CENTERLINE

May 7, 2024

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

MOTION TO REOPEN AND MODIFY
DOCKET NO. 392 DECISION AND ORDER
AND NOTICE OF EXEMPT MODIFICATION

Introduction:

T-Mobile (the "Petitioner") respectfully requests that the Connecticut Siting Council ("Council") reopen the evidentiary proceeding in Docket No. 392 and modify its Decision and Order ("D&O") dated September 23, 2010, as included in Exhibit 1.

T-Mobile seeks the Council's approval to: 1) Modify Condition #1 of the D&O by eliminating the condition requiring antennas be attached to the tower via T-Arm mount configurations to permit other types of mounting designs, including but not limited to platform mount systems, and 2) for an exempt modification to replace (6) six antennas and install (3) new radioheads.

The approved modification to Condition #1 of the D&O will create no adverse environmental impacts but will in fact further the public interest by reducing barriers to tower sharing and avoiding the unnecessary proliferations of towers.

Background:

On October 13, 2009, T-Mobile Northeast LLC ("T-Mobile") applied to the Council for the construction, operation, and maintenance of a wireless telecommunications facility at one of two sites at 387 Shore Road, Old Lyme, Connecticut. The property at 387 Shore Road is approximately 2.15 acres and is owned by Blue Sky Towers LLC. By D&O dated September 23, 2010, the Council issued a CPCN to T-Mobile granting approval to construct the tower at the site, as defined in the original application. Subsequent to the issuance of the CPCN, the Council has acknowledged on four (4) separate occasions T-Mobile's notice of intent to modify the tower. See Exhibit 2 for copies of these acknowledgements.

Request to Modify:

T-Mobile is now proposing to modify its equipment located on the site as shown in the Notice of Exempt Modification Narrative (Exhibit 3), Construction Drawings (Exhibit 4), Structural Analysis (Exhibit 5), and Mount Analysis (Exhibit 6). However, the current limitation imposed by Condition 1

750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

of the D&O would prohibit the necessary modifications from being completed by T-Mobile. Therefore, the Petitioner now requests that the Council reopen the Docket No. 392 proceeding and modify its D&O to allow T-Mobile and other service providers to attach antennas to the existing monopole at the Quaker Farms Road property utilizing platform mounting systems in addition to flush mounts. In support of this request, T-Mobile offers the following additional information:

1. The current limitation on antenna mount design restricts wireless carriers', including T-Mobile's, ability to upgrade existing equipment. The current T-Arm configurations cannot support the updated antennas and supplementary equipment required by wireless carriers in order to provide state-of-the-art reliable wireless service.

2. T-Mobile's existing T-Arm mount configuration is unable to meet the increasing capacity and coverage demands due to the vast changes in T-Mobile's network and technology. For this particular site, T-Mobile can structurally accommodate a platform mount system which will enable T-Mobile to utilize the appropriate antennas/equipment to meet current capacity and coverage demands.

3. Without the Requested Modification of the D&O, T-Mobile's proposed upgrade of equipment to replace six (6) antennas at their existing telecommunications facility will be unable to proceed as planned, due to the T-Arm Mount configuration being unable to accommodate the proposed upgraded equipment. As shown in the Proposed Modification Project Narrative (Exhibit 3) and Construction Drawings (Exhibit 4), T-Mobile's proposed modifications do not constitute a significant change in aesthetics of the existing facility.

Conclusion:

For the foregoing reasons, T-Mobile respectfully requests that the Council reopen Docket No. 392 and modify Condition No. 1 of the D&O eliminating the requirement that all antennas installed on the monopole utilize T-Arm mount configurations and approve the proposed Notice of Exempt Modification.

Respectfully Submitted,

Cullen Morgan
Site Acquisition Consultant
Centerline Communications, LLC (Agent to T-Mobile)
Mobile: (941) 549-7263
Email: cmorgan@clinellc.com

C/O CULLEN MORGAN
941-549-7263
CENTERLINE COMMUNICATIONS LLC
12579 SAGEWOOD DRIVE
VENICE FL 34293

10 LBS

1 OF 1

DWT: 12,12,6

SHIP TO:
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE
NEW BRITAIN CT 06051-2655

CT 067 9-06

UPS GROUND

TRACKING #: 1Z 9Y4 503 03 0246 1182

BILLING: P/P

Reference # 1: CTNL804B

CS 24.3.00. MACNV50 19.0A 05/2024*

TM

CENTERLINE

MOTION TO REOPEN AND MODIFY
DOCKET NO. 392 DECISION AND ORDER

Certificate of Service:

I hereby certify that a notification letter regarding the foregoing was sent via UPS to all relevant parties associated with Docket No. 392, including:

The Honorable Timothy C. Griswold, First Selectman
Town of Old Lyme
52 Lyme Street
Old Lyme, CT 06371

Eric Knapp, Land Use Coordinator
Town of Old Lyme
52 Lyme Street
Old Lyme, CT 06371

Blue Sky Towers LLC, Property Owner
900 Circle 75 Parkway
Suite 300
Atlanta, GA 30339

PTI Towers, Tower Owner
999 Yamato Road
Suite 100
Boca Raton, FL 33431

Mary Staley, Party to D&O dated February 16, 2010
5805 Ogden Road
Bethesda, MD 20816

Copies of the list of Parties to the original D&O dated February 16, 2010, the notification letter sample, as well as the UPS labels (proof of service) are attached hereto as Exhibit 7.

750 W Center St, Suite 301
West Bridgewater, MA 02379
781-713-4725

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EXHIBIT 1

Original Decision and Order

DOCKET NO. 392 - T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located 387 Shore Road, Old Lyme, Connecticut.	Connecticut Siting Council September 23, 2010

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, maintenance, and operation 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 T-Mobile Northeast, LLC (T-Mobile), hereinafter referred to as the Certificate Holder, for a telecommunications facility at the proposed site, located at 387 Shore Road, Old Lyme, Connecticut.

Unless otherwise approved by the Council, 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 Certificate Holder and other entities, both public and private, but such tower shall not exceed a height of 80 feet above ground level (agl). The height at the top of T-Mobile's antennas shall not exceed 80 feet above ground level. The wireless antennas shall be attached to the tower via T-arm mounts.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Old Lyme for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound with privacy slats, radio equipment, access road, utility line, and landscaping; and
    b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the 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 the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

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

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

6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Old Lyme public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), 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. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.

8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Old Lyme. Any proposed modifications to this Decision and Order shall likewise be so served.

9. If the facility 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.

10. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.

11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.

12. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

13. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder\transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder\transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

Pursuant to General Statutes § 16-50p, the Council hereby directs 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 Day*.

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

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
T-Mobile Northeast, LLC	Julie D. Kohler, Esq. Monte E. Frank, Esq. Jesse A. Langer, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604

Party	**Its Representative**
Town of Old Lyme	The Honorable Timothy G. Griswold Office of the Selectman Town of Old Lyme 52 Lyme Street Old Lyme, CT 06371

Party	**Its Representative**
Mary Staley	Mary Staley 5805 Ogden Road Bethesda, MD 20816

CENTERLINE

EXHIBIT 2

Acknowledgements of Former Modifications

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

April 16, 2014

Julie D. Kohler, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: **EM-T-MOBILE-105-140324** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 387 Shore Road, Old Lyme, Connecticut.

Dear Attorney Kohler:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated March 21, 2014. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/RDM/jb

c: The Honorable Bonnie A. Reemsnyder, First Selectman, Town of Old Lyme
Kim Groves, Land Use Officer, Town of Old Lyme

CONNECTICUT SITING COUNCIL

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

September 30, 2015

Denise Sabo
Northeast Site Solutions
199 Brickyard Road
Farmington, CT 06032

RE: **EM-T-MOBILE-105-150909** – T-Mobile notice of intent to modify an existing telecommunications facility located at 387 Shore Road, Old Lyme, Connecticut.

Dear Ms. Sabo:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The proposed feed line shall be installed in accordance with the structural analysis report prepared by T-Mobile Towers, dated August 28, 2015 and stamped by Christopher J. Scheks;
- Within 45 days following completion of the equipment installation, T-Mobile shall provide documentation that its installation complied with the recommendations of the structural analysis;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated September 4, 2015 and additional information received on September 22, 2015. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the

Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/CH/lm

c: The Honorable Bonnie A. Reemsnyder, First Selectwoman, Town of Old Lyme
Kim Groves, Land Use Officer, Town of Old Lyme
Blue Sky Towers, LLC

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

November 8, 2021

Victoria Masse
Northeast Site Solutions
420 Main Street, Unit 2
Sturbridge, MA 01566
victoria@northeastsitesolutions.com

RE: **EM-T-MOBILE-105-210914** - T-Mobile notice of intent to modify an existing telecommunications facility located at 387 Shore Road, Old Lyme, Connecticut.

Dear Ms. Masse:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

1. Any deviation from the proposed modification as specified in this notice and supporting materials submitted to the Council shall render this acknowledgement invalid;

2. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

3. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

4. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

5. Any nonfunctioning equipment at this facility owned and operated by T-Mobile shall be removed within 60 days of the date the equipment ceased to function;

6. The validity of this action shall expire one year from the date of this letter; and

7. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated September 1, 2021. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the

state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/FOC/emr

c: The Honorable Timothy Griswold, First Selectman, Town of Old Lyme
(tgriswold@oldlyme-ct.gov)

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

November 1, 2022

Victoria Masse
Northeast Site Solutions
420 Main Street, Unit 2
Sturbridge, MA 01566
victoria@northeastsitesolutions.com

RE: **EM-T-MOBILE-105-221003** – T-Mobile notice of intent to modify an existing telecommunications facility located at 387 Shore Road, Old Lyme, Connecticut.

Dear Victoria Masse:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

1. Prior to the commencement of construction, T-Mobile shall provide a copy of the Structural Analysis referencing the Connecticut State Building Code effective October 1, 2022;

2. The height at the top of T-Mobile's antennas shall not exceed 80 feet above ground level and the wireless antennas shall be attached to the tower via T-arm mounts consistent with Condition No. 1 of the Council's Decision and Order in Docket No. 392;

3. RF access restriction and caution signage shall be installed at the site in compliance with FCC guidance;

4. Any deviation from the proposed modification as specified in this notice and supporting materials submitted to the Council shall render this acknowledgement invalid;

5. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

6. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

7. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

8. Deployment of any 5G services must comply with FCC and FAA guidance relative to air navigation, as applicable;

9. Any nonfunctioning antenna and associated antenna mounting equipment, or other equipment at this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna or equipment ceased to function;

10. The validity of this action shall expire one year from the date of this letter; and

11. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated September 20, 2022. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/IN/emr

c: The Honorable Timothy Griswold, First Selectperson, Town of Old Lyme
(tgriswold@oldlyme-ct.gov)

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EXHIBIT 3

Notice of Exempt Modification Narrative

CENTERLINE

T-Mobile
Cullen Morgan
Site Acquisition Consultant
750 W Center Street
Suite 301
West Bridgewater, MA 02379
(941)549-7263
cmorgan@clinellc.com

May 7, 2024

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

RE: NOTICE OF EXEMPT MODIFICATION
387 Shore Road, Old Lyme, CT 06371
Latitude: 41.296539 N
Longitude: 72.259644 W
T-Mobile Site #: CTNL804B

T-Mobile currently maintains nine (9) antennas at the 80-foot level of the existing 80-foot monopole tower at 15 Oakdale Avenue Winsted, CT 06098. The 80-foot tower is owned by Phoenix Towers International, and the property is owned by Blue Sky Towers LLC. T-Mobile now intends to replace six (6) antennas at their existing telecommunications facility. The proposed equipment modifications and additions will be installed at the 78-foot level of the tower.

Planned Modifications:

Remove Existing:
(6) AIR21 Antennas
(12) 7/8" Coax

Install New:
(3) AIR6419 Antennas
(3) APXVLL19P_43-C-A20
(1) 6x24 Hybrid
(3) Radio 4460 RRUs

Existing to Remain:
(3) APXVAALL24_43-U-NA20 Antennas
(3) Radio 4480 RRUs
(1) 6x24 Hybrid Cable

This facility was approved by the CT Siting Council in Docket No. 392 dated September 23, 2010 with conditions. We used the information from the previous filing.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, or construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to The Honorable Timothy C. Griswold, First Selectman and chief elected official of the Town of Old Lyme, Eric Knapp, Land Use Coordinator for the Town of Old Lyme as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S;A. § 16-50j-72(b)(2).

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

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

Respectfully Submitted,

Cullen Morgan
Site Acquisition Consultant
Centerline Communications, LLC (Agent to T-Mobile)
Mobile: (941) 549-7263
cmorgan@clinellc.com

CENTERLINE

EXHIBIT 4

Proposed Modification Construction Drawings

PROJECT INFORMATION

SITE NAME:	CTNL804B
SITE NUMBER:	CTNL804B
SITE ADDRESS:	387 SHORE ROAD OLD LYME, CT 06376
COUNTY	HARTFORD
MUNICIPALITY:	HARTFORD COUNTY
ZONING:	C-30
LATITUDE:	N 41° 17' 47.54" (41.296539°) (NAD83)
LONGITUDE:	W 72° 15' 34.72" (-72.259644°) (NAD83)
TYPE OF SITE:	MONOPOLE
STRUCTURE HEIGHT:	80'-0" AGL
ANTENNA CENTER:	78'-0" AGL
GROUND ELEVATION:	43'-0" (NAVD 88)
TOWER OWNER NAME:	BENOIT KATHY
TOWER OWNER ADDRESS:	34 IRVINGDELL PLACE EAST LYME, CT 06333
APPLICANT:	T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CONNECTICUT 06002
APPLICANT PHONE:	(860) 692-7100

PROJECT DIRECTORY

ENGINEERING FIRM:
CENTERLINE ENGINEERING SERVICES, PA
750 WEST CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
DEREK CREASER (617) 306-3034

CARRIER:
T-MOBILE NORTHEAST, LLC.
35 GRIFFIN RD S
BLOOMFIELD, CT 06002
PHONE: (860) 692-1700

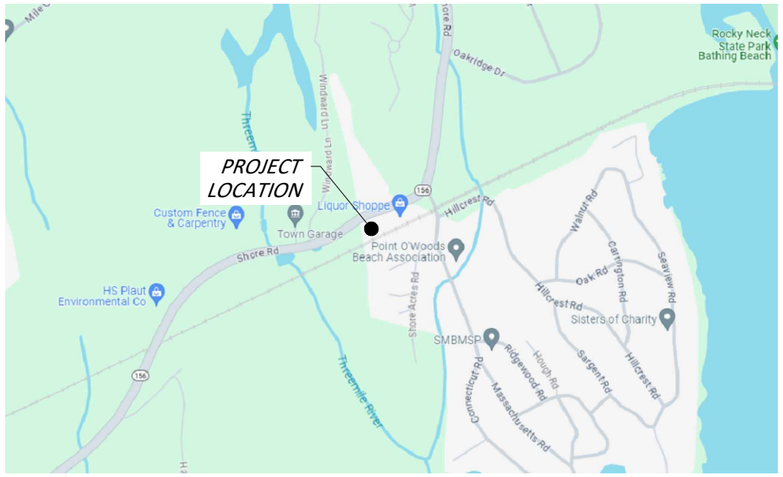
811 Know what's **below.** **Call** before you dig.

CENTERLINE ENGINEERING SERVICES, PA

T - Mobile NORTHEAST LLC

SITE NAME: CTNL804B
SITE ID: CTNL804B
ADDRESS: 387 SHORE ROAD
OLD LYME, CT 06376

TECHNOLOGY: 67E5D998E 6160
MODIFICATION: ANCHOR_PHASE 3



VICINITY MAP
NOT TO SCALE

N

LOCATION MAP
NOT TO SCALE

GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T–MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSE OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T–MOBILE REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SCOPE OF WORK

1. REMOVE SIX EXISTING ANTENNAS
2. INSTALL SIX NEW ANTENNAS
3. REMOVE THREE TMAS
4. INSTALL THREE NEW RRUS
5. INSTALL TWO NEW 6x24 HYBRID CABLES
6. INSTALL ONE NEW ERICSSON 6160 V2 AC EQUIPMENT ENCLOSURE
7. INSTALL ONE NEW ERICSSON B160 BATTERY CABINET
8. REMOVE RBS 6131 EQUIPMENT CABINET
9. REMOVE S18000 EQUIPMENT CABINET
10. REMOVE ALL UNUSED CABLES AND EQUIPMENT

DRAWING INDEX

DRAWING SCALE NOTES:

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 22"x34". CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

T - Mobile NORTHEAST LLC
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REVISIONS

REV	DATE	DESCRIPTION	BY
0	03/05/24	ISSUED FOR CONSTRUCTION	RC
A	01/30/24	ISSUE FOR REVIEW	AB

DESIGNED BY:	APPROVED BY:
TA	RC

STATE OF CONNECTICUT · JOSEPH J FITZSIMONS · 23683 · LICENSED PROFESSIONAL ENGINEER

SIGNED: 2024/03/05
EXPIRES: 2025/01/31

SITE NAME: CTNL804B
SITE ID: CTNL804B
SITE ADDRESS: 387 SHORE ROAD, OLD LYME, CT 06376, HARTFORD COUNTY
SHEET TITLE: TITLE SHEET
DRAWING: T-1

RF NOTES

1. ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR
2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.
3. RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8.
4. ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS-OCCUPIED, INDOORS-UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.
5. RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT ACCESSORIES SHALL BE USED.
6. THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.
7. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CABLE PORT.
8. ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.
9. 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.
10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.
11. ANTENNAS SHALL BE PAINTED,WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.
12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

ANTENNA CABLE & SCHEDULING NOTES

1. SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION.
2. TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER T-MOBILE ANTENNA CABLE MARKING STANDARD:
   - TOP OF TOWER END OF MAIN COAX
   - BOTTOM OF TOWER END OF MAIN COAX
   - DIRECTLY BEFORE AND AFTER RF EQUIPMENT
   - END OF JUMPERS AT BTS EQUIPMENT
3. ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.
4. PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE EQUIPMENT.

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR - CENTERLINE COMMUNICATIONS
   SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER - T-MOBILE MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE MOBILITY SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE: IBC 2015 & CONNECTICUT STATE BUILDING CODE 2018
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
LIGHTNING CODE: NFPA 780-2017

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FIFTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE	TYP	TYPICAL
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED		

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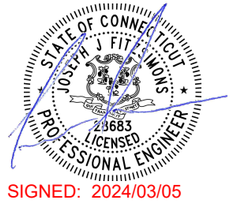


SIGNED: 2024/03/05
EXPIRES: 2025/01/31

SITE NAME: CTNL804B

SITE ID: CTNL804B

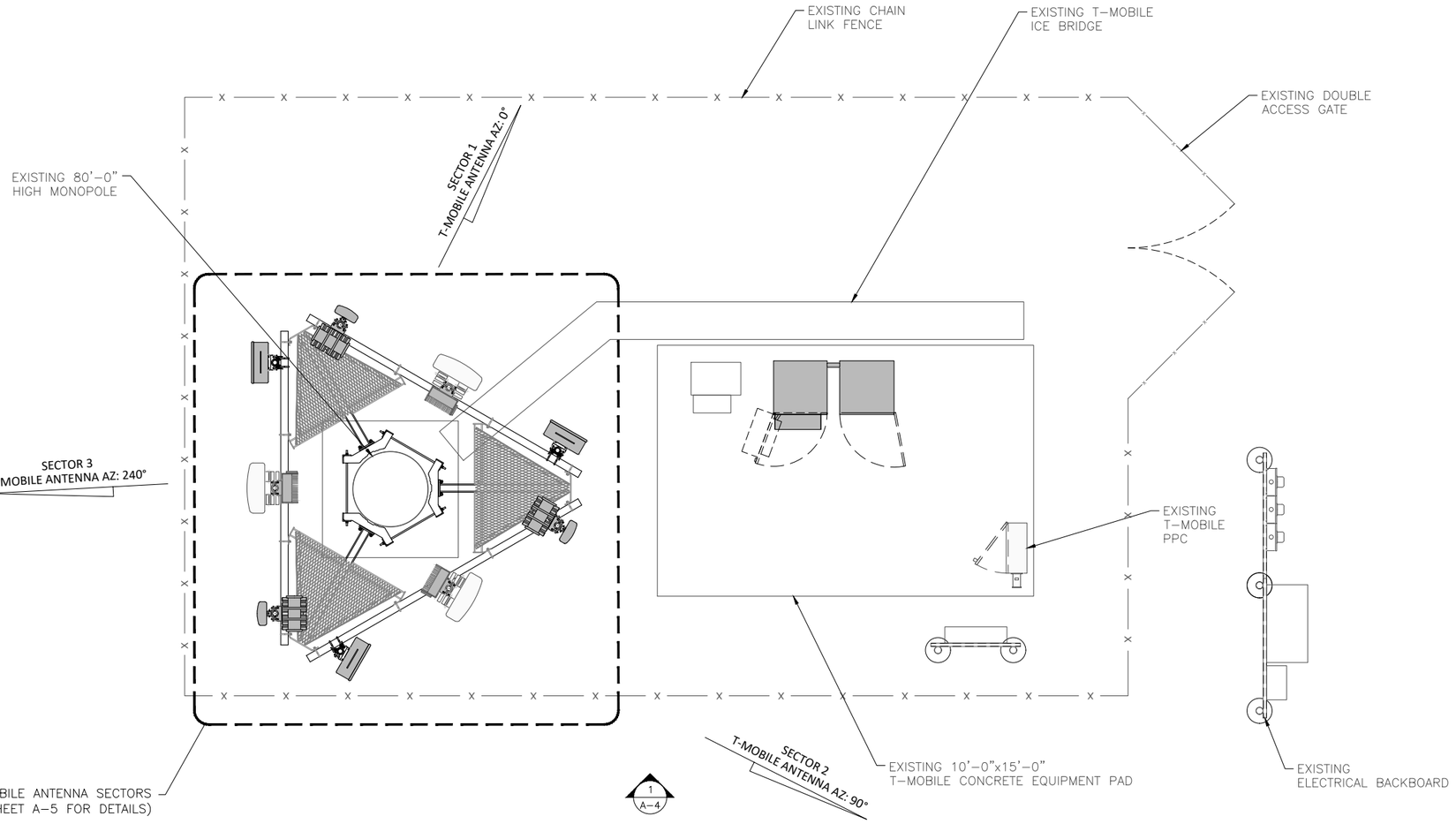
SITE ADDRESS:
387 SHORE ROAD
OLD LYME, CT 06376
HARTFORD COUNTY

SHEET TITLE: **GENERAL NOTES, RF NOTES, CABLING NOTES**

DRAWING: **GN-1**

NOTES

1. CONTRACTOR SHALL MAKE A UTILITY 811 DIG SAFE CALL TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
2. CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING MOUNT ANALYSIS.
3. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA MODELS AND SETTINGS.



1 / A-4

1 / A-1 COMPOUND PLAN

GRAPHIC SCALE

8 4 0 1 2 4 8

1/4 INCH = 1 FOOT (22X34)
1/8 INCH = 1 FOOT (11X17)

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STATE OF CONNECTICUT · JOSEPH J FITZSIMONS · 23683 · LICENSED PROFESSIONAL ENGINEER

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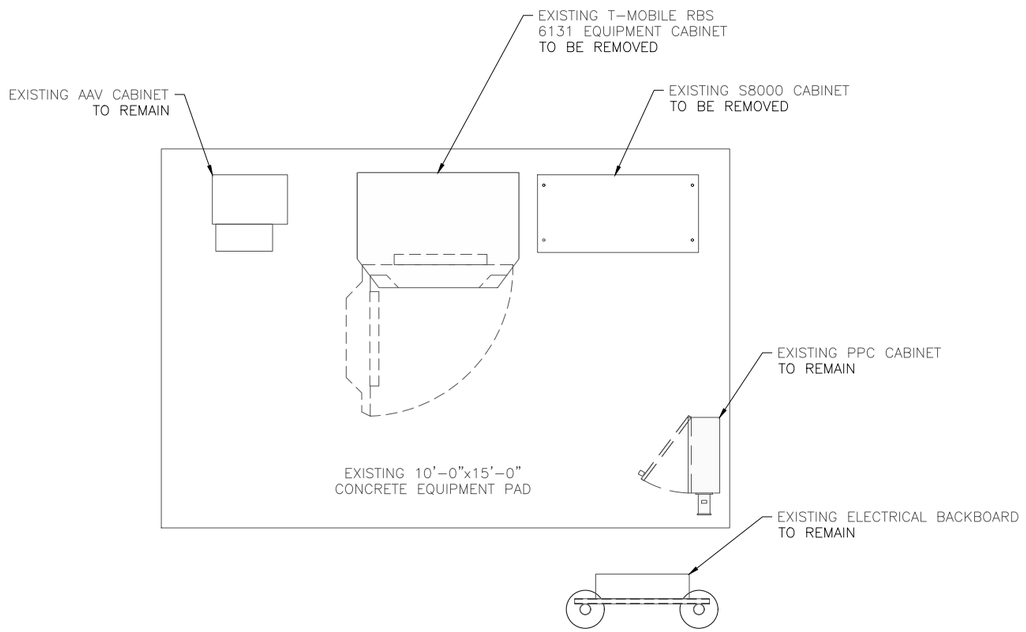
OLD LYME, CT 06376
HARTFORD COUNTY

SHEET TITLE: **COMPOUND PLAN**

DRAWING: **A-1**

RAN EQUIPMENT		
CABINET	EXISTING	PROPOSED
ERICSSON 6160	N/A	(3) RP 6651 (1) CSR IXRe V2 RBS6601
ERICSSON B160	N/A	N/A
NOTE: RAN EQUIPMENT IS BASED ON RFDS REV6 DATED 01/12/24		



1 A-2 EXISTING EQUIPMENT PLAN

GRAPHIC SCALE

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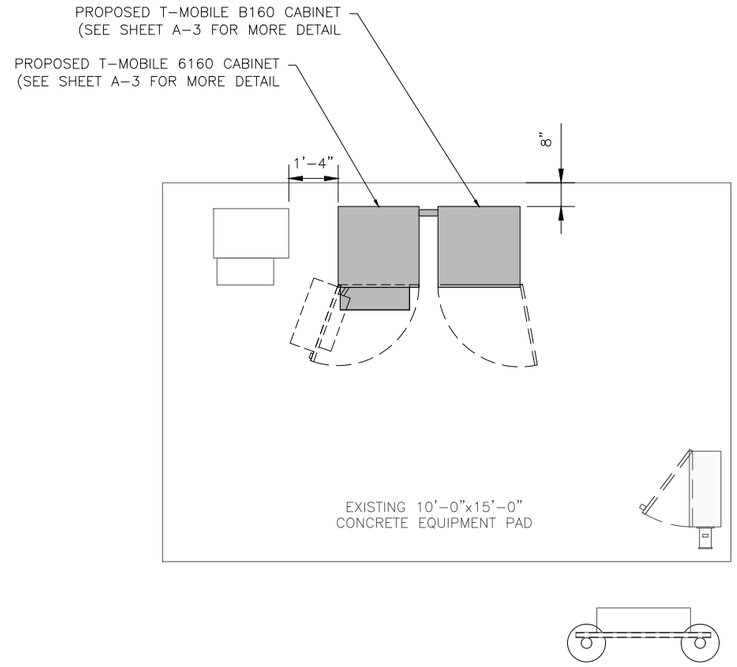
1/2 INCH = 1 FOOT (22X34)
1/4 INCH = 1 FOOT (11X17)



2 A-2 PROPOSED EQUIPMENT PLAN

GRAPHIC SCALE

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1/4 INCH = 1 FOOT (11X17)

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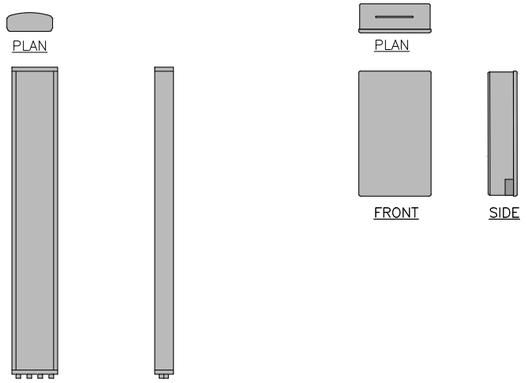
SHEET TITLE:
EQUIPMENT LAYOUT

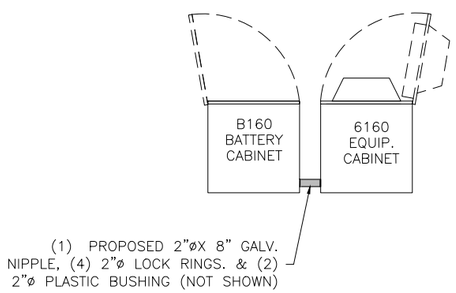
DRAWING:
A-2

RFS APXVLL19_43-C-A20	
MODEL #	APXVLL19_43-C-A20
MANUF.	RFS
HEIGHT	75.8"
WIDTH	11.3"
DEPTH	4.6"
WEIGHT	40.9 LBS W/O MTG HARDWARE 44.1 LBS W/ MTG HARDWARE
FRONT EPA:	6.01 FT^2
SIDE EPA:	2.67 FT^2

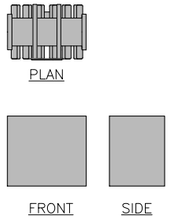
ERICSSON AIR 6419 B41	
MODEL #	AIR 6419 B41
MANUF.	ERICSSON
HEIGHT	34.5"
WIDTH	20.0"
DEPTH	8.0"
WEIGHT	68.5 LBS W/O MTG HARDWARE
FRONT EPA:	4.8 FT^2
SIDE EPA:	1.92 FT^2



1 A-3 ANTENNA DETAILS



3 A-3 PROPOSED EQUIPMENT CONDUIT DETAIL

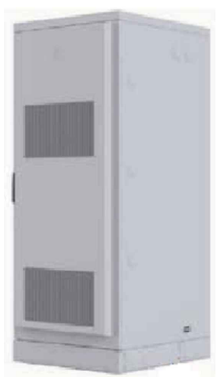


RADIO DIMENSIONS	
MODEL #	RADIO 4460 B25_B66
MANUF.	ERICSSON
HEIGHT	15.1"
WIDTH	17.0"
DEPTH	11.9"
WEIGHT	108 LBS
FRONT EPA:	
SIDE EPA:	

2 A-3 RADIO DETAILS

6160 AC ENCLOSURE

CAPACITY	
RACK SPACE USER EQUIP.	19U(19" RACK)
HARDWARE CAPABILITIES	POWER AND CPRI SUPPORT FOR MULTI-STANDARD REMOTE RADIOS (RRU OR AIR) ERS BASEBAND AND TRANSPORT UNITS Li-ION BATTERIES 3PP EQUIPMENT ADDITIONAL POWER FEED OPTIONS AVAILABLE
MECHANICAL SPECIFICATIONS	
WEIGHT	320lbs (INCLUDING ACTIVE EQUIPMENT)
DIMENSIONS (HWD)	63"x26"x26" (INCLUDING BASE FRAME)
BASE FRAME HEIGHT	6"
MOUNTING POSITION	GROUND
ENCLOSURE MATERIAL	ALUMINUM
COLOR	POWDER PAINT NCS 2002-B
DOOR	FRONT ACCESS
RACK TYPE	19" (IEC 60297-3-100)
LOCK TYPE	CYLINDER/PAD LOCK
POWER SYSTEM	
INPUT VOLTAGE	3P+N+PE 346/200-415/240 VAC 2P+N+PE 208/120-220/127 VAC 1P+N+PE 200-250 VAC



B160 BATTERY ENCLOSURE

CAPACITY	
VRLA12V:	100Ah/150Ah/170Ah/190Ah/210Ah
Li-ION	24U 19"/23"
SODIUM-NICKEL	3xFIAMM
ELECTRICAL SPECIFICATIONS	
DC OUTPUT	-48VDC/200A
BATTERY BREAKERS	2x125/2p
ALARMS	DOOR OPEN, CLIMATE FAILURE, MCB CONNECTION
MECHANICAL SPECIFICATIONS	
WEIGHT	295 lbs (PLUS 3 STRINGS OF RECOMMENDED 190 aHR FOR ADDITIONAL 1588LBS)
DIMENSIONS (HWD)	63"x26"x26" (INCLUDING BASE FRAME)
BASE FRAME HEIGHT	6"
MATERIAL	GALVANIZED STEEL (180g/m^2)
COLOR	POWDER PAINT NCS 2002-B
LOCKING TYPE	CYLINDER/PAD LOCK

4 A-3 PROPOSED EQUIPMENT CABINET SPECIFICATIONS

T-Mobile NORTHEAST LLC

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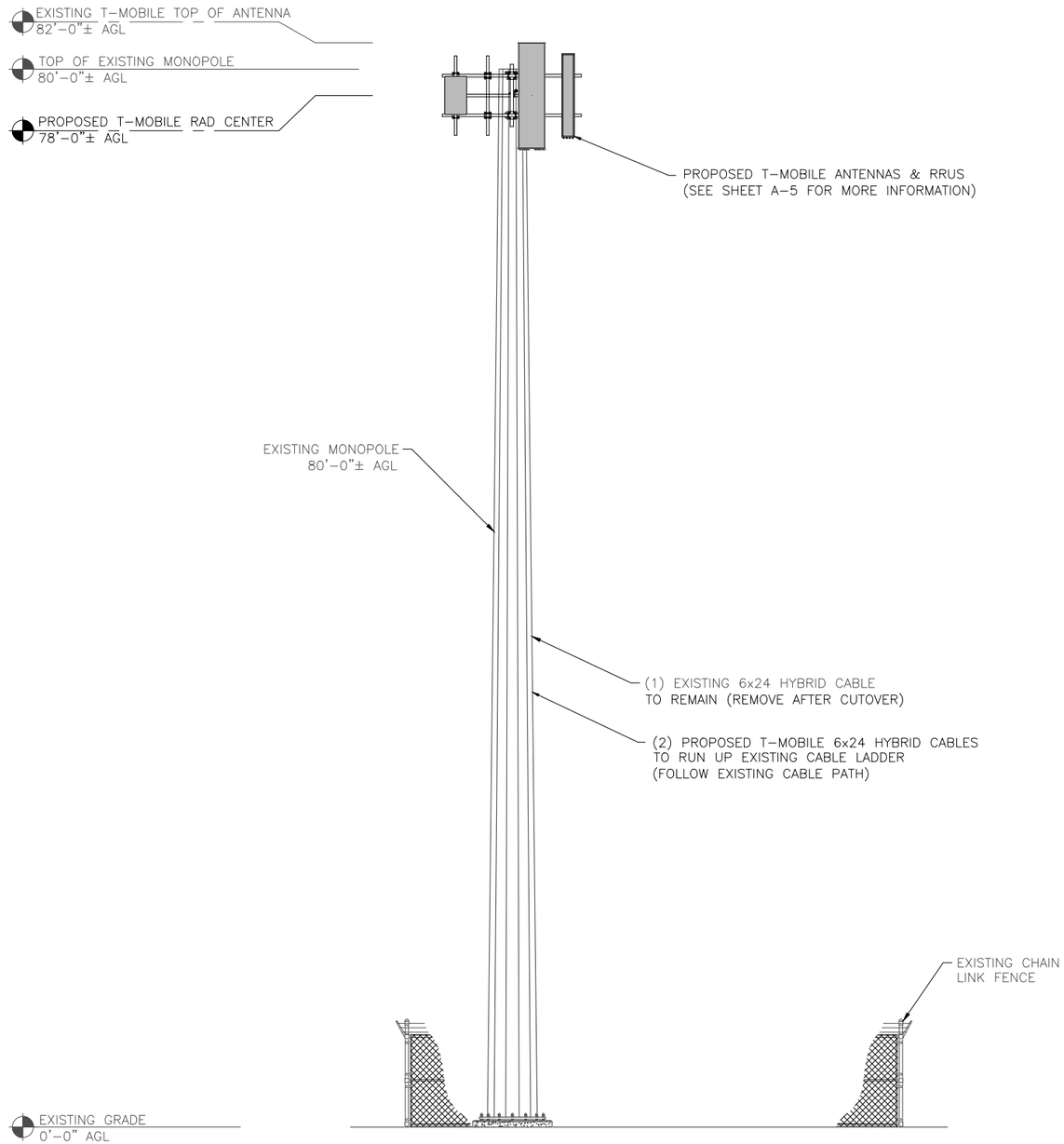
SHEET TITLE: **EQUIPMENT DETAILS**

DRAWING: **A-3**



1 A-4 SOUTH ELEVATION

GRAPHIC SCALE

8 4 0 1 2 4 8

3/16 INCH = 1 FOOT (22X34)
3/32 INCH = 1 FOOT (11X17)

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SHEET TITLE:
SOUTH ELEVATION

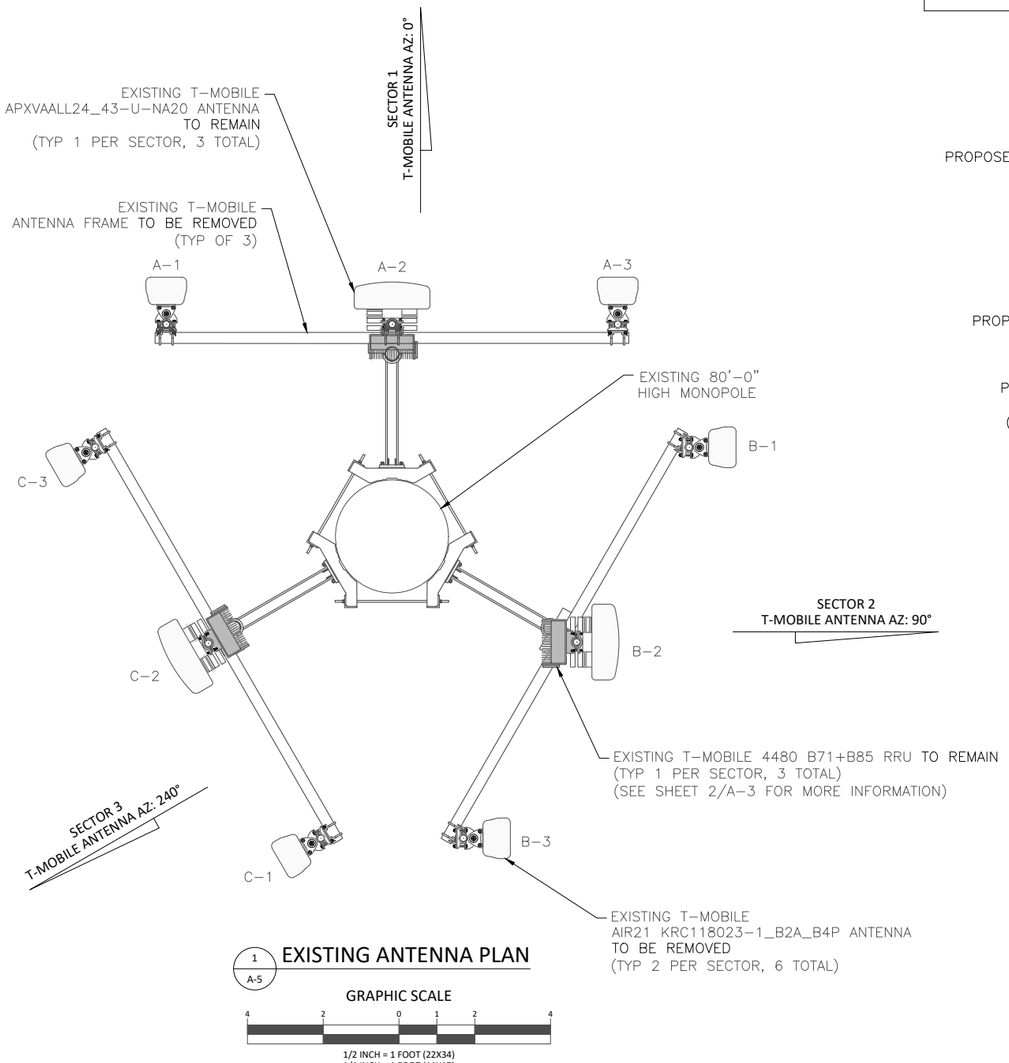
DRAWING:
A-4

ANTENNA & CABLE NOTES:

1. CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING MOUNT ANALYSIS.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.
3. REMOVE ALL UNUSED CABLE, RRUs AND TMAs.
4. PAINT ANTENNAS AND EQUIP. TO MATCH EXISTING.

