Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

August 24, 2020

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

RE: **Notice of Exempt Modification for T-Mobile:**
806369 – T-Mobile Site ID: CT11161D
439-455 Homestead Avenue, Hartford, CT 06105
Latitude: 41° 47′ 1.61″ / Longitude: -72° 42′ 13.66″

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 126-foot mount on the existing 140-foot Monopole Tower, located at 439-455 Homestead Avenue in Hartford, CT. The tower is owned by Crown Castle and the property is owned by Talar Properties LLC. T-Mobile now intends to add three (3) new 2500/2500 MHz antennas. The new antennas will be installed at the 126-ft level of the tower. T-Mobile is also proposing tower mount modifications, as shown on the enclosed mount analysis.

Planned Modifications:
Tower:

Remove:
(3) 1 5/8" Coax

Install New:
(3) 1 5/8" Hybrid Fiber Line
(3) RRH 4415 B25
(3) AIR6449 B41 Antenna 2500/2500 MHz

Existing to Remain:
(6) 1 5/8" Coax
(3) 1 3/8" Fiber
(3) AIR32_B66A_B2A Antenna 1900/2100 MHz
(3) RFS-APXVAARR24_43-U-NA20 Antenna 600/700 MHz
(3) AIR21 KRC118023-1_B2A_B4P Antenna 1900/2100 MHz
(3) Radio 4449 B71/B12
(3) TMA

Ground:

Replacement and upgrade to existing ground cabinet.
Install generator on 10'x5' concrete pad within existing lease area.
Remove 8' fence portion to replace with 8' double swing access gate. No change to compound size.

The facility was approved by the Connecticut Siting Council on April 9, 1990 via Docket No. 126. The approval was given with conditions which T-Mobile's proposed exempt modification adhere to.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Luke Bronin, Mayor for the City of Hartford, Carlos Cruz, Zoning Enforcement Officer, Crown Castle as the tower owner, and Talar Properties LLC, the property owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modification 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 Communication 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-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments
cc:

Luke Bronin, Mayor *(via email only to luke.bronin@hartford.gov)*
City of Hartford
550 Main Street, Room 200
Hartford, CT 06103

Aimee Chambers, Director of Planning *(via email only to aimee.chambers@hartford.gov)*
City of Hartford
250 Constitution Plaza, 4th Floor

Hartford, CT 06103

Talar Properties LLC
705 N Mountain Road
Newington, CT 06111

Crown Castle, Tower Owner

ORIGIN ID:SCHA (518) 350-3639
ANNE MARIE ZSAMBA
CROWN CASTLE
21 HEATHER DRIVE

GANSEVOORT, NY 12831
UNITED STATES US

SHIP DATE: 24AUG20
ACTWGT: 1.00 LB
CAD: 104924194/INET4280

BILL SENDER

TO **TALAR PROPERTIES LLC**

705 N MOUNTAIN ROAD

NEWINGTON CT 06111

(201) 236-9224

INV:
PO:

REF: 1734.7680

DEPT:

J202020071401uv

FedEx Express

56BJ2/7709/B766

TUE - 25 AUG 10:30A

PRIORITY OVERNIGHT

TRK# 0201 **7713 4211 4690**

EB BDLA

06111

CT-US **BDL**

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

From: Zsamba, Anne Marie
To: luke.bronin@hartford.gov
Subject: Notice of Exempt Modification - Homestead Avenue - T-Mobile
Date: Monday, August 24, 2020 3:13:00 PM
Attachments: EM-T-MOBILE-HOMESTEAD AVENUE HARTFORD-806369-CT11161D-notice.pdf

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Dear Mayor Bronin:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council, today August 24, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: Zsamba, Anne Marie
To: aimee.chambers@hartford.gov
Subject: Notice of Exempt Modification - Homestead Avenue - T-Mobile
Date: Monday, August 24, 2020 3:13:00 PM
Attachments: EM-T-MOBILE-HOMESTEAD AVENUE HARTFORD-806369-CT11161D-notice.pdf

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Dear Director Chambers:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council, today August 24, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

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CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

Exhibit A

Original Facility Approval

DOCKET NO. 126 - AN APPLICATION OF METRO MOBILE CTS OF HARTFORD, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF A CELLULAR TELEPHONE TOWER AND ASSOCIATED EQUIPMENT IN THE CITY OF HARTFORD, CONNECTICUT.	:	Connecticut Siting Council
	:	April 9, 1990

D E C I S I O N A N D O R D E R

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council finds that the effects associated with the construction, operation, and maintenance of a cellular telephone facility at the proposed Hartford site, including effects on the natural environment; ecological integrity and balance; forests and parks; air and water purity; and fish and wildlife are not significant either alone or cumulatively with other effects, 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 Section 16-50k of the General Statutes of Connecticut (CGS), be issued to Metro Mobile CTS of Hartford, Inc., for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed site in Hartford, Connecticut.

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

1. The monopole tower including antennas and associated equipment shall not exceed a height of 153 feet above ground level, 215 feet AMSL.

2. The facility shall be constructed in accordance with the State of Connecticut Basic Building Code.

3. The tower shall be designed and constructed to withstand 125 mph winds with two-inch radial ice accumulation.

4. The Certificate Holder shall prepare a Development and Management (D&M) plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall include detailed plans of the site preparation with a soil boring report; plans, design details, and specifications for the tower foundation; and a site plan with placement of the tower as far removed from abutting properties and structures as possible.

5. The Certificate Holder shall prepare the D&M plan in consultation with the City of Hartford, which may provide its comments to the Council within 20 days of submission to the City.

6. The Certificate Holder shall comply with existing and any future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted in this Decision and Order shall be brought into compliance with such standards.

7. The Certificate Holder shall provide the Council a recalculated report of power density if and when additional channels over the proposed 90 channels, higher wattage over the proposed 100 watts per channel, or if other circumstances in operation cause a change in power density above the levels originally calculated in the application.

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

9. If this facility does not initially provide, or permanently ceases to provide, cellular service following the completion of construction, this Decision and Order shall be void, and the tower and all associated equipment in this application shall be dismantled and removed or reapplication of any new use shall be made to the Council before any such new use is made.

10. Unless otherwise approved by the Council, this Decision and Order shall be void if construction authorized herein is not completed within three years of the effective date of this Decision and Order.

Pursuant to Section 16-50p of the CGS, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below. A notice of issuance shall be published in the Hartford Courant.

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 State Agencies.

The parties or intervenors to this proceeding are:

(Applicant)

Metro Mobile CTS of
Hartford, Inc.
100 Corporate Drive
Windsor, CT 06095
Attn: Gary N. Schulman
Vice President and
General Manager

(Its Representative)

Robinson & Cole
One Commercial Plaza
Hartford, CT 06103-3597
Attn: Earl W. Phillips
Jr., Esq.

(Intervenor)

SNET Cellular, Inc.
227 Church Street
New Haven, CT 06506

(Its Representative)

Peter J. Tyrrell
Senior Attorney
SNET Cellular, Inc.
227 Church Street
Room 1021
New Haven, CT 06506

JAW

4248E

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket No. 126 - An application of Metro Mobile CTS of Hartford, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telephone tower and associated equipment in the City of Hartford, Connecticut, or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 9th day of April, 1990.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Yes
Commissioner Peter Boucher Designee: Robert A. Pulito	Yes
Commissioner Leslie Carothers Designee: Brian Emerick	Yes
Harry E. Covey	Yes
Mortimer A. Gelston	Yes
Daniel P. Lynch, Jr.	Yes
Paulann H. Sheets	Abstain
William H. Smith	Yes
Colin C. Tait	Yes

Exhibit B

Property Card

Unofficial Property Record Card - Hartford, CT

General Property Data

Parcel ID	152-181-002	**Account Number**	
Prior Parcel ID			
Property Owner	TALAR PROPERTIES LLC	**Property Location**	441-455 HOMESTEAD AVE
		Property Use	VAC LAND IND
Mailing Address	705 N MOUNTAIN RD	**Most Recent Sale Date**	3/7/2001
		Legal Reference	04350-0044
City	NEWINGTON	**Grantor**	HUDSON ASSOCIATES
Mailing State	CT Zip 06111-1412	**Sale Price**	0
ParcelZoning	CX-1	**Land Area**	79,715.000 acres

Current Property Assessment

Card 1 Value	Building Value 0	Xtra Features Value 0	Land Value 224,630	Total Value 224,630

Building Description

Building Style	N/A	**Foundation Type**	N/A	**Flooring Type**	N/A
# of Living Units	0	**Frame Type**	N/A	**Basement Floor**	N/A
Year Built	N/A	**Roof Structure**	N/A	**Heating Type**	N/A
Building Grade	N/A	**Roof Cover**	N/A	**Heating Fuel**	N/A
Building Condition	N/A	**Siding**	N/A	**Air Conditioning**	0%
Finished Area (SF)	0	**Interior Walls**	N/A	**# of Bsmt Garages**	0
Number Rooms	0	**# of Bedrooms**	0	**# of Full Baths**	0
# of 3/4 Baths	0	**# of 1/2 Baths**	0	**# of Other Fixtures**	0

Legal Description

Narrative Description of Property

This property contains 79,715.000 acres of land mainly classified as VAC LAND IND with a(n) N/A style building, built about N/A , having N/A exterior and N/A roof cover, with 0 commercial unit(s) and 0 residential unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images

SKETCH

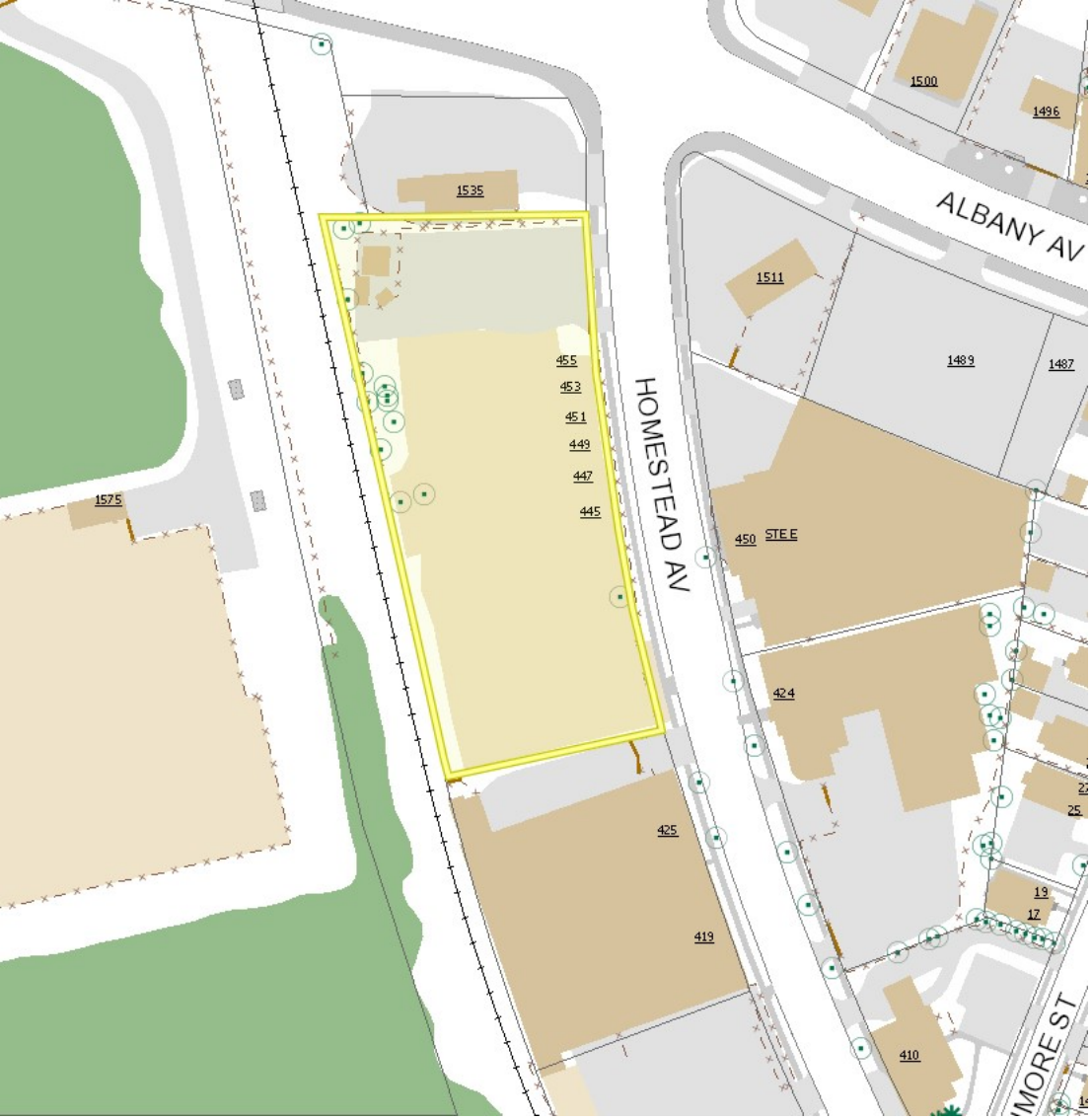

1535
455
453
451
449
447
445
1575
HOMESTEAD AV
ALBANY AV
1511
1489
1487
1500
1496
450
STEE
424
425
419
410
19
17
25
MORE ST

Exhibit C

Construction Drawings

T-Mobile

T-MOBILE SITE NUMBER: CT11161D
T-MOBILE SITE NAME: CT161/JN OF ALBANY_1
SITE TYPE: MONOPOLE
TOWER HEIGHT: 140'-0"

BUSINESS UNIT #: 806369
SITE ADDRESS: 439 HOMESTEAD AVE HARTFORD, CT 06105
COUNTY: HARTFORD
JURISDICTION: CITY OF HARTFORD

T-MOBILE ANCHOR SITE CONFIGURATION: 67D5A992DB

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	HRT 094 943225
SITE ADDRESS:	439 HOMESTEAD AVE HARTFORD, CT 06105
COUNTY:	HARTFORD
MAP/PARCEL #:	152-181-002
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.783719°
LONGITUDE:	-72.703743°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	63 FT
CURRENT ZONING:	CX-1
JURISDICTION:	CITY OF HARTFORD
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	TALAR PROPERTIES LLC 705 N. MOUNTAIN RD NEWINGTON, CT 06111-1412
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002
ELECTRIC PROVIDER:	NOT PROVIDED
TELCO PROVIDER:	NOT PROVIDED

PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWNAE.APPROVAL@CROWNCASTLE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	1500 CORPORATE DRIVE CANONSBURG, PA 15317 JOSEPH CLARK - PROJECT MANAGER JOSEPH.CLARK@CROWNCASTLE.COM

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	OVERALL SITE PLAN
C-1.2	SITE PLAN & ENLARGED SITE PLAN
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	ANTENNA & CABLE SCHEDULE
C-4	PLUMBING DIAGRAM
C-5	EQUIPMENT SPECS
C-6	GENERATOR DETAILS
E-1	AC PANEL SCHEDULES & ONE LINE DIAGRAM
E-2	DC GENERATOR ON LINE DIAGRAM
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
ATTACHED	MOUNT MOD SPECS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 24X36. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION

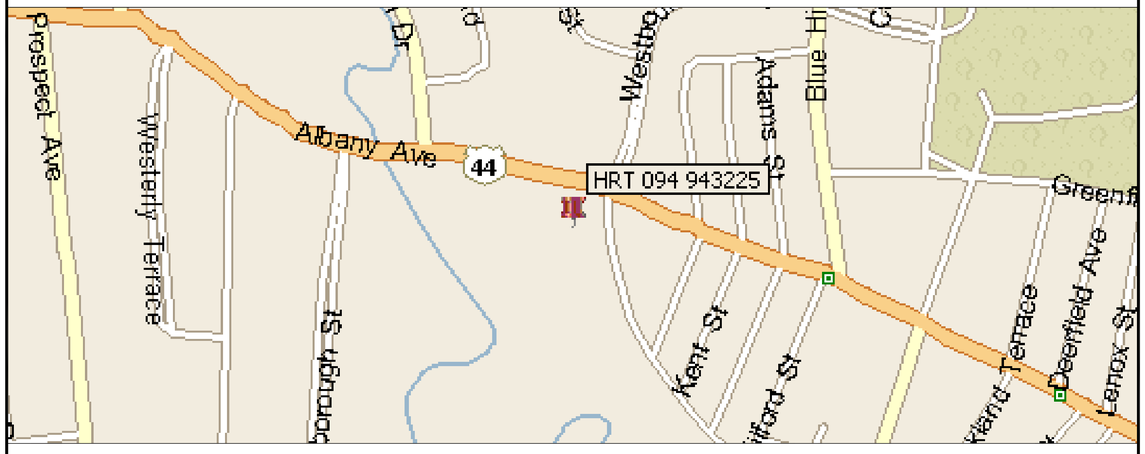
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (3) 1-5/8" COAX CABLES
- RELOCATE (9) ANTENNAS
- RELOCATE (3) RRUs
- RELOCATE (3) TMAs
- INSTALL (3) ANTENNAS
- INSTALL (3) RRUs
- INSTALL (3) 6x12 HCS HYBRID CABLES
- MODIFY MOUNT PER MA BY POD GROUP DATED 6/19/20

GROUND SCOPE OF WORK:
- REMOVE (1) NORTEL CABINET
- INSTALL (1) ENCLOSURE 6160
- INSTALL (1) B160 BATTERY CABINET
- INSTALL (1) iXRe ROUTER
- INSTALL (3) BB6630
- INSTALL (1) BB6648
- INSTALL (1) GENERATOR

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

LOCATION MAP



NO SCALE

APPLICABLE CODES/REFERENCE DOCUMENTS

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

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

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	PAUL J. FORD & COMPANY
DATED:	6/24/20
MOUNT ANALYSIS:	POWER OF DESIGN GROUP
DATED:	6/19/20
RFDS REVISION:	5
DATED:	5/11/2020
ORDER ID:	523998
REVISION:	1

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS BEFORE YOU DIG!

APPROVALS

APPROVAL	SIGNATURE	DATE
PROPERTY OWNER OR REP.		
LAND USE PLANNER		
T-MOBILE		
OPERATIONS		
RF		
NETWORK		
BACKHAUL		
CONSTRUCTION MANAGER		

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

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
HRT 094 943225

439 HOMESTEAD AVE
HARTFORD, CT 06105

EXISTING
140'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

STATE OF CONNECTICUT — 31627 — LICENSED PROFESSIONAL ENGINEER — 8/20/20

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

SHEET NUMBER: T-1
REVISION: 1

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800–788–7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
   THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: T–MOBILE
   TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER 40 ksi
   #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
      #6 BARS AND LARGER 2"
      #5 BARS AND SMALLER 1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
      SLAB AND WALLS 3/4"
      BEAMS AND COLUMNS 1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON–METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON–METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   - 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   - 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T–MOBILE".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (–)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
HRT 094 943225

439 HOMESTEAD AVE
HARTFORD, CT 06105

EXISTING
140'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

8/20/20
31627

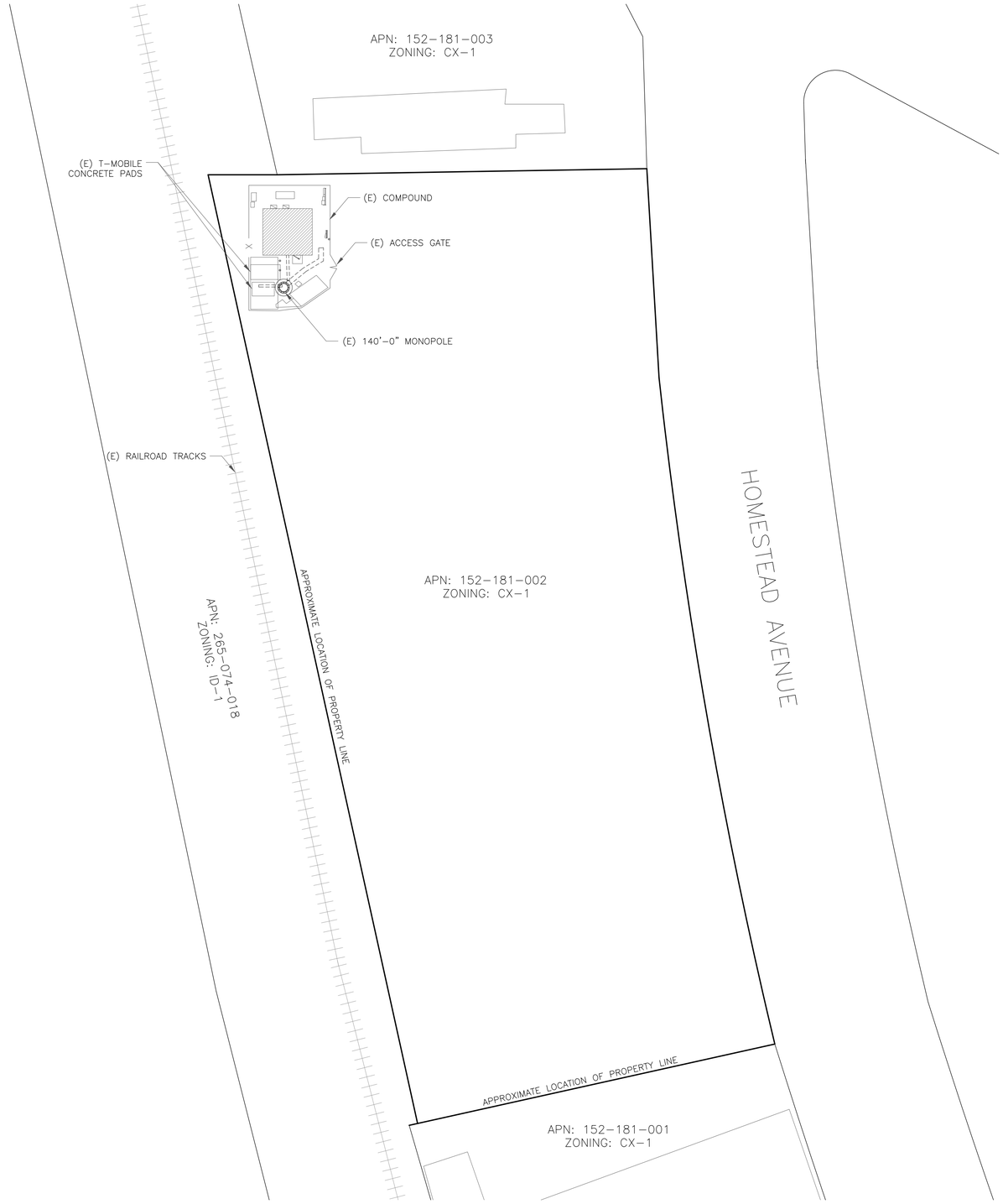
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

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

SHEET NUMBER: T-2
REVISION: 1

SITE PLAN DISCLAIMER:

PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET



1 OVERALL SITE PLAN
SCALE: 30' 15' 0 30' 1"=30'-0" (FULL SIZE) 1"=60'-0" (11x17)

N

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
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T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
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439 HOMESTEAD AVE
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EXISTING
140'-0" MONOPOLE

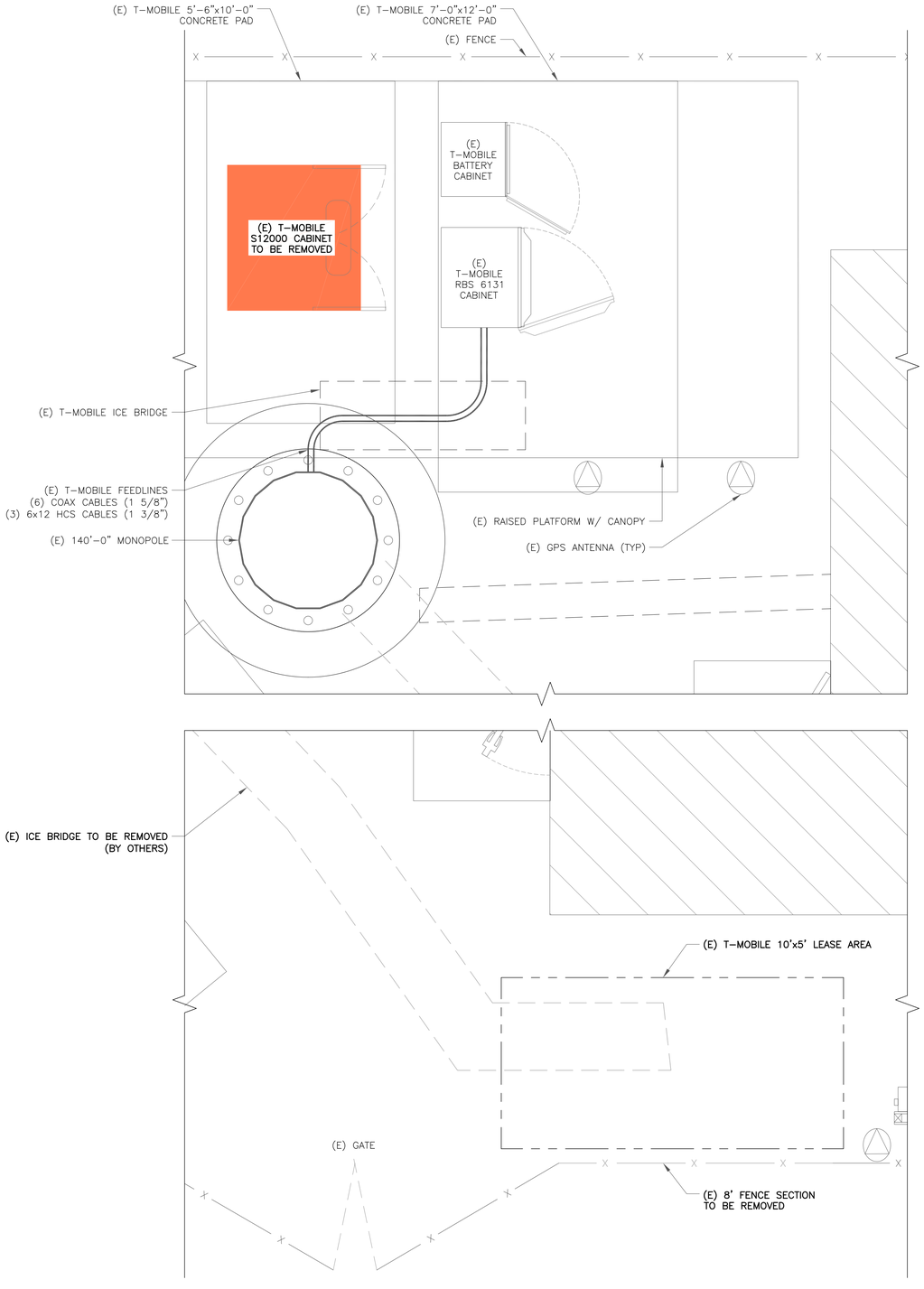
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
8/20/20

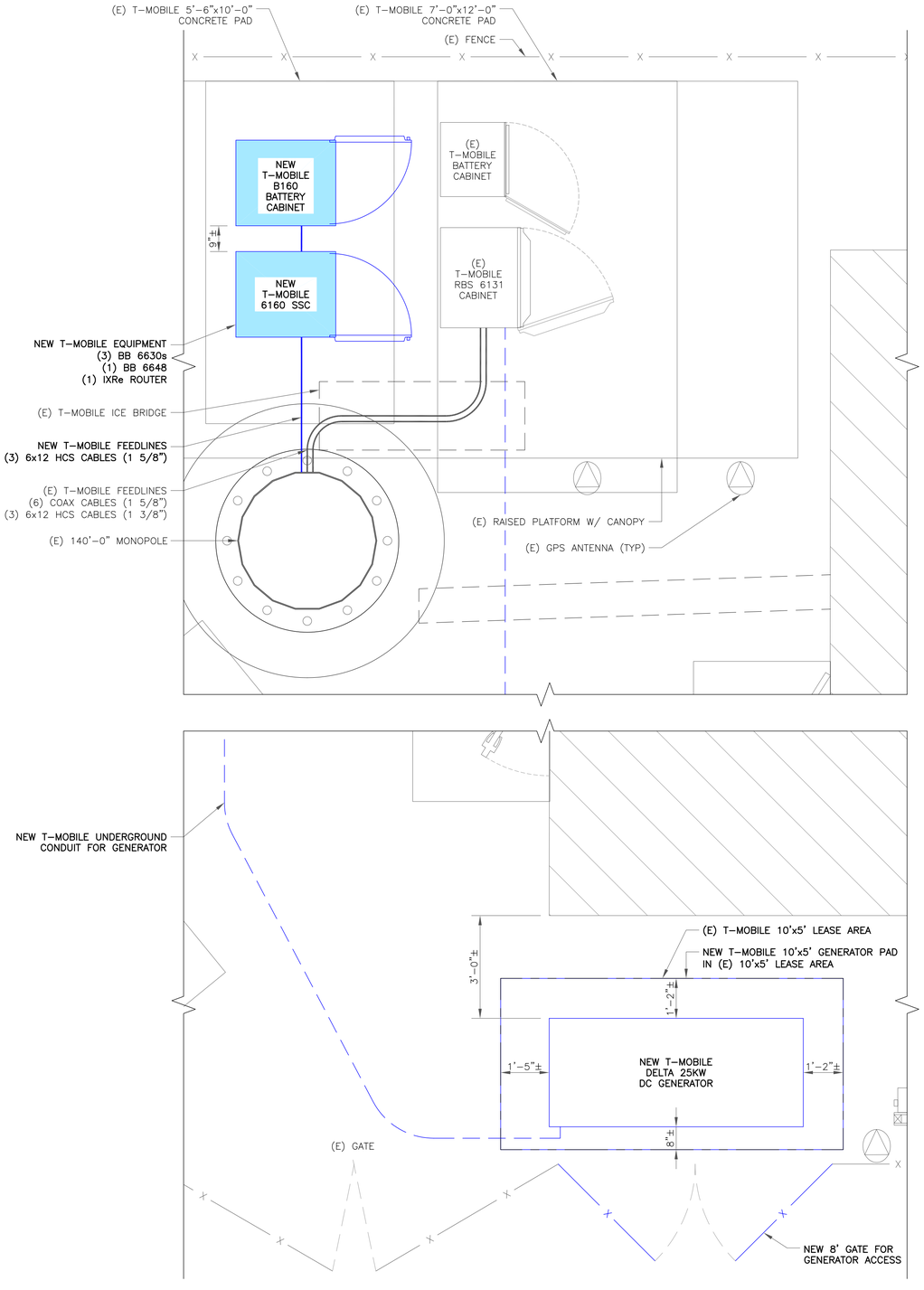
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-1.1
REVISION: 1



1 EXISTING EQUIPMENT PLAN

SCALE: 1' 6" 0 1' — 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)



2 FINAL EQUIPMENT PLAN

SCALE: 1' 6" 0 1' — 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
HRT 094 943225

439 HOMESTEAD AVE
HARTFORD, CT 06105

EXISTING
140'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

STATE OF CONNECTICUT 31627 LICENSED PROFESSIONAL ENGINEER
8/20/20

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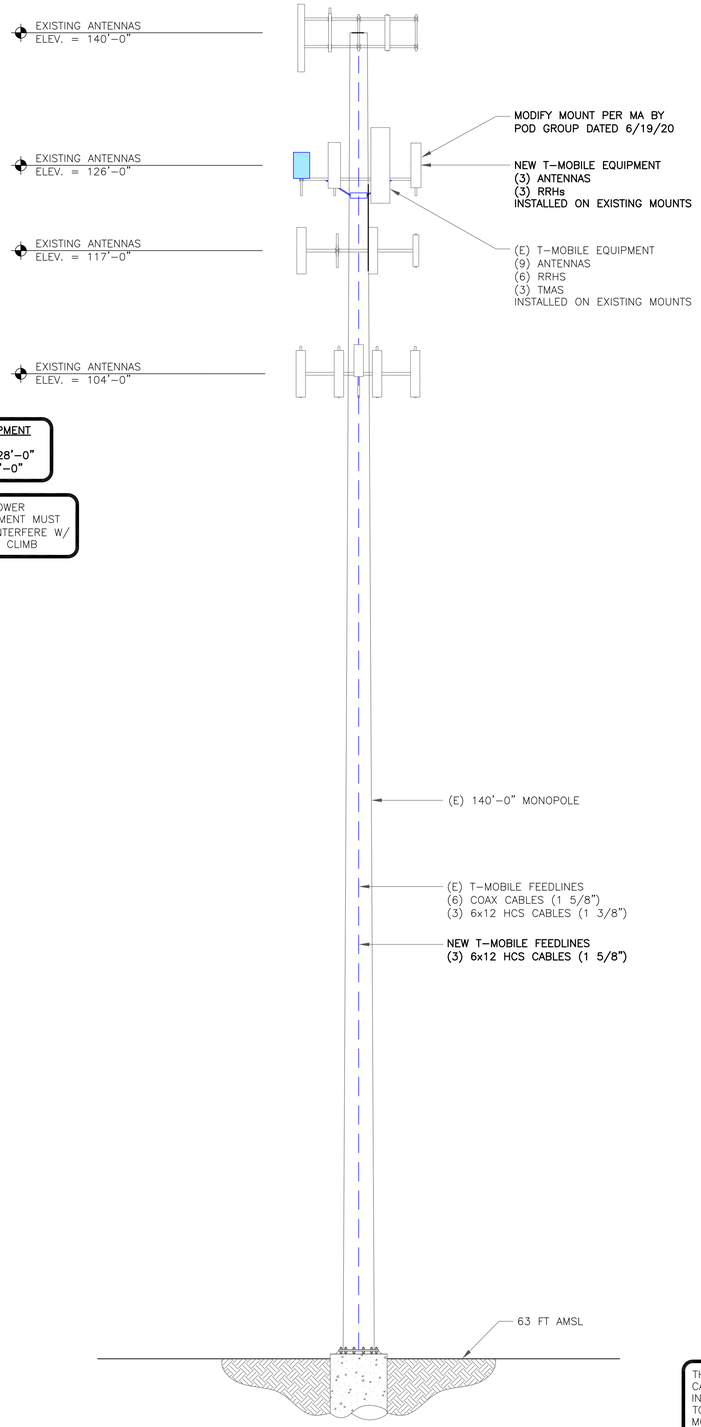
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-1.2

REVISION: 1



T-MOBILE EQUIPMENT

ANTENNA CL: 128'-0"
MOUNT CL: 126'-0"

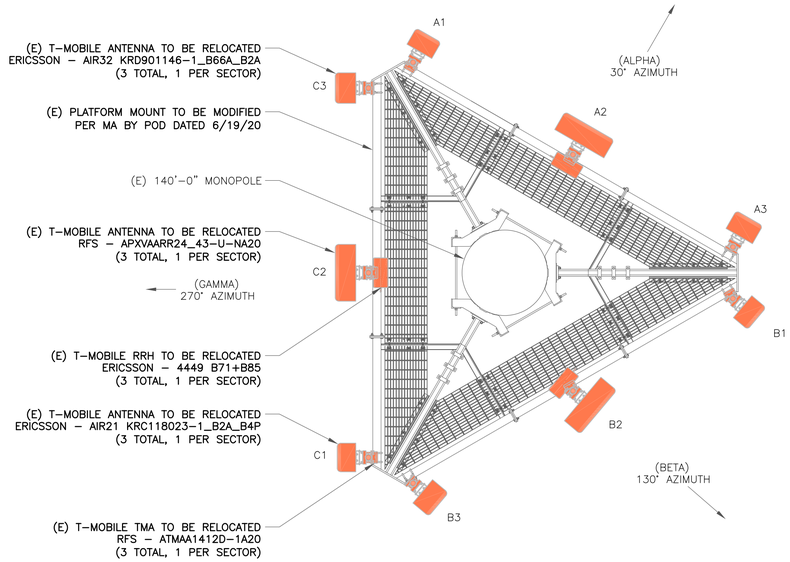
ANY AND ALL TOWER MOUNTED EQUIPMENT MUST NOT TRAP OR INTERFERE W/ EXISTING SAFETY CLIMB

1 FINAL ELEVATION
SCALE: NOT TO SCALE

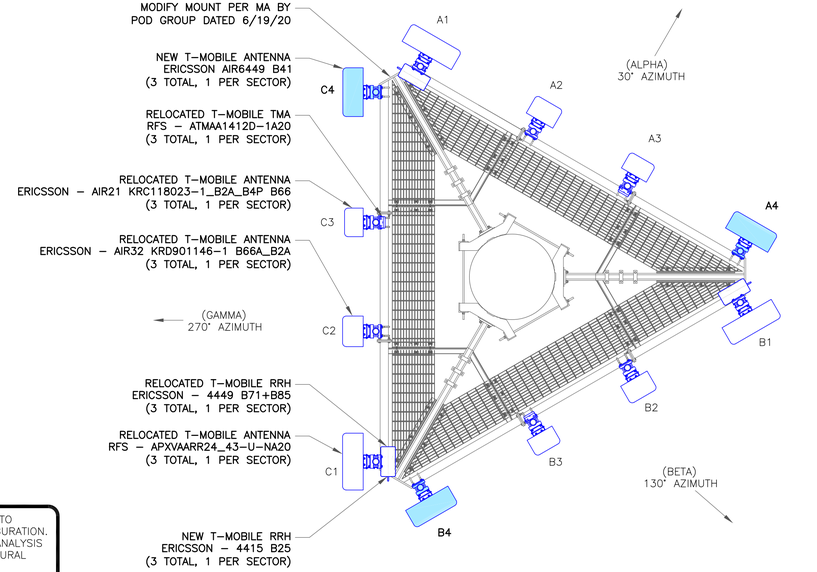
THE MOUNT HAS SUFFICIENT CAPACITY TO CARRY THE PROPOSED LOADING CONFIGURATION. IN ORDER FOR THE RESULTS OF THE ANALYSIS TO BE CONSIDERED VALID, THE STRUCTURAL MODIFICATIONS LISTED BELOW MUST BE COMPLETED.

1. KICKER SUPPORT, SITEPRO1 AND PRK-1245

ENGINEERING DETAIL DRAWINGS HAVE BEEN PROVIDED. CONNECTION FROM THE MOUNT TO THE TOWER AND LOCAL STRESSES ON THE TOWER ARE SUFFICIENT.



2 EXISTING ANTENNA LAYOUT
SCALE: NOT TO SCALE



3 FINAL ANTENNA LAYOUT
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
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T-MOBILE
SITE NUMBER: **CT11161D**

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HARTFORD, CT 06105

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SHEET NUMBER: C-2

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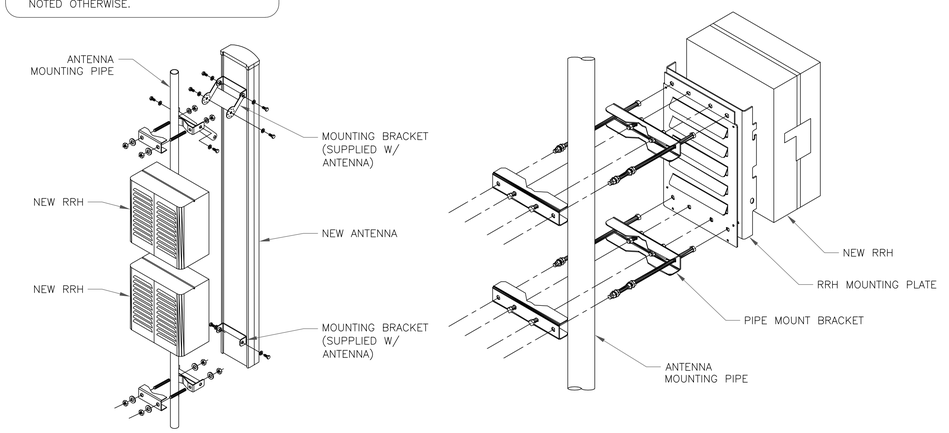
ANTENNA SCHEDULE

SECTOR	POS.	TECHNOLOGY	RAD CENTER	AZIMUTH	ANTENNA MANUFACTURER	ANTENNA MODEL	MECH. TILT	ELECT. TILT	TOWER MOUNTED EQUIPMENT	FEEDLINE TYPE
ALPHA	A1	L700/L600/N600 **L1900**	128'-0"	30°	RFS	APXVAAR25_43-U-NA20	0°	0°	(1) 4449 B71+B85 **(1) 4415 B25**	(1) 1 3/8" HYBRID
ALPHA	A2	L2100/L1900	128'-0"	30°	ERICSSON	AIR 32 KRD901146-1_B66A_B2A	0°	0°	–	HYBRID (SHARED)
ALPHA	A3	G1900/U2100	128'-0"	30°	ERICSSON	AIR21 KRC118023-_B2A_B4P	0°	0°	(1) ATMAA1412D-1A20	(2) 1 5/8" COAX
ALPHA	**A4**	**L2500/N2500**	**128'-0"**	**30°**	**ERICSSON**	**AIR6449 B41**	**0°**	**0°**	–	**(1) 1 5/8" HYBRID**
BETA	B1	L700/L600/N600 **L1900**	128'-0"	130°	RFS	APXVAAR25_43-U-NA20	0°	0°	(1) 4449 B71+B85 **(1) 4415 B25**	(1) 1 3/8" HYBRID
BETA	B2	L2100/L1900	128'-0"	130°	ERICSSON	AIR 32 KRD901146-1_B66A_B2A	0°	0°	–	HYBRID (SHARED)
BETA	B3	G1900/U2100	128'-0"	130°	ERICSSON	AIR21 KRC118023-_B2A_B4P	0°	0°	(1) ATMAA1412D-1A20	(2) 1 5/8" COAX
BETA	**B4**	**L2500/N2500**	**128'-0"**	**130°**	**ERICSSON**	**AIR6449 B41**	**0°**	**0°**	–	**(1) 1 5/8" HYBRID**
GAMMA	C1	L700/L600/N600 **L1900**	128'-0"	270°	RFS	APXVAAR25_43-U-NA20	0°	0°	(1) 4449 B71+B85 **(1) 4415 B25**	(1) 1 3/8" HYBRID
GAMMA	C2	L2100/L1900	128'-0"	270°	ERICSSON	AIR 32 KRD901146-1_B66A_B2A	0°	0°	–	HYBRID (SHARED)
GAMMA	C3	G1900/U2100	128'-0"	270°	ERICSSON	AIR21 KRC118023-_B2A_B4P	0°	0°	(1) ATMAA1412D-1A20	(2) 1 5/8" COAX
GAMMA	**C4**	**L2500/N2500**	**128'-0"**	**270°**	**ERICSSON**	**AIR6449 B41**	**0°**	**0°**	–	**(1) 1 5/8" HYBRID**

1 ANTENNA AND CABLE SCHEDULE
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



2 ANTENNA WITH RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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T-MOBILE
SITE NUMBER: **CT11161D**

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STATE OF CONNECTICUT
MICHAEL T. JOHNSON
31627
LICENSED PROFESSIONAL ENGINEER
8/20/20

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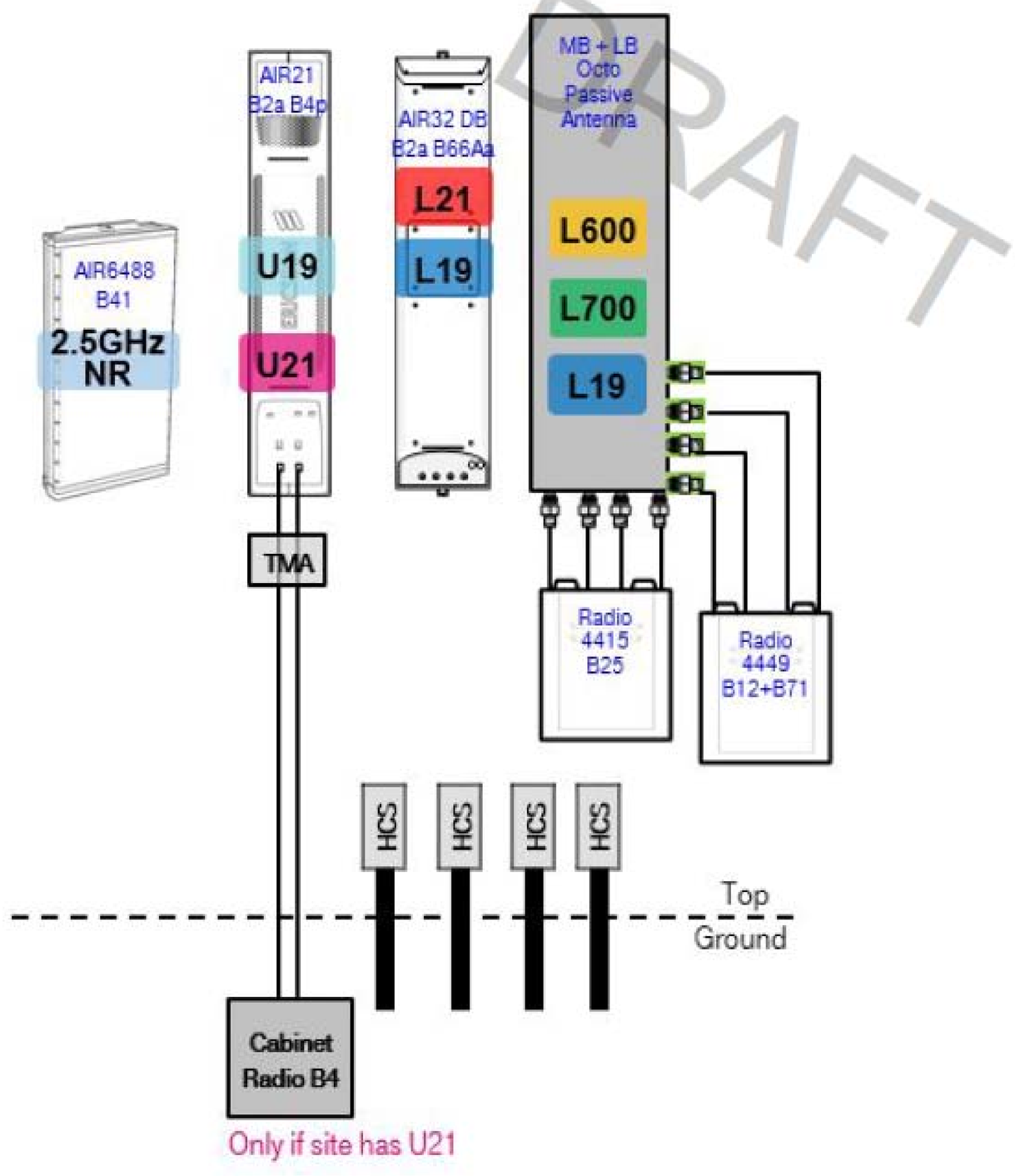
Expires 2/10/21

SHEET NUMBER: C-3

REVISION: 1



1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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STATE OF CONNECTICUT
31627
LICENSED
PROFESSIONAL ENGINEER
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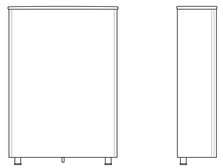
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

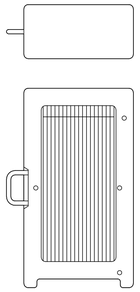
SHEET NUMBER: C-4

REVISION: 1



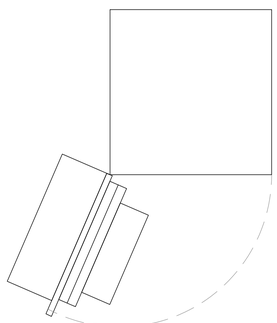
ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR6449 B41
WIDTH	20.6"
DEPTH	8.6"
HEIGHT	33.1"
WEIGHT	104 LBS

1 ANTENNA SPECS
SCALE: NOT TO SCALE



RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4415 B25
WIDTH	13.4"
DEPTH	5.9"
HEIGHT	16.5"
WEIGHT	46 LBS

2 RRU SPECS
SCALE: NOT TO SCALE



ERICSSON 6160 SSC
WEIGHT: 60.0 LBS
SIZE (HxWxD): 63"x25.6"x33.5" IN.

3 ERICSSON 6160 SSC
SCALE: NOT TO SCALE

BATTERY CABINET SPECIFICATIONS	
MODEL #	B160
MANUF.	ERICSSON
HEIGHT	63"
WIDTH	26"
DEPTH	26"
WEIGHT	

4 ERICSSON B160 BATTERY CABINET
SCALE: NOT TO SCALE

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T-MOBILE
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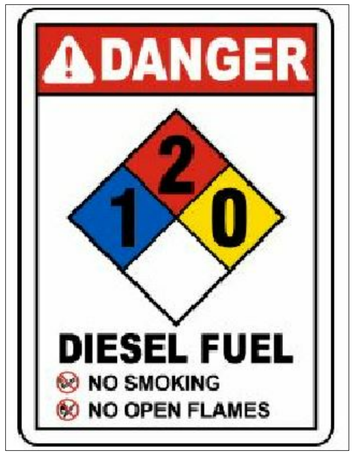
SHEET NUMBER: C-5

REVISION: 1

NEPA 704 HAZARD IDENTIFICATION SYSTEM DIAMOND
10X14 VINYL REFECTIVE ADHESIVE



DIESEL FUEL
COMBUSTIBLE
NO SMOKING
NO OPEN FLAMES
FUEL TANK CAPACITY 54 GALS

(WHITE LETTERING W/ RED & BLACK BACKGROUND) 6X10 REFLECTIVE ADHESIVE

DIESEL (WHITE LETTERING W/ RED BACKGROUND)

COMBUSTIBLE (BLACK LETTERING W/ WHITE BACKGROUND)

FLAMMABLE (BLACK LETTERING W/ WHITE BACKGROUND)

NO SMOKING (BLACK LETTERING W/ WHITE BACKGROUND)

HAZARD RATINGS:

NINE O'CLOCK – HEALTH (BLUE BACKGROUND, BLACK LETTERING)

TWELVE O'CLOCK – FLAMMABILITY (RED BACKGROUND, BLACK LETTERING)

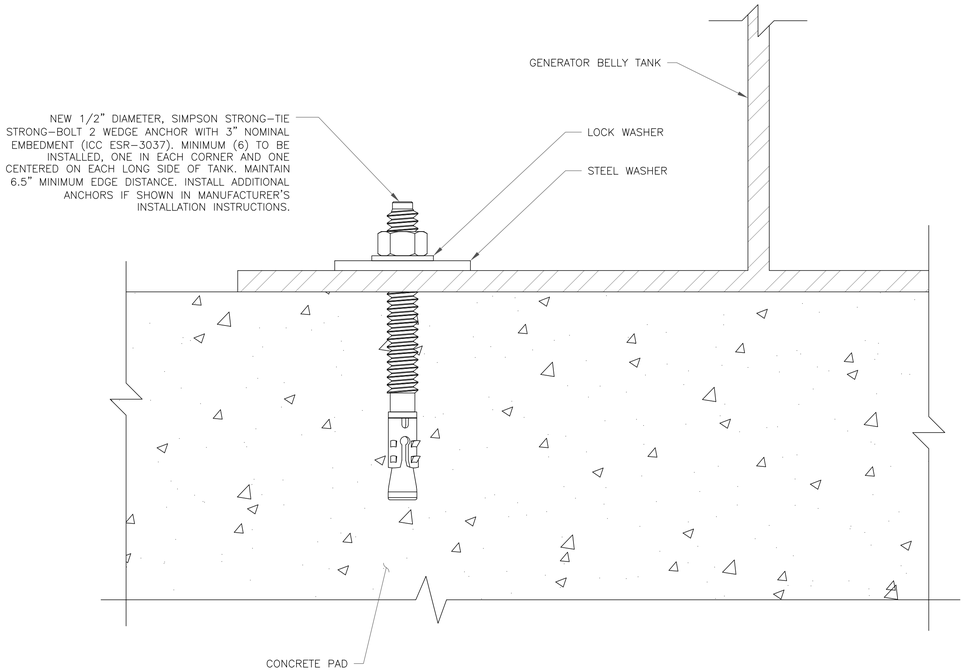
THREE O'CLOCK – INSTABILITY (YELLO BACKGROUND, BLACK LETTERING)

SIX O'CLOCK – SPECIAL (WHITE BACKGROUND, BLACK LETTERING)

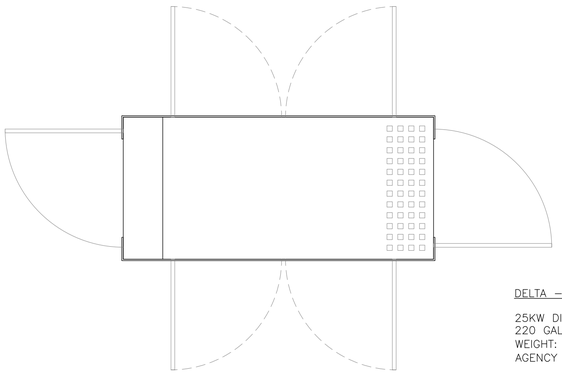
NOTE:

1. SIGNS MUST BE MADE OF DURABLE MATERIAL.
2. LETTERS SHALL NOT BE LESS THAN 1" (76.2mm) MIN. IN HEIGHT & 1/4" (12.7mm) IN STROKE.
3. SIGNS SHALL NOT BE OBSCURED OR REMOVED & SHALL BE IN ENGLISH AS A PRIMARY LANGUAGE.
4. SIGNS TO BE PLACED ON GENERATOR/FUEL TANK PER NEPA 704.
5. CONTRACTOR TO PROVIDE ALL REQUIRED SIGNAGE.

1 GENERATOR SIGN DETAIL
SCALE: NOT TO SCALE

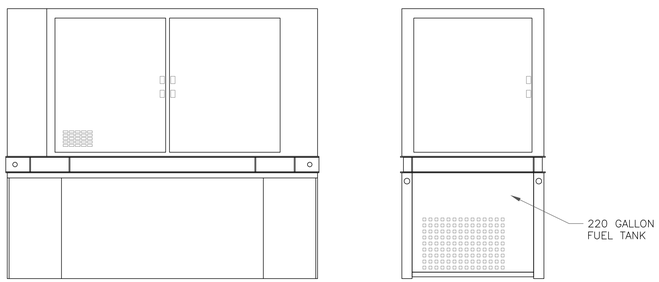


2 GENERATOR ANCHORAGE DETAIL
SCALE: NOT TO SCALE

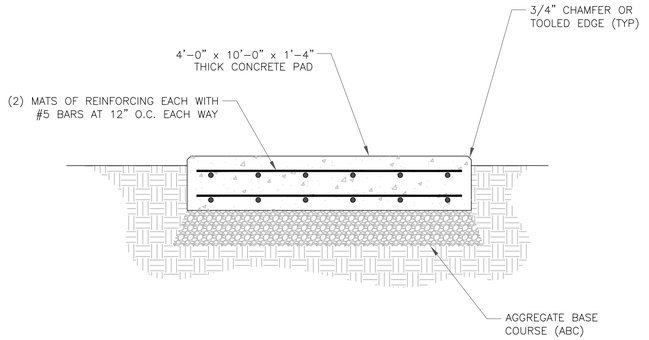


DELTA – ESOG150-PCA01:

25KW DIESEL DC GENERATOR
220 GALLON FUEL TANK
WEIGHT: 5,000 LBS MAX (APPROXIMATE)
AGENCY LISTINGS: UL 2200/UL 142



3 DIESEL DC GENSET 25 KW (ESOG150-PCA01)
SCALE: NOT TO SCALE



NOTES:

1) MINIMUM CONCRETE STRENGTH (f'c) TO BE 4,500 psi UNLESS NOTED OTHERWISE. CONCRETE MIX SHALL BE DESIGNED BY A CERTIFIED LABORATORY. CONCRETE EXPOSED TO FREEZE-THAW CYCLES TO CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F2 CLASS EXPOSURE. CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A WATER-TO-CEMENT RATIO (W/C) NOT TO EXCEED 0.45.

2) CONCRETE PAD SHALL BEAR ON A MINIMUM OF 8" OF AGGREGATE BASE COURSE (ABC) MATERIAL COMPACTED TO 98% OF MAXIMUM DENSITY DETERMINED BY ASTM D1557 (MODIFIED PROCTOR). MATERIAL SHOULD BE WITHIN 3% OF OPTIMUM MOISTURE AT TIME OF COMPACTION.

3) ALL REINFORCING TO MAINTAIN 3" COVER WHEN CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.

4 CONCRETE PAD DETAIL
SCALE: NOT TO SCALE

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

SHEET NUMBER: C-6

REVISION: 1

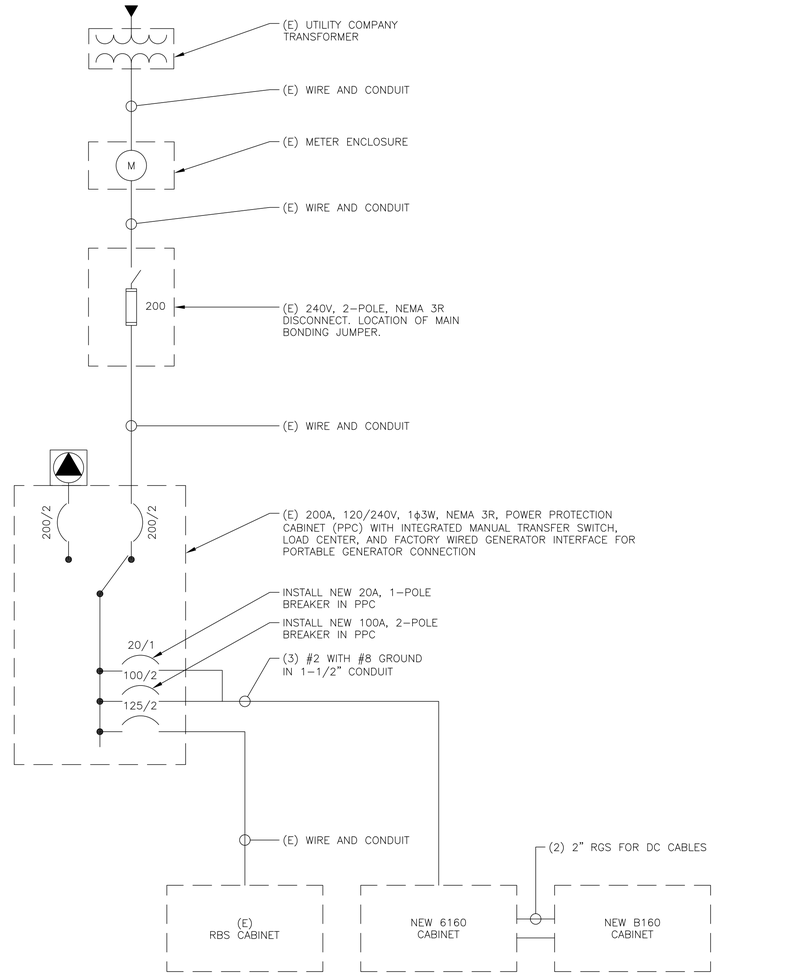
FINAL PANEL SCHEDULE							
LOAD	POLES	AMPS	BUS L1	BUS L2	AMPS	POLES	LOAD
PROPOSED 6160	2	100A	1	2	125A	2	6131
			3	4			
PROPOSED GFCI	1	20A	5	6	20A	1	EQUIPMENT
			7	8	20A	1	INT LIGHT
			9	10			
			11	12			
			13	14			
			15	16			
EQUIPMENT	2	60A	17	18			
			19	20			
			21	22			
			23	24			
			25	26			
			27	28			
			29	30			

RATED VOLTAGE: ■120/240 □_____, 1 PHASE, 3 WIRE	BRANCH POLES: □12 □24 ■30 □42	APPROVED MF'RS
RATED AMPS: □100 ■200 □400 □_____	CABINET: ■SURFACE □FLUSH	NEMA □1 ■3R □4X
MAIN LUGS ONLY / MAIN 200 AMPS ■BREAKER □FUSED SWITCH	■HINGED DOOR	■KEYED DOOR LATCH
FUSED ■CIRCUIT BREAKER BRANCH DEVICES	□ TO BE GFCI BREAKERS	FULL NEUTRAL BUS / GROUND BAR
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL		

REPLACE EXISTING BREAKER IN POSITION 1 AND 3 WITH A NEW 2P 100A BREAKER. INSTALL NEW 1P 20A BREAKER IN POSITION 5.
REPLACE EXISTING WIRES FOR PROPOSED 6160 CABINET WITH (3) 1/0 AWG THWN (COPPER) AND (1) #6G AWG. MINIMUM CONDUIT SIZE TO BE 2".
IF 100A BREAKER WILL NOT PROPERLY FIT IN EXISTING PANEL, REPLACE (E) PANEL WITH SQUARE D PANEL QO12040M200RB (OR APPROVED EQUAL).
UPGRADE FEEDER WIRES TO MEET AMPACITY IF NEW PANEL IS REQUIRED.
FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING PHOTOS

1 FINAL T-MOBILE PANEL DETAIL
SCALE: NOT TO SCALE

1 AC PANEL SCHEDULE
SCALE: NOT TO SCALE



NOTES:

1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.

2 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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SHEET NUMBER: E-1

REVISION: 1

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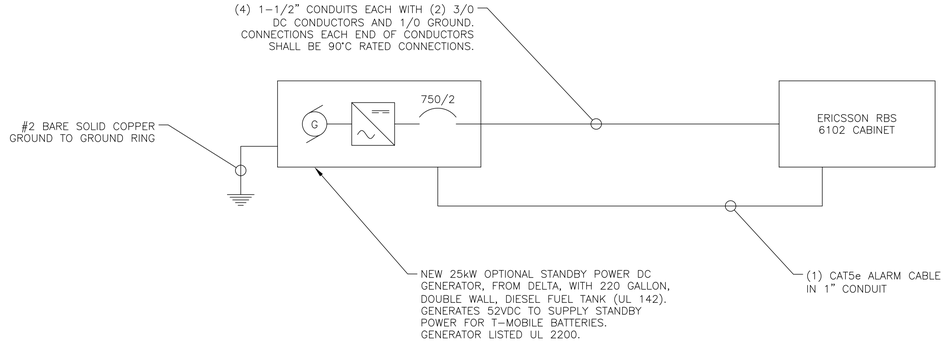

1 DC GENERATOR ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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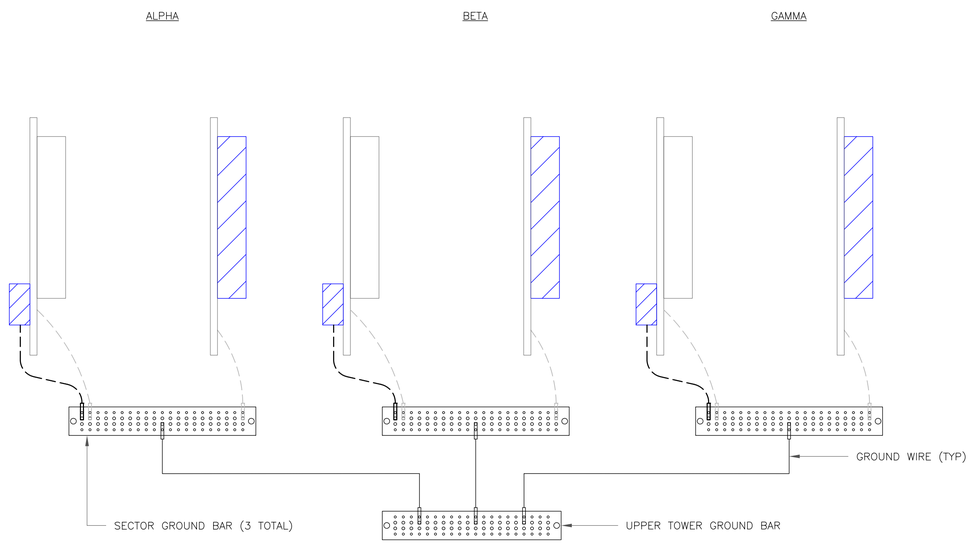
STATE OF CONNECTICUT
JEFFREY T. JOHNSON
31627
LICENSED PROFESSIONAL ENGINEER
8/20/20

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

SHEET NUMBER: E-2

REVISION: 1



NOTE:

ALL NEW GROUNDS TO BE #6 STRANDED COPPER WITH GREEN INSULATION UNLESS NOTED OTHERWISE.

