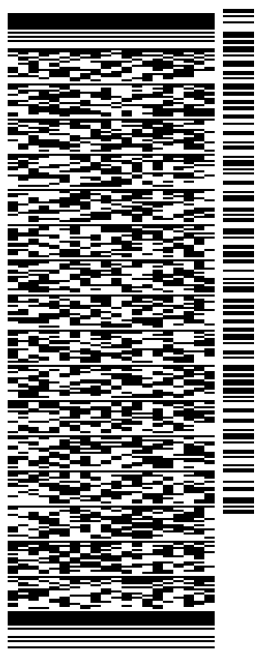


ORIGIN ID:FOXA (781) 392-7547  
KATIE ADAMS  
NB+C  
100 APOLLO DRIVE  
SUITE 303  
CHELMSFORD, MA 01824  
UNITED STATES US

SHIP DATE: 22JUL22  
ACTWGT: 3.50 LB  
CAD: 108980334IN/ET4490  
BILL SENDER

TO **MELANIE A. BACHMAN**  
**CONNECTICUT SITING COUNCIL**  
**10 FRANKLIN SQUARE**

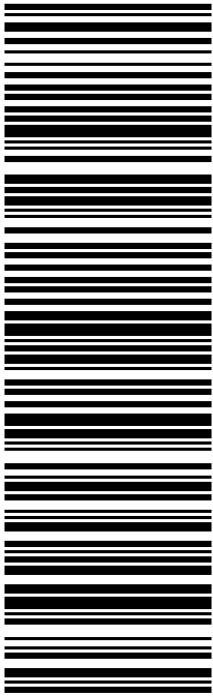
**NEW BRITAIN CT 06051**  
(860) 827-2935 REF: 100788 - CSC  
INV/ DEPT:  
PO:



581J20A92/FE4A

TRK# 7774 5846 4260  
0201

MON - 25 JUL 10:30A  
PRIORITY OVERNIGHT



**XE BDLA**  
06051  
CT-US BDL

**After printing this label:**

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

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

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



1 Cityplace Dr, Suite 490  
Creve Coeur, MO 63141

Phone: (314) 513-0147  
www.crowncastle.com

July 20<sup>th</sup>, 2022

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

RE: **Notice of Exempt Modification for AT&T  
Crown Site ID#876317; AT&T Site ID#CT2860  
150 Mattatuck Heights, Waterbury, CT 06705  
Latitude: 41.537908 / Longitude: -72.985002**

Dear Ms. Bachman:

AT&T currently maintains (9) antennas at the 143-foot mounts on the existing 144.3-foot Monopole Tower located at **50 Mattatuck Heights, Waterbury**. The property is owned by Waterbury Twin LLC & 150 MH LLC and the Tower by Crown Castle. AT&T now intends to replace six (6) antennas. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

**Planned Modifications:**

**Tower:**

**REMOVE AND REPLACE**

- (3) KMW EPBQ-654L8H8-L2 Antennas (**REMOVE**), (3) Quintel QD8616-7 Antennas (**REPLACE**)
- (3) CCI HPA65R-BU8A Antennas (**REMOVE**) (3) Ericsson – AIR6449 B77D (**REPLACE**), (3) Ericsson – AIR6419 B77G (antennas stacked) (**REPLACE**)
- (1) Raycap DC6-48-60-0-8F Squid (**REMOVE**) (1) Raycap DC9-48-60-24-8C-EV Squid (**REPLACE**)

**RELOCATE**

- (3) Ericsson – 8843 B2/B66A RRUs
- (3) Ericsson – 4478 B14 RRUs
- (3) Ericsson – 4415 B30 RRUs

**INSTALL**

- (3) Ericsson – 2012 B29 RRUS
- (1) 6AWG DC Cable (7/8")
- (1) 24 Pair Fiber Cable (3/8")
- (6) Y Cables

**Ground:**

**INSTALL:**

- (1) 6648 with Xcede Cable
- (4) Rectifiers in Existing Power Plant



1 Cityplace Dr, Suite 490  
Creve Coeur, MO 63141

Phone: (314) 513-0147  
[www.crowncastle.com](http://www.crowncastle.com)

The facility was approved by the City of Waterbury, however the City has been unable to locate a copy of the approval. Please see attached Exhibit A.

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 Neil O'Leary, City of Waterbury Mayor, Robert Nerney, City of Waterbury Planner, and property owner, Waterbury Twin LLC & 150 MH LLC.

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, AT&T 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).

Sincerely,

Katie Adams  
Crown Castle, Agent for AT&T  
[kadams@nbcllc.com](mailto:kadams@nbcllc.com)  
(781) 392-7547



1 Cityplace Dr, Suite 490  
Creve Coeur, MO 63141

Phone: (314) 513-0147  
[www.crowncastle.com](http://www.crowncastle.com)

cc:

Mayor Neil O'Leary  
City Hall Building  
235 Grand Street, 2nd floor  
Waterbury, CT 06702  
*(Via Fedex)*

Robert Nerney, City Planner  
185 South Main Street, 5th floor  
Waterbury, CT 06706  
*(Via Fedex)*

Waterbury Twin LLC & 150 MH LLC – Property Owner  
12 Iselin Terrace  
Larchmont, NY 10538  
*(Via Fedex)*



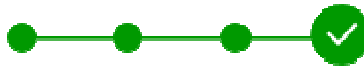
**Katie Adams**

---

**From:** TrackingUpdates@fedex.com  
**Sent:** Friday, July 22, 2022 10:21 AM  
**To:** Katie Adams  
**Subject:** FedEx Shipment 777453512208: Your package has been delivered



Hi. Your package was  
delivered Fri, 07/22/2022 at  
10:19am.

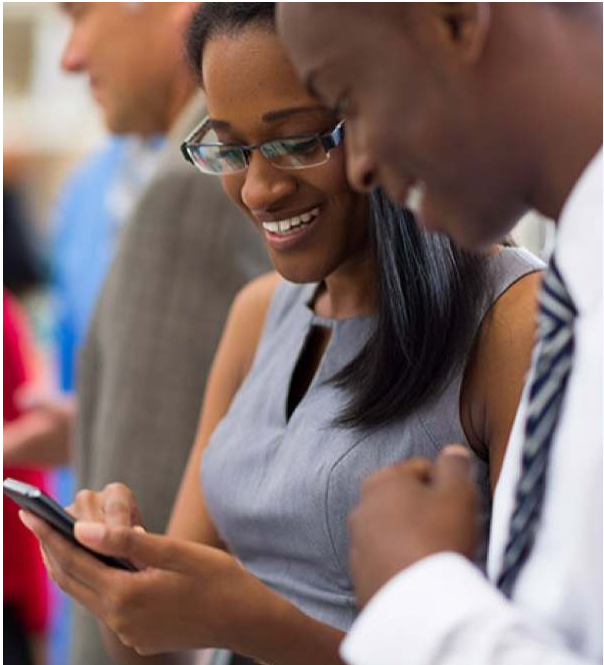


Delivered to 185 S MAIN ST, WATERBURY, CT 06706  
Received by M.KILDAY

**OBTAIN PROOF OF DELIVERY**

<b>TRACKING NUMBER</b>	<a href="#">777453512208</a>
<b>FROM</b>	NB+C 100 Apollo Drive Suite 303 CHELMSFORD, MA, US, 01824
<b>TO</b>	Robert Nerney, City Planner 185 South Main Street 5th Floor WATERBURY, CT, US, 06706
<b>REFERENCE</b>	100788 - CSC 1

<b>SHIPPER REFERENCE</b>	100788 - CSC
<b>SHIP DATE</b>	Thu 7/21/2022 06:15 PM
<b>DELIVERED TO</b>	Receptionist/Front Desk
<b>PACKAGING TYPE</b>	FedEx Pak
<b>ORIGIN</b>	CHELMSFORD, MA, US, 01824
<b>DESTINATION</b>	WATERBURY, CT, US, 06706
<b>NUMBER OF PIECES</b>	1
<b>TOTAL SHIPMENT WEIGHT</b>	1.00 LB
<b>SERVICE TYPE</b>	FedEx Priority Overnight



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All weights are estimated.

**Katie Adams**

---

**From:** TrackingUpdates@fedex.com  
**Sent:** Friday, July 22, 2022 9:35 AM  
**To:** Katie Adams  
**Subject:** FedEx Shipment 777453498211: Your package has been delivered



Hi. Your package was  
delivered Fri, 07/22/2022 at  
9:33am.

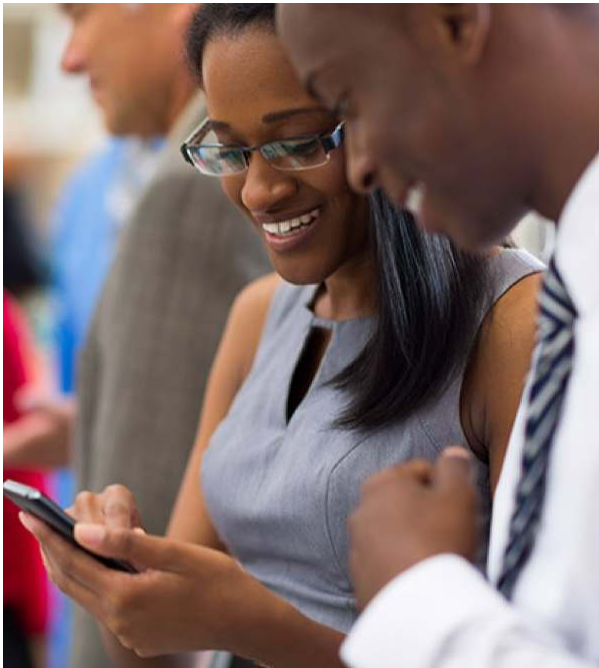


Delivered to 235 GRAND ST 1, WATERBURY, CT 06702  
Received by M.CHOZAK

**OBTAIN PROOF OF DELIVERY**

<b>TRACKING NUMBER</b>	<a href="#">777453498211</a>
<b>FROM</b>	NB+C 100 Apollo Drive Suite 303 CHELMSFORD, MA, US, 01824
<b>TO</b>	City Hall Mayor Neil O'Leary 235 Grand Street 2nd floor WATERBURY, CT, US, 06702

<b>REFERENCE</b>	100788 - CSC
<b>SHIPPER REFERENCE</b>	100788 - CSC
<b>SHIP DATE</b>	Thu 7/21/2022 06:15 PM
<b>DELIVERED TO</b>	Receptionist/Front Desk
<b>PACKAGING TYPE</b>	FedEx Pak
<b>ORIGIN</b>	CHELMSFORD, MA, US, 01824
<b>DESTINATION</b>	WATERBURY, CT, US, 06702
<b>SPECIAL HANDLING</b>	Deliver Weekday
<b>NUMBER OF PIECES</b>	1
<b>TOTAL SHIPMENT WEIGHT</b>	2.00 LB
<b>SERVICE TYPE</b>	FedEx Priority Overnight



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This report was generated at approximately 8:35 AM CDT 07/22/2022.

**Katie Adams**

---

**From:** TrackingUpdates@fedex.com  
**Sent:** Friday, July 22, 2022 9:06 AM  
**To:** Katie Adams  
**Subject:** FedEx Shipment 777453479352: Your package is now out for delivery today



Hi. Your package is now out for delivery today.

**ON TIME**

**SCHEDULED DELIVERY**

Fri, 07/22/2022  
before 12:00pm



**OUT FOR DELIVERY**  
ELMSFORD, NY

**MANAGE DELIVERY**

**TRACKING NUMBER** [777453479352](#)

**FROM** NB+C  
100 Apollo Drive  
Suite 303  
CHELMSFORD, MA, US, 01824

**TO** Waterbury Twin LLC & 150 MH LLC  
12 Iselin Terrace  
LARCHMONT, NY, US, 10538

**REFERENCE** 100788 - CSC

**SHIPPER REFERENCE** 100788 - CSC

**SHIP DATE** Thu 7/21/2022 06:15 PM

**PACKAGING TYPE** FedEx Pak

**ORIGIN** CHELMSFORD, MA, US, 01824

**DESTINATION** LARCHMONT, NY, US, 10538

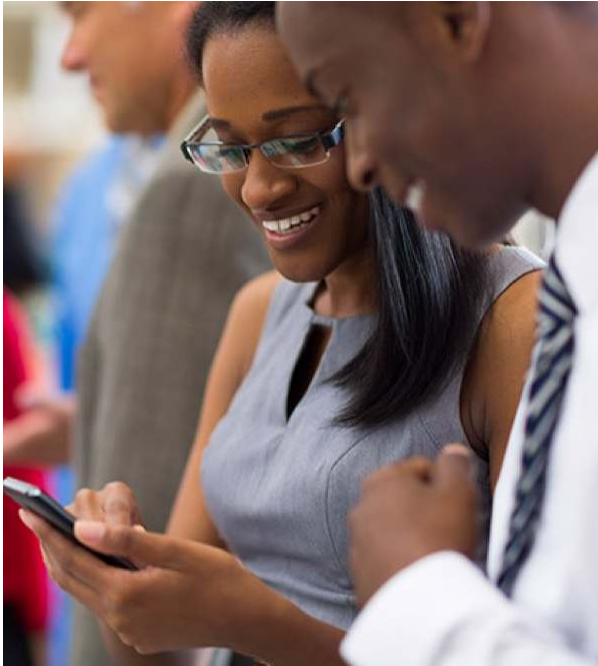
**SPECIAL HANDLING** Deliver Weekday

**STANDARD TRANSIT** Fri, 07/22/2022 by 12:00pm

**NUMBER OF PIECES** 1

**TOTAL SHIPMENT WEIGHT** 2.00 LB

**SERVICE TYPE** FedEx Priority Overnight



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Create shipments, receive tracking alerts, redirect packages to a FedEx retail location for pickup, and more from the palm of your hand - **Download now.**



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# Exhibit A

## **Original Facility Approval**

## **Myl, Kimberly**

---

**From:** Myl, Kimberly  
**Sent:** Tuesday, May 17, 2016 3:38 PM  
**To:** 'siting.council@ct.gov'  
**Subject:** 150 Mattatuck Heights - Existing Telecommunications Tower Original Zoning Approval

To Whom It May Concern:

Please be advised both the township (email below) and Crown Castle as the tower owner, do not have the original zoning resolution on file. Please use this email as notification to waive this requirement as we will include this and the email from the township within our submission.

Please let me know if you have any questions or need additional information. Thank you in advance.

**KIMBERLY MYL**  
Real Estate Specialist  
T: (201) 236-9069 | M: (201) 993-3697

**CROWN CASTLE**  
1200 MacArthur Blvd, Suite 200  
Mahwah, NJ 07430

---

**From:** Margaret Rice [<mailto:mrice@waterburyct.org>]  
**Sent:** Tuesday, May 17, 2016 1:03 PM  
**To:** Myl, Kimberly  
**Subject:** RE: 150 Mattatuck Heights - Existing Telecommunications Tower Original Zoning Approval

Hi Kimberly,

I checked our records and City Clerk's office and could not find anything. I then contacted the Town Clerk and I was told that there might be something on the Land Records and that you would need to contact the Town Clerk for them to do a Title Search. They're phone number is (203) 574-6806.

**Cissie**

**Administrative Support Specialist III**  
**203)574-6817 Ext.7296**



# Exhibit B

## Property Card

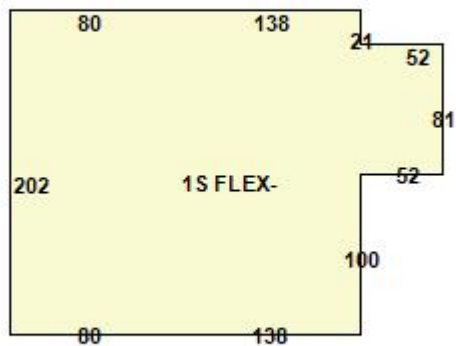
	Appraised Value	Assessed Value
Total	1,900,000	1,330,000

## Owner's Information

### Owner's Data

WATERBURY TWIN LLC & 150 MH LLC  
 % LEONARD LINSBKER  
 12 ISELIN TERRACE  
 LARCHMONT, NY 10538

## Building 1



Category:	Industrial	Use:	Industrial - Flex	GLA:	48,248
Stories:	1.00	Construction:	Average	Year Built:	1988
Heating:	Space Heater	Fuel:		Cooling Percent:	0%
Siding:	Brick, Solid	Roof Material:		Beds/Units:	0

### Special Features

Sprinklers	48248
------------	-------

### Attached Components

### Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Asphalt Paving	1988			46,096
Concrete Paving	1988			40
Concrete Paving	1988			40
Concrete Paving	1996			390
Tanks Tanks	1996			1

### Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
WATERBURY TWIN LLC & 150 MH LLC	4647	0071	05/15/2003	Warranty Sale	\$2,315,000

### Building Permits

Permit Number	Permit Type	Date Opened	Reason
2020.0581	Plumbing	03/05/2020	remove old power vent water heater install new water heater
2019.3185	Electrical	11/06/2019	att new walk in cabinet for att equipment. third party for inspection.
2019.1540	Electrical	06/07/2019	install 25kw generator for cell site.
2019.0880	Electrical	04/29/2019	AT&T to install (9) antennaes (12) remote radio units - (3) DC6s (2) fiber cables on existing teleco
2019.0374	Electrical	02/21/2019	Sprint to remove and replace 3 antennas and remove 3 remote radio heads ( non-Antenna)
2019.0375	Electrical	02/21/2019	Verizon to remove 9 remote radio heads (non-Antenna) and replace with 6 new remote radio heads.
2018.3410	Electrical	12/05/2018	replace 3 exising antennas & 3 RRU's - repace 1 coax line with 1 hybrid fiber line
2017.1945	Electrical	07/26/2017	VERIZON WIRELESS ANTENNA SWAP
2017.0766	Electrical	03/30/2017	REPLACE 3 ANTENNAS
2016.1412	Electrical	06/13/2016	REMOVE AND REPLACE ANTENNA MOUNT
2015.1784	Electrical	08/31/2015	ADD OUTLET FOR CABLE BOX POWER
2014.0494	Electrical	03/13/2014	UPGRADE TELECOMM CABINETS AT CELL SITE
2014.0271	Electrical	02/10/2014	VERIZON WIRELESS UPGRADE AND ANTENNAE
2013.0461	Comm Renovations	02/23/2013	

Information Published With Permission From The Assessor

0424-0141-7112  
STONEFIELD DR  
SNP WATERBURY LLC

0424-0141-0001  
150 MATTATUCK HEIGHTS  
WATERBURY TWIN LLC & 150 MH LLC

0447-0141-0002  
MATTATUCK HEIGHTS  
DESOMMA ANTHONY

0447-0141-0031  
86 STONEFIELD DR  
P R SCOTT LLC

4-0141-0003  
MATTATUCK HEIGHTS  
RE REALTY LLC

141-0041  
MATTATUCK HEIGHTS  
D LLC

0448-01  
171 MATTATUCK  
NEOPER

0  
77 M  
77 MAT

MATTATUCK HEIGHTS RD

171 MATTATUCK HEIGHTS

90  
W DR

# Exhibit C

## **Construction Drawings**





**AT&T SITE NUMBER:** CT2860  
**AT&T SITE NAME:** WOLCOTT  
**AT&T FA CODE:** 10578275  
**AT&T PACE NUMBER:** MRCTB054272, MRCTB056721, MRCTB056426, MRCTB056813, MRCTB053702, MRCTB054013, MRCTB054019  
**AT&T PROJECT:** LTE 7C, 5G NR 1SR CBAND, BBU RECONFIGURATION W/ NEW IDS, 5G NR ACTIVATION

**BUSINESS UNIT #:** 876317  
**SITE ADDRESS:** 150 MATTATUCK HEIGHTS WATERBURY, CT 06705  
**COUNTY:** NEW HAVEN  
**SITE TYPE:** MONOPOLE  
**TOWER HEIGHT:** 144'-3"



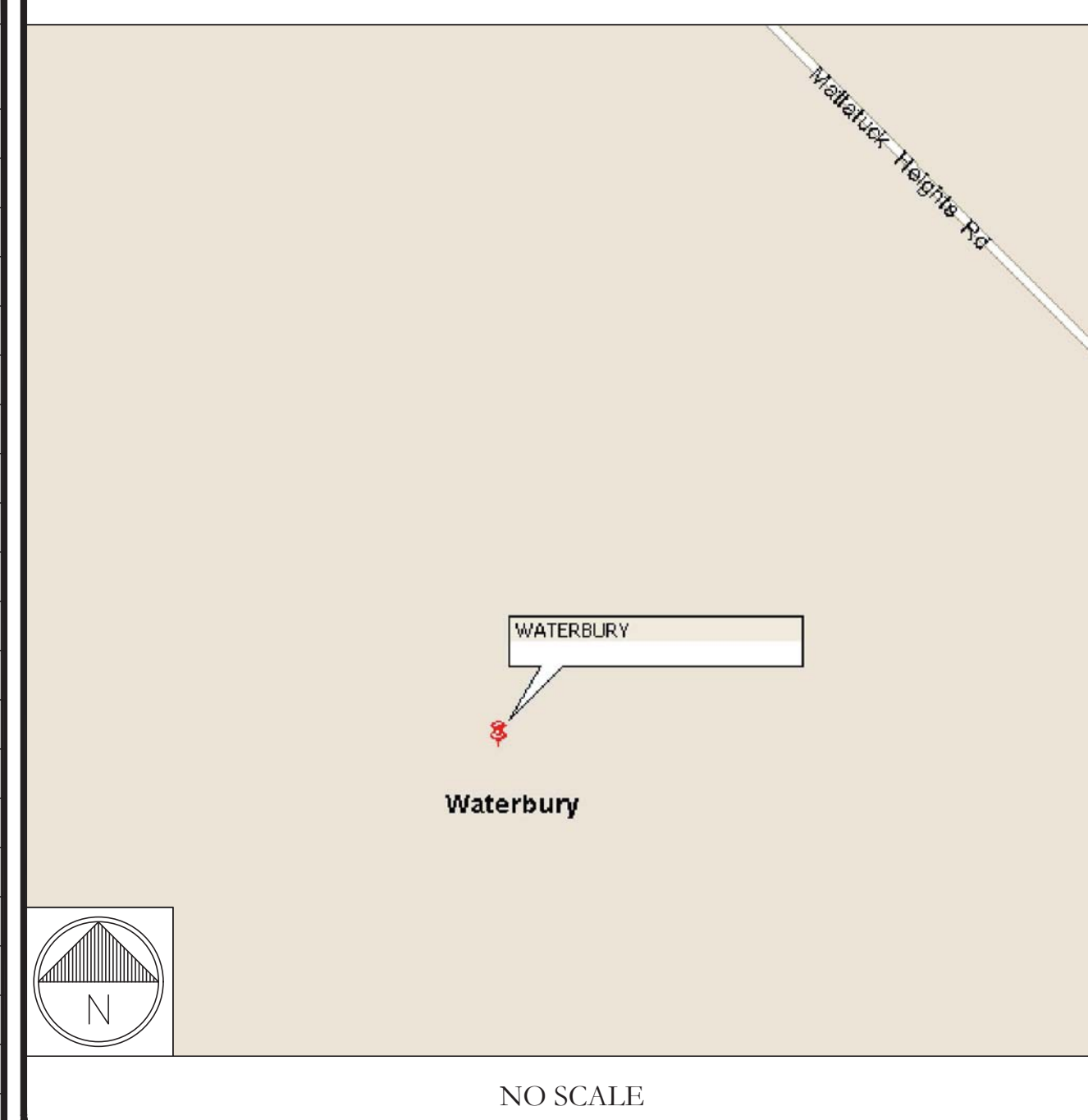
**SITE INFORMATION**

CROWN CASTLE USA INC. WATERBURY  
 SITE NAME:  
 SITE ADDRESS: 150 MATTATUCK HEIGHTS WATERBURY, CT 06705  
 COUNTY: NEW HAVEN  
 MAP/PARCEL #: 0424-0141-0001  
 AREA OF CONSTRUCTION: EXISTING  
 LATITUDE: 41.537861°  
 LONGITUDE: -72.985028°  
 LAT/LONG TYPE: NAD83  
 GROUND ELEVATION: 660'  
 CURRENT ZONING: IP - INDUSTRIAL PARK DISTRICT  
 JURISDICTION: CONNECTICUT SITING COUNCIL  
 OCCUPANCY CLASSIFICATION: U  
 TYPE OF CONSTRUCTION: IIB  
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION  
 PROPERTY OWNER: WATERBURY TWIN LLC & 150 MH LLC, 12 ISELIN TERRACE, LARCHMONT, NY 10538  
 TOWER OWNER: CROWN CASTLE USA INC, 2000 CORPORATE DRIVE, CANONSBURG, PA 15317  
 CARRIER/APPLICANT: AT&T TOWER ASSET GROUP, 575 MOROSGO DRIVE, ATLANTA, GA 30324-3300  
 ELECTRIC PROVIDER: CONNECTICUT LIGHT & POWER CO, 800-922-4455  
 TELCO PROVIDER: AT&T, 866-620-6900

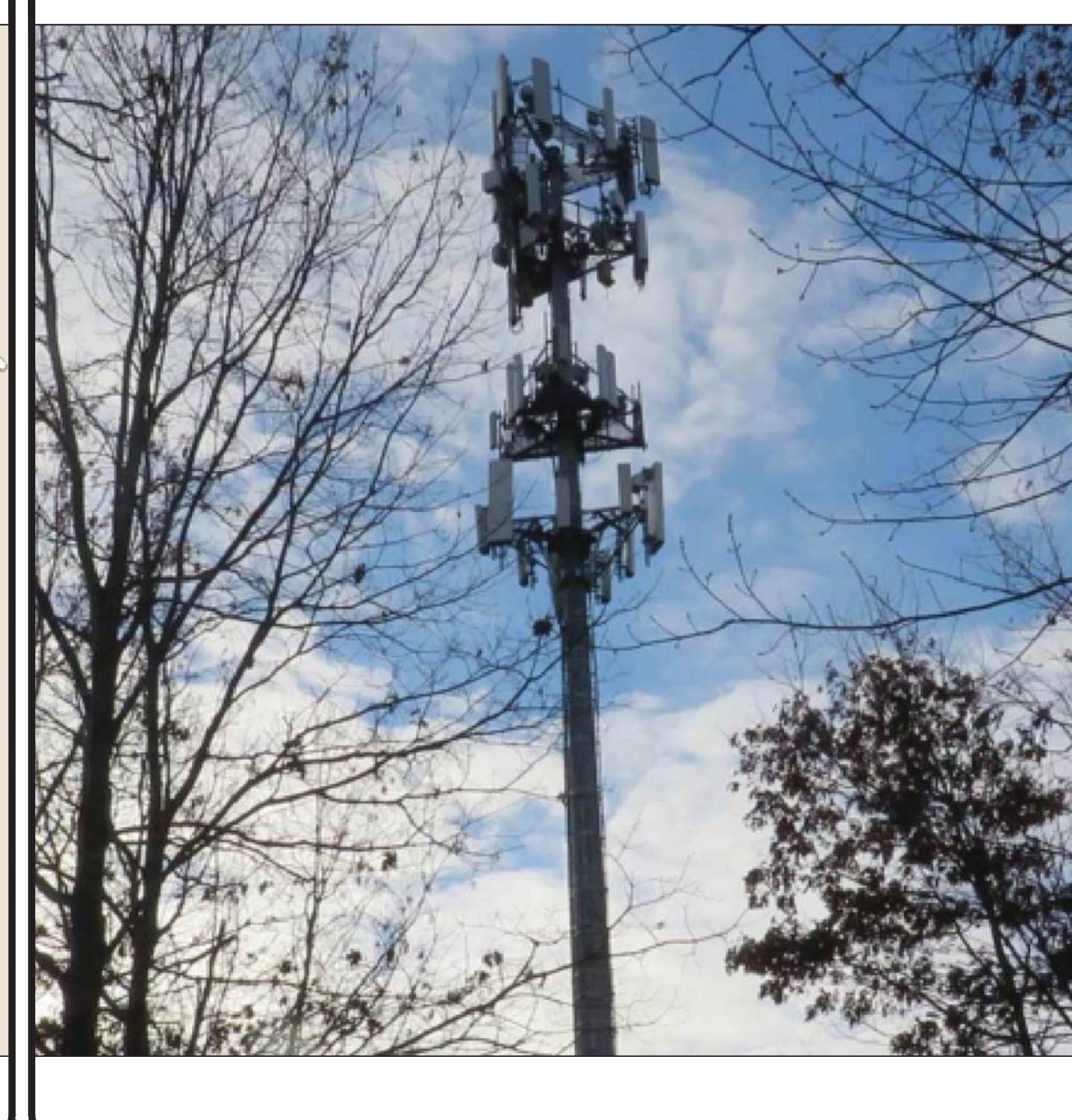
**DRAWING INDEX**

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EQUIPMENT PLANS
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	ANTENNA SCHEDULE
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT SPECS.
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT SPECIFICATION

**LOCATION MAP**



**SITE PHOTO**



AT&T SITE NUMBER: CT2860

BU #: 876317  
 WATERBURY

150 MATTATUCK HEIGHTS  
 WATERBURY, CT 06705

EXISTING  
 144'-3" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/8/22	TDG	PRELIMINARY REVIEW	LR
0	5/13/22	TDG	CONSTRUCTION	LR

**PROJECT TEAM**

A&E FIRM: B+T GROUP, 1717 S. BOULDER AVE., TULSA, OK 74119, MARVIN PHILLIPS, marvin.phillips@btgrp.com  
 CROWN CASTLE USA INC. DISTRICT CONTACTS: 3 CORPORATE PARK DRIVE, SUITE 101, CLIFTON PARK, NY 12065  
 VERONICA CHAPMAN - PROJECT MANAGER, VERONICA.CHAPMAN@CROWNCastle.COM  
 JASON D'AMICO - CONSTRUCTION MANAGER, JASON.DAMICO@CROWNCastle.COM

**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) KMW - EPBQ-654L8H8-L2 ANTENNAS
  - REMOVE (3) CCI - HPA65R-BU8A ANTENNAS
  - REMOVE (1) RAYCAP - DC6-48-60-0-8F SQUID
  - RELOCATE (3) ERICSSON - 4478 B14 RADIOS
  - RELOCATE (3) ERICSSON - 4415 B30 RADIOS
  - RELOCATE (3) ERICSSON - 8843 B2/B66A RADIOS
  - INSTALL (3) QUINTEL - QD8616-7 ANTENNAS
  - INSTALL (6) ERICSSON - AIR6449 B77D (BELOW) + AIR6419 B77G (ABOVE) STACKED ANTENNAS
  - INSTALL (1) RAYCAP - DC9-48-60-24-8C-EV SQUID
  - INSTALL (3) ERICSSON - 2012 B29 RADIOS
  - INSTALL (1) 6AWG DC CABLE (7/8")
  - INSTALL (1) 24-PAIR FIBER CABLE (3/8")
  - INSTALL (6) Y-CABLES FOR DUAL BAND RADIOS
  - INSTALL (3) SITEPRO1 - PM1 IN ORDER TO ACHIEVE ANTENNA SEPARATION
- GROUND SCOPE OF WORK:
- INSTALL (1) 6648 WITH XCEDE CABLE
  - INSTALL (4) RECTIFIERS

**APPLICABLE CODES & REFERENCE DOCUMENTS**

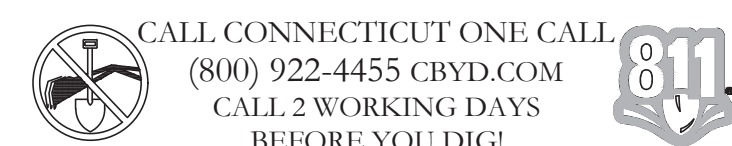
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2018 CONNECTICUT SBC/2015 IBC
MECHANICAL	2018 CONNECTICUT SBC/2015 IMC
ELECTRICAL	2018 CONNECTICUT SBC/2017 NEC

**REFERENCE DOCUMENTS:**

STRUCTURAL ANALYSIS:	B+T GROUP
DATED:	3/28/22
MOUNT ANALYSIS:	B+T GROUP
DATED:	03/22/22
RFDS REVISION:	-
DATED:	4/27/22
ORDER ID:	586326
REVISION:	0

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. 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.



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



B&T ENGINEERING, INC.  
 PEC.0001564  
 Expires 2/10/23

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-1** REVISION: **0**



**CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:**

- 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.
- "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.
- 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.
- 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).
- ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." 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.
- 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.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 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.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- 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.
- 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.
- 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.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 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.
- 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.
- 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.
- 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 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.

**GREENFIELD GROUNDING NOTES:**

- 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.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OFF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- 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.
- 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.
- 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.
- 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.
- 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.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- 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.
- 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).
- 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).

**GENERAL NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: AT&T  
TOWER OWNER: CROWN CASTLE USA INC.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 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.
- 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.
- 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.
- 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

**CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:**

- 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.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- 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.
- 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.
- 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
- 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"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

**ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
  - ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
  - ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- 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.
- 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).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 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.
- 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.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- 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.
- 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).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET NEW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREFOLD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
- 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
120/208V, 3Ø	GROUND	GREEN
	A PHASE	BLACK
	B PHASE	RED
277/480V, 3Ø	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
DC VOLTAGE	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

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

**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
- RBT REMOTE ELECTRIC TILT
- RRFD RADIO FREQUENCY DATA SHEET
- RRH REMOTE RADIO HEAD
- RJU REMOTE RADIO UNIT
- SIAD SMART INTEGRATED DEVICE
- TMA TOWER MOUNTED AMPLIFIER
- TYP TYPICAL
- UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- W.P. WORK POINT

**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



575 MOROSGO DRIVE  
ATLANTA, GA 30324-3300



3 CORPORATE PARK DRIVE, SUITE 101  
CLIFTON PARK, NY 12065



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

AT&T SITE NUMBER: **CT2860**


**BU #: 876317**  
**WATERBURY**

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
144'-3" MONOPOLE

**ISSUED FOR:**

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/8/22	TDG	PRELIMINARY REVIEW	LR
0	5/13/22	TDG	CONSTRUCTION	LR



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575 MOROSGO DRIVE  
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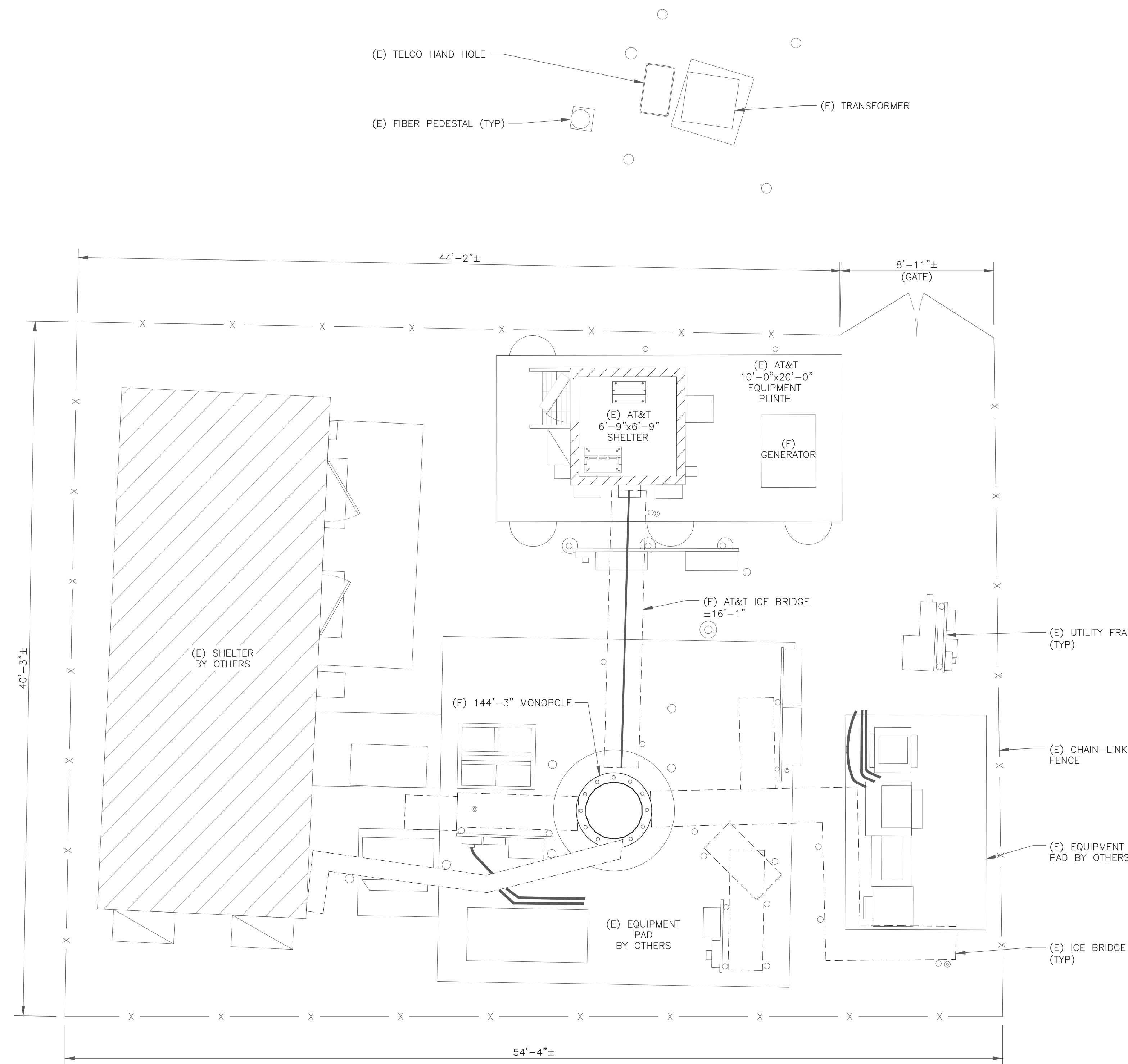
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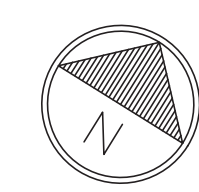
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1 SITE PLAN  
SCALE: 1/4"=1'-0" (FULL SIZE)  
1/8"=1'-0" (11x17)





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ATLANTA, GA 30324-3300



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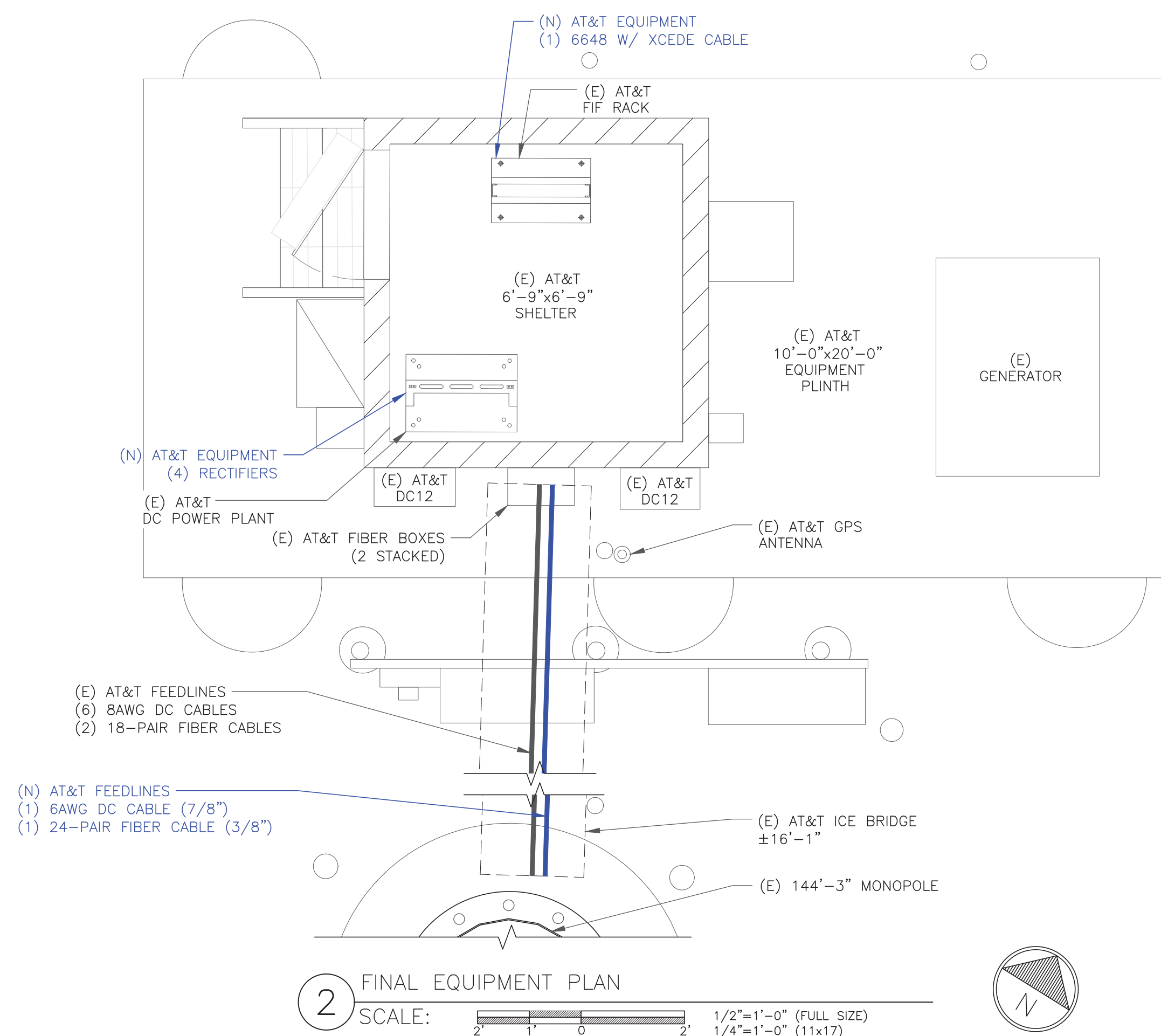
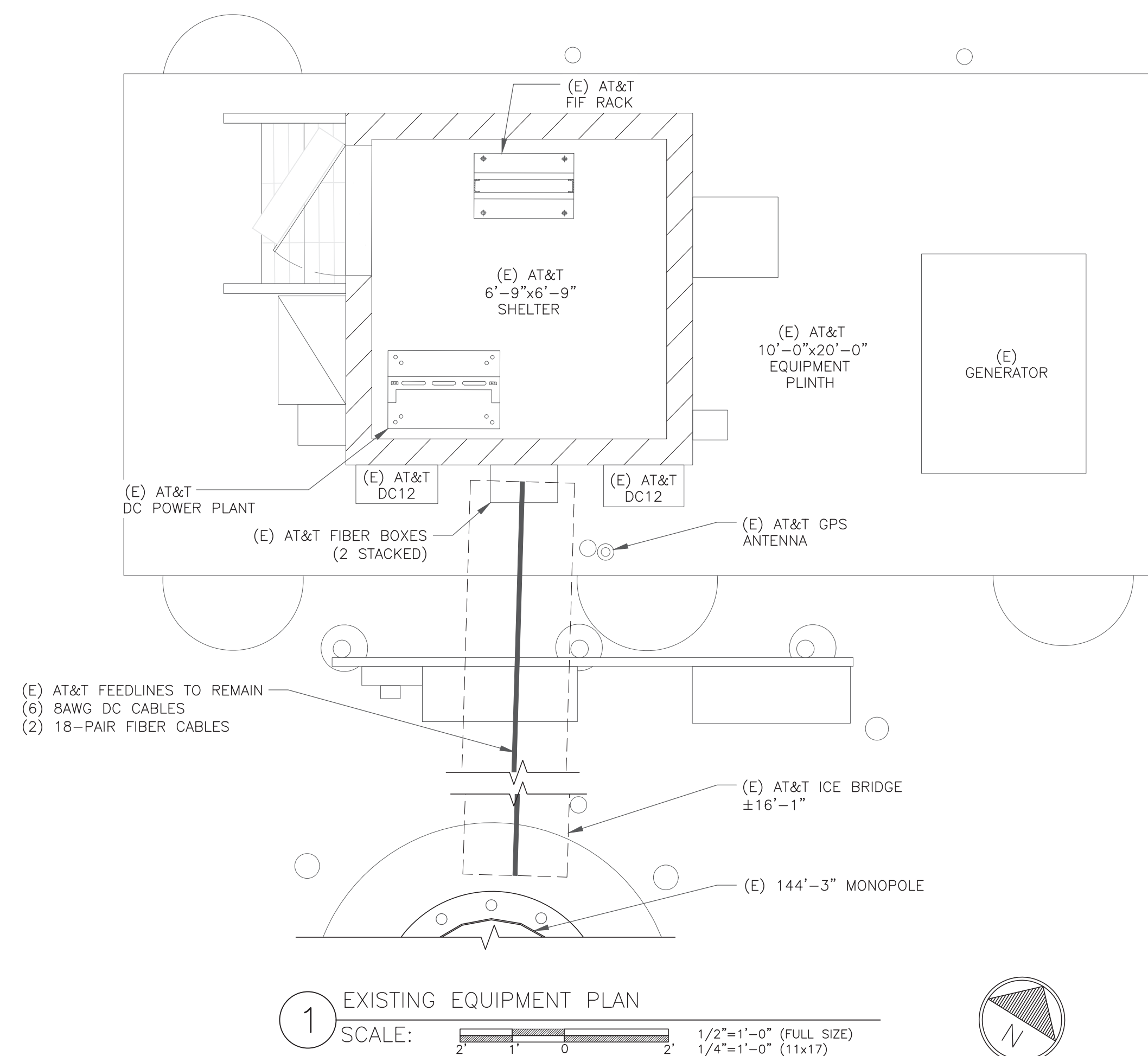
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AT&T SITE NUMBER: **CT2860**

BU #: **876317**  
**WATERBURY**

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
144'-3" MONOPOLE



- GROUND SCOPE OF WORK:**
- INSTALL (1) 6648 W/ XCEDE CABLE
  - INSTALL (4) RECTIFIERS

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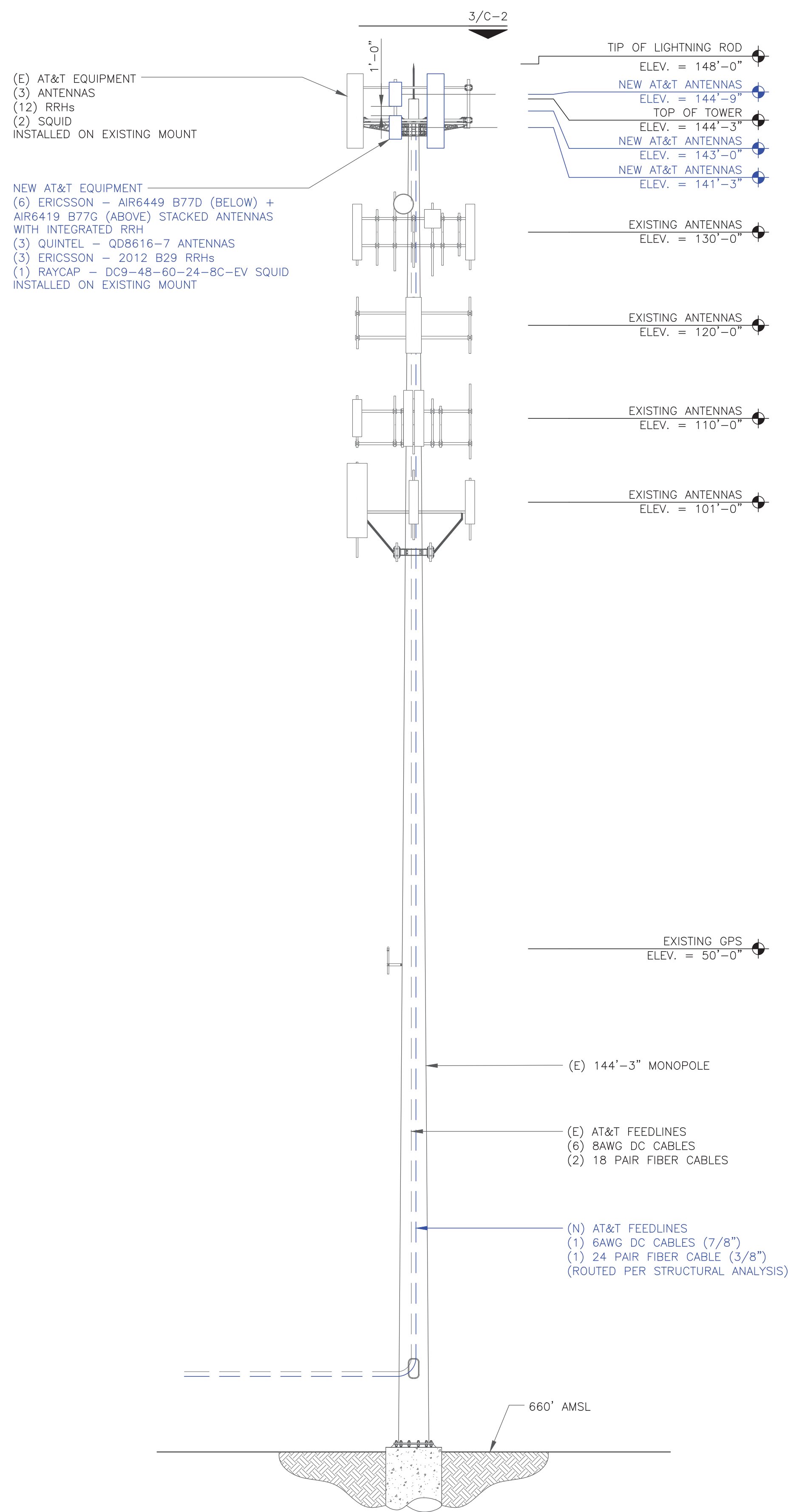


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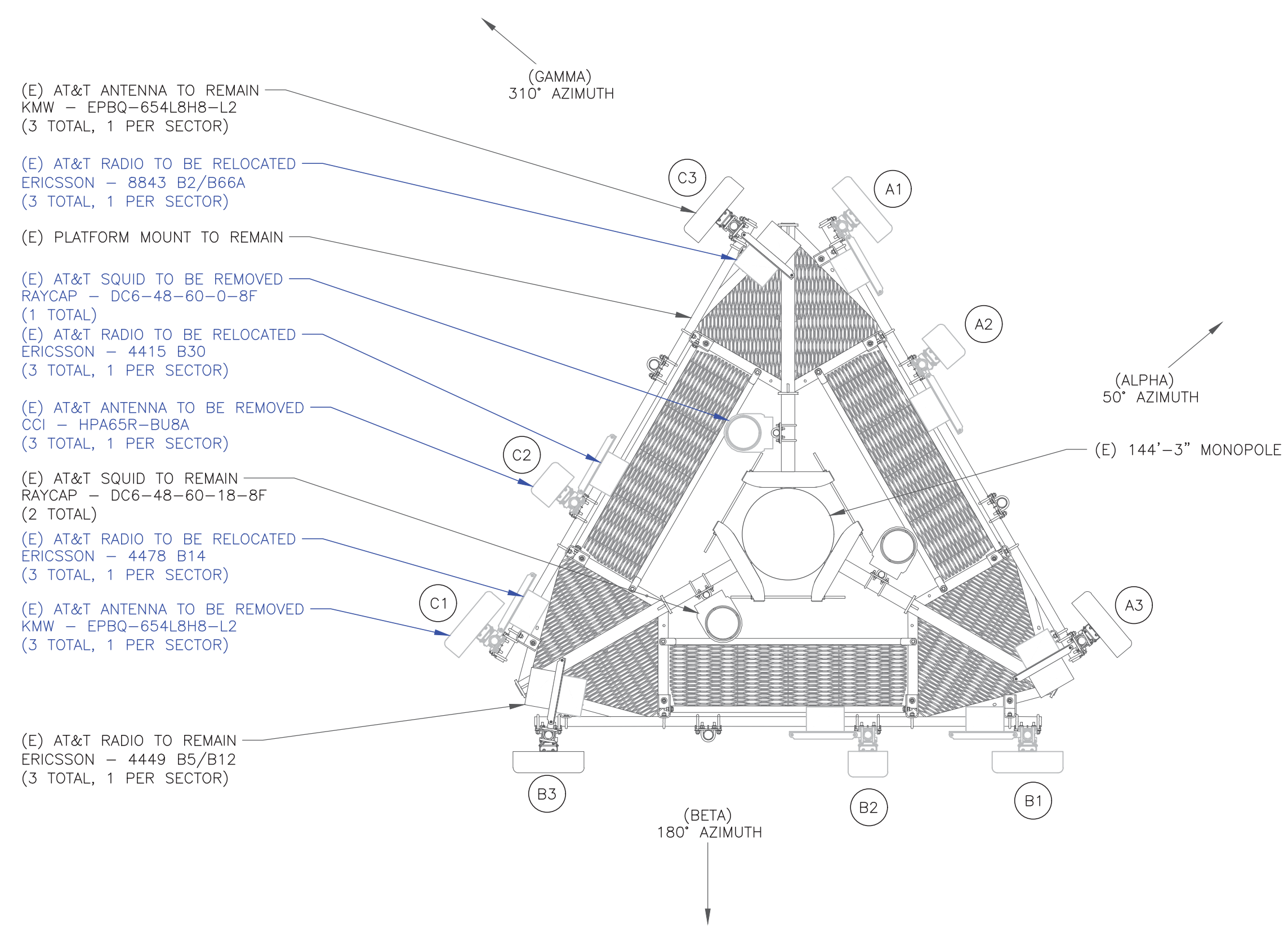
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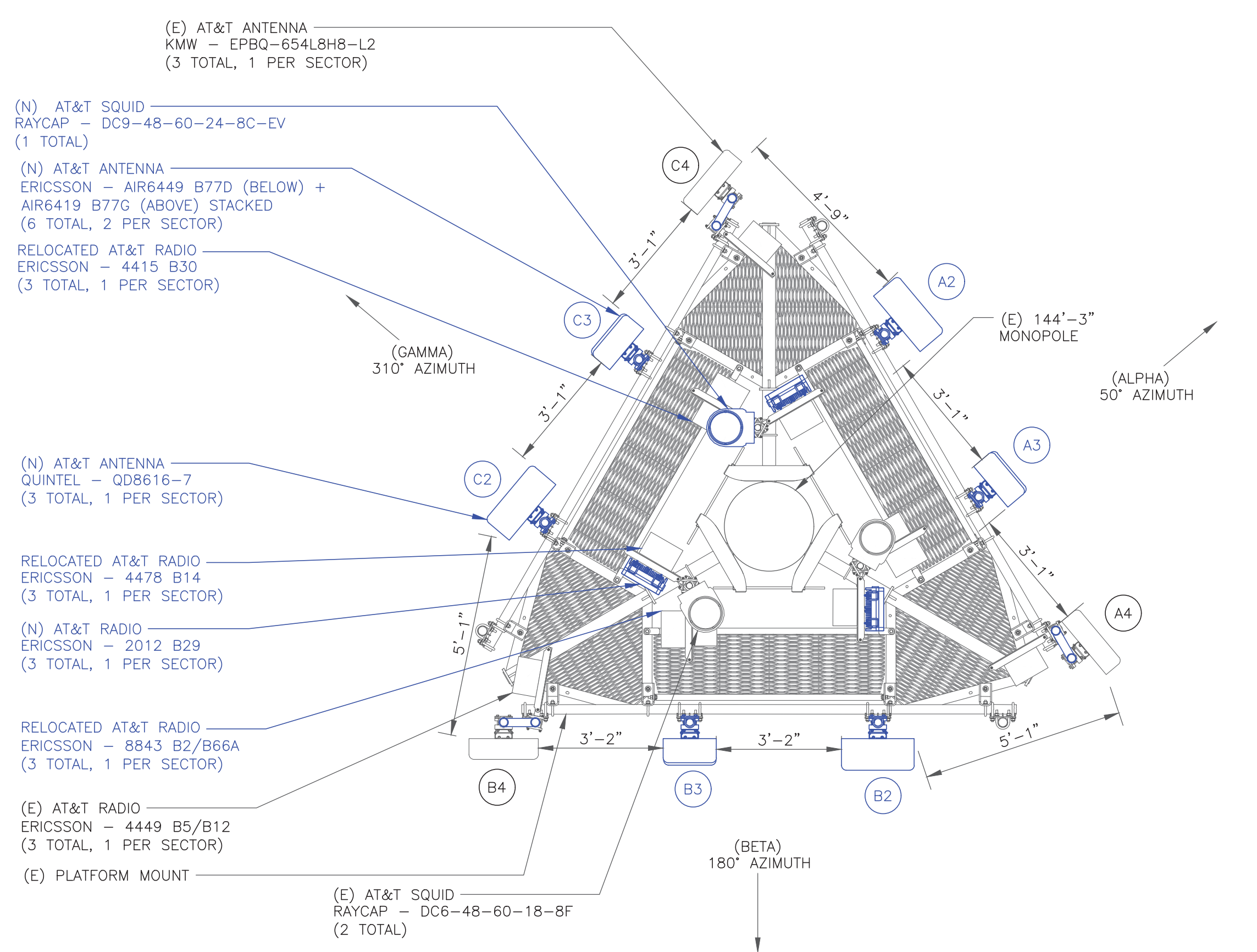




1 FINAL ELEVATION  
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN  
SCALE: 3/8"=1'-0" (FULL SIZE)  
3/16"=1'-0" (11x17)



3 FINAL ANTENNA PLAN  
SCALE: 3/8"=1'-0" (FULL SIZE)  
3/16"=1'-0" (11x17)

"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.

INSTALLER NOTES:

- REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
- REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS.
- CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
- 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
- 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
- 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
- ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
- 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.

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AT&T SITE NUMBER: CT2860

BU #: 876317  
WATERBURY

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**WATERBURY**

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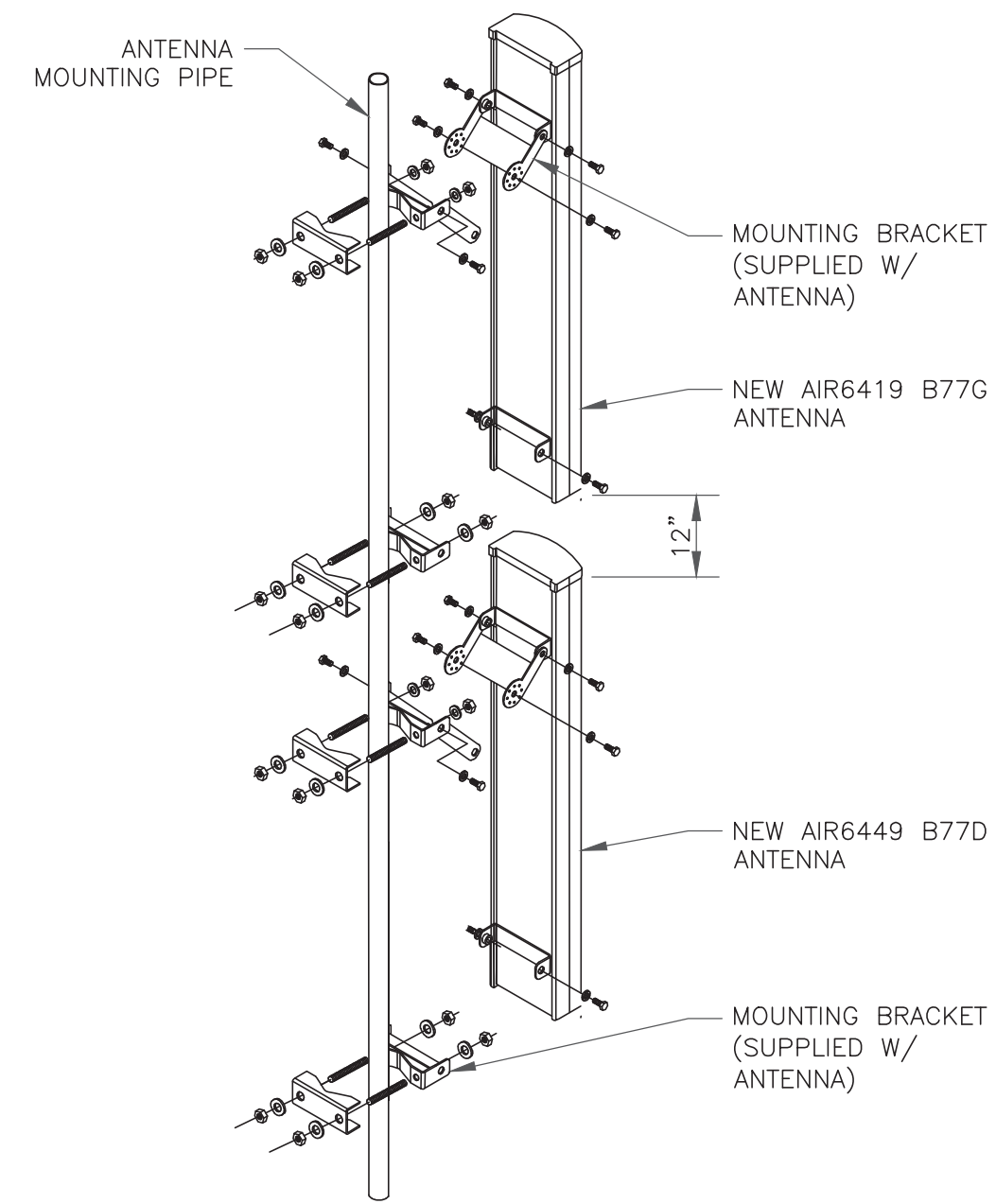
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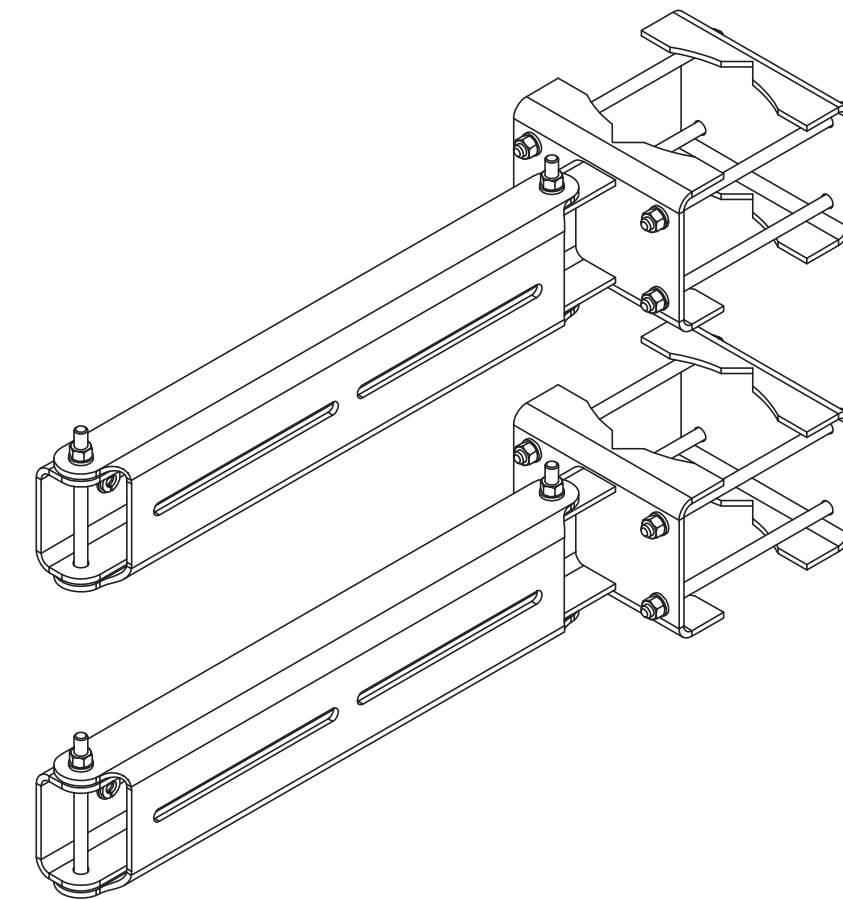
SHEET NUMBER: **C-3** REVISION: **0**

FINAL EQUIPMENT SCHEDULE  
(VERIFY WITH CURRENT RFDS)

ALPHA																					
POSITION	ANTENNA				RADIO			DIPLEXER			TMA			SURGE PROTECTION		CABLES					
	TECH.	STATUS/MANUFACTURER	MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS/MANUFACTURER	MODEL	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH	
A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	(1) (E) DC6-48-60-18-8F	2	(E) 8AWG DC	13/16"	193'-0"	
																	1	(E) 18-PAIR FIBER	3/8"	193'-0"	
A2	LTE/5G	QUINTEL	QD8616-7	50°	143'-0"	1	(E) ERICSSON - 4478 B14	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 8843 B2/B66A	TOWER													
						1	(N) ERICSSON - 2012 B29	TOWER													
A3	5G DoD 5G CBAND	ERICSSON - AIR6419 B77G ERICSSON - AIR6449 B77D STACKED		50°	144'-9" 141'-3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A4	LTE/5G	KMW - EPBQ-654L8H8-L2		50°	143'-0"	1	(E) ERICSSON - 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 4415 B30	TOWER													
BETA																					
B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	(1) (E) DC6-48-60-18-8F	2	(E) 8AWG DC	13/16"	193'-0"	
																	1	(E) 18-PAIR FIBER	3/8"	193'-0"	
B2	LTE/5G	QUINTEL	QD8616-7	180°	143'-0"	1	(E) ERICSSON - 4478 B14	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 8843 B2/B66A	TOWER													
						1	(N) ERICSSON - 2012 B29	TOWER													
B3	5G DoD 5G CBAND	ERICSSON - AIR6419 B77G ERICSSON - AIR6449 B77D STACKED		180°	144'-9" 141'-3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B4	LTE/5G	KMW - EPBQ-654L8H8-L2		180°	143'-0"	1	(E) ERICSSON - 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 4415 B30	TOWER													
GAMMA																					
C1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	(1) (N) DC9-48-60-24-8C-EV	1	(N) 6AWG DC	7/8"	193'-0"	
																	1	(N) 24-PAIR FIBER	3/8"	193'-0"	
																	2	(E) 8AWG DC	13/16"	193'-0"	
C2	LTE/5G	QUINTEL	QD8616-7	310°	143'-0"	1	(E) ERICSSON - 4478 B14	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 8843 B2/B66A	TOWER													
						1	(N) ERICSSON - 2012 B29	TOWER													
C3	5G DoD 5G CBAND	ERICSSON - AIR6419 B77G ERICSSON - AIR6449 B77D STACKED		310°	144'-9" 141'-3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C4	LTE/5G	KMW - EPBQ-654L8H8-L2		310°	143'-0"	1	(E) ERICSSON - 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-	-	
						1	(E) ERICSSON - 4415 B30	TOWER													
NOTE: (E) - EXISTING (N) - NEW															UNUSED FEEDLINES:						



1 STACKED ANTENNA MOUNTING DETAIL  
SCALE: NOT TO SCALE

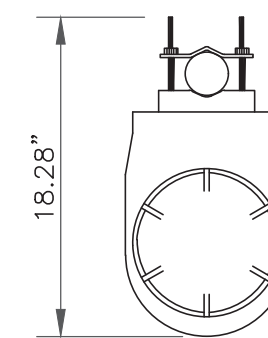


2 DUAL RADIO MOUNT  
SCALE: NOT TO SCALE

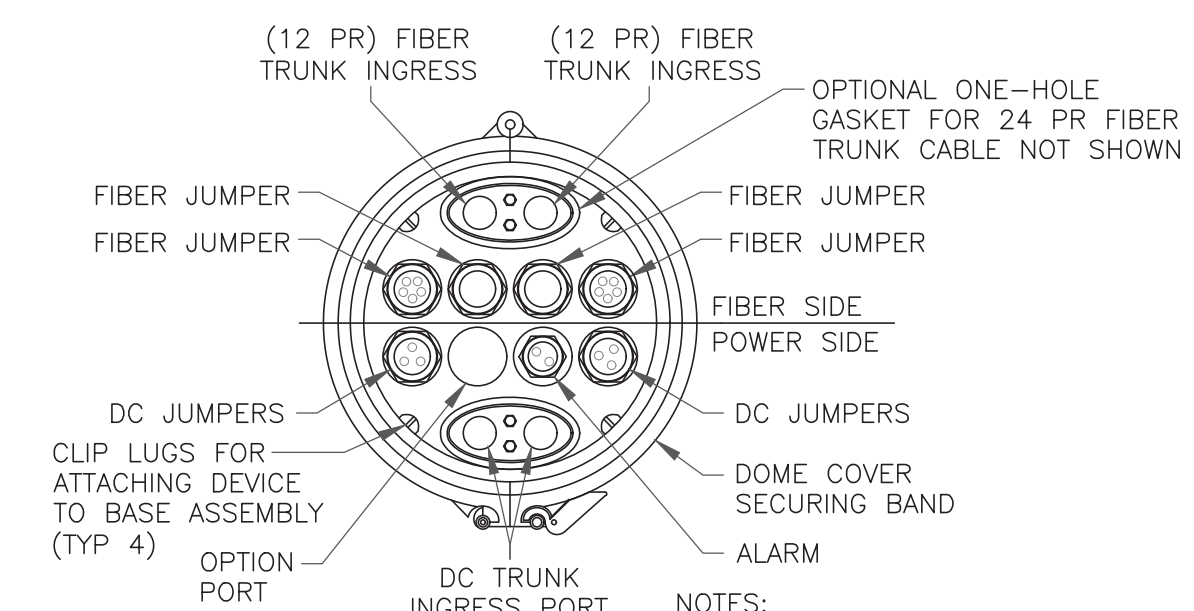
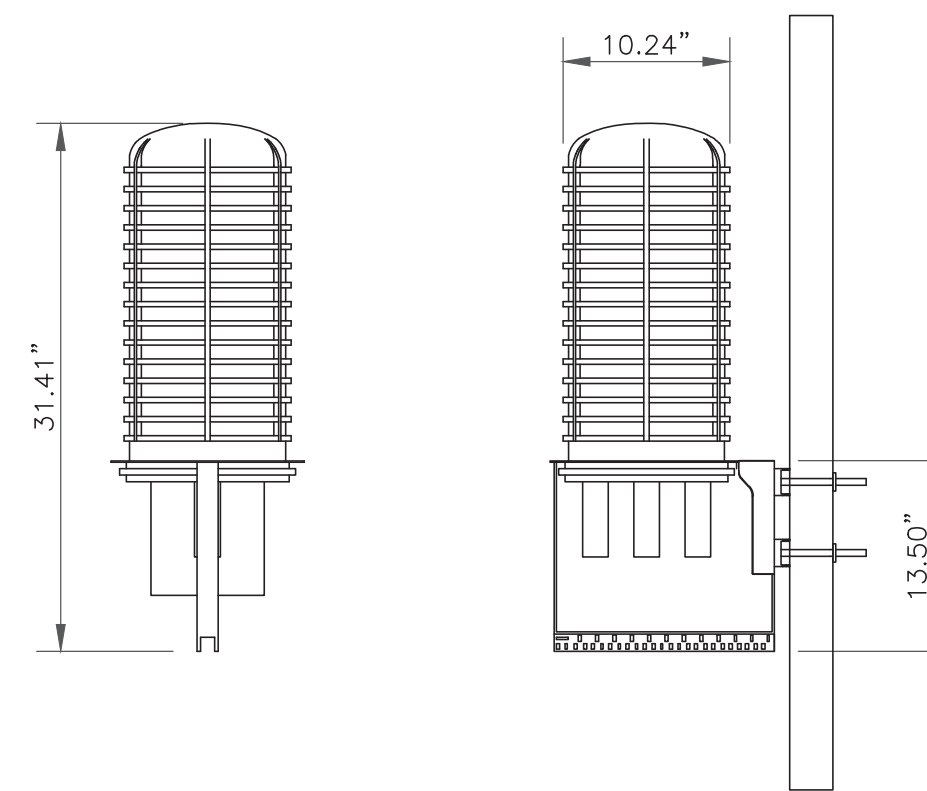
3 NOT USED  
SCALE: NOT TO SCALE

**RAYCAP**  
DC9-48-60-24-8C-EV

RAYCAP - DC9-48-60-24-8C-EV  
SIZE: 10.24x31.40 IN.  
WEIGHT: 26.2 LBS  
NOMINAL OPERATING VOLTAGE: 48 VDC  
VOLTAGE PROTECTION RATING: 330 V  
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)  
WIND LOADING: 195 MPH GUST (213.6 LBS)



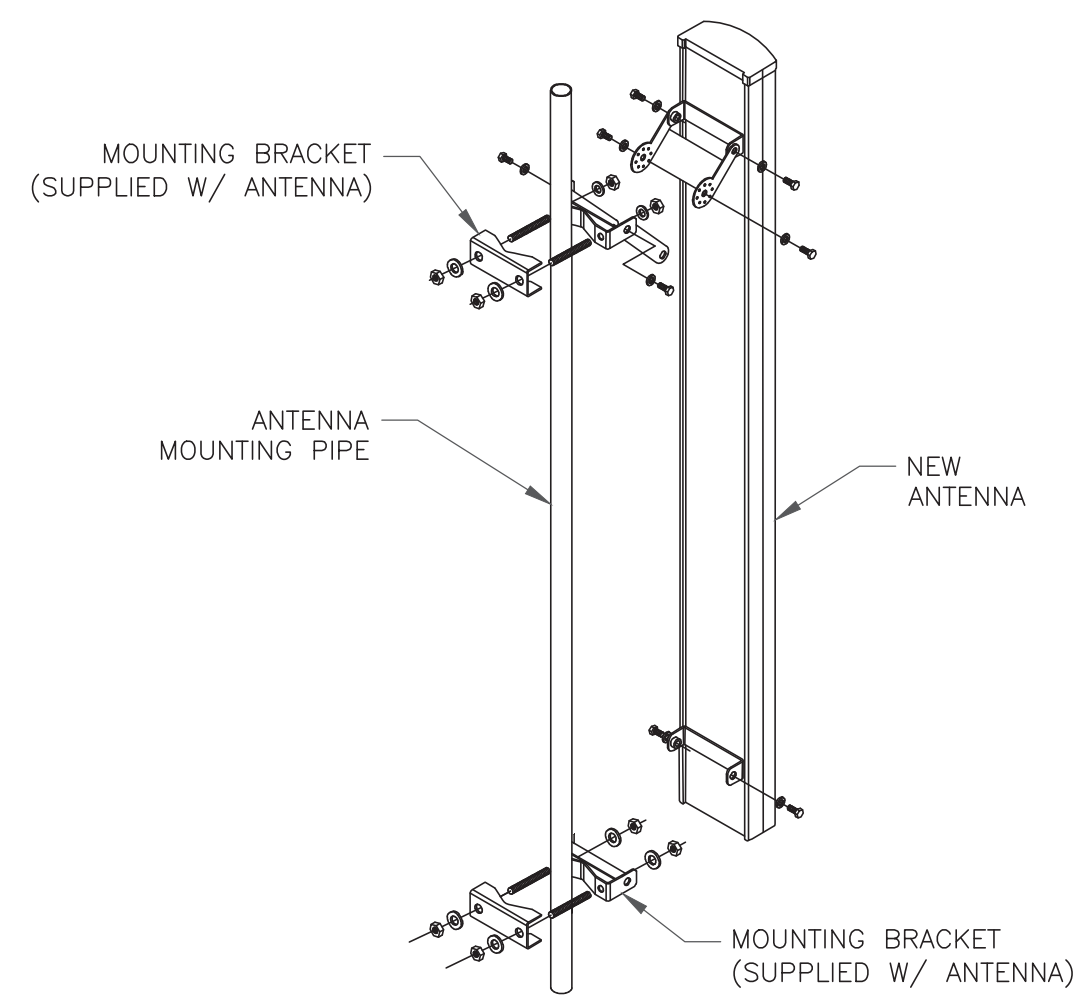
CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION



NOTES:  
1. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

6 SQUID MOUNTING DETAIL  
SCALE: NOT TO SCALE

**INSTALLER NOTE:**  
1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



4 ANTENNA MOUNTING DETAIL  
SCALE: NOT TO SCALE

5 NOT USED  
SCALE: NOT TO SCALE

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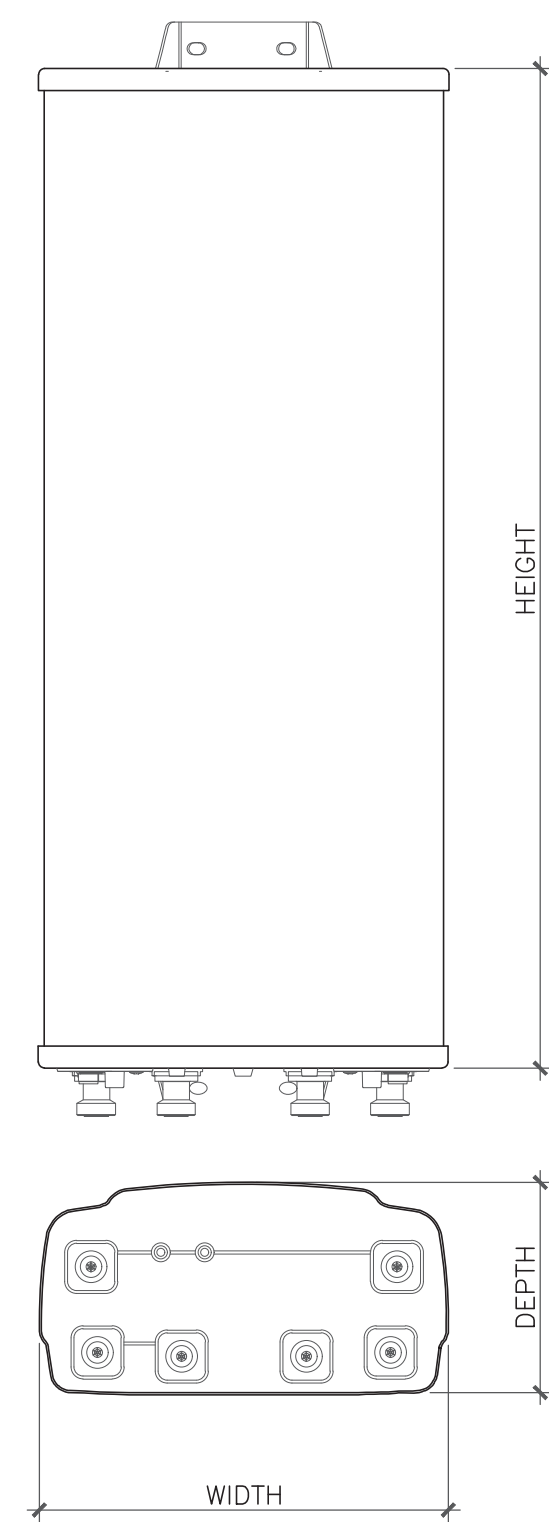
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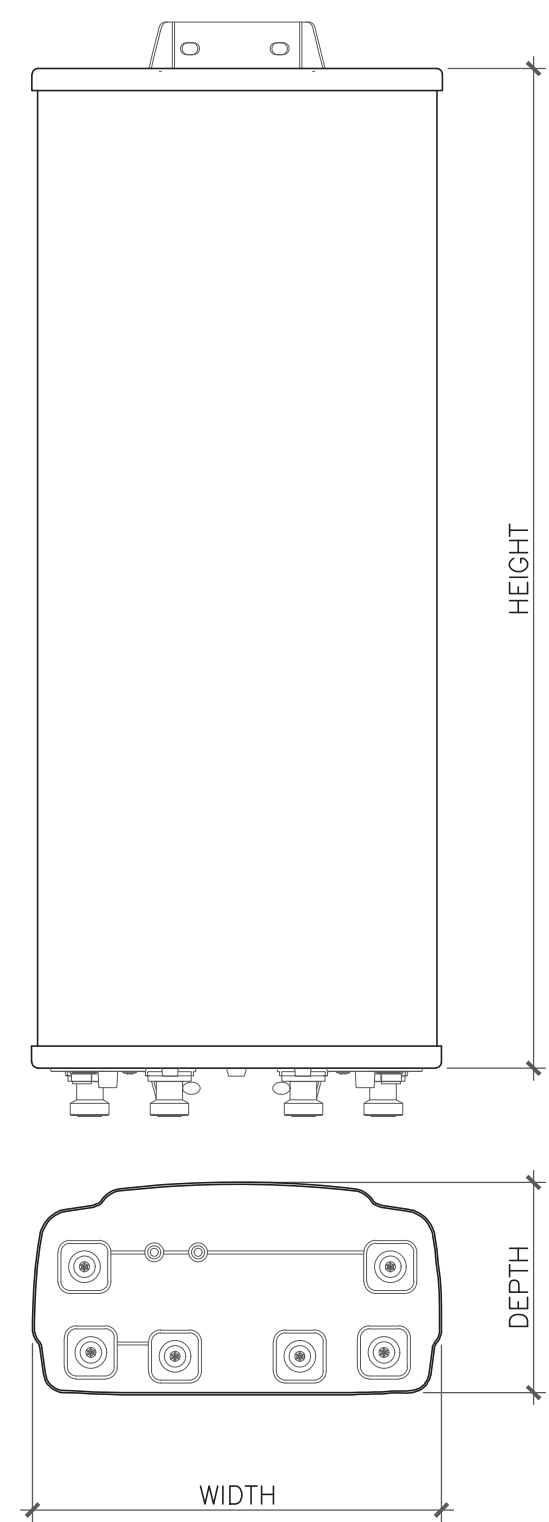
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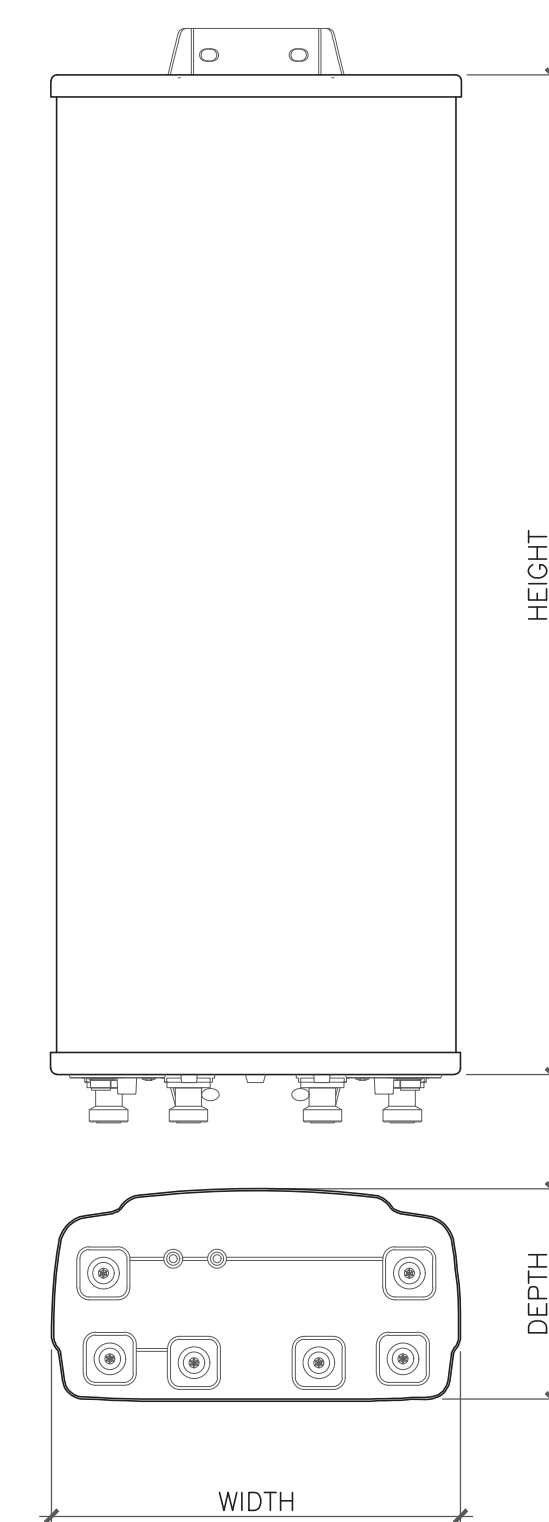
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
AIR 6419 B77G	31.10"	16.10"	7.30"	44.00 lbs

1 ANTENNA DETAIL  
SCALE: NOT TO SCALE



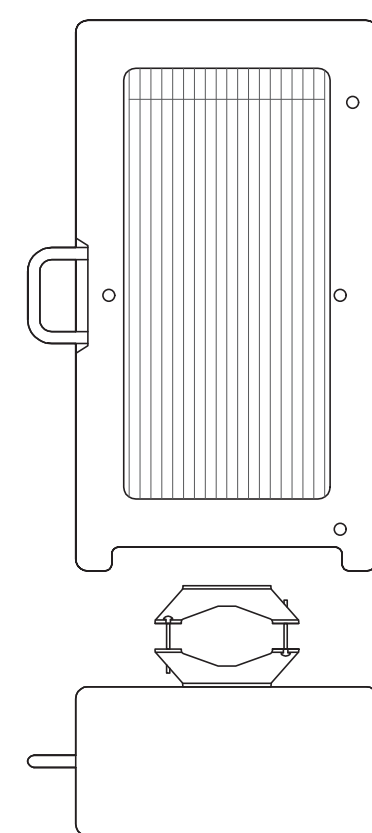
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
AIR 6449 B77D	30.39"	15.87"	8.07"	81.60 lbs

2 NOKIA - AHLBBA  
SCALE: NOT TO SCALE



ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
QD8616-7	96.0"	22.0"	9.60"	150.0 lbs

3 ANTENNA DETAIL  
SCALE: NOT TO SCALE



ERICSSON - 2012 B29  
WEIGHT (FULLY EQUIPPED): 43.1 LBS  
SIZE (HxWxD): 16.50x13.50x4.90 IN.  
CONNECTOR TYPE: 4.3-10 FEMALE (4 TOTAL PORTS)

4 ERICSSON - 2012 B29  
SCALE: NOT TO SCALE

5 NOT USED  
SCALE: NOT TO SCALE

6 NOT USED  
SCALE: NOT TO SCALE

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GROUNDING PLAN LEGEND:

- GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- ⊙ COPPER GROUND ROD
- ⊗ GROUND ROD W/ TEST WELL

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

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

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

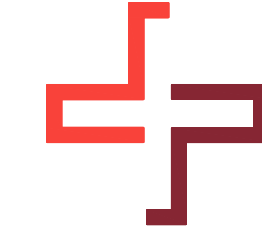
DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.



