



4545 East River Road, Suite 320
West Henrietta, NY 14586

May 7, 2020

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

**RE: Request of Verizon Wireless for an Order to Approve the Shared Use of an Existing Tower at 122 Jonathan Trumbull Highway (Route 6), Andover, CT 06232
Crown Site BU: 842856
Latitude: 41° 45' 0.46" / Longitude: -72° 24' 9.63"**

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes (“C.G.S.”) §16-50aa, as amended, Verizon Wireless (“Verizon”) hereby requests an order from the Connecticut Siting Council (“Council”) to approve the shared use by Verizon of an existing telecommunication tower at 122 Jonathan Trumbull Highway (Route 6) in Andover (the “Property”). The existing 150-foot monopole tower is owned by Crown Castle International Corp. (“Crown Castle”). The underlying property is owned by ASC Real Estate Inc. Verizon requests that the Council find that the proposed shared use of the Crown Castle 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 Jeffrey J. Maguire, First Selectman for the Town of Andover, Jim Hallisey, Zoning Agent for the Town of Andover, as well as the property owner.

Background

The existing Crown Castle facility consists of a 150-foot monopole tower within a 10,000 square foot leased area. T-Mobile currently maintains antennas at the 140-foot level and AT&T currently maintains antennas at the 150-foot level. T-Mobile’s equipment is located east of the tower and AT&T’s equipment is located south of the tower.

Verizon is licensed by the Federal Communications Commission (“FCC”) to provide wireless services throughout the State of Connecticut. Verizon and Crown Castle have agreed to the proposed shared use of the 122 Jonathan Trumbull Highway tower pursuant to mutually acceptable terms and conditions. Likewise, Verizon and Crown Castle have agreed to the proposed installation of equipment cabinets on the ground on the northwest side of the tower within the existing compound. Crown Castle has authorized Verizon to apply for all necessary permits and approvals that may be required to share the existing tower.

Verizon proposes to install twelve (12) antennas, twelve (12) RRUs, two (2) hybrid cables, and one (1) raycap. In addition, Verizon will install a ground equipment cabinet within a 10’x19’ concrete pad. Included in the Construction Drawings are Verizon’s project specifications for locations of all proposed

The Foundation for a Wireless World.

CrownCastle.com

site improvements. The Construction Drawings also contain specifications for Verizon's proposed antennas and ground work.

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." Verizon respectfully submits that the shared use of the tower satisfies these criteria.

A. Technical Feasibility. The existing Crown Castle tower is structurally capable of supporting Verizon'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 Verizon'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 Crown Castle 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 Crown Castle 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. Verizon's equipment cabinet would be installed within the existing facility compound. Verizon'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 Verizon'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 Verizon'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 Crown Castle

facility other than periodic maintenance. The proposed shared use of the Crown Castle tower, would, therefore, have a minimal environmental effect, and is environmentally feasible.

- D. Economic Feasibility.** As previously mentioned, Verizon has entered into an agreement with Crown Castle 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 Verizon's full array of twelve (12) antennas, twelve (12) RRUs, two (2) hybrid cables, one (1) raycap and all related equipment. Verizon is not aware of any public safety concerns relative to the proposed sharing of the existing Crown Castle tower.

Conclusion

For the reasons discussed above, the proposed shared use of the existing Crown Castle tower at 122 Jonathan Trumbull Highway satisfies the criteria stated in C.G.S. §16-50aa and advances the General Assembly's and 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,



Richard Zajac
Network Real Estate Specialist
4545 East River Road, Suite 320
West Henrietta, NY 14586
(585) 445-5896
richard.zajac@crowncastle.com

Melanie A. Bachman

May 7, 2020

Page 4

CC:

Jeffrey J. Maguire – First Selectman
Town of Andover
17 School Road
Andover, CT 06232
jmaguire@andoverct.org

Jim Hallisey – Zoning Agent
Town of Andover
17 School Road
Andover, CT 06232
Zoning@andoverct.org

ASC Real Estate Inc, Property Owner
PO Box 122
Andover, CT 06232

ORIGIN ID: ONHA (585) 445-5896
RICHARD ZAJAC
CROWN CASTLE
629 KAYLEIGH DR

SHIP DATE: 08MAY20
ACT WGT: 1.00 LB
CAD: 104924194/NET4220

WEBSTER, NY 14580
UNITED STATES US

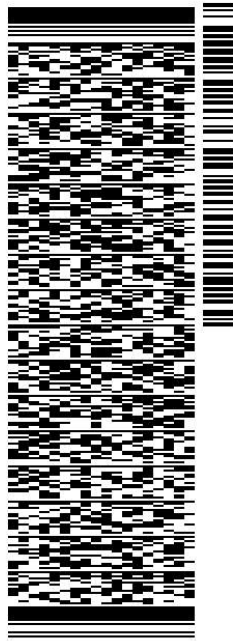
BILL SENDER

TO **ASC REAL ESTATE, INC**

PO BOX 122

ANDOVER CT 06232

(585) 445-5896 REF: 1734 7890
INV/ PO: DEPT:



J201120042401uv

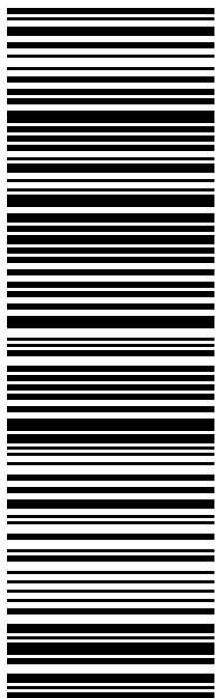
56BJ3/2925/FE4A

TRK# 7704 1838 1103
0201

MON - 11 MAY 4:30P
STANDARD OVERNIGHT

XE SKKA

06232
CT-US BDL



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Zajac, Richard

From: Zajac, Richard
Sent: Friday, May 8, 2020 10:50 AM
To: Zoning@andoverct.org
Subject: Connecticut Siting Council shared use application notification
Attachments: CSC Shared Use Application - 122 Jonathan Trumbull Hwy.pdf

Good morning Mr. Hallisey,
Please see the attached application to the Connecticut Siting Council regarding antenna work on the existing cell tower located at 122 Jonathan Trumbull Highway in Andover.

Should you have any questions/comments/concerns regarding this application, please do not hesitate to contact me.

Thank you,
RICH ZAJAC
Network Real Estate Specialist
T: (585) 445-5896 M: (607) 346-7212
F: (724) 416-4461
CROWN CASTLE
4545 East River Road, Suite 320
West Henrietta, NY 14586

Zajac, Richard

From: Zajac, Richard
Sent: Friday, May 8, 2020 10:45 AM
To: jmaguire@andoverct.org
Subject: Connecticut Siting Council shared use application notification
Attachments: CSC Shared Use Application - 122 Jonathan Trumbull Hwy.pdf

Good morning Mr. Maguire,
Please see the attached application to the Connecticut Siting Council regarding antenna work on the existing cell tower located at 122 Jonathan Trumbull Highway in Andover.

Should you have any questions/comments/concerns regarding this application, please do not hesitate to contact me.

Thank you,
RICH ZAJAC
Network Real Estate Specialist
T: (585) 445-5896 M: (607) 346-7212
F: (724) 416-4461
CROWN CASTLE
4545 East River Road, Suite 320
West Henrietta, NY 14586

Exhibit A

Letter of Authorization



3530 Toringdon Way
Charlotte, NC 28277

Phone: (704) 405-6552
Fax: (724) 416-6297
www.crowncastle.com

November 1, 2019

Via

ASC REAL ESTATE INC
PO BOX 122
ANDOVER, CT 06232

RE: Letter of Authorization
Site ID: 842856
Site Name: ANDOVER NORTH
Site Address: 122 JONATHAN TRUMBULL HIGHWAY (ROUTE 6), ANDOVER, CT
06232

Dear ASC REAL ESTATE INC:

VERIZON WIRELESS has proposed (12) Antennas, (12) RRU's, (1) Raycap, (2) Hybrids and 12 X 30 Lease Area.

Please allow this letter to serve as notification that VERIZON WIRELESS has contracted with CCATT LLC (a subsidiary of Crown Castle) to provide services related to local government zoning and permitting. CCATT LLC is working with VERIZON WIRELESS to manage this process.

This letter of authorization is required by CT-ANDOVER LEPC for VERIZON WIRELESS to apply for its building permit/zoning approvals which are required for the modification of their existing telecommunications equipment.

This letter neither overrides nor changes your current lease with CCATT LLC.

Please execute this letter of authorization where indicated below, thus granting your authorization for this application and send the original to Zachary Plummer using the self-addressed, stamped, envelope included in this mailing, or the email listed below.

Thank you for your continued cooperation with CCATT LLC.

Sincerely,

Zachary Plummer
Real Estate Specialist
Phone: (704) 405-6552 / E-mail: Zachary.Plummer@crowncastle.com

Approved By:

Name: DONALD E. NICHOLS

Date: 11/2/19

Signature: Donald E. Nichols

TREASURER

Exhibit B

Original Facility Approval

Connecticut Siting Council

Decisions

DOCKET NO. 242 - AT&T Wireless PCS, LLC d/b/a } Connecticut
AT&T Wireless application for a Certificate of }
Environmental Compatibility and Public Need for the } Siting
construction, maintenance and operation of a wireless }
telecommunications facility at one of two sites at 122 Route } Council
6 (Andover Sportsmen Club), Andover, Connecticut. }
October 14, 2003

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to AT&T Wireless PCS d/b/a AT&T Wireless for the construction, maintenance and operation of a wireless telecommunications facility at Site A at the Andover Sportsmen Club, 122 Route 6, Andover, Connecticut. The Council denies certification of Site B, also located at 122 Route 6, Andover, Connecticut.

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

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of AT&T Wireless PCS, LLC and Omnipoint Holdings, Inc. d/b/a T-Mobile and other entities, both public and private, but such tower shall not exceed a height of 150 feet above ground level.
2. Panel antennas shall be installed on the monopole using a flush mount design.
3. Site preparation and construction activities shall occur during the time period of November 1 through March 31 to reduce potential impacts to populations of the Wood Turtle (*Clemmys insculpta*), a State Species of Special Concern.
4. 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. a detailed site development plan that depicts the location of the access road, compound, tower, utility line, erosion and sedimentation control features, and landscaping;
 - b. specifications for the tower, tower foundation, antennas, equipment building, and security fence; and
 - c. construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
5. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the

Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

6. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
7. 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. The Certificate Holder shall provide space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.
8. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
9. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and ceases to function.
10. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Hartford Courant, Rivereast News Bulletin, and the Journal Inquirer.

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

AT&T Wireless PCS, LLC
d/b/a AT&T Wireless

Its Representative

Christopher B. Fisher, Esq.
Cuddy & Feder LLP
90 Maple Avenue
White Plains, New York 10601
(914) 761-1300

Party.

Tower Ventures II, LLC

Its Representative

Julie Donaldson Kohler, Esq.
Hurwitz & Sagarin, LLC
147 N. Broad Street
Milford, CT 06460
(203) 877-8000

Party.

Town of Andover

Its Representative

First Selectman
Andover Town Office Building
17 School Road, P.O. Box 328

Andover, CT 06232-0328
(860) 742-7305

Intervenor

Omnipoint Holdings, Inc.
d/b/a T-Mobile

Its Representative

Stephen J. Humes, Esq.
Diane W. Whitney, Esq.
LeBoeuf, Lamb, Greene & MacRae
Goodwin Square
225 Asylum Street
Hartford, CT 06103

Exhibit C

Property Card

122 ROUTE 6

Location 122 ROUTE 6

Mblu 28/ 5/ 4/ /

Acct# 530

Owner ASC REAL ESTATE INC

Assessment \$361,340

Appraisal \$586,800

PID 530

Building Count 2

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$239,100	\$347,700	\$586,800
Assessment			
Valuation Year	Improvements	Land	Total
2016	\$167,500	\$193,840	\$361,340

Owner of Record

Owner ASC REAL ESTATE INC
Co-Owner ANDOVER SPORTSMANS CLUB
Address P O BOX 122
 ANDOVER, CT 06232

Sale Price \$0
Certificate
Book & Page 0020/0572
Sale Date

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
ASC REAL ESTATE INC	\$0		0020/0572	

Building Information

Building 1 : Section 1

Year Built: 1970
Living Area: 1,040
Replacement Cost: \$154,971
Building Percent 79
Good:
Replacement Cost
Less Depreciation: \$122,400

Building Photo

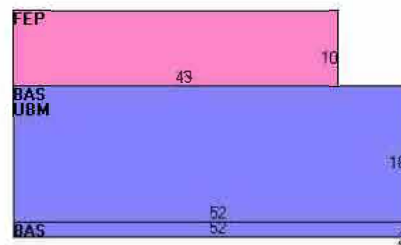
Building Attributes	
Field	Description
STYLE	Clubs/Lodges
MODEL	Commercial

Grade	C
Stories:	1
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F GlS/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Air-no Duc
AC Type	Central
Bldg Use	Fratnl Org
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	3530
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	0



(<http://images.vgsi.com/photos2/AndoverCTPhotos//default.jp>)

Building Layout



(<http://images.vgsi.com/photos2/AndoverCTPhotos//Sketches>)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,040	1,040
FEP	Porch, Enclosed, Finished	430	0
UBM	Basement, Unfinished	936	0
		2,406	1,040

Building 2 : Section 1

Year Built: 1970
Living Area: 896
Replacement Cost: \$132,799
Building Percent Good: 71
Replacement Cost Less Depreciation: \$94,300

Building Attributes : Bldg 2 of 2	
Field	Description
STYLE	Clubs/Lodges
MODEL	Commercial
Grade	C
Stories:	1
Occupancy	

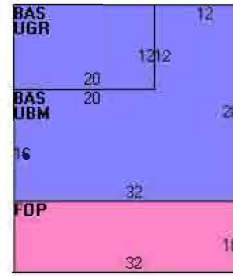
Building Photo



(<http://images.vgsi.com/photos2/AndoverCTPhotos//default.jp>)

Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F GlS/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Coal or Wood
Heating Type	None
AC Type	None
Bldg Use	Fratnl Org
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	

Building Layout



(<http://images.vgsi.com/photos2/AndoverCTPhotos//Sketches/53>)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	896	896
FOP	Porch, Open, Finished	320	0
UBM	Basement, Unfinished	656	0
UGR	Garage, Unfinished	240	0
		2,112	896

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	3530
Description	Fratnl Org
Zone	R-40
Neighborhood	C1
Alt Land Appr Category	No

Land Line Valuation

Size (Acres)	67.13
Frontage	0
Depth	0
Assessed Value	\$193,840
Appraised Value	\$347,700

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FN3	Fence-6' Chain			290 L.F.	\$2,000	1

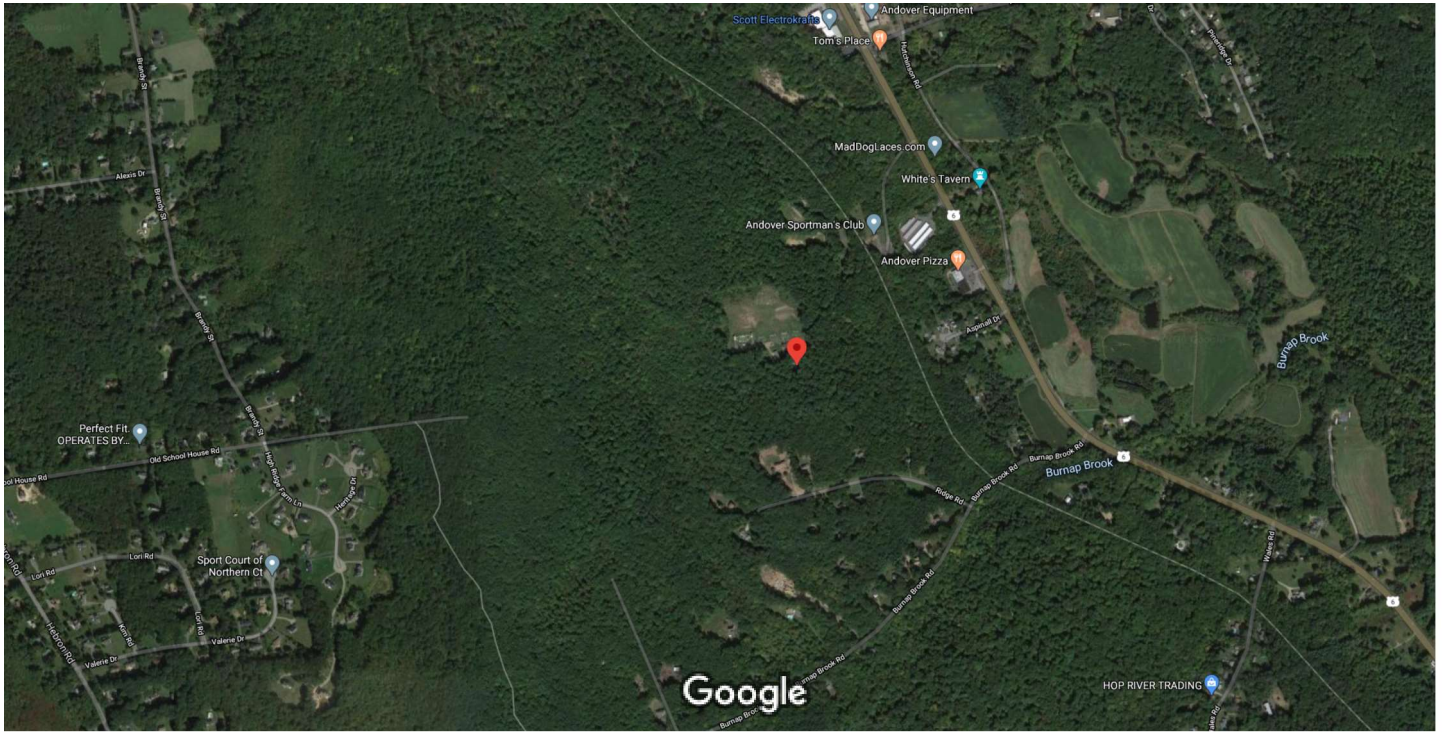
SHD5	Shed			384 S.F.	\$6,500	2
LT4	Lights (4)			2 UNITS	\$1,300	2
SHD5	Shed			91 S.F.	\$1,300	1
LT1	Lights (1)			10 UNITS	\$2,000	2
PAV1	Paving-Asphalt			1344 S.F.	\$600	1
SHD1	Shed Frame			180 S.F.	\$1,100	1
SHD1	Shed Frame			180 S.F.	\$1,100	2
PAT1	Patio Av			360 S.F.	\$500	2
SHD1	Shed Frame			180 S.F.	\$1,100	1
SHD1	Shed Frame			144 S.F.	\$900	1
PAV1	Paving-Asphalt			840 S.F.	\$400	1
SHD1	Shed Frame			120 S.F.	\$700	1
SHD1	Shed Frame			240 S.F.	\$2,900	1

Valuation History

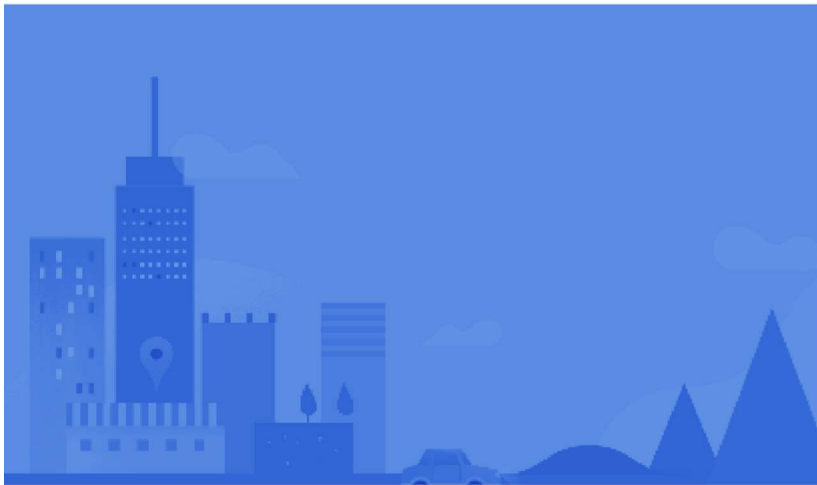
Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$107,800	\$334,000	\$441,800
2011	\$222,400	\$334,000	\$556,400
2010	\$124,700	\$239,200	\$363,900

Assessment			
Valuation Year	Improvements	Land	Total
2015	\$138,200	\$171,050	\$309,250
2011	\$155,700	\$171,050	\$326,750
2010	\$87,300	\$102,280	\$189,580

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Imagery ©2020 CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2020 500 ft



41°45'00.5"N 72°24'09.6"W

41.750128, -72.402675



Directions



Save



Nearby



Send to your phone



Share



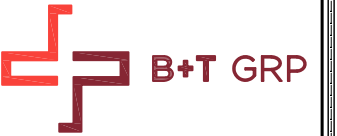
Andover School District, Andover, CT



QH2W+3W Andover, Connecticut

Exhibit D

Construction Drawings



verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

COVENTRY WEST CT

122 JONATHAN TRUMBULL HWY
ANDOVER, CT 06232
EXISTING MONOPOLE

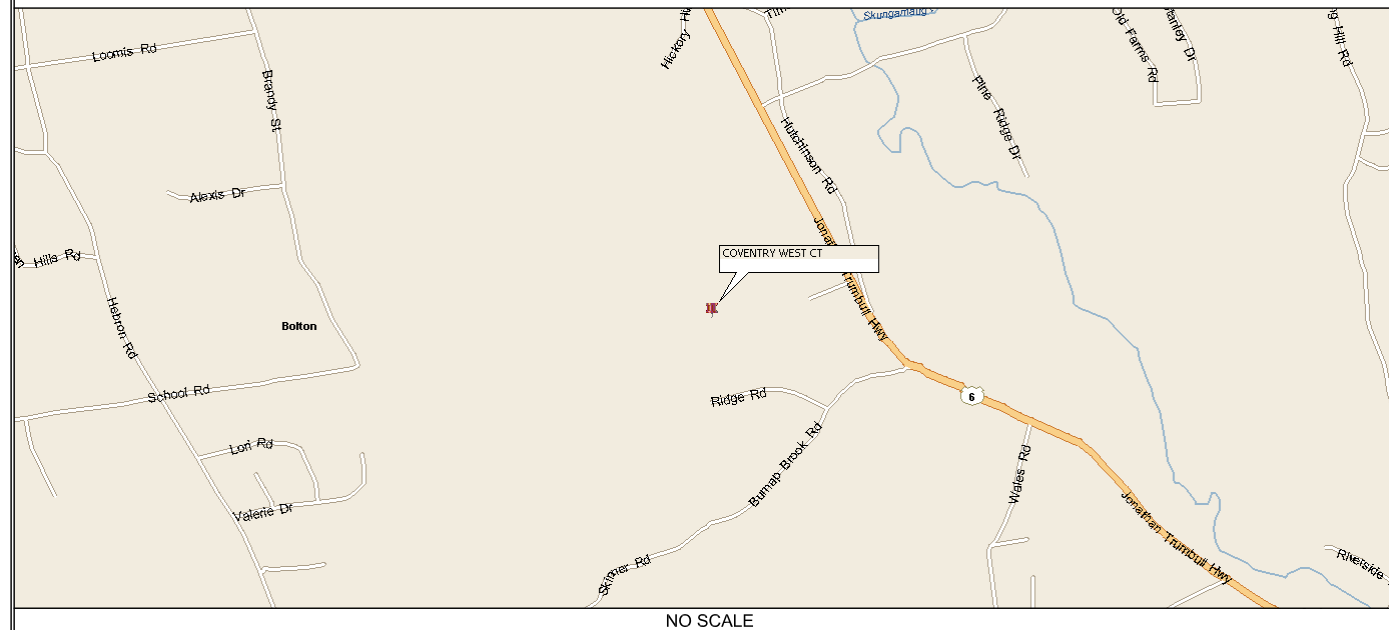
verizon

COVENTRY WEST CT 122 JONATHAN TRUMBULL HWY ANDOVER, CT 06232

PROJECT SUMMARY

SITE NAME: COVENTRY WEST CT
 SITE ADDRESS: 122 JONATHAN TRUMBULL HWY ANDOVER, CT 06232
 TOWER OWNER: CROWN CASTLE
 2000 CORPORATE DR
 CANONSBURG, PA 15317
 842856
 BU NUMBER:
 MAP NUMBER: N/A
 LOT NUMBER: N/A
 CUSTOMER/APPLICANT: VERIZON WIRELESS
 400 FRIEBERG PARKWAY
 WESTBOROUGH, MA 01581
 DAN MYZYRI
 (617) 945-7288
 CONTACT:
 NAD83
 LATITUDE: 41° 45' 0.46" N
 LONGITUDE: 72° 24' 9.63" W
 ELEVATION: 550'
 CURRENT ZONING: N/A
 A&E FIRM: B+T GROUP
 1717 S. BOULDER, SUITE 300
 TULSA, OK 74119
 STEVE THORNHILL
 (918) 587-4630
 OCCUPANCY TYPE: UNMANNED
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

LOCATION MAP



DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	1
A-1	COMPOUND PLAN AND TOWER ELEVATION	1
A-2-A-4	EQUIPMENT DETAILS	1
S-1-S-4	STRUCTURAL DETAILS	1

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
OWNER:		
R.F. ENGINEER:		
CONSTRUCTION MGR.:		
LEASING & ZONING:		
VERIZON WIRELESS:		

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!



CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING	IBC 2015
STRUCTURAL	IBC 2015
MECHANICAL	IMC 2015
ELECTRICAL	NEC 2017

DRIVING DIRECTIONS

DEPART FROM BRADLEY INTERNATIONAL AIRPORT ONTO TERMINAL RD. ROAD NAME CHANGES TO BRADLEY FIELD CONNECTOR. ROAD NAME CHANGES TO CT-20 [BRADLEY FIELD CONNECTOR]. TAKE RAMP ONTO I-91 [RICHARD P HORAN MEMORIAL HWY]. AT EXIT 35A, TAKE RAMP ONTO I-291. TURN OFF ONTO RAMP. KEEP STRAIGHT TO STAY ON RAMP. TAKE RAMP ONTO I-384. ROAD NAME CHANGES TO US-44 [US-6]. BEAR RIGHT ONTO US-6 [HOPRIVER RD]. TURN RIGHT ONTO BURNAP BROOK RD. TURN RIGHT ONTO RIDGE RD. TURN RIGHT ONTO LOCAL ROAD. ARRIVE AT COVENTRY WEST CT.

PROJECT NO: 135726.002.01
CHECKED BY: FWP

ISSUED FOR:

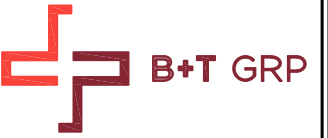
REV	DATE	DRWN	DESCRIPTION
A	10/18/19	STH	PERMITTING
0	12/17/19	STH	CONSTRUCTION
1	5/1/20	RMC	CONSTRUCTION

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



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400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

COVENTRY WEST CT

122 JONATHAN TRUMBULL HWY
ANDOVER, CT 06232
EXISTING MONOPOLE

PROJECT NO: 135726.002.01
CHECKED BY: FWP

ISSUED FOR:

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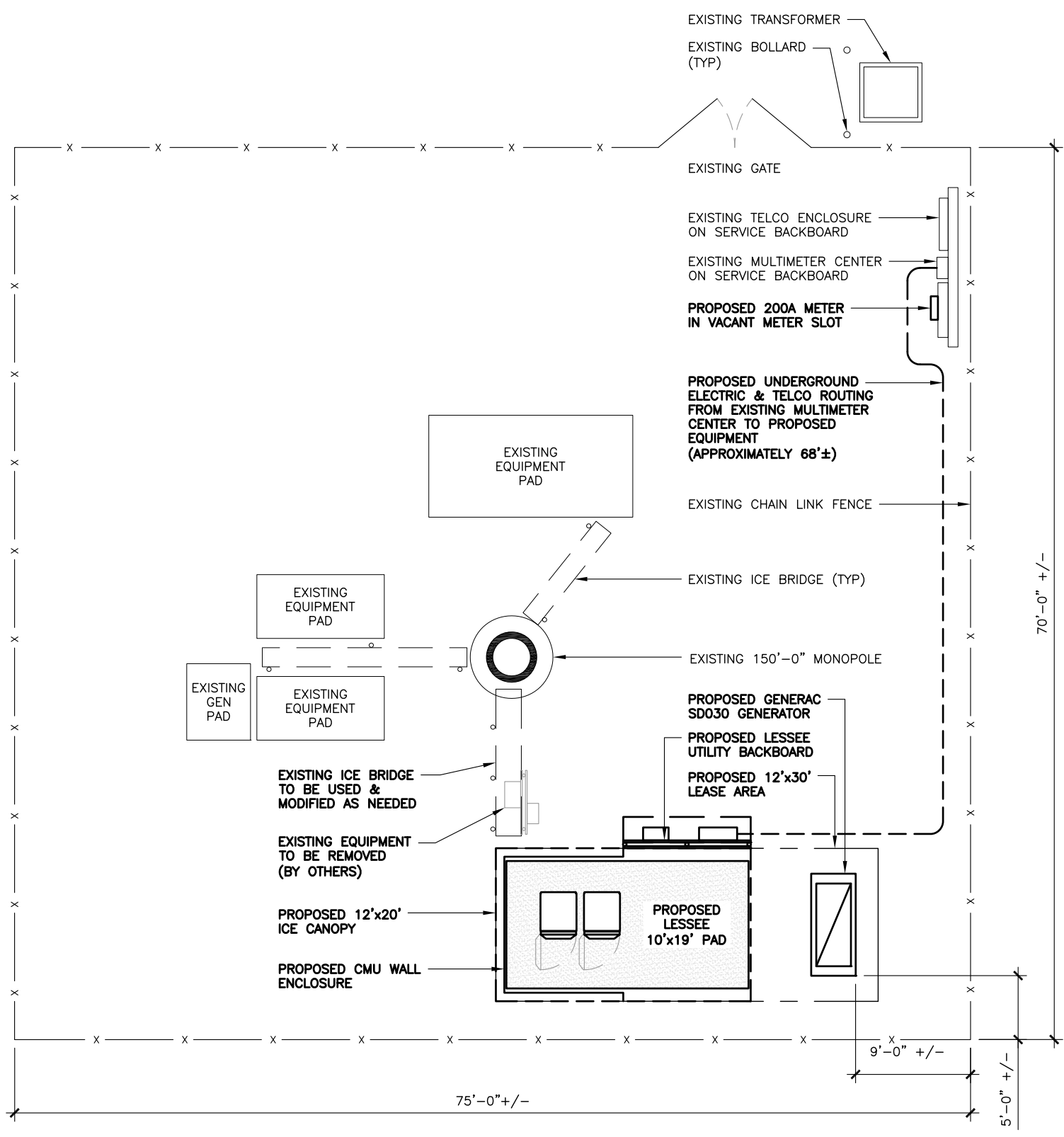
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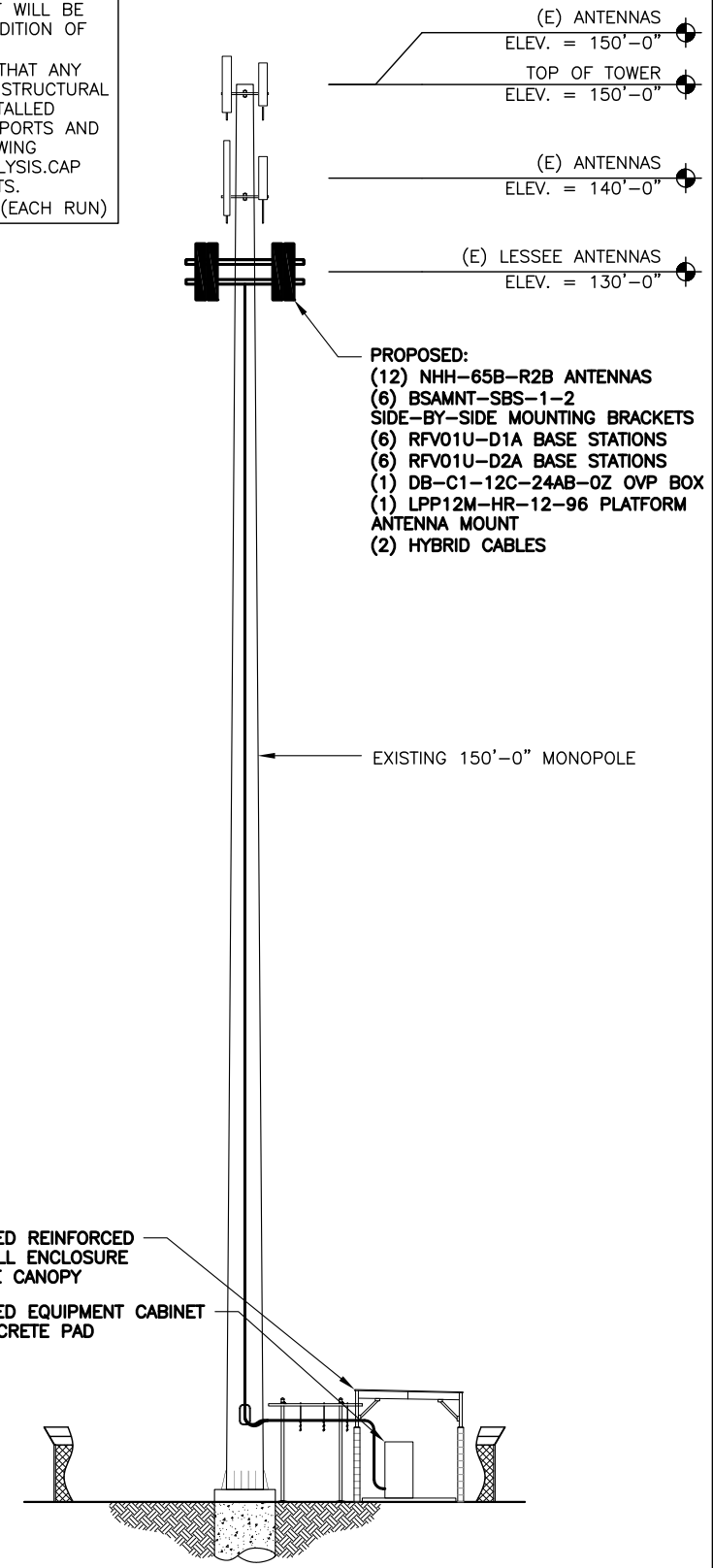
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- NOTES:
- CONTRACTOR TO VERIFY EXACT COAX AND ANTENNA INSTALLATION AND ANTENNA HEIGHT WITH LATEST RF DATA SHEETS PRIOR TO INSTALLATION.
 - STRUCTURAL ANALYSIS DONE BY OTHERS.
 - VERIZON SHALL PROVIDE A STRUCTURAL ANALYSIS OF THE TOWER PREPARED BY A LICENSED STATE STRUCTURAL ENGINEER CERTIFYING THAT THE EXISTING TOWER AND PROPOSED IMPROVEMENTS HAVE SUFFICIENT CAPACITY TO SUPPORT ALL NEW WORK THAT WILL BE DONE IN COMPLIANCE WITH THE CURRENT EDITION OF BUILDING CODES AND EIA/TIA CRITERIA. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY AND ALL IMPROVEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, SUPPORTS AND APPURTENANCES PROPOSED ON THESE DRAWING OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.CAP AND WEATHERPROFF UNUSED ANTENNA PORTS.
 - ESTIMATED HYBRIFLEX CABLE LENGTH: 180' (EACH RUN)



1 COMPOUND PLAN
SCALE: 0' 1' 4' 8' 16'

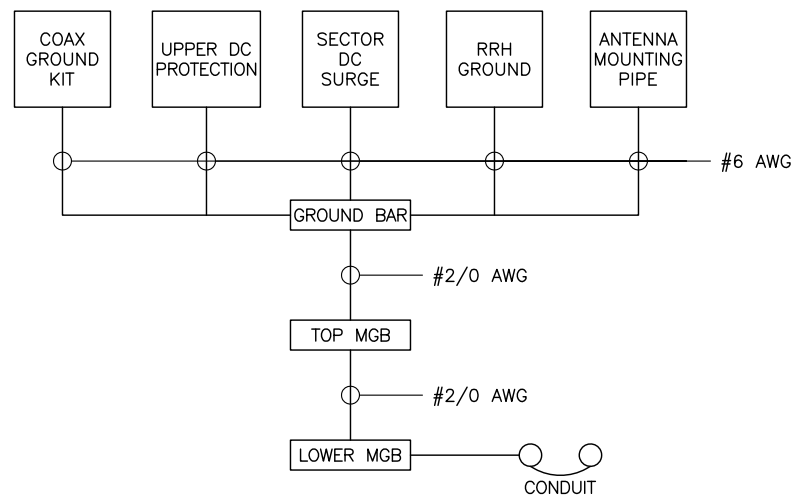


2 FINAL TOWER ELEVATION
SCALE: N.T.S.

135726_842856_Andover North.dwg -- Sheet:A-1 -- User: rcarson -- May 01, 2020 -- 3:41pm

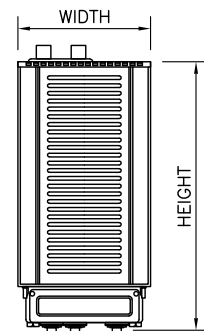
- NOTE:
1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS AND HARDWARE ACCORDING WITH MANUFACTURE'S RECOMMENDATIONS.
 2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES AND RRHs IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
 3. INSTALLED EQUIPMENT AND MOUNTING BRACKETS SHALL NOT INTERFERE WITH CLIMBING ACCESS NOR ANT INSTALLED SAFETY DEVICES.
 4. EQUIPMENT TO BE INSTALLED AT VERIZON'S RAD. CENTER IN ACCORDANCE WITH TOWER STRUCTURAL ANALYSIS (ANALYSIS BY OTHERS).

BASE STATIONS DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
RFV01U-D1A	15"	15"	10"	84.4 LBS
RFV01U-D2A	15"	15"	8.1"	70.3 LBS

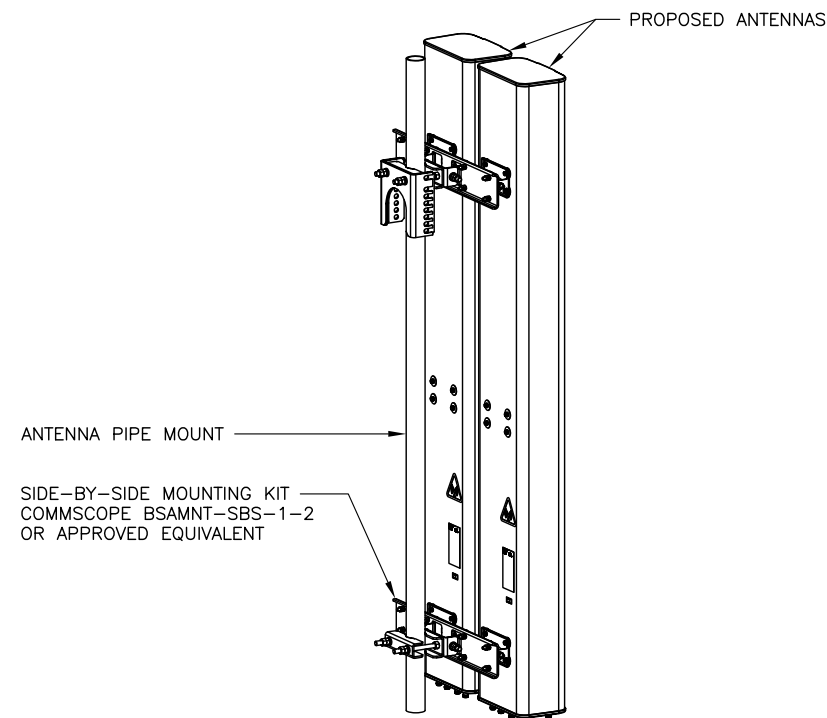


- NOTE:
1. BOND ANTENNA GROUNDING KIT CABLES TO TOP CIBE.
 2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIBE.
 3. TYPICAL FOR ALL SECTORS.

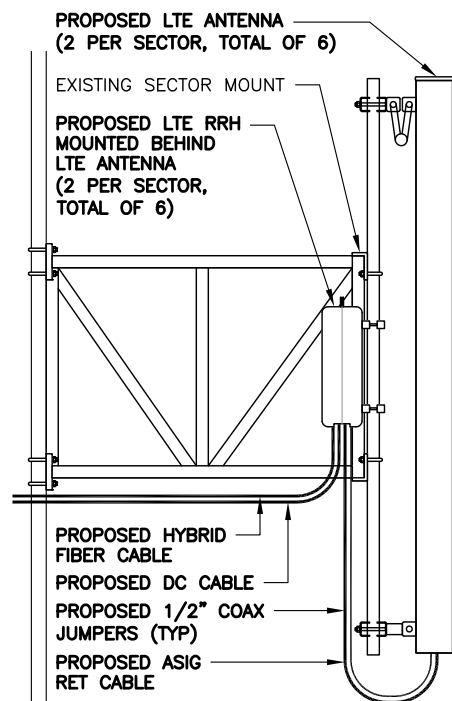
1 GROUNDING SCHEMATIC DIAGRAM
SCALE: N.T.S.