1 ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
HRT 094 943225

439 HOMESTEAD AVE
HARTFORD, CT 06105

EXISTING
140'-0" MONOPOLE

ISSUED FOR:

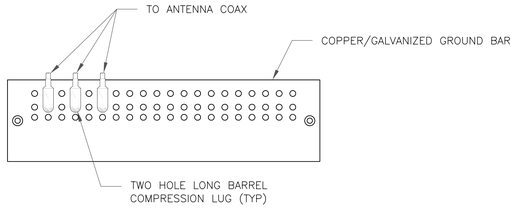
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
MATTHEW T. JOHNSON
31627
LICENSED PROFESSIONAL ENGINEER
8/20/20

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

SHEET NUMBER: G-1

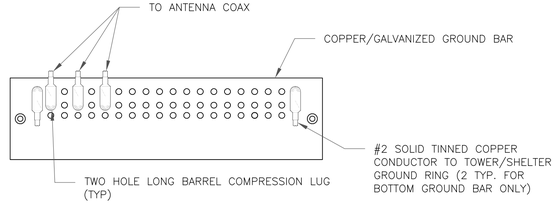
REVISION: 1



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

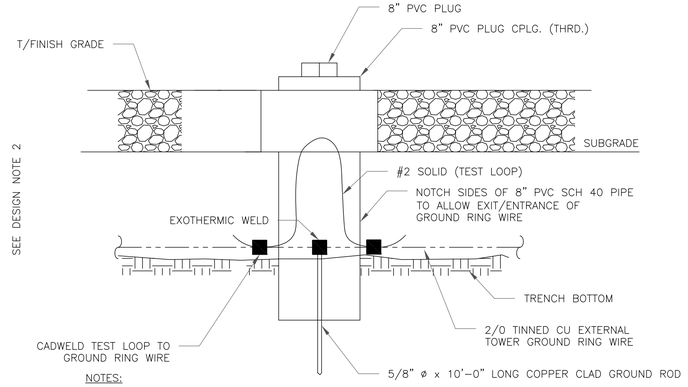
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

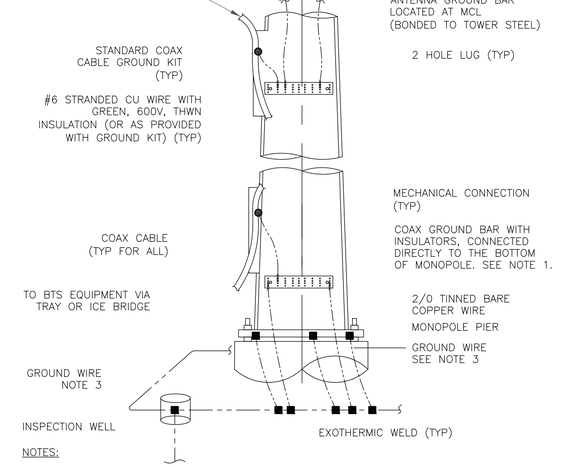
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

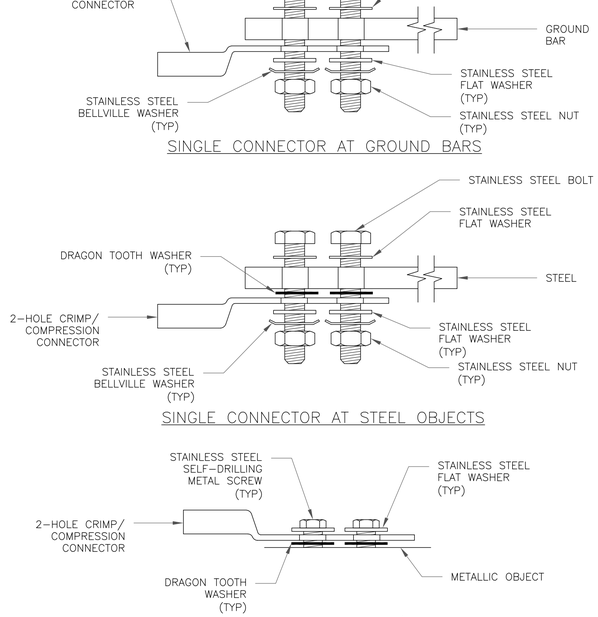
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



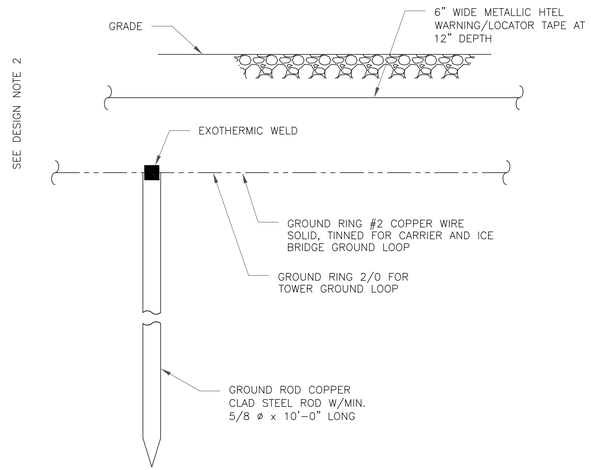
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
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140'-0" MONOPOLE

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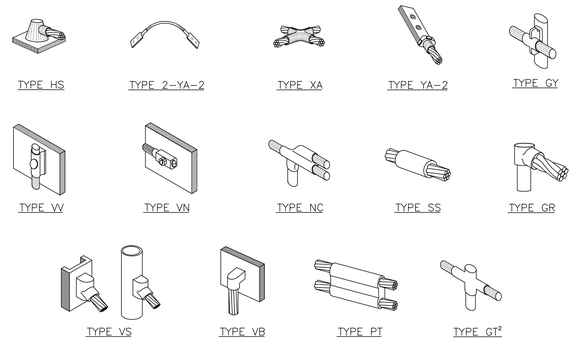
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-2
REVISION: 1

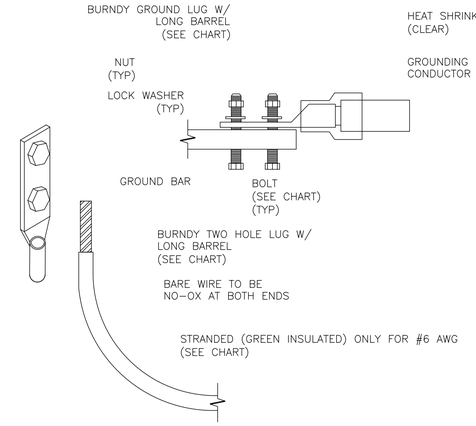


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

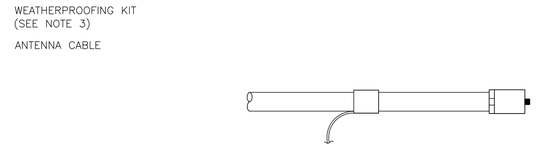
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER,GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

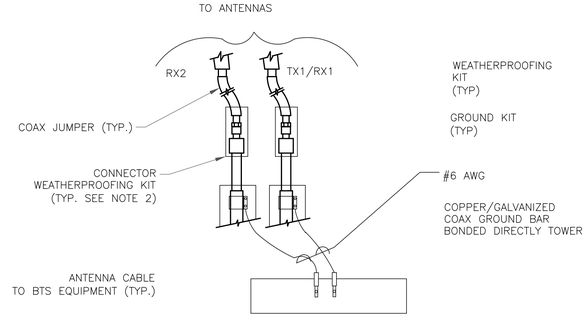
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

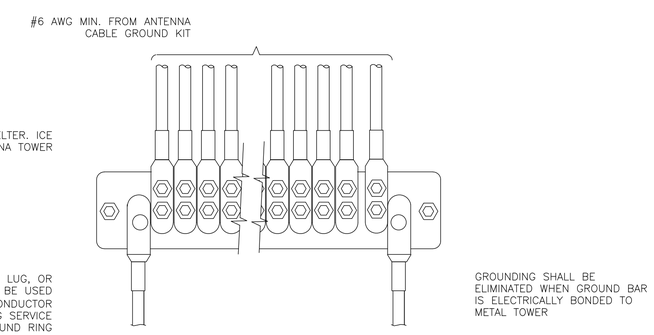
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



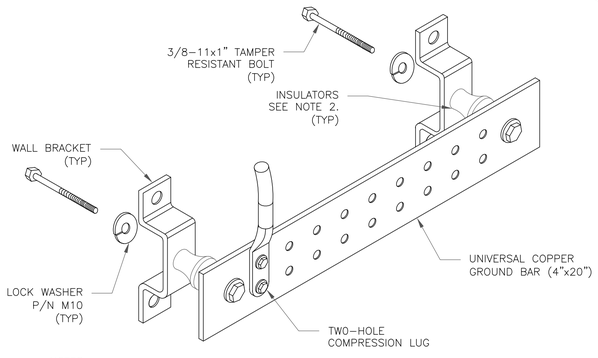
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



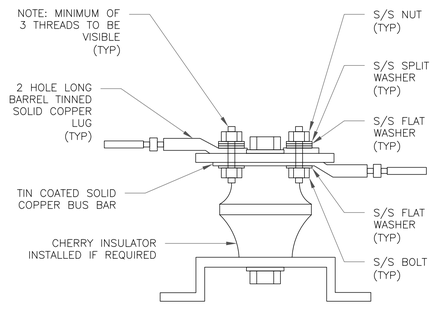
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



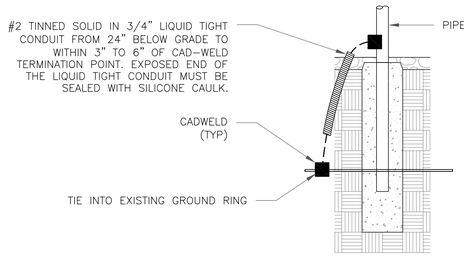
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
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T-MOBILE
SITE NUMBER: **CT11161D**

BU #: **806369**
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439 HOMESTEAD AVE
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EXISTING
140'-0" MONOPOLE

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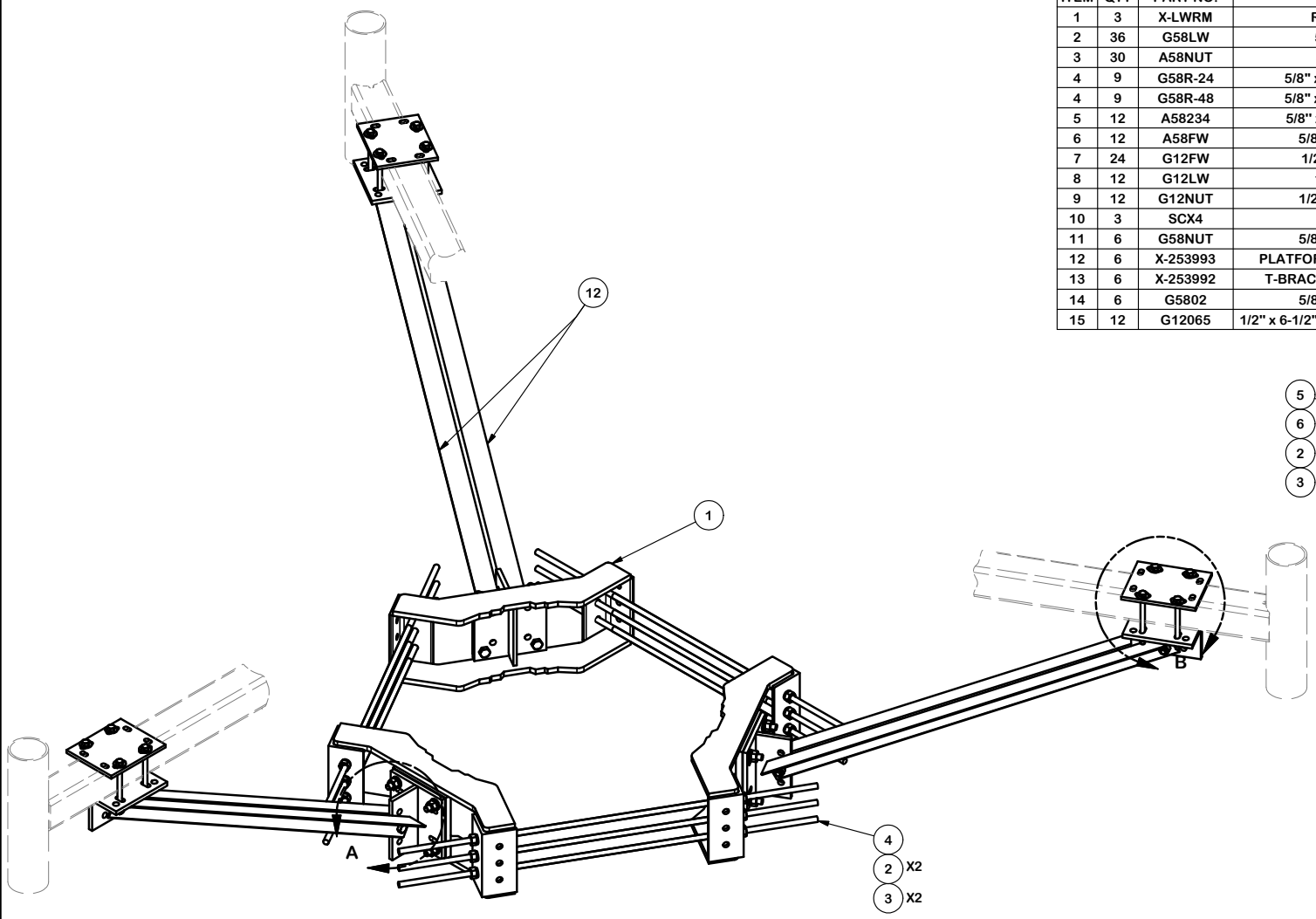
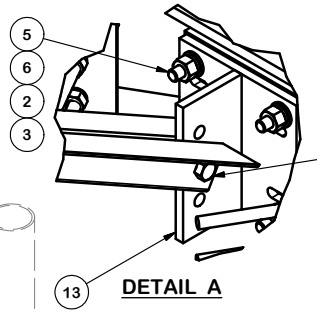
A	07/20/20	DLS	PRELIMINARY	RMC
0	8/11/20	DLS	CONSTRUCTION	RMC
1	8/20/20	MLC	CONSTRUCTION	MTJ

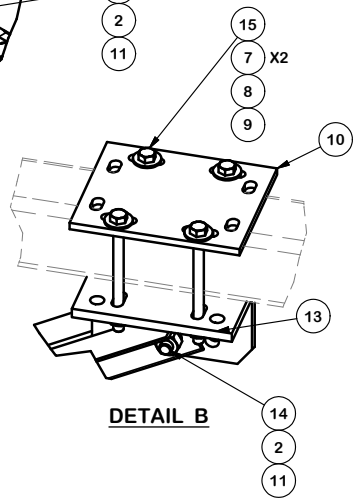
STATE OF CONNECTICUT
8/20/20
31627
LICENSED
PROFESSIONAL ENGINEER

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

SHEET NUMBER: G-3
REVISION: 1







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	36	G58LW	5/8" HDG LOCKWASHER		0.03	0.94
3	30	A58NUT	5/8" HDG A325 HEX NUT		0.13	3.90
4	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.55	4.94
4	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)		0.55	4.94
5	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	4.27
6	12	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
7	24	G12FW	1/2" HDG USS FLATWASHER		0.03	0.82
8	12	G12LW	1/2" HDG LOCKWASHER		0.01	0.17
9	12	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.86
10	3	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	18.06
11	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
12	6	X-253993	PLATFORM REINFORCEMENT KIT ANGLE	52 25/32 in	14.33	85.99
13	6	X-253992	T-BRACKET FOR REINFORCEMENT KIT		13.55	81.27
14	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
15	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
					TOTAL WT. #	464.91

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")*

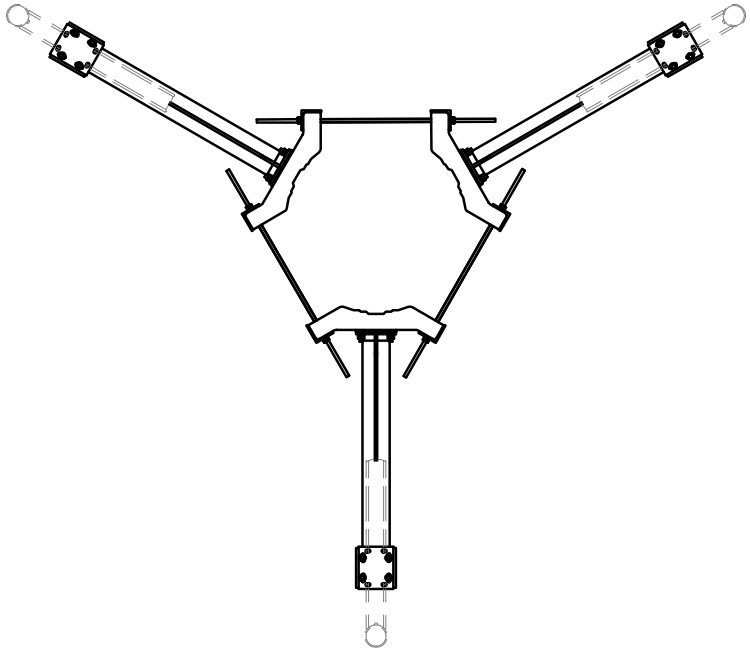
DESCRIPTION
PLATFORM RENIFORCEMENT
ON A 12" TO 45" POLE
4' 6" ANGLE

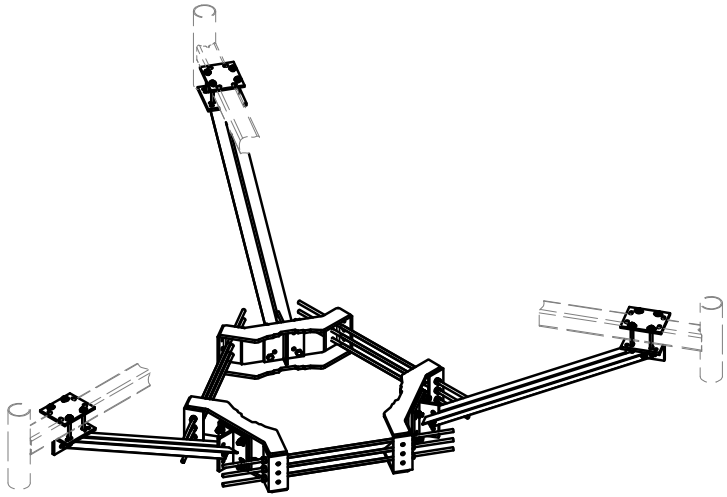
SITE PRO 1 — A valmont COMPANY

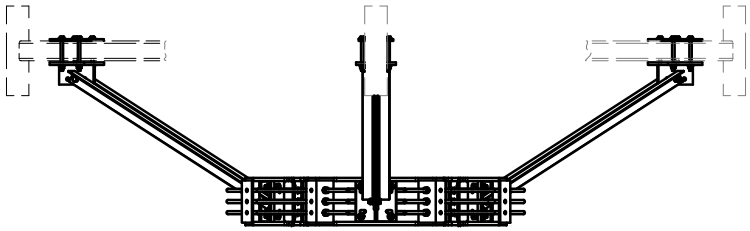
Engineering Support Team: 1-888-753-7446

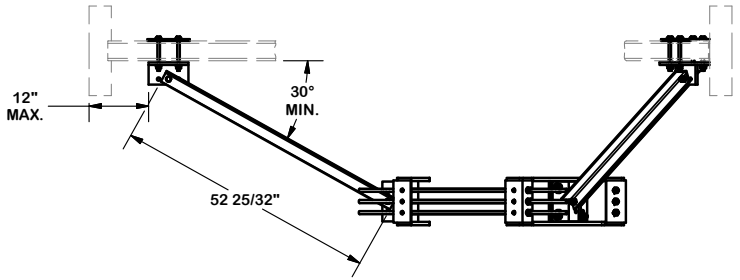
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	
4488	CEK 4/10/2014		PRK-1245	PAGE 1 OF 2
CLASS / SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
81 / 01	CUSTOMER	BMC 4/10/2014	PRK-1245	









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BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
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PLATFORM RENIFORCEMENT
ON A 12" TO 45" POLE
4' 6" ANGLE

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CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 4/10/2014	PRK-1245

Exhibit D

Structural Analysis Report

PAUL J. FORD & COMPANY

Date: **June 24, 2020**

Stephanie Lipscomb
Crown Castle
370 Mallory Station Rd
Franklin, TN 37067

Paul J. Ford & Company
250 East Broad St., Suite 600
Columbus, OH 43215
(614) 221-6679

Subject:	**Structural Analysis Report**	
Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CT11161D
	Carrier Site Name:	CT161/Jn of Albany_1
Crown Castle Designation:	**Crown Castle BU Number:**	806369
	Crown Castle Site Name:	HRT 094 943225
	Crown Castle JDE Job Number:	613800
	Crown Castle Work Order Number:	1859403
	Crown Castle Order Number:	523998 Rev. 1
Engineering Firm Designation:	**Paul J. Ford & Company Project Number:**	37520-1171.001.7805
Site Data:	**439-455 HOMESTEAD AVE, HARTFORD, Hartford County, CT**	
	Latitude *41° 47' 1.61"*, Longitude *-72° 42' 13.66"*	
	140 Foot - Monopole Tower	

Dear Stephanie Lipscomb,

Paul J. Ford & Company is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

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

LC7: Proposed Equipment Configuration **Sufficient Capacity – 50.4%**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

Jaime Acuna
Structural Designer
jacuna@pauljford.com

RMF

STATE OF CONNECTICUT · JUSTIN T. KLINE · No. 30301 · LICENSED PROFESSIONAL ENGINEER

2020.06.24
13:20:24-04'00'

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3.1) Analysis Method
3.2) Assumptions

4) ANALYSIS RESULTS
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Table 5 – Tower Component Stresses vs. Capacity - LC7
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tnxTower Output

6) APPENDIX B
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7) APPENDIX C
Additional Calculations

1) INTRODUCTION

This tower is a 140 ft Monopole tower designed by VALMONT in august of 1999. and mapped by TEP in July of 2008.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	2 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
126.0	128.0	3	ericsson	AIR -32 B2A/B66AA w/ Mount Pipe	3 9	1-3/8 1-5/8
		3	ericsson	AIR6449 B41 w/ Mount Pipe		
		3	ericsson	ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RRUS 4415 B25_CCIV2		
		3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe		
	126.0	3	rfs celwave	ATMAA1412D-1A20		
		1	tower mounts	Platform Mount [LP 713-1_W/ Sitepro PRK-1245]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
140.0	140.0	3	alcatel lucent	RRH2X40-AWS	13	1-5/8
		3	amphenol	BXA-80063-4BF-EDIN-X w/ Mount Pipe		
		3	antel	BXA-171063-8BF-EDIN-2 w/ Mount Pipe		
		3	antel	BXA-171063/8CF-EDIN-2 w/ Mount Pipe		
		3	css	X7C-FRO-660-V w/ Mount Pipe		
		1	raycap	RRFDC-3315-PF-48		
		6	rfs celwave	FD9R6004/2C-3L		
		1	tower mounts	Platform Mount [LP 713-1]		
		3	tower mounts	Side Arm Mount [SO 203-1]		
117.0	120.0	2	cci antennas	DMP65R-BU6D w/ Mount Pipe	4 12 2 2 1	3/4 1-5/8 3/8 7/8 2.25” Conduit
		1	cci antennas	DMP65R-BU8D w/ Mount Pipe		
		1	cci antennas	TPA-65R-LCUUUU-H8 w/ Mount Pipe		
		3	ericsson	RRUS 32 B30		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 8843 B2/B66A_CCIV2		
		3	powerwave technologies	7770.00 w/ Mount Pipe		
		6	powerwave technologies	LGP21401		
		2	quintel technology	QS66512-3 w/ Mount Pipe		
		1	raycap	DC6-48-60-0-8C-EV		
		2	raycap	DC6-48-60-18-8F		
	117.0	1	tower mounts	Platform Mount [LP 713-1]		
104.0	104.0	3	alcatel lucent	800MHz 2X50W RRH W/FILTER	-	-
		3	alcatel lucent	PCS 1900MHz 4x45W-65MHz		
		1	tower mounts	Pipe Mount [PM 602-3]		
		2	tower mounts	Side Arm Mount [SO 104-3]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
103.0	107.0	1	andrew	VHLP2-180	3 3 1 3 3 2	1/4 5/16 1-1/2 1-1/4 1/2 2.25" Conduit
		1	andrew	VHLP2.5-11		
		2	dragonwave	HORIZON COMPACT		
	105.0	3	argus technologies	LLPX310R-V1 w/ Mount Pipe		
		3	nokia	AAHC w/ Mount Pipe		
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		
		3	rfs celwave	IBC1900BB-1		
		3	rfs celwave	IBC1900HG-2A		
		3	samsung telecommunications	WIMAX DAP HEAD		
	103.0	1	tower mounts	Platform Mount [LP 713-1]		
93.0	93.0	3	kathrein	742 213 w/ Mount Pipe	6	1-5/8
		1	tower mounts	Pipe Mount [PM 602-3]		
		1	tower mounts	Side Arm Mount [SO 104-3]		
74.0	80.0	1	antel	BCD-87010	1	7/8
	74.0	1	tower mounts	Side Arm Mount [SO 701-1]		
50.0	52.0	1	lucent	KS24019-L112A	1	7/8
	50.0	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	TEP, 081972.03, 08/4/2008	2294838	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	TEP, 081972, 07/28/2008 (Mapped)	2294380	CCISITES
4-TOWER MANUFACTURER DRAWINGS	TEP, 081972, 07/28/2008 (Mapped)	2294379	CCISITES
4-STRUCTURAL ANALYSIS	Valmont, 18915-69, 08/20/1999	823121	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

3.2) Assumptions

1) Tower and structures were maintained in accordance with the TIA-222 Standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3) At the time of analysis the reference document #823121 provided the pole geometry information.
4) The Base Plate drawings were not available at the time of this analysis. Therefore, we have assumed the material yield strengths (F'c and Fy) as per the following:
   a. Anchor rods: ASTM A615 (Fu = 100 ksi, Fy = 75 ksi),
   b. Base Plate: ASTM A572 Gr 60
5) The foundation drawings were not available at the time of this analysis. Therefore, we have assumed the material yield strengths (F'c and Fy) as per the following:
   a. Concrete F'c: 3000 PSI
   b. Foundation Reinforcing Fy: ASTM A615 Gr 60

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford & Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	140 - 86.83	Pole	TP39.223x26.216x0.3125	1	-23.81	2319.28	38.2	Pass
L2	86.83 - 38	Pole	TP50.56x37.2109x0.4063	2	-39.16	3892.16	50.4	Pass
L3	38 - 0	Pole	TP59.05x48.0329x0.5	3	-60.30	5790.26	48.8	Pass
							Summary	
						Pole (L2)	50.4	Pass
						RATING =	50.4	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	49.8	Pass
1	Base Plate	0	17.1	Pass
1	Base Foundation Structural steel	0	33.4	Pass
1	Base Foundation Soil Interaction	0	42.1	Pass

Structure Rating (max from all components) =	50.4%

Notes:

- All structural ratings are per TIA-222-H Section 15.5

1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

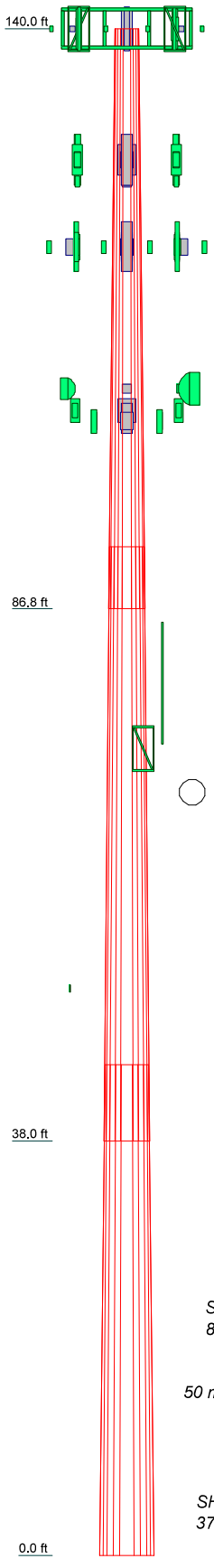
4.1) Recommendations

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

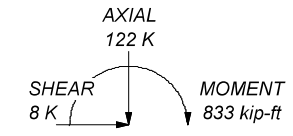
APPENDIX A

TNXTOWER OUTPUT

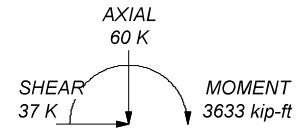
Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	53.17	12	0.3125	5.67	26.2160	39.2230		5.9
2	54.50	12	0.4063	7.00	37.2109	50.5600	A572-65	10.5
3	45.00	12	0.5000		48.0329	59.0500		13.1
								29.5



ALL REACTIONS ARE FACTORED



TORQUE 0 kip-ft
50 mph WIND - 2.0000 in ICE



TORQUE 1 kip-ft
REACTIONS - 125 mph WIND

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 2.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TIA-222-H Annex S
9. TOWER RATING: 50.4%

Paul J. Ford & Company
250 East Broad st., Suite 600
Columbus, OH 43215
Phone: (614) 221-6679
FAX:

Job: *140 Ft / HRT 094 943225 / HARTFORD, NY*		
Project: *PJF# 37520-1171.001.7805 / BU# 806369*		
Client: CCI	Drawn by: jacuna	App'd:
Code: TIA-222-H	Date: 06/23/20	Scale: NTS
Path: G:\TOWER\375_Crown_Castle\2020\37520-1171_806369_HRT 094 943225\37520-1171.001.7805_SA_185940\37520-1171.001.7805.eri		Dwg No. E-1

Tower Input Data

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

1) Tower is located in Hartford County, Connecticut.
2) Tower base elevation above sea level: 60.06 ft.
3) Basic wind speed of 125 mph.
4) Risk Category II.
5) Exposure Category B.
6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
7) Topographic Category: 1.
8) Crest Height: 0.00 ft.
9) Nominal ice thickness of 2.0000 in.
10) Ice thickness is considered to increase with height.
11) Ice density of 56 pcf.
12) A wind speed of 50 mph is used in combination with ice.
13) Temperature drop of 50 °F.
14) Deflections calculated using a wind speed of 60 mph.
15) A non-linear (P-delta) analysis was used.
16) Pressures are calculated at each section.
17) Stress ratio used in pole design is 1.05.
18) Tower analysis based on target reliabilities in accordance with Annex S.
19) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
20) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	*Elevation ft*	*Section Length ft*	*Splice Length ft*	*Number of Sides*	*Top Diameter in*	*Bottom Diameter in*	*Wall Thickness in*	*Bend Radius in*	*Pole Grade*
L1	140.00-86.83	53.17	5.67	12	26.2160	39.2230	0.3125	1.2500	A572-65 (65 ksi)
L2	86.83-38.00	54.50	7.00	12	37.2109	50.5600	0.4063	1.6250	A572-65 (65 ksi)
L3	38.00-0.00	45.00		12	48.0329	59.0500	0.5000	2.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	27.0306	26.0654	2232.3752	9.2735	13.5799	164.3883	4523.3974	12.8286	6.1884	19.803
	40.4964	39.1537	7566.4519	13.9300	20.3175	372.4103	15331.6830	19.2703	9.6743	30.958
L2	39.8181	48.1451	8324.2452	13.1761	19.2753	431.8614	16867.1776	23.6956	8.8838	21.868
	52.2003	65.6074	21064.2222	17.9550	26.1901	804.2825	42681.8251	32.2900	12.4613	30.674
L3	51.3252	76.5280	22069.6751	17.0168	24.8811	887.0069	44719.1451	37.6648	11.5328	23.066
	60.9567	94.2655	41247.0150	20.9609	30.5879	1348.4749	83577.6350	46.3946	14.4854	28.971

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 140.00-86.83				1	1	1			
L2 86.83-38.00				1	1	1			
L3 38.00-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
LDF7-50A(1-5/8)	B	No	Surface Ar (CaAa)	140.00 - 0.00	6	6	-0.500 -0.325	1.9800		0.82
HCS 6X12 6AWG(1-3/8)	C	No	Surface Ar (CaAa)	126.00 - 0.00	1	1	0.275 0.275	1.3800		1.70
LCF158-50JA(1-5/8)	C	No	Surface Ar (CaAa)	126.00 - 0.00	5	5	0.292 0.433	2.0100		0.92
HCS 6X12 4AWG(1-5/8)	A	No	Surface Ar (CaAa)	126.00 - 0.00	1	1	0.350 0.350	1.6600		2.40
2-1/4" (Nominal) Conduit	C	No	Surface Ar (CaAa)	117.00 - 0.00	1	1	0.408 0.408	2.5000		0.72
MLC6C-06C-008R-008R(1-1/2)	A	No	Surface Ar (CaAa)	103.00 - 0.00	1	1	-0.217 -0.217	1.4800		1.52
HB114-1-08U4-M5J(1-1/4)	A	No	Surface Ar (CaAa)	103.00 - 0.00	3	2	-0.458 -0.408	1.5400		1.08
2-1/4" (Nominal) Conduit **********	A	No	Surface Ar (CaAa)	103.00 - 0.00	2	2	-0.300 -0.233	2.5000		0.72
LDF5-50A(7/8) **********	B	No	Surface Ar (CaAa)	74.00 - 0.00	1	1	-0.258 -0.258	1.0300		0.33
LDF5-50A(7/8)	B	No	Surface Ar (CaAa)	50.00 - 0.00	1	1	-0.283 -0.283	1.0300		0.33

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
LDF7-50A(1-5/8)	C	No	No	Inside Pole	140.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	140.00 - 0.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
**********									
HCS 6X12 6AWG(1-3/8)	C	No	No	Inside Pole	126.00 - 0.00	2	No Ice	0.00	1.70
							1/2" Ice	0.00	1.70
							1" Ice	0.00	1.70
							2" Ice	0.00	1.70
LCF158-50JA(1-5/8)	C	No	No	Inside Pole	126.00 - 0.00	1	No Ice	0.00	0.92
							1/2" Ice	0.00	0.92
							1" Ice	0.00	0.92
							2" Ice	0.00	0.92
HCS 6X12 4AWG(1-5/8)	C	No	No	Inside Pole	126.00 - 0.00	2	No Ice	0.00	2.40
							1/2" Ice	0.00	2.40
							1" Ice	0.00	2.40
							2" Ice	0.00	2.40
**********									
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	117.00 - 0.00	4	No Ice	0.00	0.58
							1/2" Ice	0.00	0.58
							1" Ice	0.00	0.58
							2" Ice	0.00	0.58
LDF7-50A(1-5/8)	C	No	No	Inside Pole	117.00 - 0.00	12	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	117.00 - 0.00	1	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
FB-L98B-034-XXXXXX(3/8)	C	No	No	Inside Pole	117.00 - 0.00	1	No Ice	0.00	0.05
							1/2" Ice	0.00	0.05
							1" Ice	0.00	0.05
							2" Ice	0.00	0.05
WR-VG66ST-BRD_CCIV2(7/8)	C	No	No	Inside Pole	117.00 - 0.00	2	No Ice	0.00	0.88
							1/2" Ice	0.00	0.88
							1" Ice	0.00	0.88
							2" Ice	0.00	0.88
**********									
LDF1-50A(1/4)	C	No	No	Inside Pole	103.00 - 0.00	3	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
ATCB-B01-005(5/16)	C	No	No	Inside Pole	103.00 - 0.00	3	No Ice	0.00	0.07
							1/2" Ice	0.00	0.07
							1" Ice	0.00	0.07
							2" Ice	0.00	0.07
FSJ4-50B(1/2)	C	No	No	Inside Pole	103.00 - 0.00	3	No Ice	0.00	0.14
							1/2" Ice	0.00	0.14
							1" Ice	0.00	0.14
							2" Ice	0.00	0.14
**********									
AVA7-50(1-5/8)	C	No	No	Inside Pole	93.00 - 0.00	6	No Ice	0.00	0.70
							1/2" Ice	0.00	0.70
							1" Ice	0.00	0.70
							2" Ice	0.00	0.70

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	140.00-86.83	A	0.000	0.000	21.961	0.000	0.19

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
		B	0.000	0.000	63.166	0.000	0.26
		C	0.000	0.000	52.314	0.000	1.42
L2	86.83-38.00	A	0.000	0.000	54.787	0.000	0.42
		B	0.000	0.000	62.954	0.000	0.26
		C	0.000	0.000	68.020	0.000	2.02
L3	38.00-0.00	A	0.000	0.000	42.636	0.000	0.33
		B	0.000	0.000	52.972	0.000	0.21
		C	0.000	0.000	52.934	0.000	1.57

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	140.00-86.83	A	1.921	0.000	0.000	62.022	0.000	1.09
		B		0.000	0.000	104.494	0.000	1.62
		C		0.000	0.000	107.610	0.000	2.92
L2	86.83-38.00	A	1.811	0.000	0.000	149.078	0.000	2.55
		B		0.000	0.000	119.351	0.000	1.84
		C		0.000	0.000	141.264	0.000	4.01
L3	38.00-0.00	A	1.604	0.000	0.000	112.238	0.000	1.85
		B		0.000	0.000	108.982	0.000	1.60
		C		0.000	0.000	107.206	0.000	3.01

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	140.00-86.83	-2.8300	-1.6225	-3.3617	-1.0637
L2	86.83-38.00	-5.1170	-0.8546	-5.7156	-0.6266
L3	38.00-0.00	-5.5333	-1.2494	-5.9550	-1.3461

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	1	LDF7-50A(1-5/8)	86.83 - 140.00	1.0000	1.0000
L1	6	HCS 6X12 6AWG(1-3/8)	86.83 - 126.00	1.0000	1.0000
L1	7	LCF158-50JA(1-5/8)	86.83 - 126.00	1.0000	1.0000
L1	10	HCS 6X12 4AWG(1-5/8)	86.83 - 126.00	1.0000	1.0000
L1	19	2-1/4" (Nominal) Conduit	86.83 - 117.00	1.0000	1.0000
L1	23	MLC6C-06C-008R-008R(1-1/2)	86.83 - 103.00	1.0000	1.0000
L1	24	HB114-1-08U4-M5J(1-1/4)	86.83 - 103.00	1.0000	1.0000
L1	26	2-1/4" (Nominal) Conduit	86.83 - 103.00	1.0000	1.0000
L1	30	LDF5-50A(7/8)	86.83 - 74.00	1.0000	1.0000
L1	32	LDF5-50A(7/8)	86.83 - 50.00	1.0000	1.0000
L2	1	LDF7-50A(1-5/8)	38.00 - 86.83	1.0000	1.0000
L2	6	HCS 6X12 6AWG(1-3/8)	38.00 - 86.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L2	7	LCF158-50JA(1-5/8)	38.00 - 86.83	1.0000	1.0000
L2	10	HCS 6X12 4AWG(1-5/8)	38.00 - 86.83	1.0000	1.0000
L2	19	2-1/4" (Nominal) Conduit	38.00 - 86.83	1.0000	1.0000
L2	23	MLC6C-06C-008R-008R(1-1/2)	38.00 - 86.83	1.0000	1.0000
L2	24	HB114-1-08U4-M5J(1-1/4)	38.00 - 86.83	1.0000	1.0000
L2	26	2-1/4" (Nominal) Conduit	38.00 - 86.83	1.0000	1.0000
L2	30	LDF5-50A(7/8)	38.00 - 74.00	1.0000	1.0000
L2	32	LDF5-50A(7/8)	38.00 - 50.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment ° ft	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
BXA-80063-4BF-EDIN-X w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.62 4.99 5.36 6.13	3.47 4.04 4.63 5.83	0.03 0.07 0.12 0.23
BXA-80063-4BF-EDIN-X w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.62 4.99 5.36 6.13	3.47 4.04 4.63 5.83	0.03 0.07 0.12 0.23
BXA-80063-4BF-EDIN-X w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.62 4.99 5.36 6.13	3.47 4.04 4.63 5.83	0.03 0.07 0.12 0.23
BXA-171063/8CF-EDIN-2 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.14 3.52 3.89 4.65	3.51 4.13 4.76 6.06	0.03 0.06 0.10 0.20
BXA-171063/8CF-EDIN-2 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.14 3.52 3.89 4.65	3.51 4.13 4.76 6.06	0.03 0.06 0.10 0.20
BXA-171063/8CF-EDIN-2 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.14 3.52 3.89 4.65	3.51 4.13 4.76 6.06	0.03 0.06 0.10 0.20
X7C-FRO-660-V w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.88 9.60 10.34 11.87	6.44 7.13 7.83 9.29	0.07 0.15 0.23 0.43
X7C-FRO-660-V w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.88 9.60 10.34 11.87	6.44 7.13 7.83 9.29	0.07 0.15 0.23 0.43

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
X7C-FRO-660-V w/ Mount Pipe	C	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.88 9.60 10.34 11.87	6.44 7.13 7.83 9.29	0.07 0.15 0.23 0.43
BXA-171063-8BF-EDIN-2 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.18 3.56 3.93 4.69	3.35 3.97 4.60 5.89	0.03 0.06 0.10 0.19
BXA-171063-8BF-EDIN-2 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.18 3.56 3.93 4.69	3.35 3.97 4.60 5.89	0.03 0.06 0.10 0.19
BXA-171063-8BF-EDIN-2 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.18 3.56 3.93 4.69	3.35 3.97 4.60 5.89	0.03 0.06 0.10 0.19
(2) FD9R6004/2C-3L	A	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.31 0.39 0.47 0.65	0.08 0.12 0.17 0.29	0.00 0.01 0.01 0.02
(2) FD9R6004/2C-3L	B	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.31 0.39 0.47 0.65	0.08 0.12 0.17 0.29	0.00 0.01 0.01 0.02
(2) FD9R6004/2C-3L	C	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.31 0.39 0.47 0.65	0.08 0.12 0.17 0.29	0.00 0.01 0.01 0.02
RRH2X40-AWS	A	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.16 2.36 2.57 3.00	1.42 1.59 1.77 2.14	0.04 0.06 0.08 0.13
RRH2X40-AWS	B	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.16 2.36 2.57 3.00	1.42 1.59 1.77 2.14	0.04 0.06 0.08 0.13
RRH2X40-AWS	C	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.16 2.36 2.57 3.00	1.42 1.59 1.77 2.14	0.04 0.06 0.08 0.13
RRFDC-3315-PF-48	B	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.36 3.60 3.84 4.34	2.19 2.39 2.61 3.05	0.03 0.06 0.09 0.17
Platform Mount [LP 713-1]	C	None			0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	32.89 35.76 38.76 45.26	32.89 35.76 38.76 45.26	1.51 2.23 3.03 4.86
Side Arm Mount [SO 203-1]	A	From Leg	4.00 0.00 0.00		0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.78 2.24 2.75 3.89	3.79 4.47 5.21 6.78	0.13 0.15 0.19 0.29

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert ft ft ft*	*Azimuth Adjustment °*	*Placement ft*		*C_AA_A Front ft^2*	*C_AA_A Side ft^2*	*Weight K*
Side Arm Mount [SO 203-1]	B	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.78 2.24 2.75 3.89	3.79 4.47 5.21 6.78	0.13 0.15 0.19 0.29
Side Arm Mount [SO 203-1]	C	From Leg	4.00 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.78 2.24 2.75 3.89	3.79 4.47 5.21 6.78	0.13 0.15 0.19 0.29
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APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.19 0.31 0.46 0.79
AIR -32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.75 7.20 7.65 8.57	6.07 6.87 7.58 9.06	0.15 0.21 0.28 0.44
AIR -32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.75 7.20 7.65 8.57	6.07 6.87 7.58 9.06	0.15 0.21 0.28 0.44
AIR -32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.75 7.20 7.65 8.57	6.07 6.87 7.58 9.06	0.15 0.21 0.28 0.44
ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.33 6.78 7.21 8.12	5.64 6.43 7.13 8.59	0.11 0.17 0.23 0.38
ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.33 6.78 7.21 8.12	5.64 6.43 7.13 8.59	0.11 0.17 0.23 0.38
ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.33 6.78 7.21 8.12	5.64 6.43 7.13 8.59	0.11 0.17 0.23 0.38
AIR6449 B41 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.89 6.26 6.63 7.41	3.28 3.74 4.22 5.21	0.12 0.17 0.22 0.35
AIR6449 B41 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice	5.89 6.26 6.63 7.41	3.28 3.74 4.22 5.21	0.12 0.17 0.22 0.35

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert ft ft ft*	*Azimuth Adjustment °*	*Placement ft*		*C_AA_A Front ft^2*	*C_AA_A Side ft^2*	*Weight K*
						2" Ice			
AIR6449 B41 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.89 6.26 6.63 7.41	3.28 3.74 4.22 5.21	0.12 0.17 0.22 0.35
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
ATMAA1412D-1A20	A	From Leg	4.00 0.00 0.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.00 1.13 1.26 1.55	0.41 0.50 0.59 0.81	0.01 0.02 0.03 0.06
ATMAA1412D-1A20	B	From Leg	4.00 0.00 0.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.00 1.13 1.26 1.55	0.41 0.50 0.59 0.81	0.01 0.02 0.03 0.06
ATMAA1412D-1A20	C	From Leg	4.00 0.00 0.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.00 1.13 1.26 1.55	0.41 0.50 0.59 0.81	0.01 0.02 0.03 0.06
RRUS 4415 B25_CCIV2	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	0.82 0.94 1.07 1.37	0.05 0.06 0.08 0.12
RRUS 4415 B25_CCIV2	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	0.82 0.94 1.07 1.37	0.05 0.06 0.08 0.12
RRUS 4415 B25_CCIV2	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	0.82 0.94 1.07 1.37	0.05 0.06 0.08 0.12
Platform Mount [LP 713-1_W/ Sitepro PRK-1245l]	C	None		0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	44.11 49.98 56.15 69.51	44.11 49.98 56.15 69.51	1.78 2.64 3.62 5.95
L 2.5" x 2.5" x 3/16" x 144"	A	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.05 0.08 0.12 0.22	3.00 3.82 4.64 6.31	0.03 0.06 0.10 0.21
L 2.5" x 2.5" x 3/16" x 144"	B	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice	0.05 0.08 0.12 0.22	3.00 3.82 4.64 6.31	0.03 0.06 0.10 0.21

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert ft ft ft*	*Azimuth Adjustment °*	*Placement ft*		*C_AA_A Front ft^2*	*C_AA_A Side ft^2*	*Weight K*
						2" Ice			
L 2.5" x 2.5" x 3/16" x 144"	C	From Leg	4.00 0.00 2.00	0.0000	126.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.05 0.08 0.12 0.22	3.00 3.82 4.64 6.31	0.03 0.06 0.10 0.21
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7770.00 w/ Mount Pipe	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29
7770.00 w/ Mount Pipe	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29
7770.00 w/ Mount Pipe	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29
TPA-65R-LCUUUU-H8 w/ Mount Pipe	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.85 12.77 13.71 15.64	8.99 9.88 10.79 12.66	0.11 0.21 0.32 0.58
QS66512-3 w/ Mount Pipe	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.04 4.42 4.82 5.63	4.18 4.57 4.97 5.79	0.13 0.20 0.28 0.48
QS66512-3 w/ Mount Pipe	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.04 4.42 4.82 5.63	4.18 4.57 4.97 5.79	0.13 0.20 0.28 0.48
DMP65R-BU8D w/ Mount Pipe	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	15.89 16.81 17.76 19.70	7.89 8.74 9.60 11.37	0.14 0.25 0.38 0.68
DMP65R-BU6D w/ Mount Pipe	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
(2) LGP21401	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.10 1.24 1.38 1.69	0.35 0.44 0.54 0.77	0.01 0.02 0.03 0.05
(2) LGP21401	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.10 1.24 1.38 1.69	0.35 0.44 0.54 0.77	0.01 0.02 0.03 0.05
(2) LGP21401	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice	1.10 1.24 1.38	0.35 0.44 0.54	0.01 0.02 0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	1.69	0.77	0.05
						2" Ice			
DC6-48-60-18-8F	A	From Leg	4.00	0.0000	117.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			3.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
DC6-48-60-18-8F	B	From Leg	4.00	0.0000	117.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			3.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
RRUS 32 B30	A	From Leg	4.00	0.0000	117.00	No Ice	2.74	1.67	0.05
			0.00			1/2" Ice	2.96	1.86	0.07
			3.00			1" Ice	3.19	2.05	0.10
						2" Ice	3.68	2.46	0.16
RRUS 32 B30	B	From Leg	4.00	0.0000	117.00	No Ice	2.74	1.67	0.05
			0.00			1/2" Ice	2.96	1.86	0.07
			3.00			1" Ice	3.19	2.05	0.10
						2" Ice	3.68	2.46	0.16
RRUS 32 B30	C	From Leg	4.00	0.0000	117.00	No Ice	2.74	1.67	0.05
			0.00			1/2" Ice	2.96	1.86	0.07
			3.00			1" Ice	3.19	2.05	0.10
						2" Ice	3.68	2.46	0.16
(2) RRUS 8843 B2/B66A_CCIV2	A	From Leg	4.00	0.0000	117.00	No Ice	1.98	1.70	0.08
			0.00			1/2" Ice	2.16	1.86	0.10
			3.00			1" Ice	2.34	2.04	0.12
						2" Ice	2.73	2.41	0.18
RRUS 8843 B2/B66A_CCIV2	B	From Leg	4.00	0.0000	117.00	No Ice	1.98	1.70	0.08
			0.00			1/2" Ice	2.16	1.86	0.10
			3.00			1" Ice	2.34	2.04	0.12
						2" Ice	2.73	2.41	0.18
RRUS 4449 B5/B12	A	From Leg	4.00	0.0000	117.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			3.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	B	From Leg	4.00	0.0000	117.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			3.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	C	From Leg	4.00	0.0000	117.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			3.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
DC6-48-60-0-8C-EV	C	From Leg	4.00	0.0000	117.00	No Ice	2.74	4.78	0.03
			0.00			1/2" Ice	2.96	5.06	0.06
			3.00			1" Ice	3.20	5.35	0.10
						2" Ice	3.68	5.95	0.20
Platform Mount [LP 713-1]	C	None		0.0000	117.00	No Ice	32.89	32.89	1.51
						1/2" Ice	35.76	35.76	2.23
						1" Ice	38.76	38.76	3.03
						2" Ice	45.26	45.26	4.86
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800MHz 2X50W RRH W/FILTER	A	From Leg	2.00	0.0000	104.00	No Ice	2.06	1.93	0.06
			0.00				2.24	2.11	0.09

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert ft ft ft*	*Azimuth Adjustment °*	*Placement ft*		*C_AA_A Front ft^2*	*C_AA_A Side ft^2*	*Weight K*
			0.00			1/2" Ice	2.43	2.29	0.11
						1" Ice	2.83	2.68	0.17
						2" Ice			
800MHz 2X50W RRH W/FILTER	B	From Leg	2.00	0.0000	104.00	No Ice	2.06	1.93	0.06
			0.00			1/2" Ice	2.24	2.11	0.09
			0.00			1" Ice	2.43	2.29	0.11
						2" Ice	2.83	2.68	0.17
800MHz 2X50W RRH W/FILTER	C	From Leg	2.00	0.0000	104.00	No Ice	2.06	1.93	0.06
			0.00			1/2" Ice	2.24	2.11	0.09
			0.00			1" Ice	2.43	2.29	0.11
						2" Ice	2.83	2.68	0.17
PCS 1900MHz 4x45W-65MHz	A	From Leg	2.00	0.0000	104.00	No Ice	2.32	2.24	0.06
			0.00			1/2" Ice	2.53	2.44	0.08
			0.00			1" Ice	2.74	2.65	0.11
						2" Ice	3.19	3.09	0.17
PCS 1900MHz 4x45W-65MHz	B	From Leg	2.00	0.0000	104.00	No Ice	2.32	2.24	0.06
			0.00			1/2" Ice	2.53	2.44	0.08
			0.00			1" Ice	2.74	2.65	0.11
						2" Ice	3.19	3.09	0.17
PCS 1900MHz 4x45W-65MHz	C	From Leg	2.00	0.0000	104.00	No Ice	2.32	2.24	0.06
			0.00			1/2" Ice	2.53	2.44	0.08
			0.00			1" Ice	2.74	2.65	0.11
						2" Ice	3.19	3.09	0.17
Pipe Mount [PM 601-3]	C	None		0.0000	104.00	No Ice	3.17	3.17	0.20
						1/2" Ice	3.79	3.79	0.23
						1" Ice	4.42	4.42	0.28
						2" Ice	5.76	5.76	0.40
***** sprint **********									
AAHC w/ Mount Pipe	A	From Leg	4.00	0.0000	103.00	No Ice	4.41	2.69	0.12
			0.00			1/2" Ice	4.73	3.08	0.16
			2.00			1" Ice	5.06	3.49	0.20
						2" Ice	5.74	4.36	0.31
AAHC w/ Mount Pipe	B	From Leg	4.00	0.0000	103.00	No Ice	4.41	2.69	0.12
			0.00			1/2" Ice	4.73	3.08	0.16
			2.00			1" Ice	5.06	3.49	0.20
						2" Ice	5.74	4.36	0.31
AAHC w/ Mount Pipe	C	From Leg	4.00	0.0000	103.00	No Ice	4.41	2.69	0.12
			0.00			1/2" Ice	4.73	3.08	0.16
			2.00			1" Ice	5.06	3.49	0.20
						2" Ice	5.74	4.36	0.31
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.00	0.0000	103.00	No Ice	4.60	4.01	0.10
			0.00			1/2" Ice	5.05	4.45	0.16
			2.00			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.00	0.0000	103.00	No Ice	4.60	4.01	0.10
			0.00			1/2" Ice	5.05	4.45	0.16
			2.00			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.00	0.0000	103.00	No Ice	4.60	4.01	0.10
			0.00			1/2" Ice	5.05	4.45	0.16
			2.00			1" Ice	5.50	4.89	0.23
						2" Ice	6.44	5.82	0.42

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
IBC1900BB-1	A	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
IBC1900BB-1	B	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
IBC1900BB-1	C	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
IBC1900HG-2A	A	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
IBC1900HG-2A	B	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
IBC1900HG-2A	C	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.97 1.09 1.22 1.51	0.46 0.56 0.66 0.89	0.02 0.03 0.04 0.06
********clearwireless **********											
LLPX310R-V1 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.88 4.29 4.72 5.61	2.36 2.73 3.12 3.94	0.06 0.09 0.13 0.24
LLPX310R-V1 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.88 4.29 4.72 5.61	2.36 2.73 3.12 3.94	0.06 0.09 0.13 0.24
LLPX310R-V1 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.88 4.29 4.72 5.61	2.36 2.73 3.12 3.94	0.06 0.09 0.13 0.24
WIMAX DAP HEAD	A	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.55 1.70 1.87 2.22	0.68 0.80 0.92 1.19	0.03 0.04 0.06 0.09
WIMAX DAP HEAD	B	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.55 1.70 1.87 2.22	0.68 0.80 0.92 1.19	0.03 0.04 0.06 0.09
WIMAX DAP HEAD	C	From Leg	4.00 0.00 2.00			0.0000	103.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.55 1.70 1.87 2.22	0.68 0.80 0.92 1.19	0.03 0.04 0.06 0.09
HORIZON COMPACT	A	From Leg	4.00 0.00 4.00			0.0000	103.00	No Ice 1/2" Ice	0.72 0.83 0.94	0.37 0.45 0.54	0.01 0.02 0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	1.19	0.74	0.05
						2" Ice			
HORIZON COMPACT	B	From Leg	4.00 0.00 4.00	0.0000	103.00	No Ice	0.72	0.37	0.01
						1/2" Ice	0.83	0.45	0.02
							0.94	0.54	0.03
						1" Ice	1.19	0.74	0.05
						2" Ice			
Platform Mount [LP 713-1]	C	None		0.0000	103.00	No Ice	32.89	32.89	1.51
						1/2" Ice	35.76	35.76	2.23
							38.76	38.76	3.03
						1" Ice	45.26	45.26	4.86
						2" Ice			
**********									
742 213 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	93.00	No Ice	3.54	2.98	0.05
						1/2" Ice	4.13	3.57	0.09
							4.74	4.17	0.14
						1" Ice	6.01	5.42	0.27
						2" Ice			
742 213 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	93.00	No Ice	3.54	2.98	0.05
						1/2" Ice	4.13	3.57	0.09
							4.74	4.17	0.14
						1" Ice	6.01	5.42	0.27
						2" Ice			
742 213 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	93.00	No Ice	3.54	2.98	0.05
						1/2" Ice	4.13	3.57	0.09
							4.74	4.17	0.14
						1" Ice	6.01	5.42	0.27
						2" Ice			
Pipe Mount [PM 602-3]	C	None		0.0000	93.00	No Ice	6.67	6.67	0.28
						1/2" Ice	7.70	7.70	0.34
							8.74	8.74	0.42
						1" Ice	10.90	10.90	0.63
						2" Ice			
(2) Side Arm Mount [SO 104-3]	C	None		0.0000	93.00	No Ice	2.62	2.62	0.29
						1/2" Ice	3.30	3.30	0.41
							3.98	3.98	0.53
						1" Ice	5.35	5.35	0.77
						2" Ice			
**********									
BCD-87010	B	From Leg	2.00 0.00 6.00	60.0000	74.00	No Ice	2.90	2.90	0.03
						1/2" Ice	4.05	4.05	0.05
							5.21	5.21	0.08
						1" Ice	7.01	7.01	0.16
						2" Ice			
Side Arm Mount [SO 701-1]	B	From Leg	0.00 0.00 0.00	60.0000	74.00	No Ice	0.85	1.67	0.07
						1/2" Ice	1.14	2.34	0.08
							1.43	3.01	0.09
						1" Ice	2.01	4.35	0.12
						2" Ice			
**********									
KS24019-L112A	C	From Leg	4.00 0.00 2.00	0.0000	50.00	No Ice	0.14	0.14	0.01
						1/2" Ice	0.20	0.20	0.01
							0.26	0.26	0.01
						1" Ice	0.41	0.41	0.02
						2" Ice			
Side Arm Mount [SO 701-1]	C	None		0.0000	50.00	No Ice	0.85	1.67	0.07
						1/2" Ice	1.14	2.34	0.08
							1.43	3.01	0.09
						1" Ice	2.01	4.35	0.12
						2" Ice			
**********									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2.5-11	B	Paraboloid w/Shroud (HP)	From Leg	4.00 0.00 4.00	3.0000		103.00	2.92	No Ice 1/2" Ice 1" Ice 2" Ice	6.68 7.07 7.46 8.23	0.05 0.08 0.12 0.19
VHLP2-180	C	Paraboloid w/Shroud (HP)	From Leg	4.00 0.00 4.00	86.0000		103.00	2.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.14 3.41 3.68 4.21	0.03 0.04 0.06 0.09

Tower Pressures - No Ice

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
L1 140.00-86.83	112.09	1.021	37	149.600	A	0.000	149.600	149.600	100.00	21.961	0.000
					B	0.000	149.600		100.00	63.166	0.000
					C	0.000	149.600		100.00	52.314	0.000
L2 86.83-38.00	62.01	0.862	31	187.219	A	0.000	187.219	187.219	100.00	54.787	0.000
					B	0.000	187.219		100.00	62.954	0.000
					C	0.000	187.219		100.00	68.020	0.000
L3 38.00-0.00	18.46	0.7	25	177.780	A	0.000	177.780	177.780	100.00	42.636	0.000
					B	0.000	177.780		100.00	52.972	0.000
					C	0.000	177.780		100.00	52.934	0.000

Tower Pressure - With Ice

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
L1 140.00-86.83	112.09	1.021	6	1.9211	166.625	A	0.000	166.625	166.625	100.00	62.022	0.000
						B	0.000	166.625		100.00	104.494	0.000
						C	0.000	166.625		100.00	107.610	0.000
L2 86.83-38.00	62.01	0.862	5	1.8107	202.854	A	0.000	202.854	202.854	100.00	149.078	0.000
						B	0.000	202.854		100.00	119.351	0.000
						C	0.000	202.854		100.00	141.264	0.000
L3 38.00-0.00	18.46	0.7	4	1.6040	189.247	A	0.000	189.247	189.247	100.00	112.238	0.000
						B	0.000	189.247		100.00	108.982	0.000
						C	0.000	189.247		100.00	107.206	0.000

Tower Pressure - Service

G_H = 1.100

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
L1 140.00-86.83	112.09	1.021	8	149.600	A	0.000	149.600	149.600	100.00	21.961	0.000
					B	0.000	149.600		100.00	63.166	0.000
					C	0.000	149.600		100.00	52.314	0.000
L2 86.83-38.00	62.01	0.862	7	187.219	A	0.000	187.219	187.219	100.00	54.787	0.000
					B	0.000	187.219		100.00	62.954	0.000
					C	0.000	187.219		100.00	68.020	0.000
L3 38.00-0.00	18.46	0.7	5	177.780	A	0.000	177.780	177.780	100.00	42.636	0.000
					B	0.000	177.780		100.00	52.972	0.000
					C	0.000	177.780		100.00	52.934	0.000

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 Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	140 - 86.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.61	-2.61	1.01
			Max. Mx	8	-23.89	-696.30	-4.35
			Max. My	2	-23.87	4.55	700.70
			Max. Vy	20	-24.38	695.38	5.14
			Max. Vx	14	24.52	-5.53	-699.93
			Max. Torque	21			-1.07
L2	86.83 - 38	Pole	Max Tension	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	26	-90.51	-2.18	0.28
			Max. Mx	20	-39.22	1992.86	16.31
			Max. My	2	-39.21	18.15	2010.16
			Max. Vy	20	-30.17	1992.86	16.31
			Max. Vx	14	30.60	-16.64	-2010.05
			Max. Torque	24			-0.61
L3	38 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-122.01	-1.40	0.31
			Max. Mx	20	-60.30	3461.53	26.87
			Max. My	14	-60.30	-26.73	-3499.91
			Max. Vy	20	-35.04	3461.53	26.87
			Max. Vx	14	35.52	-26.73	-3499.91
			Max. Torque	24			-0.58

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	122.01	0.05	7.96
	Max. H_x	20	60.32	35.01	0.23
	Max. H_z	2	60.32	0.28	35.48
	Max. M_x	2	3499.74	0.28	35.48
	Max. M_z	8	3456.82	-34.96	-0.24
	Max. Torsion	14	0.47	-0.23	-35.49
	Min. Vert	5	45.24	-17.35	30.33
	Min. H_x	8	60.32	-34.96	-0.24
	Min. H_z	14	60.32	-0.23	-35.49
	Min. M_x	14	-3499.91	-0.23	-35.49
	Min. M_z	20	-3461.53	35.01	0.23
	Min. Torsion	24	-0.58	18.34	31.64

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	50.26	0.00	0.00	-0.23	-0.36	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	60.32	-0.28	-35.48	-3499.74	31.10	0.46
0.9 Dead+1.0 Wind 0 deg - No Ice	45.24	-0.28	-35.48	-3475.15	31.00	0.46
1.2 Dead+1.0 Wind 30 deg - No Ice	60.32	17.35	-30.33	-3001.12	-1712.97	0.53
0.9 Dead+1.0 Wind 30 deg - No Ice	45.24	17.35	-30.33	-2979.97	-1700.82	0.53
1.2 Dead+1.0 Wind 60 deg - No Ice	60.32	30.23	-17.38	-1718.33	-2987.83	0.24
0.9 Dead+1.0 Wind 60 deg - No Ice	45.24	30.23	-17.38	-1706.19	-2966.73	0.24
1.2 Dead+1.0 Wind 90 deg - No Ice	60.32	34.96	0.24	26.77	-3456.82	0.08
0.9 Dead+1.0 Wind 90 deg - No Ice	45.24	34.96	0.24	26.65	-3432.43	0.08
1.2 Dead+1.0 Wind 120 deg - No Ice	60.32	32.32	18.83	1830.22	-3133.94	-0.20
0.9 Dead+1.0 Wind 120 deg - No Ice	45.24	32.32	18.83	1817.54	-3112.01	-0.20
1.2 Dead+1.0 Wind 150 deg - No Ice	60.32	18.31	31.62	3077.49	-1781.89	-0.41
0.9 Dead+1.0 Wind 150 deg - No Ice	45.24	18.31	31.62	3056.12	-1769.36	-0.41
1.2 Dead+1.0 Wind 180 deg - No Ice	60.32	0.23	35.49	3499.91	-26.73	-0.47

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 180 deg - No Ice	45.24	0.23	35.49	3475.46	-26.42	-0.46
1.2 Dead+1.0 Wind 210 deg - No Ice	60.32	-17.29	30.37	3005.19	1705.63	-0.46
0.9 Dead+1.0 Wind 210 deg - No Ice	45.24	-17.29	30.37	2984.15	1693.77	-0.46
1.2 Dead+1.0 Wind 240 deg - No Ice	60.32	-30.28	17.32	1711.13	2992.18	-0.15
0.9 Dead+1.0 Wind 240 deg - No Ice	45.24	-30.28	17.32	1699.18	2971.30	-0.15
1.2 Dead+1.0 Wind 270 deg - No Ice	60.32	-35.01	-0.23	-26.87	3461.53	0.13
0.9 Dead+1.0 Wind 270 deg - No Ice	45.24	-35.01	-0.23	-26.61	3437.35	0.13
1.2 Dead+1.0 Wind 300 deg - No Ice	60.32	-32.35	-18.85	-1832.16	3136.65	0.43
0.9 Dead+1.0 Wind 300 deg - No Ice	45.24	-32.35	-18.85	-1819.33	3114.94	0.43
1.2 Dead+1.0 Wind 330 deg - No Ice	60.32	-18.34	-31.64	-3080.54	1784.63	0.58
0.9 Dead+1.0 Wind 330 deg - No Ice	45.24	-18.34	-31.64	-3059.00	1772.32	0.58
1.2 Dead+1.0 Ice+1.0 Temp	122.01	0.00	-0.00	-0.31	-1.40	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	122.01	-0.05	-7.96	-830.67	4.76	0.20
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	122.01	3.94	-6.88	-717.58	-412.23	0.20
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	122.01	6.87	-3.95	-411.53	-717.11	0.10
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	122.01	7.94	0.05	5.18	-829.13	0.02
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	122.01	6.89	4.01	418.11	-719.92	-0.09
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	122.01	4.00	6.90	720.03	-419.02	-0.17
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	122.01	0.04	7.96	830.15	-6.97	-0.20
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	122.01	-3.93	6.89	717.78	407.58	-0.18
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	122.01	-6.88	3.93	409.40	714.88	-0.08
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	122.01	-7.95	-0.05	-5.75	826.99	0.03
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	122.01	-6.90	-4.01	-419.07	717.35	0.14
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	122.01	-4.01	-6.91	-721.21	416.46	0.21
Dead+Wind 0 deg - Service	50.26	-0.06	-7.70	-756.35	6.44	0.10
Dead+Wind 30 deg - Service	50.26	3.76	-6.58	-648.61	-370.39	0.12
Dead+Wind 60 deg - Service	50.26	6.56	-3.77	-371.44	-645.84	0.05
Dead+Wind 90 deg - Service	50.26	7.59	0.05	5.61	-747.17	0.02
Dead+Wind 120 deg - Service	50.26	7.01	4.09	395.29	-677.46	-0.04
Dead+Wind 150 deg - Service	50.26	3.97	6.86	664.79	-385.30	-0.09
Dead+Wind 180 deg - Service	50.26	0.05	7.70	756.04	-6.06	-0.10
Dead+Wind 210 deg - Service	50.26	-3.75	6.59	649.13	368.24	-0.10
Dead+Wind 240 deg - Service	50.26	-6.57	3.76	369.53	646.22	-0.03
Dead+Wind 270 deg - Service	50.26	-7.60	-0.05	-5.98	747.63	0.03
Dead+Wind 300 deg - Service	50.26	-7.02	-4.09	-396.06	677.48	0.09
Dead+Wind 330 deg - Service	50.26	-3.98	-6.87	-665.80	385.33	0.13

Solution Summary

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
1	0.00	-50.26	0.00	0.00	50.26	0.00	0.000%
2	-0.28	-60.32	-35.48	0.28	60.32	35.48	0.000%
3	-0.28	-45.24	-35.48	0.28	45.24	35.48	0.000%
4	17.35	-60.32	-30.33	-17.35	60.32	30.33	0.000%
5	17.35	-45.24	-30.33	-17.35	45.24	30.33	0.000%
6	30.23	-60.32	-17.38	-30.23	60.32	17.38	0.000%
7	30.23	-45.24	-17.38	-30.23	45.24	17.38	0.000%
8	34.96	-60.32	0.24	-34.96	60.32	-0.24	0.000%
9	34.96	-45.24	0.24	-34.96	45.24	-0.24	0.000%
10	32.32	-60.32	18.83	-32.32	60.32	-18.83	0.000%
11	32.32	-45.24	18.83	-32.32	45.24	-18.83	0.000%
12	18.31	-60.32	31.62	-18.31	60.32	-31.62	0.000%
13	18.31	-45.24	31.62	-18.31	45.24	-31.62	0.000%
14	0.23	-60.32	35.49	-0.23	60.32	-35.49	0.000%
15	0.23	-45.24	35.49	-0.23	45.24	-35.49	0.000%
16	-17.29	-60.32	30.37	17.29	60.32	-30.37	0.000%
17	-17.29	-45.24	30.37	17.29	45.24	-30.37	0.000%
18	-30.28	-60.32	17.32	30.28	60.32	-17.32	0.000%
19	-30.28	-45.24	17.32	30.28	45.24	-17.32	0.000%
20	-35.01	-60.32	-0.23	35.01	60.32	0.23	0.000%
21	-35.01	-45.24	-0.23	35.01	45.24	0.23	0.000%
22	-32.35	-60.32	-18.85	32.35	60.32	18.85	0.000%
23	-32.35	-45.24	-18.85	32.35	45.24	18.85	0.000%
24	-18.34	-60.32	-31.64	18.34	60.32	31.64	0.000%
25	-18.34	-45.24	-31.64	18.34	45.24	31.64	0.000%
26	0.00	-122.01	0.00	-0.00	122.01	0.00	0.000%
27	-0.05	-122.01	-7.96	0.05	122.01	7.96	0.000%
28	3.94	-122.01	-6.88	-3.94	122.01	6.88	0.000%
29	6.87	-122.01	-3.95	-6.87	122.01	3.95	0.000%
30	7.94	-122.01	0.05	-7.94	122.01	-0.05	0.000%
31	6.89	-122.01	4.01	-6.89	122.01	-4.01	0.000%
32	4.00	-122.01	6.90	-4.00	122.01	-6.90	0.000%
33	0.04	-122.01	7.96	-0.04	122.01	-7.96	0.000%
34	-3.93	-122.01	6.88	3.93	122.01	-6.89	0.000%
35	-6.88	-122.01	3.93	6.88	122.01	-3.93	0.000%
36	-7.95	-122.01	-0.05	7.95	122.01	0.05	0.000%
37	-6.90	-122.01	-4.01	6.90	122.01	4.01	0.000%
38	-4.01	-122.01	-6.91	4.01	122.01	6.91	0.000%
39	-0.06	-50.26	-7.70	0.06	50.26	7.70	0.000%
40	3.76	-50.26	-6.58	-3.76	50.26	6.58	0.000%
41	6.56	-50.26	-3.77	-6.56	50.26	3.77	0.000%
42	7.59	-50.26	0.05	-7.59	50.26	-0.05	0.000%
43	7.01	-50.26	4.09	-7.01	50.26	-4.09	0.000%
44	3.97	-50.26	6.86	-3.97	50.26	-6.86	0.000%
45	0.05	-50.26	7.70	-0.05	50.26	-7.70	0.000%
46	-3.75	-50.26	6.59	3.75	50.26	-6.59	0.000%
47	-6.57	-50.26	3.76	6.57	50.26	-3.76	0.000%
48	-7.60	-50.26	-0.05	7.60	50.26	0.05	0.000%
49	-7.02	-50.26	-4.09	7.02	50.26	4.09	0.000%
50	-3.98	-50.26	-6.87	3.98	50.26	6.87	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00005189
3	Yes	4	0.00000001	0.00002576
4	Yes	5	0.00000001	0.00005375
5	Yes	5	0.00000001	0.00002555
6	Yes	5	0.00000001	0.00005302
7	Yes	4	0.00000001	0.00099957
8	Yes	4	0.00000001	0.00005667
9	Yes	4	0.00000001	0.00002991
10	Yes	5	0.00000001	0.00005821
11	Yes	5	0.00000001	0.00002736
12	Yes	5	0.00000001	0.00005634
13	Yes	5	0.00000001	0.00002663
14	Yes	4	0.00000001	0.00007750
15	Yes	4	0.00000001	0.00004555
16	Yes	5	0.00000001	0.00005258
17	Yes	4	0.00000001	0.00099169
18	Yes	5	0.00000001	0.00005280
19	Yes	4	0.00000001	0.00099591
20	Yes	4	0.00000001	0.00007205
21	Yes	4	0.00000001	0.00004185
22	Yes	5	0.00000001	0.00005935
23	Yes	5	0.00000001	0.00002792
24	Yes	5	0.00000001	0.00005515
25	Yes	5	0.00000001	0.00002603
26	Yes	4	0.00000001	0.00000385
27	Yes	4	0.00000001	0.00095658
28	Yes	5	0.00000001	0.00009323
29	Yes	5	0.00000001	0.00009314
30	Yes	4	0.00000001	0.00095726
31	Yes	5	0.00000001	0.00009365
32	Yes	5	0.00000001	0.00009368
33	Yes	4	0.00000001	0.00095366
34	Yes	4	0.00000001	0.00099427
35	Yes	4	0.00000001	0.00099166
36	Yes	4	0.00000001	0.00094612
37	Yes	5	0.00000001	0.00009290
38	Yes	5	0.00000001	0.00009319
39	Yes	4	0.00000001	0.00000956
40	Yes	4	0.00000001	0.00002340
41	Yes	4	0.00000001	0.00002272
42	Yes	4	0.00000001	0.00000944
43	Yes	4	0.00000001	0.00002478
44	Yes	4	0.00000001	0.00002457
45	Yes	4	0.00000001	0.00000965
46	Yes	4	0.00000001	0.00002220
47	Yes	4	0.00000001	0.00002249
48	Yes	4	0.00000001	0.00000951
49	Yes	4	0.00000001	0.00002592
50	Yes	4	0.00000001	0.00002323

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 86.83	11.232	43	0.6730	0.0005
L2	92.5 - 38	5.030	43	0.5191	0.0002
L3	45 - 0	1.167	49	0.2346	0.0001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.00	BXA-80063-4BF-EDIN-X w/ Mount Pipe	43	11.232	0.6730	0.0005	96508
126.00	APXVAARR24_43-U-NA20 w/ Mount Pipe	43	9.284	0.6377	0.0004	34467
117.00	7770.00 w/ Mount Pipe	43	8.064	0.6124	0.0004	20980
107.00	VHLP2.5-11	43	6.763	0.5796	0.0003	14622
104.00	800MHz 2X50W RRH W/FILTER	43	6.388	0.5685	0.0003	13403
103.00	AAHC w/ Mount Pipe	43	6.265	0.5646	0.0003	13041
93.00	742 213 w/ Mount Pipe	43	5.086	0.5215	0.0002	10365
74.00	BCD-87010	43	3.170	0.4164	0.0001	9212
50.00	KS24019-L112A	49	1.428	0.2650	0.0001	8219