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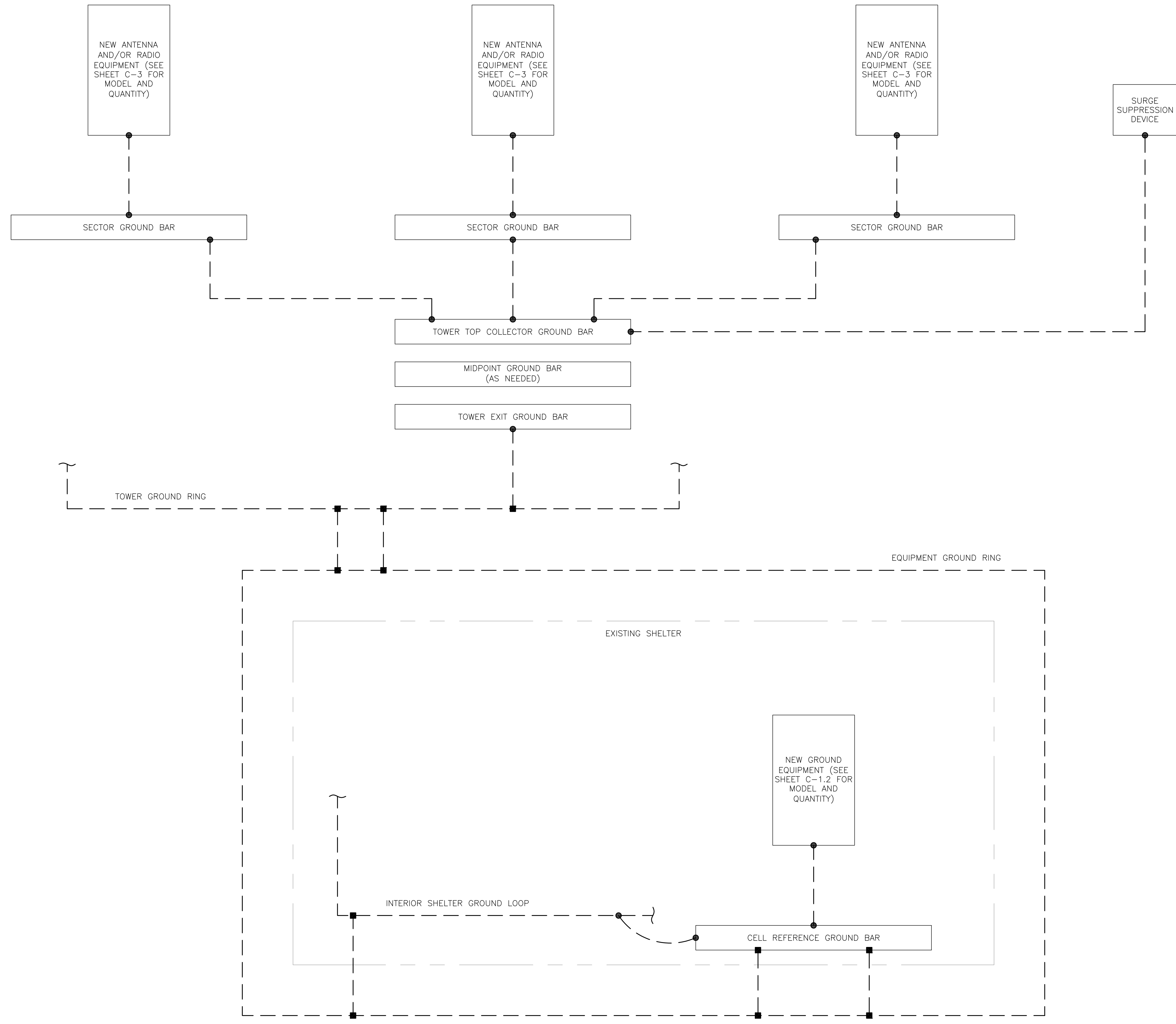
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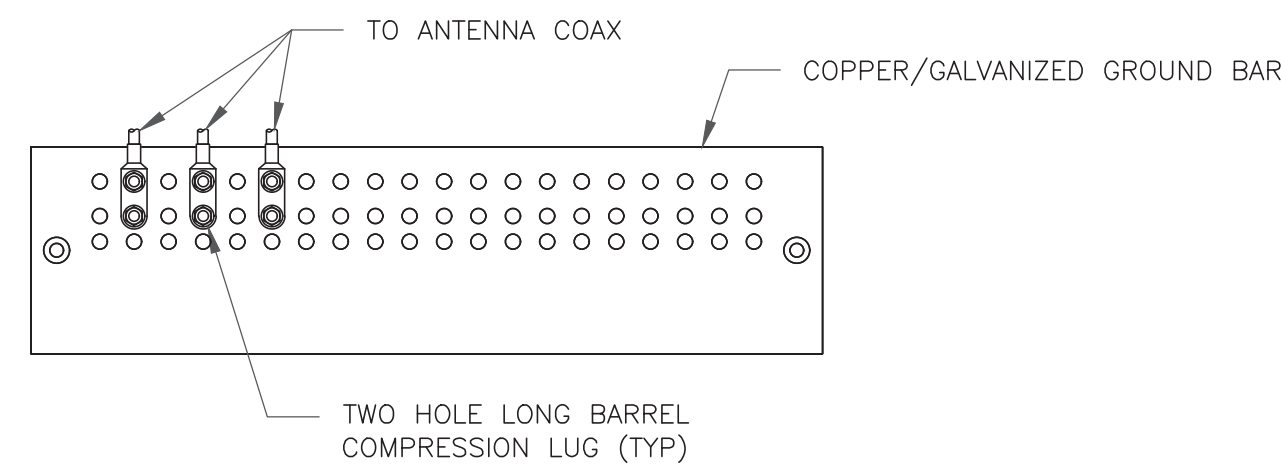
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SHEET NUMBER: **G-1**      REVISION: **0**



**1** GROUNDING SCHEMATIC  
SCALE: NOT TO SCALE

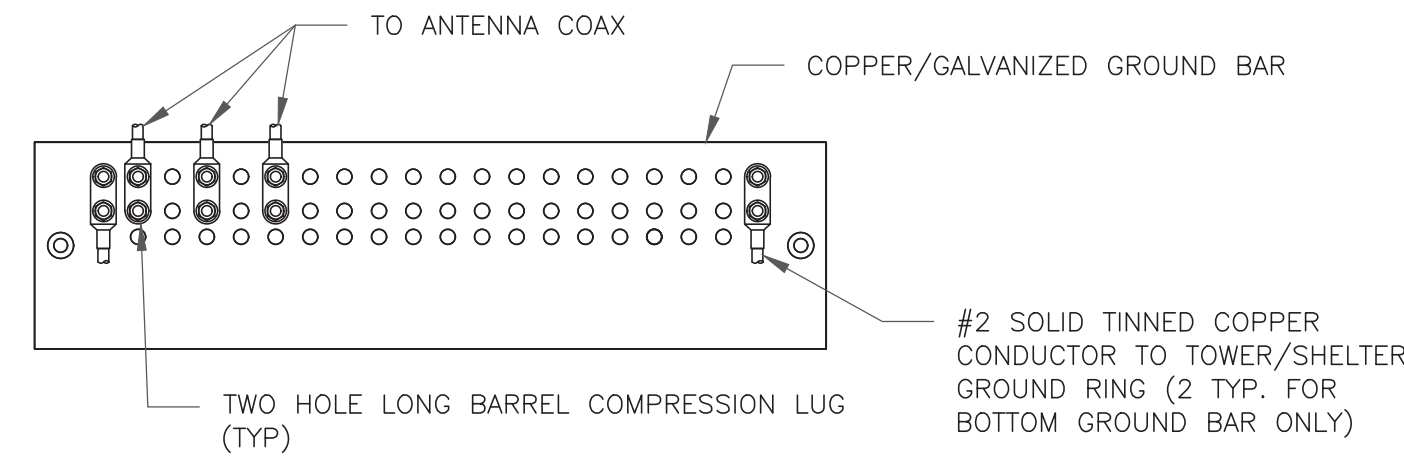




NOTES:

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

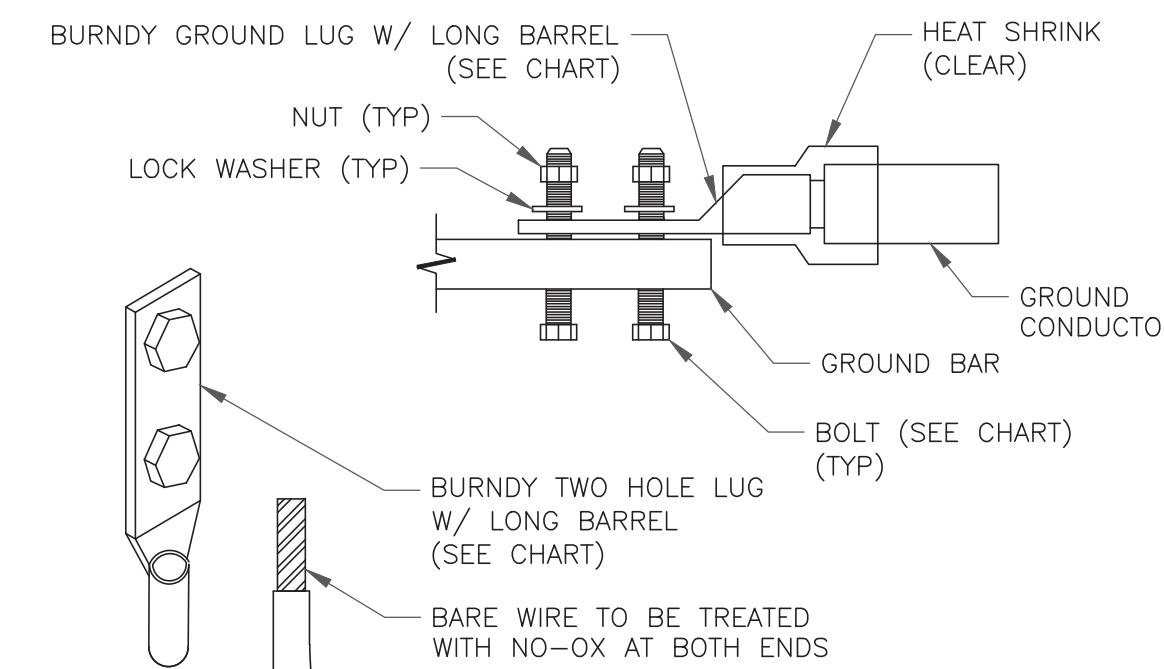


NOTES:

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

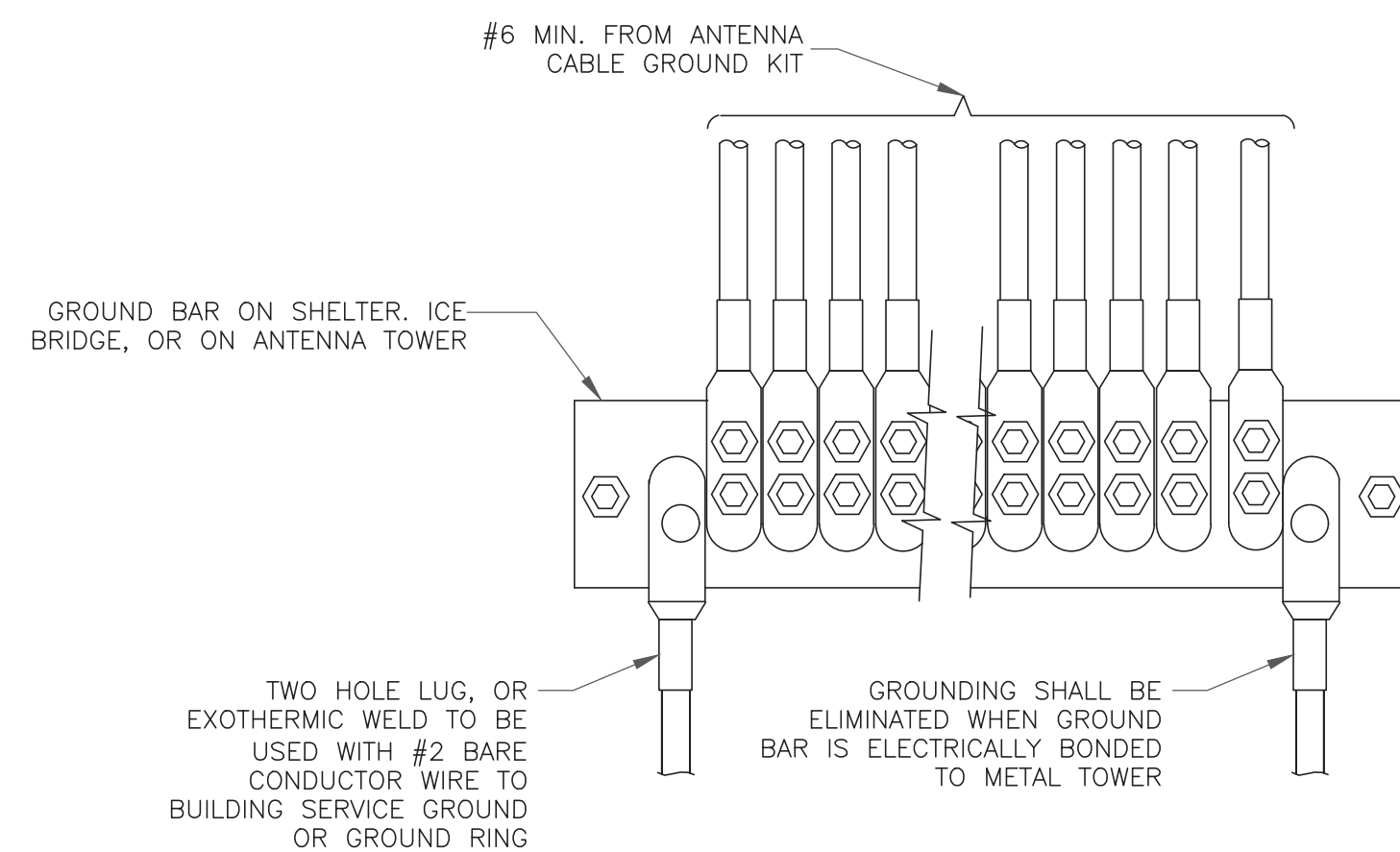
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



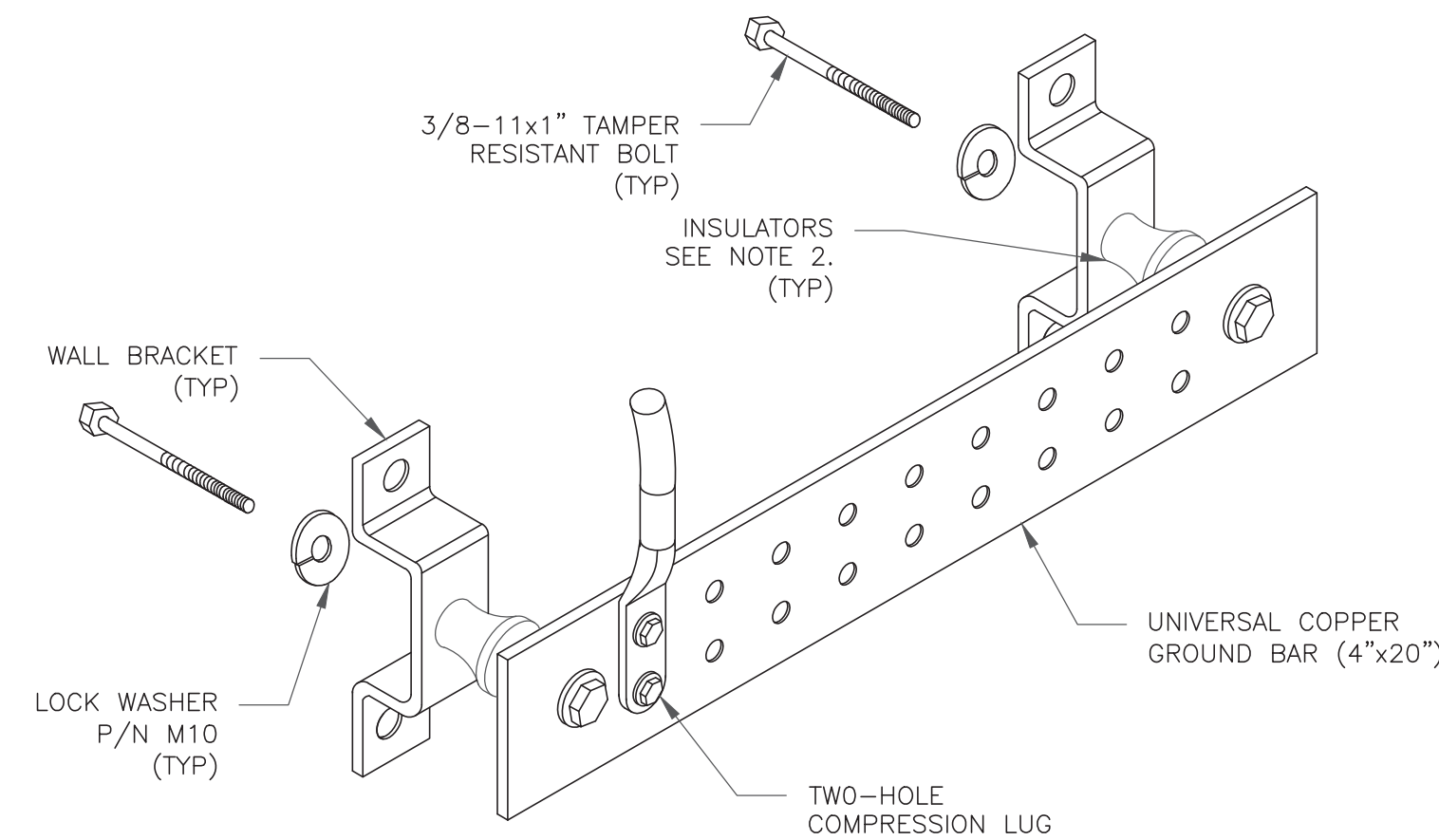
NOTE:

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.

3 MECHANICAL LUG CONNECTION  
SCALE: NOT TO SCALE



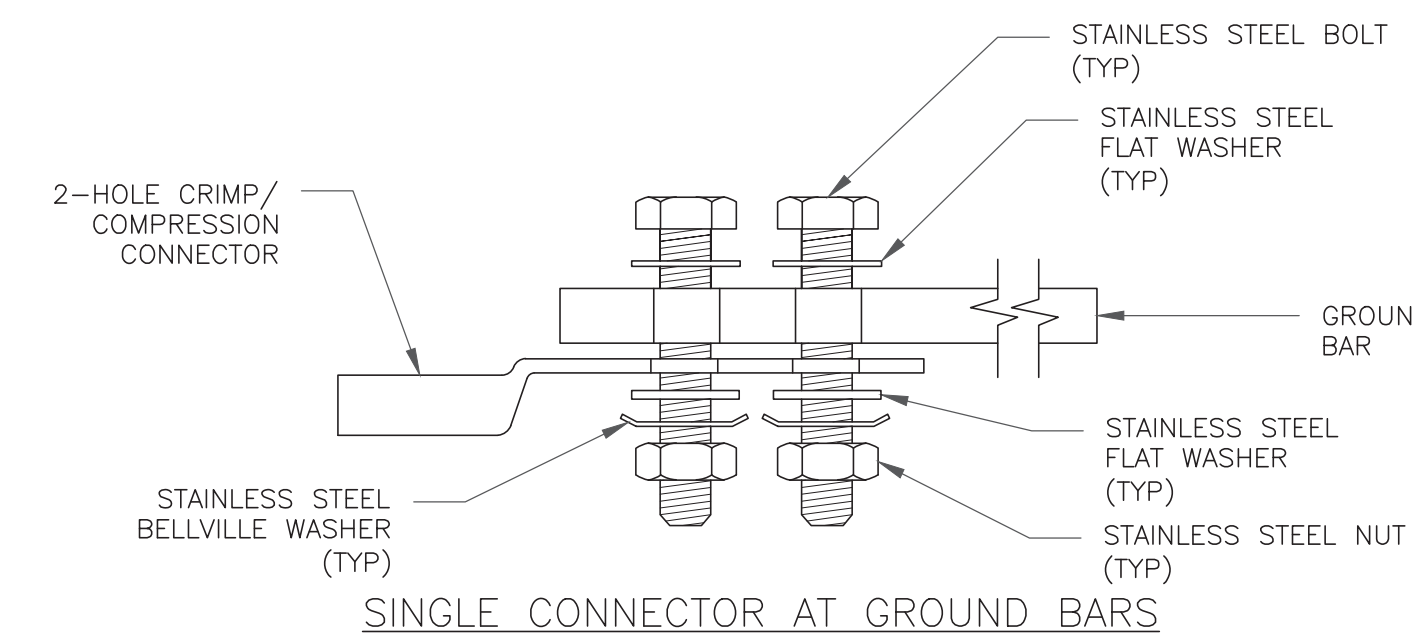
4 GROUNDWIRE INSTALLATION  
SCALE: NOT TO SCALE



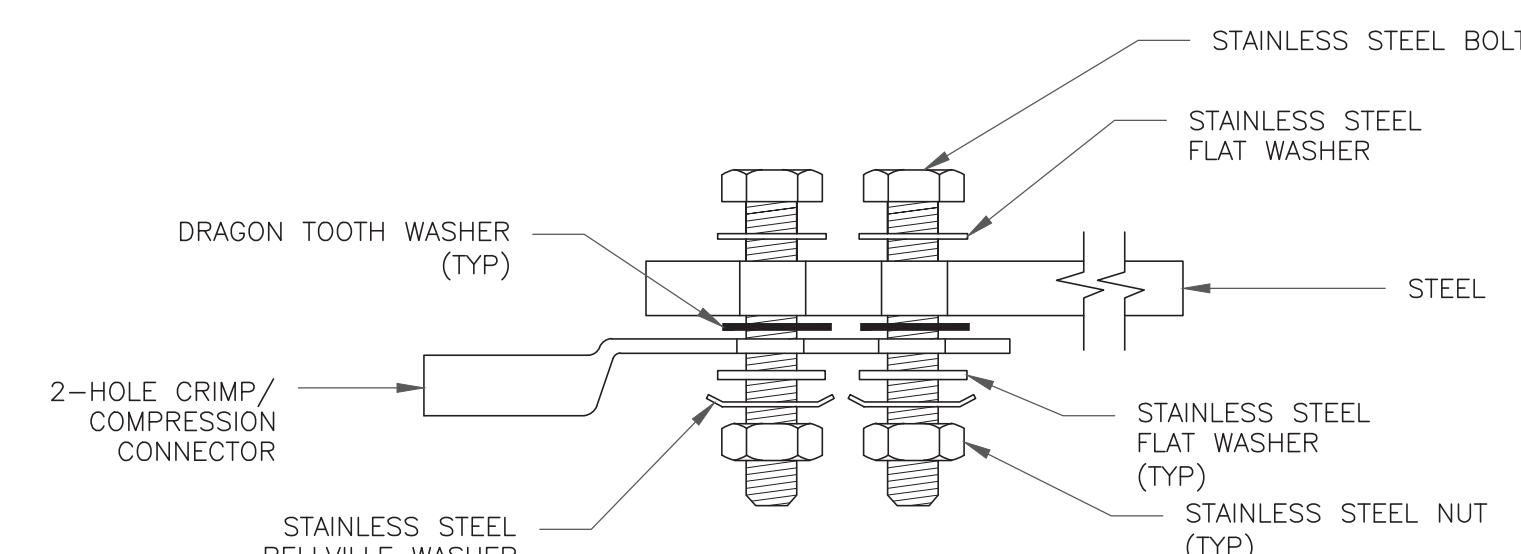
NOTES:

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.

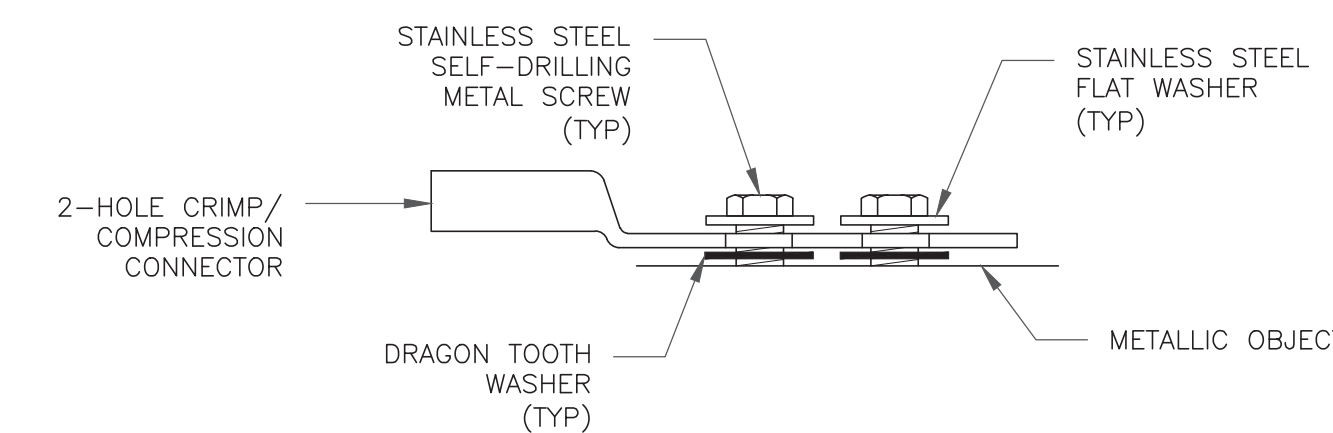
5 GROUND BAR DETAIL  
SCALE: NOT TO SCALE



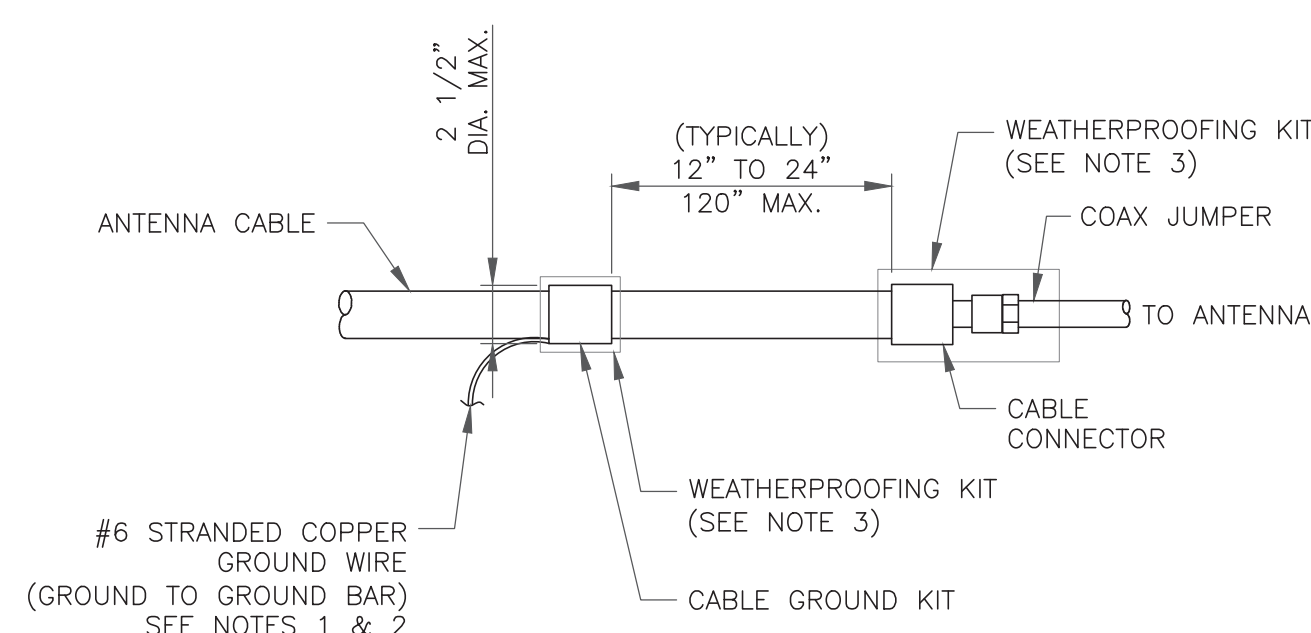
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



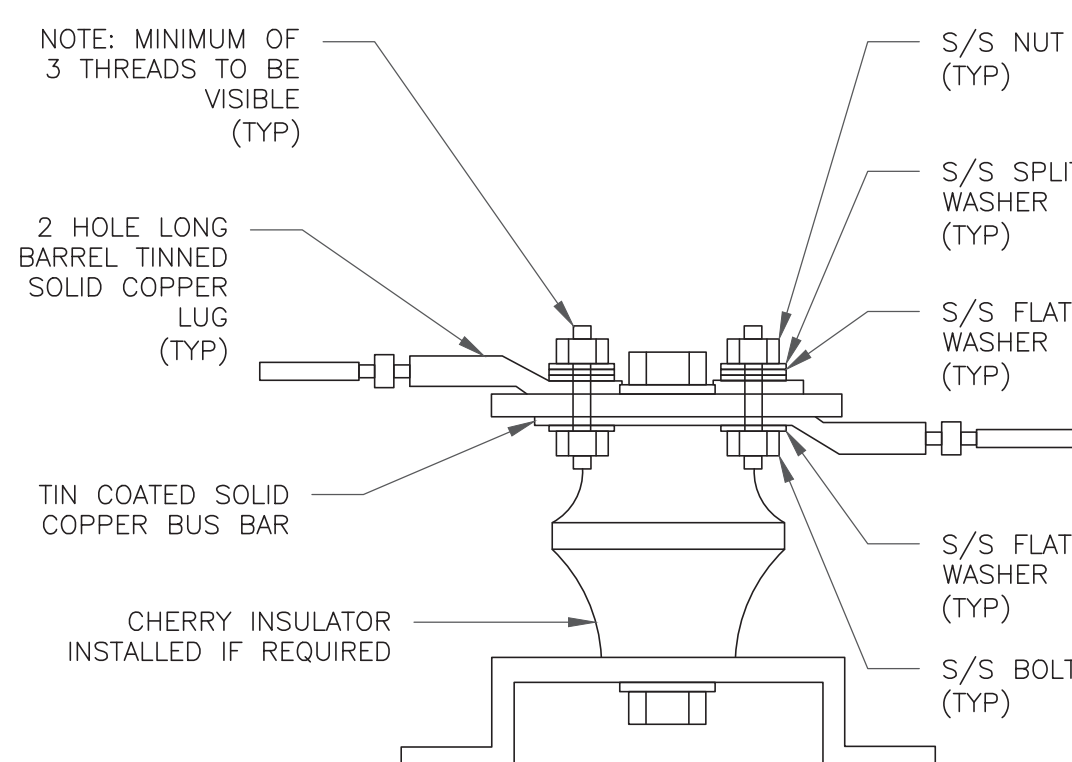
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



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.

6 CABLE GROUND KIT CONNECTION  
SCALE: NOT TO SCALE



7 LUG DETAIL  
SCALE: NOT TO SCALE

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS  
SCALE: NOT TO SCALE



AT&T SITE NUMBER: CT2860

BU #: 876317  
WATERBURY

150 MATTATUCK HEIGHTS  
WATERBURY, CT 06705

EXISTING  
144'-3" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	4/8/22	TDG	PRELIMINARY REVIEW	LR
0	5/13/22	TDG	CONSTRUCTION	LR



B&T ENGINEERING, INC.  
PEC.0001564  
Expires 2/10/23

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SHEET NUMBER:

G-2

REVISION:

0

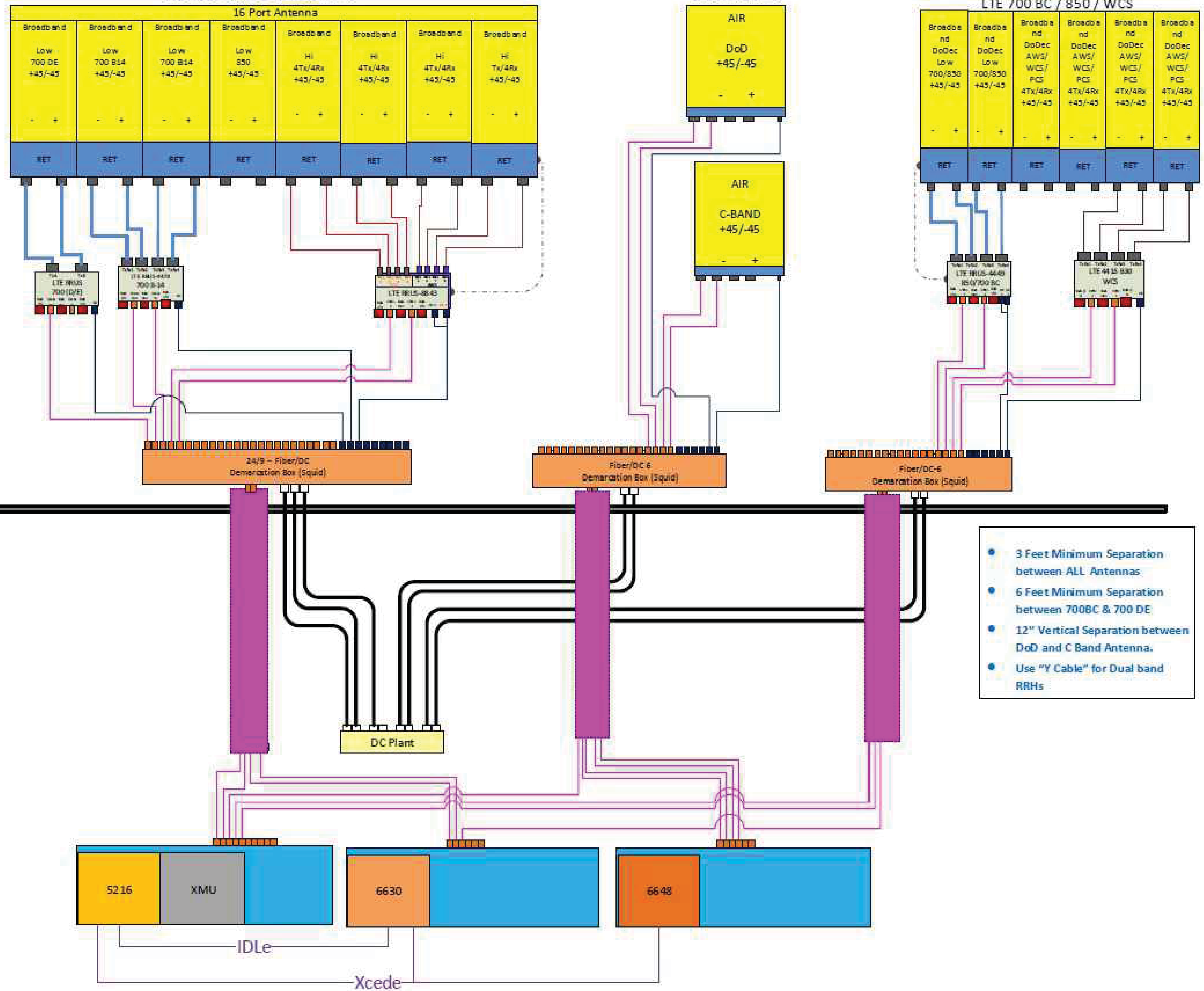


Antenna 1  
Empty

Antenna 2  
LTE 700 DE / B14 / PCS / AWS

Antenna 3  
DoD + C band

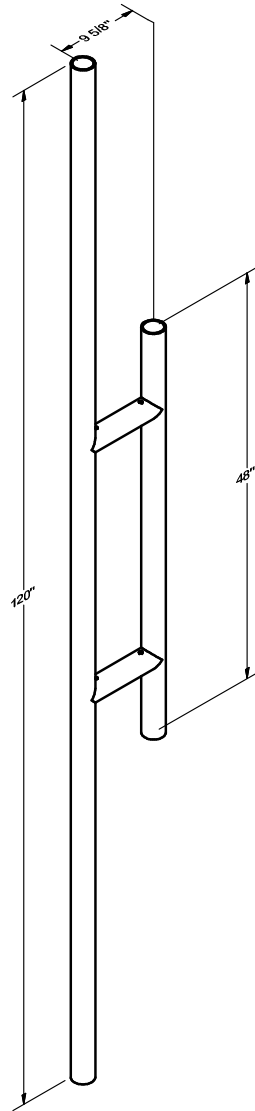
Antenna 4  
LTE 700 BC / 850 / WCS



- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DE
- 12" Vertical Separation between DoD and C Band Antenna.
- Use "Y Cable" for Dual band RRHs

IDLe

Xcede



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-PM1	PM1 STANDOFF MOUNT WELDMNT		59.45	59.45

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	120" LONG PIPE WAS 70" LONG		KC8	4-28-21
REVISION HISTORY				

**TOLERANCE NOTES**

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

PROPRIETARY NOTE:  
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION	
1' PANEL STAND-OFF MOUNT	
CPD NO.	DRAWN BY
	CEK 8/9/2019
CLASS	DRAWING USAGE
81	CUSTOMER
SUB	CHECKED BY
02	BMC 8/21/2019

	Engineering Support Team: 1-888-753-7446	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX Tampa, FL
	A valmont COMPANY	
PART NO.	PM1	PAGE 1 OF 1
DWG. NO.	PM1	

# Exhibit D

## **Structural Analysis Report**



Date: **March 28, 2022**

B+T Group  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
(918) 587-4630

**Subject:** **Structural Analysis Report**

**Carrier Designation:** **AT&T Mobility Co-Locate**  
**Site Number:** CT2860  
**FA Number:** 10578275

**Crown Castle Designation:** **BU Number:** 876317  
**Site Name:** Waterbury  
**JDE Job Number:** 686294  
**Work Order Number:** 2093849  
**Order Number:** 586326 Rev. 0

**Engineering Firm Designation:** **B+T Group Project Number:** 79982.008.01

**Site Data:** **150 Mattatuck Heights, Waterbury, New Haven County, CT**  
**Latitude 41° 32' 16.3", Longitude -72° 59' 6.1"**  
**144.25 Foot - Monopole Tower**

B+T Group is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

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

LC7: Proposed Equipment Configuration

**Sufficient Capacity – 99.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Clint Coody

Respectfully submitted by: B+T Engineering, Inc.  
COA: PEC.0001564; Expires: 02/01/2023



Chad E. Tuttle, P.E.

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- 4.1) Recommendations

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- tnxTower Output

### 6) APPENDIX B

- Base Level Drawing

### 7) APPENDIX C

- Additional Calculations

## 1) INTRODUCTION

This tower is a 134.25 ft. Monopole tower designed by Valmont. A 10-ft tower extension has been considered in this analysis, bringing the total tower height to 144.25 ft.

The tower has been modified multiple times to accommodate additional loading.

## 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	118 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1 in
<b>Wind Speed with Ice:</b>	50 mph
<b>Service Wind Speed:</b>	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)
144.0	145.0	3	Ericsson	AIR 6419 B77G_CCIV3	6 3 1	13/16 3/8 7/8
	144.0	3	--	2" Std. x 10' long mount pipe		
		1	Site Pro 1	F3P-12W		
	143.0	1	--	Miscellaneous [NA 507-1]		
		3	Ericsson	2012 B29		
		3	Ericsson	RADIO 4415 B30		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Kmw Comm.	EPBQ-654L8H8-L2		
		3	Quintel Tech.	QD8616-7		
		2	Raycap	DC6-48-60-18-8F		
		1	Raycap	DC9-48-60-24-8C-EV		
	141.0	3	Ericsson	AIR 6449 B77D_CCVI2		

**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)
130.0	133.0	1	Andrew	VHLP2-18	3 3 1	1-1/4 Elliptical 1-1/2
		2	Andrew	VHLP2-23		
	130.0	6	Alcatel Lucent	1900MHZ RRH (65MHZ)		
		3	Alcatel Lucent	800 External Notch Filter		
		3	Alcatel Lucent	800MHZ RRH		
		3	Nokia	AAHC		
		4	RFS Celwave	APXVSPP18-C-A20		
		4	RFS Celwave	IBC1900HB-2		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		2	RFS Celwave	PD2DE-700/2700		
		1	--	Pipe Mount [PM 601-3]		
		1	--	Platform Mount [LP 602-1]		
120.0	120.0	1	--	Commscope MC-PK8-DSH	1	1-1/2
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		3	JMA Wireless	MX08FRO665-21		
110.0	113.0	1	Trimble	BULLET III	6 2 1	1-5/8 1-1/4 1/2
		3	Commscope	BSAMNT-SBS-1-2		
	6	Andrew	SBNHH-1D65B			
	3	Antel	BXA-80063/4CF			
	1	Raycap	RVZDC-6627-PF-48			
	3	Samsung Telecom.	MT6407-77A			
	3	Samsung Telecom.	RFV01U-D1A			
	3	Samsung Telecom.	RFV01U-D2A			
100.0	103.0	3	Ericsson	RADIO 4449 B12/B71	6 5 2 1	1-1/4 7/8 1-1/2 1-5/8
		3	Ericsson	AIR -32 B2A/B66AA		
		3	Ericsson	AIR 21 B2A/B4P		
		3	RFS Celwave	APXVAARR24_43-U-NA20		
	3	RFS Celwave	ATMAA1412D-1A20			
	100.0	1	--	Platform Mount [LP 303-1]		
50.0	51.0	1	Lucent	KS24019-L112A	1	1/2
	50.0	1	--	Side Arm Mount [SO 701-1]		

### 3) ANALYSIS PROCEDURE

**Table 3 - Documents Provided**

Document	Reference	Source
Tower Manufacturer Drawing	1530953	CCI Sites
Mount Analysis Report	10259240	CCI Sites
Tower Modification Drawing	2381113	CCI Sites
Post Modification Inspection	2381112	CCI Sites
Tower Modification Drawing	3315244	CCI Sites
Post Modification Inspection	3770745	CCI Sites
Tower Modification Drawing	8142142	CCI Sites
Post Modification Inspection	8624542	CCI Sites
Foundation Drawing	1630930	CCI Sites
Geotech Report	1529737	CCI Sites
Crown CAD Package	Date: 03/23/2022	CCI Sites

### 3.1) Analysis Method

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

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

### 3.2) Assumptions

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

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group 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	144.25 - 139.25	Pole	TP12.75x12.75x0.375	1	-4.510	--	14.1	Pass
L2	139.25 - 134.75	Pole	TP12.75x12.75x0.375	2	-4.793	--	28.8	Pass
L3	134.75 - 134.25	Pole	TP13.48x13.48x0.375	3	-4.828	--	27.2	Pass
L4	134.25 - 129.25	Pole	TP14.466x13.48x0.1875	4	-8.608	--	54.8	Pass
L5	129.25 - 124.25	Pole	TP15.452x14.466x0.1875	5	-8.883	--	73.9	Pass
L6	124.25 - 123.42	Pole	TP15.616x15.452x0.1875	6	-8.944	--	76.7	Pass
L7	123.42 - 123.17	Pole + Reinf.	TP15.665x15.616x0.5375	7	-8.982	--	50.0	Pass
L8	123.17 - 118.17	Pole + Reinf.	TP16.651x15.665x0.5125	8	-12.422	--	63.2	Pass
L9	118.17 - 113.17	Pole + Reinf.	TP17.637x16.651x0.4875	9	-13.025	--	76.8	Pass
L10	113.17 - 109.5	Pole + Reinf.	TP18.36x17.637x0.475	10	-16.653	--	86.5	Pass
L11	109.5 - 109.25	Pole + Reinf.	TP18.409x18.36x0.5875	11	-16.708	--	72.9	Pass
L12	109.25 - 104.75	Pole + Reinf.	TP19.296x18.409x0.5625	12	-17.438	--	84.9	Pass
L13	104.75 - 104.5	Pole + Reinf.	TP19.346x19.296x0.775	13	-17.503	--	68.5	Pass
L14	104.5 - 102.42	Pole + Reinf.	TP19.756x19.346x0.7625	14	-17.935	--	72.7	Pass
L15	102.42 - 102.17	Pole + Reinf.	TP19.806x19.756x0.5625	15	-17.994	--	90.8	Pass
L16	102.17 - 98.75	Pole + Reinf.	TP20.479x19.806x0.55	16	-22.016	--	99.6	Pass
L17	98.75 - 98.5	Pole + Reinf.	TP20.528x20.479x0.8375	17	-22.098	--	87.1	Pass



Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L18	98.5 - 97.5	Pole + Reinf.	TP20.726x20.528x0.8375	18	-22.351	--	75.7	Pass
L19	97.5 - 97.25	Pole + Reinf.	TP20.775x20.726x0.75	19	-22.422	--	88.2	Pass
L20	97.25 - 95.55	Pole + Reinf.	TP21.81x20.775x0.7375	20	-22.837	--	91.9	Pass
L21	95.55 - 90.55	Pole + Reinf.	TP21.73x20.735x0.8	21	-24.893	--	95.4	Pass
L22	90.55 - 89.25	Pole + Reinf.	TP21.989x21.73x0.775	22	-25.253	--	97.7	Pass
L23	89.25 - 89	Pole + Reinf.	TP22.039x21.989x1	23	-25.346	--	84.4	Pass
L24	89 - 88.25	Pole + Reinf.	TP22.189x22.039x0.975	24	-25.575	--	70.5	Pass
L25	88.25 - 88	Pole + Reinf.	TP22.238x22.189x0.7625	25	-25.647	--	80.7	Pass
L26	88 - 87.83	Pole + Reinf.	TP22.272x22.238x0.7625	26	-25.694	--	81.0	Pass
L27	87.83 - 87.58	Pole + Reinf.	TP22.321x22.272x0.675	27	-25.754	--	85.8	Pass
L28	87.58 - 82.58	Pole + Reinf.	TP23.317x22.321x0.65	28	-26.997	--	92.4	Pass
L29	82.58 - 77.58	Pole + Reinf.	TP24.312x23.317x0.625	29	-28.278	--	98.3	Pass
L30	77.58 - 77	Pole + Reinf.	TP24.428x24.312x0.625	30	-28.437	--	99.0	Pass
L31	77 - 76.75	Pole + Reinf.	TP24.478x24.428x0.825	31	-28.520	--	92.9	Pass
L32	76.75 - 76.33	Pole + Reinf.	TP24.561x24.478x0.825	32	-28.644	--	93.3	Pass
L33	76.33 - 76.08	Pole + Reinf.	TP24.611x24.561x0.825	33	-28.718	--	94.4	Pass
L34	76.08 - 74.25	Pole + Reinf.	TP24.976x24.611x0.8	34	-29.230	--	96.4	Pass
L35	74.25 - 74	Pole + Reinf.	TP25.026x24.976x0.8875	35	-29.327	--	85.1	Pass
L36	74 - 73.75	Pole + Reinf.	TP25.076x25.026x0.8875	36	-29.403	--	85.3	Pass
L37	73.75 - 73.5	Pole + Reinf.	TP25.125x25.076x0.9125	37	-29.482	--	84.6	Pass
L38	73.5 - 68.5	Pole + Reinf.	TP26.121x25.125x0.875	38	-31.044	--	89.0	Pass
L39	68.5 - 63.5	Pole + Reinf.	TP27.116x26.121x0.85	39	-32.637	--	93.2	Pass
L40	63.5 - 60.5	Pole + Reinf.	TP27.714x27.116x0.825	40	-33.607	--	95.5	Pass
L41	60.5 - 60.25	Pole + Reinf.	TP27.763x27.714x0.825	41	-33.698	--	95.7	Pass
L42	60.25 - 59.5	Pole + Reinf.	TP27.913x27.763x0.825	42	-33.935	--	96.2	Pass
L43	59.5 - 59.25	Pole + Reinf.	TP27.962x27.913x0.8875	43	-34.027	--	90.0	Pass
L44	59.25 - 54.25	Pole + Reinf.	TP28.958x27.962x0.85	44	-35.723	--	93.5	Pass
L45	54.25 - 50	Pole + Reinf.	TP30.64x28.958x0.8375	45	-37.194	--	96.2	Pass
L46	50 - 44.8	Pole + Reinf.	TP30.333x29.304x0.8375	46	-40.327	--	97.9	Pass
L47	44.8 - 43.58	Pole + Reinf.	TP30.574x30.333x0.8375	47	-40.762	--	98.6	Pass
L48	43.58 - 43.33	Pole + Reinf.	TP30.624x30.574x0.85	48	-40.869	--	97.6	Pass
L49	43.33 - 43.17	Pole + Reinf.	TP30.657x30.624x0.85	49	-40.934	--	97.7	Pass
L50	43.17 - 42.92	Pole + Reinf.	TP30.706x30.657x0.9375	50	-41.032	--	92.5	Pass
L51	42.92 - 39	Pole + Reinf.	TP31.481x30.706x0.9125	51	-42.568	--	94.3	Pass
L52	39 - 38.75	Pole + Reinf.	TP31.531x31.481x0.95	52	-42.586	--	89.2	Pass
L53	38.75 - 37.17	Pole + Reinf.	TP31.844x31.531x0.9375	53	-42.704	--	89.9	Pass
L54	37.17 - 36.92	Pole + Reinf.	TP31.894x31.844x0.8875	54	-43.346	--	93.4	Pass
L55	36.92 - 34	Pole + Reinf.	TP32.471x31.894x0.8875	55	-43.462	--	94.7	Pass
L56	34 - 33.75	Pole + Reinf.	TP32.52x32.471x0.875	56	-44.629	--	94.7	Pass
L57	33.75 - 29.75	Pole + Reinf.	TP33.312x32.52x0.8625	57	-44.736	--	96.3	Pass
L58	29.75 - 29.5	Pole + Reinf.	TP33.361x33.312x0.8625	58	-46.295	--	95.2	Pass
L59	29.5 - 24.5	Pole + Reinf.	TP34.351x33.361x0.85	59	-46.404	--	97.0	Pass
L60	24.5 - 23	Pole + Reinf.	TP34.648x34.351x0.8375	60	-48.406	--	97.5	Pass
L61	23 - 22.75	Pole + Reinf.	TP34.697x34.648x0.9625	61	-48.997	--	90.4	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L62	22.75 - 21.58	Pole + Reinf.	TP34.928x34.697x0.9625	62	-49.116	--	90.8	Pass
L63	21.58 - 21.33	Pole + Reinf.	TP34.978x34.928x0.85	63	-49.620	--	95.9	Pass
L64	21.33 - 16.33	Pole + Reinf.	TP35.967x34.978x0.8375	64	-49.735	--	97.4	Pass
L65	16.33 - 12.92	Pole + Reinf.	TP36.644x35.967x0.825	65	-51.856	--	98.4	Pass
L66	12.92 - 12.67	Pole + Reinf.	TP36.693x36.644x0.9125	66	-53.310	--	89.2	Pass
L67	12.67 - 12.5	Pole + Reinf.	TP36.726x36.693x0.9125	67	-53.426	--	89.2	Pass
L68	12.5 - 12.25	Pole + Reinf.	TP36.776x36.726x0.7625	68	-53.505	--	92.5	Pass
L69	12.25 - 12	Pole + Reinf.	TP36.825x36.776x0.7625	69	-53.610	--	92.6	Pass
L70	12 - 11.75	Pole + Reinf.	TP36.874x36.825x0.6625	70	-53.715	--	94.7	Pass
L71	11.75 - 8.5	Pole + Reinf.	TP37.518x36.874x0.65	71	-53.827	--	95.4	Pass
L72	8.5 - 8.25	Pole + Reinf.	TP37.567x37.518x0.925	72	-55.112	--	78.2	Pass
L73	8.25 - 7	Pole + Reinf.	TP37.815x37.567x0.9125	73	-55.242	--	78.5	Pass
L74	7 - 6.75	Pole + Reinf.	TP37.864x37.815x0.8125	74	-55.832	--	90.9	Pass
L75	6.75 - 1.75	Pole + Reinf.	TP38.854x37.864x0.7875	75	-55.950	--	92.1	Pass
L76	1.75 - 0	Pole + Reinf.	TP39.2x38.854x0.7875	76	-58.133	--	92.5	Pass
							Summary	
							Pole (L6)	84.7 Pass
							Reinforcement	99.6 Pass
							Rating =	99.6 Pass

**Table 5 - Tower Component Stresses vs. Capacity – LC7**

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	134.25	43.0	Pass
1,2	Anchor Rods	Base	92.1	Pass
1,2	Base Plate	Base	63.9	Pass
1,2	Base Foundation (Structure)	Base	21.7	Pass
1,2	Base Foundation (Soil Interaction)	Base	89.7	Pass

<b>Structure Rating (max from all components) =</b>	<b>99.6%</b>
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Notes:

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

**4.1) Recommendations**

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

**APPENDIX A**  
**TNXTOWER OUTPUT**



Vx

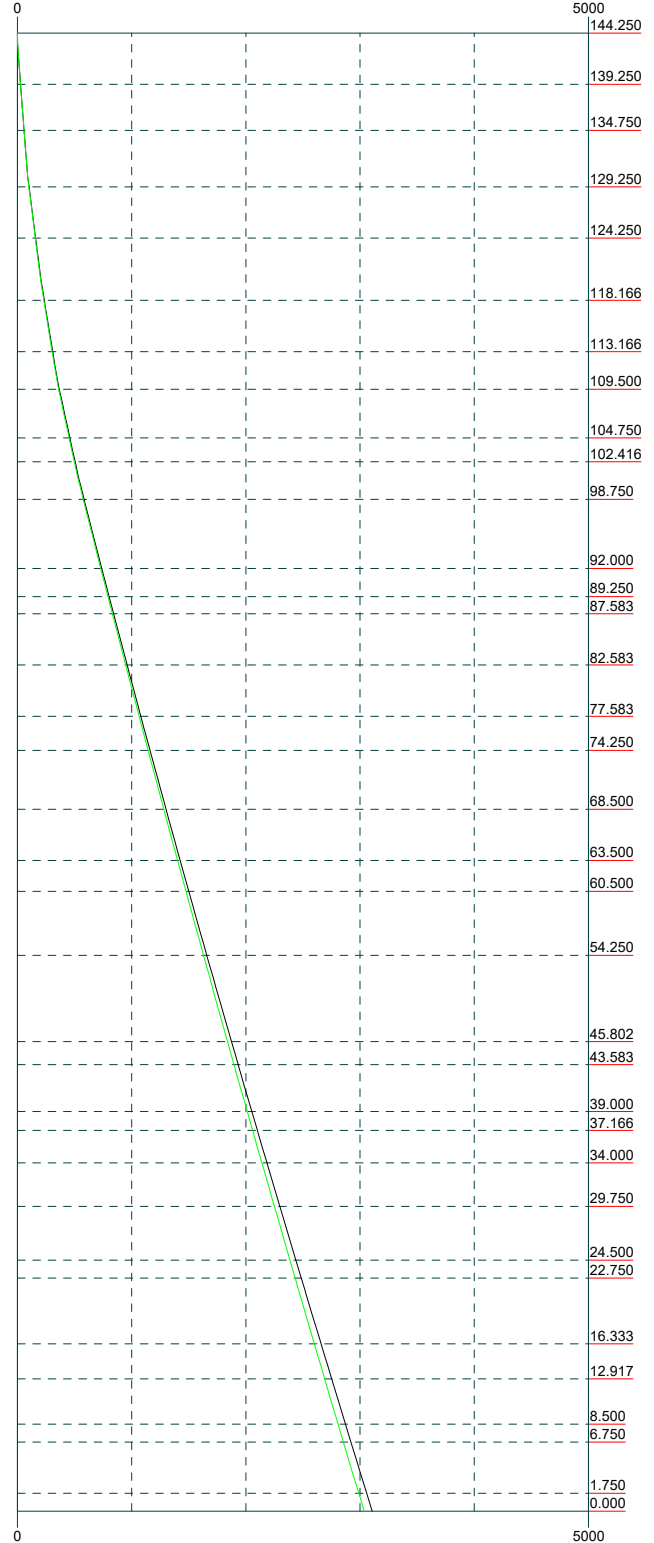
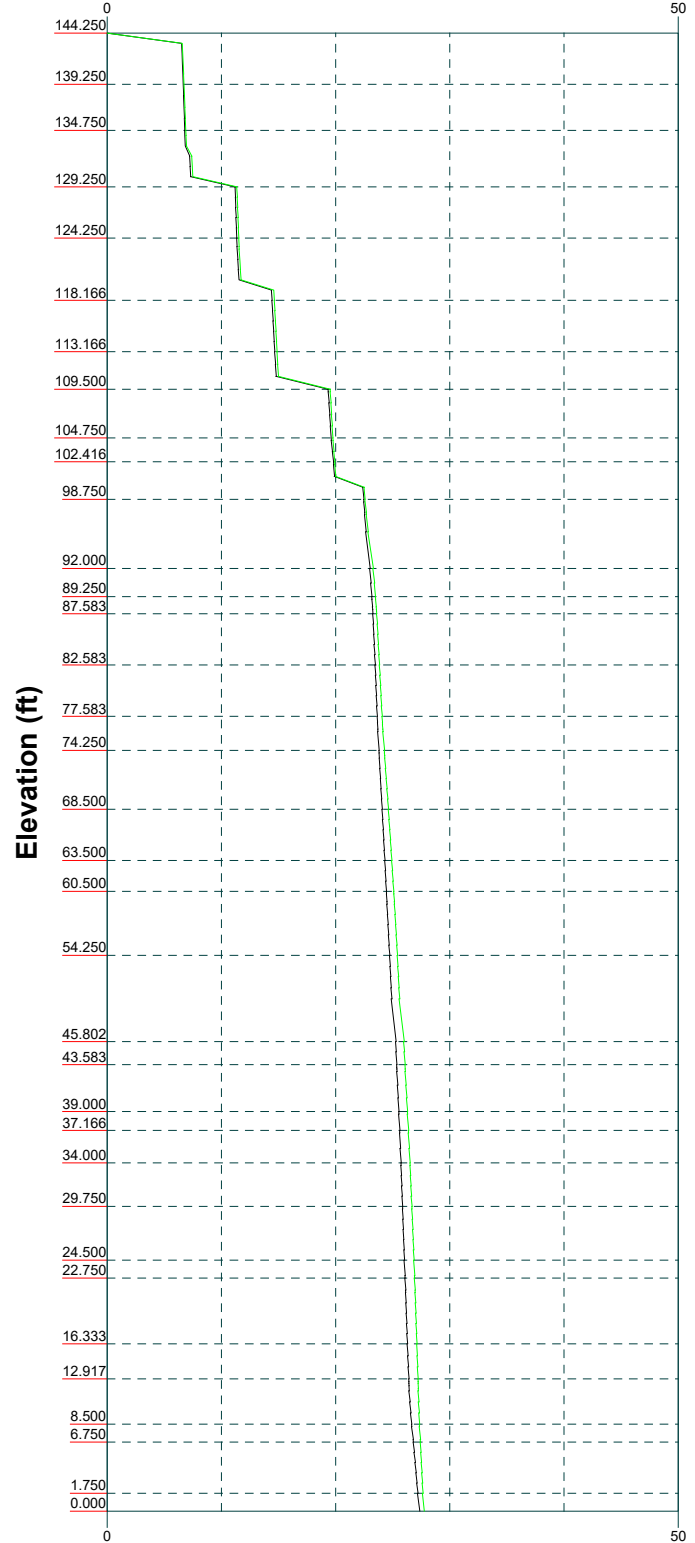
Vz

Mx

Mz

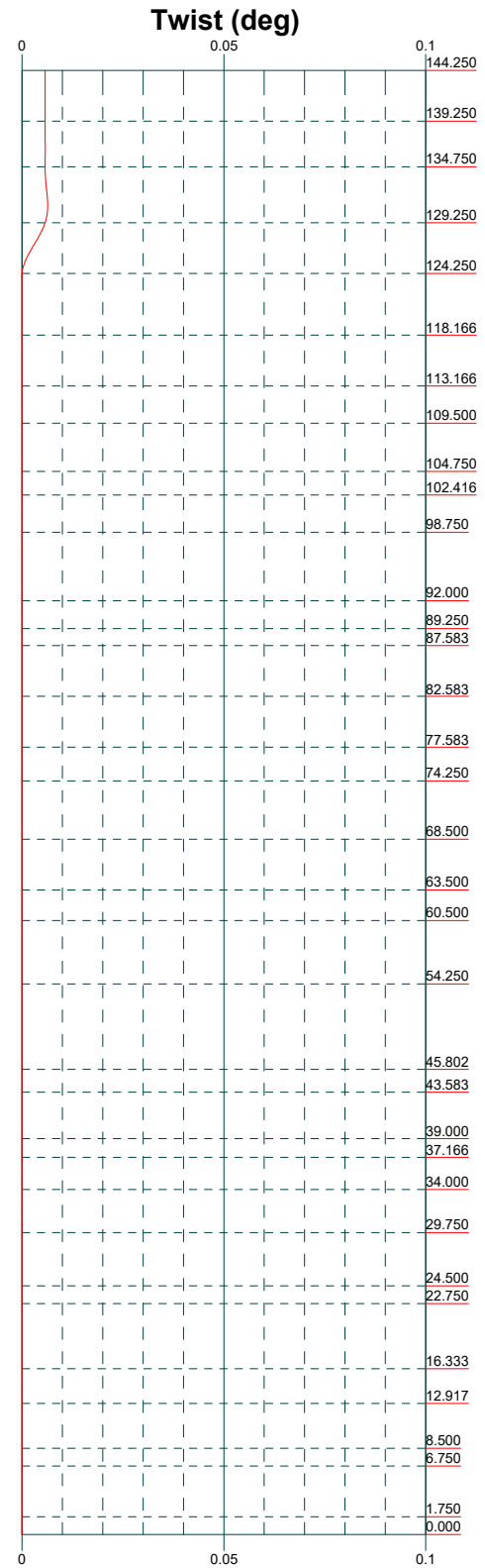
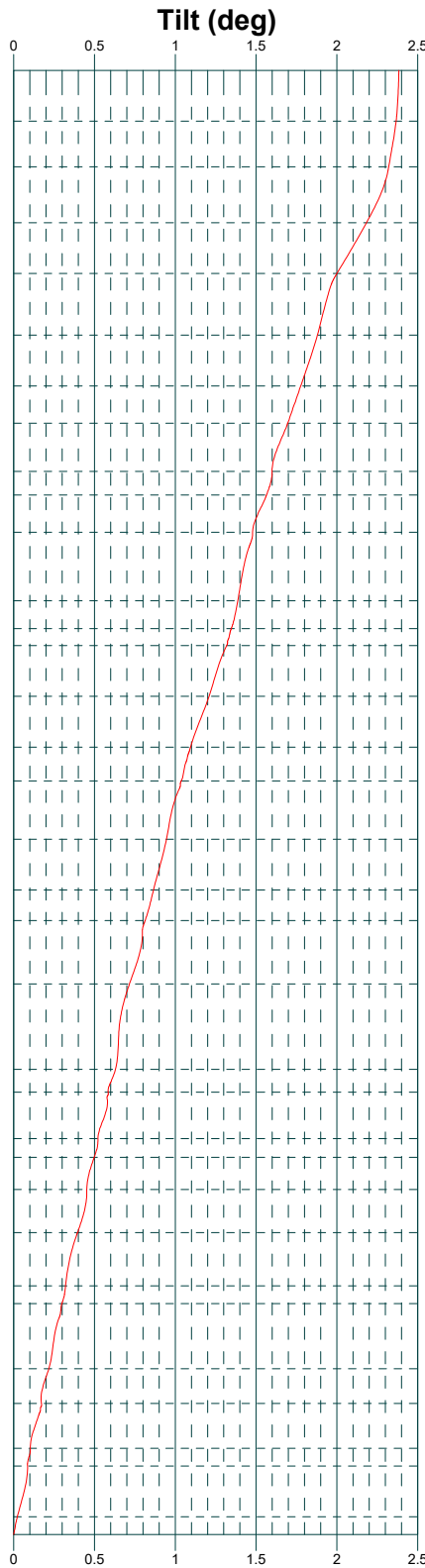
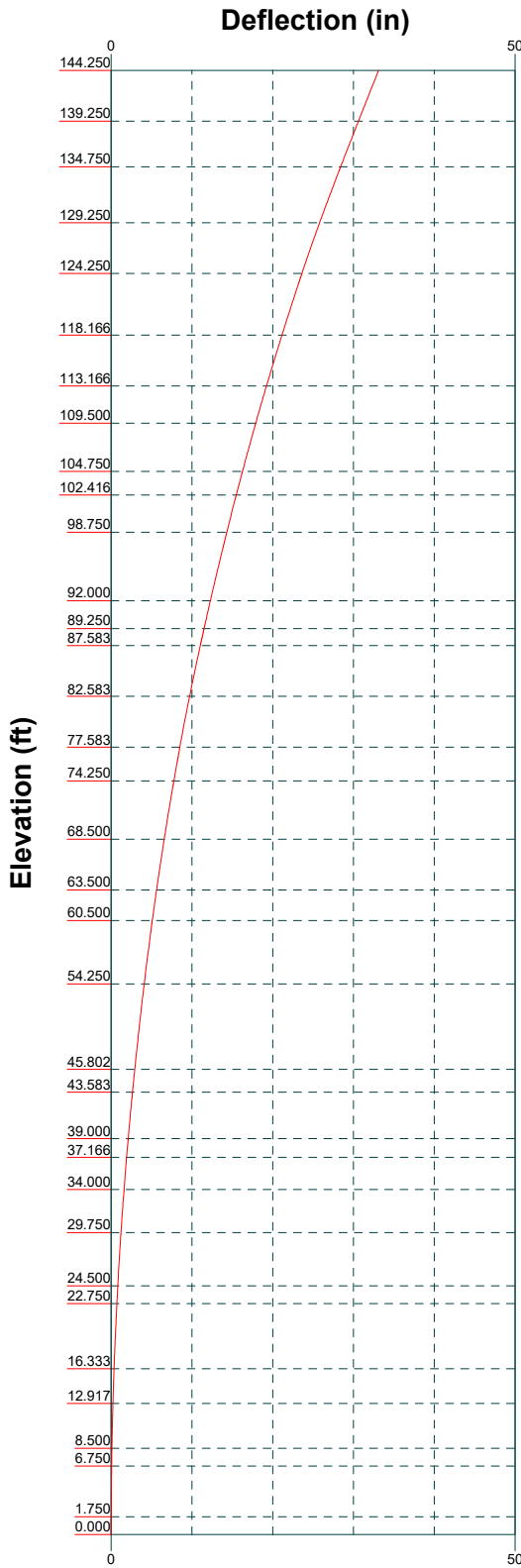
Global Mast Shear (K)


Global Mast Moment (kip-ft)



**B+T Group**  
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Job: <b>79982.008.01 - WATERBURY, CT (BU# 87631)</b>		
Project:		
Client: Crown Castle	Drawn by: Jayaraj B	App'd:
Code: TIA-222-H	Date: 03/26/22	Scale: NTS
Path:	Dwg No: E-4	




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Project:		
Client: Crown Castle	Drawn by: Jayaraj B	App'd:
Code: TIA-222-H	Date: 03/26/22	Scale: NTS
Path:		Dwg No. E-5



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	<b>Project</b>	<b>Date</b> 15:59:42 03/26/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

## Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Tower base elevation above sea level: 660.000 ft.

Basic wind speed of 118 mph.

Risk Category II.

Exposure Category B.

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

Topographic Category: 1.

Crest Height: 0.000 ft.

Nominal ice thickness of 1.000 in.

Ice thickness is considered to increase with height.

Ice density of 56.000 pcf.

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

Temperature drop of 50.000 °F.

Deflections calculated using a wind speed of 60 mph.

TIA-222-H Annex S.

TOWER RATING:99.6%.

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

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

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

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

Maximum demand-capacity ratio is: 1.05.