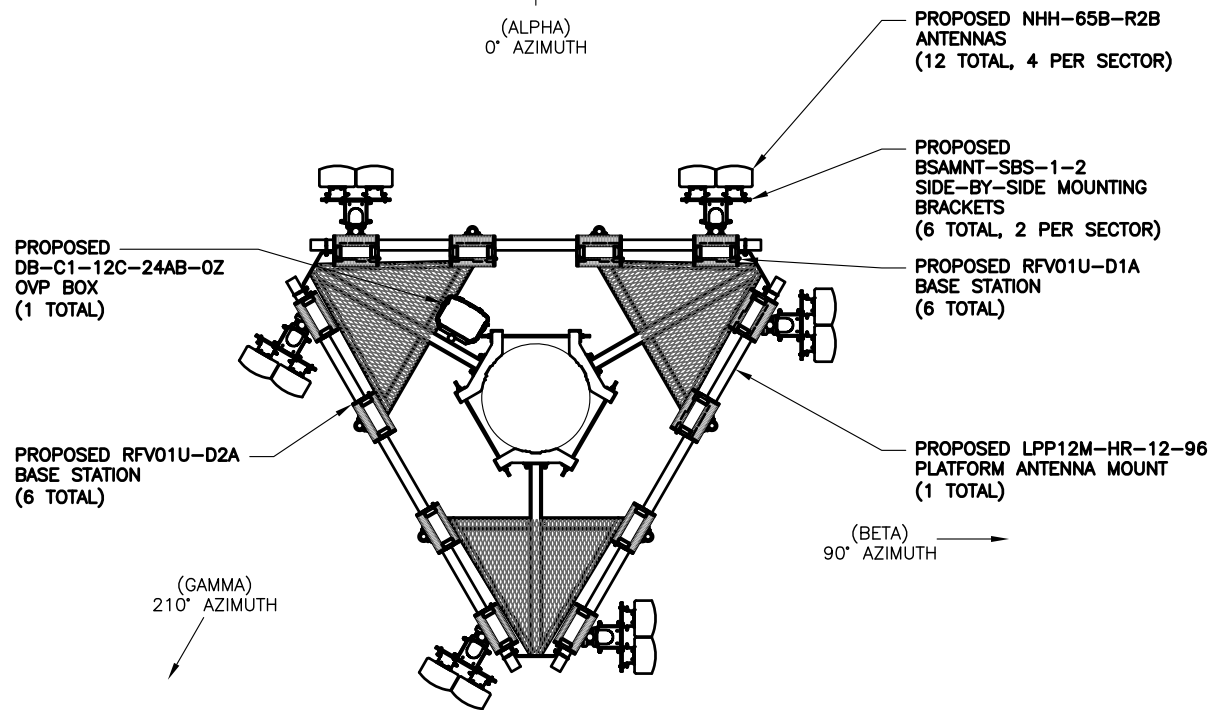
2 RRH SPECIFICATIONS
SCALE: N.T.S.



3 ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



4 ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



5 PROPOSED ANTENNA ORIENTATION
SCALE: N.T.S.



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EXISTING MONOPOLE

PROJECT NO: 135726.002.01
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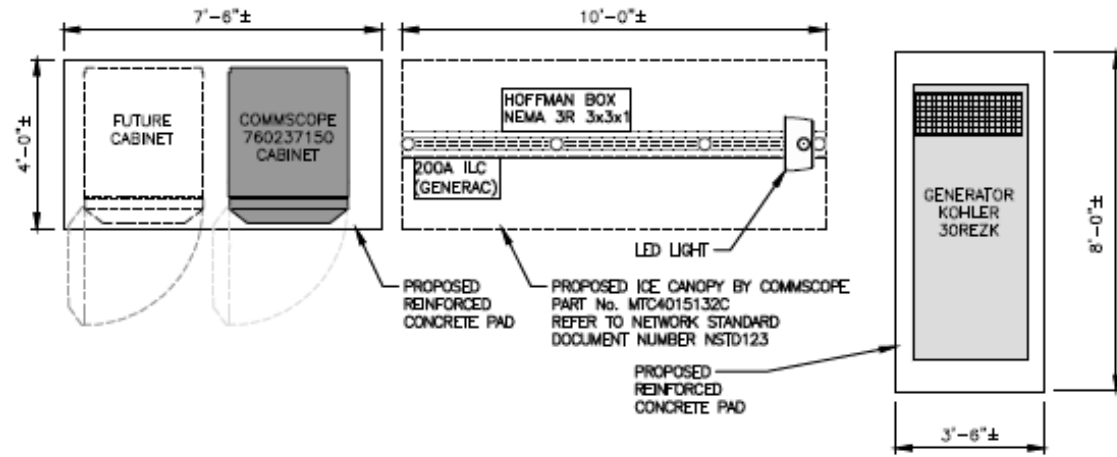
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SHEET NUMBER: **A-2** REVISION: **1**



1 EQUIPMENT PLAN
SCALE: N.T.S.



COOPER LIGHTING NFFLD NIGHT FALCON
NFFLD-A25-E-UNV-66-S-BK
SLIPFITTER MOUNT AND VANDAL SHIELD
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

2 LED FLOOD LIGHT DETAIL
SCALE: N.T.S.

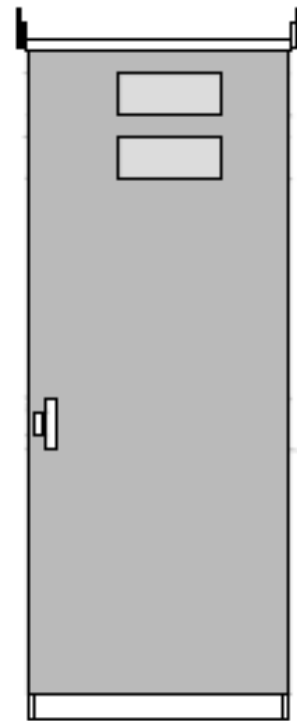


INTERMATIC WP1220C
TYPE: DOUBLE GANG
HINGE: VERTICAL
INSERT: WP217
DEPTH: 2-1/4"
COLOR: CLEAR
OR APPROVED EQUIVALENT

3 SWITCH DETAIL
SCALE: N.T.S.



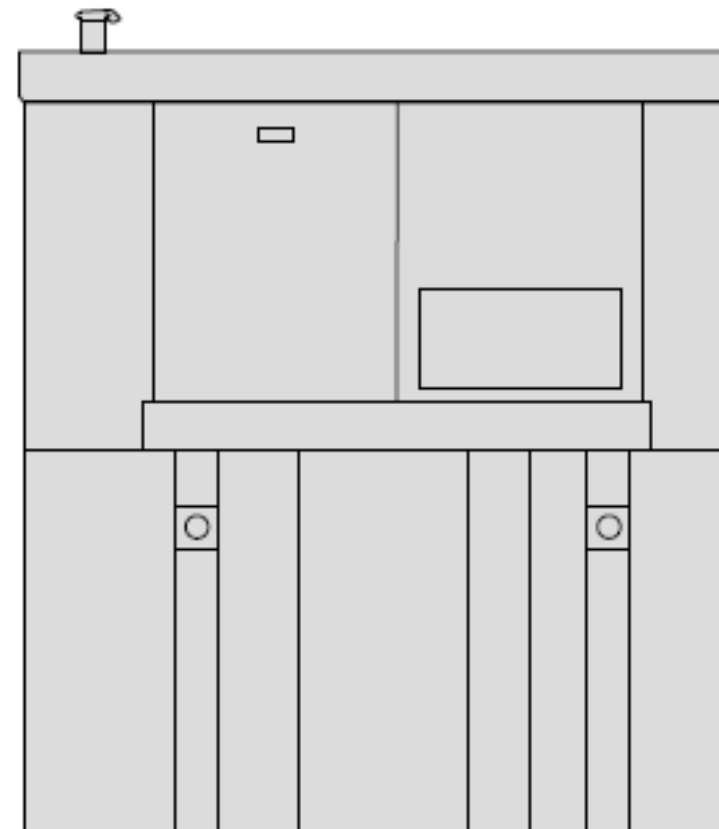
INTERMATIC FF6H
TIME CYCLE: 6 HOURS
SWITCH: SPST
HOLD: NO
OR APPROVED EQUIVALENT



SPECIFICATIONS:
MANUFACTURER: COMMSCOPE
PART NO: 760237150
SIZE: 86"x33"x44"

NOTE:
ANCHOR CABINET TO CONCRETE
PAD PER MANUFACTURER'S
RECOMMENDATIONS

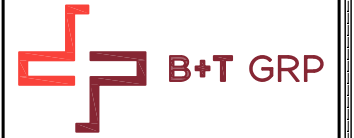
4 EQUIPMENT CABINET DETAIL
SCALE: N.T.S.



SPECIFICATIONS:
MANUFACTURER: KOHLER
PART NO: 30REZK
SIZE: 76.5"x32"x47"
WEIGHT: 1130 LBS

NOTE:
ANCHOR CABINET TO CONCRETE
PAD PER MANUFACTURER'S
RECOMMENDATIONS

5 GENERATOR DETAIL
SCALE: N.T.S.



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PROJECT NO: 135726.002.01
CHECKED BY: FWP

ISSUED FOR:

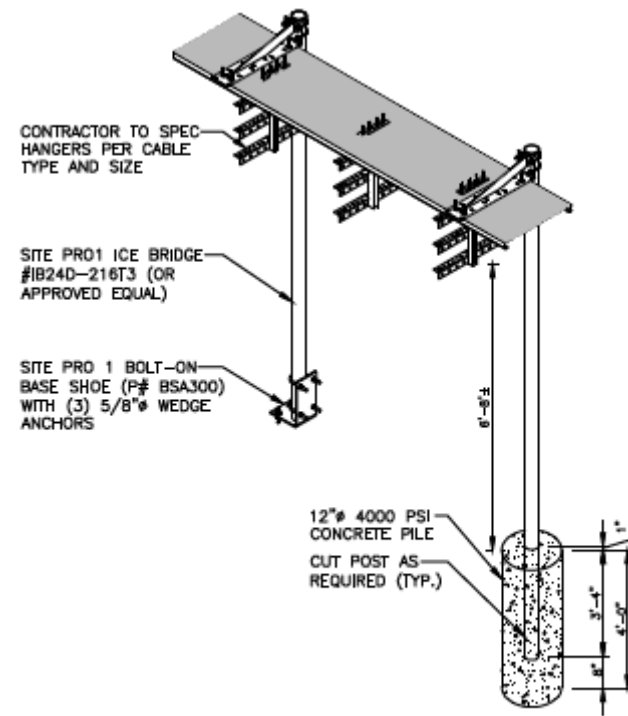
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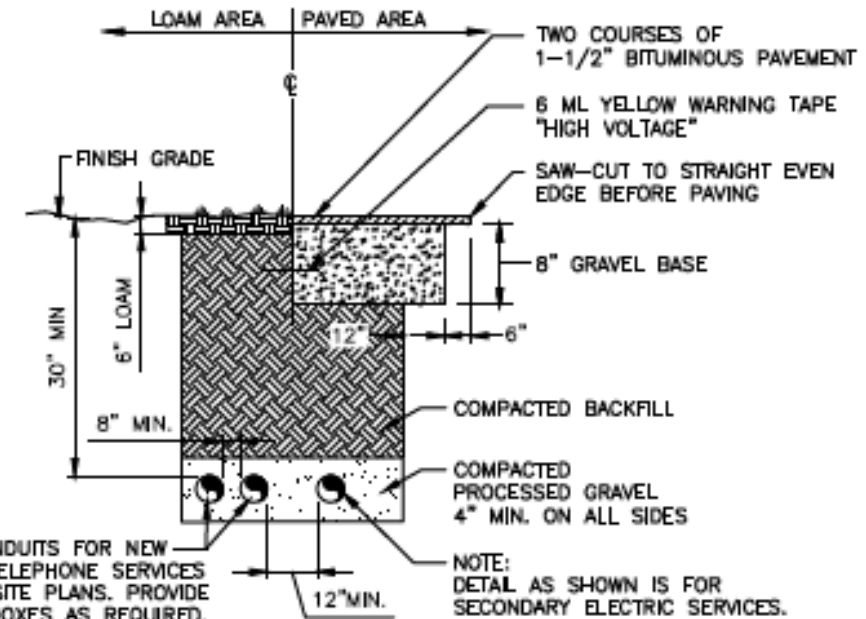


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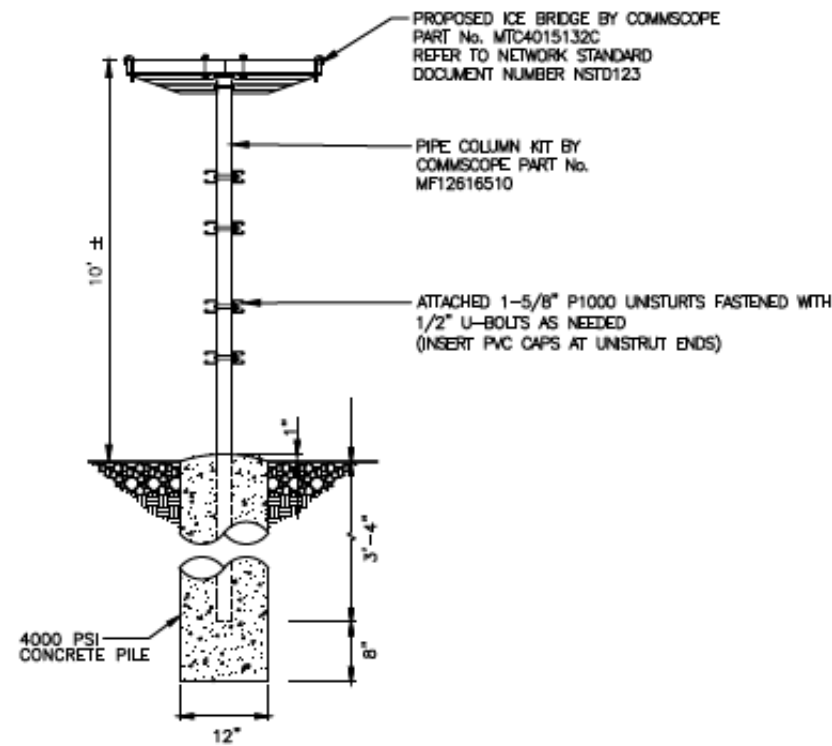
1 COAX ICE BRIDGE
SCALE: N.T.S.



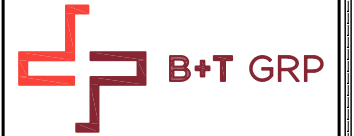
SCHEDULE 40 CONDUITS FOR NEW ELECTRICAL AND TELEPHONE SERVICES SEE UTILITY AND SITE PLANS. PROVIDE APPROVED PULL BOXES AS REQUIRED, AND COORDINATE INSTALLATION W/ ALL UTILITY COMPANIES FOR INTERFACING AT TERMINATION POINTS. PROVIDE FULL LENGTH PULL ROPES (TYP.).

NOTE: DETAIL AS SHOWN IS FOR SECONDARY ELECTRIC SERVICES. PRIMARY HIGH VOLTAGE SERVICE REQUIRES 4\"/>

2 TYPICAL DIRECT JOIN SERVICE BURIED CONDUIT DETAIL
SCALE: N.T.S.



3 ICE CANOPY DETAIL
SCALE: N.T.S.



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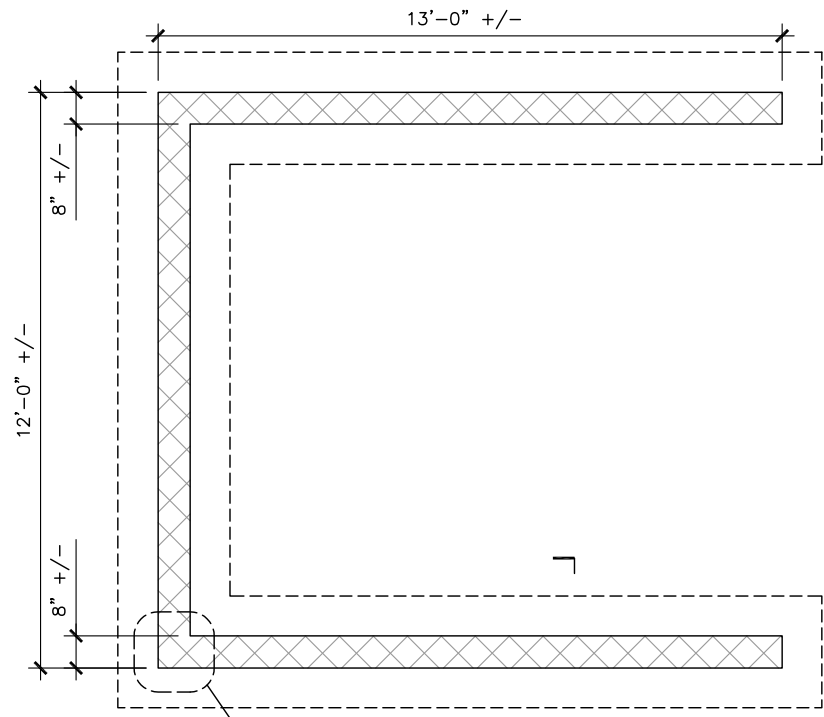


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SHEET NUMBER: A-4
REVISION: 1

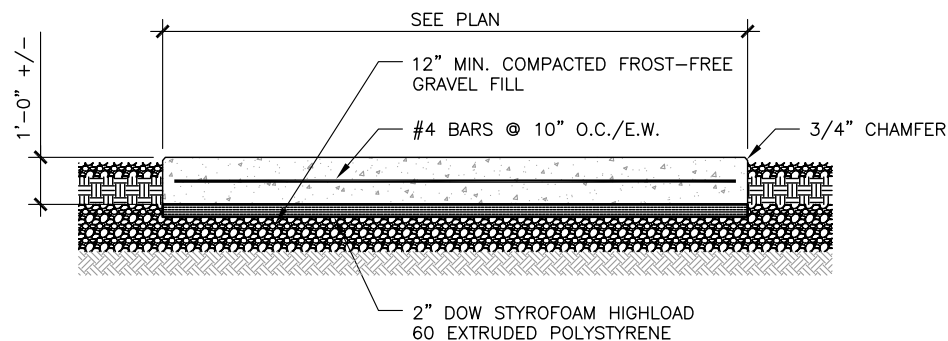
FOUNDATION NOTES & CONCRETE SPECIFICATIONS:

- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



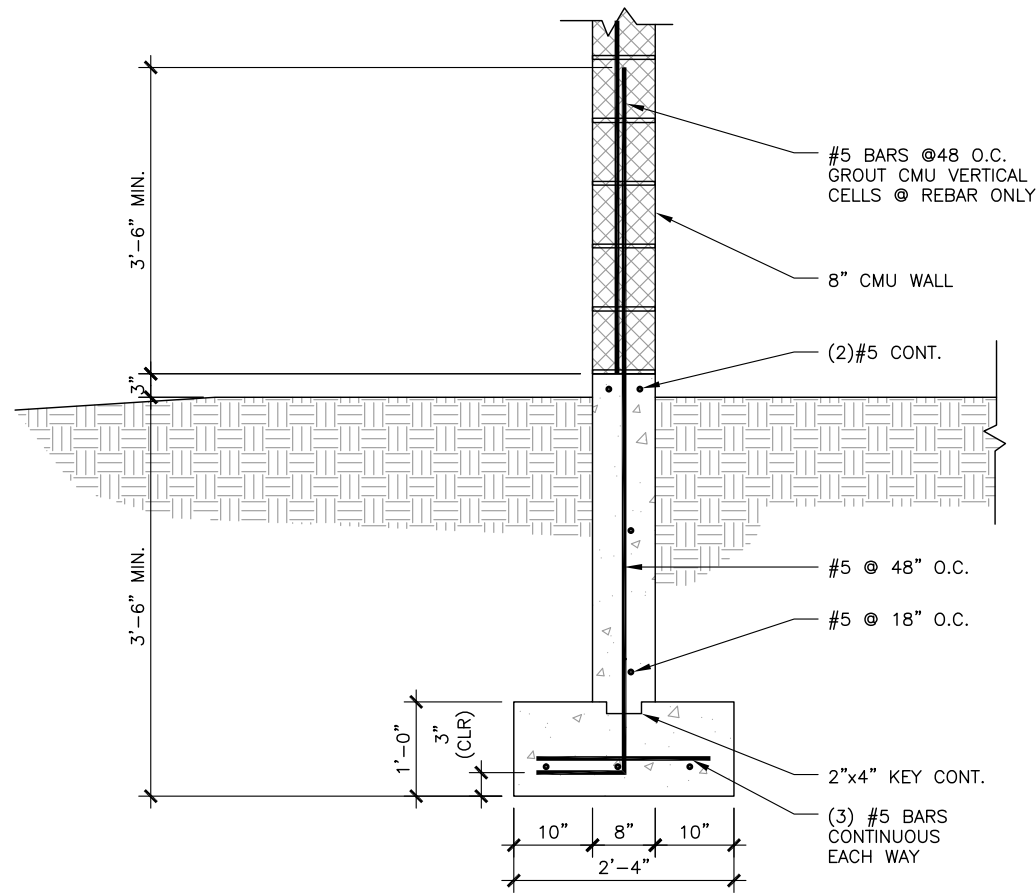
1 REINFORCED FOUNDATION PLAN

SCALE: 0' 1' 2' 4' 10'



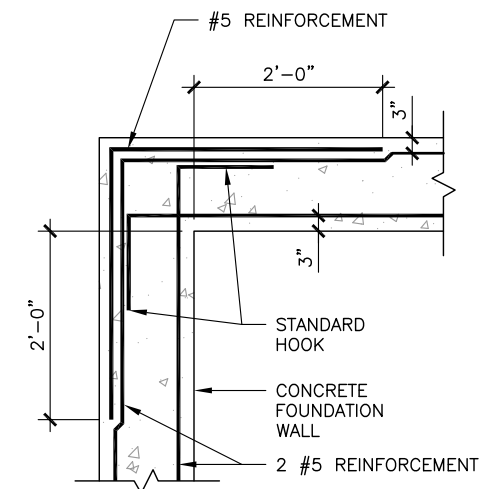
3 CONCRETE PAD DETAIL

SCALE: N.T.S.



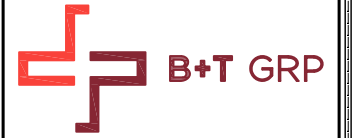
2 FOUNDATION DETAIL

SCALE: 0' 1' 2' 4' 8'



4 FOUNDATION CORNER DETAIL

SCALE: 0' 1' 2' 4' 8'



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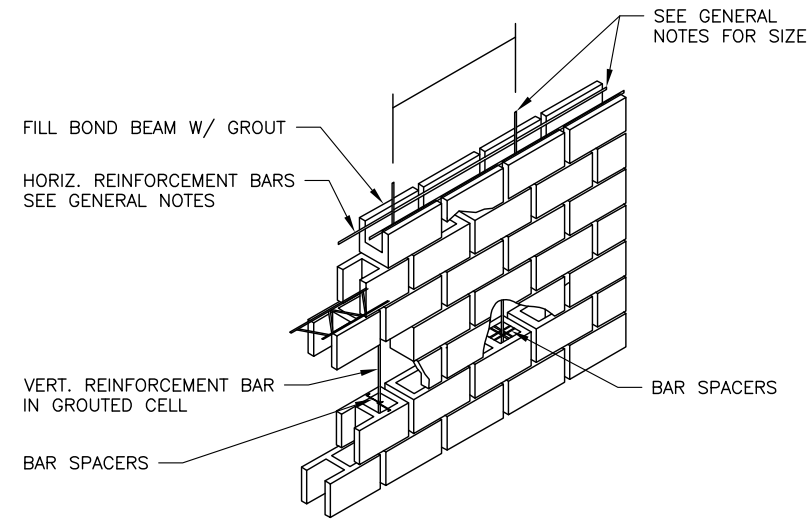
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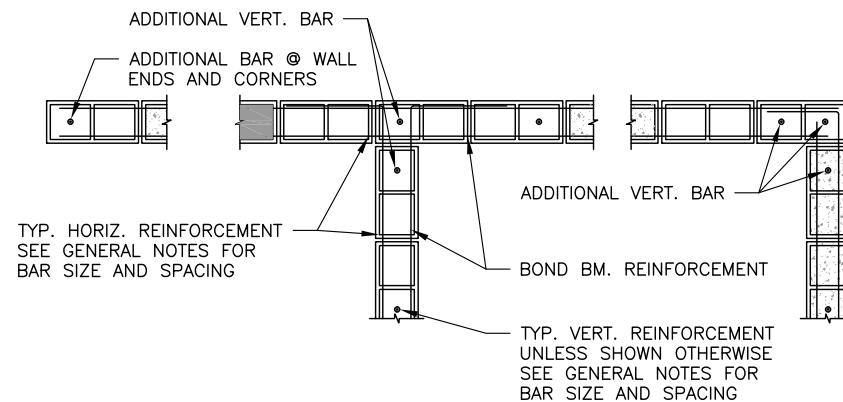
S-1 1

MASONRY:

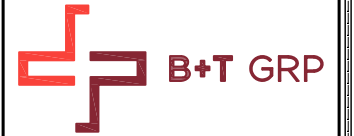
- ALL CMU SHALL BE TWO-CELL TYPE UNITS EXCEPT LINTELS WHICH SHALL BE U-SHAPE UNITS.
- BOND BEAM UNITS MAY BE U-SHAPED OR TWO-CELL OPEN BOTTOM LINTEL BLOCK.
- ALL MASONRY BOND BEAMS, LINTELS, AND VERTICALLY GROUTED CELLS SHALL BE FILLED SOLIDLY WITH CONCRETE GROUT.
- USING PEA GRAVEL IS PERMISSIBLE WITH SLUMP OF 8" TO 11", ULTIMATE CONCRETE GROUT STRENGTH TO BE 3,000 PSI. MAINTAIN 4'-0" MAXIMUM LIFT FOR WALL CONSTRUCTION.
- BOND BEAMS AT CMU WALLS THAT ARE PERPENDICULAR TO EACH OTHER SHALL MEET AT THE SAME ELEVATION AND THE REINFORCING SHALL BE LAPPED AS REQUIRED.
- MORTAL TYPE: ASTM C270, TYPE M OR S
- PRIOR TO GROUTING CELLS, BARS AND CELLS MUST BE INSPECTED BY TESTING AGENCY.
- MASONRY BLOCK CELLS CONTAINING VERTICAL REINFORCING, BOND BEAMS, AND CELLS WITH ANCHORS SHALL BE GROUTED SOLID, FILLING CELLS WITH MORTAR IS UNACCEPTABLE. THE COMPRESSIVE STRENGTH OF GROUT AT THE END OF 28 DAYS SHALL BE 3,000 PSI.
- CONCRETE MASONRY UNITS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE ERECTED AS LOAD BEARING CONCRETE MASONRY WITH A MINIMUM PRISM STRENGTH OF $f'_m = 1,500$ PSI. INDIVIDUAL UNIT COMPRESSIVE STRENGTH OF 2,000 PSI AND FULL INSPECTION. COMPLY WITH NATIONAL CONCRETE MASONRY ASSOCIATION SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY FOR MATERIALS, METHODS AND WORKMANSHIP NOT OTHERWISE SHOWN FOR THESE WALLS.
- INSTALL VERTICAL REINFORCING BARS IN WALLS AS SHOWN ON DRAWINGS. ADD 2-#8 VERTICAL BARS AT EACH SIDE OF OPENINGS. POSITION ALL VERTICAL BARS WITH 9 GAUGE POSITIONERS (5/S-4) BY DUR-O-WAL, OR APPROVED EQUAL, LOCATED AT TOP OF FIRST COURSE. ONE PLACEMENT OF THE BARS. HORIZONTAL JOINT REINFORCEMENT SHALL BE EXTRA HEAVY LADDER TYPE AT 16 INCHES ON CENTER FOR 8 INCH WALLS.
- ALIGN CORNERS OF UNITS VERTICALLY TO PROVIDE PROPER INSTALLATION OF VERTICAL REINFORCING BARS AND GROUTING. COMPLETELY FILL ALL CORES CONTAINING REINFORCING BARS AND BOND BEAMS WITH HIGH STRENGTH PORTLAND CEMENT GROUT. FILL ALL CORES OF UNITS SOLID WITH MORTAR AT WALL ANCHORS AND INSERTS.



1 TYP. MASONRY WALL REINFORCING - ISOMETRIC VIEW
SCALE: N.T.S.



2 TYP. MASONRY WALL REINFORCING DETAIL
SCALE: N.T.S.



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COVENTRY WEST CT

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EXISTING MONOPOLE

PROJECT NO: 135726.002.01

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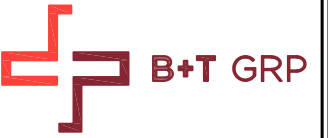
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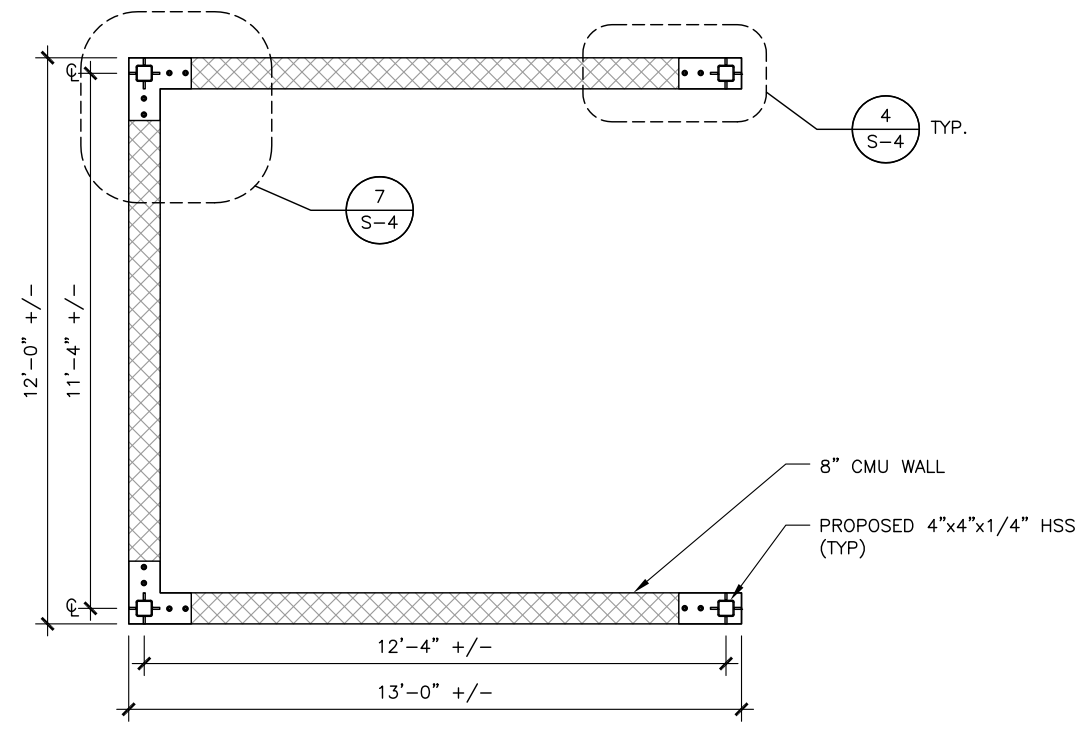
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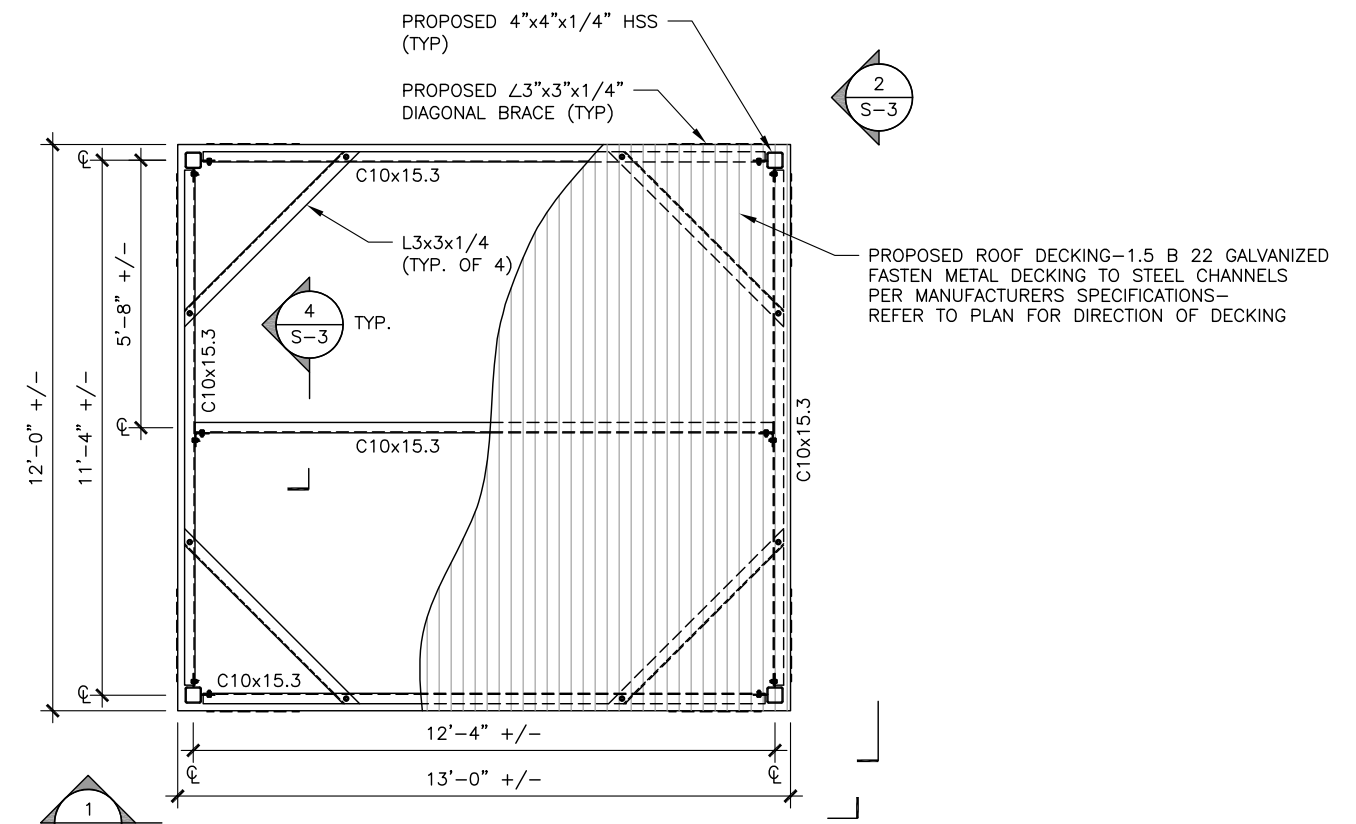


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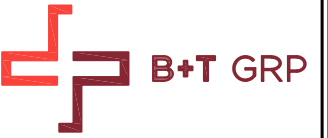
SHEET NUMBER: **S-2** REVISION: **1**



1 HSS COLUMN PLAN
SCALE: 0' 1' 2' 4' 8'



2 ICE CANOPY FRAME PLAN
SCALE: 0' 1' 2' 4' 8'

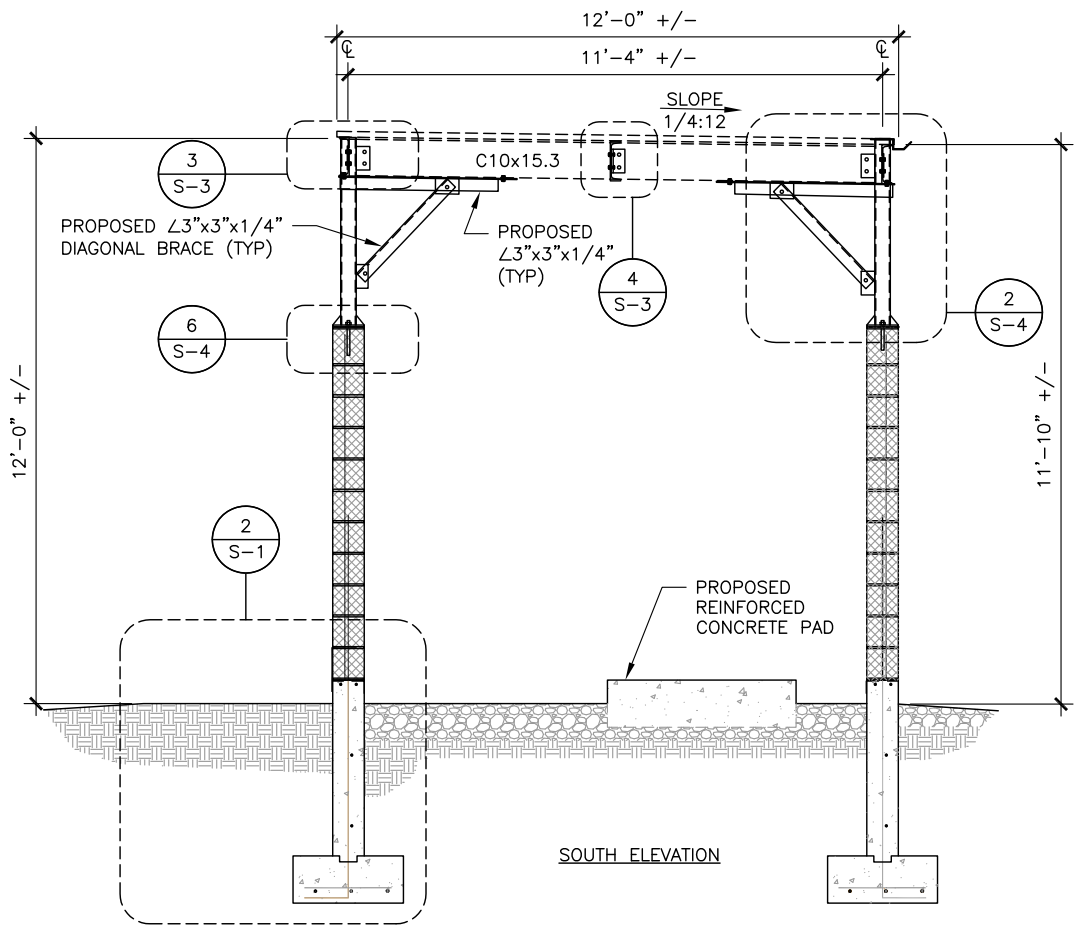
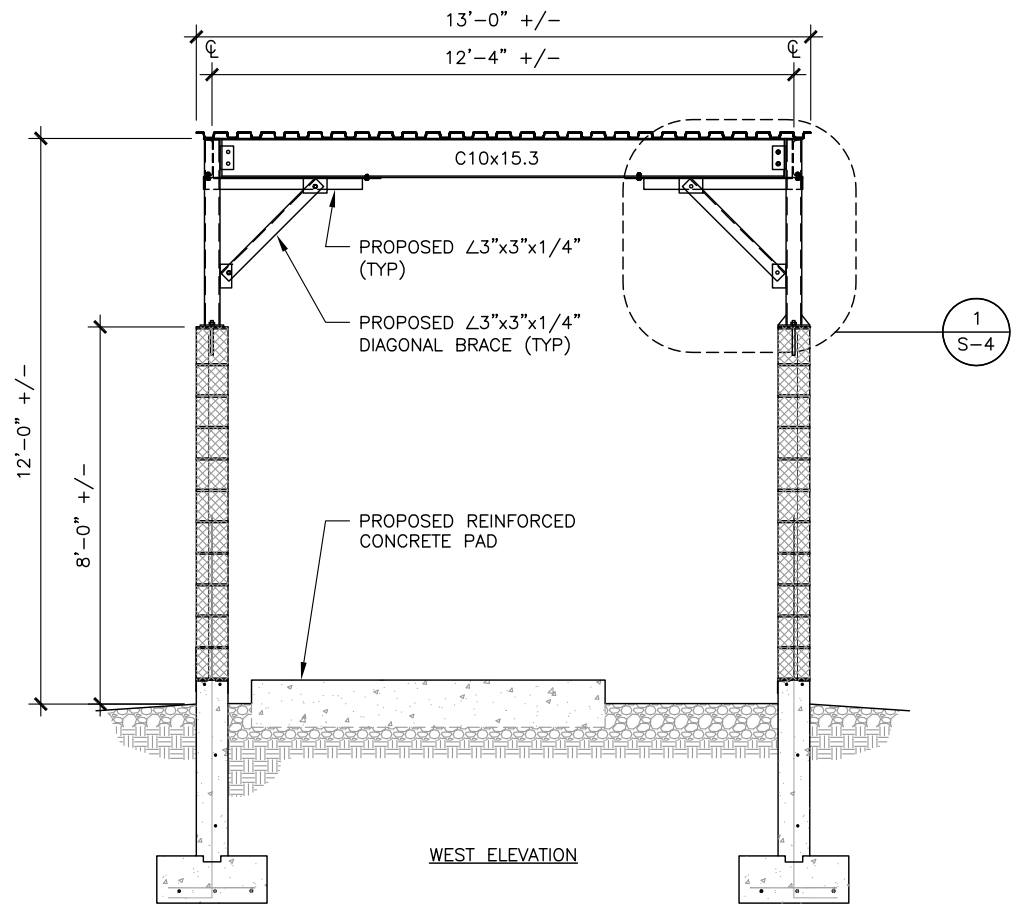


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1 EQUIPMENT ENCLOSURE SECTION

SCALE:

2 EQUIPMENT ENCLOSURE SECTION

SCALE:

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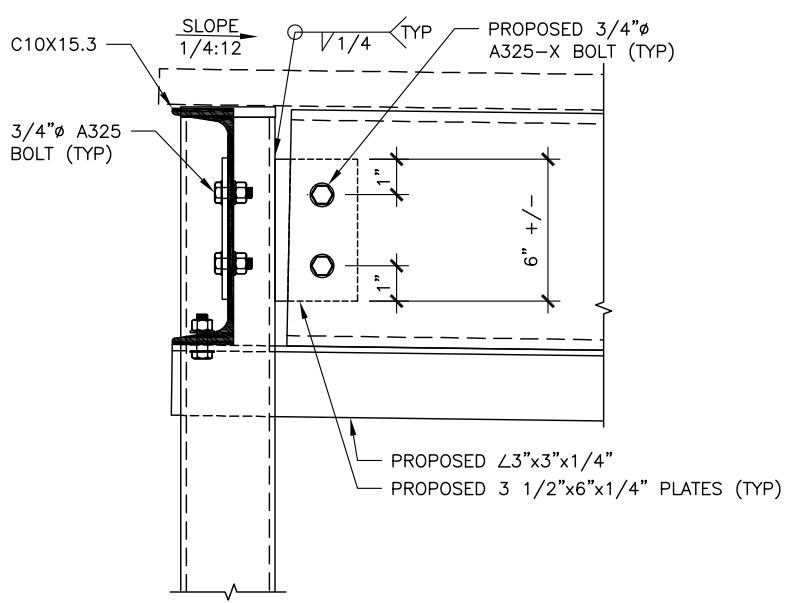
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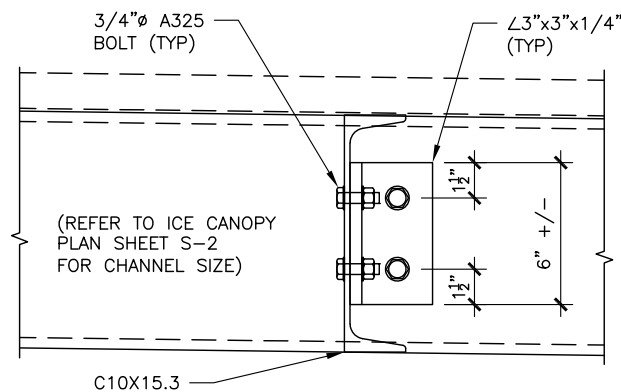
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3 CHANNEL TO CHANNEL CONNECTION

SCALE:

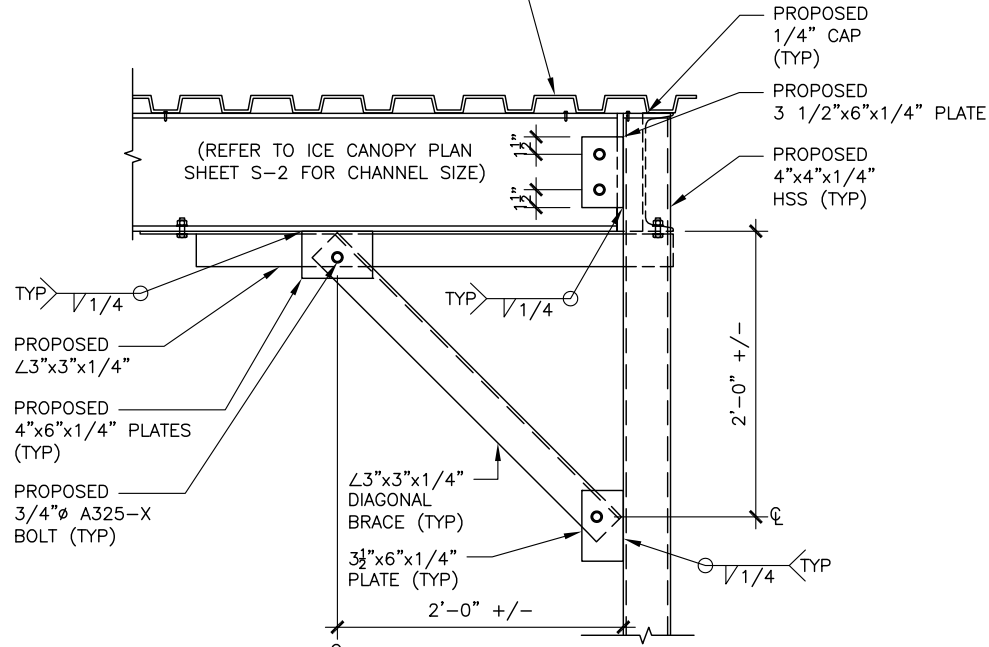


4 CHANNEL TO CHANNEL CONNECTION

SCALE:

135726_842856_Andover North.dwg - Sheet:S-3 - User: rcarson - May 01, 2020 - 3:41pm

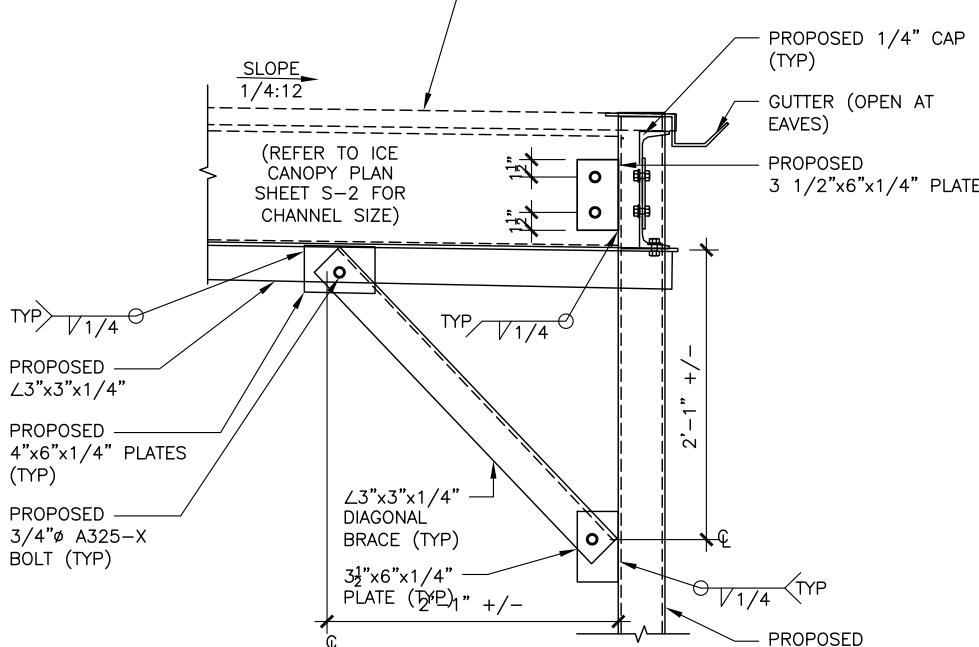
PROPOSED ROOF DECKING—1.5 B 22 GALVANIZED
FASTEN METAL DECKING TO STEEL CHANNELS
PER MANUFACTURER'S SPECIFICATIONS—
REFER TO PLAN FOR DIRECTION OF DECKING



1 ICE CANOPY ROOF DETAIL

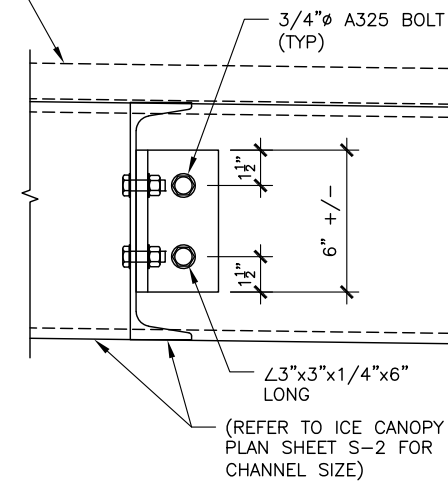
SCALE:

PROPOSED ROOF DECKING—1.5 B 22 GALVANIZED
FASTEN METAL DECKING TO STEEL CHANNELS
PER MANUFACTURER'S SPECIFICATIONS—
REFER TO PLAN FOR DIRECTION OF DECKING



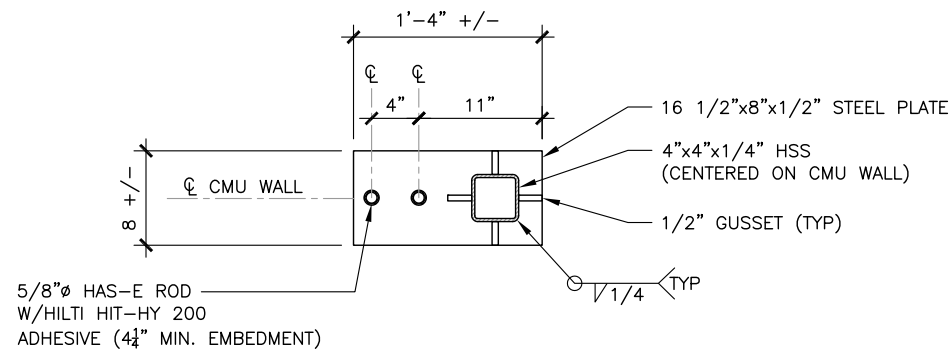
2 ICE CANOPY ROOF DETAIL

SCALE:



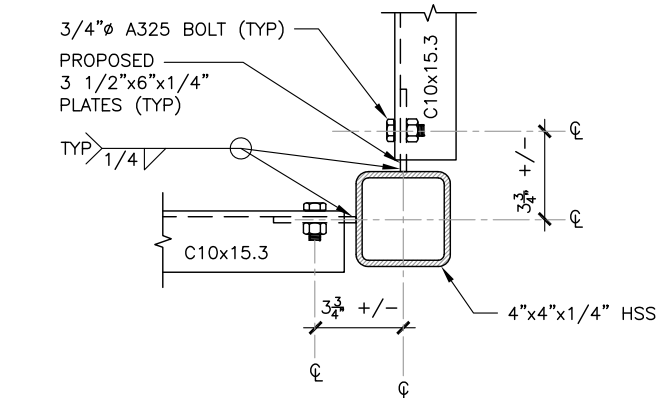
3 CHANNEL TO CHANNEL CONNECTION

SCALE:



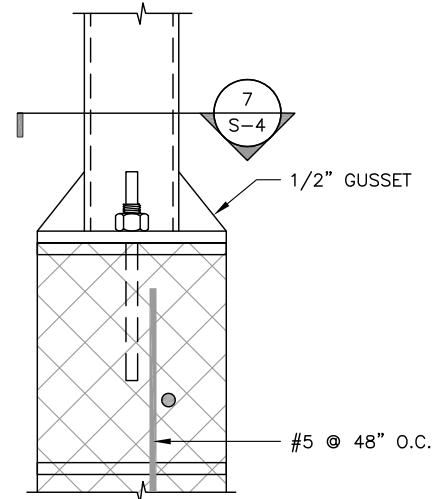
4 CANOPY PLATE DETAIL

SCALE:



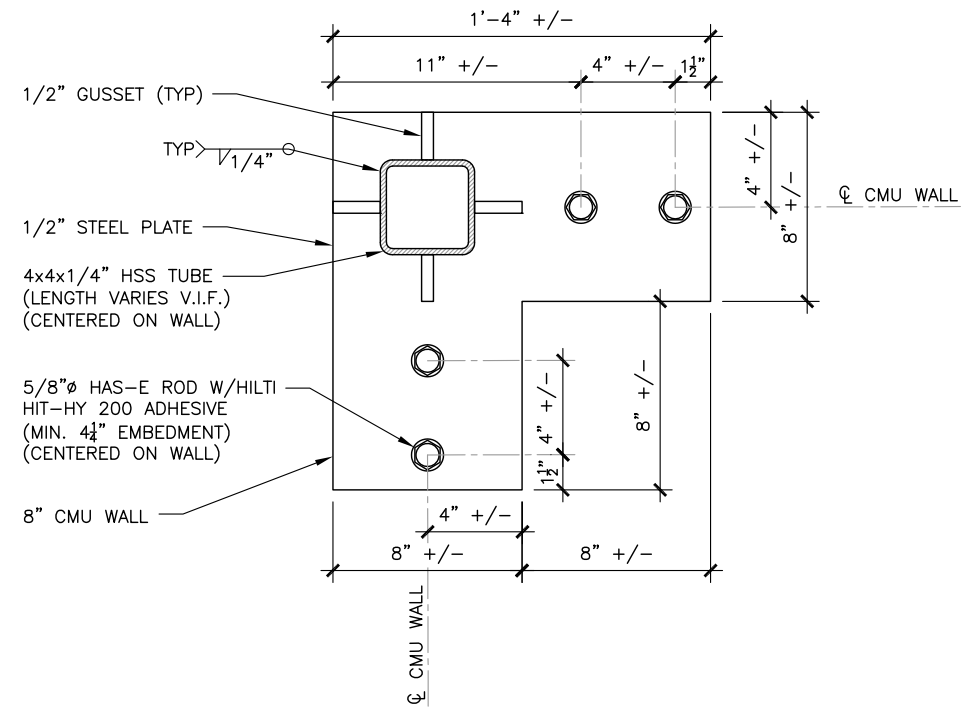
5 CHANNEL TO HSS CONNECTION DETAIL

SCALE:



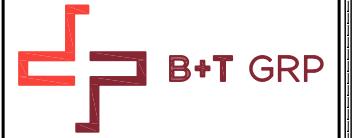
6 ROOF EDGE DETAIL

SCALE:



7 BOTTOM PLATE DETAIL

SCALE:



verizon

400 FRIBERG PARKWAY
WESTBOROUGH, MA 01581
PH: (508) 330-3300

COVENTRY WEST CT

122 JONATHAN TRUMBULL HWY
ANDOVER, CT 06232
EXISTING MONOPOLE

PROJECT NO: 135726.002.01
CHECKED BY: FWP

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	10/18/19	STH	PERMITTING
0	12/17/19	STH	CONSTRUCTION
1	5/1/20	RMC	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21



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

SHEET NUMBER: **S-4** REVISION: **1**

135726_842856_Andover North.dwg - Sheet:S-4 - User: rcarson - May 01, 2020 - 3:42pm

Exhibit E

Structural Analysis Report



GPD Engineering and Architecture
Professional Corporation

520 South Main Street, Suite 2531
Akron, OH 44311
(216) 927-8663

Date: **October 15, 2019**

Denice Nicholson
Crown Castle
3 Corporate Dr
Clifton Park, NY 12065

Subject: **Structural Analysis Report**

Carrier Designation: **Verizon Co-Locate**
Carrier Site Name: Coventry West CT

Crown Castle Designation: **Crown Castle BU Number:** 842856
Crown Castle Site Name: ANDOVER NORTH
Crown Castle JDE Job Number: 589922
Crown Castle Work Order Number: 1794290
Crown Castle Order Number: 504666 Rev. 1

Engineering Firm Designation: **GPD Group Project Number:** 2019777.842856.04

Site Data: **122 Jonathan Trumbull Hwy (Rte 6), Andover, CT 06232, Tolland County**
Latitude 41° 45' 0.46", Longitude -72° 24' 9.63"
149 Foot – Modified EEI Monopole Tower

Dear Denice Nicholson,

We are pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above mentioned tower.

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

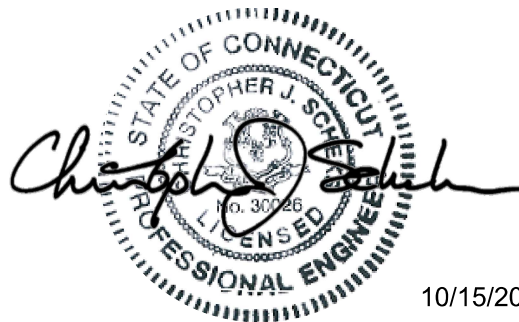
LC7: Proposed Equipment Configuration **Sufficient Capacity 91.1%**

This analysis utilizes an ultimate 3-second gust wind speed of 130 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Nicholas Colbert

Respectfully submitted by:

Christopher J. Scheks, P.E.
Connecticut #: 0030026



10/15/2019

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7) APPENDIX C

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1) INTRODUCTION

The existing tower consists of four major sections connected by slip joints. It has an 18-sided cross section and is evenly tapered from 47.5" (flat-flat) at the base to 21.5" (flat-flat) at the top. It is galvanized and doesn't have aviation lighting.

This tower is a 149 ft Monopole tower designed by EEI in November of 2003. The tower was originally designed for a wind speed of 85 mph per TIA/EIA-222-F.

The modifications designed by Crown Castle (WO #: 1070878, dated 6/30/15), consisting of replacing base plate stiffeners and adding flat plates from 44.75' - 59.75' and 80.5' – 100.5' have been considered in this analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	130 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	2.0
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
130.0	130.0	12	Commscope	NHH-65B-R2B	2	1-5/8
		6	Samsung Telecommunications	RFV01U-D1A		
		1	RFS/Celwave	DB-C1-12C-24AB-0Z		
		6	Samsung Telecommunications	RFV01U-D2A		
		3		Dual Antenna Bracket		
		1	Perfect Vision	PV-LPP12M-HR-12-96 Platform Mount		

Table 2 – Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
149.0	151.0	3	KMW Communications	AM-X-CD-16-65-00T-RET	6 2 1	1-1/4 7/8 1/2
		3	Powerwave Technologies	7770.00		
		6	Powerwave Technologies	LGP17201		
		6	Powerwave Technologies	LGP21901		
		3	Ericsson	RRUS-11		
	1	Raycap	DC6-48-60-18-8F			
	149.0	1	--	T-Arm Mount [TA 702-3]		
140.0	140.0	3	RFS/Celwave	APX16DWV-16DWV-S-E-A20	13	1-5/8
		3	RFS/Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	KRY 112 489/2		
		3	Ericsson	RADIO 4449 B12/B71		
		1	--	Side Arm Mount [SO 101-3]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Tower Drawings	EI Project #: 12026, dated 11/29/2003	4713188	CCISITES
Foundation Drawings	EI Project #: 12026, dated 12/02/2003	4529267	CCISITES
Geotechnical Report	VN Engineers Project #: 23-120G, dated 10/17/2003	4713186	CCISITES
Modification Drawings	Crown WO #: 1070878, dated 6/30/2015	5760149	CCISITES
Modification Inspection	TEP Project #: 63435.37584, dated 12/7/2015	6003147	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

- 1) The tower and structures were built and maintained in accordance with the manufacturer's specifications.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions or items in Table 3 are not valid or have been made in error. GPD should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L1	149 - 144	Pole	TP22.426x21.5x0.1875	Pole	4.7%	Pass
L2	144 - 139	Pole	TP23.352x22.426x0.1875	Pole	8.9%	Pass
L3	139 - 134	Pole	TP24.278x23.352x0.1875	Pole	15.1%	Pass
L4	134 - 129	Pole	TP25.204x24.278x0.1875	Pole	22.5%	Pass
L5	129 - 127.39	Pole	TP26.202x25.204x0.1875	Pole	26.0%	Pass
L6	127.39 - 122.39	Pole	TP26.043x25.128x0.1875	Pole	37.1%	Pass
L7	122.39 - 117.39	Pole	TP26.958x26.043x0.1875	Pole	46.8%	Pass
L8	117.39 - 112.39	Pole	TP27.873x26.958x0.1875	Pole	55.9%	Pass
L9	112.39 - 107.39	Pole	TP28.788x27.873x0.1875	Pole	64.4%	Pass
L10	107.39 - 102.39	Pole	TP29.703x28.788x0.1875	Pole	72.5%	Pass
L11	102.39 - 98.5	Pole	TP30.415x29.703x0.1875	Pole	78.4%	Pass
L12	98.5 - 98.25	Pole + Reinf.	TP30.46x30.415x0.3438	Reinf. 2 Tension Rupture	63.2%	Pass
L13	98.25 - 93.25	Pole + Reinf.	TP31.375x30.46x0.3375	Reinf. 2 Tension Rupture	69.1%	Pass
L14	93.25 - 88.25	Pole + Reinf.	TP32.29x31.375x0.3313	Reinf. 2 Tension Rupture	74.9%	Pass
L15	88.25 - 83.87	Pole + Reinf.	TP33.96x32.29x0.3313	Reinf. 2 Tension Rupture	79.9%	Pass
L16	83.87 - 78.13	Pole	TP33.763x32.716x0.25	Pole	72.9%	Pass
L17	78.13 - 73.13	Pole	TP34.675x33.763x0.25	Pole	77.3%	Pass
L18	73.13 - 68.13	Pole	TP35.586x34.675x0.25	Pole	81.4%	Pass
L19	68.13 - 63.13	Pole	TP36.497x35.586x0.25	Pole	85.4%	Pass
L20	63.13 - 58.13	Pole	TP37.408x36.497x0.25	Pole	89.2%	Pass
L21	58.13 - 57.25	Pole	TP37.568x37.408x0.25	Pole	89.9%	Pass
L22	57.25 - 57	Pole + Reinf.	TP37.614x37.568x0.4188	Reinf. 1 Tension Rupture	74.5%	Pass
L23	57 - 52	Pole + Reinf.	TP38.525x37.614x0.4125	Reinf. 1 Tension Rupture	77.5%	Pass
L24	52 - 48.76	Pole + Reinf.	TP40.121x38.525x0.4125	Reinf. 1 Tension Rupture	79.5%	Pass
L25	48.76 - 42.24	Pole	TP39.803x38.616x0.3125	Pole	75.8%	Pass
L26	42.24 - 37.24	Pole	TP40.714x39.803x0.3125	Pole	78.2%	Pass
L27	37.24 - 32.24	Pole	TP41.625x40.714x0.3125	Pole	80.6%	Pass
L28	32.24 - 27.24	Pole	TP42.536x41.625x0.3125	Pole	82.9%	Pass
L29	27.24 - 22.24	Pole	TP43.447x42.536x0.3125	Pole	85.1%	Pass
L30	22.24 - 17.24	Pole	TP44.358x43.447x0.3125	Pole	87.2%	Pass
L31	17.24 - 12.24	Pole	TP45.269x44.358x0.3125	Pole	89.2%	Pass
L32	12.24 - 7.24	Pole	TP46.18x45.269x0.3125	Pole	91.2%	Pass
L33	7.24 - 2.24	Pole	TP47.091x46.18x0.3125	Pole	93.1%	Pass
L34	2.24 - 0	Pole	TP47.5x47.091x0.3125	Pole	93.9%	Pass
					Summary	
				Pole	93.9%	Pass
				Reinforcement	79.9%	Pass
				Overall	93.9%	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1, 2	Anchor Rods	0	80.1	Pass
1, 2	Base Plate	0	87.4	Pass
1, 2	Base Foundation Structural	0	59.8	Pass
1, 2	Base Foundation Soil Interaction	0	86.3	Pass

Structure Rating (max from all components) =	93.9%
-----------------------------------------------------	--------------

Notes:

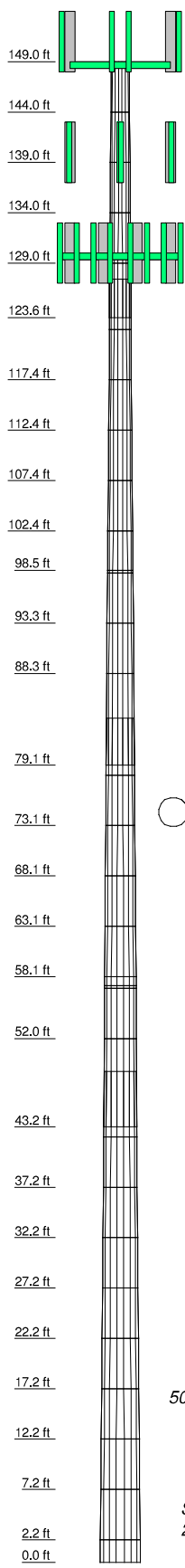
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) Rating per TIA-222-H Section 15.5.

4.1) Recommendations

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

APPENDIX A
TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.00	18	0.1875	3.78	1228.2042	1228.2042	A572-65	0.2
2	5.00	18	0.1875	3.78	1233.5521	1233.5521	A572-65	0.2
3	5.00	18	0.1875	3.78	1238.9000	1238.9000	A572-65	0.2
4	5.00	18	0.1875	3.78	1244.2479	1244.2479	A572-65	0.2
5	5.00	18	0.1875	3.78	1249.5958	1249.5958	A572-65	0.2
6	5.00	18	0.1875	3.78	1254.9437	1254.9437	A572-65	0.2
7	5.00	18	0.1875	3.78	1260.2916	1260.2916	A572-65	0.2
8	5.00	18	0.1875	3.78	1265.6395	1265.6395	A572-65	0.2
9	5.00	18	0.1875	3.78	1270.9874	1270.9874	A572-65	0.2
10	5.00	18	0.1875	3.78	1276.3353	1276.3353	A572-65	0.2
11	5.00	18	0.1875	3.78	1281.6832	1281.6832	A572-65	0.2
12	5.00	18	0.1875	3.78	1287.0311	1287.0311	A572-65	0.2
13	5.00	18	0.1875	3.78	1292.3790	1292.3790	A572-65	0.2
14	5.00	18	0.1875	3.78	1297.7269	1297.7269	A572-65	0.2
15	5.00	18	0.1875	3.78	1303.0748	1303.0748	A572-65	0.2
16	5.00	18	0.1875	3.78	1308.4227	1308.4227	A572-65	0.2
17	5.00	18	0.1875	3.78	1313.7706	1313.7706	A572-65	0.2
18	5.00	18	0.1875	3.78	1319.1185	1319.1185	A572-65	0.2
19	5.00	18	0.1875	3.78	1324.4664	1324.4664	A572-65	0.2
20	5.00	18	0.1875	3.78	1329.8143	1329.8143	A572-65	0.2
21	5.00	18	0.1875	3.78	1335.1622	1335.1622	A572-65	0.2
22	5.00	18	0.1875	3.78	1340.5101	1340.5101	A572-65	0.2
23	5.00	18	0.1875	3.78	1345.8580	1345.8580	A572-65	0.2
24	5.00	18	0.1875	3.78	1351.2059	1351.2059	A572-65	0.2
25	5.00	18	0.1875	3.78	1356.5538	1356.5538	A572-65	0.2
26	5.00	18	0.1875	3.78	1361.9017	1361.9017	A572-65	0.2
27	5.00	18	0.1875	3.78	1367.2496	1367.2496	A572-65	0.2
28	5.00	18	0.1875	3.78	1372.5975	1372.5975	A572-65	0.2
29	5.00	18	0.1875	3.78	1377.9454	1377.9454	A572-65	0.2
30	5.00	18	0.1875	3.78	1383.2933	1383.2933	A572-65	0.2
31	5.00	18	0.1875	3.78	1388.6412	1388.6412	A572-65	0.2
32	5.00	18	0.1875	3.78	1393.9891	1393.9891	A572-65	0.2
33	5.00	18	0.1875	3.78	1399.3370	1399.3370	A572-65	0.2
34	2.24	18	0.1875	5.52	1404.6849	1404.6849	A572-65	0.2

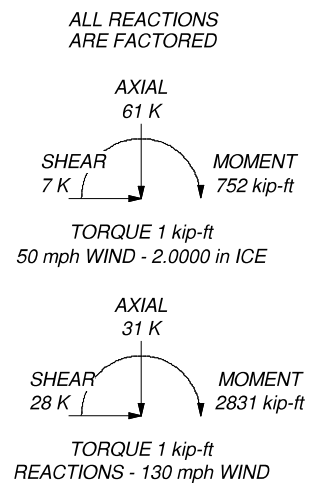



MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Tolland County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 130 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 2.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft

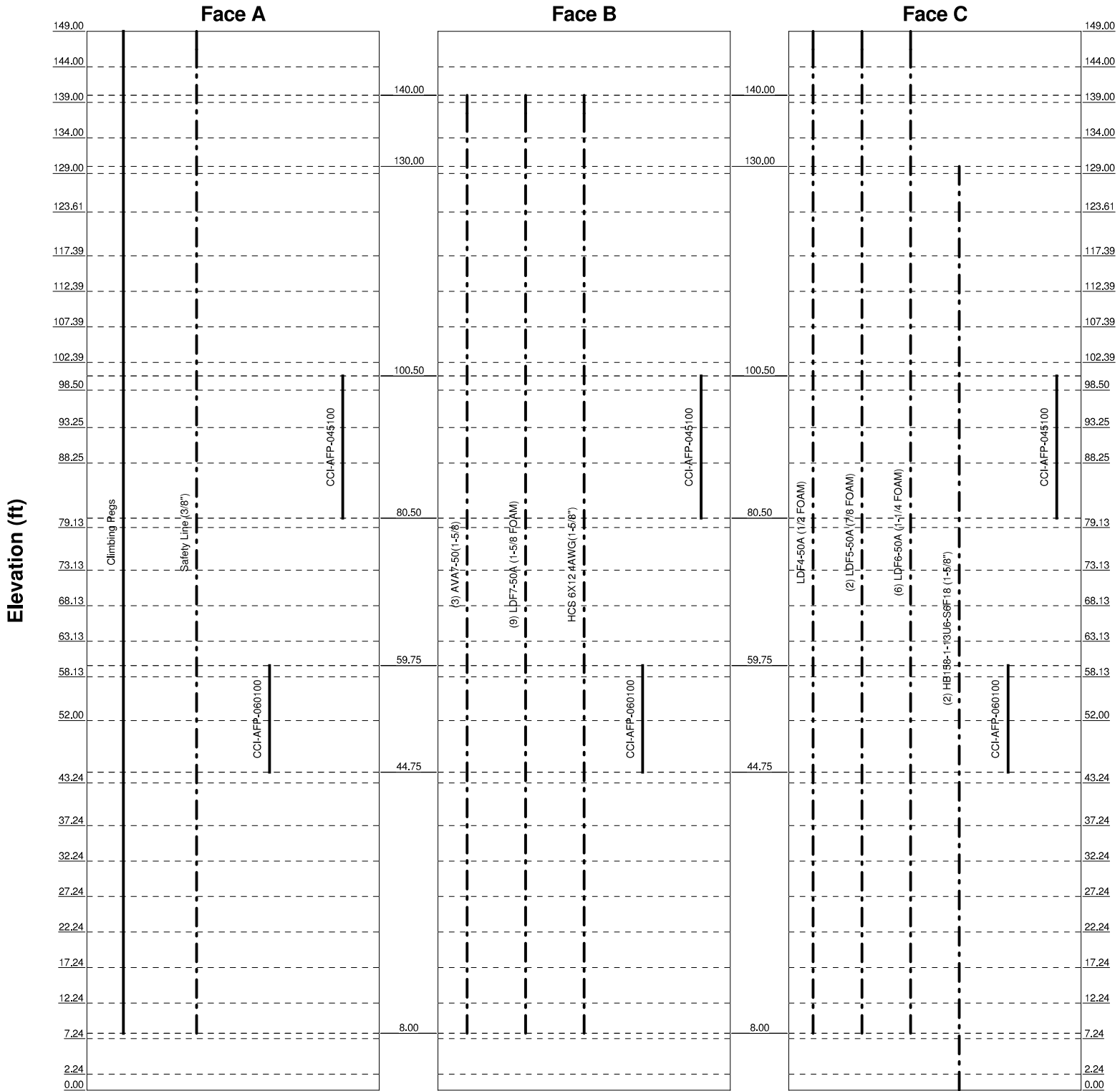


 <p>GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	Job: ANDOVER NORTH / BU#: 842856		
	Project: 2019777.842856.04		
	Client: Crown Castle USA, Inc.	Drawn by: Nicholas Colbert	App'd:
	Code: TIA-222-H	Date: 10/15/19	Scale: NTS
	Path: T:\Crown\842856\04\Rev 0\trnx\842856 Modified.eri		Dwg No. E-1

Feed Line Distribution Chart

0' - 149'

Round
 Flat
 App In Face
 App Out Face
 Truss Leg



<p>GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	Job: ANDOVER NORTH / BU#: 842856		
	Project: 2019777.842856.04		
	Client: Crown Castle USA, Inc.	Drawn by: Nicholas Colbert	App'd:
	Code: TIA-222-H	Date: 10/15/19	Scale: NTS
	Path: T:\Crown\842856\04\Rev 0\tnx\842856 Modified.eri		Dwg No. E-7

<p>tnxTower</p> <p>GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	<p>Job</p> <p>ANDOVER NORTH / BU#: 842856</p>	<p>Page</p> <p>1 of 13</p>
	<p>Project</p> <p>2019777.842856.04</p>	<p>Date</p> <p>16:51:29 10/15/19</p>
	<p>Client</p> <p>Crown Castle USA, Inc.</p>	<p>Designed by</p> <p>Nicholas Colbert</p>

Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in Tolland County, Connecticut.

Tower base elevation above sea level: 495.00 ft.

Basic wind speed of 130 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 2.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.05.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

<p>tnxTower</p> <p>GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	<p>Job</p> <p>ANDOVER NORTH / BU#: 842856</p>	<p>Page</p> <p>2 of 13</p>
	<p>Project</p> <p>2019777.842856.04</p>	<p>Date</p> <p>16:51:29 10/15/19</p>
	<p>Client</p> <p>Crown Castle USA, Inc.</p>	<p>Designed by</p> <p>Nicholas Colbert</p>

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	149.00-144.00	5.00	0.00	18	21.5000	22.4260	0.1875	0.7500	A572-65 (65 ksi)
L2	144.00-139.00	5.00	0.00	18	22.4260	23.3521	0.1875	0.7500	A572-65 (65 ksi)
L3	139.00-134.00	5.00	0.00	18	23.3521	24.2781	0.1875	0.7500	A572-65 (65 ksi)
L4	134.00-129.00	5.00	0.00	18	24.2781	25.2042	0.1875	0.7500	A572-65 (65 ksi)
L5	129.00-123.61	5.39	3.78	18	25.2042	26.2021	0.1875	0.7500	A572-65 (65 ksi)
L6	123.61-122.39	5.00	0.00	18	25.1277	26.0428	0.1875	0.7500	A572-65 (65 ksi)
L7	122.39-117.39	5.00	0.00	18	26.0428	26.9578	0.1875	0.7500	A572-65 (65 ksi)
L8	117.39-112.39	5.00	0.00	18	26.9578	27.8729	0.1875	0.7500	A572-65 (65 ksi)
L9	112.39-107.39	5.00	0.00	18	27.8729	28.7879	0.1875	0.7500	A572-65 (65 ksi)
L10	107.39-102.39	5.00	0.00	18	28.7879	29.7030	0.1875	0.7500	A572-65 (65 ksi)
L11	102.39-98.50	3.89	0.00	18	29.7030	30.4145	0.1875	0.7500	A572-65 (65 ksi)
L12	98.50-98.25	0.25	0.00	18	30.4145	30.4603	0.3438	1.3750	A572-65 (65 ksi)
L13	98.25-93.25	5.00	0.00	18	30.4603	31.3753	0.3375	1.3500	A572-65 (65 ksi)
L14	93.25-88.25	5.00	0.00	18	31.3753	32.2904	0.3312	1.3250	A572-65 (65 ksi)
L15	88.25-79.13	9.12	4.75	18	32.2904	33.9598	0.3312	1.3250	A572-65 (65 ksi)
L16	79.13-78.13	5.75	0.00	18	32.7164	33.7634	0.2500	1.0000	A572-65 (65 ksi)
L17	78.13-73.13	5.00	0.00	18	33.7634	34.6747	0.2500	1.0000	A572-65 (65 ksi)
L18	73.13-68.13	5.00	0.00	18	34.6747	35.5859	0.2500	1.0000	A572-65 (65 ksi)
L19	68.13-63.13	5.00	0.00	18	35.5859	36.4971	0.2500	1.0000	A572-65 (65 ksi)
L20	63.13-58.13	5.00	0.00	18	36.4971	37.4084	0.2500	1.0000	A572-65 (65 ksi)
L21	58.13-57.25	0.88	0.00	18	37.4084	37.5684	0.2500	1.0000	A572-65 (65 ksi)
L22	57.25-57.00	0.25	0.00	18	37.5684	37.6139	0.4188	1.6750	A572-65 (65 ksi)
L23	57.00-52.00	5.00	0.00	18	37.6139	38.5252	0.4125	1.6500	A572-65 (65 ksi)
L24	52.00-43.24	8.76	5.52	18	38.5252	40.1211	0.4125	1.6500	A572-65 (65 ksi)
L25	43.24-42.24	6.52	0.00	18	38.6156	39.8031	0.3125	1.2500	A572-65 (65 ksi)
L26	42.24-37.24	5.00	0.00	18	39.8031	40.7141	0.3125	1.2500	A572-65 (65 ksi)
L27	37.24-32.24	5.00	0.00	18	40.7141	41.6251	0.3125	1.2500	A572-65 (65 ksi)
L28	32.24-27.24	5.00	0.00	18	41.6251	42.5362	0.3125	1.2500	A572-65 (65 ksi)
L29	27.24-22.24	5.00	0.00	18	42.5362	43.4472	0.3125	1.2500	A572-65 (65 ksi)

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Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L30	22.24-17.24	5.00	0.00	18	43.4472	44.3582	0.3125	1.2500	A572-65 (65 ksi)
L31	17.24-12.24	5.00	0.00	18	44.3582	45.2693	0.3125	1.2500	A572-65 (65 ksi)
L32	12.24-7.24	5.00	0.00	18	45.2693	46.1803	0.3125	1.2500	A572-65 (65 ksi)
L33	7.24-2.24	5.00	0.00	18	46.1803	47.0913	0.3125	1.2500	A572-65 (65 ksi)
L34	2.24-0.00	2.24		18	47.0913	47.5000	0.3125	1.2500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	21.8027	12.6836	727.8616	7.5659	10.9220	66.6418	1456.6810	6.3430	3.4540	18.421
	22.7431	13.2347	826.9227	7.8947	11.3924	72.5853	1654.9335	6.6186	3.6170	19.291
L2	22.7431	13.2347	826.9227	7.8947	11.3924	72.5853	1654.9335	6.6186	3.6170	19.291
	23.6834	13.7858	934.5871	8.2234	11.8629	78.7826	1870.4039	6.8942	3.7800	20.16
L3	23.6834	13.7858	934.5871	8.2234	11.8629	78.7826	1870.4039	6.8942	3.7800	20.16
	24.6237	14.3369	1051.2132	8.5522	12.3333	85.2338	2103.8097	7.1698	3.9430	21.029
L4	24.6237	14.3369	1051.2132	8.5522	12.3333	85.2338	2103.8097	7.1698	3.9430	21.029
	25.5641	14.8881	1177.1593	8.8809	12.8037	91.9388	2355.8675	7.4454	4.1059	21.898
L5	25.5641	14.8881	1177.1593	8.8809	12.8037	91.9388	2355.8675	7.4454	4.1059	21.898
	26.5774	15.4819	1323.7230	9.2352	13.3107	99.4483	2649.1877	7.7424	4.2816	22.835
L6	26.1882	14.8426	1166.4013	8.8538	12.7649	91.3757	2334.3374	7.4227	4.0925	21.827
	26.4156	15.3871	1299.5539	9.1786	13.2297	98.2297	2600.8177	7.6950	4.2535	22.686
L7	26.4156	15.3871	1299.5539	9.1786	13.2297	98.2297	2600.8177	7.6950	4.2535	22.686
	27.3448	15.9317	1442.4727	9.5035	13.6946	105.3316	2886.8434	7.9674	4.4146	23.544
L8	27.3448	15.9317	1442.4727	9.5035	13.6946	105.3316	2886.8434	7.9674	4.4146	23.544
	28.2740	16.4763	1595.5037	9.8283	14.1594	112.6813	3193.1068	8.2397	4.5756	24.403
L9	28.2740	16.4763	1595.5037	9.8283	14.1594	112.6813	3193.1068	8.2397	4.5756	24.403
	29.2031	17.0208	1758.9924	10.1532	14.6243	120.2789	3520.2994	8.5120	4.7367	25.262
L10	29.2031	17.0208	1758.9924	10.1532	14.6243	120.2789	3520.2994	8.5120	4.7367	25.262
	30.1323	17.5654	1933.2845	10.4780	15.0891	128.1244	3869.1129	8.7844	4.8977	26.121
L11	30.1323	17.5654	1933.2845	10.4780	15.0891	128.1244	3869.1129	8.7844	4.8977	26.121
	30.8548	17.9889	2076.5017	10.7306	15.4506	134.3963	4155.7357	8.9961	5.0230	26.789
L12	30.8307	32.8091	3748.1881	10.6751	15.4506	242.5920	7501.3081	16.4077	4.7480	13.812
	30.8772	32.8590	3765.3225	10.6914	15.4738	243.3349	7535.5995	16.4326	4.7560	13.836
L13	30.8781	32.2683	3699.1641	10.6936	15.4738	239.0594	7403.1957	16.1372	4.7670	14.124
	31.8073	33.2485	4046.6203	11.0184	15.9387	253.8869	8098.5652	16.6274	4.9281	14.602
L14	31.8083	32.6394	3974.0826	11.0207	15.9387	249.3359	7953.3945	16.3228	4.9391	14.91
	32.7374	33.6014	4335.9604	11.3455	16.4035	264.3312	8677.6262	16.8039	5.1001	15.397
L15	32.7374	33.6014	4335.9604	11.3455	16.4035	264.3312	8677.6262	16.8039	5.1001	15.397
	34.4326	35.3566	5051.5503	11.9381	17.2516	292.8167	10109.7476	17.6817	5.3939	16.284
L16	34.0607	25.7621	3430.7380	11.5256	16.6199	206.4230	6865.9902	12.8835	5.3181	21.272
	34.2457	26.5929	3773.4697	11.8973	17.1518	220.0040	7551.9045	13.2990	5.5024	22.009
L17	34.2457	26.5929	3773.4697	11.8973	17.1518	220.0040	7551.9045	13.2990	5.5024	22.009
	35.1710	27.3160	4089.7176	12.2208	17.6147	232.1760	8184.8166	13.6606	5.6627	22.651
L18	35.1710	27.3160	4089.7176	12.2208	17.6147	232.1760	8184.8166	13.6606	5.6627	22.651
	36.0963	28.0390	4423.1591	12.5442	18.0776	244.6758	8852.1382	14.0222	5.8231	23.292
L19	36.0963	28.0390	4423.1591	12.5442	18.0776	244.6758	8852.1382	14.0222	5.8231	23.292
	37.0216	28.7621	4774.2491	12.8677	18.5405	257.5032	9554.7803	14.3838	5.9835	23.934
L20	37.0216	28.7621	4774.2491	12.8677	18.5405	257.5032	9554.7803	14.3838	5.9835	23.934
	37.9469	29.4852	5143.4433	13.1912	19.0034	270.6585	10293.6546	14.7454	6.1439	24.575
L21	37.9469	29.4852	5143.4433	13.1912	19.0034	270.6585	10293.6546	14.7454	6.1439	24.575