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 86.83	51.986	22	3.1143	0.0024
L2	92.5 - 38	23.297	22	2.4048	0.0009
L3	45 - 0	5.407	22	1.0869	0.0003

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.00	BXA-80063-4BF-EDIN-X w/ Mount Pipe	22	51.986	3.1143	0.0024	20987
126.00	APXVAARR24_43-U-NA20 w/ Mount Pipe	22	42.979	2.9517	0.0019	7494
117.00	7770.00 w/ Mount Pipe	22	37.335	2.8350	0.0016	4561
107.00	VHLP2.5-11	22	31.318	2.6838	0.0013	3177
104.00	800MHz 2X50W RRH W/FILTER	22	29.582	2.6326	0.0012	2912
103.00	AAHC w/ Mount Pipe	22	29.011	2.6149	0.0012	2833
93.00	742 213 w/ Mount Pipe	22	23.557	2.4158	0.0009	2251
74.00	BCD-87010	22	14.685	1.9290	0.0006	1996
50.00	KS24019-L112A	22	6.613	1.2280	0.0003	1775

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	140 - 86.83 (1)	TP39.223x26.216x0.3125	53.17	0.00	0.0	37.7580	-23.81	2208.84	0.011
L2	86.83 - 38 (2)	TP50.56x37.2109x0.4063	54.50	0.00	0.0	63.3645	-39.16	3706.82	0.011
L3	38 - 0 (3)	TP59.05x48.0329x0.5	45.00	0.00	0.0	94.2655	-60.30	5514.53	0.011

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	140 - 86.83 (1)	TP39.223x26.216x0.3125	714.79	1838.14	0.389	0.00	1838.14	0.000
L2	86.83 - 38 (2)	TP50.56x37.2109x0.4063	2070.44	3995.66	0.518	0.00	3995.66	0.000
L3	38 - 0 (3)	TP59.05x48.0329x0.5	3632.55	7247.00	0.501	0.00	7247.00	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	140 - 86.83 (1)	TP39.223x26.216x0.3125	25.15	662.65	0.038	0.25	2187.20	0.000
L2	86.83 - 38 (2)	TP50.56x37.2109x0.4063	31.87	1112.05	0.029	0.43	4738.27	0.000
L3	38 - 0 (3)	TP59.05x48.0329x0.5	37.47	1654.36	0.023	0.43	8520.33	0.000

Pole Interaction Design Data

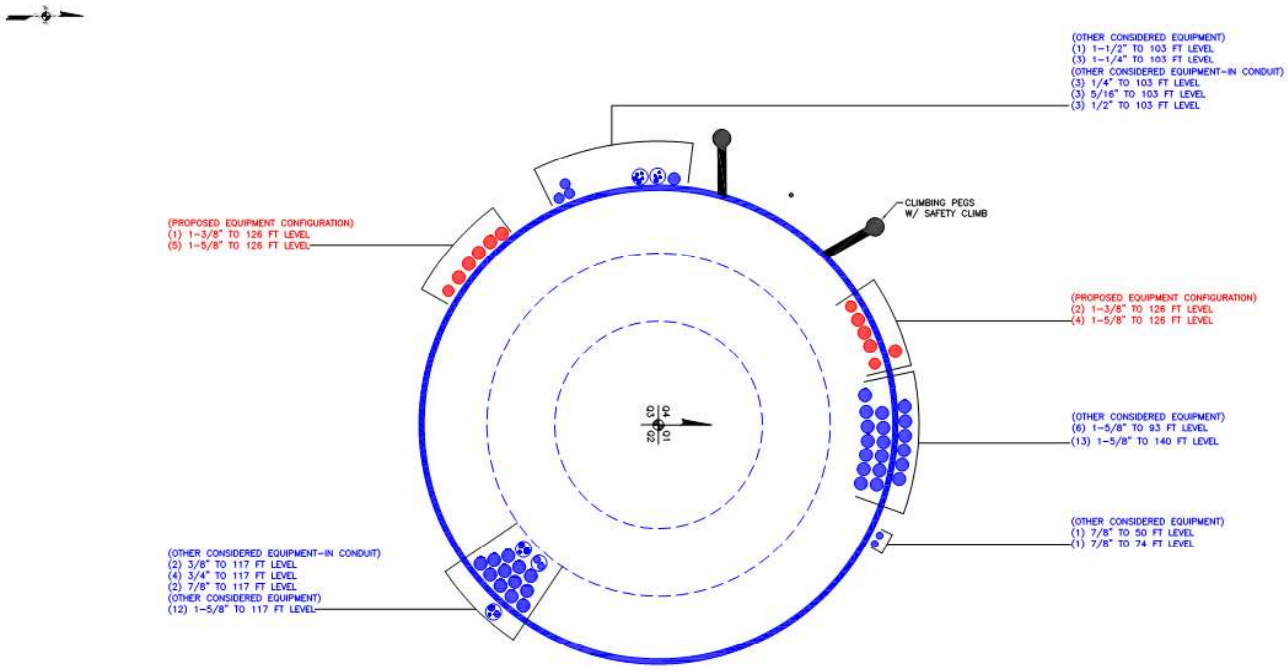
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	140 - 86.83 (1)	0.011	0.389	0.000	0.038	0.000	0.401	1.050	4.8.2
L2	86.83 - 38 (2)	0.011	0.518	0.000	0.029	0.000	0.530	1.050	4.8.2
L3	38 - 0 (3)	0.011	0.501	0.000	0.023	0.000	0.513	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	140 - 86.83	Pole	TP39.223x26.216x0.3125	1	-23.81	2319.28	38.2	Pass
L2	86.83 - 38	Pole	TP50.56x37.2109x0.4063	2	-39.16	3892.16	50.4	Pass
L3	38 - 0	Pole	TP59.05x48.0329x0.5	3	-60.30	5790.26	48.8	Pass
							Summary	
						Pole (L2)	50.4	Pass
						RATING =	**50.4**	**Pass**

APPENDIX B

BASE LEVEL DRAWING


(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/2" TO 103 FT LEVEL
(3) 1-1/4" TO 103 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-IN CONDUIT)
(3) 1/4" TO 103 FT LEVEL
(3) 5/16" TO 103 FT LEVEL
(3) 1/2" TO 103 FT LEVEL
CLIMBING PEGS
W/ SAFETY CLIMB
(PROPOSED EQUIPMENT CONFIGURATION)
(1) 1-3/8" TO 126 FT LEVEL
(5) 1-5/8" TO 126 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(2) 1-3/8" TO 126 FT LEVEL
(4) 1-5/8" TO 126 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(6) 1-5/8" TO 93 FT LEVEL
(13) 1-5/8" TO 140 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 7/8" TO 50 FT LEVEL
(1) 7/8" TO 74 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-IN CONDUIT)
(2) 3/8" TO 117 FT LEVEL
(4) 3/4" TO 117 FT LEVEL
(2) 7/8" TO 117 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(12) 1-5/8" TO 117 FT LEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

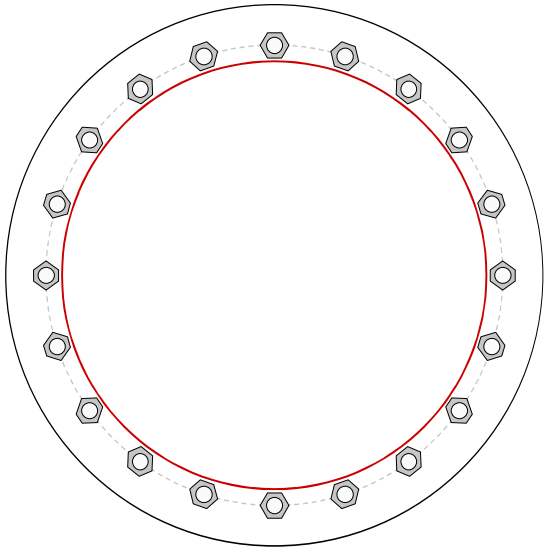
Monopole Base Plate Connection

Site Info	
BU #	806369
Site Name	HRT 094 943225
Order #	523998 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	0.25

Applied Loads	
Moment (kip-ft)	3632.55
Axial Force (kips)	60.30
Shear Force (kips)	37.47

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(20) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 63.5" BC

Base Plate Data

74.641" OD x 3" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

59.05" x 0.5" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

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

Pu_c = 140.24	ϕPn_c = 268.39	**Stress Rating**
Vu = 1.87	ϕVn = 120.77	**49.8%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	9.67	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**17.1%**	**Pass**

==

LPile for Windows, Version 2019-11.005

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

==

This copy of LPile is being used by:

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Files Used for Analysis

Path to file locations:
\TOWER\375_Crown_Castle\2020\37520-1171_806369_HRT 094
943225\37520-1171.001.7805_SA_1859403\L-PILE ANALYSIS\

Name of input data file:
37520-1171.001.7805 - LPile (USCS units).lp11d

Name of output report file:
37520-1171.001.7805 - LPile (USCS units).lp11o

Name of plot output file:
37520-1171.001.7805 - LPile (USCS units).lp11p

Name of runtime message file:
37520-1171.001.7805 - LPile (USCS units).lp11r

Date and Time of Analysis

Date: June 24, 2020 Time: 5:12:56

Problem Title

Project Name: HRT 094 943225

Job Number: 37520-1171.001.7805

Client: CCI

Engineer: NCM

Description: BU 806369

Program Options and Settings

Computational Options:
- Conventional Analysis

Engineering Units Used for Data Input and Computations:
- US Customary System Units (pounds, feet, inches)

Analysis Control Options:

- Maximum number of iterations allowed	=	500
- Deflection tolerance for convergence	=	1.0000E-05 in
- Maximum allowable deflection	=	100.0000 in
- Number of pile increments	=	100

Loading Type and Number of Cycles of Loading:
- Static loading specified

- Use of p-y modification factors for p-y curves not selected
- Analysis uses layering correction (Method of Georgiadis)
- No distributed lateral loads are entered
- Loading by lateral soil movements acting on pile not selected
- Input of shear resistance at the pile tip not selected
- Input of moment resistance at the pile tip not selected
- Input of side resistance moment along pile not selected
- Computation of pile-head foundation stiffness matrix not selected
- Push-over analysis of pile not selected
- Buckling analysis of pile not selected

Output Options:
- Output files use decimal points to denote decimal symbols.
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1
- No p-y curves to be computed and reported for user-specified depths
- Print using wide report formats

Pile Structural Properties and Geometry

Number of pile sections defined = 1
Total length of pile = 47.000 ft
Depth of ground surface below top of pile = 0.0000 ft

Pile diameters used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile. A summary of values of pile diameter vs. depth follows.

Point No.	Depth Below Pile Head feet	Pile Diameter inches
1	0.000	90.0000
2	47.000	90.0000

Input Structural Properties for Pile Sections:

Pile Section No. 1:

Section 1 is a round drilled shaft, bored pile, or CIDH pile
Length of section = 47.000000 ft

```
   Shaft Diameter                                        =    90.000000 in
   Shear capacity of section                             =       0.0000 lbs



--------------------------------------------------------------------------------
                        Ground Slope and Pile Batter Angles
--------------------------------------------------------------------------------

Ground Slope Angle                                       =        0.000 degrees
                                                         =        0.000 radians

Pile Batter Angle                                        =        0.000 degrees
                                                         =        0.000 radians


--------------------------------------------------------------------------------
                        Soil and Rock Layering Information
--------------------------------------------------------------------------------

The soil profile is modelled using 8 layers

Layer 1 is sand, p-y criteria by Reese et al., 1974

   Distance from top of pile to top of layer             =       0.0000 ft
   Distance from top of pile to bottom of layer          =     2.000000 ft
   Effective unit weight at top of layer                 =   105.000000 pcf
   Effective unit weight at bottom of layer              =   105.000000 pcf
   Friction angle at top of layer                        =    32.000000 deg.
   Friction angle at bottom of layer                     =    32.000000 deg.
   Subgrade k at top of layer                            =       0.0000 pci
   Subgrade k at bottom of layer                         =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.

Layer 2 is sand, p-y criteria by Reese et al., 1974

   Distance from top of pile to top of layer             =     2.000000 ft
   Distance from top of pile to bottom of layer          =     3.750000 ft
   Effective unit weight at top of layer                 =   100.000000 pcf
   Effective unit weight at bottom of layer              =   100.000000 pcf
   Friction angle at top of layer                        =    30.000000 deg.
   Friction angle at bottom of layer                     =    30.000000 deg.
   Subgrade k at top of layer                            =       0.0000 pci
   Subgrade k at bottom of layer                         =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.

Layer 3 is sand, p-y criteria by Reese et al., 1974
```

```
   Distance from top of pile to top of layer           =     3.750000 ft
   Distance from top of pile to bottom of layer        =     5.000000 ft
   Effective unit weight at top of layer               =   100.000000 pcf
   Effective unit weight at bottom of layer            =   100.000000 pcf
   Friction angle at top of layer                      =    30.000000 deg.
   Friction angle at bottom of layer                   =    30.000000 deg.
   Subgrade k at top of layer                          =       0.0000 pci
   Subgrade k at bottom of layer                       =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.

Layer 4 is sand, p-y criteria by Reese et al., 1974

   Distance from top of pile to top of layer           =     5.000000 ft
   Distance from top of pile to bottom of layer        =    10.000000 ft
   Effective unit weight at top of layer               =   100.000000 pcf
   Effective unit weight at bottom of layer            =   100.000000 pcf
   Friction angle at top of layer                      =    30.000000 deg.
   Friction angle at bottom of layer                   =    30.000000 deg.
   Subgrade k at top of layer                          =       0.0000 pci
   Subgrade k at bottom of layer                       =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.

Layer 5 is sand, p-y criteria by Reese et al., 1974

   Distance from top of pile to top of layer           =    10.000000 ft
   Distance from top of pile to bottom of layer        =    25.000000 ft
   Effective unit weight at top of layer               =    36.000000 pcf
   Effective unit weight at bottom of layer            =    36.000000 pcf
   Friction angle at top of layer                      =    30.000000 deg.
   Friction angle at bottom of layer                   =    30.000000 deg.
   Subgrade k at top of layer                          =       0.0000 pci
   Subgrade k at bottom of layer                       =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.

Layer 6 is sand, p-y criteria by Reese et al., 1974

   Distance from top of pile to top of layer           =    25.000000 ft
   Distance from top of pile to bottom of layer        =    35.000000 ft
   Effective unit weight at top of layer               =    36.000000 pcf
   Effective unit weight at bottom of layer            =    36.000000 pcf
   Friction angle at top of layer                      =    27.000000 deg.
   Friction angle at bottom of layer                   =    27.000000 deg.
   Subgrade k at top of layer                          =       0.0000 pci
   Subgrade k at bottom of layer                       =       0.0000 pci

   NOTE: Default values for subgrade k will be computed for this layer.
```

Layer 7 is stiff clay with water-induced erosion

Distance from top of pile to top of layer	=	35.000000 ft
Distance from top of pile to bottom of layer	=	45.000000 ft
Effective unit weight at top of layer	=	41.000000 pcf
Effective unit weight at bottom of layer	=	41.000000 pcf
Undrained cohesion at top of layer	=	200.000000 psf
Undrained cohesion at bottom of layer	=	200.000000 psf
Epsilon-50 at top of layer	=	0.0000
Epsilon-50 at bottom of layer	=	0.0000
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for Epsilon-50 will be computed for this layer.

NOTE: Default values for subgrade k will be computed for this layer.

Layer 8 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	45.000000 ft
Distance from top of pile to bottom of layer	=	47.000000 ft
Effective unit weight at top of layer	=	41.000000 pcf
Effective unit weight at bottom of layer	=	41.000000 pcf
Friction angle at top of layer	=	32.000000 deg.
Friction angle at bottom of layer	=	32.000000 deg.
Subgrade k at top of layer	=	0.0000 pci
Subgrade k at bottom of layer	=	0.0000 pci

NOTE: Default values for subgrade k will be computed for this layer.

(Depth of the lowest soil layer extends 0.000 ft below the pile tip)

Summary of Input Soil Properties

Layer Num.	Soil Type Name (p-y Curve Type)	Layer Depth ft	Effective Unit Wt. pcf	Undrained Cohesion psf	Angle of Friction deg.	E50 or kpy krm pci
1	Sand default (Reese, et al.)	0.00 2.0000	105.0000 105.0000	-- --	32.0000 32.0000	--

--	default				
2	Sand	2.0000	100.0000	--	30.0000
--	default				
	(Reese, et al.)	3.7500	100.0000	--	30.0000
--	default				
3	Sand	3.7500	100.0000	--	30.0000
--	default				
	(Reese, et al.)	5.0000	100.0000	--	30.0000
--	default				
4	Sand	5.0000	100.0000	--	30.0000
--	default				
	(Reese, et al.)	10.0000	100.0000	--	30.0000
--	default				
5	Sand	10.0000	36.0000	--	30.0000
--	default				
	(Reese, et al.)	25.0000	36.0000	--	30.0000
--	default				
6	Sand	25.0000	36.0000	--	27.0000
--	default				
	(Reese, et al.)	35.0000	36.0000	--	27.0000
--	default				
7	Stiff Clay	35.0000	41.0000	200.0000	--
default	default				
	with Free Water	45.0000	41.0000	200.0000	--
default	default				
8	Sand	45.0000	41.0000	--	32.0000
--	default				
	(Reese, et al.)	47.0000	41.0000	--	32.0000
--	default				

Static Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 2

Load Compute	Load Top y	Condition Run Analysis	Condition	Axial Thrust
No.	Type	1	2	Force, lbs
vs. Pile Length				
-----	----	----------	----------	----------

```
---------------    ------------
   1     1     V =       37000. lbs   M =    43596000. in-lbs            60000.
    No               Yes
   2     1     V =        8000. lbs   M =     9420000. in-lbs            50000.
    No               Yes

V = shear force applied normal to pile axis
M = bending moment applied to pile head
y = lateral deflection normal to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applied to pile head
Values of top y vs. pile lengths can be computed only for load types with
specified shear loading (Load Types 1, 2, and 3).
Thrust force is assumed to be acting axially for all pile batter angles.



--------------------------------------------------------------------------------
     Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness
--------------------------------------------------------------------------------

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:
-------------------

Dimensions and Properties of Drilled Shaft (Bored Pile):
--------------------------------------------------------

Length of Section                                    =    47.000000 ft
Shaft Diameter                                       =    90.000000 in
Concrete Cover Thickness (to edge of long. rebar)    =     3.000000 in
Number of Reinforcing Bars                           =           52 bars
Yield Stress of Reinforcing Bars                     =      60000. psi
Modulus of Elasticity of Reinforcing Bars            =    29000000. psi
Gross Area of Shaft                                  =        6362. sq. in.
Total Area of Reinforcing Steel                      =    66.040000 sq. in.
Area Ratio of Steel Reinforcement                    =         1.04 percent
Edge-to-Edge Bar Spacing                             =     3.725113 in
Maximum Concrete Aggregate Size                      =     0.750000 in
Ratio of Bar Spacing to Aggregate Size               =         4.97
Offset of Center of Rebar Cage from Center of Pile   =       0.0000 in

Axial Structural Capacities:
----------------------------

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As  =    20016.397 kips
Tensile Load for Cracking of Concrete                =    -2501.255 kips
```

Nominal Axial Tensile Capacity = -3962.400 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.270000	1.270000	41.365000	0.00000
2	1.270000	1.270000	41.063403	4.986000
3	1.270000	1.270000	40.163008	9.899292
4	1.270000	1.270000	38.676947	14.668231
5	1.270000	1.270000	36.626889	19.223274
6	1.270000	1.270000	34.042728	23.497998
7	1.270000	1.270000	30.962147	27.430069
8	1.270000	1.270000	27.430069	30.962147
9	1.270000	1.270000	23.497998	34.042728
10	1.270000	1.270000	19.223274	36.626889
11	1.270000	1.270000	14.668231	38.676947
12	1.270000	1.270000	9.899292	40.163008
13	1.270000	1.270000	4.986000	41.063403
14	1.270000	1.270000	0.00000	41.365000
15	1.270000	1.270000	-4.986000	41.063403
16	1.270000	1.270000	-9.899292	40.163008
17	1.270000	1.270000	-14.668231	38.676947
18	1.270000	1.270000	-19.223274	36.626889
19	1.270000	1.270000	-23.497998	34.042728
20	1.270000	1.270000	-27.430069	30.962147
21	1.270000	1.270000	-30.962147	27.430069
22	1.270000	1.270000	-34.042728	23.497998
23	1.270000	1.270000	-36.626889	19.223274
24	1.270000	1.270000	-38.676947	14.668231
25	1.270000	1.270000	-40.163008	9.899292
26	1.270000	1.270000	-41.063403	4.986000
27	1.270000	1.270000	-41.365000	0.00000
28	1.270000	1.270000	-41.063403	-4.986000
29	1.270000	1.270000	-40.163008	-9.899292
30	1.270000	1.270000	-38.676947	-14.668231
31	1.270000	1.270000	-36.626889	-19.223274
32	1.270000	1.270000	-34.042728	-23.497998
33	1.270000	1.270000	-30.962147	-27.430069
34	1.270000	1.270000	-27.430069	-30.962147
35	1.270000	1.270000	-23.497998	-34.042728
36	1.270000	1.270000	-19.223274	-36.626889
37	1.270000	1.270000	-14.668231	-38.676947
38	1.270000	1.270000	-9.899292	-40.163008
39	1.270000	1.270000	-4.986000	-41.063403
40	1.270000	1.270000	0.00000	-41.365000
41	1.270000	1.270000	4.986000	-41.063403
42	1.270000	1.270000	9.899292	-40.163008

43	1.270000	1.270000	14.668231	-38.676947
44	1.270000	1.270000	19.223274	-36.626889
45	1.270000	1.270000	23.497998	-34.042728
46	1.270000	1.270000	27.430069	-30.962147
47	1.270000	1.270000	30.962147	-27.430069
48	1.270000	1.270000	34.042728	-23.497998
49	1.270000	1.270000	36.626889	-19.223274
50	1.270000	1.270000	38.676947	-14.668231
51	1.270000	1.270000	40.163008	-9.899292
52	1.270000	1.270000	41.063403	-4.986000

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 3.725 inches
between bars 44 and 45.

Ratio of bar spacing to maximum aggregate size = 4.97

Concrete Properties:

Compressive Strength of Concrete	=	3000. psi
Modulus of Elasticity of Concrete	=	3122019. psi
Modulus of Rupture of Concrete	=	-410.791918 psi
Compression Strain at Peak Stress	=	0.001634
Tensile Strain at Fracture of Concrete	=	-0.0001160
Maximum Coarse Aggregate Size	=	0.750000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 2

Number	Axial Thrust Force kips
1	50.000
2	60.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than 0.003. See ACI 318, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 50.000 kips

Bending Max Conc Stress ksi	Bending Max Steel Stress ksi	Bending Run Msg	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in
3.12500E-07	4133.		1.32268E+10	51.4118635	0.00001607	-0.00001206
0.0582089	0.4373731					
6.25000E-07	8246.		1.31938E+10	48.2167530	0.00003014	-0.00002611
0.1086515	0.8168349					
9.37500E-07	12338.		1.31602E+10	47.1517898	0.00004420	-0.00004017
0.1586580	1.1962987					
0.00000125	16408.		1.31264E+10	46.6193499	0.00005827	-0.00005423
0.2082285	1.5757639					
0.00000156	20457.		1.30926E+10	46.2999178	0.00007234	-0.00006828
0.2573630	1.9552307					
0.00000188	24485.		1.30588E+10	46.0869891	0.00008641	-0.00008234
0.3060614	2.3346988					
0.00000219	28492.		1.30250E+10	45.9349193	0.0001005	-0.00009639
0.3543238	2.7141683					
0.00000250	32478.		1.29911E+10	45.8208865	0.0001146	-0.0001104
0.4021500	3.0936393					
0.00000281	32478.		1.15477E+10	25.4806453	0.00007166	-0.0001815
0.2530002	-5.0054380	C				
0.00000313	32478.		1.03929E+10	25.2408644	0.00007888	-0.0002024
0.2778024	-5.5833279	C				
0.00000344	32478.		9448087667.	25.0461187	0.00008610	-0.0002233
0.3025094	-6.1610744	C				
0.00000375	32478.		8660747028.	24.8851540	0.00009332	-0.0002442
0.3271209	-6.7386770	C				
0.00000406	32478.		7994535718.	24.7501790	0.0001005	-0.0002651
0.3516369	-7.3161352	C				
0.00000438	32478.		7423497453.	24.6311541	0.0001078	-0.0002860
0.3759898	-7.8940161	C				
0.00000469	32478.		6928597622.	24.5290934	0.0001150	-0.0003069
0.4002477	-8.4717482	C				
0.00000500	32478.		6495560271.	24.4408257	0.0001222	-0.0003278
0.4244107	-9.0493303	C				
0.00000531	32478.		6113468490.	24.3639204	0.0001294	-0.0003487

```
0.4484784    -9.6267616 C
0.00000563        32478.   5773831352.    24.2964874     0.0001367    -0.0003696
0.4724507   -10.2040417 C
0.00000594        32478.   5469945491.    24.2370342     0.0001439    -0.0003905
0.4963275   -10.7811700 C
0.00000625        32478.   5196448217.    24.1843671     0.0001512    -0.0004113
0.5201084   -11.3581460 C
0.00000656        32478.   4948998302.    24.1375196     0.0001584    -0.0004322
0.5437935   -11.9349689 C
0.00000688        32478.   4724043833.    24.0957010     0.0001657    -0.0004531
0.5673823   -12.5116383 C
0.00000719        32478.   4518650623.    24.0582582     0.0001729    -0.0004740
0.5908749   -13.0881537 C
0.00000750        32478.   4330373514.    24.0246469     0.0001802    -0.0004948
0.6142710   -13.6645143 C
0.00000781        32478.   4157158573.    23.9944099     0.0001875    -0.0005157
0.6375703   -14.2407196 C
0.00000813        32478.   3997267859.    23.9671605     0.0001947    -0.0005365
0.6607727   -14.8167690 C
0.00000844        32478.   3849220901.    23.9425690     0.0002020    -0.0005574
0.6838781   -15.3926620 C
0.00000875        32478.   3711748726.    23.9203531     0.0002093    -0.0005782
0.7068862   -15.9683979 C
0.00000906        32478.   3583757391.    23.9002694     0.0002166    -0.0005990
0.7297967   -16.5439760 C
0.00000938        32478.   3464298811.    23.8821069     0.0002239    -0.0006199
0.7526097   -17.1193959 C
0.00000969        32478.   3352547237.    23.8656818     0.0002312    -0.0006407
0.7753247   -17.6946569 C
0.00001000        32478.   3247780136.    23.8508335     0.0002385    -0.0006615
0.7979417   -18.2697583 C
0.00001031        33210.   3220384122.    23.8369015     0.0002458    -0.0006823
0.8204437   -18.8448548 C
0.00001063        34174.   3216332123.    23.8242986     0.0002531    -0.0007031
0.8428469   -19.4197942 C
0.00001094        35136.   3212458852.    23.8129444     0.0002605    -0.0007239
0.8651524   -19.9945660 C
0.00001125        36098.   3208749232.    23.8027371     0.0002678    -0.0007447
0.8873598   -20.5691695 C
0.00001156        37060.   3205189816.    23.7935857     0.0002751    -0.0007655
0.9094690   -21.1436039 C
0.00001188        38021.   3201768572.    23.7854088     0.0002825    -0.0007863
0.9314797   -21.7178686 C
0.00001219        38981.   3198474699.    23.7781335     0.0002898    -0.0008071
0.9533918   -22.2919628 C
0.00001281        40900.   3192231131.    23.7660315     0.0003045    -0.0008486
0.9969191   -23.4396370 C
0.00001344        42817.   3186392048.    23.7568271     0.0003192    -0.0008901
1.0400493   -24.5866208 C
0.00001406        44731.   3180902293.    23.7501481     0.0003340    -0.0009316
```

1.0827806 -25.7329083 C
0.00001469 46643. 3175716081. 23.7456862 0.0003488 -0.0009731
1.1251112 -26.8784936 C
0.00001531 48553. 3170795084. 23.7431835 0.0003636 -0.0010146
1.1670393 -28.0233707 C
0.00001594 50460. 3166106972. 23.7424226 0.0003784 -0.0010560
1.2085633 -29.1675334 C
0.00001656 52364. 3161624276. 23.7432193 0.0003932 -0.0010974
1.2496812 -30.3109756 C
0.00001719 54266. 3157323513. 23.7454164 0.0004081 -0.0011388
1.2903912 -31.4536909 C
0.00001781 56166. 3153184476. 23.7488790 0.0004230 -0.0011801
1.3306915 -32.5956728 C
0.00001844 58063. 3149189683. 23.7534904 0.0004380 -0.0012214
1.3705802 -33.7369150 C
0.00001906 59958. 3145323931. 23.7591497 0.0004529 -0.0012627
1.4100554 -34.8774107 C
0.00001969 61850. 3141573932. 23.7657688 0.0004679 -0.0013040
1.4491150 -36.0171532 C
0.00002031 63739. 3137928020. 23.7732708 0.0004829 -0.0013452
1.4877573 -37.1561358 C
0.00002094 65626. 3134375906. 23.7815880 0.0004979 -0.0013864
1.5259801 -38.2943514 C
0.00002156 67510. 3130908480. 23.7906609 0.0005130 -0.0014276
1.5637816 -39.4317929 C
0.00002219 69392. 3127517645. 23.8004367 0.0005281 -0.0014688
1.6011595 -40.5684533 C
0.00002281 71271. 3124196176. 23.8108687 0.0005432 -0.0015099
1.6381119 -41.7043252 C
0.00002344 73147. 3120937605. 23.8219154 0.0005583 -0.0015510
1.6746367 -42.8394012 C
0.00002406 75021. 3117736122. 23.8335396 0.0005735 -0.0015921
1.7107318 -43.9736737 C
0.00002469 76891. 3114586490. 23.8457082 0.0005887 -0.0016332
1.7463949 -45.1071351 C
0.00002531 78759. 3111485100. 23.8580356 0.0006039 -0.0016742
1.7816029 -46.2400388 C
0.00002594 80625. 3108427425. 23.8706455 0.0006191 -0.0017152
1.8163618 -47.3722832 C
0.00002656 82487. 3105409056. 23.8836963 0.0006344 -0.0017562
1.8506802 -48.5037308 C
0.00002719 84347. 3102426454. 23.8971671 0.0006497 -0.0017972
1.8845558 -49.6343741 C
0.00002781 86204. 3099476385. 23.9110391 0.0006650 -0.0018381
1.9179865 -50.7642055 C
0.00002844 88058. 3096555886. 23.9252953 0.0006804 -0.0018790
1.9509699 -51.8932173 C
0.00002906 89910. 3093662235. 23.9399203 0.0006958 -0.0019199
1.9835038 -53.0214015 C
0.00002969 91758. 3090792930. 23.9549001 0.0007112 -0.0019607

2.0155859 -54.1487500 C
0.00003031 93603. 3087945658. 23.9702221 0.0007266 -0.0020015
2.0472138 -55.2752547 C
0.00003094 95446. 3085118283. 23.9858749 0.0007421 -0.0020423
2.0783850 -56.4009072 C
0.00003156 97285. 3082308825. 24.0018480 0.0007576 -0.0020831
2.1090973 -57.5256990 C
0.00003219 99122. 3079515442. 24.0181321 0.0007731 -0.0021238
2.1393481 -58.6496216 C
0.00003281 100955. 3076736422. 24.0347186 0.0007886 -0.0021645
2.1691350 -59.7726661 C
0.00003344 102722. 3072066409. 24.0464089 0.0008041 -0.0022053
2.1981257 -60.0000000 CY
0.00003406 104224. 3059776766. 24.0371483 0.0008188 -0.0022469
2.2252975 -60.0000000 CY
0.00003469 105576. 3043623080. 24.0169539 0.0008331 -0.0022888
2.2512840 -60.0000000 CY
0.00003531 106822. 3025053564. 23.9896677 0.0008471 -0.0023310
2.2763300 -60.0000000 CY
0.00003594 108003. 3005288831. 23.9586915 0.0008610 -0.0023734
2.3006542 -60.0000000 CY
0.00003656 109058. 2982775363. 23.9191734 0.0008745 -0.0024161
2.3239507 -60.0000000 CY
0.00003719 110094. 2960514554. 23.8801159 0.0008880 -0.0024588
2.3467973 -60.0000000 CY
0.00003969 113678. 2864322451. 23.6897642 0.0009402 -0.0026317
2.4313141 -60.0000000 CY
0.00004219 116636. 2764711075. 23.4771094 0.0009904 -0.0028064
2.5071644 -60.0000000 CY
0.00004469 119086. 2664859721. 23.2522701 0.0010391 -0.0029828
2.5753691 -60.0000000 CY
0.00004719 121219. 2568874925. 23.0301153 0.0010867 -0.0031601
2.6372234 -60.0000000 CY
0.00004969 123155. 2478591867. 22.8127500 0.0011335 -0.0033384
2.6931869 -60.0000000 CY
0.00005219 124735. 2390124959. 22.5846102 0.0011786 -0.0035182
2.7426941 -60.0000000 CY
0.00005469 126257. 2308705998. 22.3772821 0.0012238 -0.0036981
2.7878456 -60.0000000 CY
0.00005719 127543. 2230265232. 22.1700992 0.0012679 -0.0038790
2.8277406 -60.0000000 CY
0.00005969 128717. 2156511452. 21.9699205 0.0013113 -0.0040605
2.8629994 -60.0000000 CY
0.00006219 129846. 2087980606. 21.7794794 0.0013544 -0.0042425
2.8939525 -60.0000000 CY
0.00006469 130780. 2021726391. 21.5874684 0.0013964 -0.0044254
2.9203179 -60.0000000 CY
0.00006719 131655. 1959510756. 21.4074401 0.0014383 -0.0046086
2.9428429 -60.0000000 CY
0.00006969 132521. 1901641098. 21.2432705 0.0014804 -0.0047915

2.9617198   -60.0000000 CY
0.00007219   133320.   1846860500.   21.0831144   0.0015219   -0.0049749
2.9766540   -60.0000000 CY
0.00007469   133958.   1793576821.   20.9133301   0.0015620   -0.0051599
2.9875574   -60.0000000 CY
0.00007719   134581.   1743554660.   20.7561572   0.0016021   -0.0053448
2.9950766   -60.0000000 CY
0.00007969   135197.   1696585652.   20.6113448   0.0016425   -0.0055294
2.9991834   -60.0000000 CY
0.00008219   135805.   1652384149.   20.4779112   0.0016830   -0.0057138
2.9974066   -60.0000000 CY
0.00008469   136345.   1609980727.   20.3474440   0.0017232   -0.0058987
2.9993134   -60.0000000 CY
0.00008719   136802.   1569056480.   20.2152018   0.0017625   -0.0060844
2.9976630   -60.0000000 CY
0.00008969   137222.   1530004594.   20.0823212   0.0018011   -0.0062707
2.9986834   -60.0000000 CY
0.00009219   137638.   1493022660.   19.9584763   0.0018399   -0.0064570
2.9999987   -60.0000000 CY
0.00009469   138047.   1457925886.   19.8434937   0.0018789   -0.0066429
2.9968548   -60.0000000 CY
0.00009719   138453.   1424594711.   19.7360332   0.0019181   -0.0068288
2.9994753   -60.0000000 CY
0.00009969   138847.   1392819817.   19.6347724   0.0019573   -0.0070145
2.9979712   -60.0000000 CY
 0.0001022   139195.   1362150107.   19.5345001   0.0019962   -0.0072007
2.9970488   -60.0000000 CY
 0.0001047   139490.   1332437388.   19.4333053   0.0020344   -0.0073875
2.9993991   -60.0000000 CY
 0.0001072   139769.   1303963750.   19.3352502   0.0020725   -0.0075744
2.9989969   -60.0000000 CY
 0.0001097   140034.   1276659672.   19.2353697   0.0021099   -0.0077620
2.9950087   -60.0000000 CY
 0.0001122   140297.   1250556112.   19.1409092   0.0021474   -0.0079495
2.9980623   -60.0000000 CY
 0.0001147   140558.   1225574252.   19.0515285   0.0021850   -0.0081369
2.9997017   -60.0000000 CY
 0.0001172   140817.   1201636582.   18.9671342   0.0022227   -0.0083242
2.9981151   -60.0000000 CY
 0.0001197   141073.   1178675909.   18.8874869   0.0022606   -0.0085113
2.9939870   -60.0000000 CY
 0.0001222   141327.   1156642701.   18.8118782   0.0022986   -0.0086983
2.9972142   -60.0000000 CY
 0.0001247   141560.   1135315907.   18.7367025   0.0023362   -0.0088856
2.9991957   -60.0000000 CY
 0.0001272   141773.   1114674527.   18.6623110   0.0023736   -0.0090733
2.9999821   -60.0000000 CY
 0.0001297   141973.   1094732469.   18.5902929   0.0024109   -0.0092609
2.9961161   -60.0000000 CY
 0.0001322   142146.   1075339457.   18.5173926   0.0024478   -0.0094491

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   2.9931504   -60.0000000 CY
    0.0001347       142319.   1056658163.    18.4474744     0.0024846    -0.0096372
   2.9962110   -60.0000000 CY
    0.0001372       142475.   1038539877.    18.3752204     0.0025209    -0.0098260
   2.9983142    60.0000000 CY
    0.0001522       143317.    941711132.    18.0258640     0.0027433    -0.0109536
   2.9966630    60.0000000 CY
    0.0001672       143929.    860886364.    17.7941372     0.0029750    -0.0120719
   2.9912833    60.0000000 CY
    0.0001822       144239.    791704513.    17.5949364     0.0032056    -0.0131913
   2.9970264    60.0000000 CYT
    0.0001972       144475.    732680194.    17.4345837     0.0034379    -0.0143090
   2.9960735    60.0000000 CYT
    0.0002122       144661.    681760573.    17.3146336     0.0036739    -0.0154229
   2.9926847    60.0000000 CYT
    0.0002272       144661.    636747495.    17.3285698     0.0039368    -0.0165100
   2.9973974    60.0000000 CYT


Axial Thrust Force =     60.000 kips

    Bending       Bending       Bending      Depth to      Max Comp      Max Tens
  Max Conc      Max Steel  Run
   Curvature      Moment       Stiffness      N Axis        Strain        Strain
   Stress        Stress    Msg
    rad/in.       in-kip        kip-in2         in           in/in         in/in
     ksi           ksi
------------- ------------- ------------- ------------- ------------- -------------
------------- ------------- ---
  3.12500E-07         4133.   1.32261E+10    52.6943414    0.00001647   -0.00001166
   0.0596664     0.4489956
  6.25000E-07         8246.   1.31934E+10    48.8601218    0.00003054   -0.00002571
   0.1101012     0.8284960
  9.37500E-07        12337.   1.31599E+10    47.5821494    0.00004461   -0.00003977
   0.1601000     1.2079991
   0.00000125        16408.   1.31262E+10    46.9432161    0.00005868   -0.00005382
   0.2096627     1.5875041
   0.00000156        20457.   1.30925E+10    46.5598945    0.00007275   -0.00006788
   0.2587894     1.9670108
   0.00000188        24485.   1.30587E+10    46.3043787    0.00008682   -0.00008193
   0.3074799     2.3465193
   0.00000219        28492.   1.30249E+10    46.1218942     0.0001009   -0.00009598
   0.3557343     2.7260295
   0.00000250        32478.   1.29910E+10    45.9850543     0.0001150    -0.0001100
   0.4035526     3.1055414
   0.00000281        32478.   1.15476E+10    25.9701323    0.00007304    -0.0001801
   0.2578366    -4.9655142 C
   0.00000313        32478.   1.03928E+10    25.6910269    0.00008028    -0.0002010
   0.2827221    -5.5425319 C
   0.00000344        32478.   9448014933.    25.4572136    0.00008751    -0.0002219
```

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0.3074289    -6.1200934 C
0.00000375        32478.   8660680356.    25.2624336    0.00009473    -0.0002428
0.3320237    -6.6976478 C
0.00000406        32478.   7994474174.    25.0988475     0.0001020    -0.0002637
0.3565228    -7.2750576 C
0.00000438        32478.   7423440305.    24.9597748     0.0001092    -0.0002846
0.3809261    -7.8523223 C
0.00000469        32478.   6928544284.    24.8403166     0.0001164    -0.0003054
0.4052334    -8.4294413 C
0.00000500        32478.   6495510267.    24.7362809     0.0001237    -0.0003263
0.4294358    -9.0064893 C
0.00000531        32478.   6113421427.    24.6423416     0.0001309    -0.0003472
0.4534861    -9.5838674 C
0.00000563        32478.   5773786904.    24.5597686     0.0001381    -0.0003681
0.4774411   -10.1610940 C
0.00000594        32478.   5469903382.    24.4867705     0.0001454    -0.0003890
0.5013004   -10.7381686 C
0.00000625        32478.   5196408213.    24.4219143     0.0001526    -0.0004099
0.5250639   -11.3150906 C
0.00000656        32478.   4948960203.    24.3640398     0.0001599    -0.0004307
0.5487314   -11.8918593 C
0.00000688        32478.   4724007467.    24.3121979     0.0001671    -0.0004516
0.5723027   -12.4684743 C
0.00000719        32478.   4518615838.    24.2656046     0.0001744    -0.0004725
0.5957776   -13.0449349 C
0.00000750        32478.   4330340178.    24.2236064     0.0001817    -0.0004933
0.6191560   -13.6212406 C
0.00000781        32478.   4157126571.    24.1856546     0.0001890    -0.0005142
0.6424376   -14.1973907 C
0.00000813        32478.   3997237087.    24.1512847     0.0001962    -0.0005350
0.6656223   -14.7733848 C
0.00000844        32478.   3849191269.    24.1201014     0.0002035    -0.0005559
0.6887098   -15.3492220 C
0.00000875        32478.   3711720152.    24.0917655     0.0002108    -0.0005767
0.7117000   -15.9249020 C
0.00000906        32478.   3583729802.    24.0659847     0.0002181    -0.0005975
0.7345926   -16.5004240 C
0.00000938        32478.   3464272142.    24.0425059     0.0002254    -0.0006184
0.7573876   -17.0757874 C
0.00000969        32478.   3352521428.    24.0211085     0.0002327    -0.0006392
0.7800846   -17.6509917 C
0.00001000        32478.   3247755133.    24.0015994     0.0002400    -0.0006600
0.8026835   -18.2260361 C
0.00001031        33426.   3241311449.    23.9838091     0.0002473    -0.0006808
0.8251840   -18.8009202 C
0.00001063        34389.   3236628552.    23.9675881     0.0002547    -0.0007016
0.8475861   -19.3756432 C
0.00001094        35352.   3232160196.    23.9528037     0.0002620    -0.0007224
0.8698894   -19.9502044 C
0.00001125        36314.   3227888327.    23.9393382     0.0002693    -0.0007432
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0.8920938   -20.5246034 C
0.00001156   37275.   3223796840.   23.9270866   0.0002767   -0.0007640
0.9141991   -21.0988394 C
0.00001188   38236.   3219871327.   23.9159550   0.0002840   -0.0007847
0.9362051   -21.6729117 C
0.00001219   39196.   3216098854.   23.9058591   0.0002914   -0.0008055
0.9581115   -22.2468198 C
0.00001281   41115.   3208967600.   23.8884782   0.0003061   -0.0008471
1.0016249   -23.3941404 C
0.00001344   43031.   3202322778.   23.8744209   0.0003208   -0.0008886
1.0447377   -24.5407959 C
0.00001406   44945.   3196098345.   23.8632573   0.0003356   -0.0009300
1.0874481   -25.6867810 C
0.00001469   46857.   3190239485.   23.8546309   0.0003504   -0.0009715
1.1297545   -26.8320900 C
0.00001531   48766.   3184700252.   23.8481694   0.0003652   -0.0010129
1.1716518   -27.9767504 C
0.00001594   50672.   3179441981.   23.8435834   0.0003800   -0.0010544
1.2131364   -29.1207781 C
0.00001656   52577.   3174431949.   23.8408464   0.0003949   -0.0010958
1.2542146   -30.2640840 C
0.00001719   54478.   3169641995.   23.8397696   0.0004097   -0.0011371
1.2948848   -31.4066617 C
0.00001781   56377.   3165047895.   23.8401906   0.0004247   -0.0011785
1.3351449   -32.5485046 C
0.00001844   58274.   3160628694.   23.8419693   0.0004396   -0.0012198
1.3749931   -33.6896064 C
0.00001906   60168.   3156366170.   23.8449841   0.0004545   -0.0012611
1.4144275   -34.8299603 C
0.00001969   62060.   3152244401.   23.8491293   0.0004695   -0.0013023
1.4534461   -35.9695596 C
0.00002031   63949.   3148249615.   23.8541333   0.0004845   -0.0013436
1.4920376   -37.1085027 C
0.00002094   65835.   3144369480.   23.8600165   0.0004996   -0.0013848
1.5302048   -38.2467306 C
0.00002156   67719.   3140593084.   23.8667457   0.0005146   -0.0014260
1.5679478   -39.3842162 C
0.00002219   69600.   3136910758.   23.8742596   0.0005297   -0.0014672
1.6052646   -40.5209529 C
0.00002281   71479.   3133313881.   23.8825040   0.0005448   -0.0015083
1.6421531   -41.6569340 C
0.00002344   73355.   3129794736.   23.8914304   0.0005600   -0.0015494
1.6786113   -42.7921527 C
0.00002406   75228.   3126346398.   23.9009956   0.0005751   -0.0015905
1.7146371   -43.9266020 C
0.00002469   77098.   3122962627.   23.9111610   0.0005903   -0.0016316
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0.00002531   78966.   3119637789.   23.9218919   0.0006055   -0.0016726
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0.00002594   80831.   3116366778.   23.9331571   0.0006208   -0.0017136

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0.00003406 104443. 3066213417. 24.0883778 0.0008205 -0.0022451
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0.00003469 105798. 3050046797. 24.0677322 0.0008348 -0.0022870
2.2545125 -60.0000000 CY
0.00003531 107049. 3031470375. 24.0400267 0.0008489 -0.0023292
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0.00003594 108231. 3011636089. 24.0084615 0.0008628 -0.0023716
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0.00003969 113926. 2870579580. 23.7395839 0.0009422 -0.0026297
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0.00004219 116885. 2770615346. 23.5245660 0.0009924 -0.0028044
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2.7451484 -60.0000000 CY
0.00005469 126526. 2313625240. 22.4194170 0.0012261 -0.0036958

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0.00005969   128994.   2161158323.   22.0122762   0.0013139   -0.0040580
2.8649766   -60.0000000 CY
0.00006219   130126.   2092484795.   21.8208183   0.0013570   -0.0042399
2.8957203   -60.0000000 CY
0.00006469   131063.   2026099390.   21.6278628   0.0013991   -0.0044228
2.9218743   -60.0000000 CY
0.00006719   131937.   1963708931.   21.4465937   0.0014409   -0.0046059
2.9441688   -60.0000000 CY
0.00006969   132802.   1905676759.   21.2812811   0.0014830   -0.0047888
2.9628110   -60.0000000 CY
0.00007219   133610.   1850878607.   21.1234540   0.0015248   -0.0049720
2.9775880   -60.0000000 CY
0.00007469   134248.   1797456332.   20.9526356   0.0015649   -0.0051570
2.9882421   -60.0000000 CY
0.00007719   134870.   1747298242.   20.7944492   0.0016051   -0.0053418
2.9955066   -60.0000000 CY
0.00007969   135485.   1700201668.   20.6486959   0.0016454   -0.0055264
2.9993538   -60.0000000 CY
0.00008219   136093.   1655879057.   20.5144085   0.0016860   -0.0057108
2.9967835   -60.0000000 CY
0.00008469   136635.   1613401961.   20.3835028   0.0017262   -0.0058956
2.9994726   -60.0000000 CY
0.00008719   137098.   1572444958.   20.2535817   0.0017659   -0.0060810
2.9969679   -60.0000000 CY
0.00008969   137517.   1533295341.   20.1201622   0.0018045   -0.0062673
2.9989316   -60.0000000 CY
0.00009219   137932.   1496215017.   19.9955765   0.0018433   -0.0064535
2.9995094   -60.0000000 CY
0.00009469   138341.   1461026706.   19.8798546   0.0018824   -0.0066395
2.9972509   -60.0000000 CY
0.00009719   138746.   1427609342.   19.7716799   0.0019216   -0.0068253
2.9996301   -60.0000000 CY
0.00009969   139139.   1395754516.   19.6698698   0.0019608   -0.0070110
2.9972445   -60.0000000 CY
 0.0001022   139492.   1365059006.   19.5696688   0.0019998   -0.0071971
2.9974483   -60.0000000 CY
 0.0001047   139786.   1335271856.   19.4678085   0.0020380   -0.0073838
2.9995722   -60.0000000 CY
 0.0001072   140067.   1306746410.   19.3706131   0.0020763   -0.0075706
2.9982096   -60.0000000 CY
 0.0001097   140334.   1279396670.   19.2720781   0.0021139   -0.0077580
2.9955937   -60.0000000 CY
 0.0001122   140597.   1253228207.   19.1769773   0.0021514   -0.0079455
2.9984216   -60.0000000 CY
 0.0001147   140857.   1228184215.   19.0869890   0.0021890   -0.0081328
2.9998321   -60.0000000 CY
 0.0001172   141115.   1204184734.   19.0021096   0.0022268   -0.0083201

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   2.9972638   -60.0000000 CY
    0.0001197       141371.   1181167671.    18.9218867     0.0022647    -0.0085072
   2.9946449   -60.0000000 CY
    0.0001222       141625.   1159080335.    18.8457295     0.0023027    -0.0086942
   2.9976579   -60.0000000 CY
    0.0001247       141860.   1137726930.    18.7705409     0.0023405    -0.0088814
   2.9994294   -60.0000000 CY
    0.0001272       142073.   1117035129.    18.6956324     0.0023779    -0.0090690
   2.9999490   -60.0000000 CY
    0.0001297       142276.   1097067010.    18.6237155     0.0024153    -0.0092566
   2.9952158   -60.0000000 CY
    0.0001322       142449.   1077627668.    18.5502852     0.0024521    -0.0094448
   2.9938922   -60.0000000 CY
    0.0001347       142621.   1058903914.    18.4801221     0.0024890    -0.0096328
   2.9967632   -60.0000000 CY
    0.0001372       142779.   1040759315.    18.4113866     0.0025258    -0.0098211
   2.9987185    60.0000000 CY
    0.0001522       143614.    943664950.    18.0610103     0.0027487    -0.0109482
   2.9972861    60.0000000 CY
    0.0001672       144223.    862640565.    17.8286565     0.0029807    -0.0120661
   2.9923884    60.0000000 CY
    0.0001822       144533.    793318756.    17.6294681     0.0032119    -0.0131850
   2.9957196    60.0000000 CYT
    0.0001972       144769.    734168427.    17.4740460     0.0034457    -0.0143012
   2.9970394    60.0000000 CYT
    0.0002122       144953.    683134768.    17.3527547     0.0036820    -0.0154148
   2.9910045    60.0000000 CYT
    0.0002272       144953.    638030959.    17.3669403     0.0039456    -0.0165013
   2.9982550    60.0000000 CYT


-------------------------------------------------------------------------------
   Summary of Results for Nominal Moment Capacity for Section 1
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Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

 Load           Axial Thrust        Nominal Mom. Cap.      Max. Comp.
  No.              kips                in-kip               Strain
 ----         ----------------     ------------------     ------------
   1               50.000            143963.018           0.00300000
   2               60.000            144248.569           0.00300000

Note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.75).
```

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to ACI 318, or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding bending stiffnesses computed for common resistance factor values used for reinforced concrete sections.

Axial Load No.	Resist. Factor	Nominal Ax. Thrust kips	Nominal Moment Cap in-kips	Ult. (Fac) Ax. Thrust kips	Ult. (Fac) Moment Cap in-kips	Bend. Stiff. at Ult Mom kip-in^2
1	0.65	50.000000	143963.	32.500000	93576.	3.0880E+09
2	0.65	60.000000	144249.	39.000000	93762.	3.0947E+09
1	0.75	50.000000	143963.	37.500000	107972.	3.0058E+09
2	0.75	60.000000	144249.	45.000000	108186.	3.0124E+09
1	0.90	50.000000	143963.	45.000000	129567.	2.1049E+09
2	0.90	60.000000	144249.	54.000000	129824.	2.1108E+09

Layering Correction Equivalent Depths of Soil & Rock Layers

Layer No.	Top of Layer Below Pile Head ft	Equivalent Top Depth Below Grnd Surf ft	Same Layer Type As Layer Above	Layer is Rock or is Below Rock Layer	F0 Integral for Layer lbs	F1 Integral for Layer lbs
1	0.00	0.00	N.A.	No	0.00	14305.
2	2.0000	2.1083	Yes	No	14305.	35208.
3	3.7500	3.8808	Yes	No	49513.	39072.
4	5.0000	5.1428	Yes	No	88585.	275828.
5	10.0000	10.1666	Yes	No	364413.	1335581.
6	25.0000	31.7642	Yes	No	1699994.	1326211.
7	35.0000	2112.	No	No	3026205.	14468.

8	45.0000	37.8840	No	No	3040672.	N.A.

Notes: The F0 integral of Layer n+1 equals the sum of the F0 and F1 integrals
for Layer n. Layering correction equivalent depths are computed only
for soil types with both shallow-depth and deep-depth expressions for
peak lateral load transfer. These soil types are soft and stiff clays,
non-liquefied sands, and cemented c-phi soil.

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 37000.0 lbs
Applied moment at pile head = 43596000.0 in-lbs
Axial thrust load on pile head = 60000.0 lbs

Depth X	Deflect. y	Bending Moment	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil Res. Es*h	Soil Spr. Lat. Load	Distrib. p
feet	inches	in-lbs	lbs	radians	psi*	lb-in^2	lb/inch	lb/inch	lb/inch
0.00	0.5311	4.36E+07	37000.	-0.00379	0.00	3.20E+12	0.00	0.00	0.00
0.4700	0.5100	4.38E+07	36574.	-0.00371	0.00	3.20E+12	-151.1563	1672.	0.00
0.9400	0.4893	4.40E+07	35284.	-0.00363	0.00	3.20E+12	-306.0918	3528.	0.00
1.4100	0.4690	4.42E+07	33114.	-0.00355	0.00	3.20E+12	-463.5218	5574.	0.00
1.8800	0.4492	4.44E+07	30052.	-0.00348	0.00	3.20E+12	-622.1796	7812.	0.00
2.3500	0.4298	4.45E+07	26668.	-0.00340	0.00	3.20E+12	-578.0468	7586.	0.00
2.8200	0.4108	4.47E+07	23168.	-0.00332	0.00	3.20E+12	-663.0806	9103.	0.00
3.2900	0.3923	4.48E+07	19215.	-0.00324	0.00	3.20E+12	-738.7598	10620.	0.00
3.7600	0.3743	4.49E+07	14860.	-0.00316	0.00	3.20E+12	-805.4461	12137.	0.00
4.2300	0.3567	4.50E+07	10153.	-0.00308	0.00	3.20E+12	-863.5017	13654.	0.00

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    4.7000     0.3395   4.50E+07      5143.   -0.00300       0.00   3.20E+12
-913.2894     15171.       0.00
    5.1700     0.3228   4.50E+07  -126.2017   -0.00292       0.00   3.20E+12
-955.1717     16688.       0.00
    5.6400     0.3065   4.50E+07     -5610.   -0.00284       0.00   3.20E+12
-989.5109     18206.       0.00
    6.1100     0.2907   4.50E+07    -11268.   -0.00276       0.00   3.20E+12
-1017.     19723.       0.00
    6.5800     0.2754   4.49E+07    -17059.   -0.00268       0.00   3.20E+12
-1037.     21240.       0.00
    7.0500     0.2604   4.48E+07    -22947.   -0.00261       0.00   3.20E+12
-1051.     22757.       0.00
    7.5200     0.2460   4.46E+07    -28896.   -0.00253       0.00   3.20E+12
-1059.     24274.       0.00
    7.9900     0.2319   4.45E+07    -34872.   -0.00245       0.00   3.20E+12
-1061.     25791.       0.00
    8.4600     0.2184   4.43E+07    -40844.   -0.00237       0.00   3.20E+12
-1057.     27308.       0.00
    8.9300     0.2052   4.40E+07    -46783.   -0.00229       0.00   3.20E+12
-1049.     28825.       0.00
    9.4000     0.1925   4.37E+07    -52661.   -0.00222       0.00   3.20E+12
-1036.     30343.       0.00
    9.8700     0.1802   4.34E+07    -58453.   -0.00214       0.00   3.20E+12
-1018.     31860.       0.00
   10.3400     0.1684   4.31E+07    -64134.   -0.00206       0.00   3.20E+12
-996.4315     33377.       0.00
   10.8100     0.1570   4.27E+07    -69682.   -0.00199       0.00   3.20E+12
-971.0939     34894.       0.00
   11.2800     0.1460   4.23E+07    -75078.   -0.00191       0.00   3.20E+12
-942.3514     36411.       0.00
   11.7500     0.1354   4.18E+07    -80303.   -0.00184       0.00   3.21E+12
-910.5175     37928.       0.00
   12.2200     0.1252   4.14E+07    -85341.   -0.00176       0.00   3.21E+12
-875.8992     39445.       0.00
   12.6900     0.1155   4.09E+07    -90176.   -0.00169       0.00   3.21E+12
-838.7962     40962.       0.00
   13.1600     0.1061   4.04E+07    -94796.   -0.00162       0.00   3.21E+12
-799.5011     42480.       0.00
   13.6300    0.09721   3.98E+07    -99189.   -0.00155       0.00   3.21E+12
-758.2988     43997.       0.00
   14.1000    0.08866   3.92E+07   -103345.   -0.00148       0.00   3.22E+12
-715.4660     45514.       0.00
   14.5700    0.08050   3.87E+07   -107256.   -0.00141       0.00   3.22E+12
-671.2714     47031.       0.00
   15.0400    0.07272   3.80E+07   -110914.   -0.00135       0.00   3.22E+12
-625.9755     48548.       0.00
   15.5100    0.06532   3.74E+07   -114314.   -0.00128       0.00   3.22E+12
-579.8300     50065.       0.00
   15.9800    0.05829   3.67E+07   -117038.   -0.00121       0.00   3.23E+12
-386.1107     37361.       0.00
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16.4500	0.05162	3.61E+07	-119120.	-0.00115	0.00	3.23E+12
-351.9783	38460.	0.00				
16.9200	0.04530	3.54E+07	-121008.	-0.00109	0.00	3.23E+12
-317.7398	39559.	0.00				
17.3900	0.03933	3.47E+07	-122704.	-0.00103	0.00	3.24E+12
-283.5525	40658.	0.00				
17.8600	0.03371	3.40E+07	-124207.	-9.68E-04	0.00	3.24E+12
-249.5676	41757.	0.00				
18.3300	0.02842	3.33E+07	-125520.	-9.09E-04	0.00	3.24E+12
-215.9298	42856.	0.00				
18.8000	0.02345	3.26E+07	-126644.	-8.52E-04	0.00	3.25E+12
-182.7779	43954.	0.00				
19.2700	0.01881	3.19E+07	-127584.	-8.17E-04	0.00	1.30E+13
-150.2432	45053.	0.00				
19.7400	0.01424	3.12E+07	-128336.	-8.03E-04	0.00	1.30E+13
-116.5373	46152.	0.00				
20.2100	0.00975	3.04E+07	-128895.	-7.90E-04	0.00	1.30E+13
-81.6907	47251.	0.00				
20.6800	0.00533	2.97E+07	-129254.	-7.77E-04	0.00	1.30E+13
-45.7325	48350.	0.00				
21.1500	9.91E-04	2.90E+07	-129408.	-7.64E-04	0.00	1.30E+13
-8.6903	49449.	0.00				
21.6200	-0.00328	2.83E+07	-129349.	-7.51E-04	0.00	1.30E+13
29.4098	50548.	0.00				
22.0900	-0.00749	2.75E+07	-129073.	-7.39E-04	0.00	1.30E+13
68.5430	51646.	0.00				
22.5600	-0.01162	2.68E+07	-128573.	-7.28E-04	0.00	1.30E+13
108.6859	52745.	0.00				
23.0300	-0.01569	2.61E+07	-127844.	-7.16E-04	0.00	1.30E+13
149.8164	53844.	0.00				
23.5000	-0.01970	2.54E+07	-126881.	-7.05E-04	0.00	1.31E+13
191.9138	54943.	0.00				
23.9700	-0.02365	2.46E+07	-125677.	-6.94E-04	0.00	1.31E+13
234.9587	56042.	0.00				
24.4400	-0.02753	2.39E+07	-124228.	-6.84E-04	0.00	1.31E+13
278.9328	57141.	0.00				
24.9100	-0.03136	2.32E+07	-122528.	-6.74E-04	0.00	1.31E+13
323.8190	58240.	0.00				
25.3800	-0.03513	2.26E+07	-121314.	-6.64E-04	0.00	1.31E+13
106.6667	17125.	0.00				
25.8500	-0.03885	2.19E+07	-120674.	-6.54E-04	0.00	1.31E+13
120.1338	17442.	0.00				
26.3200	-0.04251	2.12E+07	-119958.	-6.45E-04	0.00	1.31E+13
133.8512	17759.	0.00				
26.7900	-0.04612	2.05E+07	-119164.	-6.36E-04	0.00	1.31E+13
147.8153	18076.	0.00				
27.2600	-0.04968	1.99E+07	-118290.	-6.27E-04	0.00	1.31E+13
162.0229	18394.	0.00				
27.7300	-0.05319	1.92E+07	-117335.	-6.19E-04	0.00	1.31E+13
176.4710	18711.	0.00				

28.2000	-0.05666	1.85E+07	-116299.	-6.11E-04	0.00	1.31E+13
191.1570	19028.	0.00				
28.6700	-0.06008	1.79E+07	-115179.	-6.03E-04	0.00	1.31E+13
206.0786	19345.	0.00				
29.1400	-0.06346	1.72E+07	-113974.	-5.95E-04	0.00	1.31E+13
221.2337	19662.	0.00				
29.6100	-0.06680	1.66E+07	-112682.	-5.88E-04	0.00	1.31E+13
236.6207	19979.	0.00				
30.0800	-0.07009	1.60E+07	-111304.	-5.81E-04	0.00	1.31E+13
252.2382	20296.	0.00				
30.5500	-0.07335	1.53E+07	-109836.	-5.74E-04	0.00	1.31E+13
268.0850	20614.	0.00				
31.0200	-0.07657	1.47E+07	-108279.	-5.68E-04	0.00	1.31E+13
284.1602	20931.	0.00				
31.4900	-0.07975	1.41E+07	-106630.	-5.62E-04	0.00	1.31E+13
300.4633	21248.	0.00				
31.9600	-0.08291	1.35E+07	-104889.	-5.56E-04	0.00	1.31E+13
316.9940	21565.	0.00				
32.4300	-0.08602	1.29E+07	-103054.	-5.50E-04	0.00	1.32E+13
333.7519	21882.	0.00				
32.9000	-0.08911	1.24E+07	-101124.	-5.45E-04	0.00	1.32E+13
350.7374	22199.	0.00				
33.3700	-0.09217	1.18E+07	-99097.	-5.39E-04	0.00	1.32E+13
367.9507	22516.	0.00				
33.8400	-0.09519	1.12E+07	-96973.	-5.34E-04	0.00	1.32E+13
385.3924	22833.	0.00				
34.3100	-0.09820	1.07E+07	-94749.	-5.30E-04	0.00	1.32E+13
403.0631	23151.	0.00				
34.7800	-0.1012	1.02E+07	-92426.	-5.25E-04	0.00	1.32E+13
420.9638	23468.	0.00				
35.2500	-0.1041	9658548.	-90610.	-5.21E-04	0.00	1.32E+13
222.9568	12077.	0.00				
35.7200	-0.1070	9151230.	-89343.	-5.17E-04	0.00	1.32E+13
226.0691	11911.	0.00				
36.1900	-0.1100	8651103.	-88060.	-5.13E-04	0.00	1.32E+13
229.1162	11752.	0.00				
36.6600	-0.1128	8158263.	-86759.	-5.10E-04	0.00	1.32E+13
232.1018	11601.	0.00				
37.1300	-0.1157	7672804.	-85442.	-5.06E-04	0.00	1.32E+13
235.0295	11457.	0.00				
37.6000	-0.1185	7194821.	-84108.	-5.03E-04	0.00	1.32E+13
237.9027	11318.	0.00				
38.0700	-0.1214	6724404.	-82759.	-5.00E-04	0.00	1.32E+13
240.7243	11186.	0.00				
38.5400	-0.1242	6261643.	-81393.	-4.97E-04	0.00	1.32E+13
243.4974	11058.	0.00				
39.0100	-0.1270	5806627.	-80012.	-4.95E-04	0.00	1.32E+13
246.2246	10936.	0.00				
39.4800	-0.1298	5359443.	-78616.	-4.92E-04	0.00	1.32E+13
248.9085	10818.	0.00				

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   39.9500    -0.1325   4920175.    -77204.  -4.90E-04       0.00   1.32E+13
251.5516     10704.       0.00
   40.4200    -0.1353   4488909.    -75778.  -4.88E-04       0.00   1.32E+13
254.1560     10595.       0.00
   40.8900    -0.1380   4065727.    -74338.  -4.86E-04       0.00   1.32E+13
256.7240     10489.       0.00
   41.3600    -0.1408   3650710.    -72883.  -4.85E-04       0.00   1.32E+13
259.2575     10386.       0.00
   41.8300    -0.1435   3243939.    -71413.  -4.83E-04       0.00   1.32E+13
261.7585     10287.       0.00
   42.3000    -0.1462   2845495.    -69930.  -4.82E-04       0.00   1.32E+13
264.2288     10191.       0.00
   42.7700    -0.1490   2455455.    -68433.  -4.81E-04       0.00   1.32E+13
266.6701     10097.       0.00
   43.2400    -0.1517   2073897.    -66922.  -4.80E-04       0.00   1.32E+13
269.0840     10007.       0.00
   43.7100    -0.1544   1700899.    -65398.  -4.79E-04       0.00   1.32E+13
271.4721      9919.       0.00
   44.1800    -0.1571   1336536.    -63860.  -4.78E-04       0.00   1.32E+13
273.8357      9833.       0.00
   44.6500    -0.1598    980883.    -62309.  -4.78E-04       0.00   1.32E+13
276.1764      9750.       0.00
   45.1200    -0.1625    634015.    -55049.  -4.78E-04       0.00   1.32E+13
2298.     79783.       0.00
   45.5900    -0.1651    360248.    -41891.  -4.77E-04       0.00   1.32E+13
2368.     80871.       0.00
   46.0600    -0.1678    161807.    -28335.  -4.77E-04       0.00   1.32E+13
2439.     81966.       0.00
   46.5300    -0.1705     40957.    -14373.  -4.77E-04       0.00   1.32E+13
2512.     83067.       0.00
   47.0000    -0.1732       0.00       0.00  -4.77E-04       0.00   1.32E+13
2585.     42087.       0.00

* This analysis computed pile response using nonlinear moment-curvature rela-
  tionships. Values of total stress due to combined axial and bending stresses
  are computed only for elastic sections only and do not equal the actual
  stresses in concrete and steel. Stresses in concrete and steel may be inter-
  polated from the output for nonlinear bending properties relative to the
  magnitude of bending moment developed in the pile.