ANTENNA & CABLE SCHEDULE:

	LOCATION	AZIMUTH	RAD CENTER	STATUS	TECHNOLOGY	ANTENNA MODEL NO.	MECH DOWNTILT	ELEC DOWNTILT	CABLES	DIPLEXERS	TMA/RRU	CABLE SIZE	CABLE LENGTH
ALPHA	A-1	0°	78'-0"	PROPOSED	L2100, L1900, G1900 & U2100	APXVLL19P_43-C-A20	0°	4°/4°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4460 B25+B66 RRU	6x24 HYBRID	165'
	A-2	0°	78'-0"	EXISTING	L700, L600 & N600	APXVAALL24_43-U-NA20	0°	2°/2°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4480 B71+B85 RRU	SHARED	N/A
	A-3	0°	78'-0"	PROPOSED	L2500, N2500	AIR6419 B41	0°	2°/2°	FIBER JUMPERS (X4)	N/A	N/A	SHARED	N/A
BETA	B-1	90°	78'-0"	PROPOSED	L2100, L1900, G1900 & U2100	APXVLL19P_43-C-A20	0°	4°/4°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4460 B25+B66 RRU	6x24 HYBRID	165'
	B-2	90°	78'-0"	EXISTING	L700, L600 & N600	APXVAALL24_43-U-NA20	0°	2°/2°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4480 B71+B85 RRU	SHARED	N/A
	B-3	90°	78'-0"	PROPOSED	L2500, N2500	AIR6419 B41	0°	2°/2°	FIBER JUMPERS (X4)	N/A	N/A	SHARED	N/A
GAMMA	C-1	240°	78'-0"	PROPOSED	L2100, L1900, G1900 & U2100	APXVLL19P_43-C-A20	0°	4°/4°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4460 B25+B66 RRU	SHARED	N/A
	C-2	240°	78'-0"	EXISTING	L700, L600 & N600	APXVAALL24_43-U-NA20	0°	2°/2°	COAX JUMPERS (X4) FIBER JUMPERS (X2)	N/A	4480 B71+B85 RRU	SHARED	N/A
	C-3	240°	78'-0"	PROPOSED	L2500, N2500	AIR6419 B41	0°	2°/2°	FIBER JUMPERS (X4)	N/A	N/A	SHARED	N/A
NOTE: DARK TEXT IN TABLE ABOVE DENOTES PROPOSED EQUIPMENT											(2) TOTAL 6x24 HYBRID CABLES		330'

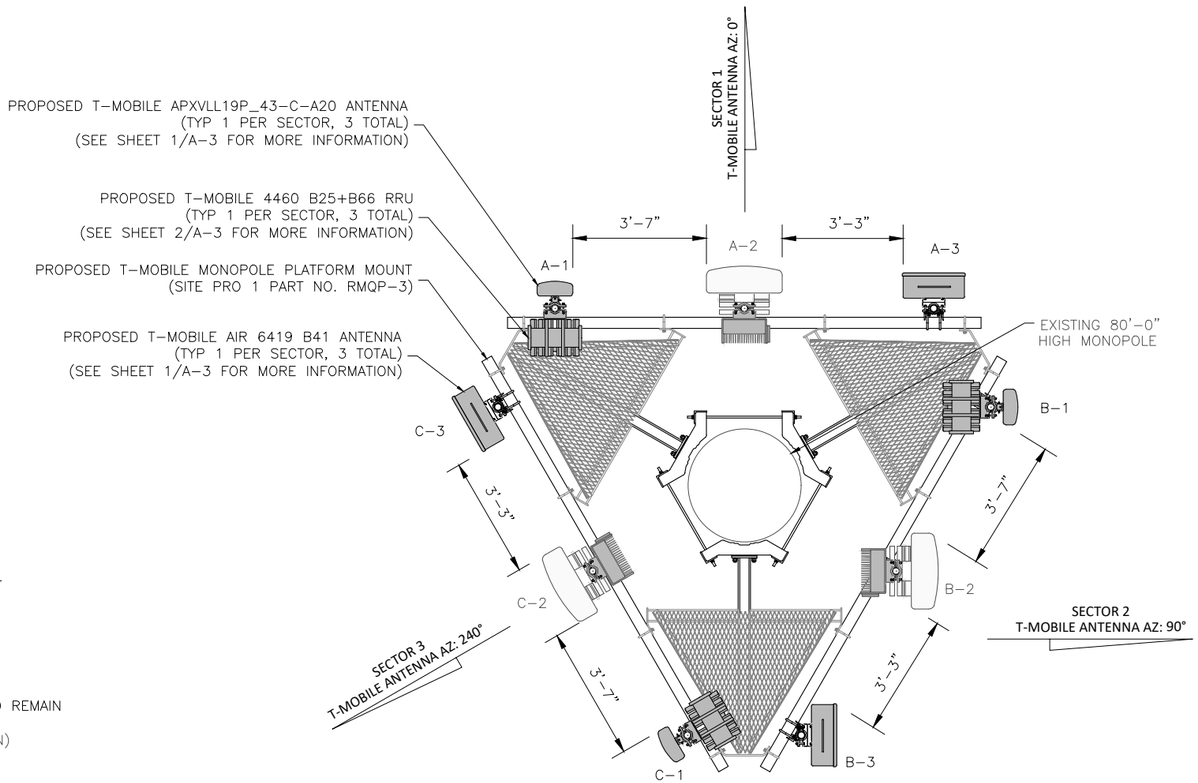


1 A-5 EXISTING ANTENNA PLAN

GRAPHIC SCALE

4 2 0 1 2 4

1/2 INCH = 1 FOOT (22X34)
1/4 INCH = 1 FOOT (11X17)



2 A-5 PROPOSED ANTENNA PLAN

GRAPHIC SCALE

4 2 0 1 2 4

1/2 INCH = 1 FOOT (22X34)
1/4 INCH = 1 FOOT (11X17)

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REVISIONS

REV	DATE	DESCRIPTION	BY
0	03/05/24	ISSUED FOR CONSTRUCTION	RC
A	01/30/24	ISSUE FOR REVIEW	AB

DESIGNED BY:	APPROVED BY:
TA	RC

STATE OF CONNECTICUT
JOSEPH J. FITZSIMONS
23683
LICENSED
PROFESSIONAL ENGINEER

SIGNED: 2024/03/05
EXPIRES: 2025/01/31

SITE NAME:
CTNL804B

SITE ID:
CTNL804B

SITE ADDRESS:
387 SHORE ROAD
OLD LYME, CT 06376
HARTFORD COUNTY

SHEET TITLE:
ANTENNA PLAN & SCHEDULE

DRAWING:
A-5

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
7. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DI.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
16. WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
17. ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS [1]
N/A	MATERIAL SPECIFICATIONS REPORT [2]
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS [3]
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS [4]
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION [5]
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	**MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS [6]**
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

1. REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
2. PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
3. PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
4. HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
5. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
6. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
4. VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
5. CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
6. EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

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TA	RC

STATE OF CONNECTICUT · JOSEPH J FITZSIMMONS · 23683 · LICENSED PROFESSIONAL ENGINEER

SIGNED: 2024/03/05
EXPIRES: 2025/01/31

SITE NAME: CTNL804B

SITE ID: CTNL804B

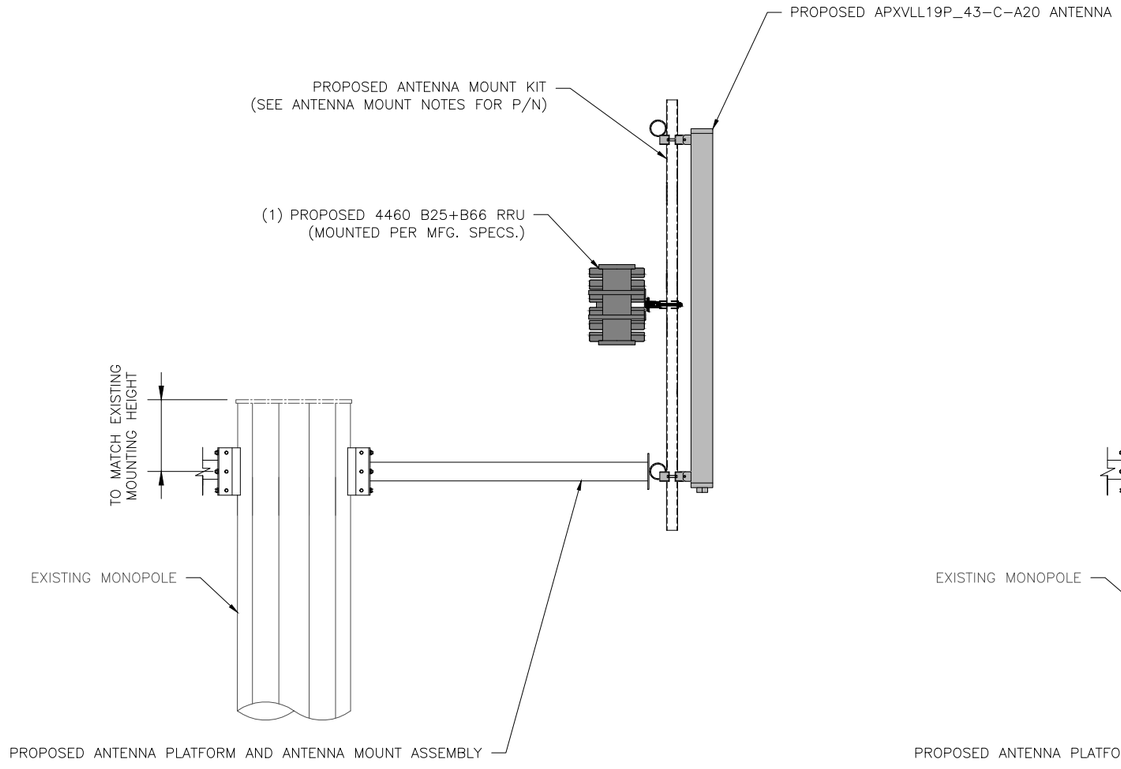
SITE ADDRESS:
387 SHORE ROAD
OLD LYME, CT 06376
HARTFORD COUNTY

SHEET TITLE: **STRUCTURAL NOTES & SPECIAL INSPECTIONS**

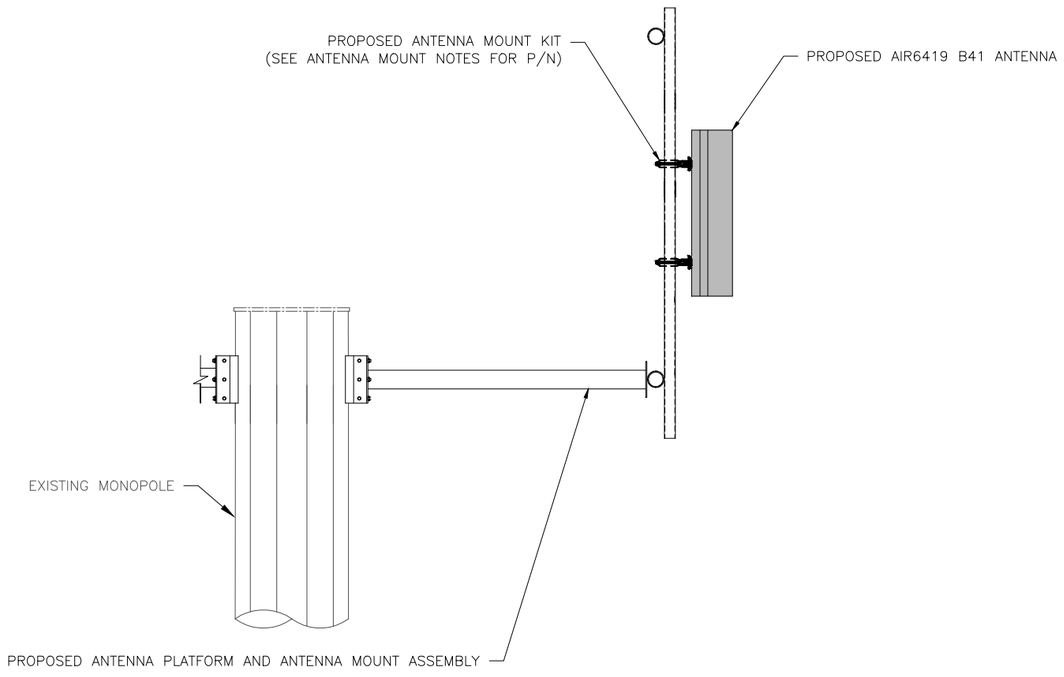
DRAWING: **SN-1**

NOTES FOR ANTENNA MOUNTS:

1. APXVLL19P_43-C-A-20 ANTENNA : RFS APM40-5E PIPE MOUNT KIT
2. AIR 6419 B41: ERICSSON R2A PIPE MOUNT KIT



POSITION A-1, B-1, & C-1



POSITION A-3, B-3, & C-3

1 / S-1 TYPICAL ANTENNA & RRU MOUNTING DETAIL

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STATE OF CONNECTICUT
JOSEPH J FITZSIMMONS
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PROFESSIONAL ENGINEER

SIGNED: 2024/03/05
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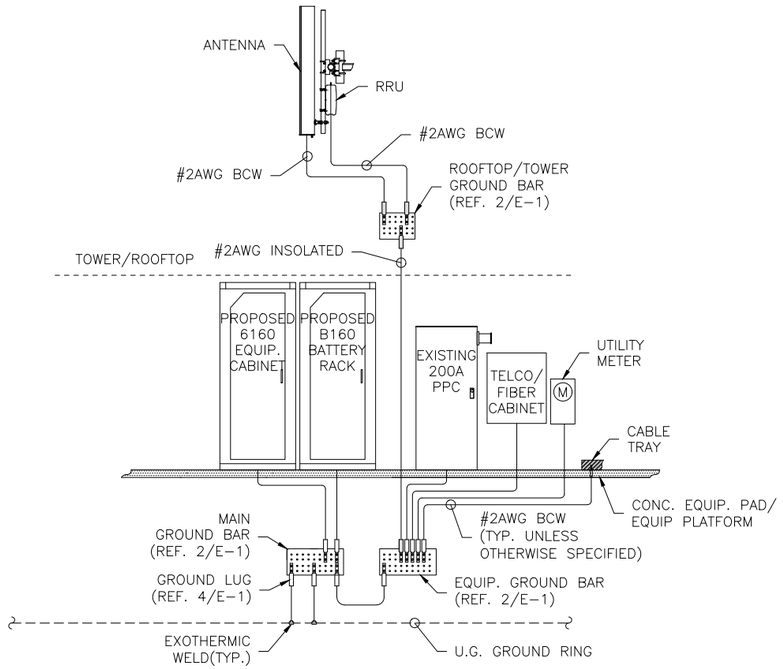
SITE NAME: CTNL804B

SITE ID: CTNL804B

SITE ADDRESS:
387 SHORE ROAD
OLD LYME, CT 06376
HARTFORD COUNTY

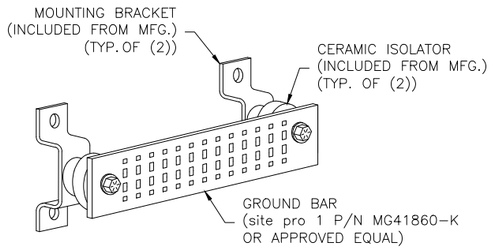
SHEET TITLE: **ANTENNA & RRU MOUNTING DETAILS**

DRAWING: **S-1**



GROUNDING RISER NOTE:
UNLESS OTHERWISE SPECIFIED ALL GROUNDING CONDUCTORS ARE TO BE #2AWG BCW

1 G-1 **GROUNDING RISER DIAGRAM**



2 G-1 **GROUND BAR DETAIL**

EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

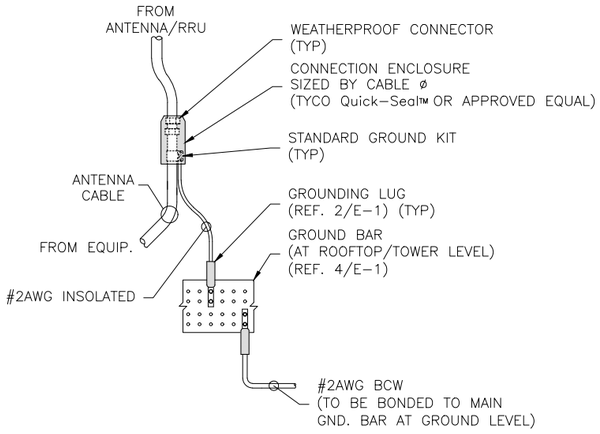
SECTION "P" – SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES) (#2)
GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
+24V POWER SUPPLY RETURN BAR (#2)
-48V POWER SUPPLY RETURN BAR (#2)
RECTIFIER FRAMES.

SECTION "A" – SURGE ABSORBERS

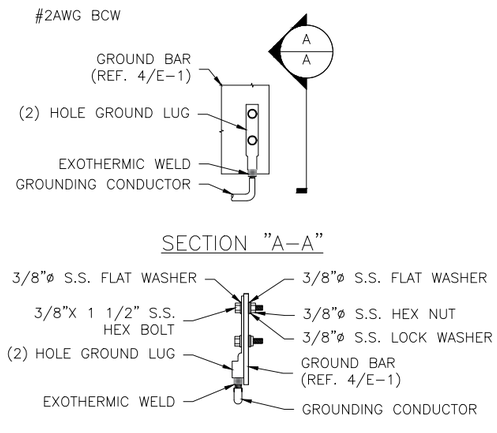
INTERIOR GROUND RING (#2)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
BUILDING STEEL (IF AVAILABLE) (#2)

3 G-1 **GROUND WIRE SCHEDULE**



NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT BEND IN CABLE.
2. GROUND CABLES DIRECTLY TO CIGBE
3. JUMPER REQUIRED ONLY WHEN CABLE IS 1 1/4" OR LARGER

4 G-1 **ANTENNA/RRU GROUNDING DETAIL**

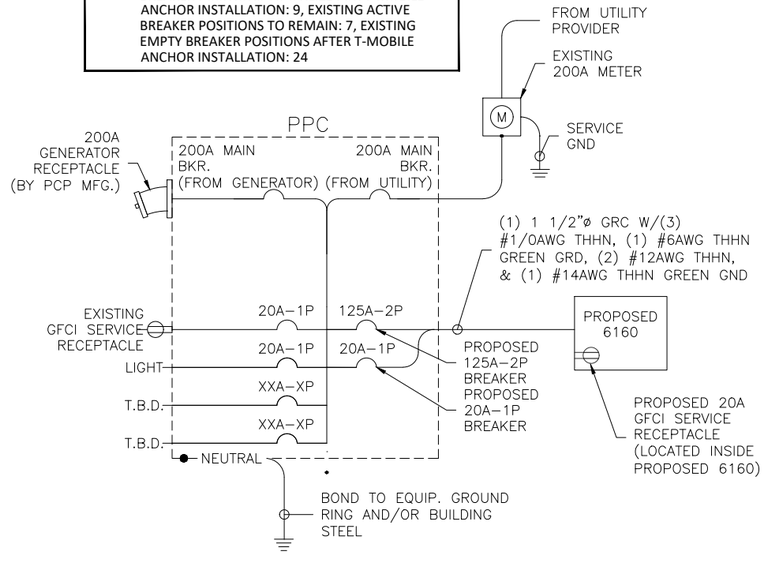


GROUNDING LUG NOTES:
1. DO NOT DOUBLE UP OR STACK LUGS.
2. OXIDE INHIBITING COMPOUND TO BE APPLIED TO ALL LUGS.
3. ALL LUGS ARE TO BE EXOTHERMIC WELDED TO GROUNDING CONDUCTORS.
4. FOR INSOLATED GROUNDING CONDUCTORS, EXPOSED BARE COPPER TO BE KEPT TO ABSOLUTE MINIMUM.
5. NO INSULATION IS ALLOWED WITHIN THE BARREL OF THE COMPRESSION TERMINAL.

5 G-1 **GROUND LUG DETAIL**

ELECTRIC PANEL NOTES:

1. TOTAL BREAKER POSITION: 40, EXISTING EMPTY BREAKER POSITIONS: 3, UNUSED BREAKER POSITIONS TO BE REMOVED: 30, PROPOSED BREAKER POSITIONS TO UTILIZE FOR T-MOBILE ANCHOR INSTALLATION: 9, EXISTING ACTIVE BREAKER POSITIONS TO REMAIN: 7, EXISTING EMPTY BREAKER POSITIONS AFTER T-MOBILE ANCHOR INSTALLATION: 24



6 G-1 **ONE LINE DIAGRAM**

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SIGNED: 2024/03/05
EXPIRES: 2025/01/31

SITE NAME: CTNL804B

SITE ID: CTNL804B

SITE ADDRESS:
387 SHORE ROAD
OLD LYME, CT 06376
HARTFORD COUNTY

SHEET TITLE: **GROUNDING & ONE LINE DIAGRAM**

DRAWING: **G-1**

CENTERLINE

EXHIBIT 5

Structural Analysis

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trasey@gpdgroup.com

GPD# 2024701.69
March 15, 2024

COMPREHENSIVE STRUCTURAL ANALYSIS REPORT

SITE DESIGNATION:	**PTI Site #:**	**US-CT-1004**
	PTI Site Name:	**AMTRAK_OldLyme5**
	T-Mobile Site #:	**CTNL804B**
ANALYSIS CRITERIA:	**Codes:**	**TIA-222-H & 2022 Connecticut State Building Code** **126 mph (3-second gust) w/ 0" ice** **50 mph (3-second gust) w/ 1" ice**
SITE DATA:		**387 Shore Road, Old Lyme, CT 6371, New London County** **Latitude 41° 17' 47.36" N, Longitude 72° 15' 34.89" W** **80' Sabre Monopole w/ 10' Extension**

To whom it may concern,

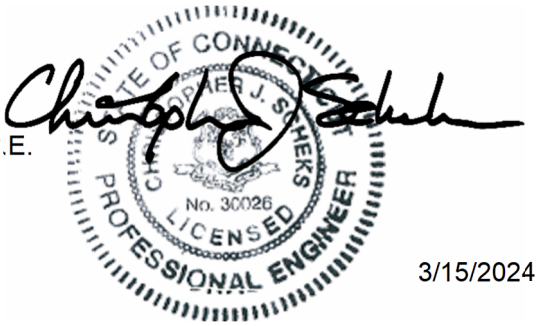
GPD is pleased to submit this Comprehensive Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

Analysis Results

Tower Stress Level with Proposed Equipment:	99.9%	Sufficient Capacity
Foundation Ratio with Proposed Equipment:	72.2%	Sufficient Capacity

We at GPD appreciate the opportunity of providing our continuing professional services to you and Phoenix Tower International. If you have any questions or need further assistance on this or any other projects, please do not hesitate to call.

Respectfully submitted,



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

3/15/2024

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by T-Mobile and commissioned by Phoenix Tower International.

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon a 3-second gust wind speed of 126 mph. Applicable Standard references and design criteria are listed in Appendices A & B.

The proposed feedlines shall be installed as shown in Appendices A & B for the analysis results to be valid.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	74.8%	Sufficient Capacity
Flange Connection – 80 ft	19.0%	Sufficient Capacity
Flange Connection – 55 ft	99.9%	Sufficient Capacity
Anchor Rods	38.5%	Sufficient Capacity
Base Plate	42.2%	Sufficient Capacity
Foundation	72.2%	Sufficient Capacity

RECOMMENDATIONS

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

ANALYSIS METHOD

tnxTower (Version 8.2.2.0), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various load cases. Selected output from the analysis is included the report appendices. The following table details the information provided to complete this structural analysis. This analysis is based solely on this information.

DOCUMENTS PROVIDED

Document	Remarks	Source
Colocation Application	PTI Colocation Request COLREQ0001642, dated 2/14/2024	PTI
Construction Drawings	Centerline Engineering, Site #: CTNL804B, dated 1/30/2024	PTI
Tower Design	Sabre #: 40204, dated 2/7/2011	PTI
Foundation Design	Sabre #: 40204, dated 2/7/2011	PTI
Geotechnical Report	Terracon #: J2105225, dated 11/11/2010	PTI
Previous Tower Analysis	GPD Project #: 2024701.14, dated 12/11/2023	PTI
Tower Modification Design	GPD Project #: 2024701.14, dated 12/11/2023	PTI
Tower Mapping	Not Provided	N/A

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. Material grades not supplied have been assumed based on previous experience with similar structures.
2. The appurtenance configuration is as supplied, determined from available photos, and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
4. The soil parameters are as per data supplied or as assumed and stated in the calculations.
5. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
6. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer’s specifications.
7. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
8. All prior structural modifications, if applicable, are assumed to be as per data supplied/available and to have been properly installed.
9. Loading interpreted from photos is accurate to ±5’ AGL, antenna size accurate to ±3.3 sf, and coax equal to the number of existing antennas without reserve.
10. All existing and proposed loading has been taken from the available site photos as well as documents supplied to GPD at the time of generating this report. All such documents are listed in the Documents Provided Table and are assumed to be accurate. GPD is not responsible for loading scenarios outside those conveyed in the supplied documentation.

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

DISCLAIMER OF WARRANTIES

GPD has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD in connection with this Comprehensive Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing tower standards and code. Wind forces resulting in tower vibrations near the structure’s resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner’s responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

Towers are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the tower with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connection to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a tower collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the tower.

GPD makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form
and Detailed Equipment Area Information

Tower Analysis Summary Form

General Info

Carrier Designation	CTNL804B
Client Site #	US-CT-1004
Client Site Name	AMTRAK_OldLyme5
Date of Analysis	3/15/2024
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	80' Sabre Monopole w/ Proposed 10' Extension	
Tower Manufacturer	Sabre	
Tower Model	N/A	
Tower Design	Sabre #: 40204	2/7/2011
Foundation Design	Sabre #: 40204	2/7/2011
Geotechnical Report	Terracon #: J2105225	11/11/2010
Previous Tower Analysis	GPD Project #: 2021701.14	12/11/2023
Modification Drawings	GPD Project #: 2021701.14	12/11/2023

Design Parameters	
Design Code Used	TIA-222-H & 2022 Connecticut State Building Code
Location of Tower (County, State)	New London, CT
Wind Speed (mph)	126 (3-second gust)
Ice Thickness (in)	1
Risk Category (I, II, III)	II
Exposure Category (B, C, D)	C
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition	
Tower (%)	99.9%
Tower Base (%)	42.2%
Foundation (%)	72.2%
Foundation Adequate?	Yes

See Next Page for Detailed Equipment Area Information

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Int/Ext
Dish Wireless	87	87	3	Panel	Commscope	FFVV-65B-R2	0/120/240	1	Site Pro 1	Platform Mount	1	Unknown	1.411"	Internal
Dish Wireless	87	87	3	RRU	Samsung	RF4450t-71A				on the same mount				
Dish Wireless	87	87	3	RRU	Samsung	RF4451d-70A				on the same mount				
Dish Wireless	87	87	1	Surge	Raycap	RDIDC-9181-PF-48				on the same mount				
T-Mobile	77	76**	3	Panel	RFS	APXVAALL24-43-U-NA20	0/90/240	3*	Unknown	T-Arms	12*	Unknown	7/8"	Internal
T-Mobile	77	78	3*	Panel	Ericsson	AIR21 B2A/B4P	0/90/240			on the same mounts	1*	Hybrid	6x24	Internal
T-Mobile	77	78	3*	Panel	Andrew	AIR21 B4A/B2P	0/90/240			on the same mounts				
T-Mobile	77	78	3	RRU	Ericsson	4480				on the same mounts				
T-Mobile	77	78	3	TMA	Unknown	Generic Twin Style 1B-AWS				on the same mounts				

*Indicates equipment/feedline quantity to be removed.

**The existing RFS panel antenna loading to remain shall be relocated to a new antenna centerline of 78.0 ft.

Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Int/Ext
T-Mobile	78	78	3	Panel	RFS	APXVLL19P_43-C-A20	0/90/240	1	Site Pro 1	RMQP-3 Platform Mount	2	Hybrid	6x24	Internal
T-Mobile	78	78	3	Panel	Ericsson	AIR6419 B41				on the same mount				
T-Mobile	78	78	3	RRU	Ericsson	4460				on the same mount				

Note: The proposed loading shall be in addition to the remaining existing equipment at the same elevation.

Detailed Future Loading Information

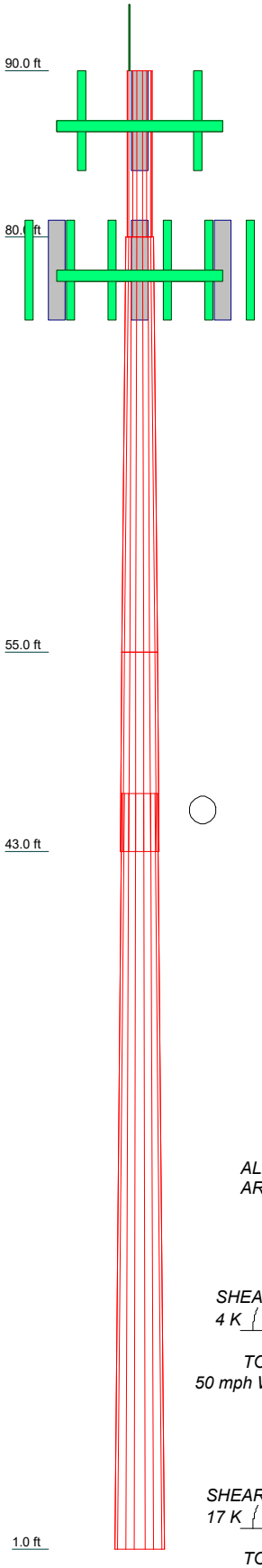
Note: Nominal equipment dimensions (Height x Width) have been utilized for the purposes of the below area calculations.

