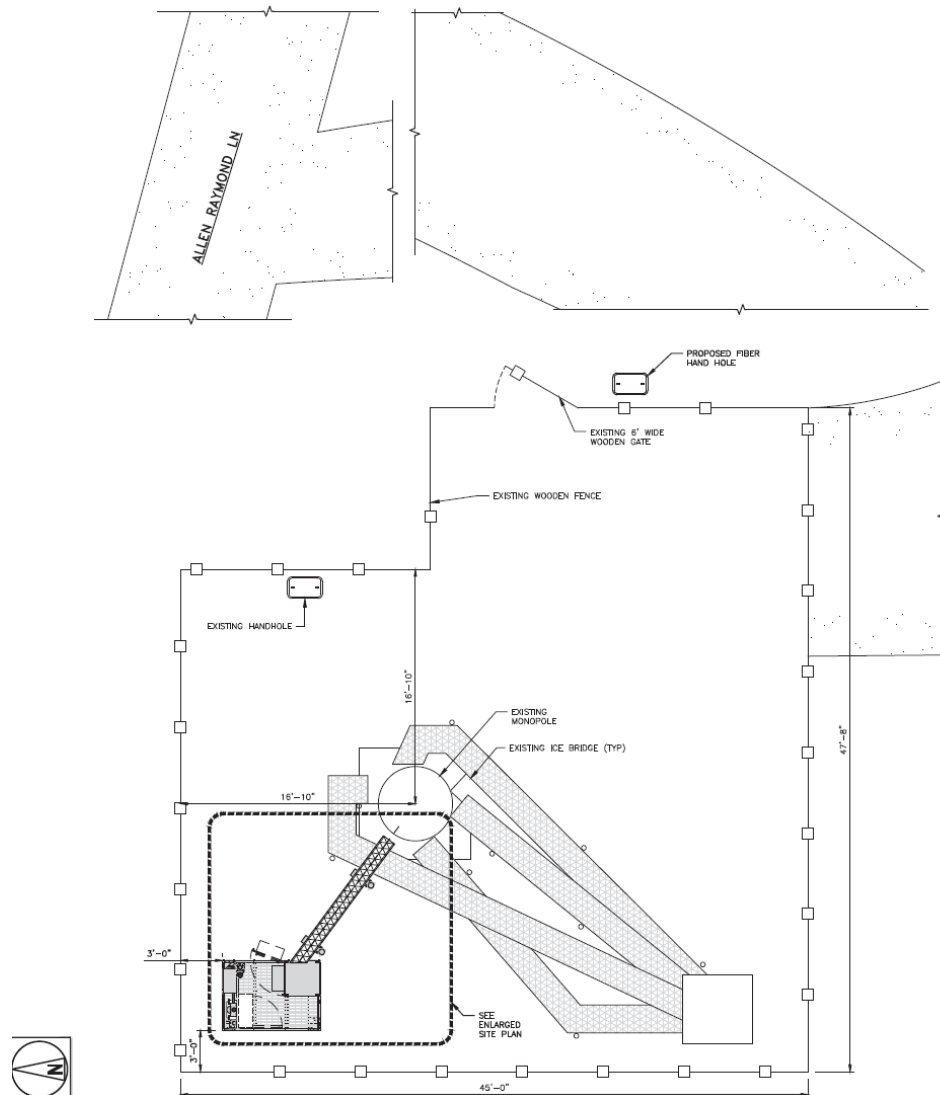
- ❑ relevant technical data on the proposed Dish antenna operations at the site, as well as on the other existing antenna operations;
- ❑ a description of the applicable FCC mathematical model for calculating RF levels, and application of the relevant technical data to that model;
- ❑ analysis of the results of the calculations against the FCC MPE limit, and the compliance conclusion for the site.

In addition, four Appendices are included. Appendix A provides information on the documents used to prepare the analysis. Appendix B provides background on the FCC MPE limit. Appendix C details the proposed mitigation to satisfy the FCC requirements and associated guidelines on RF compliance. Appendix D provides a summary of the qualifications of the expert certifying FCC compliance for this site.

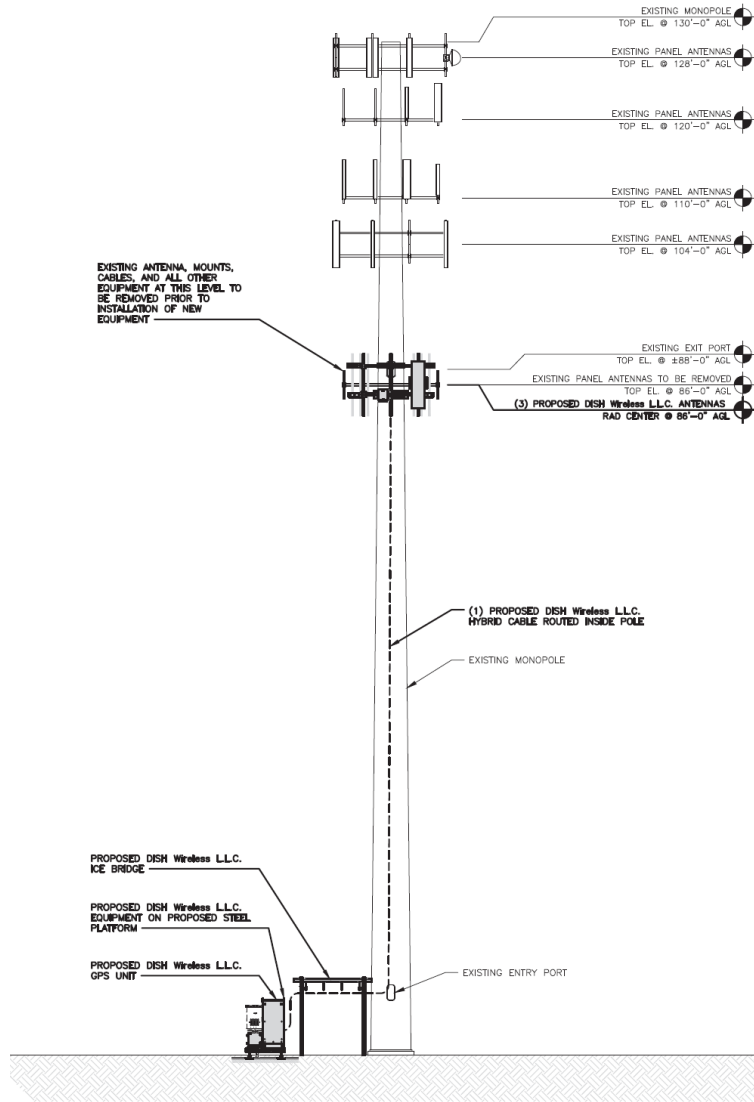
ANTENNA AND TRANSMISSION DATA

The plan and elevation views that follow, extracted from the site drawings, illustrate the mounting positions of the Dish antennas at the site.