<p>tnxTower</p> <p>GPD</p> <p>520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	<p>Job</p> <p>ANDOVER NORTH / BU#: 842856</p>	<p>Page</p> <p>4 of 13</p>
	<p>Project</p> <p>2019777.842856.04</p>	<p>Date</p> <p>16:51:29 10/15/19</p>
	<p>Client</p> <p>Crown Castle USA, Inc.</p>	<p>Designed by</p> <p>Nicholas Colbert</p>

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L22	38.1094	29.6121	5210.1763	13.2480	19.0847	273.0023	10427.2082	14.8089	6.1720	24.688
	38.0833	49.3760	8609.1912	13.1881	19.0847	451.1036	17229.7107	24.6927	5.8750	14.03
	38.1296	49.4366	8640.9062	13.2043	19.1079	452.2169	17293.1824	24.7230	5.8831	14.049
L23	38.1306	48.7069	8516.2290	13.2065	19.1079	445.6920	17043.6640	24.3581	5.8941	14.289
	39.0558	49.9000	9157.4870	13.5300	19.5708	467.9162	18327.0237	24.9547	6.0544	14.677
L24	39.0558	49.9000	9157.4870	13.5300	19.5708	467.9162	18327.0237	24.9547	6.0544	14.677
	40.6764	51.9895	10356.7156	14.0966	20.3815	508.1425	20727.0589	25.9997	6.3353	15.358
L25	40.1839	37.9919	7042.0272	13.5976	19.6167	358.9804	14093.3205	18.9996	6.2464	19.988
	40.3689	39.1697	7717.4697	14.0192	20.2200	381.6757	15445.0942	19.5886	6.4553	20.657
L26	40.3689	39.1697	7717.4697	14.0192	20.2200	381.6757	15445.0942	19.5886	6.4553	20.657
	41.2940	40.0733	8264.0013	14.3426	20.6828	399.5597	16538.8766	20.0405	6.6157	21.17
L27	41.2940	40.0733	8264.0013	14.3426	20.6828	399.5597	16538.8766	20.0405	6.6157	21.17
	42.2191	40.9770	8835.7451	14.6660	21.1456	417.8532	17683.1164	20.4924	6.7760	21.683
L28	42.2191	40.9770	8835.7451	14.6660	21.1456	417.8532	17683.1164	20.4924	6.7760	21.683
	43.1441	41.8806	9433.2694	14.9894	21.6084	436.5562	18878.9514	20.9443	6.9364	22.196
L29	43.1441	41.8806	9433.2694	14.9894	21.6084	436.5562	18878.9514	20.9443	6.9364	22.196
	44.0692	42.7842	10057.1429	15.3128	22.0712	455.6687	20127.5192	21.3962	7.0967	22.709
L30	44.0692	42.7842	10057.1429	15.3128	22.0712	455.6687	20127.5192	21.3962	7.0967	22.709
	44.9943	43.6879	10707.9339	15.6362	22.5340	475.1906	21429.9576	21.8481	7.2570	23.223
L31	44.9943	43.6879	10707.9339	15.6362	22.5340	475.1906	21429.9576	21.8481	7.2570	23.223
	45.9194	44.5915	11386.2112	15.9596	22.9968	495.1220	22787.4046	22.3000	7.4174	23.736
L32	45.9194	44.5915	11386.2112	15.9596	22.9968	495.1220	22787.4046	22.3000	7.4174	23.736
	46.8445	45.4951	12092.5430	16.2831	23.4596	515.4628	24200.9978	22.7519	7.5777	24.249
L33	46.8445	45.4951	12092.5430	16.2831	23.4596	515.4628	24200.9978	22.7519	7.5777	24.249
	47.7696	46.3987	12827.4981	16.6065	23.9224	536.2131	25671.8750	23.2038	7.7381	24.762
L34	47.7696	46.3987	12827.4981	16.6065	23.9224	536.2131	25671.8750	23.2038	7.7381	24.762
	48.1846	46.8041	13166.6503	16.7516	24.1300	545.6548	26350.6256	23.4065	7.8100	24.992

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L1 149.00-144.00				1	1	1			
L2 144.00-139.00				1	1	1			
L3 139.00-134.00				1	1	1			
L4 134.00-129.00				1	1	1			
L5 129.00-123.61				1	1	1			
L6 123.61-122.39				1	1	1			
L7 122.39-117.39				1	1	1			
L8 117.39-112.39				1	1	1			
L9 112.39-107.39				1	1	1			
L10 107.39-102.39				1	1	1			
L11 102.39-98.50				1	1	1			
L12 98.50-98.25				1	1	0.959145			
L13 98.25-93.25				1	1	0.964288			
L14 93.25-88.25				1	1	0.970367			
L15 88.25-79.13				1	1	0.96048			
L16 79.13-78.13				1	1	1			
L17 78.13-73.13				1	1	1			
L18 73.13-68.13				1	1	1			
L19 68.13-63.13				1	1	1			
L20 63.13-58.13				1	1	1			
L21 58.13-57.25				1	1	1			
L22 57.25-57.00				1	1	0.963839			
L23 57.00-52.00				1	1	0.969379			
L24 52.00-43.24				1	1	0.963836			
L25 43.24-42.24				1	1	1			
L26 42.24-37.24				1	1	1			
L27 37.24-32.24				1	1	1			
L28 32.24-27.24				1	1	1			

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L29 27.24-22.24				1	1	1			
L30 22.24-17.24				1	1	1			
L31 17.24-12.24				1	1	1			
L32 12.24-7.24				1	1	1			
L33 7.24-2.24				1	1	1			
L34 2.24-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
				ft				in	in	plf
Climbing Pegs	A	No	Surface Ar (CaAa)	149.00 - 8.00	1	1	0.000 0.000	0.1500		0.31
CCI-AFP-060100	A	No	Surface Af (CaAa)	59.75 - 44.75	1	1	0.000 0.000	6.0000	14.0000	0.00
CCI-AFP-060100	B	No	Surface Af (CaAa)	59.75 - 44.75	1	1	0.000 0.000	6.0000	14.0000	0.00
CCI-AFP-060100	C	No	Surface Af (CaAa)	59.75 - 44.75	1	1	0.000 0.000	6.0000	14.0000	0.00
CCI-AFP-045100	A	No	Surface Af (CaAa)	100.50 - 80.50	1	1	0.000 0.000	4.5000	11.0000	0.00
CCI-AFP-045100	B	No	Surface Af (CaAa)	100.50 - 80.50	1	1	0.000 0.000	4.5000	11.0000	0.00
CCI-AFP-045100	C	No	Surface Af (CaAa)	100.50 - 80.50	1	1	0.000 0.000	4.5000	11.0000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement	Total Number	C_{AA}	Weight	
					ft		ft ² /ft	plf	
Safety Line (3/8")	A	No	No	CaAa (Out Of Face)	149.00 - 8.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
							2" Ice	0.44	2.34
LDF4-50A (1/2 FOAM)	C	No	No	Inside Pole	149.00 - 8.00	1	No Ice	0.00	0.15
							1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15
LDF5-50A (7/8 FOAM)	C	No	No	Inside Pole	149.00 - 8.00	2	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
LDF6-50A (1-1/4 FOAM)	C	No	No	Inside Pole	149.00 - 8.00	6	No Ice	0.00	0.66
							1/2" Ice	0.00	0.66
							1" Ice	0.00	0.66
							2" Ice	0.00	0.66
AVA7-50(1-5/8)	B	No	No	Inside Pole	140.00 - 8.00	3	No Ice	0.00	0.70
							1/2" Ice	0.00	0.70
							1" Ice	0.00	0.70
							2" Ice	0.00	0.70

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _{AA} ft ² /ft	Weight plf
LDF7-50A (1-5/8 FOAM)	B	No	No	Inside Pole	140.00 - 8.00	9	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
HCS 6X12 4AWG(1-5/8")	B	No	No	Inside Pole	140.00 - 8.00	1	No Ice	0.00	2.40
							1/2" Ice	0.00	2.40
							1" Ice	0.00	2.40
							2" Ice	0.00	2.40
HB158-1-13U6-S6F 18 (1-5/8")	C	No	No	Inside Pole	130.00 - 0.00	2	No Ice	0.00	1.90
							1/2" Ice	0.00	1.90
							1" Ice	0.00	1.90
							2" Ice	0.00	1.90

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
T-Arm Mount [TA 702-3]	C	None		0.0000	149.00	No Ice	4.75	4.75	0.34
						1/2" Ice	5.82	5.82	0.43
						1" Ice	6.98	6.98	0.55
						2" Ice	9.72	9.72	0.87
7770.00 w/ Mount Pipe	A	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	5.84	4.35	0.06
						1/2" Ice	6.32	5.20	0.11
						1" Ice	6.77	5.92	0.16
						2" Ice	7.71	7.41	0.29
7770.00 w/ Mount Pipe	B	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	5.84	4.35	0.06
						1/2" Ice	6.32	5.20	0.11
						1" Ice	6.77	5.92	0.16
						2" Ice	7.71	7.41	0.29
7770.00 w/ Mount Pipe	C	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	5.84	4.35	0.06
						1/2" Ice	6.32	5.20	0.11
						1" Ice	6.77	5.92	0.16
						2" Ice	7.71	7.41	0.29
AM-X-CD-16-65-00T-RET w/ Mount Pipe	A	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	4.63	3.27	0.07
						1/2" Ice	5.06	3.69	0.13
						1" Ice	5.51	4.12	0.20
						2" Ice	6.43	5.00	0.38
AM-X-CD-16-65-00T-RET w/ Mount Pipe	B	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	4.63	3.27	0.07
						1/2" Ice	5.06	3.69	0.13
						1" Ice	5.51	4.12	0.20
						2" Ice	6.43	5.00	0.38
AM-X-CD-16-65-00T-RET w/ Mount Pipe	C	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	4.63	3.27	0.07
						1/2" Ice	5.06	3.69	0.13
						1" Ice	5.51	4.12	0.20
						2" Ice	6.43	5.00	0.38
(2) LGP17201	A	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	1.67	0.47	0.03
						1/2" Ice	1.83	0.57	0.04
						1" Ice	2.00	0.68	0.06
						2" Ice	2.36	0.91	0.09
(2) LGP17201	B	From Leg	3.00 0.00 2.00	0.0000	149.00	No Ice	1.67	0.47	0.03
						1/2" Ice	1.83	0.57	0.04
						1" Ice	2.00	0.68	0.06
						2" Ice	2.36	0.91	0.09

tnxTower GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Job	ANDOVER NORTH / BU#: 842856	Page	7 of 13
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	Client	Crown Castle USA, Inc.	Designed by	Nicholas Colbert

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight	
			Horz	Vert			Front	Side		
			ft	ft	°	ft	ft ²	ft ²	K	
(2) LGP17201	C	From Leg	3.00	0.00	0.0000	149.00	No Ice	1.67	0.47	0.03
			0.00	0.00			1/2" Ice	1.83	0.57	0.04
			2.00	0.00			1" Ice	2.00	0.68	0.06
				0.00			2" Ice	2.36	0.91	0.09
				2.00			No Ice	0.23	0.16	0.01
(2) LGP21901	A	From Leg	3.00	0.00	0.0000	149.00	1/2" Ice	0.29	0.21	0.01
			0.00	0.00			1" Ice	0.36	0.28	0.01
			2.00	0.00			2" Ice	0.53	0.42	0.02
				0.00			No Ice	0.23	0.16	0.01
				2.00			1/2" Ice	0.29	0.21	0.01
(2) LGP21901	B	From Leg	3.00	0.00	0.0000	149.00	1" Ice	0.36	0.28	0.01
			0.00	0.00			2" Ice	0.53	0.42	0.02
			2.00	0.00			No Ice	0.23	0.16	0.01
				0.00			1/2" Ice	0.29	0.21	0.01
				2.00			1" Ice	0.36	0.28	0.01
(2) LGP21901	C	From Leg	3.00	0.00	0.0000	149.00	2" Ice	0.53	0.42	0.02
			0.00	0.00			No Ice	0.23	0.16	0.01
			2.00	0.00			1/2" Ice	0.29	0.21	0.01
				0.00			1" Ice	0.36	0.28	0.01
				2.00			2" Ice	0.53	0.42	0.02
RRUS-11	A	From Leg	3.00	0.00	0.0000	149.00	No Ice	2.78	1.19	0.05
			0.00	0.00			1/2" Ice	2.99	1.33	0.07
			2.00	0.00			1" Ice	3.21	1.49	0.09
				0.00			2" Ice	3.66	1.83	0.15
				2.00			No Ice	2.78	1.19	0.05
RRUS-11	B	From Leg	3.00	0.00	0.0000	149.00	1/2" Ice	2.99	1.33	0.07
			0.00	0.00			1" Ice	3.21	1.49	0.09
			2.00	0.00			2" Ice	3.66	1.83	0.15
				0.00			No Ice	2.78	1.19	0.05
				2.00			1/2" Ice	2.99	1.33	0.07
RRUS-11	C	From Leg	3.00	0.00	0.0000	149.00	1" Ice	3.21	1.49	0.09
			0.00	0.00			2" Ice	3.66	1.83	0.15
			2.00	0.00			No Ice	2.78	1.19	0.05
				0.00			1/2" Ice	2.99	1.33	0.07
				2.00			1" Ice	3.21	1.49	0.09
DC6-48-60-18-8F Surge Suppression Unit	A	From Leg	3.00	0.00	0.0000	149.00	2" Ice	3.66	1.83	0.15
			0.00	0.00			No Ice	0.92	0.92	0.02
			2.00	0.00			1/2" Ice	1.46	1.46	0.04
				0.00			1" Ice	1.64	1.64	0.06
				2.00			2" Ice	2.04	2.04	0.11
Side Arm Mount [SO 101-3]	C	None			0.0000	140.00	No Ice	5.81	5.81	0.25
							1/2" Ice	6.95	6.95	0.34
							1" Ice	8.28	8.28	0.46
							2" Ice	11.54	11.54	0.78
							No Ice	14.69	6.87	0.19
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	1.00	0.00	0.0000	140.00	1/2" Ice	15.46	7.55	0.31
			0.00	0.00			1" Ice	16.23	8.25	0.46
			0.00	0.00			2" Ice	17.82	9.67	0.79
				0.00			No Ice	14.69	6.87	0.19
				0.00			1/2" Ice	15.46	7.55	0.31
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	1.00	0.00	0.0000	140.00	1" Ice	16.23	8.25	0.46
			0.00	0.00			2" Ice	17.82	9.67	0.79
			0.00	0.00			No Ice	14.69	6.87	0.19
				0.00			1/2" Ice	15.46	7.55	0.31
				0.00			1" Ice	16.23	8.25	0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	1.00	0.00	0.0000	140.00	2" Ice	17.82	9.67	0.79
			0.00	0.00			No Ice	14.69	6.87	0.19
			0.00	0.00			1/2" Ice	15.46	7.55	0.31
				0.00			1" Ice	16.23	8.25	0.46
				0.00			2" Ice	17.82	9.67	0.79
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	A	From Leg	2.00	0.00	0.0000	140.00	No Ice	6.29	2.76	0.06
			0.00	0.00			1/2" Ice	6.86	3.27	0.11
			0.00	0.00			1" Ice	7.45	3.79	0.16
				0.00			2" Ice	8.68	4.90	0.29
				0.00			No Ice	6.29	2.76	0.06
APX16DWV-16DWV-S-E-A 20 w/ Mount Pipe	B	From Leg	2.00	0.00	0.0000	140.00	1/2" Ice	6.86	3.27	0.11
			0.00	0.00			1" Ice	7.45	3.79	0.16
			0.00	0.00			2" Ice	8.68	4.90	0.29
				0.00			No Ice	6.29	2.76	0.06
				0.00			1/2" Ice	6.86	3.27	0.11
APX16DWV-16DWV-S-E-A	C	From Leg	2.00	0.00	0.0000	140.00	1" Ice	7.45	3.79	0.16
				0.00			2" Ice	8.68	4.90	0.29
				0.00			No Ice	6.29	2.76	0.06

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
20 w/ Mount Pipe			0.00 0.00			1/2" Ice 6.86 1" Ice 7.45 2" Ice 8.68	3.27 3.79 4.90	0.11 0.16 0.29
RADIO 4449 B12/B71	A	From Leg	1.00 0.00 0.00	0.0000	140.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98 2" Ice 2.34	1.16 1.30 1.45 1.76	0.07 0.09 0.11 0.16
RADIO 4449 B12/B71	B	From Leg	1.00 0.00 0.00	0.0000	140.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98 2" Ice 2.34	1.16 1.30 1.45 1.76	0.07 0.09 0.11 0.16
RADIO 4449 B12/B71	C	From Leg	2.00 0.00 0.00	0.0000	140.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98 2" Ice 2.34	1.16 1.30 1.45 1.76	0.07 0.09 0.11 0.16
KRY 112 489/2	A	From Leg	2.00 0.00 0.00	0.0000	140.00	No Ice 0.56 1/2" Ice 0.66 1" Ice 0.76 2" Ice 1.00	0.37 0.45 0.54 0.75	0.02 0.02 0.03 0.05
KRY 112 489/2	B	From Leg	2.00 0.00 0.00	0.0000	140.00	No Ice 0.56 1/2" Ice 0.66 1" Ice 0.76 2" Ice 1.00	0.37 0.45 0.54 0.75	0.02 0.02 0.03 0.05
KRY 112 489/2	C	From Leg	2.00 0.00 0.00	0.0000	140.00	No Ice 0.56 1/2" Ice 0.66 1" Ice 0.76 2" Ice 1.00	0.37 0.45 0.54 0.75	0.02 0.02 0.03 0.05
Perfect Vision PV-LPP12M-HR-12-96 Platform Mount	C	None		0.0000	130.00	No Ice 34.40 1/2" Ice 43.00 1" Ice 51.60 2" Ice 68.80	34.40 43.00 51.60 68.80	2.02 2.74 3.46 4.90
Dual Antenna Bracket	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 0.00 1/2" Ice 0.00 1" Ice 0.00 2" Ice 0.00	0.97 1.13 1.30 1.61	0.07 0.10 0.13 0.19
Dual Antenna Bracket	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 0.00 1/2" Ice 0.00 1" Ice 0.00 2" Ice 0.00	0.97 1.13 1.30 1.61	0.07 0.10 0.13 0.19
Dual Antenna Bracket	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 0.00 1/2" Ice 0.00 1" Ice 0.00 2" Ice 0.00	0.97 1.13 1.30 1.61	0.07 0.10 0.13 0.19
(4) NHH-65B-R2B w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 4.09 1/2" Ice 4.48 1" Ice 4.88 2" Ice 5.70	3.29 3.67 4.06 4.86	0.07 0.13 0.21 0.39
(4) NHH-65B-R2B w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 4.09 1/2" Ice 4.48 1" Ice 4.88 2" Ice 5.70	3.29 3.67 4.06 4.86	0.07 0.13 0.21 0.39
(4) NHH-65B-R2B w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	130.00	No Ice 4.09 1/2" Ice 4.48 1" Ice 4.88 2" Ice 5.70	3.29 3.67 4.06 4.86	0.07 0.13 0.21 0.39
(4) RFV01U-D1A	A	From Centroid-Leg	4.00 0.00	0.0000	130.00	No Ice 1.88 1/2" Ice 2.05	1.25 1.39	0.08 0.10

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	Client	Crown Castle USA, Inc.	Designed by	Nicholas Colbert

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
			Horz ft	Vert ft					
(2) RFV01U-D1A	B	From Centroid-Leg	4.00	0.0000	130.00	1" Ice	2.22	1.54	0.12
			0.00			2" Ice	2.60	1.86	0.18
			0.00			No Ice	1.88	1.25	0.08
			0.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
(2) RFV01U-D2A	B	From Centroid-Leg	4.00	0.0000	130.00	2" Ice	2.60	1.86	0.18
			0.00			No Ice	1.88	1.01	0.07
			0.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
(4) RFV01U-D2A	C	From Centroid-Leg	4.00	0.0000	130.00	2" Ice	2.60	1.59	0.16
			0.00			No Ice	1.88	1.01	0.07
			0.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
DB-C1-12C-24AB-OZ	A	From Centroid-Leg	4.00	0.0000	130.00	2" Ice	2.60	1.59	0.16
			0.00			No Ice	4.06	3.10	0.03
			0.00			1/2" Ice	4.32	3.34	0.07
			0.00			1" Ice	4.58	3.58	0.11
						2" Ice	5.14	4.09	0.20

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	149 - 144	26.831	41	1.5203	0.0029
L2	144 - 139	25.241	41	1.5158	0.0028
L3	139 - 134	23.658	41	1.5064	0.0027
L4	134 - 129	22.089	41	1.4900	0.0026
L5	129 - 123.612	20.541	41	1.4661	0.0025
L6	127.388 - 122.388	20.048	41	1.4563	0.0024
L7	122.388 - 117.388	18.533	41	1.4314	0.0023
L8	117.388 - 112.388	17.060	41	1.3814	0.0020
L9	112.388 - 107.388	15.643	41	1.3229	0.0018
L10	107.388 - 102.388	14.292	41	1.2574	0.0016
L11	102.388 - 98.5	13.012	41	1.1863	0.0014
L12	98.5 - 98.25	12.070	41	1.1276	0.0012
L13	98.25 - 93.25	12.011	41	1.1255	0.0012
L14	93.25 - 88.25	10.856	41	1.0809	0.0011
L15	88.25 - 79.128	9.749	41	1.0335	0.0010
L16	83.873 - 78.128	8.821	41	0.9906	0.0009
L17	78.128 - 73.128	7.650	41	0.9491	0.0009
L18	73.128 - 68.128	6.693	41	0.8785	0.0008
L19	68.128 - 63.128	5.810	41	0.8066	0.0007
L20	63.128 - 58.128	5.004	41	0.7336	0.0006
L21	58.128 - 57.25	4.274	41	0.6598	0.0005
L22	57.25 - 57	4.154	41	0.6469	0.0005
L23	57 - 52	4.120	41	0.6446	0.0005
L24	52 - 43.243	3.469	41	0.5989	0.0004
L25	48.76 - 42.243	3.073	41	0.5692	0.0004
L26	42.243 - 37.243	2.320	41	0.5273	0.0004
L27	37.243 - 32.243	1.801	41	0.4643	0.0003
L28	32.243 - 27.243	1.348	41	0.4013	0.0003
L29	27.243 - 22.243	0.960	41	0.3384	0.0002
L30	22.243 - 17.243	0.639	41	0.2756	0.0002
L31	17.243 - 12.243	0.383	41	0.2130	0.0001

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L32	12.243 - 7.243	0.193	41	0.1507	0.0001
L33	7.243 - 2.243	0.067	41	0.0889	0.0001
L34	2.243 - 0	0.006	41	0.0274	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
149.00	T-Arm Mount [TA 702-3]	41	26.831	1.5203	0.0029	40698
140.00	Side Arm Mount [SO 101-3]	41	23.974	1.5088	0.0027	24802
130.00	Perfect Vision PV-LPP12M-HR-12-96 Platform Mount	41	20.848	1.4719	0.0026	11725

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	149 - 144	134.343	14	7.6262	0.0144
L2	144 - 139	126.396	14	7.6038	0.0138
L3	139 - 134	118.485	14	7.5570	0.0134
L4	134 - 129	110.639	14	7.4749	0.0130
L5	129 - 123.612	102.897	14	7.3556	0.0124
L6	127.388 - 122.388	100.431	14	7.3066	0.0120
L7	122.388 - 117.388	92.856	14	7.1821	0.0111
L8	117.388 - 112.388	85.485	14	6.9318	0.0099
L9	112.388 - 107.388	78.397	14	6.6388	0.0087
L10	107.388 - 102.388	71.632	14	6.3108	0.0077
L11	102.388 - 98.5	65.223	14	5.9539	0.0067
L12	98.5 - 98.25	60.504	14	5.6598	0.0060
L13	98.25 - 93.25	60.208	14	5.6491	0.0059
L14	93.25 - 88.25	54.420	14	5.4253	0.0055
L15	88.25 - 79.128	48.873	14	5.1874	0.0050
L16	83.873 - 78.128	44.224	14	4.9720	0.0046
L17	78.128 - 73.128	38.354	14	4.7638	0.0043
L18	73.128 - 68.128	33.557	14	4.4093	0.0038
L19	68.128 - 63.128	29.134	14	4.0480	0.0034
L20	63.128 - 58.128	25.091	6	3.6815	0.0029
L21	58.128 - 57.25	21.434	6	3.3111	0.0025
L22	57.25 - 57	20.831	6	3.2462	0.0024
L23	57 - 52	20.662	6	3.2349	0.0024
L24	52 - 43.243	17.397	6	3.0055	0.0022
L25	48.76 - 42.243	15.410	6	2.8561	0.0021
L26	42.243 - 37.243	11.635	6	2.6458	0.0019
L27	37.243 - 32.243	9.032	6	2.3297	0.0016
L28	32.243 - 27.243	6.759	6	2.0133	0.0013
L29	27.243 - 22.243	4.816	6	1.6974	0.0011
L30	22.243 - 17.243	3.204	6	1.3822	0.0009
L31	17.243 - 12.243	1.921	6	1.0683	0.0007
L32	12.243 - 7.243	0.966	6	0.7560	0.0005
L33	7.243 - 2.243	0.337	6	0.4456	0.0003
L34	2.243 - 0	0.032	6	0.1374	0.0001

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	Client	Crown Castle USA, Inc.	Designed by	Nicholas Colbert

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
149.00	T-Arm Mount [TA 702-3]	14	134.343	7.6262	0.0144	8532
140.00	Side Arm Mount [SO 101-3]	14	120.063	7.5691	0.0135	5158
130.00	Perfect Vision PV-LPPI2M-HR-12-96 Platform Mount	14	104.435	7.3843	0.0126	2427

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L _u	KI/r	A	P _u
	ft		ft	ft		in ²	K
L1	149 - 144 (1)	TP22.426x21.5x0.1875	5.00	0.00	0.0	13.2347	-1.23
L2	144 - 139 (2)	TP23.3521x22.426x0.1875	5.00	0.00	0.0	13.7858	-2.64
L3	139 - 134 (3)	TP24.2781x23.3521x0.1875	5.00	0.00	0.0	14.3369	-2.98
L4	134 - 129 (4)	TP25.2042x24.2781x0.1875	5.00	0.00	0.0	14.8881	-7.45
L5	129 - 123.612 (5)	TP26.2021x25.2042x0.1875	5.39	0.00	0.0	15.0657	-7.58
L6	123.612 - 122.388 (6)	TP26.0428x25.1277x0.1875	5.00	0.00	0.0	15.3871	-8.22
L7	122.388 - 117.388 (7)	TP26.9578x26.0428x0.1875	5.00	0.00	0.0	15.9317	-8.66
L8	117.388 - 112.388 (8)	TP27.8729x26.9578x0.1875	5.00	0.00	0.0	16.4763	-9.13
L9	112.388 - 107.388 (9)	TP28.7879x27.8729x0.1875	5.00	0.00	0.0	17.0208	-9.63
L10	107.388 - 102.388 (10)	TP29.703x28.7879x0.1875	5.00	0.00	0.0	17.5654	-10.15
L11	102.388 - 98.5 (11)	TP30.4145x29.703x0.1875	3.89	0.00	0.0	17.9889	-10.56
L12	98.5 - 98.25 (12)	TP30.4603x30.4145x0.3438	0.25	0.00	0.0	32.8590	-10.61
L13	98.25 - 93.25 (13)	TP31.3753x30.4603x0.3375	5.00	0.00	0.0	33.2485	-11.36
L14	93.25 - 88.25 (14)	TP32.2904x31.3753x0.3313	5.00	0.00	0.0	33.6014	-12.13
L15	88.25 - 79.128 (15)	TP33.9598x32.2904x0.3313	9.12	0.00	0.0	34.4436	-12.82
L16	79.128 - 78.128 (16)	TP33.7634x32.7164x0.25	5.75	0.00	0.0	26.5929	-14.21
L17	78.128 - 73.128 (17)	TP34.6747x33.7634x0.25	5.00	0.00	0.0	27.3160	-14.96
L18	73.128 - 68.128 (18)	TP35.5859x34.6747x0.25	5.00	0.00	0.0	28.0390	-15.74
L19	68.128 - 63.128 (19)	TP36.4971x35.5859x0.25	5.00	0.00	0.0	28.7621	-16.54
L20	63.128 - 58.128 (20)	TP37.4084x36.4971x0.25	5.00	0.00	0.0	29.4852	-17.36
L21	58.128 - 57.25 (21)	TP37.5684x37.4084x0.25	0.88	0.00	0.0	29.6121	-17.51
L22	57.25 - 57 (22)	TP37.6139x37.5684x0.4188	0.25	0.00	0.0	49.4366	-17.57
L23	57 - 52 (23)	TP38.5252x37.6139x0.4125	5.00	0.00	0.0	49.9000	-18.70
L24	52 - 43.243 (24)	TP40.1211x38.5252x0.4125	8.76	0.00	0.0	50.6731	-19.46
L25	43.243 - 42.243 (25)	TP39.8031x38.6156x0.3125	6.52	0.00	0.0	39.1697	-21.79
L26	42.243 - 37.243 (26)	TP40.7141x39.8031x0.3125	5.00	0.00	0.0	40.0733	-22.83
L27	37.243 - 32.243 (27)	TP41.6251x40.7141x0.3125	5.00	0.00	0.0	40.9770	-23.91
L28	32.243 - 27.243 (28)	TP42.5362x41.6251x0.3125	5.00	0.00	0.0	41.8806	-25.00
L29	27.243 - 22.243 (29)	TP43.4472x42.5362x0.3125	5.00	0.00	0.0	42.7842	-26.12
L30	22.243 - 17.243 (30)	TP44.3582x43.4472x0.3125	5.00	0.00	0.0	43.6879	-27.26
L31	17.243 - 12.243 (31)	TP45.2693x44.3582x0.3125	5.00	0.00	0.0	44.5915	-28.43
L32	12.243 - 7.243 (32)	TP46.1803x45.2693x0.3125	5.00	0.00	0.0	45.4951	-29.60
L33	7.243 - 2.243 (33)	TP47.0913x46.1803x0.3125	5.00	0.00	0.0	46.3987	-30.71
L34	2.243 - 0 (34)	TP47.5x47.0913x0.3125	2.24	0.00	0.0	46.8041	-31.21

<p>tnxTower</p> <p>GPD</p> <p>520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101</p>	<p>Job</p> <p>ANDOVER NORTH / BU#: 842856</p>	<p>Page</p> <p>12 of 13</p>
	<p>Project</p> <p>2019777.842856.04</p>	<p>Date</p> <p>16:51:29 10/15/19</p>
	<p>Client</p> <p>Crown Castle USA, Inc.</p>	<p>Designed by</p> <p>Nicholas Colbert</p>

Pole Bending Design Data

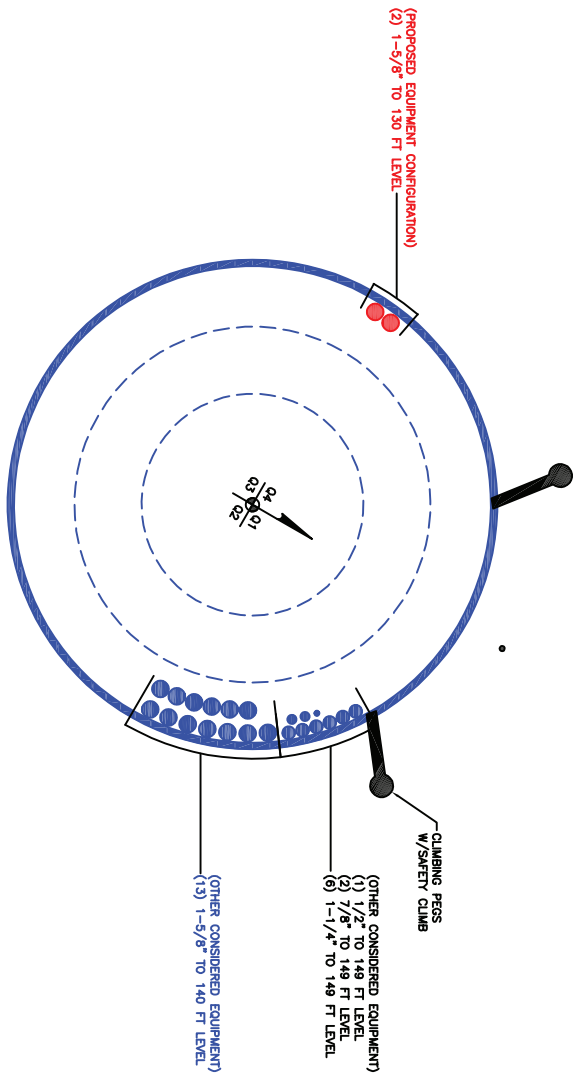
Section No.	Elevation	Size	M_{ux}
	ft		kip-ft
L1	149 - 144 (1)	TP22.426x21.5x0.1875	20.27
L2	144 - 139 (2)	TP23.3521x22.426x0.1875	40.74
L3	139 - 134 (3)	TP24.2781x23.3521x0.1875	75.00
L4	134 - 129 (4)	TP25.2042x24.2781x0.1875	117.32
L5	129 - 123.612 (5)	TP26.2021x25.2042x0.1875	138.64
L6	123.612 - 122.388 (6)	TP26.0428x25.1277x0.1875	206.49
L7	122.388 - 117.388 (7)	TP26.9578x26.0428x0.1875	276.81
L8	117.388 - 112.388 (8)	TP27.8729x26.9578x0.1875	349.53
L9	112.388 - 107.388 (9)	TP28.7879x27.8729x0.1875	424.65
L10	107.388 - 102.388 (10)	TP29.703x28.7879x0.1875	502.19
L11	102.388 - 98.5 (11)	TP30.4145x29.703x0.1875	564.16
L12	98.5 - 98.25 (12)	TP30.4603x30.4145x0.3438	568.20
L13	98.25 - 93.25 (13)	TP31.3753x30.4603x0.3375	651.26
L14	93.25 - 88.25 (14)	TP32.2904x31.3753x0.3313	738.79
L15	88.25 - 79.128 (15)	TP33.9598x32.2904x0.3313	819.06
L16	79.128 - 78.128 (16)	TP33.7634x32.7164x0.25	929.79
L17	78.128 - 73.128 (17)	TP34.6747x33.7634x0.25	1029.78
L18	73.128 - 68.128 (18)	TP35.5859x34.6747x0.25	1132.28
L19	68.128 - 63.128 (19)	TP36.4971x35.5859x0.25	1237.27
L20	63.128 - 58.128 (20)	TP37.4084x36.4971x0.25	1344.72
L21	58.128 - 57.25 (21)	TP37.5684x37.4084x0.25	1363.87
L22	57.25 - 57 (22)	TP37.6139x37.5684x0.4188	1369.34
L23	57 - 52 (23)	TP38.5252x37.6139x0.4125	1481.34
L24	52 - 43.243 (24)	TP40.1211x38.5252x0.4125	1556.38
L25	43.243 - 42.243 (25)	TP39.8031x38.6156x0.3125	1713.34
L26	42.243 - 37.243 (26)	TP40.7141x39.8031x0.3125	1837.68
L27	37.243 - 32.243 (27)	TP41.6251x40.7141x0.3125	1964.34
L28	32.243 - 27.243 (28)	TP42.5362x41.6251x0.3125	2093.26
L29	27.243 - 22.243 (29)	TP43.4472x42.5362x0.3125	2224.32
L30	22.243 - 17.243 (30)	TP44.3582x43.4472x0.3125	2357.43
L31	17.243 - 12.243 (31)	TP45.2693x44.3582x0.3125	2492.44
L32	12.243 - 7.243 (32)	TP46.1803x45.2693x0.3125	2629.29
L33	7.243 - 2.243 (33)	TP47.0913x46.1803x0.3125	2767.94
L34	2.243 - 0 (34)	TP47.5x47.0913x0.3125	2830.73

tnxTower GPD 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Job	ANDOVER NORTH / BU#: 842856	Page	13 of 13
	Project	2019777.842856.04	Date	16:51:29 10/15/19
	Client	Crown Castle USA, Inc.	Designed by	Nicholas Colbert

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_i K
L1	149 - 144 (1)	TP22.426x21.5x0.1875	3.29
L2	144 - 139 (2)	TP23.3521x22.426x0.1875	6.62
L3	139 - 134 (3)	TP24.2781x23.3521x0.1875	7.09
L4	134 - 129 (4)	TP25.2042x24.2781x0.1875	13.15
L5	129 - 123.612 (5)	TP26.2021x25.2042x0.1875	13.31
L6	123.612 - 122.388 (6)	TP26.0428x25.1277x0.1875	13.83
L7	122.388 - 117.388 (7)	TP26.9578x26.0428x0.1875	14.31
L8	117.388 - 112.388 (8)	TP27.8729x26.9578x0.1875	14.79
L9	112.388 - 107.388 (9)	TP28.7879x27.8729x0.1875	15.27
L10	107.388 - 102.388 (10)	TP29.703x28.7879x0.1875	15.76
L11	102.388 - 98.5 (11)	TP30.4145x29.703x0.1875	16.14
L12	98.5 - 98.25 (12)	TP30.4603x30.4145x0.3438	16.17
L13	98.25 - 93.25 (13)	TP31.3753x30.4603x0.3375	17.06
L14	93.25 - 88.25 (14)	TP32.2904x31.3753x0.3313	17.96
L15	88.25 - 79.128 (15)	TP33.9598x32.2904x0.3313	18.73
L16	79.128 - 78.128 (16)	TP33.7634x32.7164x0.25	19.76
L17	78.128 - 73.128 (17)	TP34.6747x33.7634x0.25	20.26
L18	73.128 - 68.128 (18)	TP35.5859x34.6747x0.25	20.76
L19	68.128 - 63.128 (19)	TP36.4971x35.5859x0.25	21.26
L20	63.128 - 58.128 (20)	TP37.4084x36.4971x0.25	21.75
L21	58.128 - 57.25 (21)	TP37.5684x37.4084x0.25	21.90
L22	57.25 - 57 (22)	TP37.6139x37.5684x0.4188	21.94
L23	57 - 52 (23)	TP38.5252x37.6139x0.4125	22.88
L24	52 - 43.243 (24)	TP40.1211x38.5252x0.4125	23.46
L25	43.243 - 42.243 (25)	TP39.8031x38.6156x0.3125	24.65
L26	42.243 - 37.243 (26)	TP40.7141x39.8031x0.3125	25.12
L27	37.243 - 32.243 (27)	TP41.6251x40.7141x0.3125	25.57
L28	32.243 - 27.243 (28)	TP42.5362x41.6251x0.3125	26.02
L29	27.243 - 22.243 (29)	TP43.4472x42.5362x0.3125	26.44
L30	22.243 - 17.243 (30)	TP44.3582x43.4472x0.3125	26.83
L31	17.243 - 12.243 (31)	TP45.2693x44.3582x0.3125	27.20
L32	12.243 - 7.243 (32)	TP46.1803x45.2693x0.3125	27.57
L33	7.243 - 2.243 (33)	TP47.0913x46.1803x0.3125	27.93
L34	2.243 - 0 (34)	TP47.5x47.0913x0.3125	28.09

APPENDIX B
BASE LEVEL DRAWING



BUSINESS UNIT: 842856 TOWER ID: C-BASELEVEL

PLOT DATE: 9/7/2016

FILE NAME: 842856_BASELEVEL.dwg

CROWN REGION ADDRESS
USA

DATE	DESCRIPTION	BY
11/8/2014	UPDATED PER WORK ORDER 808072	SLW
8/3/2015	UPDATED PER WORK ORDER 1022375	SLW
28/5/2015	UPDATED PER WORK ORDER 1087609	SLW
18/11/2015	UPDATED PER WORK ORDER 1105384	SLW
05/07/16	UPDATED PER WORK ORDER 1231803	SLW
02/09/16	UPDATED PER WORK ORDER 1294429	SLW
17/04/16	UPDATED PER WORK ORDER 1728307	SLW
02/10/16	UPDATED PER WORK ORDER 1784409 1784288	SLW

DRAWN BY: VIL
CHECKED BY:
DRAWING DATE: 11/08/14

SITE NUMBER:
SITE NAME:
ANDOVER NORTH
BUSINESS UNIT NUMBER
842856
SITE ADDRESS
12 JONATHAN TRUMBULL HIGHWAY (ROUTE 6)
ANDOVER, CT 06222
TOLLAND COUNTY
USA
SHEET TITLE
BASE LEVEL DRAWING
SHEET NUMBER

A1-0

N.T.S.