T-Mobile MLA Information	
Existing Area (in^2)	15,865
Proposed Area (in^2)	157
Final Area (in^2)	16,022
Future Area (in^2)	5,978
Total Wind Area (in^2)	22,000
Does T-Mobile's Loading Exceed 22,000 in^2?	No
If yes, by how much? (in^2)	n/a

APPENDIX B

Tower Analysis Output File

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	10.00	0	0.3750		18.0000	18.0000	A53-B-35	0.7
2	25.00	18	0.1875		20.0000	25.4200	A53-B-35	1.1
3	12.00	18	0.1875	3.50	25.4200	28.0300	A572-65	0.6
4	45.50	18	0.3125		26.8938	36.7700	A572-65	4.8
								7.3



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi	A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 126 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 74.8%

ALL REACTIONS ARE FACTORED

AXIAL 27 K

SHEAR 4 K *MOMENT 270 kip-ft*

TORQUE 0 kip-ft
50 mph WIND - 1.0000 in ICE

AXIAL 17 K

SHEAR 17 K *MOMENT 1145 kip-ft*

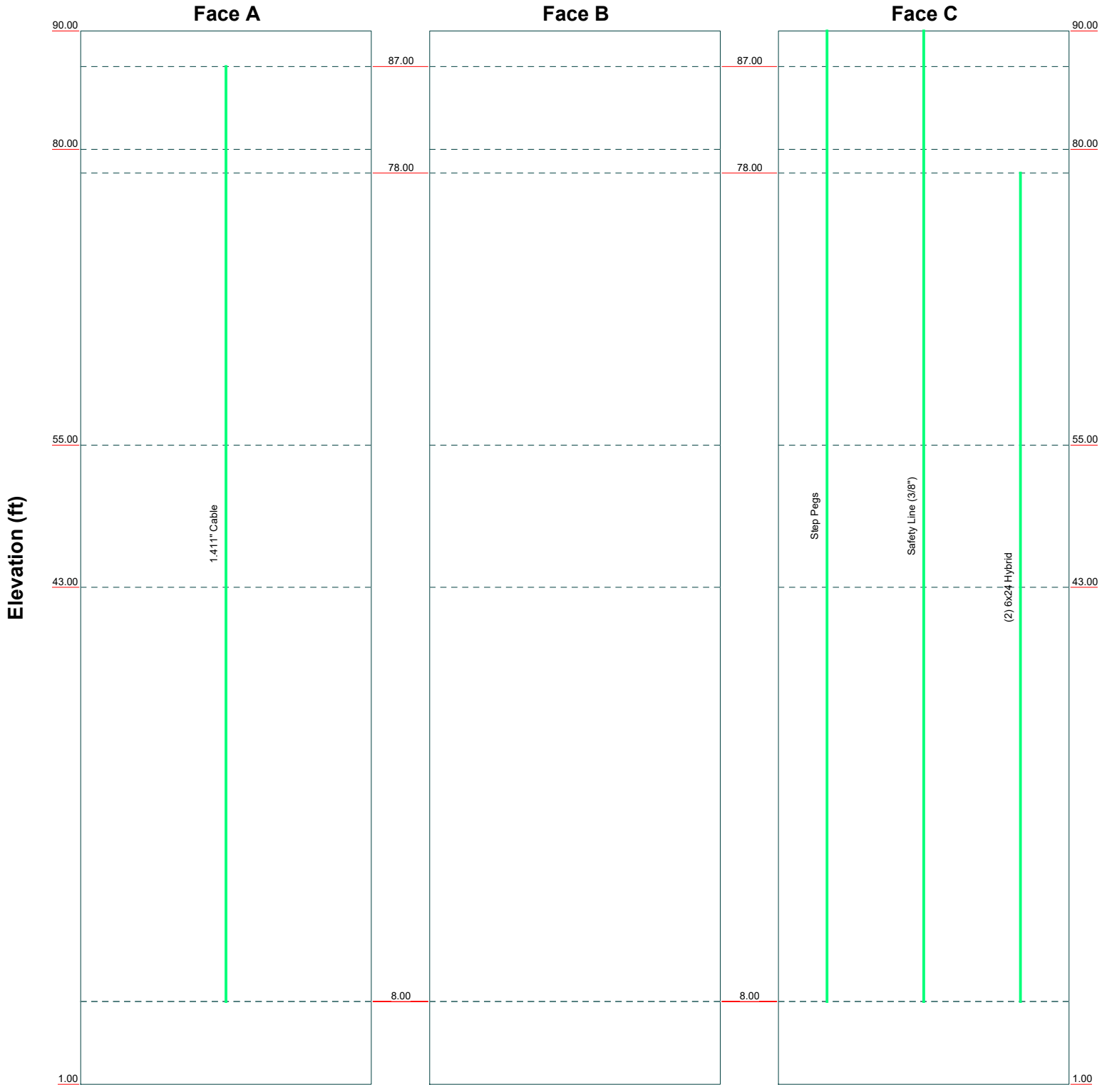
TORQUE 0 kip-ft
REACTIONS - 126 mph WIND

GPD
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: ***US-CT-1004 / AMTRAK_OldLyme5***			
Project: ***2024701.69***			
Client: PTI	Drawn by: bdarkow	App'd:	
Code: TIA-222-H	Date: 03/15/24	Scale: NTS	
Path:		Dwg No. E-1	

Feed Line Distribution Chart
1' - 90'

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



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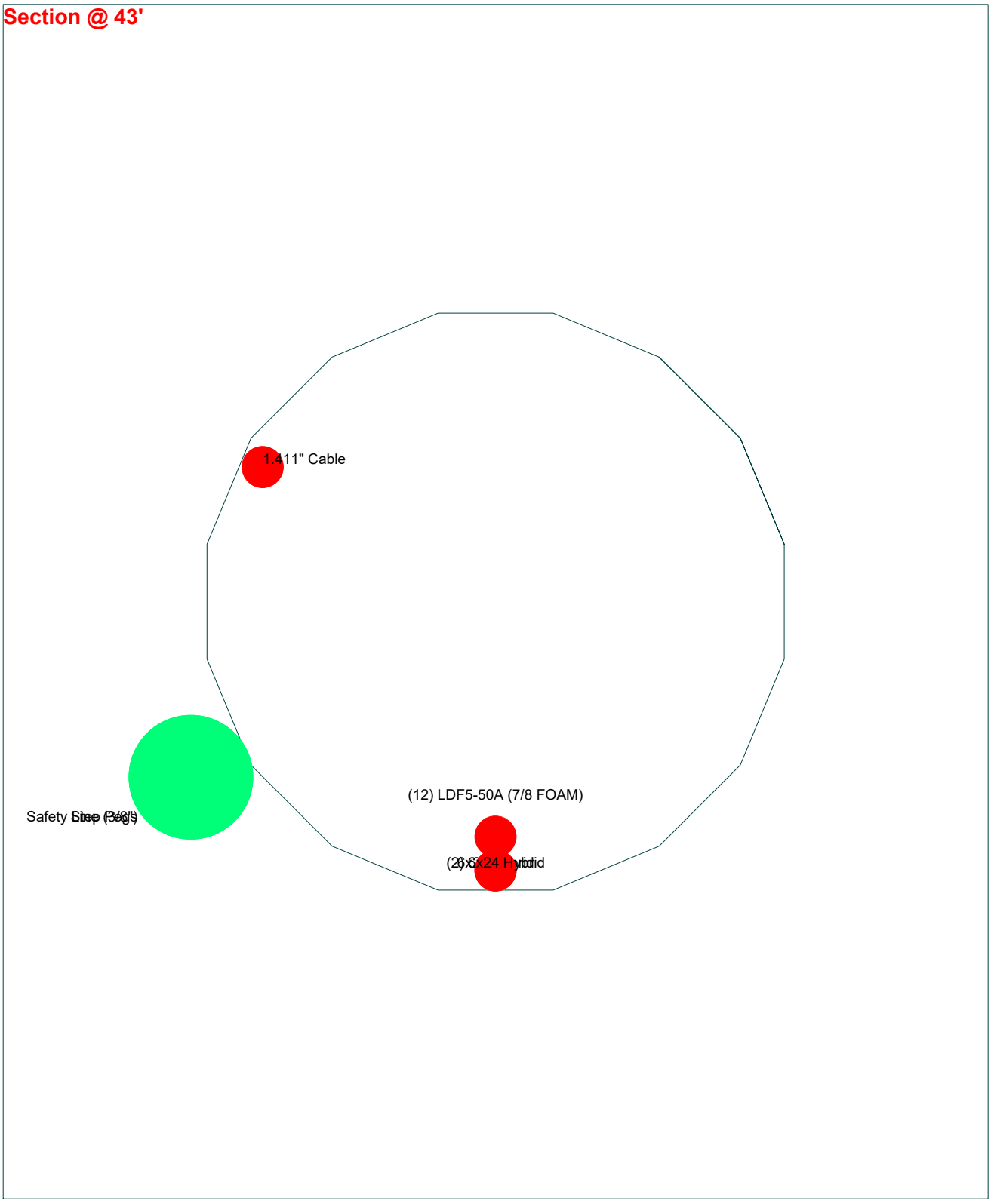
Job: *US-CT-1004 / AMTRAK_OldLyme5*		
Project: *2024701.69*		
Client: PTI	Drawn by: bdarkow	App'd:
Code: TIA-222-H	Date: 03/15/24	Scale: NTS
Path:		Dwg No. E-7

Feed Line Plan
43'

Round Flat App In Face App Out Face



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FAX: (330) 572-2101

Job: US-CT-1004 / AMTRAK_OldLyme5		
Project: 2024701.69		
Client: PTI	Drawn by: bdarkow	App'd:
Code: TIA-222-H	Date: 03/15/24	Scale: NTS
Path:		Dwg No. E-7

Tower Input Data

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

Tower base elevation above sea level: 31.00 ft.
Basic wind speed of 126 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.0000 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.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	*Elevation* *ft*	*Section Length* *ft*	*Splice Length* *ft*	*Number of Sides*	*Top Diameter* *in*	*Bottom Diameter* *in*	*Wall Thickness* *in*	*Bend Radius* *in*	*Pole Grade*
L1	90.00-80.00	10.00	0.00	Round	18.0000	18.0000	0.3750		A53-B-35 (35 ksi)
L2	80.00-55.00	25.00	0.00	18	20.0000	25.4200	0.1875	0.7500	A572-65 (65 ksi)
L3	55.00-43.00	12.00	3.50	18	25.4200	28.0300	0.1875	0.7500	A572-65 (65 ksi)
L4	43.00-1.00	45.50		18	26.8938	36.7700	0.3125	1.2500	A572-65

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
									(65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	18.0000	20.7640	806.6313	6.2328	9.0000	89.6257	1613.2627	10.3758	0.0000	0
	18.0000	20.7640	806.6313	6.2328	9.0000	89.6257	1613.2627	10.3758	0.0000	0
L2	20.2796	11.7909	584.7409	7.0334	10.1600	57.5532	1170.2512	5.8966	3.1900	17.013
	25.7832	15.0165	1207.8875	8.9575	12.9134	93.5378	2417.3644	7.5097	4.1439	22.101
L3	25.7832	15.0165	1207.8875	8.9575	12.9134	93.5378	2417.3644	7.5097	4.1439	22.101
	28.4335	16.5698	1622.8199	9.8841	14.2392	113.9682	3247.7752	8.2865	4.6033	24.551
L4	28.0319	26.3653	2353.5346	9.4363	13.6620	172.2684	4710.1661	13.1851	4.1833	13.387
	37.2890	36.1613	6072.3256	12.9424	18.6792	325.0856	12152.6412	18.0841	5.9215	18.949

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 90.00-80.00				1	1	1			
L2 80.00-55.00				1	1	1			
L3 55.00-43.00				1	1	1			
L4 43.00-1.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
Step Pegs	C	No	No	CaAa (Out Of Face)	90.00 - 8.00	1	No Ice	0.08	2.72
							1/2" Ice	0.18	3.51
							1" Ice	0.28	4.92
Safety Line (3/8")	C	No	No	CaAa (Out Of Face)	90.00 - 8.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
1.411" Cable	A	No	No	Inside Pole	87.00 - 8.00	1	No Ice	0.00	1.00
							1/2" Ice	0.00	1.00
							1" Ice	0.00	1.00
6x24 Hybrid	C	No	No	Inside Pole	78.00 - 8.00	2	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	90.00-80.00	A	0.000	0.000	0.000	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.175	0.03
L2	80.00-55.00	A	0.000	0.000	0.000	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	2.938	0.11

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L3	55.00-43.00	A	0.000	0.000	0.000	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.410	0.05
L4	43.00-1.00	A	0.000	0.000	0.000	0.000	0.04
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	4.112	0.16

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	90.00-80.00	A	1.099	0.000	0.000	0.000	0.000	0.01
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.572	0.07
L2	80.00-55.00	A	1.073	0.000	0.000	0.000	0.000	0.03
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	13.671	0.20
L3	55.00-43.00	A	1.040	0.000	0.000	0.000	0.000	0.01
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	6.403	0.10
L4	43.00-1.00	A	0.960	0.000	0.000	0.000	0.000	0.04
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	18.674	0.28

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	90.00-80.00	-1.1556	0.6672	-1.8030	1.0410
L2	80.00-55.00	-0.8710	0.5029	-1.8837	1.0875
L3	55.00-43.00	-0.8826	0.5095	-1.9240	1.1108
L4	43.00-1.00	-0.7357	0.4248	-1.6753	0.9673

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Lightning Rod 5/8" x 4'	C	From Leg	0.00	0.0000	90.00	No Ice	0.25	0.25	0.03
			0.00			1/2" Ice	0.66	0.66	0.03
			2.00			1" Ice	0.97	0.97	0.04
FFVV-65B-R2	A	From Centroid-Leg	4.00	0.0000	87.00	No Ice	12.27	5.75	0.07
			0.00			1/2" Ice	12.77	6.21	0.14
			0.00			1" Ice	13.27	6.67	0.22
FFVV-65B-R2	B	From Centroid-Leg	4.00	0.0000	87.00	No Ice	12.27	5.75	0.07
			0.00			1/2" Ice	12.77	6.21	0.14
			0.00			1" Ice	13.27	6.67	0.22
FFVV-65B-R2	C	From Centroid-Le	4.00	0.0000	87.00	No Ice	12.27	5.75	0.07
			0.00			1/2" Ice	12.77	6.21	0.14

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		g	0.00			1" Ice	13.27	6.67	0.22
RF4450t-71A	A	From	4.00	0.0000	87.00	No Ice	2.06	1.38	0.09
		Centroid-Le	0.00			1/2" Ice	2.24	1.53	0.12
		g	0.00			1" Ice	2.43	1.68	0.14
RF4450t-71A	B	From	4.00	0.0000	87.00	No Ice	2.06	1.38	0.09
		Centroid-Le	0.00			1/2" Ice	2.24	1.53	0.12
		g	0.00			1" Ice	2.43	1.68	0.14
RF4450t-71A	C	From	4.00	0.0000	87.00	No Ice	2.06	1.38	0.09
		Centroid-Le	0.00			1/2" Ice	2.24	1.53	0.12
		g	0.00			1" Ice	2.43	1.68	0.14
RF4451d-70A	A	From	4.00	0.0000	87.00	No Ice	1.88	1.11	0.06
		Centroid-Le	0.00			1/2" Ice	2.05	1.25	0.08
		g	0.00			1" Ice	2.22	1.39	0.10
RF4451d-70A	B	From	4.00	0.0000	87.00	No Ice	1.88	1.11	0.06
		Centroid-Le	0.00			1/2" Ice	2.05	1.25	0.08
		g	0.00			1" Ice	2.22	1.39	0.10
RF4451d-70A	C	From	4.00	0.0000	87.00	No Ice	1.88	1.11	0.06
		Centroid-Le	0.00			1/2" Ice	2.05	1.25	0.08
		g	0.00			1" Ice	2.22	1.39	0.10
RDIDC-9181-PF-48	A	From	4.00	0.0000	87.00	No Ice	2.56	1.34	0.02
		Centroid-Le	0.00			1/2" Ice	2.76	1.49	0.04
		g	0.00			1" Ice	2.97	1.66	0.07
DISH Reserved	A	From	4.00	0.0000	87.00	No Ice	13.81	7.15	0.18
		Centroid-Le	0.00			1/2" Ice	14.45	7.86	0.25
		g	0.00			1" Ice	15.08	8.54	0.34
DISH Reserved	B	From	4.00	0.0000	87.00	No Ice	13.81	7.15	0.18
		Centroid-Le	0.00			1/2" Ice	14.45	7.86	0.25
		g	0.00			1" Ice	15.08	8.54	0.34
DISH Reserved	C	From	4.00	0.0000	87.00	No Ice	13.81	7.15	0.18
		Centroid-Le	0.00			1/2" Ice	14.45	7.86	0.25
		g	0.00			1" Ice	15.08	8.54	0.34
(3) Pipe Mount 6'x2.375"	A	From	4.00	0.0000	87.00	No Ice	1.43	1.43	0.03
		Centroid-Le	0.00			1/2" Ice	1.92	1.92	0.04
		g	0.00			1" Ice	2.29	2.29	0.05
(3) Pipe Mount 6'x2.375"	B	From	4.00	0.0000	87.00	No Ice	1.43	1.43	0.03
		Centroid-Le	0.00			1/2" Ice	1.92	1.92	0.04
		g	0.00			1" Ice	2.29	2.29	0.05
(3) Pipe Mount 6'x2.375"	C	From	4.00	0.0000	87.00	No Ice	1.43	1.43	0.03
		Centroid-Le	0.00			1/2" Ice	1.92	1.92	0.04
		g	0.00			1" Ice	2.29	2.29	0.05
Site Pro 1 Platform Mount	B	None		0.0000	87.00	No Ice	17.93	17.34	1.47
						1/2" Ice	21.04	20.45	1.71
						1" Ice	24.15	23.56	1.96
APXVAALL24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00	0.0000	78.00	No Ice	20.24	10.63	0.18
			0.00			1/2" Ice	20.89	12.06	0.31
			0.00			1" Ice	21.55	13.34	0.46
APXVAALL24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00	0.0000	78.00	No Ice	20.24	10.63	0.18
			0.00			1/2" Ice	20.89	12.06	0.31
			0.00			1" Ice	21.55	13.34	0.46
APXVAALL24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00	0.0000	78.00	No Ice	20.24	10.63	0.18
			0.00			1/2" Ice	20.89	12.06	0.31
			0.00			1" Ice	21.55	13.34	0.46
APXVLL19P_43-C-A20 w/ Mount Pipe	A	From Leg	4.00	0.0000	78.00	No Ice	8.65	6.05	0.08
			0.00			1/2" Ice	9.30	7.34	0.14
			0.00			1" Ice	9.92	8.49	0.22
APXVLL19P_43-C-A20 w/ Mount Pipe	B	From Leg	4.00	0.0000	78.00	No Ice	8.65	6.05	0.08
			0.00			1/2" Ice	9.30	7.34	0.14

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1" Ice	9.92	8.49	0.22
APXVLL19P_43-C-A20 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	8.65 9.30 9.92	6.05 7.34 8.49	0.08 0.14 0.22
AIR6419 B41 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	6.47 6.85 7.24	3.16 3.64 4.14	0.10 0.15 0.20
AIR6419 B41 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	6.47 6.85 7.24	3.16 3.64 4.14	0.10 0.15 0.20
AIR6419 B41 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	6.47 6.85 7.24	3.16 3.64 4.14	0.10 0.15 0.20
Generic Twin Style 1B-AWS	A	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	0.40 0.49 0.59	0.58 0.69 0.80	0.01 0.02 0.03
Generic Twin Style 1B-AWS	B	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	0.40 0.49 0.59	0.58 0.69 0.80	0.01 0.02 0.03
Generic Twin Style 1B-AWS	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	0.40 0.49 0.59	0.58 0.69 0.80	0.01 0.02 0.03
4480	A	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.84 3.05 3.27	1.38 1.54 1.70	0.08 0.10 0.13
4480	B	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.84 3.05 3.27	1.38 1.54 1.70	0.08 0.10 0.13
4480	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.84 3.05 3.27	1.38 1.54 1.70	0.08 0.10 0.13
4460	A	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.56 2.76 2.97	1.98 2.16 2.34	0.11 0.13 0.16
4460	B	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.56 2.76 2.97	1.98 2.16 2.34	0.11 0.13 0.16
4460	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	2.56 2.76 2.97	1.98 2.16 2.34	0.11 0.13 0.16
T-Mobile Reserved	A	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	18.37 20.12 20.87	7.17 9.86 10.68	0.24 0.35 0.46
T-Mobile Reserved	B	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	18.37 20.12 20.87	7.17 9.86 10.68	0.24 0.35 0.46
T-Mobile Reserved	C	From Leg	4.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice 1" Ice	18.37 20.12 20.87	7.17 9.86 10.68	0.24 0.35 0.46
Platform Mount [LP 303-1]	B	None		0.0000	78.00	No Ice 1/2" Ice 1" Ice	14.69 18.01 21.34	14.69 18.01 21.34	1.25 1.57 1.94

Load Combinations

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

Maximum Tower Deflections - Service Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	90 - 80	9.566	39	0.9200	0.0008
L2	80 - 55	7.644	45	0.9110	0.0007
L3	55 - 43	3.443	45	0.6400	0.0004
L4	46.5 - 1	2.428	45	0.4980	0.0003

Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
90.00	Lightning Rod 5/8" x 4'	39	9.566	0.9200	0.0008	31228
87.00	FFVV-65B-R2	39	8.985	0.9207	0.0008	31228
78.00	APXVAALL24_43-U-NA20 w/ Mount Pipe	45	7.266	0.9028	0.0007	11934

Maximum Tower Deflections - Design Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	90 - 80	47.396	2	4.5617	0.0042
L2	80 - 55	37.874	14	4.5179	0.0037
L3	55 - 43	17.056	14	3.1727	0.0018
L4	46.5 - 1	12.028	14	2.4681	0.0013

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
90.00	Lightning Rod 5/8" x 4'	2	47.396	4.5617	0.0042	6396
87.00	FFVV-65B-R2	2	44.522	4.5655	0.0040	6396
78.00	APXVAALL24_43-U-NA20 w/ Mount Pipe	14	36.003	4.4769	0.0036	2439

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
L1	90 - 80 (1)	TP18x18x0.375	10.00	0.00	0.0	20.7640	-4.09	654.07	0.006
L2	80 - 55 (2)	TP25.42x20x0.1875	25.00	0.00	0.0	15.0165	-9.67	878.47	0.011
L3	55 - 43 (3)	TP28.03x25.42x0.1875	12.00	0.00	0.0	16.1167	-10.41	942.83	0.011
L4	43 - 1 (4)	TP36.77x26.8938x0.3125	45.50	0.00	0.0	36.1613	-17.28	2115.44	0.008

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	90 - 80 (1)	TP18x18x0.375	35.46	305.83	0.116	0.00	305.83	0.000
L2	80 - 55 (2)	TP25.42x20x0.1875	335.85	521.74	0.644	0.00	521.74	0.000
L3	55 - 43 (3)	TP28.03x25.42x0.1875	451.16	584.79	0.771	0.00	584.79	0.000
L4	43 - 1 (4)	TP36.77x26.8938x0.3125	1145.03	1903.66	0.601	0.00	1903.66	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	90 - 80 (1)	TP18x18x0.375	5.18	196.22	0.026	0.05	304.05	0.000
L2	80 - 55 (2)	TP25.42x20x0.1875	13.33	263.54	0.051	0.17	582.35	0.000
L3	55 - 43 (3)	TP28.03x25.42x0.1875	13.83	282.85	0.049	0.21	670.82	0.000
L4	43 - 1 (4)	TP36.77x26.8938x0.3125	16.60	634.63	0.026	0.41	2026.22	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	90 - 80 (1)	0.006	0.116	0.000	0.026	0.000	0.123	1.050	
L2	80 - 55 (2)	0.011	0.644	0.000	0.051	0.000	0.657	1.050	
L3	55 - 43 (3)	0.011	0.771	0.000	0.049	0.000	0.785	1.050	
L4	43 - 1 (4)	0.008	0.601	0.000	0.026	0.000	0.610	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	90 - 80	Pole	TP18x18x0.375	1	-4.09	686.77	11.7	Pass
L2	80 - 55	Pole	TP25.42x20x0.1875	2	-9.67	922.39	62.6	Pass
L3	55 - 43	Pole	TP28.03x25.42x0.1875	3	-10.41	989.97	74.8	Pass
L4	43 - 1	Pole	TP36.77x26.8938x0.3125	4	-17.28	2221.21	58.1	Pass

Summary	ELC:	Existing + Proposed + Reserved
Pole (L3)	74.8	Pass
Rating =	74.8	Pass

APPENDIX C

Additional Calculations

Existing Flange Connection @ **80'**
US-CT-1004 / AMTRAK_OldLyme5
2024701.69

Moment =	35.46	k-ft
Axial =	4.09	k
Shear =	5.18	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Flange Bolts		
# Bolts =	6	
Bolt Type =	A325	
Threads Included? =	Yes	
Bolt Diameter =	1	in
Bolt Circle =	24.5	in
ϕ_t =	0.75	
ϕ_v =	0.75	
F_{ub} =	120	ksi
A_b =	0.785	in^2
A_n =	0.606	in^2
ϕR_{nv} =	35.34	k
ϕR_{nt} =	54.54	k
ϕR_{nt} (adjusted)=	54.52	k
V_{ub} =	0.86	k
T_{ub} =	10.89	k
Max Comp. on Bolt =	12.25	k

Prying Action Check
N/A, top flange thickness > tc

Shear Capacity =	2.3%
Tensile Capacity =	19.0%
Interaction Capacity =	3.9%
Bolt Capacity =	**19.0% OK**

Upper Flange Plate		
Location =	External	
Plate Strength (F_y) =	50	ksi
Plate Tensile (F_u) =	65	ksi
Plate Thickness =	1.5	in
Outer Diameter =	29	in
ϕ_f =	0.9	
wcalc =	16.62	in
wmax =	15.00	in
w =	15.00	in
Z =	8.44	in^3
M_u =	39.82	k-in
ϕM_n =	379.69	k-in
Upper Plate Capacity =	**10.0% OK**	

Upper Stiffeners		
Configuration =	None	

Pole Information		
Shaft Diam. (Upper) =	18	in
Thickness (Upper)=	0.375	in
# of Sides (Upper) =	Round	
F_y (Upper) =	35	ksi
Shaft Diam. (Lower) =	20	in
Thickness (Lower)=	0.1875	in
# of Sides (Lower) =	18	
F_y (Lower) =	65	ksi

Lower Flange Plate		
Location =	External	
Plate Strength (F_y) =	50	ksi
Plate Thickness =	1.5	in
Outer Diameter =	29	in
b =	3.00	in
Le =	3.50	in
Z =	3.38	in^3
M_u =	13.93	k-in
ϕM_n =	151.88	k-in
Lower Plate Capacity =	**8.7% OK**	

Lower Stiffeners		
Configuration =	2/Bolt	
Thickness =	1	in
Width =	3.5	in
Notch =	0.5	in
Height =	18	in
Stiffener Strength (F_y) =	50	ksi
Clear Spacing b/w Stiffeners=	3	in
Weld Info. Known? =	Yes	
Vertical Weld Size =	0.3125	in
Horiz. Weld Type =	Fillet	
Fillet Size =	0.3125	in
Weld Strength =	70	ksi
Stiffener Vertical Force =	5.06	k
Vert. Weld Capacity =	2.1%	
Horiz. Weld Capacity =	11.7%	
Stiffener Capacity =	3.2%	
Controlling Capacity =	**11.7%**	**OK**

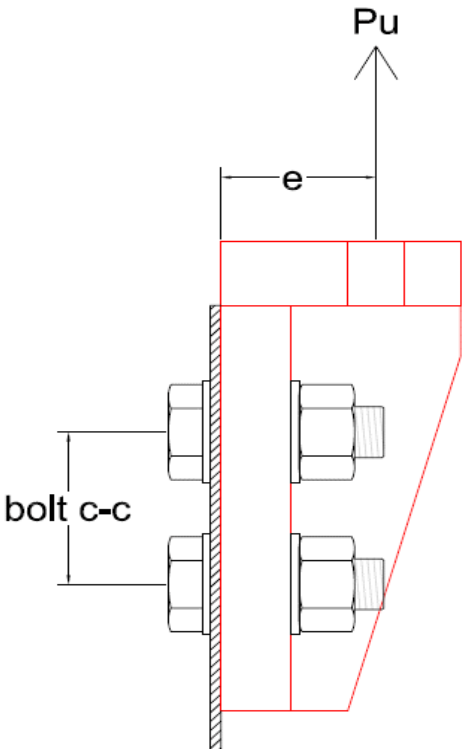
EXTENSION BRACKET BOLT ANALYSIS - TIA-222-H

Site Name:	US-CT-1004 / AMTRAK_OldLyme5
GPD Project No:	GPD Project #: 2024701.69
Sheet Application:	Analysis
Max Capacity:	100%
Apply TIA-222-H Section 15.5?	Yes
Seismic Design Category:	B

Loading Information		
Elevation =	80	ft
Flange Bolt Compression Force =	12.25	kips
Flange Bolt Tension Force =	10.89	kips
Flange Bolt Eccentricity, e =	2.25	in

Tower Information		
Shaft Thickness, t =	0.1875	in
Shaft Fu =	80	ksi

Bolt Calculations		
Bolt Type =	A325N	
# Bolts in Connection =	4	
Bolt C-C Spacing =	3	in
Bolts Above Neutral Axis, n' =	2	
Moment Arm, dm =	6	in
Bolt/Shear Sleeve ø =	1	in
Bolt Hole ø =	1.0625	in
Bolt Head ø (Flat-Flat) =	1.625	in
Does Bolt Have a Washer?	No	
Washer ø =	2	in
$\phi R_{n,\ shear}$ =	35.34	kips/bolt
$\phi R_{n,\ bearing}$ =	28.80	kips/bolt
$\phi R_{n,\ tension}$ =	54.54	kips/bolt
$\phi R_{n,\ pull\text{-}out}$ =	30.78	kips/bolt
$V_{u,\ bolt}$ =	3.06	kips/bolt
$T_{u,\ bolt}$ =	2.30	kips/bolt
Connection Capacity =	10.1%	OK



Existing Flange Connection @ **55'**
US-CT-1004 / AMTRAK_OldLyme5
2024701.69

Moment =	335.85	k-ft
Axial =	9.67	k
Shear =	13.33	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Flange Bolts		
# Bolts =	10	
Bolt Type =	A325	
Threads Included? =	Yes	
Bolt Diameter =	1	in
Bolt Circle =	28.375	in
ϕ_t =	0.75	
ϕ_v =	0.75	
F_{ub} =	120	ksi
A_b =	0.785	in^2
A_n =	0.606	in^2
ϕR_{nv} =	35.34	k
ϕR_{nt} =	54.54	k
ϕR_{nt} (adjusted)=	54.50	k
V_{ub} =	1.33	k
T_{ub} =	55.81	k
Max Comp. on Bolt =	57.75	k

Prying Action Check
N/A, top flange thickness > tc

Shear Capacity =	3.6%
Tensile Capacity =	97.5%
Interaction Capacity =	99.9%
Bolt Capacity =	**99.9% OK**

Upper Flange Plate		
Location =	External	
Plate Strength (F_y) =	60	ksi
Plate Tensile (F_u) =	75	ksi
Plate Thickness =	1	in
Outer Diameter =	32.625	in
ϕ_f =	0.9	
wcalc =	12.61	in
wmax =	18.77	in
w =	12.61	in
Z =	3.15	in^3
M_u =	86.09	k-in
ϕM_n =	170.21	k-in
Upper Plate Capacity =	**48.2% OK**	

Upper Stiffeners		
Configuration =	None	

Pole Information		
Shaft Diam. (Upper) =	25.42	in
Thickness (Upper)=	0.1875	in
# of Sides (Upper) =	18	
F_y (Upper) =	65	ksi
Shaft Diam. (Lower) =	25.42	in
Thickness (Lower)=	0.1875	in
# of Sides (Lower) =	18	
F_y (Lower) =	65	ksi

Lower Flange Plate		
Location =	External	
Plate Strength (F_y) =	60	ksi
Plate Thickness =	1	in
Outer Diameter =	32.625	in
wcalc =	12.61	in
wmax =	18.77	in
w =	12.61	in
Z =	3.15	in^3
M_u =	86.09	k-in
ϕM_n =	170.21	k-in
Lower Plate Capacity =	**48.2% OK**	

Lower Stiffeners		
Configuration =	None	

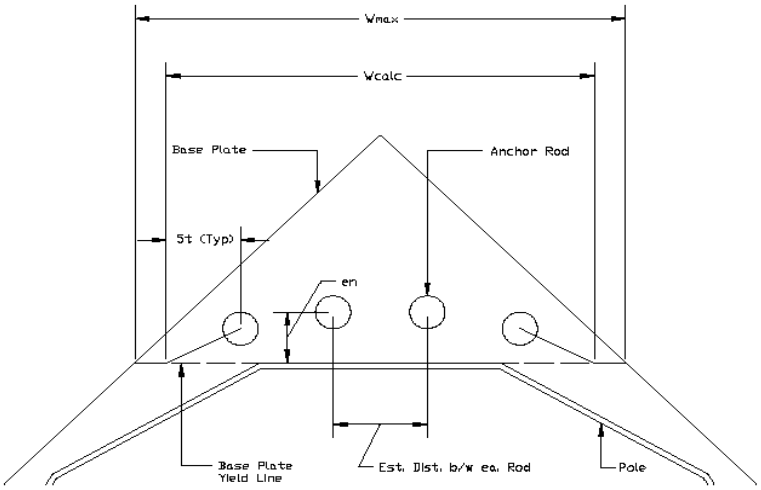
Anchor Rod and Base Plate Stresses, TIA-222-H-1
US-CT-1004 / AMTRAK_OldLyme5
2024701.69

Overturning Moment =	1145.03	k*ft
Axial Force =	17.30	k
Shear Force =	16.58	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Anchor Rods		
Pole Diameter =	36.77	in
Number of Rods =	12	
Rod Yield Strength, F_y =	75	ksi
Rod Ultimate Strength, F_u =	100	ksi
Rod Circle =	42.75	in
Rod Diameter =	2.25	in
Rod Projection, l_{ar} =	2.25	in
Is grout present?	No	
Max Tension on Rod, P_{ut} =	105.55	k
Max Compression on Rod, P_{uc} =	108.43	k
Shear on Rod, V_u =	1.38	k
Moment on Rod, M_u =	0.00	k-in
Tension Interaction =	**17.9%**	**OK**
Compression Interaction =	**38.5%**	**OK**

Base Plate		
Plate Yield Strength, F_y =	50	ksi
ϕ =	0.9	
Plate Thickness =	2.5	in
Plate Width =	43.5	in
Est. Dist. b/w ea. Rod =	6	in
w_{calc} =	36.88	in
w_{max} =	24.75	in
w =	24.75	in
Z =	38.67	in^3
M_u =	771.90	k-in
φM_n =	1740.11	k-in
Base Plate Capacity =	**42.2%**	**OK**



Mat Foundation Analysis
US-CT-1004 / AMTRAK_OldLyme5
2024701.69

General Info	
Foundation Criteria	GPD
TIA Code	TIA-222-H
Apply TIA-222-H Section 15.5?	Yes
Soil Code	AASHTO 2012
Concrete Code	ACI 318-14
Seismic Design Category	B
Tower Height	90 ft
Bearing On	Soil
Foundation Type	Monopole Pad
Pier Type	Round
Reinforcing Known	Yes
Max Bearing Capacity	100%
Max Overturning Capacity	100%

Tower Reactions	
Moment, M	1145.03 k-ft
Axial, P	17.3 k
Shear, V	16.58 k

Pad & Pier Geometry	
Pier Diameter, ø	5.5 ft
Pad Length, L [y]	18.5 ft
Pad Width, W [x]	18.5 ft
Pad Thickness, t	1.5 ft
Depth, D	5.5 ft
Height Above Grade, HG	1 ft
Tower Centroid, X	9.25 ft
Tower Centroid, Y	9.25 ft
Tower Eccentricity	0.0000 ft

Pad & Pier Reinforcing	
Rebar Fy	60 ksi
Concrete F'c	4 ksi
Pier Reinforcing Clear Cover	3 in
Shear Rebar Type	Tie
Shear Rebar Size	# 4
Pad Reinforcing Clear Cover	3 in
Reinforced Top & Bottom?	Yes
Top and Bot. Reinf. Different?	No
Pad Reinforcing Size	# 8
Pad Quantity Per Layer	20
Pier Rebar Size	# 7
Pier Quantity of Rebar	30

Soil Properties	
Soil Type	Granular
Soil Unit Weight	120 pcf
Angle of Friction, ø	30
Base Friction Coeff. Provided in Geo?	Yes
Base Friction Coefficient, µ	0.5
Bearing Type	Net
Ultimate Bearing	6 ksf
Water Table Depth	99 ft
Neglected Depth	3.5 ft

GPD Mat Foundation Analysis - V4.4

Bearing Summary

Case	*Demand/Limits*	*Capacity/Availability*	*Check*	*Eccentricity*	*Load Case*
Qxmax	1.70 ksf	5.00 ksf	OK, <= 100%	L/5.1	1.2D+1.0W
Qymax	1.70 ksf	5.00 ksf	OK, <= 100%	W/5.1	1.2D+1.0W
Qmax @ 45°	1.70 ksf	5.00 ksf	OK, <= 100%	W/7.5	1.2D+1.0W
Controlling Capacity		**32.5%**	**Pass**		

Overturning Summary

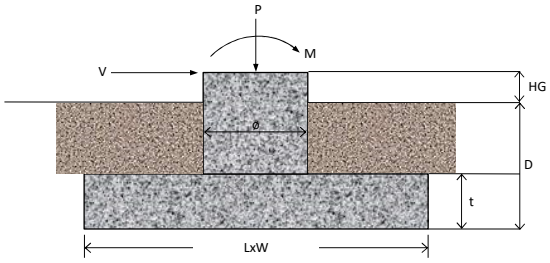
Case	*Demand/Limits*	*Capacity/Availability*	*Check*		*Load Case*
Ovtx	1112.7 k-ft	2182.1 k-ft	48.6%	OK	0.9D+1.0W
Ovty	1112.7 k-ft	2182.1 k-ft	48.6%	OK	0.9D+1.0W
Ovtxy	768.5 k-ft	2182.1 k-ft	33.5%	OK	0.9D+1.0W
Controlling Capacity		**48.6%**	**Pass**		

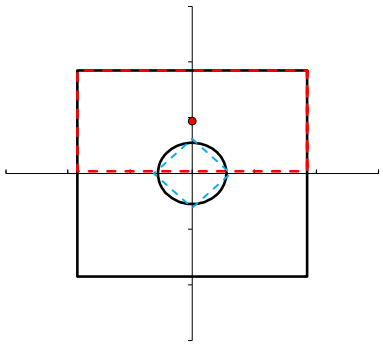
Sliding Summary

Case	*Demand/Limits*	*Capacity/Availability*	*Check*		*Load Case*
Slidingx	16.6 k	126.8 k	12.4%	OK	0.9D+1.0W
Slidingy	16.6 k	126.8 k	12.4%	OK	0.9D+1.0W
Controlling Capacity		**12.4%**	**Pass**		

Reinforcement Summary

Component	*Demand/Limits*	*Capacity/Availability*	*Check*		*Load Case*
Pad Flexural Bending	371.7 k-ft	915.2 k-ft	38.7%	OK	0.9D+1.0W
One-Way Shear in Pad	87.3 k	284.3 k	29.2%	OK	0.9D+1.0W
Two-Way Shear in Pad	270.5 k	714.6 k	36.0%	OK	0.9D+1.0W
Compression on Pier	38.7 k	15121.7 k	0.3%	OK	1.2D+1.0W
Moment on Pier	1227.2 k-ft	2297.6 k-ft	50.9%	OK	1.2D+1.0W
Pad Flexural 2-Way	736.8 k-ft	971.4 k-ft	72.2%	OK	1.2D+1.0W
As Min Pad Met?	1.71 sq. in.	0.39 sq. in.	Yes		
As Min Pier Met?	18.00 sq. in.	11.39 sq. in.	Yes		
Controlling Capacity		**72.2%**	**Pass**		





CENTERLINE

EXHIBIT 6

Mount Analysis

Date: **February 27, 2024**

T-Mobile Northeast LLC
35 Griffin Rd. S.
Bloomfield , CT 06002
Phone: (860) 629-1700

P. Marshall & Associates, LLC
1000 Holcomb Woods Pkwy, Suite 210
Roswell, GA 30076
(678) 280-2325

Subject:	**Structural Mount Analysis Report**	
Carrier Designation:	**T-Mobile Co-Locate**	
	Carrier Site Number:	**CTNL804B**
	Carrier Site Name:	**Amtrak_OldLyme5**
Engineering Firm Designation:	**PM&A Report Designation:**	**CTNL804B**
Site Data:	**387 Shore Road** **Old Lyme, Hartford County, CT 06376** **Latitude 41°17'47.54", Longitude -72°15'34.71"**	
Structure Information:	**Tower Height & Type:**	**80 ft Monopole**
	Mount Elevation:	**78 ft**
	Mount Type:	**12.5 ft Platform Mount**

PM&A is pleased to submit this **"Structural Mount Analysis Report"** to determine the structural integrity of T-Mobile'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.