Plan View:



Elevation View:



The table that follows summarizes the relevant data for the proposed Dish antenna operations. Note that the "Z" height references the centerline of the antenna.

Ant. ID	Carrier	Antenna Manufacturer	Antenna Model	Type	Freq (MHz)	Ant. Dim. (ft.)	Total Input Power (watts)	Total ERP (watts)	Z AGL (ft)	Ant. Gain (dBd)	B/W	Azimuth	EDT	MDT
1	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	86	12.46	64	80	2	0
1	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	86	16.66	67	80	2	0
1	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	86	16.66	67	80	2	0
2	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	86	12.46	64	200	2	0
2	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	86	16.66	67	200	2	0
2	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	86	16.66	67	200	2	0
3	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	86	12.46	64	320	2	0
3	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	86	16.66	67	320	2	0
3	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	86	16.66	67	320	2	0

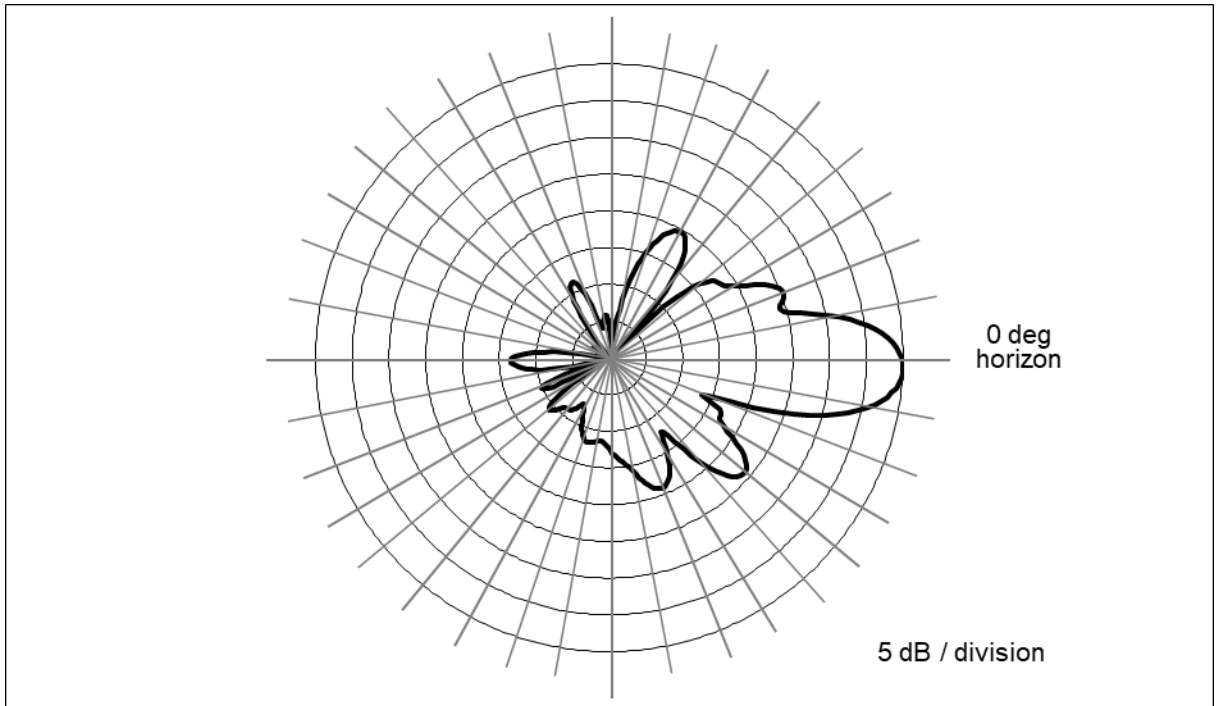
The area below the antennas, at street level, is of interest in terms of potential “uncontrolled” exposure of the general public, so the antenna’s vertical-plane emission characteristic is used in the calculations, as it is a key determinant of the relative amount of RF emissions in the “downward” direction.

By way of illustration, Figure 1 that follows shows the vertical-plane radiation pattern of the proposed antenna model in the 600 MHz frequency band. In this type of antenna radiation pattern diagram, the antenna is effectively pointed at the three o’clock position (the horizon) and the relative strength of the pattern at different angles is described using decibel units.

Note that the use of a decibel scale to describe the relative pattern at different angles actually serves to significantly understate the actual focusing effects of the antenna. Where the antenna pattern reads 20 dB the relative RF energy emitted at the corresponding downward angle is 1/100th of the maximum that occurs in the main beam (at 0 degrees); at 30 dB, the energy is only 1/1000th of the maximum.

Finally, note that the automatic pattern-scaling feature of our internal software may skew side-by-side visual comparisons of different antenna models, or even different parties’ depictions of the same antenna model.

Figure 1. Commscope FFVV-65B-R2 – 600 MHz Vertical-plane Pattern



As noted at the outset, there are other existing wireless antenna operations to include in the compliance assessment. For each of the wireless operators, we will conservatively assume operation with maximum channel capacity and at maximum transmitter power per channel to be used by each wireless operator in each of their respective FCC-licensed frequency bands.

The table that follows summarizes the relevant data for the collocated antenna operations.