APPENDIX C
ADDITIONAL CALCULATIONS

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	149	25.388	3.776	18	21.5	26.2021	0.1875	Auto	A572-65
2	127.388	48.26	4.745	18	25.13	33.9598	0.1875	Auto	A572-65
3	83.873	40.63	5.517	18	32.72	40.1211	0.25	Auto	A572-65
4	48.76	48.76	0	18	38.62	47.5	0.3125	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	47.25	57.25	plate	CCI-AFP-060100	3			x						x										
2	82.5	98.5	plate	CCI-AFP-045100	3		x						x											
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L _w (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
2	4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65

TNX Geometry Input

Increment (ft): 5

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	149 - 144	5		18	21.500	22.426	0.1875	A572-65	1.000
2	144 - 139	5		18	22.426	23.352	0.1875	A572-65	1.000
3	139 - 134	5		18	23.352	24.278	0.1875	A572-65	1.000
4	134 - 129	5		18	24.278	25.204	0.1875	A572-65	1.000
5	129 - 127.388	5.388	3.776	18	25.204	26.202	0.1875	A572-65	1.000
6	127.388 - 122.388	5		18	25.128	26.043	0.1875	A572-65	1.000
7	122.388 - 117.388	5		18	26.043	26.958	0.1875	A572-65	1.000
8	117.388 - 112.388	5		18	26.958	27.873	0.1875	A572-65	1.000
9	112.388 - 107.388	5		18	27.873	28.788	0.1875	A572-65	1.000
10	107.388 - 102.388	5		18	28.788	29.703	0.1875	A572-65	1.000
11	102.388 - 98.5	3.888		18	29.703	30.415	0.1875	A572-65	1.000
12	98.5 - 98.25	0.25		18	30.415	30.460	0.34375	A572-65	0.959
13	98.25 - 93.25	5		18	30.460	31.375	0.3375	A572-65	0.964
14	93.25 - 88.25	5		18	31.375	32.290	0.33125	A572-65	0.970
15	88.25 - 83.873	9.122	4.745	18	32.290	33.960	0.33125	A572-65	0.960
16	83.873 - 78.128	5.745		18	32.716	33.763	0.25	A572-65	1.000
17	78.128 - 73.128	5		18	33.763	34.675	0.25	A572-65	1.000
18	73.128 - 68.128	5		18	34.675	35.586	0.25	A572-65	1.000
19	68.128 - 63.128	5		18	35.586	36.497	0.25	A572-65	1.000
20	63.128 - 58.128	5		18	36.497	37.408	0.25	A572-65	1.000
21	58.128 - 57.25	0.878		18	37.408	37.568	0.25	A572-65	1.000
22	57.25 - 57	0.25		18	37.568	37.614	0.41875	A572-65	0.964
23	57 - 52	5		18	37.614	38.525	0.4125	A572-65	0.969
24	52 - 48.76	8.757	5.517	18	38.525	40.121	0.4125	A572-65	0.964
25	48.76 - 42.243	6.517		18	38.616	39.803	0.3125	A572-65	1.000
26	42.243 - 37.243	5		18	39.803	40.714	0.3125	A572-65	1.000
27	37.243 - 32.243	5		18	40.714	41.625	0.3125	A572-65	1.000
28	32.243 - 27.243	5		18	41.625	42.536	0.3125	A572-65	1.000
29	27.243 - 22.243	5		18	42.536	43.447	0.3125	A572-65	1.000
30	22.243 - 17.243	5		18	43.447	44.358	0.3125	A572-65	1.000
31	17.243 - 12.243	5		18	44.358	45.269	0.3125	A572-65	1.000
32	12.243 - 7.243	5		18	45.269	46.180	0.3125	A572-65	1.000
33	7.243 - 2.243	5		18	46.180	47.091	0.3125	A572-65	1.000
34	2.243 - 0	2.243		18	47.091	47.500	0.3125	A572-65	1.000

TNX Section Forces

Increment (ft):		TNX Output			
	5	P _u	M _{ux} (kip-ft)		V _u (K)
Section Height (ft)	(K)				
1	149 - 144	1.23	20.27	3.29	
2	144 - 139	2.64	40.74	6.62	
3	139 - 134	2.98	75.00	7.09	
4	134 - 129	7.45	117.32	13.15	
5	129 - 127.388	7.58	138.64	13.31	
6	127.388 - 122.388	8.22	206.49	13.83	
7	122.388 - 117.388	8.66	276.81	14.31	
8	117.388 - 112.388	9.13	349.53	14.79	
9	112.388 - 107.388	9.63	424.65	15.27	
10	107.388 - 102.388	10.15	502.19	15.76	
11	102.388 - 98.5	10.56	564.16	16.14	
12	98.5 - 98.25	10.61	568.20	16.17	
13	98.25 - 93.25	11.36	651.26	17.06	
14	93.25 - 88.25	12.13	738.79	17.96	
15	88.25 - 83.873	12.82	819.06	18.73	
16	83.873 - 78.128	14.21	929.79	19.76	
17	78.128 - 73.128	14.96	1029.78	20.26	
18	73.128 - 68.128	15.74	1132.28	20.76	
19	68.128 - 63.128	16.54	1237.26	21.26	
20	63.128 - 58.128	17.36	1344.71	21.75	
21	58.128 - 57.25	17.51	1363.86	21.90	
22	57.25 - 57	17.57	1369.34	21.94	
23	57 - 52	18.70	1481.35	22.88	
24	52 - 48.76	19.46	1556.38	23.46	
25	48.76 - 42.243	21.79	1713.34	24.65	
26	42.243 - 37.243	22.83	1837.68	25.12	
27	37.243 - 32.243	23.91	1964.35	25.57	
28	32.243 - 27.243	25.00	2093.26	26.02	
29	27.243 - 22.243	26.12	2224.32	26.44	
30	22.243 - 17.243	27.26	2357.43	26.83	
31	17.243 - 12.243	28.43	2492.44	27.20	
32	12.243 - 7.243	29.60	2629.29	27.57	
33	7.243 - 2.243	30.71	2767.95	27.93	
34	2.243 - 0	31.21	2830.73	28.09	

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
149 - 144	Pole	TP22.426x21.5x0.1875	Pole	4.7%	Pass
144 - 139	Pole	TP23.352x22.426x0.1875	Pole	8.9%	Pass
139 - 134	Pole	TP24.278x23.352x0.1875	Pole	15.1%	Pass
134 - 129	Pole	TP25.204x24.278x0.1875	Pole	22.5%	Pass
129 - 127.39	Pole	TP26.202x25.204x0.1875	Pole	26.0%	Pass
127.39 - 122.39	Pole	TP26.043x25.128x0.1875	Pole	37.1%	Pass
122.39 - 117.39	Pole	TP26.958x26.043x0.1875	Pole	46.8%	Pass
117.39 - 112.39	Pole	TP27.873x26.958x0.1875	Pole	55.9%	Pass
112.39 - 107.39	Pole	TP28.788x27.873x0.1875	Pole	64.4%	Pass
107.39 - 102.39	Pole	TP29.703x28.788x0.1875	Pole	72.5%	Pass
102.39 - 98.5	Pole	TP30.415x29.703x0.1875	Pole	78.4%	Pass
98.5 - 98.25	Pole + Reinf.	TP30.46x30.415x0.3438	Reinf. 2 Tension Rupture	63.2%	Pass
98.25 - 93.25	Pole + Reinf.	TP31.375x30.46x0.3375	Reinf. 2 Tension Rupture	69.1%	Pass
93.25 - 88.25	Pole + Reinf.	TP32.29x31.375x0.3313	Reinf. 2 Tension Rupture	74.9%	Pass
88.25 - 83.87	Pole + Reinf.	TP33.96x32.29x0.3313	Reinf. 2 Tension Rupture	79.9%	Pass
83.87 - 78.13	Pole	TP33.763x32.716x0.25	Pole	72.9%	Pass
78.13 - 73.13	Pole	TP34.675x33.763x0.25	Pole	77.3%	Pass
73.13 - 68.13	Pole	TP35.586x34.675x0.25	Pole	81.4%	Pass
68.13 - 63.13	Pole	TP36.497x35.586x0.25	Pole	85.4%	Pass
63.13 - 58.13	Pole	TP37.408x36.497x0.25	Pole	89.2%	Pass
58.13 - 57.25	Pole	TP37.568x37.408x0.25	Pole	89.9%	Pass
57.25 - 57	Pole + Reinf.	TP37.614x37.568x0.4188	Reinf. 1 Tension Rupture	74.5%	Pass
57 - 52	Pole + Reinf.	TP38.525x37.614x0.4125	Reinf. 1 Tension Rupture	77.5%	Pass
52 - 48.76	Pole + Reinf.	TP40.121x38.525x0.4125	Reinf. 1 Tension Rupture	79.5%	Pass
48.76 - 42.24	Pole	TP39.803x38.616x0.3125	Pole	75.8%	Pass
42.24 - 37.24	Pole	TP40.714x39.803x0.3125	Pole	78.2%	Pass
37.24 - 32.24	Pole	TP41.625x40.714x0.3125	Pole	80.6%	Pass
32.24 - 27.24	Pole	TP42.536x41.625x0.3125	Pole	82.9%	Pass
27.24 - 22.24	Pole	TP43.447x42.536x0.3125	Pole	85.1%	Pass
22.24 - 17.24	Pole	TP44.358x43.447x0.3125	Pole	87.2%	Pass
17.24 - 12.24	Pole	TP45.269x44.358x0.3125	Pole	89.2%	Pass
12.24 - 7.24	Pole	TP46.18x45.269x0.3125	Pole	91.2%	Pass
7.24 - 2.24	Pole	TP47.091x46.18x0.3125	Pole	93.1%	Pass
2.24 - 0	Pole	TP47.5x47.091x0.3125	Pole	93.9%	Pass
				Summary	
			Pole	93.9%	Pass
			Reinforcement	79.9%	Pass
			Overall	93.9%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity*		
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2
149 - 144	827	n/a	827	13.23	n/a	13.23	4.7%		
144 - 139	934	n/a	934	13.79	n/a	13.79	8.9%		
139 - 134	1051	n/a	1051	14.34	n/a	14.34	15.1%		
134 - 129	1177	n/a	1177	14.89	n/a	14.89	22.5%		
129 - 127.39	1219	n/a	1219	15.07	n/a	15.07	26.0%		
127.39 - 122.39	1299	n/a	1299	15.39	n/a	15.39	37.1%		
122.39 - 117.39	1442	n/a	1442	15.93	n/a	15.93	46.8%		
117.39 - 112.39	1595	n/a	1595	16.48	n/a	16.48	55.9%		
112.39 - 107.39	1758	n/a	1758	17.02	n/a	17.02	64.4%		
107.39 - 102.39	1933	n/a	1933	17.56	n/a	17.56	72.5%		
102.39 - 98.5	2076	n/a	2076	17.99	n/a	17.99	78.4%		
98.5 - 98.25	2085	1682	3767	18.02	13.50	31.52	43.1%		63.2%
98.25 - 93.25	2280	1781	4061	18.56	13.50	32.06	47.8%		69.1%
93.25 - 88.25	2487	1882	4369	19.10	13.50	32.60	52.7%		74.9%
88.25 - 83.87	2677	1973	4651	19.58	13.50	33.08	56.9%		79.9%
83.87 - 78.13	3772	n/a	3772	26.59	n/a	26.59	72.9%		
78.13 - 73.13	4088	n/a	4088	27.31	n/a	27.31	77.3%		
73.13 - 68.13	4422	n/a	4422	28.04	n/a	28.04	81.4%		
68.13 - 63.13	4773	n/a	4773	28.76	n/a	28.76	85.4%		
63.13 - 58.13	5142	n/a	5142	29.48	n/a	29.48	89.2%		
58.13 - 57.25	5208	n/a	5208	29.61	n/a	29.61	89.9%		
57.25 - 57	5227	3383	8610	29.65	18.00	47.65	53.9%	74.5%	
57 - 52	5619	3543	9162	30.37	18.00	48.37	56.8%	77.5%	
52 - 48.76	5883	3649	9532	30.84	18.00	48.84	58.6%	79.5%	
48.76 - 42.24	7715	n/a	7715	39.17	n/a	39.17	75.8%		
42.24 - 37.24	8261	n/a	8261	40.07	n/a	40.07	78.2%		
37.24 - 32.24	8833	n/a	8833	40.98	n/a	40.98	80.6%		
32.24 - 27.24	9430	n/a	9430	41.88	n/a	41.88	82.9%		
27.24 - 22.24	10053	n/a	10053	42.78	n/a	42.78	85.1%		
22.24 - 17.24	10704	n/a	10704	43.69	n/a	43.69	87.2%		
17.24 - 12.24	11382	n/a	11382	44.59	n/a	44.59	89.2%		
12.24 - 7.24	12088	n/a	12088	45.49	n/a	45.49	91.2%		
7.24 - 2.24	12823	n/a	12823	46.40	n/a	46.40	93.1%		
2.24 - 0	13162	n/a	13162	46.80	n/a	46.80	93.9%		

Note: Section capacity checked in 5 degree increments.

Rating per TIA-222-H Section 15.5.

Monopole Base Plate Connection

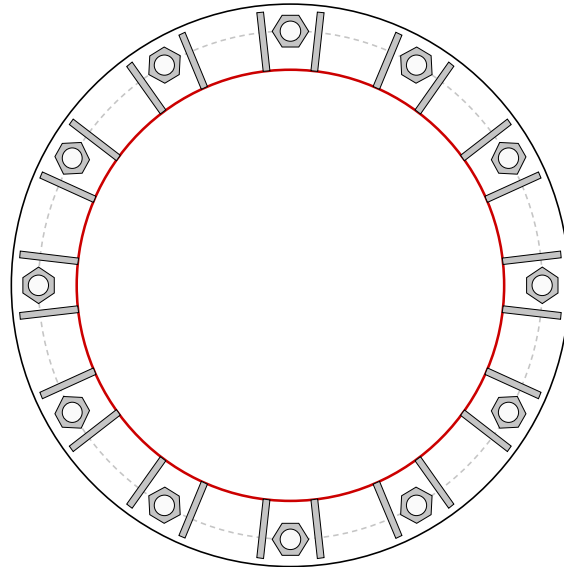


Site Info	
BU #	842856
Site Name	ANDOVER NORTH
Order #	504666 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	2.25

Applied Loads	
Moment (kip-ft)	2830.73
Axial Force (kips)	31.23
Shear Force (kips)	28.07

*TIA-222-H Section 15.5 Applied



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

Anchor Rod Data
 (12) 2-1/4" ϕ bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 56" BC

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

Stiffener Data
 (24) 13"H x 6.5"W x 0.75"T, Notch: 0.75"
 plate: Fy= 50 ksi ; weld: Fy= 80 ksi
 horiz. weld: 0.375" groove, 45° dbl bevel, 0.25" fillet
 vert. weld: 0.3125" fillet

Pole Data
 47.5" x 0.3125" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Anchor Rod Summary		<i>(units of kips, kip-in)</i>	
Pu_c = 204.66	$\phi Pn_c = 243.75$		Stress Rating
Vu = 2.34	$\phi Vn = 73.13$		80.1%
Mu = n/a	$\phi Mn = n/a$		Pass

Base Plate Summary	
Max Stress (ksi):	49.57 (Roark's Flexural)
Allowable Stress (ksi):	54
Stress Rating:	87.4% Pass

Stiffener Summary	
Horizontal Weld:	42.4% Pass
Vertical Weld:	48.5% Pass
Plate Flexure+Shear:	21.7% Pass
Plate Tension+Shear:	44.2% Pass
Plate Compression:	58.7% Pass
Pole Summary	
Punching Shear:	19.6% Pass

Pier and Pad Foundation



BU #: 842856
 Site Name: ANDOVER NORTH
 App. Number: 504666 Rev. 1

TIA-222 Revision: H
 Tower Type: Monopole

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

Superstructure Analysis Reactions		
Compression, P_{comp} :	31.23	kips
Base Shear, V_{u_comp} :	28.07	kips
Moment, M_u :	2830.73	ft-kips
Tower Height, H :	149	ft
BP Dist. Above Fdn, bp_{dist} :	4.25	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	177.18	28.07	15.1%	Pass
<i>Bearing Pressure (ksf)</i>	8.43	4.27	50.6%	Pass
<i>Overtuning (kip*ft)</i>	3534.43	3051.20	86.3%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	4713.01	2957.05	59.8%	Pass
<i>Pier Compression (kip)</i>	21120.36	58.11	0.3%	Pass
<i>Pad Flexure (kip*ft)</i>	2736.60	1515.35	52.7%	Pass
<i>Pad Shear - 1-way (kips)</i>	735.13	281.23	36.4%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.000	0.0%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	3755.83	1774.23	45.0%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$:	6.5	ft
Ext. Above Grade, E :	1	ft
Pier Rebar Size, S_c :	8	
Pier Rebar Quantity, mc :	40	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	5	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

*Rating per TIA-222-H Section 15.5

Soil Rating*:	86.3%
Structural Rating*:	59.8%

Pad Properties		
Depth, D :	6.5	ft
Pad Width, W :	20.5	ft
Pad Thickness, T :	3	ft
Pad Rebar Size (Top), Sp_{top} :	8	
Pad Top Rebar Quantity (Top), mp_{top} :	21	
Pad Rebar Size (Bottom), Sp :	8	
Pad Rebar Quantity (Bottom), mp :	25	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	115	pcf
Ultimate Gross Bearing, Q_{ult} :	11.245	ksf
Cohesion, C_u :		ksf
Friction Angle, ϕ :	30	degrees
SPT Blow Count, N_{blows} :	47	
Base Friction, μ :		
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	10	ft

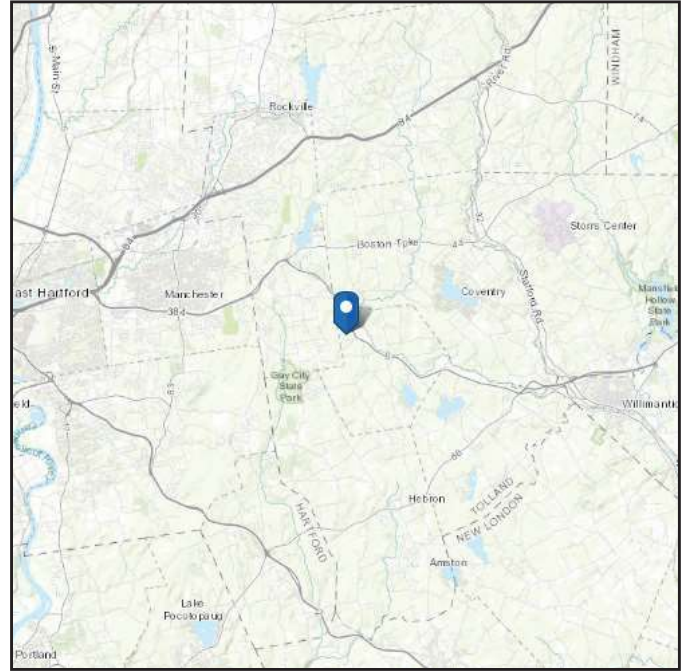
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ASCE 7 Hazards Report

Address:
No Address at This
Location

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

Elevation: 495.67 ft (NAVD 88)
Latitude: 41.750128
Longitude: -72.402675



Wind

Results:

Wind Speed:	125 Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	94 Vmph
100-year MRI	102 Vmph

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

Date Accessed: Fri Apr 26 2019

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

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

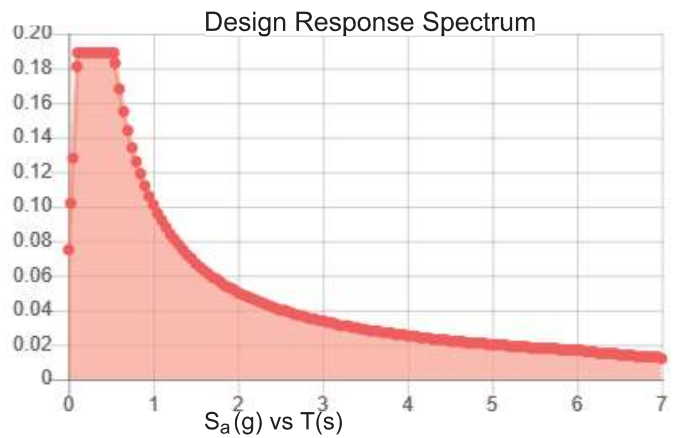
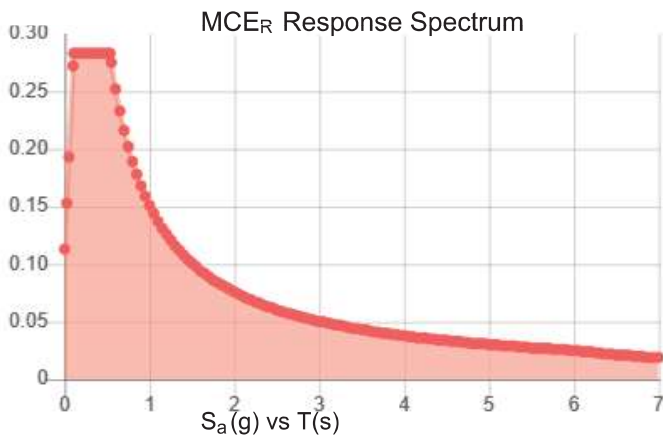
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.177	S_{DS} :	0.189
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.089
S_{MS} :	0.283	PGA _M :	0.142
S_{M1} :	0.151	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Fri Apr 26 2019

Date Source:

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

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 5 F
Gust Speed: 50 mph

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

Date Accessed: Fri Apr 26 2019

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

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

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

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Exhibit F

Mount Analysis

Date: **October 8, 2019**

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



Subject: **Mount Analysis Report**

Carrier Designation: **Verizon Wireless Equipment Change-Out**
Carrier Site Number: --
Carrier Site Name: Coventry West CT

Crown Castle Designation: **Crown Castle BU Number:** 842856
Crown Castle Site Name: ANDOVER NORTH
Crown Castle JDE Job Number: 589922
Crown Castle Order Number: 504666 Rev. 1

Engineering Firm Designation: **ETS, PLLC Report Designation:** 196392.14

Site Data: **122 Jonathan Trumbull Highway (Route 6), Andover, Tolland County, CT 06232**
Latitude: 41° 45' 0.46" Longitude: -72° 24' 9.63"

Structure Information: **Tower Height & Type:** 149.0 ft Monopole
Mount Elevation: 130.0 ft
Mount Type: 12.5 ft Platform Mount

Dear Darcy Tarr,

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

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

Platform Mount

Sufficient*

***Sufficient upon completion of the changes listed in the "Recommendations" section of this report**

This analysis utilizes an ultimate 3-second gust wind speed of 130 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Bach S. Tran, EI

Respectfully Submitted by:

Frederic G. Bost, PE, CWI, GC
Owner/President
(919) 782-2710
Geoff.Bost@ets-pllc.com

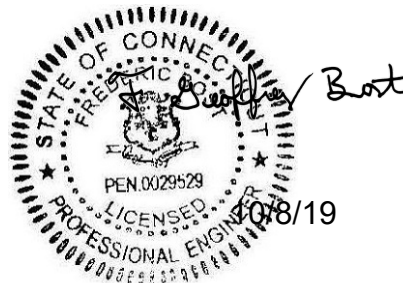


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1) INTRODUCTION

This mount is a proposed 12.5 ft Platform Mount designed by Perfect Vision. This mount is to be installed at the 130.0 ft elevation of the 149.0 ft Monopole.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	130 mph
Exposure Category:	C
Topographic Factor at Base:	1.00
Topographic Factor at Mount:	1.00
Ice Thickness:	2.00 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.176
Seismic S₁:	0.063
Service Wind Speed:	30 mph
Man Live Load at Mid/End-Point:	250 lb
Man Live Load At Mount Pipes:	500 lb

Table 1 – Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
130.0	130.0	12	Commscope	NHH-65B-R2B	12.5 ft Perfect Vision PV-LPP12M-HR-12-96 Platform Mount
		1	RFS/Celwave	DB-C1-12C-24AB-0Z	
		6	Samsung Telecommunications	RFV01U-D1A	
		6	Samsung Telecommunications	RFV01U-D2A	
		6	-	Antenna Dual Mount Bracket	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Carrier Application	Verizon Wireless	09/23/2019	CCI Sites
Structural Level Drawings (Proposed)	Verizon Wireless	10/02/2019	CCI Sites
4-Structural Analysis Report	GPD Engineering and Architecture Professional Corporation	8372785	CCI Sites
Mount Design Drawings	LPP-ENG-01-R6	01/19/2017	Perfect Vision

3.1) Analysis Method

RISA-3D (version 17.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases.

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

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

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer’s specification.
- 2) The configuration of antennas, mounts and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
- 5) This analysis is based from the information supplied, and therefore, this report’s results are as accurate as the supplied data.
- 6) Engineered Tower Solutions, PLLC makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of the mount. Engineered Tower Solutions, PLLC will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of Engineered Tower Solutions, PLLC pursuant to this report will be limited to the total fee received for compilation of this report.
- 7) It is the tower owner’s responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
- 8) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of Engineered Tower Solutions, PLLC.
- 9) Steel grades have been assumed as follows:

a) Channel, Solid Round, Angle, Plate	ASTM A36 (Gr 36)
b) HSS (Rectangular)	ASTM A500 (Gr B-46)
c) HSS (Round)	ASTM A500 (Gr B-42)
d) Pipe	ASTM A53 (Gr 35)
e) Connection Bolts	ASTM A325
f) U-Bolts	SAE 429 Gr.2

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

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity (Platform Mount)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal	FM3	130.0	30.3	PASS
1	Hand Rail – Horizontal	HR3		43.2	PASS
1	Mount Pipe – Vertical	MP12		66.0	PASS
1	Sidearm – Horizontal	SA2		66.3	PASS
1	Brace – Horizontal	BRACE2		80.5	PASS
2	Mount to Tower Connection	-		69.7	PASS

Notes:

- 1) See additional documentation in “Appendix C – Software Analysis Output” for calculations supporting the % capacity consumed.
- 2) See additional documentation in “Appendix D – Additional Calculations” for calculations supporting the % capacity consumed.

Tower Mount Rating (max from all components) =	80.5%
-------------------------------------------------------	--------------

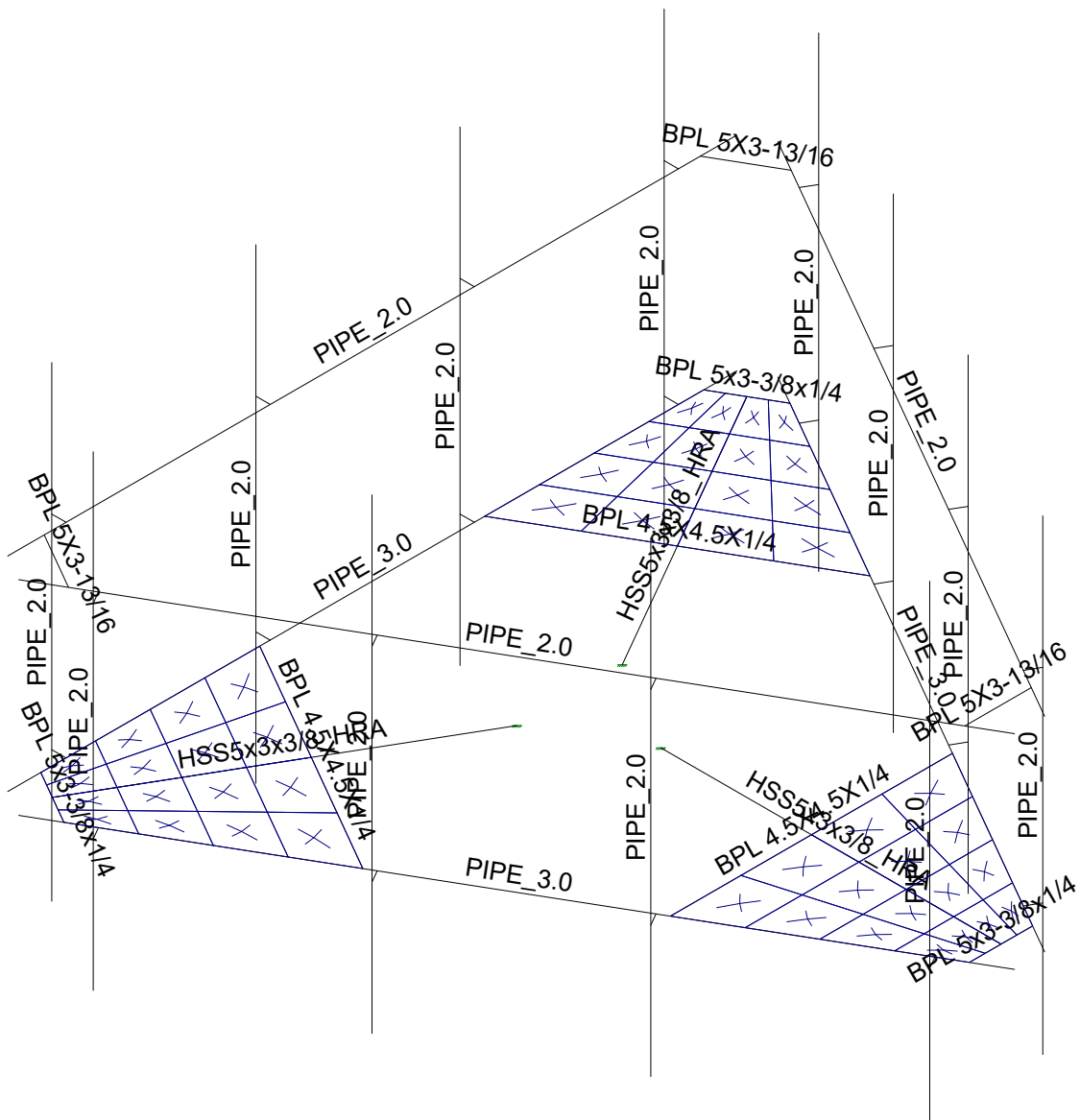
Verizon Mount Classification	M850R(650)-4[6]
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4.1) Recommendations

The proposed mount has sufficient capacity to carry the proposed loading configuration. In order for the results of this analysis to be considered valid, the mount listed below shall be installed to support the proposed loading configuration.

Perfect Vision PV-LPP12M-HR-12-96

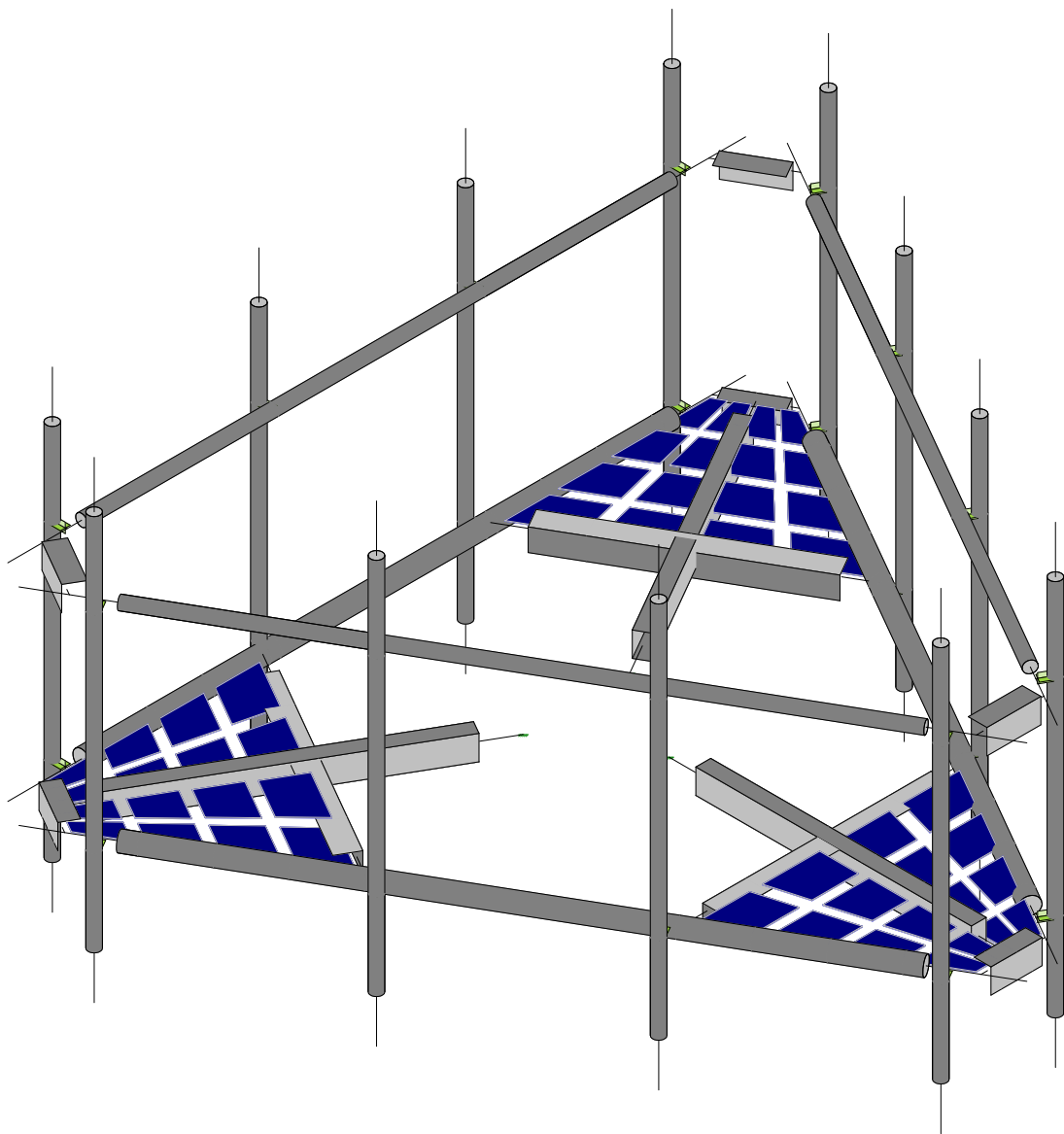
APPENDIX A
WIRE FRAME AND RENDERED MODELS



ETS, PLLC
TSB
196392.14

842856 - ANDOVER NORTH_Mount Analysis

SK - 1
Oct 8, 2019 at 8:34 AM
842856 - ANDOVER NORTH_Loa...



ETS, PLLC
TSB
196392.14

842856 - ANDOVER NORTH_Mount Analysis

SK - 2
Oct 8, 2019 at 8:36 AM
842856 - ANDOVER NORTH_Loa...

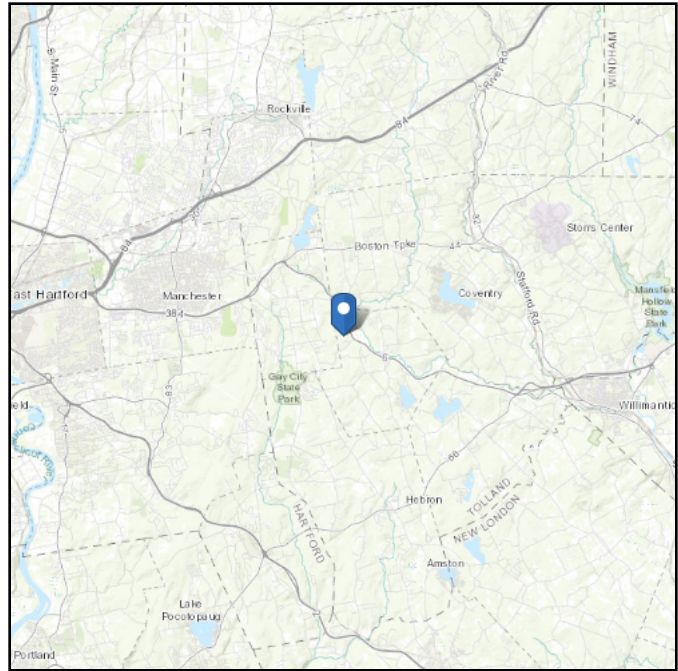
APPENDIX B
SOFTWARE INPUT CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 495.67 ft (NAVD 88)
Latitude: 41.750128
Longitude: -72.402675



Wind

Results:

Wind Speed:	- Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	94 Vmph
100-year MRI	102 Vmph

Local Code: 130 Vmph

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

Date Accessed: Mon Oct 07 2019

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

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

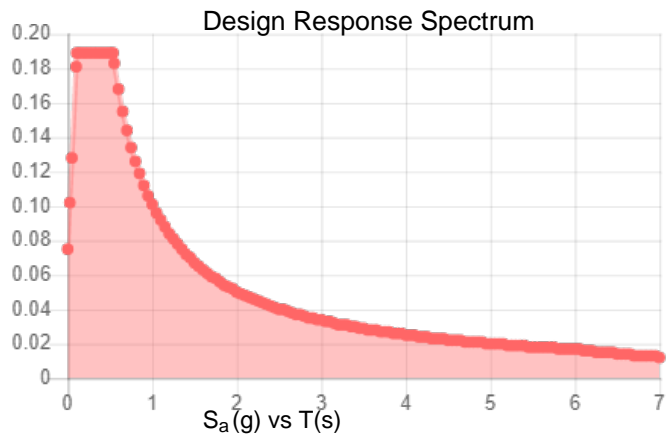
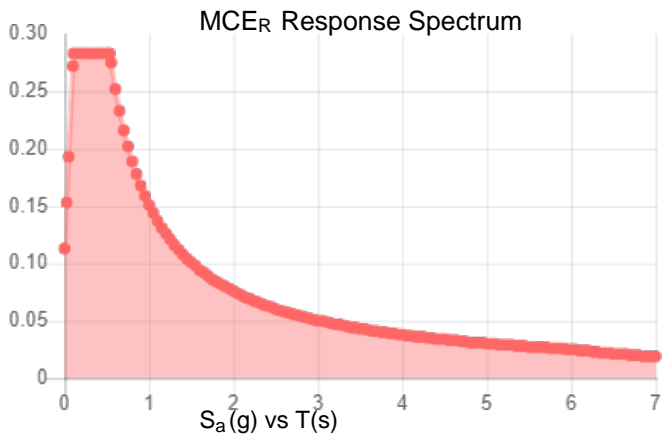
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.176	S_{DS} :	0.189
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.089
S_{MS} :	0.283	PGA _M :	0.142
S_{M1} :	0.151	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Mon Oct 07 2019

Date Source:

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

Ice

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 5 F
Gust Speed: 50 mph

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

Date Accessed: Mon Oct 07 2019

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

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

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APPENDIX C
SOFTWARE ANALYSIS OUTPUT



Company : ETS, PLLC
 Designer : TSB
 Job Number : 196392.14
 Model Name : 842856 - ANDOVER NORTH_Mount Analysis

Oct 8, 2019
 3:05 PM
 Checked By: _____

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	BRACE2	N103	N104		90	BPL 4.5X4.5X...	None	None	A36 Gr.36	Typical
2	BRACE5	N101	N102		180	BPL 5x3-3/8x1...	None	None	A36 Gr.36	Typical
3	BRACE3	N97	N98		90	BPL 4.5X4.5X...	None	None	A36 Gr.36	Typical
4	BRACE6	N95	N96		180	BPL 5x3-3/8x1...	None	None	A36 Gr.36	Typical
5	BRACE1	N89	N90		90	BPL 4.5X4.5X...	None	None	A36 Gr.36	Typical
6	BRACE4	N87	N88		180	BPL 5x3-3/8x1...	None	None	A36 Gr.36	Typical
7	CORN2	N166	N164		180	BPL 5X3-13/16	None	None	A36 Gr.36	Typical
8	CORN3	N165	N169		180	BPL 5X3-13/16	None	None	A36 Gr.36	Typical
9	CORN1	N167	N168		180	BPL 5X3-13/16	None	None	A36 Gr.36	Typical
10	FM1	N8	N5			PIPE 3.0	None	None	A53 Gr.B	Typical
11	FM2	N6	N7			PIPE 3.0	None	None	A53 Gr.B	Typical
12	FM3	N4	N3			PIPE 3.0	None	None	A53 Gr.B	Typical
13	HR1	N14	N11			PIPE 2.0	None	None	A53 Gr.B	Typical
14	HR2	N12	N13			PIPE 2.0	None	None	A53 Gr.B	Typical
15	HR3	N10	N9			PIPE 2.0	None	None	A53 Gr.B	Typical
16	MP1	N36	N32			PIPE 2.0	None	None	A53 Gr.B	Typical
17	MP2	N38	N34			PIPE 2.0	None	None	A53 Gr.B	Typical
18	MP3	N37	N33			PIPE 2.0	None	None	A53 Gr.B	Typical
19	MP4	N35	N31			PIPE 2.0	None	None	A53 Gr.B	Typical
20	MP5	N84	N80			PIPE 2.0	None	None	A53 Gr.B	Typical
21	MP6	N86	N82			PIPE 2.0	None	None	A53 Gr.B	Typical
22	MP7	N85	N81			PIPE 2.0	None	None	A53 Gr.B	Typical
23	MP8	N83	N79			PIPE 2.0	None	None	A53 Gr.B	Typical
24	MP9	N60	N56			PIPE 2.0	None	None	A53 Gr.B	Typical
25	MP10	N62	N58			PIPE 2.0	None	None	A53 Gr.B	Typical
26	MP11	N61	N57			PIPE 2.0	None	None	A53 Gr.B	Typical
27	MP12	N59	N55			PIPE 2.0	None	None	A53 Gr.B	Typical
28	RL1	N15	N23			RIGID	None	None	RIGID	Typical
29	RL2	N19	N27			RIGID	None	None	RIGID	Typical
30	RL3	N17	N25			RIGID	None	None	RIGID	Typical
31	RL4	N18	N26			RIGID	None	None	RIGID	Typical
32	RL5	N16	N24			RIGID	None	None	RIGID	Typical
33	RL6	N21	N29			RIGID	None	None	RIGID	Typical
34	RL7	N22	N30			RIGID	None	None	RIGID	Typical
35	RL8	N20	N28			RIGID	None	None	RIGID	Typical
36	RL9	N39	N47			RIGID	None	None	RIGID	Typical
37	RL10	N43	N51			RIGID	None	None	RIGID	Typical
38	RL11	N41	N49			RIGID	None	None	RIGID	Typical
39	RL12	N42	N50			RIGID	None	None	RIGID	Typical
40	RL13	N40	N48			RIGID	None	None	RIGID	Typical
41	RL14	N45	N53			RIGID	None	None	RIGID	Typical
42	RL15	N46	N54			RIGID	None	None	RIGID	Typical
43	RL16	N44	N52			RIGID	None	None	RIGID	Typical
44	RL17	N63	N71			RIGID	None	None	RIGID	Typical
45	RL18	N67	N75			RIGID	None	None	RIGID	Typical
46	RL19	N65	N73			RIGID	None	None	RIGID	Typical
47	RL20	N66	N74			RIGID	None	None	RIGID	Typical
48	RL21	N64	N72			RIGID	None	None	RIGID	Typical
49	RL22	N69	N77			RIGID	None	None	RIGID	Typical
50	RL23	N70	N78			RIGID	None	None	RIGID	Typical
51	RL24	N68	N76			RIGID	None	None	RIGID	Typical
52	SA2	N99	N100			HSS5x3x3/8_...	None	None	A500 Gr.B...	Typical
53	SA3	N93	N94			HSS5x3x3/8_...	None	None	A500 Gr.B...	Typical
54	SA1	N1	N2			HSS5x3x3/8_...	None	None	A500 Gr.B...	Typical



Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		24	70.5	0
3	Total General		24	70.5	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	BPL 4.5X4.5X1/4	3	174.1	.1
7	A36 Gr.36	BPL 5X3-13/16	3	41.1	0
8	A36 Gr.36	BPL 5x3-3/8x1/4	3	39	0
9	A500 Gr.B Rect	HSS5x3x3/8 HRA	3	210	.3
10	A53 Gr.B	PIPE 2.0	15	1602	.5
11	A53 Gr.B	PIPE 3.0	3	450	.3
12	Total HR Steel		30	2516.1	1.2
13					
14	Plate Elements	Thickness (in)		Volume (yds^3)	
15	WorkPlatform	.1	48	0	.1
16	Total Plates		48	0	.1

Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	Y	-87.4	%50
2	MP2	Y	-200.8	%50
3	MP3	Y	-168.8	%50
4	MP4	Y	-87.4	%50
5	MP5	Y	-87.4	%50
6	MP6	Y	-168.8	%50
7	MP7	Y	-140.6	%50
8	MP8	Y	-87.4	%50
9	MP9	Y	-87.4	%50
10	MP10	Y	-140.6	%50
11	MP11	Y	-140.6	%50
12	MP12	Y	-87.4	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	19.2	%50
2	MP2	X	456.3	%50
3	MP3	X	259.2	%50
4	MP4	X	19.2	%50
5	MP5	X	74.1	%50
6	MP6	X	225.2	%50
7	MP7	X	207.8	%50
8	MP8	X	74.1	%50
9	MP9	X	74.1	%50
10	MP10	X	207.8	%50
11	MP11	X	207.8	%50
12	MP12	X	74.1	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	32.5	%50
2	MP2	X	375.2	%50
3	MP3	X	214.6	%50
4	MP4	X	32.5	%50
5	MP5	X	80	%50
6	MP6	X	185.2	%50
7	MP7	X	165.2	%50
8	MP8	X	80	%50
9	MP9	X	32.5	%50
10	MP10	X	209.6	%50
11	MP11	X	209.6	%50
12	MP12	X	32.5	%50
13	MP1	Z	18.8	%50
14	MP2	Z	216.6	%50
15	MP3	Z	123.9	%50
16	MP4	Z	18.8	%50
17	MP5	Z	46.2	%50
18	MP6	Z	106.9	%50
19	MP7	Z	95.4	%50
20	MP8	Z	46.2	%50
21	MP9	Z	18.8	%50
22	MP10	Z	121	%50
23	MP11	Z	121	%50
24	MP12	Z	18.8	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	37	%50
2	MP2	X	193.7	%50
3	MP3	X	112.6	%50
4	MP4	X	37	%50
5	MP5	X	37	%50
6	MP6	X	112.6	%50
7	MP7	X	103.9	%50
8	MP8	X	37	%50
9	MP9	X	9.6	%50
10	MP10	X	129.6	%50
11	MP11	X	129.6	%50
12	MP12	X	9.6	%50
13	MP1	Z	64.1	%50
14	MP2	Z	335.4	%50
15	MP3	Z	195	%50
16	MP4	Z	64.1	%50
17	MP5	Z	64.1	%50
18	MP6	Z	195	%50
19	MP7	Z	180	%50
20	MP8	Z	64.1	%50
21	MP9	Z	16.7	%50
22	MP10	Z	224.5	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
23	MP11	Z	224.5	%50
24	MP12	Z	16.7	%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	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	92.3	%50
14	MP2	Z	364.3	%50
15	MP3	Z	213.8	%50
16	MP4	Z	92.3	%50
17	MP5	Z	37.5	%50
18	MP6	Z	247.8	%50
19	MP7	Z	242.1	%50
20	MP8	Z	37.5	%50
21	MP9	Z	37.5	%50
22	MP10	Z	242.1	%50
23	MP11	Z	242.1	%50
24	MP12	Z	37.5	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-37	%50
2	MP2	X	-193.7	%50
3	MP3	X	-112.6	%50
4	MP4	X	-37	%50
5	MP5	X	-9.6	%50
6	MP6	X	-129.6	%50
7	MP7	X	-129.6	%50
8	MP8	X	-9.6	%50
9	MP9	X	-37	%50
10	MP10	X	-103.9	%50
11	MP11	X	-103.9	%50
12	MP12	X	-37	%50
13	MP1	Z	64.1	%50
14	MP2	Z	335.4	%50
15	MP3	Z	195	%50
16	MP4	Z	64.1	%50
17	MP5	Z	16.7	%50
18	MP6	Z	224.5	%50
19	MP7	Z	224.5	%50
20	MP8	Z	16.7	%50
21	MP9	Z	64.1	%50
22	MP10	Z	180	%50
23	MP11	Z	180	%50
24	MP12	Z	64.1	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-32.5	%50
2	MP2	X	-375.2	%50
3	MP3	X	-214.6	%50
4	MP4	X	-32.5	%50
5	MP5	X	-32.5	%50
6	MP6	X	-214.6	%50
7	MP7	X	-209.6	%50
8	MP8	X	-32.5	%50
9	MP9	X	-80	%50
10	MP10	X	-165.2	%50
11	MP11	X	-165.2	%50
12	MP12	X	-80	%50
13	MP1	Z	18.8	%50
14	MP2	Z	216.6	%50
15	MP3	Z	123.9	%50
16	MP4	Z	18.8	%50
17	MP5	Z	18.8	%50
18	MP6	Z	123.9	%50
19	MP7	Z	121	%50
20	MP8	Z	18.8	%50
21	MP9	Z	46.2	%50
22	MP10	Z	95.4	%50
23	MP11	Z	95.4	%50
24	MP12	Z	46.2	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-19.2	%50
2	MP2	X	-456.3	%50
3	MP3	X	-259.2	%50
4	MP4	X	-19.2	%50
5	MP5	X	-74.1	%50
6	MP6	X	-225.2	%50
7	MP7	X	-207.8	%50
8	MP8	X	-74.1	%50
9	MP9	X	-74.1	%50
10	MP10	X	-207.8	%50
11	MP11	X	-207.8	%50
12	MP12	X	-74.1	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-32.5	%50
2	MP2	X	-375.2	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
3	MP3	X	-214.6	%50
4	MP4	X	-32.5	%50
5	MP5	X	-80	%50
6	MP6	X	-185.2	%50
7	MP7	X	-165.2	%50
8	MP8	X	-80	%50
9	MP9	X	-32.5	%50
10	MP10	X	-209.6	%50
11	MP11	X	-209.6	%50
12	MP12	X	-32.5	%50
13	MP1	Z	-18.8	%50
14	MP2	Z	-216.6	%50
15	MP3	Z	-123.9	%50
16	MP4	Z	-18.8	%50
17	MP5	Z	-46.2	%50
18	MP6	Z	-106.9	%50
19	MP7	Z	-95.4	%50
20	MP8	Z	-46.2	%50
21	MP9	Z	-18.8	%50
22	MP10	Z	-121	%50
23	MP11	Z	-121	%50
24	MP12	Z	-18.8	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-37	%50
2	MP2	X	-193.7	%50
3	MP3	X	-112.6	%50
4	MP4	X	-37	%50
5	MP5	X	-37	%50
6	MP6	X	-112.6	%50
7	MP7	X	-103.9	%50
8	MP8	X	-37	%50
9	MP9	X	-9.6	%50
10	MP10	X	-129.6	%50
11	MP11	X	-129.6	%50
12	MP12	X	-9.6	%50
13	MP1	Z	-64.1	%50
14	MP2	Z	-335.4	%50
15	MP3	Z	-195	%50
16	MP4	Z	-64.1	%50
17	MP5	Z	-64.1	%50
18	MP6	Z	-195	%50
19	MP7	Z	-180	%50
20	MP8	Z	-64.1	%50
21	MP9	Z	-16.7	%50
22	MP10	Z	-224.5	%50
23	MP11	Z	-224.5	%50
24	MP12	Z	-16.7	%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



Member Point Loads (BLC 11 : Wind Load (270 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	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	-92.3	%50
14	MP2	Z	-364.3	%50
15	MP3	Z	-213.8	%50
16	MP4	Z	-92.3	%50
17	MP5	Z	-37.5	%50
18	MP6	Z	-247.8	%50
19	MP7	Z	-242.1	%50
20	MP8	Z	-37.5	%50
21	MP9	Z	-37.5	%50
22	MP10	Z	-242.1	%50
23	MP11	Z	-242.1	%50
24	MP12	Z	-37.5	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	37	%50
2	MP2	X	193.7	%50
3	MP3	X	112.6	%50
4	MP4	X	37	%50
5	MP5	X	9.6	%50
6	MP6	X	129.6	%50
7	MP7	X	129.6	%50
8	MP8	X	9.6	%50
9	MP9	X	37	%50
10	MP10	X	103.9	%50
11	MP11	X	103.9	%50
12	MP12	X	37	%50
13	MP1	Z	-64.1	%50
14	MP2	Z	-335.4	%50
15	MP3	Z	-195	%50
16	MP4	Z	-64.1	%50
17	MP5	Z	-16.7	%50
18	MP6	Z	-224.5	%50
19	MP7	Z	-224.5	%50
20	MP8	Z	-16.7	%50
21	MP9	Z	-64.1	%50
22	MP10	Z	-180	%50
23	MP11	Z	-180	%50
24	MP12	Z	-64.1	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	32.5	%50
2	MP2	X	375.2	%50
3	MP3	X	214.6	%50
4	MP4	X	32.5	%50
5	MP5	X	32.5	%50
6	MP6	X	214.6	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
7	MP7	X	209.6	%50
8	MP8	X	32.5	%50
9	MP9	X	80	%50
10	MP10	X	165.2	%50
11	MP11	X	165.2	%50
12	MP12	X	80	%50
13	MP1	Z	-18.8	%50
14	MP2	Z	-216.6	%50
15	MP3	Z	-123.9	%50
16	MP4	Z	-18.8	%50
17	MP5	Z	-18.8	%50
18	MP6	Z	-123.9	%50
19	MP7	Z	-121	%50
20	MP8	Z	-18.8	%50
21	MP9	Z	-46.2	%50
22	MP10	Z	-95.4	%50
23	MP11	Z	-95.4	%50
24	MP12	Z	-46.2	%50

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	Y	-1257.3	%50
2	MP2	Y	-405.9	%50
3	MP3	Y	-247.1	%50
4	MP4	Y	-1257.3	%50
5	MP5	Y	-1257.3	%50
6	MP6	Y	-247.1	%50
7	MP7	Y	-240.2	%50
8	MP8	Y	-1257.3	%50
9	MP9	Y	-1257.3	%50
10	MP10	Y	-240.2	%50
11	MP11	Y	-240.2	%50
12	MP12	Y	-1257.3	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	9.9	%50
2	MP2	X	108.1	%50
3	MP3	X	71.5	%50
4	MP4	X	9.9	%50
5	MP5	X	27.8	%50
6	MP6	X	63.8	%50
7	MP7	X	60.8	%50
8	MP8	X	27.8	%50
9	MP9	X	27.8	%50
10	MP10	X	60.8	%50
11	MP11	X	60.8	%50
12	MP12	X	27.8	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	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	13.8	%50
2	MP2	X	89.9	%50
3	MP3	X	59.7	%50
4	MP4	X	13.8	%50
5	MP5	X	29.2	%50
6	MP6	X	53	%50
7	MP7	X	49.5	%50
8	MP8	X	29.2	%50
9	MP9	X	13.8	%50
10	MP10	X	58.8	%50
11	MP11	X	58.8	%50
12	MP12	X	13.8	%50
13	MP1	Z	7.9	%50
14	MP2	Z	51.9	%50
15	MP3	Z	34.5	%50
16	MP4	Z	7.9	%50
17	MP5	Z	16.9	%50
18	MP6	Z	30.6	%50
19	MP7	Z	28.6	%50
20	MP8	Z	16.9	%50
21	MP9	Z	7.9	%50
22	MP10	Z	34	%50
23	MP11	Z	34	%50
24	MP12	Z	7.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	13.9	%50
2	MP2	X	47.6	%50
3	MP3	X	31.9	%50
4	MP4	X	13.9	%50
5	MP5	X	13.9	%50
6	MP6	X	31.9	%50
7	MP7	X	30.4	%50
8	MP8	X	13.9	%50
9	MP9	X	5	%50
10	MP10	X	35.8	%50
11	MP11	X	35.8	%50
12	MP12	X	5	%50
13	MP1	Z	24.1	%50
14	MP2	Z	82.5	%50
15	MP3	Z	55.2	%50
16	MP4	Z	24.1	%50
17	MP5	Z	24.1	%50
18	MP6	Z	55.2	%50
19	MP7	Z	52.6	%50
20	MP8	Z	24.1	%50
21	MP9	Z	8.6	%50
22	MP10	Z	62	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
23	MP11	Z	62	%50
24	MP12	Z	8.6	%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
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	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	33.8	%50
14	MP2	Z	91	%50
15	MP3	Z	61.2	%50
16	MP4	Z	33.8	%50
17	MP5	Z	15.9	%50
18	MP6	Z	69	%50
19	MP7	Z	68	%50
20	MP8	Z	15.9	%50
21	MP9	Z	15.9	%50
22	MP10	Z	68	%50
23	MP11	Z	68	%50
24	MP12	Z	15.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-13.9	%50
2	MP2	X	-47.6	%50
3	MP3	X	-31.9	%50
4	MP4	X	-13.9	%50
5	MP5	X	-5	%50
6	MP6	X	-35.8	%50
7	MP7	X	-35.8	%50
8	MP8	X	-5	%50
9	MP9	X	-13.9	%50
10	MP10	X	-30.4	%50
11	MP11	X	-30.4	%50
12	MP12	X	-13.9	%50
13	MP1	Z	24.1	%50
14	MP2	Z	82.5	%50
15	MP3	Z	55.2	%50
16	MP4	Z	24.1	%50
17	MP5	Z	8.6	%50
18	MP6	Z	62	%50
19	MP7	Z	62	%50
20	MP8	Z	8.6	%50
21	MP9	Z	24.1	%50
22	MP10	Z	52.6	%50
23	MP11	Z	52.6	%50
24	MP12	Z	24.1	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-13.8	%50
2	MP2	X	-89.9	%50
3	MP3	X	-59.7	%50
4	MP4	X	-13.8	%50
5	MP5	X	-13.8	%50
6	MP6	X	-59.7	%50
7	MP7	X	-58.8	%50
8	MP8	X	-13.8	%50
9	MP9	X	-29.2	%50
10	MP10	X	-49.5	%50
11	MP11	X	-49.5	%50
12	MP12	X	-29.2	%50
13	MP1	Z	7.9	%50
14	MP2	Z	51.9	%50
15	MP3	Z	34.5	%50
16	MP4	Z	7.9	%50
17	MP5	Z	7.9	%50
18	MP6	Z	34.5	%50
19	MP7	Z	34	%50
20	MP8	Z	7.9	%50
21	MP9	Z	16.9	%50
22	MP10	Z	28.6	%50
23	MP11	Z	28.6	%50
24	MP12	Z	16.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-9.9	%50
2	MP2	X	-108.1	%50
3	MP3	X	-71.5	%50
4	MP4	X	-9.9	%50
5	MP5	X	-27.8	%50
6	MP6	X	-63.8	%50
7	MP7	X	-60.8	%50
8	MP8	X	-27.8	%50
9	MP9	X	-27.8	%50
10	MP10	X	-60.8	%50
11	MP11	X	-60.8	%50
12	MP12	X	-27.8	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	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	-13.8	%50
2	MP2	X	-89.9	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
3	MP3	X	-59.7	%50
4	MP4	X	-13.8	%50
5	MP5	X	-29.2	%50
6	MP6	X	-53	%50
7	MP7	X	-49.5	%50
8	MP8	X	-29.2	%50
9	MP9	X	-13.8	%50
10	MP10	X	-58.8	%50
11	MP11	X	-58.8	%50
12	MP12	X	-13.8	%50
13	MP1	Z	-7.9	%50
14	MP2	Z	-51.9	%50
15	MP3	Z	-34.5	%50
16	MP4	Z	-7.9	%50
17	MP5	Z	-16.9	%50
18	MP6	Z	-30.6	%50
19	MP7	Z	-28.6	%50
20	MP8	Z	-16.9	%50
21	MP9	Z	-7.9	%50
22	MP10	Z	-34	%50
23	MP11	Z	-34	%50
24	MP12	Z	-7.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-13.9	%50
2	MP2	X	-47.6	%50
3	MP3	X	-31.9	%50
4	MP4	X	-13.9	%50
5	MP5	X	-13.9	%50
6	MP6	X	-31.9	%50
7	MP7	X	-30.4	%50
8	MP8	X	-13.9	%50
9	MP9	X	-5	%50
10	MP10	X	-35.8	%50
11	MP11	X	-35.8	%50
12	MP12	X	-5	%50
13	MP1	Z	-24.1	%50
14	MP2	Z	-82.5	%50
15	MP3	Z	-55.2	%50
16	MP4	Z	-24.1	%50
17	MP5	Z	-24.1	%50
18	MP6	Z	-55.2	%50
19	MP7	Z	-52.6	%50
20	MP8	Z	-24.1	%50
21	MP9	Z	-8.6	%50
22	MP10	Z	-62	%50
23	MP11	Z	-62	%50
24	MP12	Z	-8.6	%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



Member Point Loads (BLC 24 : Wind on Ice (270 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	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	-33.8	%50
14	MP2	Z	-91	%50
15	MP3	Z	-61.2	%50
16	MP4	Z	-33.8	%50
17	MP5	Z	-15.9	%50
18	MP6	Z	-69	%50
19	MP7	Z	-68	%50
20	MP8	Z	-15.9	%50
21	MP9	Z	-15.9	%50
22	MP10	Z	-68	%50
23	MP11	Z	-68	%50
24	MP12	Z	-15.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	13.9	%50
2	MP2	X	47.6	%50
3	MP3	X	31.9	%50
4	MP4	X	13.9	%50
5	MP5	X	5	%50
6	MP6	X	35.8	%50
7	MP7	X	35.8	%50
8	MP8	X	5	%50
9	MP9	X	13.9	%50
10	MP10	X	30.4	%50
11	MP11	X	30.4	%50
12	MP12	X	13.9	%50
13	MP1	Z	-24.1	%50
14	MP2	Z	-82.5	%50
15	MP3	Z	-55.2	%50
16	MP4	Z	-24.1	%50
17	MP5	Z	-8.6	%50
18	MP6	Z	-62	%50
19	MP7	Z	-62	%50
20	MP8	Z	-8.6	%50
21	MP9	Z	-24.1	%50
22	MP10	Z	-52.6	%50
23	MP11	Z	-52.6	%50
24	MP12	Z	-24.1	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	13.8	%50
2	MP2	X	89.9	%50
3	MP3	X	59.7	%50
4	MP4	X	13.8	%50
5	MP5	X	13.8	%50
6	MP6	X	59.7	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
7	MP7	X	58.8	%50
8	MP8	X	13.8	%50
9	MP9	X	29.2	%50
10	MP10	X	49.5	%50
11	MP11	X	49.5	%50
12	MP12	X	29.2	%50
13	MP1	Z	-7.9	%50
14	MP2	Z	-51.9	%50
15	MP3	Z	-34.5	%50
16	MP4	Z	-7.9	%50
17	MP5	Z	-7.9	%50
18	MP6	Z	-34.5	%50
19	MP7	Z	-34	%50
20	MP8	Z	-7.9	%50
21	MP9	Z	-16.9	%50
22	MP10	Z	-28.6	%50
23	MP11	Z	-28.6	%50
24	MP12	Z	-16.9	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	87.4	%50
2	MP2	X	200.8	%50
3	MP3	X	168.8	%50
4	MP4	X	87.4	%50
5	MP5	X	87.4	%50
6	MP6	X	168.8	%50
7	MP7	X	140.6	%50
8	MP8	X	87.4	%50
9	MP9	X	87.4	%50
10	MP10	X	140.6	%50
11	MP11	X	140.6	%50
12	MP12	X	87.4	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	75.7	%50
2	MP2	X	173.9	%50
3	MP3	X	146.2	%50
4	MP4	X	75.7	%50
5	MP5	X	75.7	%50
6	MP6	X	146.2	%50
7	MP7	X	121.8	%50
8	MP8	X	75.7	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
9	MP9	X	75.7	%50
10	MP10	X	121.8	%50
11	MP11	X	121.8	%50
12	MP12	X	75.7	%50
13	MP1	Z	43.7	%50
14	MP2	Z	100.4	%50
15	MP3	Z	84.4	%50
16	MP4	Z	43.7	%50
17	MP5	Z	43.7	%50
18	MP6	Z	84.4	%50
19	MP7	Z	70.3	%50
20	MP8	Z	43.7	%50
21	MP9	Z	43.7	%50
22	MP10	Z	70.3	%50
23	MP11	Z	70.3	%50
24	MP12	Z	43.7	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	43.7	%50
2	MP2	X	100.4	%50
3	MP3	X	84.4	%50
4	MP4	X	43.7	%50
5	MP5	X	43.7	%50
6	MP6	X	84.4	%50
7	MP7	X	70.3	%50
8	MP8	X	43.7	%50
9	MP9	X	43.7	%50
10	MP10	X	70.3	%50
11	MP11	X	70.3	%50
12	MP12	X	43.7	%50
13	MP1	Z	75.7	%50
14	MP2	Z	173.9	%50
15	MP3	Z	146.2	%50
16	MP4	Z	75.7	%50
17	MP5	Z	75.7	%50
18	MP6	Z	146.2	%50
19	MP7	Z	121.8	%50
20	MP8	Z	75.7	%50
21	MP9	Z	75.7	%50
22	MP10	Z	121.8	%50
23	MP11	Z	121.8	%50
24	MP12	Z	75.7	%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
9	MP9	X	0	%50
10	MP10	X	0	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
11	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	87.4	%50
14	MP2	Z	200.8	%50
15	MP3	Z	168.8	%50
16	MP4	Z	87.4	%50
17	MP5	Z	87.4	%50
18	MP6	Z	168.8	%50
19	MP7	Z	140.6	%50
20	MP8	Z	87.4	%50
21	MP9	Z	87.4	%50
22	MP10	Z	140.6	%50
23	MP11	Z	140.6	%50
24	MP12	Z	87.4	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-43.7	%50
2	MP2	X	-100.4	%50
3	MP3	X	-84.4	%50
4	MP4	X	-43.7	%50
5	MP5	X	-43.7	%50
6	MP6	X	-84.4	%50
7	MP7	X	-70.3	%50
8	MP8	X	-43.7	%50
9	MP9	X	-43.7	%50
10	MP10	X	-70.3	%50
11	MP11	X	-70.3	%50
12	MP12	X	-43.7	%50
13	MP1	Z	75.7	%50
14	MP2	Z	173.9	%50
15	MP3	Z	146.2	%50
16	MP4	Z	75.7	%50
17	MP5	Z	75.7	%50
18	MP6	Z	146.2	%50
19	MP7	Z	121.8	%50
20	MP8	Z	75.7	%50
21	MP9	Z	75.7	%50
22	MP10	Z	121.8	%50
23	MP11	Z	121.8	%50
24	MP12	Z	75.7	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-75.7	%50
2	MP2	X	-173.9	%50
3	MP3	X	-146.2	%50
4	MP4	X	-75.7	%50
5	MP5	X	-75.7	%50
6	MP6	X	-146.2	%50
7	MP7	X	-121.8	%50
8	MP8	X	-75.7	%50
9	MP9	X	-75.7	%50
10	MP10	X	-121.8	%50
11	MP11	X	-121.8	%50
12	MP12	X	-75.7	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
13	MP1	Z	43.7	%50
14	MP2	Z	100.4	%50
15	MP3	Z	84.4	%50
16	MP4	Z	43.7	%50
17	MP5	Z	43.7	%50
18	MP6	Z	84.4	%50
19	MP7	Z	70.3	%50
20	MP8	Z	43.7	%50
21	MP9	Z	43.7	%50
22	MP10	Z	70.3	%50
23	MP11	Z	70.3	%50
24	MP12	Z	43.7	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-87.4	%50
2	MP2	X	-200.8	%50
3	MP3	X	-168.8	%50
4	MP4	X	-87.4	%50
5	MP5	X	-87.4	%50
6	MP6	X	-168.8	%50
7	MP7	X	-140.6	%50
8	MP8	X	-87.4	%50
9	MP9	X	-87.4	%50
10	MP10	X	-140.6	%50
11	MP11	X	-140.6	%50
12	MP12	X	-87.4	%50
13	MP1	Z	0	%50
14	MP2	Z	0	%50
15	MP3	Z	0	%50
16	MP4	Z	0	%50
17	MP5	Z	0	%50
18	MP6	Z	0	%50
19	MP7	Z	0	%50
20	MP8	Z	0	%50
21	MP9	Z	0	%50
22	MP10	Z	0	%50
23	MP11	Z	0	%50
24	MP12	Z	0	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-75.7	%50
2	MP2	X	-173.9	%50
3	MP3	X	-146.2	%50
4	MP4	X	-75.7	%50
5	MP5	X	-75.7	%50
6	MP6	X	-146.2	%50
7	MP7	X	-121.8	%50
8	MP8	X	-75.7	%50
9	MP9	X	-75.7	%50
10	MP10	X	-121.8	%50
11	MP11	X	-121.8	%50
12	MP12	X	-75.7	%50
13	MP1	Z	-43.7	%50
14	MP2	Z	-100.4	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
15	MP3	Z	-84.4	%50
16	MP4	Z	-43.7	%50
17	MP5	Z	-43.7	%50
18	MP6	Z	-84.4	%50
19	MP7	Z	-70.3	%50
20	MP8	Z	-43.7	%50
21	MP9	Z	-43.7	%50
22	MP10	Z	-70.3	%50
23	MP11	Z	-70.3	%50
24	MP12	Z	-43.7	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-43.7	%50
2	MP2	X	-100.4	%50
3	MP3	X	-84.4	%50
4	MP4	X	-43.7	%50
5	MP5	X	-43.7	%50
6	MP6	X	-84.4	%50
7	MP7	X	-70.3	%50
8	MP8	X	-43.7	%50
9	MP9	X	-43.7	%50
10	MP10	X	-70.3	%50
11	MP11	X	-70.3	%50
12	MP12	X	-43.7	%50
13	MP1	Z	-75.7	%50
14	MP2	Z	-173.9	%50
15	MP3	Z	-146.2	%50
16	MP4	Z	-75.7	%50
17	MP5	Z	-75.7	%50
18	MP6	Z	-146.2	%50
19	MP7	Z	-121.8	%50
20	MP8	Z	-75.7	%50
21	MP9	Z	-75.7	%50
22	MP10	Z	-121.8	%50
23	MP11	Z	-121.8	%50
24	MP12	Z	-75.7	%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
11	MP11	X	0	%50
12	MP12	X	0	%50
13	MP1	Z	-87.4	%50
14	MP2	Z	-200.8	%50
15	MP3	Z	-168.8	%50
16	MP4	Z	-87.4	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
17	MP5	Z	-87.4	%50
18	MP6	Z	-168.8	%50
19	MP7	Z	-140.6	%50
20	MP8	Z	-87.4	%50
21	MP9	Z	-87.4	%50
22	MP10	Z	-140.6	%50
23	MP11	Z	-140.6	%50
24	MP12	Z	-87.4	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	43.7	%50
2	MP2	X	100.4	%50
3	MP3	X	84.4	%50
4	MP4	X	43.7	%50
5	MP5	X	43.7	%50
6	MP6	X	84.4	%50
7	MP7	X	70.3	%50
8	MP8	X	43.7	%50
9	MP9	X	43.7	%50
10	MP10	X	70.3	%50
11	MP11	X	70.3	%50
12	MP12	X	43.7	%50
13	MP1	Z	-75.7	%50
14	MP2	Z	-173.9	%50
15	MP3	Z	-146.2	%50
16	MP4	Z	-75.7	%50
17	MP5	Z	-75.7	%50
18	MP6	Z	-146.2	%50
19	MP7	Z	-121.8	%50
20	MP8	Z	-75.7	%50
21	MP9	Z	-75.7	%50
22	MP10	Z	-121.8	%50
23	MP11	Z	-121.8	%50
24	MP12	Z	-75.7	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	75.7	%50
2	MP2	X	173.9	%50
3	MP3	X	146.2	%50
4	MP4	X	75.7	%50
5	MP5	X	75.7	%50
6	MP6	X	146.2	%50
7	MP7	X	121.8	%50
8	MP8	X	75.7	%50
9	MP9	X	75.7	%50
10	MP10	X	121.8	%50
11	MP11	X	121.8	%50
12	MP12	X	75.7	%50
13	MP1	Z	-43.7	%50
14	MP2	Z	-100.4	%50
15	MP3	Z	-84.4	%50
16	MP4	Z	-43.7	%50
17	MP5	Z	-43.7	%50
18	MP6	Z	-84.4	%50



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
19	MP7	Z	-70.3	%50
20	MP8	Z	-43.7	%50
21	MP9	Z	-43.7	%50
22	MP10	Z	-70.3	%50
23	MP11	Z	-70.3	%50
24	MP12	Z	-43.7	%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

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 48 : Maintenance Load, Lm (MP10))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP10	Y	-500	%50

Member Point Loads (BLC 49 : Maintenance Load, Lm (MP11))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP11	Y	-500	%50



Member Point Loads (BLC 50 : Maintenance Load, Lm (MP12))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP12	Y	-500	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM1	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM1	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM1	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM2	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM2	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM2	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM3	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM3	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	FM3	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA1	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA1	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA2	Y	-250	0



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA2	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA3	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	SA3	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE1	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE2	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE3	Y	-250	%50

Member Point Loads (BLC 93 : Maintenance Load, Lv (Pos. 19))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR1	Y	-250	%50

Member Point Loads (BLC 94 : Maintenance Load, Lv (Pos. 20))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR2	Y	-250	%50

Member Point Loads (BLC 95 : Maintenance Load, Lv (Pos. 21))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	HR3	Y	-250	%50

Member Point Loads (BLC 96 : Maintenance Load, Lv (Pos. 22))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE4	Y	-250	%50

Member Point Loads (BLC 97 : Maintenance Load, Lv (Pos. 23))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE5	Y	-250	%50

Member Point Loads (BLC 98 : Maintenance Load, Lv (Pos. 24))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	BRACE6	Y	-250	%50

Member Point Loads (BLC 175 : Antenna Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	404.2	%18.75
2	MP1	X	404.2	%81.25
3	MP2	X	0	0



Member Point Loads (BLC 175 : Antenna Wind Load (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	404.2	%18.75
8	MP4	X	404.2	%81.25
9	MP5	X	191.9	%18.75
10	MP5	X	191.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	191.9	%18.75
16	MP8	X	191.9	%81.25
17	MP9	X	191.9	%18.75
18	MP9	X	191.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	191.9	%18.75
24	MP12	X	191.9	%81.25
25	MP1	Z	0	0
26	MP1	Z	0	0
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	0	0
32	MP4	Z	0	0
33	MP5	Z	0	0
34	MP5	Z	0	0
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	0	0
40	MP8	Z	0	0
41	MP9	Z	0	0
42	MP9	Z	0	0
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	0	0
48	MP12	Z	0	0

Member Point Loads (BLC 176 : Antenna Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	288.8	%18.75
2	MP1	X	288.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	288.8	%18.75
8	MP4	X	288.8	%81.25



Member Point Loads (BLC 176 : Antenna Wind Load (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
9	MP5	X	104.9	%18.75
10	MP5	X	104.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	104.9	%18.75
16	MP8	X	104.9	%81.25
17	MP9	X	288.8	%18.75
18	MP9	X	288.8	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	288.8	%18.75
24	MP12	X	288.8	%81.25
25	MP1	Z	166.7	%18.75
26	MP1	Z	166.7	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	166.7	%18.75
32	MP4	Z	166.7	%81.25
33	MP5	Z	60.6	%18.75
34	MP5	Z	60.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	60.6	%18.75
40	MP8	Z	60.6	%81.25
41	MP9	Z	166.7	%18.75
42	MP9	Z	166.7	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	166.7	%18.75
48	MP12	Z	166.7	%81.25

Member Point Loads (BLC 177 : Antenna Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	96	%18.75
2	MP1	X	96	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	96	%18.75
8	MP4	X	96	%81.25
9	MP5	X	96	%18.75
10	MP5	X	96	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0



Member Point Loads (BLC 177 : Antenna Wind Load (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
14	MP7	X	0	0
15	MP8	X	96	%18.75
16	MP8	X	96	%81.25
17	MP9	X	202.1	%18.75
18	MP9	X	202.1	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	202.1	%18.75
24	MP12	X	202.1	%81.25
25	MP1	Z	166.2	%18.75
26	MP1	Z	166.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	166.2	%18.75
32	MP4	Z	166.2	%81.25
33	MP5	Z	166.2	%18.75
34	MP5	Z	166.2	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	166.2	%18.75
40	MP8	Z	166.2	%81.25
41	MP9	Z	350.1	%18.75
42	MP9	Z	350.1	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	350.1	%18.75
48	MP12	Z	350.1	%81.25

Member Point Loads (BLC 178 : 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	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0



Member Point Loads (BLC 178 : Antenna Wind Load (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP1	Z	121.1	%18.75
26	MP1	Z	121.1	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	121.1	%18.75
32	MP4	Z	121.1	%81.25
33	MP5	Z	333.4	%18.75
34	MP5	Z	333.4	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	333.4	%18.75
40	MP8	Z	333.4	%81.25
41	MP9	Z	333.4	%18.75
42	MP9	Z	333.4	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	333.4	%18.75
48	MP12	Z	333.4	%81.25

Member Point Loads (BLC 179 : Antenna Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-96	%18.75
2	MP1	X	-96	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-96	%18.75
8	MP4	X	-96	%81.25
9	MP5	X	-202.1	%18.75
10	MP5	X	-202.1	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-202.1	%18.75
16	MP8	X	-202.1	%81.25
17	MP9	X	-96	%18.75
18	MP9	X	-96	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-96	%18.75

Member Point Loads (BLC 179 : Antenna Wind Load (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
24	MP12	X	-96	%81.25
25	MP1	Z	166.2	%18.75
26	MP1	Z	166.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	166.2	%18.75
32	MP4	Z	166.2	%81.25
33	MP5	Z	350.1	%18.75
34	MP5	Z	350.1	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	350.1	%18.75
40	MP8	Z	350.1	%81.25
41	MP9	Z	166.2	%18.75
42	MP9	Z	166.2	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	166.2	%18.75
48	MP12	Z	166.2	%81.25

Member Point Loads (BLC 180 : Antenna Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	-288.8	%18.75
2	MP1	X	-288.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-288.8	%18.75
8	MP4	X	-288.8	%81.25
9	MP5	X	-288.8	%18.75
10	MP5	X	-288.8	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-288.8	%18.75
16	MP8	X	-288.8	%81.25
17	MP9	X	-104.9	%18.75
18	MP9	X	-104.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-104.9	%18.75
24	MP12	X	-104.9	%81.25
25	MP1	Z	166.7	%18.75
26	MP1	Z	166.7	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0



Member Point Loads (BLC 180 : Antenna Wind Load (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	166.7	%18.75
32	MP4	Z	166.7	%81.25
33	MP5	Z	166.7	%18.75
34	MP5	Z	166.7	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	166.7	%18.75
40	MP8	Z	166.7	%81.25
41	MP9	Z	60.6	%18.75
42	MP9	Z	60.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	60.6	%18.75
48	MP12	Z	60.6	%81.25

Member Point Loads (BLC 181 : Antenna Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-404.2	%18.75
2	MP1	X	-404.2	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-404.2	%18.75
8	MP4	X	-404.2	%81.25
9	MP5	X	-191.9	%18.75
10	MP5	X	-191.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-191.9	%18.75
16	MP8	X	-191.9	%81.25
17	MP9	X	-191.9	%18.75
18	MP9	X	-191.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-191.9	%18.75
24	MP12	X	-191.9	%81.25
25	MP1	Z	0	0
26	MP1	Z	0	0
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	0	0
32	MP4	Z	0	0
33	MP5	Z	0	0



Member Point Loads (BLC 181 : Antenna Wind Load (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
34	MP5	Z	0	0
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	0	0
40	MP8	Z	0	0
41	MP9	Z	0	0
42	MP9	Z	0	0
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	0	0
48	MP12	Z	0	0

Member Point Loads (BLC 182 : Antenna Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-288.8	%18.75
2	MP1	X	-288.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-288.8	%18.75
8	MP4	X	-288.8	%81.25
9	MP5	X	-104.9	%18.75
10	MP5	X	-104.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-104.9	%18.75
16	MP8	X	-104.9	%81.25
17	MP9	X	-288.8	%18.75
18	MP9	X	-288.8	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-288.8	%18.75
24	MP12	X	-288.8	%81.25
25	MP1	Z	-166.7	%18.75
26	MP1	Z	-166.7	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-166.7	%18.75
32	MP4	Z	-166.7	%81.25
33	MP5	Z	-60.6	%18.75
34	MP5	Z	-60.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0



Member Point Loads (BLC 182 : Antenna Wind Load (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
39	MP8	Z	-60.6	%18.75
40	MP8	Z	-60.6	%81.25
41	MP9	Z	-166.7	%18.75
42	MP9	Z	-166.7	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-166.7	%18.75
48	MP12	Z	-166.7	%81.25

Member Point Loads (BLC 183 : Antenna Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP1	X	-96	%18.75
2	MP1	X	-96	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-96	%18.75
8	MP4	X	-96	%81.25
9	MP5	X	-96	%18.75
10	MP5	X	-96	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-96	%18.75
16	MP8	X	-96	%81.25
17	MP9	X	-202.1	%18.75
18	MP9	X	-202.1	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-202.1	%18.75
24	MP12	X	-202.1	%81.25
25	MP1	Z	-166.2	%18.75
26	MP1	Z	-166.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-166.2	%18.75
32	MP4	Z	-166.2	%81.25
33	MP5	Z	-166.2	%18.75
34	MP5	Z	-166.2	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-166.2	%18.75
40	MP8	Z	-166.2	%81.25
41	MP9	Z	-350.1	%18.75
42	MP9	Z	-350.1	%81.25
43	MP10	Z	0	0



Member Point Loads (BLC 183 : Antenna Wind Load (240 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-350.1	%18.75
48	MP12	Z	-350.1	%81.25

Member Point Loads (BLC 184 : 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	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP1	Z	-121.1	%18.75
26	MP1	Z	-121.1	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-121.1	%18.75
32	MP4	Z	-121.1	%81.25
33	MP5	Z	-333.4	%18.75
34	MP5	Z	-333.4	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-333.4	%18.75
40	MP8	Z	-333.4	%81.25
41	MP9	Z	-333.4	%18.75
42	MP9	Z	-333.4	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-333.4	%18.75
48	MP12	Z	-333.4	%81.25



Member Point Loads (BLC 185 : Antenna Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	96	%18.75
2	MP1	X	96	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	96	%18.75
8	MP4	X	96	%81.25
9	MP5	X	202.1	%18.75
10	MP5	X	202.1	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	202.1	%18.75
16	MP8	X	202.1	%81.25
17	MP9	X	96	%18.75
18	MP9	X	96	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	96	%18.75
24	MP12	X	96	%81.25
25	MP1	Z	-166.2	%18.75
26	MP1	Z	-166.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-166.2	%18.75
32	MP4	Z	-166.2	%81.25
33	MP5	Z	-350.1	%18.75
34	MP5	Z	-350.1	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-350.1	%18.75
40	MP8	Z	-350.1	%81.25
41	MP9	Z	-166.2	%18.75
42	MP9	Z	-166.2	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-166.2	%18.75
48	MP12	Z	-166.2	%81.25

Member Point Loads (BLC 186 : Antenna Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	288.8	%18.75
2	MP1	X	288.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0



Member Point Loads (BLC 186 : Antenna Wind Load (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
6	MP3	X	0	0
7	MP4	X	288.8	%18.75
8	MP4	X	288.8	%81.25
9	MP5	X	288.8	%18.75
10	MP5	X	288.8	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	288.8	%18.75
16	MP8	X	288.8	%81.25
17	MP9	X	104.9	%18.75
18	MP9	X	104.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	104.9	%18.75
24	MP12	X	104.9	%81.25
25	MP1	Z	-166.7	%18.75
26	MP1	Z	-166.7	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-166.7	%18.75
32	MP4	Z	-166.7	%81.25
33	MP5	Z	-166.7	%18.75
34	MP5	Z	-166.7	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-166.7	%18.75
40	MP8	Z	-166.7	%81.25
41	MP9	Z	-60.6	%18.75
42	MP9	Z	-60.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-60.6	%18.75
48	MP12	Z	-60.6	%81.25