Based upon our analysis, we have determined the adequacy of the antenna mounting system that will support the existing and proposed loading to be:

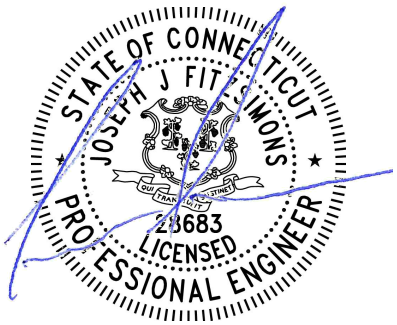
Platform (typical) **Sufficient Capacity**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 130 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

We at PM&A appreciate the opportunity of providing our continuing professional services to you and T-Mobile Northeast LLC. If you have any questions or need further assistance on this or any other projects, please give us a call.

Structural Mount analysis prepared by: Ashim Pant
Respectfully Submitted by:

Joe Fitzsimons
Connecticut Professional Engineer
License Number: 28683



SIGNED: 2024/03/04
EXPIRES: 2025/01/31

TABLE OF CONTENTS

1) INTRODUCTION

This is a proposed 3-sector 12.5 ft Platform Mount, designed by Site Pro 1 Part #: RMQP-3XX.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	130 mph
Exposure Category:	C
Topographic Factor at Base:	1.000
Topographic Factor at Mount:	1.000
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Seismic Ss:	0.201
Seismic S1:	0.053
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lbs
Man Live Load at Mount Pipes:	500 lbs

Table 1 - Proposed Equipment Loading Information

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Model Notes
78.0	78.0	3	RFS/CELWAVE	APXVLL19P_43-C-A20_TMO	Proposed RMQP-3XX w/ Site Pro 1 #HRK12
78.0	78.0	3	Ericsson	4460 B25/B66	
78.0	78.0	3	ERICSSON	AIR6419 B41	

Table 2 - Existing and Reserved Equipment Loading Information

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Model Notes
78.0	78.0	3	RFS/CELWAVE	APXVAALL24_43-U-NA20_TMO	Proposed RMQP-3XX w/ Site Pro 1 #HRK12
78.0	78.0	3	Ericsson	RADIO 4480 B71 B85A	

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Manufacturer's Details	Site Pro 1 #RMQP-3XX	01/23/2012	Site Pro 1
Loading Document	Construction Drawings	01/30/2024	Centerline Communications, LLC
Mount Analysis Report	EFI Project # 049.03314 - 2275017	05/18/2022	EFI Global, Inc.
Structural AnalysisReport	GPD# 2022791.CT1004.01 Rev 1	09/19/2022	GDP
Manufacturer's Details	Site Pro 1 #HRK12	07/13/2014	Site Pro 1

3.1) Analysis Method

RISA 3D (version 21), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and 2 and the referenced documents.
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) Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked as a part of this analysis.
5) The use of this report shall be limited to the purpose of which it was commissioned and may not be used for any other purposes without the written consent of PM&A.
6) The analysis of this report does not include climbing facility or construction lift loading or structural evaluations.
7) Steel grades have been assumed as follows, unless noted otherwise:

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

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

4) ANALYSIS RESULTS

Table 4 - Mount Component Stresses vs. Capacity (Platform, Typical)

Notes	Component	Mount Centerline (ft)	% Capacity	Pass / Fail
2, 3	Mount-to-Collar Connection	78.0	23.7	Pass
1, 3	Mount Pipes	78.0	56.7	Pass
1, 3	Face Horizontal	78.0	21.2	Pass
1, 3	Standoff Members	78.0	59.5	Pass
1, 3	Support Rail	78.0	44.3	Pass
1, 3	Grating Support	78.0	38.5	Pass
1, 3	Plates	78.0	12.5	Pass

Structure Rating (max from all components) =	59.5%

Notes:
1) See additional documentation in "Appendix C – Software Analysis Output" for calculations supporting the % capacity consumed.
2) See additional documentation in "Appendix D – Additional Calculations" for detailed mount connection calculations.
3) All sectors are typical.

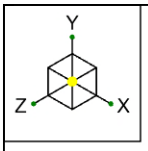
4.1) Recommendations

Once the following recommendations has been completed, the mount has sufficient capacity for the proposed and existing loading configuration.

a) Install a proposed Site Pro 1 Part #RMQP-3XX w/ Site Pro 1 Part #HRK12.
b) Install (9) 2.5 STD. 8.0ft long pipes with (9) Site Pro 1 Part #SCX45-K and (9) Site Pro 1 Part #SCX2-K.

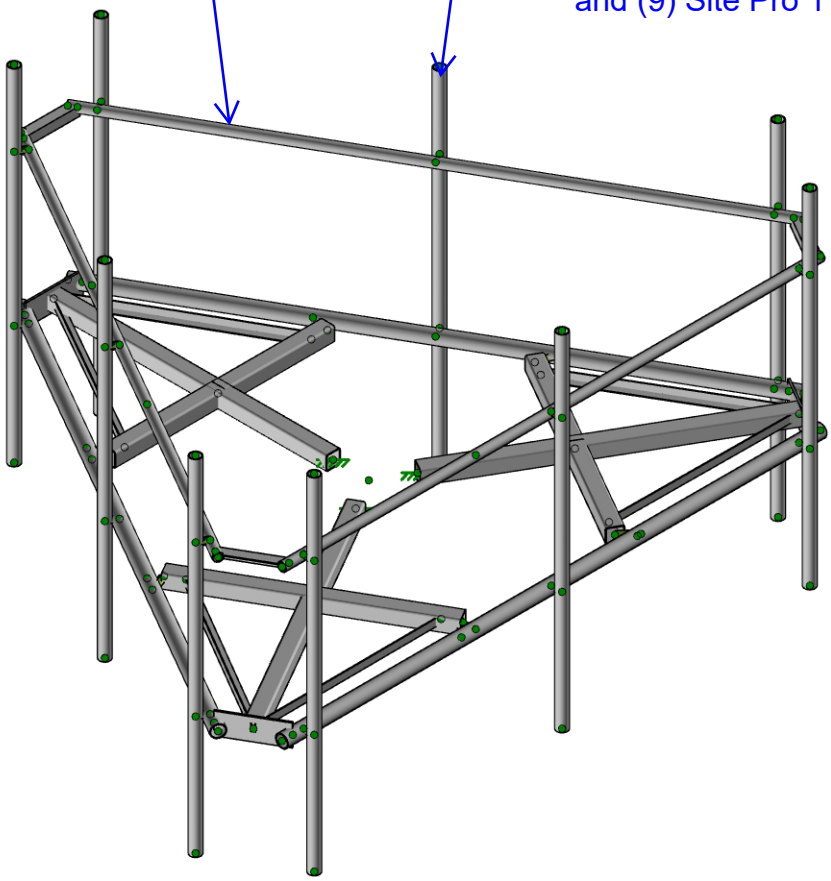
APPENDIX A

WIRE FRAME AND RENDERED MODELS



Install a proposed Site Pro 1 Part #RMQP-3XX
w/ Site Pro 1 Part #HRK12.

Install (9) 2.5 STD. 8.0ft long pipes
with (9) Site Pro 1 Part #SCX45-K
and (9) Site Pro 1 Part #SCX2-K.



RISA A NEMETSCHEK COMPANY	PM&A	CTNL804B_MA	SK-1
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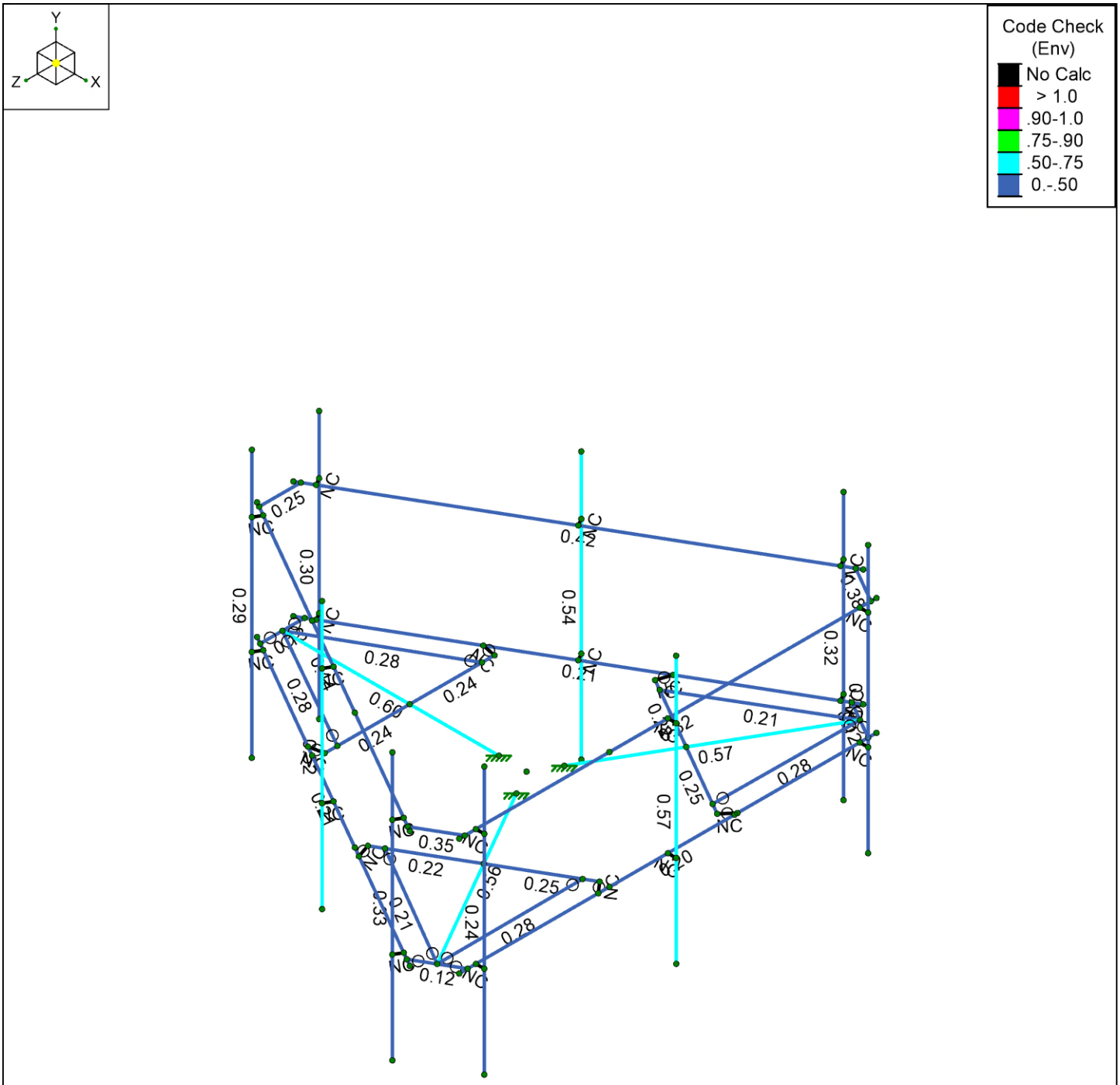

Member Code Checks Displayed (Enveloped)

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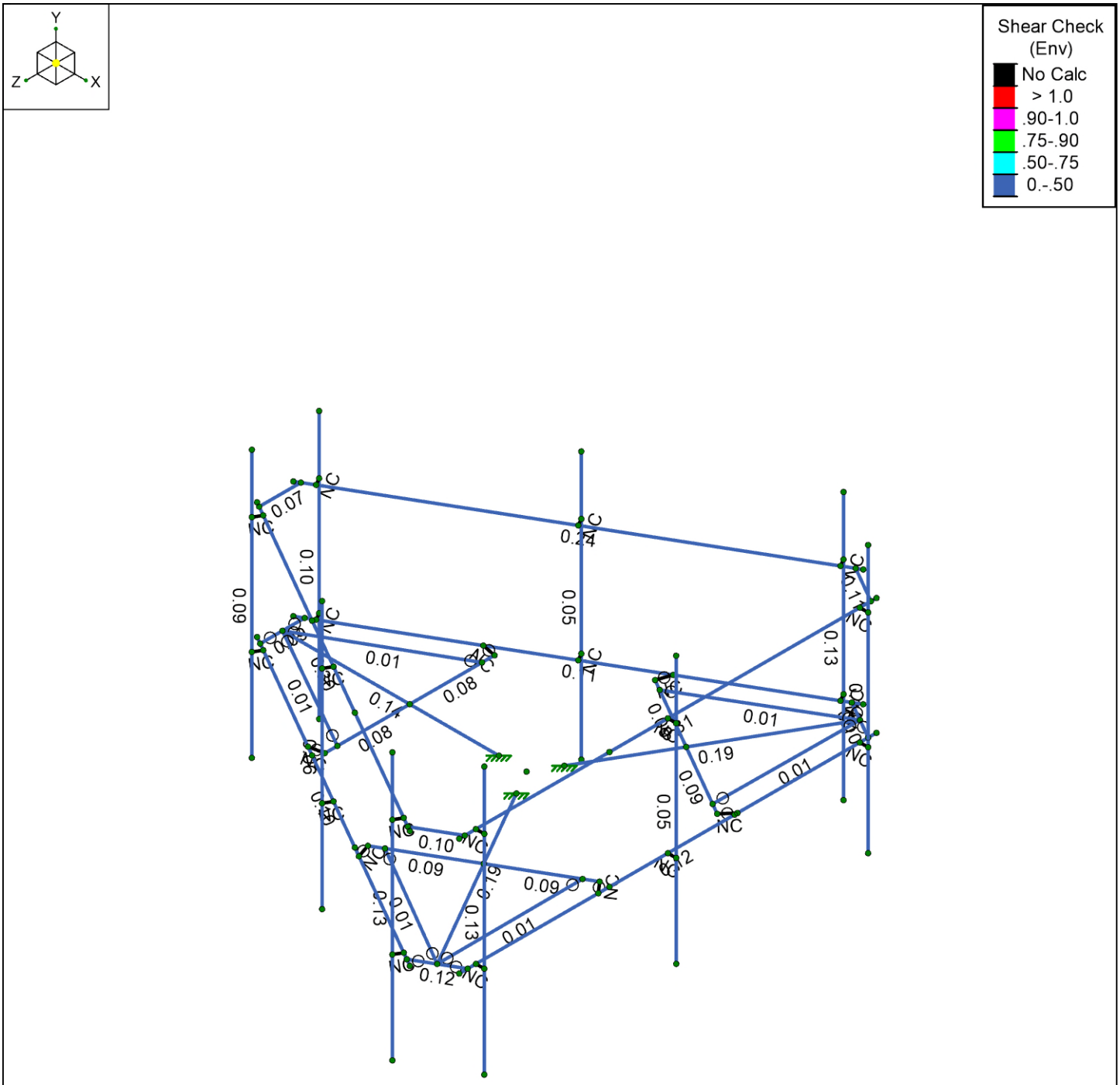

Member Shear Checks Displayed (Enveloped)

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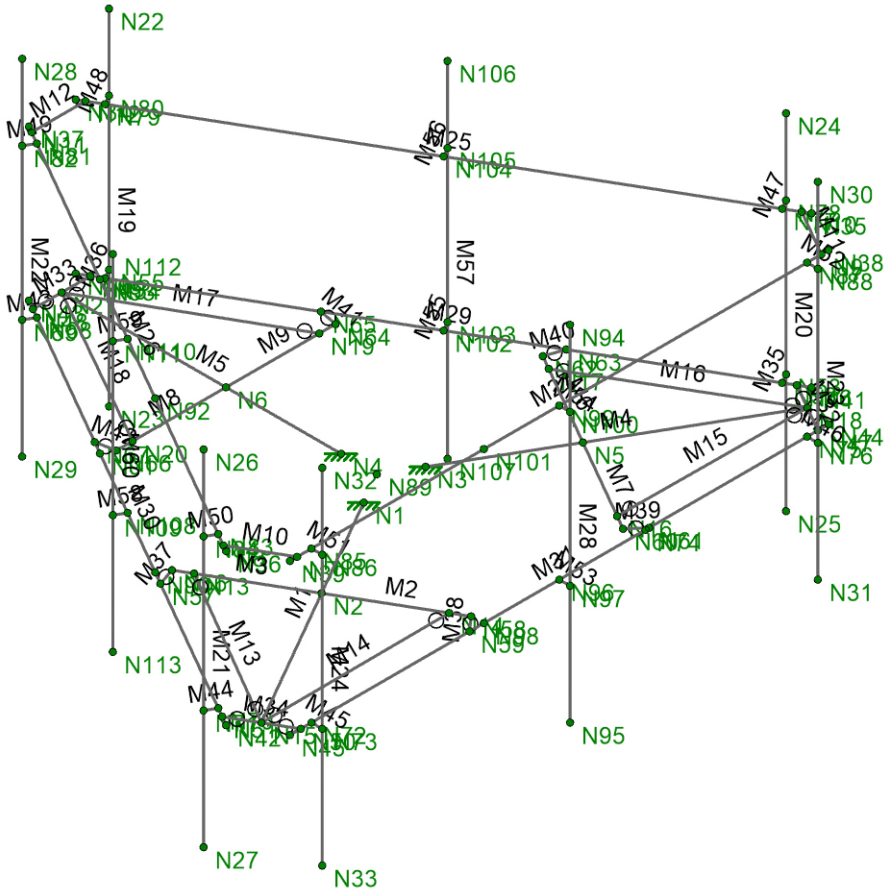

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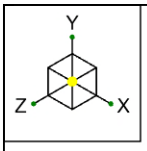

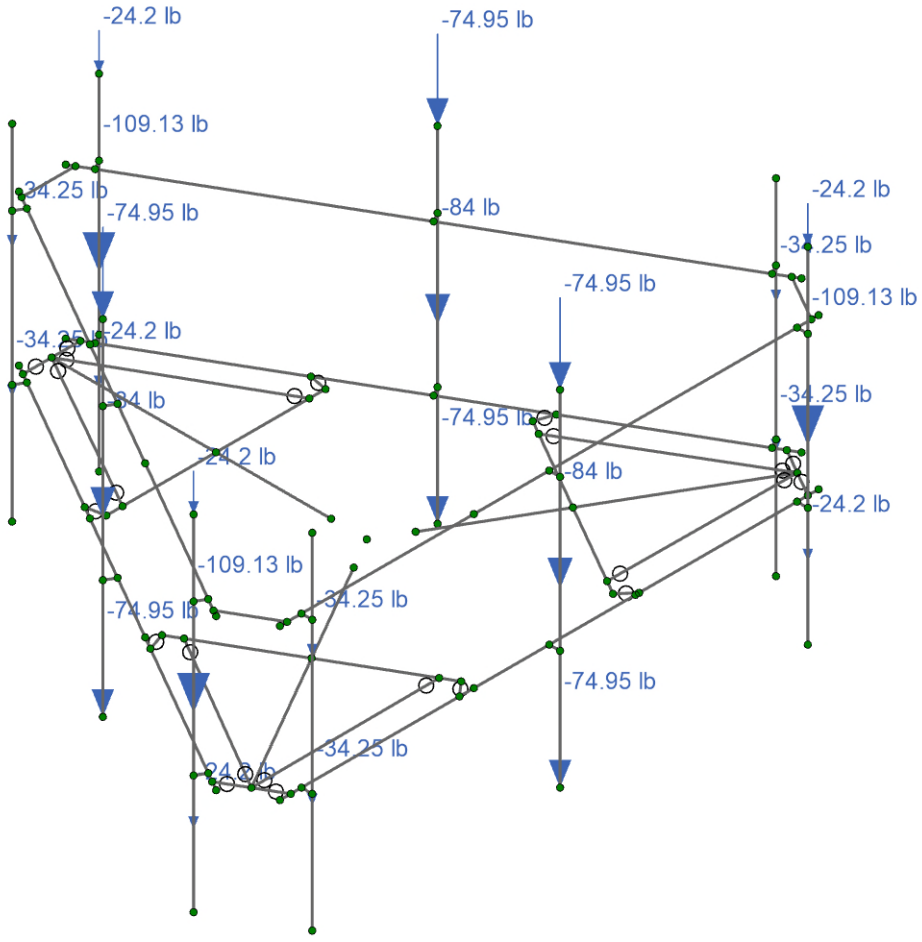

Loads: BLC 1, Dead

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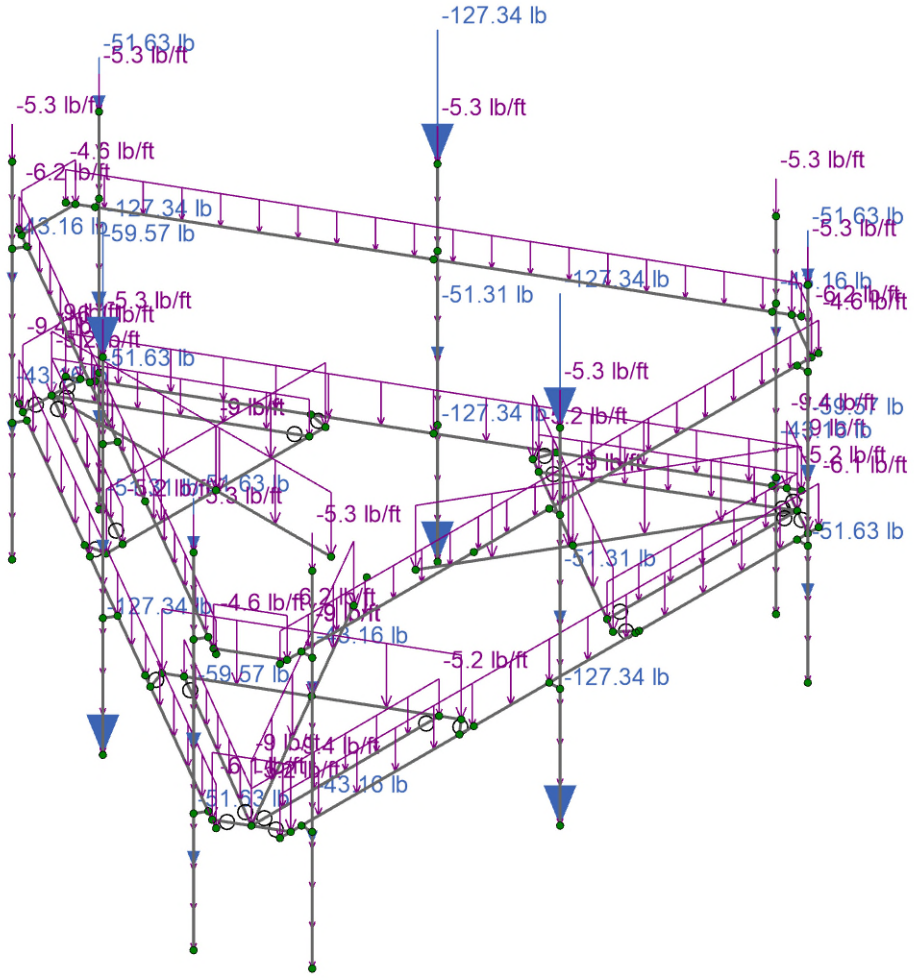

Loads: BLC 2, Ice

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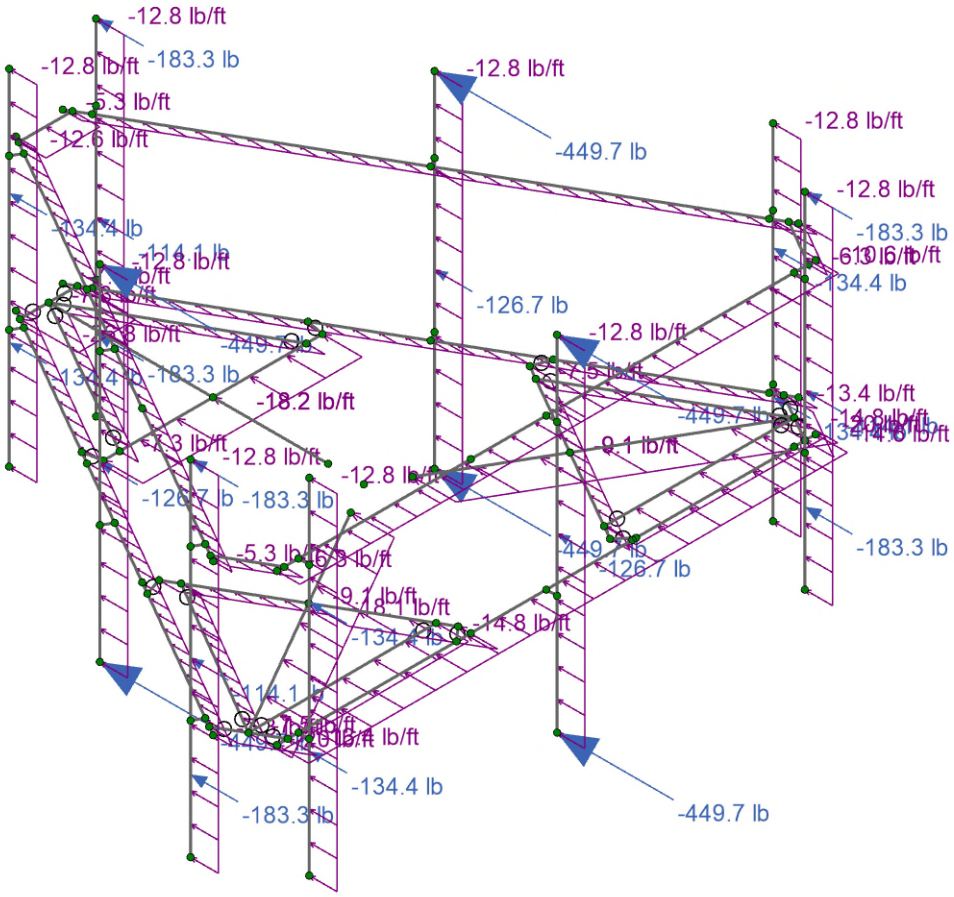

Loads: BLC 3, Wind 0

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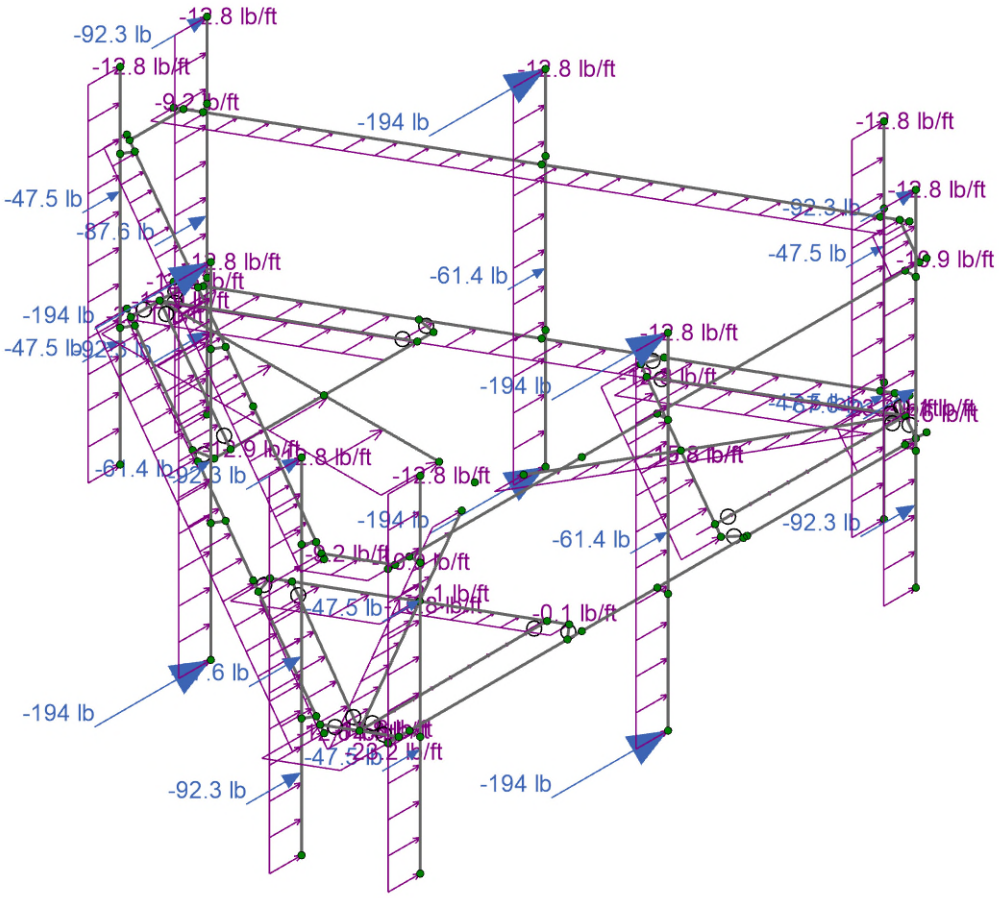

Loads: BLC 6, Wind 90

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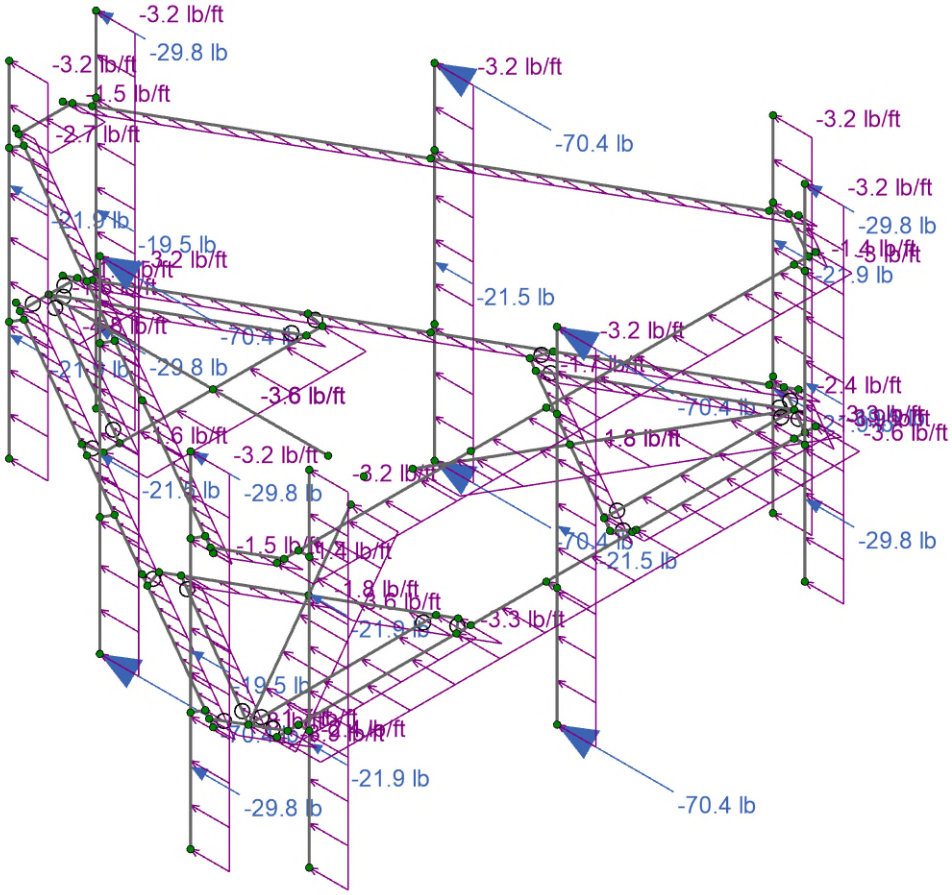