<i>Carrier</i>	<i>Antenna Manufacturer</i>	<i>Antenna Model</i>	<i>Type</i>	<i>Freq (MHz)</i>	<i>Total ERP (watts)</i>	<i>Ant. Gain (dBd)</i>	<i>Azimuth</i>
AT&T	Generic	Generic	Panel	700	4945	11.26	N/A
AT&T	Generic	Generic	Panel	850	2400	11.76	N/A
AT&T	Generic	Generic	Panel	1900	5756	15.56	N/A
AT&T	Generic	Generic	Panel	2100	5890	15.66	N/A
AT&T	Generic	Generic	Panel	2300	4131	16.16	N/A
Sprint	Generic	Generic	Panel	800	2168	13.36	N/A
Sprint	Generic	Generic	Panel	1900	6168	15.86	N/A
Sprint	Generic	Generic	Panel	2500	4669	15.90	N/A
T-Mobile	Generic	Generic	Panel	600	3163	12.96	N/A
T-Mobile	Generic	Generic	Panel	700	867	13.36	N/A
T-Mobile	Generic	Generic	Panel	1900	4123	15.36	N/A
T-Mobile	Generic	Generic	Panel	1900	1452	15.60	N/A
T-Mobile	Generic	Generic	Panel	2100	4626	15.86	N/A
T-Mobile	Generic	Generic	Panel	1900	1419	15.50	N/A
T-Mobile	Generic	Generic	Panel	2500	12804	22.35	N/A
Verizon Wireless	Generic	Generic	Panel	746	2400	11.76	N/A
Verizon Wireless	Generic	Generic	Panel	869	5166	12.36	N/A
Verizon Wireless	Generic	Generic	Panel	1900	5372	15.26	N/A
Verizon Wireless	Generic	Generic	Panel	2100	5625	15.46	N/A

Compliance Analysis

FCC Office of Engineering and Technology Bulletin 65 (“OET Bulletin 65”) provides guidelines for mathematical models to calculate the RF levels at various points around transmitting antennas. Different models apply in different areas around antennas, with one model applying to street level around a site, and another applying to the rooftop near the antennas. We will address each area of interest in turn in the subsections that follow.

Street Level Analysis

At street-level around an antenna site (in what is called the “far field” of the antennas), the RF levels are directly proportional to the total antenna input power and the relative antenna gain in the downward direction of interest – and the levels are otherwise inversely proportional to the square of the straight-line distance to the antenna.

Conservative calculations also assume the potential RF exposure is enhanced by reflection of the RF energy from the intervening ground. Our calculations will assume a 100% “perfect”, mirror-like reflection, which is the absolute worst-case scenario.

The formula for street-level compliance assessment for any given wireless antenna operation is as follows:

$$\text{MPE\%} = (100 * \text{Chans} * \text{TxPower} * 10^{(\text{Gmax}-\text{Vdisc}/10)} * 4) / (\text{MPE} * 4\pi * \text{R}^2)$$

where

MPE%	=	RF level, expressed as a percentage of the MPE limit applicable to continuous exposure of the general public
100	=	factor to convert the raw result to a percentage
Chans	=	maximum number of RF channels per sector
TxPower	=	maximum transmitter power per channel, in milliwatts

- 10^(Gmax-Vdisc/10) = numeric equivalent of the relative antenna gain in the downward direction of interest; data on the antenna vertical-plane pattern is taken from manufacturer specifications
- 4 = factor to account for a 100-percent-efficient energy reflection from the ground, and the squared relationship between RF field strength and power density (2² = 4)
- MPE = FCC general population MPE limit
- R = straight-line distance from the RF source to the point of interest, centimeters

The MPE% calculations are performed out to a distance of 500 feet from the facility to points 6.5 feet (approximately two meters, the FCC-recommended standing height) off the ground, as illustrated in Figure 2, below.

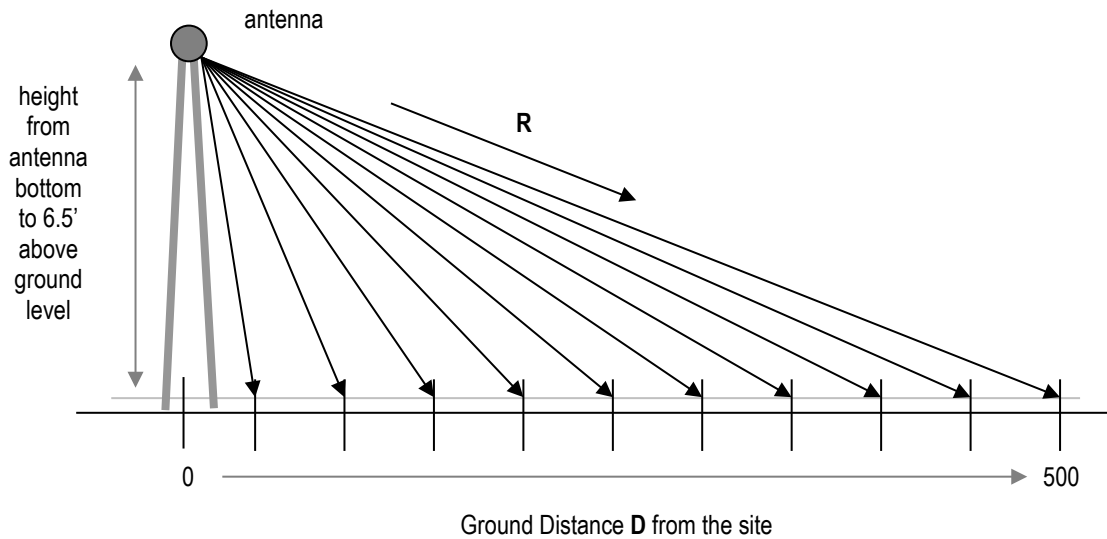


Figure 2. Street-level MPE% Calculation Geometry

It is popularly understood that the farther away one is from an antenna, the lower the RF level – which is generally but not universally correct. The results of MPE% calculations fairly close to the site will reflect the variations in the vertical-plane antenna pattern as well as the variation in straight-line distance to the antenna.

Therefore, RF levels may actually increase slightly with increasing distance within the range of zero to 500 feet from the site. As the distance approaches 500 feet and beyond, though, the antenna pattern factor becomes less significant, the RF levels become primarily distance-controlled and, as a result, the RF levels generally decrease with increasing distance. In any case, the RF levels more than 500 feet from a wireless antenna site are well understood to be sufficiently low to be comfortably in compliance.

According to the FCC, when directional antennas (such as panels) are used, compliance assessments are based on the RF effect of a single (facing) antenna sector, as the effects of directional antennas pointed away from the point(s) of interest are considered insignificant. If the different parameters apply in the different sectors, compliance is based on the worst-case parameters.

Street level FCC compliance for a collocated antenna site is assessed in the following manner. At each distance point along the ground, an MPE% calculation is made for each antenna operation (including each frequency band), and the sum of the individual MPE% contributions at each point is compared to 100 percent, the normalized reference for compliance with the MPE limit. We refer to the sum of the individual MPE% contributions as “total MPE%”, and any calculated total MPE% result exceeding 100 percent is, by definition, higher than the FCC limit and represents non-compliance and a need to mitigate the potential exposure. If all results are consistently below 100 percent, on the other hand, that set of results serves as a clear and sufficient demonstration of compliance with the MPE limit.