Member Point Loads (BLC 187 : Antenna Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	87.8	%18.75
2	MP1	X	87.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	87.8	%18.75
8	MP4	X	87.8	%81.25
9	MP5	X	45.3	%18.75
10	MP5	X	45.3	%81.25



Member Point Loads (BLC 187 : Antenna Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	45.3	%18.75
16	MP8	X	45.3	%81.25
17	MP9	X	45.3	%18.75
18	MP9	X	45.3	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	45.3	%18.75
24	MP12	X	45.3	%81.25
25	MP1	Z	0	0
26	MP1	Z	0	0
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	0	0
32	MP4	Z	0	0
33	MP5	Z	0	0
34	MP5	Z	0	0
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	0	0
40	MP8	Z	0	0
41	MP9	Z	0	0
42	MP9	Z	0	0
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	0	0
48	MP12	Z	0	0

Member Point Loads (BLC 188 : Antenna Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	63.8	%18.75
2	MP1	X	63.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	63.8	%18.75
8	MP4	X	63.8	%81.25
9	MP5	X	27	%18.75
10	MP5	X	27	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	27	%18.75



Member Point Loads (BLC 188 : Antenna Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
16	MP8	X	27	%81.25
17	MP9	X	63.8	%18.75
18	MP9	X	63.8	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	63.8	%18.75
24	MP12	X	63.8	%81.25
25	MP1	Z	36.8	%18.75
26	MP1	Z	36.8	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	36.8	%18.75
32	MP4	Z	36.8	%81.25
33	MP5	Z	15.6	%18.75
34	MP5	Z	15.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	15.6	%18.75
40	MP8	Z	15.6	%81.25
41	MP9	Z	36.8	%18.75
42	MP9	Z	36.8	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	36.8	%18.75
48	MP12	Z	36.8	%81.25

Member Point Loads (BLC 189 : Antenna Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	22.7	%18.75
2	MP1	X	22.7	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	22.7	%18.75
8	MP4	X	22.7	%81.25
9	MP5	X	22.7	%18.75
10	MP5	X	22.7	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	22.7	%18.75
16	MP8	X	22.7	%81.25
17	MP9	X	43.9	%18.75
18	MP9	X	43.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0



Member Point Loads (BLC 189 : Antenna Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	43.9	%18.75
24	MP12	X	43.9	%81.25
25	MP1	Z	39.2	%18.75
26	MP1	Z	39.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	39.2	%18.75
32	MP4	Z	39.2	%81.25
33	MP5	Z	39.2	%18.75
34	MP5	Z	39.2	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	39.2	%18.75
40	MP8	Z	39.2	%81.25
41	MP9	Z	76	%18.75
42	MP9	Z	76	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	76	%18.75
48	MP12	Z	76	%81.25

Member Point Loads (BLC 190 : 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	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP1	Z	31.2	%18.75



Member Point Loads (BLC 190 : Antenna Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
26	MP1	Z	31.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	31.2	%18.75
32	MP4	Z	31.2	%81.25
33	MP5	Z	73.6	%18.75
34	MP5	Z	73.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	73.6	%18.75
40	MP8	Z	73.6	%81.25
41	MP9	Z	73.6	%18.75
42	MP9	Z	73.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	73.6	%18.75
48	MP12	Z	73.6	%81.25

Member Point Loads (BLC 191 : Antenna Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-22.7	%18.75
2	MP1	X	-22.7	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-22.7	%18.75
8	MP4	X	-22.7	%81.25
9	MP5	X	-43.9	%18.75
10	MP5	X	-43.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-43.9	%18.75
16	MP8	X	-43.9	%81.25
17	MP9	X	-22.7	%18.75
18	MP9	X	-22.7	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-22.7	%18.75
24	MP12	X	-22.7	%81.25
25	MP1	Z	39.2	%18.75
26	MP1	Z	39.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0



Member Point Loads (BLC 191 : Antenna Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
31	MP4	Z	39.2	%18.75
32	MP4	Z	39.2	%81.25
33	MP5	Z	76	%18.75
34	MP5	Z	76	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	76	%18.75
40	MP8	Z	76	%81.25
41	MP9	Z	39.2	%18.75
42	MP9	Z	39.2	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	39.2	%18.75
48	MP12	Z	39.2	%81.25

Member Point Loads (BLC 192 : Antenna Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-63.8	%18.75
2	MP1	X	-63.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-63.8	%18.75
8	MP4	X	-63.8	%81.25
9	MP5	X	-63.8	%18.75
10	MP5	X	-63.8	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-63.8	%18.75
16	MP8	X	-63.8	%81.25
17	MP9	X	-27	%18.75
18	MP9	X	-27	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-27	%18.75
24	MP12	X	-27	%81.25
25	MP1	Z	36.8	%18.75
26	MP1	Z	36.8	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	36.8	%18.75
32	MP4	Z	36.8	%81.25
33	MP5	Z	36.8	%18.75
34	MP5	Z	36.8	%81.25
35	MP6	Z	0	0



Member Point Loads (BLC 192 : Antenna Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	36.8	%18.75
40	MP8	Z	36.8	%81.25
41	MP9	Z	15.6	%18.75
42	MP9	Z	15.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	15.6	%18.75
48	MP12	Z	15.6	%81.25

Member Point Loads (BLC 193 : Antenna Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-87.8	%18.75
2	MP1	X	-87.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-87.8	%18.75
8	MP4	X	-87.8	%81.25
9	MP5	X	-45.3	%18.75
10	MP5	X	-45.3	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-45.3	%18.75
16	MP8	X	-45.3	%81.25
17	MP9	X	-45.3	%18.75
18	MP9	X	-45.3	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-45.3	%18.75
24	MP12	X	-45.3	%81.25
25	MP1	Z	0	0
26	MP1	Z	0	0
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	0	0
32	MP4	Z	0	0
33	MP5	Z	0	0
34	MP5	Z	0	0
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	0	0
40	MP8	Z	0	0



Member Point Loads (BLC 193 : Antenna Wind on Ice (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
41	MP9	Z	0	0
42	MP9	Z	0	0
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	0	0
48	MP12	Z	0	0

Member Point Loads (BLC 194 : Antenna Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-63.8	%18.75
2	MP1	X	-63.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-63.8	%18.75
8	MP4	X	-63.8	%81.25
9	MP5	X	-27	%18.75
10	MP5	X	-27	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-27	%18.75
16	MP8	X	-27	%81.25
17	MP9	X	-63.8	%18.75
18	MP9	X	-63.8	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-63.8	%18.75
24	MP12	X	-63.8	%81.25
25	MP1	Z	-36.8	%18.75
26	MP1	Z	-36.8	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-36.8	%18.75
32	MP4	Z	-36.8	%81.25
33	MP5	Z	-15.6	%18.75
34	MP5	Z	-15.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-15.6	%18.75
40	MP8	Z	-15.6	%81.25
41	MP9	Z	-36.8	%18.75
42	MP9	Z	-36.8	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0



Member Point Loads (BLC 194 : Antenna Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
46	MP11	Z	0	0
47	MP12	Z	-36.8	%18.75
48	MP12	Z	-36.8	%81.25

Member Point Loads (BLC 195 : Antenna Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	-22.7	%18.75
2	MP1	X	-22.7	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	-22.7	%18.75
8	MP4	X	-22.7	%81.25
9	MP5	X	-22.7	%18.75
10	MP5	X	-22.7	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	-22.7	%18.75
16	MP8	X	-22.7	%81.25
17	MP9	X	-43.9	%18.75
18	MP9	X	-43.9	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	-43.9	%18.75
24	MP12	X	-43.9	%81.25
25	MP1	Z	-39.2	%18.75
26	MP1	Z	-39.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-39.2	%18.75
32	MP4	Z	-39.2	%81.25
33	MP5	Z	-39.2	%18.75
34	MP5	Z	-39.2	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-39.2	%18.75
40	MP8	Z	-39.2	%81.25
41	MP9	Z	-76	%18.75
42	MP9	Z	-76	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-76	%18.75
48	MP12	Z	-76	%81.25



Member Point Loads (BLC 196 : 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	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP1	Z	-31.2	%18.75
26	MP1	Z	-31.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-31.2	%18.75
32	MP4	Z	-31.2	%81.25
33	MP5	Z	-73.6	%18.75
34	MP5	Z	-73.6	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-73.6	%18.75
40	MP8	Z	-73.6	%81.25
41	MP9	Z	-73.6	%18.75
42	MP9	Z	-73.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-73.6	%18.75
48	MP12	Z	-73.6	%81.25

Member Point Loads (BLC 197 : Antenna Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.%]
1	MP1	X	22.7	%18.75
2	MP1	X	22.7	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0



Member Point Loads (BLC 197 : Antenna Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
6	MP3	X	0	0
7	MP4	X	22.7	%18.75
8	MP4	X	22.7	%81.25
9	MP5	X	43.9	%18.75
10	MP5	X	43.9	%81.25
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	43.9	%18.75
16	MP8	X	43.9	%81.25
17	MP9	X	22.7	%18.75
18	MP9	X	22.7	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	22.7	%18.75
24	MP12	X	22.7	%81.25
25	MP1	Z	-39.2	%18.75
26	MP1	Z	-39.2	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-39.2	%18.75
32	MP4	Z	-39.2	%81.25
33	MP5	Z	-76	%18.75
34	MP5	Z	-76	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-76	%18.75
40	MP8	Z	-76	%81.25
41	MP9	Z	-39.2	%18.75
42	MP9	Z	-39.2	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-39.2	%18.75
48	MP12	Z	-39.2	%81.25

Member Point Loads (BLC 198 : Antenna Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
1	MP1	X	63.8	%18.75
2	MP1	X	63.8	%81.25
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	63.8	%18.75
8	MP4	X	63.8	%81.25
9	MP5	X	63.8	%18.75
10	MP5	X	63.8	%81.25

Member Point Loads (BLC 198 : Antenna Wind on Ice (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in.-%]
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	63.8	%18.75
16	MP8	X	63.8	%81.25
17	MP9	X	27	%18.75
18	MP9	X	27	%81.25
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	27	%18.75
24	MP12	X	27	%81.25
25	MP1	Z	-36.8	%18.75
26	MP1	Z	-36.8	%81.25
27	MP2	Z	0	0
28	MP2	Z	0	0
29	MP3	Z	0	0
30	MP3	Z	0	0
31	MP4	Z	-36.8	%18.75
32	MP4	Z	-36.8	%81.25
33	MP5	Z	-36.8	%18.75
34	MP5	Z	-36.8	%81.25
35	MP6	Z	0	0
36	MP6	Z	0	0
37	MP7	Z	0	0
38	MP7	Z	0	0
39	MP8	Z	-36.8	%18.75
40	MP8	Z	-36.8	%81.25
41	MP9	Z	-15.6	%18.75
42	MP9	Z	-15.6	%81.25
43	MP10	Z	0	0
44	MP10	Z	0	0
45	MP11	Z	0	0
46	MP11	Z	0	0
47	MP12	Z	-15.6	%18.75
48	MP12	Z	-15.6	%81.25

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

	Member Label	Direction	Start Magnitude[lb/ft...]	End Magnitude[lb/ft...]	Start Location[in.-%]	End Location[in.-%]
1	FM1	X	15.3	15.3	0	0
2	FM2	X	15.3	15.3	0	0
3	FM3	X	15.3	15.3	0	0
4	SA1	X	0	0	0	0
5	SA2	X	21	21	0	0
6	SA3	X	21	21	0	0
7	BRACE1	X	29.1	29.1	0	0
8	BRACE2	X	29.1	29.1	0	0
9	BRACE3	X	29.1	29.1	0	0
10	HR1	X	11.5	11.5	0	0
11	HR2	X	11.5	11.5	0	0
12	HR3	X	11.5	11.5	0	0
13	BRACE4	X	24.4	24.4	0	0
14	BRACE5	X	24.4	24.4	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
15	BRACE6	X	24.4	24.4	0	0
16	CORN1	X	24.5	24.5	0	0
17	CORN2	X	24.5	24.5	0	0
18	CORN3	X	24.5	24.5	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	0	0	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	13.2	13.2	0	0
2	FM2	X	0	0	0	0
3	FM3	X	13.2	13.2	0	0
4	SA1	X	18.2	18.2	0	0
5	SA2	X	18.2	18.2	0	0
6	SA3	X	18.2	18.2	0	0
7	BRACE1	X	25.2	25.2	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	25.2	25.2	0	0
10	HR1	X	10	10	0	0
11	HR2	X	0	0	0	0
12	HR3	X	10	10	0	0
13	BRACE4	X	21.1	21.1	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	21.1	21.1	0	0
16	CORN1	X	21.2	21.2	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	21.2	21.2	0	0
19	FM1	Z	7.6	7.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	7.6	7.6	0	0
22	SA1	Z	10.5	10.5	0	0
23	SA2	Z	10.5	10.5	0	0
24	SA3	Z	10.5	10.5	0	0
25	BRACE1	Z	14.5	14.5	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	14.5	14.5	0	0
28	HR1	Z	5.8	5.8	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	5.8	5.8	0	0
31	BRACE4	Z	12.2	12.2	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	12.2	12.2	0	0
34	CORN1	Z	12.3	12.3	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	12.3	12.3	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	7.6	7.6	0	0
2	FM2	X	7.6	7.6	0	0
3	FM3	X	7.6	7.6	0	0
4	SA1	X	10.5	10.5	0	0
5	SA2	X	10.5	10.5	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	14.5	14.5	0	0
8	BRACE2	X	14.5	14.5	0	0
9	BRACE3	X	14.5	14.5	0	0
10	HR1	X	5.8	5.8	0	0
11	HR2	X	5.8	5.8	0	0
12	HR3	X	5.8	5.8	0	0
13	BRACE4	X	12.2	12.2	0	0
14	BRACE5	X	12.2	12.2	0	0
15	BRACE6	X	12.2	12.2	0	0
16	CORN1	X	12.3	12.3	0	0
17	CORN2	X	12.3	12.3	0	0
18	CORN3	X	12.3	12.3	0	0
19	FM1	Z	13.2	13.2	0	0
20	FM2	Z	13.2	13.2	0	0
21	FM3	Z	13.2	13.2	0	0
22	SA1	Z	18.2	18.2	0	0
23	SA2	Z	18.2	18.2	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	25.2	25.2	0	0
26	BRACE2	Z	25.2	25.2	0	0
27	BRACE3	Z	25.2	25.2	0	0
28	HR1	Z	10	10	0	0
29	HR2	Z	10	10	0	0
30	HR3	Z	10	10	0	0
31	BRACE4	Z	21.1	21.1	0	0
32	BRACE5	Z	21.1	21.1	0	0
33	BRACE6	Z	21.1	21.1	0	0
34	CORN1	Z	21.2	21.2	0	0
35	CORN2	Z	21.2	21.2	0	0
36	CORN3	Z	21.2	21.2	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	0	0	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
10	HR1	X	0	0	0	0
11	HR2	X	0	0	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	0	0	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	0	0	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	15.3	15.3	0	0
21	FM3	Z	15.3	15.3	0	0
22	SA1	Z	21	21	0	0
23	SA2	Z	21	21	0	0
24	SA3	Z	21	21	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	29.1	29.1	0	0
27	BRACE3	Z	29.1	29.1	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	11.5	11.5	0	0
30	HR3	Z	11.5	11.5	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	24.4	24.4	0	0
33	BRACE6	Z	24.4	24.4	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	24.5	24.5	0	0
36	CORN3	Z	24.5	24.5	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	-7.6	-7.6	0	0
2	FM2	X	-7.6	-7.6	0	0
3	FM3	X	-7.6	-7.6	0	0
4	SA1	X	-10.5	-10.5	0	0
5	SA2	X	0	0	0	0
6	SA3	X	-10.5	-10.5	0	0
7	BRACE1	X	-14.5	-14.5	0	0
8	BRACE2	X	-14.5	-14.5	0	0
9	BRACE3	X	-14.5	-14.5	0	0
10	HR1	X	-5.8	-5.8	0	0
11	HR2	X	-5.8	-5.8	0	0
12	HR3	X	-5.8	-5.8	0	0
13	BRACE4	X	-12.2	-12.2	0	0
14	BRACE5	X	-12.2	-12.2	0	0
15	BRACE6	X	-12.2	-12.2	0	0
16	CORN1	X	-12.3	-12.3	0	0
17	CORN2	X	-12.3	-12.3	0	0
18	CORN3	X	-12.3	-12.3	0	0
19	FM1	Z	13.2	13.2	0	0
20	FM2	Z	13.2	13.2	0	0
21	FM3	Z	13.2	13.2	0	0
22	SA1	Z	18.2	18.2	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	18.2	18.2	0	0
25	BRACE1	Z	25.2	25.2	0	0
26	BRACE2	Z	25.2	25.2	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
27	BRACE3	Z	25.2	25.2	0	0
28	HR1	Z	10	10	0	0
29	HR2	Z	10	10	0	0
30	HR3	Z	10	10	0	0
31	BRACE4	Z	21.1	21.1	0	0
32	BRACE5	Z	21.1	21.1	0	0
33	BRACE6	Z	21.1	21.1	0	0
34	CORN1	Z	21.2	21.2	0	0
35	CORN2	Z	21.2	21.2	0	0
36	CORN3	Z	21.2	21.2	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	-13.2	-13.2	0	0
2	FM2	X	-13.2	-13.2	0	0
3	FM3	X	0	0	0	0
4	SA1	X	-18.2	-18.2	0	0
5	SA2	X	-18.2	-18.2	0	0
6	SA3	X	-18.2	-18.2	0	0
7	BRACE1	X	-25.2	-25.2	0	0
8	BRACE2	X	-25.2	-25.2	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	-10	-10	0	0
11	HR2	X	-10	-10	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	-21.1	-21.1	0	0
14	BRACE5	X	-21.1	-21.1	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	-21.2	-21.2	0	0
17	CORN2	X	-21.2	-21.2	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	7.6	7.6	0	0
20	FM2	Z	7.6	7.6	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	10.5	10.5	0	0
23	SA2	Z	10.5	10.5	0	0
24	SA3	Z	10.5	10.5	0	0
25	BRACE1	Z	14.5	14.5	0	0
26	BRACE2	Z	14.5	14.5	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	5.8	5.8	0	0
29	HR2	Z	5.8	5.8	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	12.2	12.2	0	0
32	BRACE5	Z	12.2	12.2	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	12.3	12.3	0	0
35	CORN2	Z	12.3	12.3	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	-15.3	-15.3	0	0
2	FM2	X	-15.3	-15.3	0	0
3	FM3	X	-15.3	-15.3	0	0
4	SA1	X	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
5	SA2	X	-21	-21	0	0
6	SA3	X	-21	-21	0	0
7	BRACE1	X	-29.1	-29.1	0	0
8	BRACE2	X	-29.1	-29.1	0	0
9	BRACE3	X	-29.1	-29.1	0	0
10	HR1	X	-11.5	-11.5	0	0
11	HR2	X	-11.5	-11.5	0	0
12	HR3	X	-11.5	-11.5	0	0
13	BRACE4	X	-24.4	-24.4	0	0
14	BRACE5	X	-24.4	-24.4	0	0
15	BRACE6	X	-24.4	-24.4	0	0
16	CORN1	X	-24.5	-24.5	0	0
17	CORN2	X	-24.5	-24.5	0	0
18	CORN3	X	-24.5	-24.5	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	0	0	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	-13.2	-13.2	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-13.2	-13.2	0	0
4	SA1	X	-18.2	-18.2	0	0
5	SA2	X	-18.2	-18.2	0	0
6	SA3	X	-18.2	-18.2	0	0
7	BRACE1	X	-25.2	-25.2	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	-25.2	-25.2	0	0
10	HR1	X	-10	-10	0	0
11	HR2	X	0	0	0	0
12	HR3	X	-10	-10	0	0
13	BRACE4	X	-21.1	-21.1	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	-21.1	-21.1	0	0
16	CORN1	X	-21.2	-21.2	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	-21.2	-21.2	0	0
19	FM1	Z	-7.6	-7.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-7.6	-7.6	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
22	SA1	Z	-10.5	-10.5	0	0
23	SA2	Z	-10.5	-10.5	0	0
24	SA3	Z	-10.5	-10.5	0	0
25	BRACE1	Z	-14.5	-14.5	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	-14.5	-14.5	0	0
28	HR1	Z	-5.8	-5.8	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	-5.8	-5.8	0	0
31	BRACE4	Z	-12.2	-12.2	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	-12.2	-12.2	0	0
34	CORN1	Z	-12.3	-12.3	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	-12.3	-12.3	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	-7.6	-7.6	0	0
2	FM2	X	-7.6	-7.6	0	0
3	FM3	X	-7.6	-7.6	0	0
4	SA1	X	-10.5	-10.5	0	0
5	SA2	X	-10.5	-10.5	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	-14.5	-14.5	0	0
8	BRACE2	X	-14.5	-14.5	0	0
9	BRACE3	X	-14.5	-14.5	0	0
10	HR1	X	-5.8	-5.8	0	0
11	HR2	X	-5.8	-5.8	0	0
12	HR3	X	-5.8	-5.8	0	0
13	BRACE4	X	-12.2	-12.2	0	0
14	BRACE5	X	-12.2	-12.2	0	0
15	BRACE6	X	-12.2	-12.2	0	0
16	CORN1	X	-12.3	-12.3	0	0
17	CORN2	X	-12.3	-12.3	0	0
18	CORN3	X	-12.3	-12.3	0	0
19	FM1	Z	-13.2	-13.2	0	0
20	FM2	Z	-13.2	-13.2	0	0
21	FM3	Z	-13.2	-13.2	0	0
22	SA1	Z	-18.2	-18.2	0	0
23	SA2	Z	-18.2	-18.2	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	-25.2	-25.2	0	0
26	BRACE2	Z	-25.2	-25.2	0	0
27	BRACE3	Z	-25.2	-25.2	0	0
28	HR1	Z	-10	-10	0	0
29	HR2	Z	-10	-10	0	0
30	HR3	Z	-10	-10	0	0
31	BRACE4	Z	-21.1	-21.1	0	0
32	BRACE5	Z	-21.1	-21.1	0	0
33	BRACE6	Z	-21.1	-21.1	0	0
34	CORN1	Z	-21.2	-21.2	0	0
35	CORN2	Z	-21.2	-21.2	0	0
36	CORN3	Z	-21.2	-21.2	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	0	0	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	0	0	0	0
11	HR2	X	0	0	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	0	0	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	0	0	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-15.3	-15.3	0	0
21	FM3	Z	-15.3	-15.3	0	0
22	SA1	Z	-21	-21	0	0
23	SA2	Z	-21	-21	0	0
24	SA3	Z	-21	-21	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	-29.1	-29.1	0	0
27	BRACE3	Z	-29.1	-29.1	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	-11.5	-11.5	0	0
30	HR3	Z	-11.5	-11.5	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	-24.4	-24.4	0	0
33	BRACE6	Z	-24.4	-24.4	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	-24.5	-24.5	0	0
36	CORN3	Z	-24.5	-24.5	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	7.6	7.6	0	0
2	FM2	X	7.6	7.6	0	0
3	FM3	X	7.6	7.6	0	0
4	SA1	X	10.5	10.5	0	0
5	SA2	X	0	0	0	0
6	SA3	X	10.5	10.5	0	0
7	BRACE1	X	14.5	14.5	0	0
8	BRACE2	X	14.5	14.5	0	0
9	BRACE3	X	14.5	14.5	0	0
10	HR1	X	5.8	5.8	0	0
11	HR2	X	5.8	5.8	0	0
12	HR3	X	5.8	5.8	0	0
13	BRACE4	X	12.2	12.2	0	0
14	BRACE5	X	12.2	12.2	0	0
15	BRACE6	X	12.2	12.2	0	0
16	CORN1	X	12.3	12.3	0	0
17	CORN2	X	12.3	12.3	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
18	CORN3	X	12.3	12.3	0	0
19	FM1	Z	-13.2	-13.2	0	0
20	FM2	Z	-13.2	-13.2	0	0
21	FM3	Z	-13.2	-13.2	0	0
22	SA1	Z	-18.2	-18.2	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	-18.2	-18.2	0	0
25	BRACE1	Z	-25.2	-25.2	0	0
26	BRACE2	Z	-25.2	-25.2	0	0
27	BRACE3	Z	-25.2	-25.2	0	0
28	HR1	Z	-10	-10	0	0
29	HR2	Z	-10	-10	0	0
30	HR3	Z	-10	-10	0	0
31	BRACE4	Z	-21.1	-21.1	0	0
32	BRACE5	Z	-21.1	-21.1	0	0
33	BRACE6	Z	-21.1	-21.1	0	0
34	CORN1	Z	-21.2	-21.2	0	0
35	CORN2	Z	-21.2	-21.2	0	0
36	CORN3	Z	-21.2	-21.2	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	13.2	13.2	0	0
2	FM2	X	13.2	13.2	0	0
3	FM3	X	0	0	0	0
4	SA1	X	18.2	18.2	0	0
5	SA2	X	18.2	18.2	0	0
6	SA3	X	18.2	18.2	0	0
7	BRACE1	X	25.2	25.2	0	0
8	BRACE2	X	25.2	25.2	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	10	10	0	0
11	HR2	X	10	10	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	21.1	21.1	0	0
14	BRACE5	X	21.1	21.1	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	21.2	21.2	0	0
17	CORN2	X	21.2	21.2	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	-7.6	-7.6	0	0
20	FM2	Z	-7.6	-7.6	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	-10.5	-10.5	0	0
23	SA2	Z	-10.5	-10.5	0	0
24	SA3	Z	-10.5	-10.5	0	0
25	BRACE1	Z	-14.5	-14.5	0	0
26	BRACE2	Z	-14.5	-14.5	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	-5.8	-5.8	0	0
29	HR2	Z	-5.8	-5.8	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	-12.2	-12.2	0	0
32	BRACE5	Z	-12.2	-12.2	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	-12.3	-12.3	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
35	CORN2	Z	-12.3	-12.3	0	0
36	CORN3	Z	0	0	0	0

Member Distributed Loads (BLC 14 : Ice Load)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	Y	-16.2	-16.2	0	0
2	FM2	Y	-16.2	-16.2	0	0
3	FM3	Y	-16.2	-16.2	0	0
4	SA1	Y	-22.8	-22.8	0	0
5	SA2	Y	-22.8	-22.8	0	0
6	SA3	Y	-22.8	-22.8	0	0
7	BRACE1	Y	-24.3	-24.3	0	0
8	BRACE2	Y	-24.3	-24.3	0	0
9	BRACE3	Y	-24.3	-24.3	0	0
10	HR1	Y	-13.1	-13.1	0	0
11	HR2	Y	-13.1	-13.1	0	0
12	HR3	Y	-13.1	-13.1	0	0
13	BRACE4	Y	-23.3	-23.3	0	0
14	BRACE5	Y	-23.3	-23.3	0	0
15	BRACE6	Y	-23.3	-23.3	0	0
16	CORN1	Y	-24.1	-24.1	0	0
17	CORN2	Y	-24.1	-24.1	0	0
18	CORN3	Y	-24.1	-24.1	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	5.2	5.2	0	0
2	FM2	X	5.2	5.2	0	0
3	FM3	X	5.2	5.2	0	0
4	SA1	X	0	0	0	0
5	SA2	X	5.3	5.3	0	0
6	SA3	X	5.3	5.3	0	0
7	BRACE1	X	6.5	6.5	0	0
8	BRACE2	X	6.5	6.5	0	0
9	BRACE3	X	6.5	6.5	0	0
10	HR1	X	4.8	4.8	0	0
11	HR2	X	4.8	4.8	0	0
12	HR3	X	4.8	4.8	0	0
13	BRACE4	X	5.5	5.5	0	0
14	BRACE5	X	5.5	5.5	0	0
15	BRACE6	X	5.5	5.5	0	0
16	CORN1	X	5.6	5.6	0	0
17	CORN2	X	5.6	5.6	0	0
18	CORN3	X	5.6	5.6	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	0	0	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in,%]	End Location[in,%]
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in,%]	End Location[in,%]
1	FM1	X	4.5	4.5	0	0
2	FM2	X	0	0	0	0
3	FM3	X	4.5	4.5	0	0
4	SA1	X	4.6	4.6	0	0
5	SA2	X	4.6	4.6	0	0
6	SA3	X	4.6	4.6	0	0
7	BRACE1	X	5.6	5.6	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	5.6	5.6	0	0
10	HR1	X	4.2	4.2	0	0
11	HR2	X	0	0	0	0
12	HR3	X	4.2	4.2	0	0
13	BRACE4	X	4.8	4.8	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	4.8	4.8	0	0
16	CORN1	X	4.8	4.8	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	4.8	4.8	0	0
19	FM1	Z	2.6	2.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	2.6	2.6	0	0
22	SA1	Z	2.7	2.7	0	0
23	SA2	Z	2.7	2.7	0	0
24	SA3	Z	2.7	2.7	0	0
25	BRACE1	Z	3.2	3.2	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	3.2	3.2	0	0
28	HR1	Z	2.4	2.4	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	2.4	2.4	0	0
31	BRACE4	Z	2.8	2.8	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	2.8	2.8	0	0
34	CORN1	Z	2.8	2.8	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	2.8	2.8	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in,%]	End Location[in,%]
1	FM1	X	2.6	2.6	0	0
2	FM2	X	2.6	2.6	0	0
3	FM3	X	2.6	2.6	0	0
4	SA1	X	2.7	2.7	0	0
5	SA2	X	2.7	2.7	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	3.2	3.2	0	0
8	BRACE2	X	3.2	3.2	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
9	BRACE3	X	3.2	3.2	0	0
10	HR1	X	2.4	2.4	0	0
11	HR2	X	2.4	2.4	0	0
12	HR3	X	2.4	2.4	0	0
13	BRACE4	X	2.8	2.8	0	0
14	BRACE5	X	2.8	2.8	0	0
15	BRACE6	X	2.8	2.8	0	0
16	CORN1	X	2.8	2.8	0	0
17	CORN2	X	2.8	2.8	0	0
18	CORN3	X	2.8	2.8	0	0
19	FM1	Z	4.5	4.5	0	0
20	FM2	Z	4.5	4.5	0	0
21	FM3	Z	4.5	4.5	0	0
22	SA1	Z	4.6	4.6	0	0
23	SA2	Z	4.6	4.6	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	5.6	5.6	0	0
26	BRACE2	Z	5.6	5.6	0	0
27	BRACE3	Z	5.6	5.6	0	0
28	HR1	Z	4.2	4.2	0	0
29	HR2	Z	4.2	4.2	0	0
30	HR3	Z	4.2	4.2	0	0
31	BRACE4	Z	4.8	4.8	0	0
32	BRACE5	Z	4.8	4.8	0	0
33	BRACE6	Z	4.8	4.8	0	0
34	CORN1	Z	4.8	4.8	0	0
35	CORN2	Z	4.8	4.8	0	0
36	CORN3	Z	4.8	4.8	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	0	0	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	0	0	0	0
11	HR2	X	0	0	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	0	0	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	0	0	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	5.2	5.2	0	0
21	FM3	Z	5.2	5.2	0	0
22	SA1	Z	5.3	5.3	0	0
23	SA2	Z	5.3	5.3	0	0
24	SA3	Z	5.3	5.3	0	0
25	BRACE1	Z	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
26	BRACE2	Z	6.5	6.5	0	0
27	BRACE3	Z	6.5	6.5	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	4.8	4.8	0	0
30	HR3	Z	4.8	4.8	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	5.5	5.5	0	0
33	BRACE6	Z	5.5	5.5	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	5.6	5.6	0	0
36	CORN3	Z	5.6	5.6	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	-2.6	-2.6	0	0
2	FM2	X	-2.6	-2.6	0	0
3	FM3	X	-2.6	-2.6	0	0
4	SA1	X	-2.7	-2.7	0	0
5	SA2	X	0	0	0	0
6	SA3	X	-2.7	-2.7	0	0
7	BRACE1	X	-3.2	-3.2	0	0
8	BRACE2	X	-3.2	-3.2	0	0
9	BRACE3	X	-3.2	-3.2	0	0
10	HR1	X	-2.4	-2.4	0	0
11	HR2	X	-2.4	-2.4	0	0
12	HR3	X	-2.4	-2.4	0	0
13	BRACE4	X	-2.8	-2.8	0	0
14	BRACE5	X	-2.8	-2.8	0	0
15	BRACE6	X	-2.8	-2.8	0	0
16	CORN1	X	-2.8	-2.8	0	0
17	CORN2	X	-2.8	-2.8	0	0
18	CORN3	X	-2.8	-2.8	0	0
19	FM1	Z	4.5	4.5	0	0
20	FM2	Z	4.5	4.5	0	0
21	FM3	Z	4.5	4.5	0	0
22	SA1	Z	4.6	4.6	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	4.6	4.6	0	0
25	BRACE1	Z	5.6	5.6	0	0
26	BRACE2	Z	5.6	5.6	0	0
27	BRACE3	Z	5.6	5.6	0	0
28	HR1	Z	4.2	4.2	0	0
29	HR2	Z	4.2	4.2	0	0
30	HR3	Z	4.2	4.2	0	0
31	BRACE4	Z	4.8	4.8	0	0
32	BRACE5	Z	4.8	4.8	0	0
33	BRACE6	Z	4.8	4.8	0	0
34	CORN1	Z	4.8	4.8	0	0
35	CORN2	Z	4.8	4.8	0	0
36	CORN3	Z	4.8	4.8	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	-4.5	-4.5	0	0
2	FM2	X	-4.5	-4.5	0	0
3	FM3	X	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in, %]	End Location[in, %]
4	SA1	X	-4.6	-4.6	0	0
5	SA2	X	-4.6	-4.6	0	0
6	SA3	X	-4.6	-4.6	0	0
7	BRACE1	X	-5.6	-5.6	0	0
8	BRACE2	X	-5.6	-5.6	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	-4.2	-4.2	0	0
11	HR2	X	-4.2	-4.2	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	-4.8	-4.8	0	0
14	BRACE5	X	-4.8	-4.8	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	-4.8	-4.8	0	0
17	CORN2	X	-4.8	-4.8	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	2.6	2.6	0	0
20	FM2	Z	2.6	2.6	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	2.7	2.7	0	0
23	SA2	Z	2.7	2.7	0	0
24	SA3	Z	2.7	2.7	0	0
25	BRACE1	Z	3.2	3.2	0	0
26	BRACE2	Z	3.2	3.2	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	2.4	2.4	0	0
29	HR2	Z	2.4	2.4	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	2.8	2.8	0	0
32	BRACE5	Z	2.8	2.8	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	2.8	2.8	0	0
35	CORN2	Z	2.8	2.8	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[in, %]	End Location[in, %]
1	FM1	X	-5.2	-5.2	0	0
2	FM2	X	-5.2	-5.2	0	0
3	FM3	X	-5.2	-5.2	0	0
4	SA1	X	0	0	0	0
5	SA2	X	-5.3	-5.3	0	0
6	SA3	X	-5.3	-5.3	0	0
7	BRACE1	X	-6.5	-6.5	0	0
8	BRACE2	X	-6.5	-6.5	0	0
9	BRACE3	X	-6.5	-6.5	0	0
10	HR1	X	-4.8	-4.8	0	0
11	HR2	X	-4.8	-4.8	0	0
12	HR3	X	-4.8	-4.8	0	0
13	BRACE4	X	-5.5	-5.5	0	0
14	BRACE5	X	-5.5	-5.5	0	0
15	BRACE6	X	-5.5	-5.5	0	0
16	CORN1	X	-5.6	-5.6	0	0
17	CORN2	X	-5.6	-5.6	0	0
18	CORN3	X	-5.6	-5.6	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
21	FM3	Z	0	0	0	0
22	SA1	Z	0	0	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	0	0	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	-4.5	-4.5	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-4.5	-4.5	0	0
4	SA1	X	-4.6	-4.6	0	0
5	SA2	X	-4.6	-4.6	0	0
6	SA3	X	-4.6	-4.6	0	0
7	BRACE1	X	-5.6	-5.6	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	-5.6	-5.6	0	0
10	HR1	X	-4.2	-4.2	0	0
11	HR2	X	0	0	0	0
12	HR3	X	-4.2	-4.2	0	0
13	BRACE4	X	-4.8	-4.8	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	-4.8	-4.8	0	0
16	CORN1	X	-4.8	-4.8	0	0
17	CORN2	X	0	0	0	0
18	CORN3	X	-4.8	-4.8	0	0
19	FM1	Z	-2.6	-2.6	0	0
20	FM2	Z	0	0	0	0
21	FM3	Z	-2.6	-2.6	0	0
22	SA1	Z	-2.7	-2.7	0	0
23	SA2	Z	-2.7	-2.7	0	0
24	SA3	Z	-2.7	-2.7	0	0
25	BRACE1	Z	-3.2	-3.2	0	0
26	BRACE2	Z	0	0	0	0
27	BRACE3	Z	-3.2	-3.2	0	0
28	HR1	Z	-2.4	-2.4	0	0
29	HR2	Z	0	0	0	0
30	HR3	Z	-2.4	-2.4	0	0
31	BRACE4	Z	-2.8	-2.8	0	0
32	BRACE5	Z	0	0	0	0
33	BRACE6	Z	-2.8	-2.8	0	0
34	CORN1	Z	-2.8	-2.8	0	0
35	CORN2	Z	0	0	0	0
36	CORN3	Z	-2.8	-2.8	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	-2.6	-2.6	0	0
2	FM2	X	-2.6	-2.6	0	0
3	FM3	X	-2.6	-2.6	0	0
4	SA1	X	-2.7	-2.7	0	0
5	SA2	X	-2.7	-2.7	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	-3.2	-3.2	0	0
8	BRACE2	X	-3.2	-3.2	0	0
9	BRACE3	X	-3.2	-3.2	0	0
10	HR1	X	-2.4	-2.4	0	0
11	HR2	X	-2.4	-2.4	0	0
12	HR3	X	-2.4	-2.4	0	0
13	BRACE4	X	-2.8	-2.8	0	0
14	BRACE5	X	-2.8	-2.8	0	0
15	BRACE6	X	-2.8	-2.8	0	0
16	CORN1	X	-2.8	-2.8	0	0
17	CORN2	X	-2.8	-2.8	0	0
18	CORN3	X	-2.8	-2.8	0	0
19	FM1	Z	-4.5	-4.5	0	0
20	FM2	Z	-4.5	-4.5	0	0
21	FM3	Z	-4.5	-4.5	0	0
22	SA1	Z	-4.6	-4.6	0	0
23	SA2	Z	-4.6	-4.6	0	0
24	SA3	Z	0	0	0	0
25	BRACE1	Z	-5.6	-5.6	0	0
26	BRACE2	Z	-5.6	-5.6	0	0
27	BRACE3	Z	-5.6	-5.6	0	0
28	HR1	Z	-4.2	-4.2	0	0
29	HR2	Z	-4.2	-4.2	0	0
30	HR3	Z	-4.2	-4.2	0	0
31	BRACE4	Z	-4.8	-4.8	0	0
32	BRACE5	Z	-4.8	-4.8	0	0
33	BRACE6	Z	-4.8	-4.8	0	0
34	CORN1	Z	-4.8	-4.8	0	0
35	CORN2	Z	-4.8	-4.8	0	0
36	CORN3	Z	-4.8	-4.8	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	BRACE1	X	0	0	0	0
8	BRACE2	X	0	0	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	0	0	0	0
11	HR2	X	0	0	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	0	0	0	0
14	BRACE5	X	0	0	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	0	0	0	0
17	CORN2	X	0	0	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
18	CORN3	X	0	0	0	0
19	FM1	Z	0	0	0	0
20	FM2	Z	-5.2	-5.2	0	0
21	FM3	Z	-5.2	-5.2	0	0
22	SA1	Z	-5.3	-5.3	0	0
23	SA2	Z	-5.3	-5.3	0	0
24	SA3	Z	-5.3	-5.3	0	0
25	BRACE1	Z	0	0	0	0
26	BRACE2	Z	-6.5	-6.5	0	0
27	BRACE3	Z	-6.5	-6.5	0	0
28	HR1	Z	0	0	0	0
29	HR2	Z	-4.8	-4.8	0	0
30	HR3	Z	-4.8	-4.8	0	0
31	BRACE4	Z	0	0	0	0
32	BRACE5	Z	-5.5	-5.5	0	0
33	BRACE6	Z	-5.5	-5.5	0	0
34	CORN1	Z	0	0	0	0
35	CORN2	Z	-5.6	-5.6	0	0
36	CORN3	Z	-5.6	-5.6	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[in, %]	End Location[in, %]
1	FM1	X	2.6	2.6	0	0
2	FM2	X	2.6	2.6	0	0
3	FM3	X	2.6	2.6	0	0
4	SA1	X	2.7	2.7	0	0
5	SA2	X	0	0	0	0
6	SA3	X	2.7	2.7	0	0
7	BRACE1	X	3.2	3.2	0	0
8	BRACE2	X	3.2	3.2	0	0
9	BRACE3	X	3.2	3.2	0	0
10	HR1	X	2.4	2.4	0	0
11	HR2	X	2.4	2.4	0	0
12	HR3	X	2.4	2.4	0	0
13	BRACE4	X	2.8	2.8	0	0
14	BRACE5	X	2.8	2.8	0	0
15	BRACE6	X	2.8	2.8	0	0
16	CORN1	X	2.8	2.8	0	0
17	CORN2	X	2.8	2.8	0	0
18	CORN3	X	2.8	2.8	0	0
19	FM1	Z	-4.5	-4.5	0	0
20	FM2	Z	-4.5	-4.5	0	0
21	FM3	Z	-4.5	-4.5	0	0
22	SA1	Z	-4.6	-4.6	0	0
23	SA2	Z	0	0	0	0
24	SA3	Z	-4.6	-4.6	0	0
25	BRACE1	Z	-5.6	-5.6	0	0
26	BRACE2	Z	-5.6	-5.6	0	0
27	BRACE3	Z	-5.6	-5.6	0	0
28	HR1	Z	-4.2	-4.2	0	0
29	HR2	Z	-4.2	-4.2	0	0
30	HR3	Z	-4.2	-4.2	0	0
31	BRACE4	Z	-4.8	-4.8	0	0
32	BRACE5	Z	-4.8	-4.8	0	0
33	BRACE6	Z	-4.8	-4.8	0	0
34	CORN1	Z	-4.8	-4.8	0	0