Loads: BLC 9, Wind Ice 0

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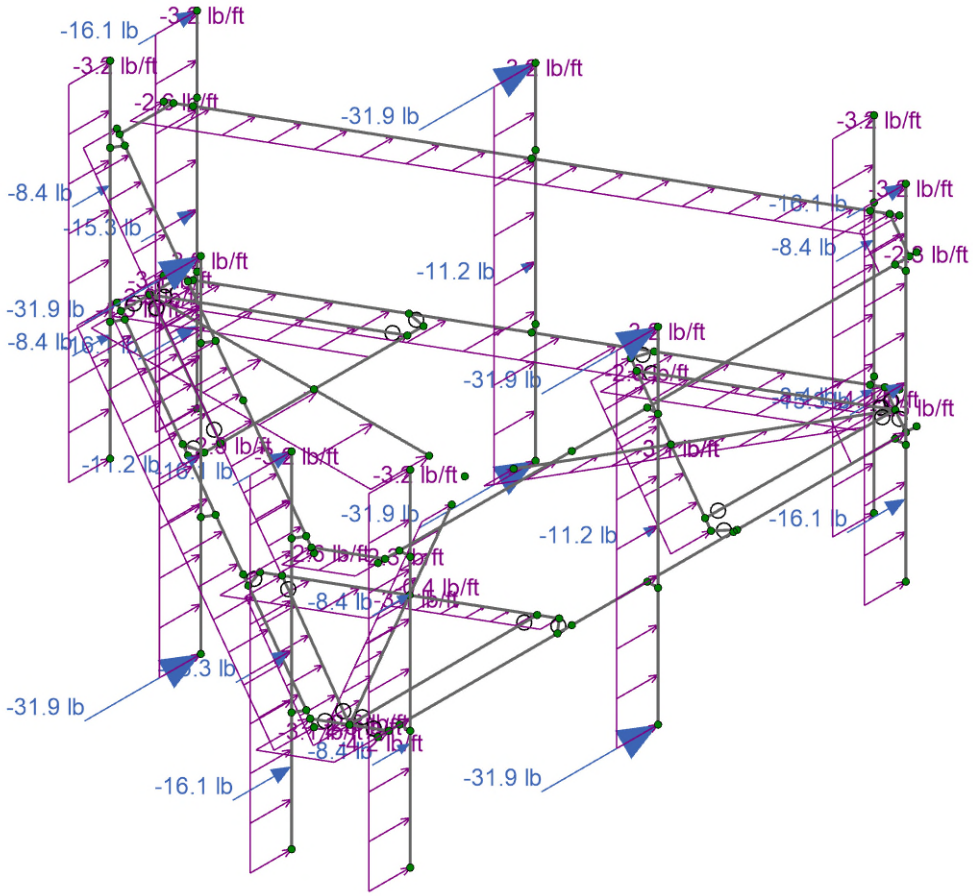


Loads: BLC 12, Wind Ice 90

PM&A		CTNL804B_MA	SK-10
AP			CTNL804B_MA.r3d

APPENDIX B

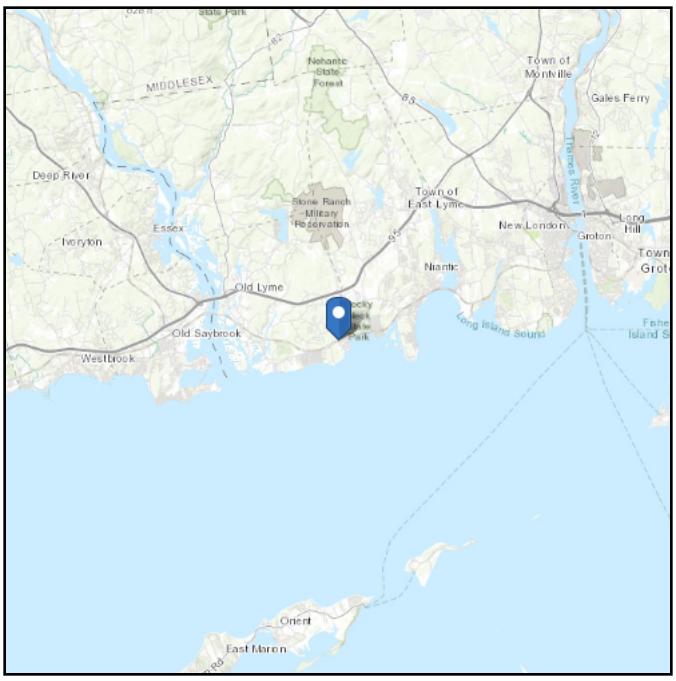
SOFTWARE INPUT CALCULATIONS

ASCE Hazards Report

Address:
No Address at This Location

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

Latitude: 41.296539
Longitude: -72.259644
Elevation: 36.72083336338684 ft (NAVD 88)



Wind

2022 CT BC Appendix P

Results:

Wind Speed	~~126 Vmph~~	130 mph
10-year MRI	76 Vmph	
25-year MRI	86 Vmph	
50-year MRI	97 Vmph	
100-year MRI	104 Vmph	

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Feb 27 2024

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

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

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

2022 CT BC Appendix P

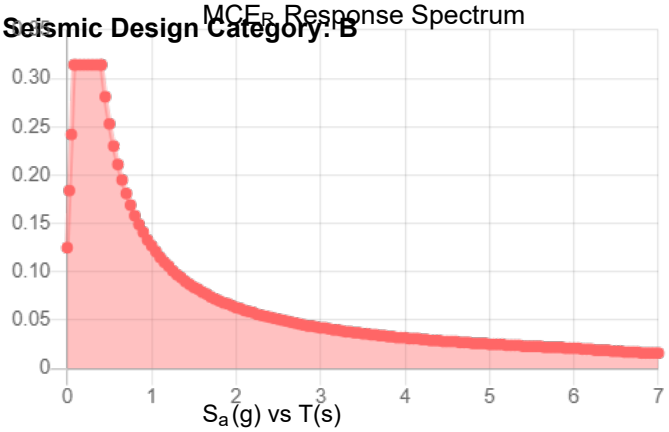
Site Soil Class: D - Stiff Soil

Results:

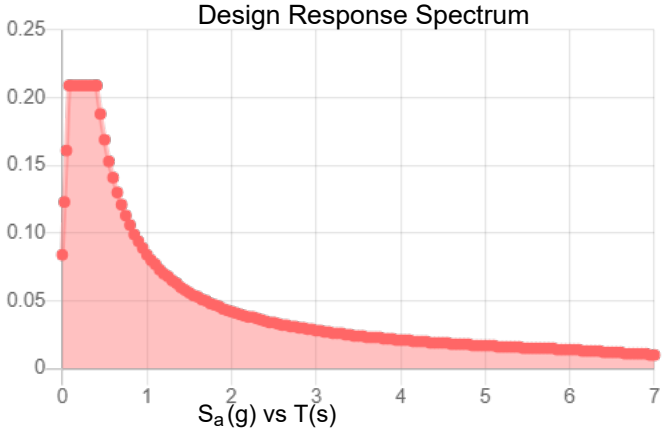
S_S :	0.201 ~~0.196~~	S_{D1} :	0.084
S_1 :	0.053	T_L :	6
F_a :	1.6	PGA :	0.109
F_v :	2.4	PGA_M :	0.172
S_{MS} :	0.314	F_{PGA} :	1.583
S_{M1} :	0.127	I_e :	1
S_{DS} :	0.209	C_v :	0.7

Seismic Design Category: B

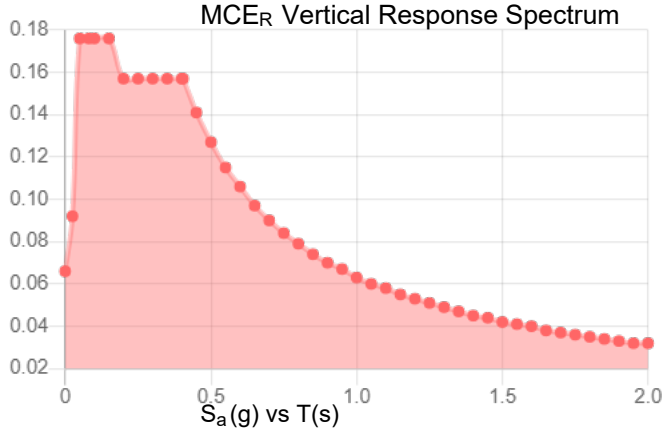
MCE_R Response Spectrum



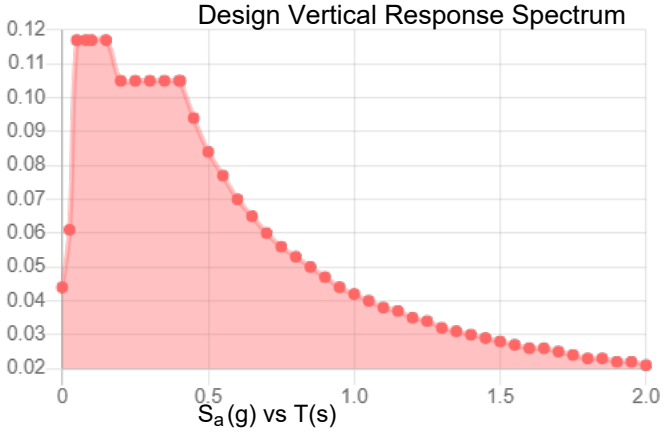
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: **Tue Feb 27 2024**

Date Source:

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Feb 27 2024

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

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

APPURTENANCE FORCE SUMMARY

P. Marshall Associates, LLC
1000 Holcomb Woods Pkwy, Suite 210
Roswell, GA 30076
(678) 280-2325

Wind Analysis Criteria	
Ultimate Wind Speed, Vult	130 mph
Antenna Rad Center, z	78.0 ft
Risk Category	II
Exposure Category	C
Mean Elevation Above Sea Level, zs	36.7 ft
Topographic Category	1

Seismic Analysis Criteria	
Seismic, S_s	0.201
Seismic, S_1	0.053
Soil Type	D (Default)
Amplification Factor, A_s	1.10
Response Coefficient, R	2.00

Ice Criteria & Summary	
Basic Wind Speed with Ice, Vi	50 mph
Design Radial Ice Thickness, ti	1.00 in
Wind Pressure (Ice), q_{zi}	7.30 psf
Factored Radial Ice Thickness, t_{iz}	1.09 in
Importance Factor Wind on Ice, I_{wi}	1.00
Importance Factor Ice, I_i	1.00

Live Load Criteria	
Structure Live Load	250 lbs
Maintenance Live Load	500 lbs
Maintenance Wind Speed	30 mph

Wind Force Summary	
Importance Factor Wind, I_w	1.00
Topographic Factor at Base, K_{zt}	1.00
Topographic Factor at z, K_{zt}	1.00
Velocity Pressure Coefficient, K_z	1.20
Wind Direction Factor, K_d	0.95
Gust Effect Factor, G	1.00
Shielding Factor, K_a	0.90
Wind Pressure, q_z	49.37 psf
Ground Elevation Factor, K_e	1.00

Seismic Force Summary	
Importance Factor Seismic, I_e	1.000
Site Coefficient, F_a	1.600
Site Coefficient, F_v	2.400
Design Spectra Response, S_{ds}	0.214
Design Spectra Response, S_{d1}	0.085
Seismic Response Coefficient, C_s	0.107
Total Seismic Shear Force, V_s	296 lbs
Appurtenance Total Weight	1380 lbs
Structure Total Weight	1383 lbs
Total Weight	2763 lbs
Vertical Load Effect, E_v	130 lbs
Horizontal Load Effect, E_h	326 lbs

Appurtenance Information							Wind Force - No Ice				Escalated Ice Load				Wind Force - With Ice			
Dimensions & Shape							Front		Side		Appurtenance Ice Information				Front		Side	
Appurtenance Name	*Height (in)*	*Width (in)*	*Depth (in)*	*Weight (lb)*	*Member Label*	*Flat or Round (F/R)*	*EPA (ft^2)*	*Design Wind Force (lb), F_A*	*EPA (ft^2)*	*Design Wind Force (lb), F_A*	*Height w/ Ice (in)*	*Width w/ Ice (in)*	*Depth w/ Ice (in)*	*Ice Weight, (lb)*	*EPA (ft^2)*	*Design Wind Force (lb), F_A*	*EPA (ft^2)*	*Design Wind Force (lb), F_A*
RFS/CELWAVE APXVLL19P_43-C-A20_TMO	75.8	11.3	4.6	48.39	M23	F	8.25	366.60	4.15	184.60	77.98	13.48	6.78	103.26	9.05	59.50	4.88	32.10
Ericsson 4460 B25/B66	19.57	15.75	12.09	109.13	M23	F	2.57	114.10	1.97	87.60	21.75	17.93	14.27	59.57	2.97	19.50	2.33	15.30
RFS/CELWAVE APXVAALL24_43-U-NA20_TMO	95.9	24	8.5	149.9	M28	F	20.24	899.40	8.73	388.00	98.08	26.18	10.68	254.67	21.41	140.70	9.71	63.80
Ericsson RADIO 4480 B71 B85A	21.8	15.7	7.5	84	M28	F	2.85	126.70	1.38	61.40	23.98	17.88	9.68	51.31	3.27	21.50	1.70	11.20
ERICSSON AIR6419 B41	36.3	20	6.3	68.5	M24	F	6.05	268.80	2.14	94.90	38.48	22.18	8.48	86.31	6.67	43.80	2.55	16.80
RFS/CELWAVE APXVLL19P_43-C-A20_TMO	75.8	11.3	4.6	48.39	M21	F	8.25	366.60	4.15	184.60	77.98	13.48	6.78	103.26	9.05	59.50	4.88	32.10
Ericsson 4460 B25/B66	19.57	15.75	12.09	109.13	M21	F	2.57	114.10	1.97	87.60	21.75	17.93	14.27	59.57	2.97	19.50	2.33	15.30
RFS/CELWAVE APXVAALL24_43-U-NA20_TMO	95.9	24	8.5	149.9	M60	F	20.24	899.40	8.73	388.00	98.08	26.18	10.68	254.67	21.41	140.70	9.71	63.80
Ericsson RADIO 4480 B71 B85A	21.8	15.7	7.5	84	M60	F	2.85	126.70	1.38	61.40	23.98	17.88	9.68	51.31	3.27	21.50	1.70	11.20
ERICSSON AIR6419 B41	36.3	20	6.3	68.5	M22	F	6.05	268.80	2.14	94.90	38.48	22.18	8.48	86.31	6.67	43.80	2.55	16.80
RFS/CELWAVE APXVLL19P_43-C-A20_TMO	75.8	11.3	4.6	48.39	M19	F	8.25	366.60	4.15	184.60	77.98	13.48	6.78	103.26	9.05	59.50	4.88	32.10
Ericsson 4460 B25/B66	19.57	15.75	12.09	109.13	M19	F	2.57	114.10	1.97	87.60	21.75	17.93	14.27	59.57	2.97	19.50	2.33	15.30
RFS/CELWAVE APXVAALL24_43-U-NA20_TMO	95.9	24	8.5	149.9	M57	F	20.24	899.40	8.73	388.00	98.08	26.18	10.68	254.67	21.41	140.70	9.71	63.80
Ericsson RADIO 4480 B71 B85A	21.8	15.7	7.5	84	M57	F	2.85	126.70	1.38	61.40	23.98	17.88	9.68	51.31	3.27	21.50	1.70	11.20
ERICSSON AIR6419 B41	36.3	20	6.3	68.5	M20	F	6.05	268.80	2.14	94.90	38.48	22.18	8.48	86.31	6.67	43.80	2.55	16.80

***Appurtenance Wind and Ice forces were calculated based on EPA's provided and as required by the tower owner (highlighted in green). Values highlighted in white are per applicable TIA-222.**

Appurtenance Structure Forces									
Member Information[1]					Wind Force - No Ice		Member Ice	Wind Force - With Ice	
Member Set	*Flat / Round*	*Weight (lb/ft)*	*Depth / Diameter (in)*	*Width (in)*	*Ca*	*Design Wind Force (lb/ft), F_A*	*Ice Weight (lb/ft)*	*Ca*	*Design Wind Force (lb/ft), F_A*
HSS4X4X4	HSS	12.21	4	4	1.56	23.14	9.00	0.92	4.53
L2.5X2.5X4	F	4.1	2.5	2.5	1.36	12.55	6.20	0.72	2.71
L2X2X3	F	2.44	2	2	2.00	14.81	5.20	0.92	3.29
PIPE_2.5	R	5.8	2.88	–	1.20	12.80	5.30	1.07	3.17
PIPE_2.0	R	3.66	2.38	–	1.20	10.57	4.60	1.20	3.00
PIPE_3.0	R	7.58	3.5	–	1.13	14.59	6.10	1.20	3.59
PL6X0.500	F	10.21	6	–	1.21	26.82	9.40	0.70	4.80

1. Values shown in this table are the maximum forces applied to similar member types. This is not an exhaustive list. Wind load on members can fluctuate due to force coefficients being a function of length.

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Model Settings

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes
Approximate Mesh Size (in)	12
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3
Single	No
Multiple (Optimum)	Yes
Maximum	No

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes
Default Global Plane for z-axis	XZ
Plate Local Axis Orientation	Nodal

Hot Rolled Steel	AISC 15th (360-16): LRFD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): LRFD
Cold Formed Steel	AISI S100-12: LRFD
Stiffness Adjustment	Yes (Iterative)
Wood	AWC NDS-12: ASD
Temperature	< 100F
Concrete	ACI 318-11
Masonry	ACI 530-11: ASD
Aluminum	AA ADM1-10: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Analysis Methodology	Exact Integration Method
Parme Beta Factor	0.65

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	Yes
List forces which were ignored for design in the Detail Report	Yes

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No
Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Code	ASCE 7-10

Model Settings (Continued)

Risk Category	I or II
Drift Cat	Other
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	Yes
S_1 (g)	1
SD_1 (g)	1
SD_S (g)	1
T_L (sec)	5
T Z (sec)	
T X (sec)	
C_tZ	0.02
C_tX	0.02
C_tExp. Z	0.75
C_tExp. X	0.75
R Z	3
R X	3
Ω_0Z	1
Ω_0X	1
C_dZ	1
C_dX	1
ρ Z	1
ρ X	1

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	Q235 GR.B	29000	11154	0.3	0.65	0.49	35	1.6	54	1.2

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N4	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	PIPE_2.0	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
2	PIPE_3.0	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	HSS4X4X4	HSS4X4X4	Beam	None	Q235 GR.B	Typical	3.37	7.8	7.8	12.8
4	L2x2x3	L2X2X3	Beam	None	Q235 GR.B	Typical	0.722	0.271	0.271	0.009
5	PL6X0.500	PL6X0.500	Beam	None	Q235 GR.B	Typical	3	0.063	9	0.237
6	L2.5x2.5x4	L2.5X2.5X4	Beam	None	Q235 GR.B	Typical	1.19	0.692	0.692	0.026
7	Pipe_2.5	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89

Node Coordinates

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
1	N1	4.972389	0	8.612436	
2	N2	21.003619	0	36.379341	
3	N3	4.972367	0	-8.612402	
4	N4	-9.944747	0	-0.000002	
5	N5	21.003597	0	-36.379302	
6	N6	-42.007203	0	0.000005	
7	N7	50.806822	42	73.000007	
8	N8	37.816444	42	80.500005	
9	N9	50.806827	42	-72.999973	
10	N10	37.81645	42	-80.499982	
11	N11	-88.62325	42	7.500019	
12	N12	-88.623259	42	-7.499982	
13	N13	-1.513042	0	49.379341	
14	N14	43.520279	0	23.379341	
15	N15	43.878619	0	76.000003	
16	N16	43.520248	0	-23.379314	
17	N17	-1.513096	0	-49.379333	
18	N18	43.878613	0	-75.999993	
19	N19	-42.007213	0	-26.000043	
20	N20	-42.007209	0	25.999986	
21	N21	-87.757235	0	0.000015	
22	N22	-86.659158	63	-12.098059	
23	N23	-86.659158	-33	-12.098059	
24	N24	32.852348	63	-81.098059	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
25	N25	32.852348	-33	-81.098059	
26	N26	32.852324	63	81.098061	
27	N27	32.852324	-33	81.098061	
28	N28	-86.65922	63	12.098034	
29	N29	-86.65922	-33	12.098034	
30	N30	53.80681	63	-69.000066	
31	N31	53.80681	-33	-69.000066	
32	N32	53.806813	63	68.999981	
33	N33	53.806813	-33	68.999981	
34	N34	-90.35531	42	-6.499982	
35	N35	39.548501	42	-81.499982	
36	N36	39.548492	42	81.500003	
37	N37	-90.355313	42	6.500012	
38	N38	50.806827	42	-74.999988	
39	N39	50.806822	42	75.000003	
40	N40	-90.35531	0	-6.499982	
41	N41	39.548501	0	-81.499982	
42	N42	39.548492	0	81.500003	
43	N43	-90.355313	0	6.500012	
44	N44	50.806827	0	-74.999988	
45	N45	50.806822	0	75.000003	
46	N46	36.950424	0	-79.999982	
47	N47	50.806827	0	-71.999988	
48	N48	-87.757237	0	8.000012	
49	N49	-87.757234	0	-7.999982	
50	N50	50.806822	0	72.000003	
51	N51	36.950416	0	80.000003	
52	N52	34.352348	0	-78.499982	
53	N53	32.852348	0	-81.098059	
54	N54	-85.159158	0	-9.499982	
55	N55	-86.659158	0	-12.098059	
56	N56	-5.410156	0	51.629341	
57	N57	-3.752779	0	56.500005	
58	N58	47.417394	0	21.129341	
59	N59	50.806824	0	25.000003	
60	N60	47.417361	0	-21.129317	
61	N61	50.806826	0	-25.000006	
62	N62	-5.410194	0	-51.629326	
63	N63	-3.75277	0	-56.499982	
64	N64	-42.007215	0	-30.500026	
65	N65	-47.05404	0	-31.499982	
66	N66	-42.00721	0	30.499983	
67	N67	-47.054058	0	31.500002	
68	N68	-85.159218	0	9.499979	
69	N69	-86.65922	0	12.098034	
70	N70	34.352322	0	78.499993	
71	N71	32.852324	0	81.098061	
72	N72	50.806822	0	68.999983	
73	N73	53.806813	0	68.999981	
74	N74	50.806826	0	-24.000027	
75	N75	50.806827	0	-69.000054	
76	N76	53.80681	0	-69.000066	
77	N77	34.352348	42	-78.499982	
78	N78	32.852348	42	-81.098059	
79	N79	-85.159158	42	-9.499982	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
80	N80	-86.659158	42	-12.098059	
81	N81	-85.159218	42	9.499979	
82	N82	-86.65922	42	12.098034	
83	N83	34.352322	42	78.499993	
84	N84	32.852324	42	81.098061	
85	N85	50.806822	42	68.999983	
86	N86	53.806813	42	68.999981	
87	N87	50.806827	42	-69.000054	
88	N88	53.80681	42	-69.000066	
89	N89	-0.000003	0	0	
90	N90	-7.216871	0	54.499982	
91	N91	-43.589938	0	33.499982	
92	N92	-7.216871	42	54.499982	
93	N93	-43.589938	42	33.499982	
94	N94	53.8068	63	0	
95	N95	53.8068	-33	0	
96	N96	50.8068	0	0	
97	N97	53.8068	0	0	
98	N98	50.8068	0	21	
99	N99	50.8068	42	0	
100	N100	53.8068	42	0	
101	N101	50.8068	42	21	
102	N102	-25.403405	0	-43.999982	
103	N103	-26.903405	0	-46.598058	
104	N104	-25.403405	42	-43.999982	
105	N105	-26.903405	42	-46.598058	
106	N106	-26.903405	63	-46.598058	
107	N107	-26.903405	-33	-46.598058	
108	N108	-25.403405	0	43.999982	
109	N109	-26.903405	0	46.598058	
110	N110	-25.403405	42	43.999982	
111	N111	-26.903405	42	46.598058	
112	N112	-26.903405	63	46.598058	
113	N113	-26.903405	-33	46.598058	

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N15	N1		HSS4X4X4	Beam	None	Q235 GR.B	Typical
2	M2	N2	N58		HSS4X4X4	Beam	None	Q235 GR.B	Typical
3	M3	N2	N56		HSS4X4X4	Beam	None	Q235 GR.B	Typical
4	M4	N18	N3		HSS4X4X4	Beam	None	Q235 GR.B	Typical
5	M5	N21	N4		HSS4X4X4	Beam	None	Q235 GR.B	Typical
6	M6	N5	N62		HSS4X4X4	Beam	None	Q235 GR.B	Typical
7	M7	N5	N60		HSS4X4X4	Beam	None	Q235 GR.B	Typical
8	M8	N6	N66		HSS4X4X4	Beam	None	Q235 GR.B	Typical
9	M9	N6	N64		HSS4X4X4	Beam	None	Q235 GR.B	Typical
10	M10	N7	N8	180	L2.5x2.5x4	Beam	None	Q235 GR.B	Typical
11	M11	N9	N10	90	L2.5x2.5x4	Beam	None	Q235 GR.B	Typical
12	M12	N11	N12	180	L2.5x2.5x4	Beam	None	Q235 GR.B	Typical
13	M13	N15	N13		L2x2x3	Beam	None	Q235 GR.B	Typical
14	M14	N14	N15		L2x2x3	Beam	None	Q235 GR.B	Typical
15	M15	N18	N16		L2x2x3	Beam	None	Q235 GR.B	Typical
16	M16	N17	N18		L2x2x3	Beam	None	Q235 GR.B	Typical
17	M17	N21	N19		L2x2x3	Beam	None	Q235 GR.B	Typical
18	M18	N20	N21		L2x2x3	Beam	None	Q235 GR.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
19	M19	N22	N23	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
20	M20	N24	N25	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
21	M21	N26	N27	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
22	M22	N28	N29	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
23	M23	N30	N31	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
24	M24	N32	N33	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
25	M25	N34	N35		PIPE_2.0	Beam	None	A53 Gr.B	Typical
26	M26	N36	N37		PIPE_2.0	Beam	None	A53 Gr.B	Typical
27	M27	N38	N39		PIPE_2.0	Beam	None	A53 Gr.B	Typical
28	M28	N94	N95	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
29	M29	N40	N41		PIPE_3.0	Beam	None	A53 Gr.B	Typical
30	M30	N42	N43		PIPE_3.0	Beam	None	A53 Gr.B	Typical
31	M31	N44	N45		PIPE_3.0	Beam	None	A53 Gr.B	Typical
32	M32	N46	N47		PL6X0.500	Beam	None	Q235 GR.B	Typical
33	M33	N48	N49		PL6X0.500	Beam	None	Q235 GR.B	Typical
34	M34	N50	N51		PL6X0.500	Beam	None	Q235 GR.B	Typical
35	M35	N52	N53		RIGID	None	None	RIGID	Typical
36	M36	N54	N55		RIGID	None	None	RIGID	Typical
37	M37	N56	N57		RIGID	None	None	RIGID	Typical
38	M38	N58	N59		RIGID	None	None	RIGID	Typical
39	M39	N60	N61		RIGID	None	None	RIGID	Typical
40	M40	N62	N63		RIGID	None	None	RIGID	Typical
41	M41	N64	N65		RIGID	None	None	RIGID	Typical
42	M42	N66	N67		RIGID	None	None	RIGID	Typical
43	M43	N68	N69		RIGID	None	None	RIGID	Typical
44	M44	N70	N71		RIGID	None	None	RIGID	Typical
45	M45	N72	N73		RIGID	None	None	RIGID	Typical
46	M46	N75	N76		RIGID	None	None	RIGID	Typical
47	M47	N77	N78		RIGID	None	None	RIGID	Typical
48	M48	N79	N80		RIGID	None	None	RIGID	Typical
49	M49	N81	N82		RIGID	None	None	RIGID	Typical
50	M50	N83	N84		RIGID	None	None	RIGID	Typical
51	M51	N85	N86		RIGID	None	None	RIGID	Typical
52	M52	N87	N88		RIGID	None	None	RIGID	Typical
53	M53	N96	N97		RIGID	None	None	RIGID	Typical
54	M54	N99	N100		RIGID	None	None	RIGID	Typical
55	M55	N102	N103		RIGID	None	None	RIGID	Typical
56	M56	N104	N105		RIGID	None	None	RIGID	Typical
57	M57	N106	N107	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical
58	M58	N108	N109		RIGID	None	None	RIGID	Typical
59	M59	N110	N111		RIGID	None	None	RIGID	Typical
60	M60	N112	N113	300	Pipe_2.5	Beam	None	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M1			Yes	N/A	None
2	M2			Yes	N/A	None
3	M3			Yes	N/A	None
4	M4			Yes	N/A	None
5	M5			Yes	N/A	None
6	M6			Yes	N/A	None
7	M7			Yes	N/A	None
8	M8			Yes	N/A	None
9	M9			Yes	N/A	None
10	M10			Yes	N/A	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
11	M11			Yes	N/A	None
12	M12			Yes	N/A	None
13	M13	BenPIN	BenPIN	Yes	N/A	None
14	M14	BenPIN	BenPIN	Yes	N/A	None
15	M15	BenPIN	BenPIN	Yes	N/A	None
16	M16	BenPIN	BenPIN	Yes	N/A	None
17	M17	BenPIN	BenPIN	Yes	N/A	None
18	M18	BenPIN	BenPIN	Yes	N/A	None
19	M19			Yes	Default	None
20	M20			Yes	Default	None
21	M21			Yes	Default	None
22	M22			Yes	Default	None
23	M23			Yes	Default	None
24	M24			Yes	Default	None
25	M25			Yes	N/A	None
26	M26			Yes	N/A	None
27	M27			Yes	N/A	None
28	M28			Yes	Default	None
29	M29			Yes	N/A	None
30	M30			Yes	N/A	None
31	M31			Yes	N/A	None
32	M32	BenPIN	BenPIN	Yes	N/A	None
33	M33	BenPIN	BenPIN	Yes	N/A	None
34	M34	BenPIN	BenPIN	Yes	N/A	None
35	M35			Yes	** NA **	None
36	M36			Yes	** NA **	None
37	M37		BenPIN	Yes	** NA **	None
38	M38		BenPIN	Yes	** NA **	None
39	M39		BenPIN	Yes	** NA **	None
40	M40		BenPIN	Yes	** NA **	None
41	M41		BenPIN	Yes	** NA **	None
42	M42		BenPIN	Yes	** NA **	None
43	M43			Yes	** NA **	None
44	M44			Yes	** NA **	None
45	M45			Yes	** NA **	None
46	M46			Yes	** NA **	None
47	M47			Yes	** NA **	None
48	M48			Yes	** NA **	None
49	M49			Yes	** NA **	None
50	M50			Yes	** NA **	None
51	M51			Yes	** NA **	None
52	M52			Yes	** NA **	None
53	M53			Yes	** NA **	None
54	M54			Yes	** NA **	None
55	M55			Yes	** NA **	None
56	M56			Yes	** NA **	None
57	M57			Yes	Default	None
58	M58			Yes	** NA **	None
59	M59			Yes	** NA **	None
60	M60			Yes	Default	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
1	M1	HSS4X4X4	77.812	45.75		Lbyy	N/A	N/A	Lateral
2	M2	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Channel Conn.	a [in]	Function
3	M3	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral
4	M4	HSS4X4X4	77.812	45.75		Lbyy	N/A	N/A	Lateral
5	M5	HSS4X4X4	77.812	45.75		Lbyy	N/A	N/A	Lateral
6	M6	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral
7	M7	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral
8	M8	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral
9	M9	HSS4X4X4	30.5			Lbyy	N/A	N/A	Lateral
10	M10	L2.5x2.5x4	15			Lbyy	N/A	N/A	Lateral
11	M11	L2.5x2.5x4	15			Lbyy	N/A	N/A	Lateral
12	M12	L2.5x2.5x4	15			Lbyy	N/A	N/A	Lateral
13	M13	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
14	M14	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
15	M15	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
16	M16	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
17	M17	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
18	M18	L2x2x3	52.622			Lbyy	N/A	N/A	Lateral
19	M19	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
20	M20	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
21	M21	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
22	M22	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
23	M23	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
24	M24	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
25	M25	PIPE_2.0	150		48	Lbyy	N/A	N/A	Lateral
26	M26	PIPE_2.0	150		48	Lbyy	N/A	N/A	Lateral
27	M27	PIPE_2.0	150		48	Lbyy	N/A	N/A	Lateral
28	M28	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
29	M29	PIPE_3.0	150	50	48	Lbyy	N/A	N/A	Lateral
30	M30	PIPE_3.0	150	50	48	Lbyy	N/A	N/A	Lateral
31	M31	PIPE_3.0	150	50	48	Lbyy	N/A	N/A	Lateral
32	M32	PL6X0.500	16			Lbyy	N/A	N/A	Lateral
33	M33	PL6X0.500	16			Lbyy	N/A	N/A	Lateral
34	M34	PL6X0.500	16			Lbyy	N/A	N/A	Lateral
35	M57	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral
36	M60	Pipe_2.5	96			Lbyy	N/A	N/A	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	Y	-24.2	0
2	M23	Y	-109.13	48
3	M28	Y	-74.95	0
4	M28	Y	-84	48
5	M24	Y	-34.25	30
6	M21	Y	-24.2	0
7	M21	Y	-109.13	48
8	M60	Y	-74.95	0
9	M60	Y	-84	48
10	M22	Y	-34.25	30
11	M19	Y	-24.2	0
12	M19	Y	-109.13	48
13	M57	Y	-74.95	0
14	M57	Y	-84	48
15	M20	Y	-34.25	30
16	M23	Y	-24.2	76
17	M23	Y	0	0
18	M28	Y	-74.95	96

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
19	M28	Y	0	0
20	M24	Y	-34.25	66
21	M21	Y	-24.2	76
22	M21	Y	0	0
23	M60	Y	-74.95	96
24	M60	Y	0	0
25	M22	Y	-34.25	66
26	M19	Y	-24.2	76
27	M19	Y	0	0
28	M57	Y	-74.95	96
29	M57	Y	0	0
30	M20	Y	-34.25	66

Member Point Loads (BLC 2 : Ice)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	Y	-51.63	0
2	M23	Y	-59.57	48
3	M28	Y	-127.34	0
4	M28	Y	-51.31	48
5	M24	Y	-43.16	30
6	M21	Y	-51.63	0
7	M21	Y	-59.57	48
8	M60	Y	-127.34	0
9	M60	Y	-51.31	48
10	M22	Y	-43.16	30
11	M19	Y	-51.63	0
12	M19	Y	-59.57	48
13	M57	Y	-127.34	0
14	M57	Y	-51.31	48
15	M20	Y	-43.16	30
16	M23	Y	-51.63	76
17	M23	Y	0	0
18	M28	Y	-127.34	96
19	M28	Y	0	0
20	M24	Y	-43.16	66
21	M21	Y	-51.63	76
22	M21	Y	0	0
23	M60	Y	-127.34	96
24	M60	Y	0	0
25	M22	Y	-43.16	66
26	M19	Y	-51.63	76
27	M19	Y	0	0
28	M57	Y	-127.34	96
29	M57	Y	0	0
30	M20	Y	-43.16	66

Member Point Loads (BLC 3 : Wind 0)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-183.3	0
2	M23	X	-114.1	48
3	M28	X	-449.7	0
4	M28	X	-126.7	48
5	M24	X	-134.4	30

Member Point Loads (BLC 3 : Wind 0) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
6	M21	X	-183.3	0
7	M21	X	-114.1	48
8	M60	X	-449.7	0
9	M60	X	-126.7	48
10	M22	X	-134.4	30
11	M19	X	-183.3	0
12	M19	X	-114.1	48
13	M57	X	-449.7	0
14	M57	X	-126.7	48
15	M20	X	-134.4	30
16	M23	X	-183.3	76
17	M23	X	0	0
18	M28	X	-449.7	96
19	M28	X	0	0
20	M24	X	-134.4	66
21	M21	X	-183.3	76
22	M21	X	0	0
23	M60	X	-449.7	96
24	M60	X	0	0
25	M22	X	-134.4	66
26	M19	X	-183.3	76
27	M19	X	0	0
28	M57	X	-449.7	96
29	M57	X	0	0
30	M20	X	-134.4	66
31	M23	Z	0	0
32	M23	Z	0	48
33	M28	Z	0	0
34	M28	Z	0	48
35	M24	Z	0	30
36	M21	Z	0	0
37	M21	Z	0	48
38	M60	Z	0	0
39	M60	Z	0	48
40	M22	Z	0	30
41	M19	Z	0	0
42	M19	Z	0	48
43	M57	Z	0	0
44	M57	Z	0	48
45	M20	Z	0	30
46	M23	Z	0	76
47	M23	Z	0	0
48	M28	Z	0	96
49	M28	Z	0	0
50	M24	Z	0	66
51	M21	Z	0	76
52	M21	Z	0	0
53	M60	Z	0	96
54	M60	Z	0	0
55	M22	Z	0	66
56	M19	Z	0	76
57	M19	Z	0	0
58	M57	Z	0	96
59	M57	Z	0	0
60	M20	Z	0	66