Note that the following conservative methodology and assumptions are incorporated into the MPE% calculations on a general basis:

1. The antennas are assumed to be operating continuously at maximum power and maximum channel capacity.
2. The power-attenuation effects of shadowing or other obstructions to the line-of-sight path from the antenna to the point of interest are ignored.
3. The calculations intentionally minimize the distance factor (R) by assuming a 6'6" human and performing the calculations from the bottom (rather than

- the centerline) of each operator's lowest-mounted antenna, as applicable.
4. The calculations also conservatively take into account, when applicable, the different technical characteristics and related RF effects of the use of multiple antennas for transmission in the same frequency band.
 5. The RF exposure at ground level is assumed to be 100-percent enhanced (increased) via a "perfect" field reflection from the intervening ground.

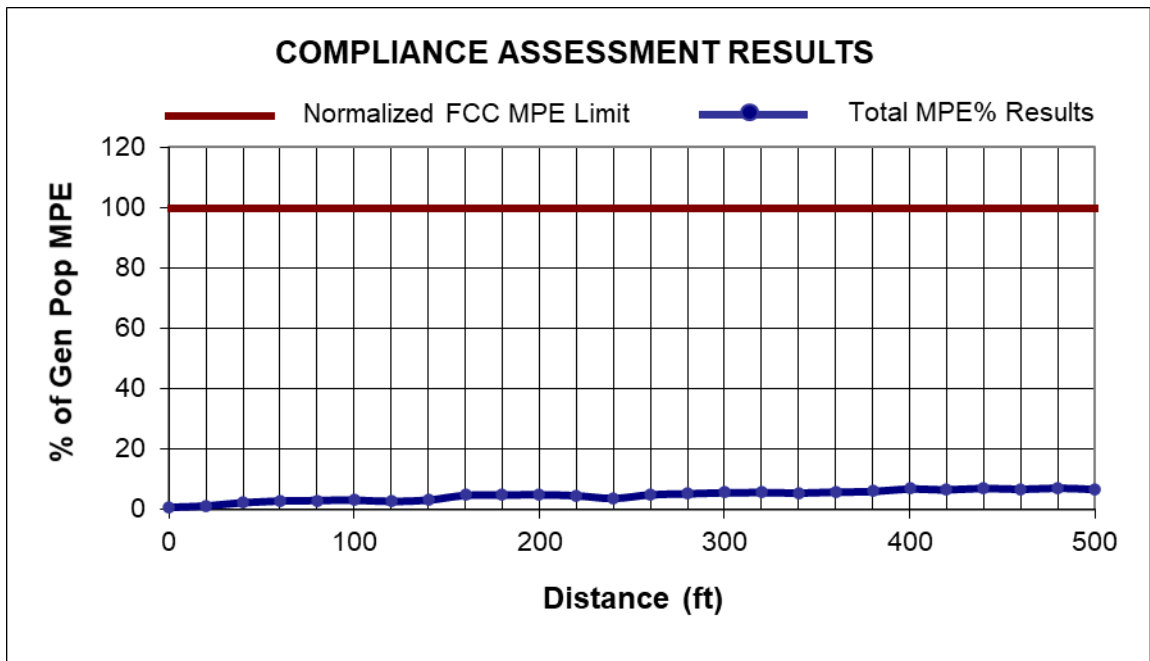
The net result of these assumptions is to intentionally and significantly overstate the calculated RF levels relative to the levels that will actually result from the antenna operations – and the purpose of this conservatism is to allow very "safe-side" conclusions about compliance.

The table that follows provides the results of the MPE% calculations for each antenna operation, with the overall worst-case calculated result highlighted in bold in the last column. Note that the transmission parameters for each Dish antenna sector are identical, and the calculations reflect the worst-case result for any/all sectors.

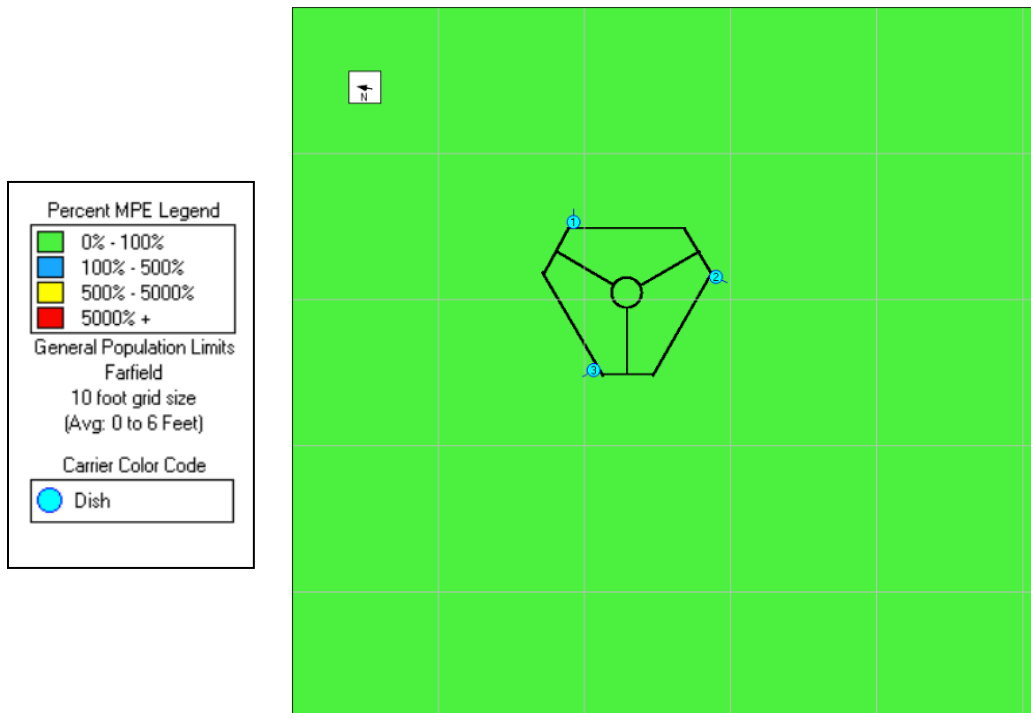
Ground Distance (ft)	Dish 600 MHz MPE%	Dish 2000 MHz MPE%	Dish 2100 MHz MPE%	AT&T MPE%	Sprint MPE%	T-Mobile MPE%	Verizon Wireless MPE%	Total MPE%
0	0.0832	0.0039	0.0006	0.1419	0.0322	0.3931	0.0237	0.6786
20	0.2373	0.0216	0.0417	0.2375	0.0117	0.5703	0.0311	1.1512
40	0.2066	0.1385	0.1039	0.4399	0.0132	1.3059	0.0840	2.2920
60	0.1164	0.4648	0.2149	0.7319	0.0513	1.1225	0.1548	2.8566
80	0.5323	0.3851	0.5709	0.6847	0.0540	0.6121	0.1717	3.0108
100	0.3709	0.2242	0.4849	1.2927	0.0707	0.5529	0.1318	3.1281
120	0.1071	0.0639	0.0461	1.3864	0.0748	0.7890	0.2392	2.7065
140	0.0559	0.0655	0.0352	1.4662	0.1417	1.0646	0.3219	3.1510
160	0.0397	0.1384	0.2356	1.8314	0.1900	2.0391	0.2763	4.7505
180	0.0207	0.0249	0.1295	1.3225	0.0979	2.8668	0.3958	4.8581
200	0.0334	0.2145	0.1292	0.8077	0.0480	3.1947	0.5207	4.9482
220	0.0601	0.1731	0.1965	0.5610	0.0556	3.1093	0.4834	4.6390
240	0.1824	0.0325	0.1388	0.4681	0.0791	2.4233	0.3852	3.7094
260	0.2603	0.0083	0.0587	0.4975	0.0815	3.7991	0.2514	4.9568
280	0.3514	0.0076	0.0177	0.4932	0.1008	4.1393	0.1708	5.2808
300	0.4516	0.0058	0.0056	0.6615	0.0997	4.3555	0.0596	5.6393
320	0.5571	0.0114	0.0035	0.9450	0.0841	4.1057	0.0291	5.7359
340	0.6637	0.0431	0.0166	0.8444	0.0547	3.8654	0.0296	5.5175
360	0.7667	0.0973	0.0570	1.1855	0.0258	3.6686	0.0541	5.8550
380	0.6912	0.0877	0.0514	1.7611	0.0174	3.3423	0.1051	6.0562
400	0.7793	0.1183	0.0949	2.4860	0.0336	3.2158	0.1788	6.9067
420	0.7091	0.1077	0.0863	2.2653	0.0616	3.1314	0.2770	6.6384
440	0.7826	0.0849	0.0927	2.9060	0.0564	2.9495	0.2541	7.1262
460	0.7179	0.0779	0.0850	2.6682	0.0767	2.8152	0.3624	6.8033
480	0.6607	0.0717	0.0782	3.1393	0.0934	2.6638	0.4919	7.1990
500	0.7152	0.0239	0.0441	2.9011	0.0824	2.5400	0.4555	6.7622