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
35	CORN2	Z	-4.8	-4.8	0	0
36	CORN3	Z	-4.8	-4.8	0	0

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[in, %]	End Location[in, %]
1	FM1	X	4.5	4.5	0	0
2	FM2	X	4.5	4.5	0	0
3	FM3	X	0	0	0	0
4	SA1	X	4.6	4.6	0	0
5	SA2	X	4.6	4.6	0	0
6	SA3	X	4.6	4.6	0	0
7	BRACE1	X	5.6	5.6	0	0
8	BRACE2	X	5.6	5.6	0	0
9	BRACE3	X	0	0	0	0
10	HR1	X	4.2	4.2	0	0
11	HR2	X	4.2	4.2	0	0
12	HR3	X	0	0	0	0
13	BRACE4	X	4.8	4.8	0	0
14	BRACE5	X	4.8	4.8	0	0
15	BRACE6	X	0	0	0	0
16	CORN1	X	4.8	4.8	0	0
17	CORN2	X	4.8	4.8	0	0
18	CORN3	X	0	0	0	0
19	FM1	Z	-2.6	-2.6	0	0
20	FM2	Z	-2.6	-2.6	0	0
21	FM3	Z	0	0	0	0
22	SA1	Z	-2.7	-2.7	0	0
23	SA2	Z	-2.7	-2.7	0	0
24	SA3	Z	-2.7	-2.7	0	0
25	BRACE1	Z	-3.2	-3.2	0	0
26	BRACE2	Z	-3.2	-3.2	0	0
27	BRACE3	Z	0	0	0	0
28	HR1	Z	-2.4	-2.4	0	0
29	HR2	Z	-2.4	-2.4	0	0
30	HR3	Z	0	0	0	0
31	BRACE4	Z	-2.8	-2.8	0	0
32	BRACE5	Z	-2.8	-2.8	0	0
33	BRACE6	Z	0	0	0	0
34	CORN1	Z	-2.8	-2.8	0	0
35	CORN2	Z	-2.8	-2.8	0	0
36	CORN3	Z	0	0	0	0

Load Combinations

	Description	So..	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
1	1.4D	Yes	Y		1	1.4										
2	1.2D + 1.0W (0 deg)	Yes	Y		1	1.2	2	1	175	1						
3	1.2D + 1.0W (30 deg)	Yes	Y		1	1.2	3	1	176	1						
4	1.2D + 1.0W (60 deg)	Yes	Y		1	1.2	4	1	177	1						
5	1.2D + 1.0W (90 deg)	Yes	Y		1	1.2	5	1	178	1						
6	1.2D + 1.0W (120 deg)	Yes	Y		1	1.2	6	1	179	1						
7	1.2D + 1.0W (150 deg)	Yes	Y		1	1.2	7	1	180	1						
8	1.2D + 1.0W (180 deg)	Yes	Y		1	1.2	8	1	181	1						
9	1.2D + 1.0W (210 deg)	Yes	Y		1	1.2	9	1	182	1						
10	1.2D + 1.0W (240 deg)	Yes	Y		1	1.2	10	1	183	1						
11	1.2D + 1.0W (270 deg)	Yes	Y		1	1.2	11	1	184	1						



Load Combinations (Continued)

	Description	So..	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
12	1.2D + 1.0W (300 deg)	Yes	Y		1	1.2	12	1	185	1					
13	1.2D + 1.0W (330 deg)	Yes	Y		1	1.2	13	1	186	1					
14	1.2D + Di + Wi (0 deg)	Yes	Y		1	1.2	14	1	15	1	187	1			
15	1.2D + Di + Wi (30 deg)	Yes	Y		1	1.2	14	1	16	1	188	1			
16	1.2D + Di + Wi (60 deg)	Yes	Y		1	1.2	14	1	17	1	189	1			
17	1.2D + Di + Wi (90 deg)	Yes	Y		1	1.2	14	1	18	1	190	1			
18	1.2D + Di + Wi (120 de...	Yes	Y		1	1.2	14	1	19	1	191	1			
19	1.2D + Di + Wi (150 de...	Yes	Y		1	1.2	14	1	20	1	192	1			
20	1.2D + Di + Wi (180 de...	Yes	Y		1	1.2	14	1	21	1	193	1			
21	1.2D + Di + Wi (210 de...	Yes	Y		1	1.2	14	1	22	1	194	1			
22	1.2D + Di + Wi (240 de...	Yes	Y		1	1.2	14	1	23	1	195	1			
23	1.2D + Di + Wi (270 de...	Yes	Y		1	1.2	14	1	24	1	196	1			
24	1.2D + Di + Wi (300 de...	Yes	Y		1	1.2	14	1	25	1	197	1			
25	1.2D + Di + Wi (330 de...	Yes	Y		1	1.2	14	1	26	1	198	1			
26	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	27	.094					
27	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	28	.094					
28	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	29	.094					
29	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	30	.094					
30	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	31	.094					
31	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	32	.094					
32	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	33	.094					
33	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	34	.094					
34	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	35	.094					
35	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	36	.094					
36	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	37	.094					
37	1.2D + 1.0 Ev + 1.0Eh ...	Yes	Y		1	1.2	1	.038	38	.094					
38	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	2	.053	175	.053			
39	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	3	.053	176	.053			
40	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	4	.053	177	.053			
41	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	5	.053	178	.053			
42	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	6	.053	179	.053			
43	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	7	.053	180	.053			
44	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	8	.053	181	.053			
45	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	9	.053	182	.053			
46	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	10	.053	183	.053			
47	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	11	.053	184	.053			
48	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	12	.053	185	.053			
49	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.5	13	.053	186	.053			
50	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	2	.053	175	.053			
51	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	3	.053	176	.053			
52	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	4	.053	177	.053			
53	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	5	.053	178	.053			
54	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	6	.053	179	.053			
55	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	7	.053	180	.053			
56	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	8	.053	181	.053			
57	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	9	.053	182	.053			
58	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	10	.053	183	.053			
59	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	11	.053	184	.053			
60	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	12	.053	185	.053			
61	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	40	1.5	13	.053	186	.053			
62	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	2	.053	175	.053			
63	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	3	.053	176	.053			
64	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	4	.053	177	.053			
65	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	5	.053	178	.053			
66	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	6	.053	179	.053			
67	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	7	.053	180	.053			
68	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	8	.053	181	.053			

Load Combinations (Continued)

	Description	So...	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
69	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	9	.053	182	.053			
70	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	10	.053	183	.053			
71	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	11	.053	184	.053			
72	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	12	.053	185	.053			
73	1.2D + 1.5Lm3 + 1.0W...	Yes	Y		1	1.2	41	1.5	13	.053	186	.053			
74	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	2	.053	175	.053			
75	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	3	.053	176	.053			
76	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	4	.053	177	.053			
77	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	5	.053	178	.053			
78	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	6	.053	179	.053			
79	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	7	.053	180	.053			
80	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	8	.053	181	.053			
81	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	9	.053	182	.053			
82	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	10	.053	183	.053			
83	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	11	.053	184	.053			
84	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	12	.053	185	.053			
85	1.2D + 1.5Lm4 + 1.0W...	Yes	Y		1	1.2	42	1.5	13	.053	186	.053			
86	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	2	.053	175	.053			
87	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	3	.053	176	.053			
88	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	4	.053	177	.053			
89	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	5	.053	178	.053			
90	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	6	.053	179	.053			
91	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	7	.053	180	.053			
92	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	8	.053	181	.053			
93	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	9	.053	182	.053			
94	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	10	.053	183	.053			
95	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	11	.053	184	.053			
96	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	12	.053	185	.053			
97	1.2D + 1.5Lm5 + 1.0W...	Yes	Y		1	1.2	43	1.5	13	.053	186	.053			
98	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	2	.053	175	.053			
99	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	3	.053	176	.053			
100	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	4	.053	177	.053			
101	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	5	.053	178	.053			
102	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	6	.053	179	.053			
103	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	7	.053	180	.053			
104	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	8	.053	181	.053			
105	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	9	.053	182	.053			
106	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	10	.053	183	.053			
107	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	11	.053	184	.053			
108	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	12	.053	185	.053			
109	1.2D + 1.5Lm6 + 1.0W...	Yes	Y		1	1.2	44	1.5	13	.053	186	.053			
110	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	2	.053	175	.053			
111	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	3	.053	176	.053			
112	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	4	.053	177	.053			
113	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	5	.053	178	.053			
114	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	6	.053	179	.053			
115	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	7	.053	180	.053			
116	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	8	.053	181	.053			
117	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	9	.053	182	.053			
118	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	10	.053	183	.053			
119	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	11	.053	184	.053			
120	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	12	.053	185	.053			
121	1.2D + 1.5Lm7 + 1.0W...	Yes	Y		1	1.2	45	1.5	13	.053	186	.053			
122	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	2	.053	175	.053			
123	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	3	.053	176	.053			
124	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	4	.053	177	.053			
125	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	5	.053	178	.053			



Company : ETS, PLLC
 Designer : TSB
 Job Number : 196392.14
 Model Name : 842856 - ANDOVER NORTH_Mount Analysis

Oct 8, 2019
 3:05 PM
 Checked By: _____

Load Combinations (Continued)

	Description	So...	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
126	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	6	.053	179	.053			
127	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	7	.053	180	.053			
128	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	8	.053	181	.053			
129	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	9	.053	182	.053			
130	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	10	.053	183	.053			
131	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	11	.053	184	.053			
132	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	12	.053	185	.053			
133	1.2D + 1.5Lm8 + 1.0W...	Yes	Y		1	1.2	46	1.5	13	.053	186	.053			
134	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	2	.053	175	.053			
135	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	3	.053	176	.053			
136	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	4	.053	177	.053			
137	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	5	.053	178	.053			
138	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	6	.053	179	.053			
139	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	7	.053	180	.053			
140	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	8	.053	181	.053			
141	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	9	.053	182	.053			
142	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	10	.053	183	.053			
143	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	11	.053	184	.053			
144	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	12	.053	185	.053			
145	1.2D + 1.5Lm9 + 1.0W...	Yes	Y		1	1.2	47	1.5	13	.053	186	.053			
146	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	2	.053	175	.053			
147	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	3	.053	176	.053			
148	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	4	.053	177	.053			
149	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	5	.053	178	.053			
150	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	6	.053	179	.053			
151	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	7	.053	180	.053			
152	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	8	.053	181	.053			
153	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	9	.053	182	.053			
154	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	10	.053	183	.053			
155	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	11	.053	184	.053			
156	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	12	.053	185	.053			
157	1.2D + 1.5Lm10 + 1.0...	Yes	Y		1	1.2	48	1.5	13	.053	186	.053			
158	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	2	.053	175	.053			
159	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	3	.053	176	.053			
160	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	4	.053	177	.053			
161	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	5	.053	178	.053			
162	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	6	.053	179	.053			
163	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	7	.053	180	.053			
164	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	8	.053	181	.053			
165	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	9	.053	182	.053			
166	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	10	.053	183	.053			
167	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	11	.053	184	.053			
168	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	12	.053	185	.053			
169	1.2D + 1.5Lm11 + 1.0...	Yes	Y		1	1.2	49	1.5	13	.053	186	.053			
170	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	2	.053	175	.053			
171	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	3	.053	176	.053			
172	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	4	.053	177	.053			
173	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	5	.053	178	.053			
174	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	6	.053	179	.053			
175	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	7	.053	180	.053			
176	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	8	.053	181	.053			
177	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	9	.053	182	.053			
178	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	10	.053	183	.053			
179	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	11	.053	184	.053			
180	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	12	.053	185	.053			
181	1.2D + 1.5Lm12 + 1.0...	Yes	Y		1	1.2	50	1.5	13	.053	186	.053			
182	1.2D + 1.5Lm13 + 1.0...		Y		1	1.2	51	1.5	2	.053	175	.053			



Load Combinations (Continued)

	Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
183	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	3	.053	176	.053					
184	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	4	.053	177	.053					
185	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	5	.053	178	.053					
186	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	6	.053	179	.053					
187	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	7	.053	180	.053					
188	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	8	.053	181	.053					
189	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	9	.053	182	.053					
190	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	10	.053	183	.053					
191	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	11	.053	184	.053					
192	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	12	.053	185	.053					
193	1.2D + 1.5Lm13 + 1.0...	Y		1	1.2	51	1.5	13	.053	186	.053					
194	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	2	.053	175	.053					
195	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	3	.053	176	.053					
196	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	4	.053	177	.053					
197	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	5	.053	178	.053					
198	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	6	.053	179	.053					
199	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	7	.053	180	.053					
200	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	8	.053	181	.053					
201	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	9	.053	182	.053					
202	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	10	.053	183	.053					
203	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	11	.053	184	.053					
204	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	12	.053	185	.053					
205	1.2D + 1.5Lm14 + 1.0...	Y		1	1.2	52	1.5	13	.053	186	.053					
206	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	2	.053	175	.053					
207	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	3	.053	176	.053					
208	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	4	.053	177	.053					
209	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	5	.053	178	.053					
210	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	6	.053	179	.053					
211	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	7	.053	180	.053					
212	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	8	.053	181	.053					
213	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	9	.053	182	.053					
214	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	10	.053	183	.053					
215	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	11	.053	184	.053					
216	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	12	.053	185	.053					
217	1.2D + 1.5Lm15 + 1.0...	Y		1	1.2	53	1.5	13	.053	186	.053					
218	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	2	.053	175	.053					
219	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	3	.053	176	.053					
220	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	4	.053	177	.053					
221	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	5	.053	178	.053					
222	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	6	.053	179	.053					
223	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	7	.053	180	.053					
224	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	8	.053	181	.053					
225	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	9	.053	182	.053					
226	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	10	.053	183	.053					
227	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	11	.053	184	.053					
228	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	12	.053	185	.053					
229	1.2D + 1.5Lm16 + 1.0...	Y		1	1.2	54	1.5	13	.053	186	.053					
230	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	2	.053	175	.053					
231	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	3	.053	176	.053					
232	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	4	.053	177	.053					
233	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	5	.053	178	.053					
234	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	6	.053	179	.053					
235	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	7	.053	180	.053					
236	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	8	.053	181	.053					
237	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	9	.053	182	.053					
238	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	10	.053	183	.053					
239	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	11	.053	184	.053					



Load Combinations (Continued)

	Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
240	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	12	.053	185	.053				
241	1.2D + 1.5Lm17 + 1.0...	Y		1	1.2	55	1.5	13	.053	186	.053				
242	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	2	.053	175	.053				
243	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	3	.053	176	.053				
244	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	4	.053	177	.053				
245	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	5	.053	178	.053				
246	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	6	.053	179	.053				
247	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	7	.053	180	.053				
248	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	8	.053	181	.053				
249	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	9	.053	182	.053				
250	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	10	.053	183	.053				
251	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	11	.053	184	.053				
252	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	12	.053	185	.053				
253	1.2D + 1.5Lm18 + 1.0...	Y		1	1.2	56	1.5	13	.053	186	.053				
254	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	2	.053	175	.053				
255	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	3	.053	176	.053				
256	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	4	.053	177	.053				
257	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	5	.053	178	.053				
258	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	6	.053	179	.053				
259	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	7	.053	180	.053				
260	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	8	.053	181	.053				
261	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	9	.053	182	.053				
262	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	10	.053	183	.053				
263	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	11	.053	184	.053				
264	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	12	.053	185	.053				
265	1.2D + 1.5Lm19 + 1.0...	Y		1	1.2	57	1.5	13	.053	186	.053				
266	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	2	.053	175	.053				
267	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	3	.053	176	.053				
268	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	4	.053	177	.053				
269	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	5	.053	178	.053				
270	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	6	.053	179	.053				
271	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	7	.053	180	.053				
272	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	8	.053	181	.053				
273	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	9	.053	182	.053				
274	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	10	.053	183	.053				
275	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	11	.053	184	.053				
276	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	12	.053	185	.053				
277	1.2D + 1.5Lm20 + 1.0...	Y		1	1.2	58	1.5	13	.053	186	.053				
278	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	2	.053	175	.053				
279	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	3	.053	176	.053				
280	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	4	.053	177	.053				
281	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	5	.053	178	.053				
282	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	6	.053	179	.053				
283	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	7	.053	180	.053				
284	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	8	.053	181	.053				
285	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	9	.053	182	.053				
286	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	10	.053	183	.053				
287	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	11	.053	184	.053				
288	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	12	.053	185	.053				
289	1.2D + 1.5Lm21 + 1.0...	Y		1	1.2	59	1.5	13	.053	186	.053				
290	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	2	.053	175	.053				
291	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	3	.053	176	.053				
292	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	4	.053	177	.053				
293	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	5	.053	178	.053				
294	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	6	.053	179	.053				
295	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	7	.053	180	.053				
296	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	8	.053	181	.053				



Load Combinations (Continued)

	Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
297	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	9	.053	182	.053				
298	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	10	.053	183	.053				
299	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	11	.053	184	.053				
300	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	12	.053	185	.053				
301	1.2D + 1.5Lm22 + 1.0...	Y		1	1.2	60	1.5	13	.053	186	.053				
302	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	2	.053	175	.053				
303	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	3	.053	176	.053				
304	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	4	.053	177	.053				
305	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	5	.053	178	.053				
306	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	6	.053	179	.053				
307	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	7	.053	180	.053				
308	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	8	.053	181	.053				
309	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	9	.053	182	.053				
310	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	10	.053	183	.053				
311	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	11	.053	184	.053				
312	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	12	.053	185	.053				
313	1.2D + 1.5Lm23 + 1.0...	Y		1	1.2	61	1.5	13	.053	186	.053				
314	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	2	.053	175	.053				
315	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	3	.053	176	.053				
316	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	4	.053	177	.053				
317	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	5	.053	178	.053				
318	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	6	.053	179	.053				
319	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	7	.053	180	.053				
320	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	8	.053	181	.053				
321	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	9	.053	182	.053				
322	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	10	.053	183	.053				
323	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	11	.053	184	.053				
324	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	12	.053	185	.053				
325	1.2D + 1.5Lm24 + 1.0...	Y		1	1.2	62	1.5	13	.053	186	.053				
326	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	2	.053	175	.053				
327	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	3	.053	176	.053				
328	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	4	.053	177	.053				
329	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	5	.053	178	.053				
330	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	6	.053	179	.053				
331	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	7	.053	180	.053				
332	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	8	.053	181	.053				
333	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	9	.053	182	.053				
334	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	10	.053	183	.053				
335	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	11	.053	184	.053				
336	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	12	.053	185	.053				
337	1.2D + 1.5Lm25 + 1.0...	Y		1	1.2	63	1.5	13	.053	186	.053				
338	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	2	.053	175	.053				
339	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	3	.053	176	.053				
340	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	4	.053	177	.053				
341	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	5	.053	178	.053				
342	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	6	.053	179	.053				
343	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	7	.053	180	.053				
344	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	8	.053	181	.053				
345	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	9	.053	182	.053				
346	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	10	.053	183	.053				
347	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	11	.053	184	.053				
348	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	12	.053	185	.053				
349	1.2D + 1.5Lm26 + 1.0...	Y		1	1.2	64	1.5	13	.053	186	.053				
350	1.2D + 1.5Lm27 + 1.0...	Y		1	1.2	65	1.5	2	.053	175	.053				
351	1.2D + 1.5Lm27 + 1.0...	Y		1	1.2	65	1.5	3	.053	176	.053				
352	1.2D + 1.5Lm27 + 1.0...	Y		1	1.2	65	1.5	4	.053	177	.053				
353	1.2D + 1.5Lm27 + 1.0...	Y		1	1.2	65	1.5	5	.053	178	.053				



Load Combinations (Continued)

	Description	So..	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
354	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	6	.053	179	.053			
355	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	7	.053	180	.053			
356	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	8	.053	181	.053			
357	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	9	.053	182	.053			
358	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	10	.053	183	.053			
359	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	11	.053	184	.053			
360	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	12	.053	185	.053			
361	1.2D + 1.5Lm27 + 1.0...		Y		1	1.2	65	1.5	13	.053	186	.053			
362	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	2	.053	175	.053			
363	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	3	.053	176	.053			
364	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	4	.053	177	.053			
365	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	5	.053	178	.053			
366	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	6	.053	179	.053			
367	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	7	.053	180	.053			
368	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	8	.053	181	.053			
369	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	9	.053	182	.053			
370	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	10	.053	183	.053			
371	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	11	.053	184	.053			
372	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	12	.053	185	.053			
373	1.2D + 1.5Lm28 + 1.0...		Y		1	1.2	66	1.5	13	.053	186	.053			
374	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	2	.053	175	.053			
375	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	3	.053	176	.053			
376	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	4	.053	177	.053			
377	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	5	.053	178	.053			
378	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	6	.053	179	.053			
379	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	7	.053	180	.053			
380	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	8	.053	181	.053			
381	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	9	.053	182	.053			
382	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	10	.053	183	.053			
383	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	11	.053	184	.053			
384	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	12	.053	185	.053			
385	1.2D + 1.5Lm29 + 1.0...		Y		1	1.2	67	1.5	13	.053	186	.053			
386	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	2	.053	175	.053			
387	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	3	.053	176	.053			
388	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	4	.053	177	.053			
389	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	5	.053	178	.053			
390	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	6	.053	179	.053			
391	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	7	.053	180	.053			
392	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	8	.053	181	.053			
393	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	9	.053	182	.053			
394	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	10	.053	183	.053			
395	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	11	.053	184	.053			
396	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	12	.053	185	.053			
397	1.2D + 1.5Lm30 + 1.0...		Y		1	1.2	68	1.5	13	.053	186	.053			
398	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	2	.053	175	.053			
399	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	3	.053	176	.053			
400	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	4	.053	177	.053			
401	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	5	.053	178	.053			
402	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	6	.053	179	.053			
403	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	7	.053	180	.053			
404	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	8	.053	181	.053			
405	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	9	.053	182	.053			
406	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	10	.053	183	.053			
407	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	11	.053	184	.053			
408	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	12	.053	185	.053			
409	1.2D + 1.5Lm31 + 1.0...		Y		1	1.2	69	1.5	13	.053	186	.053			
410	1.2D + 1.5Lm32 + 1.0...		Y		1	1.2	70	1.5	2	.053	175	.053			



Load Combinations (Continued)

Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
411	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	3	.053	176	.053					
412	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	4	.053	177	.053					
413	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	5	.053	178	.053					
414	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	6	.053	179	.053					
415	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	7	.053	180	.053					
416	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	8	.053	181	.053					
417	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	9	.053	182	.053					
418	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	10	.053	183	.053					
419	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	11	.053	184	.053					
420	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	12	.053	185	.053					
421	1.2D + 1.5Lm32 + 1.0...	Y	1	1.2	70	1.5	13	.053	186	.053					
422	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	2	.053	175	.053					
423	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	3	.053	176	.053					
424	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	4	.053	177	.053					
425	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	5	.053	178	.053					
426	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	6	.053	179	.053					
427	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	7	.053	180	.053					
428	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	8	.053	181	.053					
429	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	9	.053	182	.053					
430	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	10	.053	183	.053					
431	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	11	.053	184	.053					
432	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	12	.053	185	.053					
433	1.2D + 1.5Lm33 + 1.0...	Y	1	1.2	71	1.5	13	.053	186	.053					
434	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	2	.053	175	.053					
435	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	3	.053	176	.053					
436	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	4	.053	177	.053					
437	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	5	.053	178	.053					
438	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	6	.053	179	.053					
439	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	7	.053	180	.053					
440	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	8	.053	181	.053					
441	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	9	.053	182	.053					
442	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	10	.053	183	.053					
443	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	11	.053	184	.053					
444	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	12	.053	185	.053					
445	1.2D + 1.5Lm34 + 1.0...	Y	1	1.2	72	1.5	13	.053	186	.053					
446	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	2	.053	175	.053					
447	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	3	.053	176	.053					
448	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	4	.053	177	.053					
449	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	5	.053	178	.053					
450	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	6	.053	179	.053					
451	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	7	.053	180	.053					
452	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	8	.053	181	.053					
453	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	9	.053	182	.053					
454	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	10	.053	183	.053					
455	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	11	.053	184	.053					
456	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	12	.053	185	.053					
457	1.2D + 1.5Lm35 + 1.0...	Y	1	1.2	73	1.5	13	.053	186	.053					
458	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	2	.053	175	.053					
459	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	3	.053	176	.053					
460	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	4	.053	177	.053					
461	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	5	.053	178	.053					
462	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	6	.053	179	.053					
463	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	7	.053	180	.053					
464	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	8	.053	181	.053					
465	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	9	.053	182	.053					
466	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	10	.053	183	.053					
467	1.2D + 1.5Lm36 + 1.0...	Y	1	1.2	74	1.5	11	.053	184	.053					



Company : ETS, PLLC
 Designer : TSB
 Job Number : 196392.14
 Model Name : 842856 - ANDOVER NORTH_Mount Analysis

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Load Combinations (Continued)

	Description	So..P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
468	1.2D + 1.5Lm36 + 1.0...	Y		1	1.2	74	1.5	12	.053	185	.053			
469	1.2D + 1.5Lm36 + 1.0...	Y		1	1.2	74	1.5	13	.053	186	.053			
470	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	75	1.5							
471	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	76	1.5							
472	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	77	1.5							
473	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	78	1.5							
474	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	79	1.5							
475	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	80	1.5							
476	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	81	1.5							
477	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	82	1.5							
478	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	83	1.5							
479	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	84	1.5							
480	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	85	1.5							
481	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	86	1.5							
482	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	87	1.5							
483	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	88	1.5							
484	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	89	1.5							
485	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	90	1.5							
486	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	91	1.5							
487	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	92	1.5							
488	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	93	1.5							
489	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	94	1.5							
490	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	95	1.5							
491	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	96	1.5							
492	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	97	1.5							
493	1.2D + 1.5Lv (Position ...	Yes	Y	1	1.2	98	1.5							
494	1.2D + 1.5Lv (Position ...	Y		1	1.2	99	1.5							
495	1.2D + 1.5Lv (Position ...	Y		1	1.2	100	1.5							
496	1.2D + 1.5Lv (Position ...	Y		1	1.2	101	1.5							
497	1.2D + 1.5Lv (Position ...	Y		1	1.2	102	1.5							
498	1.2D + 1.5Lv (Position ...	Y		1	1.2	103	1.5							
499	1.2D + 1.5Lv (Position ...	Y		1	1.2	104	1.5							
500	1.2D + 1.5Lv (Position ...	Y		1	1.2	105	1.5							
501	1.2D + 1.5Lv (Position ...	Y		1	1.2	106	1.5							
502	1.2D + 1.5Lv (Position ...	Y		1	1.2	107	1.5							
503	1.2D + 1.5Lv (Position ...	Y		1	1.2	108	1.5							
504	1.2D + 1.5Lv (Position ...	Y		1	1.2	109	1.5							
505	1.2D + 1.5Lv (Position ...	Y		1	1.2	110	1.5							
506	1.2D + 1.5Lv (Position ...	Y		1	1.2	111	1.5							
507	1.2D + 1.5Lv (Position ...	Y		1	1.2	112	1.5							
508	1.2D + 1.5Lv (Position ...	Y		1	1.2	113	1.5							
509	1.2D + 1.5Lv (Position ...	Y		1	1.2	114	1.5							
510	1.2D + 1.5Lv (Position ...	Y		1	1.2	115	1.5							
511	1.2D + 1.5Lv (Position ...	Y		1	1.2	116	1.5							
512	1.2D + 1.5Lv (Position ...	Y		1	1.2	117	1.5							
513	1.2D + 1.5Lv (Position ...	Y		1	1.2	118	1.5							
514	1.2D + 1.5Lv (Position ...	Y		1	1.2	119	1.5							
515	1.2D + 1.5Lv (Position ...	Y		1	1.2	120	1.5							
516	1.2D + 1.5Lv (Position ...	Y		1	1.2	121	1.5							
517	1.2D + 1.5Lv (Position ...	Y		1	1.2	122	1.5							
518	1.2D + 1.5Lv (Position ...	Y		1	1.2	123	1.5							
519	1.2D + 1.5Lv (Position ...	Y		1	1.2	124	1.5							
520	1.2D + 1.5Lv (Position ...	Y		1	1.2	125	1.5							
521	1.2D + 1.5Lv (Position ...	Y		1	1.2	126	1.5							
522	1.2D + 1.5Lv (Position ...	Y		1	1.2	127	1.5							
523	1.2D + 1.5Lv (Position ...	Y		1	1.2	128	1.5							
524	1.2D + 1.5Lv (Position ...	Y		1	1.2	129	1.5							



Load Combinations (Continued)

Description	So..	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..
525 1.2D + 1.5Lv (Position ...)	Y			1	1.2	130	1.5							
526 1.2D + 1.5Lv (Position ...)	Y			1	1.2	131	1.5							
527 1.2D + 1.5Lv (Position ...)	Y			1	1.2	132	1.5							
528 1.2D + 1.5Lv (Position ...)	Y			1	1.2	133	1.5							
529 1.2D + 1.5Lv (Position ...)	Y			1	1.2	134	1.5							
530 1.2D + 1.5Lv (Position ...)	Y			1	1.2	135	1.5							
531 1.2D + 1.5Lv (Position ...)	Y			1	1.2	136	1.5							
532 1.2D + 1.5Lv (Position ...)	Y			1	1.2	137	1.5							
533 1.2D + 1.5Lv (Position ...)	Y			1	1.2	138	1.5							
534 1.2D + 1.5Lv (Position ...)	Y			1	1.2	139	1.5							
535 1.2D + 1.5Lv (Position ...)	Y			1	1.2	140	1.5							
536 1.2D + 1.5Lv (Position ...)	Y			1	1.2	141	1.5							
537 1.2D + 1.5Lv (Position ...)	Y			1	1.2	142	1.5							
538 1.2D + 1.5Lv (Position ...)	Y			1	1.2	143	1.5							
539 1.2D + 1.5Lv (Position ...)	Y			1	1.2	144	1.5							
540 1.2D + 1.5Lv (Position ...)	Y			1	1.2	145	1.5							
541 1.2D + 1.5Lv (Position ...)	Y			1	1.2	146	1.5							
542 1.2D + 1.5Lv (Position ...)	Y			1	1.2	147	1.5							
543 1.2D + 1.5Lv (Position ...)	Y			1	1.2	148	1.5							
544 1.2D + 1.5Lv (Position ...)	Y			1	1.2	149	1.5							
545 1.2D + 1.5Lv (Position ...)	Y			1	1.2	150	1.5							
546 1.2D + 1.5Lv (Position ...)	Y			1	1.2	151	1.5							
547 1.2D + 1.5Lv (Position ...)	Y			1	1.2	152	1.5							
548 1.2D + 1.5Lv (Position ...)	Y			1	1.2	153	1.5							
549 1.2D + 1.5Lv (Position ...)	Y			1	1.2	154	1.5							
550 1.2D + 1.5Lv (Position ...)	Y			1	1.2	155	1.5							
551 1.2D + 1.5Lv (Position ...)	Y			1	1.2	156	1.5							
552 1.2D + 1.5Lv (Position ...)	Y			1	1.2	157	1.5							
553 1.2D + 1.5Lv (Position ...)	Y			1	1.2	158	1.5							
554 1.2D + 1.5Lv (Position ...)	Y			1	1.2	159	1.5							
555 1.2D + 1.5Lv (Position ...)	Y			1	1.2	160	1.5							
556 1.2D + 1.5Lv (Position ...)	Y			1	1.2	161	1.5							
557 1.2D + 1.5Lv (Position ...)	Y			1	1.2	162	1.5							
558 1.2D + 1.5Lv (Position ...)	Y			1	1.2	163	1.5							
559 1.2D + 1.5Lv (Position ...)	Y			1	1.2	164	1.5							
560 1.2D + 1.5Lv (Position ...)	Y			1	1.2	165	1.5							
561 1.2D + 1.5Lv (Position ...)	Y			1	1.2	166	1.5							
562 1.2D + 1.5Lv (Position ...)	Y			1	1.2	167	1.5							
563 1.2D + 1.5Lv (Position ...)	Y			1	1.2	168	1.5							
564 1.2D + 1.5Lv (Position ...)	Y			1	1.2	169	1.5							
565 1.2D + 1.5Lv (Position ...)	Y			1	1.2	170	1.5							
566 1.2D + 1.5Lv (Position ...)	Y			1	1.2	171	1.5							
567 1.2D + 1.5Lv (Position ...)	Y			1	1.2	172	1.5							
568 1.2D + 1.5Lv (Position ...)	Y			1	1.2	173	1.5							
569 1.2D + 1.5Lv (Position ...)	Y			1	1.2	174	1.5							

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC	
1	N1	max	3865.134	8	5123.689	14	1144.088	11	1209.601	11	1747.824	5	15981.78	14
2		min	-3265.947	2	-118.538	8	-1144.703	5	-1181.123	5	-1747.669	11	-1695.877	8
3	N93	max	1595.696	10	5328.049	22	2900.932	10	14276.239	22	2020.615	13	802.805	3
4		min	-1895.017	4	-31.008	4	-3416.337	4	-1290.167	4	-2020.731	7	-8375.41	21
5	N99	max	1647.256	6	5390.192	18	3407.484	12	1339.059	12	2138.606	9	802.162	13
6		min	-1947.976	12	-40.345	12	-2891.43	6	-14393.587	18	-2137.627	3	-8532.364	19
7	Totals:	max	6886.073	8	14855.598	24	6466.041	11						



Company : ETS, PLLC
 Designer : TSB
 Job Number : 196392.14
 Model Name : 842856 - ANDOVER NORTH_Mount Analysis

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Envelope Joint Reactions (Continued)

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
8	min -6886.067	2	3374.049	6	-6466.043	5						

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

Member	Shape	Code	Loc[in]	LC	Shear	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [..phi*Mn ...	phi*Mn ...	Cb	Eqn		
1	BRACE2	BPL 4.5X4...	.805	29.0...	18	.080	14.5...	z	15	48985.948	70875	4135.869	7936.203	1...	H2-1
2	BRACE3	BPL 4.5X4...	.793	29.0...	22	.078	14.5...	z	20	48985.948	70875	4135.869	7936.203	1...	H2-1
3	BRACE1	BPL 4.5X4...	.744	29.0...	14	.075	43.5...	z	16	48985.948	70875	4135.869	7936.203	1...	H2-1
4	SA2	HSS5x3x3/...	.663	0	18	.113	0	z	9	176970.058	197892	17595	25323	2...	H1-1b
5	MP12	PIPE 2.0	.660	27	24	.103	69		4	14916.096	32130	1871.625	1871.625	4...	H1-1b
6	MP9	PIPE 2.0	.657	27	20	.102	69		4	14916.096	32130	1871.625	1871.625	3...	H1-1b
7	SA3	HSS5x3x3/...	.656	0	22	.108	0	z	7	176970.058	197892	17595	25323	2...	H1-1b
8	MP8	PIPE 2.0	.652	27	20	.103	69		12	14916.096	32130	1871.625	1871.625	3...	H1-1b
9	MP5	PIPE 2.0	.651	27	16	.102	69		12	14916.096	32130	1871.625	1871.625	4...	H1-1b
10	MP4	PIPE 2.0	.648	27	16	.109	69		8	14916.096	32130	1871.625	1871.625	3...	H1-1b
11	MP1	PIPE 2.0	.644	27	24	.116	69		8	14916.096	32130	1871.625	1871.625	3...	H1-1b
12	SA1	HSS5x3x3/...	.633	0	14	.102	0	z	11	176970.058	197892	17595	25323	2...	H1-1b
13	MP2	PIPE 2.0	.551	27	10	.083	27		22	14916.096	32130	1871.625	1871.625	4...	H1-1b
14	MP3	PIPE 2.0	.501	27	6	.082	27		18	14916.096	32130	1871.625	1871.625	4...	H1-1b
15	MP10	PIPE 2.0	.494	27	6	.081	27		18	14916.096	32130	1871.625	1871.625	4...	H1-1b
16	MP6	PIPE 2.0	.492	27	2	.080	27		14	14916.096	32130	1871.625	1871.625	4...	H1-1b
17	MP11	PIPE 2.0	.491	27	2	.080	27		14	14916.096	32130	1871.625	1871.625	4...	H1-1b
18	MP7	PIPE 2.0	.491	27	10	.081	27		22	14916.096	32130	1871.625	1871.625	4...	H1-1b
19	HR3	PIPE 2.0	.432	12.5	20	.282	142....		10	6295.425	32130	1871.625	1871.625	2...	H1-1b
20	HR2	PIPE 2.0	.428	12.5	20	.283	7.812		6	6295.465	32130	1871.625	1871.625	2...	H1-1b
21	HR1	PIPE 2.0	.422	12.5	16	.287	142....		2	6295.465	32130	1871.625	1871.625	2...	H1-1b
22	FM3	PIPE 3.0	.303	98.4...	20	.153	132....		20	60210.446	65205	5748.75	5748.75	1...	H1-1b
23	FM2	PIPE 3.0	.297	98.4...	20	.152	132....		20	60210.446	65205	5748.75	5748.75	1...	H1-1b
24	FM1	PIPE 3.0	.296	51.5...	24	.177	96.8...		3	60210.446	65205	5748.75	5748.75	1...	H1-1b
25	CORN2	BPL 5X3-1...	.280	13.69	3	.080	13.69	y	3	20346.337	52390.8	1317.011	3312.729	2...	H2-1
26	CORN3	BPL 5X3-1...	.269	0	13	.079	0	y	13	20346.336	52390.8	1317.011	3312.729	2...	H2-1
27	CORN1	BPL 5X3-1...	.263	0	5	.077	0	y	5	20346.346	52390.8	1317.011	3312.729	2...	H2-1
28	BRACE5	BPL 5x3-3/...	.166	6.495	8	.082	6.495	y	19	54005.549	65812.5	2051.123	5958.236	1...	H2-1
29	BRACE6	BPL 5x3-3/...	.164	6.496	8	.086	6.496	y	20	54005.549	65812.5	2051.123	5958.236	1...	H2-1
30	BRACE4	BPL 5x3-3/...	.155	6.494	12	.084	6.494	y	16	54005.549	65812.5	2051.123	5958.236	1...	H2-1

APPENDIX D
ADDITIONAL CALCULATIONS

Connection Check

Max Reactions	
$F_x =$	527.5 lb
$F_y =$	5,123.0 lb
$F_z =$.2 lb
$M_x =$	13.4 lb-ft
$M_y =$	-2.6 lb-ft
$M_z =$	15,981.8 lb-ft

Connection Details		
$\phi_{bolt} =$	0.75 in	Nominal Bolt Diameter
# of Bolts =	4	Bolt Quantity
# of Threads/Inch, n =	10	Number of threads per inch (per AISC Table 7-17)
$F_{ub} =$	120 ksi	Specified Minimum Tensile Strength of the Bolt (A325 Assumed)
$F_y =$	36 ksi	Yield Strength of the Plate (A36 Assumed)
Plate Width =	10.00 in	Connection Plate Width
Plate Thickness =	0.750 in	Connection Plate Thickness
HSS Member Width =	5.00 in	HSS Supporting Member Width
Bolt Spacing, $y_i =$	7.00 in	Horizontal Distance of Bolts along Vertical Flange

CONNECTION RESISTANCE		
$\phi =$	0.75	Connection Resistance Factor
$\phi_b =$	0.90	Plate Bending Resistance Factor
$A_n =$	0.334 in ²	Net Area, A_n , through the threaded portion of the bolt
$A_b =$	0.442 in ²	Nominal untreated area of bolt or threaded part
$\phi R_{nt} =$	30.10 kip	Design Tensile Strength of a Single Bolt or threaded part
$\phi R_{nv} =$	19.88 kip	Design Shear Strength of a Single Bolt. Theads assumed included in the shear plane

4.9.6.4 "COMBINED SHEAR AND TENSION"		
$V_{ub} =$	1.29 kip	Total Shear Force
$T_{ub} =$	13.57 kip	Total Tension Force
% Capacity =	45.1% OK	$\sqrt{\left(\frac{V_{ub}}{\phi R_{nv}}\right)^2 + \left(\frac{T_{ub}}{\phi R_{nt}}\right)^2}$

CONNECTION PLATE CAPACITY		
$M_{MAX} =$	27,133.62 lb-in	Moment across the plate
Yield Line =	8.5440 in	Yield Line across the plate
Plate Stress, $f_b =$	22,583.1 psi	Bending Plate Stress across the yield line
Plate Capacity, $F_b =$	32,400. psi	Bending Capacity of the Plate
% Capacity =	69.7% OK	

Exhibit G

Power Density/RF Emissions Report

General Power Density

Site Name: Coventry West, CT
 Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm ²)	(mW/cm ²)	(%)
VZW PCS	1970	1	6375	6375	130	0.1357	1.0	13.57%
VZW Cellular LTE	869	1	1630	1630	130	0.0347	0.5793333333	5.99%
VZW AWS	2145	1	6310	6310	130	0.1343	1.0	13.43%
VZW 700	746	1	2750	2750	130	0.0585	0.4973333333	11.77%

Total Percentage of Maximum Permissible Exposure 44.75%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:

1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.