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

## Options

<ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>Include Bolts In Member Capacity</li> <li>Leg Bolts Are At Top Of Section</li> <li>Secondary Horizontal Braces Leg</li> <li>Use Diamond Inner Bracing (4 Sided)</li> <li>SR Members Have Cut Ends</li> <li>SR Members Are Concentric</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>√ Assume Rigid Index Plate</li> <li>√ Use Clear Spans For Wind Area</li> <li>Use Clear Spans For KL/r</li> <li>Retension Guys To Initial Tension</li> <li>√ Bypass Mast Stability Checks</li> <li>√ Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>Autocalc Torque Arm Areas</li> <li>Add IBC .6D+W Combination</li> <li>Sort Capacity Reports By Component</li> <li>Triangulate Diamond Inner Bracing</li> <li>Treat Feed Line Bundles As Cylinder</li> <li>Ignore KL/ry For 60 Deg. Angle Legs</li> </ul>	<ul style="list-style-type: none"> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>SR Leg Bolts Resist Compression</li> <li>All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>√ Consider Feed Line Torque</li> <li>Include Angle Block Shear Check</li> <li>Use TIA-222-H Bracing Resist. Exemption</li> <li>Use TIA-222-H Tension Splice Exemption</li> <li style="background-color: #e0e0e0;">Poles</li> <li>√ Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> <li>Pole Without Linear Attachments</li> <li>Pole With Shroud Or No Appurtenances</li> <li>Outside and Inside Corner Radii Are Known</li> </ul>
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	<b>Project</b>	<b>Date</b> 15:59:42 03/26/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

## 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	144.250-139.250	5.000	0.000	Round	12.750	12.750	0.375		A500-46 (46 ksi)
L2	139.250-134.750	4.500	0.000	Round	12.750	12.750	0.375		A500-46 (46 ksi)
L3	134.750-134.250	0.500	0.000	Round	13.480	13.480	0.375		A500-46 (46 ksi)
L4	134.250-129.250	5.000	0.000	12	13.480	14.466	0.188	0.750	A572-65 (65 ksi)
L5	129.250-124.250	5.000	0.000	12	14.466	15.452	0.188	0.750	A572-65 (65 ksi)
L6	124.250-123.416	0.834	0.000	12	15.452	15.616	0.188	0.750	A572-65 (65 ksi)
L7	123.416-123.166	0.250	0.000	12	15.616	15.665	0.537	2.150	A572-65 (65 ksi)
L8	123.166-118.166	5.000	0.000	12	15.665	16.651	0.512	2.050	A572-65 (65 ksi)
L9	118.166-113.166	5.000	0.000	12	16.651	17.637	0.487	1.950	A572-65 (65 ksi)
L10	113.166-109.500	3.666	0.000	12	17.637	18.360	0.475	1.900	A572-65 (65 ksi)
L11	109.500-109.250	0.250	0.000	12	18.360	18.409	0.588	2.350	A572-65 (65 ksi)
L12	109.250-104.750	4.500	0.000	12	18.409	19.296	0.563	2.250	A572-65 (65 ksi)
L13	104.750-104.500	0.250	0.000	12	19.296	19.346	0.775	3.100	A572-65 (65 ksi)
L14	104.500-102.416	2.084	0.000	12	19.346	19.756	0.762	3.050	A572-65 (65 ksi)
L15	102.416-102.166	0.250	0.000	12	19.756	19.806	0.563	2.250	A572-65 (65 ksi)
L16	102.166-98.750	3.416	0.000	12	19.806	20.479	0.550	2.200	A572-65 (65 ksi)
L17	98.750-98.500	0.250	0.000	12	20.479	20.528	0.838	3.350	A572-65 (65 ksi)
L18	98.500-97.500	1.000	0.000	12	20.528	20.726	0.838	3.350	A572-65 (65 ksi)
L19	97.500-97.250	0.250	0.000	12	20.726	20.775	0.750	3.000	A572-65 (65 ksi)
L20	97.250-92.000	5.250	3.552	12	20.775	21.810	0.738	2.950	A572-65 (65 ksi)
L21	92.000-90.552	5.000	0.000	12	20.735	21.730	0.800	3.200	A572-65 (65 ksi)
L22	90.552-89.250	1.302	0.000	12	21.730	21.989	0.775	3.100	A572-65 (65 ksi)
L23	89.250-89.000	0.250	0.000	12	21.989	22.039	1.000	4.000	A572-65 (65 ksi)
L24	89.000-88.250	0.750	0.000	12	22.039	22.189	0.975	3.900	A572-65 (65 ksi)
L25	88.250-88.000	0.250	0.000	12	22.189	22.238	0.762	3.050	A572-65 (65 ksi)
L26	88.000-87.833	0.167	0.000	12	22.238	22.272	0.762	3.050	A572-65 (65 ksi)
L27	87.833-87.583	0.250	0.000	12	22.272	22.321	0.675	2.700	A572-65 (65 ksi)
L28	87.583-82.583	5.000	0.000	12	22.321	23.317	0.650	2.600	A572-65 (65 ksi)

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**Date**  
 15:59:42 03/26/22

**Client**  
 Crown Castle  
**Designed by**  
 Jayaraj B

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
L29	82.583-77.583	5.000	0.000	12	23.317	24.312	0.625	2.500	A572-65 (65 ksi)
L30	77.583-77.000	0.583	0.000	12	24.312	24.428	0.625	2.500	A572-65 (65 ksi)
L31	77.000-76.750	0.250	0.000	12	24.428	24.478	0.825	3.300	A572-65 (65 ksi)
L32	76.750-76.333	0.417	0.000	12	24.478	24.561	0.825	3.300	A572-65 (65 ksi)
L33	76.333-76.083	0.250	0.000	12	24.561	24.611	0.825	3.300	A572-65 (65 ksi)
L34	76.083-74.250	1.833	0.000	12	24.611	24.976	0.800	3.200	A572-65 (65 ksi)
L35	74.250-74.000	0.250	0.000	12	24.976	25.026	0.887	3.550	A572-65 (65 ksi)
L36	74.000-73.750	0.250	0.000	12	25.026	25.076	0.887	3.550	A572-65 (65 ksi)
L37	73.750-73.500	0.250	0.000	12	25.076	25.125	0.912	3.650	A572-65 (65 ksi)
L38	73.500-68.500	5.000	0.000	12	25.125	26.121	0.875	3.500	A572-65 (65 ksi)
L39	68.500-63.500	5.000	0.000	12	26.121	27.116	0.850	3.400	A572-65 (65 ksi)
L40	63.500-60.500	3.000	0.000	12	27.116	27.714	0.825	3.300	A572-65 (65 ksi)
L41	60.500-60.250	0.250	0.000	12	27.714	27.763	0.825	3.300	A572-65 (65 ksi)
L42	60.250-59.500	0.750	0.000	12	27.763	27.913	0.825	3.300	A572-65 (65 ksi)
L43	59.500-59.250	0.250	0.000	12	27.913	27.962	0.887	3.550	A572-65 (65 ksi)
L44	59.250-54.250	5.000	0.000	12	27.962	28.958	0.850	3.400	A572-65 (65 ksi)
L45	54.250-45.802	8.448	4.198	12	28.958	30.640	0.838	3.350	A572-65 (65 ksi)
L46	45.802-44.802	5.198	0.000	12	29.304	30.333	0.838	3.350	A572-65 (65 ksi)
L47	44.802-43.583	1.219	0.000	12	30.333	30.574	0.838	3.350	A572-65 (65 ksi)
L48	43.583-43.333	0.250	0.000	12	30.574	30.624	0.850	3.400	A572-65 (65 ksi)
L49	43.333-43.166	0.167	0.000	12	30.624	30.657	0.850	3.400	A572-65 (65 ksi)
L50	43.166-42.916	0.250	0.000	12	30.657	30.706	0.938	3.750	A572-65 (65 ksi)
L51	42.916-39.000	3.916	0.000	12	30.706	31.481	0.912	3.650	A572-65 (65 ksi)
L52	39.000-38.750	0.250	0.000	12	31.481	31.531	0.950	3.800	A572-65 (65 ksi)
L53	38.750-37.166	1.584	0.000	12	31.531	31.844	0.938	3.750	A572-65 (65 ksi)
L54	37.166-36.916	0.250	0.000	12	31.844	31.894	0.887	3.550	A572-65 (65 ksi)
L55	36.916-34.000	2.916	0.000	12	31.894	32.471	0.887	3.550	A572-65 (65 ksi)
L56	34.000-33.750	0.250	0.000	12	32.471	32.520	0.875	3.500	A572-65 (65 ksi)
L57	33.750-29.750	4.000	0.000	12	32.520	33.312	0.863	3.450	A572-65 (65 ksi)
L58	29.750-29.500	0.250	0.000	12	33.312	33.361	0.863	3.450	A572-65 (65 ksi)
L59	29.500-24.500	5.000	0.000	12	33.361	34.351	0.850	3.400	A572-65

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<b>Client</b>	Crown Castle	15:59:42 03/26/22	
		<b>Designed by</b> Jayaraj B	

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
L60	24.500-23.000	1.500	0.000	12	34.351	34.648	0.838	3.350	(65 ksi) A572-65
L61	23.000-22.750	0.250	0.000	12	34.648	34.697	0.963	3.850	(65 ksi) A572-65
L62	22.750-21.583	1.167	0.000	12	34.697	34.928	0.963	3.850	(65 ksi) A572-65
L63	21.583-21.333	0.250	0.000	12	34.928	34.978	0.850	3.400	(65 ksi) A572-65
L64	21.333-16.333	5.000	0.000	12	34.978	35.967	0.838	3.350	(65 ksi) A572-65
L65	16.333-12.917	3.416	0.000	12	35.967	36.644	0.825	3.300	(65 ksi) A572-65
L66	12.917-12.667	0.250	0.000	12	36.644	36.693	0.912	3.650	(65 ksi) A572-65
L67	12.667-12.500	0.167	0.000	12	36.693	36.726	0.912	3.650	(65 ksi) A572-65
L68	12.500-12.250	0.250	0.000	12	36.726	36.776	0.762	3.050	(65 ksi) A572-65
L69	12.250-12.000	0.250	0.000	12	36.776	36.825	0.762	3.050	(65 ksi) A572-65
L70	12.000-11.750	0.250	0.000	12	36.825	36.874	0.662	2.650	(65 ksi) A572-65
L71	11.750-8.500	3.250	0.000	12	36.874	37.518	0.650	2.600	(65 ksi) A572-65
L72	8.500-8.250	0.250	0.000	12	37.518	37.567	0.925	3.700	(65 ksi) A572-65
L73	8.250-7.000	1.250	0.000	12	37.567	37.815	0.912	3.650	(65 ksi) A572-65
L74	7.000-6.750	0.250	0.000	12	37.815	37.864	0.813	3.250	(65 ksi) A572-65
L75	6.750-1.750	5.000	0.000	12	37.864	38.854	0.787	3.150	(65 ksi) A572-65
L76	1.750-0.000	1.750		12	38.854	39.200	0.787	3.150	(65 ksi) A572-65

### Tapered Pole Properties

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	I/Q in <sup>2</sup>	w in	w/t
L1	12.750	14.579	279.335	4.377	6.375	43.817	558.670	7.285	0.000	0
L2	12.750	14.579	279.335	4.377	6.375	43.817	558.670	7.285	0.000	0
L3	13.480	15.439	331.709	4.635	6.740	49.215	663.419	7.715	0.000	0
L4	13.889	8.025	180.994	4.759	6.983	25.921	366.742	3.950	3.110	16.587
L5	14.910	8.621	224.322	5.112	7.493	29.936	454.538	4.243	3.374	17.996
L6	15.931	9.216	274.067	5.465	8.004	34.242	555.334	4.536	3.639	19.405
L7	16.101	9.315	283.020	5.523	8.089	34.988	573.475	4.585	3.683	19.641
L8	15.977	26.097	757.351	5.398	8.089	93.626	1534.599	12.844	2.745	5.106
	16.028	26.182	764.802	5.416	8.115	94.250	1549.697	12.886	2.758	5.131
	16.037	25.006	732.852	5.425	8.115	90.312	1484.956	12.307	2.825	5.512
	17.058	26.633	885.390	5.778	8.625	102.651	1794.041	13.108	3.089	6.027

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
L9	17.067	25.373	846.120	5.787	8.625	98.098	1714.469	12.488	3.156	6.474
	18.087	26.920	1010.565	6.139	9.136	110.614	2047.680	13.249	3.420	7.016
L10	18.092	26.249	986.808	6.144	9.136	108.014	1999.541	12.919	3.454	7.271
	18.840	27.355	1116.814	6.403	9.510	117.432	2262.967	13.463	3.647	7.679
L11	18.800	33.621	1355.419	6.362	9.510	142.521	2746.446	16.547	3.346	5.695
	18.851	33.714	1366.728	6.380	9.536	143.325	2769.361	16.593	3.359	5.718
L12	18.860	32.324	1314.084	6.389	9.536	137.804	2662.690	15.909	3.426	6.091
	19.778	33.931	1519.973	6.707	9.995	152.067	3079.878	16.700	3.664	6.514
L13	19.704	46.220	2023.726	6.631	9.995	202.465	4100.618	22.748	3.094	3.993
	19.755	46.343	2039.927	6.648	10.021	203.566	4133.444	22.808	3.108	4.01
L14	19.759	45.626	2011.080	6.653	10.021	200.687	4074.993	22.456	3.141	4.119
	20.184	46.635	2147.450	6.800	10.234	209.839	4351.315	22.952	3.251	4.264
L15	20.255	34.765	1634.756	6.871	10.234	159.741	3312.459	17.110	3.787	6.733
	20.306	34.854	1647.383	6.889	10.259	160.574	3338.044	17.154	3.800	6.756
L16	20.310	34.102	1613.915	6.894	10.259	157.312	3270.230	16.784	3.834	6.971
	21.008	35.295	1789.255	7.135	10.608	168.667	3625.516	17.371	4.014	7.299
L17	20.906	52.969	2608.327	7.032	10.608	245.878	5285.177	26.070	3.244	3.873
	20.957	53.102	2628.012	7.049	10.634	247.139	5325.065	26.135	3.257	3.889
L18	20.957	53.102	2628.012	7.049	10.634	247.139	5325.065	26.135	3.257	3.889
	21.161	53.633	2707.746	7.120	10.736	252.215	5486.627	26.397	3.310	3.952
L19	21.192	48.241	2456.993	7.151	10.736	228.858	4978.534	23.743	3.544	4.726
	21.243	48.360	2475.226	7.169	10.761	230.010	5015.479	23.801	3.558	4.744
L20	21.248	47.584	2438.533	7.173	10.761	226.600	4941.129	23.419	3.591	4.869
	22.319	50.042	2836.299	7.544	11.298	251.054	5747.111	24.629	3.869	5.246
L21	21.916	51.352	2604.715	7.137	10.741	242.512	5277.859	25.274	3.413	4.266
	22.215	53.916	3014.753	7.493	11.256	267.829	6108.707	26.536	3.680	4.6
L22	22.223	52.294	2931.020	7.502	11.256	260.391	5939.041	25.737	3.747	4.834
	22.492	52.941	3041.148	7.595	11.391	266.989	6162.190	26.056	3.816	4.924
L23	22.412	67.586	3800.525	7.514	11.391	333.657	7700.895	33.264	3.213	3.213
	22.464	67.746	3827.628	7.532	11.416	335.277	7755.811	33.343	3.227	3.227
L24	22.473	66.131	3745.256	7.541	11.416	328.062	7588.904	32.548	3.294	3.378
	22.627	66.600	3825.474	7.594	11.494	332.833	7751.447	32.778	3.334	3.419
L25	22.702	52.606	3082.526	7.671	11.494	268.194	6246.033	25.891	3.903	5.119
	22.754	52.728	3104.059	7.688	11.519	269.463	6289.666	25.951	3.916	5.136
L26	22.754	52.728	3104.059	7.688	11.519	269.463	6289.666	25.951	3.916	5.136
	22.788	52.810	3118.499	7.700	11.537	270.312	6318.925	25.992	3.925	5.148
L27	22.819	46.940	2794.467	7.732	11.537	242.225	5662.348	23.102	4.160	6.163
	22.871	47.048	2813.834	7.749	11.562	243.360	5701.590	23.156	4.173	6.182
L28	22.879	45.358	2719.017	7.758	11.562	235.159	5509.465	22.324	4.240	6.523
	23.910	47.442	3111.201	8.115	12.078	257.590	6304.137	23.349	4.507	6.934
L29	23.919	45.667	3001.449	8.124	12.078	248.503	6081.749	22.476	4.574	7.318
	24.950	47.671	3414.060	8.480	12.594	271.091	6917.811	23.462	4.841	7.745
L30	24.950	47.671	3414.060	8.480	12.594	271.091	6917.811	23.462	4.841	7.745
	25.070	47.904	3464.497	8.522	12.654	273.788	7020.009	23.577	4.872	7.795
L31	24.999	62.702	4458.829	8.450	12.654	352.367	9034.796	30.860	4.336	5.256
	25.051	62.835	4487.097	8.468	12.680	353.880	9092.074	30.925	4.349	5.272
L32	25.051	62.835	4487.097	8.468	12.680	353.880	9092.074	30.925	4.349	5.272
	25.137	63.055	4534.514	8.498	12.723	356.411	9188.154	31.034	4.371	5.299
L33	25.137	63.055	4534.514	8.498	12.723	356.411	9188.154	31.034	4.371	5.299
	25.188	63.188	4563.100	8.515	12.748	357.932	9246.078	31.099	4.385	5.315
L34	25.197	61.337	4438.791	8.524	12.748	348.182	8994.194	30.188	4.452	5.565
	25.575	62.277	4646.037	8.655	12.938	359.113	9414.131	30.651	4.550	5.687
L35	25.544	68.839	5098.436	8.624	12.938	394.081	10330.813	33.880	4.315	4.862
	25.595	68.981	5130.107	8.641	12.963	395.740	10394.987	33.950	4.328	4.877
L36	25.595	68.981	5130.107	8.641	12.963	395.740	10394.987	33.950	4.328	4.877
	25.647	69.123	5161.909	8.659	12.989	397.403	10459.427	34.020	4.342	4.892
L37	25.638	70.997	5290.875	8.650	12.989	407.332	10720.748	34.943	4.275	4.685
	25.690	71.143	5323.640	8.668	13.015	409.042	10787.138	35.015	4.288	4.699
L38	25.703	68.325	5128.616	8.682	13.015	394.057	10391.966	33.628	4.389	5.016
	26.734	71.130	5786.510	9.038	13.531	427.662	11725.038	35.008	4.655	5.32
L39	26.742	69.166	5637.897	9.047	13.531	416.679	11423.908	34.041	4.722	5.556
	27.773	71.891	6330.781	9.403	14.046	450.710	12827.879	35.382	4.989	5.87

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	I/Q in <sup>2</sup>	w in	w/t
L40	27.782	69.843	6162.143	9.412	14.046	438.704	12486.173	34.375	5.056	6.129
	28.400	71.430	6591.746	9.626	14.356	459.174	13356.665	35.155	5.216	6.323
L41	28.400	71.430	6591.746	9.626	14.356	459.174	13356.665	35.155	5.216	6.323
	28.452	71.562	6628.421	9.644	14.381	460.901	13430.978	35.221	5.230	6.339
L42	28.452	71.562	6628.421	9.644	14.381	460.901	13430.978	35.221	5.230	6.339
	28.606	71.958	6739.262	9.697	14.459	466.102	13655.572	35.416	5.270	6.387
L43	28.584	77.231	7199.745	9.675	14.459	497.950	14588.636	38.011	5.102	5.749
	28.636	77.374	7239.601	9.693	14.485	499.815	14669.394	38.081	5.115	5.764
L44	28.649	74.207	6962.552	9.706	14.485	480.688	14108.019	36.522	5.216	6.136
	29.680	76.932	7758.004	10.063	15.000	517.192	15719.820	37.863	5.483	6.45
L45	29.684	75.834	7654.119	10.067	15.000	510.266	15509.320	37.323	5.516	6.587
	31.425	80.370	9111.392	10.669	15.872	574.072	18462.150	39.556	5.967	7.125
L46	30.903	76.767	7940.296	10.191	15.180	523.091	16089.192	37.783	5.609	6.697
	31.108	79.542	8832.656	10.559	15.712	562.143	17897.356	39.148	5.885	7.027
L47	31.108	79.542	8832.656	10.559	15.712	562.143	17897.356	39.148	5.885	7.027
	31.357	80.192	9051.177	10.646	15.837	571.505	18340.138	39.468	5.949	7.104
L48	31.353	81.355	9174.689	10.641	15.837	579.304	18590.408	40.041	5.916	6.96
	31.404	81.491	9220.582	10.659	15.863	581.261	18683.399	40.107	5.929	6.975
L49	31.404	81.491	9220.582	10.659	15.863	581.261	18683.399	40.107	5.929	6.975
	31.438	81.581	9251.324	10.671	15.880	582.570	18745.690	40.152	5.938	6.986
L50	31.407	89.715	10114.068	10.639	15.880	636.899	20493.845	44.155	5.704	6.084
	31.459	89.864	10164.669	10.657	15.906	639.054	20596.375	44.228	5.717	6.098
L51	31.468	87.541	9918.558	10.666	15.906	623.581	20097.688	43.085	5.784	6.338
	32.270	89.819	10712.920	10.944	16.307	656.941	21707.280	44.206	5.991	6.566
L52	32.257	93.395	11112.181	10.930	16.307	681.424	22516.292	45.966	5.891	6.201
	32.308	93.546	11166.294	10.948	16.333	683.668	22625.939	46.041	5.904	6.215
L53	32.312	92.353	11032.887	10.952	16.333	675.500	22355.621	45.453	5.938	6.334
	32.637	93.300	11375.549	11.065	16.495	689.623	23049.946	45.919	6.022	6.423
L54	32.654	88.467	10821.202	11.083	16.495	656.017	21926.689	43.541	6.156	6.936
	32.706	88.608	10873.172	11.100	16.521	658.145	22031.995	43.610	6.169	6.951
L55	32.706	88.608	10873.172	11.100	16.521	658.145	22031.995	43.610	6.169	6.951
	33.303	90.257	11491.697	11.307	16.820	683.221	23285.295	44.422	6.324	7.125
L56	33.308	89.021	11343.300	11.311	16.820	674.398	22984.602	43.814	6.357	7.265
	33.359	89.161	11396.674	11.329	16.846	676.540	23092.752	43.882	6.370	7.281
L57	33.363	87.922	11247.182	11.333	16.846	667.666	22789.841	43.272	6.404	7.425
	34.183	90.120	12112.233	11.617	17.256	701.930	24542.669	44.354	6.616	7.671
L58	34.183	90.120	12112.233	11.617	17.256	701.930	24542.669	44.354	6.616	7.671
	34.234	90.258	12167.724	11.635	17.281	704.100	24655.108	44.422	6.629	7.686
L59	34.238	88.984	12005.222	11.639	17.281	694.697	24325.835	43.795	6.663	7.839
	35.263	91.692	13135.172	11.993	17.794	738.186	26615.420	45.128	6.928	8.151
L60	35.267	90.378	12956.500	11.998	17.794	728.145	26253.382	44.481	6.962	8.312
	35.575	91.178	13303.879	12.104	17.948	741.261	26957.266	44.875	7.041	8.407
L61	35.531	104.400	15120.579	12.059	17.948	842.484	30638.392	51.382	6.706	6.967
	35.582	104.553	15187.307	12.077	17.973	844.995	30773.601	51.458	6.719	6.981
L62	35.582	104.553	15187.307	12.077	17.973	844.995	30773.601	51.458	6.719	6.981
	35.821	105.269	15501.390	12.160	18.093	856.767	31410.018	51.810	6.781	7.046
L63	35.861	93.272	13826.015	12.200	18.093	764.168	28015.256	45.906	7.083	8.333
	35.912	93.408	13886.327	12.218	18.119	766.416	28137.463	45.973	7.096	8.348
L64	35.916	92.068	13697.156	12.222	18.119	755.975	27754.151	45.313	7.130	8.513
	36.941	94.737	14923.078	12.577	18.631	800.976	30238.202	46.626	7.395	8.83
L65	36.945	93.356	14716.043	12.581	18.631	789.863	29818.694	45.947	7.428	9.004
	37.645	95.152	15581.827	12.823	18.981	820.902	31573.007	46.831	7.609	9.224
L66	37.614	104.987	17108.449	12.792	18.981	901.330	34666.356	51.671	7.375	8.082
	37.665	105.132	17179.621	12.809	19.007	903.859	34810.570	51.743	7.388	8.097
L67	37.665	105.132	17179.621	12.809	19.007	903.859	34810.570	51.743	7.388	8.097
	37.700	105.229	17227.274	12.821	19.024	905.550	34907.127	51.791	7.397	8.106
L68	37.753	88.299	14577.031	12.875	19.024	766.241	29537.017	43.458	7.799	10.228
	37.804	88.421	14637.280	12.893	19.050	768.372	29659.097	43.518	7.812	10.246
L69	37.804	88.421	14637.280	12.893	19.050	768.372	29659.097	43.518	7.812	10.246
	37.855	88.542	14697.694	12.910	19.075	770.507	29781.513	43.578	7.826	10.263
L70	37.890	77.144	12876.656	12.946	19.075	675.042	26091.595	37.968	8.094	12.217
	37.942	77.249	12929.583	12.964	19.101	676.907	26198.841	38.020	8.107	12.237

<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.008.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>7 of 95</p>
	<p><b>Project</b></p>	<p><b>Date</b></p> <p>15:59:42 03/26/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Section	Tip Dia. in	Area in <sup>2</sup>	I in <sup>4</sup>	r in	C in	I/C in <sup>3</sup>	J in <sup>4</sup>	It/Q in <sup>2</sup>	w in	w/t
L71	37.946	75.818	12698.770	12.968	19.101	664.823	25731.151	37.315	8.140	12.524
	38.612	77.164	13387.320	13.199	19.434	688.855	27126.339	37.978	8.313	12.789
L72	38.515	108.991	18628.043	13.100	19.434	958.520	37745.466	53.642	7.576	8.19
	38.566	109.139	18703.710	13.118	19.460	961.146	37898.786	53.715	7.589	8.204
L73	38.571	107.701	18469.846	13.122	19.460	949.128	37424.916	53.007	7.623	8.353
	38.827	108.428	18846.355	13.211	19.588	962.140	38187.825	53.365	7.689	8.426
L74	38.862	96.807	16917.795	13.247	19.588	863.684	34280.038	47.645	7.957	9.793
	38.913	96.936	16985.752	13.264	19.614	866.020	34417.740	47.709	7.970	9.809
L75	38.922	94.017	16496.461	13.273	19.614	841.073	33426.303	46.272	8.037	10.206
	39.946	96.526	17852.914	13.628	20.126	887.049	36174.844	47.507	8.302	10.543
L76	39.946	96.526	17852.914	13.628	20.126	887.049	36174.844	47.507	8.302	10.543
	40.305	97.404	18344.678	13.752	20.306	903.430	37171.292	47.940	8.395	10.66

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
L1 144.250-139.2				1	1	1			
50 L2 139.250-134.7				1	1	1			
50 L3 134.750-134.2				1	1	1			
50 L4 134.250-129.2				1	1	1			
50 L5 129.250-124.2				1	1	1			
50 L6 124.250-123.4				1	1	1			
16 L7 123.416-123.1				1	1	0.873259			
66 L8 123.166-118.1				1	1	0.880843			
66 L9 118.166-113.1				1	1	0.893543			
66 L10 113.166-109.5				1	1	0.895307			
00 L11 109.500-109.2				1	1	0.905539			
50 L12 109.250-104.7				1	1	0.915518			
50 L13 104.750-104.5				1	1	0.930283			
00 L14 104.500-102.4				1	1	0.929776			
16 L15				1	1	1.12278			



# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
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**Job**  
79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
L44				1	1	0.936205			
59.250-54.250									
L45				1	1	0.930731			
54.250-45.802									
L46				1	1	0.938065			
45.802-44.802									
L47				1	1	0.933481			
44.802-43.583									
L48				1	1	0.974523			
43.583-43.333									
L49				1	1	0.97385			
43.333-43.166									
L50				1	1	0.934786			
43.166-42.916									
L51				1	1	0.943944			
42.916-39.000									
L52				1	1	0.949681			
39.000-38.750									
L53				1	1	0.955574			
38.750-37.166									
L54				1	1	0.972827			
37.166-36.916									
L55				1	1	0.961485			
36.916-34.000									
L56				1	1	0.928941			
34.000-33.750									
L57				1	1	0.927889			
33.750-29.750									
L58				1	1	0.93743			
29.750-29.500									
L59				1	1	0.933623			
29.500-24.500									
L60				1	1	0.942163			
24.500-23.000									
L61				1	1	0.90832			
23.000-22.750									
L62				1	1	0.904351			
22.750-21.583									
L63				1	1	0.971473			
21.583-21.333									
L64				1	1	0.968358			
21.333-16.333									
L65				1	1	0.971282			
16.333-12.917									
L66				1	1	0.961412			
12.917-12.667									
L67				1	1	0.96084			
12.667-12.500									
L68				1	1	1.00814			
12.500-12.250									
L69				1	1	1.00732			
12.250-12.000									
L70				1	1	1.07745			
12.000-11.750									
L71				1	1	1.08702			
11.750-8.500									
L72				1	1	0.961703			
8.500-8.250									
L73				1	1	0.970307			



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	<b>Client</b>	<b>Designed by</b>
	Crown Castle	Jayaraj B

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
8.250-7.000 L74				1	1	0.961877			
7.000-6.750 L75				1	1	0.976278			
6.750-1.750 L76				1	1	0.971053			
1.750-0.000									

### 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 klf
FB-L98B-034-XXX(3/8)	B	No	Surface Ar (CaAa)	144.000 - 0.000	2	2	0.000 0.030	0.394		0.000
PWRT-608-S(13/16)	B	No	Surface Ar (CaAa)	144.000 - 0.000	6	3	0.000 0.150	0.820		0.001
PWRT-606-S(7/8)	B	No	Surface Ar (CaAa)	144.000 - 0.000	1	1	0.150 0.160	0.920		0.001
RFFT-48SM-001-XXX(3/8) *	B	No	Surface Ar (CaAa)	144.000 - 0.000	1	1	0.160 0.170	0.400		0.000
7983A(ELLIPTICAL)	B	No	Surface Ar (CaAa)	130.000 - 0.000	3	1	-0.380 -0.300	0.573		0.000
CU12PSM9P6XXX(1-1/2)	B	No	Surface Ar (CaAa)	120.000 - 0.000	1	1	-0.100 -0.080	1.600		0.002
MLC HYBRID 6X12 6AWGX6(1-1/2) *	C	No	Surface Ar (CaAa)	100.000 - 0.000	2	2	0.370 0.400	1.530		0.001
Safety Line 3/8 *	B	No	Surface Ar (CaAa)	144.250 - 0.000	1	1	-0.400 -0.370	0.375		0.000
PL1.25x6.875 Reinforcement	A	No	Surface Af (CaAa)	29.750 - 0.000	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	B	No	Surface Af (CaAa)	29.750 - 0.000	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	C	No	Surface Af (CaAa)	29.750 - 9.170	1	1	0.250 0.250	6.875	16.250	0.000
PL1.25x6.875 Reinforcement	C	No	Surface Af (CaAa)	16.420 - 0.000	1	1	0.000 0.000	6.875	16.250	0.000
PL1.25x6.875 Reinforcement ***	C	No	Surface Af (CaAa)	16.420 - 0.000	1	1	0.500 0.500	6.875	16.250	0.000
PL1.25x6.625 Reinforcement	A	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x6.625 Reinforcement	B	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x6.625 Reinforcement ***	C	No	Surface Af (CaAa)	59.500 - 29.750	1	1	0.250 0.250	6.625	15.750	0.000
PL1.25x5.5 Reinforcement	A	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000
PL1.25x5.5 Reinforcement	B	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000

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 klf
PL1.25x5.5 Reinforcement ***	C	No	Surface Af (CaAa)	89.250 - 59.500	1	1	0.250 0.250	5.500	13.500	0.000
PL1.25x3.625 Reinforcement	A	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1.25x3.625 Reinforcement	B	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1.25x3.625 Reinforcement ***	C	No	Surface Af (CaAa)	100.000 - 89.250	1	1	0.250 0.250	3.625	9.750	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	35.750 - 10.750	1	1	0.000 0.000	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	35.750 - 10.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	40.750 - 10.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	62.250 - 32.250	1	1	0.500 0.500	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	78.750 - 58.750	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	A	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement	B	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
PL1x4 Reinforcement ***	C	No	Surface Af (CaAa)	106.500 - 86.500	1	1	-0.250 -0.250	4.000	10.000	0.000
Transition Stiffener 1x7	A	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.500 -0.500	1.000	16.000	0.000
Transition Stiffener 1x7	B	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.250 -0.250	1.000	16.000	0.000
Transition Stiffener 1x7 *	C	No	Surface Af (CaAa)	10.500 - 0.000	1	1	-0.250 -0.250	1.000	16.000	0.000
CCI-SFP-060100	B	No	Surface Af (CaAa)	25.000 - 5.000	1	1	-0.500 -0.500	6.000	14.000	0.000
CCI-SFP-060100 *	C	No	Surface Af (CaAa)	25.000 - 5.000	1	1	0.000 0.000	6.000	14.000	0.000
CCI-SFP-060100 *	C	No	Surface Af (CaAa)	25.000 - 10.000	1	1	-0.250 -0.250	6.000	14.000	0.000
CCI-SFP-045100 *	B	No	Surface Af (CaAa)	35.083 - 20.083	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100 *	C	No	Surface Af (CaAa)	35.083 - 25.083	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100 *	A	No	Surface Af	45.080 -	1	1	-0.250	4.500	11.000	0.000

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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

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 klf
*			(CaAa)	25.083			-0.250			
CCI-SFP-060100	B	No	Surface Af (CaAa)	45.167 - 35.167	1	1	0.000 0.000	6.000	14.000	0.000
CCI-SFP-060100	C	No	Surface Af (CaAa)	45.167 - 35.167	1	1	0.000 0.000	6.000	14.000	0.000
*										
CCI-SFP-045100	A	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.500	11.000	0.000
CCI-SFP-045100	B	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.500	11.000	0.000
*										
CCI-SFP-040075	B	No	Surface Af (CaAa)	75.250 - 45.250	1	1	0.000 0.000	4.000	9.500	0.000
*										
CCI-SFP-040075	B	No	Surface Af (CaAa)	100.330 - 75.330	1	1	0.000 0.000	4.000	9.500	0.000
CCI-SFP-040075	C	No	Surface Af (CaAa)	100.330 - 75.330	1	1	0.000 0.000	4.000	9.500	0.000
*										
CCI-SFP-040075	A	No	Surface Af (CaAa)	90.333 - 75.333	1	1	-0.500 -0.500	4.000	9.500	0.000
*										
CCI-AFP-05012520	C	No	Surface Af (CaAa)	105.330 - 85.330	1	1	0.000 0.000	5.000	12.500	0.000
*										
CCI-AFP-045100	A	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
CCI-AFP-045100	B	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
CCI-AFP-045100	C	No	Surface Af (CaAa)	125.416 - 100.416	1	1	0.000 0.000	4.500	11.000	0.000
*										
CCI-AFP-040075	A	No	Surface Af (CaAa)	111.000 - 96.000	1	1	-0.500 -0.500	4.000	9.500	0.000
*										
CCI-AFP-040075	B	No	Surface Af (CaAa)	111.000 - 101.000	1	1	-0.500 -0.500	4.000	9.500	0.000
*										

### Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight klf
MLC6C-06C-008R-008R(1-1/2)	B	No	No	Inside Pole	130.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.002 0.002 0.002
HB114-1-0813U4-M5J(1-1/4)	B	No	No	Inside Pole	130.000 - 0.000	3	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001
*									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	110.000 - 0.000	6	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001

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<b>Client</b>	Crown Castle	<b>Designed by</b>
		Jayaraj B

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight klf
HB114-U6S12-XXX-LI(1-1/4)	B	No	No	Inside Pole	110.000 - 0.000	2	No Ice	0.000	0.002
							1/2" Ice	0.000	0.002
							1" Ice	0.000	0.002
LDF4-50A(1/2)	B	No	No	Inside Pole	110.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									
LDF5-50A(7/8)	C	No	No	Inside Pole	100.000 - 0.000	5	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
LDF6-50A(1-1/4)	C	No	No	Inside Pole	100.000 - 0.000	6	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	C	No	No	Inside Pole	100.000 - 0.000	1	No Ice	0.000	0.001
							1/2" Ice	0.000	0.001
							1" Ice	0.000	0.001
*									
LDF4-50A(1/2)	B	No	No	Inside Pole	50.000 - 0.000	1	No Ice	0.000	0.000
							1/2" Ice	0.000	0.000
							1" Ice	0.000	0.000
*									

### Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
L1	144.250-139.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.357	0.000	0.024
		C	0.000	0.000	0.000	0.000	0.000
L2	139.250-134.750	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.224	0.000	0.023
		C	0.000	0.000	0.000	0.000	0.000
L3	134.750-134.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.247	0.000	0.003
		C	0.000	0.000	0.000	0.000	0.000
L4	134.250-129.250	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	2.514	0.000	0.029
		C	0.000	0.000	0.000	0.000	0.000
L5	129.250-124.250	A	0.000	0.000	0.875	0.000	0.000
		B	0.000	0.000	3.632	0.000	0.052
		C	0.000	0.000	0.875	0.000	0.000
L6	124.250-123.416	A	0.000	0.000	0.625	0.000	0.000
		B	0.000	0.000	1.085	0.000	0.009
		C	0.000	0.000	0.625	0.000	0.000
L7	123.416-123.166	A	0.000	0.000	0.188	0.000	0.000
		B	0.000	0.000	0.325	0.000	0.003
		C	0.000	0.000	0.188	0.000	0.000
L8	123.166-118.166	A	0.000	0.000	3.750	0.000	0.000
		B	0.000	0.000	6.801	0.000	0.056
		C	0.000	0.000	3.750	0.000	0.000
L9	118.166-113.166	A	0.000	0.000	3.750	0.000	0.000
		B	0.000	0.000	7.308	0.000	0.064
		C	0.000	0.000	3.750	0.000	0.000

# tnxTower

**B+T Group**  
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**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L10	113.166-109.500	A	0.000	0.000	3.749	0.000	0.000
		B	0.000	0.000	6.358	0.000	0.051
		C	0.000	0.000	2.749	0.000	0.000
L11	109.500-109.250	A	0.000	0.000	0.354	0.000	0.000
		B	0.000	0.000	0.532	0.000	0.005
		C	0.000	0.000	0.188	0.000	0.000
L12	109.250-104.750	A	0.000	0.000	7.542	0.000	0.000
		B	0.000	0.000	10.744	0.000	0.095
		C	0.000	0.000	5.025	0.000	0.000
L13	104.750-104.500	A	0.000	0.000	0.521	0.000	0.000
		B	0.000	0.000	0.699	0.000	0.005
		C	0.000	0.000	0.563	0.000	0.000
L14	104.500-102.416	A	0.000	0.000	4.342	0.000	0.000
		B	0.000	0.000	5.825	0.000	0.044
		C	0.000	0.000	4.689	0.000	0.000
L15	102.416-102.166	A	0.000	0.000	0.521	0.000	0.000
		B	0.000	0.000	0.699	0.000	0.005
		C	0.000	0.000	0.563	0.000	0.000
L16	102.166-98.750	A	0.000	0.000	6.622	0.000	0.000
		B	0.000	0.000	8.606	0.000	0.072
		C	0.000	0.000	8.628	0.000	0.009
L17	98.750-98.500	A	0.000	0.000	0.484	0.000	0.000
		B	0.000	0.000	0.662	0.000	0.005
		C	0.000	0.000	0.769	0.000	0.002
L18	98.500-97.500	A	0.000	0.000	1.938	0.000	0.000
		B	0.000	0.000	2.649	0.000	0.021
		C	0.000	0.000	3.077	0.000	0.007
L19	97.500-97.250	A	0.000	0.000	0.484	0.000	0.000
		B	0.000	0.000	0.662	0.000	0.005
		C	0.000	0.000	0.769	0.000	0.002
L20	97.250-92.000	A	0.000	0.000	7.505	0.000	0.000
		B	0.000	0.000	13.907	0.000	0.111
		C	0.000	0.000	16.153	0.000	0.039
L21	92.000-90.552	A	0.000	0.000	1.840	0.000	0.000
		B	0.000	0.000	3.836	0.000	0.031
		C	0.000	0.000	4.455	0.000	0.011
L22	90.552-89.250	A	0.000	0.000	2.377	0.000	0.000
		B	0.000	0.000	3.449	0.000	0.028
		C	0.000	0.000	4.006	0.000	0.010
L23	89.250-89.000	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.002
L24	89.000-88.250	A	0.000	0.000	1.688	0.000	0.000
		B	0.000	0.000	2.221	0.000	0.016
		C	0.000	0.000	2.542	0.000	0.006
L25	88.250-88.000	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.002
L26	88.000-87.833	A	0.000	0.000	0.376	0.000	0.000
		B	0.000	0.000	0.495	0.000	0.004
		C	0.000	0.000	0.566	0.000	0.001
L27	87.833-87.583	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.847	0.000	0.002
L28	87.583-82.583	A	0.000	0.000	8.639	0.000	0.000
		B	0.000	0.000	12.196	0.000	0.106
		C	0.000	0.000	12.046	0.000	0.037
L29	82.583-77.583	A	0.000	0.000	8.695	0.000	0.000
		B	0.000	0.000	12.252	0.000	0.106
		C	0.000	0.000	10.225	0.000	0.037
L30	77.583-77.000	A	0.000	0.000	1.312	0.000	0.000

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
		B	0.000	0.000	1.727	0.000	0.012
		C	0.000	0.000	1.490	0.000	0.004
L31	77.000-76.750	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.002
L32	76.750-76.333	A	0.000	0.000	0.938	0.000	0.000
		B	0.000	0.000	1.235	0.000	0.009
		C	0.000	0.000	1.066	0.000	0.003
L33	76.333-76.083	A	0.000	0.000	0.563	0.000	0.000
		B	0.000	0.000	0.740	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.002
L34	76.083-74.250	A	0.000	0.000	4.152	0.000	0.000
		B	0.000	0.000	6.125	0.000	0.039
		C	0.000	0.000	3.965	0.000	0.014
L35	74.250-74.000	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.002
L36	74.000-73.750	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.002
L37	73.750-73.500	A	0.000	0.000	0.583	0.000	0.000
		B	0.000	0.000	0.928	0.000	0.005
		C	0.000	0.000	0.472	0.000	0.002
L38	73.500-68.500	A	0.000	0.000	11.667	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.106
		C	0.000	0.000	9.447	0.000	0.037
L39	68.500-63.500	A	0.000	0.000	11.667	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.106
		C	0.000	0.000	9.447	0.000	0.037
L40	63.500-60.500	A	0.000	0.000	8.167	0.000	0.000
		B	0.000	0.000	12.301	0.000	0.064
		C	0.000	0.000	6.835	0.000	0.022
L41	60.500-60.250	A	0.000	0.000	0.750	0.000	0.000
		B	0.000	0.000	1.095	0.000	0.005
		C	0.000	0.000	0.639	0.000	0.002
L42	60.250-59.500	A	0.000	0.000	2.250	0.000	0.000
		B	0.000	0.000	3.284	0.000	0.016
		C	0.000	0.000	1.917	0.000	0.006
L43	59.500-59.250	A	0.000	0.000	0.797	0.000	0.000
		B	0.000	0.000	1.141	0.000	0.005
		C	0.000	0.000	0.686	0.000	0.002
L44	59.250-54.250	A	0.000	0.000	12.938	0.000	0.000
		B	0.000	0.000	19.829	0.000	0.106
		C	0.000	0.000	10.717	0.000	0.037
L45	54.250-45.802	A	0.000	0.000	21.296	0.000	0.000
		B	0.000	0.000	32.939	0.000	0.180
		C	0.000	0.000	17.545	0.000	0.063
L46	45.802-44.802	A	0.000	0.000	2.393	0.000	0.000
		B	0.000	0.000	3.597	0.000	0.021
		C	0.000	0.000	2.410	0.000	0.007
L47	44.802-43.583	A	0.000	0.000	3.073	0.000	0.000
		B	0.000	0.000	4.138	0.000	0.026
		C	0.000	0.000	3.644	0.000	0.009
L48	43.583-43.333	A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
		C	0.000	0.000	0.747	0.000	0.002
L49	43.333-43.166	A	0.000	0.000	0.421	0.000	0.000
		B	0.000	0.000	0.567	0.000	0.004
		C	0.000	0.000	0.499	0.000	0.001
L50	43.166-42.916	A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005

# tnxTower

**B+T Group**  
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**Job**  
79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L51	42.916-39.000	C	0.000	0.000	0.747	0.000	0.002
		A	0.000	0.000	9.872	0.000	0.000
		B	0.000	0.000	13.293	0.000	0.084
L52	39.000-38.750	C	0.000	0.000	12.871	0.000	0.029
		A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
L53	38.750-37.166	C	0.000	0.000	0.914	0.000	0.002
		A	0.000	0.000	3.993	0.000	0.000
		B	0.000	0.000	5.377	0.000	0.034
L54	37.166-36.916	C	0.000	0.000	5.791	0.000	0.012
		A	0.000	0.000	0.630	0.000	0.000
		B	0.000	0.000	0.849	0.000	0.005
L55	36.916-34.000	C	0.000	0.000	0.914	0.000	0.002
		A	0.000	0.000	8.517	0.000	0.000
		B	0.000	0.000	10.813	0.000	0.062
L56	34.000-33.750	C	0.000	0.000	10.408	0.000	0.022
		A	0.000	0.000	0.797	0.000	0.000
		B	0.000	0.000	0.975	0.000	0.005
L57	33.750-29.750	C	0.000	0.000	0.873	0.000	0.002
		A	0.000	0.000	11.083	0.000	0.000
		B	0.000	0.000	13.929	0.000	0.085
L58	29.750-29.500	C	0.000	0.000	12.307	0.000	0.030
		A	0.000	0.000	0.641	0.000	0.000
		B	0.000	0.000	0.819	0.000	0.005
L59	29.500-24.500	C	0.000	0.000	0.717	0.000	0.002
		A	0.000	0.000	12.375	0.000	0.000
		B	0.000	0.000	16.870	0.000	0.107
L60	24.500-23.000	C	0.000	0.000	14.905	0.000	0.037
		A	0.000	0.000	2.719	0.000	0.000
		B	0.000	0.000	6.411	0.000	0.032
L61	23.000-22.750	C	0.000	0.000	6.178	0.000	0.011
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	1.069	0.000	0.005
L62	22.750-21.583	C	0.000	0.000	1.030	0.000	0.002
		A	0.000	0.000	2.115	0.000	0.000
		B	0.000	0.000	4.988	0.000	0.025
L63	21.583-21.333	C	0.000	0.000	4.806	0.000	0.009
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	1.069	0.000	0.005
L64	21.333-16.333	C	0.000	0.000	1.030	0.000	0.002
		A	0.000	0.000	9.063	0.000	0.000
		B	0.000	0.000	18.558	0.000	0.107
L65	16.333-12.917	C	0.000	0.000	20.792	0.000	0.037
		A	0.000	0.000	6.191	0.000	0.000
		B	0.000	0.000	12.038	0.000	0.073
L66	12.917-12.667	C	0.000	0.000	21.897	0.000	0.026
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L67	12.667-12.500	C	0.000	0.000	1.603	0.000	0.002
		A	0.000	0.000	0.303	0.000	0.000
		B	0.000	0.000	0.589	0.000	0.004
L68	12.500-12.250	C	0.000	0.000	1.070	0.000	0.001
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L69	12.250-12.000	C	0.000	0.000	1.603	0.000	0.002
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005
L70	12.000-11.750	C	0.000	0.000	1.603	0.000	0.002
		A	0.000	0.000	0.453	0.000	0.000
		B	0.000	0.000	0.881	0.000	0.005

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L71	11.750-8.500	A	0.000	0.000	4.684	0.000	0.000
		B	0.000	0.000	10.247	0.000	0.069
		C	0.000	0.000	17.359	0.000	0.024
L72	8.500-8.250	A	0.000	0.000	0.323	0.000	0.000
		B	0.000	0.000	0.751	0.000	0.005
		C	0.000	0.000	0.936	0.000	0.002
L73	8.250-7.000	A	0.000	0.000	1.616	0.000	0.000
		B	0.000	0.000	3.755	0.000	0.027
		C	0.000	0.000	4.680	0.000	0.009
L74	7.000-6.750	A	0.000	0.000	0.323	0.000	0.000
		B	0.000	0.000	0.751	0.000	0.005
		C	0.000	0.000	0.936	0.000	0.002
L75	6.750-1.750	A	0.000	0.000	6.463	0.000	0.000
		B	0.000	0.000	11.770	0.000	0.107
		C	0.000	0.000	15.472	0.000	0.037
L76	1.750-0.000	A	0.000	0.000	2.262	0.000	0.000
		B	0.000	0.000	3.507	0.000	0.037
		C	0.000	0.000	4.803	0.000	0.013

### Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L1	144.250-139.250	A	0.983	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	7.930	0.000	0.081
		C		0.000	0.000	0.000	0.000	0.000
L2	139.250-134.750	A	0.980	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	7.441	0.000	0.076
		C		0.000	0.000	0.000	0.000	0.000
L3	134.750-134.250	A	0.978	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.826	0.000	0.008
		C		0.000	0.000	0.000	0.000	0.000
L4	134.250-129.250	A	0.976	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	8.436	0.000	0.092
		C		0.000	0.000	0.000	0.000	0.000
L5	129.250-124.250	A	0.972	0.000	0.000	1.101	0.000	0.006
		B		0.000	0.000	10.586	0.000	0.144
		C		0.000	0.000	1.101	0.000	0.006
L6	124.250-123.416	A	0.970	0.000	0.000	0.787	0.000	0.005
		B		0.000	0.000	2.367	0.000	0.028
		C		0.000	0.000	0.787	0.000	0.005
L7	123.416-123.166	A	0.970	0.000	0.000	0.236	0.000	0.001
		B		0.000	0.000	0.709	0.000	0.008
		C		0.000	0.000	0.236	0.000	0.001
L8	123.166-118.166	A	0.968	0.000	0.000	4.718	0.000	0.028
		B		0.000	0.000	14.819	0.000	0.175
		C		0.000	0.000	4.718	0.000	0.028
L9	118.166-113.166	A	0.964	0.000	0.000	4.714	0.000	0.027
		B		0.000	0.000	15.904	0.000	0.191
		C		0.000	0.000	4.714	0.000	0.027
L10	113.166-109.500	A	0.960	0.000	0.000	4.741	0.000	0.027
		B		0.000	0.000	12.862	0.000	0.151
		C		0.000	0.000	3.453	0.000	0.020
L11	109.500-109.250	A	0.958	0.000	0.000	0.450	0.000	0.003
		B		0.000	0.000	0.997	0.000	0.013
		C		0.000	0.000	0.235	0.000	0.001
L12	109.250-104.750	A	0.956	0.000	0.000	9.597	0.000	0.055



Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	19.429	0.000	0.239
		C		0.000	0.000	6.331	0.000	0.037
L13	104.750-104.500	A	0.954	0.000	0.000	0.664	0.000	0.004
		B		0.000	0.000	1.209	0.000	0.014
		C		0.000	0.000	0.706	0.000	0.004
L14	104.500-102.416	A	0.953	0.000	0.000	5.533	0.000	0.032
		B		0.000	0.000	10.077	0.000	0.117
		C		0.000	0.000	5.880	0.000	0.034
L15	102.416-102.166	A	0.952	0.000	0.000	0.664	0.000	0.004
		B		0.000	0.000	1.208	0.000	0.014
		C		0.000	0.000	0.705	0.000	0.004
L16	102.166-98.750	A	0.950	0.000	0.000	8.481	0.000	0.049
		B		0.000	0.000	15.435	0.000	0.185
		C		0.000	0.000	11.179	0.000	0.075
L17	98.750-98.500	A	0.948	0.000	0.000	0.625	0.000	0.004
		B		0.000	0.000	1.179	0.000	0.014
		C		0.000	0.000	1.035	0.000	0.008
L18	98.500-97.500	A	0.948	0.000	0.000	2.499	0.000	0.015
		B		0.000	0.000	4.713	0.000	0.055
		C		0.000	0.000	4.141	0.000	0.032
L19	97.500-97.250	A	0.947	0.000	0.000	0.625	0.000	0.004
		B		0.000	0.000	1.178	0.000	0.014
		C		0.000	0.000	1.035	0.000	0.008
L20	97.250-92.000	A	0.944	0.000	0.000	9.685	0.000	0.058
		B		0.000	0.000	24.707	0.000	0.290
		C		0.000	0.000	21.722	0.000	0.169
L21	92.000-90.552	A	0.941	0.000	0.000	2.377	0.000	0.014
		B		0.000	0.000	6.814	0.000	0.080
		C		0.000	0.000	5.991	0.000	0.047
L22	90.552-89.250	A	0.940	0.000	0.000	3.060	0.000	0.018
		B		0.000	0.000	6.114	0.000	0.072
		C		0.000	0.000	5.381	0.000	0.042
L23	89.250-89.000	A	0.939	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.254	0.000	0.014
		C		0.000	0.000	1.113	0.000	0.008
L24	89.000-88.250	A	0.938	0.000	0.000	2.110	0.000	0.012
		B		0.000	0.000	3.760	0.000	0.042
		C		0.000	0.000	3.338	0.000	0.025
L25	88.250-88.000	A	0.938	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.253	0.000	0.014
		C		0.000	0.000	1.113	0.000	0.008
L26	88.000-87.833	A	0.938	0.000	0.000	0.470	0.000	0.003
		B		0.000	0.000	0.837	0.000	0.009
		C		0.000	0.000	0.743	0.000	0.006
L27	87.833-87.583	A	0.937	0.000	0.000	0.703	0.000	0.004
		B		0.000	0.000	1.253	0.000	0.014
		C		0.000	0.000	1.112	0.000	0.008
L28	87.583-82.583	A	0.934	0.000	0.000	10.710	0.000	0.060
		B		0.000	0.000	21.682	0.000	0.261
		C		0.000	0.000	16.089	0.000	0.131
L29	82.583-77.583	A	0.929	0.000	0.000	10.769	0.000	0.060
		B		0.000	0.000	21.698	0.000	0.260
		C		0.000	0.000	13.842	0.000	0.118
L30	77.583-77.000	A	0.926	0.000	0.000	1.635	0.000	0.009
		B		0.000	0.000	2.907	0.000	0.032
		C		0.000	0.000	1.993	0.000	0.016
L31	77.000-76.750	A	0.925	0.000	0.000	0.701	0.000	0.004
		B		0.000	0.000	1.246	0.000	0.014
		C		0.000	0.000	0.855	0.000	0.007
L32	76.750-76.333	A	0.925	0.000	0.000	1.170	0.000	0.007
		B		0.000	0.000	2.078	0.000	0.023

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L33	76.333-76.083	C		0.000	0.000	1.425	0.000	0.011
		A	0.924	0.000	0.000	0.701	0.000	0.004
		B		0.000	0.000	1.246	0.000	0.014
		C		0.000	0.000	0.855	0.000	0.007
L34	76.083-74.250	A	0.923	0.000	0.000	5.152	0.000	0.029
		B		0.000	0.000	9.996	0.000	0.107
		C		0.000	0.000	5.344	0.000	0.045
L35	74.250-74.000	A	0.922	0.000	0.000	0.722	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
		C		0.000	0.000	0.641	0.000	0.006
L36	74.000-73.750	A	0.921	0.000	0.000	0.722	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
		C		0.000	0.000	0.641	0.000	0.006
L37	73.750-73.500	A	0.921	0.000	0.000	0.721	0.000	0.004
		B		0.000	0.000	1.478	0.000	0.015
		C		0.000	0.000	0.641	0.000	0.006
L38	73.500-68.500	A	0.918	0.000	0.000	14.420	0.000	0.080
		B		0.000	0.000	29.517	0.000	0.302
		C		0.000	0.000	12.812	0.000	0.112
L39	68.500-63.500	A	0.911	0.000	0.000	14.400	0.000	0.079
		B		0.000	0.000	29.440	0.000	0.300
		C		0.000	0.000	12.790	0.000	0.111
L40	63.500-60.500	A	0.905	0.000	0.000	10.113	0.000	0.056
		B		0.000	0.000	19.108	0.000	0.187
		C		0.000	0.000	9.146	0.000	0.075
L41	60.500-60.250	A	0.903	0.000	0.000	0.931	0.000	0.005
		B		0.000	0.000	1.679	0.000	0.016
		C		0.000	0.000	0.850	0.000	0.007
L42	60.250-59.500	A	0.902	0.000	0.000	2.791	0.000	0.015
		B		0.000	0.000	5.036	0.000	0.048
		C		0.000	0.000	2.550	0.000	0.020
L43	59.500-59.250	A	0.901	0.000	0.000	0.977	0.000	0.005
		B		0.000	0.000	1.725	0.000	0.016
		C		0.000	0.000	0.897	0.000	0.007
L44	59.250-54.250	A	0.897	0.000	0.000	15.719	0.000	0.084
		B		0.000	0.000	30.644	0.000	0.303
		C		0.000	0.000	14.106	0.000	0.116
L45	54.250-45.802	A	0.886	0.000	0.000	25.787	0.000	0.136
		B		0.000	0.000	50.841	0.000	0.502
		C		0.000	0.000	23.057	0.000	0.190
L46	45.802-44.802	A	0.877	0.000	0.000	2.895	0.000	0.015
		B		0.000	0.000	5.593	0.000	0.058
		C		0.000	0.000	3.097	0.000	0.025
L47	44.802-43.583	A	0.875	0.000	0.000	3.713	0.000	0.019
		B		0.000	0.000	6.379	0.000	0.068
		C		0.000	0.000	4.545	0.000	0.034
L48	43.583-43.333	A	0.874	0.000	0.000	0.761	0.000	0.004
		B		0.000	0.000	1.307	0.000	0.014
		C		0.000	0.000	0.932	0.000	0.007
L49	43.333-43.166	A	0.873	0.000	0.000	0.508	0.000	0.003
		B		0.000	0.000	0.873	0.000	0.009
		C		0.000	0.000	0.622	0.000	0.005
L50	43.166-42.916	A	0.873	0.000	0.000	0.761	0.000	0.004
		B		0.000	0.000	1.307	0.000	0.014
		C		0.000	0.000	0.932	0.000	0.007
L51	42.916-39.000	A	0.869	0.000	0.000	11.912	0.000	0.062
		B		0.000	0.000	20.439	0.000	0.216
		C		0.000	0.000	16.052	0.000	0.118
L52	39.000-38.750	A	0.864	0.000	0.000	0.760	0.000	0.004
		B		0.000	0.000	1.303	0.000	0.014
		C		0.000	0.000	1.140	0.000	0.008

# tnxTower

**B+T Group**  
1717 S. Boulder, Suite 300  
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**Job**  
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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L53	38.750-37.166	A	0.862	0.000	0.000	4.812	0.000	0.025
		B		0.000	0.000	8.247	0.000	0.087
		C		0.000	0.000	7.219	0.000	0.051
L54	37.166-36.916	A	0.860	0.000	0.000	0.759	0.000	0.004
		B		0.000	0.000	1.300	0.000	0.014
		C		0.000	0.000	1.139	0.000	0.008
L55	36.916-34.000	A	0.856	0.000	0.000	10.315	0.000	0.053
		B		0.000	0.000	16.439	0.000	0.165
		C		0.000	0.000	13.026	0.000	0.092
L56	34.000-33.750	A	0.852	0.000	0.000	0.967	0.000	0.005
		B		0.000	0.000	1.485	0.000	0.014
		C		0.000	0.000	1.099	0.000	0.008
L57	33.750-29.750	A	0.847	0.000	0.000	13.369	0.000	0.068
		B		0.000	0.000	21.621	0.000	0.219
		C		0.000	0.000	15.480	0.000	0.112
L58	29.750-29.500	A	0.841	0.000	0.000	0.767	0.000	0.004
		B		0.000	0.000	1.280	0.000	0.013
		C		0.000	0.000	0.898	0.000	0.007
L59	29.500-24.500	A	0.833	0.000	0.000	14.777	0.000	0.073
		B		0.000	0.000	26.107	0.000	0.266
		C		0.000	0.000	18.607	0.000	0.134
L60	24.500-23.000	A	0.822	0.000	0.000	3.212	0.000	0.016
		B		0.000	0.000	9.370	0.000	0.086
		C		0.000	0.000	7.581	0.000	0.049
L61	23.000-22.750	A	0.819	0.000	0.000	0.535	0.000	0.003
		B		0.000	0.000	1.560	0.000	0.014
		C		0.000	0.000	1.263	0.000	0.008
L62	22.750-21.583	A	0.817	0.000	0.000	2.496	0.000	0.012
		B		0.000	0.000	7.275	0.000	0.067
		C		0.000	0.000	5.891	0.000	0.038
L63	21.583-21.333	A	0.814	0.000	0.000	0.535	0.000	0.003
		B		0.000	0.000	1.557	0.000	0.014
		C		0.000	0.000	1.261	0.000	0.008
L64	21.333-16.333	A	0.804	0.000	0.000	10.670	0.000	0.051
		B		0.000	0.000	27.602	0.000	0.266
		C		0.000	0.000	25.398	0.000	0.160
L65	16.333-12.917	A	0.784	0.000	0.000	7.262	0.000	0.033
		B		0.000	0.000	17.936	0.000	0.174
		C		0.000	0.000	25.947	0.000	0.146
L66	12.917-12.667	A	0.773	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.307	0.000	0.013
		C		0.000	0.000	1.896	0.000	0.011
L67	12.667-12.500	A	0.772	0.000	0.000	0.354	0.000	0.002
		B		0.000	0.000	0.873	0.000	0.008
		C		0.000	0.000	1.266	0.000	0.007
L68	12.500-12.250	A	0.771	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.306	0.000	0.013
		C		0.000	0.000	1.895	0.000	0.011
L69	12.250-12.000	A	0.769	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.305	0.000	0.013
		C		0.000	0.000	1.894	0.000	0.010
L70	12.000-11.750	A	0.767	0.000	0.000	0.530	0.000	0.002
		B		0.000	0.000	1.304	0.000	0.013
		C		0.000	0.000	1.894	0.000	0.010
L71	11.750-8.500	A	0.755	0.000	0.000	5.560	0.000	0.033
		B		0.000	0.000	15.559	0.000	0.164
		C		0.000	0.000	20.669	0.000	0.125
L72	8.500-8.250	A	0.741	0.000	0.000	0.389	0.000	0.003
		B		0.000	0.000	1.152	0.000	0.013
		C		0.000	0.000	1.138	0.000	0.008
L73	8.250-7.000	A	0.734	0.000	0.000	1.941	0.000	0.013

<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.008.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>21 of 95</p>
	<p><b>Project</b></p>	<p><b>Date</b></p> <p>15:59:42 03/26/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L74	7.000-6.750	B		0.000	0.000	5.742	0.000	0.063
		C		0.000	0.000	5.681	0.000	0.040
		A	0.727	0.000	0.000	0.388	0.000	0.003
L75	6.750-1.750	B		0.000	0.000	1.145	0.000	0.012
		C		0.000	0.000	1.135	0.000	0.008
		A	0.692	0.000	0.000	7.693	0.000	0.050
L76	1.750-0.000	B		0.000	0.000	18.841	0.000	0.227
		C		0.000	0.000	18.851	0.000	0.136
		A	0.591	0.000	0.000	2.631	0.000	0.015
		B		0.000	0.000	5.570	0.000	0.070
		C		0.000	0.000	5.765	0.000	0.040

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>X</sub> in	CP <sub>Z</sub> in	CP <sub>X</sub> Ice in	CP <sub>Z</sub> Ice in
L1	144.250-139.250	2.344	-1.002	2.476	-1.225
L2	139.250-134.750	2.389	-1.012	2.528	-1.233
L3	134.750-134.250	2.465	-1.044	2.612	-1.274
L4	134.250-129.250	1.823	-0.803	2.637	-1.347
L5	129.250-124.250	1.498	-0.792	2.371	-1.491
L6	124.250-123.416	0.905	-0.478	1.690	-1.063
L7	123.416-123.166	0.910	-0.481	1.701	-1.070
L8	123.166-118.166	1.012	-0.566	1.830	-1.179
L9	118.166-113.166	1.191	-0.715	2.055	-1.368
L10	113.166-109.500	0.412	-0.490	1.437	-1.148
L11	109.500-109.250	-0.497	-0.219	0.643	-0.848
L12	109.250-104.750	-0.435	-0.031	0.582	-0.643
L13	104.750-104.500	-0.336	0.793	0.479	0.167
L14	104.500-102.416	-0.340	0.801	0.483	0.169
L15	102.416-102.166	-0.349	0.821	0.487	0.171
L16	102.166-98.750	0.352	1.624	1.034	0.883
L17	98.750-98.500	0.745	2.115	1.218	1.381
L18	98.500-97.500	0.749	2.124	1.224	1.389
L19	97.500-97.250	0.752	2.133	1.229	1.395
L20	97.250-92.000	1.039	1.486	1.509	0.808
L21	92.000-90.552	1.140	1.274	1.609	0.615
L22	90.552-89.250	0.840	2.070	1.335	1.327
L23	89.250-89.000	0.715	2.028	1.205	1.376
L24	89.000-88.250	0.719	2.038	1.211	1.382
L25	88.250-88.000	0.723	2.050	1.217	1.390
L26	88.000-87.833	0.724	2.053	1.219	1.393
L27	87.833-87.583	0.725	2.055	1.221	1.395
L28	87.583-82.583	0.922	1.980	1.483	1.185
L29	82.583-77.583	0.993	1.583	1.581	0.828
L30	77.583-77.000	0.842	1.342	1.397	0.735
L31	77.000-76.750	0.845	1.347	1.401	0.737
L32	76.750-76.333	0.847	1.350	1.404	0.739
L33	76.333-76.083	0.849	1.353	1.407	0.741
L34	76.083-74.250	1.011	-0.289	1.554	-0.686
L35	74.250-74.000	1.161	-1.515	1.685	-1.752
L36	74.000-73.750	1.163	-1.518	1.687	-1.755
L37	73.750-73.500	1.165	-1.520	1.690	-1.758
L38	73.500-68.500	1.185	-1.546	1.716	-1.785
L39	68.500-63.500	1.223	-1.596	1.765	-1.838
L40	63.500-60.500	1.128	-1.472	1.644	-1.713

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 22 of 95
	<b>Project</b>	<b>Date</b> 15:59:42 03/26/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section	Elevation	CP <sub>x</sub>	CP <sub>z</sub>	CP <sub>x</sub>	CP <sub>z</sub>
	ft	in	in	Ice in	Ice in
L41	60.500-60.250	1.063	-1.388	1.561	-1.626
L42	60.250-59.500	1.067	-1.392	1.565	-1.631
L43	59.500-59.250	1.024	-1.337	1.521	-1.585
L44	59.250-54.250	1.228	-1.603	1.760	-1.835
L45	54.250-45.802	1.301	-1.698	1.847	-1.928
L46	45.802-44.802	1.069	-0.655	1.634	-1.078
L47	44.802-43.583	0.535	0.922	1.095	0.284
L48	43.583-43.333	0.537	0.925	1.099	0.286
L49	43.333-43.166	0.538	0.926	1.100	0.287
L50	43.166-42.916	0.538	0.927	1.101	0.287
L51	42.916-39.000	0.898	1.164	1.419	0.513
L52	39.000-38.750	1.323	1.441	1.794	0.779
L53	38.750-37.166	1.329	1.448	1.801	0.783
L54	37.166-36.916	1.335	1.455	1.808	0.788
L55	36.916-34.000	0.786	0.523	1.322	-0.036
L56	34.000-33.750	0.430	-0.064	1.036	-0.562
L57	33.750-29.750	0.479	-0.071	1.139	-0.616
L58	29.750-29.500	0.510	-0.076	1.204	-0.650
L59	29.500-24.500	0.636	-0.178	1.310	-0.732
L60	24.500-23.000	1.427	-0.741	1.941	-1.154
L61	23.000-22.750	1.432	-0.744	1.947	-1.157
L62	22.750-21.583	1.436	-0.746	1.952	-1.160
L63	21.583-21.333	1.440	-0.748	1.956	-1.162
L64	21.333-16.333	0.767	-0.360	1.392	-0.840
L65	16.333-12.917	-1.474	0.756	-0.568	0.158
L66	12.917-12.667	-1.486	0.761	-0.581	0.165
L67	12.667-12.500	-1.487	0.762	-0.583	0.166
L68	12.500-12.250	-1.488	0.762	-0.585	0.167
L69	12.250-12.000	-1.489	0.763	-0.587	0.168
L70	12.000-11.750	-1.491	0.763	-0.589	0.169
L71	11.750-8.500	-1.958	0.995	-0.902	0.426
L72	8.500-8.250	-1.660	0.076	-0.539	-0.351
L73	8.250-7.000	-1.665	0.076	-0.549	-0.348
L74	7.000-6.750	-1.670	0.076	-0.560	-0.345
L75	6.750-1.750	-0.713	0.086	0.345	-0.364
L76	1.750-0.000	-0.091	0.092	0.828	-0.327

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 <sub>a</sub> No Ice	K <sub>a</sub> Ice
L1	2	FB-L98B-034-XXX(3/8)	139.25 - 144.00	1.0000	1.0000
L1	3	PWRT-608-S(13/16)	139.25 - 144.00	1.0000	1.0000
L1	4	PWRT-606-S(7/8)	139.25 - 144.00	1.0000	1.0000
L1	5	RFFT-48SM-001-XXX(3/8)	139.25 - 144.00	1.0000	1.0000
L1	26	Safety Line 3/8	139.25 - 144.25	1.0000	1.0000
L2	2	FB-L98B-034-XXX(3/8)	134.75 -	1.0000	1.0000

**tnxTower**

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 79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
 Date  
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**Client**  
 Crown Castle  
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 Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L2	3	PWRT-608-S(13/16)	139.25 134.75 - 139.25	1.0000	1.0000
L2	4	PWRT-606-S(7/8)	134.75 - 139.25	1.0000	1.0000
L2	5	RFFT-48SM-001-XXX(3/8)	134.75 - 139.25	1.0000	1.0000
L2	26	Safety Line 3/8	134.75 - 139.25	1.0000	1.0000
L3	2	FB-L98B-034-XXX(3/8)	134.25 - 134.75	1.0000	1.0000
L3	3	PWRT-608-S(13/16)	134.25 - 134.75	1.0000	1.0000
L3	4	PWRT-606-S(7/8)	134.25 - 134.75	1.0000	1.0000
L3	5	RFFT-48SM-001-XXX(3/8)	134.25 - 134.75	1.0000	1.0000
L3	26	Safety Line 3/8	134.25 - 134.75	1.0000	1.0000
L4	2	FB-L98B-034-XXX(3/8)	129.25 - 134.25	1.0000	1.0000
L4	3	PWRT-608-S(13/16)	129.25 - 134.25	1.0000	1.0000
L4	4	PWRT-606-S(7/8)	129.25 - 134.25	1.0000	1.0000
L4	5	RFFT-48SM-001-XXX(3/8)	129.25 - 134.25	1.0000	1.0000
L4	7	7983A(ELLIPTICAL)	129.25 - 130.00	1.0000	1.0000
L4	26	Safety Line 3/8	129.25 - 134.25	1.0000	1.0000
L5	2	FB-L98B-034-XXX(3/8)	124.25 - 129.25	1.0000	1.0000
L5	3	PWRT-608-S(13/16)	124.25 - 129.25	1.0000	1.0000
L5	4	PWRT-606-S(7/8)	124.25 - 129.25	1.0000	1.0000
L5	5	RFFT-48SM-001-XXX(3/8)	124.25 - 129.25	1.0000	1.0000
L5	7	7983A(ELLIPTICAL)	124.25 - 129.25	1.0000	1.0000
L5	26	Safety Line 3/8	124.25 - 129.25	1.0000	1.0000
L5	92	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L5	93	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L5	94	CCI-AFP-045100	124.25 - 125.42	1.0000	1.0000
L6	2	FB-L98B-034-XXX(3/8)	123.42 - 124.25	1.0000	1.0000
L6	3	PWRT-608-S(13/16)	123.42 - 124.25	1.0000	1.0000
L6	4	PWRT-606-S(7/8)	123.42 - 124.25	1.0000	1.0000
L6	5	RFFT-48SM-001-XXX(3/8)	123.42 - 124.25	1.0000	1.0000
L6	7	7983A(ELLIPTICAL)	123.42 - 124.25	1.0000	1.0000
L6	26	Safety Line 3/8	123.42 - 124.25	1.0000	1.0000
L6	92	CCI-AFP-045100	123.42 -	1.0000	1.0000

# tnxTower

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**Project**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L6	93	CCI-AFP-045100	124.25 123.42 - 124.25	1.0000	1.0000
L6	94	CCI-AFP-045100	123.42 - 124.25	1.0000	1.0000
L7	2	FB-L98B-034-XXX(3/8)	123.17 - 123.42	1.0000	1.0000
L7	3	PWRT-608-S(13/16)	123.17 - 123.42	1.0000	1.0000
L7	4	PWRT-606-S(7/8)	123.17 - 123.42	1.0000	1.0000
L7	5	RFFT-48SM-001-XXX(3/8)	123.17 - 123.42	1.0000	1.0000
L7	7	7983A(ELLIPTICAL)	123.17 - 123.42	1.0000	1.0000
L7	26	Safety Line 3/8	123.17 - 123.42	1.0000	1.0000
L7	92	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L7	93	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L7	94	CCI-AFP-045100	123.17 - 123.42	1.0000	1.0000
L8	2	FB-L98B-034-XXX(3/8)	118.17 - 123.17	1.0000	1.0000
L8	3	PWRT-608-S(13/16)	118.17 - 123.17	1.0000	1.0000
L8	4	PWRT-606-S(7/8)	118.17 - 123.17	1.0000	1.0000
L8	5	RFFT-48SM-001-XXX(3/8)	118.17 - 123.17	1.0000	1.0000
L8	7	7983A(ELLIPTICAL)	118.17 - 123.17	1.0000	1.0000
L8	12	CU12PSM9P6XXX(1-1/2)	118.17 - 120.00	1.0000	1.0000
L8	26	Safety Line 3/8	118.17 - 123.17	1.0000	1.0000
L8	92	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L8	93	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L8	94	CCI-AFP-045100	118.17 - 123.17	1.0000	1.0000
L9	2	FB-L98B-034-XXX(3/8)	113.17 - 118.17	1.0000	1.0000
L9	3	PWRT-608-S(13/16)	113.17 - 118.17	1.0000	1.0000
L9	4	PWRT-606-S(7/8)	113.17 - 118.17	1.0000	1.0000
L9	5	RFFT-48SM-001-XXX(3/8)	113.17 - 118.17	1.0000	1.0000
L9	7	7983A(ELLIPTICAL)	113.17 - 118.17	1.0000	1.0000
L9	12	CU12PSM9P6XXX(1-1/2)	113.17 - 118.17	1.0000	1.0000
L9	26	Safety Line 3/8	113.17 - 118.17	1.0000	1.0000
L9	92	CCI-AFP-045100	113.17 - 118.17	1.0000	1.0000
L9	93	CCI-AFP-045100	113.17 - 118.17	1.0000	1.0000
L9	94	CCI-AFP-045100	113.17 -	1.0000	1.0000

# tnxTower

**B+T Group**  
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**Job**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L10	2	FB-L98B-034-XXX(3/8)	118.17 109.50 - 113.17	1.0000	1.0000
L10	3	PWRT-608-S(13/16)	109.50 - 113.17	1.0000	1.0000
L10	4	PWRT-606-S(7/8)	109.50 - 113.17	1.0000	1.0000
L10	5	RFFT-48SM-001-XXX(3/8)	109.50 - 113.17	1.0000	1.0000
L10	7	7983A(ELLIPTICAL)	109.50 - 113.17	1.0000	1.0000
L10	12	CU12PSM9P6XXX(1-1/2)	109.50 - 113.17	1.0000	1.0000
L10	26	Safety Line 3/8	109.50 - 113.17	1.0000	1.0000
L10	92	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	93	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	94	CCI-AFP-045100	109.50 - 113.17	1.0000	1.0000
L10	96	CCI-AFP-040075	109.50 - 111.00	1.0000	1.0000
L10	98	CCI-AFP-040075	109.50 - 111.00	1.0000	1.0000
L11	2	FB-L98B-034-XXX(3/8)	109.25 - 109.50	1.0000	1.0000
L11	3	PWRT-608-S(13/16)	109.25 - 109.50	1.0000	1.0000
L11	4	PWRT-606-S(7/8)	109.25 - 109.50	1.0000	1.0000
L11	5	RFFT-48SM-001-XXX(3/8)	109.25 - 109.50	1.0000	1.0000
L11	7	7983A(ELLIPTICAL)	109.25 - 109.50	1.0000	1.0000
L11	12	CU12PSM9P6XXX(1-1/2)	109.25 - 109.50	1.0000	1.0000
L11	26	Safety Line 3/8	109.25 - 109.50	1.0000	1.0000
L11	92	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	93	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	94	CCI-AFP-045100	109.25 - 109.50	1.0000	1.0000
L11	96	CCI-AFP-040075	109.25 - 109.50	1.0000	1.0000
L11	98	CCI-AFP-040075	109.25 - 109.50	1.0000	1.0000
L12	2	FB-L98B-034-XXX(3/8)	104.75 - 109.25	1.0000	1.0000
L12	3	PWRT-608-S(13/16)	104.75 - 109.25	1.0000	1.0000
L12	4	PWRT-606-S(7/8)	104.75 - 109.25	1.0000	1.0000
L12	5	RFFT-48SM-001-XXX(3/8)	104.75 - 109.25	1.0000	1.0000
L12	7	7983A(ELLIPTICAL)	104.75 - 109.25	1.0000	1.0000
L12	12	CU12PSM9P6XXX(1-1/2)	104.75 - 109.25	1.0000	1.0000
L12	26	Safety Line 3/8	104.75 -	1.0000	1.0000



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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L12	58	PL1x4 Reinforcement	109.25 104.75 - 106.50	1.0000	1.0000
L12	59	PL1x4 Reinforcement	104.75 - 106.50	1.0000	1.0000
L12	60	PL1x4 Reinforcement	104.75 - 106.50	1.0000	1.0000
L12	90	CCI-AFP-05012520	104.75 - 105.33	1.0000	1.0000
L12	92	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	93	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	94	CCI-AFP-045100	104.75 - 109.25	1.0000	1.0000
L12	96	CCI-AFP-040075	104.75 - 109.25	1.0000	1.0000
L12	98	CCI-AFP-040075	104.75 - 109.25	1.0000	1.0000
L13	2	FB-L98B-034-XXX(3/8)	104.50 - 104.75	1.0000	1.0000
L13	3	PWRT-608-S(13/16)	104.50 - 104.75	1.0000	1.0000
L13	4	PWRT-606-S(7/8)	104.50 - 104.75	1.0000	1.0000
L13	5	RFFT-48SM-001-XXX(3/8)	104.50 - 104.75	1.0000	1.0000
L13	7	7983A(ELLIPTICAL)	104.50 - 104.75	1.0000	1.0000
L13	12	CU12PSM9P6XXX(1-1/2)	104.50 - 104.75	1.0000	1.0000
L13	26	Safety Line 3/8	104.50 - 104.75	1.0000	1.0000
L13	58	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	59	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	60	PL1x4 Reinforcement	104.50 - 104.75	1.0000	1.0000
L13	90	CCI-AFP-05012520	104.50 - 104.75	1.0000	1.0000
L13	92	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	93	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	94	CCI-AFP-045100	104.50 - 104.75	1.0000	1.0000
L13	96	CCI-AFP-040075	104.50 - 104.75	1.0000	1.0000
L13	98	CCI-AFP-040075	104.50 - 104.75	1.0000	1.0000
L14	2	FB-L98B-034-XXX(3/8)	102.42 - 104.50	1.0000	1.0000
L14	3	PWRT-608-S(13/16)	102.42 - 104.50	1.0000	1.0000
L14	4	PWRT-606-S(7/8)	102.42 - 104.50	1.0000	1.0000
L14	5	RFFT-48SM-001-XXX(3/8)	102.42 - 104.50	1.0000	1.0000
L14	7	7983A(ELLIPTICAL)	102.42 - 104.50	1.0000	1.0000
L14	12	CU12PSM9P6XXX(1-1/2)	102.42 -	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L14	26	Safety Line 3/8	104.50 102.42 - 104.50	1.0000	1.0000
L14	58	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000
L14	59	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000
L14	60	PL1x4 Reinforcement	102.42 - 104.50	1.0000	1.0000
L14	90	CCI-AFP-05012520	102.42 - 104.50	1.0000	1.0000
L14	92	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	93	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	94	CCI-AFP-045100	102.42 - 104.50	1.0000	1.0000
L14	96	CCI-AFP-040075	102.42 - 104.50	1.0000	1.0000
L14	98	CCI-AFP-040075	102.42 - 104.50	1.0000	1.0000
L15	2	FB-L98B-034-XXX(3/8)	102.17 - 102.42	1.0000	1.0000
L15	3	PWRT-608-S(13/16)	102.17 - 102.42	1.0000	1.0000
L15	4	PWRT-606-S(7/8)	102.17 - 102.42	1.0000	1.0000
L15	5	RFFT-48SM-001-XXX(3/8)	102.17 - 102.42	1.0000	1.0000
L15	7	7983A(ELLIPTICAL)	102.17 - 102.42	1.0000	1.0000
L15	12	CU12PSM9P6XXX(1-1/2)	102.17 - 102.42	1.0000	1.0000
L15	26	Safety Line 3/8	102.17 - 102.42	1.0000	1.0000
L15	58	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	59	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	60	PL1x4 Reinforcement	102.17 - 102.42	1.0000	1.0000
L15	90	CCI-AFP-05012520	102.17 - 102.42	1.0000	1.0000
L15	92	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	93	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	94	CCI-AFP-045100	102.17 - 102.42	1.0000	1.0000
L15	96	CCI-AFP-040075	102.17 - 102.42	1.0000	1.0000
L15	98	CCI-AFP-040075	102.17 - 102.42	1.0000	1.0000
L16	2	FB-L98B-034-XXX(3/8)	98.75 - 102.17	1.0000	1.0000
L16	3	PWRT-608-S(13/16)	98.75 - 102.17	1.0000	1.0000
L16	4	PWRT-606-S(7/8)	98.75 - 102.17	1.0000	1.0000
L16	5	RFFT-48SM-001-XXX(3/8)	98.75 - 102.17	1.0000	1.0000
L16	7	7983A(ELLIPTICAL)	98.75 - 102.17	1.0000	1.0000
L16	12	CU12PSM9P6XXX(1-1/2)	98.75 - 102.17	1.0000	1.0000
L16	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	98.75 - 100.00	1.0000	1.0000
L16	26	Safety Line 3/8	98.75 - 102.17	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L16	42	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	43	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	44	PL1.25x3.625 Reinforcement	98.75 - 100.00	1.0000	1.0000
L16	58	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	59	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	60	PL1x4 Reinforcement	98.75 - 102.17	1.0000	1.0000
L16	85	CCI-SFP-040075	98.75 - 100.33	1.0000	1.0000
L16	86	CCI-SFP-040075	98.75 - 100.33	1.0000	1.0000
L16	90	CCI-AFP-05012520	98.75 - 102.17	1.0000	1.0000
L16	92	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	93	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	94	CCI-AFP-045100	100.42 - 102.17	1.0000	1.0000
L16	96	CCI-AFP-040075	98.75 - 102.17	1.0000	1.0000
L16	98	CCI-AFP-040075	101.00 - 102.17	1.0000	1.0000
L17	2	FB-L98B-034-XXX(3/8)	98.50 - 98.75	1.0000	1.0000
L17	3	PWRT-608-S(13/16)	98.50 - 98.75	1.0000	1.0000
L17	4	PWRT-606-S(7/8)	98.50 - 98.75	1.0000	1.0000
L17	5	RFFT-48SM-001-XXX(3/8)	98.50 - 98.75	1.0000	1.0000
L17	7	7983A(ELLIPTICAL)	98.50 - 98.75	1.0000	1.0000
L17	12	CU12PSM9P6XXX(1-1/2)	98.50 - 98.75	1.0000	1.0000
L17	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	98.50 - 98.75	1.0000	1.0000
L17	26	Safety Line 3/8	98.50 - 98.75	1.0000	1.0000
L17	42	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	43	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	44	PL1.25x3.625 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	58	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	59	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	60	PL1x4 Reinforcement	98.50 - 98.75	1.0000	1.0000
L17	85	CCI-SFP-040075	98.50 - 98.75	1.0000	1.0000
L17	86	CCI-SFP-040075	98.50 - 98.75	1.0000	1.0000
L17	90	CCI-AFP-05012520	98.50 - 98.75	1.0000	1.0000
L17	96	CCI-AFP-040075	98.50 - 98.75	1.0000	1.0000
L18	2	FB-L98B-034-XXX(3/8)	97.50 - 98.50	1.0000	1.0000
L18	3	PWRT-608-S(13/16)	97.50 - 98.50	1.0000	1.0000
L18	4	PWRT-606-S(7/8)	97.50 - 98.50	1.0000	1.0000
L18	5	RFFT-48SM-001-XXX(3/8)	97.50 - 98.50	1.0000	1.0000
L18	7	7983A(ELLIPTICAL)	97.50 - 98.50	1.0000	1.0000
L18	12	CU12PSM9P6XXX(1-1/2)	97.50 - 98.50	1.0000	1.0000
L18	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	97.50 - 98.50	1.0000	1.0000
L18	26	Safety Line 3/8	97.50 - 98.50	1.0000	1.0000
L18	42	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	43	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	44	PL1.25x3.625 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	58	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	59	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	60	PL1x4 Reinforcement	97.50 - 98.50	1.0000	1.0000
L18	85	CCI-SFP-040075	97.50 - 98.50	1.0000	1.0000
L18	86	CCI-SFP-040075	97.50 - 98.50	1.0000	1.0000
L18	90	CCI-AFP-05012520	97.50 - 98.50	1.0000	1.0000
L18	96	CCI-AFP-040075	97.50 - 98.50	1.0000	1.0000
L19	2	FB-L98B-034-XXX(3/8)	97.25 - 97.50	1.0000	1.0000
L19	3	PWRT-608-S(13/16)	97.25 - 97.50	1.0000	1.0000
L19	4	PWRT-606-S(7/8)	97.25 - 97.50	1.0000	1.0000
L19	5	RFFT-48SM-001-XXX(3/8)	97.25 - 97.50	1.0000	1.0000
L19	7	7983A(ELLIPTICAL)	97.25 - 97.50	1.0000	1.0000
L19	12	CU12PSM9P6XXX(1-1/2)	97.25 - 97.50	1.0000	1.0000