Output Summary for Load Case No. 1:

Pile-head deflection             =     0.53111733 inches
Computed slope at pile head      =    -0.00378695 radians
Maximum bending moment           =      45041138. inch-lbs
Maximum shear force              =       -129408. lbs
Depth of maximum bending moment  =     5.17000000 feet below pile head
Depth of maximum shear force     =    21.15000000 feet below pile head
Number of iterations             =            168
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Number of zero deflection points = 1

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 8000.0 lbs
Applied moment at pile head = 9420000.0 in-lbs
Axial thrust load on pile head = 50000.0 lbs

Depth X	Deflect. y	Bending Moment	Shear Force	Slope S	Total Stress	Bending Stiffness	Soil Res. Spr. p	Soil Distrib. Es*h
feet	inches	in-lbs	lbs	radians	psi*	lb-in^2	lb/inch	lb/inch
0.00	0.06578	9420000.	8000.	-3.21E-04	0.00	1.32E+13	0.00	0.00
0.4700	0.06398	9465210.	7915.	-3.17E-04	0.00	1.32E+13	-29.9964	2644.
0.9400	0.06221	9509465.	7666.	-3.13E-04	0.00	1.32E+13	-58.3279	5288.
1.4100	0.06045	9551863.	7262.	-3.09E-04	0.00	1.32E+13	-85.0268	7933.
1.8800	0.05872	9591555.	6712.	-3.05E-04	0.00	1.32E+13	-110.1257	10577.
2.3500	0.05702	9627743.	6185.	-3.00E-04	0.00	1.32E+13	-76.6861	7586.
2.8200	0.05533	9661490.	5717.	-2.96E-04	0.00	1.32E+13	-89.3067	9103.
3.2900	0.05367	9692396.	5180.	-2.92E-04	0.00	1.32E+13	-101.0658	10620.
3.7600	0.05204	9720085.	4579.	-2.88E-04	0.00	1.32E+13	-111.9822	12137.
4.2300	0.05042	9744212.	3919.	-2.84E-04	0.00	1.32E+13	-122.0750	13654.
4.7000	0.04884	9764454.	3204.	-2.80E-04	0.00	1.32E+13	-131.3634	15171.
5.1700	0.04727	9780516.	2440.	-2.76E-04	0.00	1.32E+13	-139.8663	16688.
5.6400	0.04573	9792128.	1629.	-2.71E-04	0.00	1.32E+13	-147.6031	18206.
6.1100	0.04421	9799043.	776.7291	-2.67E-04	0.00	1.32E+13		

-154.5928	19723.	0.00				
6.5800	0.04271	9801040.	-112.8322	-2.63E-04	0.00	1.32E+13
-160.8545	21240.	0.00				
7.0500	0.04124	9797919.	-1036.	-2.59E-04	0.00	1.32E+13
-166.4074	22757.	0.00				
7.5200	0.03979	9789503.	-1988.	-2.55E-04	0.00	1.32E+13
-171.2705	24274.	0.00				
7.9900	0.03837	9775638.	-2966.	-2.50E-04	0.00	1.32E+13
-175.4629	25791.	0.00				
8.4600	0.03697	9756190.	-3965.	-2.46E-04	0.00	1.32E+13
-179.0034	27308.	0.00				
8.9300	0.03559	9731048.	-4983.	-2.42E-04	0.00	1.32E+13
-181.9108	28825.	0.00				
9.4000	0.03424	9700117.	-6016.	-2.38E-04	0.00	1.32E+13
-184.2039	30343.	0.00				
9.8700	0.03291	9663326.	-7059.	-2.34E-04	0.00	1.32E+13
-185.9011	31860.	0.00				
10.3400	0.03160	9620621.	-8111.	-2.30E-04	0.00	1.32E+13
-187.0208	33377.	0.00				
10.8100	0.03032	9571965.	-9167.	-2.26E-04	0.00	1.32E+13
-187.5811	34894.	0.00				
11.2800	0.02906	9517341.	-10225.	-2.21E-04	0.00	1.32E+13
-187.6002	36411.	0.00				
11.7500	0.02782	9456748.	-11282.	-2.17E-04	0.00	1.32E+13
-187.0956	37928.	0.00				
12.2200	0.02661	9390203.	-12334.	-2.13E-04	0.00	1.32E+13
-186.0850	39445.	0.00				
12.6900	0.02542	9317738.	-13380.	-2.09E-04	0.00	1.32E+13
-184.5855	40962.	0.00				
13.1600	0.02425	9239399.	-14415.	-2.05E-04	0.00	1.32E+13
-182.6141	42480.	0.00				
13.6300	0.02310	9155251.	-15438.	-2.01E-04	0.00	1.32E+13
-180.1875	43997.	0.00				
14.1000	0.02197	9065370.	-16446.	-1.98E-04	0.00	1.32E+13
-177.3221	45514.	0.00				
14.5700	0.02087	8969848.	-17437.	-1.94E-04	0.00	1.32E+13
-174.0337	47031.	0.00				
15.0400	0.01979	8868788.	-18408.	-1.90E-04	0.00	1.32E+13
-170.3382	48548.	0.00				
15.5100	0.01873	8762309.	-19358.	-1.86E-04	0.00	1.32E+13
-166.2507	50065.	0.00				
15.9800	0.01769	8650540.	-20157.	-1.82E-04	0.00	1.32E+13
-117.1824	37361.	0.00				
16.4500	0.01667	8535043.	-20808.	-1.79E-04	0.00	1.32E+13
-113.6861	38460.	0.00				
16.9200	0.01567	8415929.	-21438.	-1.75E-04	0.00	1.32E+13
-109.9375	39559.	0.00				
17.3900	0.01470	8293316.	-22047.	-1.71E-04	0.00	1.32E+13
-105.9464	40658.	0.00				
17.8600	0.01374	8167332.	-22633.	-1.68E-04	0.00	1.32E+13

-101.7226 41757. 0.00
  18.3300 0.01280 8038112. -23194. -1.65E-04 0.00 1.32E+13
-97.2754 42856. 0.00
  18.8000 0.01188 7905796. -23730. -1.61E-04 0.00 1.32E+13
-92.6139 43954. 0.00
  19.2700 0.01098 7770534. -24238. -1.58E-04 0.00 1.32E+13
-87.7468 45053. 0.00
  19.7400 0.01010 7632479. -24719. -1.54E-04 0.00 1.32E+13
-82.6827 46152. 0.00
  20.2100 0.00924 7491793. -25170. -1.51E-04 0.00 1.32E+13
-77.4296 47251. 0.00
  20.6800 0.00840 7348643. -25592. -1.48E-04 0.00 1.32E+13
-71.9954 48350. 0.00
  21.1500 0.00757 7203203. -25982. -1.45E-04 0.00 1.32E+13
-66.3877 49449. 0.00
  21.6200 0.00676 7055649. -26340. -1.42E-04 0.00 1.32E+13
-60.6135 50548. 0.00
  22.0900 0.00597 6906167. -26665. -1.39E-04 0.00 1.32E+13
-54.6800 51646. 0.00
  22.5600 0.00520 6754944. -26956. -1.36E-04 0.00 1.32E+13
-48.5934 52745. 0.00
  23.0300 0.00444 6602175. -27213. -1.33E-04 0.00 1.32E+13
-42.3602 53844. 0.00
  23.5000 0.00369 6448058. -27434. -1.30E-04 0.00 1.32E+13
-35.9862 54943. 0.00
  23.9700 0.00297 6292795. -27618. -1.28E-04 0.00 1.32E+13
-29.4771 56042. 0.00
  24.4400 0.00225 6136594. -27766. -1.25E-04 0.00 1.32E+13
-22.8380 57141. 0.00
  24.9100 0.00156 5979666. -27876. -1.22E-04 0.00 1.32E+13
-16.0741 58240. 0.00
  25.3800 8.73E-04 5822225. -27929. -1.20E-04 0.00 1.32E+13
-2.6522 17125. 0.00
  25.8500 2.04E-04 5664700. -27938. -1.17E-04 0.00 1.32E+13
-0.6319 17442. 0.00
  26.3200 -4.51E-04 5507154. -27936. -1.15E-04 0.00 1.32E+13
1.4206 17759. 0.00
  26.7900 -0.00109 5349652. -27922. -1.13E-04 0.00 1.32E+13
3.5044 18076. 0.00
  27.2600 -0.00172 5192261. -27896. -1.10E-04 0.00 1.32E+13
5.6184 18394. 0.00
  27.7300 -0.00234 5035048. -27858. -1.08E-04 0.00 1.32E+13
7.7617 18711. 0.00
  28.2000 -0.00294 4878082. -27808. -1.06E-04 0.00 1.32E+13
9.9334 19028. 0.00
  28.6700 -0.00354 4721430. -27746. -1.04E-04 0.00 1.32E+13
12.1330 19345. 0.00
  29.1400 -0.00412 4565165. -27671. -1.02E-04 0.00 1.32E+13
14.3595 19662. 0.00
  29.6100 -0.00469 4409355. -27584. -1.00E-04 0.00 1.32E+13

```
16.6126     19979.       0.00
   30.0800   -0.00525   4254074.    -27484.  -9.84E-05       0.00   1.32E+13
18.8917     20296.       0.00
   30.5500   -0.00580   4099392.    -27371.  -9.66E-05       0.00   1.32E+13
21.1964     20614.       0.00
   31.0200   -0.00634   3945385.    -27245.  -9.49E-05       0.00   1.32E+13
23.5263     20931.       0.00
   31.4900   -0.00687   3792125.    -27105.  -9.32E-05       0.00   1.32E+13
25.8812     21248.       0.00
   31.9600   -0.00739   3639689.    -26953.  -9.17E-05       0.00   1.32E+13
28.2609     21565.       0.00
   32.4300   -0.00790   3488150.    -26787.  -9.01E-05       0.00   1.32E+13
30.6652     21882.       0.00
   32.9000   -0.00841   3337587.    -26607.  -8.87E-05       0.00   1.32E+13
33.0942     22199.       0.00
   33.3700   -0.00890   3188076.    -26413.  -8.73E-05       0.00   1.32E+13
35.5478     22516.       0.00
   33.8400   -0.00939   3039696.    -26206.  -8.60E-05       0.00   1.32E+13
38.0262     22833.       0.00
   34.3100   -0.00987   2892525.    -25984.  -8.47E-05       0.00   1.32E+13
40.5295     23151.       0.00
   34.7800   -0.01035   2746642.    -25748.  -8.35E-05       0.00   1.32E+13
43.0580     23468.       0.00
   35.2500   -0.01082   2602129.    -25424.  -8.24E-05       0.00   1.32E+13
71.8743     37480.       0.00
   35.7200   -0.01128   2459902.    -25015.  -8.13E-05       0.00   1.32E+13
73.3910     36705.       0.00
   36.1900   -0.01173   2320009.    -24597.  -8.03E-05       0.00   1.32E+13
74.8581     35985.       0.00
   36.6600   -0.01218   2182497.    -24170.  -7.93E-05       0.00   1.32E+13
76.2795     35314.       0.00
   37.1300   -0.01263   2047412.    -23736.  -7.84E-05       0.00   1.32E+13
77.6588     34687.       0.00
   37.6000   -0.01307   1914796.    -23295.  -7.76E-05       0.00   1.32E+13
78.9991     34098.       0.00
   38.0700   -0.01350   1784693.    -22845.  -7.68E-05       0.00   1.32E+13
80.3034     33544.       0.00
   38.5400   -0.01393   1657144.    -22389.  -7.60E-05       0.00   1.32E+13
81.5742     33021.       0.00
   39.0100   -0.01436   1532190.    -21925.  -7.54E-05       0.00   1.32E+13
82.8141     32527.       0.00
   39.4800   -0.01478   1409870.    -21455.  -7.47E-05       0.00   1.32E+13
84.0252     32058.       0.00
   39.9500   -0.01520   1290222.    -20978.  -7.41E-05       0.00   1.32E+13
85.2096     31612.       0.00
   40.4200   -0.01562   1173285.    -20494.  -7.36E-05       0.00   1.32E+13
86.3692     31188.       0.00
   40.8900   -0.01603   1059095.    -20003.  -7.31E-05       0.00   1.32E+13
87.5057     30782.       0.00
   41.3600   -0.01644    947689.    -19507.  -7.27E-05       0.00   1.32E+13
```

```
88.6208     30395.       0.00
   41.8300   -0.01685    839101.    -19004.  -7.23E-05       0.00   1.32E+13
89.7160     30024.       0.00
   42.3000   -0.01726    733368.    -18495.  -7.20E-05       0.00   1.32E+13
90.7926     29668.       0.00
   42.7700   -0.01767    630522.    -17980.  -7.17E-05       0.00   1.32E+13
91.8521     29325.       0.00
   43.2400   -0.01807    530598.    -17459.  -7.15E-05       0.00   1.32E+13
92.8956     28996.       0.00
   43.7100   -0.01847    433628.    -16932.  -7.13E-05       0.00   1.32E+13
93.9242     28678.       0.00
   44.1800   -0.01887    339647.    -16399.  -7.11E-05       0.00   1.32E+13
94.9391     28372.       0.00
   44.6500   -0.01927    248685.    -15861.  -7.10E-05       0.00   1.32E+13
95.9412     28075.       0.00
   45.1200   -0.01967    160775.    -13949.  -7.09E-05       0.00   1.32E+13
581.8983    166819.       0.00
   45.5900   -0.02007     91375.    -10617.  -7.08E-05       0.00   1.32E+13
599.9016    168556.       0.00
   46.0600   -0.02047     41058.     -7182.  -7.08E-05       0.00   1.32E+13
618.1445    170294.       0.00
   46.5300   -0.02087     10403.     -3643.  -7.08E-05       0.00   1.32E+13
636.6304    172032.       0.00
   47.0000   -0.02127       0.00       0.00  -7.08E-05       0.00   1.32E+13
655.3617     86885.       0.00
```

* This analysis computed pile response using nonlinear moment-curvature relationships. Values of total stress due to combined axial and bending stresses are computed only for elastic sections only and do not equal the actual stresses in concrete and steel. Stresses in concrete and steel may be interpolated from the output for nonlinear bending properties relative to the magnitude of bending moment developed in the pile.

Output Summary for Load Case No. 2:

```
Pile-head deflection             =     0.06577938 inches
Computed slope at pile head      =    -0.00032088 radians
Maximum bending moment           =       9801040. inch-lbs
Maximum shear force              =        -27938. lbs
Depth of maximum bending moment  =     6.58000000 feet below pile head
Depth of maximum shear force     =    25.85000000 feet below pile head
Number of iterations             =              7
Number of zero deflection points =              1
```

Summary of Pile-head Responses for Conventional Analyses

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, V, lbs, and Load 2 = Moment, M, in-lbs
Load Type 2: Load 1 = Shear, V, lbs, and Load 2 = Slope, S, radians
Load Type 3: Load 1 = Shear, V, lbs, and Load 2 = Rot. Stiffness, R, in-lbs/rad.
Load Type 4: Load 1 = Top Deflection, y, inches, and Load 2 = Moment, M, in-lbs
Load Type 5: Load 1 = Top Deflection, y, inches, and Load 2 = Slope, S, radians

Load Case No.	Load Type 1	Load 1	Load Type 2	Load 2	Axial Loading lbs	Pile-head Deflection inches	Pile-head Rotation radians	Max Shear in Pile lbs	Max Moment in Pile in-lbs
1	V, lb	37000.	M, in-lb	4.36E+07	60000.	0.5311	-0.00379	-129408.	4.50E+07
2	V, lb	8000.	M, in-lb	9420000.	50000.	0.06578	-3.21E-04	-27938.	9801040.

Maximum pile-head deflection = 0.5311173276 inches
Maximum pile-head rotation = -0.0037869500 radians = -0.216976 deg.

Summary of Warning Messages

The following warning was reported 147 times

**** Warning ****

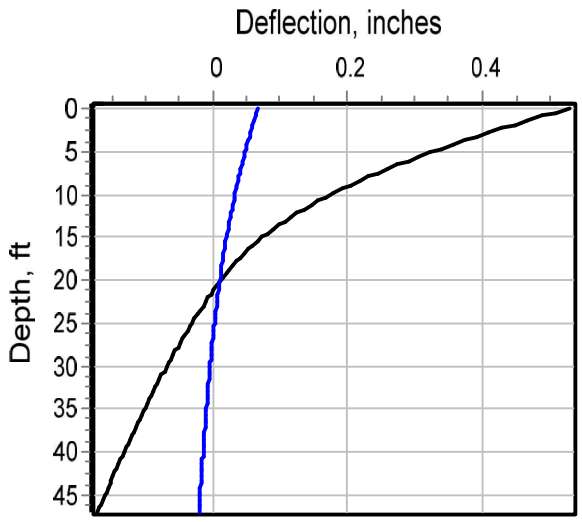
The input value for friction angle is either smaller than 29 degrees or
higher than 41 degrees and no value of k has been specified for a soil layer
defined using the sand criteria. Program will assume an internal default value,
for k, but the friction angle is outside the range of data available.
Please check your input data for correctness.

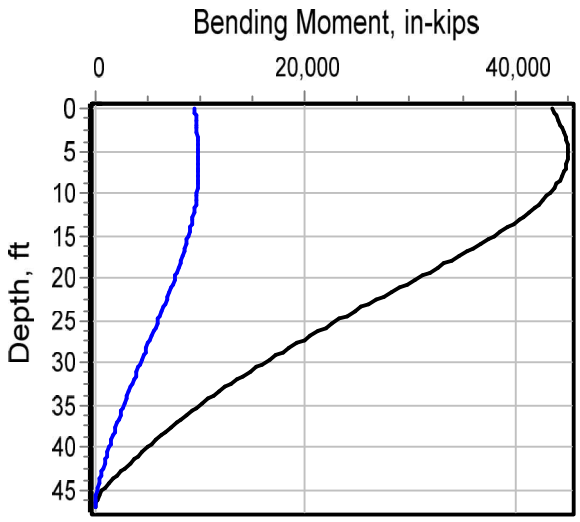
The following warning was reported 147 times

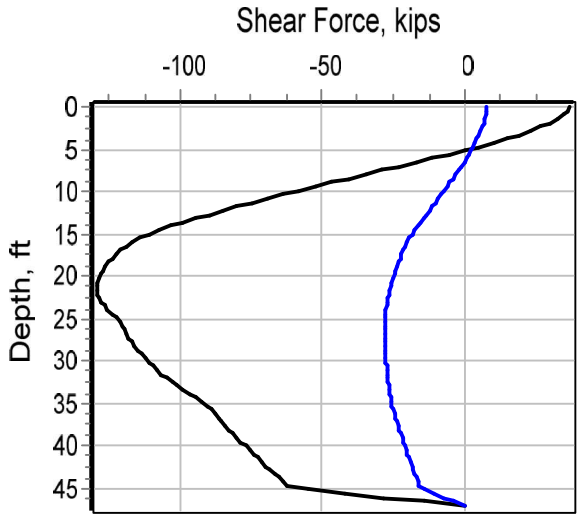
**** Warning ****

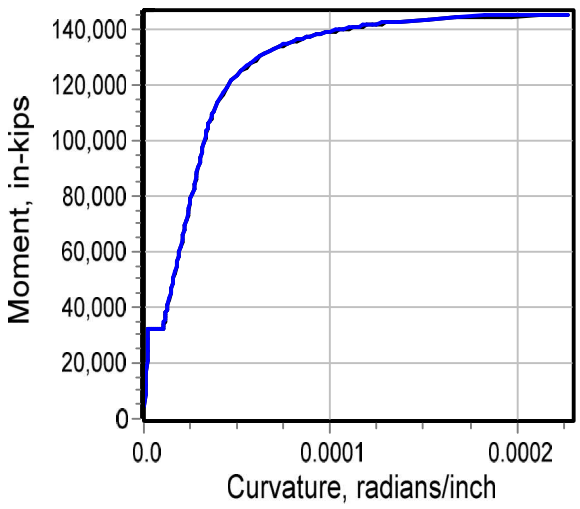
An unreasonable input value for shear strength has been specified for a layer.
defined using the stiff clay with free water criteria. The input value is
less than 500 psf. Please check your input data for correctness.

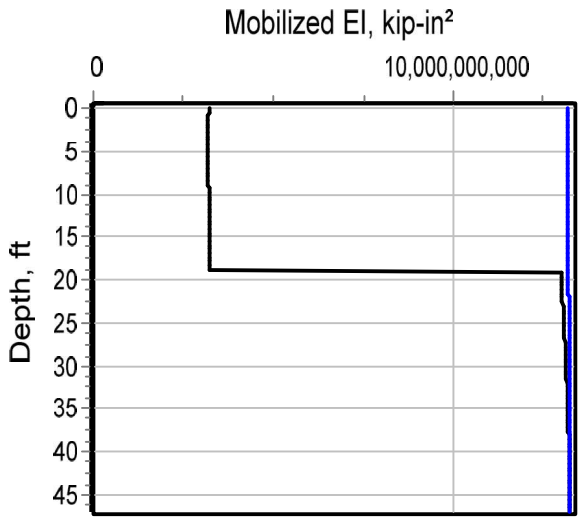
```
The analysis ended normally.
```

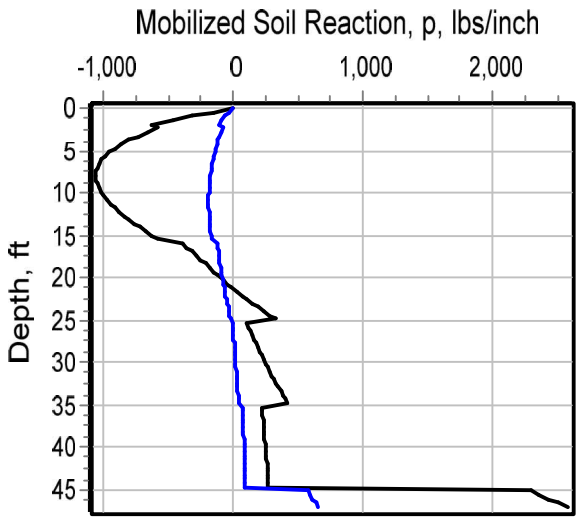

Deflection, inches
0
0.2
0.4
Depth, ft
0
5
10
15
20
25
30
35
40
45


Bending Moment, in-kips
0
20,000
40,000
Depth, ft
0
5
10
15
20
25
30
35
40
45


Shear Force, kips
-100
-50
0
Depth, ft
0
5
10
15
20
25
30
35
40
45


Moment, in-kips
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
0.0
0.0001
0.0002
Curvature, radians/inch


Mobilized EI, kip-in²
0
10,000,000,000
Depth, ft
0
5
10
15
20
25
30
35
40
45


Mobilized Soil Reaction, p, lbs/inch
-1,000
0
1,000
2,000
Depth, ft
0
5
10
15
20
25
30
35
40
45

Drilled Pier Foundation

BU # :	806369
Site Name:	HRT 094 943225
Order Number:	523998 Rev. 1

TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	3633	
Axial Force (kips)	60	
Shear Force (kips)	37	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi

Pier Design Data		
Depth	47	ft
Ext. Above Grade	0	ft
Pier Section 1		
From 0' below grade to 47' below grade		
Pier Diameter	7.5	ft
Rebar Quantity	52	
Rebar Size	10	
Clear Cover to Ties	2.865	in
Tie Size	4	

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)		-
Soil Safety Factor		-
Max Moment (kip-ft)		-
Rating*		-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	406.44	-
End Bearing (kips)	298.21	-
Weight of Concrete (kips)	251.35	-
Total Capacity (kips)	704.65	-
Axial (kips)	311.35	-
Rating*	*42.1%*	-
Reinforced Concrete Check	*Compression*	*Uplift*
Critical Depth (ft from TOC)		-
Critical Moment (kip-ft)		-
Critical Moment Capacity		-
Rating*		-

Soil Interaction Rating*	**42.1%**
Structural Foundation Rating*	**0.0%**

*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	☑
N/A	☐

Soil Profile

Groundwater Depth	10	# of Layers	8

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	2	2	105	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	2	3.75	1.75	100	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
3	3.75	5	1.25	100	150	0.5	30	0.472	0.472	0.00	0.00		13	Cohesionless
4	5	10	5	100	150	0.5	30	0.000	0.000	0.60	0.60			Cohesionless
5	10	25	15	36	87.6	0.1	27	0.000	0.000	0.40	0.40			Cohesionless
6	25	35	10	36	87.6	0.1	27	0.000	0.000	0.60	0.60			Cohesionless
7	35	45	10	41	87.6	0.2	0	0.11	0.11	0.60	0.60			Cohesive
8	45	47	2	41	87.6	0	32	0.00	0.00	1.00	1.00	9		Cohesionless

PAUL J. FORD & COMPANY
250 E Broad St, Ste 600 • Columbus, OH 43215
Phone 614.221.6679 www.pauljford.com

Job Number: 37520-1171.001.7805
Site Number: 806369
Site Name: HRT 094 943225
By: NCM
Date: 6/24/2020

Version 1.3a, Effective 07/03/2019

DRILLED PIER STEEL ANALYSIS - STEEL CALCULATIONS - TIA-222-H

BASED ON ACI 318-14, SECTION 10 (ASSUMING TIE REINFORCEMENT)

Factored Internal Loads from Analysis

Reference Standard =	TIA-222-H	
ACI Code =	ACI 318-14	
Maximum Ratio =	100.0%	
Axial Load, Pu =	90.1	kips, (+Comp, -Tension)
Moment, Mu =	3753.4	k-ft (Must be Positive)
Depth to Analysis Section =	5.17	ft, from Grade

Factored Internal Loads

Load Factor =	1.0	
Axial Load, Pu = ΦPn =	90.1	kips
Moment, Mu =	3753.4	k-ft

Drilled Pier Geometry and Concrete Specifications

Diameter =	90	in
fc' =	3	ksi
εc =	0.003	in/in
β1 =	0.85	
Ag =	6361.7	in^2
Height Above Grade =	0	ft
Depth Below Grade =	47	ft

Nominal Axial Load and Moment

ΦPn(max) =	10408.5	kips
ΦPn(min) =	-3566.2	kips
ΦPn =	90.1	kips
Φ =	0.900	
ΦMn (Resultant) =	10718.7	k-ft
at θ =	0.00	degrees
NA Depth =	18.91	in

Rebar Size and Specifications

	Existing	Bar Circle 2	
Bar Size =	#10	#10	
Override Bar Diameter =			in
Bar Diameter =	1.2700	1.2700	in
Bar Area =	1.2700	1.2700	in^2
Effective Bar Area =	1.2700	1.2700	in^2
Number Bars =	26	26	
Spacing =	Symmetric	Symmetric	
fy =	60	60	ksi
Es =	29000	29000	ksi
εy =	0.00207	0.00207	in/in
Tie Size =	#4		
Clear Cover to Ties =	3		in
Bar Circle =	81.73	81.73	in
Adjust =	0.0000	6.9231	
% of Area Effective =	100.0%	100.0%	
Include in Calcs =	Yes	Yes	
Bar Circle Valid =	Yes	Yes	

AXIAL RATIO* = **0.8%** **OK**

MOMENT RATIO* = **33.4%** **OK**

*Rating per TIA-222-H Section 15.5

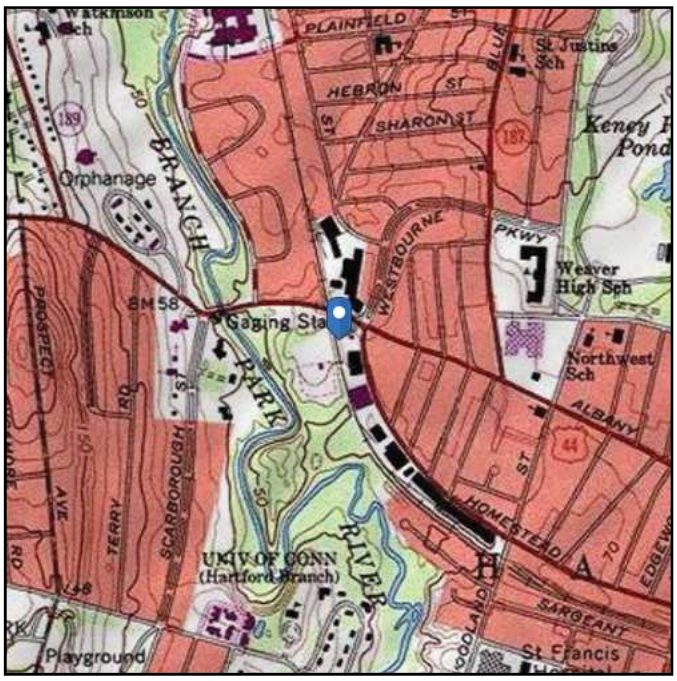
Minimum Required Steel

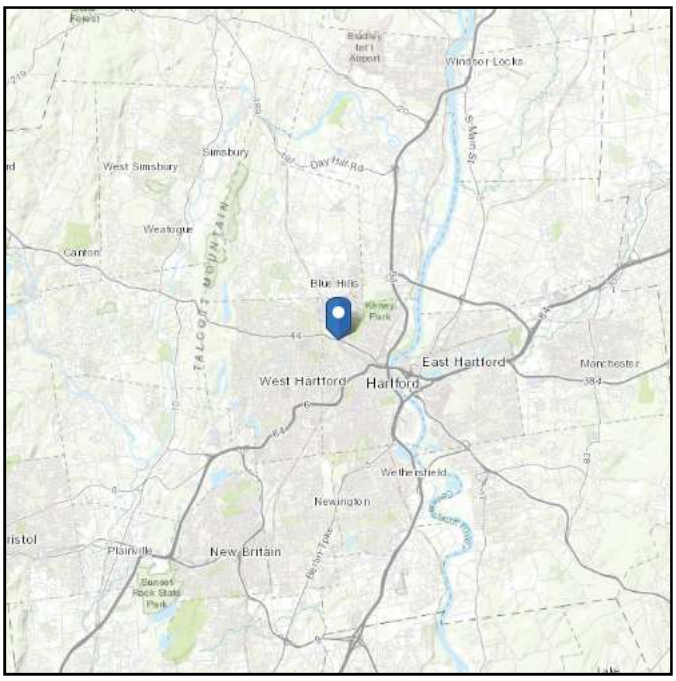
Seismic Design Category =	D		
As(min) =	31.81	sq in	TIA-222-H, 9.4.1
As =	66.04	sq in	
Stl Area Reduction Factor =	1.00		

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-10	**Elevation:**	60.06 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.783781
Soil Class:	D - Stiff Soil	**Longitude:**	-72.703794





Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.18	S_{DS} :	0.192
S_1 :	0.064	S_{D1} :	0.102
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.091
S_{MS} :	0.289	PGA_M :	0.145
S_{M1} :	0.154	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B

Data Accessed: Wed Dec 18 2019

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Wed Dec 18 2019

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

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

Exhibit E

Mount Analysis

Date: **June 19, 2020**

Darcy Tarr
Crown Castle
3530 Torington Way, Suite 300
Charlotte, NC 28277
(704)-405-6619

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

Subject:	**Mount Modification Analysis Report**	
Carrier Designation:	**T-Mobile**	
	Carrier Site Number:	**CT11161D**
	Carrier Site Name:	**CT161/Jn of Albany_1**
Crown Castle Designation:	**Crown Castle BU Number:**	**806369**
	Crown Castle Site Name:	**HRT 094 943225**
	Crown Castle JDE Job Number:	**613800**
	Crown Castle Order Number:	**523998 Rev. 1**
Engineering Firm Designation:	**EOR Report Designation:**	**20-65646**
Site Data:	**439-455 Homestead Ave., Hartford, Hartford County, CT 06105** **Latitude 41°47'01.61" Longitude -72°42'13.66"**	
Structure Information:	**Tower Height & Type:**	**140 ft Monopole**
	Mount Elevation:	**126 ft**
	Mount Type:	**12.83 ft Platform w/ Support Rails**

Dear Darcy Tarr,

POD Group is pleased to submit this "Mount Modification 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.

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

12.83 ft Platform with Support Rails (Multiple Sector) Sufficient*
***See Section 4.1 of this report for the loading and structural modifications required in order for the mount to support the loading listed in Table 1.**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Logan Traphagen

Respectfully submitted by:

6/19/2020

Respectfully submitted by:
Jason Cheronis, P.E.
Connecticut PE #: PEN.0032793

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Mount Modification Design Drawings

1) INTRODUCTION

This mount is an existing 12.83 ft platform with support rails mapped by Tower Engineering Professional in September 2018. This mount is installed at the 126 ft elevation on the 140 ft Monopole.

2) ANALYSIS CRITERIA

Building Code:	2018 Connecticut Building Code & 2015 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	125 mph
Exposure Category:	B
Topographic Factor at Base:	1.000
Topographic Factor at Mount:	1.000
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.181
Seismic S_1:	0.064
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Final Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details	Note
128	128	3	Ericsson	AIR-32 B2A/B66AA	12.83 ft Platform w/ Support Rails	-
		3	Ericsson	AIR6449 B41		
		3	Ericsson	Ericsson AIR 21 B2A B4P_T-MOBILE		
		3	RFS/Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	Radio 4449 B71 B85A_T-MOBILE		
		3	Ericsson	RRUS 4415 B25_CCIV2		
	126	3	RFS/Celwave	ATMAA1412D-1A20		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	-	Crown Castle App ID: 523998 Rev.1 Dated: 6/5/2020	Crown Castle
RFDS	-	T-Mobile Site ID: CT11161D Dated: 5/11/2020	Crown Castle
Previous Mount Analysis	-	Maser Consulting Connecticut Report #" 18922077A Dated: 9/21/2018	Crown Castle
Mount Mapping	-	Tower Engineering Professionals TEP #: 25689.177485 Dated: 9/17/2018	Crown Castle
Previous Mount Analysis	-	POD Job #: 20-65094 Dated: 6/11/2020	POD
Modification Part Specification	-	SitePro1 Part #: PRK-1245 Dated: 4/10/2014	SitePro1
Mount Modification Design Drawings	-	POD Job #: 20-65646 Dated: 6/19/2020	POD

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases. Selected output from the analysis are included in the Appendices.

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

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

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed, and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
4) The weight of the mount was increased 10% in the analysis to account for connections, coax, and jumpers.
5) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
6) Steel grades have been assumed as follows, unless noted otherwise:
    a. Channel, Angle, Plate — ASTM A36 (GR 36)
    b. HSS (Rectangular) — ASTM 500 (GR B-46)
    c. Pipe — ASTM A53 (GR 35)
    d. Connection Bolts — ASTM A325

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

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (12.83 ft Platform w/ Support Rails)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
-	Plate	PLATE2	128	66.4	Pass
	Standoff	SO3		28.0	Pass
	Face	FACE2		75.4	Pass
	Mount Pipe	MP GAMMA1		59.0	Pass
	Rail	RAIL3c		71.5	Pass
	Corner	CORNER		51.7	Pass
	Support	SUP1		26.8	Pass
	Kicker	KICKER2		27.0	Pass
1	Flange Plate	-		1.8	Pass
	Flange Plate Bolts	-		14.3	Pass
	Bolts	-		2.4	Pass

Structure Rating (max from all components) =	**75.4%**

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

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the structural modifications listed below must be completed.

1. Kicker support, SitePro1 and PRK-1245

Engineering detail drawings have been provided in Appendix F – Mount Modification Design Drawings. Connection from the mount to the tower and local stresses on the tower are sufficient.

5) DISCLAIMER OF WARRANTIES

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

The engineering services rendered by POD Group in connection with this Structural Analysis are limited to a computer analysis of the 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.

POD Group 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 structure. POD Group 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 feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

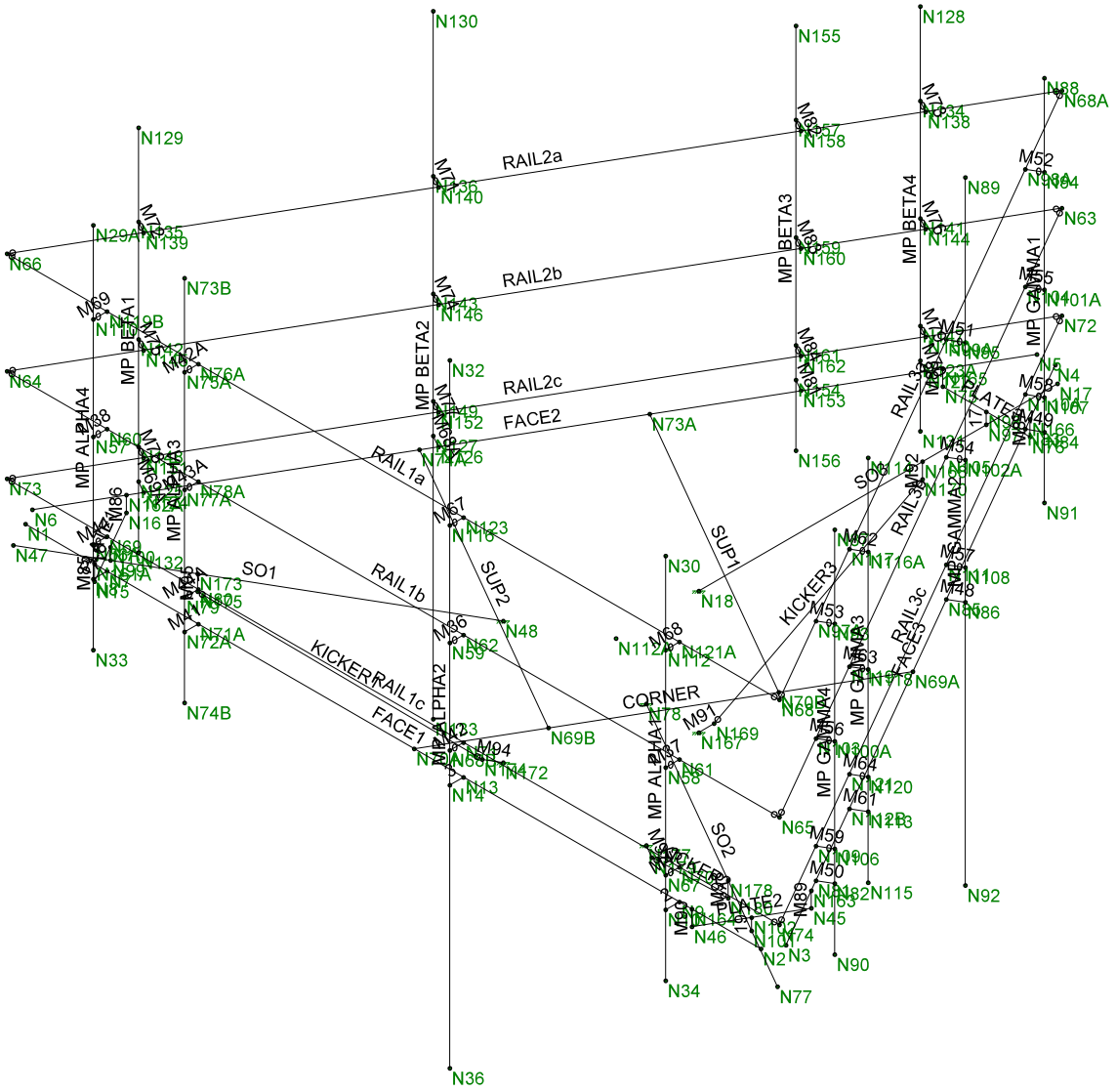
It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed structure. 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 POD Group, but are beyond the scope of this report.

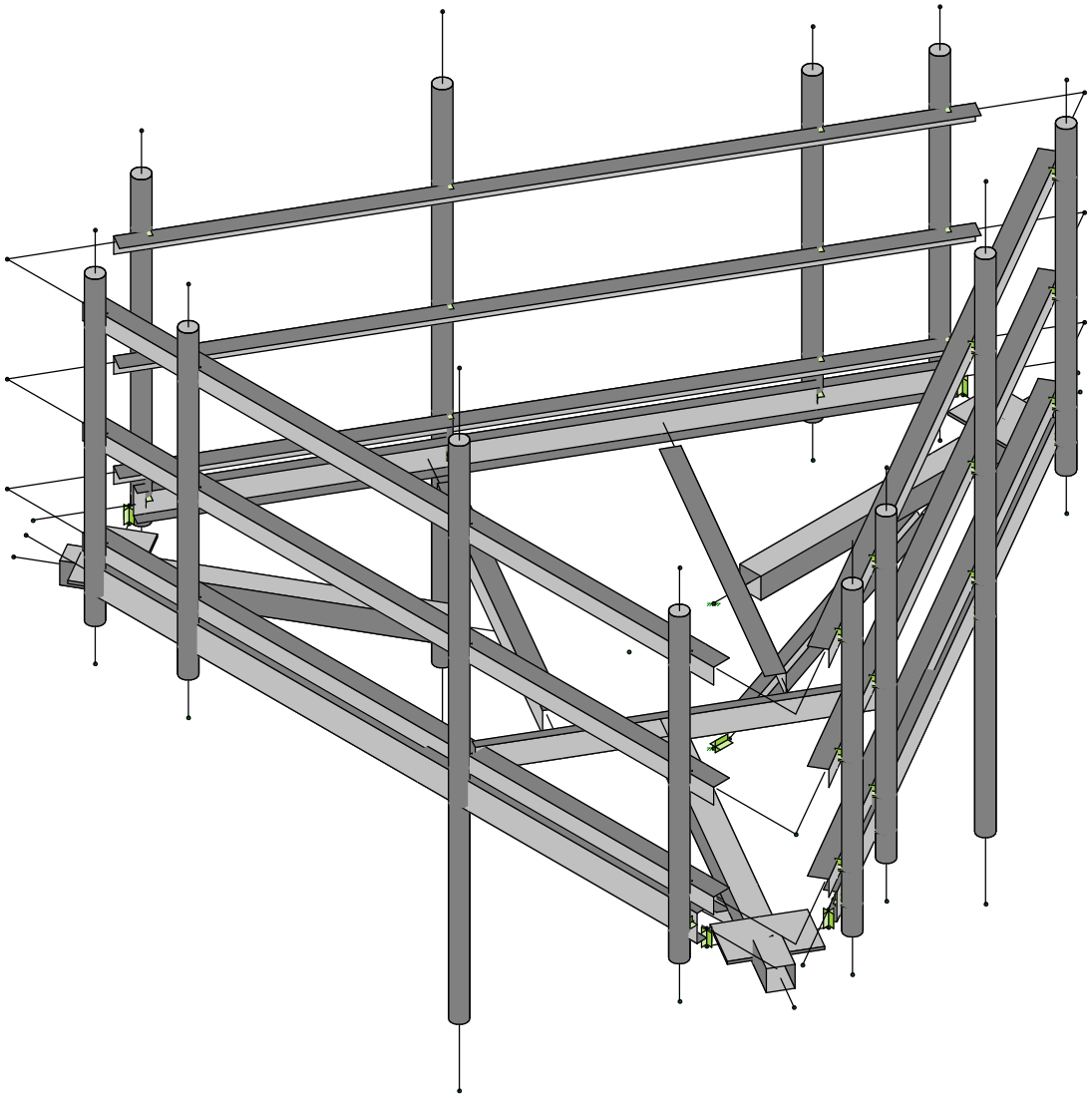
POD Group makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this structure. POD Group will not be responsible whatsoever, for or on account of, consequential or incidental damages sustained by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

APPENDIX A

Wire Frame and Rendered Models



POD		
LT	806369	June 19, 2020 at 8:06 AM
20-65646		806369 - MOD.R3D



POD	806369	
LT		June 19, 2020 at 8:06 AM
20-65646		806369 - MOD.R3D

APPENDIX B

Software Input Calculations

POD
POWER OF DESIGN

POD Job #	**20-65646**
Site Number	**806369**
Site Name	**HRT 094 943225**

General Site Information

Mount Type	SFP	Risk Category	II	I (seismic)	1	
V (Wind Speed)	125	I(ice)	1	Sms	0.290	
Zs	64			Sm1	0.154	
ti	1.5	Ss	0.181	Sds	0.193	
Vi	50	S1	0.064	Sd1	0.102	
Kzt	1	Soil Site Class	D (assumed)	Seismic Design Category		
Exposure	B	Fa	1.600	B		
zg	1200	Fv	2.400	Seismic Analysis Not Required		
α	7			R	2	TIA-222-H 16.7
Kmin	0.7	Tower Type	Monopole	As	1	TIA-222-H 16.7
G_H	1	Tower Height	140	Cs, Min	0.03	TIA-222-H 2.7.7.1.1
Ke	1.00			Cs	0.096533333	TIA-222-H 2.7.7.1.1
K_D	0.95					
K_d	0.9					

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity	MP #
AIR 32 B2A/B66AA			128	3	40		A/B/C	1	3
AIR6449 B41			128	3	20		A/B/C	1	4
Ericsson AIR 21 B2A B4P			128	3	40		A/B/C	1	1
APXVAARR24_43-U-NA20			128	5.5	80		A/B/C	1	2
Radio 4449 B71 B85A_T-MOBILE			128	5.5			A/B/C	1	2
RRUS 4415 B25_CCIV2			128	5.5			A/B/C	1	2
ATMAA1412D-1A20			126	1.5			A/B/C	1	1

Mount Information

Elevation (ft)	126	Grating Thickness (in)	1
K_z	1.06	Grating Ice Weight (k/ft²)	0.020
Kiz	1.14		
tiz	1.72		

	Length (ft)	Width (in)	Centerline
Mount Pipes	6	2.875	128

Flat Members

Member	Length (ft)	Width (in)	Shape	A	B	C	D	Frame Member	# of Members
FACE ON	12	5	Channel	2	5	0.375	0.375	Yes	2
FACE OFF	12	5	Channel	2	5	0.375	0.375	No	1
RAIL ON	12.59	3	Angle	3	0.25			Yes	6
RAIL OFF	12.59	3	Angle	3	0.25			No	3
SO	5.85	4	Square HSS	4	0.25	4		No	3
PLATE	1.4	0.5	Channel		0.5		9	No	3
SUP	5.7	4	Angle	3	0.25			No	2
CORNER	5.9	4	Channel	1.5	4	0.375	0.375	No	1
KICKER MOD	3.824	2.5	D. Angle	2.5	0.1875	0.1875		No	3

Version 3.2

Appurtenance Wind Calculations

Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
AIR 32 B2A/B66AA	56.6	12.9	8.7	132.2	1.06	40.20	5.86	4.24	0.236	0.171	0.219	0.219	0.171
AIR6449 B41	33.1	20.6	8.6	104.0	1.06	40.20	5.11	2.24	0.206	0.090	0.177	0.177	0.090
Ericsson AIR 21 B2A B4P	56.0	12.1	7.9	91.5	1.06	40.20	5.48	3.87	0.220	0.155	0.204	0.204	0.155
APXVAARR24_43-U-NA20	95.9	24.0	8.7	96.8	1.06	40.20	14.67	5.32	0.590	0.214	0.496	0.496	0.214
Radio 4449 B71 B85A_T-MO	17.9	13.2	10.6	73.2	1.06	40.20	1.77	1.43	0.071	0.057	0.068	0.068	0.057
RRUS 4415 B25_CCIV2	16.5	13.4	5.9	46.0	1.06	40.20	1.66	0.74	0.067	0.030	0.057	0.057	0.030
ATMAA1412D-1A20	10.1	8.7	2.8	8.4	1.06	40.02	0.66	0.22	0.026	0.009	0.022	0.022	0.009

Appurtenance Ice Calculations

Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
AIR 32 B2A/B66AA	1.72	60.04	16.34	12.14	179.84	1.15	6.43	4.45	3.44	0.029	0.022	0.027	0.027	0.022
AIR6449 B41	1.72	36.54	24.04	12.04	152.48	1.15	6.43	3.85	1.96	0.025	0.013	0.022	0.022	0.013
Ericsson AIR 21 B2A B4P	1.72	59.44	15.54	11.31	165.48	1.15	6.43	4.21	3.20	0.027	0.021	0.025	0.025	0.021
APXVAARR24_43-U-NA20	1.72	99.34	27.44	12.14	422.89	1.15	6.43	15.63	6.91	0.101	0.044	0.087	0.087	0.044
Radio 4449 B71 B85A_T-MO	1.72	21.35	16.64	14.07	80.42	1.15	6.43	1.56	1.32	0.010	0.008	0.010	0.010	0.008
RRUS 4415 B25_CCIV2	1.72	19.94	16.84	9.34	59.26	1.15	6.43	1.47	0.82	0.009	0.005	0.008	0.008	0.005
ATMAA1412D-1A20	1.72	13.54	12.14	6.24	25.22	1.14	6.40	0.72	0.37	0.005	0.002	0.004	0.004	0.002

Flat Members

Member	Wind Calculations q_z (lb/ft^2)	Af	Cf	EPA	Load (k/ft)	Ice Calculations Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Arice	Rrice	Cf	EPA	Load (k/ft)
FACE ON	40.02	10.00	2.00	9.00	0.030	8.43	0.02	6.40	16.86	0.85	2.00	12.92	0.007
FACE OFF	40.02	5.00	2.00	9.00	0.015	8.43	0.02	6.40	8.43	0.85	2.00	12.92	0.003
RAIL ON	40.02	18.89	2.00	5.67	0.018	6.43	0.01	6.40	40.48	0.85	2.00	10.34	0.005
RAIL OFF	40.02	9.44	2.00	5.67	0.009	6.43	0.01	6.40	20.24	0.85	2.00	10.34	0.003
SO	40.02	5.85	1.25	2.19	0.008	7.43	0.02	6.40	10.87	0.85	1.25	3.47	0.002
PLATE	40.02	0.18	2.00	0.11	0.002	3.93	0.02	6.40	1.38	0.85	2.00	0.70	0.002
SUP	40.02	3.80	2.00	3.42	0.012	7.43	0.01	6.40	7.06	0.85	2.00	5.41	0.003
CORNER	40.02	1.97	2.00	3.54	0.012	7.43	0.01	6.40	3.65	0.85	2.00	5.60	0.003
KICKER MOD	40.02	2.39	2.00	1.43	0.008	5.93	0.02	6.40	5.67	0.85	2.00	2.90	0.002

Appurtenance Seismic Calculations

Model	Weight	Sds	p	Cs	As	Ev	Eh
AIR 32 B2A/B66AA	132.2	0.193	1.000	0.097	1.000	0.005	0.013
AIR6449 B41	104.0	0.193	1.000	0.097	1.000	0.004	0.010
Ericsson AIR 21 B2A B4P	91.5	0.193	1.000	0.097	1.000	0.004	0.009
APXVAARR24_43-U-NA20	96.8	0.193	1.000	0.097	1.000	0.004	0.009
Radio 4449 B71 B85A_T-MO	73.2	0.193	1.000	0.097	1.000	0.003	0.007
RRUS 4415 B25_CCIV2	46.0	0.193	1.000	0.097	1.000	0.002	0.004
ATMAA1412D-1A20	8.4	0.193	1.000	0.097	1.000	0.000	0.001

Version 3.2

APPENDIX C

Software Analysis Output

Hot Rolled Steel Design Parameters

	Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-tor...	Kyy	Kzz	Cb	Func...
1	SUP2	L4X3X4	5.752			Lbyy						Lateral
2	SUP1	L4X3X4	5.752			Lbyy						Lateral
3	SO3	HSS4X4...	5.85			Lbyy						Lateral
4	SO2	HSS4X4...	5.85			Lbyy						Lateral
5	SO1	HSS4X4...	5.85			Lbyy						Lateral
6	RAIL3c	L3X3X4	12.599			Lbyy						Lateral
7	RAIL3b	L3X3X4	12.599			Lbyy						Lateral
8	RAIL3a	L3X3X4	12.599			Lbyy						Lateral
9	RAIL2c	L3X3X4	12.599			Lbyy						Lateral
10	RAIL2b	L3X3X4	12.599			Lbyy						Lateral
11	RAIL2a	L3X3X4	12.599			Lbyy						Lateral
12	RAIL1c	L3X3X4	12.599			Lbyy						Lateral
13	RAIL1b	L3X3X4	12.599			Lbyy						Lateral
14	RAIL1a	L3X3X4	12.599			Lbyy						Lateral
15	PLATE3	9x0.5	1.425			Lbyy						Lateral
16	PLATE2	9x0.5	1.425			Lbyy						Lateral
17	PLATE1	9x0.5	1.425			Lbyy						Lateral
18	MP GAMMA4	PIPE_2.5	6			Lbyy						Lateral
19	MP GAMMA3	PIPE_2.5	6			Lbyy						Lateral
20	MP GAMMA2	PIPE_2.5	10			Lbyy						Lateral
21	MP GAMMA1	PIPE_2.5	6			Lbyy						Lateral
22	MP BETA4	PIPE_2.5	6			Lbyy						Lateral
23	MP BETA3	PIPE_2.5	6			Lbyy						Lateral
24	MP BETA2	PIPE_2.5	10			Lbyy						Lateral
25	MP BETA1	PIPE_2.5	6			Lbyy						Lateral
26	MP ALPHA4	PIPE_2.5	6			Lbyy						Lateral
27	MP ALPHA3	PIPE_2.5	6			Lbyy						Lateral
28	MP ALPHA2	PIPE_2.5	10			Lbyy						Lateral
29	MP ALPHA1	PIPE_2.5	6			Lbyy						Lateral
30	KICKER3	LL2.5x2....	3.824			Lbyy						Lateral
31	KICKER2	LL2.5x2....	3.824			Lbyy						Lateral
32	KICKER1	LL2.5x2....	3.824			Lbyy						Lateral
33	FACE3	C5X9	12			Lbyy						Lateral
34	FACE2	C5X9	12			Lbyy						Lateral
35	FACE1	C5X9	12			Lbyy						Lateral
36	CORNER	C4X4.5	5.957			Lbyy						Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design Rules
1	SUP2	N74A	N69B		270	L4X3X4	Beam	Single Angle	A36 Gr.36	Typical
2	SUP1	N70B	N73A		90	L4X3X4	Beam	Single Angle	A36 Gr.36	Typical
3	SO3	N18	N17			HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
4	SO2	N78	N77			HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
5	SO1	N48	N47			HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical
6	RAIL3c	N74	N72		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
7	RAIL3b	N65	N63		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
8	RAIL3a	N68	N68A		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
9	RAIL2c	N72	N73		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
10	RAIL2b	N63	N64		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design Rules
11	RAIL2a	N68A	N66		90	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
12	RAIL1c	N73	N74		270	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
13	RAIL1b	N64	N65		270	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
14	RAIL1a	N66	N68		270	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical
15	PLATE3	N75	N76			9x0.5	Beam	RECT	A36 Gr.36	Typical
16	PLATE2	N45	N46			9x0.5	Beam	RECT	A36 Gr.36	Typical
17	PLATE1	N15	N16			9x0.5	Beam	RECT	A36 Gr.36	Typical
18	MP GAMMA4	N90	N87			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
19	MP GAMMA3	N115	N114			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
20	MP GAMMA2	N92	N89			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
21	MP GAMMA1	N91	N88			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
22	MP BETA4	N131	N128			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
23	MP BETA3	N156	N155			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
24	MP BETA2	N133	N130			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
25	MP BETA1	N132	N129			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
26	MP ALPHA4	N33	N29A			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
27	MP ALPHA3	N74B	N73B			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
28	MP ALPHA2	N36	N32			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
29	MP ALPHA1	N34	N30			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
30	M98	N178	N180		120	RIGID	None	None	RIGID	Typical
31	M97	N177	N179			RIGID	None	None	RIGID	Typical
32	M95	N173	N175		240	RIGID	None	None	RIGID	Typical
33	M94	N172	N174		180	RIGID	None	None	RIGID	Typical
34	M92	N168	N170			RIGID	None	None	RIGID	Typical
35	M91	N167	N169			RIGID	None	None	RIGID	Typical
36	M90	N46	N164			RIGID	None	None	RIGID	Typical
37	M89	N45	N163			RIGID	None	None	RIGID	Typical
38	M88	N75	N165			RIGID	None	None	RIGID	Typical
39	M87	N76	N166			RIGID	None	None	RIGID	Typical
40	M86	N16	N162A			RIGID	None	None	RIGID	Typical
41	M85	N15	N161A			RIGID	None	None	RIGID	Typical
42	M84	N162	N161			RIGID	None	None	RIGID	Typical
43	M83	N160	N159			RIGID	None	None	RIGID	Typical
44	M82	N158	N157			RIGID	None	None	RIGID	Typical
45	M81	N153	N154			RIGID	None	None	RIGID	Typical
46	M79	N150	N147			RIGID	None	None	RIGID	Typical
47	M78	N151	N148			RIGID	None	None	RIGID	Typical
48	M77	N152	N149			RIGID	None	None	RIGID	Typical
49	M76	N144	N141			RIGID	None	None	RIGID	Typical
50	M75	N145	N142			RIGID	None	None	RIGID	Typical
51	M74	N146	N143			RIGID	None	None	RIGID	Typical
52	M73	N138	N134			RIGID	None	None	RIGID	Typical
53	M72	N139	N135			RIGID	None	None	RIGID	Typical
54	M71	N140	N136			RIGID	None	None	RIGID	Typical
55	M70	N122	N123A			RIGID	None	None	RIGID	Typical
56	M69A	N124	N125			RIGID	None	None	RIGID	Typical
57	M69	N119B	N110			RIGID	None	None	RIGID	Typical
58	M68A	N126	N127			RIGID	None	None	RIGID	Typical
59	M68	N121A	N112			RIGID	None	None	RIGID	Typical
60	M67	N123	N116			RIGID	None	None	RIGID	Typical
61	M64	N121	N120			RIGID	None	None	RIGID	Typical
62	M63	N119	N118			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design Rules
63	M62	N117	N116A			RIGID	None	None	RIGID	Typical
64	M61	N112B	N113			RIGID	None	None	RIGID	Typical
65	M59	N109	N106			RIGID	None	None	RIGID	Typical
66	M58	N110A	N107			RIGID	None	None	RIGID	Typical
67	M57	N111	N108			RIGID	None	None	RIGID	Typical
68	M56	N103	N100A			RIGID	None	None	RIGID	Typical
69	M55	N104	N101A			RIGID	None	None	RIGID	Typical
70	M54	N105	N102A			RIGID	None	None	RIGID	Typical
71	M53	N97A	N93			RIGID	None	None	RIGID	Typical
72	M52	N98A	N94			RIGID	None	None	RIGID	Typical
73	M51	N99A	N95			RIGID	None	None	RIGID	Typical
74	M50	N81	N82			RIGID	None	None	RIGID	Typical
75	M49	N83	N84			RIGID	None	None	RIGID	Typical
76	M48	N85	N86			RIGID	None	None	RIGID	Typical
77	M44A	N80	N79			RIGID	None	None	RIGID	Typical
78	M44	N69	N66A			RIGID	None	None	RIGID	Typical
79	M43A	N78A	N77A			RIGID	None	None	RIGID	Typical
80	M43	N70	N67			RIGID	None	None	RIGID	Typical
81	M42A	N76A	N75A			RIGID	None	None	RIGID	Typical
82	M42	N71	N68B			RIGID	None	None	RIGID	Typical
83	M41	N71A	N72A			RIGID	None	None	RIGID	Typical
84	M38	N60	N57			RIGID	None	None	RIGID	Typical
85	M37	N61	N58			RIGID	None	None	RIGID	Typical
86	M36	N62	N59			RIGID	None	None	RIGID	Typical
87	KICKER3	N169	N170		180	LL2.5x2.5x3x3	Beam	Double Angle (3/8 Ga...	A36 Gr.36	Typical
88	KICKER2	N179	N180		75.985	LL2.5x2.5x3x3	Beam	Double Angle (3/8 Ga...	A36 Gr.36	Typical
89	KICKER1	N174	N175		284.0...	LL2.5x2.5x3x3	Beam	Double Angle (3/8 Ga...	A36 Gr.36	Typical
90	FACE3	N3	N4		90	C5X9	Beam	Channel	A36 Gr.36	Typical
91	FACE2	N5	N6		90	C5X9	Beam	Channel	A36 Gr.36	Typical
92	FACE1	N1	N2		270	C5X9	Beam	Channel	A36 Gr.36	Typical
93	CORNER	N70A	N69A		270	C4X4.5	Beam	Channel	A36 Gr.36	Typical
94	19	N101	N102			RIGID	None	None	RIGID	Typical
95	18	N99	N100			RIGID	None	None	RIGID	Typical
96	17	N97	N98			RIGID	None	None	RIGID	Typical
97	3	N13	N14			RIGID	None	None	RIGID	Typical
98	2	N9	N10			RIGID	None	None	RIGID	Typical
99	1	N7	N8			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physic...	Defl Ratio Op...	Analysis Offset[in]	Inactive	Seismi...
1	SUP2						Yes				None
2	SUP1						Yes				None
3	SO3						Yes				None
4	SO2						Yes				None
5	SO1						Yes				None
6	RAIL3c	OOOOXO	OOOOXO				Yes	Default			None
7	RAIL3b	OOOOXO	OOOOXO				Yes	Default			None
8	RAIL3a	OOOOXO	OOOOXO				Yes	Default			None
9	RAIL2c	OOOOXO	OOOOXO				Yes	Default			None
10	RAIL2b	OOOOXO	OOOOXO				Yes	Default			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physic..	Defl Ratio Op...	Analysis Offset[in]	Inactive	Seismi...
11	RAIL2a	OOOOXO	OOOOXO				Yes	Default			None
12	RAIL1c	OOOOXO	OOOOXO				Yes	Default			None
13	RAIL1b	OOOOXO	OOOOXO				Yes	Default			None
14	RAIL1a	OOOOXO	OOOOXO				Yes	Default			None
15	PLATE3						Yes	Default			None
16	PLATE2						Yes	Default			None
17	PLATE1						Yes	Default			None
18	MP GAMMA4						Yes				None
19	MP GAMMA3						Yes				None
20	MP GAMMA2						Yes				None
21	MP GAMMA1						Yes				None
22	MP BETA4						Yes				None
23	MP BETA3						Yes				None
24	MP BETA2						Yes				None
25	MP BETA1						Yes				None
26	MP ALPHA4						Yes				None
27	MP ALPHA3						Yes				None
28	MP ALPHA2						Yes				None
29	MP ALPHA1						Yes				None
30	M98						Yes	** NA **			None
31	M97						Yes	** NA **			None
32	M95						Yes	** NA **			None
33	M94						Yes	** NA **			None
34	M92						Yes	** NA **			None
35	M91						Yes	** NA **			None
36	M90						Yes	** NA **			None
37	M89						Yes	** NA **			None
38	M88						Yes	** NA **			None
39	M87						Yes	** NA **			None
40	M86						Yes	** NA **			None
41	M85						Yes	** NA **			None
42	M84		OOOXOO				Yes	** NA **			None
43	M83		OOOXOO				Yes	** NA **			None
44	M82		OOOXOO				Yes	** NA **			None
45	M81						Yes	** NA **			None
46	M79		OOOXOO				Yes	** NA **			None
47	M78		OOOXOO				Yes	** NA **			None
48	M77		OOOXOO				Yes	** NA **			None
49	M76		OOOXOO				Yes	** NA **			None
50	M75		OOOXOO				Yes	** NA **			None
51	M74		OOOXOO				Yes	** NA **			None
52	M73		OOOXOO				Yes	** NA **			None
53	M72		OOOXOO				Yes	** NA **			None
54	M71		OOOXOO				Yes	** NA **			None
55	M70						Yes	** NA **			None
56	M69A						Yes	** NA **			None
57	M69		OOOXOO				Yes	** NA **			None
58	M68A						Yes	** NA **			None
59	M68		OOOXOO				Yes	** NA **			None
60	M67		OOOXOO				Yes	** NA **			None
61	M64		OOOXOO				Yes	** NA **			None
62	M63		OOOXOO				Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physic...	Defl Ratio Op...	Analysis Offset[in]	Inactive	Seismi...
63	M62		OOOXOO				Yes	** NA **			None
64	M61						Yes	** NA **			None
65	M59		OOOXOO				Yes	** NA **			None
66	M58		OOOXOO				Yes	** NA **			None
67	M57		OOOXOO				Yes	** NA **			None
68	M56		OOOXOO				Yes	** NA **			None
69	M55		OOOXOO				Yes	** NA **			None
70	M54		OOOXOO				Yes	** NA **			None
71	M53		OOOXOO				Yes	** NA **			None
72	M52		OOOXOO				Yes	** NA **			None
73	M51		OOOXOO				Yes	** NA **			None
74	M50						Yes	** NA **			None
75	M49						Yes	** NA **			None
76	M48						Yes	** NA **			None
77	M44A		OOOXOO				Yes	** NA **			None
78	M44		OOOXOO				Yes	** NA **			None
79	M43A		OOOXOO				Yes	** NA **			None
80	M43		OOOXOO				Yes	** NA **			None
81	M42A		OOOXOO				Yes	** NA **			None
82	M42		OOOXOO				Yes	** NA **			None
83	M41						Yes	** NA **			None
84	M38		OOOXOO				Yes	** NA **			None
85	M37		OOOXOO				Yes	** NA **			None
86	M36		OOOXOO				Yes	** NA **			None
87	KICKER3	OOOOOX	OOOOOX				Yes	Default			None
88	KICKER2	OOOOOX	OOOOOX				Yes	Default			None
89	KICKER1	OOOOOX	OOOOOX				Yes	Default			None
90	FACE3						Yes				None
91	FACE2						Yes				None
92	FACE1						Yes	Default			None
93	CORNER						Yes	Default			None
94	19						Yes	** NA **			None
95	18						Yes	** NA **			None
96	17						Yes	** NA **			None
97	3						Yes	** NA **			None
98	2						Yes	** NA **			None
99	1						Yes	** NA **			None

Hot Rolled Steel Properties

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

Member Point Loads (BLC 1 : Live Load)

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

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.118	4.667
2	MP ALPHA3	Y	-.118	1.333
3	MP BETA3	Y	-.093	4.667
4	MP BETA3	Y	-.093	1.333
5	MP GAMMA3	Y	-.093	4.667
6	MP GAMMA3	Y	-.093	1.333
7	MP ALPHA4	Y	-.103	3.833
8	MP ALPHA4	Y	-.103	2.167
9	MP BETA4	Y	-.059	3.833
10	MP BETA4	Y	-.059	2.167
11	MP GAMMA4	Y	-.059	3.833
12	MP GAMMA4	Y	-.059	2.167
13	MP ALPHA1	Y	-.11	4.667
14	MP ALPHA1	Y	-.11	1.333
15	MP BETA1	Y	-.086	4.667
16	MP BETA1	Y	-.086	1.333
17	MP GAMMA1	Y	-.086	4.667
18	MP GAMMA1	Y	-.086	1.333
19	MP ALPHA2	Y	-.295	8.833
20	MP ALPHA2	Y	-.295	2.167
21	MP BETA2	Y	-.154	8.833
22	MP BETA2	Y	-.154	2.167
23	MP GAMMA2	Y	-.154	8.833
24	MP GAMMA2	Y	-.154	2.167
25	MP ALPHA2	Y	-.071	5.5
26	MP BETA2	Y	-.061	5.5
27	MP GAMMA2	Y	-.061	5.5
28	MP ALPHA2	Y	-.067	5.5
29	MP BETA2	Y	-.039	5.5
30	MP GAMMA2	Y	-.039	5.5
31	MP ALPHA1	Y	-.026	1.5
32	MP BETA1	Y	-.013	1.5
33	MP GAMMA1	Y	-.013	1.5

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Z	-.066	4.667
2	MP ALPHA3	Z	-.066	1.333
3	MP BETA3	Z	-.066	4.667
4	MP BETA3	Z	-.066	1.333
5	MP GAMMA3	Z	-.066	4.667
6	MP GAMMA3	Z	-.066	1.333
7	MP ALPHA4	Z	-.052	3.833
8	MP ALPHA4	Z	-.052	2.167
9	MP BETA4	Z	-.052	3.833
10	MP BETA4	Z	-.052	2.167