Member Point Loads (BLC 3 : Wind 0) (Continued)

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

Member Point Loads (BLC 4 : Wind 30)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-139	0
2	M23	X	-93.1	48
3	M28	X	-334.1	0
4	M28	X	-95.6	48
5	M24	X	-97.6	30
6	M21	X	-139	0
7	M21	X	-93.1	48
8	M60	X	-334.1	0
9	M60	X	-95.6	48
10	M22	X	-97.6	30
11	M19	X	-139	0
12	M19	X	-93.1	48
13	M57	X	-334.1	0
14	M57	X	-95.6	48
15	M20	X	-97.6	30
16	M23	X	-139	76
17	M23	X	0	0
18	M28	X	-334.1	96
19	M28	X	0	0
20	M24	X	-97.6	66
21	M21	X	-139	76
22	M21	X	0	0
23	M60	X	-334.1	96
24	M60	X	0	0
25	M22	X	-97.6	66
26	M19	X	-139	76
27	M19	X	0	0
28	M57	X	-334.1	96
29	M57	X	0	0
30	M20	X	-97.6	66
31	M23	Z	-80.3	0
32	M23	Z	-53.7	48
33	M28	Z	-192.9	0
34	M28	Z	-55.2	48
35	M24	Z	-56.3	30
36	M21	Z	-80.3	0
37	M21	Z	-53.7	48
38	M60	Z	-192.9	0
39	M60	Z	-55.2	48
40	M22	Z	-56.3	30
41	M19	Z	-80.3	0
42	M19	Z	-53.7	48
43	M57	Z	-192.9	0
44	M57	Z	-55.2	48
45	M20	Z	-56.3	30
46	M23	Z	-80.3	76
47	M23	Z	0	0
48	M28	Z	-192.9	96
49	M28	Z	0	0
50	M24	Z	-56.3	66
51	M21	Z	-80.3	76
52	M21	Z	0	0
53	M60	Z	-192.9	96
54	M60	Z	0	0
55	M22	Z	-56.3	66

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
56	M19	Z	-80.3	76
57	M19	Z	0	0
58	M57	Z	-192.9	96
59	M57	Z	0	0
60	M20	Z	-56.3	66

Member Point Loads (BLC 5 : Wind 60)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-57.5	0
2	M23	X	-47.1	48
3	M28	X	-129	0
4	M28	X	-38.9	48
5	M24	X	-34.6	30
6	M21	X	-57.5	0
7	M21	X	-47.1	48
8	M60	X	-129	0
9	M60	X	-38.9	48
10	M22	X	-34.6	30
11	M19	X	-57.5	0
12	M19	X	-47.1	48
13	M57	X	-129	0
14	M57	X	-38.9	48
15	M20	X	-34.6	30
16	M23	X	-57.5	76
17	M23	X	0	0
18	M28	X	-129	96
19	M28	X	0	0
20	M24	X	-34.6	66
21	M21	X	-57.5	76
22	M21	X	0	0
23	M60	X	-129	96
24	M60	X	0	0
25	M22	X	-34.6	66
26	M19	X	-57.5	76
27	M19	X	0	0
28	M57	X	-129	96
29	M57	X	0	0
30	M20	X	-34.6	66
31	M23	Z	-99.6	0
32	M23	Z	-81.6	48
33	M28	Z	-223.4	0
34	M28	Z	-67.3	48
35	M24	Z	-59.9	30
36	M21	Z	-99.6	0
37	M21	Z	-81.6	48
38	M60	Z	-223.4	0
39	M60	Z	-67.3	48
40	M22	Z	-59.9	30
41	M19	Z	-99.6	0
42	M19	Z	-81.6	48
43	M57	Z	-223.4	0
44	M57	Z	-67.3	48
45	M20	Z	-59.9	30
46	M23	Z	-99.6	76
47	M23	Z	0	0

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
48	M28	Z	-223.4	96
49	M28	Z	0	0
50	M24	Z	-59.9	66
51	M21	Z	-99.6	76
52	M21	Z	0	0
53	M60	Z	-223.4	96
54	M60	Z	0	0
55	M22	Z	-59.9	66
56	M19	Z	-99.6	76
57	M19	Z	0	0
58	M57	Z	-223.4	96
59	M57	Z	0	0
60	M20	Z	-59.9	66

Member Point Loads (BLC 6 : Wind 90)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	0	0
2	M23	X	0	48
3	M28	X	0	0
4	M28	X	0	48
5	M24	X	0	30
6	M21	X	0	0
7	M21	X	0	48
8	M60	X	0	0
9	M60	X	0	48
10	M22	X	0	30
11	M19	X	0	0
12	M19	X	0	48
13	M57	X	0	0
14	M57	X	0	48
15	M20	X	0	30
16	M23	X	0	76
17	M23	X	0	0
18	M28	X	0	96
19	M28	X	0	0
20	M24	X	0	66
21	M21	X	0	76
22	M21	X	0	0
23	M60	X	0	96
24	M60	X	0	0
25	M22	X	0	66
26	M19	X	0	76
27	M19	X	0	0
28	M57	X	0	96
29	M57	X	0	0
30	M20	X	0	66
31	M23	Z	-92.3	0
32	M23	Z	-87.6	48
33	M28	Z	-194	0
34	M28	Z	-61.4	48
35	M24	Z	-47.5	30
36	M21	Z	-92.3	0
37	M21	Z	-87.6	48
38	M60	Z	-194	0
39	M60	Z	-61.4	48

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
40	M22	Z	-47.5	30
41	M19	Z	-92.3	0
42	M19	Z	-87.6	48
43	M57	Z	-194	0
44	M57	Z	-61.4	48
45	M20	Z	-47.5	30
46	M23	Z	-92.3	76
47	M23	Z	0	0
48	M28	Z	-194	96
49	M28	Z	0	0
50	M24	Z	-47.5	66
51	M21	Z	-92.3	76
52	M21	Z	0	0
53	M60	Z	-194	96
54	M60	Z	0	0
55	M22	Z	-47.5	66
56	M19	Z	-92.3	76
57	M19	Z	0	0
58	M57	Z	-194	96
59	M57	Z	0	0
60	M20	Z	-47.5	66

Member Point Loads (BLC 7 : Wind 120)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	57.5	0
2	M23	X	47.1	48
3	M28	X	129	0
4	M28	X	38.9	48
5	M24	X	34.6	30
6	M21	X	57.5	0
7	M21	X	47.1	48
8	M60	X	129	0
9	M60	X	38.9	48
10	M22	X	34.6	30
11	M19	X	57.5	0
12	M19	X	47.1	48
13	M57	X	129	0
14	M57	X	38.9	48
15	M20	X	34.6	30
16	M23	X	57.5	76
17	M23	X	0	0
18	M28	X	129	96
19	M28	X	0	0
20	M24	X	34.6	66
21	M21	X	57.5	76
22	M21	X	0	0
23	M60	X	129	96
24	M60	X	0	0
25	M22	X	34.6	66
26	M19	X	57.5	76
27	M19	X	0	0
28	M57	X	129	96
29	M57	X	0	0
30	M20	X	34.6	66
31	M23	Z	-99.6	0

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
32	M23	Z	-81.6	48
33	M28	Z	-223.4	0
34	M28	Z	-67.3	48
35	M24	Z	-59.9	30
36	M21	Z	-99.6	0
37	M21	Z	-81.6	48
38	M60	Z	-223.4	0
39	M60	Z	-67.3	48
40	M22	Z	-59.9	30
41	M19	Z	-99.6	0
42	M19	Z	-81.6	48
43	M57	Z	-223.4	0
44	M57	Z	-67.3	48
45	M20	Z	-59.9	30
46	M23	Z	-99.6	76
47	M23	Z	0	0
48	M28	Z	-223.4	96
49	M28	Z	0	0
50	M24	Z	-59.9	66
51	M21	Z	-99.6	76
52	M21	Z	0	0
53	M60	Z	-223.4	96
54	M60	Z	0	0
55	M22	Z	-59.9	66
56	M19	Z	-99.6	76
57	M19	Z	0	0
58	M57	Z	-223.4	96
59	M57	Z	0	0
60	M20	Z	-59.9	66

Member Point Loads (BLC 8 : Wind 150)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	139	0
2	M23	X	93.1	48
3	M28	X	334.1	0
4	M28	X	95.6	48
5	M24	X	97.6	30
6	M21	X	139	0
7	M21	X	93.1	48
8	M60	X	334.1	0
9	M60	X	95.6	48
10	M22	X	97.6	30
11	M19	X	139	0
12	M19	X	93.1	48
13	M57	X	334.1	0
14	M57	X	95.6	48
15	M20	X	97.6	30
16	M23	X	139	76
17	M23	X	0	0
18	M28	X	334.1	96
19	M28	X	0	0
20	M24	X	97.6	66
21	M21	X	139	76
22	M21	X	0	0
23	M60	X	334.1	96

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
24	M60	X	0	0
25	M22	X	97.6	66
26	M19	X	139	76
27	M19	X	0	0
28	M57	X	334.1	96
29	M57	X	0	0
30	M20	X	97.6	66
31	M23	Z	-80.3	0
32	M23	Z	-53.7	48
33	M28	Z	-192.9	0
34	M28	Z	-55.2	48
35	M24	Z	-56.3	30
36	M21	Z	-80.3	0
37	M21	Z	-53.7	48
38	M60	Z	-192.9	0
39	M60	Z	-55.2	48
40	M22	Z	-56.3	30
41	M19	Z	-80.3	0
42	M19	Z	-53.7	48
43	M57	Z	-192.9	0
44	M57	Z	-55.2	48
45	M20	Z	-56.3	30
46	M23	Z	-80.3	76
47	M23	Z	0	0
48	M28	Z	-192.9	96
49	M28	Z	0	0
50	M24	Z	-56.3	66
51	M21	Z	-80.3	76
52	M21	Z	0	0
53	M60	Z	-192.9	96
54	M60	Z	0	0
55	M22	Z	-56.3	66
56	M19	Z	-80.3	76
57	M19	Z	0	0
58	M57	Z	-192.9	96
59	M57	Z	0	0
60	M20	Z	-56.3	66

Member Point Loads (BLC 9 : Wind Ice 0)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-29.8	0
2	M23	X	-19.5	48
3	M28	X	-70.4	0
4	M28	X	-21.5	48
5	M24	X	-21.9	30
6	M21	X	-29.8	0
7	M21	X	-19.5	48
8	M60	X	-70.4	0
9	M60	X	-21.5	48
10	M22	X	-21.9	30
11	M19	X	-29.8	0
12	M19	X	-19.5	48
13	M57	X	-70.4	0
14	M57	X	-21.5	48
15	M20	X	-21.9	30

Member Point Loads (BLC 9 : Wind Ice 0) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
16	M23	X	-29.8	76
17	M23	X	0	0
18	M28	X	-70.4	96
19	M28	X	0	0
20	M24	X	-21.9	66
21	M21	X	-29.8	76
22	M21	X	0	0
23	M60	X	-70.4	96
24	M60	X	0	0
25	M22	X	-21.9	66
26	M19	X	-29.8	76
27	M19	X	0	0
28	M57	X	-70.4	96
29	M57	X	0	0
30	M20	X	-21.9	66
31	M23	Z	0	0
32	M23	Z	0	48
33	M28	Z	0	0
34	M28	Z	0	48
35	M24	Z	0	30
36	M21	Z	0	0
37	M21	Z	0	48
38	M60	Z	0	0
39	M60	Z	0	48
40	M22	Z	0	30
41	M19	Z	0	0
42	M19	Z	0	48
43	M57	Z	0	0
44	M57	Z	0	48
45	M20	Z	0	30
46	M23	Z	0	76
47	M23	Z	0	0
48	M28	Z	0	96
49	M28	Z	0	0
50	M24	Z	0	66
51	M21	Z	0	76
52	M21	Z	0	0
53	M60	Z	0	96
54	M60	Z	0	0
55	M22	Z	0	66
56	M19	Z	0	76
57	M19	Z	0	0
58	M57	Z	0	96
59	M57	Z	0	0
60	M20	Z	0	66

Member Point Loads (BLC 10 : Wind Ice 30)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-22.8	0
2	M23	X	-16	48
3	M28	X	-52.6	0
4	M28	X	-16.4	48
5	M24	X	-16	30
6	M21	X	-22.8	0
7	M21	X	-16	48

Member Point Loads (BLC 10 : Wind Ice 30) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
8	M60	X	-52.6	0
9	M60	X	-16.4	48
10	M22	X	-16	30
11	M19	X	-22.8	0
12	M19	X	-16	48
13	M57	X	-52.6	0
14	M57	X	-16.4	48
15	M20	X	-16	30
16	M23	X	-22.8	76
17	M23	X	0	0
18	M28	X	-52.6	96
19	M28	X	0	0
20	M24	X	-16	66
21	M21	X	-22.8	76
22	M21	X	0	0
23	M60	X	-52.6	96
24	M60	X	0	0
25	M22	X	-16	66
26	M19	X	-22.8	76
27	M19	X	0	0
28	M57	X	-52.6	96
29	M57	X	0	0
30	M20	X	-16	66
31	M23	Z	-13.2	0
32	M23	Z	-9.2	48
33	M28	Z	-30.4	0
34	M28	Z	-9.5	48
35	M24	Z	-9.3	30
36	M21	Z	-13.2	0
37	M21	Z	-9.2	48
38	M60	Z	-30.4	0
39	M60	Z	-9.5	48
40	M22	Z	-9.3	30
41	M19	Z	-13.2	0
42	M19	Z	-9.2	48
43	M57	Z	-30.4	0
44	M57	Z	-9.5	48
45	M20	Z	-9.3	30
46	M23	Z	-13.2	76
47	M23	Z	0	0
48	M28	Z	-30.4	96
49	M28	Z	0	0
50	M24	Z	-9.3	66
51	M21	Z	-13.2	76
52	M21	Z	0	0
53	M60	Z	-30.4	96
54	M60	Z	0	0
55	M22	Z	-9.3	66
56	M19	Z	-13.2	76
57	M19	Z	0	0
58	M57	Z	-30.4	96
59	M57	Z	0	0
60	M20	Z	-9.3	66

Member Point Loads (BLC 11 : Wind Ice 60)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-9.7	0
2	M23	X	-8.2	48
3	M28	X	-20.8	0
4	M28	X	-6.9	48
5	M24	X	-5.9	30
6	M21	X	-9.7	0
7	M21	X	-8.2	48
8	M60	X	-20.8	0
9	M60	X	-6.9	48
10	M22	X	-5.9	30
11	M19	X	-9.7	0
12	M19	X	-8.2	48
13	M57	X	-20.8	0
14	M57	X	-6.9	48
15	M20	X	-5.9	30
16	M23	X	-9.7	76
17	M23	X	0	0
18	M28	X	-20.8	96
19	M28	X	0	0
20	M24	X	-5.9	66
21	M21	X	-9.7	76
22	M21	X	0	0
23	M60	X	-20.8	96
24	M60	X	0	0
25	M22	X	-5.9	66
26	M19	X	-9.7	76
27	M19	X	0	0
28	M57	X	-20.8	96
29	M57	X	0	0
30	M20	X	-5.9	66
31	M23	Z	-16.9	0
32	M23	Z	-14.2	48
33	M28	Z	-36	0
34	M28	Z	-11.9	48
35	M24	Z	-10.2	30
36	M21	Z	-16.9	0
37	M21	Z	-14.2	48
38	M60	Z	-36	0
39	M60	Z	-11.9	48
40	M22	Z	-10.2	30
41	M19	Z	-16.9	0
42	M19	Z	-14.2	48
43	M57	Z	-36	0
44	M57	Z	-11.9	48
45	M20	Z	-10.2	30
46	M23	Z	-16.9	76
47	M23	Z	0	0
48	M28	Z	-36	96
49	M28	Z	0	0
50	M24	Z	-10.2	66
51	M21	Z	-16.9	76
52	M21	Z	0	0
53	M60	Z	-36	96
54	M60	Z	0	0
55	M22	Z	-10.2	66

Member Point Loads (BLC 11 : Wind Ice 60) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
56	M19	Z	-16.9	76
57	M19	Z	0	0
58	M57	Z	-36	96
59	M57	Z	0	0
60	M20	Z	-10.2	66

Member Point Loads (BLC 12 : Wind Ice 90)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	0	0
2	M23	X	0	48
3	M28	X	0	0
4	M28	X	0	48
5	M24	X	0	30
6	M21	X	0	0
7	M21	X	0	48
8	M60	X	0	0
9	M60	X	0	48
10	M22	X	0	30
11	M19	X	0	0
12	M19	X	0	48
13	M57	X	0	0
14	M57	X	0	48
15	M20	X	0	30
16	M23	X	0	76
17	M23	X	0	0
18	M28	X	0	96
19	M28	X	0	0
20	M24	X	0	66
21	M21	X	0	76
22	M21	X	0	0
23	M60	X	0	96
24	M60	X	0	0
25	M22	X	0	66
26	M19	X	0	76
27	M19	X	0	0
28	M57	X	0	96
29	M57	X	0	0
30	M20	X	0	66
31	M23	Z	-16.1	0
32	M23	Z	-15.3	48
33	M28	Z	-31.9	0
34	M28	Z	-11.2	48
35	M24	Z	-8.4	30
36	M21	Z	-16.1	0
37	M21	Z	-15.3	48
38	M60	Z	-31.9	0
39	M60	Z	-11.2	48
40	M22	Z	-8.4	30
41	M19	Z	-16.1	0
42	M19	Z	-15.3	48
43	M57	Z	-31.9	0
44	M57	Z	-11.2	48
45	M20	Z	-8.4	30
46	M23	Z	-16.1	76
47	M23	Z	0	0

Member Point Loads (BLC 12 : Wind Ice 90) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
48	M28	Z	-31.9	96
49	M28	Z	0	0
50	M24	Z	-8.4	66
51	M21	Z	-16.1	76
52	M21	Z	0	0
53	M60	Z	-31.9	96
54	M60	Z	0	0
55	M22	Z	-8.4	66
56	M19	Z	-16.1	76
57	M19	Z	0	0
58	M57	Z	-31.9	96
59	M57	Z	0	0
60	M20	Z	-8.4	66

Member Point Loads (BLC 13 : Wind Ice 120)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	9.7	0
2	M23	X	8.2	48
3	M28	X	20.8	0
4	M28	X	6.9	48
5	M24	X	5.9	30
6	M21	X	9.7	0
7	M21	X	8.2	48
8	M60	X	20.8	0
9	M60	X	6.9	48
10	M22	X	5.9	30
11	M19	X	9.7	0
12	M19	X	8.2	48
13	M57	X	20.8	0
14	M57	X	6.9	48
15	M20	X	5.9	30
16	M23	X	9.7	76
17	M23	X	0	0
18	M28	X	20.8	96
19	M28	X	0	0
20	M24	X	5.9	66
21	M21	X	9.7	76
22	M21	X	0	0
23	M60	X	20.8	96
24	M60	X	0	0
25	M22	X	5.9	66
26	M19	X	9.7	76
27	M19	X	0	0
28	M57	X	20.8	96
29	M57	X	0	0
30	M20	X	5.9	66
31	M23	Z	-16.9	0
32	M23	Z	-14.2	48
33	M28	Z	-36	0
34	M28	Z	-11.9	48
35	M24	Z	-10.2	30
36	M21	Z	-16.9	0
37	M21	Z	-14.2	48
38	M60	Z	-36	0
39	M60	Z	-11.9	48

Member Point Loads (BLC 13 : Wind Ice 120) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
40	M22	Z	-10.2	30
41	M19	Z	-16.9	0
42	M19	Z	-14.2	48
43	M57	Z	-36	0
44	M57	Z	-11.9	48
45	M20	Z	-10.2	30
46	M23	Z	-16.9	76
47	M23	Z	0	0
48	M28	Z	-36	96
49	M28	Z	0	0
50	M24	Z	-10.2	66
51	M21	Z	-16.9	76
52	M21	Z	0	0
53	M60	Z	-36	96
54	M60	Z	0	0
55	M22	Z	-10.2	66
56	M19	Z	-16.9	76
57	M19	Z	0	0
58	M57	Z	-36	96
59	M57	Z	0	0
60	M20	Z	-10.2	66

Member Point Loads (BLC 14 : Wind Ice 150)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	22.8	0
2	M23	X	16	48
3	M28	X	52.6	0
4	M28	X	16.4	48
5	M24	X	16	30
6	M21	X	22.8	0
7	M21	X	16	48
8	M60	X	52.6	0
9	M60	X	16.4	48
10	M22	X	16	30
11	M19	X	22.8	0
12	M19	X	16	48
13	M57	X	52.6	0
14	M57	X	16.4	48
15	M20	X	16	30
16	M23	X	22.8	76
17	M23	X	0	0
18	M28	X	52.6	96
19	M28	X	0	0
20	M24	X	16	66
21	M21	X	22.8	76
22	M21	X	0	0
23	M60	X	52.6	96
24	M60	X	0	0
25	M22	X	16	66
26	M19	X	22.8	76
27	M19	X	0	0
28	M57	X	52.6	96
29	M57	X	0	0
30	M20	X	16	66
31	M23	Z	-13.2	0

Member Point Loads (BLC 14 : Wind Ice 150) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
32	M23	Z	-9.2	48
33	M28	Z	-30.4	0
34	M28	Z	-9.5	48
35	M24	Z	-9.3	30
36	M21	Z	-13.2	0
37	M21	Z	-9.2	48
38	M60	Z	-30.4	0
39	M60	Z	-9.5	48
40	M22	Z	-9.3	30
41	M19	Z	-13.2	0
42	M19	Z	-9.2	48
43	M57	Z	-30.4	0
44	M57	Z	-9.5	48
45	M20	Z	-9.3	30
46	M23	Z	-13.2	76
47	M23	Z	0	0
48	M28	Z	-30.4	96
49	M28	Z	0	0
50	M24	Z	-9.3	66
51	M21	Z	-13.2	76
52	M21	Z	0	0
53	M60	Z	-30.4	96
54	M60	Z	0	0
55	M22	Z	-9.3	66
56	M19	Z	-13.2	76
57	M19	Z	0	0
58	M57	Z	-30.4	96
59	M57	Z	0	0
60	M20	Z	-9.3	66

Member Point Loads (BLC 15 : Live Load Point (1))

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M29	Y	-250	75

Member Point Loads (BLC 16 : Live Load Point (2))

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M30	Y	-250	75

Member Point Loads (BLC 17 : Live Load Point (3))

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M31	Y	-250	75

Member Point Loads (BLC 51 : Horizontal Seismic Load Effect,)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	X	-24.2	0
2	M23	X	-109.1	48
3	M28	X	-75	0
4	M28	X	-84	48
5	M24	X	-34.3	30
6	M21	X	-24.2	0

Member Point Loads (BLC 51 : Horizontal Seismic Load Effect,) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
7	M21	X	-109.1	48
8	M60	X	-75	0
9	M60	X	-84	48
10	M22	X	-34.3	30
11	M19	X	-24.2	0
12	M19	X	-109.1	48
13	M57	X	-75	0
14	M57	X	-84	48
15	M20	X	-34.3	30
16	M23	X	-24.2	76
17	M23	X	0	0
18	M28	X	-75	96
19	M28	X	0	0
20	M24	X	-34.3	66
21	M21	X	-24.2	76
22	M21	X	0	0
23	M60	X	-75	96
24	M60	X	0	0
25	M22	X	-34.3	66
26	M19	X	-24.2	76
27	M19	X	0	0
28	M57	X	-75	96
29	M57	X	0	0
30	M20	X	-34.3	66

Member Point Loads (BLC 52 : Horizontal Seismic Load Effect,)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M23	Z	-24.2	0
2	M23	Z	-109.1	48
3	M28	Z	-75	0
4	M28	Z	-84	48
5	M24	Z	-34.3	30
6	M21	Z	-24.2	0
7	M21	Z	-109.1	48
8	M60	Z	-75	0
9	M60	Z	-84	48
10	M22	Z	-34.3	30
11	M19	Z	-24.2	0
12	M19	Z	-109.1	48
13	M57	Z	-75	0
14	M57	Z	-84	48
15	M20	Z	-34.3	30
16	M23	Z	-24.2	76
17	M23	Z	0	0
18	M28	Z	-75	96
19	M28	Z	0	0
20	M24	Z	-34.3	66
21	M21	Z	-24.2	76
22	M21	Z	0	0
23	M60	Z	-75	96
24	M60	Z	0	0
25	M22	Z	-34.3	66
26	M19	Z	-24.2	76
27	M19	Z	0	0
28	M57	Z	-75	96

Member Point Loads (BLC 52 : Horizontal Seismic Load Effect,) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
29	M57	Z	0	0
30	M20	Z	-34.3	66

Member Distributed Loads (BLC 2 : Ice)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	Y	-9	-9	0	%100
2	M2	Y	-9	-9	0	%100
3	M3	Y	-9	-9	0	%100
4	M4	Y	-9	-9	0	%100
5	M5	Y	-9	-9	0	%100
6	M6	Y	-9	-9	0	%100
7	M7	Y	-9	-9	0	%100
8	M8	Y	-9	-9	0	%100
9	M9	Y	-9	-9	0	%100
10	M10	Y	-6.2	-6.2	0	%100
11	M11	Y	-6.2	-6.2	0	%100
12	M12	Y	-6.2	-6.2	0	%100
13	M13	Y	-5.2	-5.2	0	%100
14	M14	Y	-5.2	-5.2	0	%100
15	M15	Y	-5.2	-5.2	0	%100
16	M16	Y	-5.2	-5.2	0	%100
17	M17	Y	-5.2	-5.2	0	%100
18	M18	Y	-5.2	-5.2	0	%100
19	M19	Y	-5.3	-5.3	0	%100
20	M20	Y	-5.3	-5.3	0	%100
21	M21	Y	-5.3	-5.3	0	%100
22	M22	Y	-5.3	-5.3	0	%100
23	M23	Y	-5.3	-5.3	0	%100
24	M24	Y	-5.3	-5.3	0	%100
25	M25	Y	-4.6	-4.6	0	%100
26	M26	Y	-4.6	-4.6	0	%100
27	M27	Y	-4.6	-4.6	0	%100
28	M28	Y	-5.3	-5.3	0	%100
29	M29	Y	-6.1	-6.1	0	%100
30	M30	Y	-6.1	-6.1	0	%100
31	M31	Y	-6.1	-6.1	0	%100
32	M32	Y	-9.4	-9.4	0	%100
33	M33	Y	-9.4	-9.4	0	%100
34	M34	Y	-9.4	-9.4	0	%100
35	M57	Y	-5.3	-5.3	0	%100
36	M60	Y	-5.3	-5.3	0	%100

Member Distributed Loads (BLC 3 : Wind 0)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	-20	-20	0	%100
2	M2	X	-18.1	-18.1	0	%100
3	M3	X	-9.1	-9.1	0	%100
4	M4	X	-20	-20	0	%100
5	M5	X	0	0	0	%100
6	M6	X	-9.1	-9.1	0	%100
7	M7	X	-9.1	-9.1	0	%100
8	M8	X	-18.2	-18.2	0	%100
9	M9	X	-18.2	-18.2	0	%100

Member Distributed Loads (BLC 3 : Wind 0) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
10	M10	X	-6.3	-6.3	0	%100
11	M11	X	-6.3	-6.3	0	%100
12	M12	X	-12.6	-12.6	0	%100
13	M13	X	-7.5	-7.5	0	%100
14	M14	X	-14.8	-14.8	0	%100
15	M15	X	-14.8	-14.8	0	%100
16	M16	X	-7.5	-7.5	0	%100
17	M17	X	-7.3	-7.3	0	%100
18	M18	X	-7.3	-7.3	0	%100
19	M19	X	-12.8	-12.8	0	%100
20	M20	X	-12.8	-12.8	0	%100
21	M21	X	-12.8	-12.8	0	%100
22	M22	X	-12.8	-12.8	0	%100
23	M23	X	-12.8	-12.8	0	%100
24	M24	X	-12.8	-12.8	0	%100
25	M25	X	-5.3	-5.3	0	%100
26	M26	X	-5.3	-5.3	0	%100
27	M27	X	-10.6	-10.6	0	%100
28	M28	X	-12.8	-12.8	0	%100
29	M29	X	-7.3	-7.3	0	%100
30	M30	X	-7.3	-7.3	0	%100
31	M31	X	-14.6	-14.6	0	%100
32	M32	X	-13.4	-13.4	0	%100
33	M33	X	-26.8	-26.8	0	%100
34	M34	X	-13.4	-13.4	0	%100
35	M57	X	-12.8	-12.8	0	%100
36	M60	X	-12.8	-12.8	0	%100
37	M1	Z	0	0	0	%100
38	M2	Z	0	0	0	%100
39	M3	Z	0	0	0	%100
40	M4	Z	0	0	0	%100
41	M5	Z	0	0	0	%100
42	M6	Z	0	0	0	%100
43	M7	Z	0	0	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	0	0	0	%100
47	M11	Z	0	0	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	0	0	0	%100
50	M14	Z	0	0	0	%100
51	M15	Z	0	0	0	%100
52	M16	Z	0	0	0	%100
53	M17	Z	0	0	0	%100
54	M18	Z	0	0	0	%100
55	M19	Z	0	0	0	%100
56	M20	Z	0	0	0	%100
57	M21	Z	0	0	0	%100
58	M22	Z	0	0	0	%100
59	M23	Z	0	0	0	%100
60	M24	Z	0	0	0	%100
61	M25	Z	0	0	0	%100
62	M26	Z	0	0	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	0	0	0	%100

Member Distributed Loads (BLC 3 : Wind 0) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
65	M29	Z	0	0	0	%100
66	M30	Z	0	0	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	0	0	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	0	0	0	%100
71	M57	Z	0	0	0	%100
72	M60	Z	0	0	0	%100

Member Distributed Loads (BLC 4 : Wind 30)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	-10	-10	0	%100
2	M2	X	-14.5	-14.5	0	%100
3	M3	X	-13.7	-13.7	0	%100
4	M4	X	-20	-20	0	%100
5	M5	X	0	0	0	%100
6	M6	X	0	0	0	%100
7	M7	X	0	0	0	%100
8	M8	X	-15.8	-15.8	0	%100
9	M9	X	-15.8	-15.8	0	%100
10	M10	X	-9.4	-9.4	0	%100
11	M11	X	0	0	0	%100
12	M12	X	-10.9	-10.9	0	%100
13	M13	X	-0.1	-0.1	0	%100
14	M14	X	-11.1	-11.1	0	%100
15	M15	X	-11.2	-11.2	0	%100
16	M16	X	-11.2	-11.2	0	%100
17	M17	X	-11.1	-11.1	0	%100
18	M18	X	-0.1	-0.1	0	%100
19	M19	X	-11.1	-11.1	0	%100
20	M20	X	-11.1	-11.1	0	%100
21	M21	X	-11.1	-11.1	0	%100
22	M22	X	-11.1	-11.1	0	%100
23	M23	X	-11.1	-11.1	0	%100
24	M24	X	-11.1	-11.1	0	%100
25	M25	X	-7.9	-7.9	0	%100
26	M26	X	0	0	0	%100
27	M27	X	-9.2	-9.2	0	%100
28	M28	X	-11.1	-11.1	0	%100
29	M29	X	-10.9	-10.9	0	%100
30	M30	X	0	0	0	%100
31	M31	X	-12.6	-12.6	0	%100
32	M32	X	0	0	0	%100
33	M33	X	-23.2	-23.2	0	%100
34	M34	X	-20.1	-20.1	0	%100
35	M57	X	-11.1	-11.1	0	%100
36	M60	X	-11.1	-11.1	0	%100
37	M1	Z	-5.8	-5.8	0	%100
38	M2	Z	-8.4	-8.4	0	%100
39	M3	Z	-7.9	-7.9	0	%100
40	M4	Z	-11.6	-11.6	0	%100
41	M5	Z	-11.6	-11.6	0	%100
42	M6	Z	0	0	0	%100
43	M7	Z	0	0	0	%100
44	M8	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
45	M9	Z	0	0	0	%100
46	M10	Z	-5.4	-5.4	0	%100
47	M11	Z	0	0	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-0.1	-0.1	0	%100
50	M14	Z	-6.4	-6.4	0	%100
51	M15	Z	-6.4	-6.4	0	%100
52	M16	Z	-6.4	-6.4	0	%100
53	M17	Z	-6.4	-6.4	0	%100
54	M18	Z	-0.1	-0.1	0	%100
55	M19	Z	-6.4	-6.4	0	%100
56	M20	Z	-6.4	-6.4	0	%100
57	M21	Z	-6.4	-6.4	0	%100
58	M22	Z	-6.4	-6.4	0	%100
59	M23	Z	-6.4	-6.4	0	%100
60	M24	Z	-6.4	-6.4	0	%100
61	M25	Z	-4.6	-4.6	0	%100
62	M26	Z	0	0	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-6.4	-6.4	0	%100
65	M29	Z	-6.3	-6.3	0	%100
66	M30	Z	0	0	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	0	0	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-11.6	-11.6	0	%100
71	M57	Z	-6.4	-6.4	0	%100
72	M60	Z	-6.4	-6.4	0	%100

Member Distributed Loads (BLC 5 : Wind 60)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	0	0	0	%100
2	M2	X	-5.4	-5.4	0	%100
3	M3	X	-9.1	-9.1	0	%100
4	M4	X	-10	-10	0	%100
5	M5	X	0	0	0	%100
6	M6	X	-4.6	-4.6	0	%100
7	M7	X	-4.6	-4.6	0	%100
8	M8	X	-9.1	-9.1	0	%100
9	M9	X	-9.1	-9.1	0	%100
10	M10	X	-6.3	-6.3	0	%100
11	M11	X	-3.1	-3.1	0	%100
12	M12	X	-6.3	-6.3	0	%100
13	M13	X	-3.7	-3.7	0	%100
14	M14	X	-3.7	-3.7	0	%100
15	M15	X	-3.7	-3.7	0	%100
16	M16	X	-7.4	-7.4	0	%100
17	M17	X	-7.4	-7.4	0	%100
18	M18	X	-3.7	-3.7	0	%100
19	M19	X	-6.4	-6.4	0	%100
20	M20	X	-6.4	-6.4	0	%100
21	M21	X	-6.4	-6.4	0	%100
22	M22	X	-6.4	-6.4	0	%100
23	M23	X	-6.4	-6.4	0	%100
24	M24	X	-6.4	-6.4	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
25	M25	X	-5.3	-5.3	0	%100
26	M26	X	-2.6	-2.6	0	%100
27	M27	X	-5.3	-5.3	0	%100
28	M28	X	-6.4	-6.4	0	%100
29	M29	X	-7.3	-7.3	0	%100
30	M30	X	-3.6	-3.6	0	%100
31	M31	X	-7.3	-7.3	0	%100
32	M32	X	-6.7	-6.7	0	%100
33	M33	X	-13.4	-13.4	0	%100
34	M34	X	-13.4	-13.4	0	%100
35	M57	X	-6.4	-6.4	0	%100
36	M60	X	-6.4	-6.4	0	%100
37	M1	Z	0	0	0	%100
38	M2	Z	-9.4	-9.4	0	%100
39	M3	Z	-15.8	-15.8	0	%100
40	M4	Z	-17.4	-17.4	0	%100
41	M5	Z	-20	-20	0	%100
42	M6	Z	-7.9	-7.9	0	%100
43	M7	Z	-7.9	-7.9	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-10.9	-10.9	0	%100
47	M11	Z	-5.4	-5.4	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-6.3	-6.3	0	%100
50	M14	Z	-6.3	-6.3	0	%100
51	M15	Z	-6.5	-6.5	0	%100
52	M16	Z	-12.8	-12.8	0	%100
53	M17	Z	-12.8	-12.8	0	%100
54	M18	Z	-6.5	-6.5	0	%100
55	M19	Z	-11.1	-11.1	0	%100
56	M20	Z	-11.1	-11.1	0	%100
57	M21	Z	-11.1	-11.1	0	%100
58	M22	Z	-11.1	-11.1	0	%100
59	M23	Z	-11.1	-11.1	0	%100
60	M24	Z	-11.1	-11.1	0	%100
61	M25	Z	-9.2	-9.2	0	%100
62	M26	Z	-4.6	-4.6	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-11.1	-11.1	0	%100
65	M29	Z	-12.6	-12.6	0	%100
66	M30	Z	-6.3	-6.3	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-11.6	-11.6	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-23.2	-23.2	0	%100
71	M57	Z	-11.1	-11.1	0	%100
72	M60	Z	-11.1	-11.1	0	%100