As indicated, the maximum calculated overall RF level is 7.1262 percent of the FCC MPE limit – well below the 100-percent reference for compliance.

A graph of the overall calculation results, shown below, perhaps provides a clearer *visual* illustration of the relative compliance of the calculated RF levels. The line representing the overall calculation results shows an obviously clear, consistent margin to the FCC MPE limit.



The graphic output for the areas at street level surrounding the site is reproduced on the next page.

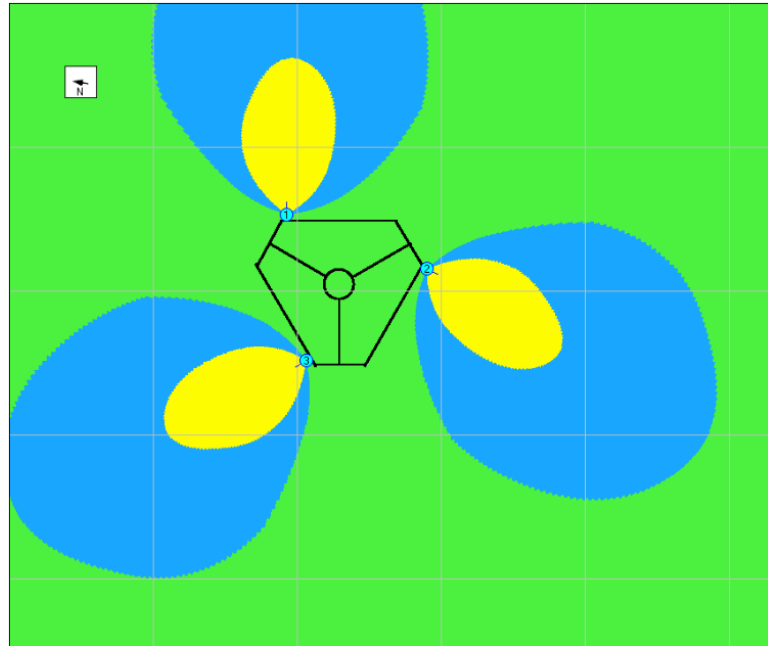
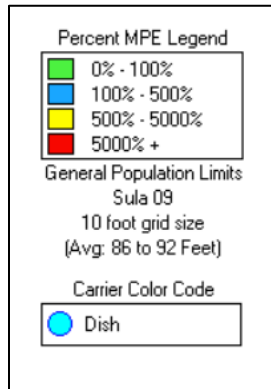


Near-field Analysis

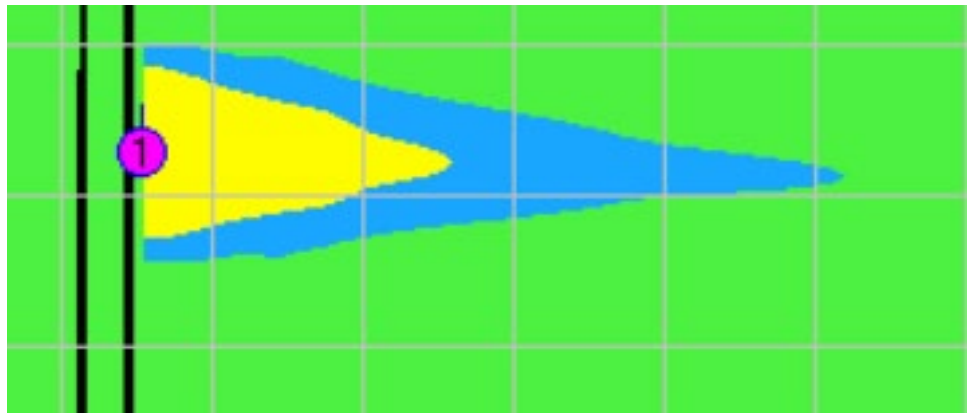
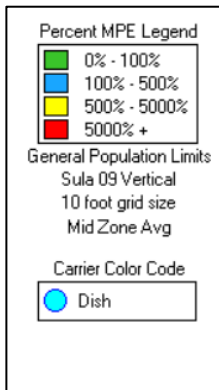
The compliance analysis for the same height as the antennas is performed using the RoofMaster program by Waterford Consultants.