Member Point Loads (BLC 3 : Dead Load) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
11	MP GAMMA4	Z	-.052	3.833
12	MP GAMMA4	Z	-.052	2.167
13	MP ALPHA1	Z	-.046	4.667
14	MP ALPHA1	Z	-.046	1.333
15	MP BETA1	Z	-.046	4.667
16	MP BETA1	Z	-.046	1.333
17	MP GAMMA1	Z	-.046	4.667
18	MP GAMMA1	Z	-.046	1.333
19	MP ALPHA2	Z	-.048	8.833
20	MP ALPHA2	Z	-.048	2.167
21	MP BETA2	Z	-.048	8.833
22	MP BETA2	Z	-.048	2.167
23	MP GAMMA2	Z	-.048	8.833
24	MP GAMMA2	Z	-.048	2.167
25	MP ALPHA2	Z	-.073	5.5
26	MP BETA2	Z	-.073	5.5
27	MP GAMMA2	Z	-.073	5.5
28	MP ALPHA2	Z	-.046	5.5
29	MP BETA2	Z	-.046	5.5
30	MP GAMMA2	Z	-.046	5.5
31	MP ALPHA1	Z	-.008	1.5
32	MP BETA1	Z	-.008	1.5
33	MP GAMMA1	Z	-.008	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.095	4.667
2	MP ALPHA3	Y	-.095	1.333
3	MP ALPHA3	X	-.055	4.667
4	MP ALPHA3	X	-.055	1.333
5	MP BETA3	Y	-.074	4.667
6	MP BETA3	Y	-.074	1.333
7	MP BETA3	X	-.043	4.667
8	MP BETA3	X	-.043	1.333
9	MP GAMMA3	Y	-.095	4.667
10	MP GAMMA3	Y	-.095	1.333
11	MP GAMMA3	X	-.055	4.667
12	MP GAMMA3	X	-.055	1.333
13	MP ALPHA4	Y	-.077	3.833
14	MP ALPHA4	Y	-.077	2.167
15	MP ALPHA4	X	-.044	3.833
16	MP ALPHA4	X	-.044	2.167
17	MP BETA4	Y	-.039	3.833
18	MP BETA4	Y	-.039	2.167
19	MP BETA4	X	-.023	3.833
20	MP BETA4	X	-.023	2.167
21	MP GAMMA4	Y	-.077	3.833
22	MP GAMMA4	Y	-.077	2.167
23	MP GAMMA4	X	-.044	3.833
24	MP GAMMA4	X	-.044	2.167
25	MP ALPHA1	Y	-.088	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
26	MP ALPHA1	Y	-.088	1.333
27	MP ALPHA1	X	-.051	4.667
28	MP ALPHA1	X	-.051	1.333
29	MP BETA1	Y	-.067	4.667
30	MP BETA1	Y	-.067	1.333
31	MP BETA1	X	-.039	4.667
32	MP BETA1	X	-.039	1.333
33	MP GAMMA1	Y	-.088	4.667
34	MP GAMMA1	Y	-.088	1.333
35	MP GAMMA1	X	-.051	4.667
36	MP GAMMA1	X	-.051	1.333
37	MP ALPHA2	Y	-.215	8.833
38	MP ALPHA2	Y	-.215	2.167
39	MP ALPHA2	X	-.124	8.833
40	MP ALPHA2	X	-.124	2.167
41	MP BETA2	Y	-.093	8.833
42	MP BETA2	Y	-.093	2.167
43	MP BETA2	X	-.053	8.833
44	MP BETA2	X	-.053	2.167
45	MP GAMMA2	Y	-.215	8.833
46	MP GAMMA2	Y	-.215	2.167
47	MP GAMMA2	X	-.124	8.833
48	MP GAMMA2	X	-.124	2.167
49	MP ALPHA2	Y	-.059	5.5
50	MP ALPHA2	X	-.034	5.5
51	MP BETA2	Y	-.05	5.5
52	MP BETA2	X	-.029	5.5
53	MP GAMMA2	Y	-.059	5.5
54	MP GAMMA2	X	-.034	5.5
55	MP ALPHA2	Y	-.05	5.5
56	MP ALPHA2	X	-.029	5.5
57	MP BETA2	Y	-.026	5.5
58	MP BETA2	X	-.015	5.5
59	MP GAMMA2	Y	-.05	5.5
60	MP GAMMA2	X	-.029	5.5
61	MP ALPHA1	Y	-.019	1.5
62	MP ALPHA1	X	-.011	1.5
63	MP BETA1	Y	-.008	1.5
64	MP BETA1	X	-.004	1.5
65	MP GAMMA1	Y	-.019	1.5
66	MP GAMMA1	X	-.011	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.047	4.667
2	MP ALPHA3	Y	-.047	1.333
3	MP ALPHA3	X	-.081	4.667
4	MP ALPHA3	X	-.081	1.333
5	MP BETA3	Y	-.047	4.667
6	MP BETA3	Y	-.047	1.333
7	MP BETA3	X	-.081	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
8	MP BETA3	X	-.081	1.333
9	MP GAMMA3	Y	-.059	4.667
10	MP GAMMA3	Y	-.059	1.333
11	MP GAMMA3	X	-.102	4.667
12	MP GAMMA3	X	-.102	1.333
13	MP ALPHA4	Y	-.03	3.833
14	MP ALPHA4	Y	-.03	2.167
15	MP ALPHA4	X	-.052	3.833
16	MP ALPHA4	X	-.052	2.167
17	MP BETA4	Y	-.03	3.833
18	MP BETA4	Y	-.03	2.167
19	MP BETA4	X	-.052	3.833
20	MP BETA4	X	-.052	2.167
21	MP GAMMA4	Y	-.051	3.833
22	MP GAMMA4	Y	-.051	2.167
23	MP GAMMA4	X	-.089	3.833
24	MP GAMMA4	X	-.089	2.167
25	MP ALPHA1	Y	-.043	4.667
26	MP ALPHA1	Y	-.043	1.333
27	MP ALPHA1	X	-.074	4.667
28	MP ALPHA1	X	-.074	1.333
29	MP BETA1	Y	-.043	4.667
30	MP BETA1	Y	-.043	1.333
31	MP BETA1	X	-.074	4.667
32	MP BETA1	X	-.074	1.333
33	MP GAMMA1	Y	-.055	4.667
34	MP GAMMA1	Y	-.055	1.333
35	MP GAMMA1	X	-.095	4.667
36	MP GAMMA1	X	-.095	1.333
37	MP ALPHA2	Y	-.077	8.833
38	MP ALPHA2	Y	-.077	2.167
39	MP ALPHA2	X	-.133	8.833
40	MP ALPHA2	X	-.133	2.167
41	MP BETA2	Y	-.077	8.833
42	MP BETA2	Y	-.077	2.167
43	MP BETA2	X	-.133	8.833
44	MP BETA2	X	-.133	2.167
45	MP GAMMA2	Y	-.147	8.833
46	MP GAMMA2	Y	-.147	2.167
47	MP GAMMA2	X	-.255	8.833
48	MP GAMMA2	X	-.255	2.167
49	MP ALPHA2	Y	-.03	5.5
50	MP ALPHA2	X	-.053	5.5
51	MP BETA2	Y	-.03	5.5
52	MP BETA2	X	-.053	5.5
53	MP GAMMA2	Y	-.036	5.5
54	MP GAMMA2	X	-.062	5.5
55	MP ALPHA2	Y	-.019	5.5
56	MP ALPHA2	X	-.034	5.5
57	MP BETA2	Y	-.019	5.5
58	MP BETA2	X	-.034	5.5
59	MP GAMMA2	Y	-.033	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
60	MP GAMMA2	X	-.058	5.5
61	MP ALPHA1	Y	-.007	1.5
62	MP ALPHA1	X	-.011	1.5
63	MP BETA1	Y	-.007	1.5
64	MP BETA1	X	-.011	1.5
65	MP GAMMA1	Y	-.013	1.5
66	MP GAMMA1	X	-.023	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	-.085	4.667
2	MP ALPHA3	X	-.085	1.333
3	MP BETA3	X	-.11	4.667
4	MP BETA3	X	-.11	1.333
5	MP GAMMA3	X	-.11	4.667
6	MP GAMMA3	X	-.11	1.333
7	MP ALPHA4	X	-.045	3.833
8	MP ALPHA4	X	-.045	2.167
9	MP BETA4	X	-.088	3.833
10	MP BETA4	X	-.088	2.167
11	MP GAMMA4	X	-.088	3.833
12	MP GAMMA4	X	-.088	2.167
13	MP ALPHA1	X	-.078	4.667
14	MP ALPHA1	X	-.078	1.333
15	MP BETA1	X	-.102	4.667
16	MP BETA1	X	-.102	1.333
17	MP GAMMA1	X	-.102	4.667
18	MP GAMMA1	X	-.102	1.333
19	MP ALPHA2	X	-.107	8.833
20	MP ALPHA2	X	-.107	2.167
21	MP BETA2	X	-.248	8.833
22	MP BETA2	X	-.248	2.167
23	MP GAMMA2	X	-.248	8.833
24	MP GAMMA2	X	-.248	2.167
25	MP ALPHA2	X	-.057	5.5
26	MP BETA2	X	-.068	5.5
27	MP GAMMA2	X	-.068	5.5
28	MP ALPHA2	X	-.03	5.5
29	MP BETA2	X	-.057	5.5
30	MP GAMMA2	X	-.057	5.5
31	MP ALPHA1	X	-.009	1.5
32	MP BETA1	X	-.022	1.5
33	MP GAMMA1	X	-.022	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.047	4.667
2	MP ALPHA3	Y	.047	1.333
3	MP ALPHA3	X	-.081	4.667
4	MP ALPHA3	X	-.081	1.333
5	MP BETA3	Y	.059	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
6	MP BETA3	Y	.059	1.333
7	MP BETA3	X	-.102	4.667
8	MP BETA3	X	-.102	1.333
9	MP GAMMA3	Y	.047	4.667
10	MP GAMMA3	Y	.047	1.333
11	MP GAMMA3	X	-.081	4.667
12	MP GAMMA3	X	-.081	1.333
13	MP ALPHA4	Y	.03	3.833
14	MP ALPHA4	Y	.03	2.167
15	MP ALPHA4	X	-.052	3.833
16	MP ALPHA4	X	-.052	2.167
17	MP BETA4	Y	.051	3.833
18	MP BETA4	Y	.051	2.167
19	MP BETA4	X	-.089	3.833
20	MP BETA4	X	-.089	2.167
21	MP GAMMA4	Y	.03	3.833
22	MP GAMMA4	Y	.03	2.167
23	MP GAMMA4	X	-.052	3.833
24	MP GAMMA4	X	-.052	2.167
25	MP ALPHA1	Y	.043	4.667
26	MP ALPHA1	Y	.043	1.333
27	MP ALPHA1	X	-.074	4.667
28	MP ALPHA1	X	-.074	1.333
29	MP BETA1	Y	.055	4.667
30	MP BETA1	Y	.055	1.333
31	MP BETA1	X	-.095	4.667
32	MP BETA1	X	-.095	1.333
33	MP GAMMA1	Y	.043	4.667
34	MP GAMMA1	Y	.043	1.333
35	MP GAMMA1	X	-.074	4.667
36	MP GAMMA1	X	-.074	1.333
37	MP ALPHA2	Y	.077	8.833
38	MP ALPHA2	Y	.077	2.167
39	MP ALPHA2	X	-.133	8.833
40	MP ALPHA2	X	-.133	2.167
41	MP BETA2	Y	.147	8.833
42	MP BETA2	Y	.147	2.167
43	MP BETA2	X	-.255	8.833
44	MP BETA2	X	-.255	2.167
45	MP GAMMA2	Y	.077	8.833
46	MP GAMMA2	Y	.077	2.167
47	MP GAMMA2	X	-.133	8.833
48	MP GAMMA2	X	-.133	2.167
49	MP ALPHA2	Y	.03	5.5
50	MP ALPHA2	X	-.053	5.5
51	MP BETA2	Y	.036	5.5
52	MP BETA2	X	-.062	5.5
53	MP GAMMA2	Y	.03	5.5
54	MP GAMMA2	X	-.053	5.5
55	MP ALPHA2	Y	.019	5.5
56	MP ALPHA2	X	-.034	5.5
57	MP BETA2	Y	.033	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
58	MP BETA2	X	-.058	5.5
59	MP GAMMA2	Y	.019	5.5
60	MP GAMMA2	X	-.034	5.5
61	MP ALPHA1	Y	.007	1.5
62	MP ALPHA1	X	-.011	1.5
63	MP BETA1	Y	.013	1.5
64	MP BETA1	X	-.023	1.5
65	MP GAMMA1	Y	.007	1.5
66	MP GAMMA1	X	-.011	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.095	4.667
2	MP ALPHA3	Y	.095	1.333
3	MP ALPHA3	X	-.055	4.667
4	MP ALPHA3	X	-.055	1.333
5	MP BETA3	Y	.095	4.667
6	MP BETA3	Y	.095	1.333
7	MP BETA3	X	-.055	4.667
8	MP BETA3	X	-.055	1.333
9	MP GAMMA3	Y	.074	4.667
10	MP GAMMA3	Y	.074	1.333
11	MP GAMMA3	X	-.043	4.667
12	MP GAMMA3	X	-.043	1.333
13	MP ALPHA4	Y	.077	3.833
14	MP ALPHA4	Y	.077	2.167
15	MP ALPHA4	X	-.044	3.833
16	MP ALPHA4	X	-.044	2.167
17	MP BETA4	Y	.077	3.833
18	MP BETA4	Y	.077	2.167
19	MP BETA4	X	-.044	3.833
20	MP BETA4	X	-.044	2.167
21	MP GAMMA4	Y	.039	3.833
22	MP GAMMA4	Y	.039	2.167
23	MP GAMMA4	X	-.023	3.833
24	MP GAMMA4	X	-.023	2.167
25	MP ALPHA1	Y	.088	4.667
26	MP ALPHA1	Y	.088	1.333
27	MP ALPHA1	X	-.051	4.667
28	MP ALPHA1	X	-.051	1.333
29	MP BETA1	Y	.088	4.667
30	MP BETA1	Y	.088	1.333
31	MP BETA1	X	-.051	4.667
32	MP BETA1	X	-.051	1.333
33	MP GAMMA1	Y	.067	4.667
34	MP GAMMA1	Y	.067	1.333
35	MP GAMMA1	X	-.039	4.667
36	MP GAMMA1	X	-.039	1.333
37	MP ALPHA2	Y	.215	8.833
38	MP ALPHA2	Y	.215	2.167
39	MP ALPHA2	X	-.124	8.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
40	MP ALPHA2	X	-.124	2.167
41	MP BETA2	Y	.215	8.833
42	MP BETA2	Y	.215	2.167
43	MP BETA2	X	-.124	8.833
44	MP BETA2	X	-.124	2.167
45	MP GAMMA2	Y	.093	8.833
46	MP GAMMA2	Y	.093	2.167
47	MP GAMMA2	X	-.053	8.833
48	MP GAMMA2	X	-.053	2.167
49	MP ALPHA2	Y	.059	5.5
50	MP ALPHA2	X	-.034	5.5
51	MP BETA2	Y	.059	5.5
52	MP BETA2	X	-.034	5.5
53	MP GAMMA2	Y	.05	5.5
54	MP GAMMA2	X	-.029	5.5
55	MP ALPHA2	Y	.05	5.5
56	MP ALPHA2	X	-.029	5.5
57	MP BETA2	Y	.05	5.5
58	MP BETA2	X	-.029	5.5
59	MP GAMMA2	Y	.026	5.5
60	MP GAMMA2	X	-.015	5.5
61	MP ALPHA1	Y	.019	1.5
62	MP ALPHA1	X	-.011	1.5
63	MP BETA1	Y	.019	1.5
64	MP BETA1	X	-.011	1.5
65	MP GAMMA1	Y	.008	1.5
66	MP GAMMA1	X	-.004	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.118	4.667
2	MP ALPHA3	Y	.118	1.333
3	MP BETA3	Y	.093	4.667
4	MP BETA3	Y	.093	1.333
5	MP GAMMA3	Y	.093	4.667
6	MP GAMMA3	Y	.093	1.333
7	MP ALPHA4	Y	.103	3.833
8	MP ALPHA4	Y	.103	2.167
9	MP BETA4	Y	.059	3.833
10	MP BETA4	Y	.059	2.167
11	MP GAMMA4	Y	.059	3.833
12	MP GAMMA4	Y	.059	2.167
13	MP ALPHA1	Y	.11	4.667
14	MP ALPHA1	Y	.11	1.333
15	MP BETA1	Y	.086	4.667
16	MP BETA1	Y	.086	1.333
17	MP GAMMA1	Y	.086	4.667
18	MP GAMMA1	Y	.086	1.333
19	MP ALPHA2	Y	.295	8.833
20	MP ALPHA2	Y	.295	2.167
21	MP BETA2	Y	.154	8.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
22	MP BETA2	Y	.154	2.167
23	MP GAMMA2	Y	.154	8.833
24	MP GAMMA2	Y	.154	2.167
25	MP ALPHA2	Y	.071	5.5
26	MP BETA2	Y	.061	5.5
27	MP GAMMA2	Y	.061	5.5
28	MP ALPHA2	Y	.067	5.5
29	MP BETA2	Y	.039	5.5
30	MP GAMMA2	Y	.039	5.5
31	MP ALPHA1	Y	.026	1.5
32	MP BETA1	Y	.013	1.5
33	MP GAMMA1	Y	.013	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.095	4.667
2	MP ALPHA3	Y	.095	1.333
3	MP ALPHA3	X	.055	4.667
4	MP ALPHA3	X	.055	1.333
5	MP BETA3	Y	.074	4.667
6	MP BETA3	Y	.074	1.333
7	MP BETA3	X	.043	4.667
8	MP BETA3	X	.043	1.333
9	MP GAMMA3	Y	.095	4.667
10	MP GAMMA3	Y	.095	1.333
11	MP GAMMA3	X	.055	4.667
12	MP GAMMA3	X	.055	1.333
13	MP ALPHA4	Y	.077	3.833
14	MP ALPHA4	Y	.077	2.167
15	MP ALPHA4	X	.044	3.833
16	MP ALPHA4	X	.044	2.167
17	MP BETA4	Y	.039	3.833
18	MP BETA4	Y	.039	2.167
19	MP BETA4	X	.023	3.833
20	MP BETA4	X	.023	2.167
21	MP GAMMA4	Y	.077	3.833
22	MP GAMMA4	Y	.077	2.167
23	MP GAMMA4	X	.044	3.833
24	MP GAMMA4	X	.044	2.167
25	MP ALPHA1	Y	.088	4.667
26	MP ALPHA1	Y	.088	1.333
27	MP ALPHA1	X	.051	4.667
28	MP ALPHA1	X	.051	1.333
29	MP BETA1	Y	.067	4.667
30	MP BETA1	Y	.067	1.333
31	MP BETA1	X	.039	4.667
32	MP BETA1	X	.039	1.333
33	MP GAMMA1	Y	.088	4.667
34	MP GAMMA1	Y	.088	1.333
35	MP GAMMA1	X	.051	4.667
36	MP GAMMA1	X	.051	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
37	MP ALPHA2	Y	.215	8.833
38	MP ALPHA2	Y	.215	2.167
39	MP ALPHA2	X	.124	8.833
40	MP ALPHA2	X	.124	2.167
41	MP BETA2	Y	.093	8.833
42	MP BETA2	Y	.093	2.167
43	MP BETA2	X	.053	8.833
44	MP BETA2	X	.053	2.167
45	MP GAMMA2	Y	.215	8.833
46	MP GAMMA2	Y	.215	2.167
47	MP GAMMA2	X	.124	8.833
48	MP GAMMA2	X	.124	2.167
49	MP ALPHA2	Y	.059	5.5
50	MP ALPHA2	X	.034	5.5
51	MP BETA2	Y	.05	5.5
52	MP BETA2	X	.029	5.5
53	MP GAMMA2	Y	.059	5.5
54	MP GAMMA2	X	.034	5.5
55	MP ALPHA2	Y	.05	5.5
56	MP ALPHA2	X	.029	5.5
57	MP BETA2	Y	.026	5.5
58	MP BETA2	X	.015	5.5
59	MP GAMMA2	Y	.05	5.5
60	MP GAMMA2	X	.029	5.5
61	MP ALPHA1	Y	.019	1.5
62	MP ALPHA1	X	.011	1.5
63	MP BETA1	Y	.008	1.5
64	MP BETA1	X	.004	1.5
65	MP GAMMA1	Y	.019	1.5
66	MP GAMMA1	X	.011	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.047	4.667
2	MP ALPHA3	Y	.047	1.333
3	MP ALPHA3	X	.081	4.667
4	MP ALPHA3	X	.081	1.333
5	MP BETA3	Y	.047	4.667
6	MP BETA3	Y	.047	1.333
7	MP BETA3	X	.081	4.667
8	MP BETA3	X	.081	1.333
9	MP GAMMA3	Y	.059	4.667
10	MP GAMMA3	Y	.059	1.333
11	MP GAMMA3	X	.102	4.667
12	MP GAMMA3	X	.102	1.333
13	MP ALPHA4	Y	.03	3.833
14	MP ALPHA4	Y	.03	2.167
15	MP ALPHA4	X	.052	3.833
16	MP ALPHA4	X	.052	2.167
17	MP BETA4	Y	.03	3.833
18	MP BETA4	Y	.03	2.167

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
19	MP BETA4	X	.052	3.833
20	MP BETA4	X	.052	2.167
21	MP GAMMA4	Y	.051	3.833
22	MP GAMMA4	Y	.051	2.167
23	MP GAMMA4	X	.089	3.833
24	MP GAMMA4	X	.089	2.167
25	MP ALPHA1	Y	.043	4.667
26	MP ALPHA1	Y	.043	1.333
27	MP ALPHA1	X	.074	4.667
28	MP ALPHA1	X	.074	1.333
29	MP BETA1	Y	.043	4.667
30	MP BETA1	Y	.043	1.333
31	MP BETA1	X	.074	4.667
32	MP BETA1	X	.074	1.333
33	MP GAMMA1	Y	.055	4.667
34	MP GAMMA1	Y	.055	1.333
35	MP GAMMA1	X	.095	4.667
36	MP GAMMA1	X	.095	1.333
37	MP ALPHA2	Y	.077	8.833
38	MP ALPHA2	Y	.077	2.167
39	MP ALPHA2	X	.133	8.833
40	MP ALPHA2	X	.133	2.167
41	MP BETA2	Y	.077	8.833
42	MP BETA2	Y	.077	2.167
43	MP BETA2	X	.133	8.833
44	MP BETA2	X	.133	2.167
45	MP GAMMA2	Y	.147	8.833
46	MP GAMMA2	Y	.147	2.167
47	MP GAMMA2	X	.255	8.833
48	MP GAMMA2	X	.255	2.167
49	MP ALPHA2	Y	.03	5.5
50	MP ALPHA2	X	.053	5.5
51	MP BETA2	Y	.03	5.5
52	MP BETA2	X	.053	5.5
53	MP GAMMA2	Y	.036	5.5
54	MP GAMMA2	X	.062	5.5
55	MP ALPHA2	Y	.019	5.5
56	MP ALPHA2	X	.034	5.5
57	MP BETA2	Y	.019	5.5
58	MP BETA2	X	.034	5.5
59	MP GAMMA2	Y	.033	5.5
60	MP GAMMA2	X	.058	5.5
61	MP ALPHA1	Y	.007	1.5
62	MP ALPHA1	X	.011	1.5
63	MP BETA1	Y	.007	1.5
64	MP BETA1	X	.011	1.5
65	MP GAMMA1	Y	.013	1.5
66	MP GAMMA1	X	.023	1.5

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

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

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	.085	4.667
2	MP ALPHA3	X	.085	1.333
3	MP BETA3	X	.11	4.667
4	MP BETA3	X	.11	1.333
5	MP GAMMA3	X	.11	4.667
6	MP GAMMA3	X	.11	1.333
7	MP ALPHA4	X	.045	3.833
8	MP ALPHA4	X	.045	2.167
9	MP BETA4	X	.088	3.833
10	MP BETA4	X	.088	2.167
11	MP GAMMA4	X	.088	3.833
12	MP GAMMA4	X	.088	2.167
13	MP ALPHA1	X	.078	4.667
14	MP ALPHA1	X	.078	1.333
15	MP BETA1	X	.102	4.667
16	MP BETA1	X	.102	1.333
17	MP GAMMA1	X	.102	4.667
18	MP GAMMA1	X	.102	1.333
19	MP ALPHA2	X	.107	8.833
20	MP ALPHA2	X	.107	2.167
21	MP BETA2	X	.248	8.833
22	MP BETA2	X	.248	2.167
23	MP GAMMA2	X	.248	8.833
24	MP GAMMA2	X	.248	2.167
25	MP ALPHA2	X	.057	5.5
26	MP BETA2	X	.068	5.5
27	MP GAMMA2	X	.068	5.5
28	MP ALPHA2	X	.03	5.5
29	MP BETA2	X	.057	5.5
30	MP GAMMA2	X	.057	5.5
31	MP ALPHA1	X	.009	1.5
32	MP BETA1	X	.022	1.5
33	MP GAMMA1	X	.022	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.047	4.667
2	MP ALPHA3	Y	-.047	1.333
3	MP ALPHA3	X	.081	4.667
4	MP ALPHA3	X	.081	1.333
5	MP BETA3	Y	-.059	4.667
6	MP BETA3	Y	-.059	1.333
7	MP BETA3	X	.102	4.667
8	MP BETA3	X	.102	1.333
9	MP GAMMA3	Y	-.047	4.667
10	MP GAMMA3	Y	-.047	1.333
11	MP GAMMA3	X	.081	4.667
12	MP GAMMA3	X	.081	1.333
13	MP ALPHA4	Y	-.03	3.833
14	MP ALPHA4	Y	-.03	2.167
15	MP ALPHA4	X	.052	3.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA4	X	.052	2.167
17	MP BETA4	Y	-.051	3.833
18	MP BETA4	Y	-.051	2.167
19	MP BETA4	X	.089	3.833
20	MP BETA4	X	.089	2.167
21	MP GAMMA4	Y	-.03	3.833
22	MP GAMMA4	Y	-.03	2.167
23	MP GAMMA4	X	.052	3.833
24	MP GAMMA4	X	.052	2.167
25	MP ALPHA1	Y	-.043	4.667
26	MP ALPHA1	Y	-.043	1.333
27	MP ALPHA1	X	.074	4.667
28	MP ALPHA1	X	.074	1.333
29	MP BETA1	Y	-.055	4.667
30	MP BETA1	Y	-.055	1.333
31	MP BETA1	X	.095	4.667
32	MP BETA1	X	.095	1.333
33	MP GAMMA1	Y	-.043	4.667
34	MP GAMMA1	Y	-.043	1.333
35	MP GAMMA1	X	.074	4.667
36	MP GAMMA1	X	.074	1.333
37	MP ALPHA2	Y	-.077	8.833
38	MP ALPHA2	Y	-.077	2.167
39	MP ALPHA2	X	.133	8.833
40	MP ALPHA2	X	.133	2.167
41	MP BETA2	Y	-.147	8.833
42	MP BETA2	Y	-.147	2.167
43	MP BETA2	X	.255	8.833
44	MP BETA2	X	.255	2.167
45	MP GAMMA2	Y	-.077	8.833
46	MP GAMMA2	Y	-.077	2.167
47	MP GAMMA2	X	.133	8.833
48	MP GAMMA2	X	.133	2.167
49	MP ALPHA2	Y	-.03	5.5
50	MP ALPHA2	X	.053	5.5
51	MP BETA2	Y	-.036	5.5
52	MP BETA2	X	.062	5.5
53	MP GAMMA2	Y	-.03	5.5
54	MP GAMMA2	X	.053	5.5
55	MP ALPHA2	Y	-.019	5.5
56	MP ALPHA2	X	.034	5.5
57	MP BETA2	Y	-.033	5.5
58	MP BETA2	X	.058	5.5
59	MP GAMMA2	Y	-.019	5.5
60	MP GAMMA2	X	.034	5.5
61	MP ALPHA1	Y	-.007	1.5
62	MP ALPHA1	X	.011	1.5
63	MP BETA1	Y	-.013	1.5
64	MP BETA1	X	.023	1.5
65	MP GAMMA1	Y	-.007	1.5
66	MP GAMMA1	X	.011	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.095	4.667
2	MP ALPHA3	Y	-.095	1.333
3	MP ALPHA3	X	.055	4.667
4	MP ALPHA3	X	.055	1.333
5	MP BETA3	Y	-.095	4.667
6	MP BETA3	Y	-.095	1.333
7	MP BETA3	X	.055	4.667
8	MP BETA3	X	.055	1.333
9	MP GAMMA3	Y	-.074	4.667
10	MP GAMMA3	Y	-.074	1.333
11	MP GAMMA3	X	.043	4.667
12	MP GAMMA3	X	.043	1.333
13	MP ALPHA4	Y	-.077	3.833
14	MP ALPHA4	Y	-.077	2.167
15	MP ALPHA4	X	.044	3.833
16	MP ALPHA4	X	.044	2.167
17	MP BETA4	Y	-.077	3.833
18	MP BETA4	Y	-.077	2.167
19	MP BETA4	X	.044	3.833
20	MP BETA4	X	.044	2.167
21	MP GAMMA4	Y	-.039	3.833
22	MP GAMMA4	Y	-.039	2.167
23	MP GAMMA4	X	.023	3.833
24	MP GAMMA4	X	.023	2.167
25	MP ALPHA1	Y	-.088	4.667
26	MP ALPHA1	Y	-.088	1.333
27	MP ALPHA1	X	.051	4.667
28	MP ALPHA1	X	.051	1.333
29	MP BETA1	Y	-.088	4.667
30	MP BETA1	Y	-.088	1.333
31	MP BETA1	X	.051	4.667
32	MP BETA1	X	.051	1.333
33	MP GAMMA1	Y	-.067	4.667
34	MP GAMMA1	Y	-.067	1.333
35	MP GAMMA1	X	.039	4.667
36	MP GAMMA1	X	.039	1.333
37	MP ALPHA2	Y	-.215	8.833
38	MP ALPHA2	Y	-.215	2.167
39	MP ALPHA2	X	.124	8.833
40	MP ALPHA2	X	.124	2.167
41	MP BETA2	Y	-.215	8.833
42	MP BETA2	Y	-.215	2.167
43	MP BETA2	X	.124	8.833
44	MP BETA2	X	.124	2.167
45	MP GAMMA2	Y	-.093	8.833
46	MP GAMMA2	Y	-.093	2.167
47	MP GAMMA2	X	.053	8.833
48	MP GAMMA2	X	.053	2.167
49	MP ALPHA2	Y	-.059	5.5
50	MP ALPHA2	X	.034	5.5
51	MP BETA2	Y	-.059	5.5
52	MP BETA2	X	.034	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
53	MP GAMMA2	Y	-.05	5.5
54	MP GAMMA2	X	.029	5.5
55	MP ALPHA2	Y	-.05	5.5
56	MP ALPHA2	X	.029	5.5
57	MP BETA2	Y	-.05	5.5
58	MP BETA2	X	.029	5.5
59	MP GAMMA2	Y	-.026	5.5
60	MP GAMMA2	X	.015	5.5
61	MP ALPHA1	Y	-.019	1.5
62	MP ALPHA1	X	.011	1.5
63	MP BETA1	Y	-.019	1.5
64	MP BETA1	X	.011	1.5
65	MP GAMMA1	Y	-.008	1.5
66	MP GAMMA1	X	.004	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.007	4.667
2	MP ALPHA3	Y	-.007	1.333
3	MP BETA3	Y	-.005	4.667
4	MP BETA3	Y	-.005	1.333
5	MP GAMMA3	Y	-.005	4.667
6	MP GAMMA3	Y	-.005	1.333
7	MP ALPHA4	Y	-.006	3.833
8	MP ALPHA4	Y	-.006	2.167
9	MP BETA4	Y	-.003	3.833
10	MP BETA4	Y	-.003	2.167
11	MP GAMMA4	Y	-.003	3.833
12	MP GAMMA4	Y	-.003	2.167
13	MP ALPHA1	Y	-.006	4.667
14	MP ALPHA1	Y	-.006	1.333
15	MP BETA1	Y	-.005	4.667
16	MP BETA1	Y	-.005	1.333
17	MP GAMMA1	Y	-.005	4.667
18	MP GAMMA1	Y	-.005	1.333
19	MP ALPHA2	Y	-.017	8.833
20	MP ALPHA2	Y	-.017	2.167
21	MP BETA2	Y	-.009	8.833
22	MP BETA2	Y	-.009	2.167
23	MP GAMMA2	Y	-.009	8.833
24	MP GAMMA2	Y	-.009	2.167
25	MP ALPHA2	Y	-.004	5.5
26	MP BETA2	Y	-.004	5.5
27	MP GAMMA2	Y	-.004	5.5
28	MP ALPHA2	Y	-.004	5.5
29	MP BETA2	Y	-.002	5.5
30	MP GAMMA2	Y	-.002	5.5
31	MP ALPHA1	Y	-.002	1.5
32	MP BETA1	Y	-.000762	1.5
33	MP GAMMA1	Y	-.000762	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.005	4.667
2	MP ALPHA3	Y	-.005	1.333
3	MP ALPHA3	X	-.003	4.667
4	MP ALPHA3	X	-.003	1.333
5	MP BETA3	Y	-.004	4.667
6	MP BETA3	Y	-.004	1.333
7	MP BETA3	X	-.002	4.667
8	MP BETA3	X	-.002	1.333
9	MP GAMMA3	Y	-.005	4.667
10	MP GAMMA3	Y	-.005	1.333
11	MP GAMMA3	X	-.003	4.667
12	MP GAMMA3	X	-.003	1.333
13	MP ALPHA4	Y	-.004	3.833
14	MP ALPHA4	Y	-.004	2.167
15	MP ALPHA4	X	-.003	3.833
16	MP ALPHA4	X	-.003	2.167
17	MP BETA4	Y	-.002	3.833
18	MP BETA4	Y	-.002	2.167
19	MP BETA4	X	-.001	3.833
20	MP BETA4	X	-.001	2.167
21	MP GAMMA4	Y	-.004	3.833
22	MP GAMMA4	Y	-.004	2.167
23	MP GAMMA4	X	-.003	3.833
24	MP GAMMA4	X	-.003	2.167
25	MP ALPHA1	Y	-.005	4.667
26	MP ALPHA1	Y	-.005	1.333
27	MP ALPHA1	X	-.003	4.667
28	MP ALPHA1	X	-.003	1.333
29	MP BETA1	Y	-.004	4.667
30	MP BETA1	Y	-.004	1.333
31	MP BETA1	X	-.002	4.667
32	MP BETA1	X	-.002	1.333
33	MP GAMMA1	Y	-.005	4.667
34	MP GAMMA1	Y	-.005	1.333
35	MP GAMMA1	X	-.003	4.667
36	MP GAMMA1	X	-.003	1.333
37	MP ALPHA2	Y	-.012	8.833
38	MP ALPHA2	Y	-.012	2.167
39	MP ALPHA2	X	-.007	8.833
40	MP ALPHA2	X	-.007	2.167
41	MP BETA2	Y	-.005	8.833
42	MP BETA2	Y	-.005	2.167
43	MP BETA2	X	-.003	8.833
44	MP BETA2	X	-.003	2.167
45	MP GAMMA2	Y	-.012	8.833
46	MP GAMMA2	Y	-.012	2.167
47	MP GAMMA2	X	-.007	8.833
48	MP GAMMA2	X	-.007	2.167
49	MP ALPHA2	Y	-.003	5.5
50	MP ALPHA2	X	-.002	5.5
51	MP BETA2	Y	-.003	5.5
52	MP BETA2	X	-.002	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
53	MP GAMMA2	Y	-.003	5.5
54	MP GAMMA2	X	-.002	5.5
55	MP ALPHA2	Y	-.003	5.5
56	MP ALPHA2	X	-.002	5.5
57	MP BETA2	Y	-.001	5.5
58	MP BETA2	X	-.000855	5.5
59	MP GAMMA2	Y	-.003	5.5
60	MP GAMMA2	X	-.002	5.5
61	MP ALPHA1	Y	-.001	1.5
62	MP ALPHA1	X	-.000633	1.5
63	MP BETA1	Y	-.000441	1.5
64	MP BETA1	X	-.000255	1.5
65	MP GAMMA1	Y	-.001	1.5
66	MP GAMMA1	X	-.000633	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.003	4.667
2	MP ALPHA3	Y	-.003	1.333
3	MP ALPHA3	X	-.005	4.667
4	MP ALPHA3	X	-.005	1.333
5	MP BETA3	Y	-.003	4.667
6	MP BETA3	Y	-.003	1.333
7	MP BETA3	X	-.005	4.667
8	MP BETA3	X	-.005	1.333
9	MP GAMMA3	Y	-.003	4.667
10	MP GAMMA3	Y	-.003	1.333
11	MP GAMMA3	X	-.006	4.667
12	MP GAMMA3	X	-.006	1.333
13	MP ALPHA4	Y	-.002	3.833
14	MP ALPHA4	Y	-.002	2.167
15	MP ALPHA4	X	-.003	3.833
16	MP ALPHA4	X	-.003	2.167
17	MP BETA4	Y	-.002	3.833
18	MP BETA4	Y	-.002	2.167
19	MP BETA4	X	-.003	3.833
20	MP BETA4	X	-.003	2.167
21	MP GAMMA4	Y	-.003	3.833
22	MP GAMMA4	Y	-.003	2.167
23	MP GAMMA4	X	-.005	3.833
24	MP GAMMA4	X	-.005	2.167
25	MP ALPHA1	Y	-.002	4.667
26	MP ALPHA1	Y	-.002	1.333
27	MP ALPHA1	X	-.004	4.667
28	MP ALPHA1	X	-.004	1.333
29	MP BETA1	Y	-.002	4.667
30	MP BETA1	Y	-.002	1.333
31	MP BETA1	X	-.004	4.667
32	MP BETA1	X	-.004	1.333
33	MP GAMMA1	Y	-.003	4.667
34	MP GAMMA1	Y	-.003	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
35	MP GAMMA1	X	-.005	4.667
36	MP GAMMA1	X	-.005	1.333
37	MP ALPHA2	Y	-.004	8.833
38	MP ALPHA2	Y	-.004	2.167
39	MP ALPHA2	X	-.008	8.833
40	MP ALPHA2	X	-.008	2.167
41	MP BETA2	Y	-.004	8.833
42	MP BETA2	Y	-.004	2.167
43	MP BETA2	X	-.008	8.833
44	MP BETA2	X	-.008	2.167
45	MP GAMMA2	Y	-.008	8.833
46	MP GAMMA2	Y	-.008	2.167
47	MP GAMMA2	X	-.015	8.833
48	MP GAMMA2	X	-.015	2.167
49	MP ALPHA2	Y	-.002	5.5
50	MP ALPHA2	X	-.003	5.5
51	MP BETA2	Y	-.002	5.5
52	MP BETA2	X	-.003	5.5
53	MP GAMMA2	Y	-.002	5.5
54	MP GAMMA2	X	-.004	5.5
55	MP ALPHA2	Y	-.001	5.5
56	MP ALPHA2	X	-.002	5.5
57	MP BETA2	Y	-.001	5.5
58	MP BETA2	X	-.002	5.5
59	MP GAMMA2	Y	-.002	5.5
60	MP GAMMA2	X	-.003	5.5
61	MP ALPHA1	Y	-.000381	1.5
62	MP ALPHA1	X	-.00066	1.5
63	MP BETA1	Y	-.000381	1.5
64	MP BETA1	X	-.00066	1.5
65	MP GAMMA1	Y	-.00076	1.5
66	MP GAMMA1	X	-.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	-.005	4.667
2	MP ALPHA3	X	-.005	1.333
3	MP BETA3	X	-.006	4.667
4	MP BETA3	X	-.006	1.333
5	MP GAMMA3	X	-.006	4.667
6	MP GAMMA3	X	-.006	1.333
7	MP ALPHA4	X	-.003	3.833
8	MP ALPHA4	X	-.003	2.167
9	MP BETA4	X	-.005	3.833
10	MP BETA4	X	-.005	2.167
11	MP GAMMA4	X	-.005	3.833
12	MP GAMMA4	X	-.005	2.167
13	MP ALPHA1	X	-.004	4.667
14	MP ALPHA1	X	-.004	1.333
15	MP BETA1	X	-.006	4.667
16	MP BETA1	X	-.006	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
17	MP GAMMA1	X	-.006	4.667
18	MP GAMMA1	X	-.006	1.333
19	MP ALPHA2	X	-.006	8.833
20	MP ALPHA2	X	-.006	2.167
21	MP BETA2	X	-.014	8.833
22	MP BETA2	X	-.014	2.167
23	MP GAMMA2	X	-.014	8.833
24	MP GAMMA2	X	-.014	2.167
25	MP ALPHA2	X	-.003	5.5
26	MP BETA2	X	-.004	5.5
27	MP GAMMA2	X	-.004	5.5
28	MP ALPHA2	X	-.002	5.5
29	MP BETA2	X	-.003	5.5
30	MP GAMMA2	X	-.003	5.5
31	MP ALPHA1	X	-.000509	1.5
32	MP BETA1	X	-.001	1.5
33	MP GAMMA1	X	-.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.003	4.667
2	MP ALPHA3	Y	.003	1.333
3	MP ALPHA3	X	-.005	4.667
4	MP ALPHA3	X	-.005	1.333
5	MP BETA3	Y	.003	4.667
6	MP BETA3	Y	.003	1.333
7	MP BETA3	X	-.006	4.667
8	MP BETA3	X	-.006	1.333
9	MP GAMMA3	Y	.003	4.667
10	MP GAMMA3	Y	.003	1.333
11	MP GAMMA3	X	-.005	4.667
12	MP GAMMA3	X	-.005	1.333
13	MP ALPHA4	Y	.002	3.833
14	MP ALPHA4	Y	.002	2.167
15	MP ALPHA4	X	-.003	3.833
16	MP ALPHA4	X	-.003	2.167
17	MP BETA4	Y	.003	3.833
18	MP BETA4	Y	.003	2.167
19	MP BETA4	X	-.005	3.833
20	MP BETA4	X	-.005	2.167
21	MP GAMMA4	Y	.002	3.833
22	MP GAMMA4	Y	.002	2.167
23	MP GAMMA4	X	-.003	3.833
24	MP GAMMA4	X	-.003	2.167
25	MP ALPHA1	Y	.002	4.667
26	MP ALPHA1	Y	.002	1.333
27	MP ALPHA1	X	-.004	4.667
28	MP ALPHA1	X	-.004	1.333
29	MP BETA1	Y	.003	4.667
30	MP BETA1	Y	.003	1.333
31	MP BETA1	X	-.005	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
32	MP BETA1	X	-.005	1.333
33	MP GAMMA1	Y	.002	4.667
34	MP GAMMA1	Y	.002	1.333
35	MP GAMMA1	X	-.004	4.667
36	MP GAMMA1	X	-.004	1.333
37	MP ALPHA2	Y	.004	8.833
38	MP ALPHA2	Y	.004	2.167
39	MP ALPHA2	X	-.008	8.833
40	MP ALPHA2	X	-.008	2.167
41	MP BETA2	Y	.008	8.833
42	MP BETA2	Y	.008	2.167
43	MP BETA2	X	-.015	8.833
44	MP BETA2	X	-.015	2.167
45	MP GAMMA2	Y	.004	8.833
46	MP GAMMA2	Y	.004	2.167
47	MP GAMMA2	X	-.008	8.833
48	MP GAMMA2	X	-.008	2.167
49	MP ALPHA2	Y	.002	5.5
50	MP ALPHA2	X	-.003	5.5
51	MP BETA2	Y	.002	5.5
52	MP BETA2	X	-.004	5.5
53	MP GAMMA2	Y	.002	5.5
54	MP GAMMA2	X	-.003	5.5
55	MP ALPHA2	Y	.001	5.5
56	MP ALPHA2	X	-.002	5.5
57	MP BETA2	Y	.002	5.5
58	MP BETA2	X	-.003	5.5
59	MP GAMMA2	Y	.001	5.5
60	MP GAMMA2	X	-.002	5.5
61	MP ALPHA1	Y	.000381	1.5
62	MP ALPHA1	X	-.00066	1.5
63	MP BETA1	Y	.00076	1.5
64	MP BETA1	X	-.001	1.5
65	MP GAMMA1	Y	.000381	1.5
66	MP GAMMA1	X	-.00066	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.005	4.667
2	MP ALPHA3	Y	.005	1.333
3	MP ALPHA3	X	-.003	4.667
4	MP ALPHA3	X	-.003	1.333
5	MP BETA3	Y	.005	4.667
6	MP BETA3	Y	.005	1.333
7	MP BETA3	X	-.003	4.667
8	MP BETA3	X	-.003	1.333
9	MP GAMMA3	Y	.004	4.667
10	MP GAMMA3	Y	.004	1.333
11	MP GAMMA3	X	-.002	4.667
12	MP GAMMA3	X	-.002	1.333
13	MP ALPHA4	Y	.004	3.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
14	MP ALPHA4	Y	.004	2.167
15	MP ALPHA4	X	-.003	3.833
16	MP ALPHA4	X	-.003	2.167
17	MP BETA4	Y	.004	3.833
18	MP BETA4	Y	.004	2.167
19	MP BETA4	X	-.003	3.833
20	MP BETA4	X	-.003	2.167
21	MP GAMMA4	Y	.002	3.833
22	MP GAMMA4	Y	.002	2.167
23	MP GAMMA4	X	-.001	3.833
24	MP GAMMA4	X	-.001	2.167
25	MP ALPHA1	Y	.005	4.667
26	MP ALPHA1	Y	.005	1.333
27	MP ALPHA1	X	-.003	4.667
28	MP ALPHA1	X	-.003	1.333
29	MP BETA1	Y	.005	4.667
30	MP BETA1	Y	.005	1.333
31	MP BETA1	X	-.003	4.667
32	MP BETA1	X	-.003	1.333
33	MP GAMMA1	Y	.004	4.667
34	MP GAMMA1	Y	.004	1.333
35	MP GAMMA1	X	-.002	4.667
36	MP GAMMA1	X	-.002	1.333
37	MP ALPHA2	Y	.012	8.833
38	MP ALPHA2	Y	.012	2.167
39	MP ALPHA2	X	-.007	8.833
40	MP ALPHA2	X	-.007	2.167
41	MP BETA2	Y	.012	8.833
42	MP BETA2	Y	.012	2.167
43	MP BETA2	X	-.007	8.833
44	MP BETA2	X	-.007	2.167
45	MP GAMMA2	Y	.005	8.833
46	MP GAMMA2	Y	.005	2.167
47	MP GAMMA2	X	-.003	8.833
48	MP GAMMA2	X	-.003	2.167
49	MP ALPHA2	Y	.003	5.5
50	MP ALPHA2	X	-.002	5.5
51	MP BETA2	Y	.003	5.5
52	MP BETA2	X	-.002	5.5
53	MP GAMMA2	Y	.003	5.5
54	MP GAMMA2	X	-.002	5.5
55	MP ALPHA2	Y	.003	5.5
56	MP ALPHA2	X	-.002	5.5
57	MP BETA2	Y	.003	5.5
58	MP BETA2	X	-.002	5.5
59	MP GAMMA2	Y	.001	5.5
60	MP GAMMA2	X	-.000855	5.5
61	MP ALPHA1	Y	.001	1.5
62	MP ALPHA1	X	-.000633	1.5
63	MP BETA1	Y	.001	1.5
64	MP BETA1	X	-.000633	1.5
65	MP GAMMA1	Y	.000441	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
66	MP GAMMA1	X	-.000255	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.007	4.667
2	MP ALPHA3	Y	.007	1.333
3	MP BETA3	Y	.005	4.667
4	MP BETA3	Y	.005	1.333
5	MP GAMMA3	Y	.005	4.667
6	MP GAMMA3	Y	.005	1.333
7	MP ALPHA4	Y	.006	3.833
8	MP ALPHA4	Y	.006	2.167
9	MP BETA4	Y	.003	3.833
10	MP BETA4	Y	.003	2.167
11	MP GAMMA4	Y	.003	3.833
12	MP GAMMA4	Y	.003	2.167
13	MP ALPHA1	Y	.006	4.667
14	MP ALPHA1	Y	.006	1.333
15	MP BETA1	Y	.005	4.667
16	MP BETA1	Y	.005	1.333
17	MP GAMMA1	Y	.005	4.667
18	MP GAMMA1	Y	.005	1.333
19	MP ALPHA2	Y	.017	8.833
20	MP ALPHA2	Y	.017	2.167
21	MP BETA2	Y	.009	8.833
22	MP BETA2	Y	.009	2.167
23	MP GAMMA2	Y	.009	8.833
24	MP GAMMA2	Y	.009	2.167
25	MP ALPHA2	Y	.004	5.5
26	MP BETA2	Y	.004	5.5
27	MP GAMMA2	Y	.004	5.5
28	MP ALPHA2	Y	.004	5.5
29	MP BETA2	Y	.002	5.5
30	MP GAMMA2	Y	.002	5.5
31	MP ALPHA1	Y	.002	1.5
32	MP BETA1	Y	.000762	1.5
33	MP GAMMA1	Y	.000762	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.005	4.667
2	MP ALPHA3	Y	.005	1.333
3	MP ALPHA3	X	.003	4.667
4	MP ALPHA3	X	.003	1.333
5	MP BETA3	Y	.004	4.667
6	MP BETA3	Y	.004	1.333
7	MP BETA3	X	.002	4.667
8	MP BETA3	X	.002	1.333
9	MP GAMMA3	Y	.005	4.667
10	MP GAMMA3	Y	.005	1.333
11	MP GAMMA3	X	.003	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP GAMMA3	X	.003	1.333
13	MP ALPHA4	Y	.004	3.833
14	MP ALPHA4	Y	.004	2.167
15	MP ALPHA4	X	.003	3.833
16	MP ALPHA4	X	.003	2.167
17	MP BETA4	Y	.002	3.833
18	MP BETA4	Y	.002	2.167
19	MP BETA4	X	.001	3.833
20	MP BETA4	X	.001	2.167
21	MP GAMMA4	Y	.004	3.833
22	MP GAMMA4	Y	.004	2.167
23	MP GAMMA4	X	.003	3.833
24	MP GAMMA4	X	.003	2.167
25	MP ALPHA1	Y	.005	4.667
26	MP ALPHA1	Y	.005	1.333
27	MP ALPHA1	X	.003	4.667
28	MP ALPHA1	X	.003	1.333
29	MP BETA1	Y	.004	4.667
30	MP BETA1	Y	.004	1.333
31	MP BETA1	X	.002	4.667
32	MP BETA1	X	.002	1.333
33	MP GAMMA1	Y	.005	4.667
34	MP GAMMA1	Y	.005	1.333
35	MP GAMMA1	X	.003	4.667
36	MP GAMMA1	X	.003	1.333
37	MP ALPHA2	Y	.012	8.833
38	MP ALPHA2	Y	.012	2.167
39	MP ALPHA2	X	.007	8.833
40	MP ALPHA2	X	.007	2.167
41	MP BETA2	Y	.005	8.833
42	MP BETA2	Y	.005	2.167
43	MP BETA2	X	.003	8.833
44	MP BETA2	X	.003	2.167
45	MP GAMMA2	Y	.012	8.833
46	MP GAMMA2	Y	.012	2.167
47	MP GAMMA2	X	.007	8.833
48	MP GAMMA2	X	.007	2.167
49	MP ALPHA2	Y	.003	5.5
50	MP ALPHA2	X	.002	5.5
51	MP BETA2	Y	.003	5.5
52	MP BETA2	X	.002	5.5
53	MP GAMMA2	Y	.003	5.5
54	MP GAMMA2	X	.002	5.5
55	MP ALPHA2	Y	.003	5.5
56	MP ALPHA2	X	.002	5.5
57	MP BETA2	Y	.001	5.5
58	MP BETA2	X	.000855	5.5
59	MP GAMMA2	Y	.003	5.5
60	MP GAMMA2	X	.002	5.5
61	MP ALPHA1	Y	.001	1.5
62	MP ALPHA1	X	.000633	1.5
63	MP BETA1	Y	.000441	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
64	MP BETA1	X	.000255	1.5
65	MP GAMMA1	Y	.001	1.5
66	MP GAMMA1	X	.000633	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.003	4.667
2	MP ALPHA3	Y	.003	1.333
3	MP ALPHA3	X	.005	4.667
4	MP ALPHA3	X	.005	1.333
5	MP BETA3	Y	.003	4.667
6	MP BETA3	Y	.003	1.333
7	MP BETA3	X	.005	4.667
8	MP BETA3	X	.005	1.333
9	MP GAMMA3	Y	.003	4.667
10	MP GAMMA3	Y	.003	1.333
11	MP GAMMA3	X	.006	4.667
12	MP GAMMA3	X	.006	1.333
13	MP ALPHA4	Y	.002	3.833
14	MP ALPHA4	Y	.002	2.167
15	MP ALPHA4	X	.003	3.833
16	MP ALPHA4	X	.003	2.167
17	MP BETA4	Y	.002	3.833
18	MP BETA4	Y	.002	2.167
19	MP BETA4	X	.003	3.833
20	MP BETA4	X	.003	2.167
21	MP GAMMA4	Y	.003	3.833
22	MP GAMMA4	Y	.003	2.167
23	MP GAMMA4	X	.005	3.833
24	MP GAMMA4	X	.005	2.167
25	MP ALPHA1	Y	.002	4.667
26	MP ALPHA1	Y	.002	1.333
27	MP ALPHA1	X	.004	4.667
28	MP ALPHA1	X	.004	1.333
29	MP BETA1	Y	.002	4.667
30	MP BETA1	Y	.002	1.333
31	MP BETA1	X	.004	4.667
32	MP BETA1	X	.004	1.333
33	MP GAMMA1	Y	.003	4.667
34	MP GAMMA1	Y	.003	1.333
35	MP GAMMA1	X	.005	4.667
36	MP GAMMA1	X	.005	1.333
37	MP ALPHA2	Y	.004	8.833
38	MP ALPHA2	Y	.004	2.167
39	MP ALPHA2	X	.008	8.833
40	MP ALPHA2	X	.008	2.167
41	MP BETA2	Y	.004	8.833
42	MP BETA2	Y	.004	2.167
43	MP BETA2	X	.008	8.833
44	MP BETA2	X	.008	2.167
45	MP GAMMA2	Y	.008	8.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
46	MP GAMMA2	Y	.008	2.167
47	MP GAMMA2	X	.015	8.833
48	MP GAMMA2	X	.015	2.167
49	MP ALPHA2	Y	.002	5.5
50	MP ALPHA2	X	.003	5.5
51	MP BETA2	Y	.002	5.5
52	MP BETA2	X	.003	5.5
53	MP GAMMA2	Y	.002	5.5
54	MP GAMMA2	X	.004	5.5
55	MP ALPHA2	Y	.001	5.5
56	MP ALPHA2	X	.002	5.5
57	MP BETA2	Y	.001	5.5
58	MP BETA2	X	.002	5.5
59	MP GAMMA2	Y	.002	5.5
60	MP GAMMA2	X	.003	5.5
61	MP ALPHA1	Y	.000381	1.5
62	MP ALPHA1	X	.00066	1.5
63	MP BETA1	Y	.000381	1.5
64	MP BETA1	X	.00066	1.5
65	MP GAMMA1	Y	.00076	1.5
66	MP GAMMA1	X	.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	.005	4.667
2	MP ALPHA3	X	.005	1.333
3	MP BETA3	X	.006	4.667
4	MP BETA3	X	.006	1.333
5	MP GAMMA3	X	.006	4.667
6	MP GAMMA3	X	.006	1.333
7	MP ALPHA4	X	.003	3.833
8	MP ALPHA4	X	.003	2.167
9	MP BETA4	X	.005	3.833
10	MP BETA4	X	.005	2.167
11	MP GAMMA4	X	.005	3.833
12	MP GAMMA4	X	.005	2.167
13	MP ALPHA1	X	.004	4.667
14	MP ALPHA1	X	.004	1.333
15	MP BETA1	X	.006	4.667
16	MP BETA1	X	.006	1.333
17	MP GAMMA1	X	.006	4.667
18	MP GAMMA1	X	.006	1.333
19	MP ALPHA2	X	.006	8.833
20	MP ALPHA2	X	.006	2.167
21	MP BETA2	X	.014	8.833
22	MP BETA2	X	.014	2.167
23	MP GAMMA2	X	.014	8.833
24	MP GAMMA2	X	.014	2.167
25	MP ALPHA2	X	.003	5.5
26	MP BETA2	X	.004	5.5
27	MP GAMMA2	X	.004	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
28	MP ALPHA2	X	.002	5.5
29	MP BETA2	X	.003	5.5
30	MP GAMMA2	X	.003	5.5
31	MP ALPHA1	X	.000509	1.5
32	MP BETA1	X	.001	1.5
33	MP GAMMA1	X	.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.003	4.667
2	MP ALPHA3	Y	-.003	1.333
3	MP ALPHA3	X	.005	4.667
4	MP ALPHA3	X	.005	1.333
5	MP BETA3	Y	-.003	4.667
6	MP BETA3	Y	-.003	1.333
7	MP BETA3	X	.006	4.667
8	MP BETA3	X	.006	1.333
9	MP GAMMA3	Y	-.003	4.667
10	MP GAMMA3	Y	-.003	1.333
11	MP GAMMA3	X	.005	4.667
12	MP GAMMA3	X	.005	1.333
13	MP ALPHA4	Y	-.002	3.833
14	MP ALPHA4	Y	-.002	2.167
15	MP ALPHA4	X	.003	3.833
16	MP ALPHA4	X	.003	2.167
17	MP BETA4	Y	-.003	3.833
18	MP BETA4	Y	-.003	2.167
19	MP BETA4	X	.005	3.833
20	MP BETA4	X	.005	2.167
21	MP GAMMA4	Y	-.002	3.833
22	MP GAMMA4	Y	-.002	2.167
23	MP GAMMA4	X	.003	3.833
24	MP GAMMA4	X	.003	2.167
25	MP ALPHA1	Y	-.002	4.667
26	MP ALPHA1	Y	-.002	1.333
27	MP ALPHA1	X	.004	4.667
28	MP ALPHA1	X	.004	1.333
29	MP BETA1	Y	-.003	4.667
30	MP BETA1	Y	-.003	1.333
31	MP BETA1	X	.005	4.667
32	MP BETA1	X	.005	1.333
33	MP GAMMA1	Y	-.002	4.667
34	MP GAMMA1	Y	-.002	1.333
35	MP GAMMA1	X	.004	4.667
36	MP GAMMA1	X	.004	1.333
37	MP ALPHA2	Y	-.004	8.833
38	MP ALPHA2	Y	-.004	2.167
39	MP ALPHA2	X	.008	8.833
40	MP ALPHA2	X	.008	2.167
41	MP BETA2	Y	-.008	8.833
42	MP BETA2	Y	-.008	2.167

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
43	MP BETA2	X	.015	8.833
44	MP BETA2	X	.015	2.167
45	MP GAMMA2	Y	-.004	8.833
46	MP GAMMA2	Y	-.004	2.167
47	MP GAMMA2	X	.008	8.833
48	MP GAMMA2	X	.008	2.167
49	MP ALPHA2	Y	-.002	5.5
50	MP ALPHA2	X	.003	5.5
51	MP BETA2	Y	-.002	5.5
52	MP BETA2	X	.004	5.5
53	MP GAMMA2	Y	-.002	5.5
54	MP GAMMA2	X	.003	5.5
55	MP ALPHA2	Y	-.001	5.5
56	MP ALPHA2	X	.002	5.5
57	MP BETA2	Y	-.002	5.5
58	MP BETA2	X	.003	5.5
59	MP GAMMA2	Y	-.001	5.5
60	MP GAMMA2	X	.002	5.5
61	MP ALPHA1	Y	-.000381	1.5
62	MP ALPHA1	X	.00066	1.5
63	MP BETA1	Y	-.00076	1.5
64	MP BETA1	X	.001	1.5
65	MP GAMMA1	Y	-.000381	1.5
66	MP GAMMA1	X	.00066	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.005	4.667
2	MP ALPHA3	Y	-.005	1.333
3	MP ALPHA3	X	.003	4.667
4	MP ALPHA3	X	.003	1.333
5	MP BETA3	Y	-.005	4.667
6	MP BETA3	Y	-.005	1.333
7	MP BETA3	X	.003	4.667
8	MP BETA3	X	.003	1.333
9	MP GAMMA3	Y	-.004	4.667
10	MP GAMMA3	Y	-.004	1.333
11	MP GAMMA3	X	.002	4.667
12	MP GAMMA3	X	.002	1.333
13	MP ALPHA4	Y	-.004	3.833
14	MP ALPHA4	Y	-.004	2.167
15	MP ALPHA4	X	.003	3.833
16	MP ALPHA4	X	.003	2.167
17	MP BETA4	Y	-.004	3.833
18	MP BETA4	Y	-.004	2.167
19	MP BETA4	X	.003	3.833
20	MP BETA4	X	.003	2.167
21	MP GAMMA4	Y	-.002	3.833
22	MP GAMMA4	Y	-.002	2.167
23	MP GAMMA4	X	.001	3.833
24	MP GAMMA4	X	.001	2.167

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
25	MP ALPHA1	Y	-.005	4.667
26	MP ALPHA1	Y	-.005	1.333
27	MP ALPHA1	X	.003	4.667
28	MP ALPHA1	X	.003	1.333
29	MP BETA1	Y	-.005	4.667
30	MP BETA1	Y	-.005	1.333
31	MP BETA1	X	.003	4.667
32	MP BETA1	X	.003	1.333
33	MP GAMMA1	Y	-.004	4.667
34	MP GAMMA1	Y	-.004	1.333
35	MP GAMMA1	X	.002	4.667
36	MP GAMMA1	X	.002	1.333
37	MP ALPHA2	Y	-.012	8.833
38	MP ALPHA2	Y	-.012	2.167
39	MP ALPHA2	X	.007	8.833
40	MP ALPHA2	X	.007	2.167
41	MP BETA2	Y	-.012	8.833
42	MP BETA2	Y	-.012	2.167
43	MP BETA2	X	.007	8.833
44	MP BETA2	X	.007	2.167
45	MP GAMMA2	Y	-.005	8.833
46	MP GAMMA2	Y	-.005	2.167
47	MP GAMMA2	X	.003	8.833
48	MP GAMMA2	X	.003	2.167
49	MP ALPHA2	Y	-.003	5.5
50	MP ALPHA2	X	.002	5.5
51	MP BETA2	Y	-.003	5.5
52	MP BETA2	X	.002	5.5
53	MP GAMMA2	Y	-.003	5.5
54	MP GAMMA2	X	.002	5.5
55	MP ALPHA2	Y	-.003	5.5
56	MP ALPHA2	X	.002	5.5
57	MP BETA2	Y	-.003	5.5
58	MP BETA2	X	.002	5.5
59	MP GAMMA2	Y	-.001	5.5
60	MP GAMMA2	X	.000855	5.5
61	MP ALPHA1	Y	-.001	1.5
62	MP ALPHA1	X	.000633	1.5
63	MP BETA1	Y	-.001	1.5
64	MP BETA1	X	.000633	1.5
65	MP GAMMA1	Y	-.000441	1.5
66	MP GAMMA1	X	.000255	1.5

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Z	-.09	4.667
2	MP ALPHA3	Z	-.09	1.333
3	MP BETA3	Z	-.09	4.667
4	MP BETA3	Z	-.09	1.333
5	MP GAMMA3	Z	-.09	4.667
6	MP GAMMA3	Z	-.09	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	Z	-.076	3.833
8	MP ALPHA4	Z	-.076	2.167
9	MP BETA4	Z	-.076	3.833
10	MP BETA4	Z	-.076	2.167
11	MP GAMMA4	Z	-.076	3.833
12	MP GAMMA4	Z	-.076	2.167
13	MP ALPHA1	Z	-.083	4.667
14	MP ALPHA1	Z	-.083	1.333
15	MP BETA1	Z	-.083	4.667
16	MP BETA1	Z	-.083	1.333
17	MP GAMMA1	Z	-.083	4.667
18	MP GAMMA1	Z	-.083	1.333
19	MP ALPHA2	Z	-.211	8.833
20	MP ALPHA2	Z	-.211	2.167
21	MP BETA2	Z	-.211	8.833
22	MP BETA2	Z	-.211	2.167
23	MP GAMMA2	Z	-.211	8.833
24	MP GAMMA2	Z	-.211	2.167
25	MP ALPHA2	Z	-.08	5.5
26	MP BETA2	Z	-.08	5.5
27	MP GAMMA2	Z	-.08	5.5
28	MP ALPHA2	Z	-.059	5.5
29	MP BETA2	Z	-.059	5.5
30	MP GAMMA2	Z	-.059	5.5
31	MP ALPHA1	Z	-.025	1.5
32	MP BETA1	Z	-.025	1.5
33	MP GAMMA1	Z	-.025	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.014	4.667
2	MP ALPHA3	Y	-.014	1.333
3	MP BETA3	Y	-.012	4.667
4	MP BETA3	Y	-.012	1.333
5	MP GAMMA3	Y	-.012	4.667
6	MP GAMMA3	Y	-.012	1.333
7	MP ALPHA4	Y	-.012	3.833
8	MP ALPHA4	Y	-.012	2.167
9	MP BETA4	Y	-.008	3.833
10	MP BETA4	Y	-.008	2.167
11	MP GAMMA4	Y	-.008	3.833
12	MP GAMMA4	Y	-.008	2.167
13	MP ALPHA1	Y	-.014	4.667
14	MP ALPHA1	Y	-.014	1.333
15	MP BETA1	Y	-.011	4.667
16	MP BETA1	Y	-.011	1.333
17	MP GAMMA1	Y	-.011	4.667
18	MP GAMMA1	Y	-.011	1.333
19	MP ALPHA2	Y	-.05	8.833
20	MP ALPHA2	Y	-.05	2.167
21	MP BETA2	Y	-.029	8.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
22	MP BETA2	Y	-.029	2.167
23	MP GAMMA2	Y	-.029	8.833
24	MP GAMMA2	Y	-.029	2.167
25	MP ALPHA2	Y	-.01	5.5
26	MP BETA2	Y	-.009	5.5
27	MP GAMMA2	Y	-.009	5.5
28	MP ALPHA2	Y	-.009	5.5
29	MP BETA2	Y	-.006	5.5
30	MP GAMMA2	Y	-.006	5.5
31	MP ALPHA1	Y	-.005	1.5
32	MP BETA1	Y	-.003	1.5
33	MP GAMMA1	Y	-.003	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.012	4.667
2	MP ALPHA3	Y	-.012	1.333
3	MP ALPHA3	X	-.007	4.667
4	MP ALPHA3	X	-.007	1.333
5	MP BETA3	Y	-.01	4.667
6	MP BETA3	Y	-.01	1.333
7	MP BETA3	X	-.006	4.667
8	MP BETA3	X	-.006	1.333
9	MP GAMMA3	Y	-.012	4.667
10	MP GAMMA3	Y	-.012	1.333
11	MP GAMMA3	X	-.007	4.667
12	MP GAMMA3	X	-.007	1.333
13	MP ALPHA4	Y	-.009	3.833
14	MP ALPHA4	Y	-.009	2.167
15	MP ALPHA4	X	-.005	3.833
16	MP ALPHA4	X	-.005	2.167
17	MP BETA4	Y	-.005	3.833
18	MP BETA4	Y	-.005	2.167
19	MP BETA4	X	-.003	3.833
20	MP BETA4	X	-.003	2.167
21	MP GAMMA4	Y	-.009	3.833
22	MP GAMMA4	Y	-.009	2.167
23	MP GAMMA4	X	-.005	3.833
24	MP GAMMA4	X	-.005	2.167
25	MP ALPHA1	Y	-.011	4.667
26	MP ALPHA1	Y	-.011	1.333
27	MP ALPHA1	X	-.006	4.667
28	MP ALPHA1	X	-.006	1.333
29	MP BETA1	Y	-.009	4.667
30	MP BETA1	Y	-.009	1.333
31	MP BETA1	X	-.005	4.667
32	MP BETA1	X	-.005	1.333
33	MP GAMMA1	Y	-.011	4.667
34	MP GAMMA1	Y	-.011	1.333
35	MP GAMMA1	X	-.006	4.667
36	MP GAMMA1	X	-.006	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
37	MP ALPHA2	Y	-.037	8.833
38	MP ALPHA2	Y	-.037	2.167
39	MP ALPHA2	X	-.022	8.833
40	MP ALPHA2	X	-.022	2.167
41	MP BETA2	Y	-.019	8.833
42	MP BETA2	Y	-.019	2.167
43	MP BETA2	X	-.011	8.833
44	MP BETA2	X	-.011	2.167
45	MP GAMMA2	Y	-.037	8.833
46	MP GAMMA2	Y	-.037	2.167
47	MP GAMMA2	X	-.022	8.833
48	MP GAMMA2	X	-.022	2.167
49	MP ALPHA2	Y	-.008	5.5
50	MP ALPHA2	X	-.005	5.5
51	MP BETA2	Y	-.007	5.5
52	MP BETA2	X	-.004	5.5
53	MP GAMMA2	Y	-.008	5.5
54	MP GAMMA2	X	-.005	5.5
55	MP ALPHA2	Y	-.007	5.5
56	MP ALPHA2	X	-.004	5.5
57	MP BETA2	Y	-.005	5.5
58	MP BETA2	X	-.003	5.5
59	MP GAMMA2	Y	-.007	5.5
60	MP GAMMA2	X	-.004	5.5
61	MP ALPHA1	Y	-.004	1.5
62	MP ALPHA1	X	-.002	1.5
63	MP BETA1	Y	-.002	1.5
64	MP BETA1	X	-.001	1.5
65	MP GAMMA1	Y	-.004	1.5
66	MP GAMMA1	X	-.002	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.006	4.667
2	MP ALPHA3	Y	-.006	1.333
3	MP ALPHA3	X	-.01	4.667
4	MP ALPHA3	X	-.01	1.333
5	MP BETA3	Y	-.006	4.667
6	MP BETA3	Y	-.006	1.333
7	MP BETA3	X	-.01	4.667
8	MP BETA3	X	-.01	1.333
9	MP GAMMA3	Y	-.007	4.667
10	MP GAMMA3	Y	-.007	1.333
11	MP GAMMA3	X	-.012	4.667
12	MP GAMMA3	X	-.012	1.333
13	MP ALPHA4	Y	-.004	3.833
14	MP ALPHA4	Y	-.004	2.167
15	MP ALPHA4	X	-.007	3.833
16	MP ALPHA4	X	-.007	2.167
17	MP BETA4	Y	-.004	3.833
18	MP BETA4	Y	-.004	2.167

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
19	MP BETA4	X	-.007	3.833
20	MP BETA4	X	-.007	2.167
21	MP GAMMA4	Y	-.006	3.833
22	MP GAMMA4	Y	-.006	2.167
23	MP GAMMA4	X	-.011	3.833
24	MP GAMMA4	X	-.011	2.167
25	MP ALPHA1	Y	-.006	4.667
26	MP ALPHA1	Y	-.006	1.333
27	MP ALPHA1	X	-.01	4.667
28	MP ALPHA1	X	-.01	1.333
29	MP BETA1	Y	-.006	4.667
30	MP BETA1	Y	-.006	1.333
31	MP BETA1	X	-.01	4.667
32	MP BETA1	X	-.01	1.333
33	MP GAMMA1	Y	-.007	4.667
34	MP GAMMA1	Y	-.007	1.333
35	MP GAMMA1	X	-.012	4.667
36	MP GAMMA1	X	-.012	1.333
37	MP ALPHA2	Y	-.015	8.833
38	MP ALPHA2	Y	-.015	2.167
39	MP ALPHA2	X	-.025	8.833
40	MP ALPHA2	X	-.025	2.167
41	MP BETA2	Y	-.015	8.833
42	MP BETA2	Y	-.015	2.167
43	MP BETA2	X	-.025	8.833
44	MP BETA2	X	-.025	2.167
45	MP GAMMA2	Y	-.025	8.833
46	MP GAMMA2	Y	-.025	2.167
47	MP GAMMA2	X	-.044	8.833
48	MP GAMMA2	X	-.044	2.167
49	MP ALPHA2	Y	-.004	5.5
50	MP ALPHA2	X	-.008	5.5
51	MP BETA2	Y	-.004	5.5
52	MP BETA2	X	-.008	5.5
53	MP GAMMA2	Y	-.005	5.5
54	MP GAMMA2	X	-.009	5.5
55	MP ALPHA2	Y	-.003	5.5
56	MP ALPHA2	X	-.005	5.5
57	MP BETA2	Y	-.003	5.5
58	MP BETA2	X	-.005	5.5
59	MP GAMMA2	Y	-.005	5.5
60	MP GAMMA2	X	-.008	5.5
61	MP ALPHA1	Y	-.001	1.5
62	MP ALPHA1	X	-.003	1.5
63	MP BETA1	Y	-.001	1.5
64	MP BETA1	X	-.003	1.5
65	MP GAMMA1	Y	-.002	1.5
66	MP GAMMA1	X	-.004	1.5