Member Distributed Loads (BLC 6 : Wind 90)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	0	0	0	%100
2	M2	X	0	0	0	%100
3	M3	X	0	0	0	%100
4	M4	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
5	M5	X	0	0	0	%100
6	M6	X	0	0	0	%100
7	M7	X	0	0	0	%100
8	M8	X	0	0	0	%100
9	M9	X	0	0	0	%100
10	M10	X	0	0	0	%100
11	M11	X	0	0	0	%100
12	M12	X	0	0	0	%100
13	M13	X	0	0	0	%100
14	M14	X	0	0	0	%100
15	M15	X	0	0	0	%100
16	M16	X	0	0	0	%100
17	M17	X	0	0	0	%100
18	M18	X	0	0	0	%100
19	M19	X	0	0	0	%100
20	M20	X	0	0	0	%100
21	M21	X	0	0	0	%100
22	M22	X	0	0	0	%100
23	M23	X	0	0	0	%100
24	M24	X	0	0	0	%100
25	M25	X	0	0	0	%100
26	M26	X	0	0	0	%100
27	M27	X	0	0	0	%100
28	M28	X	0	0	0	%100
29	M29	X	0	0	0	%100
30	M30	X	0	0	0	%100
31	M31	X	0	0	0	%100
32	M32	X	0	0	0	%100
33	M33	X	0	0	0	%100
34	M34	X	0	0	0	%100
35	M57	X	0	0	0	%100
36	M60	X	0	0	0	%100
37	M1	Z	-11.6	-11.6	0	%100
38	M2	Z	-2.1	-2.1	0	%100
39	M3	Z	-15.8	-15.8	0	%100
40	M4	Z	-11.6	-11.6	0	%100
41	M5	Z	-23.1	-23.1	0	%100
42	M6	Z	-15.8	-15.8	0	%100
43	M7	Z	-15.8	-15.8	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-10.9	-10.9	0	%100
47	M11	Z	-10.9	-10.9	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-12.8	-12.8	0	%100
50	M14	Z	-0.1	-0.1	0	%100
51	M15	Z	-0.1	-0.1	0	%100
52	M16	Z	-12.8	-12.8	0	%100
53	M17	Z	-12.9	-12.9	0	%100
54	M18	Z	-12.9	-12.9	0	%100
55	M19	Z	-12.8	-12.8	0	%100
56	M20	Z	-12.8	-12.8	0	%100
57	M21	Z	-12.8	-12.8	0	%100
58	M22	Z	-12.8	-12.8	0	%100
59	M23	Z	-12.8	-12.8	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
60	M24	Z	-12.8	-12.8	0	%100
61	M25	Z	-9.2	-9.2	0	%100
62	M26	Z	-9.2	-9.2	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-12.8	-12.8	0	%100
65	M29	Z	-12.6	-12.6	0	%100
66	M30	Z	-12.6	-12.6	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-23.2	-23.2	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-23.2	-23.2	0	%100
71	M57	Z	-12.8	-12.8	0	%100
72	M60	Z	-12.8	-12.8	0	%100

Member Distributed Loads (BLC 7 : Wind 120)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	10	10	0	%100
2	M2	X	3.6	3.6	0	%100
3	M3	X	4.6	4.6	0	%100
4	M4	X	0	0	0	%100
5	M5	X	0	0	0	%100
6	M6	X	9.1	9.1	0	%100
7	M7	X	9.1	9.1	0	%100
8	M8	X	9.1	9.1	0	%100
9	M9	X	9.1	9.1	0	%100
10	M10	X	3.1	3.1	0	%100
11	M11	X	6.3	6.3	0	%100
12	M12	X	6.3	6.3	0	%100
13	M13	X	7.4	7.4	0	%100
14	M14	X	3.7	3.7	0	%100
15	M15	X	3.7	3.7	0	%100
16	M16	X	3.7	3.7	0	%100
17	M17	X	3.7	3.7	0	%100
18	M18	X	7.4	7.4	0	%100
19	M19	X	6.4	6.4	0	%100
20	M20	X	6.4	6.4	0	%100
21	M21	X	6.4	6.4	0	%100
22	M22	X	6.4	6.4	0	%100
23	M23	X	6.4	6.4	0	%100
24	M24	X	6.4	6.4	0	%100
25	M25	X	2.6	2.6	0	%100
26	M26	X	5.3	5.3	0	%100
27	M27	X	5.3	5.3	0	%100
28	M28	X	6.4	6.4	0	%100
29	M29	X	3.6	3.6	0	%100
30	M30	X	7.3	7.3	0	%100
31	M31	X	7.3	7.3	0	%100
32	M32	X	13.4	13.4	0	%100
33	M33	X	13.4	13.4	0	%100
34	M34	X	6.7	6.7	0	%100
35	M57	X	6.4	6.4	0	%100
36	M60	X	6.4	6.4	0	%100
37	M1	Z	-17.4	-17.4	0	%100
38	M2	Z	-6.3	-6.3	0	%100
39	M3	Z	-7.9	-7.9	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
40	M4	Z	0	0	0	%100
41	M5	Z	-20	-20	0	%100
42	M6	Z	-15.8	-15.8	0	%100
43	M7	Z	-15.8	-15.8	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-5.4	-5.4	0	%100
47	M11	Z	-10.9	-10.9	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-12.8	-12.8	0	%100
50	M14	Z	-6.5	-6.5	0	%100
51	M15	Z	-6.3	-6.3	0	%100
52	M16	Z	-6.3	-6.3	0	%100
53	M17	Z	-6.5	-6.5	0	%100
54	M18	Z	-12.8	-12.8	0	%100
55	M19	Z	-11.1	-11.1	0	%100
56	M20	Z	-11.1	-11.1	0	%100
57	M21	Z	-11.1	-11.1	0	%100
58	M22	Z	-11.1	-11.1	0	%100
59	M23	Z	-11.1	-11.1	0	%100
60	M24	Z	-11.1	-11.1	0	%100
61	M25	Z	-4.6	-4.6	0	%100
62	M26	Z	-9.2	-9.2	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-11.1	-11.1	0	%100
65	M29	Z	-6.3	-6.3	0	%100
66	M30	Z	-12.6	-12.6	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-23.2	-23.2	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-11.6	-11.6	0	%100
71	M57	Z	-11.1	-11.1	0	%100
72	M60	Z	-11.1	-11.1	0	%100

Member Distributed Loads (BLC 8 : Wind 150)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	20	20	0	%100
2	M2	X	12.7	12.7	0	%100
3	M3	X	0	0	0	%100
4	M4	X	10	10	0	%100
5	M5	X	0	0	0	%100
6	M6	X	13.7	13.7	0	%100
7	M7	X	13.7	13.7	0	%100
8	M8	X	15.8	15.8	0	%100
9	M9	X	15.8	15.8	0	%100
10	M10	X	0	0	0	%100
11	M11	X	9.4	9.4	0	%100
12	M12	X	10.9	10.9	0	%100
13	M13	X	11.2	11.2	0	%100
14	M14	X	11.2	11.2	0	%100
15	M15	X	11.1	11.1	0	%100
16	M16	X	0.1	0.1	0	%100
17	M17	X	0.1	0.1	0	%100
18	M18	X	11.1	11.1	0	%100
19	M19	X	11.1	11.1	0	%100

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

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
20	M20	X	11.1	11.1	0	%100
21	M21	X	11.1	11.1	0	%100
22	M22	X	11.1	11.1	0	%100
23	M23	X	11.1	11.1	0	%100
24	M24	X	11.1	11.1	0	%100
25	M25	X	0	0	0	%100
26	M26	X	7.9	7.9	0	%100
27	M27	X	9.2	9.2	0	%100
28	M28	X	11.1	11.1	0	%100
29	M29	X	0	0	0	%100
30	M30	X	10.9	10.9	0	%100
31	M31	X	12.6	12.6	0	%100
32	M32	X	20.1	20.1	0	%100
33	M33	X	23.2	23.2	0	%100
34	M34	X	0	0	0	%100
35	M57	X	11.1	11.1	0	%100
36	M60	X	11.1	11.1	0	%100
37	M1	Z	-11.6	-11.6	0	%100
38	M2	Z	-7.3	-7.3	0	%100
39	M3	Z	0	0	0	%100
40	M4	Z	-5.8	-5.8	0	%100
41	M5	Z	-11.6	-11.6	0	%100
42	M6	Z	-7.9	-7.9	0	%100
43	M7	Z	-7.9	-7.9	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	0	0	0	%100
47	M11	Z	-5.4	-5.4	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-6.4	-6.4	0	%100
50	M14	Z	-6.4	-6.4	0	%100
51	M15	Z	-6.4	-6.4	0	%100
52	M16	Z	-0.1	-0.1	0	%100
53	M17	Z	-0.1	-0.1	0	%100
54	M18	Z	-6.4	-6.4	0	%100
55	M19	Z	-6.4	-6.4	0	%100
56	M20	Z	-6.4	-6.4	0	%100
57	M21	Z	-6.4	-6.4	0	%100
58	M22	Z	-6.4	-6.4	0	%100
59	M23	Z	-6.4	-6.4	0	%100
60	M24	Z	-6.4	-6.4	0	%100
61	M25	Z	0	0	0	%100
62	M26	Z	-4.6	-4.6	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-6.4	-6.4	0	%100
65	M29	Z	0	0	0	%100
66	M30	Z	-6.3	-6.3	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-11.6	-11.6	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	0	0	0	%100
71	M57	Z	-6.4	-6.4	0	%100
72	M60	Z	-6.4	-6.4	0	%100

Member Distributed Loads (BLC 9 : Wind Ice 0)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	-3.9	-3.9	0	%100
2	M2	X	-3.6	-3.6	0	%100
3	M3	X	-1.8	-1.8	0	%100
4	M4	X	-3.9	-3.9	0	%100
5	M5	X	0	0	0	%100
6	M6	X	-1.8	-1.8	0	%100
7	M7	X	-1.8	-1.8	0	%100
8	M8	X	-3.6	-3.6	0	%100
9	M9	X	-3.6	-3.6	0	%100
10	M10	X	-1.4	-1.4	0	%100
11	M11	X	-1.4	-1.4	0	%100
12	M12	X	-2.7	-2.7	0	%100
13	M13	X	-1.7	-1.7	0	%100
14	M14	X	-3.3	-3.3	0	%100
15	M15	X	-3.3	-3.3	0	%100
16	M16	X	-1.7	-1.7	0	%100
17	M17	X	-1.6	-1.6	0	%100
18	M18	X	-1.6	-1.6	0	%100
19	M19	X	-3.2	-3.2	0	%100
20	M20	X	-3.2	-3.2	0	%100
21	M21	X	-3.2	-3.2	0	%100
22	M22	X	-3.2	-3.2	0	%100
23	M23	X	-3.2	-3.2	0	%100
24	M24	X	-3.2	-3.2	0	%100
25	M25	X	-1.5	-1.5	0	%100
26	M26	X	-1.5	-1.5	0	%100
27	M27	X	-3	-3	0	%100
28	M28	X	-3.2	-3.2	0	%100
29	M29	X	-1.8	-1.8	0	%100
30	M30	X	-1.8	-1.8	0	%100
31	M31	X	-3.6	-3.6	0	%100
32	M32	X	-2.4	-2.4	0	%100
33	M33	X	-4.8	-4.8	0	%100
34	M34	X	-2.4	-2.4	0	%100
35	M57	X	-3.2	-3.2	0	%100
36	M60	X	-3.2	-3.2	0	%100
37	M1	Z	0	0	0	%100
38	M2	Z	0	0	0	%100
39	M3	Z	0	0	0	%100
40	M4	Z	0	0	0	%100
41	M5	Z	0	0	0	%100
42	M6	Z	0	0	0	%100
43	M7	Z	0	0	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	0	0	0	%100
47	M11	Z	0	0	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	0	0	0	%100
50	M14	Z	0	0	0	%100
51	M15	Z	0	0	0	%100
52	M16	Z	0	0	0	%100
53	M17	Z	0	0	0	%100
54	M18	Z	0	0	0	%100
55	M19	Z	0	0	0	%100

Member Distributed Loads (BLC 9 : Wind Ice 0) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
56	M20	Z	0	0	0	%100
57	M21	Z	0	0	0	%100
58	M22	Z	0	0	0	%100
59	M23	Z	0	0	0	%100
60	M24	Z	0	0	0	%100
61	M25	Z	0	0	0	%100
62	M26	Z	0	0	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	0	0	0	%100
65	M29	Z	0	0	0	%100
66	M30	Z	0	0	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	0	0	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	0	0	0	%100
71	M57	Z	0	0	0	%100
72	M60	Z	0	0	0	%100

Member Distributed Loads (BLC 10 : Wind Ice 30)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	-2	-2	0	%100
2	M2	X	-2.9	-2.9	0	%100
3	M3	X	-2.7	-2.7	0	%100
4	M4	X	-3.9	-3.9	0	%100
5	M5	X	0	0	0	%100
6	M6	X	0	0	0	%100
7	M7	X	0	0	0	%100
8	M8	X	-3.1	-3.1	0	%100
9	M9	X	-3.1	-3.1	0	%100
10	M10	X	-2	-2	0	%100
11	M11	X	0	0	0	%100
12	M12	X	-2.3	-2.3	0	%100
13	M13	X	0	0	0	%100
14	M14	X	-2.5	-2.5	0	%100
15	M15	X	-2.5	-2.5	0	%100
16	M16	X	-2.5	-2.5	0	%100
17	M17	X	-2.5	-2.5	0	%100
18	M18	X	0	0	0	%100
19	M19	X	-2.7	-2.7	0	%100
20	M20	X	-2.7	-2.7	0	%100
21	M21	X	-2.7	-2.7	0	%100
22	M22	X	-2.7	-2.7	0	%100
23	M23	X	-2.7	-2.7	0	%100
24	M24	X	-2.7	-2.7	0	%100
25	M25	X	-2.3	-2.3	0	%100
26	M26	X	0	0	0	%100
27	M27	X	-2.6	-2.6	0	%100
28	M28	X	-2.7	-2.7	0	%100
29	M29	X	-2.7	-2.7	0	%100
30	M30	X	0	0	0	%100
31	M31	X	-3.1	-3.1	0	%100
32	M32	X	0	0	0	%100
33	M33	X	-4.2	-4.2	0	%100
34	M34	X	-3.6	-3.6	0	%100
35	M57	X	-2.7	-2.7	0	%100

Member Distributed Loads (BLC 10 : Wind Ice 30) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
36	M60	X	-2.7	-2.7	0	%100
37	M1	Z	-1.1	-1.1	0	%100
38	M2	Z	-1.7	-1.7	0	%100
39	M3	Z	-1.6	-1.6	0	%100
40	M4	Z	-2.3	-2.3	0	%100
41	M5	Z	-2.3	-2.3	0	%100
42	M6	Z	0	0	0	%100
43	M7	Z	0	0	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-1.2	-1.2	0	%100
47	M11	Z	0	0	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	0	0	0	%100
50	M14	Z	-1.4	-1.4	0	%100
51	M15	Z	-1.4	-1.4	0	%100
52	M16	Z	-1.4	-1.4	0	%100
53	M17	Z	-1.4	-1.4	0	%100
54	M18	Z	0	0	0	%100
55	M19	Z	-1.6	-1.6	0	%100
56	M20	Z	-1.6	-1.6	0	%100
57	M21	Z	-1.6	-1.6	0	%100
58	M22	Z	-1.6	-1.6	0	%100
59	M23	Z	-1.6	-1.6	0	%100
60	M24	Z	-1.6	-1.6	0	%100
61	M25	Z	-1.3	-1.3	0	%100
62	M26	Z	0	0	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-1.6	-1.6	0	%100
65	M29	Z	-1.6	-1.6	0	%100
66	M30	Z	0	0	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	0	0	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-2.1	-2.1	0	%100
71	M57	Z	-1.6	-1.6	0	%100
72	M60	Z	-1.6	-1.6	0	%100

Member Distributed Loads (BLC 11 : Wind Ice 60)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	0	0	0	%100
2	M2	X	-1.1	-1.1	0	%100
3	M3	X	-1.8	-1.8	0	%100
4	M4	X	-2	-2	0	%100
5	M5	X	0	0	0	%100
6	M6	X	-0.9	-0.9	0	%100
7	M7	X	-0.9	-0.9	0	%100
8	M8	X	-1.8	-1.8	0	%100
9	M9	X	-1.8	-1.8	0	%100
10	M10	X	-1.4	-1.4	0	%100
11	M11	X	-0.7	-0.7	0	%100
12	M12	X	-1.4	-1.4	0	%100
13	M13	X	-0.8	-0.8	0	%100
14	M14	X	-0.8	-0.8	0	%100
15	M15	X	-0.8	-0.8	0	%100

Member Distributed Loads (BLC 11 : Wind Ice 60) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
16	M16	X	-1.6	-1.6	0	%100
17	M17	X	-1.6	-1.6	0	%100
18	M18	X	-0.8	-0.8	0	%100
19	M19	X	-1.6	-1.6	0	%100
20	M20	X	-1.6	-1.6	0	%100
21	M21	X	-1.6	-1.6	0	%100
22	M22	X	-1.6	-1.6	0	%100
23	M23	X	-1.6	-1.6	0	%100
24	M24	X	-1.6	-1.6	0	%100
25	M25	X	-1.5	-1.5	0	%100
26	M26	X	-0.8	-0.8	0	%100
27	M27	X	-1.5	-1.5	0	%100
28	M28	X	-1.6	-1.6	0	%100
29	M29	X	-1.8	-1.8	0	%100
30	M30	X	-0.9	-0.9	0	%100
31	M31	X	-1.8	-1.8	0	%100
32	M32	X	-1.2	-1.2	0	%100
33	M33	X	-2.4	-2.4	0	%100
34	M34	X	-2.4	-2.4	0	%100
35	M57	X	-1.6	-1.6	0	%100
36	M60	X	-1.6	-1.6	0	%100
37	M1	Z	0	0	0	%100
38	M2	Z	-1.9	-1.9	0	%100
39	M3	Z	-3.1	-3.1	0	%100
40	M4	Z	-3.4	-3.4	0	%100
41	M5	Z	-3.9	-3.9	0	%100
42	M6	Z	-1.6	-1.6	0	%100
43	M7	Z	-1.6	-1.6	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-2.3	-2.3	0	%100
47	M11	Z	-1.2	-1.2	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-1.4	-1.4	0	%100
50	M14	Z	-1.4	-1.4	0	%100
51	M15	Z	-1.4	-1.4	0	%100
52	M16	Z	-2.8	-2.8	0	%100
53	M17	Z	-2.8	-2.8	0	%100
54	M18	Z	-1.4	-1.4	0	%100
55	M19	Z	-2.7	-2.7	0	%100
56	M20	Z	-2.7	-2.7	0	%100
57	M21	Z	-2.7	-2.7	0	%100
58	M22	Z	-2.7	-2.7	0	%100
59	M23	Z	-2.7	-2.7	0	%100
60	M24	Z	-2.7	-2.7	0	%100
61	M25	Z	-2.6	-2.6	0	%100
62	M26	Z	-1.3	-1.3	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-2.7	-2.7	0	%100
65	M29	Z	-3.1	-3.1	0	%100
66	M30	Z	-1.6	-1.6	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-2.1	-2.1	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-4.2	-4.2	0	%100

Member Distributed Loads (BLC 11 : Wind Ice 60) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
71	M57	Z	-2.7	-2.7	0	%100
72	M60	Z	-2.7	-2.7	0	%100

Member Distributed Loads (BLC 12 : Wind Ice 90)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	0	0	0	%100
2	M2	X	0	0	0	%100
3	M3	X	0	0	0	%100
4	M4	X	0	0	0	%100
5	M5	X	0	0	0	%100
6	M6	X	0	0	0	%100
7	M7	X	0	0	0	%100
8	M8	X	0	0	0	%100
9	M9	X	0	0	0	%100
10	M10	X	0	0	0	%100
11	M11	X	0	0	0	%100
12	M12	X	0	0	0	%100
13	M13	X	0	0	0	%100
14	M14	X	0	0	0	%100
15	M15	X	0	0	0	%100
16	M16	X	0	0	0	%100
17	M17	X	0	0	0	%100
18	M18	X	0	0	0	%100
19	M19	X	0	0	0	%100
20	M20	X	0	0	0	%100
21	M21	X	0	0	0	%100
22	M22	X	0	0	0	%100
23	M23	X	0	0	0	%100
24	M24	X	0	0	0	%100
25	M25	X	0	0	0	%100
26	M26	X	0	0	0	%100
27	M27	X	0	0	0	%100
28	M28	X	0	0	0	%100
29	M29	X	0	0	0	%100
30	M30	X	0	0	0	%100
31	M31	X	0	0	0	%100
32	M32	X	0	0	0	%100
33	M33	X	0	0	0	%100
34	M34	X	0	0	0	%100
35	M57	X	0	0	0	%100
36	M60	X	0	0	0	%100
37	M1	Z	-2.3	-2.3	0	%100
38	M2	Z	-0.4	-0.4	0	%100
39	M3	Z	-3.1	-3.1	0	%100
40	M4	Z	-2.3	-2.3	0	%100
41	M5	Z	-4.5	-4.5	0	%100
42	M6	Z	-3.1	-3.1	0	%100
43	M7	Z	-3.1	-3.1	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-2.3	-2.3	0	%100
47	M11	Z	-2.3	-2.3	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-2.8	-2.8	0	%100
50	M14	Z	0	0	0	%100

Member Distributed Loads (BLC 12 : Wind Ice 90) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
51	M15	Z	0	0	0	%100
52	M16	Z	-2.8	-2.8	0	%100
53	M17	Z	-2.9	-2.9	0	%100
54	M18	Z	-2.9	-2.9	0	%100
55	M19	Z	-3.2	-3.2	0	%100
56	M20	Z	-3.2	-3.2	0	%100
57	M21	Z	-3.2	-3.2	0	%100
58	M22	Z	-3.2	-3.2	0	%100
59	M23	Z	-3.2	-3.2	0	%100
60	M24	Z	-3.2	-3.2	0	%100
61	M25	Z	-2.6	-2.6	0	%100
62	M26	Z	-2.6	-2.6	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-3.2	-3.2	0	%100
65	M29	Z	-3.1	-3.1	0	%100
66	M30	Z	-3.1	-3.1	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-4.2	-4.2	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-4.2	-4.2	0	%100
71	M57	Z	-3.2	-3.2	0	%100
72	M60	Z	-3.2	-3.2	0	%100

Member Distributed Loads (BLC 13 : Wind Ice 120)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	2	2	0	%100
2	M2	X	0.7	0.7	0	%100
3	M3	X	0.9	0.9	0	%100
4	M4	X	0	0	0	%100
5	M5	X	0	0	0	%100
6	M6	X	1.8	1.8	0	%100
7	M7	X	1.8	1.8	0	%100
8	M8	X	1.8	1.8	0	%100
9	M9	X	1.8	1.8	0	%100
10	M10	X	0.7	0.7	0	%100
11	M11	X	1.4	1.4	0	%100
12	M12	X	1.4	1.4	0	%100
13	M13	X	1.6	1.6	0	%100
14	M14	X	0.8	0.8	0	%100
15	M15	X	0.8	0.8	0	%100
16	M16	X	0.8	0.8	0	%100
17	M17	X	0.8	0.8	0	%100
18	M18	X	1.6	1.6	0	%100
19	M19	X	1.6	1.6	0	%100
20	M20	X	1.6	1.6	0	%100
21	M21	X	1.6	1.6	0	%100
22	M22	X	1.6	1.6	0	%100
23	M23	X	1.6	1.6	0	%100
24	M24	X	1.6	1.6	0	%100
25	M25	X	0.8	0.8	0	%100
26	M26	X	1.5	1.5	0	%100
27	M27	X	1.5	1.5	0	%100
28	M28	X	1.6	1.6	0	%100
29	M29	X	0.9	0.9	0	%100
30	M30	X	1.8	1.8	0	%100

Member Distributed Loads (BLC 13 : Wind Ice 120) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
31	M31	X	1.8	1.8	0	%100
32	M32	X	2.4	2.4	0	%100
33	M33	X	2.4	2.4	0	%100
34	M34	X	1.2	1.2	0	%100
35	M57	X	1.6	1.6	0	%100
36	M60	X	1.6	1.6	0	%100
37	M1	Z	-3.4	-3.4	0	%100
38	M2	Z	-1.2	-1.2	0	%100
39	M3	Z	-1.6	-1.6	0	%100
40	M4	Z	0	0	0	%100
41	M5	Z	-3.9	-3.9	0	%100
42	M6	Z	-3.1	-3.1	0	%100
43	M7	Z	-3.1	-3.1	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	-1.2	-1.2	0	%100
47	M11	Z	-2.3	-2.3	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-2.8	-2.8	0	%100
50	M14	Z	-1.4	-1.4	0	%100
51	M15	Z	-1.4	-1.4	0	%100
52	M16	Z	-1.4	-1.4	0	%100
53	M17	Z	-1.4	-1.4	0	%100
54	M18	Z	-2.8	-2.8	0	%100
55	M19	Z	-2.7	-2.7	0	%100
56	M20	Z	-2.7	-2.7	0	%100
57	M21	Z	-2.7	-2.7	0	%100
58	M22	Z	-2.7	-2.7	0	%100
59	M23	Z	-2.7	-2.7	0	%100
60	M24	Z	-2.7	-2.7	0	%100
61	M25	Z	-1.3	-1.3	0	%100
62	M26	Z	-2.6	-2.6	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-2.7	-2.7	0	%100
65	M29	Z	-1.6	-1.6	0	%100
66	M30	Z	-3.1	-3.1	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-4.2	-4.2	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	-2.1	-2.1	0	%100
71	M57	Z	-2.7	-2.7	0	%100
72	M60	Z	-2.7	-2.7	0	%100

Member Distributed Loads (BLC 14 : Wind Ice 150)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M1	X	3.9	3.9	0	%100
2	M2	X	2.5	2.5	0	%100
3	M3	X	0	0	0	%100
4	M4	X	2	2	0	%100
5	M5	X	0	0	0	%100
6	M6	X	2.7	2.7	0	%100
7	M7	X	2.7	2.7	0	%100
8	M8	X	3.1	3.1	0	%100
9	M9	X	3.1	3.1	0	%100
10	M10	X	0	0	0	%100

Member Distributed Loads (BLC 14 : Wind Ice 150) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
11	M11	X	2	2	0	%100
12	M12	X	2.3	2.3	0	%100
13	M13	X	2.5	2.5	0	%100
14	M14	X	2.5	2.5	0	%100
15	M15	X	2.5	2.5	0	%100
16	M16	X	0	0	0	%100
17	M17	X	0	0	0	%100
18	M18	X	2.5	2.5	0	%100
19	M19	X	2.7	2.7	0	%100
20	M20	X	2.7	2.7	0	%100
21	M21	X	2.7	2.7	0	%100
22	M22	X	2.7	2.7	0	%100
23	M23	X	2.7	2.7	0	%100
24	M24	X	2.7	2.7	0	%100
25	M25	X	0	0	0	%100
26	M26	X	2.3	2.3	0	%100
27	M27	X	2.6	2.6	0	%100
28	M28	X	2.7	2.7	0	%100
29	M29	X	0	0	0	%100
30	M30	X	2.7	2.7	0	%100
31	M31	X	3.1	3.1	0	%100
32	M32	X	3.6	3.6	0	%100
33	M33	X	4.2	4.2	0	%100
34	M34	X	0	0	0	%100
35	M57	X	2.7	2.7	0	%100
36	M60	X	2.7	2.7	0	%100
37	M1	Z	-2.3	-2.3	0	%100
38	M2	Z	-1.4	-1.4	0	%100
39	M3	Z	0	0	0	%100
40	M4	Z	-1.1	-1.1	0	%100
41	M5	Z	-2.3	-2.3	0	%100
42	M6	Z	-1.6	-1.6	0	%100
43	M7	Z	-1.6	-1.6	0	%100
44	M8	Z	0	0	0	%100
45	M9	Z	0	0	0	%100
46	M10	Z	0	0	0	%100
47	M11	Z	-1.2	-1.2	0	%100
48	M12	Z	0	0	0	%100
49	M13	Z	-1.4	-1.4	0	%100
50	M14	Z	-1.4	-1.4	0	%100
51	M15	Z	-1.4	-1.4	0	%100
52	M16	Z	0	0	0	%100
53	M17	Z	0	0	0	%100
54	M18	Z	-1.4	-1.4	0	%100
55	M19	Z	-1.6	-1.6	0	%100
56	M20	Z	-1.6	-1.6	0	%100
57	M21	Z	-1.6	-1.6	0	%100
58	M22	Z	-1.6	-1.6	0	%100
59	M23	Z	-1.6	-1.6	0	%100
60	M24	Z	-1.6	-1.6	0	%100
61	M25	Z	0	0	0	%100
62	M26	Z	-1.3	-1.3	0	%100
63	M27	Z	0	0	0	%100
64	M28	Z	-1.6	-1.6	0	%100
65	M29	Z	0	0	0	%100

Member Distributed Loads (BLC 14 : Wind Ice 150) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
66	M30	Z	-1.6	-1.6	0	%100
67	M31	Z	0	0	0	%100
68	M32	Z	-2.1	-2.1	0	%100
69	M33	Z	0	0	0	%100
70	M34	Z	0	0	0	%100
71	M57	Z	-1.6	-1.6	0	%100
72	M60	Z	-1.6	-1.6	0	%100

Diaphragm Distributed Loads

No Data to Print...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed
1	Dead	None		-1.05			30	
2	Ice	None					30	36
3	Wind 0	None					60	72
4	Wind 30	None					60	72
5	Wind 60	None					60	72
6	Wind 90	None					60	72
7	Wind 120	None					60	72
8	Wind 150	None					60	72
9	Wind Ice 0	None					60	72
10	Wind Ice 30	None					60	72
11	Wind Ice 60	None					60	72
12	Wind Ice 90	None					60	72
13	Wind Ice 120	None					60	72
14	Wind Ice 150	None					60	72
15	Live Load Point (1)	None					1	
16	Live Load Point (2)	None					1	
17	Live Load Point (3)	None					1	
18	Live Load Point (4)	None						
19	Live Load Point (5)	None						
20	Live Load Point (6)	None						
21	Live Load Point (7)	None						
22	Live Load Point (8)	None						
23	Live Load Point (9)	None						
24	Live Load Point (10)	None						
25	Live Load Point (11)	None						
26	Live Load Point (12)	None						
27	Live Load Point (13)	None						
28	Live Load Point (14)	None						
29	Live Load Point (15)	None						
30	Live Load Point (16)	None						
31	Live Load Point (17)	None						
32	Live Load Point (18)	None						
33	Live Load Point (19)	None						
34	Live Load Point (20)	None						
35	Live Load Point (21)	None						
36	Live Load Point (22)	None						
37	Live Load Point (23)	None						
38	Live Load Point (24)	None						
39	Live Load Point (25)	None						
40	Live Load Point (26)	None						
41	Live Load Point (27)	None						

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed
42	Live Load Point (28)	None						
43	Live Load Point (29)	None						
44	Live Load Point (30)	None						
45	Maintenance Load (1)	None				1		
46	Maintenance Load (2)	None				1		
47	Maintenance Load (3)	None				1		
48	Maintenance Load (4)	None				1		
49	Maintenance Load (5)	None				1		
50	Maintenance Load (6)	None						
51	Horizontal Seismic Load Effect,	None	-1				30	
52	Horizontal Seismic Load Effect,	None			-1		30	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 D	Yes	Y	1	1.4						
2	1.2 D + 1.0 W 0	Yes	Y	1	1.2	3	1				
3	1.2 D + 1.0 W 30	Yes	Y	1	1.2	4	1				
4	1.2 D + 1.0 W 60	Yes	Y	1	1.2	5	1				
5	1.2 D + 1.0 W 90	Yes	Y	1	1.2	6	1				
6	1.2 D + 1.0 W 120	Yes	Y	1	1.2	7	1				
7	1.2 D + 1.0 W 150	Yes	Y	1	1.2	8	1				
8	1.2 D + 1.0 W 180	Yes	Y	1	1.2	3	-1				
9	1.2 D + 1.0 W 210	Yes	Y	1	1.2	4	-1				
10	1.2 D + 1.0 W 240	Yes	Y	1	1.2	5	-1				
11	1.2 D + 1.0 W 270	Yes	Y	1	1.2	6	-1				
12	1.2 D + 1.0 W 300	Yes	Y	1	1.2	7	-1				
13	1.2 D + 1.0 W 330	Yes	Y	1	1.2	8	-1				
14	1.2 D + 1.0 I + 1.0 W/I 0	Yes	Y	1	1.2	2	1	9	1		
15	1.2 D + 1.0 I + 1.0 W/I 30	Yes	Y	1	1.2	2	1	10	1		
16	1.2 D + 1.0 I + 1.0 W/I 60	Yes	Y	1	1.2	2	1	11	1		
17	1.2 D + 1.0 I + 1.0 W/I 90	Yes	Y	1	1.2	2	1	12	1		
18	1.2 D + 1.0 I + 1.0 W/I 120	Yes	Y	1	1.2	2	1	13	1		
19	1.2 D + 1.0 I + 1.0 W/I 150	Yes	Y	1	1.2	2	1	14	1		
20	1.2 D + 1.0 I + 1.0 W/I 180	Yes	Y	1	1.2	2	1	9	-1		
21	1.2 D + 1.0 I + 1.0 W/I 210	Yes	Y	1	1.2	2	1	10	-1		
22	1.2 D + 1.0 I + 1.0 W/I 240	Yes	Y	1	1.2	2	1	11	-1		
23	1.2 D + 1.0 I + 1.0 W/I 270	Yes	Y	1	1.2	2	1	12	-1		
24	1.2 D + 1.0 I + 1.0 W/I 300	Yes	Y	1	1.2	2	1	13	-1		
25	1.2 D + 1.0 I + 1.0 W/I 330	Yes	Y	1	1.2	2	1	14	-1		
26	1.2 D + 1.5 LV1	Yes	Y	1	1.2	15	1.5				
27	1.2 D + 1.5 LV2	Yes	Y	1	1.2	16	1.5				
28	1.2 D + 1.5 LV3	Yes	Y	1	1.2	17	1.5				
29	1.2 D + 1.5 LV4	Yes	Y	1	1.2	18	1.5				
30	1.2 D + 1.5 LV5	Yes	Y	1	1.2	19	1.5				
31	1.2 D + 1.5 LV6	Yes	Y	1	1.2	20	1.5				
32	1.2 D + 1.5 LV7	Yes	Y	1	1.2	21	1.5				
33	1.2 D + 1.5 LV8	Yes	Y	1	1.2	22	1.5				
34	1.2 D + 1.5 LV9	Yes	Y	1	1.2	23	1.5				
35	1.2 D + 1.5 LV10	Yes	Y	1	1.2	24	1.5				
36	1.2 D + 1.5 LV11	Yes	Y	1	1.2	25	1.5				
37	1.2 D + 1.5 LV12	Yes	Y	1	1.2	26	1.5				
38	1.2 D + 1.5 LV13	Yes	Y	1	1.2	27	1.5				
39	1.2 D + 1.5 LV14	Yes	Y	1	1.2	28	1.5				
40	1.2 D + 1.5 LV15	Yes	Y	1	1.2	29	1.5				
41	1.2 D + 1.5 LV16	Yes	Y	1	1.2	30	1.5				