RF levels in the near field of an antenna depend on the power input to the antenna, the antenna's length and horizontal beamwidth, the mounting height of the antenna above nearby roof, and one's position and distance from the antenna. RF levels in front of a directional antenna are higher than they are to the sides or rear, and in any given horizontal direction are inversely proportional to the straight-line distance to the antenna.

The RoofMaster graphic outputs for the same height as the Dish antennas are reproduced on the next page.



**RoofMaster – Same Height as the Antennas –
Alpha / Beta / Gamma sectors**



**RoofMaster – Same Height as the Antennas –
Alpha / Beta / Gamma sectors**

COMPLIANCE CONCLUSION

According to the FCC, the MPE limit has been constructed in such a manner that continuous human exposure to RF fields up to and including 100 percent of the MPE limit is acceptable and safe.

The conservative analysis in this case shows that the maximum calculated RF level from the combination of proposed and existing antenna operations at street level around the site is 7.1262 percent of the FCC general population MPE limit. At the same height as the antennas, the analysis shows that the calculated RF levels potentially exceed the FCC MPE limit. Per Dish guidelines, and consistent with FCC guidance on compliance, it is recommended that two Caution signs be installed six feet below the antennas. In addition, NOC Information signs be installed at the base of the monopole.

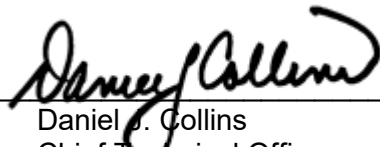
The results of the calculations, along with the described RF mitigation, combine to satisfy the FCC's RF compliance requirements and associated guidelines on compliance.

Moreover, because of the extremely conservative calculation methodology and operational assumptions we applied in the analysis, RF levels actually caused by the antennas will be significantly lower than the calculation results here indicate.

CERTIFICATION

It is the policy of Pinnacle Telecom Group that all FCC RF compliance assessments are reviewed, approved, and signed by the firm's Chief Technical Officer who certifies as follows:

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 *et seq*).
2. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
3. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.
4. The results of the analysis indicate that the subject antenna operations will be in compliance with the FCC regulations concerning the control of potential human exposure to the RF emissions from antennas.



Daniel J. Collins
Chief Technical Officer
Pinnacle Telecom Group, LLC

3/8/22

Date

Appendix A. DOCUMENTS USED TO PREPARE THE ANALYSIS

RFDS: RFDS-NJJER01082B-Final-20211202-v.0_20211202214447

CD: NJJER01082B_FinalStampedCDs_20211115085222

Appendix B. Background on the FCC MPE Limit

As directed by the Telecommunications Act of 1996, the FCC has established limits for maximum continuous human exposure to RF fields.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE).

The FCC's RF exposure guidelines are incorporated in Section 1.301 *et seq* of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for both occupational and general population exposure.

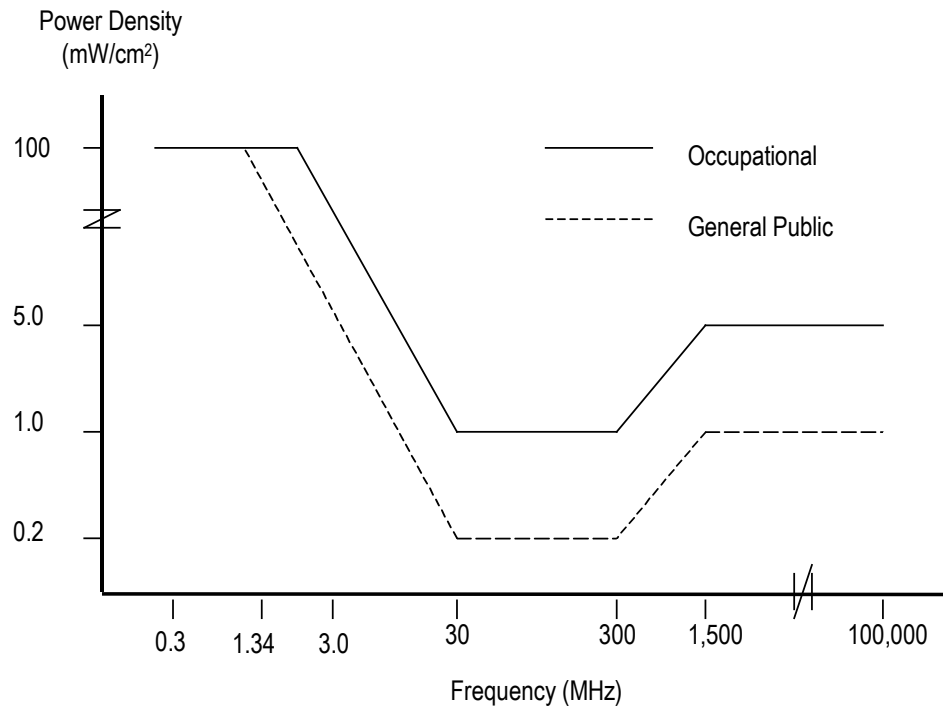
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat). The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. The limits were constructed to appropriately protect humans of both sexes and all ages and sizes and under all conditions – and continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects or even health risk.

The reason for *two* tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC's RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm²). The table on the next page lists the FCC limits for both occupational and general population exposures, using the mW/cm² reference, for the different radio frequency ranges.

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm ²)	General Public Exposure (mW/cm ²)
0.3 - 1.34	100	100
1.34 - 3.0	100	180 / F ²
3.0 - 30	900 / F ²	180 / F ²
30 - 300	1.0	0.2
300 - 1,500	F / 300	F / 1500
1,500 - 100,000	5.0	1.0

The diagram below provides a graphical illustration of both the FCC's occupational and general population MPE limits.



Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable to the instant situation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the MPE limit applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

Note that the FCC “categorically excludes” all “non-building-mounted” wireless antenna operations whose mounting heights are more than 10 meters (32.8 feet) from the routine requirement to demonstrate compliance with the MPE limit, because such operations “are deemed, individually and cumulatively, to have no significant effect on the human environment”. The categorical exclusion also applies to *all* point-to-point antenna operations, regardless of the type of structure they’re mounted on. Note that the FCC considers any facility qualifying for the categorical exclusion to be automatically in compliance.