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

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

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	-.011	4.667
2	MP ALPHA3	X	-.011	1.333
3	MP BETA3	X	-.014	4.667
4	MP BETA3	X	-.014	1.333
5	MP GAMMA3	X	-.014	4.667
6	MP GAMMA3	X	-.014	1.333
7	MP ALPHA4	X	-.006	3.833
8	MP ALPHA4	X	-.006	2.167
9	MP BETA4	X	-.011	3.833
10	MP BETA4	X	-.011	2.167
11	MP GAMMA4	X	-.011	3.833
12	MP GAMMA4	X	-.011	2.167
13	MP ALPHA1	X	-.01	4.667
14	MP ALPHA1	X	-.01	1.333
15	MP BETA1	X	-.013	4.667
16	MP BETA1	X	-.013	1.333
17	MP GAMMA1	X	-.013	4.667
18	MP GAMMA1	X	-.013	1.333
19	MP ALPHA2	X	-.022	8.833
20	MP ALPHA2	X	-.022	2.167
21	MP BETA2	X	-.043	8.833
22	MP BETA2	X	-.043	2.167
23	MP GAMMA2	X	-.043	8.833
24	MP GAMMA2	X	-.043	2.167
25	MP ALPHA2	X	-.008	5.5
26	MP BETA2	X	-.01	5.5
27	MP GAMMA2	X	-.01	5.5
28	MP ALPHA2	X	-.005	5.5
29	MP BETA2	X	-.008	5.5
30	MP GAMMA2	X	-.008	5.5
31	MP ALPHA1	X	-.002	1.5
32	MP BETA1	X	-.004	1.5
33	MP GAMMA1	X	-.004	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.006	4.667
2	MP ALPHA3	Y	.006	1.333
3	MP ALPHA3	X	-.01	4.667
4	MP ALPHA3	X	-.01	1.333
5	MP BETA3	Y	.007	4.667
6	MP BETA3	Y	.007	1.333
7	MP BETA3	X	-.012	4.667
8	MP BETA3	X	-.012	1.333
9	MP GAMMA3	Y	.006	4.667
10	MP GAMMA3	Y	.006	1.333
11	MP GAMMA3	X	-.01	4.667
12	MP GAMMA3	X	-.01	1.333
13	MP ALPHA4	Y	.004	3.833
14	MP ALPHA4	Y	.004	2.167
15	MP ALPHA4	X	-.007	3.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA4	X	-.007	2.167
17	MP BETA4	Y	.006	3.833
18	MP BETA4	Y	.006	2.167
19	MP BETA4	X	-.011	3.833
20	MP BETA4	X	-.011	2.167
21	MP GAMMA4	Y	.004	3.833
22	MP GAMMA4	Y	.004	2.167
23	MP GAMMA4	X	-.007	3.833
24	MP GAMMA4	X	-.007	2.167
25	MP ALPHA1	Y	.006	4.667
26	MP ALPHA1	Y	.006	1.333
27	MP ALPHA1	X	-.01	4.667
28	MP ALPHA1	X	-.01	1.333
29	MP BETA1	Y	.007	4.667
30	MP BETA1	Y	.007	1.333
31	MP BETA1	X	-.012	4.667
32	MP BETA1	X	-.012	1.333
33	MP GAMMA1	Y	.006	4.667
34	MP GAMMA1	Y	.006	1.333
35	MP GAMMA1	X	-.01	4.667
36	MP GAMMA1	X	-.01	1.333
37	MP ALPHA2	Y	.015	8.833
38	MP ALPHA2	Y	.015	2.167
39	MP ALPHA2	X	-.025	8.833
40	MP ALPHA2	X	-.025	2.167
41	MP BETA2	Y	.025	8.833
42	MP BETA2	Y	.025	2.167
43	MP BETA2	X	-.044	8.833
44	MP BETA2	X	-.044	2.167
45	MP GAMMA2	Y	.015	8.833
46	MP GAMMA2	Y	.015	2.167
47	MP GAMMA2	X	-.025	8.833
48	MP GAMMA2	X	-.025	2.167
49	MP ALPHA2	Y	.004	5.5
50	MP ALPHA2	X	-.008	5.5
51	MP BETA2	Y	.005	5.5
52	MP BETA2	X	-.009	5.5
53	MP GAMMA2	Y	.004	5.5
54	MP GAMMA2	X	-.008	5.5
55	MP ALPHA2	Y	.003	5.5
56	MP ALPHA2	X	-.005	5.5
57	MP BETA2	Y	.005	5.5
58	MP BETA2	X	-.008	5.5
59	MP GAMMA2	Y	.003	5.5
60	MP GAMMA2	X	-.005	5.5
61	MP ALPHA1	Y	.001	1.5
62	MP ALPHA1	X	-.003	1.5
63	MP BETA1	Y	.002	1.5
64	MP BETA1	X	-.004	1.5
65	MP GAMMA1	Y	.001	1.5
66	MP GAMMA1	X	-.003	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.012	4.667
2	MP ALPHA3	Y	.012	1.333
3	MP ALPHA3	X	-.007	4.667
4	MP ALPHA3	X	-.007	1.333
5	MP BETA3	Y	.012	4.667
6	MP BETA3	Y	.012	1.333
7	MP BETA3	X	-.007	4.667
8	MP BETA3	X	-.007	1.333
9	MP GAMMA3	Y	.01	4.667
10	MP GAMMA3	Y	.01	1.333
11	MP GAMMA3	X	-.006	4.667
12	MP GAMMA3	X	-.006	1.333
13	MP ALPHA4	Y	.009	3.833
14	MP ALPHA4	Y	.009	2.167
15	MP ALPHA4	X	-.005	3.833
16	MP ALPHA4	X	-.005	2.167
17	MP BETA4	Y	.009	3.833
18	MP BETA4	Y	.009	2.167
19	MP BETA4	X	-.005	3.833
20	MP BETA4	X	-.005	2.167
21	MP GAMMA4	Y	.005	3.833
22	MP GAMMA4	Y	.005	2.167
23	MP GAMMA4	X	-.003	3.833
24	MP GAMMA4	X	-.003	2.167
25	MP ALPHA1	Y	.011	4.667
26	MP ALPHA1	Y	.011	1.333
27	MP ALPHA1	X	-.006	4.667
28	MP ALPHA1	X	-.006	1.333
29	MP BETA1	Y	.011	4.667
30	MP BETA1	Y	.011	1.333
31	MP BETA1	X	-.006	4.667
32	MP BETA1	X	-.006	1.333
33	MP GAMMA1	Y	.009	4.667
34	MP GAMMA1	Y	.009	1.333
35	MP GAMMA1	X	-.005	4.667
36	MP GAMMA1	X	-.005	1.333
37	MP ALPHA2	Y	.037	8.833
38	MP ALPHA2	Y	.037	2.167
39	MP ALPHA2	X	-.022	8.833
40	MP ALPHA2	X	-.022	2.167
41	MP BETA2	Y	.037	8.833
42	MP BETA2	Y	.037	2.167
43	MP BETA2	X	-.022	8.833
44	MP BETA2	X	-.022	2.167
45	MP GAMMA2	Y	.019	8.833
46	MP GAMMA2	Y	.019	2.167
47	MP GAMMA2	X	-.011	8.833
48	MP GAMMA2	X	-.011	2.167
49	MP ALPHA2	Y	.008	5.5
50	MP ALPHA2	X	-.005	5.5
51	MP BETA2	Y	.008	5.5
52	MP BETA2	X	-.005	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
53	MP GAMMA2	Y	.007	5.5
54	MP GAMMA2	X	-.004	5.5
55	MP ALPHA2	Y	.007	5.5
56	MP ALPHA2	X	-.004	5.5
57	MP BETA2	Y	.007	5.5
58	MP BETA2	X	-.004	5.5
59	MP GAMMA2	Y	.005	5.5
60	MP GAMMA2	X	-.003	5.5
61	MP ALPHA1	Y	.004	1.5
62	MP ALPHA1	X	-.002	1.5
63	MP BETA1	Y	.004	1.5
64	MP BETA1	X	-.002	1.5
65	MP GAMMA1	Y	.002	1.5
66	MP GAMMA1	X	-.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.014	4.667
2	MP ALPHA3	Y	.014	1.333
3	MP BETA3	Y	.012	4.667
4	MP BETA3	Y	.012	1.333
5	MP GAMMA3	Y	.012	4.667
6	MP GAMMA3	Y	.012	1.333
7	MP ALPHA4	Y	.012	3.833
8	MP ALPHA4	Y	.012	2.167
9	MP BETA4	Y	.008	3.833
10	MP BETA4	Y	.008	2.167
11	MP GAMMA4	Y	.008	3.833
12	MP GAMMA4	Y	.008	2.167
13	MP ALPHA1	Y	.014	4.667
14	MP ALPHA1	Y	.014	1.333
15	MP BETA1	Y	.011	4.667
16	MP BETA1	Y	.011	1.333
17	MP GAMMA1	Y	.011	4.667
18	MP GAMMA1	Y	.011	1.333
19	MP ALPHA2	Y	.05	8.833
20	MP ALPHA2	Y	.05	2.167
21	MP BETA2	Y	.029	8.833
22	MP BETA2	Y	.029	2.167
23	MP GAMMA2	Y	.029	8.833
24	MP GAMMA2	Y	.029	2.167
25	MP ALPHA2	Y	.01	5.5
26	MP BETA2	Y	.009	5.5
27	MP GAMMA2	Y	.009	5.5
28	MP ALPHA2	Y	.009	5.5
29	MP BETA2	Y	.006	5.5
30	MP GAMMA2	Y	.006	5.5
31	MP ALPHA1	Y	.005	1.5
32	MP BETA1	Y	.003	1.5
33	MP GAMMA1	Y	.003	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.012	4.667
2	MP ALPHA3	Y	.012	1.333
3	MP ALPHA3	X	.007	4.667
4	MP ALPHA3	X	.007	1.333
5	MP BETA3	Y	.01	4.667
6	MP BETA3	Y	.01	1.333
7	MP BETA3	X	.006	4.667
8	MP BETA3	X	.006	1.333
9	MP GAMMA3	Y	.012	4.667
10	MP GAMMA3	Y	.012	1.333
11	MP GAMMA3	X	.007	4.667
12	MP GAMMA3	X	.007	1.333
13	MP ALPHA4	Y	.009	3.833
14	MP ALPHA4	Y	.009	2.167
15	MP ALPHA4	X	.005	3.833
16	MP ALPHA4	X	.005	2.167
17	MP BETA4	Y	.005	3.833
18	MP BETA4	Y	.005	2.167
19	MP BETA4	X	.003	3.833
20	MP BETA4	X	.003	2.167
21	MP GAMMA4	Y	.009	3.833
22	MP GAMMA4	Y	.009	2.167
23	MP GAMMA4	X	.005	3.833
24	MP GAMMA4	X	.005	2.167
25	MP ALPHA1	Y	.011	4.667
26	MP ALPHA1	Y	.011	1.333
27	MP ALPHA1	X	.006	4.667
28	MP ALPHA1	X	.006	1.333
29	MP BETA1	Y	.009	4.667
30	MP BETA1	Y	.009	1.333
31	MP BETA1	X	.005	4.667
32	MP BETA1	X	.005	1.333
33	MP GAMMA1	Y	.011	4.667
34	MP GAMMA1	Y	.011	1.333
35	MP GAMMA1	X	.006	4.667
36	MP GAMMA1	X	.006	1.333
37	MP ALPHA2	Y	.037	8.833
38	MP ALPHA2	Y	.037	2.167
39	MP ALPHA2	X	.022	8.833
40	MP ALPHA2	X	.022	2.167
41	MP BETA2	Y	.019	8.833
42	MP BETA2	Y	.019	2.167
43	MP BETA2	X	.011	8.833
44	MP BETA2	X	.011	2.167
45	MP GAMMA2	Y	.037	8.833
46	MP GAMMA2	Y	.037	2.167
47	MP GAMMA2	X	.022	8.833
48	MP GAMMA2	X	.022	2.167
49	MP ALPHA2	Y	.008	5.5
50	MP ALPHA2	X	.005	5.5
51	MP BETA2	Y	.007	5.5
52	MP BETA2	X	.004	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
53	MP GAMMA2	Y	.008	5.5
54	MP GAMMA2	X	.005	5.5
55	MP ALPHA2	Y	.007	5.5
56	MP ALPHA2	X	.004	5.5
57	MP BETA2	Y	.005	5.5
58	MP BETA2	X	.003	5.5
59	MP GAMMA2	Y	.007	5.5
60	MP GAMMA2	X	.004	5.5
61	MP ALPHA1	Y	.004	1.5
62	MP ALPHA1	X	.002	1.5
63	MP BETA1	Y	.002	1.5
64	MP BETA1	X	.001	1.5
65	MP GAMMA1	Y	.004	1.5
66	MP GAMMA1	X	.002	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	.006	4.667
2	MP ALPHA3	Y	.006	1.333
3	MP ALPHA3	X	.01	4.667
4	MP ALPHA3	X	.01	1.333
5	MP BETA3	Y	.006	4.667
6	MP BETA3	Y	.006	1.333
7	MP BETA3	X	.01	4.667
8	MP BETA3	X	.01	1.333
9	MP GAMMA3	Y	.007	4.667
10	MP GAMMA3	Y	.007	1.333
11	MP GAMMA3	X	.012	4.667
12	MP GAMMA3	X	.012	1.333
13	MP ALPHA4	Y	.004	3.833
14	MP ALPHA4	Y	.004	2.167
15	MP ALPHA4	X	.007	3.833
16	MP ALPHA4	X	.007	2.167
17	MP BETA4	Y	.004	3.833
18	MP BETA4	Y	.004	2.167
19	MP BETA4	X	.007	3.833
20	MP BETA4	X	.007	2.167
21	MP GAMMA4	Y	.006	3.833
22	MP GAMMA4	Y	.006	2.167
23	MP GAMMA4	X	.011	3.833
24	MP GAMMA4	X	.011	2.167
25	MP ALPHA1	Y	.006	4.667
26	MP ALPHA1	Y	.006	1.333
27	MP ALPHA1	X	.01	4.667
28	MP ALPHA1	X	.01	1.333
29	MP BETA1	Y	.006	4.667
30	MP BETA1	Y	.006	1.333
31	MP BETA1	X	.01	4.667
32	MP BETA1	X	.01	1.333
33	MP GAMMA1	Y	.007	4.667
34	MP GAMMA1	Y	.007	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
35	MP GAMMA1	X	.012	4.667
36	MP GAMMA1	X	.012	1.333
37	MP ALPHA2	Y	.015	8.833
38	MP ALPHA2	Y	.015	2.167
39	MP ALPHA2	X	.025	8.833
40	MP ALPHA2	X	.025	2.167
41	MP BETA2	Y	.015	8.833
42	MP BETA2	Y	.015	2.167
43	MP BETA2	X	.025	8.833
44	MP BETA2	X	.025	2.167
45	MP GAMMA2	Y	.025	8.833
46	MP GAMMA2	Y	.025	2.167
47	MP GAMMA2	X	.044	8.833
48	MP GAMMA2	X	.044	2.167
49	MP ALPHA2	Y	.004	5.5
50	MP ALPHA2	X	.008	5.5
51	MP BETA2	Y	.004	5.5
52	MP BETA2	X	.008	5.5
53	MP GAMMA2	Y	.005	5.5
54	MP GAMMA2	X	.009	5.5
55	MP ALPHA2	Y	.003	5.5
56	MP ALPHA2	X	.005	5.5
57	MP BETA2	Y	.003	5.5
58	MP BETA2	X	.005	5.5
59	MP GAMMA2	Y	.005	5.5
60	MP GAMMA2	X	.008	5.5
61	MP ALPHA1	Y	.001	1.5
62	MP ALPHA1	X	.003	1.5
63	MP BETA1	Y	.001	1.5
64	MP BETA1	X	.003	1.5
65	MP GAMMA1	Y	.002	1.5
66	MP GAMMA1	X	.004	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	.011	4.667
2	MP ALPHA3	X	.011	1.333
3	MP BETA3	X	.014	4.667
4	MP BETA3	X	.014	1.333
5	MP GAMMA3	X	.014	4.667
6	MP GAMMA3	X	.014	1.333
7	MP ALPHA4	X	.006	3.833
8	MP ALPHA4	X	.006	2.167
9	MP BETA4	X	.011	3.833
10	MP BETA4	X	.011	2.167
11	MP GAMMA4	X	.011	3.833
12	MP GAMMA4	X	.011	2.167
13	MP ALPHA1	X	.01	4.667
14	MP ALPHA1	X	.01	1.333
15	MP BETA1	X	.013	4.667
16	MP BETA1	X	.013	1.333

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
17	MP GAMMA1	X	.013	4.667
18	MP GAMMA1	X	.013	1.333
19	MP ALPHA2	X	.022	8.833
20	MP ALPHA2	X	.022	2.167
21	MP BETA2	X	.043	8.833
22	MP BETA2	X	.043	2.167
23	MP GAMMA2	X	.043	8.833
24	MP GAMMA2	X	.043	2.167
25	MP ALPHA2	X	.008	5.5
26	MP BETA2	X	.01	5.5
27	MP GAMMA2	X	.01	5.5
28	MP ALPHA2	X	.005	5.5
29	MP BETA2	X	.008	5.5
30	MP GAMMA2	X	.008	5.5
31	MP ALPHA1	X	.002	1.5
32	MP BETA1	X	.004	1.5
33	MP GAMMA1	X	.004	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.006	4.667
2	MP ALPHA3	Y	-.006	1.333
3	MP ALPHA3	X	.01	4.667
4	MP ALPHA3	X	.01	1.333
5	MP BETA3	Y	-.007	4.667
6	MP BETA3	Y	-.007	1.333
7	MP BETA3	X	.012	4.667
8	MP BETA3	X	.012	1.333
9	MP GAMMA3	Y	-.006	4.667
10	MP GAMMA3	Y	-.006	1.333
11	MP GAMMA3	X	.01	4.667
12	MP GAMMA3	X	.01	1.333
13	MP ALPHA4	Y	-.004	3.833
14	MP ALPHA4	Y	-.004	2.167
15	MP ALPHA4	X	.007	3.833
16	MP ALPHA4	X	.007	2.167
17	MP BETA4	Y	-.006	3.833
18	MP BETA4	Y	-.006	2.167
19	MP BETA4	X	.011	3.833
20	MP BETA4	X	.011	2.167
21	MP GAMMA4	Y	-.004	3.833
22	MP GAMMA4	Y	-.004	2.167
23	MP GAMMA4	X	.007	3.833
24	MP GAMMA4	X	.007	2.167
25	MP ALPHA1	Y	-.006	4.667
26	MP ALPHA1	Y	-.006	1.333
27	MP ALPHA1	X	.01	4.667
28	MP ALPHA1	X	.01	1.333
29	MP BETA1	Y	-.007	4.667
30	MP BETA1	Y	-.007	1.333
31	MP BETA1	X	.012	4.667

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
32	MP BETA1	X	.012	1.333
33	MP GAMMA1	Y	-.006	4.667
34	MP GAMMA1	Y	-.006	1.333
35	MP GAMMA1	X	.01	4.667
36	MP GAMMA1	X	.01	1.333
37	MP ALPHA2	Y	-.015	8.833
38	MP ALPHA2	Y	-.015	2.167
39	MP ALPHA2	X	.025	8.833
40	MP ALPHA2	X	.025	2.167
41	MP BETA2	Y	-.025	8.833
42	MP BETA2	Y	-.025	2.167
43	MP BETA2	X	.044	8.833
44	MP BETA2	X	.044	2.167
45	MP GAMMA2	Y	-.015	8.833
46	MP GAMMA2	Y	-.015	2.167
47	MP GAMMA2	X	.025	8.833
48	MP GAMMA2	X	.025	2.167
49	MP ALPHA2	Y	-.004	5.5
50	MP ALPHA2	X	.008	5.5
51	MP BETA2	Y	-.005	5.5
52	MP BETA2	X	.009	5.5
53	MP GAMMA2	Y	-.004	5.5
54	MP GAMMA2	X	.008	5.5
55	MP ALPHA2	Y	-.003	5.5
56	MP ALPHA2	X	.005	5.5
57	MP BETA2	Y	-.005	5.5
58	MP BETA2	X	.008	5.5
59	MP GAMMA2	Y	-.003	5.5
60	MP GAMMA2	X	.005	5.5
61	MP ALPHA1	Y	-.001	1.5
62	MP ALPHA1	X	.003	1.5
63	MP BETA1	Y	-.002	1.5
64	MP BETA1	X	.004	1.5
65	MP GAMMA1	Y	-.001	1.5
66	MP GAMMA1	X	.003	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.012	4.667
2	MP ALPHA3	Y	-.012	1.333
3	MP ALPHA3	X	.007	4.667
4	MP ALPHA3	X	.007	1.333
5	MP BETA3	Y	-.012	4.667
6	MP BETA3	Y	-.012	1.333
7	MP BETA3	X	.007	4.667
8	MP BETA3	X	.007	1.333
9	MP GAMMA3	Y	-.01	4.667
10	MP GAMMA3	Y	-.01	1.333
11	MP GAMMA3	X	.006	4.667
12	MP GAMMA3	X	.006	1.333
13	MP ALPHA4	Y	-.009	3.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
14	MP ALPHA4	Y	-.009	2.167
15	MP ALPHA4	X	.005	3.833
16	MP ALPHA4	X	.005	2.167
17	MP BETA4	Y	-.009	3.833
18	MP BETA4	Y	-.009	2.167
19	MP BETA4	X	.005	3.833
20	MP BETA4	X	.005	2.167
21	MP GAMMA4	Y	-.005	3.833
22	MP GAMMA4	Y	-.005	2.167
23	MP GAMMA4	X	.003	3.833
24	MP GAMMA4	X	.003	2.167
25	MP ALPHA1	Y	-.011	4.667
26	MP ALPHA1	Y	-.011	1.333
27	MP ALPHA1	X	.006	4.667
28	MP ALPHA1	X	.006	1.333
29	MP BETA1	Y	-.011	4.667
30	MP BETA1	Y	-.011	1.333
31	MP BETA1	X	.006	4.667
32	MP BETA1	X	.006	1.333
33	MP GAMMA1	Y	-.009	4.667
34	MP GAMMA1	Y	-.009	1.333
35	MP GAMMA1	X	.005	4.667
36	MP GAMMA1	X	.005	1.333
37	MP ALPHA2	Y	-.037	8.833
38	MP ALPHA2	Y	-.037	2.167
39	MP ALPHA2	X	.022	8.833
40	MP ALPHA2	X	.022	2.167
41	MP BETA2	Y	-.037	8.833
42	MP BETA2	Y	-.037	2.167
43	MP BETA2	X	.022	8.833
44	MP BETA2	X	.022	2.167
45	MP GAMMA2	Y	-.019	8.833
46	MP GAMMA2	Y	-.019	2.167
47	MP GAMMA2	X	.011	8.833
48	MP GAMMA2	X	.011	2.167
49	MP ALPHA2	Y	-.008	5.5
50	MP ALPHA2	X	.005	5.5
51	MP BETA2	Y	-.008	5.5
52	MP BETA2	X	.005	5.5
53	MP GAMMA2	Y	-.007	5.5
54	MP GAMMA2	X	.004	5.5
55	MP ALPHA2	Y	-.007	5.5
56	MP ALPHA2	X	.004	5.5
57	MP BETA2	Y	-.007	5.5
58	MP BETA2	X	.004	5.5
59	MP GAMMA2	Y	-.005	5.5
60	MP GAMMA2	X	.003	5.5
61	MP ALPHA1	Y	-.004	1.5
62	MP ALPHA1	X	.002	1.5
63	MP BETA1	Y	-.004	1.5
64	MP BETA1	X	.002	1.5
65	MP GAMMA1	Y	-.002	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
66	MP GAMMA1	X	.001	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	X	-.006	4.667
2	MP ALPHA3	X	-.006	1.333
3	MP BETA3	X	-.006	4.667
4	MP BETA3	X	-.006	1.333
5	MP GAMMA3	X	-.006	4.667
6	MP GAMMA3	X	-.006	1.333
7	MP ALPHA4	X	-.005	3.833
8	MP ALPHA4	X	-.005	2.167
9	MP BETA4	X	-.005	3.833
10	MP BETA4	X	-.005	2.167
11	MP GAMMA4	X	-.005	3.833
12	MP GAMMA4	X	-.005	2.167
13	MP ALPHA1	X	-.004	4.667
14	MP ALPHA1	X	-.004	1.333
15	MP BETA1	X	-.004	4.667
16	MP BETA1	X	-.004	1.333
17	MP GAMMA1	X	-.004	4.667
18	MP GAMMA1	X	-.004	1.333
19	MP ALPHA2	X	-.005	8.833
20	MP ALPHA2	X	-.005	2.167
21	MP BETA2	X	-.005	8.833
22	MP BETA2	X	-.005	2.167
23	MP GAMMA2	X	-.005	8.833
24	MP GAMMA2	X	-.005	2.167
25	MP ALPHA2	X	-.007	5.5
26	MP BETA2	X	-.007	5.5
27	MP GAMMA2	X	-.007	5.5
28	MP ALPHA2	X	-.004	5.5
29	MP BETA2	X	-.004	5.5
30	MP GAMMA2	X	-.004	5.5
31	MP ALPHA1	X	-.000811	1.5
32	MP BETA1	X	-.000811	1.5
33	MP GAMMA1	X	-.000811	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Y	-.006	4.667
2	MP ALPHA3	Y	-.006	1.333
3	MP BETA3	Y	-.006	4.667
4	MP BETA3	Y	-.006	1.333
5	MP GAMMA3	Y	-.006	4.667
6	MP GAMMA3	Y	-.006	1.333
7	MP ALPHA4	Y	-.005	3.833
8	MP ALPHA4	Y	-.005	2.167
9	MP BETA4	Y	-.005	3.833
10	MP BETA4	Y	-.005	2.167
11	MP GAMMA4	Y	-.005	3.833

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP GAMMA4	Y	-.005	2.167
13	MP ALPHA1	Y	-.004	4.667
14	MP ALPHA1	Y	-.004	1.333
15	MP BETA1	Y	-.004	4.667
16	MP BETA1	Y	-.004	1.333
17	MP GAMMA1	Y	-.004	4.667
18	MP GAMMA1	Y	-.004	1.333
19	MP ALPHA2	Y	-.005	8.833
20	MP ALPHA2	Y	-.005	2.167
21	MP BETA2	Y	-.005	8.833
22	MP BETA2	Y	-.005	2.167
23	MP GAMMA2	Y	-.005	8.833
24	MP GAMMA2	Y	-.005	2.167
25	MP ALPHA2	Y	-.007	5.5
26	MP BETA2	Y	-.007	5.5
27	MP GAMMA2	Y	-.007	5.5
28	MP ALPHA2	Y	-.004	5.5
29	MP BETA2	Y	-.004	5.5
30	MP GAMMA2	Y	-.004	5.5
31	MP ALPHA1	Y	-.000811	1.5
32	MP BETA1	Y	-.000811	1.5
33	MP GAMMA1	Y	-.000811	1.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA3	Z	-.003	4.667
2	MP ALPHA3	Z	-.003	1.333
3	MP BETA3	Z	-.003	4.667
4	MP BETA3	Z	-.003	1.333
5	MP GAMMA3	Z	-.003	4.667
6	MP GAMMA3	Z	-.003	1.333
7	MP ALPHA4	Z	-.002	3.833
8	MP ALPHA4	Z	-.002	2.167
9	MP BETA4	Z	-.002	3.833
10	MP BETA4	Z	-.002	2.167
11	MP GAMMA4	Z	-.002	3.833
12	MP GAMMA4	Z	-.002	2.167
13	MP ALPHA1	Z	-.002	4.667
14	MP ALPHA1	Z	-.002	1.333
15	MP BETA1	Z	-.002	4.667
16	MP BETA1	Z	-.002	1.333
17	MP GAMMA1	Z	-.002	4.667
18	MP GAMMA1	Z	-.002	1.333
19	MP ALPHA2	Z	-.002	8.833
20	MP ALPHA2	Z	-.002	2.167
21	MP BETA2	Z	-.002	8.833
22	MP BETA2	Z	-.002	2.167
23	MP GAMMA2	Z	-.002	8.833
24	MP GAMMA2	Z	-.002	2.167
25	MP ALPHA2	Z	-.003	5.5
26	MP BETA2	Z	-.003	5.5

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
27	MP GAMMA2	Z	-.003	5.5
28	MP ALPHA2	Z	-.002	5.5
29	MP BETA2	Z	-.002	5.5
30	MP GAMMA2	Z	-.002	5.5
31	MP ALPHA1	Z	-.000324	1.5
32	MP BETA1	Z	-.000324	1.5
33	MP GAMMA1	Z	-.000324	1.5

Member Area Loads (BLC 3 : Dead Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N165	N73A	N70B	N69A	Z	Two Way	-.01
2	N165	N69A	N166		Z	Two Way	-.01
3	N74A	N162A	N161A	N70A	Z	Two Way	-.01
4	N70A	N69B	N74A		Z	Two Way	-.01
5	N69A	N70B	N163		Z	Two Way	-.01
6	N70B	N69B	N164	N163	Z	Two Way	-.01
7	N69B	N70A	N164		Z	Two Way	-.01

Member Area Loads (BLC 27 : Ice Dead Load)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N165	N73A	N70B	N69A	Z	Two Way	-.02
2	N165	N69A	N166		Z	Two Way	-.02
3	N74A	N162A	N161A	N70A	Z	Two Way	-.02
4	N70A	N69B	N74A		Z	Two Way	-.02
5	N69A	N70B	N163		Z	Two Way	-.02
6	N70B	N69B	N164	N163	Z	Two Way	-.02
7	N69B	N70A	N164		Z	Two Way	-.02