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**Project**  
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**Client**  
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**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L19	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	97.25 - 97.50	1.0000	1.0000
L19	26	Safety Line 3/8	97.25 - 97.50	1.0000	1.0000
L19	42	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	43	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	44	PL1.25x3.625 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	58	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	59	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	60	PL1x4 Reinforcement	97.25 - 97.50	1.0000	1.0000
L19	85	CCI-SFP-040075	97.25 - 97.50	1.0000	1.0000
L19	86	CCI-SFP-040075	97.25 - 97.50	1.0000	1.0000
L19	90	CCI-AFP-05012520	97.25 - 97.50	1.0000	1.0000
L19	96	CCI-AFP-040075	97.25 - 97.50	1.0000	1.0000
L20	2	FB-L98B-034-XXX(3/8)	92.00 - 97.25	1.0000	1.0000
L20	3	PWRT-608-S(13/16)	92.00 - 97.25	1.0000	1.0000
L20	4	PWRT-606-S(7/8)	92.00 - 97.25	1.0000	1.0000
L20	5	RFFT-48SM-001-XXX(3/8)	92.00 - 97.25	1.0000	1.0000
L20	7	7983A(ELLIPTICAL)	92.00 - 97.25	1.0000	1.0000
L20	12	CU12PSM9P6XXX(1-1/2)	92.00 - 97.25	1.0000	1.0000
L20	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	92.00 - 97.25	1.0000	1.0000
L20	26	Safety Line 3/8	92.00 - 97.25	1.0000	1.0000
L20	42	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	43	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	44	PL1.25x3.625 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	58	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	59	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	60	PL1x4 Reinforcement	92.00 - 97.25	1.0000	1.0000
L20	85	CCI-SFP-040075	92.00 - 97.25	1.0000	1.0000
L20	86	CCI-SFP-040075	92.00 - 97.25	1.0000	1.0000
L20	90	CCI-AFP-05012520	92.00 - 97.25	1.0000	1.0000
L20	96	CCI-AFP-040075	96.00 - 97.25	1.0000	1.0000
L21	2	FB-L98B-034-XXX(3/8)	90.55 - 92.00	1.0000	1.0000
L21	3	PWRT-608-S(13/16)	90.55 - 92.00	1.0000	1.0000
L21	4	PWRT-606-S(7/8)	90.55 - 92.00	1.0000	1.0000
L21	5	RFFT-48SM-001-XXX(3/8)	90.55 - 92.00	1.0000	1.0000
L21	7	7983A(ELLIPTICAL)	90.55 - 92.00	1.0000	1.0000
L21	12	CU12PSM9P6XXX(1-1/2)	90.55 - 92.00	1.0000	1.0000
L21	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	90.55 - 92.00	1.0000	1.0000
L21	26	Safety Line 3/8	90.55 - 92.00	1.0000	1.0000
L21	42	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	43	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	44	PL1.25x3.625 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	58	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	59	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	60	PL1x4 Reinforcement	90.55 - 92.00	1.0000	1.0000
L21	85	CCI-SFP-040075	90.55 - 92.00	1.0000	1.0000
L21	86	CCI-SFP-040075	90.55 - 92.00	1.0000	1.0000
L21	90	CCI-AFP-05012520	90.55 - 92.00	1.0000	1.0000
L22	2	FB-L98B-034-XXX(3/8)	89.25 - 90.55	1.0000	1.0000
L22	3	PWRT-608-S(13/16)	89.25 - 90.55	1.0000	1.0000
L22	4	PWRT-606-S(7/8)	89.25 - 90.55	1.0000	1.0000
L22	5	RFFT-48SM-001-XXX(3/8)	89.25 - 90.55	1.0000	1.0000
L22	7	7983A(ELLIPTICAL)	89.25 - 90.55	1.0000	1.0000
L22	12	CU12PSM9P6XXX(1-1/2)	89.25 - 90.55	1.0000	1.0000
L22	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	89.25 - 90.55	1.0000	1.0000
L22	26	Safety Line 3/8	89.25 - 90.55	1.0000	1.0000
L22	42	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	43	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	44	PL1.25x3.625 Reinforcement	89.25 - 90.55	1.0000	1.0000

# tnxTower

**B+T Group**  
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**Job**  
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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L22	58	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	59	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	60	PL1x4 Reinforcement	89.25 - 90.55	1.0000	1.0000
L22	85	CCI-SFP-040075	89.25 - 90.55	1.0000	1.0000
L22	86	CCI-SFP-040075	89.25 - 90.55	1.0000	1.0000
L22	88	CCI-SFP-040075	89.25 - 90.33	1.0000	1.0000
L22	90	CCI-AFP-05012520	89.25 - 90.55	1.0000	1.0000
L23	2	FB-L98B-034-XXX(3/8)	89.00 - 89.25	1.0000	1.0000
L23	3	PWRT-608-S(13/16)	89.00 - 89.25	1.0000	1.0000
L23	4	PWRT-606-S(7/8)	89.00 - 89.25	1.0000	1.0000
L23	5	RFFT-48SM-001-XXX(3/8)	89.00 - 89.25	1.0000	1.0000
L23	7	7983A(ELLIPTICAL)	89.00 - 89.25	1.0000	1.0000
L23	12	CU12PSM9P6XXX(1-1/2)	89.00 - 89.25	1.0000	1.0000
L23	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	89.00 - 89.25	1.0000	1.0000
L23	26	Safety Line 3/8	89.00 - 89.25	1.0000	1.0000
L23	38	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	39	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	40	PL1.25x5.5 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	58	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	59	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	60	PL1x4 Reinforcement	89.00 - 89.25	1.0000	1.0000
L23	85	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	86	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	88	CCI-SFP-040075	89.00 - 89.25	1.0000	1.0000
L23	90	CCI-AFP-05012520	89.00 - 89.25	1.0000	1.0000
L24	2	FB-L98B-034-XXX(3/8)	88.25 - 89.00	1.0000	1.0000
L24	3	PWRT-608-S(13/16)	88.25 - 89.00	1.0000	1.0000
L24	4	PWRT-606-S(7/8)	88.25 - 89.00	1.0000	1.0000
L24	5	RFFT-48SM-001-XXX(3/8)	88.25 - 89.00	1.0000	1.0000
L24	7	7983A(ELLIPTICAL)	88.25 - 89.00	1.0000	1.0000
L24	12	CU12PSM9P6XXX(1-1/2)	88.25 - 89.00	1.0000	1.0000
L24	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	88.25 - 89.00	1.0000	1.0000
L24	26	Safety Line 3/8	88.25 - 89.00	1.0000	1.0000
L24	38	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	39	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	40	PL1.25x5.5 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	58	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	59	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	60	PL1x4 Reinforcement	88.25 - 89.00	1.0000	1.0000
L24	85	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	86	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	88	CCI-SFP-040075	88.25 - 89.00	1.0000	1.0000
L24	90	CCI-AFP-05012520	88.25 - 89.00	1.0000	1.0000
L25	2	FB-L98B-034-XXX(3/8)	88.00 - 88.25	1.0000	1.0000
L25	3	PWRT-608-S(13/16)	88.00 - 88.25	1.0000	1.0000
L25	4	PWRT-606-S(7/8)	88.00 - 88.25	1.0000	1.0000
L25	5	RFFT-48SM-001-XXX(3/8)	88.00 - 88.25	1.0000	1.0000
L25	7	7983A(ELLIPTICAL)	88.00 - 88.25	1.0000	1.0000
L25	12	CU12PSM9P6XXX(1-1/2)	88.00 - 88.25	1.0000	1.0000
L25	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	88.00 - 88.25	1.0000	1.0000
L25	26	Safety Line 3/8	88.00 - 88.25	1.0000	1.0000
L25	38	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	39	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	40	PL1.25x5.5 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	58	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	59	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	60	PL1x4 Reinforcement	88.00 - 88.25	1.0000	1.0000
L25	85	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000
L25	86	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000

# tnxTower

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**Job**  
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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L25	88	CCI-SFP-040075	88.00 - 88.25	1.0000	1.0000
L25	90	CCI-AFP-05012520	88.00 - 88.25	1.0000	1.0000
L26	2	FB-L98B-034-XXX(3/8)	87.83 - 88.00	1.0000	1.0000
L26	3	PWRT-608-S(13/16)	87.83 - 88.00	1.0000	1.0000
L26	4	PWRT-606-S(7/8)	87.83 - 88.00	1.0000	1.0000
L26	5	RFFT-48SM-001-XXX(3/8)	87.83 - 88.00	1.0000	1.0000
L26	7	7983A(ELLIPTICAL)	87.83 - 88.00	1.0000	1.0000
L26	12	CU12PSM9P6XXX(1-1/2)	87.83 - 88.00	1.0000	1.0000
L26	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	87.83 - 88.00	1.0000	1.0000
L26	26	Safety Line 3/8	87.83 - 88.00	1.0000	1.0000
L26	38	PL1.25x5.5 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	39	PL1.25x5.5 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	40	PL1.25x5.5 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	58	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	59	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	60	PL1x4 Reinforcement	87.83 - 88.00	1.0000	1.0000
L26	85	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	86	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	88	CCI-SFP-040075	87.83 - 88.00	1.0000	1.0000
L26	90	CCI-AFP-05012520	87.83 - 88.00	1.0000	1.0000
L27	2	FB-L98B-034-XXX(3/8)	87.58 - 87.83	1.0000	1.0000
L27	3	PWRT-608-S(13/16)	87.58 - 87.83	1.0000	1.0000
L27	4	PWRT-606-S(7/8)	87.58 - 87.83	1.0000	1.0000
L27	5	RFFT-48SM-001-XXX(3/8)	87.58 - 87.83	1.0000	1.0000
L27	7	7983A(ELLIPTICAL)	87.58 - 87.83	1.0000	1.0000
L27	12	CU12PSM9P6XXX(1-1/2)	87.58 - 87.83	1.0000	1.0000
L27	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	87.58 - 87.83	1.0000	1.0000
L27	26	Safety Line 3/8	87.58 - 87.83	1.0000	1.0000
L27	38	PL1.25x5.5 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	39	PL1.25x5.5 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	40	PL1.25x5.5 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	58	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	59	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	60	PL1x4 Reinforcement	87.58 - 87.83	1.0000	1.0000
L27	85	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	86	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	88	CCI-SFP-040075	87.58 - 87.83	1.0000	1.0000
L27	90	CCI-AFP-05012520	87.58 - 87.83	1.0000	1.0000
L28	2	FB-L98B-034-XXX(3/8)	82.58 - 87.58	1.0000	1.0000
L28	3	PWRT-608-S(13/16)	82.58 - 87.58	1.0000	1.0000
L28	4	PWRT-606-S(7/8)	82.58 - 87.58	1.0000	1.0000
L28	5	RFFT-48SM-001-XXX(3/8)	82.58 - 87.58	1.0000	1.0000
L28	7	7983A(ELLIPTICAL)	82.58 - 87.58	1.0000	1.0000
L28	12	CU12PSM9P6XXX(1-1/2)	82.58 - 87.58	1.0000	1.0000
L28	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	82.58 - 87.58	1.0000	1.0000
L28	26	Safety Line 3/8	82.58 - 87.58	1.0000	1.0000
L28	38	PL1.25x5.5 Reinforcement	82.58 - 87.58	1.0000	1.0000
L28	39	PL1.25x5.5 Reinforcement	82.58 - 87.58	1.0000	1.0000
L28	40	PL1.25x5.5 Reinforcement	82.58 - 87.58	1.0000	1.0000
L28	58	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	59	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	60	PL1x4 Reinforcement	86.50 - 87.58	1.0000	1.0000
L28	85	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	86	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	88	CCI-SFP-040075	82.58 - 87.58	1.0000	1.0000
L28	90	CCI-AFP-05012520	85.33 - 87.58	1.0000	1.0000
L29	2	FB-L98B-034-XXX(3/8)	77.58 - 82.58	1.0000	1.0000
L29	3	PWRT-608-S(13/16)	77.58 - 82.58	1.0000	1.0000
L29	4	PWRT-606-S(7/8)	77.58 - 82.58	1.0000	1.0000

# tnxTower

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**Job**  
79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L29	5	RFFT-48SM-001-XXX(3/8)	77.58 - 82.58	1.0000	1.0000
L29	7	7983A(ELLIPTICAL)	77.58 - 82.58	1.0000	1.0000
L29	12	CU12PSM9P6XXX(1-1/2)	77.58 - 82.58	1.0000	1.0000
L29	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	77.58 - 82.58	1.0000	1.0000
L29	26	Safety Line 3/8	77.58 - 82.58	1.0000	1.0000
L29	38	PL1.25x5.5 Reinforcement	77.58 - 82.58	1.0000	1.0000
L29	39	PL1.25x5.5 Reinforcement	77.58 - 82.58	1.0000	1.0000
L29	40	PL1.25x5.5 Reinforcement	77.58 - 82.58	1.0000	1.0000
L29	54	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	55	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	56	PL1x4 Reinforcement	77.58 - 78.75	1.0000	1.0000
L29	85	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L29	86	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L29	88	CCI-SFP-040075	77.58 - 82.58	1.0000	1.0000
L30	2	FB-L98B-034-XXX(3/8)	77.00 - 77.58	1.0000	1.0000
L30	3	PWRT-608-S(13/16)	77.00 - 77.58	1.0000	1.0000
L30	4	PWRT-606-S(7/8)	77.00 - 77.58	1.0000	1.0000
L30	5	RFFT-48SM-001-XXX(3/8)	77.00 - 77.58	1.0000	1.0000
L30	7	7983A(ELLIPTICAL)	77.00 - 77.58	1.0000	1.0000
L30	12	CU12PSM9P6XXX(1-1/2)	77.00 - 77.58	1.0000	1.0000
L30	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	77.00 - 77.58	1.0000	1.0000
L30	26	Safety Line 3/8	77.00 - 77.58	1.0000	1.0000
L30	38	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	39	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	40	PL1.25x5.5 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	54	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	55	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	56	PL1x4 Reinforcement	77.00 - 77.58	1.0000	1.0000
L30	85	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L30	86	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L30	88	CCI-SFP-040075	77.00 - 77.58	1.0000	1.0000
L31	2	FB-L98B-034-XXX(3/8)	76.75 - 77.00	1.0000	1.0000
L31	3	PWRT-608-S(13/16)	76.75 - 77.00	1.0000	1.0000
L31	4	PWRT-606-S(7/8)	76.75 - 77.00	1.0000	1.0000
L31	5	RFFT-48SM-001-XXX(3/8)	76.75 - 77.00	1.0000	1.0000
L31	7	7983A(ELLIPTICAL)	76.75 - 77.00	1.0000	1.0000
L31	12	CU12PSM9P6XXX(1-1/2)	76.75 - 77.00	1.0000	1.0000
L31	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.75 - 77.00	1.0000	1.0000
L31	26	Safety Line 3/8	76.75 - 77.00	1.0000	1.0000
L31	38	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	39	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	40	PL1.25x5.5 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	54	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	55	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	56	PL1x4 Reinforcement	76.75 - 77.00	1.0000	1.0000
L31	85	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L31	86	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L31	88	CCI-SFP-040075	76.75 - 77.00	1.0000	1.0000
L32	2	FB-L98B-034-XXX(3/8)	76.33 - 76.75	1.0000	1.0000
L32	3	PWRT-608-S(13/16)	76.33 - 76.75	1.0000	1.0000
L32	4	PWRT-606-S(7/8)	76.33 - 76.75	1.0000	1.0000
L32	5	RFFT-48SM-001-XXX(3/8)	76.33 - 76.75	1.0000	1.0000
L32	7	7983A(ELLIPTICAL)	76.33 - 76.75	1.0000	1.0000
L32	12	CU12PSM9P6XXX(1-1/2)	76.33 - 76.75	1.0000	1.0000
L32	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.33 - 76.75	1.0000	1.0000
L32	26	Safety Line 3/8	76.33 - 76.75	1.0000	1.0000
L32	38	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	39	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000



Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L32	40	PL1.25x5.5 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	54	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	55	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	56	PL1x4 Reinforcement	76.33 - 76.75	1.0000	1.0000
L32	85	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L32	86	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L32	88	CCI-SFP-040075	76.33 - 76.75	1.0000	1.0000
L33	2	FB-L98B-034-XXX(3/8)	76.08 - 76.33	1.0000	1.0000
L33	3	PWRT-608-S(13/16)	76.08 - 76.33	1.0000	1.0000
L33	4	PWRT-606-S(7/8)	76.08 - 76.33	1.0000	1.0000
L33	5	RFFT-48SM-001-XXX(3/8)	76.08 - 76.33	1.0000	1.0000
L33	7	7983A(ELLIPTICAL)	76.08 - 76.33	1.0000	1.0000
L33	12	CU12PSM9P6XXX(1-1/2)	76.08 - 76.33	1.0000	1.0000
L33	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	76.08 - 76.33	1.0000	1.0000
L33	26	Safety Line 3/8	76.08 - 76.33	1.0000	1.0000
L33	38	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	39	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	40	PL1.25x5.5 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	54	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	55	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	56	PL1x4 Reinforcement	76.08 - 76.33	1.0000	1.0000
L33	85	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L33	86	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L33	88	CCI-SFP-040075	76.08 - 76.33	1.0000	1.0000
L34	2	FB-L98B-034-XXX(3/8)	74.25 - 76.08	1.0000	1.0000
L34	3	PWRT-608-S(13/16)	74.25 - 76.08	1.0000	1.0000
L34	4	PWRT-606-S(7/8)	74.25 - 76.08	1.0000	1.0000
L34	5	RFFT-48SM-001-XXX(3/8)	74.25 - 76.08	1.0000	1.0000
L34	7	7983A(ELLIPTICAL)	74.25 - 76.08	1.0000	1.0000
L34	12	CU12PSM9P6XXX(1-1/2)	74.25 - 76.08	1.0000	1.0000
L34	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	74.25 - 76.08	1.0000	1.0000
L34	26	Safety Line 3/8	74.25 - 76.08	1.0000	1.0000
L34	38	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	39	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	40	PL1.25x5.5 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	54	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	55	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	56	PL1x4 Reinforcement	74.25 - 76.08	1.0000	1.0000
L34	80	CCI-SFP-045100	74.25 - 75.25	1.0000	1.0000
L34	81	CCI-SFP-045100	74.25 - 75.25	1.0000	1.0000
L34	83	CCI-SFP-040075	74.25 - 75.25	1.0000	1.0000
L34	85	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L34	86	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L34	88	CCI-SFP-040075	75.33 - 76.08	1.0000	1.0000
L35	2	FB-L98B-034-XXX(3/8)	74.00 - 74.25	1.0000	1.0000
L35	3	PWRT-608-S(13/16)	74.00 - 74.25	1.0000	1.0000
L35	4	PWRT-606-S(7/8)	74.00 - 74.25	1.0000	1.0000
L35	5	RFFT-48SM-001-XXX(3/8)	74.00 - 74.25	1.0000	1.0000
L35	7	7983A(ELLIPTICAL)	74.00 - 74.25	1.0000	1.0000
L35	12	CU12PSM9P6XXX(1-1/2)	74.00 - 74.25	1.0000	1.0000
L35	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	74.00 - 74.25	1.0000	1.0000
L35	26	Safety Line 3/8	74.00 - 74.25	1.0000	1.0000
L35	38	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	39	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	40	PL1.25x5.5 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	54	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	55	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	56	PL1x4 Reinforcement	74.00 - 74.25	1.0000	1.0000
L35	80	CCI-SFP-045100	74.00 - 74.25	1.0000	1.0000



# tnxTower

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**Job**  
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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L35	81	CCI-SFP-045100	74.00 - 74.25	1.0000	1.0000
L35	83	CCI-SFP-040075	74.00 - 74.25	1.0000	1.0000
L36	2	FB-L98B-034-XXX(3/8)	73.75 - 74.00	1.0000	1.0000
L36	3	PWRT-608-S(13/16)	73.75 - 74.00	1.0000	1.0000
L36	4	PWRT-606-S(7/8)	73.75 - 74.00	1.0000	1.0000
L36	5	RFFT-48SM-001-XXX(3/8)	73.75 - 74.00	1.0000	1.0000
L36	7	7983A(ELLIPTICAL)	73.75 - 74.00	1.0000	1.0000
L36	12	CU12PSM9P6XXX(1-1/2)	73.75 - 74.00	1.0000	1.0000
L36	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	73.75 - 74.00	1.0000	1.0000
L36	26	Safety Line 3/8	73.75 - 74.00	1.0000	1.0000
L36	38	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	39	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	40	PL1.25x5.5 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	54	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	55	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	56	PL1x4 Reinforcement	73.75 - 74.00	1.0000	1.0000
L36	80	CCI-SFP-045100	73.75 - 74.00	1.0000	1.0000
L36	81	CCI-SFP-045100	73.75 - 74.00	1.0000	1.0000
L36	83	CCI-SFP-040075	73.75 - 74.00	1.0000	1.0000
L37	2	FB-L98B-034-XXX(3/8)	73.50 - 73.75	1.0000	1.0000
L37	3	PWRT-608-S(13/16)	73.50 - 73.75	1.0000	1.0000
L37	4	PWRT-606-S(7/8)	73.50 - 73.75	1.0000	1.0000
L37	5	RFFT-48SM-001-XXX(3/8)	73.50 - 73.75	1.0000	1.0000
L37	7	7983A(ELLIPTICAL)	73.50 - 73.75	1.0000	1.0000
L37	12	CU12PSM9P6XXX(1-1/2)	73.50 - 73.75	1.0000	1.0000
L37	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	73.50 - 73.75	1.0000	1.0000
L37	26	Safety Line 3/8	73.50 - 73.75	1.0000	1.0000
L37	38	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	39	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	40	PL1.25x5.5 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	54	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	55	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	56	PL1x4 Reinforcement	73.50 - 73.75	1.0000	1.0000
L37	80	CCI-SFP-045100	73.50 - 73.75	1.0000	1.0000
L37	81	CCI-SFP-045100	73.50 - 73.75	1.0000	1.0000
L37	83	CCI-SFP-040075	73.50 - 73.75	1.0000	1.0000
L38	2	FB-L98B-034-XXX(3/8)	68.50 - 73.50	1.0000	1.0000
L38	3	PWRT-608-S(13/16)	68.50 - 73.50	1.0000	1.0000
L38	4	PWRT-606-S(7/8)	68.50 - 73.50	1.0000	1.0000
L38	5	RFFT-48SM-001-XXX(3/8)	68.50 - 73.50	1.0000	1.0000
L38	7	7983A(ELLIPTICAL)	68.50 - 73.50	1.0000	1.0000
L38	12	CU12PSM9P6XXX(1-1/2)	68.50 - 73.50	1.0000	1.0000
L38	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	68.50 - 73.50	1.0000	1.0000
L38	26	Safety Line 3/8	68.50 - 73.50	1.0000	1.0000
L38	38	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	39	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	40	PL1.25x5.5 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	54	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	55	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	56	PL1x4 Reinforcement	68.50 - 73.50	1.0000	1.0000
L38	80	CCI-SFP-045100	68.50 - 73.50	1.0000	1.0000
L38	81	CCI-SFP-045100	68.50 - 73.50	1.0000	1.0000
L38	83	CCI-SFP-040075	68.50 - 73.50	1.0000	1.0000
L39	2	FB-L98B-034-XXX(3/8)	63.50 - 68.50	1.0000	1.0000
L39	3	PWRT-608-S(13/16)	63.50 - 68.50	1.0000	1.0000
L39	4	PWRT-606-S(7/8)	63.50 - 68.50	1.0000	1.0000
L39	5	RFFT-48SM-001-XXX(3/8)	63.50 - 68.50	1.0000	1.0000
L39	7	7983A(ELLIPTICAL)	63.50 - 68.50	1.0000	1.0000
L39	12	CU12PSM9P6XXX(1-1/2)	63.50 - 68.50	1.0000	1.0000

# tnxTower

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**Job**  
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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L39	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	63.50 - 68.50	1.0000	1.0000
L39	26	Safety Line 3/8	63.50 - 68.50	1.0000	1.0000
L39	38	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	39	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	40	PL1.25x5.5 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	54	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	55	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	56	PL1x4 Reinforcement	63.50 - 68.50	1.0000	1.0000
L39	80	CCI-SFP-045100	63.50 - 68.50	1.0000	1.0000
L39	81	CCI-SFP-045100	63.50 - 68.50	1.0000	1.0000
L39	83	CCI-SFP-040075	63.50 - 68.50	1.0000	1.0000
L40	2	FB-L98B-034-XXX(3/8)	60.50 - 63.50	1.0000	1.0000
L40	3	PWRT-608-S(13/16)	60.50 - 63.50	1.0000	1.0000
L40	4	PWRT-606-S(7/8)	60.50 - 63.50	1.0000	1.0000
L40	5	RFFT-48SM-001-XXX(3/8)	60.50 - 63.50	1.0000	1.0000
L40	7	7983A(ELLIPTICAL)	60.50 - 63.50	1.0000	1.0000
L40	12	CU12PSM9P6XXX(1-1/2)	60.50 - 63.50	1.0000	1.0000
L40	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	60.50 - 63.50	1.0000	1.0000
L40	26	Safety Line 3/8	60.50 - 63.50	1.0000	1.0000
L40	38	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	39	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	40	PL1.25x5.5 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	50	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	51	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	52	PL1x4 Reinforcement	60.50 - 62.25	1.0000	1.0000
L40	54	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	55	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	56	PL1x4 Reinforcement	60.50 - 63.50	1.0000	1.0000
L40	80	CCI-SFP-045100	60.50 - 63.50	1.0000	1.0000
L40	81	CCI-SFP-045100	60.50 - 63.50	1.0000	1.0000
L40	83	CCI-SFP-040075	60.50 - 63.50	1.0000	1.0000
L41	2	FB-L98B-034-XXX(3/8)	60.25 - 60.50	1.0000	1.0000
L41	3	PWRT-608-S(13/16)	60.25 - 60.50	1.0000	1.0000
L41	4	PWRT-606-S(7/8)	60.25 - 60.50	1.0000	1.0000
L41	5	RFFT-48SM-001-XXX(3/8)	60.25 - 60.50	1.0000	1.0000
L41	7	7983A(ELLIPTICAL)	60.25 - 60.50	1.0000	1.0000
L41	12	CU12PSM9P6XXX(1-1/2)	60.25 - 60.50	1.0000	1.0000
L41	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	60.25 - 60.50	1.0000	1.0000
L41	26	Safety Line 3/8	60.25 - 60.50	1.0000	1.0000
L41	38	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	39	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	40	PL1.25x5.5 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	50	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	51	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	52	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	54	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	55	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	56	PL1x4 Reinforcement	60.25 - 60.50	1.0000	1.0000
L41	80	CCI-SFP-045100	60.25 - 60.50	1.0000	1.0000
L41	81	CCI-SFP-045100	60.25 - 60.50	1.0000	1.0000
L41	83	CCI-SFP-040075	60.25 - 60.50	1.0000	1.0000
L42	2	FB-L98B-034-XXX(3/8)	59.50 - 60.25	1.0000	1.0000
L42	3	PWRT-608-S(13/16)	59.50 - 60.25	1.0000	1.0000
L42	4	PWRT-606-S(7/8)	59.50 - 60.25	1.0000	1.0000
L42	5	RFFT-48SM-001-XXX(3/8)	59.50 - 60.25	1.0000	1.0000
L42	7	7983A(ELLIPTICAL)	59.50 - 60.25	1.0000	1.0000
L42	12	CU12PSM9P6XXX(1-1/2)	59.50 - 60.25	1.0000	1.0000
L42	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	59.50 - 60.25	1.0000	1.0000

# tnxTower

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**Job**  
79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L42	26	Safety Line 3/8	59.50 - 60.25	1.0000	1.0000
L42	38	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	39	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	40	PL1.25x5.5 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	50	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	51	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	52	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	54	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	55	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	56	PL1x4 Reinforcement	59.50 - 60.25	1.0000	1.0000
L42	80	CCI-SFP-045100	59.50 - 60.25	1.0000	1.0000
L42	81	CCI-SFP-045100	59.50 - 60.25	1.0000	1.0000
L42	83	CCI-SFP-040075	59.50 - 60.25	1.0000	1.0000
L43	2	FB-L98B-034-XXX(3/8)	59.25 - 59.50	1.0000	1.0000
L43	3	PWRT-608-S(13/16)	59.25 - 59.50	1.0000	1.0000
L43	4	PWRT-606-S(7/8)	59.25 - 59.50	1.0000	1.0000
L43	5	RFFT-48SM-001-XXX(3/8)	59.25 - 59.50	1.0000	1.0000
L43	7	7983A(ELLIPTICAL)	59.25 - 59.50	1.0000	1.0000
L43	12	CU12PSM9P6XXX(1-1/2)	59.25 - 59.50	1.0000	1.0000
L43	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	59.25 - 59.50	1.0000	1.0000
L43	26	Safety Line 3/8	59.25 - 59.50	1.0000	1.0000
L43	34	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	35	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	36	PL1.25x6.625 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	50	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	51	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	52	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	54	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	55	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	56	PL1x4 Reinforcement	59.25 - 59.50	1.0000	1.0000
L43	80	CCI-SFP-045100	59.25 - 59.50	1.0000	1.0000
L43	81	CCI-SFP-045100	59.25 - 59.50	1.0000	1.0000
L43	83	CCI-SFP-040075	59.25 - 59.50	1.0000	1.0000
L44	2	FB-L98B-034-XXX(3/8)	54.25 - 59.25	1.0000	1.0000
L44	3	PWRT-608-S(13/16)	54.25 - 59.25	1.0000	1.0000
L44	4	PWRT-606-S(7/8)	54.25 - 59.25	1.0000	1.0000
L44	5	RFFT-48SM-001-XXX(3/8)	54.25 - 59.25	1.0000	1.0000
L44	7	7983A(ELLIPTICAL)	54.25 - 59.25	1.0000	1.0000
L44	12	CU12PSM9P6XXX(1-1/2)	54.25 - 59.25	1.0000	1.0000
L44	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	54.25 - 59.25	1.0000	1.0000
L44	26	Safety Line 3/8	54.25 - 59.25	1.0000	1.0000
L44	34	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	35	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	36	PL1.25x6.625 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	50	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	51	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	52	PL1x4 Reinforcement	54.25 - 59.25	1.0000	1.0000
L44	54	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	55	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	56	PL1x4 Reinforcement	58.75 - 59.25	1.0000	1.0000
L44	80	CCI-SFP-045100	54.25 - 59.25	1.0000	1.0000
L44	81	CCI-SFP-045100	54.25 - 59.25	1.0000	1.0000
L44	83	CCI-SFP-040075	54.25 - 59.25	1.0000	1.0000
L45	2	FB-L98B-034-XXX(3/8)	45.80 - 54.25	1.0000	1.0000
L45	3	PWRT-608-S(13/16)	45.80 - 54.25	1.0000	1.0000
L45	4	PWRT-606-S(7/8)	45.80 - 54.25	1.0000	1.0000
L45	5	RFFT-48SM-001-XXX(3/8)	45.80 - 54.25	1.0000	1.0000
L45	7	7983A(ELLIPTICAL)	45.80 - 54.25	1.0000	1.0000
L45	12	CU12PSM9P6XXX(1-1/2)	45.80 - 54.25	1.0000	1.0000
L45	21	MLC HYBRID 6X12	45.80 - 54.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L45	26	6AWGX6(1-1/2)			
L45	26	Safety Line 3/8	45.80 - 54.25	1.0000	1.0000
L45	34	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	35	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	36	PL1.25x6.625 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	50	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	51	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	52	PL1x4 Reinforcement	45.80 - 54.25	1.0000	1.0000
L45	80	CCI-SFP-045100	45.80 - 54.25	1.0000	1.0000
L45	81	CCI-SFP-045100	45.80 - 54.25	1.0000	1.0000
L45	83	CCI-SFP-040075	45.80 - 54.25	1.0000	1.0000
L46	2	FB-L98B-034-XXX(3/8)	44.80 - 45.80	1.0000	1.0000
L46	3	PWRT-608-S(13/16)	44.80 - 45.80	1.0000	1.0000
L46	4	PWRT-606-S(7/8)	44.80 - 45.80	1.0000	1.0000
L46	5	RFFT-48SM-001-XXX(3/8)	44.80 - 45.80	1.0000	1.0000
L46	7	7983A(ELLIPTICAL)	44.80 - 45.80	1.0000	1.0000
L46	12	CU12PSM9P6XXX(1-1/2)	44.80 - 45.80	1.0000	1.0000
L46	21	MLC HYBRID 6X12	44.80 - 45.80	1.0000	1.0000
L46	26	6AWGX6(1-1/2)			
L46	26	Safety Line 3/8	44.80 - 45.80	1.0000	1.0000
L46	34	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	35	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	36	PL1.25x6.625 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	50	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	51	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	52	PL1x4 Reinforcement	44.80 - 45.80	1.0000	1.0000
L46	75	CCI-SFP-045100	44.80 - 45.08	1.0000	1.0000
L46	77	CCI-SFP-060100	44.80 - 45.17	1.0000	1.0000
L46	78	CCI-SFP-060100	44.80 - 45.17	1.0000	1.0000
L46	80	CCI-SFP-045100	45.25 - 45.80	1.0000	1.0000
L46	81	CCI-SFP-045100	45.25 - 45.80	1.0000	1.0000
L46	83	CCI-SFP-040075	45.25 - 45.80	1.0000	1.0000
L47	2	FB-L98B-034-XXX(3/8)	43.58 - 44.80	1.0000	1.0000
L47	3	PWRT-608-S(13/16)	43.58 - 44.80	1.0000	1.0000
L47	4	PWRT-606-S(7/8)	43.58 - 44.80	1.0000	1.0000
L47	5	RFFT-48SM-001-XXX(3/8)	43.58 - 44.80	1.0000	1.0000
L47	7	7983A(ELLIPTICAL)	43.58 - 44.80	1.0000	1.0000
L47	12	CU12PSM9P6XXX(1-1/2)	43.58 - 44.80	1.0000	1.0000
L47	21	MLC HYBRID 6X12	43.58 - 44.80	1.0000	1.0000
L47	26	6AWGX6(1-1/2)			
L47	26	Safety Line 3/8	43.58 - 44.80	1.0000	1.0000
L47	34	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	35	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	36	PL1.25x6.625 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	50	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	51	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	52	PL1x4 Reinforcement	43.58 - 44.80	1.0000	1.0000
L47	75	CCI-SFP-045100	43.58 - 44.80	1.0000	1.0000
L47	77	CCI-SFP-060100	43.58 - 44.80	1.0000	1.0000
L47	78	CCI-SFP-060100	43.58 - 44.80	1.0000	1.0000
L48	2	FB-L98B-034-XXX(3/8)	43.33 - 43.58	1.0000	1.0000
L48	3	PWRT-608-S(13/16)	43.33 - 43.58	1.0000	1.0000
L48	4	PWRT-606-S(7/8)	43.33 - 43.58	1.0000	1.0000
L48	5	RFFT-48SM-001-XXX(3/8)	43.33 - 43.58	1.0000	1.0000
L48	7	7983A(ELLIPTICAL)	43.33 - 43.58	1.0000	1.0000
L48	12	CU12PSM9P6XXX(1-1/2)	43.33 - 43.58	1.0000	1.0000
L48	21	MLC HYBRID 6X12	43.33 - 43.58	1.0000	1.0000
L48	26	6AWGX6(1-1/2)			
L48	26	Safety Line 3/8	43.33 - 43.58	1.0000	1.0000
L48	34	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	35	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	36	PL1.25x6.625 Reinforcement	43.33 - 43.58	1.0000	1.0000

# tnxTower

**B+T Group**  
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**Job**  
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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L48	50	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	51	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	52	PL1x4 Reinforcement	43.33 - 43.58	1.0000	1.0000
L48	75	CCI-SFP-045100	43.33 - 43.58	1.0000	1.0000
L48	77	CCI-SFP-060100	43.33 - 43.58	1.0000	1.0000
L48	78	CCI-SFP-060100	43.33 - 43.58	1.0000	1.0000
L49	2	FB-L98B-034-XXX(3/8)	43.17 - 43.33	1.0000	1.0000
L49	3	PWRT-608-S(13/16)	43.17 - 43.33	1.0000	1.0000
L49	4	PWRT-606-S(7/8)	43.17 - 43.33	1.0000	1.0000
L49	5	RFFT-48SM-001-XXX(3/8)	43.17 - 43.33	1.0000	1.0000
L49	7	7983A(ELLIPTICAL)	43.17 - 43.33	1.0000	1.0000
L49	12	CU12PSM9P6XXX(1-1/2)	43.17 - 43.33	1.0000	1.0000
L49	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	43.17 - 43.33	1.0000	1.0000
L49	26	Safety Line 3/8	43.17 - 43.33	1.0000	1.0000
L49	34	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	35	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	36	PL1.25x6.625 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	50	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	51	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	52	PL1x4 Reinforcement	43.17 - 43.33	1.0000	1.0000
L49	75	CCI-SFP-045100	43.17 - 43.33	1.0000	1.0000
L49	77	CCI-SFP-060100	43.17 - 43.33	1.0000	1.0000
L49	78	CCI-SFP-060100	43.17 - 43.33	1.0000	1.0000
L50	2	FB-L98B-034-XXX(3/8)	42.92 - 43.17	1.0000	1.0000
L50	3	PWRT-608-S(13/16)	42.92 - 43.17	1.0000	1.0000
L50	4	PWRT-606-S(7/8)	42.92 - 43.17	1.0000	1.0000
L50	5	RFFT-48SM-001-XXX(3/8)	42.92 - 43.17	1.0000	1.0000
L50	7	7983A(ELLIPTICAL)	42.92 - 43.17	1.0000	1.0000
L50	12	CU12PSM9P6XXX(1-1/2)	42.92 - 43.17	1.0000	1.0000
L50	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	42.92 - 43.17	1.0000	1.0000
L50	26	Safety Line 3/8	42.92 - 43.17	1.0000	1.0000
L50	34	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	35	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	36	PL1.25x6.625 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	50	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	51	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	52	PL1x4 Reinforcement	42.92 - 43.17	1.0000	1.0000
L50	75	CCI-SFP-045100	42.92 - 43.17	1.0000	1.0000
L50	77	CCI-SFP-060100	42.92 - 43.17	1.0000	1.0000
L50	78	CCI-SFP-060100	42.92 - 43.17	1.0000	1.0000
L51	2	FB-L98B-034-XXX(3/8)	39.00 - 42.92	1.0000	1.0000
L51	3	PWRT-608-S(13/16)	39.00 - 42.92	1.0000	1.0000
L51	4	PWRT-606-S(7/8)	39.00 - 42.92	1.0000	1.0000
L51	5	RFFT-48SM-001-XXX(3/8)	39.00 - 42.92	1.0000	1.0000
L51	7	7983A(ELLIPTICAL)	39.00 - 42.92	1.0000	1.0000
L51	12	CU12PSM9P6XXX(1-1/2)	39.00 - 42.92	1.0000	1.0000
L51	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	39.00 - 42.92	1.0000	1.0000
L51	26	Safety Line 3/8	39.00 - 42.92	1.0000	1.0000
L51	34	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	35	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	36	PL1.25x6.625 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	48	PL1x4 Reinforcement	39.00 - 40.75	1.0000	1.0000
L51	50	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	51	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	52	PL1x4 Reinforcement	39.00 - 42.92	1.0000	1.0000
L51	75	CCI-SFP-045100	39.00 - 42.92	1.0000	1.0000
L51	77	CCI-SFP-060100	39.00 - 42.92	1.0000	1.0000
L51	78	CCI-SFP-060100	39.00 - 42.92	1.0000	1.0000
L52	2	FB-L98B-034-XXX(3/8)	38.75 - 39.00	1.0000	1.0000

# tnxTower

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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L52	3	PWRT-608-S(13/16)	38.75 - 39.00	1.0000	1.0000
L52	4	PWRT-606-S(7/8)	38.75 - 39.00	1.0000	1.0000
L52	5	RFFT-48SM-001-XXX(3/8)	38.75 - 39.00	1.0000	1.0000
L52	7	7983A(ELLIPTICAL)	38.75 - 39.00	1.0000	1.0000
L52	12	CU12PSM9P6XXX(1-1/2)	38.75 - 39.00	1.0000	1.0000
L52	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	38.75 - 39.00	1.0000	1.0000
L52	26	Safety Line 3/8	38.75 - 39.00	1.0000	1.0000
L52	34	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	35	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	36	PL1.25x6.625 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	48	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	50	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	51	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	52	PL1x4 Reinforcement	38.75 - 39.00	1.0000	1.0000
L52	75	CCI-SFP-045100	38.75 - 39.00	1.0000	1.0000
L52	77	CCI-SFP-060100	38.75 - 39.00	1.0000	1.0000
L52	78	CCI-SFP-060100	38.75 - 39.00	1.0000	1.0000
L53	2	FB-L98B-034-XXX(3/8)	37.17 - 38.75	1.0000	1.0000
L53	3	PWRT-608-S(13/16)	37.17 - 38.75	1.0000	1.0000
L53	4	PWRT-606-S(7/8)	37.17 - 38.75	1.0000	1.0000
L53	5	RFFT-48SM-001-XXX(3/8)	37.17 - 38.75	1.0000	1.0000
L53	7	7983A(ELLIPTICAL)	37.17 - 38.75	1.0000	1.0000
L53	12	CU12PSM9P6XXX(1-1/2)	37.17 - 38.75	1.0000	1.0000
L53	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	37.17 - 38.75	1.0000	1.0000
L53	26	Safety Line 3/8	37.17 - 38.75	1.0000	1.0000
L53	34	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	35	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	36	PL1.25x6.625 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	48	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	50	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	51	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	52	PL1x4 Reinforcement	37.17 - 38.75	1.0000	1.0000
L53	75	CCI-SFP-045100	37.17 - 38.75	1.0000	1.0000
L53	77	CCI-SFP-060100	37.17 - 38.75	1.0000	1.0000
L53	78	CCI-SFP-060100	37.17 - 38.75	1.0000	1.0000
L54	2	FB-L98B-034-XXX(3/8)	36.92 - 37.17	1.0000	1.0000
L54	3	PWRT-608-S(13/16)	36.92 - 37.17	1.0000	1.0000
L54	4	PWRT-606-S(7/8)	36.92 - 37.17	1.0000	1.0000
L54	5	RFFT-48SM-001-XXX(3/8)	36.92 - 37.17	1.0000	1.0000
L54	7	7983A(ELLIPTICAL)	36.92 - 37.17	1.0000	1.0000
L54	12	CU12PSM9P6XXX(1-1/2)	36.92 - 37.17	1.0000	1.0000
L54	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	36.92 - 37.17	1.0000	1.0000
L54	26	Safety Line 3/8	36.92 - 37.17	1.0000	1.0000
L54	34	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	35	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	36	PL1.25x6.625 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	48	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	50	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	51	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	52	PL1x4 Reinforcement	36.92 - 37.17	1.0000	1.0000
L54	75	CCI-SFP-045100	36.92 - 37.17	1.0000	1.0000
L54	77	CCI-SFP-060100	36.92 - 37.17	1.0000	1.0000
L54	78	CCI-SFP-060100	36.92 - 37.17	1.0000	1.0000
L55	2	FB-L98B-034-XXX(3/8)	34.00 - 36.92	1.0000	1.0000
L55	3	PWRT-608-S(13/16)	34.00 - 36.92	1.0000	1.0000
L55	4	PWRT-606-S(7/8)	34.00 - 36.92	1.0000	1.0000
L55	5	RFFT-48SM-001-XXX(3/8)	34.00 - 36.92	1.0000	1.0000
L55	7	7983A(ELLIPTICAL)	34.00 - 36.92	1.0000	1.0000
L55	12	CU12PSM9P6XXX(1-1/2)	34.00 - 36.92	1.0000	1.0000



# tnxTower

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79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L55	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	34.00 - 36.92	1.0000	1.0000
L55	26	Safety Line 3/8	34.00 - 36.92	1.0000	1.0000
L55	34	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	35	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	36	PL1.25x6.625 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	46	PL1x4 Reinforcement	34.00 - 35.75	1.0000	1.0000
L55	47	PL1x4 Reinforcement	34.00 - 35.75	1.0000	1.0000
L55	48	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	50	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	51	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	52	PL1x4 Reinforcement	34.00 - 36.92	1.0000	1.0000
L55	71	CCI-SFP-045100	34.00 - 35.08	1.0000	1.0000
L55	73	CCI-SFP-045100	34.00 - 35.08	1.0000	1.0000
L55	75	CCI-SFP-045100	34.00 - 36.92	1.0000	1.0000
L55	77	CCI-SFP-060100	35.17 - 36.92	1.0000	1.0000
L55	78	CCI-SFP-060100	35.17 - 36.92	1.0000	1.0000
L56	2	FB-L98B-034-XXX(3/8)	33.75 - 34.00	1.0000	1.0000
L56	3	PWRT-608-S(13/16)	33.75 - 34.00	1.0000	1.0000
L56	4	PWRT-606-S(7/8)	33.75 - 34.00	1.0000	1.0000
L56	5	RFFT-48SM-001-XXX(3/8)	33.75 - 34.00	1.0000	1.0000
L56	7	7983A(ELLIPTICAL)	33.75 - 34.00	1.0000	1.0000
L56	12	CU12PSM9P6XXX(1-1/2)	33.75 - 34.00	1.0000	1.0000
L56	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	33.75 - 34.00	1.0000	1.0000
L56	26	Safety Line 3/8	33.75 - 34.00	1.0000	1.0000
L56	34	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	35	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	36	PL1.25x6.625 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	46	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	47	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	48	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	50	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	51	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	52	PL1x4 Reinforcement	33.75 - 34.00	1.0000	1.0000
L56	71	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L56	73	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L56	75	CCI-SFP-045100	33.75 - 34.00	1.0000	1.0000
L57	2	FB-L98B-034-XXX(3/8)	29.75 - 33.75	1.0000	1.0000
L57	3	PWRT-608-S(13/16)	29.75 - 33.75	1.0000	1.0000
L57	4	PWRT-606-S(7/8)	29.75 - 33.75	1.0000	1.0000
L57	5	RFFT-48SM-001-XXX(3/8)	29.75 - 33.75	1.0000	1.0000
L57	7	7983A(ELLIPTICAL)	29.75 - 33.75	1.0000	1.0000
L57	12	CU12PSM9P6XXX(1-1/2)	29.75 - 33.75	1.0000	1.0000
L57	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	29.75 - 33.75	1.0000	1.0000
L57	26	Safety Line 3/8	29.75 - 33.75	1.0000	1.0000
L57	34	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	35	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	36	PL1.25x6.625 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	46	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	47	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	48	PL1x4 Reinforcement	29.75 - 33.75	1.0000	1.0000
L57	50	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	51	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	52	PL1x4 Reinforcement	32.25 - 33.75	1.0000	1.0000
L57	71	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L57	73	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L57	75	CCI-SFP-045100	29.75 - 33.75	1.0000	1.0000
L58	2	FB-L98B-034-XXX(3/8)	29.50 - 29.75	1.0000	1.0000
L58	3	PWRT-608-S(13/16)	29.50 - 29.75	1.0000	1.0000
L58	4	PWRT-606-S(7/8)	29.50 - 29.75	1.0000	1.0000



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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L58	5	RFFT-48SM-001-XXX(3/8)	29.50 - 29.75	1.0000	1.0000
L58	7	7983A(ELLIPTICAL)	29.50 - 29.75	1.0000	1.0000
L58	12	CU12PSM9P6XXX(1-1/2)	29.50 - 29.75	1.0000	1.0000
L58	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	29.50 - 29.75	1.0000	1.0000
L58	26	Safety Line 3/8	29.50 - 29.75	1.0000	1.0000
L58	28	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	29	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	30	PL1.25x6.875 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	46	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	47	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	48	PL1x4 Reinforcement	29.50 - 29.75	1.0000	1.0000
L58	71	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L58	73	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L58	75	CCI-SFP-045100	29.50 - 29.75	1.0000	1.0000
L59	2	FB-L98B-034-XXX(3/8)	24.50 - 29.50	1.0000	1.0000
L59	3	PWRT-608-S(13/16)	24.50 - 29.50	1.0000	1.0000
L59	4	PWRT-606-S(7/8)	24.50 - 29.50	1.0000	1.0000
L59	5	RFFT-48SM-001-XXX(3/8)	24.50 - 29.50	1.0000	1.0000
L59	7	7983A(ELLIPTICAL)	24.50 - 29.50	1.0000	1.0000
L59	12	CU12PSM9P6XXX(1-1/2)	24.50 - 29.50	1.0000	1.0000
L59	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	24.50 - 29.50	1.0000	1.0000
L59	26	Safety Line 3/8	24.50 - 29.50	1.0000	1.0000
L59	28	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	29	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	30	PL1.25x6.875 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	46	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	47	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	48	PL1x4 Reinforcement	24.50 - 29.50	1.0000	1.0000
L59	66	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	67	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	69	CCI-SFP-060100	24.50 - 25.00	1.0000	1.0000
L59	71	CCI-SFP-045100	24.50 - 29.50	1.0000	1.0000
L59	73	CCI-SFP-045100	25.08 - 29.50	1.0000	1.0000
L59	75	CCI-SFP-045100	25.08 - 29.50	1.0000	1.0000
L60	2	FB-L98B-034-XXX(3/8)	23.00 - 24.50	1.0000	1.0000
L60	3	PWRT-608-S(13/16)	23.00 - 24.50	1.0000	1.0000
L60	4	PWRT-606-S(7/8)	23.00 - 24.50	1.0000	1.0000
L60	5	RFFT-48SM-001-XXX(3/8)	23.00 - 24.50	1.0000	1.0000
L60	7	7983A(ELLIPTICAL)	23.00 - 24.50	1.0000	1.0000
L60	12	CU12PSM9P6XXX(1-1/2)	23.00 - 24.50	1.0000	1.0000
L60	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	23.00 - 24.50	1.0000	1.0000
L60	26	Safety Line 3/8	23.00 - 24.50	1.0000	1.0000
L60	28	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	29	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	30	PL1.25x6.875 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	46	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	47	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	48	PL1x4 Reinforcement	23.00 - 24.50	1.0000	1.0000
L60	66	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	67	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	69	CCI-SFP-060100	23.00 - 24.50	1.0000	1.0000
L60	71	CCI-SFP-045100	23.00 - 24.50	1.0000	1.0000
L61	2	FB-L98B-034-XXX(3/8)	22.75 - 23.00	1.0000	1.0000
L61	3	PWRT-608-S(13/16)	22.75 - 23.00	1.0000	1.0000
L61	4	PWRT-606-S(7/8)	22.75 - 23.00	1.0000	1.0000
L61	5	RFFT-48SM-001-XXX(3/8)	22.75 - 23.00	1.0000	1.0000
L61	7	7983A(ELLIPTICAL)	22.75 - 23.00	1.0000	1.0000
L61	12	CU12PSM9P6XXX(1-1/2)	22.75 - 23.00	1.0000	1.0000
L61	21	MLC HYBRID 6X12	22.75 - 23.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L61	26	6AWGX6(1-1/2)			
L61	26	Safety Line 3/8	22.75 - 23.00	1.0000	1.0000
L61	28	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	29	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	30	PL1.25x6.875 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	46	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	47	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	48	PL1x4 Reinforcement	22.75 - 23.00	1.0000	1.0000
L61	66	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000
L61	67	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000
L61	69	CCI-SFP-060100	22.75 - 23.00	1.0000	1.0000
L61	71	CCI-SFP-045100	22.75 - 23.00	1.0000	1.0000
L62	2	FB-L98B-034-XXX(3/8)	21.58 - 22.75	1.0000	1.0000
L62	3	PWRT-608-S(13/16)	21.58 - 22.75	1.0000	1.0000
L62	4	PWRT-606-S(7/8)	21.58 - 22.75	1.0000	1.0000
L62	5	RFFT-48SM-001-XXX(3/8)	21.58 - 22.75	1.0000	1.0000
L62	7	7983A(ELLIPTICAL)	21.58 - 22.75	1.0000	1.0000
L62	12	CU12PSM9P6XXX(1-1/2)	21.58 - 22.75	1.0000	1.0000
L62	21	MLC HYBRID 6X12	21.58 - 22.75	1.0000	1.0000
L62	26	6AWGX6(1-1/2)			
L62	26	Safety Line 3/8	21.58 - 22.75	1.0000	1.0000
L62	28	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	29	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	30	PL1.25x6.875 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	46	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	47	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	48	PL1x4 Reinforcement	21.58 - 22.75	1.0000	1.0000
L62	66	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	67	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	69	CCI-SFP-060100	21.58 - 22.75	1.0000	1.0000
L62	71	CCI-SFP-045100	21.58 - 22.75	1.0000	1.0000
L63	2	FB-L98B-034-XXX(3/8)	21.33 - 21.58	1.0000	1.0000
L63	3	PWRT-608-S(13/16)	21.33 - 21.58	1.0000	1.0000
L63	4	PWRT-606-S(7/8)	21.33 - 21.58	1.0000	1.0000
L63	5	RFFT-48SM-001-XXX(3/8)	21.33 - 21.58	1.0000	1.0000
L63	7	7983A(ELLIPTICAL)	21.33 - 21.58	1.0000	1.0000
L63	12	CU12PSM9P6XXX(1-1/2)	21.33 - 21.58	1.0000	1.0000
L63	21	MLC HYBRID 6X12	21.33 - 21.58	1.0000	1.0000
L63	26	6AWGX6(1-1/2)			
L63	26	Safety Line 3/8	21.33 - 21.58	1.0000	1.0000
L63	28	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	29	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	30	PL1.25x6.875 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	46	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	47	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	48	PL1x4 Reinforcement	21.33 - 21.58	1.0000	1.0000
L63	66	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	67	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	69	CCI-SFP-060100	21.33 - 21.58	1.0000	1.0000
L63	71	CCI-SFP-045100	21.33 - 21.58	1.0000	1.0000
L64	2	FB-L98B-034-XXX(3/8)	16.33 - 21.33	1.0000	1.0000
L64	3	PWRT-608-S(13/16)	16.33 - 21.33	1.0000	1.0000
L64	4	PWRT-606-S(7/8)	16.33 - 21.33	1.0000	1.0000
L64	5	RFFT-48SM-001-XXX(3/8)	16.33 - 21.33	1.0000	1.0000
L64	7	7983A(ELLIPTICAL)	16.33 - 21.33	1.0000	1.0000
L64	12	CU12PSM9P6XXX(1-1/2)	16.33 - 21.33	1.0000	1.0000
L64	21	MLC HYBRID 6X12	16.33 - 21.33	1.0000	1.0000
L64	26	6AWGX6(1-1/2)			
L64	26	Safety Line 3/8	16.33 - 21.33	1.0000	1.0000
L64	28	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	29	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	30	PL1.25x6.875 Reinforcement	16.33 - 21.33	1.0000	1.0000

# tnxTower

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**Job**  
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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L64	31	PL1.25x6.875 Reinforcement	16.33 - 16.42	1.0000	1.0000
L64	32	PL1.25x6.875 Reinforcement	16.33 - 16.42	1.0000	1.0000
L64	46	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	47	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	48	PL1x4 Reinforcement	16.33 - 21.33	1.0000	1.0000
L64	66	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	67	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	69	CCI-SFP-060100	16.33 - 21.33	1.0000	1.0000
L64	71	CCI-SFP-045100	20.08 - 21.33	1.0000	1.0000
L65	2	FB-L98B-034-XXX(3/8)	12.92 - 16.33	1.0000	1.0000
L65	3	PWRT-608-S(13/16)	12.92 - 16.33	1.0000	1.0000
L65	4	PWRT-606-S(7/8)	12.92 - 16.33	1.0000	1.0000
L65	5	RFFT-48SM-001-XXX(3/8)	12.92 - 16.33	1.0000	1.0000
L65	7	7983A(ELLIPTICAL)	12.92 - 16.33	1.0000	1.0000
L65	12	CU12PSM9P6XXX(1-1/2)	12.92 - 16.33	1.0000	1.0000
L65	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.92 - 16.33	1.0000	1.0000
L65	26	Safety Line 3/8	12.92 - 16.33	1.0000	1.0000
L65	28	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	29	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	30	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	31	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	32	PL1.25x6.875 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	46	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	47	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	48	PL1x4 Reinforcement	12.92 - 16.33	1.0000	1.0000
L65	66	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L65	67	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L65	69	CCI-SFP-060100	12.92 - 16.33	1.0000	1.0000
L66	2	FB-L98B-034-XXX(3/8)	12.67 - 12.92	1.0000	1.0000
L66	3	PWRT-608-S(13/16)	12.67 - 12.92	1.0000	1.0000
L66	4	PWRT-606-S(7/8)	12.67 - 12.92	1.0000	1.0000
L66	5	RFFT-48SM-001-XXX(3/8)	12.67 - 12.92	1.0000	1.0000
L66	7	7983A(ELLIPTICAL)	12.67 - 12.92	1.0000	1.0000
L66	12	CU12PSM9P6XXX(1-1/2)	12.67 - 12.92	1.0000	1.0000
L66	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.67 - 12.92	1.0000	1.0000
L66	26	Safety Line 3/8	12.67 - 12.92	1.0000	1.0000
L66	28	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	29	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	30	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	31	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	32	PL1.25x6.875 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	46	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	47	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	48	PL1x4 Reinforcement	12.67 - 12.92	1.0000	1.0000
L66	66	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L66	67	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L66	69	CCI-SFP-060100	12.67 - 12.92	1.0000	1.0000
L67	2	FB-L98B-034-XXX(3/8)	12.50 - 12.67	1.0000	1.0000
L67	3	PWRT-608-S(13/16)	12.50 - 12.67	1.0000	1.0000
L67	4	PWRT-606-S(7/8)	12.50 - 12.67	1.0000	1.0000
L67	5	RFFT-48SM-001-XXX(3/8)	12.50 - 12.67	1.0000	1.0000
L67	7	7983A(ELLIPTICAL)	12.50 - 12.67	1.0000	1.0000
L67	12	CU12PSM9P6XXX(1-1/2)	12.50 - 12.67	1.0000	1.0000
L67	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.50 - 12.67	1.0000	1.0000
L67	26	Safety Line 3/8	12.50 - 12.67	1.0000	1.0000
L67	28	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	29	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	30	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	31	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000

# tnxTower

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**Job**  
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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L67	32	PL1.25x6.875 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	46	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	47	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	48	PL1x4 Reinforcement	12.50 - 12.67	1.0000	1.0000
L67	66	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L67	67	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L67	69	CCI-SFP-060100	12.50 - 12.67	1.0000	1.0000
L68	2	FB-L98B-034-XXX(3/8)	12.25 - 12.50	1.0000	1.0000
L68	3	PWRT-608-S(13/16)	12.25 - 12.50	1.0000	1.0000
L68	4	PWRT-606-S(7/8)	12.25 - 12.50	1.0000	1.0000
L68	5	RFFT-48SM-001-XXX(3/8)	12.25 - 12.50	1.0000	1.0000
L68	7	7983A(ELLIPTICAL)	12.25 - 12.50	1.0000	1.0000
L68	12	CU12PSM9P6XXX(1-1/2)	12.25 - 12.50	1.0000	1.0000
L68	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.25 - 12.50	1.0000	1.0000
L68	26	Safety Line 3/8	12.25 - 12.50	1.0000	1.0000
L68	28	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	29	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	30	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	31	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	32	PL1.25x6.875 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	46	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	47	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	48	PL1x4 Reinforcement	12.25 - 12.50	1.0000	1.0000
L68	66	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L68	67	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L68	69	CCI-SFP-060100	12.25 - 12.50	1.0000	1.0000
L69	2	FB-L98B-034-XXX(3/8)	12.00 - 12.25	1.0000	1.0000
L69	3	PWRT-608-S(13/16)	12.00 - 12.25	1.0000	1.0000
L69	4	PWRT-606-S(7/8)	12.00 - 12.25	1.0000	1.0000
L69	5	RFFT-48SM-001-XXX(3/8)	12.00 - 12.25	1.0000	1.0000
L69	7	7983A(ELLIPTICAL)	12.00 - 12.25	1.0000	1.0000
L69	12	CU12PSM9P6XXX(1-1/2)	12.00 - 12.25	1.0000	1.0000
L69	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	12.00 - 12.25	1.0000	1.0000
L69	26	Safety Line 3/8	12.00 - 12.25	1.0000	1.0000
L69	28	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	29	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	30	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	31	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	32	PL1.25x6.875 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	46	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	47	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	48	PL1x4 Reinforcement	12.00 - 12.25	1.0000	1.0000
L69	66	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L69	67	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L69	69	CCI-SFP-060100	12.00 - 12.25	1.0000	1.0000
L70	2	FB-L98B-034-XXX(3/8)	11.75 - 12.00	1.0000	1.0000
L70	3	PWRT-608-S(13/16)	11.75 - 12.00	1.0000	1.0000
L70	4	PWRT-606-S(7/8)	11.75 - 12.00	1.0000	1.0000
L70	5	RFFT-48SM-001-XXX(3/8)	11.75 - 12.00	1.0000	1.0000
L70	7	7983A(ELLIPTICAL)	11.75 - 12.00	1.0000	1.0000
L70	12	CU12PSM9P6XXX(1-1/2)	11.75 - 12.00	1.0000	1.0000
L70	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	11.75 - 12.00	1.0000	1.0000
L70	26	Safety Line 3/8	11.75 - 12.00	1.0000	1.0000
L70	28	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	29	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	30	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	31	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	32	PL1.25x6.875 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	46	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000

# tnxTower

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**Job**  
79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
**Date**  
15:59:42 03/26/22

**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L70	47	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	48	PL1x4 Reinforcement	11.75 - 12.00	1.0000	1.0000
L70	66	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L70	67	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L70	69	CCI-SFP-060100	11.75 - 12.00	1.0000	1.0000
L71	2	FB-L98B-034-XXX(3/8)	8.50 - 11.75	1.0000	1.0000
L71	3	PWRT-608-S(13/16)	8.50 - 11.75	1.0000	1.0000
L71	4	PWRT-606-S(7/8)	8.50 - 11.75	1.0000	1.0000
L71	5	RFFT-48SM-001-XXX(3/8)	8.50 - 11.75	1.0000	1.0000
L71	7	7983A(ELLIPTICAL)	8.50 - 11.75	1.0000	1.0000
L71	12	CU12PSM9P6XXX(1-1/2)	8.50 - 11.75	1.0000	1.0000
L71	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	8.50 - 11.75	1.0000	1.0000
L71	26	Safety Line 3/8	8.50 - 11.75	1.0000	1.0000
L71	28	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	29	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	30	PL1.25x6.875 Reinforcement	9.17 - 11.75	1.0000	1.0000
L71	31	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	32	PL1.25x6.875 Reinforcement	8.50 - 11.75	1.0000	1.0000
L71	46	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	47	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	48	PL1x4 Reinforcement	10.75 - 11.75	1.0000	1.0000
L71	62	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	63	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	64	Transition Stiffener 1x7	8.50 - 10.50	1.0000	1.0000
L71	66	CCI-SFP-060100	8.50 - 11.75	1.0000	1.0000
L71	67	CCI-SFP-060100	8.50 - 11.75	1.0000	1.0000
L71	69	CCI-SFP-060100	10.00 - 11.75	1.0000	1.0000
L72	2	FB-L98B-034-XXX(3/8)	8.25 - 8.50	1.0000	1.0000
L72	3	PWRT-608-S(13/16)	8.25 - 8.50	1.0000	1.0000
L72	4	PWRT-606-S(7/8)	8.25 - 8.50	1.0000	1.0000
L72	5	RFFT-48SM-001-XXX(3/8)	8.25 - 8.50	1.0000	1.0000
L72	7	7983A(ELLIPTICAL)	8.25 - 8.50	1.0000	1.0000
L72	12	CU12PSM9P6XXX(1-1/2)	8.25 - 8.50	1.0000	1.0000
L72	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	8.25 - 8.50	1.0000	1.0000
L72	26	Safety Line 3/8	8.25 - 8.50	1.0000	1.0000
L72	28	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	29	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	31	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	32	PL1.25x6.875 Reinforcement	8.25 - 8.50	1.0000	1.0000
L72	62	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	63	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	64	Transition Stiffener 1x7	8.25 - 8.50	1.0000	1.0000
L72	66	CCI-SFP-060100	8.25 - 8.50	1.0000	1.0000
L72	67	CCI-SFP-060100	8.25 - 8.50	1.0000	1.0000
L73	2	FB-L98B-034-XXX(3/8)	7.00 - 8.25	1.0000	1.0000
L73	3	PWRT-608-S(13/16)	7.00 - 8.25	1.0000	1.0000
L73	4	PWRT-606-S(7/8)	7.00 - 8.25	1.0000	1.0000
L73	5	RFFT-48SM-001-XXX(3/8)	7.00 - 8.25	1.0000	1.0000
L73	7	7983A(ELLIPTICAL)	7.00 - 8.25	1.0000	1.0000
L73	12	CU12PSM9P6XXX(1-1/2)	7.00 - 8.25	1.0000	1.0000
L73	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	7.00 - 8.25	1.0000	1.0000
L73	26	Safety Line 3/8	7.00 - 8.25	1.0000	1.0000
L73	28	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	29	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	31	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	32	PL1.25x6.875 Reinforcement	7.00 - 8.25	1.0000	1.0000
L73	62	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000
L73	63	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000
L73	64	Transition Stiffener 1x7	7.00 - 8.25	1.0000	1.0000

**tnxTower**

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L73	66	CCI-SFP-060100	7.00 - 8.25	1.0000	1.0000
L73	67	CCI-SFP-060100	7.00 - 8.25	1.0000	1.0000
L74	2	FB-L98B-034-XXX(3/8)	6.75 - 7.00	1.0000	1.0000
L74	3	PWRT-608-S(13/16)	6.75 - 7.00	1.0000	1.0000
L74	4	PWRT-606-S(7/8)	6.75 - 7.00	1.0000	1.0000
L74	5	RFFT-48SM-001-XXX(3/8)	6.75 - 7.00	1.0000	1.0000
L74	7	7983A(ELLIPTICAL)	6.75 - 7.00	1.0000	1.0000
L74	12	CU12PSM9P6XXX(1-1/2)	6.75 - 7.00	1.0000	1.0000
L74	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	6.75 - 7.00	1.0000	1.0000
L74	26	Safety Line 3/8	6.75 - 7.00	1.0000	1.0000
L74	28	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	29	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	31	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	32	PL1.25x6.875 Reinforcement	6.75 - 7.00	1.0000	1.0000
L74	62	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	63	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	64	Transition Stiffener 1x7	6.75 - 7.00	1.0000	1.0000
L74	66	CCI-SFP-060100	6.75 - 7.00	1.0000	1.0000
L74	67	CCI-SFP-060100	6.75 - 7.00	1.0000	1.0000
L75	2	FB-L98B-034-XXX(3/8)	1.75 - 6.75	1.0000	1.0000
L75	3	PWRT-608-S(13/16)	1.75 - 6.75	1.0000	1.0000
L75	4	PWRT-606-S(7/8)	1.75 - 6.75	1.0000	1.0000
L75	5	RFFT-48SM-001-XXX(3/8)	1.75 - 6.75	1.0000	1.0000
L75	7	7983A(ELLIPTICAL)	1.75 - 6.75	1.0000	1.0000
L75	12	CU12PSM9P6XXX(1-1/2)	1.75 - 6.75	1.0000	1.0000
L75	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	1.75 - 6.75	1.0000	1.0000
L75	26	Safety Line 3/8	1.75 - 6.75	1.0000	1.0000
L75	28	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	29	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	31	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	32	PL1.25x6.875 Reinforcement	1.75 - 6.75	1.0000	1.0000
L75	62	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	63	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	64	Transition Stiffener 1x7	1.75 - 6.75	1.0000	1.0000
L75	66	CCI-SFP-060100	5.00 - 6.75	1.0000	1.0000
L75	67	CCI-SFP-060100	5.00 - 6.75	1.0000	1.0000
L76	2	FB-L98B-034-XXX(3/8)	0.00 - 1.75	1.0000	1.0000
L76	3	PWRT-608-S(13/16)	0.00 - 1.75	1.0000	1.0000
L76	4	PWRT-606-S(7/8)	0.00 - 1.75	1.0000	1.0000
L76	5	RFFT-48SM-001-XXX(3/8)	0.00 - 1.75	1.0000	1.0000
L76	7	7983A(ELLIPTICAL)	0.00 - 1.75	1.0000	1.0000
L76	12	CU12PSM9P6XXX(1-1/2)	0.00 - 1.75	1.0000	1.0000
L76	21	MLC HYBRID 6X12 6AWGX6(1-1/2)	0.00 - 1.75	1.0000	1.0000
L76	26	Safety Line 3/8	0.00 - 1.75	1.0000	1.0000
L76	28	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	29	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	31	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	32	PL1.25x6.875 Reinforcement	0.00 - 1.75	1.0000	1.0000
L76	62	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000
L76	63	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000
L76	64	Transition Stiffener 1x7	0.00 - 1.75	1.0000	1.0000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 47 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

### Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L5	92	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L5	93	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L5	94	CCI-AFP-045100	124.25 - 125.42	Auto	0.1983
L6	92	CCI-AFP-045100	123.42 - 124.25	Auto	0.1865
L6	93	CCI-AFP-045100	123.42 - 124.25	Auto	0.1865
L6	94	CCI-AFP-045100	123.42 - 124.25	Auto	0.1865
L7	92	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L7	93	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L7	94	CCI-AFP-045100	123.17 - 123.42	Auto	0.3886
L8	92	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L8	93	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L8	94	CCI-AFP-045100	118.17 - 123.17	Auto	0.3429
L9	92	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L9	93	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L9	94	CCI-AFP-045100	113.17 - 118.17	Auto	0.2693
L10	92	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	93	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	94	CCI-AFP-045100	109.50 - 113.17	Auto	0.2110
L10	96	CCI-AFP-040075	109.50 - 111.00	Auto	0.0981
L10	98	CCI-AFP-040075	109.50 - 111.00	Auto	0.0981
L11	92	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	93	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	94	CCI-AFP-045100	109.25 - 109.50	Auto	0.2550
L11	96	CCI-AFP-040075	109.25 - 109.50	Auto	0.1619
L11	98	CCI-AFP-040075	109.25 - 109.50	Auto	0.1619
L12	58	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	59	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	60	PL1x4 Reinforcement	104.75 - 106.50	Auto	0.0956
L12	90	CCI-AFP-05012520	104.75 - 105.33	Auto	0.2703



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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L12	92	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	93	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	94	CCI-AFP-045100	104.75 - 109.25	Auto	0.2122
L12	96	CCI-AFP-040075	104.75 - 109.25	Auto	0.1138
L12	98	CCI-AFP-040075	104.75 - 109.25	Auto	0.1138
L13	58	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248
L13	59	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248
L13	60	PL1x4 Reinforcement	104.50 - 104.75	Auto	0.2248
L13	90	CCI-AFP-05012520	104.50 - 104.75	Auto	0.3798
L13	92	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	93	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	94	CCI-AFP-045100	104.50 - 104.75	Auto	0.3109
L13	96	CCI-AFP-040075	104.50 - 104.75	Auto	0.2248
L13	98	CCI-AFP-040075	104.50 - 104.75	Auto	0.2248
L14	58	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	59	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	60	PL1x4 Reinforcement	102.42 - 104.50	Auto	0.2010
L14	90	CCI-AFP-05012520	102.42 - 104.50	Auto	0.3608
L14	92	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	93	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	94	CCI-AFP-045100	102.42 - 104.50	Auto	0.2897
L14	96	CCI-AFP-040075	102.42 - 104.50	Auto	0.2010
L14	98	CCI-AFP-040075	102.42 - 104.50	Auto	0.2010
L15	58	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	59	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	60	PL1x4 Reinforcement	102.17 - 102.42	Auto	0.0515
L15	90	CCI-AFP-05012520	102.17 - 102.42	Auto	0.2412
L15	92	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	93	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	94	CCI-AFP-045100	102.17 - 102.42	Auto	0.1569
L15	96	CCI-AFP-040075	102.17 -	Auto	0.0515

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L15	98	CCI-AFP-040075	102.42 102.17 - 102.42	Auto	0.0515
L16	42	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	43	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	44	PL1.25x3.625 Reinforcement	98.75 - 100.00	Auto	0.0000
L16	58	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	59	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	60	PL1x4 Reinforcement	98.75 - 102.17	Auto	0.0191
L16	85	CCI-SFP-040075	98.75 - 100.33	Auto	0.0071
L16	86	CCI-SFP-040075	98.75 - 100.33	Auto	0.0071
L16	90	CCI-AFP-05012520	98.75 - 102.17	Auto	0.2152
L16	92	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	93	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	94	CCI-AFP-045100	100.42 - 102.17	Auto	0.1377
L16	96	CCI-AFP-040075	98.75 - 102.17	Auto	0.0191
L16	98	CCI-AFP-040075	101.00 - 102.17	Auto	0.0338
L17	42	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	43	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	44	PL1.25x3.625 Reinforcement	98.50 - 98.75	Auto	0.1033
L17	58	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	59	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	60	PL1x4 Reinforcement	98.50 - 98.75	Auto	0.1874
L17	85	CCI-SFP-040075	98.50 - 98.75	Auto	0.1874
L17	86	CCI-SFP-040075	98.50 - 98.75	Auto	0.1874
L17	90	CCI-AFP-05012520	98.50 - 98.75	Auto	0.3499
L17	96	CCI-AFP-040075	98.50 - 98.75	Auto	0.1874
L18	42	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	43	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	44	PL1.25x3.625 Reinforcement	97.50 - 98.50	Auto	0.0942
L18	58	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	59	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	60	PL1x4 Reinforcement	97.50 - 98.50	Auto	0.1791
L18	85	CCI-SFP-040075	97.50 - 98.50	Auto	0.1791
L18	86	CCI-SFP-040075	97.50 - 98.50	Auto	0.1791
L18	90	CCI-AFP-05012520	97.50 - 98.50	Auto	0.3433
L18	96	CCI-AFP-040075	97.50 - 98.50	Auto	0.1791
L19	42	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	43	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	44	PL1.25x3.625 Reinforcement	97.25 - 97.50	Auto	0.0204
L19	58	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	59	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	60	PL1x4 Reinforcement	97.25 - 97.50	Auto	0.1122
L19	85	CCI-SFP-040075	97.25 - 97.50	Auto	0.1122
L19	86	CCI-SFP-040075	97.25 - 97.50	Auto	0.1122
L19	90	CCI-AFP-05012520	97.25 - 97.50	Auto	0.2898
L19	96	CCI-AFP-040075	97.25 - 97.50	Auto	0.1122
L20	42	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	43	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	44	PL1.25x3.625 Reinforcement	92.00 - 97.25	Auto	0.0006
L20	58	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	59	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	60	PL1x4 Reinforcement	92.00 - 97.25	Auto	0.0675
L20	85	CCI-SFP-040075	92.00 - 97.25	Auto	0.0675
L20	86	CCI-SFP-040075	92.00 - 97.25	Auto	0.0675
L20	90	CCI-AFP-05012520	92.00 - 97.25	Auto	0.2540
L20	96	CCI-AFP-040075	96.00 - 97.25	Auto	0.0939

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L21	42	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	43	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	44	PL1.25x3.625 Reinforcement	90.55 - 92.00	Auto	0.0009
L21	58	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	59	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	60	PL1x4 Reinforcement	90.55 - 92.00	Auto	0.0897
L21	85	CCI-SFP-040075	90.55 - 92.00	Auto	0.0897
L21	86	CCI-SFP-040075	90.55 - 92.00	Auto	0.0897
L21	90	CCI-AFP-05012520	90.55 - 92.00	Auto	0.2718
L22	42	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000
L22	43	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000
L22	44	PL1.25x3.625 Reinforcement	89.25 - 90.55	Auto	0.0000
L22	58	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	59	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	60	PL1x4 Reinforcement	89.25 - 90.55	Auto	0.0546
L22	85	CCI-SFP-040075	89.25 - 90.55	Auto	0.0546
L22	86	CCI-SFP-040075	89.25 - 90.55	Auto	0.0546
L22	88	CCI-SFP-040075	89.25 - 90.33	Auto	0.0532
L22	90	CCI-AFP-05012520	89.25 - 90.55	Auto	0.2437
L23	38	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	39	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	40	PL1.25x5.5 Reinforcement	89.00 - 89.25	Auto	0.4146
L23	58	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	59	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	60	PL1x4 Reinforcement	89.00 - 89.25	Auto	0.1950
L23	85	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	86	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	88	CCI-SFP-040075	89.00 - 89.25	Auto	0.1950
L23	90	CCI-AFP-05012520	89.00 - 89.25	Auto	0.3560
L24	38	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	39	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	40	PL1.25x5.5 Reinforcement	88.25 - 89.00	Auto	0.3975
L24	58	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	59	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	60	PL1x4 Reinforcement	88.25 - 89.00	Auto	0.1716
L24	85	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	86	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	88	CCI-SFP-040075	88.25 - 89.00	Auto	0.1716
L24	90	CCI-AFP-05012520	88.25 - 89.00	Auto	0.3373
L25	38	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	39	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	40	PL1.25x5.5 Reinforcement	88.00 - 88.25	Auto	0.2891
L25	58	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	59	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	60	PL1x4 Reinforcement	88.00 - 88.25	Auto	0.0226
L25	85	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	86	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	88	CCI-SFP-040075	88.00 - 88.25	Auto	0.0226
L25	90	CCI-AFP-05012520	88.00 - 88.25	Auto	0.2181
L26	38	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	39	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	40	PL1.25x5.5 Reinforcement	87.83 - 88.00	Auto	0.2871
L26	58	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	59	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	60	PL1x4 Reinforcement	87.83 - 88.00	Auto	0.0198
L26	85	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	86	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	88	CCI-SFP-040075	87.83 - 88.00	Auto	0.0198
L26	90	CCI-AFP-05012520	87.83 - 88.00	Auto	0.2158
L27	38	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425
L27	39	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425