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
42	1.2 D + 1.5 LV17	Yes	Y	1	1.2	31	1.5				
43	1.2 D + 1.5 LV18	Yes	Y	1	1.2	32	1.5				
44	1.2 D + 1.5 LV19	Yes	Y	1	1.2	33	1.5				
45	1.2 D + 1.5 LV20	Yes	Y	1	1.2	34	1.5				
46	1.2 D + 1.5 LV21	Yes	Y	1	1.2	35	1.5				
47	1.2 D + 1.5 LV22	Yes	Y	1	1.2	36	1.5				
48	1.2 D + 1.5 LV23	Yes	Y	1	1.2	37	1.5				
49	1.2 D + 1.5 LV24	Yes	Y	1	1.2	38	1.5				
50	1.2 D + 1.5 LV25	Yes	Y	1	1.2	39	1.5				
51	1.2 D + 1.5 LV26	Yes	Y	1	1.2	40	1.5				
52	1.2 D + 1.5 LV27	Yes	Y	1	1.2	41	1.5				
53	1.2 D + 1.5 LV28	Yes	Y	1	1.2	42	1.5				
54	1.2 D + 1.5 LV29	Yes	Y	1	1.2	43	1.5				
55	1.2 D + 1.5 LV30	Yes	Y	1	1.2	44	1.5				
56	1.2 D + 1.5 LM1 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	45	1.5	3	0.053		
57	1.2 D + 1.5 LM1 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	45	1.5	4	0.053		
58	1.2 D + 1.5 LM1 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	45	1.5	5	0.053		
59	1.2 D + 1.5 LM1 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	45	1.5	6	0.053		
60	1.2 D + 1.5 LM1 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	45	1.5	7	0.053		
61	1.2 D + 1.5 LM1 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	45	1.5	8	0.053		
62	1.2 D + 1.5 LM1 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	45	1.5	3	-0.053		
63	1.2 D + 1.5 LM1 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	45	1.5	4	-0.053		
64	1.2 D + 1.5 LM1 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	45	1.5	5	-0.053		
65	1.2 D + 1.5 LM1 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	45	1.5	6	-0.053		
66	1.2 D + 1.5 LM1 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	45	1.5	7	-0.053		
67	1.2 D + 1.5 LM1 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	45	1.5	8	-0.053		
68	1.2 D + 1.5 LM2 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	46	1.5	3	0.053		
69	1.2 D + 1.5 LM2 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	46	1.5	4	0.053		
70	1.2 D + 1.5 LM2 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	46	1.5	5	0.053		
71	1.2 D + 1.5 LM2 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	46	1.5	6	0.053		
72	1.2 D + 1.5 LM2 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	46	1.5	7	0.053		
73	1.2 D + 1.5 LM2 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	46	1.5	8	0.053		
74	1.2 D + 1.5 LM2 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	46	1.5	3	-0.053		
75	1.2 D + 1.5 LM2 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	46	1.5	4	-0.053		
76	1.2 D + 1.5 LM2 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	46	1.5	5	-0.053		
77	1.2 D + 1.5 LM2 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	46	1.5	6	-0.053		
78	1.2 D + 1.5 LM2 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	46	1.5	7	-0.053		
79	1.2 D + 1.5 LM2 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	46	1.5	8	-0.053		
80	1.2 D + 1.5 LM3 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	47	1.5	3	0.053		
81	1.2 D + 1.5 LM3 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	47	1.5	4	0.053		
82	1.2 D + 1.5 LM3 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	47	1.5	5	0.053		
83	1.2 D + 1.5 LM3 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	47	1.5	6	0.053		
84	1.2 D + 1.5 LM3 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	47	1.5	7	0.053		
85	1.2 D + 1.5 LM3 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	47	1.5	8	0.053		
86	1.2 D + 1.5 LM3 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	47	1.5	3	-0.053		
87	1.2 D + 1.5 LM3 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	47	1.5	4	-0.053		
88	1.2 D + 1.5 LM3 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	47	1.5	5	-0.053		
89	1.2 D + 1.5 LM3 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	47	1.5	6	-0.053		
90	1.2 D + 1.5 LM3 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	47	1.5	7	-0.053		
91	1.2 D + 1.5 LM3 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	47	1.5	8	-0.053		
92	1.2 D + 1.5 LM4 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	48	1.5	3	0.053		
93	1.2 D + 1.5 LM4 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	48	1.5	4	0.053		
94	1.2 D + 1.5 LM4 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	48	1.5	5	0.053		
95	1.2 D + 1.5 LM4 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	48	1.5	6	0.053		
96	1.2 D + 1.5 LM4 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	48	1.5	7	0.053		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
97	1.2 D + 1.5 LM4 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	48	1.5	8	0.053		
98	1.2 D + 1.5 LM4 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	48	1.5	3	-0.053		
99	1.2 D + 1.5 LM4 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	48	1.5	4	-0.053		
100	1.2 D + 1.5 LM4 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	48	1.5	5	-0.053		
101	1.2 D + 1.5 LM4 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	48	1.5	6	-0.053		
102	1.2 D + 1.5 LM4 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	48	1.5	7	-0.053		
103	1.2 D + 1.5 LM4 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	48	1.5	8	-0.053		
104	1.2 D + 1.5 LM5 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	49	1.5	3	0.053		
105	1.2 D + 1.5 LM5 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	49	1.5	4	0.053		
106	1.2 D + 1.5 LM5 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	49	1.5	5	0.053		
107	1.2 D + 1.5 LM5 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	49	1.5	6	0.053		
108	1.2 D + 1.5 LM5 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	49	1.5	7	0.053		
109	1.2 D + 1.5 LM5 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	49	1.5	8	0.053		
110	1.2 D + 1.5 LM5 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	49	1.5	3	-0.053		
111	1.2 D + 1.5 LM5 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	49	1.5	4	-0.053		
112	1.2 D + 1.5 LM5 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	49	1.5	5	-0.053		
113	1.2 D + 1.5 LM5 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	49	1.5	6	-0.053		
114	1.2 D + 1.5 LM5 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	49	1.5	7	-0.053		
115	1.2 D + 1.5 LM5 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	49	1.5	8	-0.053		
116	1.2 D + 1.5 LM6 + 1.0 W 0 (Maintenance)	Yes	Y	1	1.2	50	1.5	3	0.053		
117	1.2 D + 1.5 LM6 + 1.0 W 30 (Maintenance)	Yes	Y	1	1.2	50	1.5	4	0.053		
118	1.2 D + 1.5 LM6 + 1.0 W 60 (Maintenance)	Yes	Y	1	1.2	50	1.5	5	0.053		
119	1.2 D + 1.5 LM6 + 1.0 W 90 (Maintenance)	Yes	Y	1	1.2	50	1.5	6	0.053		
120	1.2 D + 1.5 LM6 + 1.0 W 120 (Maintenance)	Yes	Y	1	1.2	50	1.5	7	0.053		
121	1.2 D + 1.5 LM6 + 1.0 W 150 (Maintenance)	Yes	Y	1	1.2	50	1.5	8	0.053		
122	1.2 D + 1.5 LM6 + 1.0 W 180 (Maintenance)	Yes	Y	1	1.2	50	1.5	3	-0.053		
123	1.2 D + 1.5 LM6 + 1.0 W 210 (Maintenance)	Yes	Y	1	1.2	50	1.5	4	-0.053		
124	1.2 D + 1.5 LM6 + 1.0 W 240 (Maintenance)	Yes	Y	1	1.2	50	1.5	5	-0.053		
125	1.2 D + 1.5 LM6 + 1.0 W 270 (Maintenance)	Yes	Y	1	1.2	50	1.5	6	-0.053		
126	1.2 D + 1.5 LM6 + 1.0 W 300 (Maintenance)	Yes	Y	1	1.2	50	1.5	7	-0.053		
127	1.2 D + 1.5 LM6 + 1.0 W 330 (Maintenance)	Yes	Y	1	1.2	50	1.5	8	-0.053		
128	1.2 D + 1.0 Ev + 1.0 Eh 0	Yes	Y	1	1.2	1	0.047	51	0.118	52	
129	1.2 D + 1.0 Ev + 1.0 Eh 30	Yes	Y	1	1.2	1	0.047	51	0.102	52	0.059
130	1.2 D + 1.0 Ev + 1.0 Eh 60	Yes	Y	1	1.2	1	0.047	51	0.059	52	0.102
131	1.2 D + 1.0 Ev + 1.0 Eh 90	Yes	Y	1	1.2	1	0.047	51		52	0.118
132	1.2 D + 1.0 Ev + 1.0 Eh 120	Yes	Y	1	1.2	1	0.047	51	-0.059	52	0.102
133	1.2 D + 1.0 Ev + 1.0 Eh 150	Yes	Y	1	1.2	1	0.047	51	-0.102	52	0.059
134	1.2 D + 1.0 Ev + 1.0 Eh 180	Yes	Y	1	1.2	1	0.047	51	-0.118	52	
135	1.2 D + 1.0 Ev + 1.0 Eh 210	Yes	Y	1	1.2	1	0.047	51	-0.102	52	-0.059
136	1.2 D + 1.0 Ev + 1.0 Eh 240	Yes	Y	1	1.2	1	0.047	51	-0.059	52	-0.102
137	1.2 D + 1.0 Ev + 1.0 Eh 270	Yes	Y	1	1.2	1	0.047	51		52	-0.118
138	1.2 D + 1.0 Ev + 1.0 Eh 300	Yes	Y	1	1.2	1	0.047	51	0.059	52	-0.102
139	1.2 D + 1.0 Ev + 1.0 Eh 330	Yes	Y	1	1.2	1	0.047	51	0.102	52	-0.059
140	0.9 D - 1.0 Ev + 1.0 Eh 0	Yes	Y	1	0.9	1	-0.047	51	0.118	52	
141	0.9 D - 1.0 Ev + 1.0 Eh 30	Yes	Y	1	0.9	1	-0.047	51	0.102	52	0.059
142	0.9 D - 1.0 Ev + 1.0 Eh 60	Yes	Y	1	0.9	1	-0.047	51	0.059	52	0.102
143	0.9 D - 1.0 Ev + 1.0 Eh 90	Yes	Y	1	0.9	1	-0.047	51		52	0.118
144	0.9 D - 1.0 Ev + 1.0 Eh 120	Yes	Y	1	0.9	1	-0.047	51	-0.059	52	0.102
145	0.9 D - 1.0 Ev + 1.0 Eh 150	Yes	Y	1	0.9	1	-0.047	51	-0.102	52	0.059
146	0.9 D - 1.0 Ev + 1.0 Eh 180	Yes	Y	1	0.9	1	-0.047	51	-0.118	52	
147	0.9 D - 1.0 Ev + 1.0 Eh 210	Yes	Y	1	0.9	1	-0.047	51	-0.102	52	-0.059
148	0.9 D - 1.0 Ev + 1.0 Eh 240	Yes	Y	1	0.9	1	-0.047	51	-0.059	52	-0.102
149	0.9 D - 1.0 Ev + 1.0 Eh 270	Yes	Y	1	0.9	1	-0.047	51		52	-0.118
150	0.9 D - 1.0 Ev + 1.0 Eh 300	Yes	Y	1	0.9	1	-0.047	51	0.059	52	-0.102
151	0.9 D - 1.0 Ev + 1.0 Eh 330	Yes	Y	1	0.9	1	-0.047	51	0.102	52	-0.059

Load Combinations (Continued)

Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
0	M5	HSS4X4X4	0.595	77.812	2	0.141	77.812	y	4	92852.213	106155	12311.25	12311.25	2.673	H1-1b
1	M4	HSS4X4X4	0.569	77.812	8	0.192	77.812	y	8	92852.213	106155	12311.25	12311.25	2.938	H1-1b
2	M28	PIPE_2.5	0.567	63	2	0.046	63		9	30038.461	50715	3596.25	3596.25	1	H1-1b
3	M1	HSS4X4X4	0.564	77.812	8	0.186	77.812	y	8	92852.223	106155	12311.25	12311.25	2.959	H1-1b
4	M57	PIPE_2.5	0.542	63	8	0.055	63		8	30038.461	50715	3596.25	3596.25	1	H1-1b
5	M60	PIPE_2.5	0.522	63	8	0.058	63		2	30038.461	50715	3596.25	3596.25	1	H1-1b
6	M26	PIPE_2.0	0.443	75	2	0.301	3.125		7	6295.423	32130	1871.625	1871.625	1	H1-1b
7	M25	PIPE_2.0	0.417	75	2	0.241	146.875		9	6295.422	32130	1871.625	1871.625	1	H1-1b
8	M11	L2.5X2.5X4	0.385	0	2	0.106	15	z	2	35672.221	37485	1082.622	2466.905	1.5	H2-1
9	M10	L2.5X2.5X4	0.354	15	7	0.101	0	y	7	35672.222	37485	1082.622	2466.905	1.5	H2-1
10	M21	PIPE_2.5	0.329	63	2	0.134	63		13	30038.461	50715	3596.25	3596.25	1	H1-1b
11	M27	PIPE_2.0	0.318	75	9	0.307	3.125		2	6295.423	32130	1871.625	1871.625	1	H1-1b
12	M20	PIPE_2.5	0.316	63	2	0.13	63		3	30038.461	50715	3596.25	3596.25	1	H1-1b
13	M19	PIPE_2.5	0.301	63	7	0.1	63		4	30038.461	50715	3596.25	3596.25	1	H1-1b
14	M22	PIPE_2.5	0.288	63	9	0.09	63		12	30038.461	50715	3596.25	3596.25	1	H1-1b
15	M17	L2X2X3	0.282	25.763	3	0.008	52.622	z	10	8914.341	22743	542.224	1037.969	1.136	H2-1
16	M18	L2X2X3	0.281	26.859	13	0.009	52.622	y	16	8914.353	22743	542.224	1037.969	1.136	H2-1
17	M15	L2X2X3	0.278	25.763	7	0.009	52.622	z	2	8914.351	22743	542.224	1037.969	1.136	H2-1
18	M14	L2X2X3	0.276	26.859	9	0.01	52.622	z	2	8914.356	22743	542.224	1037.969	1.136	H2-1
19	M23	PIPE_2.5	0.254	63	10	0.141	63		8	30038.461	50715	3596.25	3596.25	1	H1-1b
20	M2	HSS4X4X4	0.253	0	8	0.087	26.052	z	2	103993.605	106155	12311.25	12311.25	1.358	H1-1b
21	M12	L2.5X2.5X4	0.251	15	10	0.07	0	y	10	35672.221	37485	1082.622	2466.905	1.5	H2-1
22	M7	HSS4X4X4	0.246	0	8	0.088	26.052	z	2	103993.607	106155	12311.25	12311.25	1.373	H1-1b
23	M8	HSS4X4X4	0.243	0	13	0.085	0	y	15	103993.608	106155	12311.25	12311.25	1.449	H1-1b
24	M24	PIPE_2.5	0.242	63	6	0.13	63		7	30038.461	50715	3596.25	3596.25	1	H1-1b
25	M9	HSS4X4X4	0.241	0	3	0.084	0	y	25	103993.6	106155	12311.25	12311.25	1.458	H1-1b
26	M6	HSS4X4X4	0.223	0	16	0.085	0	y	20	103993.601	106155	12311.25	12311.25	1.674	H1-1b
27	M3	HSS4X4X4	0.219	0	24	0.085	0	y	20	103993.605	106155	12311.25	12311.25	1.69	H1-1b
28	M13	L2X2X3	0.213	25.763	11	0.009	52.622	z	7	8914.356	22743	542.224	1037.969	1.136	H2-1
29	M30	PIPE_3.0	0.212	100	2	0.1	50		7	59418.181	65205	5748.75	5748.75	1	H1-1b
30	M29	PIPE_3.0	0.21	50	2	0.11	100		9	59418.181	65205	5748.75	5748.75	1	H1-1b
31	M16	L2X2X3	0.21	26.859	5	0.009	52.622	y	20	8914.343	22743	542.224	1037.969	1.136	H2-1
32	M31	PIPE_3.0	0.2	100	9	0.115	100		2	59418.181	65205	5748.75	5748.75	1	H1-1b
33	M33	PL6X0.500	0.125	8	8	0.094	0	y	7	50636.175	94500	984.375	11812.5	1.353	H1-1b
34	M32	PL6X0.500	0.119	8	13	0.104	16	y	2	50636.176	94500	984.375	11812.5	1.548	H1-1b
35	M34	PL6X0.500	0.119	8	3	0.116	0	y	2	50636.152	94500	984.375	11812.5	1.515	H1-1b

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
0	N1	max	2018.135	2	2226.273	21	2208.339	4	-259.964	4	2135.511	13	3700.698	8
1		min	-1989.687	8	357.101	3	-2159.55	10	-5772.578	64	-2134.42	7	-699.803	2
2	N3	max	2055.517	2	2226.354	19	2142.063	6	5690.864	96	2078.341	9	3774.349	8
3		min	-2027.65	8	357.094	13	-2191.094	12	263.812	12	-2078.008	3	-720.858	2
4	N4	max	3634.491	2	2274.095	14	983.852	5	941.121	4	1613.435	5	1047.716	8
5		min	-3690.806	8	106.848	8	-983.659	11	-909.694	10	-1613.25	11	-7069.026	2
6	Totals:	max	7708.143	2	6261.301	22	4657.753	5						
7		min	-7708.143	8	2347.901	143	-4657.748	11						

Member Area Loads

No Data to Print...

APPENDIX D

ADDITIONAL CALCULATIONS

P. Marshall Associates, LLC
1000 Holcomb Woods Pkwy, Suite 210
Roswell, GA 30076
(678) 280-2325

Outrigger Connection Check

Location: **Outrigger Arm Connection at 78 ft**
Code: **ANSI/TIA-222-H**
Bolt Info: **(4) 0.625 in. dia. bolts, grade A325N**
Plate Info: **8 in. x 8 in. x 0.75 in., 35/54 ksi steel plate**

Maximum Connection Reactions

Tension	4193	lbs
Vertical Shear	2271	lbs
Horizontal Shear	1383	lbs
Torsion	1433	lb-ft
Vertical Moment	7069	lb-ft
Horizontal Moment	2136	lb-ft

Combined Tension & Shear

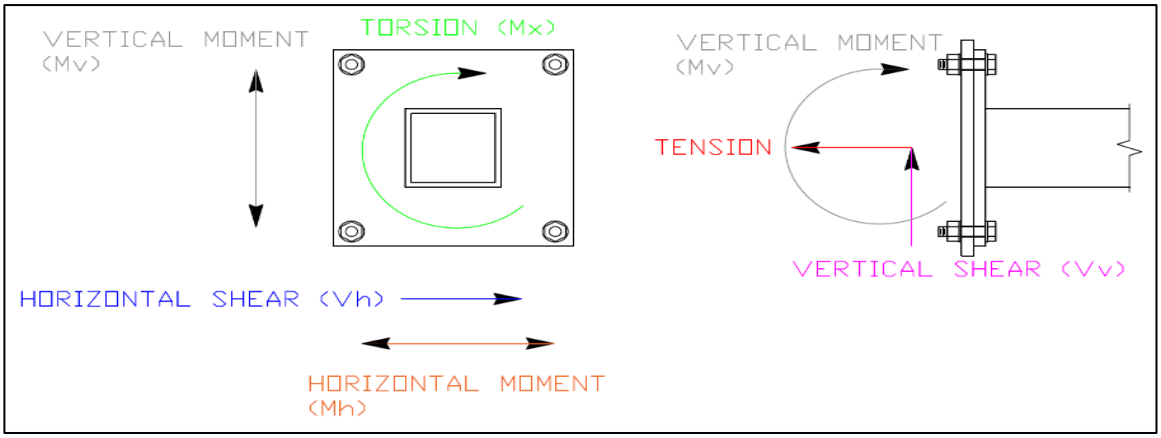
φR_{nt}	21.18	kips/bolt
φR_{nv}	27.63	kips/bolt
Capacity	23.7%	

Block Shear Strength

φ Rn (Vertical)	126.98	kips
φ Rn (Horizontal)	126.98	kips
Capacity	1.8%	

Bearing Strength

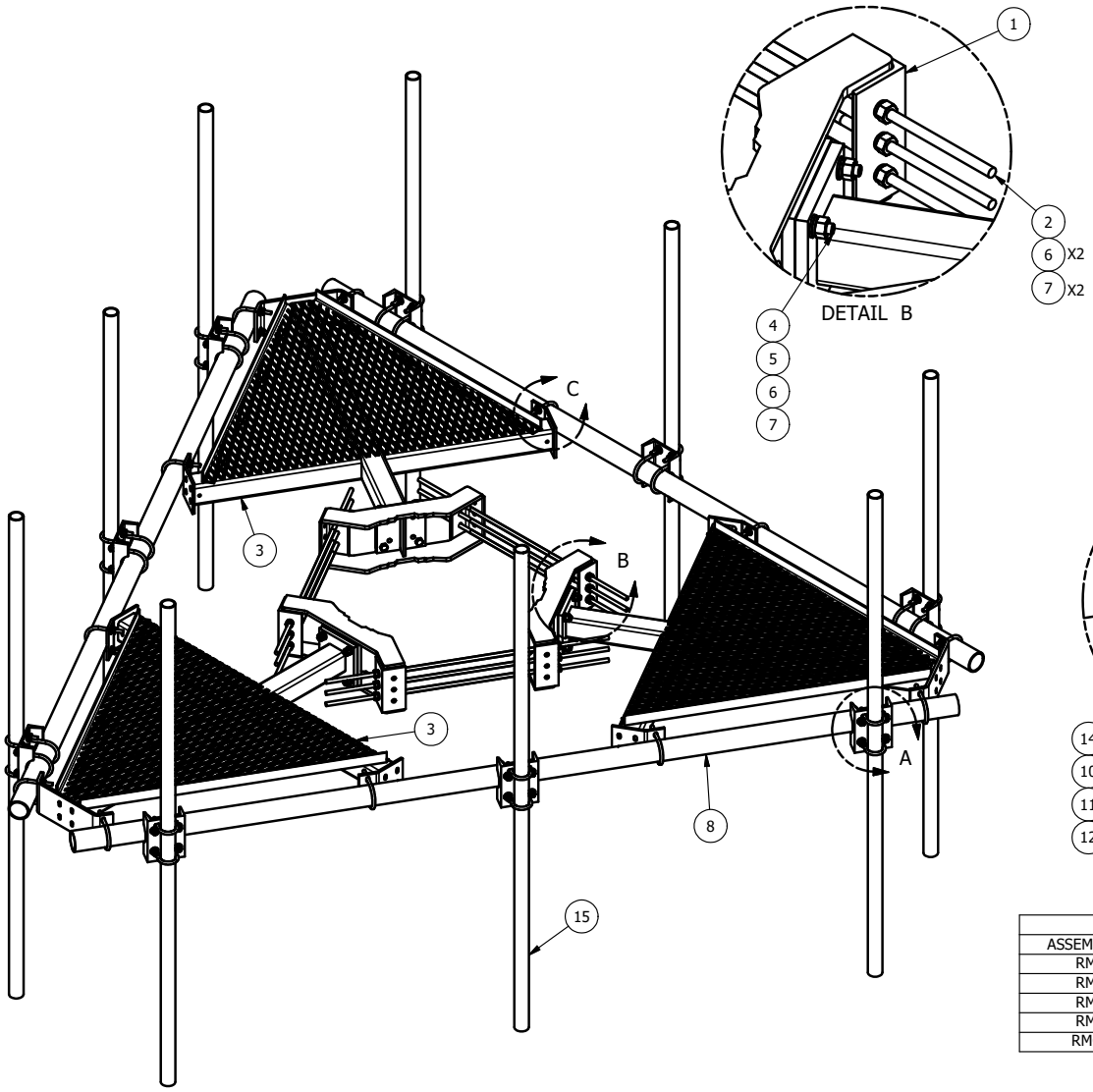
φ Rn	95.68	kips
Lc	0.66	in
Capacity	2.4%	



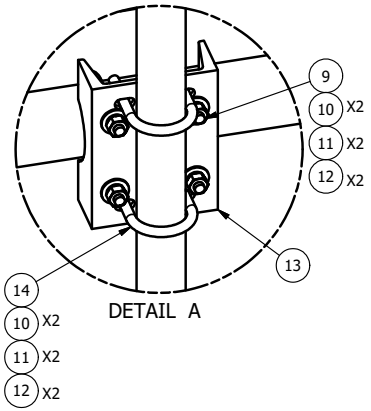
Overall Capacity Usage: 23.7% PASS

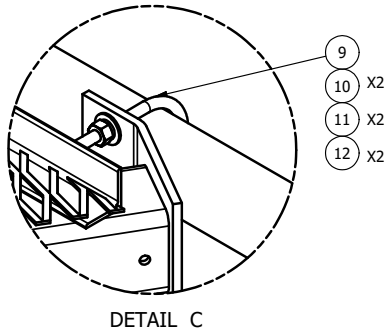
APPENDIX E

MOUNT MODIFICATION DESIGN DRAWINGS (MDD) / SUPPLEMENTAL DRAWINGS



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.40	3.59
2	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)		0.40	3.59
3	3	X-SV196	LOW PROFILE PLATFORM CORNER		212.10	636.31
4	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2.75	0.36	4.27
5	12	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
6	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
7	30	A58NUT	5/8" HDG A325 HEX NUT		0.13	3.90
8	3	P3150	3-1/2" X 150" SCH 40 GALVANIZED PIPE	150.000 in	94.80	284.40
9	30	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.26	7.71
10	96	G12FW	1/2" HDG USS FLATWASHER		0.03	3.27
11	96	G12LW	1/2" HDG LOCKWASHER		0.01	1.33
12	96	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	6.88
13	9	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	8.61	77.50
14	18	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.26	4.63
15	9	B	ANTENNA MOUNTING PIPE	C	D	E





2-3/8" O.D. VERTICAL MOUNTING PIPES					
ASSEMBLY NO. "A"	PART NO. "B"	LENGTH, "C"	UNIT WEIGHT, "D"	NET WEIGHT, "E"	TOTAL WEIGHT
RMQP-363	P263	63"	20.18	181.62	1494.37
RMQP-372	P272	72"	23.07	207.63	1520.38
RMQP-384	P284	84"	26.91	242.19	1554.94
RMQP-396	P296	96"	30.76	276.84	1589.59
RMQP-3126	P2126	126"	40.75	366.75	1679.50

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	ADDED 10' 6" ANTENNA MOUNTING PIPES		CEK	7/7/2015

REVISION HISTORY

TOLERANCE NOTE

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE - ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
LOW PROFILE CO-LOCATION PLATFORM
FOR 9 ANTENNAS WITH 12' 6" FACE WIDTH
FOR 12" - 38" DIAMETER POLES

SITE PRO 1
A valmont COMPANY

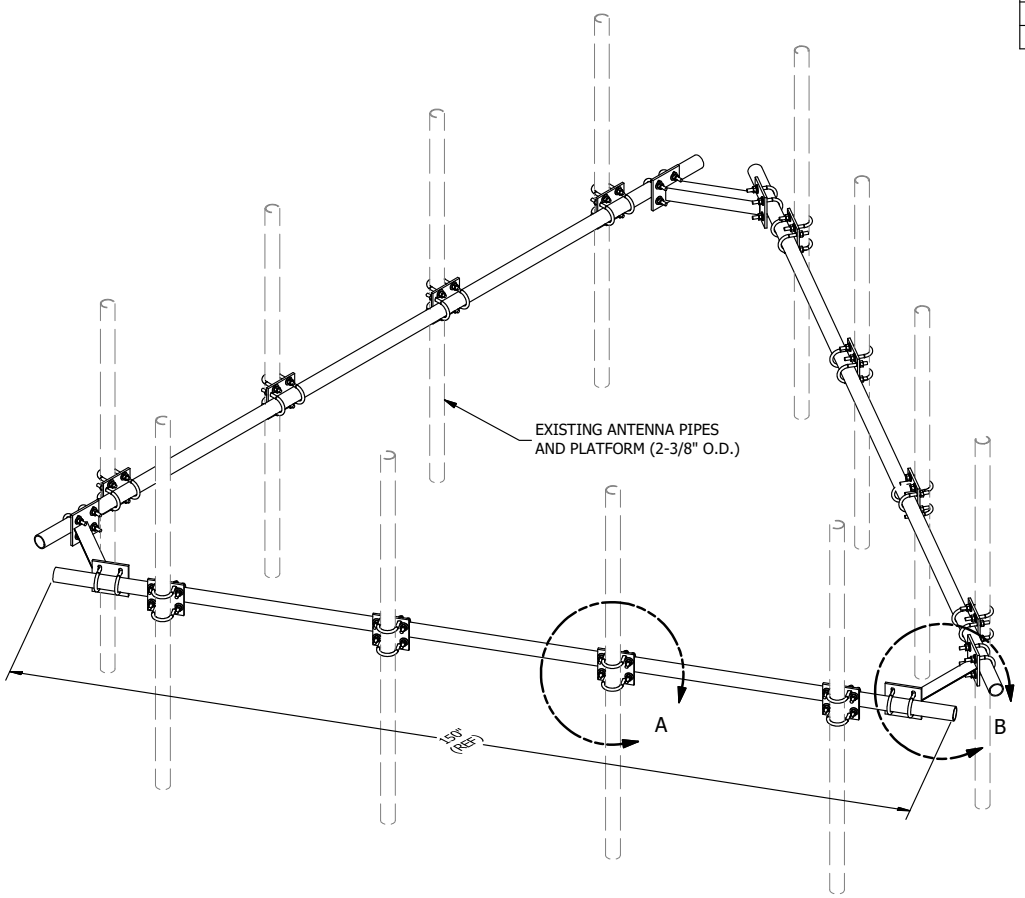
Engineering Support Team:
1-888-753-7446

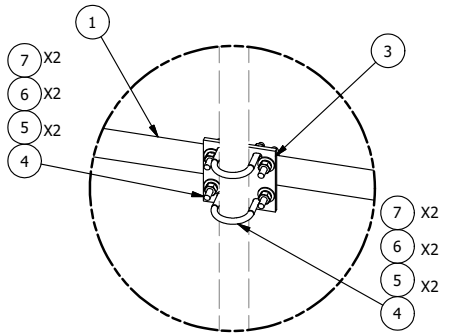
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

DRAWN BY	CPD NO.	DRAWING USAGE	PART NO.
CEK 1/19/2012	semb	CUSTOMER	SEE ASSEMBLY NO. "A"

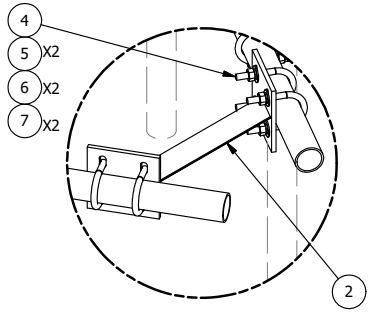
ENG. APPROVAL	CHECKED BY	DWG. NO.
	BMC 1/23/2012	RMQP-3XX

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
4	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	37.51
5	120	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	4.09
6	120	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.67
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.60
					TOTAL WT. #	272.43





DETAIL A



DETAIL B

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

REVISION HISTORY				
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REPLACED HCP WITH X-AHCP		CEK	7/10/2014

DESCRIPTION: **HANDRAIL KIT FOR 12'-6" FACE**

SITE PRO 1 — A valmont COMPANY

Engineering Support Team: 1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	KC8 5/30/2012		HRK12

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 7/13/2014	HRK12

CENTERLINE

EXHIBIT 7

Proof of Service

C/O CULLEN MORGAN
941-549-7263
CENTERLINE COMMUNICATIONS LLC
12579 SAGEWOOD DRIVE
VENICE FL 34293

2 LBS **1 OF 1**

SHIP TO:
PTI TOWERS
SUITE 100
999 YAMATO ROAD
BOCA RATON FL 33431-4478

FL 332 6-06

UPS GROUND
TRACKING #: 1Z 9Y4 503 03 0352 5147

BILLING: P/P

CS 24.3.00. MACNV50 19.0A 05/2024*

C/O CULLEN MORGAN
9415497263
CENTERLINE COMMUNICATIONS LLC
12579 SAGEWOOD DRIVE
VENICE FL 34293

2 LBS **1 OF 1**

SHIP TO:
BLUE SKY TOWERS LLC
SUITE 300
900 CIRCLE 75 PARKWAY
ATLANTA GA 30339-3075

GA 303 3-14

UPS GROUND
TRACKING #: 1Z 9Y4 503 03 3848 3896

BILLING: P/P

CS 24.3.00. MACNV50 19.0A 05/2024*

C/O CULLEN MORGAN
9415497263
CENTERLINE COMMUNICATIONS LLC
12579 SAGEWOOD DRIVE
VENICE FL 34293

2 LBS **1 OF 1**

SHIP TO:
TOWN OF OLD LYME
52 LYME STREET
OLD LYME CT 06371-2331

CT 063 5-02

UPS GROUND
TRACKING #: 1Z 9Y4 503 03 0855 6159

BILLING: P/P

CS 24.3.00. MACNV50 19.0A 05/2024*

TM

C/O CULLEN MORGAN
9415497263
CENTERLINE COMMUNICATIONS LLC
12579 SAGEWOOD DRIVE
VENICE FL 34293

2 LBS **1 OF 1**

SHIP TO:
MARY STALEY
5805 OGDEN ROAD
BETHESDA MD 20816-1258

MD 207 9-84

UPS GROUND
TRACKING #: 1Z 9Y4 503 03 1978 9164

BILLING: P/P

CS 24.3.00. MACNV50 19.0A 05/2024*

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	☒ U.S. Mail	T-Mobile Northeast, LLC	Julie D. Kohler, Esq. Monte E. Frank, Esq. Jesse A. Langer, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604 (203) 368-0211 (203) 394-9901 fax jkohler@cohenandwolf.com mfrank@cohenandwolf.com jlanger@cohenandwolf.com
Party *(granted on December 18, 2009)*	☒ U.S. Mail	Town of Old Lyme	The Honorable Timothy C. Griswold Office of the Selectmen Town of Old Lyme 52 Lyme Street Old Lyme, CT 06371 firstselectman@oldlyme-ct.gov
Party *(granted on February 4, 2010)*	☒ U.S. Mail	Mary Staley 5805 Ogden Road Bethesda, MD 20816 mstaley@kelleydrye.com	

CENTERLINE

Recipient Name
Address
City, State Zip

RE: MOTION TO REOPEN AND MODIFY DOCKET NO. 392 DECISION AND ORDER

Dear Sir or Madam:

On Behalf of T-Mobile Northeast, LLC, Centerline Communications has submitted a motion to Reopen and Modify Condition No. 1 of the Connecticut Siting Council Docket No. 392 Decision and Order ("D&O") for a Telecommunications Facility located at 387 Shore Road, Old Lyme, CT 06371.

T-Mobile's Motion seeks to eliminate the D&O Condition requiring antennas to be attached to the tower via T-Arm Mount Configuration, so as to allow T-Mobile to utilize alternative mount design systems.

This modification will promote tower sharing, support new state-of-the-art technology and equipment on the tower, allow for safe and cost-efficient maintenance of the antennas and equipment, and will create minimal visual change to the area. A copy of the motion is attached hereto for your review.

You are receiving this notice as you are listed as a party to the original D&O, dated February 16, 2010. If you have any questions/concerns regarding this matter, please don't hesitate to reach out to me directly.

Regards,

Cullen Morgan
Site Acquisition Consultant
Centerline Communications, LLC (Agent to T-Mobile)
Mobile: (941) 549-7263
Email: cmorgan@clinellc.com