In addition, FCC Rules and Regulations Section 1.1307(b)(3) describes a provision known in the industry as “the 5% rule”. It describes that when a specific location – like a spot on a rooftop – is subject to an overall exposure level exceeding the applicable MPE limit, operators with antennas whose MPE% contributions at the point of interest are less than 5% are exempted from the obligation otherwise shared by all operators to bring the site into compliance, and those antennas are automatically deemed by the FCC to satisfy the rooftop compliance requirement.

FCC References on RF Compliance

47 CFR, FCC Rules and Regulations, Part 1 (Practice and Procedure), Section 1.1310 (Radiofrequency radiation exposure limits).

FCC Second Memorandum Opinion and Order and Notice of Proposed Rulemaking (FCC 97-303), *In the Matter of Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B)(v) of the Communications Act of 1934 (WT Docket 97-192)*, *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket 93-62)*, and *Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Amendment of the Commission's Rules to Preempt State and Local Regulation of Commercial Mobile Radio Service Transmitting Facilities*, released August 25, 1997.

FCC First Memorandum Opinion and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released December 24, 1996.

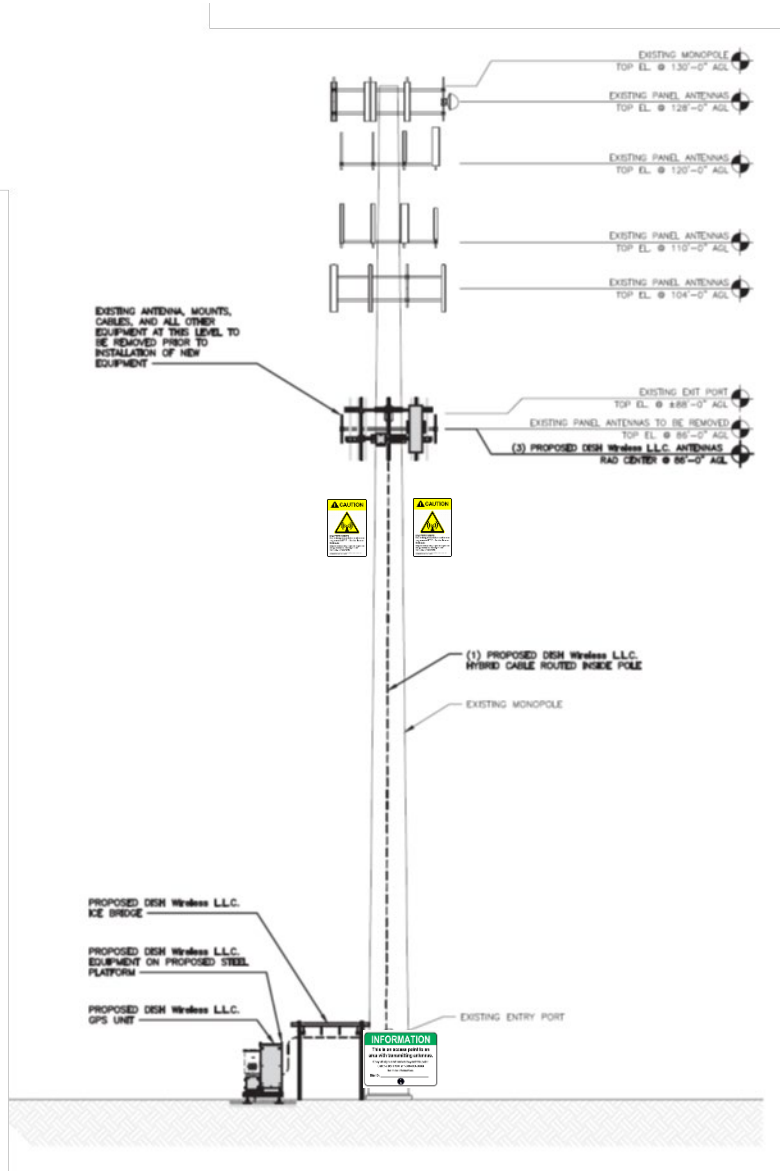
FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

FCC Report and Order, Notice of Proposed Rulemaking, Memorandum Opinion and Order (FCC 19-126), *Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies*, released December 4, 2019.

FCC Office of Engineering and Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, August 1997.

FCC Office of Engineering and Technology (OET) Bulletin 56, "Questions and Answers About Biological Effects and Potential Hazards of RF Radiation", edition 4, August 1999.

Appendix C. PROPOSED SIGNAGE



NOC Information Sign		Caution Sign	
Guidelines Sign		Warning Sign	
Notice Sign			

APPENDIX D. SUMMARY of EXPERT QUALIFICATIONS

Daniel J. Collins, Chief Technical Officer, Pinnacle Telecom Group, LLC

<p>Synopsis:</p>	<ul style="list-style-type: none"> • 40+ years of experience in all aspects of wireless system engineering, related regulation, and RF exposure • Has performed or led RF exposure compliance assessments on more than 20,000 antenna sites since the latest FCC regulations went into effect in 1997 • Has provided testimony as an RF compliance expert more than 1,500 times since 1997 • Have been accepted as an FCC compliance expert in New York, New Jersey, Connecticut, Pennsylvania and more than 40 other states, as well as by the FCC
<p>Education:</p>	<ul style="list-style-type: none"> • B.E.E., City College of New York (Sch. Of Eng.), 1971 • M.B.A., 1982, Fairleigh Dickinson University, 1982 • Bronx High School of Science, 1966
<p>Current Responsibilities:</p>	<ul style="list-style-type: none"> • Leads all PTG staff work involving RF safety and FCC compliance, microwave and satellite system engineering, and consulting on wireless technology and regulation
<p>Prior Experience:</p>	<ul style="list-style-type: none"> • Edwards & Kelcey, VP – RF Engineering and Chief Information Technology Officer, 1996-99 • Bellcore (a Bell Labs offshoot after AT&T's 1984 divestiture), Executive Director – Regulation and Public Policy, 1983-96 • AT&T (Corp. HQ), Division Manager – RF Engineering, and Director – Radio Spectrum Management, 1977-83 • AT&T Long Lines, Group Supervisor – Microwave Radio System Design, 1972-77
<p>Specific RF Safety / Compliance Experience:</p>	<ul style="list-style-type: none"> • Involved in RF exposure matters since 1972 • Have had lead corporate responsibility for RF safety and compliance at AT&T, Bellcore, Edwards & Kelcey, and PTG • While at AT&T, helped develop the mathematical models for calculating RF exposure levels • Have been relied on for compliance by all major wireless carriers, as well as by the federal government, several state and local governments, equipment manufacturers, system integrators, and other consulting / engineering firms
<p>Other Background:</p>	<ul style="list-style-type: none"> • Author, <i>Microwave System Engineering</i> (AT&T, 1974) • Co-author and executive editor, <i>A Guide to New Technologies and Services</i> (Bellcore, 1993) • National Spectrum Management Association (NSMA) – former three-term President and Chairman of the Board of Directors; was founding member, twice-elected Vice President, long-time member of the Board, and was named an NSMA Fellow in 1991 • Have published more than 35 articles in industry magazines