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Crown Castle  
**Designed by**  
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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L27	40	PL1.25x5.5 Reinforcement	87.58 - 87.83	Auto	0.2425
L27	58	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	59	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	60	PL1x4 Reinforcement	87.58 - 87.83	Auto	0.0000
L27	85	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	86	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	88	CCI-SFP-040075	87.58 - 87.83	Auto	0.0000
L27	90	CCI-AFP-05012520	87.58 - 87.83	Auto	0.1667
L28	38	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	39	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	40	PL1.25x5.5 Reinforcement	82.58 - 87.58	Auto	0.2048
L28	58	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000
L28	59	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000
L28	60	PL1x4 Reinforcement	86.50 - 87.58	Auto	0.0000
L28	85	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	86	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	88	CCI-SFP-040075	82.58 - 87.58	Auto	0.0000
L28	90	CCI-AFP-05012520	85.33 - 87.58	Auto	0.1400
L29	38	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	39	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	40	PL1.25x5.5 Reinforcement	77.58 - 82.58	Auto	0.1441
L29	54	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	55	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	56	PL1x4 Reinforcement	77.58 - 78.75	Auto	0.0000
L29	85	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L29	86	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L29	88	CCI-SFP-040075	77.58 - 82.58	Auto	0.0000
L30	38	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	39	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	40	PL1.25x5.5 Reinforcement	77.00 - 77.58	Auto	0.1170
L30	54	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	55	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	56	PL1x4 Reinforcement	77.00 - 77.58	Auto	0.0000
L30	85	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L30	86	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L30	88	CCI-SFP-040075	77.00 - 77.58	Auto	0.0000
L31	38	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	39	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	40	PL1.25x5.5 Reinforcement	76.75 - 77.00	Auto	0.2105
L31	54	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	55	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	56	PL1x4 Reinforcement	76.75 - 77.00	Auto	0.0000
L31	85	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L31	86	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L31	88	CCI-SFP-040075	76.75 - 77.00	Auto	0.0000
L32	38	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	39	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	40	PL1.25x5.5 Reinforcement	76.33 - 76.75	Auto	0.2072
L32	54	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	55	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	56	PL1x4 Reinforcement	76.33 - 76.75	Auto	0.0000
L32	85	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L32	86	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L32	88	CCI-SFP-040075	76.33 - 76.75	Auto	0.0000
L33	38	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	39	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	40	PL1.25x5.5 Reinforcement	76.08 - 76.33	Auto	0.2040
L33	54	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	55	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	56	PL1x4 Reinforcement	76.08 - 76.33	Auto	0.0000
L33	85	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L33	86	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000
L33	88	CCI-SFP-040075	76.08 - 76.33	Auto	0.0000
L34	38	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	39	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	40	PL1.25x5.5 Reinforcement	74.25 - 76.08	Auto	0.1817
L34	54	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	55	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	56	PL1x4 Reinforcement	74.25 - 76.08	Auto	0.0000
L34	80	CCI-SFP-045100	74.25 - 75.25	Auto	0.0000
L34	81	CCI-SFP-045100	74.25 - 75.25	Auto	0.0000
L34	83	CCI-SFP-040075	74.25 - 75.25	Auto	0.0000
L34	85	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000
L34	86	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000
L34	88	CCI-SFP-040075	75.33 - 76.08	Auto	0.0000
L35	38	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	39	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	40	PL1.25x5.5 Reinforcement	74.00 - 74.25	Auto	0.2142
L35	54	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	55	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	56	PL1x4 Reinforcement	74.00 - 74.25	Auto	0.0000
L35	80	CCI-SFP-045100	74.00 - 74.25	Auto	0.0396
L35	81	CCI-SFP-045100	74.00 - 74.25	Auto	0.0396
L35	83	CCI-SFP-040075	74.00 - 74.25	Auto	0.0000
L36	38	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	39	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	40	PL1.25x5.5 Reinforcement	73.75 - 74.00	Auto	0.2118
L36	54	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	55	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	56	PL1x4 Reinforcement	73.75 - 74.00	Auto	0.0000
L36	80	CCI-SFP-045100	73.75 - 74.00	Auto	0.0367
L36	81	CCI-SFP-045100	73.75 - 74.00	Auto	0.0367
L36	83	CCI-SFP-040075	73.75 - 74.00	Auto	0.0000
L37	38	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	39	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	40	PL1.25x5.5 Reinforcement	73.50 - 73.75	Auto	0.2216
L37	54	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	55	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	56	PL1x4 Reinforcement	73.50 - 73.75	Auto	0.0000
L37	80	CCI-SFP-045100	73.50 - 73.75	Auto	0.0486
L37	81	CCI-SFP-045100	73.50 - 73.75	Auto	0.0486
L37	83	CCI-SFP-040075	73.50 - 73.75	Auto	0.0000
L38	38	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	39	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	40	PL1.25x5.5 Reinforcement	68.50 - 73.50	Auto	0.1778
L38	54	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	55	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	56	PL1x4 Reinforcement	68.50 - 73.50	Auto	0.0000
L38	80	CCI-SFP-045100	68.50 - 73.50	Auto	0.0052
L38	81	CCI-SFP-045100	68.50 - 73.50	Auto	0.0052
L38	83	CCI-SFP-040075	68.50 - 73.50	Auto	0.0000
L39	38	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	39	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	40	PL1.25x5.5 Reinforcement	63.50 - 68.50	Auto	0.1171
L39	54	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	55	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	56	PL1x4 Reinforcement	63.50 - 68.50	Auto	0.0000
L39	80	CCI-SFP-045100	63.50 - 68.50	Auto	0.0000
L39	81	CCI-SFP-045100	63.50 - 68.50	Auto	0.0000
L39	83	CCI-SFP-040075	63.50 - 68.50	Auto	0.0000
L40	38	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661
L40	39	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661

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Crown Castle  
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Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L40	40	PL1.25x5.5 Reinforcement	60.50 - 63.50	Auto	0.0661
L40	50	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	51	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	52	PL1x4 Reinforcement	60.50 - 62.25	Auto	0.0000
L40	54	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	55	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	56	PL1x4 Reinforcement	60.50 - 63.50	Auto	0.0000
L40	80	CCI-SFP-045100	60.50 - 63.50	Auto	0.0000
L40	81	CCI-SFP-045100	60.50 - 63.50	Auto	0.0000
L40	83	CCI-SFP-040075	60.50 - 63.50	Auto	0.0000
L41	38	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504
L41	39	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504
L41	40	PL1.25x5.5 Reinforcement	60.25 - 60.50	Auto	0.0504
L41	50	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	51	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	52	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	54	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	55	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	56	PL1x4 Reinforcement	60.25 - 60.50	Auto	0.0000
L41	80	CCI-SFP-045100	60.25 - 60.50	Auto	0.0000
L41	81	CCI-SFP-045100	60.25 - 60.50	Auto	0.0000
L41	83	CCI-SFP-040075	60.25 - 60.50	Auto	0.0000
L42	38	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	39	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	40	PL1.25x5.5 Reinforcement	59.50 - 60.25	Auto	0.0455
L42	50	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	51	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	52	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	54	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	55	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	56	PL1x4 Reinforcement	59.50 - 60.25	Auto	0.0000
L42	80	CCI-SFP-045100	59.50 - 60.25	Auto	0.0000
L42	81	CCI-SFP-045100	59.50 - 60.25	Auto	0.0000
L42	83	CCI-SFP-040075	59.50 - 60.25	Auto	0.0000
L43	34	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	35	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	36	PL1.25x6.625 Reinforcement	59.25 - 59.50	Auto	0.2289
L43	50	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	51	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	52	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	54	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	55	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	56	PL1x4 Reinforcement	59.25 - 59.50	Auto	0.0000
L43	80	CCI-SFP-045100	59.25 - 59.50	Auto	0.0000
L43	81	CCI-SFP-045100	59.25 - 59.50	Auto	0.0000
L43	83	CCI-SFP-040075	59.25 - 59.50	Auto	0.0000
L44	34	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	35	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	36	PL1.25x6.625 Reinforcement	54.25 - 59.25	Auto	0.1926
L44	50	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	51	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	52	PL1x4 Reinforcement	54.25 - 59.25	Auto	0.0000
L44	54	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	55	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	56	PL1x4 Reinforcement	58.75 - 59.25	Auto	0.0000
L44	80	CCI-SFP-045100	54.25 - 59.25	Auto	0.0000
L44	81	CCI-SFP-045100	54.25 - 59.25	Auto	0.0000
L44	83	CCI-SFP-040075	54.25 - 59.25	Auto	0.0000
L45	34	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333
L45	35	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333
L45	36	PL1.25x6.625 Reinforcement	45.80 - 54.25	Auto	0.1333



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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L45	50	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	51	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	52	PL1x4 Reinforcement	45.80 - 54.25	Auto	0.0000
L45	80	CCI-SFP-045100	45.80 - 54.25	Auto	0.0000
L45	81	CCI-SFP-045100	45.80 - 54.25	Auto	0.0000
L45	83	CCI-SFP-040075	45.80 - 54.25	Auto	0.0000
L46	34	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	35	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	36	PL1.25x6.625 Reinforcement	44.80 - 45.80	Auto	0.1157
L46	50	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000
L46	51	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000
L46	52	PL1x4 Reinforcement	44.80 - 45.80	Auto	0.0000
L46	75	CCI-SFP-045100	44.80 - 45.08	Auto	0.0000
L46	77	CCI-SFP-060100	44.80 - 45.17	Auto	0.0208
L46	78	CCI-SFP-060100	44.80 - 45.17	Auto	0.0208
L46	80	CCI-SFP-045100	45.25 - 45.80	Auto	0.0000
L46	81	CCI-SFP-045100	45.25 - 45.80	Auto	0.0000
L46	83	CCI-SFP-040075	45.25 - 45.80	Auto	0.0000
L47	34	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	35	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	36	PL1.25x6.625 Reinforcement	43.58 - 44.80	Auto	0.1069
L47	50	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	51	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	52	PL1x4 Reinforcement	43.58 - 44.80	Auto	0.0000
L47	75	CCI-SFP-045100	43.58 - 44.80	Auto	0.0000
L47	77	CCI-SFP-060100	43.58 - 44.80	Auto	0.0138
L47	78	CCI-SFP-060100	43.58 - 44.80	Auto	0.0138
L48	34	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	35	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	36	PL1.25x6.625 Reinforcement	43.33 - 43.58	Auto	0.1060
L48	50	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	51	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	52	PL1x4 Reinforcement	43.33 - 43.58	Auto	0.0000
L48	75	CCI-SFP-045100	43.33 - 43.58	Auto	0.0000
L48	77	CCI-SFP-060100	43.33 - 43.58	Auto	0.0129
L48	78	CCI-SFP-060100	43.33 - 43.58	Auto	0.0129
L49	34	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	35	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	36	PL1.25x6.625 Reinforcement	43.17 - 43.33	Auto	0.1044
L49	50	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	51	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	52	PL1x4 Reinforcement	43.17 - 43.33	Auto	0.0000
L49	75	CCI-SFP-045100	43.17 - 43.33	Auto	0.0000
L49	77	CCI-SFP-060100	43.17 - 43.33	Auto	0.0111
L49	78	CCI-SFP-060100	43.17 - 43.33	Auto	0.0111
L50	34	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	35	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	36	PL1.25x6.625 Reinforcement	42.92 - 43.17	Auto	0.1381
L50	50	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	51	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	52	PL1x4 Reinforcement	42.92 - 43.17	Auto	0.0000
L50	75	CCI-SFP-045100	42.92 - 43.17	Auto	0.0000
L50	77	CCI-SFP-060100	42.92 - 43.17	Auto	0.0483
L50	78	CCI-SFP-060100	42.92 - 43.17	Auto	0.0483
L51	34	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	35	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	36	PL1.25x6.625 Reinforcement	39.00 - 42.92	Auto	0.1113
L51	48	PL1x4 Reinforcement	39.00 - 40.75	Auto	0.0000
L51	50	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000
L51	51	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000
L51	52	PL1x4 Reinforcement	39.00 - 42.92	Auto	0.0000



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**B+T Group**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L51	75	CCI-SFP-045100	39.00 - 42.92	Auto	0.0000
L51	77	CCI-SFP-060100	39.00 - 42.92	Auto	0.0187
L51	78	CCI-SFP-060100	39.00 - 42.92	Auto	0.0187
L52	34	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	35	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	36	PL1.25x6.625 Reinforcement	38.75 - 39.00	Auto	0.1098
L52	48	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	50	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	51	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	52	PL1x4 Reinforcement	38.75 - 39.00	Auto	0.0000
L52	75	CCI-SFP-045100	38.75 - 39.00	Auto	0.0000
L52	77	CCI-SFP-060100	38.75 - 39.00	Auto	0.0171
L52	78	CCI-SFP-060100	38.75 - 39.00	Auto	0.0171
L53	34	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	35	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	36	PL1.25x6.625 Reinforcement	37.17 - 38.75	Auto	0.0974
L53	48	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	50	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	51	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	52	PL1x4 Reinforcement	37.17 - 38.75	Auto	0.0000
L53	75	CCI-SFP-045100	37.17 - 38.75	Auto	0.0000
L53	77	CCI-SFP-060100	37.17 - 38.75	Auto	0.0038
L53	78	CCI-SFP-060100	37.17 - 38.75	Auto	0.0038
L54	34	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	35	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	36	PL1.25x6.625 Reinforcement	36.92 - 37.17	Auto	0.0698
L54	48	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	50	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	51	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	52	PL1x4 Reinforcement	36.92 - 37.17	Auto	0.0000
L54	75	CCI-SFP-045100	36.92 - 37.17	Auto	0.0000
L54	77	CCI-SFP-060100	36.92 - 37.17	Auto	0.0000
L54	78	CCI-SFP-060100	36.92 - 37.17	Auto	0.0000
L55	34	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	35	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	36	PL1.25x6.625 Reinforcement	34.00 - 36.92	Auto	0.0572
L55	46	PL1x4 Reinforcement	34.00 - 35.75	Auto	0.0000
L55	47	PL1x4 Reinforcement	34.00 - 35.75	Auto	0.0000
L55	48	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	50	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	51	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	52	PL1x4 Reinforcement	34.00 - 36.92	Auto	0.0000
L55	71	CCI-SFP-045100	34.00 - 35.08	Auto	0.0000
L55	73	CCI-SFP-045100	34.00 - 35.08	Auto	0.0000
L55	75	CCI-SFP-045100	34.00 - 36.92	Auto	0.0000
L55	77	CCI-SFP-060100	35.17 - 36.92	Auto	0.0000
L55	78	CCI-SFP-060100	35.17 - 36.92	Auto	0.0000
L56	34	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	35	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	36	PL1.25x6.625 Reinforcement	33.75 - 34.00	Auto	0.0394
L56	46	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	47	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	48	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	50	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	51	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	52	PL1x4 Reinforcement	33.75 - 34.00	Auto	0.0000
L56	71	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L56	73	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L56	75	CCI-SFP-045100	33.75 - 34.00	Auto	0.0000
L57	34	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174
L57	35	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174

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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L57	36	PL1.25x6.625 Reinforcement	29.75 - 33.75	Auto	0.0174
L57	46	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	47	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	48	PL1x4 Reinforcement	29.75 - 33.75	Auto	0.0000
L57	50	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	51	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	52	PL1x4 Reinforcement	32.25 - 33.75	Auto	0.0000
L57	71	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L57	73	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L57	75	CCI-SFP-045100	29.75 - 33.75	Auto	0.0000
L58	28	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367
L58	29	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367
L58	30	PL1.25x6.875 Reinforcement	29.50 - 29.75	Auto	0.0367
L58	46	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	47	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	48	PL1x4 Reinforcement	29.50 - 29.75	Auto	0.0000
L58	71	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L58	73	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L58	75	CCI-SFP-045100	29.50 - 29.75	Auto	0.0000
L59	28	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	29	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	30	PL1.25x6.875 Reinforcement	24.50 - 29.50	Auto	0.0123
L59	46	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	47	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	48	PL1x4 Reinforcement	24.50 - 29.50	Auto	0.0000
L59	66	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	67	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	69	CCI-SFP-060100	24.50 - 25.00	Auto	0.0000
L59	71	CCI-SFP-045100	24.50 - 29.50	Auto	0.0000
L59	73	CCI-SFP-045100	25.08 - 29.50	Auto	0.0000
L59	75	CCI-SFP-045100	25.08 - 29.50	Auto	0.0000
L60	28	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	29	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	30	PL1.25x6.875 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	46	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	47	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	48	PL1x4 Reinforcement	23.00 - 24.50	Auto	0.0000
L60	66	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	67	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	69	CCI-SFP-060100	23.00 - 24.50	Auto	0.0000
L60	71	CCI-SFP-045100	23.00 - 24.50	Auto	0.0000
L61	28	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	29	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	30	PL1.25x6.875 Reinforcement	22.75 - 23.00	Auto	0.0236
L61	46	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	47	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	48	PL1x4 Reinforcement	22.75 - 23.00	Auto	0.0000
L61	66	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	67	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	69	CCI-SFP-060100	22.75 - 23.00	Auto	0.0000
L61	71	CCI-SFP-045100	22.75 - 23.00	Auto	0.0000
L62	28	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	29	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	30	PL1.25x6.875 Reinforcement	21.58 - 22.75	Auto	0.0181
L62	46	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	47	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	48	PL1x4 Reinforcement	21.58 - 22.75	Auto	0.0000
L62	66	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	67	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	69	CCI-SFP-060100	21.58 - 22.75	Auto	0.0000
L62	71	CCI-SFP-045100	21.58 - 22.75	Auto	0.0000

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Crown Castle  
**Designed by**  
Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L63	28	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	29	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	30	PL1.25x6.875 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	46	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	47	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	48	PL1x4 Reinforcement	21.33 - 21.58	Auto	0.0000
L63	66	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	67	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	69	CCI-SFP-060100	21.33 - 21.58	Auto	0.0000
L63	71	CCI-SFP-045100	21.33 - 21.58	Auto	0.0000
L64	28	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	29	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	30	PL1.25x6.875 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	31	PL1.25x6.875 Reinforcement	16.33 - 16.42	Auto	0.0000
L64	32	PL1.25x6.875 Reinforcement	16.33 - 16.42	Auto	0.0000
L64	46	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	47	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	48	PL1x4 Reinforcement	16.33 - 21.33	Auto	0.0000
L64	66	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	67	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	69	CCI-SFP-060100	16.33 - 21.33	Auto	0.0000
L64	71	CCI-SFP-045100	20.08 - 21.33	Auto	0.0000
L65	28	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	29	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	30	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	31	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	32	PL1.25x6.875 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	46	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	47	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	48	PL1x4 Reinforcement	12.92 - 16.33	Auto	0.0000
L65	66	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L65	67	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L65	69	CCI-SFP-060100	12.92 - 16.33	Auto	0.0000
L66	28	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	29	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	30	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	31	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	32	PL1.25x6.875 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	46	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	47	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	48	PL1x4 Reinforcement	12.67 - 12.92	Auto	0.0000
L66	66	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L66	67	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L66	69	CCI-SFP-060100	12.67 - 12.92	Auto	0.0000
L67	28	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	29	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	30	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	31	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	32	PL1.25x6.875 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	46	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	47	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	48	PL1x4 Reinforcement	12.50 - 12.67	Auto	0.0000
L67	66	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L67	67	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L67	69	CCI-SFP-060100	12.50 - 12.67	Auto	0.0000
L68	28	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	29	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	30	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	31	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	32	PL1.25x6.875 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	46	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000

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**Client**  
Crown Castle  
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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L68	47	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	48	PL1x4 Reinforcement	12.25 - 12.50	Auto	0.0000
L68	66	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L68	67	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L68	69	CCI-SFP-060100	12.25 - 12.50	Auto	0.0000
L69	28	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	29	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	30	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	31	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	32	PL1.25x6.875 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	46	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	47	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	48	PL1x4 Reinforcement	12.00 - 12.25	Auto	0.0000
L69	66	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L69	67	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L69	69	CCI-SFP-060100	12.00 - 12.25	Auto	0.0000
L70	28	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	29	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	30	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	31	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	32	PL1.25x6.875 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	46	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	47	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	48	PL1x4 Reinforcement	11.75 - 12.00	Auto	0.0000
L70	66	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L70	67	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L70	69	CCI-SFP-060100	11.75 - 12.00	Auto	0.0000
L71	28	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	29	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	30	PL1.25x6.875 Reinforcement	9.17 - 11.75	Auto	0.0000
L71	31	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	32	PL1.25x6.875 Reinforcement	8.50 - 11.75	Auto	0.0000
L71	46	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	47	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	48	PL1x4 Reinforcement	10.75 - 11.75	Auto	0.0000
L71	62	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	63	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	64	Transition Stiffener 1x7	8.50 - 10.50	Auto	0.0000
L71	66	CCI-SFP-060100	8.50 - 11.75	Auto	0.0000
L71	67	CCI-SFP-060100	8.50 - 11.75	Auto	0.0000
L71	69	CCI-SFP-060100	10.00 - 11.75	Auto	0.0000
L72	28	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	29	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	31	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	32	PL1.25x6.875 Reinforcement	8.25 - 8.50	Auto	0.0000
L72	62	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	63	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	64	Transition Stiffener 1x7	8.25 - 8.50	Auto	0.0000
L72	66	CCI-SFP-060100	8.25 - 8.50	Auto	0.0000
L72	67	CCI-SFP-060100	8.25 - 8.50	Auto	0.0000
L73	28	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	29	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	31	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	32	PL1.25x6.875 Reinforcement	7.00 - 8.25	Auto	0.0000
L73	62	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	63	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	64	Transition Stiffener 1x7	7.00 - 8.25	Auto	0.0000
L73	66	CCI-SFP-060100	7.00 - 8.25	Auto	0.0000
L73	67	CCI-SFP-060100	7.00 - 8.25	Auto	0.0000
L74	28	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	29	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000

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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L74	31	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	32	PL1.25x6.875 Reinforcement	6.75 - 7.00	Auto	0.0000
L74	62	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	63	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	64	Transition Stiffener 1x7	6.75 - 7.00	Auto	0.0000
L74	66	CCI-SFP-060100	6.75 - 7.00	Auto	0.0000
L74	67	CCI-SFP-060100	6.75 - 7.00	Auto	0.0000
L75	28	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	29	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	31	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	32	PL1.25x6.875 Reinforcement	1.75 - 6.75	Auto	0.0000
L75	62	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000
L75	63	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000
L75	64	Transition Stiffener 1x7	1.75 - 6.75	Auto	0.0000
L75	66	CCI-SFP-060100	5.00 - 6.75	Auto	0.0000
L75	67	CCI-SFP-060100	5.00 - 6.75	Auto	0.0000
L76	28	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	29	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	31	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	32	PL1.25x6.875 Reinforcement	0.00 - 1.75	Auto	0.0000
L76	62	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000
L76	63	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000
L76	64	Transition Stiffener 1x7	0.00 - 1.75	Auto	0.0000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>Front</sub>	C <sub>A</sub> A <sub>Side</sub>	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
EPBQ-654L8H8-L2 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
EPBQ-654L8H8-L2 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
EPBQ-654L8H8-L2 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	14.860	6.250	0.119
			0.000				1/2" Ice	15.720	7.020	0.228
			-1.000				1" Ice	16.590	7.800	0.351
RRUS 4478 B14	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RRUS 4478 B14	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RRUS 4478 B14	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.843	1.059	0.060
			0.000				1/2" Ice	2.012	1.197	0.076
			-1.000				1" Ice	2.190	1.342	0.094
RADIO 4415 B30	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069

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	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz	Vert						ft
			Lateral		°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
RADIO 4415 B30	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069
RADIO 4415 B30	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.643	0.639	0.043
			0.000				1/2" Ice	1.803	0.750	0.055
			-1.000				1" Ice	1.971	0.867	0.069
RRUS 8843 B2/B66A	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110
RRUS 8843 B2/B66A	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110
RRUS 8843 B2/B66A	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.639	1.353	0.072
			0.000				1/2" Ice	1.799	1.500	0.090
			-1.000				1" Ice	1.966	1.655	0.110
RRUS 4449 B5/B12	A	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	B	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
RRUS 4449 B5/B12	C	From Leg	4.000	0.000	0.000	144.000	No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
			-1.000				1" Ice	2.328	1.727	0.111
DC6-48-60-18-8F	A	From Leg	4.000	0.000	0.000	144.000	No Ice	0.850	0.850	0.019
			0.000				1/2" Ice	1.356	1.356	0.036
			-1.000				1" Ice	1.532	1.532	0.055
DC6-48-60-18-8F	C	From Leg	4.000	0.000	0.000	144.000	No Ice	0.850	0.850	0.019
			0.000				1/2" Ice	1.356	1.356	0.036
			-1.000				1" Ice	1.532	1.532	0.055
AIR 6419 B77G_CCIV3 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6419 B77G_CCIV3 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6419 B77G_CCIV3 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	4.380	2.760	0.057
			0.000				1/2" Ice	4.708	3.191	0.096
			1.000				1" Ice	5.045	3.639	0.140
AIR 6449 B77D_CCIV2 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	4.225	2.867	0.094
			0.000				1/2" Ice	4.548	3.295	0.133
			-3.000				1" Ice	4.880	3.740	0.177
AIR 6449 B77D_CCIV2 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	4.225	2.867	0.094
			0.000				1/2" Ice	4.548	3.295	0.133
			-3.000				1" Ice	4.880	3.740	0.177
AIR 6449 B77D_CCIV2 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	4.225	2.867	0.094
			0.000				1/2" Ice	4.548	3.295	0.133
			-3.000				1" Ice	4.880	3.740	0.177
QD8616-7 w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448
QD8616-7 w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448
QD8616-7 w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	144.000	No Ice	16.930	9.310	0.183
			0.000				1/2" Ice	17.870	10.170	0.308
			-1.000				1" Ice	18.830	11.050	0.448



<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	<b>Page</b>	
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<b>Client</b>	Crown Castle	<b>Designed by</b>	
		Jayaraj B	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			Horz	Lateral					
2012 B29	A	From Leg	4.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000			1/2" Ice	2.027	0.814	0.056
			-1.000			1" Ice	2.204	0.939	0.072
2012 B29	B	From Leg	4.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000			1/2" Ice	2.027	0.814	0.056
			-1.000			1" Ice	2.204	0.939	0.072
2012 B29	C	From Leg	4.000	0.000	144.000	No Ice	1.856	0.695	0.043
			0.000			1/2" Ice	2.027	0.814	0.056
			-1.000			1" Ice	2.204	0.939	0.072
DC9-48-60-24-8C-EV	B	From Leg	4.000	0.000	144.000	No Ice	2.737	4.785	0.026
			0.000			1/2" Ice	2.963	5.065	0.063
			-1.000			1" Ice	3.196	5.352	0.104
(2) 10' x 2" Mount Pipe	A	From Leg	4.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000			1/2" Ice	0.000	3.403	0.054
			-1.000			1" Ice	0.000	4.448	0.079
(2) 10' x 2" Mount Pipe	B	From Leg	4.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000			1/2" Ice	0.000	3.403	0.054
			-1.000			1" Ice	0.000	4.448	0.079
(2) 10' x 2" Mount Pipe	C	From Leg	4.000	0.000	144.000	No Ice	0.000	2.375	0.037
			0.000			1/2" Ice	0.000	3.403	0.054
			-1.000			1" Ice	0.000	4.448	0.079
10' x 2" Mount Pipe	A	From Leg	4.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000			1/2" Ice	3.403	3.403	0.054
			-1.000			1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	B	From Leg	4.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000			1/2" Ice	3.403	3.403	0.054
			-1.000			1" Ice	4.448	4.448	0.079
10' x 2" Mount Pipe	C	From Leg	4.000	0.000	144.000	No Ice	2.375	2.375	0.037
			0.000			1/2" Ice	3.403	3.403	0.054
			-1.000			1" Ice	4.448	4.448	0.079
F3P-12W	C	None		0.000	144.000	No Ice	25.520	25.520	1.999
						1/2" Ice	31.740	31.740	2.599
						1" Ice	40.100	40.100	3.414
Miscellaneous [NA 507-1]	C	None		0.000	144.000	No Ice	4.560	4.560	0.245
						1/2" Ice	6.390	6.390	0.311
						1" Ice	8.180	8.180	0.402
* (2) APXVSP18-C-A20 w/ Mount Pipe	A	From Leg	4.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000			1/2" Ice	5.050	4.450	0.160
			0.000			1" Ice	5.500	4.890	0.235
APXVSP18-C-A20 w/ Mount Pipe	B	From Leg	4.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000			1/2" Ice	5.050	4.450	0.160
			0.000			1" Ice	5.500	4.890	0.235
APXVSP18-C-A20 w/ Mount Pipe	C	From Leg	4.000	0.000	130.000	No Ice	4.600	4.010	0.095
			0.000			1/2" Ice	5.050	4.450	0.160
			0.000			1" Ice	5.500	4.890	0.235
AAHC w/ Mount Pipe	A	From Leg	4.000	0.000	130.000	No Ice	4.409	2.691	0.115
			0.000			1/2" Ice	4.727	3.079	0.156
			0.000			1" Ice	5.055	3.486	0.202
(2) AAHC w/ Mount Pipe	B	From Leg	4.000	0.000	130.000	No Ice	4.409	2.691	0.115
			0.000			1/2" Ice	4.727	3.079	0.156
			0.000			1" Ice	5.055	3.486	0.202
(2) IBC1900HB-2	A	From Leg	4.000	0.000	130.000	No Ice	1.125	0.713	0.040
			0.000			1/2" Ice	1.270	0.837	0.049
			0.000			1" Ice	1.423	0.968	0.060
IBC1900HB-2	B	From Leg	4.000	0.000	130.000	No Ice	1.125	0.713	0.040
			0.000			1/2" Ice	1.270	0.837	0.049



<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	62 of 95
	<b>Project</b>		<b>Date</b>	15:59:42 03/26/22
	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight					
			Horz	Lateral						Vert	°	ft	ft <sup>2</sup>	ft <sup>2</sup>
IBC1900HB-2	C	From Leg	0.000		0.000	130.000	1" Ice	1.423	0.968	0.060				
			4.000								No Ice	1.125	0.713	0.040
			0.000								1/2" Ice	1.270	0.837	0.049
800 EXTERNAL NOTCH FILTER	A	From Leg	0.000		0.000	130.000	1" Ice	1.423	0.968	0.060				
			4.000								No Ice	0.660	0.321	0.011
			0.000								1/2" Ice	0.763	0.398	0.017
800 EXTERNAL NOTCH FILTER	B	From Leg	0.000		0.000	130.000	1" Ice	0.873	0.483	0.024				
			4.000								No Ice	0.660	0.321	0.011
			0.000								1/2" Ice	0.763	0.398	0.017
800 EXTERNAL NOTCH FILTER	C	From Leg	0.000		0.000	130.000	1" Ice	0.873	0.483	0.024				
			4.000								No Ice	0.660	0.321	0.011
			0.000								1/2" Ice	0.763	0.398	0.017
(2) 1900MHZ RRH (65MHZ)	A	From Leg	0.000		0.000	130.000	1" Ice	0.873	0.483	0.024				
			4.000								No Ice	2.313	2.375	0.060
			0.000								1/2" Ice	2.517	2.581	0.084
(2) 1900MHZ RRH (65MHZ)	B	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111				
			4.000								No Ice	2.313	2.375	0.060
			0.000								1/2" Ice	2.517	2.581	0.084
(2) 1900MHZ RRH (65MHZ)	C	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111				
			4.000								No Ice	2.313	2.375	0.060
			0.000								1/2" Ice	2.517	2.581	0.084
800MHZ RRH	A	From Leg	0.000		0.000	130.000	1" Ice	2.728	2.794	0.111				
			4.000								No Ice	2.134	1.773	0.053
			0.000								1/2" Ice	2.320	1.946	0.074
800MHZ RRH	B	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098				
			4.000								No Ice	2.134	1.773	0.053
			0.000								1/2" Ice	2.320	1.946	0.074
800MHZ RRH	C	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098				
			4.000								No Ice	2.134	1.773	0.053
			0.000								1/2" Ice	2.320	1.946	0.074
(2) PD2DE-700/2700	A	From Leg	0.000		0.000	130.000	1" Ice	2.512	2.127	0.098				
			4.000								No Ice	0.114	0.114	0.001
			0.000								1/2" Ice	0.179	0.179	0.002
6' x 2" Mount Pipe	A	From Leg	0.000		0.000	130.000	1" Ice	0.250	0.250	0.004				
			4.000								No Ice	1.425	1.425	0.022
			0.000								1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	A	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048				
			4.000								No Ice	0.000	1.425	0.022
			0.000								1/2" Ice	0.000	1.925	0.033
(3) 6' x 2" Mount Pipe	B	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048				
			4.000								No Ice	1.425	1.425	0.022
			0.000								1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	C	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048				
			4.000								No Ice	1.425	1.425	0.022
			0.000								1/2" Ice	1.925	1.925	0.033
3' x 2" Pipe Mount	A	From Leg	0.000		0.000	130.000	1" Ice	2.294	2.294	0.048				
			4.000								No Ice	0.000	0.583	0.011
			0.000								1/2" Ice	0.000	0.770	0.017
3' x 2" Pipe Mount	B	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024				
			4.000								No Ice	0.000	0.583	0.011
			0.000								1/2" Ice	0.000	0.770	0.017
3' x 2" Pipe Mount	C	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024				
			4.000								No Ice	0.000	0.583	0.011
			0.000								1/2" Ice	0.000	0.770	0.017
(2) 5' x 2" Pipe Mount	A	From Leg	-1.000		0.000	130.000	1" Ice	0.000	0.967	0.024				
			4.000								No Ice	1.188	1.188	0.018
			0.000								1/2" Ice	1.496	1.496	0.027

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	<b>Page</b>	
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	<b>Project</b>		<b>Date</b>
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	<b>Client</b>	<b>Designed by</b>	
	Crown Castle	Jayaraj B	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz	Lateral						
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
5' x 2" Pipe Mount	B	From Leg	0.000		0.000	130.000	1" Ice	1.807	1.807	0.040
			4.000				No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
			0.000				1" Ice	1.807	1.807	0.040
5' x 2" Pipe Mount	C	From Leg	4.000		0.000	130.000	No Ice	1.188	1.188	0.018
			0.000				1/2" Ice	1.496	1.496	0.027
			0.000				1" Ice	1.807	1.807	0.040
			0.000				No Ice	3.170	3.170	0.195
Pipe Mount [PM 601-3]	C	None			0.000	130.000	1/2" Ice	3.790	3.790	0.232
							1" Ice	4.420	4.420	0.279
							No Ice	31.070	31.070	1.343
							1/2" Ice	34.820	34.820	1.967
						1" Ice	38.480	38.480	2.669	
* MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000		0.000	120.000	No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
			0.000				No Ice	8.010	4.230	0.108
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000		0.000	120.000	1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
			0.000				No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000		0.000	120.000	1" Ice	9.040	5.160	0.292
			0.000				No Ice	8.010	4.230	0.108
			0.000				1/2" Ice	8.520	4.690	0.194
			0.000				1" Ice	9.040	5.160	0.292
TA08025-B604	A	From Leg	4.000		0.000	120.000	No Ice	1.964	0.981	0.064
			0.000				1/2" Ice	2.138	1.112	0.081
			0.000				1" Ice	2.320	1.250	0.100
			0.000				No Ice	1.964	0.981	0.064
TA08025-B604	B	From Leg	4.000		0.000	120.000	1/2" Ice	2.138	1.112	0.081
			0.000				1" Ice	2.320	1.250	0.100
			0.000				No Ice	1.964	0.981	0.064
			0.000				1/2" Ice	2.138	1.112	0.081
TA08025-B604	C	From Leg	4.000		0.000	120.000	1" Ice	2.320	1.250	0.100
			0.000				No Ice	1.964	0.981	0.064
			0.000				1/2" Ice	2.138	1.112	0.081
			0.000				1" Ice	2.320	1.250	0.100
TA08025-B605	A	From Leg	4.000		0.000	120.000	No Ice	1.964	1.129	0.075
			0.000				1/2" Ice	2.138	1.267	0.093
			0.000				1" Ice	2.320	1.411	0.114
			0.000				No Ice	1.964	1.129	0.075
TA08025-B605	B	From Leg	4.000		0.000	120.000	1/2" Ice	2.138	1.267	0.093
			0.000				1" Ice	2.320	1.411	0.114
			0.000				No Ice	1.964	1.129	0.075
			0.000				1/2" Ice	2.138	1.267	0.093
TA08025-B605	C	From Leg	4.000		0.000	120.000	1" Ice	2.320	1.411	0.114
			0.000				No Ice	1.964	1.129	0.075
			0.000				1/2" Ice	2.138	1.267	0.093
			0.000				1" Ice	2.320	1.411	0.114
RDIDC-9181-PF-48	A	From Leg	4.000		0.000	120.000	No Ice	2.012	1.168	0.022
			0.000				1/2" Ice	2.189	1.311	0.040
			0.000				1" Ice	2.373	1.461	0.060
			0.000				No Ice	1.900	1.900	0.029
(2) 8' x 2" Mount Pipe	A	From Leg	4.000		0.000	120.000	1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
			0.000				No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
(2) 8' x 2" Mount Pipe	B	From Leg	4.000		0.000	120.000	1" Ice	3.401	3.401	0.063
			0.000				No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
(2) 8' x 2" Mount Pipe	C	From Leg	4.000		0.000	120.000	No Ice	1.900	1.900	0.029
			0.000				1/2" Ice	2.728	2.728	0.044
			0.000				1" Ice	3.401	3.401	0.063
			0.000				No Ice	34.240	34.240	1.749
Commscope MC-PK8-DSH	C	None			0.000	120.000	1/2" Ice	62.950	62.950	2.099
							1" Ice	91.660	91.660	2.450

\*

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	64 of 95
	<b>Project</b>		<b>Date</b>	15:59:42 03/26/22
	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			Horz	Lateral					
SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.000	0.000	110.000	No Ice	4.090	3.300	0.066
			0.000	0.000	110.000	1/2" Ice	4.490	3.680	0.130
			0.000	0.000	110.000	1" Ice	4.890	4.070	0.204
SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.000	0.000	110.000	No Ice	4.090	3.300	0.066
			0.000	0.000	110.000	1/2" Ice	4.490	3.680	0.130
			0.000	0.000	110.000	1" Ice	4.890	4.070	0.204
SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.000	0.000	110.000	No Ice	4.090	3.300	0.066
			0.000	0.000	110.000	1/2" Ice	4.490	3.680	0.130
			0.000	0.000	110.000	1" Ice	4.890	4.070	0.204
SBNHH-1D65B	A	From Leg	4.000	0.000	110.000	No Ice	4.160	2.490	0.041
			0.000	0.000	110.000	1/2" Ice	4.570	2.880	0.091
			0.000	0.000	110.000	1" Ice	4.990	3.270	0.148
SBNHH-1D65B	B	From Leg	4.000	0.000	110.000	No Ice	4.160	2.490	0.041
			0.000	0.000	110.000	1/2" Ice	4.570	2.880	0.091
			0.000	0.000	110.000	1" Ice	4.990	3.270	0.148
SBNHH-1D65B	C	From Leg	4.000	0.000	110.000	No Ice	4.160	2.490	0.041
			0.000	0.000	110.000	1/2" Ice	4.570	2.880	0.091
			0.000	0.000	110.000	1" Ice	4.990	3.270	0.148
BXA-80063/4CF w/ Mount Pipe	A	From Leg	4.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000	110.000	1/2" Ice	5.350	4.140	0.065
			0.000	0.000	110.000	1" Ice	5.880	4.640	0.109
BXA-80063/4CF w/ Mount Pipe	B	From Leg	4.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000	110.000	1/2" Ice	5.350	4.140	0.065
			0.000	0.000	110.000	1" Ice	5.880	4.640	0.109
BXA-80063/4CF w/ Mount Pipe	C	From Leg	4.000	0.000	110.000	No Ice	4.830	3.650	0.028
			0.000	0.000	110.000	1/2" Ice	5.350	4.140	0.065
			0.000	0.000	110.000	1" Ice	5.880	4.640	0.109
BULLET III	C	From Leg	4.000	0.000	110.000	No Ice	0.066	0.066	0.000
			0.000	0.000	110.000	1/2" Ice	0.101	0.101	0.002
			3.000	0.000	110.000	1" Ice	0.144	0.144	0.003
RFV01U-D1A	A	From Leg	4.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000	110.000	1/2" Ice	2.045	1.393	0.103
			0.000	0.000	110.000	1" Ice	2.223	1.543	0.124
RFV01U-D1A	B	From Leg	4.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000	110.000	1/2" Ice	2.045	1.393	0.103
			0.000	0.000	110.000	1" Ice	2.223	1.543	0.124
RFV01U-D1A	C	From Leg	4.000	0.000	110.000	No Ice	1.875	1.250	0.084
			0.000	0.000	110.000	1/2" Ice	2.045	1.393	0.103
			0.000	0.000	110.000	1" Ice	2.223	1.543	0.124
RFV01U-D2A	A	From Leg	4.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000	110.000	1/2" Ice	2.045	1.145	0.087
			0.000	0.000	110.000	1" Ice	2.223	1.284	0.106
RFV01U-D2A	B	From Leg	4.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000	110.000	1/2" Ice	2.045	1.145	0.087
			0.000	0.000	110.000	1" Ice	2.223	1.284	0.106
RFV01U-D2A	C	From Leg	4.000	0.000	110.000	No Ice	1.875	1.013	0.070
			0.000	0.000	110.000	1/2" Ice	2.045	1.145	0.087
			0.000	0.000	110.000	1" Ice	2.223	1.284	0.106
RVZDC-6627-PF-48	C	From Leg	4.000	0.000	110.000	No Ice	3.792	2.514	0.032
			0.000	0.000	110.000	1/2" Ice	4.044	2.727	0.063
			0.000	0.000	110.000	1" Ice	4.303	2.947	0.099
MT6407-77A w/ Mount Pipe	A	From Leg	4.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000	0.000	110.000	1/2" Ice	5.256	3.145	0.136
			0.000	0.000	110.000	1" Ice	5.615	3.624	0.180
MT6407-77A w/ Mount Pipe	B	From Leg	4.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000	0.000	110.000	1/2" Ice	5.256	3.145	0.136
			0.000	0.000	110.000	1" Ice	5.615	3.624	0.180

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	<b>Project</b>		<b>Date</b>
		15:59:42 03/26/22	
<b>Client</b>	Crown Castle	<b>Designed by</b>	
		Jayaraj B	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			Horz	Lateral					
			ft	ft			ft <sup>2</sup>	ft <sup>2</sup>	K
MT6407-77A w/ Mount Pipe	C	From Leg	4.000	0.000	110.000	No Ice	4.907	2.682	0.096
			0.000			1/2" Ice	5.256	3.145	0.136
			0.000			1" Ice	5.615	3.624	0.180
(3) 3' x 2" Pipe Mount	A	From Leg	4.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
(3) 3' x 2" Pipe Mount	B	From Leg	4.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
(2) 3' x 2" Pipe Mount	C	From Leg	4.000	0.000	110.000	No Ice	0.583	0.583	0.011
			0.000			1/2" Ice	0.770	0.770	0.017
			0.000			1" Ice	0.967	0.967	0.024
6' x 2" Mount Pipe	A	From Leg	4.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	B	From Leg	4.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
(2) 6' x 2" Mount Pipe	C	From Leg	4.000	0.000	110.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			0.000			1" Ice	2.294	2.294	0.048
Side Arm Mount [SO 102-3]	C	None		0.000	110.000	No Ice	0.000	0.000	0.075
						1/2" Ice	0.000	0.000	0.105
						1" Ice	0.000	0.000	0.135
Mount Reinforcement Specifications	C	None		0.000	110.000	No Ice	28.630	28.630	0.280
						1/2" Ice	37.310	37.310	0.670
						1" Ice	45.800	45.800	0.940
Platform Mount [LP 713-1]	C	None		0.000	110.000	No Ice	32.890	32.890	1.510
						1/2" Ice	35.760	35.760	2.228
						1" Ice	38.760	38.760	3.026
*									
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000			1/2" Ice	15.460	7.550	0.315
			1.000			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000			1/2" Ice	15.460	7.550	0.315
			1.000			1" Ice	16.230	8.250	0.458
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000	0.000	100.000	No Ice	14.690	6.870	0.186
			0.000			1/2" Ice	15.460	7.550	0.315
			1.000			1" Ice	16.230	8.250	0.458
AIR 21 B2A/B4P w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	3.140	2.580	0.103
			0.000			1/2" Ice	3.450	2.880	0.154
			1.000			1" Ice	3.760	3.180	0.214
AIR 21 B2A/B4P w/ Mount Pipe	B	From Leg	4.000	0.000	100.000	No Ice	3.140	2.580	0.103
			0.000			1/2" Ice	3.450	2.880	0.154
			1.000			1" Ice	3.760	3.180	0.214
AIR 21 B2A/B4P w/ Mount Pipe	C	From Leg	4.000	0.000	100.000	No Ice	3.140	2.580	0.103
			0.000			1/2" Ice	3.450	2.880	0.154
			1.000			1" Ice	3.760	3.180	0.214
AIR -32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000			1/2" Ice	4.120	3.490	0.252
			1.000			1" Ice	4.480	3.840	0.320
AIR -32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000			1/2" Ice	4.120	3.490	0.252
			1.000			1" Ice	4.480	3.840	0.320
AIR -32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.000	0.000	100.000	No Ice	3.760	3.150	0.194
			0.000			1/2" Ice	4.120	3.490	0.252



<p><b>tnxTower</b></p> <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p><b>Job</b></p> <p>79982.008.01 - WATERBURY,CT (BU# 876317)</p>	<p><b>Page</b></p> <p>67 of 95</p>
	<p><b>Project</b></p>	<p><b>Date</b></p> <p>15:59:42 03/26/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

## 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

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 68 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	144.25 - 139.25	Pole	Max Tension	21	0.000	-0.000	0.000
			Max. Compression	26	-10.871	-0.181	0.012
			Max. Mx	20	-5.185	26.999	-0.041
			Max. My	2	-5.153	-0.048	27.275
			Max. Vy	8	6.651	-26.975	0.208
			Max. Vx	2	-6.723	-0.048	27.275
			Max. Torque	17			0.565
L2	139.25 - 134.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-11.293	-0.268	0.073
			Max. Mx	8	-5.475	-57.224	0.372
			Max. My	2	-5.444	-0.233	57.895
			Max. Vy	8	6.788	-57.224	0.372
			Max. Vx	2	-6.884	-0.233	57.895
			Max. Torque	17			0.565
L3	134.75 - 134.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-11.342	-0.278	0.080
			Max. Mx	8	-5.513	-60.622	0.390
			Max. My	2	-5.481	-0.254	61.342
			Max. Vy	8	6.802	-60.622	0.390
			Max. Vx	2	-6.901	-0.254	61.342
			Max. Torque	17			0.565
L4	134.25 - 129.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-18.890	-2.360	1.973
			Max. Mx	8	-9.171	-100.360	1.460
			Max. My	2	-9.117	-1.708	101.709
			Max. Vy	20	-11.208	98.050	0.393
			Max. Vx	2	-11.365	-1.708	101.709
			Max. Torque	15			1.231
L5	129.25 - 124.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.337	-2.498	2.071
			Max. Mx	8	-9.520	-156.560	1.568
			Max. My	2	-9.466	-1.931	158.913
			Max. Vy	20	-11.351	154.380	0.291
			Max. Vx	2	-11.533	-1.931	158.913
			Max. Torque	15			1.231
L6	124.25 - 123.416	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.424	-2.519	2.086
			Max. Mx	8	-9.585	-166.001	1.585
			Max. My	2	-9.531	-1.967	168.533
			Max. Vy	20	-11.376	163.844	0.274
			Max. Vx	2	-11.557	-1.967	168.533
			Max. Torque	15			1.229
L7	123.416 - 123.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-19.464	-2.526	2.091
			Max. Mx	8	-9.625	-168.836	1.591
			Max. My	2	-9.571	-1.979	171.422
			Max. Vy	20	-11.380	166.686	0.269
			Max. Vx	2	-11.561	-1.979	171.422
			Max. Torque	15			1.229
L8	123.166 - 118.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-25.157	-2.663	2.480
			Max. Mx	8	-13.069	-231.355	1.800
			Max. My	2	-13.008	-2.199	235.175



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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L9	118.166 - 113.166	Pole	Max. Vy	20	-14.437	229.332	0.269
			Max. Vx	2	-14.644	-2.199	235.175
			Max. Torque	15			1.228
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-26.002	-2.818	2.585
			Max. Mx	8	-13.686	-303.963	1.913
			Max. My	2	-13.628	-2.430	308.966
			Max. Vy	20	-14.683	302.054	0.168
			Max. Vx	2	-14.884	-2.430	308.966
			Max. Torque	15			1.227
L10	113.166 - 109.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.332	-2.387	2.355
			Max. Mx	8	-17.530	-360.020	1.904
			Max. My	2	-17.469	-2.438	365.943
			Max. Vy	20	-19.363	358.621	-0.012
			Max. Vx	2	-19.541	-2.438	365.943
			Max. Torque	15			1.226
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.387	-2.395	2.362
			Max. Mx	8	-17.587	-364.851	1.914
L11	109.5 - 109.25	Pole	Max. My	2	-17.528	-2.454	370.826
			Max. Vy	20	-19.364	363.457	-0.021
			Max. Vx	2	-19.540	-2.454	370.826
			Max. Torque	15			0.840
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.402	-2.526	2.475
			Max. Mx	8	-18.335	-452.397	2.088
			Max. My	2	-18.280	-2.737	459.255
			Max. Vy	20	-19.622	451.104	-0.183
			Max. Vx	2	-19.774	-2.737	459.255
L12	109.25 - 104.75	Pole	Max. Torque	15			0.840
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.475	-2.534	2.481
			Max. Mx	8	-18.401	-457.294	2.098
			Max. My	2	-18.347	-2.753	464.198
			Max. Vy	20	-19.632	456.007	-0.192
			Max. Vx	2	-19.780	-2.753	464.198
			Max. Torque	15			0.840
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.083	-2.594	2.523
L13	104.75 - 104.5	Pole	Max. Mx	8	-18.835	-498.329	2.178
			Max. My	2	-18.785	-2.883	505.570
			Max. Vy	20	-19.822	497.089	-0.267
			Max. Vx	2	-19.932	-2.883	505.570
			Max. Torque	15			0.840
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.152	-2.602	2.529
			Max. Mx	8	-18.894	-503.277	2.188
			Max. My	2	-18.846	-2.899	510.553
			Max. Vy	20	-19.836	502.042	-0.276
L14	104.5 - 102.416	Pole	Max. Vx	2	-19.939	-2.899	510.553
			Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-42.906	-2.704	2.577
			Max. Mx	8	-22.921	-576.107	2.319
			Max. My	2	-18.846	-2.899	510.553
			Max. Vy	20	-19.836	502.042	-0.276
			Max. Vx	2	-19.939	-2.899	510.553
			Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
L15	102.416 - 102.166	Pole	Max. Compression	26	-36.152	-2.602	2.529
			Max. Mx	8	-18.894	-503.277	2.188
			Max. My	2	-18.846	-2.899	510.553
			Max. Vy	20	-19.836	502.042	-0.276
			Max. Vx	2	-19.939	-2.899	510.553
			Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.152	-2.602	2.529
			Max. Mx	8	-18.894	-503.277	2.188
			Max. My	2	-18.846	-2.899	510.553
L16	102.166 - 98.75	Pole	Max. Vy	20	-19.836	502.042	-0.276
			Max. Vx	2	-19.939	-2.899	510.553
			Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-42.906	-2.704	2.577
			Max. Mx	8	-22.921	-576.107	2.319
			Max. My	2	-18.846	-2.899	510.553
			Max. Vy	20	-19.836	502.042	-0.276
			Max. Vx	2	-19.939	-2.899	510.553
			Max. Torque	15			0.839

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	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L17	98.75 - 98.5	Pole	Max. My	2	-22.870	-3.114	583.854
			Max. Vy	20	-22.479	574.947	-0.401
			Max. Vx	2	-22.588	-3.114	583.854
			Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-42.993	-2.714	2.580
			Max. Mx	8	-23.006	-581.716	2.329
			Max. My	2	-22.954	-3.131	589.500
			Max. Vy	20	-22.479	580.562	-0.411
			Max. Vx	2	-22.594	-3.131	589.500
L18	98.5 - 97.5	Pole	Max. Torque	15			0.839
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.344	-2.745	2.587
			Max. Mx	8	-23.264	-604.194	2.366
			Max. My	2	-23.210	-3.194	612.137
			Max. Vy	20	-22.553	603.062	-0.448
			Max. Vx	2	-22.692	-3.194	612.137
			Max. Torque	15			0.841
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.429	-2.754	2.590
L19	97.5 - 97.25	Pole	Max. Mx	8	-23.338	-609.824	2.376
			Max. My	2	-23.284	-3.211	617.810
			Max. Vy	20	-22.561	608.697	-0.458
			Max. Vx	2	-22.706	-3.211	617.810
			Max. Torque	15			0.841
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.998	-2.817	2.605
			Max. Mx	8	-23.758	-648.162	2.440
			Max. My	2	-23.700	-3.318	656.482
			Max. Vy	20	-22.683	647.071	-0.521
L20	97.25 - 92	Pole	Max. Vx	2	-22.869	-3.318	656.482
			Max. Torque	15			0.844
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-46.589	-3.006	2.650
			Max. Mx	8	-25.830	-762.472	2.630
			Max. My	2	-25.761	-3.638	772.200
			Max. Vy	20	-23.109	761.488	-0.710
			Max. Vx	2	-23.422	-3.638	772.200
			Max. Torque	15			0.855
			Max Tension	1	0.000	0.000	0.000
L21	92 - 90.552	Pole	Max. Compression	26	-47.056	-3.051	2.661
			Max. Mx	8	-26.198	-792.541	2.679
			Max. My	2	-26.129	-3.721	802.724
			Max. Vy	20	-23.182	791.585	-0.759
			Max. Vx	2	-23.504	-3.721	802.724
			Max. Torque	15			0.855
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.157	-3.061	2.664
			Max. Mx	8	-26.293	-798.327	2.689
			Max. My	2	-26.225	-3.738	808.597
L22	90.552 - 89.25	Pole	Max. Vy	20	-23.182	797.375	-0.768
			Max. Vx	2	-23.506	-3.738	808.597
			Max. Torque	15			0.855
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.461	-3.084	2.668
			Max. Mx	8	-26.526	-815.708	2.717
			Max. My	2	-26.457	-3.786	826.247
			Max. Vy	20	-23.238	814.771	-0.796
			Max. Vx	2	-23.569	-3.786	826.247
			Max. Torque	15			0.854
L23	89.25 - 89	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.461	-3.084	2.668
L24	89 - 88.25	Pole	Max. Mx	8	-26.526	-815.708	2.717
			Max. My	2	-26.457	-3.786	826.247
			Max. Vy	20	-23.238	814.771	-0.796
			Max. Vx	2	-23.569	-3.786	826.247
			Max. Torque	15			0.854
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.461	-3.084	2.668
			Max. Mx	8	-26.526	-815.708	2.717
			Max. My	2	-26.457	-3.786	826.247
			Max. Vy	20	-23.238	814.771	-0.796
L25	88.25 - 88	Pole	Max. Vx	2	-23.569	-3.786	826.247
			Max. Torque	15			0.854

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L26	88 - 87.833	Pole	Max. Compression	26	-47.550	-3.094	2.671
			Max. Mx	8	-26.600	-821.510	2.727
			Max. My	2	-26.532	-3.802	832.139
			Max. Vy	20	-23.247	820.578	-0.806
			Max. Vx	2	-23.579	-3.802	832.139
			Max. Torque	15			0.854
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.610	-3.100	2.673
			Max. Mx	8	-26.648	-825.388	2.733
			Max. My	2	-26.580	-3.813	836.077
L27	87.833 - 87.583	Pole	Max. Vy	20	-23.257	824.459	-0.812
			Max. Vx	2	-23.590	-3.813	836.077
			Max. Torque	15			0.854
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-47.693	-3.107	2.674
			Max. Mx	8	-26.710	-831.195	2.743
			Max. My	2	-26.642	-3.829	841.976
			Max. Vy	20	-23.269	830.271	-0.822
			Max. Vx	2	-23.604	-3.829	841.976
			Max. Torque	15			0.854
L28	87.583 - 82.583	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-49.277	-3.271	2.724
			Max. Mx	8	-27.977	-947.883	2.931
			Max. My	2	-27.910	-4.147	960.587
			Max. Vy	20	-23.487	947.054	-1.010
			Max. Vx	2	-23.862	-4.147	960.587
			Max. Torque	15			0.854
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.868	-3.436	2.784
			Max. Mx	8	-29.285	-1065.518	3.117
L29	82.583 - 77.583	Pole	Max. My	2	-29.219	-4.464	1080.362
			Max. Vy	20	-23.664	1064.781	-1.197
			Max. Vx	2	-24.086	-4.464	1080.362
			Max. Torque	15			0.853
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.062	-3.455	2.791
			Max. Mx	8	-29.447	-1079.291	3.139
			Max. My	2	-29.382	-4.501	1094.401
			Max. Vy	20	-23.675	1078.565	-1.218
			Max. Vx	2	-24.105	-4.501	1094.401
L30	77.583 - 77	Pole	Max. Torque	15			0.853
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.158	-3.464	2.795
			Max. Mx	8	-29.531	-1085.202	3.148
			Max. My	2	-29.466	-4.517	1100.426
			Max. Vy	20	-23.680	1084.480	-1.228
			Max. Vx	2	-24.113	-4.517	1100.426
			Max. Torque	15			0.853
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.318	-3.477	2.799
L31	77 - 76.75	Pole	Max. Mx	8	-29.657	-1095.067	3.163
			Max. My	2	-29.591	-4.543	1110.486
			Max. Vy	20	-23.702	1094.353	-1.243
			Max. Vx	2	-24.142	-4.543	1110.486
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.411	-3.486	2.802
			Max. Mx	8	-29.657	-1095.067	3.163
			Max. My	2	-29.591	-4.543	1110.486
			Max. Vy	20	-23.702	1094.353	-1.243
L32	76.75 - 76.333	Pole	Max. Vx	2	-24.142	-4.543	1110.486
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-51.318	-3.477	2.799
			Max. Mx	8	-29.657	-1095.067	3.163
			Max. My	2	-29.591	-4.543	1110.486
			Max. Vy	20	-23.702	1094.353	-1.243
			Max. Vx	2	-24.142	-4.543	1110.486
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
L33	76.333 - 76.083	Pole	Max. Compression	26	-51.411	-3.486	2.802
			Max. Mx	8	-29.657	-1095.067	3.163

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			<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L34	76.083 - 74.25	Pole	Max. Mx	8	-29.733	-1100.985	3.173
			Max. My	2	-29.667	-4.559	1116.522
			Max. Vy	20	-23.712	1100.276	-1.252
			Max. Vx	2	-24.155	-4.559	1116.522
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.091	-3.552	2.835
			Max. Mx	8	-30.251	-1144.467	3.240
			Max. My	2	-30.184	-4.674	1160.896
			Max. Vy	20	-23.824	1143.791	-1.321
L35	74.25 - 74	Pole	Max. Vx	2	-24.294	-4.674	1160.896
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.187	-3.563	2.842
			Max. Mx	8	-30.351	-1150.410	3.250
			Max. My	2	-30.285	-4.691	1166.964
			Max. Vy	20	-23.809	1149.738	-1.330
			Max. Vx	2	-24.282	-4.691	1166.964
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
L36	74 - 73.75	Pole	Max. Compression	26	-52.284	-3.573	2.848
			Max. Mx	8	-30.428	-1156.355	3.259
			Max. My	2	-30.362	-4.706	1173.036
			Max. Vy	20	-23.822	1155.688	-1.339
			Max. Vx	2	-24.298	-4.706	1173.036
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.384	-3.583	2.854
			Max. Mx	8	-30.508	-1162.304	3.268
			Max. My	2	-30.441	-4.722	1179.112
L37	73.75 - 73.5	Pole	Max. Vy	20	-23.834	1161.641	-1.348
			Max. Vx	2	-24.314	-4.722	1179.112
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.384	-3.583	2.854
			Max. Mx	8	-30.508	-1162.304	3.268
			Max. My	2	-30.441	-4.722	1179.112
			Max. Vy	20	-23.834	1161.641	-1.348
			Max. Vx	2	-24.314	-4.722	1179.112
			Max. Torque	15			0.852
L38	73.5 - 68.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-54.371	-3.780	2.971
			Max. Mx	8	-32.089	-1281.926	3.452
			Max. My	2	-32.023	-5.037	1301.452
			Max. Vy	20	-24.091	1281.351	-1.534
			Max. Vx	2	-24.639	-5.037	1301.452
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-56.375	-3.981	3.090
			Max. Mx	8	-33.702	-1402.748	3.636
L39	68.5 - 63.5	Pole	Max. My	2	-33.636	-5.351	1425.315
			Max. Vy	20	-24.327	1402.258	-1.718
			Max. Vx	2	-24.937	-5.351	1425.315
			Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-56.375	-3.981	3.090
			Max. Mx	8	-33.702	-1402.748	3.636
			Max. My	2	-33.636	-5.351	1425.315
			Max. Vy	20	-24.327	1402.258	-1.718
			Max. Vx	2	-24.937	-5.351	1425.315
L40	63.5 - 60.5	Pole	Max. Torque	15			0.852
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-57.616	-4.102	3.161
			Max. Mx	8	-34.683	-1475.797	3.745
			Max. My	2	-34.619	-5.539	1500.334
			Max. Vy	20	-24.463	1475.357	-1.828
			Max. Vx	2	-25.107	-5.539	1500.334
			Max. Torque	15			0.851
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-57.721	-4.113	3.168
L41	60.5 - 60.25	Pole	Max. Mx	8	-34.776	-1481.903	3.754
			Max. My	2	-34.712	-5.555	1506.608
			Max. Vy	20	-24.461	1481.466	-1.837
			Max. Vx	2	-25.108	-5.555	1506.608
			Max. Torque	15			0.851

**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
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**Job**  
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**Client**  
 Crown Castle  
 Designed by  
 Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L42	60.25 - 59.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.038	-4.142	3.185
			Max. Mx	8	-35.017	-1500.236	3.781
			Max. My	2	-34.953	-5.602	1525.453
			Max. Vy	20	-24.502	1499.812	-1.864
			Max. Vx	2	-25.158	-5.602	1525.453
			Max. Torque	15			0.851
L43	59.5 - 59.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-58.149	-4.154	3.192
			Max. Mx	8	-35.110	-1506.354	3.791
			Max. My	2	-35.047	-5.618	1531.741
			Max. Vy	20	-24.506	1505.934	-1.873
			Max. Vx	2	-25.164	-5.618	1531.741
			Max. Torque	15			0.851
L44	59.25 - 54.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-60.290	-4.355	3.310
			Max. Mx	8	-36.828	-1629.289	3.972
			Max. My	2	-36.768	-5.930	1658.168
			Max. Vy	20	-24.746	1628.949	-2.055
			Max. Vx	2	-25.425	-5.930	1658.168
			Max. Torque	15			0.851
L45	54.25 - 45.802	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-62.120	-4.529	3.411
			Max. Mx	8	-38.312	-1734.652	4.126
			Max. My	2	-38.257	-6.196	1766.564
			Max. Vy	20	-24.928	1734.376	-2.209
			Max. Vx	2	-25.618	-6.196	1766.564
			Max. Torque	15			0.850
L46	45.802 - 44.802	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-65.912	-4.408	3.337
			Max. Mx	20	-41.457	1865.231	-2.483
			Max. My	2	-41.406	-6.229	1900.790
			Max. Vy	20	-25.318	1865.231	-2.483
			Max. Vx	2	-26.036	-6.229	1900.790
			Max. Torque	15			0.693
L47	44.802 - 43.583	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-66.454	-4.451	3.350
			Max. Mx	20	-41.896	1896.084	-2.514
			Max. My	2	-41.846	-6.293	1932.540
			Max. Vy	20	-25.370	1896.084	-2.514
			Max. Vx	2	-26.096	-6.293	1932.540
			Max. Torque	15			0.693
L48	43.583 - 43.333	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-66.570	-4.462	3.354
			Max. Mx	20	-42.004	1902.418	-2.521
			Max. My	2	-41.955	-6.306	1939.059
			Max. Vy	20	-25.360	1902.418	-2.521
			Max. Vx	2	-26.088	-6.306	1939.059
			Max. Torque	15			0.692
L49	43.333 - 43.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-66.647	-4.468	3.356
			Max. Mx	20	-42.069	1906.651	-2.525
			Max. My	2	-42.020	-6.315	1943.416
			Max. Vy	20	-25.367	1906.651	-2.525
			Max. Vx	2	-26.096	-6.315	1943.416
			Max. Torque	15			0.692
L50	43.166 -	Pole	Max Tension	1	0.000	0.000	0.000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 74 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	42.916		Max. Compression	26	-66.768	-4.474	3.357
			Max. Mx	20	-42.168	1912.990	-2.531
			Max. My	2	-42.119	-6.328	1949.941
			Max. Vy	20	-25.377	1912.990	-2.531
			Max. Vx	2	-26.107	-6.328	1949.941
			Max. Torque	15			0.692
L51	42.916 - 39	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-68.661	-4.597	3.374
			Max. Mx	20	-43.713	2012.612	-2.632
			Max. My	2	-43.666	-6.533	2052.532
			Max. Vy	20	-25.557	2012.612	-2.632
			Max. Vx	2	-26.314	-6.533	2052.532
			Max. Torque	15			0.692
L52	39 - 38.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-68.787	-4.607	3.376
			Max. Mx	20	-43.830	2018.993	-2.639
			Max. My	2	-43.784	-6.546	2059.106
			Max. Vy	20	-25.547	2018.993	-2.639
			Max. Vx	2	-26.306	-6.546	2059.106
			Max. Torque	15			0.692
L53	38.75 - 37.166	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-69.588	-4.658	3.377
			Max. Mx	20	-44.475	2059.484	-2.679
			Max. My	2	-44.430	-6.629	2100.831
			Max. Vy	20	-25.638	2059.484	-2.679
			Max. Vx	2	-26.407	-6.629	2100.831
			Max. Torque	15			0.692
L54	37.166 - 36.916	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-69.712	-4.668	3.378
			Max. Mx	20	-44.592	2065.884	-2.686
			Max. My	2	-44.548	-6.642	2107.427
			Max. Vy	20	-25.622	2065.884	-2.686
			Max. Vx	2	-26.393	-6.642	2107.427
			Max. Torque	15			0.692
L55	36.916 - 34	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-71.166	-4.761	3.397
			Max. Mx	20	-45.766	2140.702	-2.760
			Max. My	2	-45.724	-6.794	2184.562
			Max. Vy	20	-25.753	2140.702	-2.760
			Max. Vx	2	-26.542	-6.794	2184.562
			Max. Torque	15			0.692
L56	34 - 33.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-71.288	-4.770	3.401
			Max. Mx	20	-45.879	2147.131	-2.766
			Max. My	2	-45.838	-6.807	2191.192
			Max. Vy	20	-25.737	2147.131	-2.766
			Max. Vx	2	-26.528	-6.807	2191.192
			Max. Torque	15			0.692
L57	33.75 - 29.75	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.203	-4.895	3.443
			Max. Mx	20	-47.446	2250.266	-2.867
			Max. My	2	-47.409	-7.015	2297.599
			Max. Vy	20	-25.883	2250.266	-2.867
			Max. Vx	2	-26.696	-7.015	2297.599
			Max. Torque	15			0.692
L58	29.75 - 29.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-73.323	-4.904	3.447
			Max. Mx	20	-47.555	2256.730	-2.873
			Max. My	2	-47.519	-7.028	2304.270

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b>	79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	75 of 95
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	<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L59	29.5 - 24.5	Pole	Max. Vy	20	-25.875	2256.730	-2.873
			Max. Vx	2	-26.690	-7.028	2304.270
			Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-75.727	-5.071	3.501
			Max. Mx	20	-49.552	2386.400	-2.998
			Max. My	2	-49.521	-7.287	2438.150
			Max. Vy	20	-26.046	2386.400	-2.998
			Max. Vx	2	-26.883	-7.287	2438.150
L60	24.5 - 23	Pole	Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-76.465	-5.140	3.519
			Max. Mx	20	-50.155	2425.453	-3.034
			Max. My	2	-50.125	-7.364	2478.480
			Max. Vy	20	-26.104	2425.453	-3.034
			Max. Vx	2	-26.940	-7.364	2478.480
			Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
L61	23 - 22.75	Pole	Max. Compression	26	-76.597	-5.153	3.523
			Max. Mx	20	-50.280	2431.968	-3.041
			Max. My	2	-50.252	-7.377	2485.209
			Max. Vy	20	-26.085	2431.968	-3.041
			Max. Vx	2	-26.920	-7.377	2485.209
			Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-77.215	-5.207	3.536
			Max. Mx	20	-50.786	2462.414	-3.069
L62	22.75 - 21.583	Pole	Max. My	2	-50.758	-7.437	2516.648
			Max. Vy	20	-26.145	2462.414	-3.069
			Max. Vx	2	-26.980	-7.437	2516.648
			Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-77.343	-5.219	3.539
			Max. Mx	20	-50.901	2468.942	-3.075
			Max. My	2	-50.874	-7.450	2523.389
			Max. Vy	20	-26.137	2468.942	-3.075
L63	21.583 - 21.333	Pole	Max. Vx	2	-26.971	-7.450	2523.389
			Max. Torque	15			0.692
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-79.877	-5.429	3.584
			Max. Mx	20	-53.022	2599.915	-3.197
			Max. My	2	-53.000	-7.707	2658.607
			Max. Vy	20	-26.307	2599.915	-3.197
			Max. Vx	2	-27.137	-7.707	2658.607
			Max. Torque	15			0.692
L64	21.333 - 16.333	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.652	-5.539	3.550
			Max. Mx	20	-54.490	2689.861	-3.279
			Max. My	2	-54.473	-7.881	2751.414
			Max. Vy	20	-26.430	2689.861	-3.279
			Max. Vx	2	-27.240	-7.881	2751.414
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.791	-5.547	3.549
L65	16.333 - 12.917	Pole	Max. Mx	20	-54.617	2696.460	-3.285
			Max. My	2	-54.601	-7.894	2758.220
			Max. Vy	20	-26.419	2696.460	-3.285
			Max. Vx	2	-26.419	-7.894	2758.220
			Max. Torque	15			0.691
L66	12.917 - 12.667	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.791	-5.547	3.549
			Max. Mx	20	-54.617	2696.460	-3.285
			Max. My	2	-54.601	-7.894	2758.220
			Max. Vy	20	-26.419	2696.460	-3.285



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			<b>Designed by</b>
			Jayaraj B

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L67	12.667 - 12.5	Pole	Max. Vx	2	-27.228	-7.894	2758.220
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.884	-5.553	3.547
			Max. Mx	20	-54.696	2700.869	-3.289
			Max. My	2	-54.680	-7.902	2762.767
			Max. Vy	20	-26.425	2700.869	-3.289
			Max. Vx	2	-27.233	-7.902	2762.767
L68	12.5 - 12.25	Pole	Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.011	-5.561	3.544
			Max. Mx	20	-54.800	2707.472	-3.295
			Max. My	2	-54.784	-7.915	2769.576
			Max. Vy	20	-26.434	2707.472	-3.295
			Max. Vx	2	-27.241	-7.915	2769.576
			Max. Torque	15			0.691
L69	12.25 - 12	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-82.138	-5.568	3.542
			Max. Mx	20	-54.906	2714.077	-3.301
			Max. My	2	-54.890	-7.928	2776.386
			Max. Vy	20	-26.442	2714.077	-3.301
			Max. Vx	2	-27.247	-7.928	2776.386
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
L70	12 - 11.75	Pole	Max. Compression	26	-82.259	-5.576	3.539
			Max. Mx	20	-55.005	2720.683	-3.307
			Max. My	2	-54.990	-7.941	2783.198
			Max. Vy	20	-26.449	2720.683	-3.307
			Max. Vx	2	-27.252	-7.941	2783.198
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.820	-5.669	3.513
L71	11.75 - 8.5	Pole	Max. Mx	20	-56.297	2806.913	-3.383
			Max. My	2	-56.287	-8.106	2871.901
			Max. Vy	20	-26.681	2806.913	-3.383
			Max. Vx	2	-27.365	-8.106	2871.901
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.961	-5.676	3.514
			Max. Mx	20	-56.430	2813.575	-3.389
L72	8.5 - 8.25	Pole	Max. My	2	-56.421	-8.118	2878.737
			Max. Vy	20	-26.677	2813.575	-3.389
			Max. Vx	2	-27.351	-8.118	2878.737
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.663	-5.711	3.515
			Max. Mx	20	-57.022	2846.968	-3.418
			Max. My	2	-57.014	-8.181	2912.965
L73	8.25 - 7	Pole	Max. Vy	20	-26.810	2846.968	-3.418
			Max. Vx	2	-27.437	-8.181	2912.965
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.792	-5.718	3.515
			Max. Mx	20	-57.141	2853.663	-3.424
			Max. My	2	-57.134	-8.194	2919.821
			Max. Vy	20	-26.811	2853.663	-3.424
L74	7 - 6.75	Pole	Max. Vx	2	-27.428	-8.194	2919.821
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-87.302	-5.847	3.513
			Max. Mx	20	-59.317	2988.600	-3.540
			Max. My	2	-59.317	-8.194	2919.821
			Max. Vy	20	-26.811	2853.663	-3.424
			Max. Vx	2	-27.428	-8.194	2919.821
L75	6.75 - 1.75	Pole	Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-87.302	-5.847	3.513
			Max. Mx	20	-59.317	2988.600	-3.540

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L76	1.75 - 0	Pole	Max. My	2	-59.315	-8.445	3057.503
			Max. Vy	20	-27.223	2988.600	-3.540
			Max. Vx	2	-27.667	-8.445	3057.503
			Max. Torque	15			0.691
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-88.160	-5.886	-3.512
			Max. Mx	20	-60.081	3036.293	-3.580
			Max. My	2	-60.080	-8.533	3105.954
			Max. Vy	20	-27.377	3036.293	-3.580
			Max. Vx	2	-27.763	-8.533	3105.954
			Max. Torque	15			0.691

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	38	88.160	3.754	6.527
	Max. H <sub>x</sub>	21	45.075	27.334	-0.028
	Max. H <sub>z</sub>	2	60.100	-0.037	27.719
	Max. M <sub>x</sub>	2	3105.954	-0.037	27.719
	Max. M <sub>z</sub>	8	3035.473	-27.299	0.019
	Max. Torsion	15	0.691	0.056	-27.706
	Min. Vert	5	45.075	-13.193	22.942
	Min. H <sub>x</sub>	8	60.100	-27.299	0.019
	Min. H <sub>z</sub>	14	60.100	0.056	-27.706
	Min. M <sub>x</sub>	14	-3101.460	0.056	-27.706
	Min. M <sub>z</sub>	20	-3036.293	27.334	-0.028
	Min. Torsion	3	-0.548	-0.037	27.719

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead Only	50.083	0.000	-0.000	-1.194	-1.733	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	60.100	0.037	-27.719	-3105.954	-8.533	0.541
0.9 Dead+1.0 Wind 0 deg - No Ice	45.075	0.037	-27.719	-3041.277	-7.772	0.548
1.2 Dead+1.0 Wind 30 deg - No Ice	60.100	13.193	-22.942	-2610.052	-1501.407	0.219
0.9 Dead+1.0 Wind 30 deg - No Ice	45.075	13.193	-22.942	-2555.222	-1469.549	0.222
1.2 Dead+1.0 Wind 60 deg - No Ice	60.100	23.164	-13.520	-1518.288	-2591.822	-0.229
0.9 Dead+1.0 Wind 60 deg - No Ice	45.075	23.164	-13.520	-1486.213	-2537.286	-0.230
1.2 Dead+1.0 Wind 90 deg - No Ice	60.100	27.299	-0.019	-5.247	-3035.473	-0.188
0.9 Dead+1.0 Wind 90 deg - No Ice	45.075	27.299	-0.019	-4.722	-2971.831	-0.192
1.2 Dead+1.0 Wind 120 deg - No Ice	60.100	25.376	14.746	1591.893	-2739.521	-0.137

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	<p style="text-align: center;"><b>Client</b></p> <p style="text-align: center;">Crown Castle</p>	<p style="text-align: center;"><b>Designed by</b></p> <p style="text-align: center;">Jayaraj B</p>

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
No Ice						
0.9 Dead+1.0 Wind 120 deg - No Ice	45.075	25.376	14.746	1559.742	-2683.007	-0.144
1.2 Dead+1.0 Wind 150 deg - No Ice	60.100	15.542	27.046	2879.400	-1654.455	-0.604
0.9 Dead+1.0 Wind 150 deg - No Ice	45.075	15.542	27.046	2821.454	-1620.420	-0.612
1.2 Dead+1.0 Wind 180 deg - No Ice	60.100	-0.056	27.706	3101.460	7.042	-0.684
0.9 Dead+1.0 Wind 180 deg - No Ice	45.075	-0.056	27.706	3037.650	7.415	-0.691
1.2 Dead+1.0 Wind 210 deg - No Ice	60.100	-13.185	22.900	2603.231	1497.264	-0.451
0.9 Dead+1.0 Wind 210 deg - No Ice	45.075	-13.185	22.900	2549.295	1466.578	-0.456
1.2 Dead+1.0 Wind 240 deg - No Ice	60.100	-23.154	13.507	1514.340	2587.718	-0.133
0.9 Dead+1.0 Wind 240 deg - No Ice	45.075	-23.154	13.507	1483.117	2534.348	-0.133
1.2 Dead+1.0 Wind 270 deg - No Ice	60.100	-27.334	0.028	3.580	3036.293	0.157
0.9 Dead+1.0 Wind 270 deg - No Ice	45.075	-27.334	0.028	3.876	2973.730	0.161
1.2 Dead+1.0 Wind 300 deg - No Ice	60.100	-25.406	-14.735	-1593.306	2739.407	-0.004
0.9 Dead+1.0 Wind 300 deg - No Ice	45.075	-25.406	-14.735	-1560.338	2684.006	0.002
1.2 Dead+1.0 Wind 330 deg - No Ice	60.100	-15.533	-27.048	-2882.684	1648.712	0.496
0.9 Dead+1.0 Wind 330 deg - No Ice	45.075	-15.533	-27.048	-2823.889	1615.917	0.504
1.2 Dead+1.0 Ice+1.0 Temp	88.160	0.000	-0.000	-3.512	-5.886	0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	88.160	0.007	-6.621	-808.809	-7.527	0.104
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	88.160	3.276	-5.688	-696.430	-405.132	0.018
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	88.160	5.704	-3.320	-406.056	-695.649	-0.082
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	88.160	6.657	-0.004	-4.525	-805.904	-0.075
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	88.160	6.069	3.520	412.727	-723.178	-0.085
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	88.160	3.756	6.527	752.285	-440.477	-0.242
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	88.160	-0.012	6.620	801.542	-3.868	-0.135
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	88.160	-3.281	5.691	689.704	393.902	-0.067
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	88.160	-5.710	3.322	399.241	684.676	0.005
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	88.160	-6.665	0.006	-2.362	795.070	0.069
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	88.160	-6.075	-3.518	-419.553	712.088	0.055
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	88.160	-3.754	-6.527	-759.529	428.140	0.218
Dead+Wind 0 deg - Service	50.083	0.009	-6.767	-751.232	-3.338	0.132
Dead+Wind 30 deg - Service	50.083	3.220	-5.599	-631.069	-363.797	0.050
Dead+Wind 60 deg - Service	50.083	5.653	-3.300	-367.454	-627.076	-0.063
Dead+Wind 90 deg - Service	50.083	6.662	-0.005	-2.148	-734.200	-0.051
Dead+Wind 120 deg - Service	50.083	6.192	3.598	383.526	-662.845	-0.036

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Load Combination	Vertical	Shear <sub>x</sub>	Shear <sub>z</sub>	Overturning Moment, M <sub>x</sub>	Overturning Moment, M <sub>z</sub>	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 150 deg - Service	50.083	3.793	6.601	694.879	-401.073	-0.151
Dead+Wind 180 deg - Service	50.083	-0.014	6.764	748.368	0.403	-0.168
Dead+Wind 210 deg - Service	50.083	-3.218	5.589	627.646	360.222	-0.108
Dead+Wind 240 deg - Service	50.083	-5.651	3.296	364.726	623.513	-0.028
Dead+Wind 270 deg - Service	50.083	-6.671	0.007	-0.028	731.831	0.044
Dead+Wind 300 deg - Service	50.083	-6.199	-3.595	-385.640	660.252	0.001
Dead+Wind 330 deg - Service	50.083	-3.791	-6.601	-697.448	397.119	0.123

## Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-50.083	0.000	-0.000	50.083	0.000	0.000%
2	0.037	-60.100	-27.719	-0.037	60.100	27.719	0.000%
3	0.037	-45.075	-27.719	-0.037	45.075	27.719	0.000%
4	13.193	-60.100	-22.942	-13.193	60.100	22.942	0.000%
5	13.193	-45.075	-22.942	-13.193	45.075	22.942	0.000%
6	23.164	-60.100	-13.520	-23.164	60.100	13.520	0.000%
7	23.164	-45.075	-13.520	-23.164	45.075	13.520	0.000%
8	27.299	-60.100	-0.019	-27.299	60.100	0.019	0.000%
9	27.299	-45.075	-0.019	-27.299	45.075	0.019	0.000%
10	25.376	-60.100	14.746	-25.376	60.100	-14.746	0.000%
11	25.376	-45.075	14.746	-25.376	45.075	-14.746	0.000%
12	15.542	-60.100	27.046	-15.542	60.100	-27.046	0.000%
13	15.542	-45.075	27.046	-15.542	45.075	-27.046	0.000%
14	-0.056	-60.100	27.706	0.056	60.100	-27.706	0.000%
15	-0.056	-45.075	27.706	0.056	45.075	-27.706	0.000%
16	-13.185	-60.100	22.900	13.185	60.100	-22.900	0.000%
17	-13.185	-45.075	22.900	13.185	45.075	-22.900	0.000%
18	-23.154	-60.100	13.507	23.154	60.100	-13.507	0.000%
19	-23.154	-45.075	13.507	23.154	45.075	-13.507	0.000%
20	-27.334	-60.100	0.028	27.334	60.100	-0.028	0.000%
21	-27.334	-45.075	0.028	27.334	45.075	-0.028	0.000%
22	-25.406	-60.100	-14.735	25.406	60.100	14.735	0.000%
23	-25.406	-45.075	-14.735	25.406	45.075	14.735	0.000%
24	-15.533	-60.100	-27.048	15.533	60.100	27.048	0.000%
25	-15.533	-45.075	-27.048	15.533	45.075	27.048	0.000%
26	0.000	-88.160	0.000	-0.000	88.160	0.000	0.000%
27	0.007	-88.160	-6.621	-0.007	88.160	6.621	0.000%
28	3.276	-88.160	-5.688	-3.276	88.160	5.688	0.000%
29	5.704	-88.160	-3.320	-5.704	88.160	3.320	0.000%
30	6.657	-88.160	-0.004	-6.657	88.160	0.004	0.000%
31	6.069	-88.160	3.520	-6.069	88.160	-3.520	0.000%
32	3.756	-88.160	6.527	-3.756	88.160	-6.527	0.000%
33	-0.012	-88.160	6.620	0.012	88.160	-6.620	0.000%
34	-3.281	-88.160	5.691	3.281	88.160	-5.691	0.000%
35	-5.710	-88.160	3.322	5.710	88.160	-3.322	0.000%
36	-6.665	-88.160	0.006	6.665	88.160	-0.006	0.000%
37	-6.075	-88.160	-3.518	6.075	88.160	3.518	0.000%
38	-3.754	-88.160	-6.527	3.754	88.160	6.527	0.000%
39	0.009	-50.083	-6.767	-0.009	50.083	6.767	0.000%
40	3.220	-50.083	-5.599	-3.220	50.083	5.599	0.000%
41	5.653	-50.083	-3.300	-5.653	50.083	3.300	0.000%
42	6.662	-50.083	-0.005	-6.662	50.083	0.005	0.000%
43	6.192	-50.083	3.598	-6.192	50.083	-3.598	0.000%
44	3.793	-50.083	6.601	-3.793	50.083	-6.601	0.000%
45	-0.014	-50.083	6.764	0.014	50.083	-6.764	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
46	-3.218	-50.083	5.589	3.218	50.083	-5.589	0.000%
47	-5.651	-50.083	3.296	5.651	50.083	-3.296	0.000%
48	-6.671	-50.083	0.007	6.671	50.083	-0.007	0.000%
49	-6.199	-50.083	-3.595	6.199	50.083	3.595	0.000%
50	-3.791	-50.083	-6.601	3.791	50.083	6.601	0.000%

## Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.0000001	0.00002046
2	Yes	6	0.0000001	0.00058562
3	Yes	6	0.0000001	0.00020064
4	Yes	8	0.0000001	0.00019567
5	Yes	7	0.0000001	0.00049872
6	Yes	8	0.0000001	0.00019535
7	Yes	7	0.0000001	0.00049788
8	Yes	6	0.0000001	0.00031978
9	Yes	6	0.0000001	0.00010401
10	Yes	8	0.0000001	0.00020320
11	Yes	7	0.0000001	0.00051316
12	Yes	8	0.0000001	0.00021667
13	Yes	7	0.0000001	0.00054346
14	Yes	6	0.0000001	0.00035117
15	Yes	6	0.0000001	0.00012005
16	Yes	8	0.0000001	0.00019245
17	Yes	7	0.0000001	0.00049017
18	Yes	8	0.0000001	0.00019492
19	Yes	7	0.0000001	0.00049703
20	Yes	6	0.0000001	0.00017999
21	Yes	5	0.0000001	0.00071276
22	Yes	8	0.0000001	0.00020461
23	Yes	7	0.0000001	0.00051711
24	Yes	8	0.0000001	0.00021194
25	Yes	7	0.0000001	0.00053042
26	Yes	5	0.0000001	0.00060945
27	Yes	8	0.0000001	0.00021087
28	Yes	8	0.0000001	0.00029898
29	Yes	8	0.0000001	0.00029931
30	Yes	8	0.0000001	0.00021005
31	Yes	8	0.0000001	0.00030160
32	Yes	8	0.0000001	0.00032232
33	Yes	8	0.0000001	0.00020676
34	Yes	8	0.0000001	0.00028462
35	Yes	8	0.0000001	0.00028544
36	Yes	8	0.0000001	0.00020529
37	Yes	8	0.0000001	0.00030201
38	Yes	8	0.0000001	0.00031634
39	Yes	5	0.0000001	0.00044225
40	Yes	6	0.0000001	0.00033084
41	Yes	6	0.0000001	0.00033030
42	Yes	5	0.0000001	0.00036852
43	Yes	6	0.0000001	0.00034578
44	Yes	6	0.0000001	0.00039778
45	Yes	5	0.0000001	0.00043935
46	Yes	6	0.0000001	0.00030982

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			Jayaraj B

47	Yes	6	0.00000001	0.00031877
48	Yes	5	0.00000001	0.00035462
49	Yes	6	0.00000001	0.00035123
50	Yes	6	0.00000001	0.00037605

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	144.25 - 139.25	33.100	50	2.381	0.007
L2	139.25 - 134.75	30.611	50	2.368	0.006
L3	134.75 - 134.25	28.400	50	2.321	0.006
L4	134.25 - 129.25	28.158	50	2.315	0.006
L5	129.25 - 124.25	25.802	50	2.180	0.005
L6	124.25 - 123.416	23.609	50	2.002	0.003
L7	123.416 - 123.166	23.262	50	1.969	0.003
L8	123.166 - 118.166	23.159	50	1.965	0.003
L9	118.166 - 113.166	21.146	50	1.879	0.002
L10	113.166 - 109.5	19.231	50	1.778	0.002
L11	109.5 - 109.25	17.897	50	1.697	0.001
L12	109.25 - 104.75	17.809	50	1.692	0.001
L13	104.75 - 104.5	16.257	50	1.601	0.001
L14	104.5 - 102.416	16.173	50	1.597	0.001
L15	102.416 - 102.166	15.484	50	1.563	0.001
L16	102.166 - 98.75	15.402	50	1.557	0.001
L17	98.75 - 98.5	14.315	50	1.481	0.001
L18	98.5 - 97.5	14.238	50	1.477	0.001
L19	97.5 - 97.25	13.930	50	1.462	0.001
L20	97.25 - 92	13.853	50	1.457	0.001
L21	95.552 - 90.552	13.341	50	1.427	0.001
L22	90.552 - 89.25	11.872	50	1.369	0.001
L23	89.25 - 89	11.502	50	1.346	0.001
L24	89 - 88.25	11.431	50	1.342	0.001
L25	88.25 - 88	11.221	50	1.331	0.001
L26	88 - 87.833	11.152	50	1.326	0.001
L27	87.833 - 87.583	11.105	50	1.323	0.001
L28	87.583 - 82.583	11.036	50	1.318	0.001
L29	82.583 - 77.583	9.713	50	1.209	0.001
L30	77.583 - 77	8.506	50	1.097	0.000
L31	77 - 76.75	8.373	50	1.084	0.000
L32	76.75 - 76.333	8.316	50	1.080	0.000
L33	76.333 - 76.083	8.222	50	1.073	0.000
L34	76.083 - 74.25	8.166	50	1.068	0.000
L35	74.25 - 74	7.762	50	1.037	0.000
L36	74 - 73.75	7.708	50	1.033	0.000
L37	73.75 - 73.5	7.654	50	1.029	0.000
L38	73.5 - 68.5	7.600	50	1.025	0.000
L39	68.5 - 63.5	6.570	50	0.944	0.000
L40	63.5 - 60.5	5.623	50	0.864	0.000
L41	60.5 - 60.25	5.096	50	0.815	0.000
L42	60.25 - 59.5	5.053	50	0.811	0.000
L43	59.5 - 59.25	4.927	50	0.799	0.000
L44	59.25 - 54.25	4.885	50	0.795	0.000
L45	54.25 - 45.802	4.093	50	0.718	0.000
L46	50 - 44.802	3.484	50	0.653	0.000
L47	44.802 - 43.583	2.795	50	0.605	0.000
L48	43.583 - 43.333	2.643	50	0.587	0.000
L49	43.333 - 43.166	2.613	50	0.583	0.000
L50	43.166 - 42.916	2.592	50	0.580	0.000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 82 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L51	42.916 - 39	2.562	50	0.577	0.000
L52	39 - 38.75	2.111	50	0.522	0.000
L53	38.75 - 37.166	2.084	50	0.519	0.000
L54	37.166 - 36.916	1.915	50	0.498	0.000
L55	36.916 - 34	1.889	50	0.495	0.000
L56	34 - 33.75	1.600	50	0.454	0.000
L57	33.75 - 29.75	1.576	50	0.451	0.000
L58	29.75 - 29.5	1.222	50	0.395	0.000
L59	29.5 - 24.5	1.201	50	0.392	0.000
L60	24.5 - 23	0.827	50	0.323	0.000
L61	23 - 22.75	0.728	50	0.303	0.000
L62	22.75 - 21.583	0.713	50	0.300	0.000
L63	21.583 - 21.333	0.641	50	0.287	0.000
L64	21.333 - 16.333	0.626	50	0.283	0.000
L65	16.333 - 12.917	0.364	50	0.217	0.000
L66	12.917 - 12.667	0.225	50	0.173	0.000
L67	12.667 - 12.5	0.216	50	0.170	0.000
L68	12.5 - 12.25	0.210	50	0.168	0.000
L69	12.25 - 12	0.201	50	0.164	0.000
L70	12 - 11.75	0.193	50	0.161	0.000
L71	11.75 - 8.5	0.184	50	0.157	0.000
L72	8.5 - 8.25	0.095	50	0.105	0.000
L73	8.25 - 7	0.089	50	0.103	0.000
L74	7 - 6.75	0.064	50	0.089	0.000
L75	6.75 - 1.75	0.060	50	0.085	0.000
L76	1.75 - 0	0.004	50	0.022	0.000

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
144.000	EPBQ-654L8H8-L2 w/ Mount Pipe	50	32.976	2.381	0.008	8583
133.000	VHLP2-23	50	27.556	2.292	0.006	2542
130.000	(2) APXVSP18-C-A20 w/ Mount Pipe	50	26.146	2.205	0.006	1897
120.000	MX08FRO665-21 w/ Mount Pipe	50	21.874	1.914	0.003	3022
110.000	SBNHH-1D65B w/ Mount Pipe	50	18.076	1.707	0.002	2708
100.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	50	14.706	1.506	0.001	2908
50.000	KS24019-L112A	50	3.484	0.653	0.000	4999

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	144.25 - 139.25	136.654	24	9.866	0.029
L2	139.25 - 134.75	126.425	24	9.810	0.026
L3	134.75 - 134.25	117.336	24	9.615	0.023
L4	134.25 - 129.25	116.338	24	9.590	0.023
L5	129.25 - 124.25	106.649	24	9.033	0.019



**tnxTower**

**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
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<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L6	124.25 - 123.416	97.620	24	8.295	0.011
L7	123.416 - 123.166	96.191	24	8.159	0.010
L8	123.166 - 118.166	95.767	24	8.143	0.010
L9	118.166 - 113.166	87.467	24	7.789	0.008
L10	113.166 - 109.5	79.566	24	7.371	0.006
L11	109.5 - 109.25	74.059	24	7.036	0.005
L12	109.25 - 104.75	73.692	24	7.016	0.005
L13	104.75 - 104.5	67.282	24	6.637	0.004
L14	104.5 - 102.416	66.936	24	6.621	0.004
L15	102.416 - 102.166	64.088	24	6.481	0.004
L16	102.166 - 98.75	63.750	24	6.459	0.004
L17	98.75 - 98.5	59.258	24	6.142	0.003
L18	98.5 - 97.5	58.937	24	6.126	0.003
L19	97.5 - 97.25	57.665	24	6.062	0.003
L20	97.25 - 92	57.349	24	6.044	0.003
L21	95.552 - 90.552	55.229	24	5.918	0.003
L22	90.552 - 89.25	49.154	24	5.679	0.003
L23	89.25 - 89	47.623	24	5.581	0.003
L24	89 - 88.25	47.331	24	5.566	0.003
L25	88.25 - 88	46.463	24	5.519	0.003
L26	88 - 87.833	46.176	24	5.500	0.003
L27	87.833 - 87.583	45.984	24	5.487	0.003
L28	87.583 - 82.583	45.698	24	5.465	0.003
L29	82.583 - 77.583	40.224	24	5.014	0.002
L30	77.583 - 77	35.227	24	4.549	0.002
L31	77 - 76.75	34.676	24	4.496	0.002
L32	76.75 - 76.333	34.441	24	4.478	0.002
L33	76.333 - 76.083	34.052	24	4.448	0.002
L34	76.083 - 74.25	33.820	24	4.430	0.002
L35	74.25 - 74	32.147	24	4.299	0.002
L36	74 - 73.75	31.923	24	4.282	0.002
L37	73.75 - 73.5	31.700	24	4.266	0.002
L38	73.5 - 68.5	31.477	24	4.249	0.002
L39	68.5 - 63.5	27.209	24	3.916	0.001
L40	63.5 - 60.5	23.289	24	3.580	0.001
L41	60.5 - 60.25	21.106	24	3.378	0.001
L42	60.25 - 59.5	20.929	24	3.361	0.001
L43	59.5 - 59.25	20.406	24	3.311	0.001
L44	59.25 - 54.25	20.233	24	3.295	0.001
L45	54.25 - 45.802	16.953	24	2.975	0.001
L46	50 - 44.802	14.427	24	2.706	0.001
L47	44.802 - 43.583	11.576	24	2.508	0.001
L48	43.583 - 43.333	10.946	24	2.431	0.001
L49	43.333 - 43.166	10.819	24	2.416	0.001
L50	43.166 - 42.916	10.735	24	2.405	0.001
L51	42.916 - 39	10.610	24	2.391	0.001
L52	39 - 38.75	8.743	24	2.164	0.001
L53	38.75 - 37.166	8.630	24	2.150	0.001
L54	37.166 - 36.916	7.931	24	2.064	0.001
L55	36.916 - 34	7.823	24	2.049	0.001
L56	34 - 33.75	6.623	24	1.882	0.000
L57	33.75 - 29.75	6.525	24	1.868	0.000
L58	29.75 - 29.5	5.058	24	1.637	0.000
L59	29.5 - 24.5	4.973	24	1.623	0.000
L60	24.5 - 23	3.423	24	1.339	0.000
L61	23 - 22.75	3.015	24	1.256	0.000
L62	22.75 - 21.583	2.950	24	1.243	0.000
L63	21.583 - 21.333	2.653	24	1.187	0.000
L64	21.333 - 16.333	2.591	24	1.173	0.000
L65	16.333 - 12.917	1.507	24	0.899	0.000
L66	12.917 - 12.667	0.930	24	0.715	0.000

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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L67	12.667 - 12.5	0.893	24	0.703	0.000
L68	12.5 - 12.25	0.868	24	0.695	0.000
L69	12.25 - 12	0.832	24	0.681	0.000
L70	12 - 11.75	0.797	24	0.666	0.000
L71	11.75 - 8.5	0.762	24	0.650	0.000
L72	8.5 - 8.25	0.393	24	0.437	0.000
L73	8.25 - 7	0.370	24	0.425	0.000
L74	7 - 6.75	0.267	24	0.367	0.000
L75	6.75 - 1.75	0.248	24	0.354	0.000
L76	1.75 - 0	0.016	12	0.089	0.000

### Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
144.000	EPBQ-654L8H8-L2 w/ Mount Pipe	24	136.141	9.865	0.035	2175
133.000	VHLP2-23	24	113.865	9.493	0.028	646
130.000	(2) APXVSP18-C-A20 w/ Mount Pipe	24	108.065	9.132	0.024	486
120.000	MX08FRO665-21 w/ Mount Pipe	24	90.469	7.933	0.011	764
110.000	SBNHH-1D65B w/ Mount Pipe	24	74.795	7.076	0.007	677
100.000	APXVAARR24_43-U-NA20 w/ Mount Pipe	24	60.876	6.246	0.005	721
50.000	KS24019-L112A	24	14.427	2.706	0.001	1211

### Compression Checks

### Pole Design Data

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio P <sub>u</sub> / φP <sub>n</sub>
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	5.000	0.000	0.0	14.579	-5.153	603.569	0.009
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	4.500	0.000	0.0	14.579	-5.444	603.569	0.009
L3	134.75 - 134.25 (3)	TP13.48x13.48x0.375	0.500	0.000	0.0	15.439	-5.481	639.173	0.009
L4	134.25 - 129.25 (4)	TP14.466x13.48x0.188	5.000	0.000	0.0	8.621	-9.117	504.301	0.018
L5	129.25 - 124.25 (5)	TP15.452x14.466x0.188	5.000	0.000	0.0	9.216	-9.466	539.118	0.018
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	0.834	0.000	0.0	9.315	-9.531	544.926	0.017
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	0.250	0.000	0.0	26.183	-9.571	1531.670	0.006
L8	123.166 - 118.166 (8)	TP16.651x15.665x0.513	5.000	0.000	0.0	26.633	-13.008	1558.020	0.008
L9	118.166 - 113.166 (9)	TP17.637x16.651x0.488	5.000	0.000	0.0	26.920	-13.524	1574.840	0.009
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	3.666	0.000	0.0	27.355	-17.332	1600.250	0.011
L11	109.5 - 109.25	TP18.409x18.36x0.588	0.250	0.000	0.0	33.714	-17.390	1972.260	0.009

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
L12	(11) 109.25 - 104.75 (12)	TP19.296x18.409x0.563	4.500	0.000	0.0	33.931	-18.128	1984.990	0.009
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	0.250	0.000	0.0	46.343	-18.196	2711.050	0.007
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	2.084	0.000	0.0	46.635	-18.630	2728.130	0.007
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	0.250	0.000	0.0	34.854	-18.690	2038.970	0.009
L16	102.166 - 98.75 (16)	TP20.479x19.806x0.55	3.416	0.000	0.0	35.295	-22.697	2064.730	0.011
L17	98.75 - 98.5 (17)	TP20.528x20.479x0.838	0.250	0.000	0.0	53.102	-22.782	3106.440	0.007
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	1.000	0.000	0.0	53.633	-23.038	3137.550	0.007
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	0.250	0.000	0.0	48.360	-23.112	2829.070	0.008
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	5.250	0.000	0.0	48.379	-23.528	2830.160	0.008
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	5.000	0.000	0.0	53.916	-25.589	3154.100	0.008
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	1.302	0.000	0.0	52.941	-25.956	3097.030	0.008
L23	89.25 - 89 (23)	TP22.039x21.989x1	0.250	0.000	0.0	67.746	-26.052	3963.150	0.007
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	0.750	0.000	0.0	66.600	-26.283	3896.090	0.007
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	0.250	0.000	0.0	52.729	-26.358	3084.620	0.009
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	0.167	0.000	0.0	52.810	-26.405	3089.390	0.009
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	0.250	0.000	0.0	47.048	-26.467	2752.330	0.010
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	5.000	0.000	0.0	47.442	-27.731	2775.340	0.010
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	5.000	0.000	0.0	47.671	-29.039	2788.740	0.010
L30	77.583 - 77 (30)	TP24.428x24.312x0.625	0.583	0.000	0.0	47.904	-29.203	2802.410	0.010
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	0.250	0.000	0.0	62.835	-29.287	3675.830	0.008
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	0.417	0.000	0.0	63.055	-29.412	3688.730	0.008
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	0.250	0.000	0.0	63.188	-29.489	3696.470	0.008
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	1.833	0.000	0.0	62.277	-30.004	3643.220	0.008
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	0.250	0.000	0.0	68.981	-30.106	4035.390	0.007
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	0.250	0.000	0.0	69.123	-30.183	4043.710	0.007
L37	73.75 - 73.5 (37)	TP25.125x25.076x0.913	0.250	0.000	0.0	71.143	-30.263	4161.880	0.007
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	5.000	0.000	0.0	71.130	-31.844	4161.110	0.008
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	5.000	0.000	0.0	71.891	-33.460	4205.620	0.008
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	3.000	0.000	0.0	71.430	-34.445	4178.630	0.008
L41	60.5 - 60.25 (41)	TP27.763x27.714x0.825	0.250	0.000	0.0	71.562	-34.539	4186.370	0.008
L42	60.25 - 59.5 (42)	TP27.913x27.763x0.825	0.750	0.000	0.0	71.959	-34.780	4209.570	0.008
L43	59.5 - 59.25 (43)	TP27.962x27.913x0.888	0.250	0.000	0.0	77.373	-34.875	4526.350	0.008
L44	59.25 - 54.25 (44)	TP28.958x27.962x0.85	5.000	0.000	0.0	76.932	-36.599	4500.500	0.008
L45	54.25 - 45.802 (45)	TP30.64x28.958x0.838	8.448	0.000	0.0	78.116	-38.093	4569.780	0.008
L46	45.802 - 44.802 (46)	TP30.333x29.304x0.838	5.198	0.000	0.0	79.542	-41.241	4653.200	0.009

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio P <sub>u</sub> / φP <sub>n</sub>
L47	44.802 - 43.583 (47)	TP30.574x30.333x0.838	1.219	0.000	0.0	80.192	-41.684	4691.260	0.009
L48	43.583 - 43.333 (48)	TP30.624x30.574x0.85	0.250	0.000	0.0	81.491	-41.795	4767.200	0.009
L49	43.333 - 43.166 (49)	TP30.657x30.624x0.85	0.167	0.000	0.0	81.581	-41.861	4772.490	0.009
L50	43.166 - 42.916 (50)	TP30.706x30.657x0.938	0.250	0.000	0.0	89.864	-41.960	5257.060	0.008
L51	42.916 - 39 (51)	TP31.481x30.706x0.913	3.916	0.000	0.0	89.819	-43.514	5254.390	0.008
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	0.250	0.000	0.0	93.547	-43.635	5472.470	0.008
L53	38.75 - 37.166 (53)	TP31.844x31.531x0.938	1.584	0.000	0.0	93.300	-44.282	5458.030	0.008
L54	37.166 - 36.916 (54)	TP31.894x31.844x0.888	0.250	0.000	0.0	88.608	-44.403	5183.570	0.009
L55	36.916 - 34 (55)	TP32.471x31.894x0.888	2.916	0.000	0.0	90.257	-45.584	5280.050	0.009
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	0.250	0.000	0.0	89.161	-45.702	5215.900	0.009
L57	33.75 - 29.75 (57)	TP33.312x32.52x0.863	4.000	0.000	0.0	88.471	-46.116	5175.570	0.009
L58	29.75 - 29.5 (58)	TP33.361x33.312x0.863	0.250	0.000	0.0	90.120	-47.304	5272.040	0.009
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	5.000	0.000	0.0	88.984	-47.416	5205.560	0.009
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	1.500	0.000	0.0	90.378	-49.454	5287.090	0.009
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	0.250	0.000	0.0	104.400	-50.051	6107.370	0.008
L62	22.75 - 21.583 (62)	TP34.928x34.697x0.963	1.167	0.000	0.0	104.553	-50.174	6116.340	0.008
L63	21.583 - 21.333 (63)	TP34.978x34.928x0.85	0.250	0.000	0.0	93.272	-50.683	5456.440	0.009
L64	21.333 - 16.333 (64)	TP35.967x34.978x0.838	5.000	0.000	0.0	92.068	-50.802	5385.980	0.009
L65	16.333 - 12.917 (65)	TP36.644x35.967x0.825	3.416	0.000	0.0	93.356	-52.959	5461.320	0.010
L66	12.917 - 12.667 (66)	TP36.693x36.644x0.913	0.250	0.000	0.0	104.987	-54.433	6141.720	0.009
L67	12.667 - 12.5 (67)	TP36.726x36.693x0.913	0.167	0.000	0.0	105.132	-54.550	6150.220	0.009
L68	12.5 - 12.25 (68)	TP36.776x36.726x0.763	0.250	0.000	0.0	88.299	-54.630	5165.520	0.011
L69	12.25 - 12 (69)	TP36.825x36.776x0.763	0.250	0.000	0.0	88.421	-54.737	5172.630	0.011
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	0.250	0.000	0.0	77.144	-54.845	4512.900	0.012
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	3.250	0.000	0.0	75.818	-54.961	4435.340	0.012
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	0.250	0.000	0.0	108.991	-56.270	6376.000	0.009
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	1.250	0.000	0.0	107.701	-56.404	6300.490	0.009
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	0.250	0.000	0.0	96.807	-57.000	5663.190	0.010
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	5.000	0.000	0.0	94.017	-57.121	5499.990	0.010
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	1.750	0.000	0.0	96.526	-59.343	5646.780	0.011

### Pole Bending Design Data

Section No.	Elevation ft	Size	M <sub>ux</sub> kip-ft	φM <sub>ux</sub> kip-ft	Ratio M <sub>ux</sub> / φM <sub>ux</sub>	M <sub>uy</sub> kip-ft	φM <sub>uy</sub> kip-ft	Ratio M <sub>uy</sub> / φM <sub>uy</sub>
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	27.275	198.187	0.138	0.000	198.187	0.000
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	57.896	198.187	0.292	0.000	198.187	0.000
L3	134.75 -	TP13.48x13.48x0.375	61.342	222.251	0.276	0.000	222.251	0.000

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{rx}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	$M_{uy}$ kip-ft	$\phi M_{ry}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
L4	134.25 (3)	TP14.466x13.48x0.188	101.723	183.885	0.553	0.000	183.885	0.000
L5	129.25 - 124.25 (4)	TP15.452x14.466x0.188	158.925	210.328	0.756	0.000	210.328	0.000
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	168.545	214.735	0.785	0.000	214.735	0.000
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	171.433	578.929	0.296	0.000	578.929	0.000
L8	123.166 - 118.166 (8)	TP16.651x15.665x0.513	235.186	630.532	0.373	0.000	630.532	0.000
L9	118.166 - 113.166 (9)	TP17.637x16.651x0.488	310.289	679.450	0.457	0.000	679.450	0.000
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	368.875	721.324	0.511	0.000	721.324	0.000
L11	109.5 - 109.25 (11)	TP18.409x18.36x0.588	373.878	880.375	0.425	0.000	880.375	0.000
L12	109.25 - 104.75 (12)	TP19.296x18.409x0.563	464.792	934.067	0.498	0.000	934.067	0.000
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	469.892	1250.400	0.376	0.000	1250.400	0.000
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	512.629	1288.933	0.398	0.000	1288.933	0.000
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	517.783	986.325	0.525	0.000	986.325	0.000
L16	102.166 - 98.75 (16)	TP20.479x19.806x0.55	593.602	1036.033	0.573	0.000	1036.033	0.000
L17	98.75 - 98.5 (17)	TP20.528x20.479x0.838	599.446	1518.050	0.395	0.000	1518.050	0.000
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	622.881	1549.233	0.402	0.000	1549.233	0.000
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	628.755	1412.833	0.445	0.000	1412.833	0.000
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	668.802	1439.625	0.465	0.000	1439.625	0.000
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	788.679	1645.142	0.479	0.000	1645.142	0.000
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	820.327	1639.983	0.500	0.000	1639.983	0.000
L23	89.25 - 89 (23)	TP22.039x21.989x1	826.423	2059.442	0.401	0.000	2059.442	0.000
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	844.742	2044.433	0.413	0.000	2044.433	0.000
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	850.867	1655.175	0.514	0.000	1655.175	0.000
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	854.958	1660.392	0.515	0.000	1660.392	0.000
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	861.083	1494.833	0.576	0.000	1494.833	0.000
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	984.717	1582.242	0.622	0.000	1582.242	0.000
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	1110.300	1665.175	0.667	0.000	1665.175	0.000
L30	77.583 - 77 (30)	TP24.428x24.312x0.625	1125.067	1681.742	0.669	0.000	1681.742	0.000
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	1131.408	2173.708	0.520	0.000	2173.708	0.000
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	1142.000	2189.250	0.522	0.000	2189.250	0.000
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	1148.350	2198.600	0.522	0.000	2198.600	0.000
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	1195.125	2205.850	0.542	0.000	2205.850	0.000
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	1201.525	2430.833	0.494	0.000	2430.833	0.000
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	1207.933	2441.050	0.495	0.000	2441.050	0.000
L37	73.75 - 73.5	TP25.125x25.076x0.913	1214.342	2512.542	0.483	0.000	2512.542	0.000

**tnxTower**

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**Job**  
 79982.008.01 - WATERBURY,CT (BU# 876317)

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**Project**  
 Date  
 15:59:42 03/26/22

**Client**  
 Crown Castle  
 Designed by  
 Jayaraj B

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{ux}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	$M_{uy}$ kip-ft	$\phi M_{uy}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
	(37)							
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	1343.808	2626.917	0.512	0.000	2626.917	0.000
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	1475.525	2768.483	0.533	0.000	2768.483	0.000
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	1555.625	2820.475	0.552	0.000	2820.475	0.000
L41	60.5 - 60.25	TP27.763x27.714x0.825	1562.333	2831.083	0.552	0.000	2831.083	0.000
	(41)							
L42	60.25 - 59.5	TP27.913x27.763x0.825	1582.500	2863.033	0.553	0.000	2863.033	0.000
	(42)							
L43	59.5 - 59.25	TP27.962x27.913x0.888	1589.233	3070.117	0.518	0.000	3070.117	0.000
	(43)							
L44	59.25 - 54.25	TP28.958x27.962x0.85	1725.075	3176.850	0.543	0.000	3176.850	0.000
	(44)							
L45	54.25 - 45.802	TP30.64x28.958x0.838	1842.267	3328.592	0.553	0.000	3328.592	0.000
	(45)							
L46	45.802 -	TP30.333x29.304x0.838	1988.442	3452.967	0.576	0.000	3452.967	0.000
	44.802 (46)							
L47	44.802 -	TP30.574x30.333x0.838	2023.108	3510.467	0.576	0.000	3510.467	0.000
	43.583 (47)							
L48	43.583 -	TP30.624x30.574x0.85	2030.233	3570.392	0.569	0.000	3570.392	0.000
	43.333 (48)							
L49	43.333 -	TP30.657x30.624x0.85	2035.000	3578.433	0.569	0.000	3578.433	0.000
	43.166 (49)							
L50	43.166 -	TP30.706x30.657x0.938	2042.133	3925.383	0.520	0.000	3925.383	0.000
	42.916 (50)							
L51	42.916 - 39	TP31.481x30.706x0.913	2154.500	4035.258	0.534	0.000	4035.258	0.000
	(51)							
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	2161.717	4199.433	0.515	0.000	4199.433	0.000
L53	38.75 - 37.166	TP31.844x31.531x0.938	2207.542	4236.008	0.521	0.000	4236.008	0.000
	(53)							
L54	37.166 -	TP31.894x31.844x0.888	2214.792	4042.658	0.548	0.000	4042.658	0.000
	36.916 (54)							
L55	36.916 - 34	TP32.471x31.894x0.888	2299.708	4196.683	0.548	0.000	4196.683	0.000
	(55)							
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	2307.017	4155.650	0.555	0.000	4155.650	0.000
L57	33.75 - 29.75	TP33.312x32.52x0.863	2336.283	4153.258	0.563	0.000	4153.258	0.000
	(57)							
L58	29.75 - 29.5	TP33.361x33.312x0.863	2424.367	4311.608	0.562	0.000	4311.608	0.000
	(58)							
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	2431.725	4267.175	0.570	0.000	4267.175	0.000
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	2579.467	4472.633	0.577	0.000	4472.633	0.000
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	2623.992	5174.958	0.507	0.000	5174.958	0.000
L62	22.75 - 21.583	TP34.928x34.697x0.963	2631.425	5190.383	0.507	0.000	5190.383	0.000
	(62)							
L63	21.583 -	TP34.978x34.928x0.85	2666.142	4693.900	0.568	0.000	4693.900	0.000
	21.333 (63)							
L64	21.333 -	TP35.967x34.978x0.838	2673.592	4643.575	0.576	0.000	4643.575	0.000
	16.333 (64)							
L65	16.333 -	TP36.644x35.967x0.825	2823.000	4851.733	0.582	0.000	4851.733	0.000
	12.917 (65)							
L66	12.917 -	TP36.693x36.644x0.913	2925.625	5536.417	0.528	0.000	5536.417	0.000
	12.667 (66)							
L67	12.667 - 12.5	TP36.726x36.693x0.913	2933.150	5551.950	0.528	0.000	5551.950	0.000
	(67)							
L68	12.5 - 12.25	TP36.776x36.726x0.763	2938.183	4706.633	0.624	0.000	4706.633	0.000
	(68)							
L69	12.25 - 12 (69)	TP36.825x36.776x0.763	2945.717	4719.725	0.624	0.000	4719.725	0.000
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	2953.250	4146.442	0.712	0.000	4146.442	0.000
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	2960.792	4083.675	0.725	0.000	4083.675	0.000
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	3059.158	5887.708	0.520	0.000	5887.708	0.000
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	3066.758	5830.017	0.526	0.000	5830.017	0.000



<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 89 of 95
	<b>Project</b>	<b>Date</b> 15:59:42 03/26/22
	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Size	$M_{ux}$ kip-ft	$\phi M_{ux}$ kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	$M_{uy}$ kip-ft	$\phi M_{uy}$ kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	3104.842	5305.175	0.585	0.000	5305.175	0.000
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	3112.475	5166.292	0.602	0.000	5166.292	0.000
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	3266.425	5448.700	0.599	0.000	5448.700	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $\frac{V_u}{\phi V_n}$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	144.25 - 139.25 (1)	TP12.75x12.75x0.375	6.723	181.071	0.037	0.489	197.003	0.002
L2	139.25 - 134.75 (2)	TP12.75x12.75x0.375	6.884	181.071	0.038	0.489	197.003	0.002
L3	134.75 - 134.25 (3)	TP13.48x13.48x0.375	6.901	191.752	0.036	0.489	220.931	0.002
L4	134.25 - 129.25 (4)	TP14.466x13.48x0.188	11.365	149.201	0.076	1.078	190.015	0.006
L5	129.25 - 124.25 (5)	TP15.452x14.466x0.188	11.533	161.736	0.071	1.076	217.158	0.005
L6	124.25 - 123.416 (6)	TP15.616x15.452x0.188	11.557	163.478	0.071	1.076	221.863	0.005
L7	123.416 - 123.166 (7)	TP15.665x15.616x0.538	11.561	459.502	0.025	1.076	611.454	0.002
L8	123.166 - 118.166 (8)	TP16.651x15.665x0.513	14.644	467.405	0.031	1.075	663.528	0.002
L9	118.166 - 113.166 (9)	TP17.637x16.651x0.488	15.234	472.451	0.032	1.043	712.699	0.001
L10	113.166 - 109.5 (10)	TP18.36x17.637x0.475	20.016	480.074	0.042	1.047	755.248	0.001
L11	109.5 - 109.25 (11)	TP18.409x18.36x0.588	20.024	591.677	0.034	0.608	927.533	0.001
L12	109.25 - 104.75 (12)	TP19.296x18.409x0.563	20.403	595.497	0.034	0.604	981.300	0.001
L13	104.75 - 104.5 (13)	TP19.346x19.296x0.775	20.416	813.314	0.025	0.603	1328.558	0.000
L14	104.5 - 102.416 (14)	TP19.756x19.346x0.763	20.616	818.440	0.025	0.601	1367.417	0.000
L15	102.416 - 102.166 (15)	TP19.806x19.756x0.563	20.631	611.691	0.034	0.599	1035.400	0.001
L16	102.166 - 98.75 (16)	TP20.479x19.806x0.55	23.384	619.420	0.038	0.595	1085.858	0.001
L17	98.75 - 98.5 (17)	TP20.528x20.479x0.838	23.392	931.933	0.025	0.593	1614.175	0.000
L18	98.5 - 97.5 (18)	TP20.726x20.528x0.838	23.499	941.264	0.025	0.593	1646.667	0.000
L19	97.5 - 97.25 (19)	TP20.775x20.726x0.75	23.515	848.721	0.028	0.592	1494.983	0.000
L20	97.25 - 92 (20)	TP21.81x20.775x0.738	23.688	849.049	0.028	0.592	1521.492	0.000
L21	92 - 90.552 (21)	TP21.73x20.735x0.8	24.274	946.229	0.026	0.594	1742.083	0.000
L22	90.552 - 89.25 (22)	TP21.989x21.73x0.775	24.390	929.108	0.026	0.594	1733.792	0.000
L23	89.25 - 89 (23)	TP22.039x21.989x1	24.400	1188.950	0.021	0.593	2200.350	0.000
L24	89 - 88.25 (24)	TP22.189x22.039x0.975	24.482	1168.830	0.021	0.593	2181.042	0.000
L25	88.25 - 88 (25)	TP22.238x22.189x0.763	24.499	925.385	0.026	0.592	1748.125	0.000
L26	88 - 87.833 (26)	TP22.272x22.238x0.763	24.515	926.817	0.026	0.592	1753.542	0.000
L27	87.833 - 87.583 (27)	TP22.321x22.272x0.675	24.535	825.698	0.030	0.591	1572.192	0.000

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	<p><b>Project</b></p>	<p><b>Date</b></p> <p>15:59:42 03/26/22</p>
	<p><b>Client</b></p> <p>Crown Castle</p>	<p><b>Designed by</b></p> <p>Jayaraj B</p>

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $\frac{V_u}{\phi V_n}$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L28	87.583 - 82.583 (28)	TP23.317x22.321x0.65	24.949	832.602	0.030	0.588	1660.075	0.000
L29	82.583 - 77.583 (29)	TP24.312x23.317x0.625	25.333	836.622	0.030	0.588	1743.192	0.000
L30	77.583 - 77.583 (30)	TP24.428x24.312x0.625	25.368	840.722	0.030	0.588	1760.317	0.000
L31	77 - 76.75 (31)	TP24.478x24.428x0.825	25.382	1102.750	0.023	0.588	2294.383	0.000
L32	76.75 - 76.333 (32)	TP24.561x24.478x0.825	25.422	1106.620	0.023	0.588	2310.525	0.000
L33	76.333 - 76.083 (33)	TP24.611x24.561x0.825	25.442	1108.940	0.023	0.588	2320.225	0.000
L34	76.083 - 74.25 (34)	TP24.976x24.611x0.8	25.632	1092.970	0.023	0.593	2324.292	0.000
L35	74.25 - 74 (35)	TP25.026x24.976x0.888	25.626	1210.620	0.021	0.594	2570.467	0.000
L36	74 - 73.75 (36)	TP25.076x25.026x0.888	25.649	1213.110	0.021	0.596	2581.075	0.000
L37	73.75 - 73.5 (37)	TP25.125x25.076x0.913	25.673	1248.560	0.021	0.597	2659.225	0.000
L38	73.5 - 68.5 (38)	TP26.121x25.125x0.875	26.142	1248.330	0.021	0.622	2772.167	0.000
L39	68.5 - 63.5 (39)	TP27.116x26.121x0.85	26.587	1261.680	0.021	0.647	2915.075	0.000
L40	63.5 - 60.5 (40)	TP27.714x27.116x0.825	26.854	1253.590	0.021	0.661	2964.992	0.000
L41	60.5 - 60.25 (41)	TP27.763x27.714x0.825	26.861	1255.910	0.021	0.662	2975.975	0.000
L42	60.25 - 59.5 (42)	TP27.913x27.763x0.825	26.938	1262.870	0.021	0.666	3009.058	0.000
L43	59.5 - 59.25 (43)	TP27.962x27.913x0.888	26.952	1357.910	0.020	0.667	3233.983	0.000
L44	59.25 - 54.25 (44)	TP28.958x27.962x0.85	27.415	1350.150	0.020	0.694	3338.192	0.000
L45	54.25 - 45.802 (45)	TP30.64x28.958x0.838	27.780	1370.930	0.020	0.718	3493.133	0.000
L46	45.802 - 44.802 (46)	TP30.333x29.304x0.838	28.421	1395.960	0.020	0.559	3621.825	0.000
L47	44.802 - 43.583 (47)	TP30.574x30.333x0.838	28.519	1407.380	0.020	0.559	3681.317	0.000
L48	43.583 - 43.333 (48)	TP30.624x30.574x0.85	28.516	1430.160	0.020	0.559	3745.558	0.000
L49	43.333 - 43.166 (49)	TP30.657x30.624x0.85	28.527	1431.750	0.020	0.559	3753.883	0.000
L50	43.166 - 42.916 (50)	TP30.706x30.657x0.938	28.549	1577.120	0.018	0.559	4129.758	0.000
L51	42.916 - 39 (51)	TP31.481x30.706x0.913	28.879	1576.320	0.018	0.561	4238.592	0.000
L52	39 - 38.75 (52)	TP31.531x31.481x0.95	28.876	1641.740	0.018	0.561	4416.233	0.000
L53	38.75 - 37.166 (53)	TP31.844x31.531x0.938	29.029	1637.410	0.018	0.563	4451.542	0.000
L54	37.166 - 36.916 (54)	TP31.894x31.844x0.888	29.020	1555.070	0.019	0.563	4241.300	0.000
L55	36.916 - 34 (55)	TP32.471x31.894x0.888	29.262	1584.020	0.018	0.566	4400.650	0.000
L56	34 - 33.75 (56)	TP32.52x32.471x0.875	29.252	1564.770	0.019	0.566	4355.717	0.000
L57	33.75 - 29.75 (57)	TP33.312x32.52x0.863	29.363	1562.320	0.019	0.566	4350.783	0.000
L58	29.75 - 29.5 (58)	TP33.361x33.312x0.863	29.451	1584.020	0.019	0.566	4514.475	0.000
L59	29.5 - 24.5 (59)	TP34.351x33.361x0.85	29.511	1571.170	0.019	0.566	4466.058	0.000
L60	24.5 - 23 (60)	TP34.648x34.351x0.838	29.753	1600.180	0.019	0.565	4675.825	0.000
L61	23 - 22.75 (61)	TP34.697x34.648x0.963	29.734	1834.900	0.016	0.565	5428.967	0.000
L62	22.75 - 21.583 (62)	TP34.928x34.697x0.963	29.809	1847.470	0.016	0.565	5444.933	0.000
L63	21.583 -	TP34.978x34.928x0.85	29.800	1639.310	0.018	0.565	4906.925	0.000

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b> 91 of 95
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	<b>Client</b> Crown Castle	<b>Designed by</b> Jayaraj B

Section No.	Elevation ft	Size	Actual $V_u$ K	$\phi V_n$ K	Ratio $\frac{V_u}{\phi V_n}$	Actual $T_u$ kip-ft	$\phi T_n$ kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L64	21.333 (63)	TP35.967x34.978x0.838	29.855	1625.160	0.018	0.565	4852.367	0.000
L65	21.333 - 16.333 (64)	TP36.644x35.967x0.825	30.049	1648.900	0.018	0.565	5064.658	0.000
L66	16.333 - 12.917 (65)	TP36.693x36.644x0.913	30.128	1845.070	0.016	0.565	5791.033	0.000
L67	12.917 - 12.667 (66)	TP36.726x36.693x0.913	30.134	1846.770	0.016	0.565	5807.083	0.000
L68	12.667 - 12.5 (67)	TP36.776x36.726x0.763	30.146	1551.790	0.019	0.565	4902.275	0.000
L69	12.5 - 12.25 (68)	TP36.825x36.776x0.763	30.155	1553.920	0.019	0.565	4915.775	0.000
L70	12 - 11.75 (70)	TP36.874x36.825x0.663	30.163	1355.720	0.022	0.565	4306.608	0.000
L71	11.75 - 8.5 (71)	TP37.518x36.874x0.65	30.265	1338.480	0.023	0.565	4239.850	0.000
L72	8.5 - 8.25 (72)	TP37.567x37.518x0.925	30.414	1915.390	0.016	0.535	6156.925	0.000
L73	8.25 - 7 (73)	TP37.815x37.567x0.913	30.564	1902.900	0.016	0.532	6094.317	0.000
L74	7 - 6.75 (74)	TP37.864x37.815x0.813	30.565	1701.230	0.018	0.521	5529.792	0.000
L75	6.75 - 1.75 (75)	TP38.854x37.864x0.788	30.678	1658.800	0.018	0.519	5381.242	0.000
L76	1.75 - 0 (76)	TP39.2x38.854x0.788	31.238	1709.450	0.018	0.497	5672.325	0.000

### Pole Interaction Design Data

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{nx}$	Ratio $M_{uy}$ $\phi M_{ny}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	144.25 - 139.25 (1)	0.009	0.138	0.000	0.037	0.002	0.148	1.050	4.8.2 ✓
L2	139.25 - 134.75 (2)	0.009	0.292	0.000	0.038	0.002	0.303	1.050	4.8.2 ✓
L3	134.75 - 134.25 (3)	0.009	0.276	0.000	0.036	0.002	0.286	1.050	4.8.2 ✓
L4	134.25 - 129.25 (4)	0.018	0.553	0.000	0.076	0.006	0.578	1.050	4.8.2 ✓
L5	129.25 - 124.25 (5)	0.018	0.756	0.000	0.071	0.005	0.779	1.050	4.8.2 ✓
L6	124.25 - 123.416 (6)	0.017	0.785	0.000	0.071	0.005	0.808	1.050	4.8.2 ✓
L7	123.416 - 123.166 (7)	0.006	0.296	0.000	0.025	0.002	0.303	1.050	4.8.2 ✓
L8	123.166 - 118.166 (8)	0.008	0.373	0.000	0.031	0.002	0.382	1.050	4.8.2 ✓
L9	118.166 - 113.166 (9)	0.009	0.457	0.000	0.032	0.001	0.466	1.050	4.8.2 ✓
L10	113.166 - 109.5 (10)	0.011	0.511	0.000	0.042	0.001	0.524	1.050	4.8.2 ✓
L11	109.5 - 109.25 (11)	0.009	0.425	0.000	0.034	0.001	0.435	1.050	4.8.2 ✓
L12	109.25 - 104.75 (12)	0.009	0.498	0.000	0.034	0.001	0.508	1.050	4.8.2 ✓
L13	104.75 - 104.5 (13)	0.007	0.376	0.000	0.025	0.000	0.383	1.050	4.8.2 ✓
L14	104.5 - 102.416 (14)	0.007	0.398	0.000	0.025	0.000	0.405	1.050	4.8.2 ✓

# tnxTower

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<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{nx}$	Ratio $M_{uy}$ $\phi M_{ny}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L15	102.416 - 102.166 (15)	0.009	0.525	0.000	0.034	0.001	0.535	1.050	4.8.2 ✓
L16	102.166 - 98.75 (16)	0.011	0.573	0.000	0.038	0.001	0.585	1.050	4.8.2 ✓
L17	98.75 - 98.5 (17)	0.007	0.395	0.000	0.025	0.000	0.403	1.050	4.8.2 ✓
L18	98.5 - 97.5 (18)	0.007	0.402	0.000	0.025	0.000	0.410	1.050	4.8.2 ✓
L19	97.5 - 97.25 (19)	0.008	0.445	0.000	0.028	0.000	0.454	1.050	4.8.2 ✓
L20	97.25 - 92 (20)	0.008	0.465	0.000	0.028	0.000	0.474	1.050	4.8.2 ✓
L21	92 - 90.552 (21)	0.008	0.479	0.000	0.026	0.000	0.488	1.050	4.8.2 ✓
L22	90.552 - 89.25 (22)	0.008	0.500	0.000	0.026	0.000	0.509	1.050	4.8.2 ✓
L23	89.25 - 89 (23)	0.007	0.401	0.000	0.021	0.000	0.408	1.050	4.8.2 ✓
L24	89 - 88.25 (24)	0.007	0.413	0.000	0.021	0.000	0.420	1.050	4.8.2 ✓
L25	88.25 - 88 (25)	0.009	0.514	0.000	0.026	0.000	0.523	1.050	4.8.2 ✓
L26	88 - 87.833 (26)	0.009	0.515	0.000	0.026	0.000	0.524	1.050	4.8.2 ✓
L27	87.833 - 87.583 (27)	0.010	0.576	0.000	0.030	0.000	0.587	1.050	4.8.2 ✓
L28	87.583 - 82.583 (28)	0.010	0.622	0.000	0.030	0.000	0.633	1.050	4.8.2 ✓
L29	82.583 - 77.583 (29)	0.010	0.667	0.000	0.030	0.000	0.678	1.050	4.8.2 ✓
L30	77.583 - 77 (30)	0.010	0.669	0.000	0.030	0.000	0.680	1.050	4.8.2 ✓
L31	77 - 76.75 (31)	0.008	0.520	0.000	0.023	0.000	0.529	1.050	4.8.2 ✓
L32	76.75 - 76.333 (32)	0.008	0.522	0.000	0.023	0.000	0.530	1.050	4.8.2 ✓
L33	76.333 - 76.083 (33)	0.008	0.522	0.000	0.023	0.000	0.531	1.050	4.8.2 ✓
L34	76.083 - 74.25 (34)	0.008	0.542	0.000	0.023	0.000	0.551	1.050	4.8.2 ✓
L35	74.25 - 74 (35)	0.007	0.494	0.000	0.021	0.000	0.502	1.050	4.8.2 ✓
L36	74 - 73.75 (36)	0.007	0.495	0.000	0.021	0.000	0.503	1.050	4.8.2 ✓
L37	73.75 - 73.5 (37)	0.007	0.483	0.000	0.021	0.000	0.491	1.050	4.8.2 ✓
L38	73.5 - 68.5 (38)	0.008	0.512	0.000	0.021	0.000	0.520	1.050	4.8.2 ✓
L39	68.5 - 63.5 (39)	0.008	0.533	0.000	0.021	0.000	0.541	1.050	4.8.2 ✓
L40	63.5 - 60.5 (40)	0.008	0.552	0.000	0.021	0.000	0.560	1.050	4.8.2 ✓

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**Job**  
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**Project**  
**Date**  
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**Client**  
Crown Castle  
**Designed by**  
Jayaraj B

Section No.	Elevation ft	Ratio $P_u$ $\phi P_n$	Ratio $M_{ux}$ $\phi M_{nx}$	Ratio $M_{uy}$ $\phi M_{ny}$	Ratio $V_u$ $\phi V_n$	Ratio $T_u$ $\phi T_n$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L41	60.5 - 60.25 (41)	0.008	0.552	0.000	0.021	0.000	0.561	1.050	4.8.2 ✓
L42	60.25 - 59.5 (42)	0.008	0.553	0.000	0.021	0.000	0.561	1.050	4.8.2 ✓
L43	59.5 - 59.25 (43)	0.008	0.518	0.000	0.020	0.000	0.526	1.050	4.8.2 ✓
L44	59.25 - 54.25 (44)	0.008	0.543	0.000	0.020	0.000	0.552	1.050	4.8.2 ✓
L45	54.25 - 45.802 (45)	0.008	0.553	0.000	0.020	0.000	0.562	1.050	4.8.2 ✓
L46	45.802 - 44.802 (46)	0.009	0.576	0.000	0.020	0.000	0.585	1.050	4.8.2 ✓
L47	44.802 - 43.583 (47)	0.009	0.576	0.000	0.020	0.000	0.586	1.050	4.8.2 ✓
L48	43.583 - 43.333 (48)	0.009	0.569	0.000	0.020	0.000	0.578	1.050	4.8.2 ✓
L49	43.333 - 43.166 (49)	0.009	0.569	0.000	0.020	0.000	0.578	1.050	4.8.2 ✓
L50	43.166 - 42.916 (50)	0.008	0.520	0.000	0.018	0.000	0.529	1.050	4.8.2 ✓
L51	42.916 - 39 (51)	0.008	0.534	0.000	0.018	0.000	0.543	1.050	4.8.2 ✓
L52	39 - 38.75 (52)	0.008	0.515	0.000	0.018	0.000	0.523	1.050	4.8.2 ✓
L53	38.75 - 37.166 (53)	0.008	0.521	0.000	0.018	0.000	0.530	1.050	4.8.2 ✓
L54	37.166 - 36.916 (54)	0.009	0.548	0.000	0.019	0.000	0.557	1.050	4.8.2 ✓
L55	36.916 - 34 (55)	0.009	0.548	0.000	0.018	0.000	0.557	1.050	4.8.2 ✓
L56	34 - 33.75 (56)	0.009	0.555	0.000	0.019	0.000	0.564	1.050	4.8.2 ✓
L57	33.75 - 29.75 (57)	0.009	0.563	0.000	0.019	0.000	0.572	1.050	4.8.2 ✓
L58	29.75 - 29.5 (58)	0.009	0.562	0.000	0.019	0.000	0.572	1.050	4.8.2 ✓
L59	29.5 - 24.5 (59)	0.009	0.570	0.000	0.019	0.000	0.579	1.050	4.8.2 ✓
L60	24.5 - 23 (60)	0.009	0.577	0.000	0.019	0.000	0.586	1.050	4.8.2 ✓
L61	23 - 22.75 (61)	0.008	0.507	0.000	0.016	0.000	0.516	1.050	4.8.2 ✓
L62	22.75 - 21.583 (62)	0.008	0.507	0.000	0.016	0.000	0.515	1.050	4.8.2 ✓
L63	21.583 - 21.333 (63)	0.009	0.568	0.000	0.018	0.000	0.578	1.050	4.8.2 ✓
L64	21.333 - 16.333 (64)	0.009	0.576	0.000	0.018	0.000	0.586	1.050	4.8.2 ✓
L65	16.333 - 12.917 (65)	0.010	0.582	0.000	0.018	0.000	0.592	1.050	4.8.2 ✓
L66	12.917 - 12.667 (66)	0.009	0.528	0.000	0.016	0.000	0.538	1.050	4.8.2 ✓

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Section No.	Elevation ft	Ratio $P_u$	Ratio $M_{ux}$	Ratio $M_{uy}$	Ratio $V_u$	Ratio $T_u$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$\phi P_n$	$\phi M_{nx}$	$\phi M_{ny}$	$\phi V_n$	$\phi T_n$			
L67	12.667 - 12.5 (67)	0.009	0.528	0.000	0.016	0.000	0.537	1.050	4.8.2 ✓
L68	12.5 - 12.25 (68)	0.011	0.624	0.000	0.019	0.000	0.635	1.050	4.8.2 ✓
L69	12.25 - 12 (69)	0.011	0.624	0.000	0.019	0.000	0.635	1.050	4.8.2 ✓
L70	12 - 11.75 (70)	0.012	0.712	0.000	0.022	0.000	0.725	1.050	4.8.2 ✓
L71	11.75 - 8.5 (71)	0.012	0.725	0.000	0.023	0.000	0.738	1.050	4.8.2 ✓
L72	8.5 - 8.25 (72)	0.009	0.520	0.000	0.016	0.000	0.529	1.050	4.8.2 ✓
L73	8.25 - 7 (73)	0.009	0.526	0.000	0.016	0.000	0.535	1.050	4.8.2 ✓
L74	7 - 6.75 (74)	0.010	0.585	0.000	0.018	0.000	0.596	1.050	4.8.2 ✓
L75	6.75 - 1.75 (75)	0.010	0.602	0.000	0.018	0.000	0.613	1.050	4.8.2 ✓
L76	1.75 - 0 (76)	0.011	0.599	0.000	0.018	0.000	0.610	1.050	4.8.2 ✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L1	144.25 - 139.25	Pole	TP12.75x12.75x0.375	1	-5.153	633.747	**	**
L2	139.25 - 134.75	Pole	TP12.75x12.75x0.375	2	-5.444	633.747	**	**
L3	134.75 - 134.25	Pole	TP13.48x13.48x0.375	3	-5.481	671.132	**	**
L4	134.25 - 129.25	Pole	TP14.466x13.48x0.188	4	-9.117	529.516	**	**
L5	129.25 - 124.25	Pole	TP15.452x14.466x0.188	5	-9.466	566.074	**	**
L6	124.25 - 123.416	Pole	TP15.616x15.452x0.188	6	-9.531	572.172	**	**
L7	123.416 - 123.166	Pole	TP15.665x15.616x0.538	7	-9.571	1608.253	**	**
L8	123.166 - 118.166	Pole	TP16.651x15.665x0.513	8	-13.008	1635.921	**	**
L9	118.166 - 113.166	Pole	TP17.637x16.651x0.488	9	-13.524	1653.582	**	**
L10	113.166 - 109.5	Pole	TP18.36x17.637x0.475	10	-17.332	1680.262	**	**
L11	109.5 - 109.25	Pole	TP18.409x18.36x0.588	11	-17.390	2070.873	**	**
L12	109.25 - 104.75	Pole	TP19.296x18.409x0.563	12	-18.128	2084.239	**	**
L13	104.75 - 104.5	Pole	TP19.346x19.296x0.775	13	-18.196	2846.602	**	**
L14	104.5 - 102.416	Pole	TP19.756x19.346x0.763	14	-18.630	2864.536	**	**
L15	102.416 - 102.166	Pole	TP19.806x19.756x0.563	15	-18.690	2140.918	**	**
L16	102.166 - 98.75	Pole	TP20.479x19.806x0.55	16	-22.697	2167.966	**	**
L17	98.75 - 98.5	Pole	TP20.528x20.479x0.838	17	-22.782	3261.762	**	**
L18	98.5 - 97.5	Pole	TP20.726x20.528x0.838	18	-23.038	3294.427	**	**
L19	97.5 - 97.25	Pole	TP20.775x20.726x0.75	19	-23.112	2970.523	**	**
L20	97.25 - 92	Pole	TP21.81x20.775x0.738	20	-23.528	2971.668	**	**
L21	92 - 90.552	Pole	TP21.73x20.735x0.8	21	-25.589	3311.805	**	**
L22	90.552 - 89.25	Pole	TP21.989x21.73x0.775	22	-25.956	3251.881	**	**
L23	89.25 - 89	Pole	TP22.039x21.989x1	23	-26.052	4161.307	**	**
L24	89 - 88.25	Pole	TP22.189x22.039x0.975	24	-26.283	4090.894	**	**

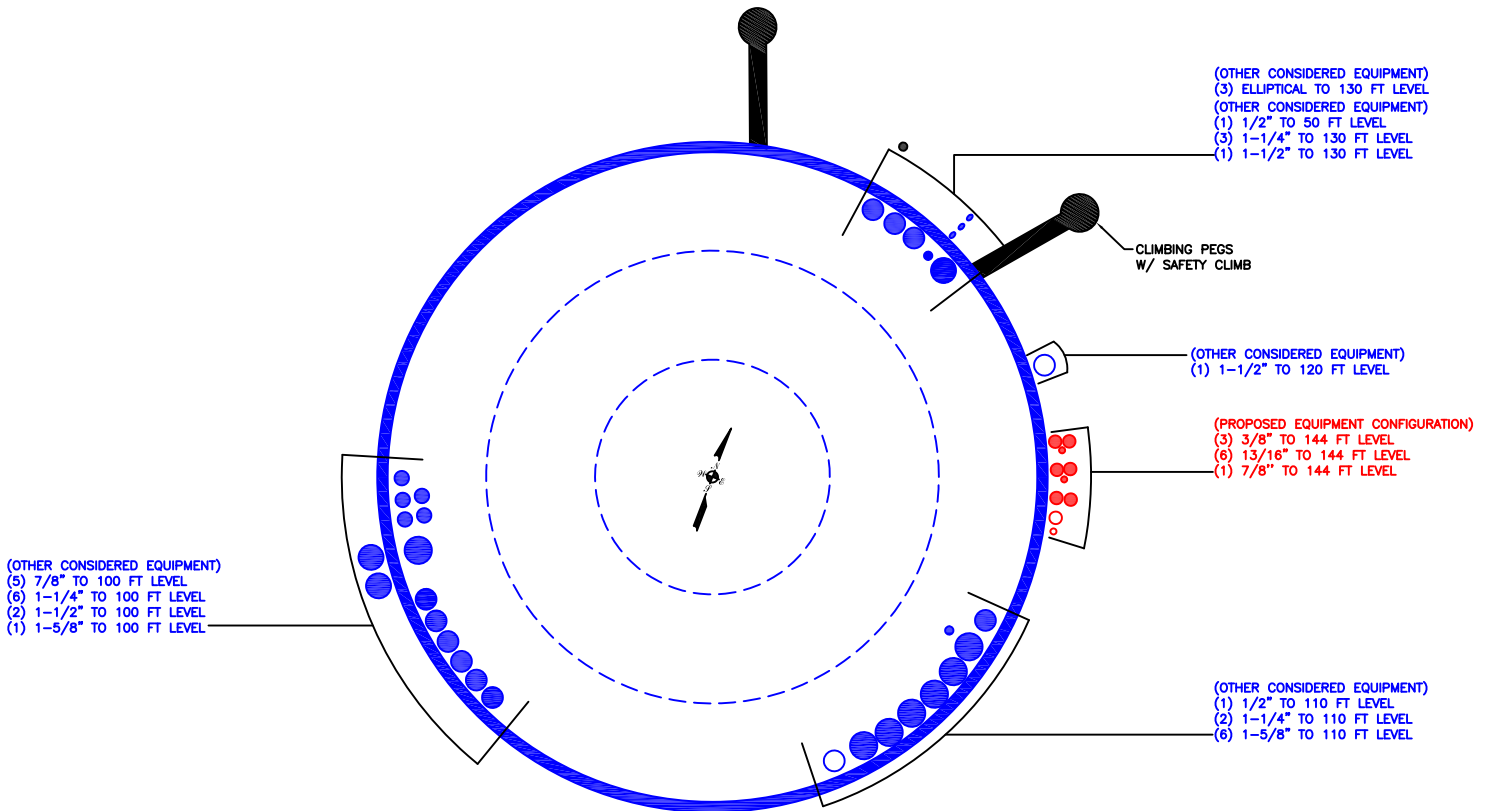


<b>Job</b>	79982.008.01 - WATERBURY,CT (BU# 876317)	<b>Page</b>	95 of 95
<b>Project</b>		<b>Date</b>	15:59:42 03/26/22
<b>Client</b>	Crown Castle	<b>Designed by</b>	Jayaraj B

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L25	88.25 - 88	Pole	TP22.238x22.189x0.763	25	-26.358	3238.851	**	**
L26	88 - 87.833	Pole	TP22.272x22.238x0.763	26	-26.405	3243.859	**	**
L27	87.833 - 87.583	Pole	TP22.321x22.272x0.675	27	-26.467	2889.946	**	**
L28	87.583 - 82.583	Pole	TP23.317x22.321x0.65	28	-27.731	2914.107	**	**
L29	82.583 - 77.583	Pole	TP24.312x23.317x0.625	29	-29.039	2928.177	**	**
L30	77.583 - 77	Pole	TP24.428x24.312x0.625	30	-29.203	2942.530	**	**
L31	77 - 76.75	Pole	TP24.478x24.428x0.825	31	-29.287	3859.621	**	**
L32	76.75 - 76.333	Pole	TP24.561x24.478x0.825	32	-29.412	3873.166	**	**
L33	76.333 - 76.083	Pole	TP24.611x24.561x0.825	33	-29.489	3881.293	**	**
L34	76.083 - 74.25	Pole	TP24.976x24.611x0.8	34	-30.004	3825.381	**	**
L35	74.25 - 74	Pole	TP25.026x24.976x0.888	35	-30.106	4237.159	**	**
L36	74 - 73.75	Pole	TP25.076x25.026x0.888	36	-30.183	4245.895	**	**
L37	73.75 - 73.5	Pole	TP25.125x25.076x0.913	37	-30.263	4369.974	**	**
L38	73.5 - 68.5	Pole	TP26.121x25.125x0.875	38	-31.844	4369.165	**	**
L39	68.5 - 63.5	Pole	TP27.116x26.121x0.85	39	-33.460	4415.901	**	**
L40	63.5 - 60.5	Pole	TP27.714x27.116x0.825	40	-34.445	4387.561	**	**
L41	60.5 - 60.25	Pole	TP27.763x27.714x0.825	41	-34.539	4395.688	**	**
L42	60.25 - 59.5	Pole	TP27.913x27.763x0.825	42	-34.780	4420.048	**	**
L43	59.5 - 59.25	Pole	TP27.962x27.913x0.888	43	-34.875	4752.667	**	**
L44	59.25 - 54.25	Pole	TP28.958x27.962x0.85	44	-36.599	4725.525	**	**
L45	54.25 - 45.802	Pole	TP30.64x28.958x0.838	45	-38.093	4798.269	**	**
L46	45.802 - 44.802	Pole	TP30.333x29.304x0.838	46	-41.241	4885.860	**	**
L47	44.802 - 43.583	Pole	TP30.574x30.333x0.838	47	-41.684	4925.823	**	**
L48	43.583 - 43.333	Pole	TP30.624x30.574x0.85	48	-41.795	5005.560	**	**
L49	43.333 - 43.166	Pole	TP30.657x30.624x0.85	49	-41.861	5011.114	**	**
L50	43.166 - 42.916	Pole	TP30.706x30.657x0.938	50	-41.960	5519.913	**	**
L51	42.916 - 39	Pole	TP31.481x30.706x0.913	51	-43.514	5517.109	**	**
L52	39 - 38.75	Pole	TP31.531x31.481x0.95	52	-43.635	5746.093	**	**
L53	38.75 - 37.166	Pole	TP31.844x31.531x0.938	53	-44.282	5730.931	**	**
L54	37.166 - 36.916	Pole	TP31.894x31.844x0.888	54	-44.403	5442.748	**	**
L55	36.916 - 34	Pole	TP32.471x31.894x0.888	55	-45.584	5544.052	**	**
L56	34 - 33.75	Pole	TP32.52x32.471x0.875	56	-45.702	5476.695	**	**
L57	33.75 - 29.75	Pole	TP33.312x32.52x0.863	57	-46.116	5434.348	**	**
L58	29.75 - 29.5	Pole	TP33.361x33.312x0.863	58	-47.304	5535.642	**	**
L59	29.5 - 24.5	Pole	TP34.351x33.361x0.85	59	-47.416	5465.838	**	**
L60	24.5 - 23	Pole	TP34.648x34.351x0.838	60	-49.454	5551.444	**	**
L61	23 - 22.75	Pole	TP34.697x34.648x0.963	61	-50.051	6412.738	**	**
L62	22.75 - 21.583	Pole	TP34.928x34.697x0.963	62	-50.174	6422.157	**	**
L63	21.583 - 21.333	Pole	TP34.978x34.928x0.85	63	-50.683	5729.262	**	**
L64	21.333 - 16.333	Pole	TP35.967x34.978x0.838	64	-50.802	5655.279	**	**
L65	16.333 - 12.917	Pole	TP36.644x35.967x0.825	65	-52.959	5734.386	**	**
L66	12.917 - 12.667	Pole	TP36.693x36.644x0.913	66	-54.433	6448.806	**	**
L67	12.667 - 12.5	Pole	TP36.726x36.693x0.913	67	-54.550	6457.731	**	**
L68	12.5 - 12.25	Pole	TP36.776x36.726x0.763	68	-54.630	5423.796	**	**
L69	12.25 - 12	Pole	TP36.825x36.776x0.763	69	-54.737	5431.261	**	**
L70	12 - 11.75	Pole	TP36.874x36.825x0.663	70	-54.845	4738.545	**	**
L71	11.75 - 8.5	Pole	TP37.518x36.874x0.65	71	-54.961	4657.107	**	**
L72	8.5 - 8.25	Pole	TP37.567x37.518x0.925	72	-56.270	6694.800	**	**
L73	8.25 - 7	Pole	TP37.815x37.567x0.913	73	-56.404	6615.514	**	**
L74	7 - 6.75	Pole	TP37.864x37.815x0.813	74	-57.000	5946.349	**	**
L75	6.75 - 1.75	Pole	TP38.854x37.864x0.788	75	-57.121	5774.989	**	**
L76	1.75 - 0	Pole	TP39.2x38.854x0.788	76	-59.343	5929.119	**	**
							Summary	
							Pole (L6)	**
							<b>RATING =</b>	**

\*\* Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.