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.012	-.012	0	0
2	SUP1	PY	-.012	-.012	0	0
3	SO3	PY	-.008	-.008	0	0
4	SO2	PY	-.008	-.008	0	0
5	SO1	PY	-.008	-.008	0	0
6	RAIL3c	PY	-.016	-.016	0	0
7	RAIL3b	PY	-.016	-.016	0	0
8	RAIL3a	PY	-.016	-.016	0	0
9	RAIL2c	PY	-.016	-.016	0	0
10	RAIL2b	PY	-.016	-.016	0	0
11	RAIL2a	PY	-.016	-.016	0	0
12	RAIL1c	PY	-.009	-.009	0	0
13	RAIL1b	PY	-.009	-.009	0	0
14	RAIL1a	PY	-.009	-.009	0	0
15	PLATE3	PY	-.002	-.002	0	0
16	PLATE2	PY	-.002	-.002	0	0
17	PLATE1	PY	-.002	-.002	0	0
18	MP GAMMA4	PY	-.01	-.01	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
19	MP GAMMA3	PY	-.01	-.01	0	0
20	MP GAMMA2	PY	-.01	-.01	0	0
21	MP GAMMA1	PY	-.01	-.01	0	0
22	MP BETA4	PY	-.01	-.01	0	0
23	MP BETA3	PY	-.01	-.01	0	0
24	MP BETA2	PY	-.01	-.01	0	0
25	MP BETA1	PY	-.01	-.01	0	0
26	MP ALPHA4	PY	-.01	-.01	0	0
27	MP ALPHA3	PY	-.01	-.01	0	0
28	MP ALPHA2	PY	-.01	-.01	0	0
29	MP ALPHA1	PY	-.01	-.01	0	0
30	FACE3	PY	-.027	-.027	0	0
31	FACE2	PY	-.027	-.027	0	0
32	FACE1	PY	-.015	-.015	0	0
33	CORNER	PY	-.012	-.012	0	0
34	KICKER3	PY	-.008	-.008	0	0
35	KICKER1	PY	-.008	-.008	0	0
36	KICKER2	PY	-.008	-.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.01	-.01	0	0
2	SUP1	PY	-.01	-.01	0	0
3	SO3	PY	-.006	-.006	0	0
4	SO2	PY	-.006	-.006	0	0
5	SO1	PY	-.006	-.006	0	0
6	RAIL3c	PY	-.014	-.014	0	0
7	RAIL3b	PY	-.014	-.014	0	0
8	RAIL3a	PY	-.014	-.014	0	0
9	RAIL2c	PY	-.014	-.014	0	0
10	RAIL2b	PY	-.014	-.014	0	0
11	RAIL2a	PY	-.014	-.014	0	0
12	RAIL1c	PY	-.008	-.008	0	0
13	RAIL1b	PY	-.008	-.008	0	0
14	RAIL1a	PY	-.008	-.008	0	0
15	PLATE3	PY	-.001	-.001	0	0
16	PLATE2	PY	-.001	-.001	0	0
17	PLATE1	PY	-.001	-.001	0	0
18	MP GAMMA4	PY	-.009	-.009	0	0
19	MP GAMMA3	PY	-.009	-.009	0	0
20	MP GAMMA2	PY	-.009	-.009	0	0
21	MP GAMMA1	PY	-.009	-.009	0	0
22	MP BETA4	PY	-.009	-.009	0	0
23	MP BETA3	PY	-.009	-.009	0	0
24	MP BETA2	PY	-.009	-.009	0	0
25	MP BETA1	PY	-.009	-.009	0	0
26	MP ALPHA4	PY	-.009	-.009	0	0
27	MP ALPHA3	PY	-.009	-.009	0	0
28	MP ALPHA2	PY	-.009	-.009	0	0
29	MP ALPHA1	PY	-.009	-.009	0	0
30	FACE3	PY	-.023	-.023	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
31	FACE2	PY	-.023	-.023	0	0
32	FACE1	PY	-.013	-.013	0	0
33	CORNER	PY	-.01	-.01	0	0
34	SUP2	PX	-.006	-.006	0	0
35	SUP1	PX	-.006	-.006	0	0
36	SO3	PX	-.004	-.004	0	0
37	SO2	PX	-.004	-.004	0	0
38	SO1	PX	-.004	-.004	0	0
39	RAIL3c	PX	-.008	-.008	0	0
40	RAIL3b	PX	-.008	-.008	0	0
41	RAIL3a	PX	-.008	-.008	0	0
42	RAIL2c	PX	-.008	-.008	0	0
43	RAIL2b	PX	-.008	-.008	0	0
44	RAIL2a	PX	-.008	-.008	0	0
45	RAIL1c	PX	-.005	-.005	0	0
46	RAIL1b	PX	-.005	-.005	0	0
47	RAIL1a	PX	-.005	-.005	0	0
48	PLATE3	PX	-.00075	-.00075	0	0
49	PLATE2	PX	-.00075	-.00075	0	0
50	PLATE1	PX	-.00075	-.00075	0	0
51	MP GAMMA4	PX	-.005	-.005	0	0
52	MP GAMMA3	PX	-.005	-.005	0	0
53	MP GAMMA2	PX	-.005	-.005	0	0
54	MP GAMMA1	PX	-.005	-.005	0	0
55	MP BETA4	PX	-.005	-.005	0	0
56	MP BETA3	PX	-.005	-.005	0	0
57	MP BETA2	PX	-.005	-.005	0	0
58	MP BETA1	PX	-.005	-.005	0	0
59	MP ALPHA4	PX	-.005	-.005	0	0
60	MP ALPHA3	PX	-.005	-.005	0	0
61	MP ALPHA2	PX	-.005	-.005	0	0
62	MP ALPHA1	PX	-.005	-.005	0	0
63	FACE3	PX	-.014	-.014	0	0
64	FACE2	PX	-.014	-.014	0	0
65	FACE1	PX	-.008	-.008	0	0
66	CORNER	PX	-.006	-.006	0	0
67	KICKER3	PY	-.006	-.006	0	0
68	KICKER3	PX	-.004	-.004	0	0
69	KICKER1	PY	-.006	-.006	0	0
70	KICKER1	PX	-.004	-.004	0	0
71	KICKER2	PY	-.006	-.006	0	0
72	KICKER2	PX	-.004	-.004	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.006	-.006	0	0
2	SUP1	PY	-.006	-.006	0	0
3	SO3	PY	-.004	-.004	0	0
4	SO2	PY	-.004	-.004	0	0
5	SO1	PY	-.004	-.004	0	0
6	RAIL3c	PY	-.008	-.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
7	RAIL3b	PY	-.008	-.008	0	0
8	RAIL3a	PY	-.008	-.008	0	0
9	RAIL2c	PY	-.008	-.008	0	0
10	RAIL2b	PY	-.008	-.008	0	0
11	RAIL2a	PY	-.008	-.008	0	0
12	RAIL1c	PY	-.005	-.005	0	0
13	RAIL1b	PY	-.005	-.005	0	0
14	RAIL1a	PY	-.005	-.005	0	0
15	PLATE3	PY	-.00075	-.00075	0	0
16	PLATE2	PY	-.00075	-.00075	0	0
17	PLATE1	PY	-.00075	-.00075	0	0
18	MP GAMMA4	PY	-.005	-.005	0	0
19	MP GAMMA3	PY	-.005	-.005	0	0
20	MP GAMMA2	PY	-.005	-.005	0	0
21	MP GAMMA1	PY	-.005	-.005	0	0
22	MP BETA4	PY	-.005	-.005	0	0
23	MP BETA3	PY	-.005	-.005	0	0
24	MP BETA2	PY	-.005	-.005	0	0
25	MP BETA1	PY	-.005	-.005	0	0
26	MP ALPHA4	PY	-.005	-.005	0	0
27	MP ALPHA3	PY	-.005	-.005	0	0
28	MP ALPHA2	PY	-.005	-.005	0	0
29	MP ALPHA1	PY	-.005	-.005	0	0
30	FACE3	PY	-.014	-.014	0	0
31	FACE2	PY	-.014	-.014	0	0
32	FACE1	PY	-.008	-.008	0	0
33	CORNER	PY	-.006	-.006	0	0
34	SUP2	PX	-.01	-.01	0	0
35	SUP1	PX	-.01	-.01	0	0
36	SO3	PX	-.006	-.006	0	0
37	SO2	PX	-.006	-.006	0	0
38	SO1	PX	-.006	-.006	0	0
39	RAIL3c	PX	-.014	-.014	0	0
40	RAIL3b	PX	-.014	-.014	0	0
41	RAIL3a	PX	-.014	-.014	0	0
42	RAIL2c	PX	-.014	-.014	0	0
43	RAIL2b	PX	-.014	-.014	0	0
44	RAIL2a	PX	-.014	-.014	0	0
45	RAIL1c	PX	-.008	-.008	0	0
46	RAIL1b	PX	-.008	-.008	0	0
47	RAIL1a	PX	-.008	-.008	0	0
48	PLATE3	PX	-.001	-.001	0	0
49	PLATE2	PX	-.001	-.001	0	0
50	PLATE1	PX	-.001	-.001	0	0
51	MP GAMMA4	PX	-.009	-.009	0	0
52	MP GAMMA3	PX	-.009	-.009	0	0
53	MP GAMMA2	PX	-.009	-.009	0	0
54	MP GAMMA1	PX	-.009	-.009	0	0
55	MP BETA4	PX	-.009	-.009	0	0
56	MP BETA3	PX	-.009	-.009	0	0
57	MP BETA2	PX	-.009	-.009	0	0
58	MP BETA1	PX	-.009	-.009	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
59	MP ALPHA4	PX	-.009	-.009	0	0
60	MP ALPHA3	PX	-.009	-.009	0	0
61	MP ALPHA2	PX	-.009	-.009	0	0
62	MP ALPHA1	PX	-.009	-.009	0	0
63	FACE3	PX	-.023	-.023	0	0
64	FACE2	PX	-.023	-.023	0	0
65	FACE1	PX	-.013	-.013	0	0
66	CORNER	PX	-.01	-.01	0	0
67	KICKER3	PY	-.004	-.004	0	0
68	KICKER3	PX	-.006	-.006	0	0
69	KICKER1	PY	-.004	-.004	0	0
70	KICKER1	PX	-.006	-.006	0	0
71	KICKER2	PY	-.004	-.004	0	0
72	KICKER2	PX	-.006	-.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	-.012	-.012	0	0
2	SUP1	PX	-.012	-.012	0	0
3	SO3	PX	-.008	-.008	0	0
4	SO2	PX	-.008	-.008	0	0
5	SO1	PX	-.008	-.008	0	0
6	RAIL3c	PX	-.016	-.016	0	0
7	RAIL3b	PX	-.016	-.016	0	0
8	RAIL3a	PX	-.016	-.016	0	0
9	RAIL1c	PX	-.016	-.016	0	0
10	RAIL1b	PX	-.016	-.016	0	0
11	RAIL1a	PX	-.016	-.016	0	0
12	RAIL2c	PX	-.009	-.009	0	0
13	RAIL2b	PX	-.009	-.009	0	0
14	RAIL2a	PX	-.009	-.009	0	0
15	PLATE3	PX	-.002	-.002	0	0
16	PLATE2	PX	-.002	-.002	0	0
17	PLATE1	PX	-.002	-.002	0	0
18	MP GAMMA4	PX	-.01	-.01	0	0
19	MP GAMMA3	PX	-.01	-.01	0	0
20	MP GAMMA2	PX	-.01	-.01	0	0
21	MP GAMMA1	PX	-.01	-.01	0	0
22	MP BETA4	PX	-.01	-.01	0	0
23	MP BETA3	PX	-.01	-.01	0	0
24	MP BETA2	PX	-.01	-.01	0	0
25	MP BETA1	PX	-.01	-.01	0	0
26	MP ALPHA4	PX	-.01	-.01	0	0
27	MP ALPHA3	PX	-.01	-.01	0	0
28	MP ALPHA2	PX	-.01	-.01	0	0
29	MP ALPHA1	PX	-.01	-.01	0	0
30	FACE3	PX	-.027	-.027	0	0
31	FACE1	PX	-.027	-.027	0	0
32	FACE2	PX	-.015	-.015	0	0
33	CORNER	PX	-.012	-.012	0	0
34	KICKER3	PX	-.008	-.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
35	KICKER1	PX	-.008	-.008	0	0
36	KICKER2	PX	-.008	-.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.006	.006	0	0
2	SUP1	PY	.006	.006	0	0
3	SO3	PY	.004	.004	0	0
4	SO2	PY	.004	.004	0	0
5	SO1	PY	.004	.004	0	0
6	RAIL3c	PY	.008	.008	0	0
7	RAIL3b	PY	.008	.008	0	0
8	RAIL3a	PY	.008	.008	0	0
9	RAIL1c	PY	.008	.008	0	0
10	RAIL1b	PY	.008	.008	0	0
11	RAIL1a	PY	.008	.008	0	0
12	RAIL2c	PY	.005	.005	0	0
13	RAIL2b	PY	.005	.005	0	0
14	RAIL2a	PY	.005	.005	0	0
15	PLATE3	PY	.00075	.00075	0	0
16	PLATE2	PY	.00075	.00075	0	0
17	PLATE1	PY	.00075	.00075	0	0
18	MP GAMMA4	PY	.005	.005	0	0
19	MP GAMMA3	PY	.005	.005	0	0
20	MP GAMMA2	PY	.005	.005	0	0
21	MP GAMMA1	PY	.005	.005	0	0
22	MP BETA4	PY	.005	.005	0	0
23	MP BETA3	PY	.005	.005	0	0
24	MP BETA2	PY	.005	.005	0	0
25	MP BETA1	PY	.005	.005	0	0
26	MP ALPHA4	PY	.005	.005	0	0
27	MP ALPHA3	PY	.005	.005	0	0
28	MP ALPHA2	PY	.005	.005	0	0
29	MP ALPHA1	PY	.005	.005	0	0
30	FACE3	PY	.014	.014	0	0
31	FACE1	PY	.014	.014	0	0
32	FACE2	PY	.008	.008	0	0
33	CORNER	PY	.006	.006	0	0
34	SUP2	PX	-.01	-.01	0	0
35	SUP1	PX	-.01	-.01	0	0
36	SO3	PX	-.006	-.006	0	0
37	SO2	PX	-.006	-.006	0	0
38	SO1	PX	-.006	-.006	0	0
39	RAIL3c	PX	-.014	-.014	0	0
40	RAIL3b	PX	-.014	-.014	0	0
41	RAIL3a	PX	-.014	-.014	0	0
42	RAIL1c	PX	-.014	-.014	0	0
43	RAIL1b	PX	-.014	-.014	0	0
44	RAIL1a	PX	-.014	-.014	0	0
45	RAIL2c	PX	-.008	-.008	0	0
46	RAIL2b	PX	-.008	-.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
47	RAIL2a	PX	-.008	-.008	0	0
48	PLATE3	PX	-.001	-.001	0	0
49	PLATE2	PX	-.001	-.001	0	0
50	PLATE1	PX	-.001	-.001	0	0
51	MP GAMMA4	PX	-.009	-.009	0	0
52	MP GAMMA3	PX	-.009	-.009	0	0
53	MP GAMMA2	PX	-.009	-.009	0	0
54	MP GAMMA1	PX	-.009	-.009	0	0
55	MP BETA4	PX	-.009	-.009	0	0
56	MP BETA3	PX	-.009	-.009	0	0
57	MP BETA2	PX	-.009	-.009	0	0
58	MP BETA1	PX	-.009	-.009	0	0
59	MP ALPHA4	PX	-.009	-.009	0	0
60	MP ALPHA3	PX	-.009	-.009	0	0
61	MP ALPHA2	PX	-.009	-.009	0	0
62	MP ALPHA1	PX	-.009	-.009	0	0
63	FACE3	PX	-.023	-.023	0	0
64	FACE1	PX	-.023	-.023	0	0
65	FACE2	PX	-.013	-.013	0	0
66	CORNER	PX	-.01	-.01	0	0
67	KICKER3	PY	.004	.004	0	0
68	KICKER3	PX	-.006	-.006	0	0
69	KICKER1	PY	.004	.004	0	0
70	KICKER1	PX	-.006	-.006	0	0
71	KICKER2	PY	.004	.004	0	0
72	KICKER2	PX	-.006	-.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.01	.01	0	0
2	SUP1	PY	.01	.01	0	0
3	SO3	PY	.006	.006	0	0
4	SO2	PY	.006	.006	0	0
5	SO1	PY	.006	.006	0	0
6	RAIL3c	PY	.014	.014	0	0
7	RAIL3b	PY	.014	.014	0	0
8	RAIL3a	PY	.014	.014	0	0
9	RAIL1c	PY	.014	.014	0	0
10	RAIL1b	PY	.014	.014	0	0
11	RAIL1a	PY	.014	.014	0	0
12	RAIL2c	PY	.008	.008	0	0
13	RAIL2b	PY	.008	.008	0	0
14	RAIL2a	PY	.008	.008	0	0
15	PLATE3	PY	.001	.001	0	0
16	PLATE2	PY	.001	.001	0	0
17	PLATE1	PY	.001	.001	0	0
18	MP GAMMA4	PY	.009	.009	0	0
19	MP GAMMA3	PY	.009	.009	0	0
20	MP GAMMA2	PY	.009	.009	0	0
21	MP GAMMA1	PY	.009	.009	0	0
22	MP BETA4	PY	.009	.009	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
23	MP BETA3	PY	.009	.009	0	0
24	MP BETA2	PY	.009	.009	0	0
25	MP BETA1	PY	.009	.009	0	0
26	MP ALPHA4	PY	.009	.009	0	0
27	MP ALPHA3	PY	.009	.009	0	0
28	MP ALPHA2	PY	.009	.009	0	0
29	MP ALPHA1	PY	.009	.009	0	0
30	FACE3	PY	.023	.023	0	0
31	FACE1	PY	.023	.023	0	0
32	FACE2	PY	.013	.013	0	0
33	CORNER	PY	.01	.01	0	0
34	SUP2	PX	-.006	-.006	0	0
35	SUP1	PX	-.006	-.006	0	0
36	SO3	PX	-.004	-.004	0	0
37	SO2	PX	-.004	-.004	0	0
38	SO1	PX	-.004	-.004	0	0
39	RAIL3c	PX	-.008	-.008	0	0
40	RAIL3b	PX	-.008	-.008	0	0
41	RAIL3a	PX	-.008	-.008	0	0
42	RAIL1c	PX	-.008	-.008	0	0
43	RAIL1b	PX	-.008	-.008	0	0
44	RAIL1a	PX	-.008	-.008	0	0
45	RAIL2c	PX	-.005	-.005	0	0
46	RAIL2b	PX	-.005	-.005	0	0
47	RAIL2a	PX	-.005	-.005	0	0
48	PLATE3	PX	-.00075	-.00075	0	0
49	PLATE2	PX	-.00075	-.00075	0	0
50	PLATE1	PX	-.00075	-.00075	0	0
51	MP GAMMA4	PX	-.005	-.005	0	0
52	MP GAMMA3	PX	-.005	-.005	0	0
53	MP GAMMA2	PX	-.005	-.005	0	0
54	MP GAMMA1	PX	-.005	-.005	0	0
55	MP BETA4	PX	-.005	-.005	0	0
56	MP BETA3	PX	-.005	-.005	0	0
57	MP BETA2	PX	-.005	-.005	0	0
58	MP BETA1	PX	-.005	-.005	0	0
59	MP ALPHA4	PX	-.005	-.005	0	0
60	MP ALPHA3	PX	-.005	-.005	0	0
61	MP ALPHA2	PX	-.005	-.005	0	0
62	MP ALPHA1	PX	-.005	-.005	0	0
63	FACE3	PX	-.014	-.014	0	0
64	FACE1	PX	-.014	-.014	0	0
65	FACE2	PX	-.008	-.008	0	0
66	CORNER	PX	-.006	-.006	0	0
67	KICKER3	PY	.006	.006	0	0
68	KICKER3	PX	-.004	-.004	0	0
69	KICKER1	PY	.006	.006	0	0
70	KICKER1	PX	-.004	-.004	0	0
71	KICKER2	PY	.006	.006	0	0
72	KICKER2	PX	-.004	-.004	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.012	.012	0	0
2	SUP1	PY	.012	.012	0	0
3	SO3	PY	.008	.008	0	0
4	SO2	PY	.008	.008	0	0
5	SO1	PY	.008	.008	0	0
6	RAIL3c	PY	.016	.016	0	0
7	RAIL3b	PY	.016	.016	0	0
8	RAIL3a	PY	.016	.016	0	0
9	RAIL1c	PY	.016	.016	0	0
10	RAIL1b	PY	.016	.016	0	0
11	RAIL1a	PY	.016	.016	0	0
12	RAIL2c	PY	.009	.009	0	0
13	RAIL2b	PY	.009	.009	0	0
14	RAIL2a	PY	.009	.009	0	0
15	PLATE3	PY	.002	.002	0	0
16	PLATE2	PY	.002	.002	0	0
17	PLATE1	PY	.002	.002	0	0
18	MP GAMMA4	PY	.01	.01	0	0
19	MP GAMMA3	PY	.01	.01	0	0
20	MP GAMMA2	PY	.01	.01	0	0
21	MP GAMMA1	PY	.01	.01	0	0
22	MP BETA4	PY	.01	.01	0	0
23	MP BETA3	PY	.01	.01	0	0
24	MP BETA2	PY	.01	.01	0	0
25	MP BETA1	PY	.01	.01	0	0
26	MP ALPHA4	PY	.01	.01	0	0
27	MP ALPHA3	PY	.01	.01	0	0
28	MP ALPHA2	PY	.01	.01	0	0
29	MP ALPHA1	PY	.01	.01	0	0
30	FACE3	PY	.027	.027	0	0
31	FACE1	PY	.027	.027	0	0
32	FACE2	PY	.015	.015	0	0
33	CORNER	PY	.012	.012	0	0
34	KICKER3	PY	.008	.008	0	0
35	KICKER1	PY	.008	.008	0	0
36	KICKER2	PY	.008	.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.01	.01	0	0
2	SUP1	PY	.01	.01	0	0
3	SO3	PY	.006	.006	0	0
4	SO2	PY	.006	.006	0	0
5	SO1	PY	.006	.006	0	0
6	RAIL1c	PY	.014	.014	0	0
7	RAIL1b	PY	.014	.014	0	0
8	RAIL1a	PY	.014	.014	0	0
9	RAIL2c	PY	.014	.014	0	0
10	RAIL2b	PY	.014	.014	0	0
11	RAIL2a	PY	.014	.014	0	0
12	RAIL3c	PY	.008	.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
13	RAIL3b	PY	.008	.008	0	0
14	RAIL3a	PY	.008	.008	0	0
15	PLATE3	PY	.001	.001	0	0
16	PLATE2	PY	.001	.001	0	0
17	PLATE1	PY	.001	.001	0	0
18	MP GAMMA4	PY	.009	.009	0	0
19	MP GAMMA3	PY	.009	.009	0	0
20	MP GAMMA2	PY	.009	.009	0	0
21	MP GAMMA1	PY	.009	.009	0	0
22	MP BETA4	PY	.009	.009	0	0
23	MP BETA3	PY	.009	.009	0	0
24	MP BETA2	PY	.009	.009	0	0
25	MP BETA1	PY	.009	.009	0	0
26	MP ALPHA4	PY	.009	.009	0	0
27	MP ALPHA3	PY	.009	.009	0	0
28	MP ALPHA2	PY	.009	.009	0	0
29	MP ALPHA1	PY	.009	.009	0	0
30	FACE1	PY	.023	.023	0	0
31	FACE2	PY	.023	.023	0	0
32	FACE3	PY	.013	.013	0	0
33	CORNER	PY	.01	.01	0	0
34	SUP2	PX	.006	.006	0	0
35	SUP1	PX	.006	.006	0	0
36	SO3	PX	.004	.004	0	0
37	SO2	PX	.004	.004	0	0
38	SO1	PX	.004	.004	0	0
39	RAIL1c	PX	.008	.008	0	0
40	RAIL1b	PX	.008	.008	0	0
41	RAIL1a	PX	.008	.008	0	0
42	RAIL2c	PX	.008	.008	0	0
43	RAIL2b	PX	.008	.008	0	0
44	RAIL2a	PX	.008	.008	0	0
45	RAIL3c	PX	.005	.005	0	0
46	RAIL3b	PX	.005	.005	0	0
47	RAIL3a	PX	.005	.005	0	0
48	PLATE3	PX	.00075	.00075	0	0
49	PLATE2	PX	.00075	.00075	0	0
50	PLATE1	PX	.00075	.00075	0	0
51	MP GAMMA4	PX	.005	.005	0	0
52	MP GAMMA3	PX	.005	.005	0	0
53	MP GAMMA2	PX	.005	.005	0	0
54	MP GAMMA1	PX	.005	.005	0	0
55	MP BETA4	PX	.005	.005	0	0
56	MP BETA3	PX	.005	.005	0	0
57	MP BETA2	PX	.005	.005	0	0
58	MP BETA1	PX	.005	.005	0	0
59	MP ALPHA4	PX	.005	.005	0	0
60	MP ALPHA3	PX	.005	.005	0	0
61	MP ALPHA2	PX	.005	.005	0	0
62	MP ALPHA1	PX	.005	.005	0	0
63	FACE1	PX	.014	.014	0	0
64	FACE2	PX	.014	.014	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
65	FACE3	PX	.008	.008	0	0
66	CORNER	PX	.006	.006	0	0
67	KICKER3	PY	.006	.006	0	0
68	KICKER3	PX	.004	.004	0	0
69	KICKER1	PY	.006	.006	0	0
70	KICKER1	PX	.004	.004	0	0
71	KICKER2	PY	.006	.006	0	0
72	KICKER2	PX	.004	.004	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.006	.006	0	0
2	SUP1	PY	.006	.006	0	0
3	SO3	PY	.004	.004	0	0
4	SO2	PY	.004	.004	0	0
5	SO1	PY	.004	.004	0	0
6	RAIL1c	PY	.008	.008	0	0
7	RAIL1b	PY	.008	.008	0	0
8	RAIL1a	PY	.008	.008	0	0
9	RAIL2c	PY	.008	.008	0	0
10	RAIL2b	PY	.008	.008	0	0
11	RAIL2a	PY	.008	.008	0	0
12	RAIL3c	PY	.005	.005	0	0
13	RAIL3b	PY	.005	.005	0	0
14	RAIL3a	PY	.005	.005	0	0
15	PLATE3	PY	.00075	.00075	0	0
16	PLATE2	PY	.00075	.00075	0	0
17	PLATE1	PY	.00075	.00075	0	0
18	MP GAMMA4	PY	.005	.005	0	0
19	MP GAMMA3	PY	.005	.005	0	0
20	MP GAMMA2	PY	.005	.005	0	0
21	MP GAMMA1	PY	.005	.005	0	0
22	MP BETA4	PY	.005	.005	0	0
23	MP BETA3	PY	.005	.005	0	0
24	MP BETA2	PY	.005	.005	0	0
25	MP BETA1	PY	.005	.005	0	0
26	MP ALPHA4	PY	.005	.005	0	0
27	MP ALPHA3	PY	.005	.005	0	0
28	MP ALPHA2	PY	.005	.005	0	0
29	MP ALPHA1	PY	.005	.005	0	0
30	FACE1	PY	.014	.014	0	0
31	FACE2	PY	.014	.014	0	0
32	FACE3	PY	.008	.008	0	0
33	CORNER	PY	.006	.006	0	0
34	SUP2	PX	.01	.01	0	0
35	SUP1	PX	.01	.01	0	0
36	SO3	PX	.006	.006	0	0
37	SO2	PX	.006	.006	0	0
38	SO1	PX	.006	.006	0	0
39	RAIL1c	PX	.014	.014	0	0
40	RAIL1b	PX	.014	.014	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
41	RAIL1a	PX	.014	.014	0	0
42	RAIL2c	PX	.014	.014	0	0
43	RAIL2b	PX	.014	.014	0	0
44	RAIL2a	PX	.014	.014	0	0
45	RAIL3c	PX	.008	.008	0	0
46	RAIL3b	PX	.008	.008	0	0
47	RAIL3a	PX	.008	.008	0	0
48	PLATE3	PX	.001	.001	0	0
49	PLATE2	PX	.001	.001	0	0
50	PLATE1	PX	.001	.001	0	0
51	MP GAMMA4	PX	.009	.009	0	0
52	MP GAMMA3	PX	.009	.009	0	0
53	MP GAMMA2	PX	.009	.009	0	0
54	MP GAMMA1	PX	.009	.009	0	0
55	MP BETA4	PX	.009	.009	0	0
56	MP BETA3	PX	.009	.009	0	0
57	MP BETA2	PX	.009	.009	0	0
58	MP BETA1	PX	.009	.009	0	0
59	MP ALPHA4	PX	.009	.009	0	0
60	MP ALPHA3	PX	.009	.009	0	0
61	MP ALPHA2	PX	.009	.009	0	0
62	MP ALPHA1	PX	.009	.009	0	0
63	FACE1	PX	.023	.023	0	0
64	FACE2	PX	.023	.023	0	0
65	FACE3	PX	.013	.013	0	0
66	CORNER	PX	.01	.01	0	0
67	KICKER3	PY	.004	.004	0	0
68	KICKER3	PX	.006	.006	0	0
69	KICKER1	PY	.004	.004	0	0
70	KICKER1	PX	.006	.006	0	0
71	KICKER2	PY	.004	.004	0	0
72	KICKER2	PX	.006	.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	.012	.012	0	0
2	SUP1	PX	.012	.012	0	0
3	SO3	PX	.008	.008	0	0
4	SO2	PX	.008	.008	0	0
5	SO1	PX	.008	.008	0	0
6	RAIL1c	PX	.016	.016	0	0
7	RAIL1b	PX	.016	.016	0	0
8	RAIL1a	PX	.016	.016	0	0
9	RAIL2c	PX	.016	.016	0	0
10	RAIL2b	PX	.016	.016	0	0
11	RAIL2a	PX	.016	.016	0	0
12	RAIL3c	PX	.009	.009	0	0
13	RAIL3b	PX	.009	.009	0	0
14	RAIL3a	PX	.009	.009	0	0
15	PLATE3	PX	.002	.002	0	0
16	PLATE2	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
17	PLATE1	PX	.002	.002	0	0
18	MP GAMMA4	PX	.01	.01	0	0
19	MP GAMMA3	PX	.01	.01	0	0
20	MP GAMMA2	PX	.01	.01	0	0
21	MP GAMMA1	PX	.01	.01	0	0
22	MP BETA4	PX	.01	.01	0	0
23	MP BETA3	PX	.01	.01	0	0
24	MP BETA2	PX	.01	.01	0	0
25	MP BETA1	PX	.01	.01	0	0
26	MP ALPHA4	PX	.01	.01	0	0
27	MP ALPHA3	PX	.01	.01	0	0
28	MP ALPHA2	PX	.01	.01	0	0
29	MP ALPHA1	PX	.01	.01	0	0
30	FACE1	PX	.027	.027	0	0
31	FACE2	PX	.027	.027	0	0
32	FACE3	PX	.015	.015	0	0
33	CORNER	PX	.012	.012	0	0
34	KICKER3	PX	.008	.008	0	0
35	KICKER1	PX	.008	.008	0	0
36	KICKER2	PX	.008	.008	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.006	-.006	0	0
2	SUP1	PY	-.006	-.006	0	0
3	SO3	PY	-.004	-.004	0	0
4	SO2	PY	-.004	-.004	0	0
5	SO1	PY	-.004	-.004	0	0
6	RAIL1c	PY	-.008	-.008	0	0
7	RAIL1b	PY	-.008	-.008	0	0
8	RAIL1a	PY	-.008	-.008	0	0
9	RAIL2c	PY	-.008	-.008	0	0
10	RAIL2b	PY	-.008	-.008	0	0
11	RAIL2a	PY	-.008	-.008	0	0
12	RAIL3c	PY	-.005	-.005	0	0
13	RAIL3b	PY	-.005	-.005	0	0
14	RAIL3a	PY	-.005	-.005	0	0
15	PLATE3	PY	-.00075	-.00075	0	0
16	PLATE2	PY	-.00075	-.00075	0	0
17	PLATE1	PY	-.00075	-.00075	0	0
18	MP GAMMA4	PY	-.005	-.005	0	0
19	MP GAMMA3	PY	-.005	-.005	0	0
20	MP GAMMA2	PY	-.005	-.005	0	0
21	MP GAMMA1	PY	-.005	-.005	0	0
22	MP BETA4	PY	-.005	-.005	0	0
23	MP BETA3	PY	-.005	-.005	0	0
24	MP BETA2	PY	-.005	-.005	0	0
25	MP BETA1	PY	-.005	-.005	0	0
26	MP ALPHA4	PY	-.005	-.005	0	0
27	MP ALPHA3	PY	-.005	-.005	0	0
28	MP ALPHA2	PY	-.005	-.005	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
29	MP ALPHA1	PY	-.005	-.005	0	0
30	FACE1	PY	-.014	-.014	0	0
31	FACE2	PY	-.014	-.014	0	0
32	FACE3	PY	-.008	-.008	0	0
33	CORNER	PY	-.006	-.006	0	0
34	SUP2	PX	.01	.01	0	0
35	SUP1	PX	.01	.01	0	0
36	SO3	PX	.006	.006	0	0
37	SO2	PX	.006	.006	0	0
38	SO1	PX	.006	.006	0	0
39	RAIL1c	PX	.014	.014	0	0
40	RAIL1b	PX	.014	.014	0	0
41	RAIL1a	PX	.014	.014	0	0
42	RAIL2c	PX	.014	.014	0	0
43	RAIL2b	PX	.014	.014	0	0
44	RAIL2a	PX	.014	.014	0	0
45	RAIL3c	PX	.008	.008	0	0
46	RAIL3b	PX	.008	.008	0	0
47	RAIL3a	PX	.008	.008	0	0
48	PLATE3	PX	.001	.001	0	0
49	PLATE2	PX	.001	.001	0	0
50	PLATE1	PX	.001	.001	0	0
51	MP GAMMA4	PX	.009	.009	0	0
52	MP GAMMA3	PX	.009	.009	0	0
53	MP GAMMA2	PX	.009	.009	0	0
54	MP GAMMA1	PX	.009	.009	0	0
55	MP BETA4	PX	.009	.009	0	0
56	MP BETA3	PX	.009	.009	0	0
57	MP BETA2	PX	.009	.009	0	0
58	MP BETA1	PX	.009	.009	0	0
59	MP ALPHA4	PX	.009	.009	0	0
60	MP ALPHA3	PX	.009	.009	0	0
61	MP ALPHA2	PX	.009	.009	0	0
62	MP ALPHA1	PX	.009	.009	0	0
63	FACE1	PX	.023	.023	0	0
64	FACE2	PX	.023	.023	0	0
65	FACE3	PX	.013	.013	0	0
66	CORNER	PX	.01	.01	0	0
67	KICKER3	PY	-.004	-.004	0	0
68	KICKER3	PX	.006	.006	0	0
69	KICKER1	PY	-.004	-.004	0	0
70	KICKER1	PX	.006	.006	0	0
71	KICKER2	PY	-.004	-.004	0	0
72	KICKER2	PX	.006	.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.01	-.01	0	0
2	SUP1	PY	-.01	-.01	0	0
3	SO3	PY	-.006	-.006	0	0
4	SO2	PY	-.006	-.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
5	SO1	PY	-.006	-.006	0	0
6	RAIL3c	PY	-.014	-.014	0	0
7	RAIL3b	PY	-.014	-.014	0	0
8	RAIL3a	PY	-.014	-.014	0	0
9	RAIL2c	PY	-.014	-.014	0	0
10	RAIL2b	PY	-.014	-.014	0	0
11	RAIL2a	PY	-.014	-.014	0	0
12	RAIL1c	PY	-.008	-.008	0	0
13	RAIL1b	PY	-.008	-.008	0	0
14	RAIL1a	PY	-.008	-.008	0	0
15	PLATE3	PY	-.001	-.001	0	0
16	PLATE2	PY	-.001	-.001	0	0
17	PLATE1	PY	-.001	-.001	0	0
18	MP GAMMA4	PY	-.009	-.009	0	0
19	MP GAMMA3	PY	-.009	-.009	0	0
20	MP GAMMA2	PY	-.009	-.009	0	0
21	MP GAMMA1	PY	-.009	-.009	0	0
22	MP BETA4	PY	-.009	-.009	0	0
23	MP BETA3	PY	-.009	-.009	0	0
24	MP BETA2	PY	-.009	-.009	0	0
25	MP BETA1	PY	-.009	-.009	0	0
26	MP ALPHA4	PY	-.009	-.009	0	0
27	MP ALPHA3	PY	-.009	-.009	0	0
28	MP ALPHA2	PY	-.009	-.009	0	0
29	MP ALPHA1	PY	-.009	-.009	0	0
30	FACE3	PY	-.023	-.023	0	0
31	FACE2	PY	-.023	-.023	0	0
32	FACE1	PY	-.013	-.013	0	0
33	CORNER	PY	-.01	-.01	0	0
34	SUP2	PX	.006	.006	0	0
35	SUP1	PX	.006	.006	0	0
36	SO3	PX	.004	.004	0	0
37	SO2	PX	.004	.004	0	0
38	SO1	PX	.004	.004	0	0
39	RAIL3c	PX	.008	.008	0	0
40	RAIL3b	PX	.008	.008	0	0
41	RAIL3a	PX	.008	.008	0	0
42	RAIL2c	PX	.008	.008	0	0
43	RAIL2b	PX	.008	.008	0	0
44	RAIL2a	PX	.008	.008	0	0
45	RAIL1c	PX	.005	.005	0	0
46	RAIL1b	PX	.005	.005	0	0
47	RAIL1a	PX	.005	.005	0	0
48	PLATE3	PX	.00075	.00075	0	0
49	PLATE2	PX	.00075	.00075	0	0
50	PLATE1	PX	.00075	.00075	0	0
51	MP GAMMA4	PX	.005	.005	0	0
52	MP GAMMA3	PX	.005	.005	0	0
53	MP GAMMA2	PX	.005	.005	0	0
54	MP GAMMA1	PX	.005	.005	0	0
55	MP BETA4	PX	.005	.005	0	0
56	MP BETA3	PX	.005	.005	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
57	MP BETA2	PX	.005	.005	0	0
58	MP BETA1	PX	.005	.005	0	0
59	MP ALPHA4	PX	.005	.005	0	0
60	MP ALPHA3	PX	.005	.005	0	0
61	MP ALPHA2	PX	.005	.005	0	0
62	MP ALPHA1	PX	.005	.005	0	0
63	FACE3	PX	.014	.014	0	0
64	FACE2	PX	.014	.014	0	0
65	FACE1	PX	.008	.008	0	0
66	CORNER	PX	.006	.006	0	0
67	KICKER3	PY	-.006	-.006	0	0
68	KICKER3	PX	.004	.004	0	0
69	KICKER1	PY	-.006	-.006	0	0
70	KICKER1	PX	.004	.004	0	0
71	KICKER2	PY	-.006	-.006	0	0
72	KICKER2	PX	.004	.004	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.000692	-.000692	0	0
2	SUP1	PY	-.000692	-.000692	0	0
3	SO3	PY	-.000432	-.000432	0	0
4	SO2	PY	-.000432	-.000432	0	0
5	SO1	PY	-.000432	-.000432	0	0
6	RAIL3c	PY	-.000934	-.000934	0	0
7	RAIL3b	PY	-.000934	-.000934	0	0
8	RAIL3a	PY	-.000934	-.000934	0	0
9	RAIL2c	PY	-.000934	-.000934	0	0
10	RAIL2b	PY	-.000934	-.000934	0	0
11	RAIL2a	PY	-.000934	-.000934	0	0
12	RAIL1c	PY	-.000519	-.000519	0	0
13	RAIL1b	PY	-.000519	-.000519	0	0
14	RAIL1a	PY	-.000519	-.000519	0	0
15	PLATE3	PY	-8.6e-5	-8.6e-5	0	0
16	PLATE2	PY	-8.6e-5	-8.6e-5	0	0
17	PLATE1	PY	-8.6e-5	-8.6e-5	0	0
18	MP GAMMA4	PY	-.000599	-.000599	0	0
19	MP GAMMA3	PY	-.000599	-.000599	0	0
20	MP GAMMA2	PY	-.000599	-.000599	0	0
21	MP GAMMA1	PY	-.000599	-.000599	0	0
22	MP BETA4	PY	-.000599	-.000599	0	0
23	MP BETA3	PY	-.000599	-.000599	0	0
24	MP BETA2	PY	-.000599	-.000599	0	0
25	MP BETA1	PY	-.000599	-.000599	0	0
26	MP ALPHA4	PY	-.000599	-.000599	0	0
27	MP ALPHA3	PY	-.000599	-.000599	0	0
28	MP ALPHA2	PY	-.000599	-.000599	0	0
29	MP ALPHA1	PY	-.000599	-.000599	0	0
30	FACE3	PY	-.002	-.002	0	0
31	FACE2	PY	-.002	-.002	0	0
32	FACE1	PY	-.000865	-.000865	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
33	CORNER	PY	-.000692	-.000692	0	0
34	KICKER3	PY	-.000432	-.000432	0	0
35	KICKER1	PY	-.000432	-.000432	0	0
36	KICKER2	PY	-.000432	-.000432	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.000599	-.000599	0	0
2	SUP1	PY	-.000599	-.000599	0	0
3	SO3	PY	-.000374	-.000374	0	0
4	SO2	PY	-.000374	-.000374	0	0
5	SO1	PY	-.000374	-.000374	0	0
6	RAIL3c	PY	-.000809	-.000809	0	0
7	RAIL3b	PY	-.000809	-.000809	0	0
8	RAIL3a	PY	-.000809	-.000809	0	0
9	RAIL2c	PY	-.000809	-.000809	0	0
10	RAIL2b	PY	-.000809	-.000809	0	0
11	RAIL2a	PY	-.000809	-.000809	0	0
12	RAIL1c	PY	-.000449	-.000449	0	0
13	RAIL1b	PY	-.000449	-.000449	0	0
14	RAIL1a	PY	-.000449	-.000449	0	0
15	PLATE3	PY	-7.5e-5	-7.5e-5	0	0
16	PLATE2	PY	-7.5e-5	-7.5e-5	0	0
17	PLATE1	PY	-7.5e-5	-7.5e-5	0	0
18	MP GAMMA4	PY	-.000519	-.000519	0	0
19	MP GAMMA3	PY	-.000519	-.000519	0	0
20	MP GAMMA2	PY	-.000519	-.000519	0	0
21	MP GAMMA1	PY	-.000519	-.000519	0	0
22	MP BETA4	PY	-.000519	-.000519	0	0
23	MP BETA3	PY	-.000519	-.000519	0	0
24	MP BETA2	PY	-.000519	-.000519	0	0
25	MP BETA1	PY	-.000519	-.000519	0	0
26	MP ALPHA4	PY	-.000519	-.000519	0	0
27	MP ALPHA3	PY	-.000519	-.000519	0	0
28	MP ALPHA2	PY	-.000519	-.000519	0	0
29	MP ALPHA1	PY	-.000519	-.000519	0	0
30	FACE3	PY	-.001	-.001	0	0
31	FACE2	PY	-.001	-.001	0	0
32	FACE1	PY	-.000749	-.000749	0	0
33	CORNER	PY	-.000599	-.000599	0	0
34	SUP2	PX	-.000346	-.000346	0	0
35	SUP1	PX	-.000346	-.000346	0	0
36	SO3	PX	-.000216	-.000216	0	0
37	SO2	PX	-.000216	-.000216	0	0
38	SO1	PX	-.000216	-.000216	0	0
39	RAIL3c	PX	-.000467	-.000467	0	0
40	RAIL3b	PX	-.000467	-.000467	0	0
41	RAIL3a	PX	-.000467	-.000467	0	0
42	RAIL2c	PX	-.000467	-.000467	0	0
43	RAIL2b	PX	-.000467	-.000467	0	0
44	RAIL2a	PX	-.000467	-.000467	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
45	RAIL1c	PX	-.000259	-.000259	0	0
46	RAIL1b	PX	-.000259	-.000259	0	0
47	RAIL1a	PX	-.000259	-.000259	0	0
48	PLATE3	PX	-4.3e-5	-4.3e-5	0	0
49	PLATE2	PX	-4.3e-5	-4.3e-5	0	0
50	PLATE1	PX	-4.3e-5	-4.3e-5	0	0
51	MP GAMMA4	PX	-.0003	-.0003	0	0
52	MP GAMMA3	PX	-.0003	-.0003	0	0
53	MP GAMMA2	PX	-.0003	-.0003	0	0
54	MP GAMMA1	PX	-.0003	-.0003	0	0
55	MP BETA4	PX	-.0003	-.0003	0	0
56	MP BETA3	PX	-.0003	-.0003	0	0
57	MP BETA2	PX	-.0003	-.0003	0	0
58	MP BETA1	PX	-.0003	-.0003	0	0
59	MP ALPHA4	PX	-.0003	-.0003	0	0
60	MP ALPHA3	PX	-.0003	-.0003	0	0
61	MP ALPHA2	PX	-.0003	-.0003	0	0
62	MP ALPHA1	PX	-.0003	-.0003	0	0
63	FACE3	PX	-.000778	-.000778	0	0
64	FACE2	PX	-.000778	-.000778	0	0
65	FACE1	PX	-.000432	-.000432	0	0
66	CORNER	PX	-.000346	-.000346	0	0
67	KICKER3	PY	-.000374	-.000374	0	0
68	KICKER3	PX	-.000216	-.000216	0	0
69	KICKER1	PY	-.000374	-.000374	0	0
70	KICKER1	PX	-.000216	-.000216	0	0
71	KICKER2	PY	-.000374	-.000374	0	0
72	KICKER2	PX	-.000216	-.000216	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.000346	-.000346	0	0
2	SUP1	PY	-.000346	-.000346	0	0
3	SO3	PY	-.000216	-.000216	0	0
4	SO2	PY	-.000216	-.000216	0	0
5	SO1	PY	-.000216	-.000216	0	0
6	RAIL3c	PY	-.000467	-.000467	0	0
7	RAIL3b	PY	-.000467	-.000467	0	0
8	RAIL3a	PY	-.000467	-.000467	0	0
9	RAIL2c	PY	-.000467	-.000467	0	0
10	RAIL2b	PY	-.000467	-.000467	0	0
11	RAIL2a	PY	-.000467	-.000467	0	0
12	RAIL1c	PY	-.000259	-.000259	0	0
13	RAIL1b	PY	-.000259	-.000259	0	0
14	RAIL1a	PY	-.000259	-.000259	0	0
15	PLATE3	PY	-4.3e-5	-4.3e-5	0	0
16	PLATE2	PY	-4.3e-5	-4.3e-5	0	0
17	PLATE1	PY	-4.3e-5	-4.3e-5	0	0
18	MP GAMMA4	PY	-.0003	-.0003	0	0
19	MP GAMMA3	PY	-.0003	-.0003	0	0
20	MP GAMMA2	PY	-.0003	-.0003	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
21	MP GAMMA1	PY	-.0003	-.0003	0	0
22	MP BETA4	PY	-.0003	-.0003	0	0
23	MP BETA3	PY	-.0003	-.0003	0	0
24	MP BETA2	PY	-.0003	-.0003	0	0
25	MP BETA1	PY	-.0003	-.0003	0	0
26	MP ALPHA4	PY	-.0003	-.0003	0	0
27	MP ALPHA3	PY	-.0003	-.0003	0	0
28	MP ALPHA2	PY	-.0003	-.0003	0	0
29	MP ALPHA1	PY	-.0003	-.0003	0	0
30	FACE3	PY	-.000778	-.000778	0	0
31	FACE2	PY	-.000778	-.000778	0	0
32	FACE1	PY	-.000432	-.000432	0	0
33	CORNER	PY	-.000346	-.000346	0	0
34	SUP2	PX	-.000599	-.000599	0	0
35	SUP1	PX	-.000599	-.000599	0	0
36	SO3	PX	-.000374	-.000374	0	0
37	SO2	PX	-.000374	-.000374	0	0
38	SO1	PX	-.000374	-.000374	0	0
39	RAIL3c	PX	-.000809	-.000809	0	0
40	RAIL3b	PX	-.000809	-.000809	0	0
41	RAIL3a	PX	-.000809	-.000809	0	0
42	RAIL2c	PX	-.000809	-.000809	0	0
43	RAIL2b	PX	-.000809	-.000809	0	0
44	RAIL2a	PX	-.000809	-.000809	0	0
45	RAIL1c	PX	-.000449	-.000449	0	0
46	RAIL1b	PX	-.000449	-.000449	0	0
47	RAIL1a	PX	-.000449	-.000449	0	0
48	PLATE3	PX	-7.5e-5	-7.5e-5	0	0
49	PLATE2	PX	-7.5e-5	-7.5e-5	0	0
50	PLATE1	PX	-7.5e-5	-7.5e-5	0	0
51	MP GAMMA4	PX	-.000519	-.000519	0	0
52	MP GAMMA3	PX	-.000519	-.000519	0	0
53	MP GAMMA2	PX	-.000519	-.000519	0	0
54	MP GAMMA1	PX	-.000519	-.000519	0	0
55	MP BETA4	PX	-.000519	-.000519	0	0
56	MP BETA3	PX	-.000519	-.000519	0	0
57	MP BETA2	PX	-.000519	-.000519	0	0
58	MP BETA1	PX	-.000519	-.000519	0	0
59	MP ALPHA4	PX	-.000519	-.000519	0	0
60	MP ALPHA3	PX	-.000519	-.000519	0	0
61	MP ALPHA2	PX	-.000519	-.000519	0	0
62	MP ALPHA1	PX	-.000519	-.000519	0	0
63	FACE3	PX	-.001	-.001	0	0
64	FACE2	PX	-.001	-.001	0	0
65	FACE1	PX	-.000749	-.000749	0	0
66	CORNER	PX	-.000599	-.000599	0	0
67	KICKER3	PY	-.000216	-.000216	0	0
68	KICKER3	PX	-.000374	-.000374	0	0
69	KICKER1	PY	-.000216	-.000216	0	0
70	KICKER1	PX	-.000374	-.000374	0	0
71	KICKER2	PY	-.000216	-.000216	0	0
72	KICKER2	PX	-.000374	-.000374	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	-.000692	-.000692	0	0
2	SUP1	PX	-.000692	-.000692	0	0
3	SO3	PX	-.000432	-.000432	0	0
4	SO2	PX	-.000432	-.000432	0	0
5	SO1	PX	-.000432	-.000432	0	0
6	RAIL3c	PX	-.000934	-.000934	0	0
7	RAIL3b	PX	-.000934	-.000934	0	0
8	RAIL3a	PX	-.000934	-.000934	0	0
9	RAIL1c	PX	-.000934	-.000934	0	0
10	RAIL1b	PX	-.000934	-.000934	0	0
11	RAIL1a	PX	-.000934	-.000934	0	0
12	RAIL2c	PX	-.000519	-.000519	0	0
13	RAIL2b	PX	-.000519	-.000519	0	0
14	RAIL2a	PX	-.000519	-.000519	0	0
15	PLATE3	PX	-8.6e-5	-8.6e-5	0	0
16	PLATE2	PX	-8.6e-5	-8.6e-5	0	0
17	PLATE1	PX	-8.6e-5	-8.6e-5	0	0
18	MP GAMMA4	PX	-.000599	-.000599	0	0
19	MP GAMMA3	PX	-.000599	-.000599	0	0
20	MP GAMMA2	PX	-.000599	-.000599	0	0
21	MP GAMMA1	PX	-.000599	-.000599	0	0
22	MP BETA4	PX	-.000599	-.000599	0	0
23	MP BETA3	PX	-.000599	-.000599	0	0
24	MP BETA2	PX	-.000599	-.000599	0	0
25	MP BETA1	PX	-.000599	-.000599	0	0
26	MP ALPHA4	PX	-.000599	-.000599	0	0
27	MP ALPHA3	PX	-.000599	-.000599	0	0
28	MP ALPHA2	PX	-.000599	-.000599	0	0
29	MP ALPHA1	PX	-.000599	-.000599	0	0
30	FACE3	PX	-.002	-.002	0	0
31	FACE1	PX	-.002	-.002	0	0
32	FACE2	PX	-.000865	-.000865	0	0
33	CORNER	PX	-.000692	-.000692	0	0
34	KICKER3	PX	-.000432	-.000432	0	0
35	KICKER1	PX	-.000432	-.000432	0	0
36	KICKER2	PX	-.000432	-.000432	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.000346	.000346	0	0
2	SUP1	PY	.000346	.000346	0	0
3	SO3	PY	.000216	.000216	0	0
4	SO2	PY	.000216	.000216	0	0
5	SO1	PY	.000216	.000216	0	0
6	RAIL3c	PY	.000467	.000467	0	0
7	RAIL3b	PY	.000467	.000467	0	0
8	RAIL3a	PY	.000467	.000467	0	0
9	RAIL1c	PY	.000467	.000467	0	0
10	RAIL1b	PY	.000467	.000467	0	0
11	RAIL1a	PY	.000467	.000467	0	0
12	RAIL2c	PY	.000259	.000259	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
13	RAIL2b	PY	.000259	.000259	0	0
14	RAIL2a	PY	.000259	.000259	0	0
15	PLATE3	PY	4.3e-5	4.3e-5	0	0
16	PLATE2	PY	4.3e-5	4.3e-5	0	0
17	PLATE1	PY	4.3e-5	4.3e-5	0	0
18	MP GAMMA4	PY	.0003	.0003	0	0
19	MP GAMMA3	PY	.0003	.0003	0	0
20	MP GAMMA2	PY	.0003	.0003	0	0
21	MP GAMMA1	PY	.0003	.0003	0	0
22	MP BETA4	PY	.0003	.0003	0	0
23	MP BETA3	PY	.0003	.0003	0	0
24	MP BETA2	PY	.0003	.0003	0	0
25	MP BETA1	PY	.0003	.0003	0	0
26	MP ALPHA4	PY	.0003	.0003	0	0
27	MP ALPHA3	PY	.0003	.0003	0	0
28	MP ALPHA2	PY	.0003	.0003	0	0
29	MP ALPHA1	PY	.0003	.0003	0	0
30	FACE3	PY	.000778	.000778	0	0
31	FACE1	PY	.000778	.000778	0	0
32	FACE2	PY	.000432	.000432	0	0
33	CORNER	PY	.000346	.000346	0	0
34	SUP2	PX	-.000599	-.000599	0	0
35	SUP1	PX	-.000599	-.000599	0	0
36	SO3	PX	-.000374	-.000374	0	0
37	SO2	PX	-.000374	-.000374	0	0
38	SO1	PX	-.000374	-.000374	0	0
39	RAIL3c	PX	-.000809	-.000809	0	0
40	RAIL3b	PX	-.000809	-.000809	0	0
41	RAIL3a	PX	-.000809	-.000809	0	0
42	RAIL1c	PX	-.000809	-.000809	0	0
43	RAIL1b	PX	-.000809	-.000809	0	0
44	RAIL1a	PX	-.000809	-.000809	0	0
45	RAIL2c	PX	-.000449	-.000449	0	0
46	RAIL2b	PX	-.000449	-.000449	0	0
47	RAIL2a	PX	-.000449	-.000449	0	0
48	PLATE3	PX	-7.5e-5	-7.5e-5	0	0
49	PLATE2	PX	-7.5e-5	-7.5e-5	0	0
50	PLATE1	PX	-7.5e-5	-7.5e-5	0	0
51	MP GAMMA4	PX	-.000519	-.000519	0	0
52	MP GAMMA3	PX	-.000519	-.000519	0	0
53	MP GAMMA2	PX	-.000519	-.000519	0	0
54	MP GAMMA1	PX	-.000519	-.000519	0	0
55	MP BETA4	PX	-.000519	-.000519	0	0
56	MP BETA3	PX	-.000519	-.000519	0	0
57	MP BETA2	PX	-.000519	-.000519	0	0
58	MP BETA1	PX	-.000519	-.000519	0	0
59	MP ALPHA4	PX	-.000519	-.000519	0	0
60	MP ALPHA3	PX	-.000519	-.000519	0	0
61	MP ALPHA2	PX	-.000519	-.000519	0	0
62	MP ALPHA1	PX	-.000519	-.000519	0	0
63	FACE3	PX	-.001	-.001	0	0
64	FACE1	PX	-.001	-.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
65	FACE2	PX	-.000749	-.000749	0	0
66	CORNER	PX	-.000599	-.000599	0	0
67	KICKER3	PY	.000216	.000216	0	0
68	KICKER3	PX	-.000374	-.000374	0	0
69	KICKER1	PY	.000216	.000216	0	0
70	KICKER1	PX	-.000374	-.000374	0	0
71	KICKER2	PY	.000216	.000216	0	0
72	KICKER2	PX	-.000374	-.000374	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.000599	.000599	0	0
2	SUP1	PY	.000599	.000599	0	0
3	SO3	PY	.000374	.000374	0	0
4	SO2	PY	.000374	.000374	0	0
5	SO1	PY	.000374	.000374	0	0
6	RAIL3c	PY	.000809	.000809	0	0
7	RAIL3b	PY	.000809	.000809	0	0
8	RAIL3a	PY	.000809	.000809	0	0
9	RAIL1c	PY	.000809	.000809	0	0
10	RAIL1b	PY	.000809	.000809	0	0
11	RAIL1a	PY	.000809	.000809	0	0
12	RAIL2c	PY	.000449	.000449	0	0
13	RAIL2b	PY	.000449	.000449	0	0
14	RAIL2a	PY	.000449	.000449	0	0
15	PLATE3	PY	7.5e-5	7.5e-5	0	0
16	PLATE2	PY	7.5e-5	7.5e-5	0	0
17	PLATE1	PY	7.5e-5	7.5e-5	0	0
18	MP GAMMA4	PY	.000519	.000519	0	0
19	MP GAMMA3	PY	.000519	.000519	0	0
20	MP GAMMA2	PY	.000519	.000519	0	0
21	MP GAMMA1	PY	.000519	.000519	0	0
22	MP BETA4	PY	.000519	.000519	0	0
23	MP BETA3	PY	.000519	.000519	0	0
24	MP BETA2	PY	.000519	.000519	0	0
25	MP BETA1	PY	.000519	.000519	0	0
26	MP ALPHA4	PY	.000519	.000519	0	0
27	MP ALPHA3	PY	.000519	.000519	0	0
28	MP ALPHA2	PY	.000519	.000519	0	0
29	MP ALPHA1	PY	.000519	.000519	0	0
30	FACE3	PY	.001	.001	0	0
31	FACE1	PY	.001	.001	0	0
32	FACE2	PY	.000749	.000749	0	0
33	CORNER	PY	.000599	.000599	0	0
34	SUP2	PX	-.000346	-.000346	0	0
35	SUP1	PX	-.000346	-.000346	0	0
36	SO3	PX	-.000216	-.000216	0	0
37	SO2	PX	-.000216	-.000216	0	0
38	SO1	PX	-.000216	-.000216	0	0
39	RAIL3c	PX	-.000467	-.000467	0	0
40	RAIL3b	PX	-.000467	-.000467	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
41	RAIL3a	PX	-.000467	-.000467	0	0
42	RAIL1c	PX	-.000467	-.000467	0	0
43	RAIL1b	PX	-.000467	-.000467	0	0
44	RAIL1a	PX	-.000467	-.000467	0	0
45	RAIL2c	PX	-.000259	-.000259	0	0
46	RAIL2b	PX	-.000259	-.000259	0	0
47	RAIL2a	PX	-.000259	-.000259	0	0
48	PLATE3	PX	-4.3e-5	-4.3e-5	0	0
49	PLATE2	PX	-4.3e-5	-4.3e-5	0	0
50	PLATE1	PX	-4.3e-5	-4.3e-5	0	0
51	MP GAMMA4	PX	-.0003	-.0003	0	0
52	MP GAMMA3	PX	-.0003	-.0003	0	0
53	MP GAMMA2	PX	-.0003	-.0003	0	0
54	MP GAMMA1	PX	-.0003	-.0003	0	0
55	MP BETA4	PX	-.0003	-.0003	0	0
56	MP BETA3	PX	-.0003	-.0003	0	0
57	MP BETA2	PX	-.0003	-.0003	0	0
58	MP BETA1	PX	-.0003	-.0003	0	0
59	MP ALPHA4	PX	-.0003	-.0003	0	0
60	MP ALPHA3	PX	-.0003	-.0003	0	0
61	MP ALPHA2	PX	-.0003	-.0003	0	0
62	MP ALPHA1	PX	-.0003	-.0003	0	0
63	FACE3	PX	-.000778	-.000778	0	0
64	FACE1	PX	-.000778	-.000778	0	0
65	FACE2	PX	-.000432	-.000432	0	0
66	CORNER	PX	-.000346	-.000346	0	0
67	KICKER3	PY	.000374	.000374	0	0
68	KICKER3	PX	-.000216	-.000216	0	0
69	KICKER1	PY	.000374	.000374	0	0
70	KICKER1	PX	-.000216	-.000216	0	0
71	KICKER2	PY	.000374	.000374	0	0
72	KICKER2	PX	-.000216	-.000216	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.000692	.000692	0	0
2	SUP1	PY	.000692	.000692	0	0
3	SO3	PY	.000432	.000432	0	0
4	SO2	PY	.000432	.000432	0	0
5	SO1	PY	.000432	.000432	0	0
6	RAIL3c	PY	.000934	.000934	0	0
7	RAIL3b	PY	.000934	.000934	0	0
8	RAIL3a	PY	.000934	.000934	0	0
9	RAIL1c	PY	.000934	.000934	0	0
10	RAIL1b	PY	.000934	.000934	0	0
11	RAIL1a	PY	.000934	.000934	0	0
12	RAIL2c	PY	.000519	.000519	0	0
13	RAIL2b	PY	.000519	.000519	0	0
14	RAIL2a	PY	.000519	.000519	0	0
15	PLATE3	PY	8.6e-5	8.6e-5	0	0
16	PLATE2	PY	8.6e-5	8.6e-5	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
17	PLATE1	PY	8.6e-5	8.6e-5	0	0
18	MP GAMMA4	PY	.000599	.000599	0	0
19	MP GAMMA3	PY	.000599	.000599	0	0
20	MP GAMMA2	PY	.000599	.000599	0	0
21	MP GAMMA1	PY	.000599	.000599	0	0
22	MP BETA4	PY	.000599	.000599	0	0
23	MP BETA3	PY	.000599	.000599	0	0
24	MP BETA2	PY	.000599	.000599	0	0
25	MP BETA1	PY	.000599	.000599	0	0
26	MP ALPHA4	PY	.000599	.000599	0	0
27	MP ALPHA3	PY	.000599	.000599	0	0
28	MP ALPHA2	PY	.000599	.000599	0	0
29	MP ALPHA1	PY	.000599	.000599	0	0
30	FACE3	PY	.002	.002	0	0
31	FACE1	PY	.002	.002	0	0
32	FACE2	PY	.000865	.000865	0	0
33	CORNER	PY	.000692	.000692	0	0
34	KICKER3	PY	.000432	.000432	0	0
35	KICKER1	PY	.000432	.000432	0	0
36	KICKER2	PY	.000432	.000432	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.000599	.000599	0	0
2	SUP1	PY	.000599	.000599	0	0
3	SO3	PY	.000374	.000374	0	0
4	SO2	PY	.000374	.000374	0	0
5	SO1	PY	.000374	.000374	0	0
6	RAIL1c	PY	.000809	.000809	0	0
7	RAIL1b	PY	.000809	.000809	0	0
8	RAIL1a	PY	.000809	.000809	0	0
9	RAIL2c	PY	.000809	.000809	0	0
10	RAIL2b	PY	.000809	.000809	0	0
11	RAIL2a	PY	.000809	.000809	0	0
12	RAIL3c	PY	.000449	.000449	0	0
13	RAIL3b	PY	.000449	.000449	0	0
14	RAIL3a	PY	.000449	.000449	0	0
15	PLATE3	PY	7.5e-5	7.5e-5	0	0
16	PLATE2	PY	7.5e-5	7.5e-5	0	0
17	PLATE1	PY	7.5e-5	7.5e-5	0	0
18	MP GAMMA4	PY	.000519	.000519	0	0
19	MP GAMMA3	PY	.000519	.000519	0	0
20	MP GAMMA2	PY	.000519	.000519	0	0
21	MP GAMMA1	PY	.000519	.000519	0	0
22	MP BETA4	PY	.000519	.000519	0	0
23	MP BETA3	PY	.000519	.000519	0	0
24	MP BETA2	PY	.000519	.000519	0	0
25	MP BETA1	PY	.000519	.000519	0	0
26	MP ALPHA4	PY	.000519	.000519	0	0
27	MP ALPHA3	PY	.000519	.000519	0	0
28	MP ALPHA2	PY	.000519	.000519	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
29	MP ALPHA1	PY	.000519	.000519	0	0
30	FACE1	PY	.001	.001	0	0
31	FACE2	PY	.001	.001	0	0
32	FACE3	PY	.000749	.000749	0	0
33	CORNER	PY	.000599	.000599	0	0
34	SUP2	PX	.000346	.000346	0	0
35	SUP1	PX	.000346	.000346	0	0
36	SO3	PX	.000216	.000216	0	0
37	SO2	PX	.000216	.000216	0	0
38	SO1	PX	.000216	.000216	0	0
39	RAIL1c	PX	.000467	.000467	0	0
40	RAIL1b	PX	.000467	.000467	0	0
41	RAIL1a	PX	.000467	.000467	0	0
42	RAIL2c	PX	.000467	.000467	0	0
43	RAIL2b	PX	.000467	.000467	0	0
44	RAIL2a	PX	.000467	.000467	0	0
45	RAIL3c	PX	.000259	.000259	0	0
46	RAIL3b	PX	.000259	.000259	0	0
47	RAIL3a	PX	.000259	.000259	0	0
48	PLATE3	PX	4.3e-5	4.3e-5	0	0
49	PLATE2	PX	4.3e-5	4.3e-5	0	0
50	PLATE1	PX	4.3e-5	4.3e-5	0	0
51	MP GAMMA4	PX	.0003	.0003	0	0
52	MP GAMMA3	PX	.0003	.0003	0	0
53	MP GAMMA2	PX	.0003	.0003	0	0
54	MP GAMMA1	PX	.0003	.0003	0	0
55	MP BETA4	PX	.0003	.0003	0	0
56	MP BETA3	PX	.0003	.0003	0	0
57	MP BETA2	PX	.0003	.0003	0	0
58	MP BETA1	PX	.0003	.0003	0	0
59	MP ALPHA4	PX	.0003	.0003	0	0
60	MP ALPHA3	PX	.0003	.0003	0	0
61	MP ALPHA2	PX	.0003	.0003	0	0
62	MP ALPHA1	PX	.0003	.0003	0	0
63	FACE1	PX	.000778	.000778	0	0
64	FACE2	PX	.000778	.000778	0	0
65	FACE3	PX	.000432	.000432	0	0
66	CORNER	PX	.000346	.000346	0	0
67	KICKER3	PY	.000374	.000374	0	0
68	KICKER3	PX	.000216	.000216	0	0
69	KICKER1	PY	.000374	.000374	0	0
70	KICKER1	PX	.000216	.000216	0	0
71	KICKER2	PY	.000374	.000374	0	0
72	KICKER2	PX	.000216	.000216	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.000346	.000346	0	0
2	SUP1	PY	.000346	.000346	0	0
3	SO3	PY	.000216	.000216	0	0
4	SO2	PY	.000216	.000216	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
5	SO1	PY	.000216	.000216	0	0
6	RAIL1c	PY	.000467	.000467	0	0
7	RAIL1b	PY	.000467	.000467	0	0
8	RAIL1a	PY	.000467	.000467	0	0
9	RAIL2c	PY	.000467	.000467	0	0
10	RAIL2b	PY	.000467	.000467	0	0
11	RAIL2a	PY	.000467	.000467	0	0
12	RAIL3c	PY	.000259	.000259	0	0
13	RAIL3b	PY	.000259	.000259	0	0
14	RAIL3a	PY	.000259	.000259	0	0
15	PLATE3	PY	4.3e-5	4.3e-5	0	0
16	PLATE2	PY	4.3e-5	4.3e-5	0	0
17	PLATE1	PY	4.3e-5	4.3e-5	0	0
18	MP GAMMA4	PY	.0003	.0003	0	0
19	MP GAMMA3	PY	.0003	.0003	0	0
20	MP GAMMA2	PY	.0003	.0003	0	0
21	MP GAMMA1	PY	.0003	.0003	0	0
22	MP BETA4	PY	.0003	.0003	0	0
23	MP BETA3	PY	.0003	.0003	0	0
24	MP BETA2	PY	.0003	.0003	0	0
25	MP BETA1	PY	.0003	.0003	0	0
26	MP ALPHA4	PY	.0003	.0003	0	0
27	MP ALPHA3	PY	.0003	.0003	0	0
28	MP ALPHA2	PY	.0003	.0003	0	0
29	MP ALPHA1	PY	.0003	.0003	0	0
30	FACE1	PY	.000778	.000778	0	0
31	FACE2	PY	.000778	.000778	0	0
32	FACE3	PY	.000432	.000432	0	0
33	CORNER	PY	.000346	.000346	0	0
34	SUP2	PX	.000599	.000599	0	0
35	SUP1	PX	.000599	.000599	0	0
36	SO3	PX	.000374	.000374	0	0
37	SO2	PX	.000374	.000374	0	0
38	SO1	PX	.000374	.000374	0	0
39	RAIL1c	PX	.000809	.000809	0	0
40	RAIL1b	PX	.000809	.000809	0	0
41	RAIL1a	PX	.000809	.000809	0	0
42	RAIL2c	PX	.000809	.000809	0	0
43	RAIL2b	PX	.000809	.000809	0	0
44	RAIL2a	PX	.000809	.000809	0	0
45	RAIL3c	PX	.000449	.000449	0	0
46	RAIL3b	PX	.000449	.000449	0	0
47	RAIL3a	PX	.000449	.000449	0	0
48	PLATE3	PX	7.5e-5	7.5e-5	0	0
49	PLATE2	PX	7.5e-5	7.5e-5	0	0
50	PLATE1	PX	7.5e-5	7.5e-5	0	0
51	MP GAMMA4	PX	.000519	.000519	0	0
52	MP GAMMA3	PX	.000519	.000519	0	0
53	MP GAMMA2	PX	.000519	.000519	0	0
54	MP GAMMA1	PX	.000519	.000519	0	0
55	MP BETA4	PX	.000519	.000519	0	0
56	MP BETA3	PX	.000519	.000519	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
57	MP BETA2	PX	.000519	.000519	0	0
58	MP BETA1	PX	.000519	.000519	0	0
59	MP ALPHA4	PX	.000519	.000519	0	0
60	MP ALPHA3	PX	.000519	.000519	0	0
61	MP ALPHA2	PX	.000519	.000519	0	0
62	MP ALPHA1	PX	.000519	.000519	0	0
63	FACE1	PX	.001	.001	0	0
64	FACE2	PX	.001	.001	0	0
65	FACE3	PX	.000749	.000749	0	0
66	CORNER	PX	.000599	.000599	0	0
67	KICKER3	PY	.000216	.000216	0	0
68	KICKER3	PX	.000374	.000374	0	0
69	KICKER1	PY	.000216	.000216	0	0
70	KICKER1	PX	.000374	.000374	0	0
71	KICKER2	PY	.000216	.000216	0	0
72	KICKER2	PX	.000374	.000374	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	.000692	.000692	0	0
2	SUP1	PX	.000692	.000692	0	0
3	SO3	PX	.000432	.000432	0	0
4	SO2	PX	.000432	.000432	0	0
5	SO1	PX	.000432	.000432	0	0
6	RAIL1c	PX	.000934	.000934	0	0
7	RAIL1b	PX	.000934	.000934	0	0
8	RAIL1a	PX	.000934	.000934	0	0
9	RAIL2c	PX	.000934	.000934	0	0
10	RAIL2b	PX	.000934	.000934	0	0
11	RAIL2a	PX	.000934	.000934	0	0
12	RAIL3c	PX	.000519	.000519	0	0
13	RAIL3b	PX	.000519	.000519	0	0
14	RAIL3a	PX	.000519	.000519	0	0
15	PLATE3	PX	8.6e-5	8.6e-5	0	0
16	PLATE2	PX	8.6e-5	8.6e-5	0	0
17	PLATE1	PX	8.6e-5	8.6e-5	0	0
18	MP GAMMA4	PX	.000599	.000599	0	0
19	MP GAMMA3	PX	.000599	.000599	0	0
20	MP GAMMA2	PX	.000599	.000599	0	0
21	MP GAMMA1	PX	.000599	.000599	0	0
22	MP BETA4	PX	.000599	.000599	0	0
23	MP BETA3	PX	.000599	.000599	0	0
24	MP BETA2	PX	.000599	.000599	0	0
25	MP BETA1	PX	.000599	.000599	0	0
26	MP ALPHA4	PX	.000599	.000599	0	0
27	MP ALPHA3	PX	.000599	.000599	0	0
28	MP ALPHA2	PX	.000599	.000599	0	0
29	MP ALPHA1	PX	.000599	.000599	0	0
30	FACE1	PX	.002	.002	0	0
31	FACE2	PX	.002	.002	0	0
32	FACE3	PX	.000865	.000865	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
33	CORNER	PX	.000692	.000692	0	0
34	KICKER3	PX	.000432	.000432	0	0
35	KICKER1	PX	.000432	.000432	0	0
36	KICKER2	PX	.000432	.000432	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.000346	-.000346	0	0
2	SUP1	PY	-.000346	-.000346	0	0
3	SO3	PY	-.000216	-.000216	0	0
4	SO2	PY	-.000216	-.000216	0	0
5	SO1	PY	-.000216	-.000216	0	0
6	RAIL1c	PY	-.000467	-.000467	0	0
7	RAIL1b	PY	-.000467	-.000467	0	0
8	RAIL1a	PY	-.000467	-.000467	0	0
9	RAIL2c	PY	-.000467	-.000467	0	0
10	RAIL2b	PY	-.000467	-.000467	0	0
11	RAIL2a	PY	-.000467	-.000467	0	0
12	RAIL3c	PY	-.000259	-.000259	0	0
13	RAIL3b	PY	-.000259	-.000259	0	0
14	RAIL3a	PY	-.000259	-.000259	0	0
15	PLATE3	PY	-4.3e-5	-4.3e-5	0	0
16	PLATE2	PY	-4.3e-5	-4.3e-5	0	0
17	PLATE1	PY	-4.3e-5	-4.3e-5	0	0
18	MP GAMMA4	PY	-.0003	-.0003	0	0
19	MP GAMMA3	PY	-.0003	-.0003	0	0
20	MP GAMMA2	PY	-.0003	-.0003	0	0
21	MP GAMMA1	PY	-.0003	-.0003	0	0
22	MP BETA4	PY	-.0003	-.0003	0	0
23	MP BETA3	PY	-.0003	-.0003	0	0
24	MP BETA2	PY	-.0003	-.0003	0	0
25	MP BETA1	PY	-.0003	-.0003	0	0
26	MP ALPHA4	PY	-.0003	-.0003	0	0
27	MP ALPHA3	PY	-.0003	-.0003	0	0
28	MP ALPHA2	PY	-.0003	-.0003	0	0
29	MP ALPHA1	PY	-.0003	-.0003	0	0
30	FACE1	PY	-.000778	-.000778	0	0
31	FACE2	PY	-.000778	-.000778	0	0
32	FACE3	PY	-.000432	-.000432	0	0
33	CORNER	PY	-.000346	-.000346	0	0
34	SUP2	PX	.000599	.000599	0	0
35	SUP1	PX	.000599	.000599	0	0
36	SO3	PX	.000374	.000374	0	0
37	SO2	PX	.000374	.000374	0	0
38	SO1	PX	.000374	.000374	0	0
39	RAIL1c	PX	.000809	.000809	0	0
40	RAIL1b	PX	.000809	.000809	0	0
41	RAIL1a	PX	.000809	.000809	0	0
42	RAIL2c	PX	.000809	.000809	0	0
43	RAIL2b	PX	.000809	.000809	0	0
44	RAIL2a	PX	.000809	.000809	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
45	RAIL3c	PX	.000449	.000449	0	0
46	RAIL3b	PX	.000449	.000449	0	0
47	RAIL3a	PX	.000449	.000449	0	0
48	PLATE3	PX	7.5e-5	7.5e-5	0	0
49	PLATE2	PX	7.5e-5	7.5e-5	0	0
50	PLATE1	PX	7.5e-5	7.5e-5	0	0
51	MP GAMMA4	PX	.000519	.000519	0	0
52	MP GAMMA3	PX	.000519	.000519	0	0
53	MP GAMMA2	PX	.000519	.000519	0	0
54	MP GAMMA1	PX	.000519	.000519	0	0
55	MP BETA4	PX	.000519	.000519	0	0
56	MP BETA3	PX	.000519	.000519	0	0
57	MP BETA2	PX	.000519	.000519	0	0
58	MP BETA1	PX	.000519	.000519	0	0
59	MP ALPHA4	PX	.000519	.000519	0	0
60	MP ALPHA3	PX	.000519	.000519	0	0
61	MP ALPHA2	PX	.000519	.000519	0	0
62	MP ALPHA1	PX	.000519	.000519	0	0
63	FACE1	PX	.001	.001	0	0
64	FACE2	PX	.001	.001	0	0
65	FACE3	PX	.000749	.000749	0	0
66	CORNER	PX	.000599	.000599	0	0
67	KICKER3	PY	-.000216	-.000216	0	0
68	KICKER3	PX	.000374	.000374	0	0
69	KICKER1	PY	-.000216	-.000216	0	0
70	KICKER1	PX	.000374	.000374	0	0
71	KICKER2	PY	-.000216	-.000216	0	0
72	KICKER2	PX	.000374	.000374	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.000599	-.000599	0	0
2	SUP1	PY	-.000599	-.000599	0	0
3	SO3	PY	-.000374	-.000374	0	0
4	SO2	PY	-.000374	-.000374	0	0
5	SO1	PY	-.000374	-.000374	0	0
6	RAIL3c	PY	-.000809	-.000809	0	0
7	RAIL3b	PY	-.000809	-.000809	0	0
8	RAIL3a	PY	-.000809	-.000809	0	0
9	RAIL2c	PY	-.000809	-.000809	0	0
10	RAIL2b	PY	-.000809	-.000809	0	0
11	RAIL2a	PY	-.000809	-.000809	0	0
12	RAIL1c	PY	-.000449	-.000449	0	0
13	RAIL1b	PY	-.000449	-.000449	0	0
14	RAIL1a	PY	-.000449	-.000449	0	0
15	PLATE3	PY	-7.5e-5	-7.5e-5	0	0
16	PLATE2	PY	-7.5e-5	-7.5e-5	0	0
17	PLATE1	PY	-7.5e-5	-7.5e-5	0	0
18	MP GAMMA4	PY	-.000519	-.000519	0	0
19	MP GAMMA3	PY	-.000519	-.000519	0	0
20	MP GAMMA2	PY	-.000519	-.000519	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
21	MP GAMMA1	PY	-.000519	-.000519	0	0
22	MP BETA4	PY	-.000519	-.000519	0	0
23	MP BETA3	PY	-.000519	-.000519	0	0
24	MP BETA2	PY	-.000519	-.000519	0	0
25	MP BETA1	PY	-.000519	-.000519	0	0
26	MP ALPHA4	PY	-.000519	-.000519	0	0
27	MP ALPHA3	PY	-.000519	-.000519	0	0
28	MP ALPHA2	PY	-.000519	-.000519	0	0
29	MP ALPHA1	PY	-.000519	-.000519	0	0
30	FACE3	PY	-.001	-.001	0	0
31	FACE2	PY	-.001	-.001	0	0
32	FACE1	PY	-.000749	-.000749	0	0
33	CORNER	PY	-.000599	-.000599	0	0
34	SUP2	PX	.000346	.000346	0	0
35	SUP1	PX	.000346	.000346	0	0
36	SO3	PX	.000216	.000216	0	0
37	SO2	PX	.000216	.000216	0	0
38	SO1	PX	.000216	.000216	0	0
39	RAIL3c	PX	.000467	.000467	0	0
40	RAIL3b	PX	.000467	.000467	0	0
41	RAIL3a	PX	.000467	.000467	0	0
42	RAIL2c	PX	.000467	.000467	0	0
43	RAIL2b	PX	.000467	.000467	0	0
44	RAIL2a	PX	.000467	.000467	0	0
45	RAIL1c	PX	.000259	.000259	0	0
46	RAIL1b	PX	.000259	.000259	0	0
47	RAIL1a	PX	.000259	.000259	0	0
48	PLATE3	PX	4.3e-5	4.3e-5	0	0
49	PLATE2	PX	4.3e-5	4.3e-5	0	0
50	PLATE1	PX	4.3e-5	4.3e-5	0	0
51	MP GAMMA4	PX	.0003	.0003	0	0
52	MP GAMMA3	PX	.0003	.0003	0	0
53	MP GAMMA2	PX	.0003	.0003	0	0
54	MP GAMMA1	PX	.0003	.0003	0	0
55	MP BETA4	PX	.0003	.0003	0	0
56	MP BETA3	PX	.0003	.0003	0	0
57	MP BETA2	PX	.0003	.0003	0	0
58	MP BETA1	PX	.0003	.0003	0	0
59	MP ALPHA4	PX	.0003	.0003	0	0
60	MP ALPHA3	PX	.0003	.0003	0	0
61	MP ALPHA2	PX	.0003	.0003	0	0
62	MP ALPHA1	PX	.0003	.0003	0	0
63	FACE3	PX	.000778	.000778	0	0
64	FACE2	PX	.000778	.000778	0	0
65	FACE1	PX	.000432	.000432	0	0
66	CORNER	PX	.000346	.000346	0	0
67	KICKER3	PY	-.000374	-.000374	0	0
68	KICKER3	PX	.000216	.000216	0	0
69	KICKER1	PY	-.000374	-.000374	0	0
70	KICKER1	PX	.000216	.000216	0	0
71	KICKER2	PY	-.000374	-.000374	0	0
72	KICKER2	PX	.000216	.000216	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	Z	-.013	-.013	0	0
2	SUP1	Z	-.013	-.013	0	0
3	SO3	Z	-.015	-.015	0	0
4	SO2	Z	-.015	-.015	0	0
5	SO1	Z	-.015	-.015	0	0
6	RAIL3c	Z	-.013	-.013	0	0
7	RAIL3b	Z	-.013	-.013	0	0
8	RAIL3a	Z	-.013	-.013	0	0
9	RAIL2c	Z	-.013	-.013	0	0
10	RAIL2b	Z	-.013	-.013	0	0
11	RAIL2a	Z	-.013	-.013	0	0
12	RAIL1c	Z	-.013	-.013	0	0
13	RAIL1b	Z	-.013	-.013	0	0
14	RAIL1a	Z	-.013	-.013	0	0
15	PLATE3	Z	-.017	-.017	0	0
16	PLATE2	Z	-.017	-.017	0	0
17	PLATE1	Z	-.017	-.017	0	0
18	MP GAMMA4	Z	-.01	-.01	0	0
19	MP GAMMA3	Z	-.01	-.01	0	0
20	MP GAMMA2	Z	-.01	-.01	0	0
21	MP GAMMA1	Z	-.01	-.01	0	0
22	MP BETA4	Z	-.01	-.01	0	0
23	MP BETA3	Z	-.01	-.01	0	0
24	MP BETA2	Z	-.01	-.01	0	0
25	MP BETA1	Z	-.01	-.01	0	0
26	MP ALPHA4	Z	-.01	-.01	0	0
27	MP ALPHA3	Z	-.01	-.01	0	0
28	MP ALPHA2	Z	-.01	-.01	0	0
29	MP ALPHA1	Z	-.01	-.01	0	0
30	FACE3	Z	-.017	-.017	0	0
31	FACE2	Z	-.017	-.017	0	0
32	FACE1	Z	-.017	-.017	0	0
33	CORNER	Z	-.015	-.015	0	0
34	KICKER3	Z	-.015	-.015	0	0
35	KICKER1	Z	-.015	-.015	0	0
36	KICKER2	Z	-.015	-.015	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.004	-.004	0	0
2	SUP1	PY	-.004	-.004	0	0
3	SO3	PY	-.002	-.002	0	0
4	SO2	PY	-.002	-.002	0	0
5	SO1	PY	-.002	-.002	0	0
6	RAIL3c	PY	-.006	-.006	0	0
7	RAIL3b	PY	-.006	-.006	0	0
8	RAIL3a	PY	-.006	-.006	0	0
9	RAIL2c	PY	-.006	-.006	0	0
10	RAIL2b	PY	-.006	-.006	0	0
11	RAIL2a	PY	-.006	-.006	0	0
12	RAIL1c	PY	-.003	-.003	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
13	RAIL1b	PY	-.003	-.003	0	0
14	RAIL1a	PY	-.003	-.003	0	0
15	PLATE3	PY	-.002	-.002	0	0
16	PLATE2	PY	-.002	-.002	0	0
17	PLATE1	PY	-.002	-.002	0	0
18	MP GAMMA4	PY	-.003	-.003	0	0
19	MP GAMMA3	PY	-.003	-.003	0	0
20	MP GAMMA2	PY	-.003	-.003	0	0
21	MP GAMMA1	PY	-.003	-.003	0	0
22	MP BETA4	PY	-.003	-.003	0	0
23	MP BETA3	PY	-.003	-.003	0	0
24	MP BETA2	PY	-.003	-.003	0	0
25	MP BETA1	PY	-.003	-.003	0	0
26	MP ALPHA4	PY	-.003	-.003	0	0
27	MP ALPHA3	PY	-.003	-.003	0	0
28	MP ALPHA2	PY	-.003	-.003	0	0
29	MP ALPHA1	PY	-.003	-.003	0	0
30	FACE3	PY	-.007	-.007	0	0
31	FACE2	PY	-.007	-.007	0	0
32	FACE1	PY	-.004	-.004	0	0
33	CORNER	PY	-.004	-.004	0	0
34	KICKER3	PY	-.002	-.002	0	0
35	KICKER1	PY	-.002	-.002	0	0
36	KICKER2	PY	-.002	-.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.003	-.003	0	0
2	SUP1	PY	-.003	-.003	0	0
3	SO3	PY	-.002	-.002	0	0
4	SO2	PY	-.002	-.002	0	0
5	SO1	PY	-.002	-.002	0	0
6	RAIL3c	PY	-.005	-.005	0	0
7	RAIL3b	PY	-.005	-.005	0	0
8	RAIL3a	PY	-.005	-.005	0	0
9	RAIL2c	PY	-.005	-.005	0	0
10	RAIL2b	PY	-.005	-.005	0	0
11	RAIL2a	PY	-.005	-.005	0	0
12	RAIL1c	PY	-.003	-.003	0	0
13	RAIL1b	PY	-.003	-.003	0	0
14	RAIL1a	PY	-.003	-.003	0	0
15	PLATE3	PY	-.002	-.002	0	0
16	PLATE2	PY	-.002	-.002	0	0
17	PLATE1	PY	-.002	-.002	0	0
18	MP GAMMA4	PY	-.003	-.003	0	0
19	MP GAMMA3	PY	-.003	-.003	0	0
20	MP GAMMA2	PY	-.003	-.003	0	0
21	MP GAMMA1	PY	-.003	-.003	0	0
22	MP BETA4	PY	-.003	-.003	0	0
23	MP BETA3	PY	-.003	-.003	0	0
24	MP BETA2	PY	-.003	-.003	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
25	MP BETA1	PY	-.003	-.003	0	0
26	MP ALPHA4	PY	-.003	-.003	0	0
27	MP ALPHA3	PY	-.003	-.003	0	0
28	MP ALPHA2	PY	-.003	-.003	0	0
29	MP ALPHA1	PY	-.003	-.003	0	0
30	FACE3	PY	-.006	-.006	0	0
31	FACE2	PY	-.006	-.006	0	0
32	FACE1	PY	-.004	-.004	0	0
33	CORNER	PY	-.003	-.003	0	0
34	SUP2	PX	-.002	-.002	0	0
35	SUP1	PX	-.002	-.002	0	0
36	SO3	PX	-.001	-.001	0	0
37	SO2	PX	-.001	-.001	0	0
38	SO1	PX	-.001	-.001	0	0
39	RAIL3c	PX	-.003	-.003	0	0
40	RAIL3b	PX	-.003	-.003	0	0
41	RAIL3a	PX	-.003	-.003	0	0
42	RAIL2c	PX	-.003	-.003	0	0
43	RAIL2b	PX	-.003	-.003	0	0
44	RAIL2a	PX	-.003	-.003	0	0
45	RAIL1c	PX	-.002	-.002	0	0
46	RAIL1b	PX	-.002	-.002	0	0
47	RAIL1a	PX	-.002	-.002	0	0
48	PLATE3	PX	-.000944	-.000944	0	0
49	PLATE2	PX	-.000944	-.000944	0	0
50	PLATE1	PX	-.000944	-.000944	0	0
51	MP GAMMA4	PX	-.002	-.002	0	0
52	MP GAMMA3	PX	-.002	-.002	0	0
53	MP GAMMA2	PX	-.002	-.002	0	0
54	MP GAMMA1	PX	-.002	-.002	0	0
55	MP BETA4	PX	-.002	-.002	0	0
56	MP BETA3	PX	-.002	-.002	0	0
57	MP BETA2	PX	-.002	-.002	0	0
58	MP BETA1	PX	-.002	-.002	0	0
59	MP ALPHA4	PX	-.002	-.002	0	0
60	MP ALPHA3	PX	-.002	-.002	0	0
61	MP ALPHA2	PX	-.002	-.002	0	0
62	MP ALPHA1	PX	-.002	-.002	0	0
63	FACE3	PX	-.004	-.004	0	0
64	FACE2	PX	-.004	-.004	0	0
65	FACE1	PX	-.002	-.002	0	0
66	CORNER	PX	-.002	-.002	0	0
67	KICKER3	PY	-.002	-.002	0	0
68	KICKER3	PX	-.001	-.001	0	0
69	KICKER1	PY	-.002	-.002	0	0
70	KICKER1	PX	-.001	-.001	0	0
71	KICKER2	PY	-.002	-.002	0	0
72	KICKER2	PX	-.001	-.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.002	-.002	0	0
2	SUP1	PY	-.002	-.002	0	0
3	SO3	PY	-.001	-.001	0	0
4	SO2	PY	-.001	-.001	0	0
5	SO1	PY	-.001	-.001	0	0
6	RAIL3c	PY	-.003	-.003	0	0
7	RAIL3b	PY	-.003	-.003	0	0
8	RAIL3a	PY	-.003	-.003	0	0
9	RAIL2c	PY	-.003	-.003	0	0
10	RAIL2b	PY	-.003	-.003	0	0
11	RAIL2a	PY	-.003	-.003	0	0
12	RAIL1c	PY	-.002	-.002	0	0
13	RAIL1b	PY	-.002	-.002	0	0
14	RAIL1a	PY	-.002	-.002	0	0
15	PLATE3	PY	-.000944	-.000944	0	0
16	PLATE2	PY	-.000944	-.000944	0	0
17	PLATE1	PY	-.000944	-.000944	0	0
18	MP GAMMA4	PY	-.002	-.002	0	0
19	MP GAMMA3	PY	-.002	-.002	0	0
20	MP GAMMA2	PY	-.002	-.002	0	0
21	MP GAMMA1	PY	-.002	-.002	0	0
22	MP BETA4	PY	-.002	-.002	0	0
23	MP BETA3	PY	-.002	-.002	0	0
24	MP BETA2	PY	-.002	-.002	0	0
25	MP BETA1	PY	-.002	-.002	0	0
26	MP ALPHA4	PY	-.002	-.002	0	0
27	MP ALPHA3	PY	-.002	-.002	0	0
28	MP ALPHA2	PY	-.002	-.002	0	0
29	MP ALPHA1	PY	-.002	-.002	0	0
30	FACE3	PY	-.004	-.004	0	0
31	FACE2	PY	-.004	-.004	0	0
32	FACE1	PY	-.002	-.002	0	0
33	CORNER	PY	-.002	-.002	0	0
34	SUP2	PX	-.003	-.003	0	0
35	SUP1	PX	-.003	-.003	0	0
36	SO3	PX	-.002	-.002	0	0
37	SO2	PX	-.002	-.002	0	0
38	SO1	PX	-.002	-.002	0	0
39	RAIL3c	PX	-.005	-.005	0	0
40	RAIL3b	PX	-.005	-.005	0	0
41	RAIL3a	PX	-.005	-.005	0	0
42	RAIL2c	PX	-.005	-.005	0	0
43	RAIL2b	PX	-.005	-.005	0	0
44	RAIL2a	PX	-.005	-.005	0	0
45	RAIL1c	PX	-.003	-.003	0	0
46	RAIL1b	PX	-.003	-.003	0	0
47	RAIL1a	PX	-.003	-.003	0	0
48	PLATE3	PX	-.002	-.002	0	0
49	PLATE2	PX	-.002	-.002	0	0
50	PLATE1	PX	-.002	-.002	0	0
51	MP GAMMA4	PX	-.003	-.003	0	0
52	MP GAMMA3	PX	-.003	-.003	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
53	MP GAMMA2	PX	-.003	-.003	0	0
54	MP GAMMA1	PX	-.003	-.003	0	0
55	MP BETA4	PX	-.003	-.003	0	0
56	MP BETA3	PX	-.003	-.003	0	0
57	MP BETA2	PX	-.003	-.003	0	0
58	MP BETA1	PX	-.003	-.003	0	0
59	MP ALPHA4	PX	-.003	-.003	0	0
60	MP ALPHA3	PX	-.003	-.003	0	0
61	MP ALPHA2	PX	-.003	-.003	0	0
62	MP ALPHA1	PX	-.003	-.003	0	0
63	FACE3	PX	-.006	-.006	0	0
64	FACE2	PX	-.006	-.006	0	0
65	FACE1	PX	-.004	-.004	0	0
66	CORNER	PX	-.003	-.003	0	0
67	KICKER3	PY	-.001	-.001	0	0
68	KICKER3	PX	-.002	-.002	0	0
69	KICKER1	PY	-.001	-.001	0	0
70	KICKER1	PX	-.002	-.002	0	0
71	KICKER2	PY	-.001	-.001	0	0
72	KICKER2	PX	-.002	-.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	-.004	-.004	0	0
2	SUP1	PX	-.004	-.004	0	0
3	SO3	PX	-.002	-.002	0	0
4	SO2	PX	-.002	-.002	0	0
5	SO1	PX	-.002	-.002	0	0
6	RAIL3c	PX	-.006	-.006	0	0
7	RAIL3b	PX	-.006	-.006	0	0
8	RAIL3a	PX	-.006	-.006	0	0
9	RAIL1c	PX	-.006	-.006	0	0
10	RAIL1b	PX	-.006	-.006	0	0
11	RAIL1a	PX	-.006	-.006	0	0
12	RAIL2c	PX	-.003	-.003	0	0
13	RAIL2b	PX	-.003	-.003	0	0
14	RAIL2a	PX	-.003	-.003	0	0
15	PLATE3	PX	-.002	-.002	0	0
16	PLATE2	PX	-.002	-.002	0	0
17	PLATE1	PX	-.002	-.002	0	0
18	MP GAMMA4	PX	-.003	-.003	0	0
19	MP GAMMA3	PX	-.003	-.003	0	0
20	MP GAMMA2	PX	-.003	-.003	0	0
21	MP GAMMA1	PX	-.003	-.003	0	0
22	MP BETA4	PX	-.003	-.003	0	0
23	MP BETA3	PX	-.003	-.003	0	0
24	MP BETA2	PX	-.003	-.003	0	0
25	MP BETA1	PX	-.003	-.003	0	0
26	MP ALPHA4	PX	-.003	-.003	0	0
27	MP ALPHA3	PX	-.003	-.003	0	0
28	MP ALPHA2	PX	-.003	-.003	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
29	MP ALPHA1	PX	-.003	-.003	0	0
30	FACE3	PX	-.007	-.007	0	0
31	FACE1	PX	-.007	-.007	0	0
32	FACE2	PX	-.004	-.004	0	0
33	CORNER	PX	-.004	-.004	0	0
34	KICKER3	PX	-.002	-.002	0	0
35	KICKER1	PX	-.002	-.002	0	0
36	KICKER2	PX	-.002	-.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.002	.002	0	0
2	SUP1	PY	.002	.002	0	0
3	SO3	PY	.001	.001	0	0
4	SO2	PY	.001	.001	0	0
5	SO1	PY	.001	.001	0	0
6	RAIL3c	PY	.003	.003	0	0
7	RAIL3b	PY	.003	.003	0	0
8	RAIL3a	PY	.003	.003	0	0
9	RAIL1c	PY	.003	.003	0	0
10	RAIL1b	PY	.003	.003	0	0
11	RAIL1a	PY	.003	.003	0	0
12	RAIL2c	PY	.002	.002	0	0
13	RAIL2b	PY	.002	.002	0	0
14	RAIL2a	PY	.002	.002	0	0
15	PLATE3	PY	.000944	.000944	0	0
16	PLATE2	PY	.000944	.000944	0	0
17	PLATE1	PY	.000944	.000944	0	0
18	MP GAMMA4	PY	.002	.002	0	0
19	MP GAMMA3	PY	.002	.002	0	0
20	MP GAMMA2	PY	.002	.002	0	0
21	MP GAMMA1	PY	.002	.002	0	0
22	MP BETA4	PY	.002	.002	0	0
23	MP BETA3	PY	.002	.002	0	0
24	MP BETA2	PY	.002	.002	0	0
25	MP BETA1	PY	.002	.002	0	0
26	MP ALPHA4	PY	.002	.002	0	0
27	MP ALPHA3	PY	.002	.002	0	0
28	MP ALPHA2	PY	.002	.002	0	0
29	MP ALPHA1	PY	.002	.002	0	0
30	FACE3	PY	.004	.004	0	0
31	FACE1	PY	.004	.004	0	0
32	FACE2	PY	.002	.002	0	0
33	CORNER	PY	.002	.002	0	0
34	SUP2	PX	-.003	-.003	0	0
35	SUP1	PX	-.003	-.003	0	0
36	SO3	PX	-.002	-.002	0	0
37	SO2	PX	-.002	-.002	0	0
38	SO1	PX	-.002	-.002	0	0
39	RAIL3c	PX	-.005	-.005	0	0
40	RAIL3b	PX	-.005	-.005	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
41	RAIL3a	PX	-.005	-.005	0	0
42	RAIL1c	PX	-.005	-.005	0	0
43	RAIL1b	PX	-.005	-.005	0	0
44	RAIL1a	PX	-.005	-.005	0	0
45	RAIL2c	PX	-.003	-.003	0	0
46	RAIL2b	PX	-.003	-.003	0	0
47	RAIL2a	PX	-.003	-.003	0	0
48	PLATE3	PX	-.002	-.002	0	0
49	PLATE2	PX	-.002	-.002	0	0
50	PLATE1	PX	-.002	-.002	0	0
51	MP GAMMA4	PX	-.003	-.003	0	0
52	MP GAMMA3	PX	-.003	-.003	0	0
53	MP GAMMA2	PX	-.003	-.003	0	0
54	MP GAMMA1	PX	-.003	-.003	0	0
55	MP BETA4	PX	-.003	-.003	0	0
56	MP BETA3	PX	-.003	-.003	0	0
57	MP BETA2	PX	-.003	-.003	0	0
58	MP BETA1	PX	-.003	-.003	0	0
59	MP ALPHA4	PX	-.003	-.003	0	0
60	MP ALPHA3	PX	-.003	-.003	0	0
61	MP ALPHA2	PX	-.003	-.003	0	0
62	MP ALPHA1	PX	-.003	-.003	0	0
63	FACE3	PX	-.006	-.006	0	0
64	FACE1	PX	-.006	-.006	0	0
65	FACE2	PX	-.004	-.004	0	0
66	CORNER	PX	-.003	-.003	0	0
67	KICKER3	PY	.001	.001	0	0
68	KICKER3	PX	-.002	-.002	0	0
69	KICKER1	PY	.001	.001	0	0
70	KICKER1	PX	-.002	-.002	0	0
71	KICKER2	PY	.001	.001	0	0
72	KICKER2	PX	-.002	-.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.003	.003	0	0
2	SUP1	PY	.003	.003	0	0
3	SO3	PY	.002	.002	0	0
4	SO2	PY	.002	.002	0	0
5	SO1	PY	.002	.002	0	0
6	RAIL3c	PY	.005	.005	0	0
7	RAIL3b	PY	.005	.005	0	0
8	RAIL3a	PY	.005	.005	0	0
9	RAIL1c	PY	.005	.005	0	0
10	RAIL1b	PY	.005	.005	0	0
11	RAIL1a	PY	.005	.005	0	0
12	RAIL2c	PY	.003	.003	0	0
13	RAIL2b	PY	.003	.003	0	0
14	RAIL2a	PY	.003	.003	0	0
15	PLATE3	PY	.002	.002	0	0
16	PLATE2	PY	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
17	PLATE1	PY	.002	.002	0	0
18	MP GAMMA4	PY	.003	.003	0	0
19	MP GAMMA3	PY	.003	.003	0	0
20	MP GAMMA2	PY	.003	.003	0	0
21	MP GAMMA1	PY	.003	.003	0	0
22	MP BETA4	PY	.003	.003	0	0
23	MP BETA3	PY	.003	.003	0	0
24	MP BETA2	PY	.003	.003	0	0
25	MP BETA1	PY	.003	.003	0	0
26	MP ALPHA4	PY	.003	.003	0	0
27	MP ALPHA3	PY	.003	.003	0	0
28	MP ALPHA2	PY	.003	.003	0	0
29	MP ALPHA1	PY	.003	.003	0	0
30	FACE3	PY	.006	.006	0	0
31	FACE1	PY	.006	.006	0	0
32	FACE2	PY	.004	.004	0	0
33	CORNER	PY	.003	.003	0	0
34	SUP2	PX	-.002	-.002	0	0
35	SUP1	PX	-.002	-.002	0	0
36	SO3	PX	-.001	-.001	0	0
37	SO2	PX	-.001	-.001	0	0
38	SO1	PX	-.001	-.001	0	0
39	RAIL3c	PX	-.003	-.003	0	0
40	RAIL3b	PX	-.003	-.003	0	0
41	RAIL3a	PX	-.003	-.003	0	0
42	RAIL1c	PX	-.003	-.003	0	0
43	RAIL1b	PX	-.003	-.003	0	0
44	RAIL1a	PX	-.003	-.003	0	0
45	RAIL2c	PX	-.002	-.002	0	0
46	RAIL2b	PX	-.002	-.002	0	0
47	RAIL2a	PX	-.002	-.002	0	0
48	PLATE3	PX	-.000944	-.000944	0	0
49	PLATE2	PX	-.000944	-.000944	0	0
50	PLATE1	PX	-.000944	-.000944	0	0
51	MP GAMMA4	PX	-.002	-.002	0	0
52	MP GAMMA3	PX	-.002	-.002	0	0
53	MP GAMMA2	PX	-.002	-.002	0	0
54	MP GAMMA1	PX	-.002	-.002	0	0
55	MP BETA4	PX	-.002	-.002	0	0
56	MP BETA3	PX	-.002	-.002	0	0
57	MP BETA2	PX	-.002	-.002	0	0
58	MP BETA1	PX	-.002	-.002	0	0
59	MP ALPHA4	PX	-.002	-.002	0	0
60	MP ALPHA3	PX	-.002	-.002	0	0
61	MP ALPHA2	PX	-.002	-.002	0	0
62	MP ALPHA1	PX	-.002	-.002	0	0
63	FACE3	PX	-.004	-.004	0	0
64	FACE1	PX	-.004	-.004	0	0
65	FACE2	PX	-.002	-.002	0	0
66	CORNER	PX	-.002	-.002	0	0
67	KICKER3	PY	.002	.002	0	0
68	KICKER3	PX	-.001	-.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
69	KICKER1	PY	.002	.002	0	0
70	KICKER1	PX	-.001	-.001	0	0
71	KICKER2	PY	.002	.002	0	0
72	KICKER2	PX	-.001	-.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.004	.004	0	0
2	SUP1	PY	.004	.004	0	0
3	SO3	PY	.002	.002	0	0
4	SO2	PY	.002	.002	0	0
5	SO1	PY	.002	.002	0	0
6	RAIL3c	PY	.006	.006	0	0
7	RAIL3b	PY	.006	.006	0	0
8	RAIL3a	PY	.006	.006	0	0
9	RAIL1c	PY	.006	.006	0	0
10	RAIL1b	PY	.006	.006	0	0
11	RAIL1a	PY	.006	.006	0	0
12	RAIL2c	PY	.003	.003	0	0
13	RAIL2b	PY	.003	.003	0	0
14	RAIL2a	PY	.003	.003	0	0
15	PLATE3	PY	.002	.002	0	0
16	PLATE2	PY	.002	.002	0	0
17	PLATE1	PY	.002	.002	0	0
18	MP GAMMA4	PY	.003	.003	0	0
19	MP GAMMA3	PY	.003	.003	0	0
20	MP GAMMA2	PY	.003	.003	0	0
21	MP GAMMA1	PY	.003	.003	0	0
22	MP BETA4	PY	.003	.003	0	0
23	MP BETA3	PY	.003	.003	0	0
24	MP BETA2	PY	.003	.003	0	0
25	MP BETA1	PY	.003	.003	0	0
26	MP ALPHA4	PY	.003	.003	0	0
27	MP ALPHA3	PY	.003	.003	0	0
28	MP ALPHA2	PY	.003	.003	0	0
29	MP ALPHA1	PY	.003	.003	0	0
30	FACE3	PY	.007	.007	0	0
31	FACE1	PY	.007	.007	0	0
32	FACE2	PY	.004	.004	0	0
33	CORNER	PY	.004	.004	0	0
34	KICKER3	PY	.002	.002	0	0
35	KICKER1	PY	.002	.002	0	0
36	KICKER2	PY	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.003	.003	0	0
2	SUP1	PY	.003	.003	0	0
3	SO3	PY	.002	.002	0	0
4	SO2	PY	.002	.002	0	0
5	SO1	PY	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
6	RAIL1c	PY	.005	.005	0	0
7	RAIL1b	PY	.005	.005	0	0
8	RAIL1a	PY	.005	.005	0	0
9	RAIL2c	PY	.005	.005	0	0
10	RAIL2b	PY	.005	.005	0	0
11	RAIL2a	PY	.005	.005	0	0
12	RAIL3c	PY	.003	.003	0	0
13	RAIL3b	PY	.003	.003	0	0
14	RAIL3a	PY	.003	.003	0	0
15	PLATE3	PY	.002	.002	0	0
16	PLATE2	PY	.002	.002	0	0
17	PLATE1	PY	.002	.002	0	0
18	MP GAMMA4	PY	.003	.003	0	0
19	MP GAMMA3	PY	.003	.003	0	0
20	MP GAMMA2	PY	.003	.003	0	0
21	MP GAMMA1	PY	.003	.003	0	0
22	MP BETA4	PY	.003	.003	0	0
23	MP BETA3	PY	.003	.003	0	0
24	MP BETA2	PY	.003	.003	0	0
25	MP BETA1	PY	.003	.003	0	0
26	MP ALPHA4	PY	.003	.003	0	0
27	MP ALPHA3	PY	.003	.003	0	0
28	MP ALPHA2	PY	.003	.003	0	0
29	MP ALPHA1	PY	.003	.003	0	0
30	FACE1	PY	.006	.006	0	0
31	FACE2	PY	.006	.006	0	0
32	FACE3	PY	.004	.004	0	0
33	CORNER	PY	.003	.003	0	0
34	SUP2	PX	.002	.002	0	0
35	SUP1	PX	.002	.002	0	0
36	SO3	PX	.001	.001	0	0
37	SO2	PX	.001	.001	0	0
38	SO1	PX	.001	.001	0	0
39	RAIL1c	PX	.003	.003	0	0
40	RAIL1b	PX	.003	.003	0	0
41	RAIL1a	PX	.003	.003	0	0
42	RAIL2c	PX	.003	.003	0	0
43	RAIL2b	PX	.003	.003	0	0
44	RAIL2a	PX	.003	.003	0	0
45	RAIL3c	PX	.002	.002	0	0
46	RAIL3b	PX	.002	.002	0	0
47	RAIL3a	PX	.002	.002	0	0
48	PLATE3	PX	.000944	.000944	0	0
49	PLATE2	PX	.000944	.000944	0	0
50	PLATE1	PX	.000944	.000944	0	0
51	MP GAMMA4	PX	.002	.002	0	0
52	MP GAMMA3	PX	.002	.002	0	0
53	MP GAMMA2	PX	.002	.002	0	0
54	MP GAMMA1	PX	.002	.002	0	0
55	MP BETA4	PX	.002	.002	0	0
56	MP BETA3	PX	.002	.002	0	0
57	MP BETA2	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
58	MP BETA1	PX	.002	.002	0	0
59	MP ALPHA4	PX	.002	.002	0	0
60	MP ALPHA3	PX	.002	.002	0	0
61	MP ALPHA2	PX	.002	.002	0	0
62	MP ALPHA1	PX	.002	.002	0	0
63	FACE1	PX	.004	.004	0	0
64	FACE2	PX	.004	.004	0	0
65	FACE3	PX	.002	.002	0	0
66	CORNER	PX	.002	.002	0	0
67	KICKER3	PY	.002	.002	0	0
68	KICKER3	PX	.001	.001	0	0
69	KICKER1	PY	.002	.002	0	0
70	KICKER1	PX	.001	.001	0	0
71	KICKER2	PY	.002	.002	0	0
72	KICKER2	PX	.001	.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	.002	.002	0	0
2	SUP1	PY	.002	.002	0	0
3	SO3	PY	.001	.001	0	0
4	SO2	PY	.001	.001	0	0
5	SO1	PY	.001	.001	0	0
6	RAIL1c	PY	.003	.003	0	0
7	RAIL1b	PY	.003	.003	0	0
8	RAIL1a	PY	.003	.003	0	0
9	RAIL2c	PY	.003	.003	0	0
10	RAIL2b	PY	.003	.003	0	0
11	RAIL2a	PY	.003	.003	0	0
12	RAIL3c	PY	.002	.002	0	0
13	RAIL3b	PY	.002	.002	0	0
14	RAIL3a	PY	.002	.002	0	0
15	PLATE3	PY	.000944	.000944	0	0
16	PLATE2	PY	.000944	.000944	0	0
17	PLATE1	PY	.000944	.000944	0	0
18	MP GAMMA4	PY	.002	.002	0	0
19	MP GAMMA3	PY	.002	.002	0	0
20	MP GAMMA2	PY	.002	.002	0	0
21	MP GAMMA1	PY	.002	.002	0	0
22	MP BETA4	PY	.002	.002	0	0
23	MP BETA3	PY	.002	.002	0	0
24	MP BETA2	PY	.002	.002	0	0
25	MP BETA1	PY	.002	.002	0	0
26	MP ALPHA4	PY	.002	.002	0	0
27	MP ALPHA3	PY	.002	.002	0	0
28	MP ALPHA2	PY	.002	.002	0	0
29	MP ALPHA1	PY	.002	.002	0	0
30	FACE1	PY	.004	.004	0	0
31	FACE2	PY	.004	.004	0	0
32	FACE3	PY	.002	.002	0	0
33	CORNER	PY	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
34	SUP2	PX	.003	.003	0	0
35	SUP1	PX	.003	.003	0	0
36	SO3	PX	.002	.002	0	0
37	SO2	PX	.002	.002	0	0
38	SO1	PX	.002	.002	0	0
39	RAIL1c	PX	.005	.005	0	0
40	RAIL1b	PX	.005	.005	0	0
41	RAIL1a	PX	.005	.005	0	0
42	RAIL2c	PX	.005	.005	0	0
43	RAIL2b	PX	.005	.005	0	0
44	RAIL2a	PX	.005	.005	0	0
45	RAIL3c	PX	.003	.003	0	0
46	RAIL3b	PX	.003	.003	0	0
47	RAIL3a	PX	.003	.003	0	0
48	PLATE3	PX	.002	.002	0	0
49	PLATE2	PX	.002	.002	0	0
50	PLATE1	PX	.002	.002	0	0
51	MP GAMMA4	PX	.003	.003	0	0
52	MP GAMMA3	PX	.003	.003	0	0
53	MP GAMMA2	PX	.003	.003	0	0
54	MP GAMMA1	PX	.003	.003	0	0
55	MP BETA4	PX	.003	.003	0	0
56	MP BETA3	PX	.003	.003	0	0
57	MP BETA2	PX	.003	.003	0	0
58	MP BETA1	PX	.003	.003	0	0
59	MP ALPHA4	PX	.003	.003	0	0
60	MP ALPHA3	PX	.003	.003	0	0
61	MP ALPHA2	PX	.003	.003	0	0
62	MP ALPHA1	PX	.003	.003	0	0
63	FACE1	PX	.006	.006	0	0
64	FACE2	PX	.006	.006	0	0
65	FACE3	PX	.004	.004	0	0
66	CORNER	PX	.003	.003	0	0
67	KICKER3	PY	.001	.001	0	0
68	KICKER3	PX	.002	.002	0	0
69	KICKER1	PY	.001	.001	0	0
70	KICKER1	PX	.002	.002	0	0
71	KICKER2	PY	.001	.001	0	0
72	KICKER2	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PX	.004	.004	0	0
2	SUP1	PX	.004	.004	0	0
3	SO3	PX	.002	.002	0	0
4	SO2	PX	.002	.002	0	0
5	SO1	PX	.002	.002	0	0
6	RAIL1c	PX	.006	.006	0	0
7	RAIL1b	PX	.006	.006	0	0
8	RAIL1a	PX	.006	.006	0	0
9	RAIL2c	PX	.006	.006	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
10	RAIL2b	PX	.006	.006	0	0
11	RAIL2a	PX	.006	.006	0	0
12	RAIL3c	PX	.003	.003	0	0
13	RAIL3b	PX	.003	.003	0	0
14	RAIL3a	PX	.003	.003	0	0
15	PLATE3	PX	.002	.002	0	0
16	PLATE2	PX	.002	.002	0	0
17	PLATE1	PX	.002	.002	0	0
18	MP GAMMA4	PX	.003	.003	0	0
19	MP GAMMA3	PX	.003	.003	0	0
20	MP GAMMA2	PX	.003	.003	0	0
21	MP GAMMA1	PX	.003	.003	0	0
22	MP BETA4	PX	.003	.003	0	0
23	MP BETA3	PX	.003	.003	0	0
24	MP BETA2	PX	.003	.003	0	0
25	MP BETA1	PX	.003	.003	0	0
26	MP ALPHA4	PX	.003	.003	0	0
27	MP ALPHA3	PX	.003	.003	0	0
28	MP ALPHA2	PX	.003	.003	0	0
29	MP ALPHA1	PX	.003	.003	0	0
30	FACE1	PX	.007	.007	0	0
31	FACE2	PX	.007	.007	0	0
32	FACE3	PX	.004	.004	0	0
33	CORNER	PX	.004	.004	0	0
34	KICKER3	PX	.002	.002	0	0
35	KICKER1	PX	.002	.002	0	0
36	KICKER2	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.002	-.002	0	0
2	SUP1	PY	-.002	-.002	0	0
3	SO3	PY	-.001	-.001	0	0
4	SO2	PY	-.001	-.001	0	0
5	SO1	PY	-.001	-.001	0	0
6	RAIL1c	PY	-.003	-.003	0	0
7	RAIL1b	PY	-.003	-.003	0	0
8	RAIL1a	PY	-.003	-.003	0	0
9	RAIL2c	PY	-.003	-.003	0	0
10	RAIL2b	PY	-.003	-.003	0	0
11	RAIL2a	PY	-.003	-.003	0	0
12	RAIL3c	PY	-.002	-.002	0	0
13	RAIL3b	PY	-.002	-.002	0	0
14	RAIL3a	PY	-.002	-.002	0	0
15	PLATE3	PY	-.000944	-.000944	0	0
16	PLATE2	PY	-.000944	-.000944	0	0
17	PLATE1	PY	-.000944	-.000944	0	0
18	MP GAMMA4	PY	-.002	-.002	0	0
19	MP GAMMA3	PY	-.002	-.002	0	0
20	MP GAMMA2	PY	-.002	-.002	0	0
21	MP GAMMA1	PY	-.002	-.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
22	MP BETA4	PY	-.002	-.002	0	0
23	MP BETA3	PY	-.002	-.002	0	0
24	MP BETA2	PY	-.002	-.002	0	0
25	MP BETA1	PY	-.002	-.002	0	0
26	MP ALPHA4	PY	-.002	-.002	0	0
27	MP ALPHA3	PY	-.002	-.002	0	0
28	MP ALPHA2	PY	-.002	-.002	0	0
29	MP ALPHA1	PY	-.002	-.002	0	0
30	FACE1	PY	-.004	-.004	0	0
31	FACE2	PY	-.004	-.004	0	0
32	FACE3	PY	-.002	-.002	0	0
33	CORNER	PY	-.002	-.002	0	0
34	SUP2	PX	.003	.003	0	0
35	SUP1	PX	.003	.003	0	0
36	SO3	PX	.002	.002	0	0
37	SO2	PX	.002	.002	0	0
38	SO1	PX	.002	.002	0	0
39	RAIL1c	PX	.005	.005	0	0
40	RAIL1b	PX	.005	.005	0	0
41	RAIL1a	PX	.005	.005	0	0
42	RAIL2c	PX	.005	.005	0	0
43	RAIL2b	PX	.005	.005	0	0
44	RAIL2a	PX	.005	.005	0	0
45	RAIL3c	PX	.003	.003	0	0
46	RAIL3b	PX	.003	.003	0	0
47	RAIL3a	PX	.003	.003	0	0
48	PLATE3	PX	.002	.002	0	0
49	PLATE2	PX	.002	.002	0	0
50	PLATE1	PX	.002	.002	0	0
51	MP GAMMA4	PX	.003	.003	0	0
52	MP GAMMA3	PX	.003	.003	0	0
53	MP GAMMA2	PX	.003	.003	0	0
54	MP GAMMA1	PX	.003	.003	0	0
55	MP BETA4	PX	.003	.003	0	0
56	MP BETA3	PX	.003	.003	0	0
57	MP BETA2	PX	.003	.003	0	0
58	MP BETA1	PX	.003	.003	0	0
59	MP ALPHA4	PX	.003	.003	0	0
60	MP ALPHA3	PX	.003	.003	0	0
61	MP ALPHA2	PX	.003	.003	0	0
62	MP ALPHA1	PX	.003	.003	0	0
63	FACE1	PX	.006	.006	0	0
64	FACE2	PX	.006	.006	0	0
65	FACE3	PX	.004	.004	0	0
66	CORNER	PX	.003	.003	0	0
67	KICKER3	PY	-.001	-.001	0	0
68	KICKER3	PX	.002	.002	0	0
69	KICKER1	PY	-.001	-.001	0	0
70	KICKER1	PX	.002	.002	0	0
71	KICKER2	PY	-.001	-.001	0	0
72	KICKER2	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP2	PY	-.003	-.003	0	0
2	SUP1	PY	-.003	-.003	0	0
3	SO3	PY	-.002	-.002	0	0
4	SO2	PY	-.002	-.002	0	0
5	SO1	PY	-.002	-.002	0	0
6	RAIL3c	PY	-.005	-.005	0	0
7	RAIL3b	PY	-.005	-.005	0	0
8	RAIL3a	PY	-.005	-.005	0	0
9	RAIL2c	PY	-.005	-.005	0	0
10	RAIL2b	PY	-.005	-.005	0	0
11	RAIL2a	PY	-.005	-.005	0	0
12	RAIL1c	PY	-.003	-.003	0	0
13	RAIL1b	PY	-.003	-.003	0	0
14	RAIL1a	PY	-.003	-.003	0	0
15	PLATE3	PY	-.002	-.002	0	0
16	PLATE2	PY	-.002	-.002	0	0
17	PLATE1	PY	-.002	-.002	0	0
18	MP GAMMA4	PY	-.003	-.003	0	0
19	MP GAMMA3	PY	-.003	-.003	0	0
20	MP GAMMA2	PY	-.003	-.003	0	0
21	MP GAMMA1	PY	-.003	-.003	0	0
22	MP BETA4	PY	-.003	-.003	0	0
23	MP BETA3	PY	-.003	-.003	0	0
24	MP BETA2	PY	-.003	-.003	0	0
25	MP BETA1	PY	-.003	-.003	0	0
26	MP ALPHA4	PY	-.003	-.003	0	0
27	MP ALPHA3	PY	-.003	-.003	0	0
28	MP ALPHA2	PY	-.003	-.003	0	0
29	MP ALPHA1	PY	-.003	-.003	0	0
30	FACE3	PY	-.006	-.006	0	0
31	FACE2	PY	-.006	-.006	0	0
32	FACE1	PY	-.004	-.004	0	0
33	CORNER	PY	-.003	-.003	0	0
34	SUP2	PX	.002	.002	0	0
35	SUP1	PX	.002	.002	0	0
36	SO3	PX	.001	.001	0	0
37	SO2	PX	.001	.001	0	0
38	SO1	PX	.001	.001	0	0
39	RAIL3c	PX	.003	.003	0	0
40	RAIL3b	PX	.003	.003	0	0
41	RAIL3a	PX	.003	.003	0	0
42	RAIL2c	PX	.003	.003	0	0
43	RAIL2b	PX	.003	.003	0	0
44	RAIL2a	PX	.003	.003	0	0
45	RAIL1c	PX	.002	.002	0	0
46	RAIL1b	PX	.002	.002	0	0
47	RAIL1a	PX	.002	.002	0	0
48	PLATE3	PX	.000944	.000944	0	0
49	PLATE2	PX	.000944	.000944	0	0
50	PLATE1	PX	.000944	.000944	0	0
51	MP GAMMA4	PX	.002	.002	0	0
52	MP GAMMA3	PX	.002	.002	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
53	MP GAMMA2	PX	.002	.002	0	0
54	MP GAMMA1	PX	.002	.002	0	0
55	MP BETA4	PX	.002	.002	0	0
56	MP BETA3	PX	.002	.002	0	0
57	MP BETA2	PX	.002	.002	0	0
58	MP BETA1	PX	.002	.002	0	0
59	MP ALPHA4	PX	.002	.002	0	0
60	MP ALPHA3	PX	.002	.002	0	0
61	MP ALPHA2	PX	.002	.002	0	0
62	MP ALPHA1	PX	.002	.002	0	0
63	FACE3	PX	.004	.004	0	0
64	FACE2	PX	.004	.004	0	0
65	FACE1	PX	.002	.002	0	0
66	CORNER	PX	.002	.002	0	0
67	KICKER3	PY	-.002	-.002	0	0
68	KICKER3	PX	.001	.001	0	0
69	KICKER1	PY	-.002	-.002	0	0
70	KICKER1	PX	.001	.001	0	0
71	KICKER2	PY	-.002	-.002	0	0
72	KICKER2	PX	.001	.001	0	0