UNDERLYING PROPERTY INFORMATION

2 ALLEN RAYMOND LN

Location 2 ALLEN RAYMOND LN

Mblu B13/ / 026/000 /

Acct# 8579

Owner CELLCO PARTNERSHIP

Assessment \$1,333,220

Appraisal \$1,904,600

PID 4500

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$1,424,000	\$480,600	\$1,904,600

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$996,820	\$336,400	\$1,333,220

Owner of Record

Owner	CELLCO PARTNERSHIP	Sale Price	\$415,000
Co-Owner	BELL ATLANTIC NYNEX MOBILE DBA	Certificate	1
Address	PO BOX 2549 ADDISON , TX 75001	Book & Page	1488/0099
		Sale Date	12/10/1996
		Instrument	00

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
CELLCO PARTNERSHIP	\$415,000	1	1488/0099	00	12/10/1996

Building Information

Building 1 : Section 1

Year Built: 1968
Living Area: 3,006
Replacement Cost: \$508,423
Building Percent Good: 76
Replacement Cost
Less Depreciation: \$386,400

Building Attributes

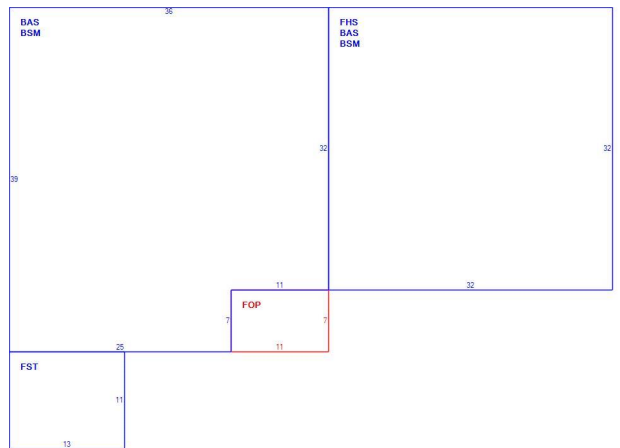
Field	Description
Style	Res Typ Comm
Model	Commercial
Grade	Average +20
Stories:	1
Occupancy	1.00
Exterior Wall 1	Board & Batten
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Asphalt/F Glas
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air
AC Type	Central
Struct Class	
Bldg Use	Cell Site
Income Adj	
1st Floor Use:	
Heat/AC	Heat/AC Pkgs
Frame Type	Wood Frame
Baths/Plumbing	Average
Ceiling/Walls	Ceil & Walls
Rooms/Prtns	Average
Wall Height	8.00
% Comn Wall	

Building Photo



(<http://images.vgsi.com/photos2/WestportCTPhotos/\00\02\54\59.jpg>)

Building Layout



(ParcelSketch.ashx?pid=4500&bid=4500)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,351	2,351
FHS	Half Story, Finished	1,024	512
FST	Utility Storage, Fin	143	143
BSM	Basement Area	2,351	0
FOP	Porch, Open	77	0
		5,946	3,006

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Use Valuation

Land Use

Use Code 434
Description Cell Site
Zone AAA
Neighborhood C
Alt Land Appr No
Category

Land Line valuation

Size (Acres) 1.63
Frontage 0
Depth 0
Assessed Value \$336,400
Appraised Value \$480,600

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CELL	Cell on TWR	TW		6.00 Sites	\$1,037,600	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2021	\$1,424,000	\$480,600	\$1,904,600
2020	\$1,424,000	\$480,600	\$1,904,600
2019	\$1,444,286	\$525,600	\$1,969,886

Assessment			
Valuation Year	Improvements	Land	Total
2021	\$996,820	\$336,400	\$1,333,220
2020	\$996,820	\$336,400	\$1,333,220
2019	\$1,011,020	\$367,900	\$1,378,920

NOTIFICATIONS

Track Another Package +

Tracking Number: 9505512322632102520393

Remove X

Your item has been delivered and is available at a PO Box at 2:23 pm on April 14, 2022 in ADDISON, TX 75001.

USPS Tracking Plus® Available ∨

Delivered, PO Box

April 14, 2022 at 2:23 pm
ADDISON, TX 75001

Feedback

Get Updates ∨

Text & Email Updates



Tracking History



USPS Tracking Plus®



Product Information



See Less ^

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Go to our FAQs section to find answers to your tracking questions.

FAQs

Feedback



April 18, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 776556728734

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	J.TOOKER	Delivery Location:	110 Myrtle Avenue
Service type:	FedEx 2Day		Room 310
Special Handling:	Deliver Weekday		WESTPORT, CT, 06880
		Delivery date:	Apr 14, 2022 11:44

Shipping Information:

Tracking number:	776556728734	Ship Date:	Apr 12, 2022
		Weight:	0.5 LB/0.23 KG

Recipient:
Jennifer Tooker - First Selectwoman,
110 Myrtle Avenue
Room 310
WESTPORT, CT, US, 06880

Shipper:
Corey Milan, NB+C
100 Apollo Dr.
Suite 303
CHELMSFORD, MA, US, 01824

Reference 100814

Thank you for choosing FedEx



April 18, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 776556770429

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	S.IGNATURE ON FILE	Delivery Location:	515 POST RD E
Service type:	FedEx 2Day		
Special Handling:	Deliver Weekday		WESTPORT, CT, 06880
		Delivery date:	Apr 14, 2022 14:19

Shipping Information:

Tracking number:	776556770429	Ship Date:	Apr 12, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:
Steve Smith - Building Official,
515 Post Road East
2nd Floor
WESTPORT, CT, US, 06880

Shipper:
Corey Milan, NB+C
100 Apollo Dr.
Suite 303
CHELMSFORD, MA, US, 01824

Reference 100814

Thank you for choosing FedEx