**APPENDIX B**  
**BASE LEVEL DRAWING**



BUSINESS UNIT: 876317

**APPENDIX C**  
**ADDITIONAL CALCULATIONS**

**Pole Geometry**

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	144.25	9.5	0	0	12.75	12.75	0.375		A500-46
2	134.75	0.5	0	0	13.48	13.48	0.375		A500-46
3	134.25	42.25	3.552	12	13.48	21.81	0.1875	Auto	A572-65
4	95.552	49.75	4.198	12	20.73	30.64	0.25	Auto	A572-65
5	50	50	0	12	29.30	39.2	0.3125	Auto	A572-65

**Reinforcement Configuration**

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	29.75	plate	PL 6.875x1.25 BW	2				E1								E1
2	0	12.917	plate	PL 6.875x1.25 (14)	2							E1		E1			
3	12.917	29.75	plate	PL 6.875x1.25	1								E1				
4	29.75	59.5	plate	PL 6.625x1.25	3				E1				E1				E1
5	59.5	89.25	plate	PL 5.5x1.25	3				E1				E1				E1
6	89.25	98.75	plate	PL 3.625x1.25	3				E1				E1				E1
7	12.5	39	plate	PL 4x1	1	E2											
8	12.5	34	plate	PL 4x1	2						E2					E2	
9	34	60.5	plate	PL 4x1	3			E2				E2					E2
10	60.5	77	plate	PL 4x1	3		E2				E2					E2	
11	88.25	104.75	plate	PL 4x1	3		E2				E2					E2	
12	0	8.5	plate	TS 1x7	3			3							3		
13	7	23	plate	CCI-SFP-060100	2					E3							E3
14	12	23	plate	CCI-SFP-060100	1			E3									
15	21.583	37.166	plate	CCI-SFP-045100	1									E3			
16	23	37.166	plate	CCI-SFP-045100	1					E3							
17	23	43.583	plate	CCI-SFP-045100	1			E3									
18	37.166	43.166	plate	CCI-SFP-060100	2					E3							E3
19	43.166	73.75	plate	CCI-SFP-045100	1									E3			
20	46.75	73.75	plate	CCI-SFP-045100	1			E3									
21	43.166	74.25	plate	CCI-SFP-040075	1					E3							
22	73.75	102.416	plate	CCI-SFP-040075	2		E3							E3			
23	76.333	89.25	plate	CCI-SFP-040075	1				E3								
24	87.833	102.416	plate	CCI-AFP-050125	1							E3					
25	102.416	123.416	plate	CCI-AFP-045100	2		E3							E3			
26	102.416	123.416	plate	CCI-AFP-045100	1					E3							
27	97.5	109.5	plate	CCI-AFP-040075	1				E3								
28	102.416	109.5	plate	CCI-AFP-040075	1												E3
29																	

**Reinforcement Details**

	B (in)	H (in)	Gross Area (in <sup>2</sup> )	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in <sup>2</sup> )	Bolt Hole Size (in)	Reinforcement Material
1	6.875	1.25	8.59375	0.625	Welded	n/a	PC 8.8 - M20 (100)	36.000	15.000	6.953	1.2500	A572-65
2	6.875	1.25	8.59375	0.625	Welded	n/a	PC 8.8 - M20 (100)	42.000	15.000	6.953	1.2500	A572-65
3	6.875	1.25	8.59375	0.625	PC 8.8 - M20 (100)	42	PC 8.8 - M20 (100)	36.000	15.000	6.953	1.2500	A572-65
4	6.625	1.25	8.28125	0.625	None	n/a	PC 8.8 - M20 (100)	30.000	18.000	6.641	1.2500	A572-65
5	5.5	1.25	6.875	0.625	None	n/a	PC 8.8 - M20 (100)	18.000	18.000	5.234	1.2500	A572-65
6	3.625	1.25	4.53125	0.625	None	n/a	PC 8.8 - M20 (100)	15.000	24.000	2.891	1.2500	A572-65
7	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
8	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
9	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
10	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
11	4	1	4	0.5	PC 8.8 - M20 (100)	21	PC 8.8 - M20 (100)	21.000	20.000	2.750	1.1875	A572-65
12	1	7	7	3.5	Welded	n/a	Welded	0.000	0.750	7.000	0.0000	A572-65
13	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
14	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
15	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
16	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
17	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
18	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
19	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
20	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
21	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
22	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
23	4	0.75	3	0.375	PC 8.8 - M20 (100)	12	PC 8.8 - M20 (100)	12.000	16.000	2.063	1.1875	A572-65
24	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	23.000	4.688	1.1875	A572-65
25	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
26	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	20.000	3.250	1.1875	A572-65
27	4	0.75	3	0.375	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	16.000	2.063	1.1875	A572-65
28	4	0.75	3	0.375	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	16.000	2.063	1.1875	A572-65

**Connection Details for Custom Reinforcements**

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL 6.875x1.25 BW	Top	12	N	3	3	-	None	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 6.875x1.25 (14)	Top	14	N	3	3	-	None	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 6.875x1.25	Top	12	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	14	N	3	3	0	-	-	-	-	-	-	-	-
PL 6.625x1.25	Top	10	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 5.5x1.25	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 3.625x1.25	Top	5	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	-	-	-
PL 4x1	Top	7	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	7	N	3	3	0	-	-	-	-	-	-	-	-
TS 1x7	Top	0	-	0	0	80	None	-	-	-	-	125.25	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	12.5	0.5	45	0.3125	-	-	-

# TNX Geometry Input

Increment (ft):  [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	144.25 - 139.25	5		0	12.750	12.750	0.375	A500-46	1.000
2	139.25 - 134.75	4.5	0	0	12.750	12.750	0.375	A500-46	1.000
3	134.75 - 134.25	0.5	0	0	13.480	13.480	0.375	A500-46	1.000
4	134.25 - 129.25	5		12	13.480	14.466	0.1875	A572-65	1.000
5	129.25 - 124.25	5		12	14.466	15.452	0.1875	A572-65	1.000
6	124.25 - 123.416	0.834		12	15.452	15.616	0.1875	A572-65	1.000
7	123.416 - 123.166	0.25		12	15.616	15.665	0.5375	A572-65	0.873
8	123.166 - 118.166	5		12	15.665	16.651	0.5125	A572-65	0.881
9	118.166 - 113.166	5		12	16.651	17.637	0.4875	A572-65	0.894
10	113.166 - 109.5	3.666		12	17.637	18.360	0.475	A572-65	0.895
11	109.5 - 109.25	0.25		12	18.360	18.409	0.5875	A572-65	0.906
12	109.25 - 104.75	4.5		12	18.409	19.296	0.5625	A572-65	0.916
13	104.75 - 104.5	0.25		12	19.296	19.346	0.775	A572-65	0.930
14	104.5 - 102.416	2.084		12	19.346	19.756	0.7625	A572-65	0.930
15	102.416 - 102.166	0.25		12	19.756	19.806	0.5625	A572-65	1.123
16	102.166 - 98.75	3.416		12	19.806	20.479	0.55	A572-65	1.120
17	98.75 - 98.5	0.25		12	20.479	20.528	0.8375	A572-65	1.002
18	98.5 - 97.5	1		12	20.528	20.726	0.8375	A572-65	0.994
19	97.5 - 97.25	0.25		12	20.726	20.775	0.75	A572-65	1.041
20	97.25 - 95.552	5.25	3.552	12	20.775	21.810	0.7375	A572-65	1.044
21	95.552 - 90.552	5		12	20.735	21.730	0.8	A572-65	1.024
22	90.552 - 89.25	1.302		12	21.730	21.989	0.775	A572-65	1.046
23	89.25 - 89	0.25		12	21.989	22.039	1	A572-65	0.967
24	89 - 88.25	0.75		12	22.039	22.189	0.975	A572-65	0.985
25	88.25 - 88	0.25		12	22.189	22.238	0.7625	A572-65	1.017
26	88 - 87.833	0.167		12	22.238	22.272	0.7625	A572-65	1.016
27	87.833 - 87.583	0.25		12	22.272	22.321	0.675	A572-65	1.008
28	87.583 - 82.583	5		12	22.321	23.317	0.65	A572-65	1.017
29	82.583 - 77.583	5		12	23.317	24.312	0.625	A572-65	1.029
30	77.583 - 77	0.583		12	24.312	24.428	0.625	A572-65	1.026
31	77 - 76.75	0.25		12	24.428	24.478	0.825	A572-65	0.974
32	76.75 - 76.333	0.417		12	24.478	24.561	0.825	A572-65	0.971
33	76.333 - 76.083	0.25		12	24.561	24.611	0.825	A572-65	0.923
34	76.083 - 74.25	1.833		12	24.611	24.976	0.8	A572-65	0.941
35	74.25 - 74	0.25		12	24.976	25.026	0.8875	A572-65	0.893
36	74 - 73.75	0.25		12	25.026	25.076	0.8875	A572-65	0.892
37	73.75 - 73.5	0.25		12	25.076	25.125	0.9125	A572-65	0.910
38	73.5 - 68.5	5		12	25.125	26.121	0.875	A572-65	0.921
39	68.5 - 63.5	5		12	26.121	27.116	0.85	A572-65	0.922
40	63.5 - 60.5	3		12	27.116	27.714	0.825	A572-65	0.935
41	60.5 - 60.25	0.25		12	27.714	27.763	0.825	A572-65	0.934
42	60.25 - 59.5	0.75		12	27.763	27.913	0.825	A572-65	0.931
43	59.5 - 59.25	0.25		12	27.913	27.962	0.8875	A572-65	0.920
44	59.25 - 54.25	5		12	27.962	28.958	0.85	A572-65	0.936
45	54.25 - 50	8.448	4.198	12	28.958	30.640	0.8375	A572-65	0.931
46	50 - 44.802	5.198		12	29.304	30.333	0.8375	A572-65	0.938
47	44.802 - 43.583	1.219		12	30.333	30.574	0.8375	A572-65	0.933
48	43.583 - 43.333	0.25		12	30.574	30.624	0.85	A572-65	0.975
49	43.333 - 43.166	0.167		12	30.624	30.657	0.85	A572-65	0.974
50	43.166 - 42.916	0.25		12	30.657	30.706	0.9375	A572-65	0.935
51	42.916 - 39	3.916		12	30.706	31.481	0.9125	A572-65	0.944
52	39 - 38.75	0.25		12	31.481	31.531	0.95	A572-65	0.950
53	38.75 - 37.166	1.584		12	31.531	31.844	0.9375	A572-65	0.956
54	37.166 - 36.916	0.25		12	31.844	31.894	0.8875	A572-65	0.973
55	36.916 - 34	2.916		12	31.894	32.471	0.8875	A572-65	0.961
56	34 - 33.75	0.25		12	32.471	32.520	0.875	A572-65	0.929
57	33.75 - 29.75	4		12	32.520	33.312	0.8625	A572-65	0.928
58	29.75 - 29.5	0.25		12	33.312	33.361	0.8625	A572-65	0.937
59	29.5 - 24.5	5		12	33.361	34.351	0.85	A572-65	0.934
60	24.5 - 23	1.5		12	34.351	34.648	0.8375	A572-65	0.942
61	23 - 22.75	0.25		12	34.648	34.697	0.9625	A572-65	0.908
62	22.75 - 21.583	1.167		12	34.697	34.928	0.9625	A572-65	0.904
63	21.583 - 21.333	0.25		12	34.928	34.978	0.85	A572-65	0.971
64	21.333 - 16.333	5		12	34.978	35.967	0.8375	A572-65	0.968
65	16.333 - 12.917	3.416		12	35.967	36.644	0.825	A572-65	0.971
66	12.917 - 12.667	0.25		12	36.644	36.693	0.9125	A572-65	0.961
67	12.667 - 12.5	0.167		12	36.693	36.726	0.9125	A572-65	0.961
68	12.5 - 12.25	0.25		12	36.726	36.776	0.7625	A572-65	1.008
69	12.25 - 12	0.25		12	36.776	36.825	0.7625	A572-65	1.007
70	12 - 11.75	0.25		12	36.825	36.874	0.6625	A572-65	1.077
71	11.75 - 8.5	3.25		12	36.874	37.518	0.65	A572-65	1.087
72	8.5 - 8.25	0.25		12	37.518	37.567	0.925	A572-65	0.962
73	8.25 - 7	1.25		12	37.567	37.815	0.9125	A572-65	0.970
74	7 - 6.75	0.25		12	37.815	37.864	0.8125	A572-65	0.962
75	6.75 - 1.75	5		12	37.864	38.854	0.7875	A572-65	0.976
76	1.75 - 0	1.75		12	38.854	39.200	0.7875	A572-65	0.971



# TNX Section Forces

Increment (ft):		TNX Output			
5					
	Section Height (ft)	P <sub>u</sub> (K)	M <sub>ux</sub> (kip-ft)	V <sub>u</sub> (K)	
1	144.25 - 139.25	5.15	27.28	6.72	
2	139.25 - 134.75	5.44	57.90	6.88	
3	134.75 - 134.25	5.48	61.34	6.90	
4	134.25 - 129.25	9.12	101.72	11.36	
5	129.25 - 124.25	9.47	158.93	11.53	
6	124.25 - 123.416	9.53	168.54	11.56	
7	123.416 - 123.166	9.57	171.43	11.56	
8	123.166 - 118.166	13.01	235.19	14.64	
9	118.166 - 113.166	13.52	310.29	15.23	
10	113.166 - 109.5	17.33	368.88	20.02	
11	109.5 - 109.25	17.39	373.88	20.02	
12	109.25 - 104.75	18.13	464.79	20.40	
13	104.75 - 104.5	18.20	469.89	20.42	
14	104.5 - 102.416	18.63	512.63	20.62	
15	102.416 - 102.166	18.69	517.78	20.63	
16	102.166 - 98.75	22.70	593.60	23.38	
17	98.75 - 98.5	22.78	599.45	23.39	
18	98.5 - 97.5	23.04	622.88	23.50	
19	97.5 - 97.25	23.11	628.75	23.52	
20	97.25 - 95.552	23.53	668.80	23.69	
21	95.552 - 90.552	25.59	788.68	24.27	
22	90.552 - 89.25	25.96	820.33	24.39	
23	89.25 - 89	26.05	826.42	24.40	
24	89 - 88.25	26.28	844.75	24.48	
25	88.25 - 88	26.36	850.87	24.50	
26	88 - 87.833	26.41	854.96	24.52	
27	87.833 - 87.583	26.47	861.09	24.54	
28	87.583 - 82.583	27.73	984.72	24.95	
29	82.583 - 77.583	29.04	1110.30	25.33	
30	77.583 - 77	29.20	1125.07	25.37	
31	77 - 76.75	29.29	1131.41	25.38	
32	76.75 - 76.333	29.41	1142.00	25.42	
33	76.333 - 76.083	29.49	1148.35	25.44	
34	76.083 - 74.25	30.00	1195.12	25.63	
35	74.25 - 74	30.11	1201.52	25.63	
36	74 - 73.75	30.18	1207.93	25.65	
37	73.75 - 73.5	30.26	1214.35	25.67	
38	73.5 - 68.5	31.84	1343.81	26.14	
39	68.5 - 63.5	33.46	1475.53	26.59	
40	63.5 - 60.5	34.44	1555.62	26.85	
41	60.5 - 60.25	34.54	1562.34	26.86	
42	60.25 - 59.5	34.78	1582.50	26.94	
43	59.5 - 59.25	34.87	1589.23	26.95	
44	59.25 - 54.25	36.60	1725.07	27.42	
45	54.25 - 50	38.09	1842.26	27.78	
46	50 - 44.802	41.24	1988.44	28.42	
47	44.802 - 43.583	41.68	2023.11	28.52	
48	43.583 - 43.333	41.80	2030.24	28.52	
49	43.333 - 43.166	41.86	2035.00	28.53	
50	43.166 - 42.916	41.96	2042.13	28.55	
51	42.916 - 39	43.51	2154.50	28.88	
52	39 - 38.75	43.63	2161.72	28.88	
53	38.75 - 37.166	44.28	2207.54	29.03	
54	37.166 - 36.916	44.40	2214.79	29.02	
55	36.916 - 34	45.58	2299.71	29.26	
56	34 - 33.75	45.70	2307.02	29.25	
57	33.75 - 29.75	47.29	2424.37	29.46	
58	29.75 - 29.5	47.40	2431.73	29.45	
59	29.5 - 24.5	49.42	2579.47	29.68	
60	24.5 - 23	50.03	2623.99	29.75	
61	23 - 22.75	50.16	2631.42	29.73	
62	22.75 - 21.583	50.66	2666.15	29.81	
63	21.583 - 21.333	50.78	2673.59	29.80	
64	21.333 - 16.333	52.93	2823.00	30.00	
65	16.333 - 12.917	54.41	2925.62	30.14	
66	12.917 - 12.667	54.54	2933.15	30.13	
67	12.667 - 12.5	54.62	2938.18	30.13	
68	12.5 - 12.25	54.73	2945.72	30.15	
69	12.25 - 12	54.84	2953.25	30.15	
70	12 - 11.75	54.94	2960.79	30.16	
71	11.75 - 8.5	56.25	3059.16	30.42	
72	8.5 - 8.25	56.39	3066.75	30.41	
73	8.25 - 7	56.98	3104.84	30.56	
74	7 - 6.75	57.10	3112.48	30.56	
75	6.75 - 1.75	59.30	3266.43	31.05	
76	1.75 - 0	60.08	3320.87	31.24	

# Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
144.25 - 139.25	Pole	TP12.75x12.75x0.375	Pole	14.1%	Pass
139.25 - 134.75	Pole	TP12.75x12.75x0.375	Pole	28.8%	Pass
134.75 - 134.25	Pole	TP13.48x13.48x0.375	Pole	27.2%	Pass
134.25 - 129.25	Pole	TP14.466x13.48x0.1875	Pole	54.8%	Pass
129.25 - 124.25	Pole	TP15.452x14.466x0.1875	Pole	73.9%	Pass
124.25 - 123.42	Pole	TP15.616x15.452x0.1875	Pole	76.7%	Pass
123.42 - 123.17	Pole + Reinf.	TP15.665x15.616x0.5375	Reinf. 25 Tension Rupture	50.0%	Pass
123.17 - 118.17	Pole + Reinf.	TP16.651x15.665x0.5125	Reinf. 25 Tension Rupture	63.2%	Pass
118.17 - 113.17	Pole + Reinf.	TP17.637x16.651x0.4875	Reinf. 25 Tension Rupture	76.8%	Pass
113.17 - 109.5	Pole + Reinf.	TP18.36x17.637x0.475	Reinf. 25 Tension Rupture	86.5%	Pass
109.5 - 109.25	Pole + Reinf.	TP18.409x18.36x0.5875	Reinf. 25 Tension Rupture	72.9%	Pass
109.25 - 104.75	Pole + Reinf.	TP19.296x18.409x0.5625	Reinf. 25 Tension Rupture	84.9%	Pass
104.75 - 104.5	Pole + Reinf.	TP19.346x19.296x0.775	Reinf. 11 Tension Rupture	68.5%	Pass
104.5 - 102.42	Pole + Reinf.	TP19.756x19.346x0.7625	Reinf. 11 Tension Rupture	72.7%	Pass
102.42 - 102.17	Pole + Reinf.	TP19.806x19.756x0.5625	Reinf. 11 Tension Rupture	90.8%	Pass
102.17 - 98.75	Pole + Reinf.	TP20.479x19.806x0.55	Reinf. 11 Tension Rupture	99.6%	Pass
98.75 - 98.5	Pole + Reinf.	TP20.528x20.479x0.8375	Reinf. 6 Bolt-Shaft Bearing	87.1%	Pass
98.5 - 97.5	Pole + Reinf.	TP20.726x20.528x0.8375	Reinf. 6 Tension Rupture	75.7%	Pass
97.5 - 97.25	Pole + Reinf.	TP20.775x20.726x0.75	Reinf. 6 Tension Rupture	88.2%	Pass
97.25 - 95.55	Pole + Reinf.	TP21.81x20.775x0.7375	Reinf. 6 Tension Rupture	91.9%	Pass
95.55 - 90.55	Pole + Reinf.	TP21.73x20.735x0.8	Reinf. 6 Tension Rupture	95.4%	Pass
90.55 - 89.25	Pole + Reinf.	TP21.989x21.73x0.775	Reinf. 6 Tension Rupture	97.7%	Pass
89.25 - 89	Pole + Reinf.	TP22.039x21.989x1	Reinf. 5 Bolt-Shaft Bearing	84.4%	Pass
89 - 88.25	Pole + Reinf.	TP22.189x22.039x0.975	Reinf. 11 Tension Rupture	70.5%	Pass
88.25 - 88	Pole + Reinf.	TP22.238x22.189x0.7625	Reinf. 5 Tension Rupture	80.7%	Pass
88 - 87.83	Pole + Reinf.	TP22.272x22.238x0.7625	Reinf. 5 Tension Rupture	81.0%	Pass
87.83 - 87.58	Pole + Reinf.	TP22.321x22.272x0.675	Reinf. 5 Tension Rupture	85.8%	Pass
87.58 - 82.58	Pole + Reinf.	TP23.317x22.321x0.65	Reinf. 5 Tension Rupture	92.4%	Pass
82.58 - 77.58	Pole + Reinf.	TP24.312x23.317x0.625	Reinf. 5 Tension Rupture	98.3%	Pass
77.58 - 77	Pole + Reinf.	TP24.428x24.312x0.625	Reinf. 5 Tension Rupture	99.0%	Pass
77 - 76.75	Pole + Reinf.	TP24.478x24.428x0.825	Reinf. 10 Tension Rupture	92.9%	Pass
76.75 - 76.33	Pole + Reinf.	TP24.561x24.478x0.825	Reinf. 10 Tension Rupture	93.3%	Pass
76.33 - 76.08	Pole + Reinf.	TP24.611x24.561x0.825	Reinf. 10 Tension Rupture	94.4%	Pass
76.08 - 74.25	Pole + Reinf.	TP24.976x24.611x0.8	Reinf. 10 Tension Rupture	96.4%	Pass
74.25 - 74	Pole + Reinf.	TP25.026x24.976x0.8875	Reinf. 10 Tension Rupture	85.1%	Pass
74 - 73.75	Pole + Reinf.	TP25.076x25.026x0.8875	Reinf. 10 Tension Rupture	85.3%	Pass
73.75 - 73.5	Pole + Reinf.	TP25.125x25.076x0.9125	Reinf. 21 Tension Rupture	84.6%	Pass
73.5 - 68.5	Pole + Reinf.	TP26.121x25.125x0.875	Reinf. 21 Tension Rupture	89.0%	Pass
68.5 - 63.5	Pole + Reinf.	TP27.116x26.121x0.85	Reinf. 21 Tension Rupture	93.2%	Pass
63.5 - 60.5	Pole + Reinf.	TP27.714x27.116x0.825	Reinf. 21 Tension Rupture	95.5%	Pass
60.5 - 60.25	Pole + Reinf.	TP27.763x27.714x0.825	Reinf. 21 Tension Rupture	95.7%	Pass
60.25 - 59.5	Pole + Reinf.	TP27.913x27.763x0.825	Reinf. 21 Tension Rupture	96.2%	Pass
59.5 - 59.25	Pole + Reinf.	TP27.962x27.913x0.8875	Reinf. 21 Tension Rupture	90.0%	Pass
59.25 - 54.25	Pole + Reinf.	TP28.958x27.962x0.85	Reinf. 21 Tension Rupture	93.5%	Pass
54.25 - 50	Pole + Reinf.	TP30.64x28.958x0.8375	Reinf. 21 Tension Rupture	96.2%	Pass
50 - 44.8	Pole + Reinf.	TP30.333x29.304x0.8375	Reinf. 9 Tension Rupture	97.9%	Pass
44.8 - 43.58	Pole + Reinf.	TP30.574x30.333x0.8375	Reinf. 9 Tension Rupture	98.6%	Pass
43.58 - 43.33	Pole + Reinf.	TP30.624x30.574x0.85	Reinf. 9 Tension Rupture	97.6%	Pass
43.33 - 43.17	Pole + Reinf.	TP30.657x30.624x0.85	Reinf. 9 Tension Rupture	97.7%	Pass
43.17 - 42.92	Pole + Reinf.	TP30.706x30.657x0.9375	Reinf. 9 Tension Rupture	92.5%	Pass
42.92 - 39	Pole + Reinf.	TP31.481x30.706x0.9125	Reinf. 9 Tension Rupture	94.3%	Pass
39 - 38.75	Pole + Reinf.	TP31.531x31.481x0.95	Reinf. 9 Tension Rupture	89.2%	Pass
38.75 - 37.17	Pole + Reinf.	TP31.844x31.531x0.9375	Reinf. 9 Tension Rupture	89.9%	Pass
37.17 - 36.92	Pole + Reinf.	TP31.894x31.844x0.8875	Reinf. 9 Tension Rupture	93.4%	Pass
36.92 - 34	Pole + Reinf.	TP32.471x31.894x0.8875	Reinf. 9 Tension Rupture	94.7%	Pass
34 - 33.75	Pole + Reinf.	TP32.52x32.471x0.875	Reinf. 8 Tension Rupture	94.7%	Pass
33.75 - 29.75	Pole + Reinf.	TP33.312x32.52x0.8625	Reinf. 8 Tension Rupture	96.3%	Pass
29.75 - 29.5	Pole + Reinf.	TP33.361x33.312x0.8625	Reinf. 8 Tension Rupture	95.2%	Pass
29.5 - 24.5	Pole + Reinf.	TP34.351x33.361x0.85	Reinf. 8 Tension Rupture	97.0%	Pass
24.5 - 23	Pole + Reinf.	TP34.648x34.351x0.8375	Reinf. 8 Tension Rupture	97.5%	Pass
23 - 22.75	Pole + Reinf.	TP34.697x34.648x0.9625	Reinf. 8 Tension Rupture	90.4%	Pass
22.75 - 21.58	Pole + Reinf.	TP34.928x34.697x0.9625	Reinf. 8 Tension Rupture	90.8%	Pass
21.58 - 21.33	Pole + Reinf.	TP34.978x34.928x0.85	Reinf. 8 Tension Rupture	95.9%	Pass
21.33 - 16.33	Pole + Reinf.	TP35.967x34.978x0.8375	Reinf. 8 Tension Rupture	97.4%	Pass
16.33 - 12.92	Pole + Reinf.	TP36.644x35.967x0.825	Reinf. 8 Tension Rupture	98.4%	Pass
12.92 - 12.67	Pole + Reinf.	TP36.693x36.644x0.9125	Reinf. 7 Tension Rupture	89.2%	Pass
12.67 - 12.5	Pole + Reinf.	TP36.726x36.693x0.9125	Reinf. 7 Tension Rupture	89.2%	Pass
12.5 - 12.25	Pole + Reinf.	TP36.776x36.726x0.7625	Reinf. 14 Tension Rupture	92.5%	Pass
12.25 - 12	Pole + Reinf.	TP36.825x36.776x0.7625	Reinf. 14 Tension Rupture	92.6%	Pass
12 - 11.75	Pole + Reinf.	TP36.874x36.825x0.6625	Reinf. 2 Tension Rupture	94.7%	Pass
11.75 - 8.5	Pole + Reinf.	TP37.518x36.874x0.65	Reinf. 2 Tension Rupture	95.4%	Pass
8.5 - 8.25	Pole + Reinf.	TP37.567x37.518x0.925	Reinf. 1 Tension Rupture	78.2%	Pass
8.25 - 7	Pole + Reinf.	TP37.815x37.567x0.9125	Reinf. 1 Tension Rupture	78.5%	Pass
7 - 6.75	Pole + Reinf.	TP37.864x37.815x0.8125	Reinf. 1 Tension Rupture	90.9%	Pass
6.75 - 1.75	Pole + Reinf.	TP38.854x37.864x0.7875	Reinf. 1 Tension Rupture	92.1%	Pass
1.75 - 0	Pole + Reinf.	TP39.2x38.854x0.7875	Reinf. 1 Tension Rupture	92.5%	Pass
				Summary	
			Pole	84.7%	Pass
			Reinforcement	99.6%	Pass
			Overall	99.6%	Pass



# Monopole Flange Plate Connection

Elevation = 134.25 ft.



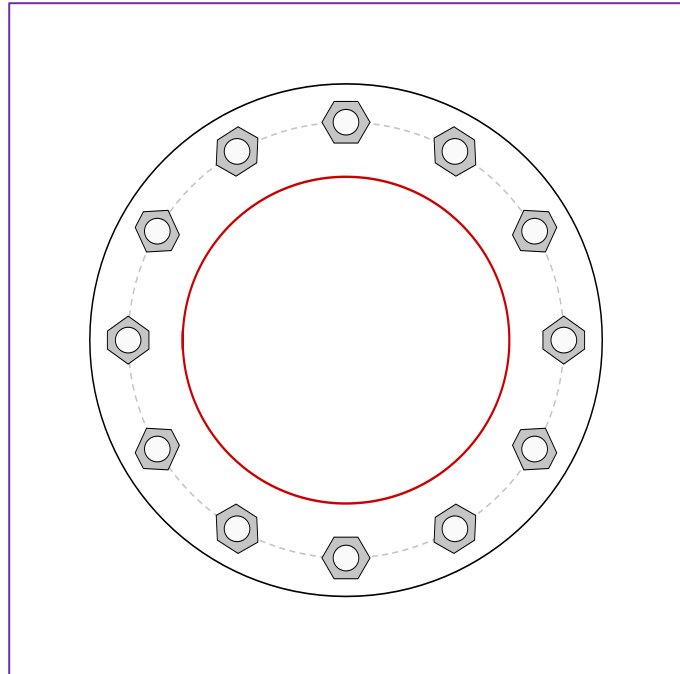
BU #	876317
Site Name	WATERBURY,CT
Order #	586326,Rev# 0

Applied Loads	
Moment (kip-ft)	61.34
Axial Force (kips)	5.48
Shear Force (kips)	6.90

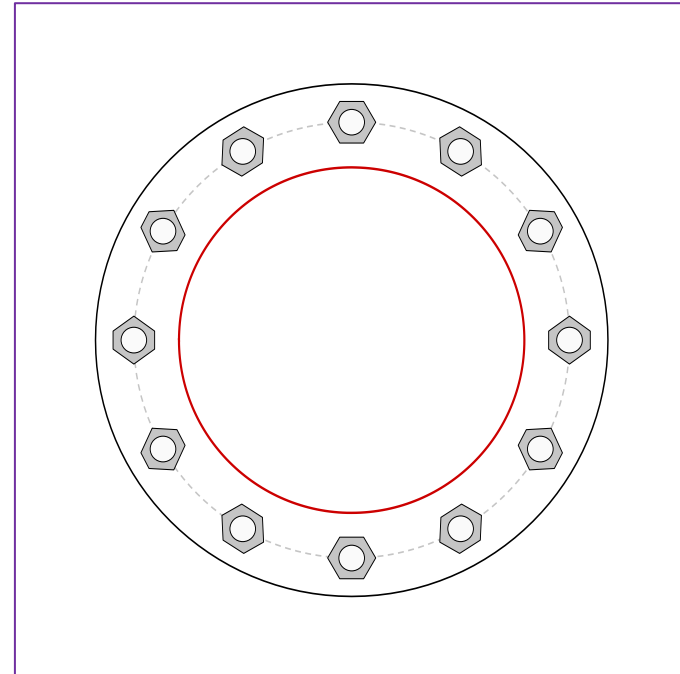
TIA-222 Revision	H
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\*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



### Connection Properties

#### Bolt Data

(12) 1"  $\phi$  bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 17" BC

#### Top Plate Data

20" OD x 1" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

#### Top Stiffener Data

N/A

#### Top Pole Data

12.75" x 0.375" round pole (A500-46; Fy=46 ksi, Fu=62 ksi)

#### Bottom Plate Data

20" OD x 1" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

#### Bottom Stiffener Data

N/A

#### Bottom Pole Data

13.48" x 0.1875" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

### Analysis Results

#### Bolt Capacity

Max Load (kips)	13.96
Allowable (kips)	54.53
Stress Rating:	<b>24.4%</b> Pass

#### Top Plate Capacity

Max Stress (ksi):	20.32	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	<b>43.0%</b>	Pass
Tension Side Stress Rating:	<b>26.3%</b>	Pass

#### Bottom Plate Capacity

Max Stress (ksi):	16.33	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	<b>34.6%</b>	Pass
Tension Side Stress Rating:	<b>19.1%</b>	Pass



# Monopole Base Plate Connection

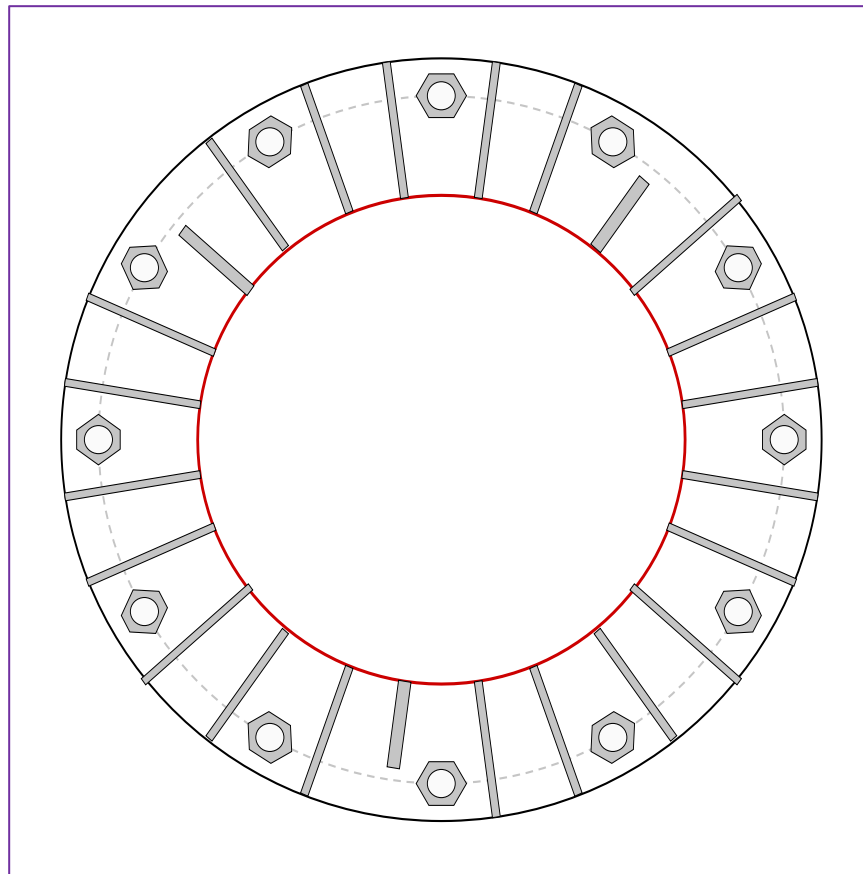


Site Info	
BU #	876317
Site Name	WATERBURY,CT
Order #	586326,Rev# 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
$l_{ar}$ (in)	0.75

Applied Loads	
Moment (kip-ft)	3320.87
Axial Force (kips)	60.00
Shear Force (kips)	31.24

\*TIA-222-H Section 15.5 Applied



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

**Anchor Rod Data**  
 (12) 2-1/4"  $\phi$  bolts (A615-75 N;  $F_y=75$  ksi,  $F_u=100$  ksi) on 55.16" BC

**Base Plate Data**  
 61.16" OD x 2.5" Plate (S-128;  $F_y=60$  ksi,  $F_u=80$  ksi)

**Stiffener Data**  
 Group 1: (21) 21.5"H x 11"W x 0.625"T, Notch: 0.75"  
 plate:  $F_y= 50$  ksi ; weld:  $F_y= 80$  ksi  
 horiz. weld: 0.3125" groove, 45° dbl bevel, 0.5" fillet  
 vert. weld: 0.3125" fillet

Group 2: (3) 126"H x 7"W x 1"T, Notch: 0.75"  
 plate:  $F_y= 65$  ksi ; weld:  $F_y= 80$  ksi  
 horiz. weld: 0.5" groove, 45° dbl bevel, 0.3125" fillet  
 vert. weld: 0.3125" fillet

**Pole Data**  
 39.2" x 0.3125" 12-sided pole (A572-65;  $F_y=65$  ksi,  $F_u=80$  ksi)

Anchor Rod Summary			<i>(units of kips, kip-in)</i>
$Pu_t = 235.65$	$\phi Pn_t = 243.75$	<b>Stress Rating</b>	
$Vu = 2.6$	$\phi Vn = 149.1$		<b>92.1%</b>
$Mu = n/a$	$\phi Mn = n/a$		<b>Pass</b>

Base Plate Summary		
Max Stress (ksi):	32.33	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	<b>57.0%</b>	<b>Pass</b>

Stiffener Summary		
Horizontal Weld:	<b>42.8%</b>	<b>Pass</b>
Vertical Weld:	<b>43.0%</b>	<b>Pass</b>
Plate Flexure+Shear:	<b>23.7%</b>	<b>Pass</b>
Plate Tension+Shear:	<b>44.6%</b>	<b>Pass</b>
Plate Compression:	<b>63.9%</b>	<b>Pass</b>

Pole Summary		
Punching Shear:	<b>17.4%</b>	<b>Pass</b>

# Pier and Pad Foundation



BU #: 876317  
 Site Name: WATERBURY, CT  
 App. Number: 586326, Rev# 0

TIA-222 Revision: H  
 Tower Type: Monopole

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

Superstructure Analysis Reactions		
Compression, $P_{comp}$ :	60	kips
Base Shear, $Vu_{comp}$ :	31	kips
Moment, $M_u$ :	3321	ft-kips
Tower Height, $H$ :	143	ft
BP Dist. Above Fdn, $bp_{dist}$ :	2.75	in
Bolt Circle / Bearing Plate Width, $BC$ :	55.16	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	277.87	31.00	10.6%	Pass
<i>Bearing Pressure (ksf)</i>	22.50	7.07	31.4%	Pass
<i>Overturning (kip*ft)</i>	3943.94	3537.35	89.7%	Pass
<i>Pad Flexure (kip*ft)</i>	9014.86	2055.67	21.7%	Pass
<i>Pad Shear - 1-way (kips)</i>	1732.56	202.53	11.1%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.000	0.0%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	18499.97	0.00	0.0%	Pass

\*Rating per TIA-222-H Section 15.5

Structural Rating*:	21.7%
Soil Rating*:	89.7%

Pad Properties		
Depth, $D$ :	6.75	ft
Pad Width, $W_1$ :	20	ft
Pad Thickness, $T$ :	6.75	ft
Pad Rebar Size (Top dir. 2), $Sp_{top2}$ :	9	
Pad Rebar Quantity (Top dir. 2), $mp_{top2}$ :	28	
Pad Rebar Size (Bottom dir. 2), $Sp_2$ :	10	
Pad Rebar Quantity (Bottom dir. 2), $mp_2$ :	21	
Pad Clear Cover, $cc_{pad}$ :	3	in

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

Soil Properties		
Total Soil Unit Weight, $\gamma$ :	125	pcf
Ultimate Gross Bearing, $Q_{ult}$ :	30.000	ksf
Cohesion, $C_u$ :	0.000	ksf
Friction Angle, $\phi$ :	36	degrees
SPT Blow Count, $N_{blows}$ :		
Base Friction, $\mu$ :	0.5	
Neglected Depth, $N$ :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, $gw$ :	11.5	ft

<--Toggle between Gross and Net

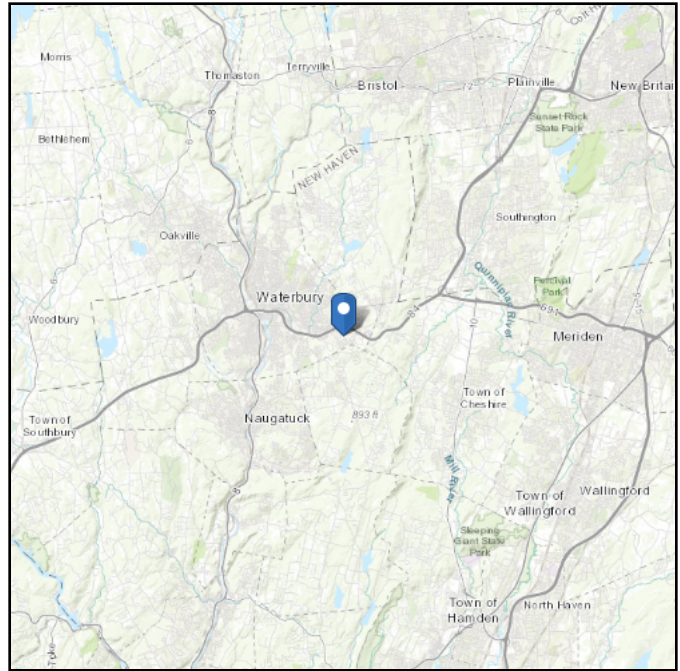
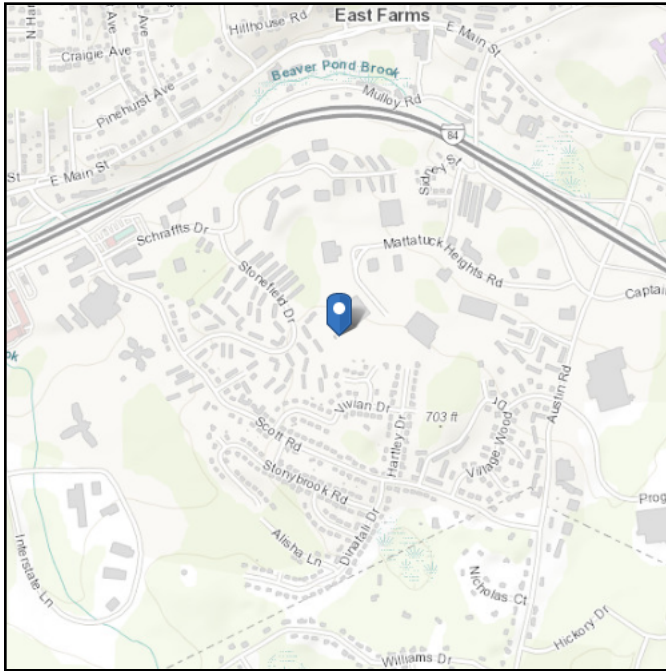


# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 660.21 ft (NAVD 88)  
**Latitude:** 41.537861  
**Longitude:** -72.985028



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2  
Date Accessed: Thu Jan 27 2022

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

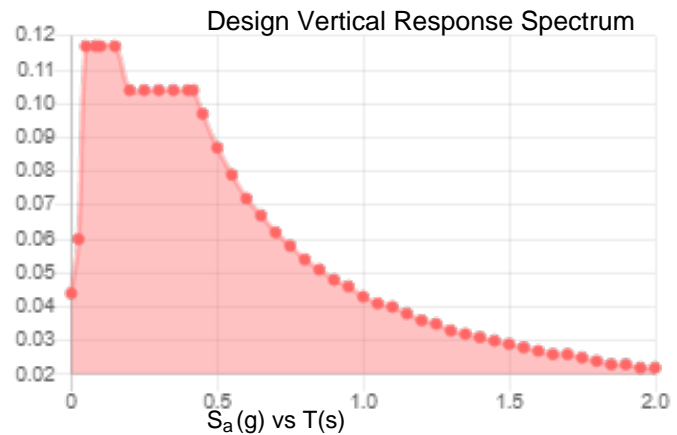
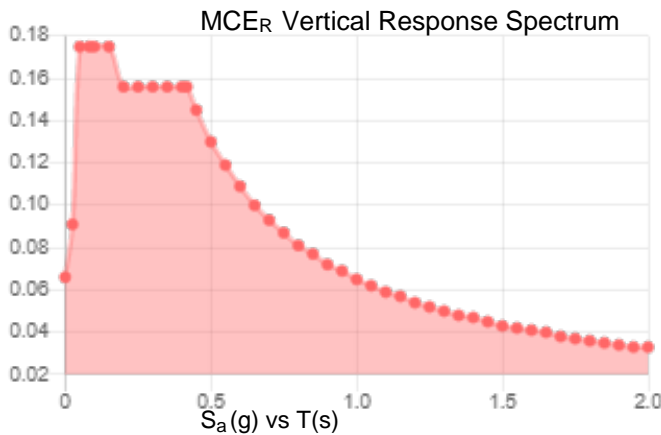
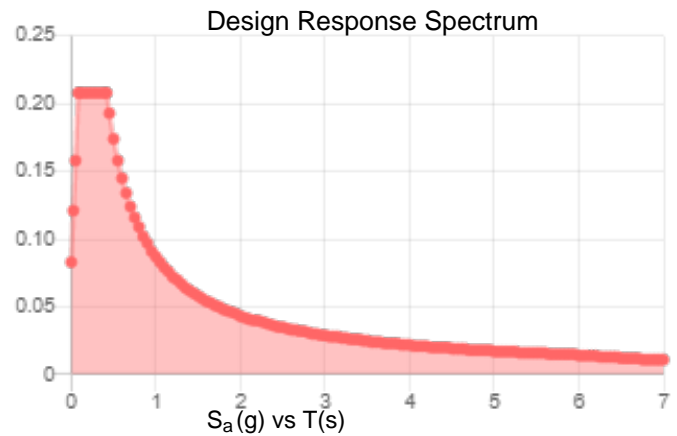
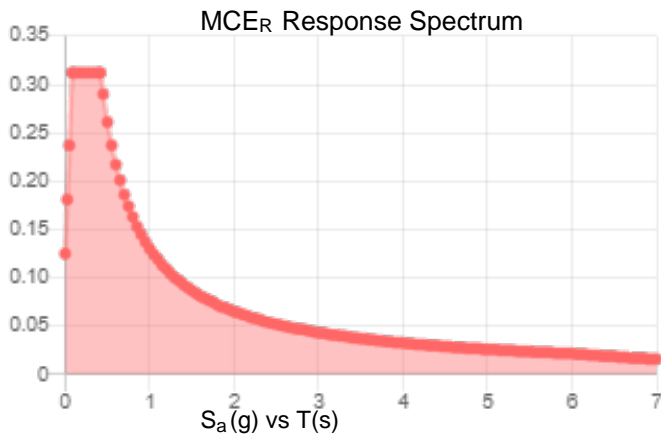
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.195	$S_{D1}$ :	0.087
$S_1$ :	0.054	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.312	$F_{PGA}$ :	1.585
$S_{M1}$ :	0.13	$I_e$ :	1
$S_{DS}$ :	0.208	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Thu Jan 27 2022

**Date Source:**

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

## Ice

---

### Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 15 F

Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Thu Jan 27 2022

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

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

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

# Exhibit E

## **Mount Analysis**



Date: March 22, 2022

B+T Group  
1717 S. Boulder, Suite 300  
Tulsa, OK 74119  
(918) 587-4630  
towersupport@btgrp.com

**Subject:** Mount Analysis - Conditional Passing Report

**Carrier Designation:** AT&T Mobility Equipment Change-Out  
**Carrier Site Number:** CT2860  
**Carrier Site Name:** Wolcott  
**Carrier FA Number:** 10578275

**Crown Castle Designation:** BU Number: 876317  
**Site Name:** Waterbury  
**JDE Job Number:** 686294  
**Order Number:** 586326, Rev.0

**Engineering Firm Designation:** B+T Group Report Designation: 79982.007.01

**Site Data:** 150 Mattatuck Heights, Waterbury, CT, New Haven County, 06705-3831  
Latitude 41° 32' 16.30" Longitude -72° 59' 6.10"

**Structure Information:** Tower Height & Type: 144.25 ft. Monopole  
Mount Elevation: 144 ft.  
Mount Type: 12.5 ft. Platform Mount

B+T Group is pleased to submit this “Mount Analysis - Conditional Passing Report” to determine the structural integrity of AT&T Mobility’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’s stress level. Based on our analysis we have determined the stress level to be:

**Platform Mount**

**Sufficient**

\*The Capacities listed are based on recommendations listed in Sec.4.1 being installed.

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 118 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Rose Denny

Respectfully submitted by: B&T Engineering, Inc.  
COA: PEC.0001564 Expires: 02/01/2023



Chad E. Tuttle, P.E.

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### 1) INTRODUCTION

### 2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Documents Provided

### 3) ANALYSIS PROCEDURE

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3.2) Assumptions

### 4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity

4.1) Recommendations

### 5) APPENDIX A

Wire Frame and Rendered Models

### 6) APPENDIX B

Software Input Calculations

### 7) APPENDIX C

Software Analysis Output

### 8) APPENDIX D

Additional Calculations



## 1) INTRODUCTION

This is an existing 3 - Sector 12.5' Platform Mount, designed by SitePro1 (Part #F3P-12W w/ Part #F3P-HRK12).

## 2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	118 mph
Exposure Category:	B
Topographic Factor at Base:	1
Topographic Factor at Mount:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Seismic S <sub>s</sub> :	0.195
Seismic S <sub>1</sub> :	0.054
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb.
Man Live Load at Mount Pipes:	500 lb.

**Table 1 - Proposed Equipment Configuration**

Mount Centerline (ft.)	Antenna Centerline (ft.)	Number of Antennas	Manufacturer	Model/Type	Mount / Modification Details
144	145	3	Ericsson	AIR 6419 B77G_CCIV3	12.5' Platform Mount
	143	3	KMW	EPBQ-654L8H8-L2	
		3	Quintel	QD8616-7	
		3	Ericsson	2012 B29	
		3	Ericsson	Radio 4415 B30	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 4478 B14	
		3	Ericsson	RRUS 8843 B2/B66A	
		2	Raycap	DC6-48-60-18-8F	
	1	Raycap	DC9-48-60-24-8C-EV		
141	3	Ericsson	AIR 6449 B77D_CCIV2		

**Table 2 - Documents Provided**

Document	Remarks	Reference	Source
CCI Order	Existing Loading Proposed Loading	Date: 03/17/2022	Crown Castle
RFDS		Date: 03/01/2022	
Scoping Form		--	
Mount Manufacturer Drawing	SitePro1 (Part #F3P-12W w/ Part #F3P-HRK12)	Date: 08/30/2017	SitePro1

### 3) ANALYSIS PROCEDURE

#### 3.1) Analysis Method

RISA-3D (Version 19.0.4), 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.

A tool internally developed by B+T Group, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision E). In addition, this analysis is in accordance with AT&T's *Mount Technical Directive - R15.0*.

Manufacturers drawing were used to create the model.

#### 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.
3. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected members unless otherwise specified in this report.
4. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.

The following assumptions have been included in the analysis of the mount

Component	Section	Length	Note
Existing Mount Pipes	2" Std. Pipe	10'-0"	All Positions, All Sectors

5. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
6. Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
7. 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.
8. The following material grades were assumed (Unless Noted Otherwise):
  - (a) Connection Bolts : ASTM A325
  - (b) Steel Pipe : ASTM A53 (GR. 35)
  - (c) HSS (Round) : ASTM 500 (GR. B-42)
  - (d) HSS (Rectangular) : ASTM 500 (GR. B-46)
  - (e) Channel : ASTM A36 (GR. 36)
  - (f) Steel Solid Rod : ASTM A36 (GR. 36)
  - (g) Steel Plate : ASTM A36 (GR. 36)
  - (h) Steel Angle : ASTM A36 (GR. 36)
  - (i) UNISTRUT : ASTM A570 (GR. 33)

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

#### 4) ANALYSIS RESULTS

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

Notes	Component	Centerline (ft.)	Critical Member	% Capacity	Pass / Fail
1,2	Main Face Horizontals	144	1	31.4	Pass
	Mount Pipes		404	73.5	Pass
	Connection Plates		43	50.3	Pass
	Connection Angles		20	43.6	Pass
	Support Tubes		41	12.9	Pass
	Support Rails		190	24.9	Pass
	Support Pipes		212	13.2	Pass
	Connection WT		192	10.3	Pass
	New Stand-off Tubes		428	16.7	Pass
3	Mount to Tower Connection		--	63.9	Pass

<b>Structure Rating with Recommendations (max from all components) =</b>	<b>73.5%</b>
--	--------------

Notes:

- 1) Capacities listed are based on recommendations listed in Sec.4.1 being installed.
- 2) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 3) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity reported.

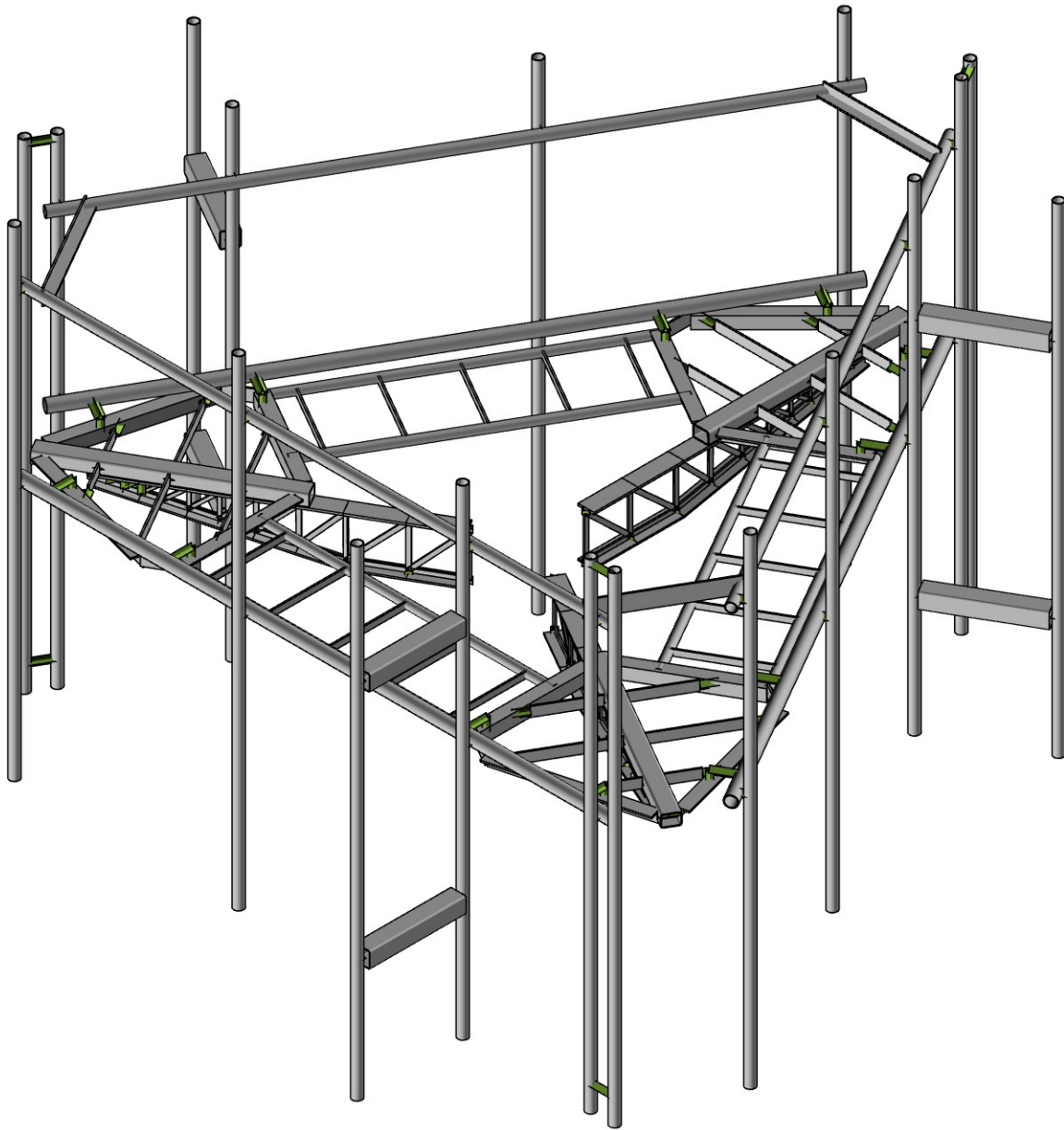
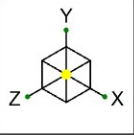
#### 4.1) Recommendations

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 modification listed below must be completed.

1. Install new 2" Std. x 10' long mount pipe attached to SitePro1 Part #WWM02-DCP connected at 2'-6" below and 7'-6" below the tip of existing mount pipe at position 2 on all sectors.
2. Relocate the existing DC6-48-60-18-8F at position 3 on Alpha and Beta Sector to empty mount pipes at position 1.

No modifications are required at this time provided that the above-listed changes are completed.

**APPENDIX A**  
**WIRE FRAME AND RENDERED MODELS**



Envelope Only Solution

B+T Group

KR

79982.007.01

876317 - Waterbury

SK-1

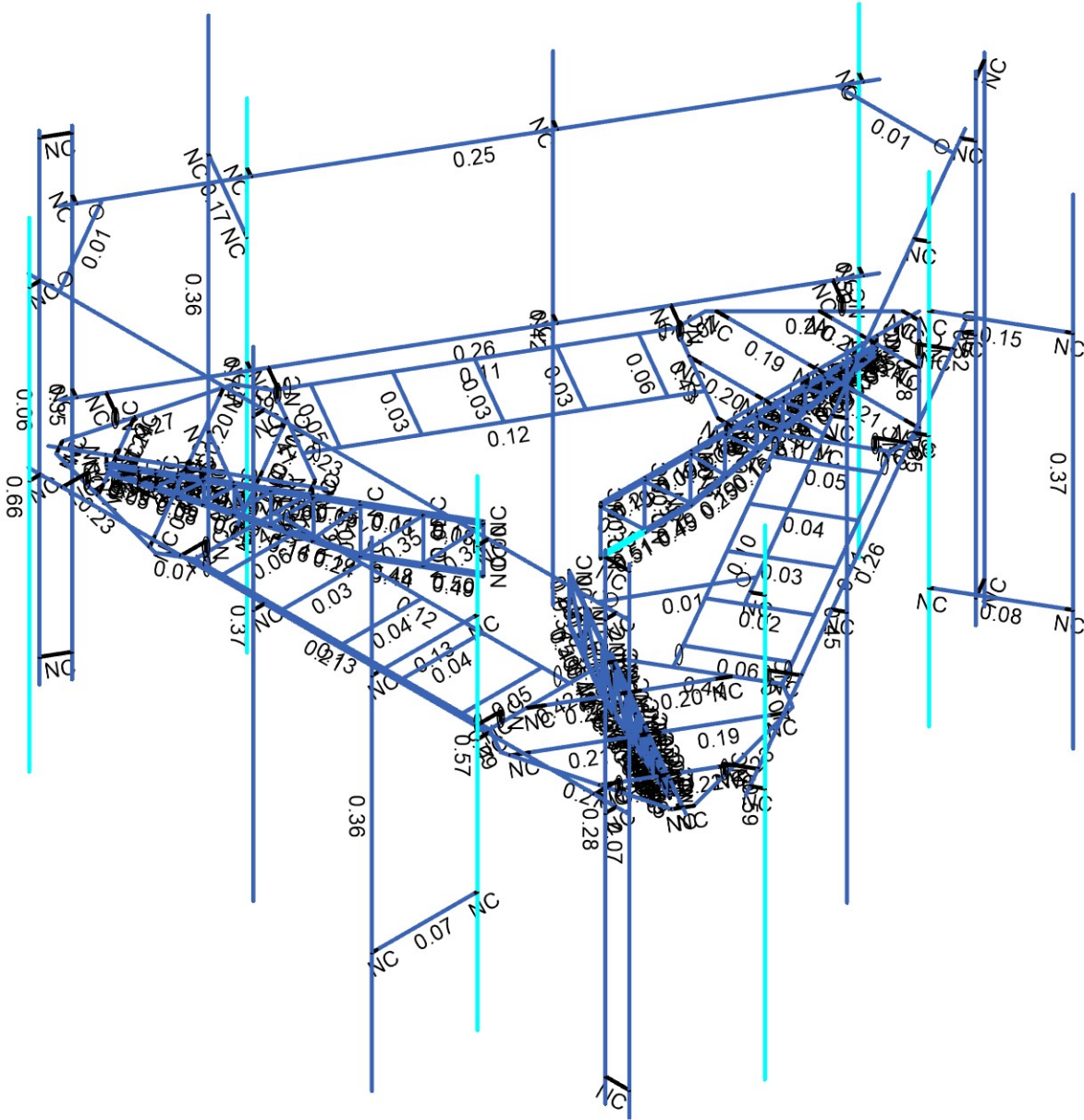
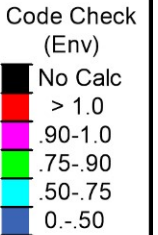
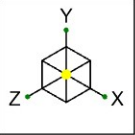
Mar 22, 2022

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Member Code Checks Displayed (Enveloped)  
Envelope Only Solution

B+T Group

876317 - Waterbury

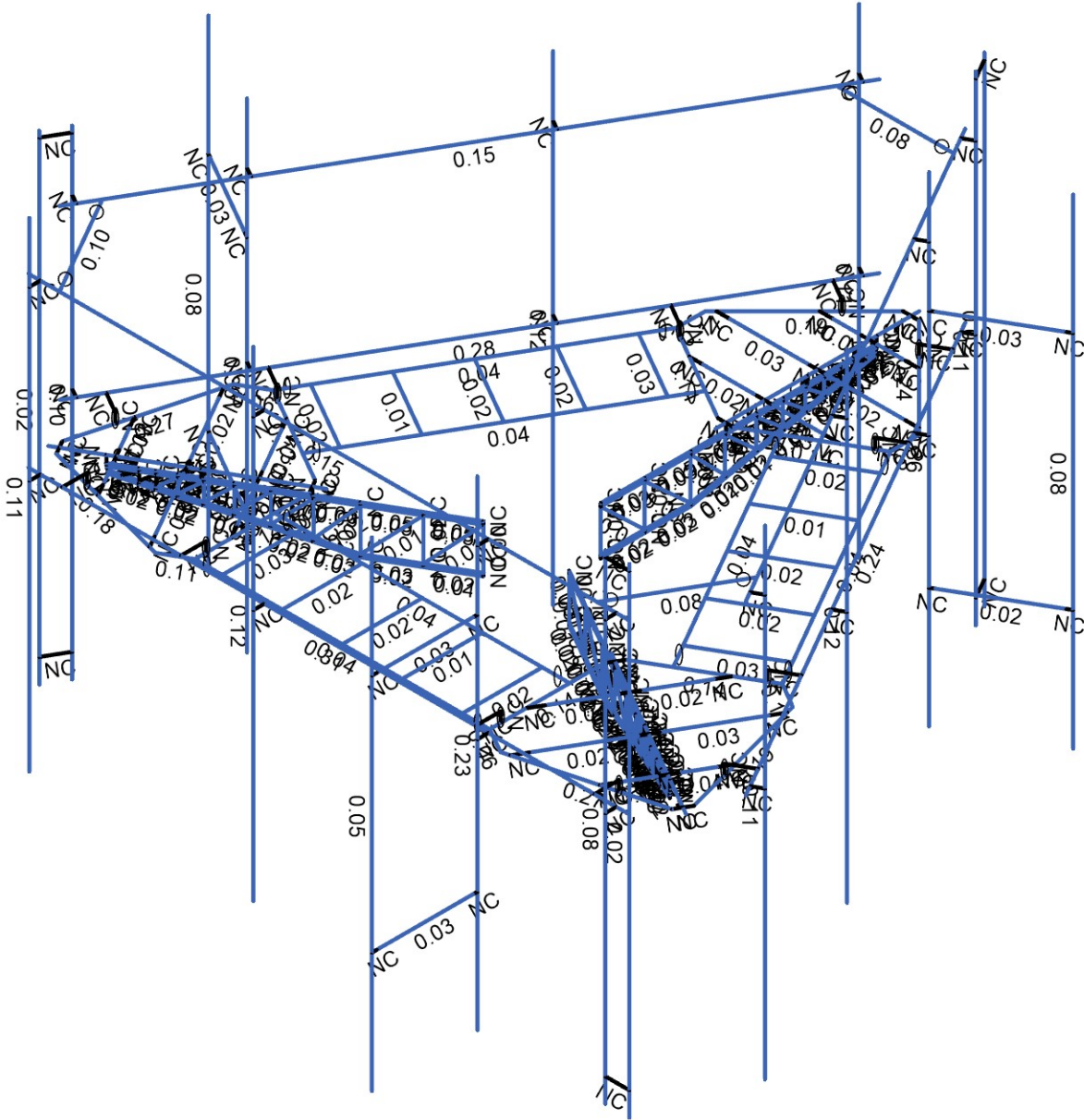
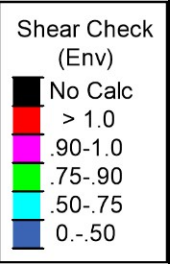
SK-4

KR

Mar 22, 2022

79982.007.01

79982\_007\_01\_Waterbury\_CT.r3d



Member Shear Checks Displayed (Enveloped)  
Envelope Only Solution

B+T Group  
KR  
79982.007.01

876317 - Waterbury

SK-5  
Mar 22, 2022  
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**APPENDIX B**  
**SOFTWARE INPUT CALCULATIONS**

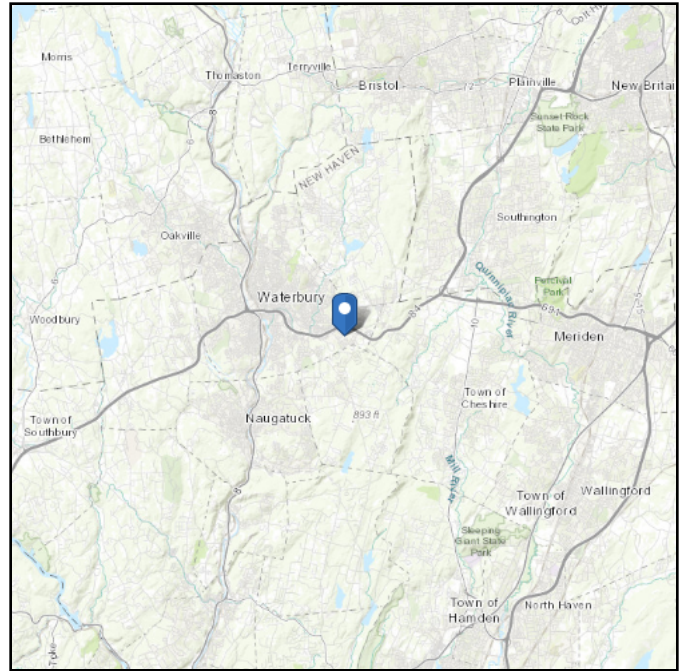
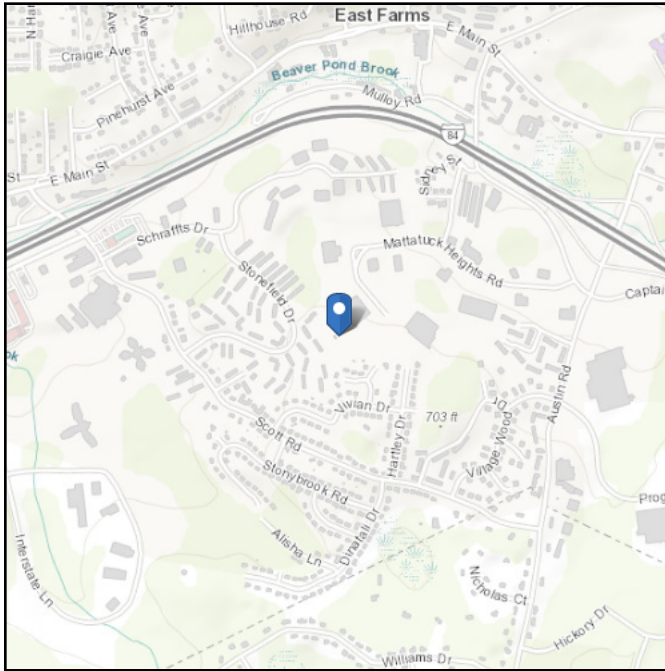


# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 660.21 ft (NAVD 88)  
**Latitude:** 41.537861  
**Longitude:** -72.985028



## Wind

### Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2  
Date Accessed: Tue Mar 22 2022

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

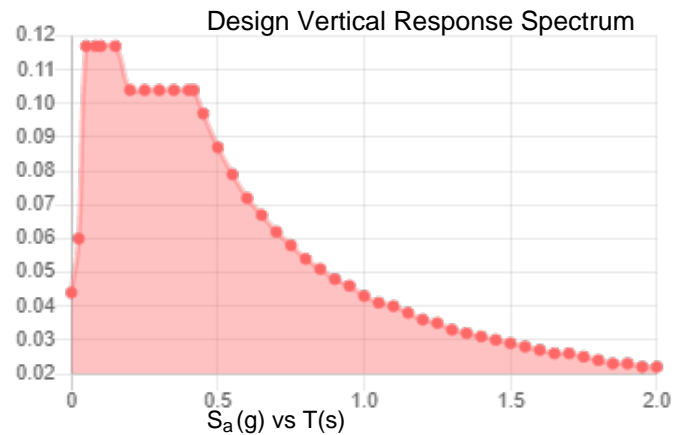
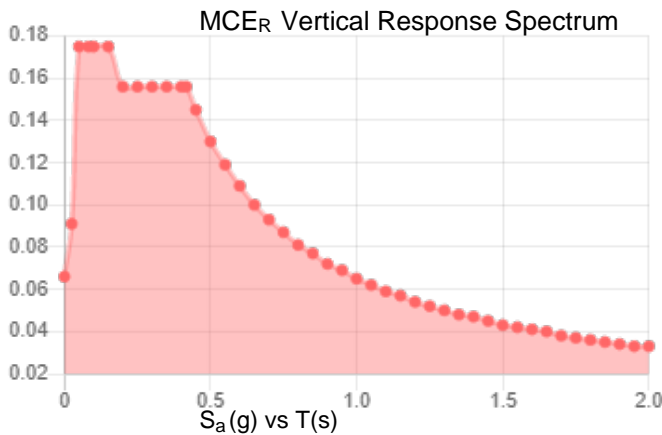
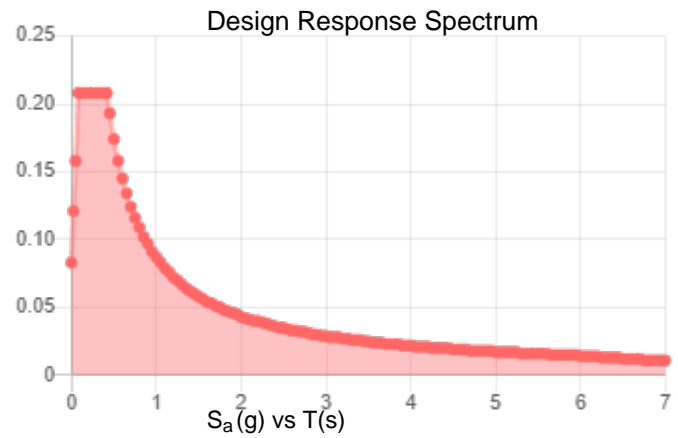
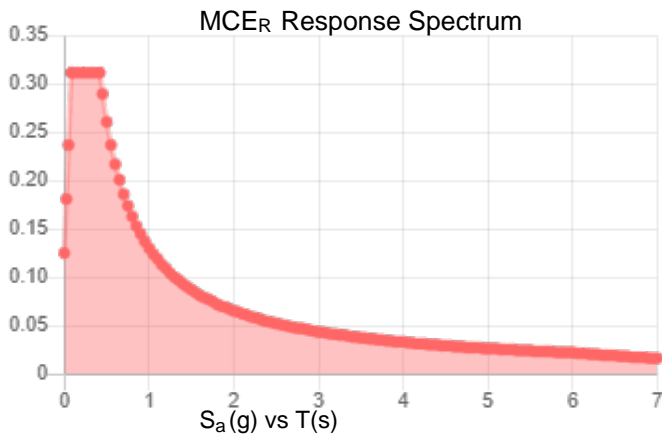
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

**Site Soil Class:** D - Default (see Section 11.4.3)

**Results:**

$S_s$ :	0.195	$S_{D1}$ :	0.087
$S_1$ :	0.054	$T_L$ :	6
$F_a$ :	1.6	PGA :	0.108
$F_v$ :	2.4	PGA <sub>M</sub> :	0.171
$S_{MS}$ :	0.312	$F_{PGA}$ :	1.585
$S_{M1}$ :	0.13	$I_e$ :	1
$S_{DS}$ :	0.208	$C_v$ :	0.7

**Seismic Design Category** B



**Data Accessed:** Tue Mar 22 2022

**Date Source:**

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



## Ice

---

**Results:**

Ice Thickness: 1.00 in.  
Concurrent Temperature: 15 F  
Gust Speed 50 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Tue Mar 22 2022

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

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

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PROJECT	<b>79982.007.01 - Waterbury, C</b>		<b>KSC</b>
SUBJECT	<b>Platform Mount Analysis</b>		
DATE	<b>03/22/22</b>	PAGE	OF



Tower Type	:	Monopole	
Ground Elevation	$z_s$ :	660 ft	[ASCE7 Hazard Tool]
Tower Height	:	144.25 ft	
Mount Elevation	:	144.00 ft	
Antenna Elevation	:	145.00 ft	
Crest Height	:	0 ft	
Risk Category	:	II	[Table 2-1 ]
Exposure Category	:	B	[Sec. 2.6.5.1.2]
Topography Category	:	1.00	[Sec. 2.6.6.2]
Wind Velocity	$V$ :	118 mph	[ASCE7 Hazard Tool]
Ice wind Velocity	$V_i$ :	50 mph	[ASCE7 Hazard Tool]
Service Velocity	$V_s$ :	30 mph	[ASCE7 Hazard Tool]
Base Ice thickness	$t_i$ :	1.00 in	[ASCE7 Hazard Tool]
Seismic Design Cat.	:	B	[ASCE7 Hazard Tool]
	$S_s$ :	0.20	
	$S_1$ :	0.05	
	$S_{DS}$ :	0.21	
	$S_{D1}$ :	0.09	
Gust Factor	$G_h$ :	1.00	[Sec. 16.6]
Pressure Coefficient	$K_z$ :	1.10	[Sec. 2.6.5.2]
Topography Factor	$K_{zt}$ :	1.00	[Sec. 2.6.6]
Elevation Factor	$K_e$ :	0.98	[Sec. 2.6.8]
Directionality Factor	$K_d$ :	0.95	[Sec. 16.6]
Shielding Factor	$K_a$ :	0.90	[Sec. 16.6]
Design Ice Thickness	$t_{iz}$ :	1.16 in	[Sec. 2.6.10]
Importance Factor	$I_e$ :	1	[Table 2-3 ]
Response Coefficient	$C_s$ :	0.104	[Sec. 2.7.7.1]
Amplification	$A_s$ :	2.993068	[Sec. 16.7]
	$q_z$ :	36.26 psf	

PROJECT	<b>79982.007.01 - Waterbury, C</b>	<b>KSC</b>
SUBJECT	<b>Platform Mount Analysis</b>	
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Manufacturer	Model	Qty	Aspect Ratio	C <sub>a</sub> flat/round	EPA <sub>N</sub> (ft <sup>2</sup> )	EPA <sub>T</sub> (ft <sup>2</sup> )	EPA <sub>N-ice</sub> (ft <sup>2</sup> )	EPA <sub>T-ice</sub> (ft <sup>2</sup> )	F <sub>A No Ice (N)</sub>	F <sub>A No Ice (T)</sub>	F <sub>A Ice (N)</sub>	F <sub>A Ice (T)</sub>
QINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
QINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
ERICSSON	RRUS 4449 B5/B12	1	1.90	1.20	1.17	1.64	1.65	2.18	0.05	0.06	0.01	0.01
ERICSSON	RADIO 4415 B30	1	2.97	1.22	0.52	1.37	0.88	1.86	0.02	0.05	0.00	0.01
QINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
QINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
ERICSSON	RRUS 4449 B5/B12	1	1.90	1.20	1.17	1.64	1.65	2.18	0.05	0.06	0.01	0.01
ERICSSON	RADIO 4415 B30	1	2.97	1.22	0.52	1.37	0.88	1.86	0.02	0.05	0.00	0.01

PROJECT	<b>79982.007.01 - Waterbury, C</b>		<b>KSC</b>
SUBJECT	<b>Platform Mount Analysis</b>		
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Manufacturer	Model	Qty	Aspect Ratio	C <sub>a</sub> flat/round	EPA <sub>N</sub> (ft <sup>2</sup> )	EPA <sub>T</sub> (ft <sup>2</sup> )	EPA <sub>N-ice</sub> (ft <sup>2</sup> )	EPA <sub>T-ice</sub> (ft <sup>2</sup> )	F <sub>A No Ice (N)</sub>	F <sub>A No Ice (T)</sub>	F <sub>A Ice (N)</sub>	F <sub>A Ice (T)</sub>
QUINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
QUINTEL TECHNOLOG	QD8616-7	0.5	4.36	1.28	7.33	3.20	8.30	4.07	0.31	0.13	0.06	0.02
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6419 B77G_CCIV3	0.5	1.93	1.20	1.74	0.79	2.14	1.12	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
ERICSSON	AIR 6449 B77D_CCVI2	0.5	1.91	1.20	1.67	0.85	2.07	1.18	0.07	0.03	0.01	0.01
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
MW COMMUNICATION	EPBQ-654L8H8-L2	0.5	4.57	1.29	7.46	2.24	8.34	3.01	0.27	0.08	0.05	0.02
ERICSSON	RRUS 4449 B5/B12	1	1.90	1.20	1.17	1.64	1.65	2.18	0.05	0.06	0.01	0.01
ERICSSON	RADIO 4415 B30	1	2.97	1.22	0.52	1.37	0.88	1.86	0.02	0.05	0.00	0.01
RAYCAP	DC6-48-60-18-8F	1	2.02	0.50	1.70	1.70	2.27	2.27	0.03	0.03	0.00	0.00
RAYCAP	DC6-48-60-18-8F	1	2.02	0.50	1.70	1.70	2.27	2.27	0.03	0.03	0.00	0.00
RAYCAP	DC9-48-60-24-8C-EV	1	3.07	1.23	2.23	3.99	2.94	4.82	0.09	0.16	0.02	0.03



**APPENDIX C**  
**SOFTWARE ANALYSIS OUTPUT**



**Node Coordinates**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0.145833	-7.66975	
2	2	0	0.145833	-3.425417	
3	3	0	0.145833	-6.633292	
4	4	0.75	0.145833	-6.633292	
5	5	0	0.145833	-5.558292	
6	6	0	0.145833	-4.450866	
7	7	1.825583	0.145833	-5.558292	
8	8	1.2905	0.145833	-4.455625	
9	9	0.166667	0.145833	-6.633292	
10	10	0.166667	0.145833	-5.558292	
11	11	0.166667	0.145833	-4.455625	
12	12	1.034612	0.145833	-6.633292	
13	13	2.10973	0.145833	-5.558292	
14	14	1.575011	0.145833	-4.455625	
15	15	0	0.145833	-7.501143	
16	16	0	0.145833	-3.642525	
17	17	0.166667	0.145833	-7.501143	
18	18	2.227593	0.145833	-5.440441	
19	19	0.166667	0.145833	-3.642525	
20	20	-0.75	0.145833	-6.633292	
21	21	-1.825583	0.145833	-5.558292	
22	22	-1.2905	0.145833	-4.455625	
23	23	-0.166667	0.145833	-6.633292	
24	24	-0.166667	0.145833	-5.558292	
25	25	-0.166667	0.145833	-4.455625	
26	26	-1.034612	0.145833	-6.633292	
27	27	-2.10973	0.145833	-5.558292	
28	28	-1.575011	0.145833	-4.455625	
29	29	-0.166667	0.145833	-7.501143	
30	30	-2.227593	0.145833	-5.440441	
31	31	-0.166667	0.145833	-3.642525	
32	32	-2.232836	0.145833	-4.835417	
33	33	2.232836	0.145833	-4.835417	
34	34	-0.803917	0.145833	-6.863962	
35	35	6.642192	0.145833	3.834871	
36	36	2.966491	0.145833	1.712704	
37	37	5.744592	0.145833	3.316642	
38	38	5.36959	0.145833	3.966165	
39	39	4.813615	0.145833	2.779142	
40	40	3.858678	0.145833	2.227809	
41	41	3.900821	0.145833	4.360148	
42	42	3.213425	0.145833	3.345419	
43	43	5.661257	0.145833	3.460984	
44	44	4.730279	0.145833	2.923484	
45	45	3.775342	0.145833	2.37215	
46	46	5.227284	0.145833	4.212647	
47	47	3.758748	0.145833	4.606226	
48	48	3.071177	0.145833	3.5918	
49	49	6.49618	0.145833	3.750571	
50	50	3.154519	0.145833	1.821262	
51	51	6.412837	0.145833	3.894909	
52	52	3.597754	0.145833	4.649373	
53	53	3.071177	0.145833	1.9656	
54	54	6.11959	0.145833	2.667127	
55	55	5.726404	0.145833	1.198145	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	56	4.503925	0.145833	1.110207	
57	57	5.827923	0.145833	3.172309	
58	58	4.896946	0.145833	2.634809	
59	59	3.942009	0.145833	2.083475	
60	60	6.261896	0.145833	2.420646	
61	61	5.868478	0.145833	0.952067	
62	62	4.646181	0.145833	0.863813	
63	63	6.579504	0.145833	3.606234	
64	64	5.825348	0.145833	0.791068	
65	65	3.237843	0.145833	1.676925	
66	66	5.304002	0.145833	0.484016	
67	67	3.071167	0.145833	4.351401	
68	68	3.071168	0.354083	4.120184	
69	69	5.542398	0.354083	4.128194	
70	70	3.071177	0.145833	4.120184	
71	71	3.071168	0.354083	4.641048	
72	72	5.542398	0.145833	4.128194	
73	73	5.542398	0.354083	4.641048	
74	74	-6.642189	0.145833	3.834853	
75	75	-2.966489	0.145833	1.712686	
76	76	-5.74459	0.145833	3.316624	
77	77	-6.11959	0.145833	2.667105	
78	78	-4.813613	0.145833	2.779124	
79	79	-3.858675	0.145833	2.22779	
80	80	-5.726404	0.145833	1.198122	
81	81	-4.503925	0.145833	1.110185	
82	82	-5.827923	0.145833	3.172286	
83	83	-4.896946	0.145833	2.634786	
84	84	-3.942009	0.145833	2.083453	
85	85	-6.261896	0.145833	2.420623	
86	86	-5.868478	0.145833	0.952044	
87	87	-4.646181	0.145833	0.863791	
88	88	-6.496209	0.145833	3.750571	
89	89	-3.154549	0.145833	1.821262	
90	90	-6.579504	0.145833	3.606211	
91	91	-5.825348	0.145833	0.791046	
92	92	-3.237843	0.145833	1.676903	
93	93	-5.36959	0.145833	3.966143	
94	94	-3.900821	0.145833	4.360125	
95	95	-3.213425	0.145833	3.345396	
96	96	-5.661257	0.145833	3.460961	
97	97	-4.730279	0.145833	2.923461	
98	98	-3.775342	0.145833	2.372128	
99	99	-5.227284	0.145833	4.212624	
100	100	-3.758748	0.145833	4.606203	
101	101	-3.071177	0.145833	3.591778	
102	102	-6.412837	0.145833	3.894887	
103	103	-3.597754	0.145833	4.649351	
104	104	-3.071177	0.145833	1.965578	
105	105	-3.071168	0.354083	4.120161	
106	106	-3.071167	0.145833	4.351379	
107	107	-5.304002	0.145833	0.483994	
108	108	-5.542398	0.354083	4.128171	
109	109	-3.071177	0.145833	4.120161	
110	110	-3.071168	0.354083	4.641048	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	-5.542398	0.145833	4.128171	
112	112	-5.542398	0.354083	4.641048	
113	113	-6.346315	0.354083	2.735747	
114	114	2.032595	0.354083	-4.719809	
115	115	0.803917	0.354083	-6.863962	
116	116	2.032595	0.145833	-4.719809	
117	117	2.483675	0.354083	-4.98024	
118	118	0.803917	0.145833	-6.863962	
119	119	1.248065	0.354083	-7.120381	
120	120	5.103763	0.354083	0.599626	
121	121	6.346315	0.354083	2.735769	
122	122	5.103763	0.145833	0.599626	
123	123	5.554846	0.354083	0.339193	
124	124	6.346315	0.145833	2.735769	
125	125	6.790457	0.354083	2.479338	
126	126	-5.103763	0.354083	0.599603	
127	127	-5.103763	0.145833	0.599603	
128	128	-5.554843	0.354083	0.339172	
129	129	-6.346315	0.145833	2.735747	
130	130	-6.790467	0.354083	2.479332	
131	131	-2.032595	0.354083	-4.719809	
132	132	-0.803917	0.354083	-6.863962	
133	133	-2.032595	0.145833	-4.719809	
134	134	-2.483677	0.354083	-4.980241	
135	135	-1.248066	0.354083	-7.120381	
136	136	-6.250009	0.354083	4.641048	
137	137	6.250009	0.354083	4.641048	
138	138	7.144265	0.354083	3.092151	
139	139	0.894256	0.354083	-7.733198	
140	140	-0.894256	0.354083	-7.733198	
141	141	-7.144265	0.354083	3.092129	
142	142	0	0.145833	-5.333333	
143	143	2.456763	0.354083	-5.026852	
144	144	4.01926	0.354083	-2.320521	
145	145	0	0	-2.906221	
146	146	0	0	-3.642525	
147	147	0	0	-5.688877	
148	148	0	0	-6.781253	
149	149	0	-0.994667	-2.906221	
150	150	0	-0.0625	-2.906221	
151	151	0	0	-3.624492	
152	152	0	0	-4.272483	
153	153	0	0	-4.829026	
154	154	0	0	-5.29568	
155	155	0	0	-6.020597	
156	156	0	0	-6.280042	
157	157	0	-0.0625	-3.624492	
158	158	0	-0.0625	-4.272483	
159	159	0	-0.0625	-4.828996	
160	160	0	-0.0625	-5.29568	
161	161	0	-0.0625	-5.688877	
162	162	0	-0.0625	-6.020597	
163	163	0	-0.0625	-6.280042	
164	164	0	-0.933227	-2.90487	
165	165	0	-0.645779	-4.272483	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
166	166	0	-0.843021	-3.632745	
167	167	0	-0.590665	-4.841755	
168	168	0	-0.70683	-4.285222	
169	169	0	-0.493261	-5.308413	
170	170	0	-0.41119	-5.701605	
171	171	0	-0.341951	-6.033322	
172	172	0	-0.287798	-6.292764	
173	173	0	-0.781876	-3.619986	
174	174	0	-0.529639	-4.828996	
175	175	0	-0.432245	-5.29568	
176	176	0	-0.350195	-5.688877	
177	177	0	-0.280974	-6.020597	
178	178	0	-0.226577	-6.279989	
179	179	0	-0.0625	-6.781253	
180	180	0	-0.125272	-6.763068	
181	181	0	-0.189155	-6.765356	
182	182	0	0	-1.947888	
183	183	0	-0.994667	-1.947888	
184	184	0	-0.0625	-1.947888	
185	185	0	-0.933213	-1.947888	
186	186	0	0	-1.031253	
187	187	0	-0.994667	-1.031253	
188	188	0	-0.0625	-1.031253	
189	189	0	-0.933213	-1.031253	
190	190	0	0	-5.333333	
191	191	0	-0.171393	-6.54314	
192	192	-0.789485	0.145833	-4.002106	
193	193	0.789485	0.145833	-4.002106	
194	194	3.860658	0.145833	1.317339	
195	195	3.071177	0.145833	2.684745	
196	196	-3.071177	0.145833	2.684745	
197	197	-3.860658	0.145833	1.317317	
198	198	5.581765	0.354083	0.385822	
199	199	-5.581763	0.354083	0.385807	
200	200	-4.01926	0.354083	-2.320521	
201	201	-2.456751	0.354083	-5.026861	
202	202	3.125	0.354083	4.641045	
203	203	0	0.354083	4.641042	
204	204	-3.125014	0.354083	4.641039	
205	205	0	0	0	
206	206	-6.250009	3.854083	4.641048	
207	207	6.250009	3.854083	4.641048	
208	208	7.144265	3.854083	3.092151	
209	209	0.894256	3.854083	-7.733198	
210	210	-0.894256	3.854083	-7.733198	
211	211	-7.144265	3.854083	3.092129	
212	212	5.601086	3.854083	4.641048	
213	213	-6.819803	3.854083	2.530145	
214	214	1.218717	3.854083	-7.171214	
215	215	-5.601062	3.854083	4.641048	
216	216	6.819785	3.854083	2.530134	
217	217	-1.218718	3.854083	-7.171214	
218	218	-3.768425	0.145833	-2.175701	
219	219	-2.325078	0.145833	-1.342384	
220	220	-4.393426	0.145833	-1.09317	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
221	221	-2.950078	0.145833	-0.259853	
222	222	-5.018426	0.145833	-0.010638	
223	223	-3.575079	0.145833	0.822679	
224	224	-3.143425	0.145833	-3.258233	
225	225	-1.700077	0.145833	-2.424916	
226	226	-2.518424	0.145833	-4.340764	
227	227	-1.075076	0.145833	-3.507447	
228	228	0	0.145833	4.351379	
229	229	0	0.145833	2.684745	
230	230	1.25	0.145833	4.351379	
231	231	1.25	0.145833	2.684745	
232	232	2.5	0.145833	4.351379	
233	233	2.5	0.145833	2.684745	
234	234	-1.25	0.145833	4.351379	
235	235	-1.25	0.145833	2.684745	
236	236	-2.5	0.145833	4.351379	
237	237	-2.5	0.145833	2.684745	
238	238	3.76842	0.145833	-2.175698	
239	239	2.325073	0.145833	-1.342381	
240	240	3.143422	0.145833	-3.258231	
241	241	1.700074	0.145833	-2.424914	
242	242	2.518423	0.145833	-4.340764	
243	243	1.075076	0.145833	-3.507447	
244	244	4.393419	0.145833	-1.093166	
245	245	2.950071	0.145833	-0.259849	
246	246	5.018417	0.145833	-0.010633	
247	247	3.57507	0.145833	0.822684	
248	248	-4.618831	0.145833	2.666667	
249	249	-3.154519	0	1.821263	
250	250	-4.618802	0	2.666667	
251	251	4.618802	0.145833	2.666667	
252	252	3.154519	0	1.821263	
253	253	4.618802	0	2.666667	
254	254	0	1.4375	-1.751143	
255	255	0	0.145833	-6.781253	
256	256	-2.516861	0	1.45311	
257	257	-4.926712	0	2.844438	
258	258	-5.872737	0	3.390626	
259	259	-2.516861	-0.994667	1.453111	
260	260	-2.516861	-0.0625	1.45311	
261	261	-3.138902	0	1.812246	
262	262	-3.700078	0	2.136241	
263	263	-4.182033	0	2.414498	
264	264	-4.586194	0	2.64784	
265	265	-5.21399	0	3.010299	
266	266	-5.438676	0	3.140021	
267	267	-3.138902	-0.0625	1.812246	
268	268	-3.700078	-0.0625	2.136241	
269	269	-4.182033	-0.0625	2.414498	
270	270	-4.586194	-0.0625	2.64784	
271	271	-4.926712	-0.0625	2.844438	
272	272	-5.21399	-0.0625	3.010299	
273	273	-5.43863	-0.0625	3.139994	
274	274	-2.515691	-0.933227	1.452435	
275	275	-3.700078	-0.645779	2.136241	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
276	276	-3.146049	-0.843021	1.816372	
277	277	-4.193083	-0.590665	2.420878	
278	278	-3.711111	-0.70683	2.142611	
279	279	-4.59722	-0.493261	2.654206	
280	280	-4.937735	-0.41119	2.850802	
281	281	-5.22501	-0.341951	3.016661	
282	282	-5.449693	-0.287798	3.146382	
283	283	-3.135	-0.781876	1.809993	
284	284	-4.182033	-0.529639	2.414498	
285	285	-4.586194	-0.432245	2.64784	
286	286	-4.926712	-0.350195	2.844438	
287	287	-5.21399	-0.280974	3.010299	
288	288	-5.43863	-0.226577	3.139994	
289	289	-5.872737	-0.0625	3.390626	
290	290	-5.856988	-0.125272	3.381534	
291	291	-5.85897	-0.189155	3.382678	
292	292	-1.68692	0	0.973944	
293	293	-1.68692	-0.994667	0.973944	
294	294	-1.68692	-0.0625	0.973944	
295	295	-1.68692	-0.933213	0.973944	
296	296	-0.893091	0	0.515626	
297	297	-0.893091	-0.994667	0.515626	
298	298	-0.893091	-0.0625	0.515626	
299	299	-0.893091	-0.933213	0.515626	
300	300	-5.666525	-0.171393	3.27157	
301	301	-5.872766	0.145833	3.390626	
302	302	2.516861	0	1.45311	
303	303	4.926712	0	2.844438	
304	304	5.872737	0	3.390626	
305	305	2.516861	-0.994667	1.453111	
306	306	2.516861	-0.0625	1.45311	
307	307	3.138902	0	1.812246	
308	308	3.700078	0	2.136241	
309	309	4.182033	0	2.414498	
310	310	4.586194	0	2.64784	
311	311	5.21399	0	3.010299	
312	312	5.438676	0	3.140021	
313	313	3.138902	-0.0625	1.812246	
314	314	3.700078	-0.0625	2.136241	
315	315	4.182033	-0.0625	2.414498	
316	316	4.586194	-0.0625	2.64784	
317	317	4.926712	-0.0625	2.844438	
318	318	5.21399	-0.0625	3.010299	
319	319	5.43863	-0.0625	3.139994	
320	320	2.515691	-0.933227	1.452435	
321	321	3.700078	-0.645779	2.136241	
322	322	3.146049	-0.843021	1.816372	
323	323	4.193083	-0.590665	2.420878	
324	324	3.711111	-0.70683	2.142611	
325	325	4.59722	-0.493261	2.654206	
326	326	4.937735	-0.41119	2.850802	
327	327	5.22501	-0.341951	3.016661	
328	328	5.449693	-0.287798	3.146382	
329	329	3.135	-0.781876	1.809993	
330	330	4.182033	-0.529639	2.414498	