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP1	Z	-.008	-.011	.575	2.876
2	SUP1	Z	-.011	-.013	2.876	5.177
3	FACE3	Z	-.01	-.011	6	9.6
4	FACE2	Z	-.019	-.016	1.2	2.4
5	FACE2	Z	-.016	-.011	2.4	3.6
6	FACE2	Z	-.011	-.004	3.6	4.8
7	CORNER	Z	-.009	-.009	4.355	5.957
8	FACE3	Z	-.0002273	-.002	4.8	6.24
9	FACE3	Z	-.002	-.004	6.24	7.68
10	FACE3	Z	-.004	-.008	7.68	9.12
11	FACE3	Z	-.008	-.006	9.12	10.56
12	FACE3	Z	-.006	-.0002273	10.56	12
13	FACE2	Z	-.003	-.003	.549	1.549
14	SUP2	Z	-.011	-.011	.882	2.809
15	M41	Z	-.042	-.042	0	.225
16	FACE2	Z	-.001	-.013	7.2	8.8
17	FACE2	Z	-.013	-.012	8.8	10.4
18	FACE2	Z	-.012	-.001	10.4	12
19	FACE1	Z	-.002	-.007	0	1.44
20	FACE1	Z	-.007	-.011	1.44	2.88
21	FACE1	Z	-.011	-.015	2.88	4.32
22	FACE1	Z	-.015	-.008	4.32	5.76
23	FACE1	Z	-.008	-.0002225	5.76	7.2
24	SUP2	Z	-.0003193	-.003	0	1.035
25	SUP2	Z	-.003	-.005	1.035	2.071
26	SUP2	Z	-.005	-.01	2.071	3.106
27	SUP2	Z	-.01	-.012	3.106	4.141
28	SUP2	Z	-.012	-.007	4.141	5.177

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
29	CORNER	Z	-.007	-.007	.097	1.603
30	FACE3	Z	-.0002591	-.002	0	1.2
31	FACE3	Z	-.002	-.005	1.2	2.4
32	FACE3	Z	-.005	-.008	2.4	3.6
33	FACE3	Z	-.008	-.007	3.6	4.8
34	FACE3	Z	-.007	-.002	4.8	6
35	CORNER	Z	-.005	-.005	4.161	5.161
36	M50	Z	-.03	-.03	0	.225
37	FACE3	Z	-.011	-.011	1.705	3.532
38	FACE1	Z	-.011	-.011	8.468	10.295
39	CORNER	Z	-.011	-.011	1.693	4.264
40	2	Z	-.03	-.03	0	.225
41	FACE1	Z	-.002	-.007	6	7.2
42	FACE1	Z	-.007	-.008	7.2	8.4
43	FACE1	Z	-.008	-.005	8.4	9.6
44	FACE1	Z	-.005	-.002	9.6	10.8
45	FACE1	Z	-.002	-.0002591	10.8	12
46	CORNER	Z	-.005	-.005	.797	1.797

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SUP1	Z	-.016	-.021	.575	2.876
2	SUP1	Z	-.021	-.027	2.876	5.177
3	FACE3	Z	-.019	-.021	6	9.6
4	FACE2	Z	-.038	-.032	1.2	2.4
5	FACE2	Z	-.032	-.022	2.4	3.6
6	FACE2	Z	-.022	-.007	3.6	4.8
7	CORNER	Z	-.019	-.019	4.355	5.957
8	FACE3	Z	-.0004533	-.004	4.8	6.24
9	FACE3	Z	-.004	-.008	6.24	7.68
10	FACE3	Z	-.008	-.015	7.68	9.12
11	FACE3	Z	-.015	-.013	9.12	10.56
12	FACE3	Z	-.013	-.0004533	10.56	12
13	FACE2	Z	-.007	-.007	.549	1.549
14	SUP2	Z	-.022	-.022	.882	2.809
15	M41	Z	-.083	-.083	0	.225
16	FACE2	Z	-.003	-.026	7.2	8.8
17	FACE2	Z	-.026	-.024	8.8	10.4
18	FACE2	Z	-.024	-.003	10.4	12
19	FACE1	Z	-.004	-.013	0	1.44
20	FACE1	Z	-.013	-.022	1.44	2.88
21	FACE1	Z	-.022	-.03	2.88	4.32
22	FACE1	Z	-.03	-.017	4.32	5.76
23	FACE1	Z	-.017	-.000445	5.76	7.2
24	SUP2	Z	-.0006408	-.007	0	1.035
25	SUP2	Z	-.007	-.011	1.035	2.071
26	SUP2	Z	-.011	-.02	2.071	3.106
27	SUP2	Z	-.02	-.024	3.106	4.141
28	SUP2	Z	-.024	-.014	4.141	5.177
29	CORNER	Z	-.014	-.014	.096	1.603
30	FACE3	Z	-.0005344	-.003	0	1.2

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

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
31	FACE3	Z	-.003	-.009	1.2	2.4
32	FACE3	Z	-.009	-.016	2.4	3.6
33	FACE3	Z	-.016	-.014	3.6	4.8
34	FACE3	Z	-.014	-.003	4.8	6
35	CORNER	Z	-.01	-.01	4.162	5.162
36	M50	Z	-.06	-.06	0	.225
37	FACE3	Z	-.023	-.023	1.705	3.532
38	FACE1	Z	-.023	-.023	8.468	10.295
39	CORNER	Z	-.021	-.021	1.693	4.264
40	2	Z	-.06	-.06	0	.225
41	FACE1	Z	-.004	-.014	6	7.2
42	FACE1	Z	-.014	-.016	7.2	8.4
43	FACE1	Z	-.016	-.009	8.4	9.6
44	FACE1	Z	-.009	-.003	9.6	10.8
45	FACE1	Z	-.003	-.0005183	10.8	12
46	CORNER	Z	-.01	-.01	.797	1.797

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N48	max	8.383	9	5.077	8	.285	26	.214	8	.294	26	.823	17
2		min	-2.668	26	-1.814	26	-.629	8	-.139	26	-.452	8	-.86	35
3	N18	max	.552	11	3.344	2	.293	2	.331	2	.069	2	1.598	29
4		min	-.553	29	-9.801	20	-.636	20	-.505	20	-.07	20	-1.608	11
5	N78	max	2.808	14	4.968	33	.28	14	.21	32	.438	32	1.247	5
6		min	-8.518	33	-1.763	14	-.617	32	-.122	14	-.298	14	-1.239	20
7	N167	max	.165	11	9.767	21	5.067	21	1.267	21	.22	11	.469	29
8		min	-.167	29	.386	2	.211	2	.053	2	-.22	29	-.47	11
9	N172	max	-.346	26	-.276	26	5.061	9	.05	26	1.082	9	.249	17
10		min	-8.454	9	-4.864	9	.235	26	-.658	9	.093	26	-.253	35
11	N177	max	8.597	33	-.275	14	5.149	33	.02	14	-.087	14	.346	5
12		min	.42	14	-4.959	33	.268	14	-.655	33	-1.109	33	-.339	23
13	Totals:	max	5.636	11	5.844	2	12.811	9						
14		min	-5.636	29	-6.052	20	4.947	23						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
1	Live Load	DL					1			
2	Wind Load (0)	DL					33	36		
3	Dead Load	DL			-1.1		33		7	
4	Wind Load (30)	DL					66	72		
5	Wind Load (60)	DL					66	72		
6	Wind Load (90)	DL					33	36		
7	Wind Load (120)	DL					66	72		
8	Wind Load (150)	DL					66	72		
9	Wind Load (180)	DL					33	36		
10	Wind Load (210)	DL					66	72		
11	Wind Load (240)	DL					66	72		
12	Wind Load (270)	DL					33	36		
13	Wind Load (300)	DL					66	72		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
14	Wind Load (330)	DL					66	72		
15	Maintanence (0)	DL					33	36		
16	Maintanence (30)	DL					66	72		
17	Maintanence (60)	DL					66	72		
18	Maintanence (90)	DL					33	36		
19	Maintanence (120)	DL					66	72		
20	Maintanence (150)	DL					66	72		
21	Maintanence (180)	DL					33	36		
22	Maintanence (210)	DL					66	72		
23	Maintanence (240)	DL					66	72		
24	Maintanence (270)	DL					33	36		
25	Maintanence (300)	DL					66	72		
26	Maintanence (330)	DL					66	72		
27	Ice Dead Load	DL					33	36	7	
28	Ice Wind Load (0)	DL					33	36		
29	Ice Wind Load (30)	DL					66	72		
30	Ice Wind Load (60)	DL					66	72		
31	Ice Wind Load (90)	DL					33	36		
32	Ice Wind Load (120)	DL					66	72		
33	Ice Wind Load (150)	DL					66	72		
34	Ice Wind Load (180)	DL					33	36		
35	Ice Wind Load (210)	DL					66	72		
36	Ice Wind Load (240)	DL					66	72		
37	Ice Wind Load (270)	DL					33	36		
38	Ice Wind Load (300)	DL					66	72		
39	Ice Wind Load (330)	DL					66	72		
40	Earthquake (x-direction)	DL	-.109				33			
41	Earthquake (y-direction)	DL		-.109			33			
42	Earthquake (z-direction)	DL			-.044		33			
43	BLC 3 Transient Area Loads	None						46		
44	BLC 27 Transient Area Loads	None						46		

Load Combinations

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		3	1.4																				
2	1.2D + 1.0W(0)	Yes	Y		3	1.2	2	1																		
3	1.2D + 1.0Di + 1.0Wi(0)	Yes	Y		3	1.2	27	1	28	1																
4	1.2D + 1.5L + 1.0Wl(0)	Yes	Y		3	1.2	1	1.5	15	1																
5	1.2D + 1.0W(30)	Yes	Y		3	1.2	4	1																		
6	1.2D + 1.0Di + 1.0Wi(30)	Yes	Y		3	1.2	27	1	29	1																
7	1.2D + 1.5L + 1.0Wl(30)	Yes	Y		3	1.2	1	1.5	16	1																
8	1.2D + 1.0W(60)	Yes	Y		3	1.2	5	1																		
9	1.2D + 1.0Di + 1.0Wi(60)	Yes	Y		3	1.2	27	1	30	1																
10	1.2D + 1.5L + 1.0Wl(60)	Yes	Y		3	1.2	1	1.5	17	1																
11	1.2D + 1.0W(90)	Yes	Y		3	1.2	6	1																		
12	1.2D + 1.0Di + 1.0Wi(90)	Yes	Y		3	1.2	27	1	31	1																
13	1.2D + 1.5L + 1.0Wl(90)	Yes	Y		3	1.2	1	1.5	18	1																
14	1.2D + 1.0W(120)	Yes	Y		3	1.2	7	1																		
15	1.2D + 1.0Di + 1.0Wi(120)	Yes	Y		3	1.2	27	1	32	1																
16	1.2D + 1.5L + 1.0Wl(120)	Yes	Y		3	1.2	1	1.5	19	1																

Load Combinations (Continued)

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

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
1	FACE3	C5X9	.720	10.75	23	.695	10.75	y	15	6.799	85.5...	1.909	11.8...	...	H1-...
2	FACE1	C5X9	.716	1.125	8	.696	10.75	y	24	6.799	85.5...	1.909	11.4...	...	H1-...
3	RAIL3c	L3X3X4	.715	6.956	21	.053	0	z	32	4.87	46.6...	1.688	2.807	...	H2-1
4	RAIL1c	L3X3X4	.701	6.693	33	.055	0	z	5	4.87	46.6...	1.688	2.891	...	H2-1
5	PLATE2	9x0.5	.664	.712	33	.176	.712	y	17	68.2...	145.8	1.519	27.3...	...	H1-...
6	RAIL2c	L3X3X4	.664	6.562	9	.057	12.599	z	8	4.87	46.6...	1.688	2.898	...	H2-1
7	PLATE3	9x0.5	.661	.712	21	.189	.712	y	5	68.2...	145.8	1.519	26.8...	...	H1-...
8	PLATE1	9x0.5	.657	.712	9	.189	.712	y	23	68.2...	145.8	1.519	25.9...	...	H1-...
9	MP GAMMA1	PIPE 2.5	.590	1	18	.314	1		8	37.7...	50.7...	3.596	3.596	...	H1-...
10	MP ALPHA1	PIPE 2.5	.588	1	30	.310	1		20	37.7...	50.7...	3.596	3.596	...	H1-...
11	MP BETA1	PIPE 2.5	.581	1	6	.250	1		32	37.7...	50.7...	3.596	3.596	...	H1-...
12	MP BETA2	PIPE 2.5	.567	4.063	5	.204	4.063		2	22.3...	50.7...	3.596	3.596	...	H1-...
13	MP GAMMA2	PIPE 2.5	.559	4.063	17	.229	4.063		14	22.3...	50.7...	3.596	3.596	...	H1-...
14	FACE2	C5X9	.554	1.125	17	.754	7.25	z	14	6.799	85.5...	1.909	11.8...	...	H1-...
15	MP ALPHA2	PIPE 2.5	.530	4.063	29	.164	4.063		26	22.3...	50.7...	3.596	3.596	...	H1-...
16	RAIL1a	L3X3X4	.523	7.481	2	.067	0	z	5	4.87	46.6...	1.688	2.854	...	H2-1
17	MP GAMMA3	PIPE 2.5	.519	1	35	.190	1		6	37.7...	50.7...	3.596	3.596	...	H1-...
18	MP BETA3	PIPE 2.5	.518	1	23	.176	1		30	37.7...	50.7...	3.596	3.596	...	H1-...
19	CORNER	C4X4.5	.517	0	11	.062	1.551	z	11	11.7...	43.4...	1.093	5.457	...	H1-...
20	RAIL3a	L3X3X4	.511	7.481	26	.062	12.599	z	23	4.87	46.6...	1.688	2.84	...	H2-1
21	MP GAMMA4	PIPE 2.5	.463	1	36	.266	1		8	37.7...	50.7...	3.596	3.596	...	H1-...
22	RAIL2a	L3X3X4	.450	7.481	14	.059	12.599	z	8	4.87	46.6...	1.688	2.87	...	H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
23	MP ALPHA4	PIPE 2.5	.449	1	12	.280	1		20	37.7...	50.7...	3.596	3.596	...	H1-...
24	MP BETA4	PIPE 2.5	.447	1	24	.242	1		32	37.7...	50.7...	3.596	3.596	...	H1-...
25	MP ALPHA3	PIPE 2.5	.426	1	11	.199	1		18	37.7...	50.7...	3.596	3.596	...	H1-...
26	RAIL1b	L3X3X4	.391	1.575	2	.067	0	z	5	4.87	46.6...	1.688	2.542	...	H2-1
27	RAIL3b	L3X3X4	.381	1.575	26	.063	12.599	z	23	4.87	46.6...	1.688	2.534	...	H2-1
28	RAIL2b	L3X3X4	.366	1.575	14	.061	12.599	z	8	4.87	46.6...	1.688	2.673	...	H2-1
29	SO3	HSS4X4X4	.280	3.656	21	.114	3.656	z	21	120....	139....	16.1...	16.1...	...	H1-...
30	SO2	HSS4X4X4	.279	3.656	36	.116	3.656	z	33	120....	139....	16.1...	16.1...	...	H1-...
31	SO1	HSS4X4X4	.275	3.656	6	.113	3.656	z	9	120....	139....	16.1...	16.1...	...	H1-...
32	KICKER2	LL2.5x2.5x...	.270	1.753	33	.008	0	z	5	44.2...	58.32	3.954	2.55	...	H1-...
33	KICKER1	LL2.5x2.5x...	.269	1.394	9	.007	0	z	17	44.2...	58.32	3.954	2.55	...	H1-...
34	SUP1	L4X3X4	.268	0	20	.011	5.752	z	20	28.5...	54.7...	1.844	4.83	...	H2-1
35	SUP2	L4X3X4	.266	5.752	8	.013	0	z	8	28.5...	54.7...	1.844	4.936	...	H2-1
36	KICKER3	LL2.5x2.5x...	.264	1.872	21	.011	0	z	29	44.2...	58.32	3.954	2.55	...	H1-...

APPENDIX D

Additional Calculations

POWER OF DESIGN

POD Job #	**20-65646**
Site Number	**806369**
Site Name	**HRT 094 943225**

Connection Type	Single Shear	

RISA 3D Forces

Axial (Bolts)	0.133	kips
Shear (Bolts)	0.307	kips
Axial Force (Member)	0.392	kips

Bolt/Member Information

Member Label	RAIL1a	
# of Bolts	1	
Diameter	0.625	inches
Bolt Grade	A325	
Member Grade	A36	
Threads Included?	Yes	
L_b	0	inches
L_c	1	inches
t	0.25	inches

Shear Capacity	**2.2%**
Axial Capacity	**0.7%**
Bearing Capacity	**2.4%**
Combined Capacity	**0.1%**

Ver 1.0 - 2/28/2020

POD
POWER OF DESIGN

POD Job #	**20-65646**
Site Number	**806369**
Site Name	**HRT 094 943225**

Calculations Based on *TIA-222-H*

Reactions from RISA-3D

Moment	0.981	ft-kip
Axial	6.508	kips
Shear	2.083	kips

Capacities

Bolts	*1.8%*
Flange Plate	*14.3%*

Bolt Information

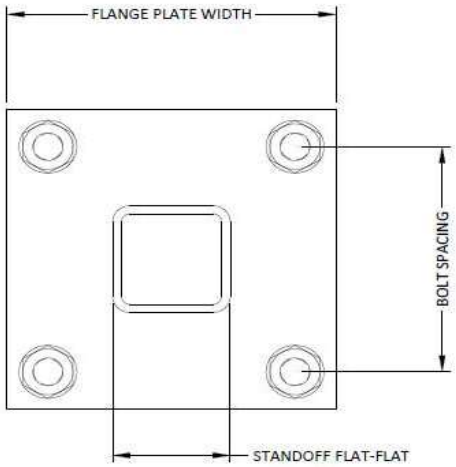
Grade	A325	
Threads in Shear Plane	Included	
Diameter	0.625	in.
Bolt Spacing	6	in.
Number of Rods	4	

Flange Plate Inforation

Width	8	in.
Thickness	0.75	in.
Grade	A36	

Standoff Information

Standoff Member	HSS	
Flat-Flat	4	in.
Thickness	0.25	in.



Bolt Calculations

ϕ	0.75	
A_{nt}	0.226	in^2
A_b	0.307	in^2
Fu	120	ksi
ϕR_{nv}	13.81	kips
ϕR_{nt}	20.34	kips
V	0.52	kips
F	2.61	kips
Capacity	1.8%	

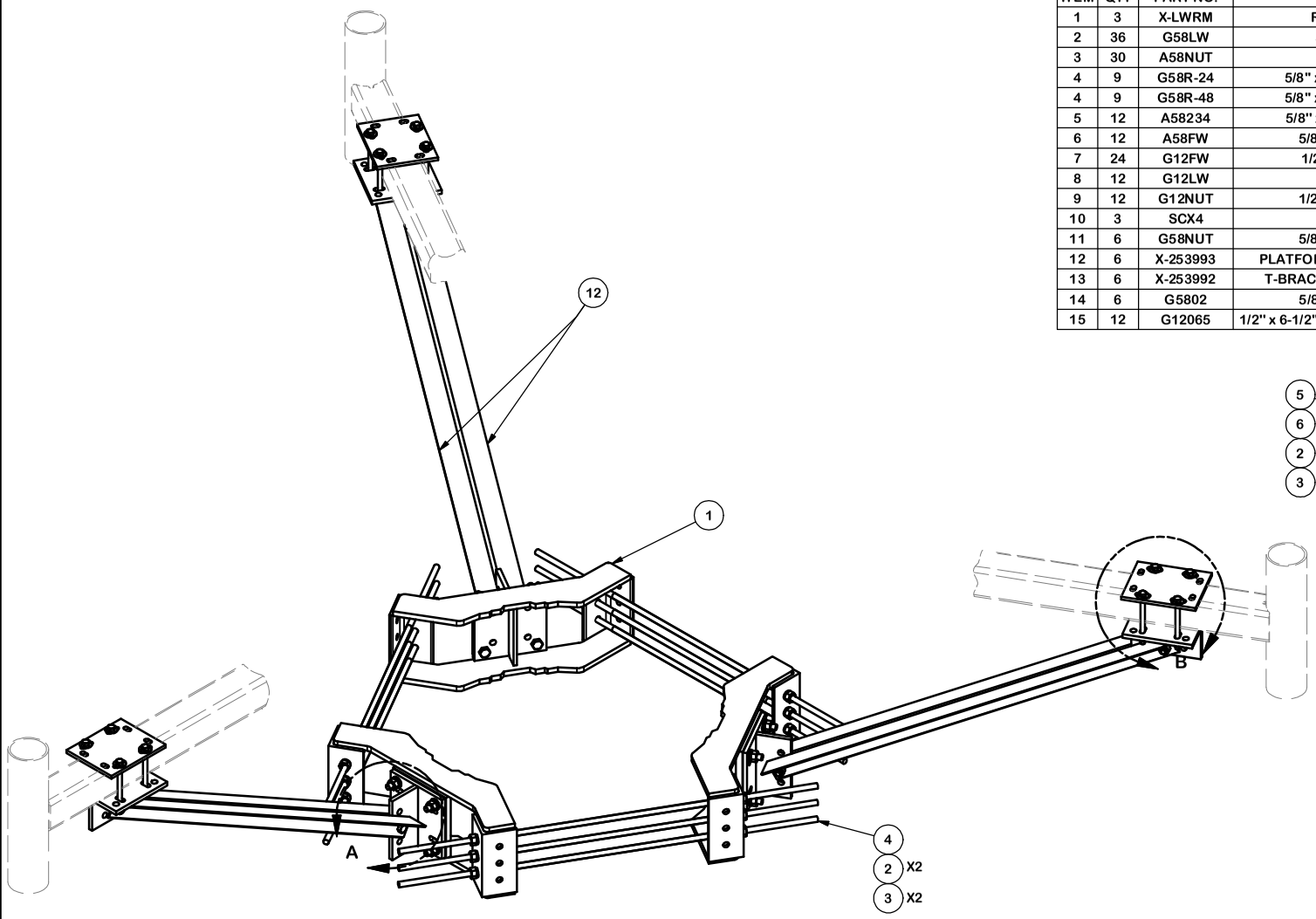
Flange Plate Calculations

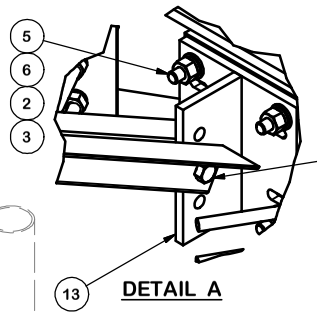
ϕ	0.9	
Fy	36	ksi
t_{min}	0.15	in
Z	1.1	in^3
ϕM_n	36.5	in-kip
M_u	5.2	in-kip
Capacity	14.3%	

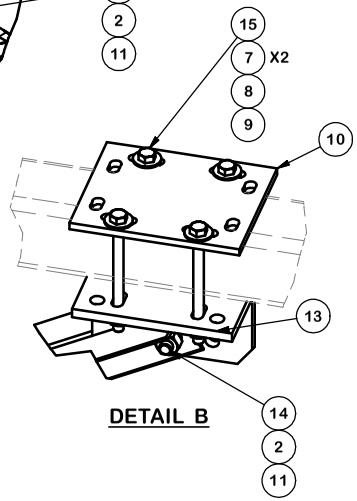
Ver 1.0 - 3/5/2019

APPENDIX F

Mount Modification Design 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	36	G58LW	5/8" HDG LOCKWASHER		0.03	0.94
3	30	A58NUT	5/8" HDG A325 HEX NUT		0.13	3.90
4	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.55	4.94
4	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)		0.55	4.94
5	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	4.27
6	12	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
7	24	G12FW	1/2" HDG USS FLATWASHER		0.03	0.82
8	12	G12LW	1/2" HDG LOCKWASHER		0.01	0.17
9	12	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.86
10	3	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	18.06
11	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
12	6	X-253993	PLATFORM REINFORCEMENT KIT ANGLE	52 25/32 in	14.33	85.99
13	6	X-253992	T-BRACKET FOR REINFORCEMENT KIT		13.55	81.27
14	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
15	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
					TOTAL WT. #	464.91

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")*

DESCRIPTION
PLATFORM RENIFORCEMENT
ON A 12" TO 45" POLE
4' 6" ANGLE

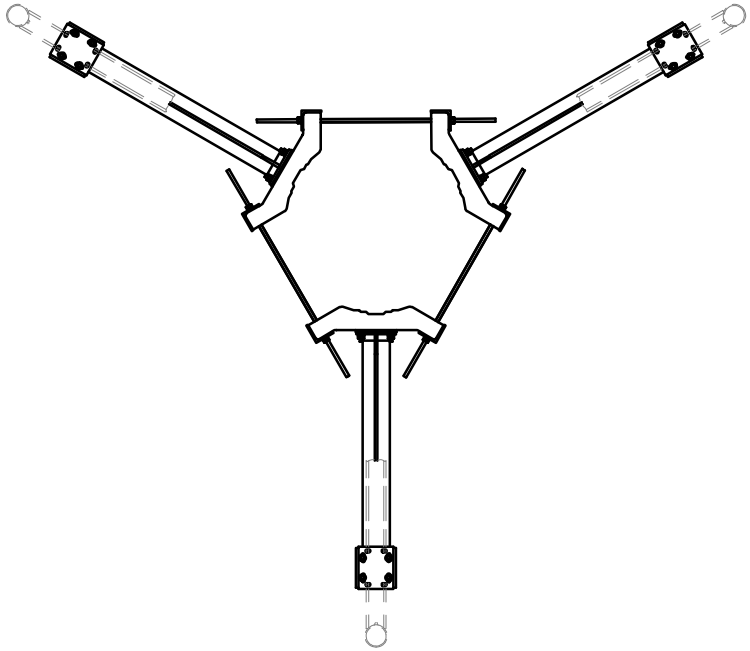
SITE PRO 1 — A valmont COMPANY

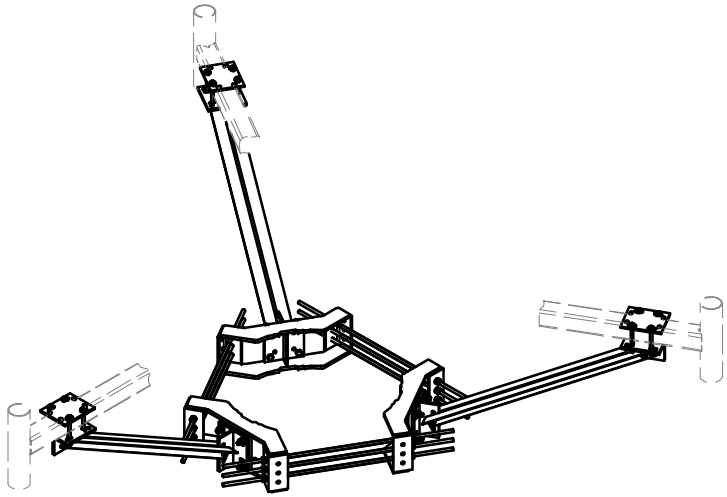
Engineering Support Team: 1-888-753-7446

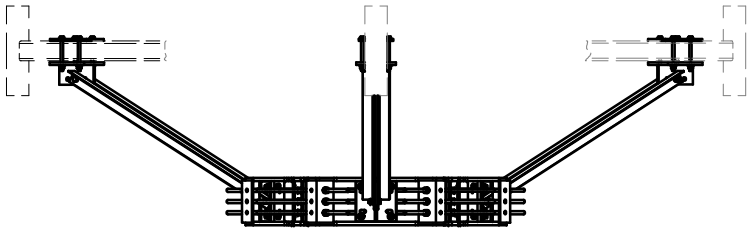
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

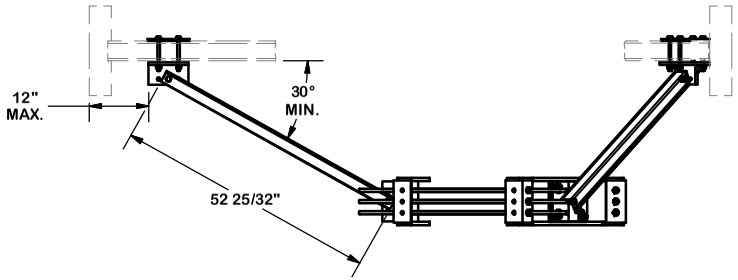
CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
4488	CEK 4/10/2014		PRK-1245	1 OF 2

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 4/10/2014	PRK-1245









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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
PLATFORM RENIFORCEMENT
ON A 12" TO 45" POLE
4' 6" ANGLE

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.
4488	CEK 4/10/2014		PRK-1245

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 4/10/2014	PRK-1245

APPENDIX E

Modification Part Documentation

SITE:

806369 HRT 094 943225 (CT11161D)

MODIFICATION DRAWING FOR AN EXISTING 12.83' PLATFORM W/ SUPPORT RAILS AT 126' ON A 140' MONOPOLE TOWER

SHEET INDEX	
T-01	TITLE SHEET
N-01	NOTES
S-01	PLAN VIEW
S-02	ELEVATION VIEW
MI-01	MODIFICATION CHECKLIST

PROJECT INFORMATION	
COUNTY:	HARTFORD
SITE ADDRESS:	439-455 HOMESTEAD AVE. HARTFORD, CT 06105
LATITUDE:	41° 47' 01.61"
LONGITUDE:	-72° 42' 13.66"

SCOPE OF WORK:

MOUNT MODIFICATION DRAWINGS INCLUDES:
INSTALL PROPOSED KICKER KIT.

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

T-Mobile

MODIFICATION DRAWING

REV.	DATE	DESCRIPTION

SITE INFORMATION:

HRT 094 943225 (CT11161D)

439-455 HOMESTEAD AVE.
HARTFORD, CT 06105

SITE NUMBER:
806369

POD NUMBER:	20-65646
DRAWN BY:	TAJ
CHECKED BY:	JGC
DATE:	06/19/2020

SHEET TITLE:

TITLE SHEET

T-01

GENERAL NOTES

1. THE MODIFICATIONS REPRESENTED IN THESE DRAWINGS ARE BASED ON THE STRUCTURAL DOCUMENTS PROVIDED IN THE STRUCTURAL DOCUMENTS TABLE. THE CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH ALL REFERENCED DOCUMENTS.

REFERENCE DOCUMENTS	
DOCUMENT TYPE	DESIGNATION
MOUNT ANALYSIS	POD PROJECT NUMBER: 20-65094 DATED: 06/11/2020

2. ALL MODIFICATIONS MUST BE INSTALLED TO BRING THE TOWER INTO CONFORMANCE WITH ALL APPLICABLE CODES.

GOVERNING CODES	TIA-222-H, 2015 IBC, & 2018 CONNECTICUT BC
ULTIMATE WIND SPEED	125 MPH 3 SECOND GUST
RADIAL ICE THICKNESS	1.5"
WIND SPEED W/ ICE	50 MPH 3 SECOND GUST
STRUCTURE CLASS	II
EXPOSURE CATEGORY	B
TOPOGRAPHIC CATEGORY	1
SPECTRAL RESPONSE ACCELERATIONS	SS= 0.181 & S1= 0.064

3. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE OR APPROVED BY THE EOR. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE PERFORMING WORK SIMILAR TO THAT DESCRIBED WITHIN THESE DRAWINGS. BY ACCEPTANCE OF THIS PROJECT, THE CONTRACTOR IS ATTESTING THAT HE HAS SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND REGISTERED TO PERFORM THE WORK IN THE PROJECT JURISDICTION.
4. WORK SHALL ONLY BE PERFORMED DURING CALM, DRY DAYS (WINDS LESS THAN 10XMPH). IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE INSTILLATION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIEXDOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
5. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND EOR. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE EOR SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES AND PROCEDURES.
6. THE DESIGN WITHIN THESE DRAWINGS ASSUMES THE TOWER AND ITS FOUNDATIONS HAVE BEEN WELL MAINTAINED, IN GOOD CONDITION AND ARE WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBER, LOOSE BOLTS, CRACKED WELDS, AND OTHER STRUCTURAL DEFECTS HAVE NOT BEEN CONSIDERED UNLESS SPECIFICALLY NOTED. THE TOWER IS ASSUMED TO BE PLUMB AND THE SITE IS ASSUMED LEVEL. THE OWNER AND/OR EOR SHALL BE NOTIFIED IMMEDIATELY IF ANY VARIANCES ARE FOUND.
7. THE CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE TOWER OWNER'S PROPERTY, LEASE AREA OR APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS PERFORMED WITHIN THESE BOUNDARIES. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE OWNER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAIN AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL WORK PERFORMED COMPLIES WITH ALL APPLICATION SAFETY CODES AND GOVERNING REGULATIONS.
9. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULES AND MATERIAL DELIVERIES, WITH THE OWNER/RESIDENT LEASING AGENT FOR APPROVAL.
10. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNING AGENCIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
11. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDED BUT NOT LIMITED TO ALTERED SIZED AND/OR STRENGTHS, MUST BE APPROVED BY THE EOR.
12. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORKING LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.
13. ALL DIMENSIONS AND QUANTITIES LISTED WITHIN THESE DRAWINGS ARE INTENDED TO AID THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL DIMENSION AND QUANTITIES PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
14. ALL MANUFACTURERS' INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. ANY DEVIATION REQUIRES WRITTEN APPROVAL FROM THE EOR.
15. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING COAX, BRACKETS, ANTENNAS MOUNTS AND ANY OTHER TOWER APPURTENANCE THAT MAY INTERFERE WITH THE INSTILLATION OF THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACE AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME MOUNTS OR ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATION TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOM MOUNTS OR ATTACHMENTS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE OWNER/EOR PRIOR TO REMOVAL. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE OWNER IN WRITING.
16. DO NOT SCALE DRAWINGS.

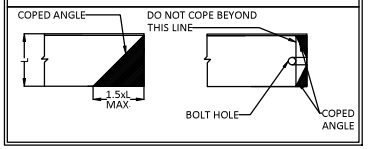
STRUCTURAL STEEL NOTES

1. ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
2. ALL STRUCTURAL STEEL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.

MATERIAL SPECIFICATIONS	
ANGLES	ASTM A36 (36 KSI YIELD STRENGTH)
BOLTS	ASTM A325N
NUTS	ASTM A563
WASHER	ASTM F436
PLATE	ASTM A36 (36 KSI YIELD STRENGTH)

3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.
4. CAULKING SHALL BE PROVIDED AROUND PERIMETER OF ANY AND ALL MODIFICATION MEMBERS TO ENSURE COMPLETE SEAL BETWEEN EXISTING STRUCTURE AND REINFORCING MEMBERS IN FULL CONTACT WITH EXISTING STEEL. SEALANT IS TO BE EXTERIOR GRADE, PAINTABLE SILICONE CAULKING AS MANUFACTURED BY DOW AND ACCEPTABLE TO EOR.
5. HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE EOR.
6. ALL EXPOSED STEEL SHALL BE HOTXDIPPED GALVANIZED PER ASTM A123, ASTM A153/A153M, OR ASTM A653 G90, AS APPLICABLE FOR FULL WEATHER PROTECTION. FOR HIGH STRENGTH STEEL FASTENERS WHERE HOTXDIPPED GALVANIZING IS NOT PERMITTED DACROMET F1136 GRADE 3 COATING SHALL BE USED. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING TOWER STEEL. CONTRACTOR SHALL OBTAIN EOR APPROVAL FOR STEEL PROTECTION BY ANY OTHER MEANS.
7. REPAIR DAMAGED PAINTED/GALVANIZED SURFACES WITH TWO COATS OF BRUSH OR ROLL ON ZRC COLD GALVANIZING COMPOUND OR EOR APPROVED COATING. SURFACES MUST BE WIRE BRUSHED AND SOLVENT CLEANED PRIOR TO APPLICATION OF GALVANIZING COMPOUND.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES (LOCKING NUT/PAL NUT) TO BE INSTALLED IN ACCORDANCE WITH TIA/EIAX222 REQUIREMENTS.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.

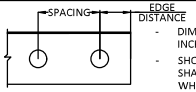
ALLOWABLE ANGLE COPE



1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENT.

BOLT SCHEDULE

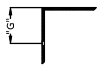
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16x11/16	7/8	1-1/2
5/8	11/16	11/16x7/8	1-1/8	1-7/8
3/4	13/16	13/16x1	1-1/4	2-1/4
7/8	15/16	15/16x1-1/8	1-1/2	2-5/8
1	1-1/16	1-1/16x1-5/16	1-3/4	3



- DIMENSIONS GIVEN IN INCHES.
- SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED ON THE PLANS.

WORKABLE GAGES

LEG	2-1/2	----	----
G	1-3/8	----	----



- DIMENSIONS GIVEN IN INCHES.
- MATCH EXISTING WHEN APPLICABLE.

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

T-Mobile

MODIFICATION DRAWING

REV.	DATE	DESCRIPTION

SITE INFORMATION:

HRT 094 943225 (CT11161D)

439-455 HOMESTEAD AVE.
HARTFORD, CT 06105

SITE NUMBER:

806369

POD NUMBER:	20-65646
DRAWN BY:	TAJ
CHECKED BY:	JGC
DATE:	06/19/2020

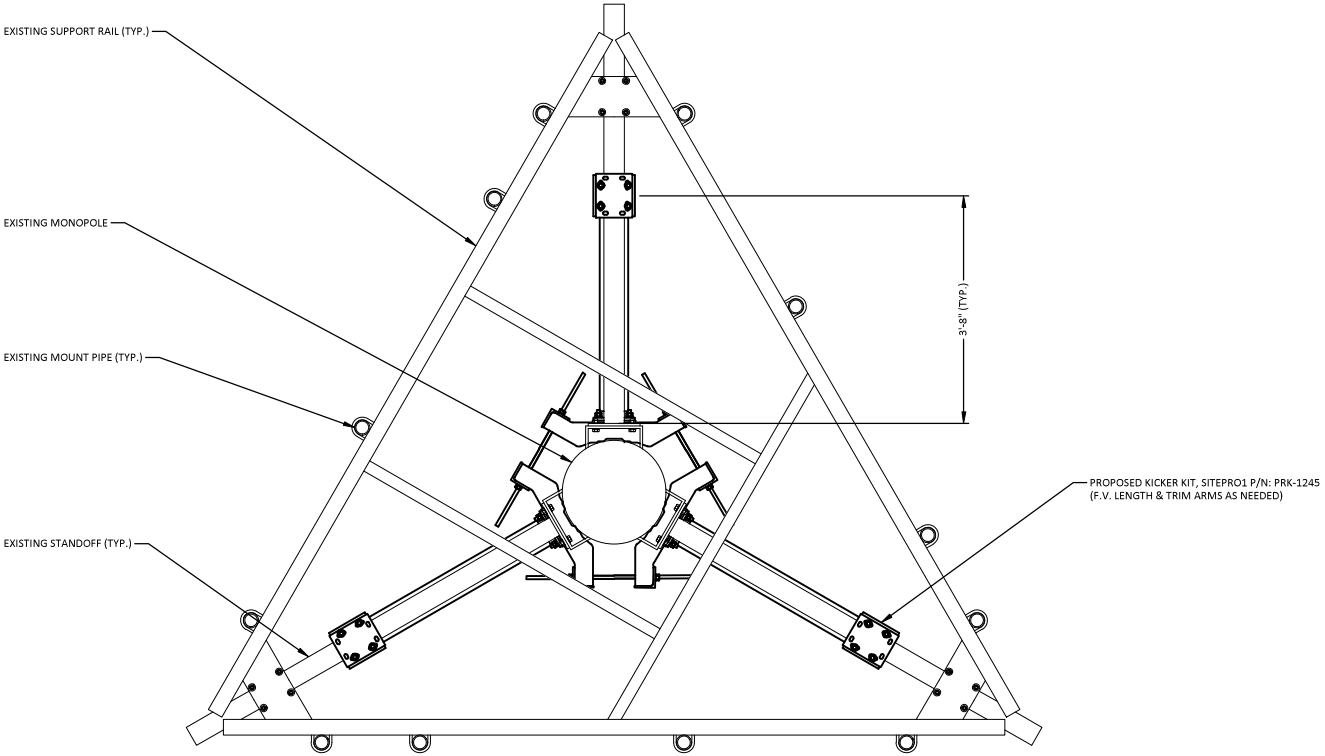
SHEET TITLE:

NOTES

N-01

NOTES:

- ANTENNAE & GRATING NOT SHOWN FOR CLARITY
- ALL FIELD DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF ZRC RICH PAINT
- EXCESS MATERIALS SHALL BE REMOVED AND DISPOSED OFF SITE BY THE CONTRACTOR



PLAN VIEW

1/2" = 1'-0"

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

T-Mobile

MODIFICATION DRAWING

REV.	DATE	DESCRIPTION

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806369

POD NUMBER:	20-65646
DRAWN BY:	TAJ
CHECKED BY:	JGC
DATE:	06/19/2020

SHEET TITLE:

PLAN VIEW

S-01

NOTES:

- ANTENNAE & GRATING NOT SHOWN FOR CLARITY
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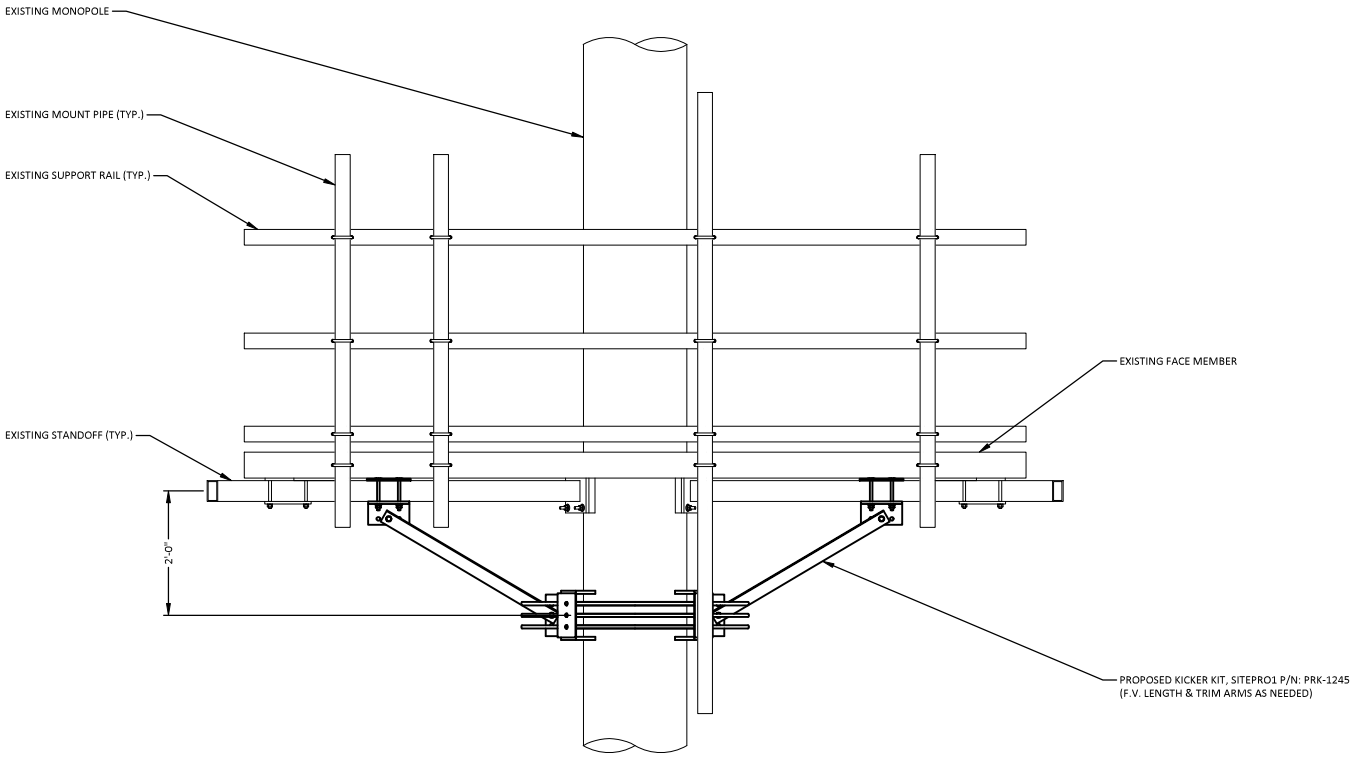
- EXCESS MATERIALS SHALL BE REMOVED AND DISPOSED OFF SITE BY THE CONTRACTOR



ELEVATION VIEW

1/2" = 1'-0"

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

T-Mobile

MODIFICATION DRAWING

REV.	DATE	DESCRIPTION

SITE INFORMATION:

HRT 094 943225 (CT11161D)

439-455 HOMESTEAD AVE.
HARTFORD, CT 06105

SITE NUMBER:

806369

POD NUMBER:	20-65646
DRAWN BY:	TAJ
CHECKED BY:	JGC
DATE:	06/19/2020

SHEET TITLE:

ELEVATION VIEW

S-02

MODIFICATION INSPECTION CHECKLIST

BEFORE CONSTRUCTION		DURING CONSTRUCTION		AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM	CONSTRUCTION/INSTALLATION INSPECTION AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
X	MODIFICATION INSPECTION CHECKLIST DWG	X	CONSTRUCTION INSPECTION	X	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWING(S)
-	ENGINEER OF RECORD APPROVED SHOP DRAWINGS	-	FOUNDATION INSPECTION	-	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
-	FABRICATION INSPECTION	-	CONCRETE COMP. STRENGTH AND SLUMP TEST	X	PHOTOGRAPHS
X	MATERIAL TEST REPORT	-	POST INSTALLED ANCHOR ROD VERIFICATION	ADDITIONAL TESTING AND INSPECTION	
-	FABRICATOR NDE INSPECTION	-	BASE PLATE GROUT VERIFICATION		
-	NDE REPORT OF MONOPOLE BASEPLATE (AS REQUIRED)	-	THIRD PARTY CERTIFIED WELD INSPECTION		
X	PACKING SLIP	-	EARTHWORK LIFT AND DENSITY (REPORT REQUIRED)		
ADDITIONAL TESTING AND INSPECTION		X	ON SITE COLD GALVANIZING VERIFICATION		
		-	GUY WIRE TENSION REPORT		
		X	GC AS-BUILT DOCUMENTS		
		ADDITIONAL TESTING AND INSPECTION			

MODIFICATION INSPECTION NOTES:

GENERAL:

1. THE MODIFICATION INSPECTION IS A VISUAL INSPECTION OF TOWER MODIFICATION AND A REVIEW OF CONSTRUCTION INSPECTION AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NAMELY THE MODIFICATION DRAWINGS., AS DESIGNED BY THE ENGINEER OF RECORD.

2. THE MODIFICATION INSPECTION IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AN IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. NOR DOES THE MODIFICATION INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTENT RESIDES WITH THE ENGINEER OF RECORD AT ALL TIMES.

3. TO ENSURE THAT THE REQUIREMENT OF THE MODIFICATION INSPECTION ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MODIFICATION INSPECTOR BEGIN COMMUNICATION AND COORDINATING AS SOON AS A PO OR PAYMENT IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MODIFICATION INSPECTOR:

1. THE MODIFICATION INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSPECTION TO:

- REVIEW THE REQUIREMENT OF THE MODIFICATION INSPECTION CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE
- INSPECTIONS
- DISCUSS ANY SITE SPECIFIC INSPECTIONS OR CONCERNS

2. THE MODIFICATION INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS. REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE INXFEILD INSPECTIONS, AND SUBMITTING THE MODIFICATION INSPECTION REPORT.

GENERAL CONTRACTOR:

1. THE GC IS REQUIRED TO CONTACT THE MODIFICATION INSPECTOR AS SOON AS RECEIVING A PO OR PAYMENT FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO:

- REVIEW THE REQUIREMENT OF THE MODIFICATION INSPECTION CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MODIFICATION INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

2. THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MODIFICATION INSPECTION CHECKLIST.

RECOMMENDATIONS:

1. IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, TO THE MODIFICATION INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR HE MODIFICATION INSPECTION TO BE CONDUCTED.

- THE GC AND MODIFICATION INSPECTION COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE IT IS PREFERRED TO HAVE THE MODIFICATION INSPECTOR AND GC ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR REXTENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL TOWER MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTION TO ALLOW FOUNDATION AND MODIFICATION INSPECTION(S) DONE IN ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MODIFICATION INSPECTOR ON-SITE DURING THE MODIFICATION INSPECTION. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MODIFICATION INSPECTION CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CANCELLATION OR DELAYS IN SCHEDULED MODIFICATION INSPECTION:

1. IF THE GC AND MODIFICATION INSPECTOR AGREE TO A DATE ON WHICH THE MODIFICATION INSPECTION WILL BE CONDUCTED, AND EITHER ARTY CANCELS OR DELAYS, THE TOWER OWNER SHALL NOT BE RESPONSIBLE FOR ANY COSTS, FEES, LOSS OR DEPOSITS AND/OR OTHER PENALTIES RELATE TO THE CANCELLATION OR DELAY INCURRED BY EITHER PARTY FOR ANY TIME. EXCEPTIONS MAY BE MADE IN THE DELAY/ CANCELLATION IS CAUSED BY WEATHER OR OTHER CONDITIONS THAT MAY COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

CORRECTION OF FAILING MODIFICATION INSPECTION:

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION ("FAILED MODIFICATION INSPECTION"), THE GC SHALL WORK WITH MODIFICATION INSPECTOR TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION. OR, WITH TOWER OWNER'S APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO REXANALYZE THE MODIFCATION/REINFORCEMENT USING AS-BUILT CONDITION.

VERIFICATION INSPECTIONS:

1. TOWER OWNER RESERVES THE RIGHT TO CONDUCT A VERIFICATION INSPECTION TO VERIFY THE ACCURACY AND COMPLETENESS OF PREVIOUSLY COMPLETED MODIFICATION AND INSPECTION(S) ON TOWER MODIFICATION PRODUCTS.

2. VERIFICATION INSPECTION MAY BE CONDUCTED BY AN INDEPENDENT FIRM AFTER A MODIFICATION PROJECT IS COMPLETED, AS MARKED BY THE DATE OF AN ACCEPTED "PASSING MODIFICATION INSPECTION MODIFICATION INSPECTION" REPORT FOR THE ORIGINAL PROJECT.

REQUIRED PHOTOS:

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS ARE TO BE TAKEN AND INCLUDED IN THE MODIFICATION INSPECTION REPORT:

- PREXCONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION

  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - WELD PREPARATION
  - FOUNDATION MODIFICATION
  - BOLT INSTALLATION AND TORQUE
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR

- POST CONDITION PHOTOGRAPHS
- FINAL INFIELD CONDITION ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DENTALS OF MODIFICATIONS

2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

T-Mobile

MODIFICATION DRAWING

REV.	DATE	DESCRIPTION

SITE INFORMATION:

HRT 094 943225 (CT11161D)

439-455 HOMESTEAD AVE.
HARTFORD, CT 06105

SITE NUMBER:

806369

POD NUMBER:	20-65646
DRAWN BY:	TAJ
CHECKED BY:	JGC
DATE:	06/19/2020

SHEET TITLE:

MODIFICATION CHECKLIST

MI-01

Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11161D

CT161/Jn of Albany_1
439 Homestead Avenue
Hartford, Connecticut 06112

July 9, 2020

EBI Project Number: 6220002984

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**25.82%**

July 9, 2020

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CT11161D - CT161/Jn of Albany_1

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **439 Homestead Avenue** in **Hartford, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 439 Homestead Avenue in Hartford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.

3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

6) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

7) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

8) 2 LTE channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

9) 2 NR channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

10) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

11) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

12) The antennas used in this modeling are the RFS APXVAARR24_43-UNA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 21 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector A, the RFS APXVAARR24_43-UNA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 21 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector B, the RFS APXVAARR24_43-UNA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 21 for the 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional

panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

13) The antenna mounting height centerline of the proposed antennas is 128 feet above ground level (AGL).

14) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

15) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APXVAARR24_43-UNA20	Make / Model:	RFS APXVAARR24_43-UNA20	Make / Model:	RFS APXVAARR24_43-UNA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd
Height (AGL):	128 feet	Height (AGL):	128 feet	Height (AGL):	128 feet
Channel Count:	7	Channel Count:	7	Channel Count:	7
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,466.41	ERP (W):	8,466.41	ERP (W):	8,466.41
Antenna A1 MPE %:	**3.09%**	Antenna B1 MPE %:	**3.09%**	Antenna C1 MPE %:	**3.09%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd
Height (AGL):	128 feet	Height (AGL):	128 feet	Height (AGL):	128 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	8,728.31	ERP (W):	8,728.31	ERP (W):	8,728.31
Antenna A2 MPE %:	**1.92%**	Antenna B2 MPE %:	**1.92%**	Antenna C2 MPE %:	**1.92%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR 21	Make / Model:	Ericsson AIR 21	Make / Model:	Ericsson AIR 21
Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd
Height (AGL):	128 feet	Height (AGL):	128 feet	Height (AGL):	128 feet
Channel Count:	6	Channel Count:	6	Channel Count:	6
Total TX Power (W):	180 Watts	Total TX Power (W):	180 Watts	Total TX Power (W):	180 Watts
ERP (W):	6,169.82	ERP (W):	6,169.82	ERP (W):	6,169.82
Antenna A3 MPE %:	**1.35%**	Antenna B3 MPE %:	**1.35%**	Antenna C3 MPE %:	**1.35%**
Antenna #:	**4**	Antenna #:	**4**	Antenna #:	**4**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	128 feet	Height (AGL):	128 feet	Height (AGL):	128 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts
ERP (W):	25,651.93	ERP (W):	25,651.93	ERP (W):	25,651.93
Antenna A4 MPE %:	**5.63%**	Antenna B4 MPE %:	**5.63%**	Antenna C4 MPE %:	**5.63%**

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	11.99%
Sprint	1.23%
Clearwire	0.19%
Sensus (CL&P)	0.25%
Metro PCS	1.57%
Verizon	2.87%
AT&T	7.72%
Site Total MPE % :	25.82%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	11.99%
T-Mobile Sector B Total:	11.99%
T-Mobile Sector C Total:	11.99%
Site Total MPE % :	25.82%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 600 MHz LTE	2	591.73	128.0	2.60	600 MHz LTE	400	0.65%
T-Mobile 600 MHz NR	1	1577.94	128.0	3.46	600 MHz NR	400	0.87%
T-Mobile 700 MHz LTE	2	648.82	128.0	2.85	700 MHz LTE	467	0.61%
T-Mobile 1900 MHz LTE	2	2203.69	128.0	9.67	1900 MHz LTE	1000	0.97%
T-Mobile 1900 MHz LTE	2	2056.61	128.0	9.03	1900 MHz LTE	1000	0.90%
T-Mobile 2100 MHz LTE	2	2307.55	128.0	10.13	2100 MHz LTE	1000	1.01%
T-Mobile 1900 MHz GSM	4	1028.30	128.0	9.03	1900 MHz GSM	1000	0.90%
T-Mobile 2100 MHz UMTS	2	1028.30	128.0	4.51	2100 MHz UMTS	1000	0.45%
T-Mobile 2500 MHz LTE	2	6412.98	128.0	28.14	2500 MHz LTE	1000	2.81%
T-Mobile 2500 MHz NR	2	6412.98	128.0	28.14	2500 MHz NR	1000	2.81%
						Total:	**11.99%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	11.99%
Sector B:	11.99%
Sector C:	11.99%
T-Mobile Maximum MPE % (Sector A):	11.99%
Site Total:	25.82%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **25.82%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.