**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
331	331	4.586194	-0.432245	2.64784	
332	332	4.926712	-0.350195	2.844438	
333	333	5.21399	-0.280974	3.010299	
334	334	5.43863	-0.226577	3.139994	
335	335	5.872737	-0.0625	3.390626	
336	336	5.856988	-0.125272	3.381534	
337	337	5.85897	-0.189155	3.382678	
338	338	1.68692	0	0.973944	
339	339	1.68692	-0.994667	0.973944	
340	340	1.68692	-0.0625	0.973944	
341	341	1.68692	-0.933213	0.973944	
342	342	0.893091	0	0.515626	
343	343	0.893091	-0.994667	0.515626	
344	344	0.893091	-0.0625	0.515626	
345	345	0.893091	-0.933213	0.515626	
346	346	5.666525	-0.171393	3.27157	
347	347	5.872737	0.145833	3.390626	
348	348	-5.99999	0.354083	4.641048	
349	349	-5.99999	0.354083	4.870217	
350	350	-5.99999	3.854083	4.641048	
351	351	-5.99999	3.854083	4.870217	
352	352	-1.33299	0.354083	4.641048	
353	353	-1.33299	0.354083	4.870217	
354	354	-1.33299	3.854083	4.641048	
355	355	-1.33299	3.854083	4.870217	
356	356	6.00001	0.354083	4.641048	
357	357	6.00001	0.354083	4.870217	
358	358	6.00001	3.854083	4.641048	
359	359	6.00001	3.854083	4.870217	
360	360	3.33401	0.354083	4.641048	
361	361	3.33401	0.354083	4.870217	
362	362	3.33401	3.854083	4.641048	
363	363	3.33401	3.854083	4.870217	
364	364	-5.99999	5.10408	4.870217	
365	365	-5.99999	-4.89592	4.870217	
366	366	-1.33299	5.10408	4.870217	
367	367	-1.33299	-4.89592	4.870217	
368	368	3.33401	5.10408	4.870217	
369	369	3.33401	-4.89592	4.870217	
370	370	6.00001	5.10408	4.870217	
371	371	6.00001	-4.89592	4.870217	
372	372	6.00001	4.97908	4.870217	
373	373	6.50001	4.97908	4.870217	
374	374	6.50001	5.10408	4.870217	
375	375	6.50001	-4.89592	4.870217	
376	376	6.00001	-4.39592	4.870217	
377	377	6.50001	-4.39592	4.870217	
378	378	7.019253	0.354083	2.875624	
379	379	7.217726	0.354083	2.761035	
380	380	7.019253	3.854083	2.875624	
381	381	7.217726	3.854083	2.761035	
382	382	4.685756	0.354083	-1.166118	
383	383	4.884226	0.354083	-1.280705	
384	384	4.685756	3.854083	-1.166118	
385	385	4.884226	3.854083	-1.280705	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
386	386	1.01926	0.354083	-7.516685	
387	387	1.217726	0.354083	-7.631269	
388	388	1.01926	3.854083	-7.516685	
389	389	1.217726	3.854083	-7.631269	
390	390	2.352258	0.354083	-5.20786	
391	391	2.550726	0.354083	-5.322446	
392	392	2.352258	3.854083	-5.20786	
393	393	2.550726	3.854083	-5.322446	
394	394	7.217726	5.10408	2.761035	
395	395	7.217726	-4.89592	2.761035	
396	396	4.884226	5.10408	-1.280705	
397	397	4.884226	-4.89592	-1.280705	
398	398	2.550726	5.10408	-5.322446	
399	399	2.550726	-4.89592	-5.322446	
400	400	1.217726	5.10408	-7.631269	
401	401	1.217726	-4.89592	-7.631269	
402	402	1.217726	4.97908	-7.631269	
403	403	0.967726	4.97908	-8.064282	
404	404	0.967726	5.10408	-8.064282	
405	405	0.967726	-4.89592	-8.064282	
406	406	1.217726	-4.39592	-7.631269	
407	407	0.967726	-4.39592	-8.064282	
408	408	-1.01927	0.354083	-7.516667	
409	409	-1.217736	0.354083	-7.631252	
410	410	-1.01927	3.854083	-7.516667	
411	411	-1.217736	3.854083	-7.631252	
412	412	-3.352771	0.354083	-3.474928	
413	413	-3.551236	0.354083	-3.589512	
414	414	-3.352771	3.854083	-3.474928	
415	415	-3.551236	3.854083	-3.589512	
416	416	-7.019273	0.354083	2.875636	
417	417	-7.217736	0.354083	2.761053	
418	418	-7.019273	3.854083	2.875636	
419	419	-7.217736	3.854083	2.761053	
420	420	-5.686272	0.354083	0.566812	
421	421	-5.884736	0.354083	0.452229	
422	422	-5.686272	3.854083	0.566812	
423	423	-5.884736	3.854083	0.452229	
424	424	-1.217736	5.10408	-7.631252	
425	425	-1.217736	-4.89592	-7.631252	
426	426	-3.551236	5.10408	-3.589512	
427	427	-3.551236	-4.89592	-3.589512	
428	428	-5.884736	5.10408	0.452229	
429	429	-5.884736	-4.89592	0.452229	
430	430	-7.217736	5.10408	2.761053	
431	431	-7.217736	-4.89592	2.761053	
432	432	-7.217736	4.97908	2.761053	
433	433	-7.467736	4.97908	3.194065	
434	434	-7.467736	5.10408	3.194065	
435	435	-7.467736	-4.89592	3.194065	
436	436	-7.217736	-4.39592	2.761053	
437	437	-7.467736	-4.39592	3.194065	
438	438	3.33401	2.60408	4.870217	
439	439	3.33401	-2.39592	4.870217	
440	440	3.33401	2.60408	4.969217	

**Node Coordinates (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
441	441	3.33401	-2.39592	4.969217	
442	442	3.33401	2.60408	6.969217	
443	443	3.33401	-2.39592	6.969217	
444	444	3.33401	2.60408	7.068217	
445	445	3.33401	-2.39592	7.068217	
446	446	3.33401	5.10408	7.068217	
447	447	3.33401	-4.89592	7.068217	
448	448	2.550726	2.60408	-5.322446	
449	449	2.550726	-2.39592	-5.322446	
450	450	2.636463	2.60408	-5.371946	
451	451	2.636463	-2.39592	-5.371946	
452	452	4.368514	2.60408	-6.371946	
453	453	4.368514	-2.39592	-6.371946	
454	454	4.45425	2.60408	-6.421446	
455	455	4.45425	-2.39592	-6.421446	
456	456	4.45425	5.10408	-6.421446	
457	457	4.45425	-4.89592	-6.421446	
458	458	-5.884736	2.60408	0.452229	
459	459	-5.884736	-2.39592	0.452229	
460	460	-5.970473	2.60408	0.402729	
461	461	-5.970473	-2.39592	0.402729	
462	462	-7.702524	2.60408	-0.597271	
463	463	-7.702524	-2.39592	-0.597271	
464	464	-7.78826	2.60408	-0.646771	
465	465	-7.78826	-2.39592	-0.646771	
466	466	-7.78826	5.10408	-0.646771	
467	467	-7.78826	-4.89592	-0.646771	

**Node Boundary Conditions**

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	145						
2	149						
3	182						
4	183						
5	186	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	187	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	256						
8	259						
9	292						
10	293						
11	296	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
12	297	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
13	302						
14	305						
15	338						
16	339						
17	342	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
18	343	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

**Hot Rolled Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e <sup>-6</sup> F <sup>-1</sup> ]	Density [k/ft <sup>3</sup> ]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2

**Hot Rolled Steel Properties (Continued)**

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

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design Rule	Area [in <sup>2</sup> ]	Iyy [in <sup>4</sup> ]	Izz [in <sup>4</sup> ]	J [in <sup>4</sup> ]
1	FH-Pipe	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
2	AM-Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
3	SA-TopChord-Plate	PL1/2"x4"	Beam	RECT	A572 Gr.50	Typical	2	0.042	2.667	0.154
4	SA-BotChord-Plate	PL3/8"x4"	Beam	RECT	A572 Gr.50	Typical	1.5	0.018	2	0.066
5	SA-WebVert-Plate	PL3/8"x1"	Column	RECT	A572 Gr.50	Typical	0.38	0.005	0.032	0.014
6	SA-WebDiag-Plate	PL3/8"x1"	VBrace	RECT	A572 Gr.50	Typical	0.38	0.005	0.032	0.014
7	PF-Angle	L3X3X6	Beam	Single Angle	A53 Gr.B	Typical	2.11	1.75	1.75	0.101
8	PJ-Plate	PL3/8"x2-3/8"	Beam	RECT	A572 Gr.50	Typical	0.904	0.011	0.427	0.039
9	PS-Tube	HSS4X3X4	Beam	Tube	A53 Gr.B	Typical	2.91	3.91	6.15	7.96
10	PB-Plate	PL3/8"x3"	Beam	RECT	A572 Gr.50	Typical	1.125	0.013	0.844	0.049
11	F1-S7	PL3/8"x5/8"	Column	RECT	A572 Gr.50	Typical	0.234	0.003	0.008	0.007
12	F1-S8	PL3/8"x7/8"	Column	RECT	A572 Gr.50	Typical	0.328	0.004	0.021	0.011
13	SA-WebDiag-Rod#1	PL3/8"x7/8"	VBrace	RECT	A572 Gr.50	Typical	0.328	0.004	0.021	0.011
14	SA-WebDiag.Rod#3	PL3/8"x5/8"	VBrace	RECT	A572 Gr.50	Typical	0.234	0.003	0.008	0.007
15	SA-WebDiag-Rod#2	PL3/8"x3/4"	VBrace	RECT	A572 Gr.50	Typical	0.281	0.003	0.013	0.009
16	F1-S9	PL3/8"x3/4"	Column	RECT	A572 Gr.50	Typical	0.281	0.003	0.013	0.009
17	SA-WebChord-Plate	PL3/8"x1"	Beam	RECT	A572 Gr.50	Typical	0.38	0.005	0.032	0.014
18	Support Rail	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
19	F1-SP1	PIPE 1.5	Beam	Pipe	A53 Gr.B	Typical	0.749	0.293	0.293	0.586
20	SR-CA1	WT4X2.25X0.38	Beam	W Tee	A36 Gr.36	Typical	2.203	2.008	0.829	0.104
21	Plate	PL3/8X1.5	Beam	RECT	A36 Gr.36	Typical	0.563	0.007	0.105	0.022
22	SF-T1	HSS4X4X3	Beam	Tube	A53 Gr.B	Typical	2.58	6.21	6.21	10

**Member Primary Data**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	137	136		FH-Pipe	Beam	Pipe	A53 Gr.B	Typical
2	2	141	140		FH-Pipe	Beam	Pipe	A53 Gr.B	Typical
3	3	139	138		FH-Pipe	Beam	Pipe	A53 Gr.B	Typical
4	4	103	106		PB-Plate	Beam	RECT	A572 Gr.50	Typical
5	5	91	107		PB-Plate	Beam	RECT	A572 Gr.50	Typical
6	6	30	32		PB-Plate	Beam	RECT	A572 Gr.50	Typical
7	7	18	33		PB-Plate	Beam	RECT	A572 Gr.50	Typical
8	8	64	66		PB-Plate	Beam	RECT	A572 Gr.50	Typical
9	9	52	67		PB-Plate	Beam	RECT	A572 Gr.50	Typical
10	10	102	103	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
11	11	90	91	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
12	12	104	106	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
13	13	92	107	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
14	14	29	30	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
15	15	17	18	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
16	16	31	32	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
17	17	19	33	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
18	18	63	64	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
19	19	51	52	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical

**Member Primary Data (Continued)**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
20	20	65	66	180	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
21	21	53	67	90	PF-Angle	Beam	Single Angle	A53 Gr.B	Typical
22	22	98	95		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
23	23	84	81		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
24	24	97	94		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
25	25	83	80		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
26	26	96	93		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
27	27	82	77		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
28	28	25	22		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
29	29	11	8		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
30	30	24	21		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
31	31	10	7		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
32	32	23	20		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
33	33	9	4		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
34	34	59	56		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
35	35	45	42		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
36	36	58	55		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
37	37	44	41		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
38	38	57	54		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
39	39	43	38		PJ-Plate	Beam	RECT	A572 Gr.50	Typical
40	40	74	75	90	PS-Tube	Beam	Tube	A53 Gr.B	Typical
41	41	1	2	90	PS-Tube	Beam	Tube	A53 Gr.B	Typical
42	42	35	36	90	PS-Tube	Beam	Tube	A53 Gr.B	Typical
43	43	183	187	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
44	44	149	183	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
45	45	166	149	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
46	46	168	166	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
47	47	169	168	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
48	48	171	169	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
49	49	181	171	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
50	50	182	186	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
51	51	145	182	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
52	52	151	145	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
53	53	152	151	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
54	54	154	152	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
55	55	155	154	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
56	56	148	155	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
57	57	185	189		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
58	58	164	185		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
59	59	173	164		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
60	60	165	173		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
61	61	175	165		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
62	62	177	175		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
63	63	180	177		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
64	64	185	188		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
65	65	164	184		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
66	66	150	173		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
67	67	157	165		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
68	68	174	158		SA-WebDiag-Rod#1	VBrace	RECT	A572 Gr.50	Typical
69	69	175	159		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
70	70	176	160		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
71	71	177	161		SA-WebDiag-Rod#3	VBrace	RECT	A572 Gr.50	Typical
72	72	184	188		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
73	73	150	184		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
74	74	157	150		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical



**Member Primary Data (Continued)**

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
75	75	158	157	SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
76	76	160	158	SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
77	77	162	160	SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
78	78	179	162	SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
79	79	189	188	90 SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
80	80	185	184	90 SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
81	81	164	150	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
82	82	173	157	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
83	83	165	158	90 F1-S8	Column	RECT	A572 Gr.50	Typical
84	84	174	159	90 F1-S9	Column	RECT	A572 Gr.50	Typical
85	85	175	160	90 F1-S9	Column	RECT	A572 Gr.50	Typical
86	86	176	161	90 F1-S7	Column	RECT	A572 Gr.50	Typical
87	87	70	68	RIGID	None	None	RIGID	Typical
88	88	72	69	RIGID	None	None	RIGID	Typical
89	89	109	105	RIGID	None	None	RIGID	Typical
90	90	111	108	RIGID	None	None	RIGID	Typical
91	91	116	114	RIGID	None	None	RIGID	Typical
92	92	118	115	RIGID	None	None	RIGID	Typical
93	93	122	120	RIGID	None	None	RIGID	Typical
94	94	124	121	RIGID	None	None	RIGID	Typical
95	95	127	126	RIGID	None	None	RIGID	Typical
96	96	129	113	RIGID	None	None	RIGID	Typical
97	97	133	131	RIGID	None	None	RIGID	Typical
98	98	34	132	RIGID	None	None	RIGID	Typical
99	99	150	145	RIGID	None	None	RIGID	Typical
100	100	157	151	RIGID	None	None	RIGID	Typical
101	101	158	152	RIGID	None	None	RIGID	Typical
102	102	159	153	RIGID	None	None	RIGID	Typical
103	103	160	154	RIGID	None	None	RIGID	Typical
104	104	161	147	RIGID	None	None	RIGID	Typical
105	105	162	155	RIGID	None	None	RIGID	Typical
106	106	163	156	RIGID	None	None	RIGID	Typical
107	107	179	148	RIGID	None	None	RIGID	Typical
108	108	181	180	RIGID	None	None	RIGID	Typical
109	109	172	178	RIGID	None	None	RIGID	Typical
110	110	171	177	RIGID	None	None	RIGID	Typical
111	111	170	176	RIGID	None	None	RIGID	Typical
112	112	169	175	RIGID	None	None	RIGID	Typical
113	113	167	174	RIGID	None	None	RIGID	Typical
114	114	168	165	RIGID	None	None	RIGID	Typical
115	115	166	173	RIGID	None	None	RIGID	Typical
116	116	149	164	RIGID	None	None	RIGID	Typical
117	117	184	182	90 RIGID	None	None	RIGID	Typical
118	118	188	186	90 RIGID	None	None	RIGID	Typical
119	119	187	189	90 RIGID	None	None	RIGID	Typical
120	120	183	185	90 RIGID	None	None	RIGID	Typical
121	121	190	142	CLAMP	None	None	RIGID	DR1
122	122	146	16	CLAMP	None	None	RIGID	DR1
123	123	148	255	CLAMP	None	None	RIGID	DR1
124	124	37	43	CONNECTION	None	None	RIGID	DR1
125	125	39	44	CONNECTION	None	None	RIGID	DR1
126	126	40	45	CONNECTION	None	None	RIGID	DR1
127	127	38	46	CONNECTION	None	None	RIGID	DR1
128	128	41	47	CONNECTION	None	None	RIGID	DR1
129	129	42	48	CONNECTION	None	None	RIGID	DR1



**Member Primary Data (Continued)**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
130	130	49	51		CONNECTION	None	None	RIGID	DR1
131	131	3	23		CONNECTION	None	None	RIGID	DR1
132	132	50	53		CONNECTION	None	None	RIGID	DR1
133	133	5	24		CONNECTION	None	None	RIGID	DR1
134	134	6	25		CONNECTION	None	None	RIGID	DR1
135	135	37	57		CONNECTION	None	None	RIGID	DR1
136	136	39	58		CONNECTION	None	None	RIGID	DR1
137	137	40	59		CONNECTION	None	None	RIGID	DR1
138	138	54	60		CONNECTION	None	None	RIGID	DR1
139	139	20	26		CONNECTION	None	None	RIGID	DR1
140	140	55	61		CONNECTION	None	None	RIGID	DR1
141	141	21	27		CONNECTION	None	None	RIGID	DR1
142	142	56	62		CONNECTION	None	None	RIGID	DR1
143	143	22	28		CONNECTION	None	None	RIGID	DR1
144	144	49	63		CONNECTION	None	None	RIGID	DR1
145	145	50	65		CONNECTION	None	None	RIGID	DR1
146	146	15	29		CONNECTION	None	None	RIGID	DR1
147	147	16	31		CONNECTION	None	None	RIGID	DR1
148	148	76	82		CONNECTION	None	None	RIGID	DR1
149	149	78	83		CONNECTION	None	None	RIGID	DR1
150	150	79	84		CONNECTION	None	None	RIGID	DR1
151	151	77	85		CONNECTION	None	None	RIGID	DR1
152	152	80	86		CONNECTION	None	None	RIGID	DR1
153	153	81	87		CONNECTION	None	None	RIGID	DR1
154	154	88	90		CONNECTION	None	None	RIGID	DR1
155	155	89	92		CONNECTION	None	None	RIGID	DR1
156	156	76	96		CONNECTION	None	None	RIGID	DR1
157	157	78	97		CONNECTION	None	None	RIGID	DR1
158	158	79	98		CONNECTION	None	None	RIGID	DR1
159	159	93	99		CONNECTION	None	None	RIGID	DR1
160	160	94	100		CONNECTION	None	None	RIGID	DR1
161	161	95	101		CONNECTION	None	None	RIGID	DR1
162	162	88	102		CONNECTION	None	None	RIGID	DR1
163	163	89	104		CONNECTION	None	None	RIGID	DR1
164	164	3	9		CONNECTION	None	None	RIGID	DR1
165	165	5	10		CONNECTION	None	None	RIGID	DR1
166	166	6	11		CONNECTION	None	None	RIGID	DR1
167	167	4	12		CONNECTION	None	None	RIGID	DR1
168	168	7	13		CONNECTION	None	None	RIGID	DR1
169	169	8	14		CONNECTION	None	None	RIGID	DR1
170	170	15	17		CONNECTION	None	None	RIGID	DR1
171	171	16	19		CONNECTION	None	None	RIGID	DR1
172	172	68	71		BRACKET	None	None	RIGID	DR1
173	173	69	73		BRACKET	None	None	RIGID	DR1
174	174	105	110		BRACKET	None	None	RIGID	DR1
175	175	108	112		BRACKET	None	None	RIGID	DR1
176	176	114	117		BRACKET	None	None	RIGID	DR1
177	177	115	119		BRACKET	None	None	RIGID	DR1
178	178	120	123		BRACKET	None	None	RIGID	DR1
179	179	121	125		BRACKET	None	None	RIGID	DR1
180	180	126	128		BRACKET	None	None	RIGID	DR1
181	181	113	130		BRACKET	None	None	RIGID	DR1
182	182	131	134		BRACKET	None	None	RIGID	DR1
183	183	132	135		BRACKET	None	None	RIGID	DR1
184	184	162	178		RIGID	None	None	RIGID	Typical

**Member Primary Data (Continued)**

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
185	185	163	191		RIGID	None	RIGID	Typical	
186	186	177	162		RIGID	None	RIGID	Typical	
187	187	178	163		RIGID	None	RIGID	Typical	
188	188	180	179		RIGID	None	RIGID	Typical	
189	189	207	206		Support Rail	Beam	Pipe	A53 Gr.B	Typical
190	190	211	210		Support Rail	Beam	Pipe	A53 Gr.B	Typical
191	191	209	208		Support Rail	Beam	Pipe	A53 Gr.B	Typical
192	192	213	215	90	SR-CA1	Beam	W Tee	A36 Gr.36	Typical
193	193	214	217	90	SR-CA1	Beam	W Tee	A36 Gr.36	Typical
194	194	216	212	270	SR-CA1	Beam	W Tee	A36 Gr.36	Typical
195	195	227	226		Plate	Beam	RECT	A36 Gr.36	Typical
196	196	225	224		Plate	Beam	RECT	A36 Gr.36	Typical
197	197	219	218		Plate	Beam	RECT	A36 Gr.36	Typical
198	198	221	220		Plate	Beam	RECT	A36 Gr.36	Typical
199	199	223	222		Plate	Beam	RECT	A36 Gr.36	Typical
200	200	237	236		Plate	Beam	RECT	A36 Gr.36	Typical
201	201	235	234		Plate	Beam	RECT	A36 Gr.36	Typical
202	202	229	228		Plate	Beam	RECT	A36 Gr.36	Typical
203	203	231	230		Plate	Beam	RECT	A36 Gr.36	Typical
204	204	233	232		Plate	Beam	RECT	A36 Gr.36	Typical
205	205	247	246		Plate	Beam	RECT	A36 Gr.36	Typical
206	206	245	244		Plate	Beam	RECT	A36 Gr.36	Typical
207	207	239	238		Plate	Beam	RECT	A36 Gr.36	Typical
208	208	241	240		Plate	Beam	RECT	A36 Gr.36	Typical
209	209	243	242		Plate	Beam	RECT	A36 Gr.36	Typical
210	210	32	107		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
211	211	192	197		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
212	212	106	67		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
213	213	196	195		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
214	214	66	33		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
215	215	194	193		F1-SP1	Beam	Pipe	A53 Gr.B	Typical
216	216	250	248		CLAMP	None	RIGID	DR1	
217	217	249	89		CLAMP	None	RIGID	DR1	
218	218	253	251		CLAMP	None	RIGID	DR1	
219	219	252	50		CLAMP	None	RIGID	DR1	
220	220	293	297	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
221	221	259	293	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
222	222	276	259	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
223	223	278	276	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
224	224	279	278	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
225	225	281	279	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
226	226	291	281	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
227	227	292	296	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
228	228	256	292	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
229	229	261	256	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
230	230	262	261	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
231	231	264	262	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
232	232	265	264	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
233	233	258	265	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
234	234	295	299		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
235	235	274	295		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
236	236	283	274		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
237	237	275	283		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
238	238	285	275		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
239	239	287	285		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical

**Member Primary Data (Continued)**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
240	240	290	287		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
241	241	295	298		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
242	242	274	294		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
243	243	260	283		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
244	244	267	275		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
245	245	284	268		SA-WebDiag-Rod#1	VBrace	RECT	A572 Gr.50	Typical
246	246	285	269		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
247	247	286	270		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
248	248	287	271		SA-WebDiag.Rod#3	VBrace	RECT	A572 Gr.50	Typical
249	249	294	298		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
250	250	260	294		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
251	251	267	260		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
252	252	268	267		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
253	253	270	268		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
254	254	272	270		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
255	255	289	272		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
256	256	299	298	30	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
257	257	295	294	30	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
258	258	274	260		SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
259	259	283	267		SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
260	260	275	268	30	F1-S8	Column	RECT	A572 Gr.50	Typical
261	261	284	269	30	F1-S9	Column	RECT	A572 Gr.50	Typical
262	262	285	270	30	F1-S9	Column	RECT	A572 Gr.50	Typical
263	263	286	271	30	F1-S7	Column	RECT	A572 Gr.50	Typical
264	264	260	256		RIGID	None	None	RIGID	Typical
265	265	267	261		RIGID	None	None	RIGID	Typical
266	266	268	262		RIGID	None	None	RIGID	Typical
267	267	269	263		RIGID	None	None	RIGID	Typical
268	268	270	264		RIGID	None	None	RIGID	Typical
269	269	271	257		RIGID	None	None	RIGID	Typical
270	270	272	265		RIGID	None	None	RIGID	Typical
271	271	273	266		RIGID	None	None	RIGID	Typical
272	272	289	258		RIGID	None	None	RIGID	Typical
273	273	291	290		RIGID	None	None	RIGID	Typical
274	274	282	288		RIGID	None	None	RIGID	Typical
275	275	281	287		RIGID	None	None	RIGID	Typical
276	276	280	286		RIGID	None	None	RIGID	Typical
277	277	279	285		RIGID	None	None	RIGID	Typical
278	278	277	284		RIGID	None	None	RIGID	Typical
279	279	278	275		RIGID	None	None	RIGID	Typical
280	280	276	283		RIGID	None	None	RIGID	Typical
281	281	259	274		RIGID	None	None	RIGID	Typical
282	282	294	292	90	RIGID	None	None	RIGID	Typical
283	283	298	296	90	RIGID	None	None	RIGID	Typical
284	284	297	299	90	RIGID	None	None	RIGID	Typical
285	285	293	295	90	RIGID	None	None	RIGID	Typical
286	286	258	301		CLAMP	None	None	RIGID	DR1
287	287	272	288		RIGID	None	None	RIGID	Typical
288	288	273	300		RIGID	None	None	RIGID	Typical
289	289	287	272		RIGID	None	None	RIGID	Typical
290	290	288	273		RIGID	None	None	RIGID	Typical
291	291	290	289		RIGID	None	None	RIGID	Typical
292	292	339	343	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
293	293	305	339	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
294	294	322	305	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical

**Member Primary Data (Continued)**

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
295	295	324	322	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
296	296	325	324	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
297	297	327	325	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
298	298	337	327	90	SA-BotChord-Plate	Beam	RECT	A572 Gr.50	Typical
299	299	338	342	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
300	300	302	338	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
301	301	307	302	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
302	302	308	307	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
303	303	310	308	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
304	304	311	310	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
305	305	304	311	90	SA-TopChord-Plate	Beam	RECT	A572 Gr.50	Typical
306	306	341	345		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
307	307	320	341		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
308	308	329	320		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
309	309	321	329		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
310	310	331	321		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
311	311	333	331		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
312	312	336	333		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
313	313	341	344		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
314	314	320	340		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
315	315	306	329		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
316	316	313	321		SA-WebDiag-Plate	VBrace	RECT	A572 Gr.50	Typical
317	317	330	314		SA-WebDiag-Rod#1	VBrace	RECT	A572 Gr.50	Typical
318	318	331	315		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
319	319	332	316		SA-WebDiag-Rod#2	VBrace	RECT	A572 Gr.50	Typical
320	320	333	317		SA-WebDiag-Rod#3	VBrace	RECT	A572 Gr.50	Typical
321	321	340	344		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
322	322	306	340		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
323	323	313	306		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
324	324	314	313		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
325	325	316	314		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
326	326	318	316		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
327	327	335	318		SA-WebChord-Plate	Beam	RECT	A572 Gr.50	Typical
328	328	345	344	335	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
329	329	341	340	335	SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
330	330	320	306		SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
331	331	329	313		SA-WebVert-Plate	Column	RECT	A572 Gr.50	Typical
332	332	321	314	335	F1-S8	Column	RECT	A572 Gr.50	Typical
333	333	330	315	335	F1-S9	Column	RECT	A572 Gr.50	Typical
334	334	331	316	335	F1-S9	Column	RECT	A572 Gr.50	Typical
335	335	332	317	335	F1-S7	Column	RECT	A572 Gr.50	Typical
336	336	306	302		RIGID	None	None	RIGID	Typical
337	337	313	307		RIGID	None	None	RIGID	Typical
338	338	314	308		RIGID	None	None	RIGID	Typical
339	339	315	309		RIGID	None	None	RIGID	Typical
340	340	316	310		RIGID	None	None	RIGID	Typical
341	341	317	303		RIGID	None	None	RIGID	Typical
342	342	318	311		RIGID	None	None	RIGID	Typical
343	343	319	312		RIGID	None	None	RIGID	Typical
344	344	335	304		RIGID	None	None	RIGID	Typical
345	345	337	336		RIGID	None	None	RIGID	Typical
346	346	328	334		RIGID	None	None	RIGID	Typical
347	347	327	333		RIGID	None	None	RIGID	Typical
348	348	326	332		RIGID	None	None	RIGID	Typical
349	349	325	331		RIGID	None	None	RIGID	Typical



**Member Primary Data (Continued)**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
350	350	323	330		RIGID	None	None	RIGID	Typical
351	351	324	321		RIGID	None	None	RIGID	Typical
352	352	322	329		RIGID	None	None	RIGID	Typical
353	353	305	320		RIGID	None	None	RIGID	Typical
354	354	340	338	90	RIGID	None	None	RIGID	Typical
355	355	344	342	90	RIGID	None	None	RIGID	Typical
356	356	343	345	90	RIGID	None	None	RIGID	Typical
357	357	339	341	90	RIGID	None	None	RIGID	Typical
358	358	304	347		CLAMP	None	None	RIGID	DR1
359	359	318	334		RIGID	None	None	RIGID	Typical
360	360	319	346		RIGID	None	None	RIGID	Typical
361	361	333	318		RIGID	None	None	RIGID	Typical
362	362	334	319		RIGID	None	None	RIGID	Typical
363	363	336	335		RIGID	None	None	RIGID	Typical
364	364	348	349		RIGID	None	None	RIGID	Typical
365	365	350	351		RIGID	None	None	RIGID	Typical
366	366	352	353		RIGID	None	None	RIGID	Typical
367	367	354	355		RIGID	None	None	RIGID	Typical
368	368	356	357		RIGID	None	None	RIGID	Typical
369	369	358	359		RIGID	None	None	RIGID	Typical
370	370	360	361		RIGID	None	None	RIGID	Typical
371	371	362	363		RIGID	None	None	RIGID	Typical
372	372	364	365		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
373	373	366	367		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
374	374	368	369		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
375	375	370	371		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
376	376	372	373		RIGID	None	None	RIGID	Typical
377	377	374	375		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
378	378	376	377		RIGID	None	None	RIGID	Typical
379	379	378	379		RIGID	None	None	RIGID	Typical
380	380	380	381		RIGID	None	None	RIGID	Typical
381	381	382	383		RIGID	None	None	RIGID	Typical
382	382	384	385		RIGID	None	None	RIGID	Typical
383	383	386	387		RIGID	None	None	RIGID	Typical
384	384	388	389		RIGID	None	None	RIGID	Typical
385	385	390	391		RIGID	None	None	RIGID	Typical
386	386	392	393		RIGID	None	None	RIGID	Typical
387	387	394	395		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
388	388	396	397		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
389	389	398	399		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
390	390	400	401		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
391	391	402	403		RIGID	None	None	RIGID	Typical
392	392	404	405		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
393	393	406	407		RIGID	None	None	RIGID	Typical
394	394	408	409		RIGID	None	None	RIGID	Typical
395	395	410	411		RIGID	None	None	RIGID	Typical
396	396	412	413		RIGID	None	None	RIGID	Typical
397	397	414	415		RIGID	None	None	RIGID	Typical
398	398	416	417		RIGID	None	None	RIGID	Typical
399	399	418	419		RIGID	None	None	RIGID	Typical
400	400	420	421		RIGID	None	None	RIGID	Typical
401	401	422	423		RIGID	None	None	RIGID	Typical
402	402	424	425		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
403	403	426	427		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
404	404	428	429		AM-Pipe	Column	Pipe	A53 Gr.B	Typical

**Member Primary Data (Continued)**

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
405	405	430	431		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
406	406	432	433		RIGID	None	None	RIGID	Typical
407	407	434	435		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
408	408	436	437		RIGID	None	None	RIGID	Typical
409	409	444	442		RIGID	None	None	RIGID	Typical
410	410	440	438		RIGID	None	None	RIGID	Typical
411	411	445	443		RIGID	None	None	RIGID	Typical
412	412	441	439		RIGID	None	None	RIGID	Typical
413	413	443	441		SF-T1	Beam	Tube	A53 Gr.B	Typical
414	414	442	440		SF-T1	Beam	Tube	A53 Gr.B	Typical
415	415	446	447		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
416	416	454	452		RIGID	None	None	RIGID	Typical
417	417	450	448		RIGID	None	None	RIGID	Typical
418	418	455	453		RIGID	None	None	RIGID	Typical
419	419	451	449		RIGID	None	None	RIGID	Typical
420	420	453	451		SF-T1	Beam	Tube	A53 Gr.B	Typical
421	421	452	450		SF-T1	Beam	Tube	A53 Gr.B	Typical
422	422	456	457		AM-Pipe	Column	Pipe	A53 Gr.B	Typical
423	423	464	462		RIGID	None	None	RIGID	Typical
424	424	460	458		RIGID	None	None	RIGID	Typical
425	425	465	463		RIGID	None	None	RIGID	Typical
426	426	461	459		RIGID	None	None	RIGID	Typical
427	427	463	461		SF-T1	Beam	Tube	A53 Gr.B	Typical
428	428	462	460		SF-T1	Beam	Tube	A53 Gr.B	Typical
429	429	466	467		AM-Pipe	Column	Pipe	A53 Gr.B	Typical

**Member Advanced Data**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	N/A	None
2	2				Yes	N/A	None
3	3				Yes	N/A	None
4	4				Yes	N/A	None
5	5				Yes	N/A	None
6	6				Yes	N/A	None
7	7				Yes	N/A	None
8	8				Yes	N/A	None
9	9				Yes	N/A	None
10	10				Yes	N/A	None
11	11				Yes	N/A	None
12	12				Yes	N/A	None
13	13				Yes	N/A	None
14	14				Yes	N/A	None
15	15				Yes	N/A	None
16	16				Yes	N/A	None
17	17				Yes	N/A	None
18	18				Yes	N/A	None
19	19				Yes	N/A	None
20	20				Yes	N/A	None
21	21				Yes	N/A	None
22	22				Yes	N/A	None
23	23				Yes	N/A	None
24	24				Yes	N/A	None
25	25				Yes	Default	None
26	26				Yes	N/A	None
27	27				Yes	N/A	None



**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
28	28				Yes	N/A	None
29	29				Yes	N/A	None
30	30				Yes	N/A	None
31	31				Yes	N/A	None
32	32				Yes	N/A	None
33	33				Yes	N/A	None
34	34				Yes	N/A	None
35	35				Yes	N/A	None
36	36				Yes	N/A	None
37	37				Yes	N/A	None
38	38				Yes	N/A	None
39	39				Yes	N/A	None
40	40				Yes	N/A	None
41	41				Yes	N/A	None
42	42				Yes	N/A	None
43	43				Yes	N/A	None
44	44				Yes	N/A	None
45	45				Yes	N/A	None
46	46				Yes	N/A	None
47	47				Yes	N/A	None
48	48				Yes	N/A	None
49	49				Yes	N/A	None
50	50				Yes	N/A	None
51	51				Yes	N/A	None
52	52				Yes	N/A	None
53	53				Yes	N/A	None
54	54				Yes	N/A	None
55	55				Yes	N/A	None
56	56				Yes	N/A	None
57	57				Yes	N/A	None
58	58				Yes	N/A	None
59	59				Yes	N/A	None
60	60				Yes	N/A	None
61	61				Yes	N/A	None
62	62				Yes	N/A	None
63	63				Yes	N/A	None
64	64				Yes	** NA **	None
65	65				Yes	** NA **	None
66	66				Yes	** NA **	None
67	67				Yes	** NA **	None
68	68				Yes	** NA **	None
69	69				Yes	** NA **	None
70	70				Yes	** NA **	None
71	71				Yes	** NA **	None
72	72			Euler Buckling	Yes	N/A	None
73	73			Euler Buckling	Yes	N/A	None
74	74			Euler Buckling	Yes	N/A	None
75	75			Euler Buckling	Yes	N/A	None
76	76			Euler Buckling	Yes	N/A	None
77	77			Euler Buckling	Yes	N/A	None
78	78			Euler Buckling	Yes	N/A	None
79	79			Euler Buckling	Yes	** NA **	None
80	80			Euler Buckling	Yes	** NA **	None
81	81			Euler Buckling	Yes	** NA **	None
82	82			Euler Buckling	Yes	** NA **	None

**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
83	83			Euler Buckling	Yes	** NA **	None
84	84			Euler Buckling	Yes	** NA **	None
85	85			Euler Buckling	Yes	** NA **	None
86	86			Euler Buckling	Yes	** NA **	None
87	87		OOOXOO		Yes	** NA **	None
88	88		OOOXOO		Yes	** NA **	None
89	89		OOOXOO		Yes	** NA **	None
90	90		OOOXOO		Yes	** NA **	None
91	91		OOOXOO		Yes	** NA **	None
92	92		OOOXOO		Yes	** NA **	None
93	93		OOOXOO		Yes	** NA **	None
94	94		OOOXOO		Yes	** NA **	None
95	95		OOOXOO		Yes	** NA **	None
96	96		OOOXOO		Yes	** NA **	None
97	97		OOOXOO		Yes	** NA **	None
98	98		OOOXOO		Yes	** NA **	None
99	99				Yes	** NA **	None
100	100				Yes	** NA **	None
101	101				Yes	** NA **	None
102	102				Yes	** NA **	None
103	103				Yes	** NA **	None
104	104				Yes	** NA **	None
105	105				Yes	** NA **	None
106	106				Yes	** NA **	None
107	107				Yes	** NA **	None
108	108				Yes	** NA **	None
109	109				Yes	** NA **	None
110	110				Yes	** NA **	None
111	111				Yes	** NA **	None
112	112				Yes	** NA **	None
113	113				Yes	** NA **	None
114	114				Yes	** NA **	None
115	115				Yes	** NA **	None
116	116				Yes	** NA **	None
117	117				Yes	** NA **	None
118	118				Yes	** NA **	None
119	119				Yes	** NA **	None
120	120				Yes	** NA **	None
121	121				Yes	** NA **	None
122	122				Yes	** NA **	None
123	123			Compression Only	Yes	** NA **	None
124	124				Yes	** NA **	None
125	125				Yes	** NA **	None
126	126				Yes	** NA **	None
127	127				Yes	** NA **	None
128	128				Yes	** NA **	None
129	129				Yes	** NA **	None
130	130				Yes	** NA **	None
131	131				Yes	** NA **	None
132	132				Yes	** NA **	None
133	133				Yes	** NA **	None
134	134				Yes	** NA **	None
135	135				Yes	** NA **	None
136	136				Yes	** NA **	None
137	137				Yes	** NA **	None



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
 7:43:02 PM  
 Checked By : \_\_\_\_\_

**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
138	138				Yes	** NA **	None
139	139				Yes	** NA **	None
140	140				Yes	** NA **	None
141	141				Yes	** NA **	None
142	142				Yes	** NA **	None
143	143				Yes	** NA **	None
144	144				Yes	** NA **	None
145	145				Yes	** NA **	None
146	146				Yes	** NA **	None
147	147				Yes	** NA **	None
148	148				Yes	** NA **	None
149	149				Yes	** NA **	None
150	150				Yes	** NA **	None
151	151				Yes	** NA **	None
152	152				Yes	** NA **	None
153	153				Yes	** NA **	None
154	154				Yes	** NA **	None
155	155				Yes	** NA **	None
156	156				Yes	** NA **	None
157	157				Yes	** NA **	None
158	158				Yes	** NA **	None
159	159				Yes	** NA **	None
160	160				Yes	** NA **	None
161	161				Yes	** NA **	None
162	162				Yes	** NA **	None
163	163				Yes	** NA **	None
164	164				Yes	** NA **	None
165	165				Yes	** NA **	None
166	166				Yes	** NA **	None
167	167				Yes	** NA **	None
168	168				Yes	** NA **	None
169	169				Yes	** NA **	None
170	170				Yes	** NA **	None
171	171				Yes	** NA **	None
172	172				Yes	** NA **	None
173	173				Yes	** NA **	None
174	174				Yes	** NA **	None
175	175				Yes	** NA **	None
176	176				Yes	** NA **	None
177	177				Yes	** NA **	None
178	178				Yes	** NA **	None
179	179				Yes	** NA **	None
180	180				Yes	** NA **	None
181	181				Yes	** NA **	None
182	182				Yes	** NA **	None
183	183				Yes	** NA **	None
184	184				Yes	** NA **	None
185	185				Yes	** NA **	None
186	186				Yes	** NA **	None
187	187				Yes	** NA **	None
188	188				Yes	** NA **	None
189	189				Yes	N/A	None
190	190				Yes	Default	None
191	191				Yes	N/A	None
192	192	BenPIN	BenPIN		Yes	Default	None

**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
193	193	BenPIN	BenPIN		Yes	Default	None
194	194	BenPIN	BenPIN		Yes	Default	None
195	195				Yes	N/A	None
196	196				Yes	N/A	None
197	197				Yes	N/A	None
198	198				Yes	N/A	None
199	199				Yes	N/A	None
200	200				Yes	N/A	None
201	201				Yes	N/A	None
202	202				Yes	N/A	None
203	203				Yes	N/A	None
204	204				Yes	N/A	None
205	205				Yes	N/A	None
206	206				Yes	N/A	None
207	207				Yes	N/A	None
208	208				Yes	N/A	None
209	209				Yes	N/A	None
210	210	OOOXOO	OOOXOO		Yes	N/A	None
211	211	OOOXOO	OOOXOO		Yes	N/A	None
212	212	OOOXOO	OOOXOO		Yes	N/A	None
213	213	OOOXOO	OOOXOO		Yes	N/A	None
214	214	OOOXOO	OOOXOO		Yes	N/A	None
215	215	OOOXOO	OOOXOO		Yes	N/A	None
216	216				Yes	** NA **	None
217	217				Yes	** NA **	None
218	218				Yes	** NA **	None
219	219				Yes	** NA **	None
220	220				Yes	N/A	None
221	221				Yes	N/A	None
222	222				Yes	N/A	None
223	223				Yes	N/A	None
224	224				Yes	N/A	None
225	225				Yes	N/A	None
226	226				Yes	N/A	None
227	227				Yes	N/A	None
228	228				Yes	N/A	None
229	229				Yes	N/A	None
230	230				Yes	N/A	None
231	231				Yes	N/A	None
232	232				Yes	N/A	None
233	233				Yes	N/A	None
234	234				Yes	N/A	None
235	235				Yes	N/A	None
236	236				Yes	N/A	None
237	237				Yes	N/A	None
238	238				Yes	N/A	None
239	239				Yes	N/A	None
240	240				Yes	N/A	None
241	241				Yes	** NA **	None
242	242				Yes	** NA **	None
243	243				Yes	** NA **	None
244	244				Yes	** NA **	None
245	245				Yes	** NA **	None
246	246				Yes	** NA **	None
247	247				Yes	** NA **	None

**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
248	248				Yes	** NA **	None
249	249			Euler Buckling	Yes	N/A	None
250	250			Euler Buckling	Yes	N/A	None
251	251			Euler Buckling	Yes	N/A	None
252	252			Euler Buckling	Yes	N/A	None
253	253			Euler Buckling	Yes	N/A	None
254	254			Euler Buckling	Yes	N/A	None
255	255			Euler Buckling	Yes	N/A	None
256	256			Euler Buckling	Yes	** NA **	None
257	257			Euler Buckling	Yes	** NA **	None
258	258			Euler Buckling	Yes	** NA **	None
259	259			Euler Buckling	Yes	** NA **	None
260	260			Euler Buckling	Yes	** NA **	None
261	261			Euler Buckling	Yes	** NA **	None
262	262			Euler Buckling	Yes	** NA **	None
263	263			Euler Buckling	Yes	** NA **	None
264	264				Yes	** NA **	None
265	265				Yes	** NA **	None
266	266				Yes	** NA **	None
267	267				Yes	** NA **	None
268	268				Yes	** NA **	None
269	269				Yes	** NA **	None
270	270				Yes	** NA **	None
271	271				Yes	** NA **	None
272	272				Yes	** NA **	None
273	273				Yes	** NA **	None
274	274				Yes	** NA **	None
275	275				Yes	** NA **	None
276	276				Yes	** NA **	None
277	277				Yes	** NA **	None
278	278				Yes	** NA **	None
279	279				Yes	** NA **	None
280	280				Yes	** NA **	None
281	281				Yes	** NA **	None
282	282				Yes	** NA **	None
283	283				Yes	** NA **	None
284	284				Yes	** NA **	None
285	285				Yes	** NA **	None
286	286			Compression Only	Yes	** NA **	None
287	287				Yes	** NA **	None
288	288				Yes	** NA **	None
289	289				Yes	** NA **	None
290	290				Yes	** NA **	None
291	291				Yes	** NA **	None
292	292				Yes	N/A	None
293	293				Yes	N/A	None
294	294				Yes	N/A	None
295	295				Yes	N/A	None
296	296				Yes	N/A	None
297	297				Yes	N/A	None
298	298				Yes	N/A	None
299	299				Yes	N/A	None
300	300				Yes	N/A	None
301	301				Yes	N/A	None
302	302				Yes	N/A	None

**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
303	303				Yes	N/A	None
304	304				Yes	N/A	None
305	305				Yes	N/A	None
306	306				Yes	N/A	None
307	307				Yes	N/A	None
308	308				Yes	N/A	None
309	309				Yes	N/A	None
310	310				Yes	N/A	None
311	311				Yes	N/A	None
312	312				Yes	N/A	None
313	313				Yes	** NA **	None
314	314				Yes	** NA **	None
315	315				Yes	** NA **	None
316	316				Yes	** NA **	None
317	317				Yes	** NA **	None
318	318				Yes	** NA **	None
319	319				Yes	** NA **	None
320	320				Yes	** NA **	None
321	321			Euler Buckling	Yes	N/A	None
322	322			Euler Buckling	Yes	N/A	None
323	323			Euler Buckling	Yes	N/A	None
324	324			Euler Buckling	Yes	N/A	None
325	325			Euler Buckling	Yes	N/A	None
326	326			Euler Buckling	Yes	N/A	None
327	327			Euler Buckling	Yes	N/A	None
328	328			Euler Buckling	Yes	** NA **	None
329	329			Euler Buckling	Yes	** NA **	None
330	330			Euler Buckling	Yes	** NA **	None
331	331			Euler Buckling	Yes	** NA **	None
332	332			Euler Buckling	Yes	** NA **	None
333	333			Euler Buckling	Yes	** NA **	None
334	334			Euler Buckling	Yes	** NA **	None
335	335			Euler Buckling	Yes	** NA **	None
336	336				Yes	** NA **	None
337	337				Yes	** NA **	None
338	338				Yes	** NA **	None
339	339				Yes	** NA **	None
340	340				Yes	** NA **	None
341	341				Yes	** NA **	None
342	342				Yes	** NA **	None
343	343				Yes	** NA **	None
344	344				Yes	** NA **	None
345	345				Yes	** NA **	None
346	346				Yes	** NA **	None
347	347				Yes	** NA **	None
348	348				Yes	** NA **	None
349	349				Yes	** NA **	None
350	350				Yes	** NA **	None
351	351				Yes	** NA **	None
352	352				Yes	** NA **	None
353	353				Yes	** NA **	None
354	354				Yes	** NA **	None
355	355				Yes	** NA **	None
356	356				Yes	** NA **	None
357	357				Yes	** NA **	None



**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
358	358			Compression Only	Yes	** NA **	None
359	359				Yes	** NA **	None
360	360				Yes	** NA **	None
361	361				Yes	** NA **	None
362	362				Yes	** NA **	None
363	363				Yes	** NA **	None
364	364				Yes	** NA **	None
365	365				Yes	** NA **	None
366	366				Yes	** NA **	None
367	367				Yes	** NA **	None
368	368				Yes	** NA **	None
369	369				Yes	** NA **	None
370	370				Yes	** NA **	None
371	371				Yes	** NA **	None
372	372				Yes	** NA **	None
373	373				Yes	** NA **	None
374	374				Yes	** NA **	None
375	375				Yes	** NA **	None
376	376				Yes	** NA **	None
377	377				Yes	** NA **	None
378	378				Yes	** NA **	None
379	379				Yes	** NA **	None
380	380				Yes	** NA **	None
381	381				Yes	** NA **	None
382	382				Yes	** NA **	None
383	383				Yes	** NA **	None
384	384				Yes	** NA **	None
385	385				Yes	** NA **	None
386	386				Yes	** NA **	None
387	387				Yes	** NA **	None
388	388				Yes	** NA **	None
389	389				Yes	** NA **	None
390	390				Yes	** NA **	None
391	391				Yes	** NA **	None
392	392				Yes	** NA **	None
393	393				Yes	** NA **	None
394	394				Yes	** NA **	None
395	395				Yes	** NA **	None
396	396				Yes	** NA **	None
397	397				Yes	** NA **	None
398	398				Yes	** NA **	None
399	399				Yes	** NA **	None
400	400				Yes	** NA **	None
401	401				Yes	** NA **	None
402	402				Yes	** NA **	None
403	403				Yes	** NA **	None
404	404				Yes	** NA **	None
405	405				Yes	** NA **	None
406	406				Yes	** NA **	None
407	407				Yes	** NA **	None
408	408				Yes	** NA **	None
409	409				Yes	** NA **	None
410	410				Yes	** NA **	None
411	411				Yes	** NA **	None
412	412				Yes	** NA **	None



**Member Advanced Data (Continued)**

	Label	I Release	J Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
413	413				Yes	N/A	None
414	414				Yes	N/A	None
415	415				Yes	** NA **	None
416	416				Yes	** NA **	None
417	417				Yes	** NA **	None
418	418				Yes	** NA **	None
419	419				Yes	** NA **	None
420	420				Yes	N/A	None
421	421				Yes	N/A	None
422	422				Yes	** NA **	None
423	423				Yes	** NA **	None
424	424				Yes	** NA **	None
425	425				Yes	** NA **	None
426	426				Yes	** NA **	None
427	427				Yes	N/A	None
428	428				Yes	N/A	None
429	429				Yes	** NA **	None

**Hot Rolled Steel Design Parameters**

	Label	Shape	Length [ft]	Lb y-y [ft]	Lb z-z [ft]	Lcomp top [ft]	Function
1	1	FH-Pipe	12.5			Lbyy	Lateral
2	2	FH-Pipe	12.5			Lbyy	Lateral
3	3	FH-Pipe	12.5			Lbyy	Lateral
4	4	PB-Plate	0.605			Lbyy	Lateral
5	5	PB-Plate	0.605			Lbyy	Lateral
6	6	PB-Plate	0.605			Lbyy	Lateral
7	7	PB-Plate	0.605			Lbyy	Lateral
8	8	PB-Plate	0.605			Lbyy	Lateral
9	9	PB-Plate	0.605			Lbyy	Lateral
10	10	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
11	11	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
12	12	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
13	13	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
14	14	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
15	15	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
16	16	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
17	17	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
18	18	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
19	19	PF-Angle	2.914	Segment	Segment	Lbyy	Lateral
20	20	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
21	21	PF-Angle	2.386	Segment	Segment	Lbyy	Lateral
22	22	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral
23	23	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral
24	24	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
25	25	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
26	26	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
27	27	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
28	28	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral
29	29	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral
30	30	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
31	31	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
32	32	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
33	33	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
34	34	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral
35	35	PJ-Plate	1.124	0.5	0.5	Lbyy	Lateral

**Hot Rolled Steel Design Parameters (Continued)**

	Label	Shape	Length [ft]	Lb y-y [ft]	Lb z-z [ft]	Lcomp top [ft]	Function
36	36	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
37	37	PJ-Plate	1.659	0.5	0.5	Lbyy	Lateral
38	38	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
39	39	PJ-Plate	0.583	0.5	0.5	Lbyy	Lateral
40	40	PS-Tube	4.244			Lbyy	Lateral
41	41	PS-Tube	4.244			Lbyy	Lateral
42	42	PS-Tube	4.244			Lbyy	Lateral
43	43	SA-BotChord-Plate	0.917			Lbyy	Lateral
44	44	SA-BotChord-Plate	0.958			Lbyy	Lateral
45	45	SA-BotChord-Plate	0.742			Lbyy	Lateral
46	46	SA-BotChord-Plate	0.667			Lbyy	Lateral
47	47	SA-BotChord-Plate	1.045			Lbyy	Lateral
48	48	SA-BotChord-Plate	0.741			Lbyy	Lateral
49	49	SA-BotChord-Plate	0.748			Lbyy	Lateral
50	50	SA-TopChord-Plate	0.917			Lbyy	Lateral
51	51	SA-TopChord-Plate	0.958			Lbyy	Lateral
52	52	SA-TopChord-Plate	0.718			Lbyy	Lateral
53	53	SA-TopChord-Plate	0.648			Lbyy	Lateral
54	54	SA-TopChord-Plate	1.023			Lbyy	Lateral
55	55	SA-TopChord-Plate	0.725			Lbyy	Lateral
56	56	SA-TopChord-Plate	0.761			Lbyy	Lateral
57	57	SA-WebChord-Plate	0.917			Lbyy	Lateral
58	58	SA-WebChord-Plate	0.957			Lbyy	Lateral
59	59	SA-WebChord-Plate	0.731			Lbyy	Lateral
60	60	SA-WebChord-Plate	0.667			Lbyy	Lateral
61	61	SA-WebChord-Plate	1.045			Lbyy	Lateral
62	62	SA-WebChord-Plate	0.741			Lbyy	Lateral
63	63	SA-WebChord-Plate	0.759			Lbyy	Lateral
64	64	SA-WebDiag-Plate	1.264			Lbyy	Lateral
65	65	SA-WebDiag-Plate	1.294			Lbyy	Lateral
66	66	SA-WebDiag-Plate	1.013			Lbyy	Lateral
67	67	SA-WebDiag-Plate	0.872			Lbyy	Lateral
68	68	SA-WebDiag-Rod#1	0.727			Lbyy	Lateral
69	69	SA-WebDiag-Rod#2	0.595			Lbyy	Lateral
70	70	SA-WebDiag-Rod#2	0.487			Lbyy	Lateral
71	71	SA-WebDiag-Rod#3	0.397			Lbyy	Lateral
72	72	SA-WebChord-Plate	0.917			Lbyy	Lateral
73	73	SA-WebChord-Plate	0.958			Lbyy	Lateral
74	74	SA-WebChord-Plate	0.718			Lbyy	Lateral
75	75	SA-WebChord-Plate	0.648			Lbyy	Lateral
76	76	SA-WebChord-Plate	1.023			Lbyy	Lateral
77	77	SA-WebChord-Plate	0.725			Lbyy	Lateral
78	78	SA-WebChord-Plate	0.761			Lbyy	Lateral
79	79	SA-WebVert-Plate	0.871			Lbyy	Lateral
80	80	SA-WebVert-Plate	0.871			Lbyy	Lateral
81	81	SA-WebVert-Plate	0.871			Lbyy	Lateral
82	82	SA-WebVert-Plate	0.719			Lbyy	Lateral
83	83	F1-S8	0.583			Lbyy	Lateral
84	84	F1-S9	0.467			Lbyy	Lateral
85	85	F1-S9	0.37			Lbyy	Lateral
86	86	F1-S7	0.288			Lbyy	Lateral
87	189	Support Rail	12.5			Lbyy	Lateral
88	190	Support Rail	12.5			Lbyy	Lateral
89	191	Support Rail	12.5			Lbyy	Lateral
90	192	SR-CA1	2.437			Lbyy	Lateral

**Hot Rolled Steel Design Parameters (Continued)**

	Label	Shape	Length [ft]	Lb y-y [ft]	Lb z-z [ft]	Lcomp top [ft]	Function
91	193	SR-CA1	2.437			Lbyy	Lateral
92	194	SR-CA1	2.437			Lbyy	Lateral
93	195	Plate	1.667	0.833	0.833	Lbyy	Lateral
94	196	Plate	1.667	0.833	0.833	Lbyy	Lateral
95	197	Plate	1.667	0.833	0.833	Lbyy	Lateral
96	198	Plate	1.667	0.833	0.833	Lbyy	Lateral
97	199	Plate	1.667	0.833	0.833	Lbyy	Lateral
98	200	Plate	1.667	0.833	0.833	Lbyy	Lateral
99	201	Plate	1.667	0.833	0.833	Lbyy	Lateral
100	202	Plate	1.667	0.833	0.833	Lbyy	Lateral
101	203	Plate	1.667	0.833	0.833	Lbyy	Lateral
102	204	Plate	1.667	0.833	0.833	Lbyy	Lateral
103	205	Plate	1.667	0.833	0.833	Lbyy	Lateral
104	206	Plate	1.667	0.833	0.833	Lbyy	Lateral
105	207	Plate	1.667	0.833	0.833	Lbyy	Lateral
106	208	Plate	1.667	0.833	0.833	Lbyy	Lateral
107	209	Plate	1.667	0.833	0.833	Lbyy	Lateral
108	210	F1-SP1	6.142			Lbyy	Lateral
109	211	F1-SP1	6.142			Lbyy	Lateral
110	212	F1-SP1	6.142			Lbyy	Lateral
111	213	F1-SP1	6.142			Lbyy	Lateral
112	214	F1-SP1	6.142			Lbyy	Lateral
113	215	F1-SP1	6.142			Lbyy	Lateral
114	220	SA-BotChord-Plate	0.917			Lbyy	Lateral
115	221	SA-BotChord-Plate	0.958			Lbyy	Lateral
116	222	SA-BotChord-Plate	0.742			Lbyy	Lateral
117	223	SA-BotChord-Plate	0.667			Lbyy	Lateral
118	224	SA-BotChord-Plate	1.045			Lbyy	Lateral
119	225	SA-BotChord-Plate	0.741			Lbyy	Lateral
120	226	SA-BotChord-Plate	0.748			Lbyy	Lateral
121	227	SA-TopChord-Plate	0.917			Lbyy	Lateral
122	228	SA-TopChord-Plate	0.958			Lbyy	Lateral
123	229	SA-TopChord-Plate	0.718			Lbyy	Lateral
124	230	SA-TopChord-Plate	0.648			Lbyy	Lateral
125	231	SA-TopChord-Plate	1.023			Lbyy	Lateral
126	232	SA-TopChord-Plate	0.725			Lbyy	Lateral
127	233	SA-TopChord-Plate	0.761			Lbyy	Lateral
128	234	SA-WebChord-Plate	0.917			Lbyy	Lateral
129	235	SA-WebChord-Plate	0.957			Lbyy	Lateral
130	236	SA-WebChord-Plate	0.731			Lbyy	Lateral
131	237	SA-WebChord-Plate	0.667			Lbyy	Lateral
132	238	SA-WebChord-Plate	1.045			Lbyy	Lateral
133	239	SA-WebChord-Plate	0.741			Lbyy	Lateral
134	240	SA-WebChord-Plate	0.759			Lbyy	Lateral
135	241	SA-WebDiag-Plate	1.264			Lbyy	Lateral
136	242	SA-WebDiag-Plate	1.294			Lbyy	Lateral
137	243	SA-WebDiag-Plate	1.013			Lbyy	Lateral
138	244	SA-WebDiag-Plate	0.872			Lbyy	Lateral
139	245	SA-WebDiag-Rod#1	0.727			Lbyy	Lateral
140	246	SA-WebDiag-Rod#2	0.595			Lbyy	Lateral
141	247	SA-WebDiag-Rod#2	0.487			Lbyy	Lateral
142	248	SA-WebDiag.Rod#3	0.397			Lbyy	Lateral
143	249	SA-WebChord-Plate	0.917			Lbyy	Lateral
144	250	SA-WebChord-Plate	0.958			Lbyy	Lateral
145	251	SA-WebChord-Plate	0.718			Lbyy	Lateral

**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length [ft]	Lb y-y [ft]	Lb z-z [ft]	Lcomp top [ft]	Function
146	252	SA-WebChord-Plate	0.648		Lbyy	Lateral
147	253	SA-WebChord-Plate	1.023		Lbyy	Lateral
148	254	SA-WebChord-Plate	0.725		Lbyy	Lateral
149	255	SA-WebChord-Plate	0.761		Lbyy	Lateral
150	256	SA-WebVert-Plate	0.871		Lbyy	Lateral
151	257	SA-WebVert-Plate	0.871		Lbyy	Lateral
152	258	SA-WebVert-Plate	0.871		Lbyy	Lateral
153	259	SA-WebVert-Plate	0.719		Lbyy	Lateral
154	260	F1-S8	0.583		Lbyy	Lateral
155	261	F1-S9	0.467		Lbyy	Lateral
156	262	F1-S9	0.37		Lbyy	Lateral
157	263	F1-S7	0.288		Lbyy	Lateral
158	292	SA-BotChord-Plate	0.917		Lbyy	Lateral
159	293	SA-BotChord-Plate	0.958		Lbyy	Lateral
160	294	SA-BotChord-Plate	0.742		Lbyy	Lateral
161	295	SA-BotChord-Plate	0.667		Lbyy	Lateral
162	296	SA-BotChord-Plate	1.045		Lbyy	Lateral
163	297	SA-BotChord-Plate	0.741		Lbyy	Lateral
164	298	SA-BotChord-Plate	0.748		Lbyy	Lateral
165	299	SA-TopChord-Plate	0.917		Lbyy	Lateral
166	300	SA-TopChord-Plate	0.958		Lbyy	Lateral
167	301	SA-TopChord-Plate	0.718		Lbyy	Lateral
168	302	SA-TopChord-Plate	0.648		Lbyy	Lateral
169	303	SA-TopChord-Plate	1.023		Lbyy	Lateral
170	304	SA-TopChord-Plate	0.725		Lbyy	Lateral
171	305	SA-TopChord-Plate	0.761		Lbyy	Lateral
172	306	SA-WebChord-Plate	0.917		Lbyy	Lateral
173	307	SA-WebChord-Plate	0.957		Lbyy	Lateral
174	308	SA-WebChord-Plate	0.731		Lbyy	Lateral
175	309	SA-WebChord-Plate	0.667		Lbyy	Lateral
176	310	SA-WebChord-Plate	1.045		Lbyy	Lateral
177	311	SA-WebChord-Plate	0.741		Lbyy	Lateral
178	312	SA-WebChord-Plate	0.759		Lbyy	Lateral
179	313	SA-WebDiag-Plate	1.264		Lbyy	Lateral
180	314	SA-WebDiag-Plate	1.294		Lbyy	Lateral
181	315	SA-WebDiag-Plate	1.013		Lbyy	Lateral
182	316	SA-WebDiag-Plate	0.872		Lbyy	Lateral
183	317	SA-WebDiag-Rod#1	0.727		Lbyy	Lateral
184	318	SA-WebDiag-Rod#2	0.595		Lbyy	Lateral
185	319	SA-WebDiag-Rod#2	0.487		Lbyy	Lateral
186	320	SA-WebDiag-Rod#3	0.397		Lbyy	Lateral
187	321	SA-WebChord-Plate	0.917		Lbyy	Lateral
188	322	SA-WebChord-Plate	0.958		Lbyy	Lateral
189	323	SA-WebChord-Plate	0.718		Lbyy	Lateral
190	324	SA-WebChord-Plate	0.648		Lbyy	Lateral
191	325	SA-WebChord-Plate	1.023		Lbyy	Lateral
192	326	SA-WebChord-Plate	0.725		Lbyy	Lateral
193	327	SA-WebChord-Plate	0.761		Lbyy	Lateral
194	328	SA-WebVert-Plate	0.871		Lbyy	Lateral
195	329	SA-WebVert-Plate	0.871		Lbyy	Lateral
196	330	SA-WebVert-Plate	0.871		Lbyy	Lateral
197	331	SA-WebVert-Plate	0.719		Lbyy	Lateral
198	332	F1-S8	0.583		Lbyy	Lateral
199	333	F1-S9	0.467		Lbyy	Lateral
200	334	F1-S9	0.37		Lbyy	Lateral

**Hot Rolled Steel Design Parameters (Continued)**

Label	Shape	Length [ft]	Lb y-y [ft]	Lb z-z [ft]	Lcomp top [ft]	Function
201	335	F1-S7	0.288		Lbyy	Lateral
202	372	AM-Pipe	10		Lbyy	Lateral
203	373	AM-Pipe	10		Lbyy	Lateral
204	374	AM-Pipe	10		Lbyy	Lateral
205	375	AM-Pipe	10		Lbyy	Lateral
206	377	AM-Pipe	10		Lbyy	Lateral
207	387	AM-Pipe	10		Lbyy	Lateral
208	388	AM-Pipe	10		Lbyy	Lateral
209	389	AM-Pipe	10		Lbyy	Lateral
210	390	AM-Pipe	10		Lbyy	Lateral
211	392	AM-Pipe	10		Lbyy	Lateral
212	402	AM-Pipe	10		Lbyy	Lateral
213	403	AM-Pipe	10		Lbyy	Lateral
214	404	AM-Pipe	10		Lbyy	Lateral
215	405	AM-Pipe	10		Lbyy	Lateral
216	407	AM-Pipe	10		Lbyy	Lateral
217	413	SF-T1	2		Lbyy	Lateral
218	414	SF-T1	2		Lbyy	Lateral
219	415	AM-Pipe	10		Lbyy	Lateral
220	420	SF-T1	2		Lbyy	Lateral
221	421	SF-T1	2		Lbyy	Lateral
222	422	AM-Pipe	10		Lbyy	Lateral
223	427	SF-T1	2		Lbyy	Lateral
224	428	SF-T1	2		Lbyy	Lateral
225	429	AM-Pipe	10		Lbyy	Lateral

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Y	-0.075	%5
2	415	Y	-0.075	%85
3	415	Y	0	0
4	415	Y	0	0
5	415	Y	0	0
6	373	Y	-0.022	%5
7	373	Y	-0.022	%30
8	373	Y	-0.041	%45
9	373	Y	-0.041	%70
10	373	Y	0	0
11	372	Y	-0.043	%5
12	372	Y	-0.043	%85
13	372	Y	-0.071	%30
14	372	Y	-0.043	%30
15	372	Y	0	0
16	429	Y	-0.075	%5
17	429	Y	-0.075	%85
18	429	Y	0	0
19	429	Y	0	0
20	429	Y	0	0
21	403	Y	-0.022	%5
22	403	Y	-0.022	%30
23	403	Y	-0.041	%45
24	403	Y	-0.041	%70
25	403	Y	0	0
26	402	Y	-0.043	%5
27	402	Y	-0.043	%85



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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
28	402	Y	-0.071	%30
29	402	Y	-0.043	%30
30	402	Y	0	0
31	422	Y	-0.075	%5
32	422	Y	-0.075	%85
33	422	Y	0	0
34	422	Y	0	0
35	422	Y	0	0
36	388	Y	-0.022	%5
37	388	Y	-0.022	%30
38	388	Y	-0.041	%45
39	388	Y	-0.041	%70
40	388	Y	0	0
41	387	Y	-0.043	%5
42	387	Y	-0.043	%85
43	387	Y	-0.071	%30
44	387	Y	-0.043	%30
45	387	Y	0	0
46	375	Y	-0.019	%30
47	375	Y	0	0
48	375	Y	0	0
49	375	Y	0	0
50	375	Y	0	0
51	405	Y	-0.019	%30
52	405	Y	0	0
53	405	Y	0	0
54	405	Y	0	0
55	405	Y	0	0
56	390	Y	-0.026	%30
57	390	Y	0	0
58	390	Y	0	0
59	390	Y	0	0
60	390	Y	0	0
61	374	Y	-0.06	%30
62	374	Y	-0.043	%30
63	374	Y	-0.072	%60
64	374	Y	0	0
65	374	Y	0	0
66	404	Y	-0.06	%30
67	404	Y	-0.043	%30
68	404	Y	-0.072	%60
69	404	Y	0	0
70	404	Y	0	0
71	389	Y	-0.06	%30
72	389	Y	-0.043	%30
73	389	Y	-0.072	%60
74	389	Y	0	0
75	389	Y	0	0

**Member Point Loads (BLC 2 : 0 Wind - No Ice)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Z	-0.308	%5
2	415	Z	-0.308	%85
3	415	Z	0	0
4	415	Z	0	0



**Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
5	415	Z	0	0
6	373	Z	-0.068	%5
7	373	Z	-0.068	%30
8	373	Z	-0.066	%45
9	373	Z	-0.066	%70
10	373	Z	0	0
11	372	Z	-0.271	%5
12	372	Z	-0.271	%85
13	372	Z	-0.046	%30
14	372	Z	-0.021	%30
15	372	Z	0	0
16	429	Z	-0.308	%5
17	429	Z	-0.308	%85
18	429	Z	0	0
19	429	Z	0	0
20	429	Z	0	0
21	403	Z	-0.068	%5
22	403	Z	-0.068	%30
23	403	Z	-0.066	%45
24	403	Z	-0.066	%70
25	403	Z	0	0
26	402	Z	-0.271	%5
27	402	Z	-0.271	%85
28	402	Z	-0.046	%30
29	402	Z	-0.021	%30
30	402	Z	0	0
31	422	Z	-0.308	%5
32	422	Z	-0.308	%85
33	422	Z	0	0
34	422	Z	0	0
35	422	Z	0	0
36	388	Z	-0.068	%5
37	388	Z	-0.068	%30
38	388	Z	-0.066	%45
39	388	Z	-0.066	%70
40	388	Z	0	0
41	387	Z	-0.271	%5
42	387	Z	-0.271	%85
43	387	Z	-0.046	%30
44	387	Z	-0.021	%30
45	387	Z	0	0
46	375	Z	-0.028	%30
47	375	Z	0	0
48	375	Z	0	0
49	375	Z	0	0
50	375	Z	0	0
51	405	Z	-0.028	%30
52	405	Z	0	0
53	405	Z	0	0
54	405	Z	0	0
55	405	Z	0	0
56	390	Z	-0.09	%30
57	390	Z	0	0
58	390	Z	0	0
59	390	Z	0	0

**Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
60	390	Z	0	0
61	374	Z	-0.06	%30
62	374	Z	-0.061	%30
63	374	Z	-0.054	%60
64	374	Z	0	0
65	374	Z	0	0
66	404	Z	-0.06	%30
67	404	Z	-0.061	%30
68	404	Z	-0.054	%60
69	404	Z	0	0
70	404	Z	0	0
71	389	Z	-0.06	%30
72	389	Z	-0.061	%30
73	389	Z	-0.054	%60
74	389	Z	0	0
75	389	Z	0	0

**Member Point Loads (BLC 3 : 90 Wind - No Ice)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	X	-0.134	%5
2	415	X	-0.134	%85
3	415	X	0	0
4	415	X	0	0
5	415	X	0	0
6	373	X	-0.031	%5
7	373	X	-0.031	%30
8	373	X	-0.033	%45
9	373	X	-0.033	%70
10	373	X	0	0
11	372	X	-0.081	%5
12	372	X	-0.081	%85
13	372	X	-0.064	%30
14	372	X	-0.055	%30
15	372	X	0	0
16	429	X	-0.134	%5
17	429	X	-0.134	%85
18	429	X	0	0
19	429	X	0	0
20	429	X	0	0
21	403	X	-0.031	%5
22	403	X	-0.031	%30
23	403	X	-0.033	%45
24	403	X	-0.033	%70
25	403	X	0	0
26	402	X	-0.081	%5
27	402	X	-0.081	%85
28	402	X	-0.064	%30
29	402	X	-0.055	%30
30	402	X	0	0
31	422	X	-0.134	%5
32	422	X	-0.134	%85
33	422	X	0	0
34	422	X	0	0
35	422	X	0	0
36	388	X	-0.031	%5

**Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
37	388	X	-0.031	%30
38	388	X	-0.033	%45
39	388	X	-0.033	%70
40	388	X	0	0
41	387	X	-0.081	%5
42	387	X	-0.081	%85
43	387	X	-0.064	%30
44	387	X	-0.055	%30
45	387	X	0	0
46	375	X	-0.028	%30
47	375	X	0	0
48	375	X	0	0
49	375	X	0	0
50	375	X	0	0
51	405	X	-0.028	%30
52	405	X	0	0
53	405	X	0	0
54	405	X	0	0
55	405	X	0	0
56	390	X	-0.16	%30
57	390	X	0	0
58	390	X	0	0
59	390	X	0	0
60	390	X	0	0
61	374	X	-0.035	%30
62	374	X	-0.022	%30
63	374	X	-0.044	%60
64	374	X	0	0
65	374	X	0	0
66	404	X	-0.035	%30
67	404	X	-0.022	%30
68	404	X	-0.044	%60
69	404	X	0	0
70	404	X	0	0
71	389	X	-0.035	%30
72	389	X	-0.022	%30
73	389	X	-0.044	%60
74	389	X	0	0
75	389	X	0	0

**Member Point Loads (BLC 4 : 0 Wind - Ice)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Z	-0.055	%5
2	415	Z	-0.055	%85
3	415	Z	0	0
4	415	Z	0	0
5	415	Z	0	0
6	373	Z	-0.012	%5
7	373	Z	-0.012	%30
8	373	Z	-0.012	%45
9	373	Z	-0.012	%70
10	373	Z	0	0
11	372	Z	-0.054	%5
12	372	Z	-0.054	%85
13	372	Z	-0.008	%30

**Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
14	372	Z	-0.004	%30
15	372	Z	0	0
16	429	Z	-0.055	%5
17	429	Z	-0.055	%85
18	429	Z	0	0
19	429	Z	0	0
20	429	Z	0	0
21	403	Z	-0.012	%5
22	403	Z	-0.012	%30
23	403	Z	-0.012	%45
24	403	Z	-0.012	%70
25	403	Z	0	0
26	402	Z	-0.054	%5
27	402	Z	-0.054	%85
28	402	Z	-0.008	%30
29	402	Z	-0.004	%30
30	402	Z	0	0
31	422	Z	-0.055	%5
32	422	Z	-0.055	%85
33	422	Z	0	0
34	422	Z	0	0
35	422	Z	0	0
36	388	Z	-0.012	%5
37	388	Z	-0.012	%30
38	388	Z	-0.012	%45
39	388	Z	-0.012	%70
40	388	Z	0	0
41	387	Z	-0.054	%5
42	387	Z	-0.054	%85
43	387	Z	-0.008	%30
44	387	Z	-0.004	%30
45	387	Z	0	0
46	375	Z	-0.005	%30
47	375	Z	0	0
48	375	Z	0	0
49	375	Z	0	0
50	375	Z	0	0
51	405	Z	-0.005	%30
52	405	Z	0	0
53	405	Z	0	0
54	405	Z	0	0
55	405	Z	0	0
56	390	Z	-0.016	%30
57	390	Z	0	0
58	390	Z	0	0
59	390	Z	0	0
60	390	Z	0	0
61	374	Z	-0.011	%30
62	374	Z	-0.011	%30
63	374	Z	-0.01	%60
64	374	Z	0	0
65	374	Z	0	0
66	404	Z	-0.011	%30
67	404	Z	-0.011	%30
68	404	Z	-0.01	%60

**Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
69	404	Z	0	0
70	404	Z	0	0
71	389	Z	-0.011	%30
72	389	Z	-0.011	%30
73	389	Z	-0.01	%60
74	389	Z	0	0
75	389	Z	0	0

**Member Point Loads (BLC 5 : 90 Wind - Ice)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	X	-0.024	%5
2	415	X	-0.024	%85
3	415	X	0	0
4	415	X	0	0
5	415	X	0	0
6	373	X	-0.006	%5
7	373	X	-0.006	%30
8	373	X	-0.006	%45
9	373	X	-0.006	%70
10	373	X	0	0
11	372	X	-0.02	%5
12	372	X	-0.02	%85
13	372	X	-0.012	%30
14	372	X	-0.01	%30
15	372	X	0	0
16	429	X	-0.024	%5
17	429	X	-0.024	%85
18	429	X	0	0
19	429	X	0	0
20	429	X	0	0
21	403	X	-0.006	%5
22	403	X	-0.006	%30
23	403	X	-0.006	%45
24	403	X	-0.006	%70
25	403	X	0	0
26	402	X	-0.02	%5
27	402	X	-0.02	%85
28	402	X	-0.012	%30
29	402	X	-0.01	%30
30	402	X	0	0
31	422	X	-0.024	%5
32	422	X	-0.024	%85
33	422	X	0	0
34	422	X	0	0
35	422	X	0	0
36	388	X	-0.006	%5
37	388	X	-0.006	%30
38	388	X	-0.006	%45
39	388	X	-0.006	%70
40	388	X	0	0
41	387	X	-0.02	%5
42	387	X	-0.02	%85
43	387	X	-0.012	%30
44	387	X	-0.01	%30
45	387	X	0	0



**Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
46	375	X	-0.005	%30
47	375	X	0	0
48	375	X	0	0
49	375	X	0	0
50	375	X	0	0
51	405	X	-0.005	%30
52	405	X	0	0
53	405	X	0	0
54	405	X	0	0
55	405	X	0	0
56	390	X	-0.029	%30
57	390	X	0	0
58	390	X	0	0
59	390	X	0	0
60	390	X	0	0
61	374	X	-0.006	%30
62	374	X	-0.004	%30
63	374	X	-0.008	%60
64	374	X	0	0
65	374	X	0	0
66	404	X	-0.006	%30
67	404	X	-0.004	%30
68	404	X	-0.008	%60
69	404	X	0	0
70	404	X	0	0
71	389	X	-0.006	%30
72	389	X	-0.004	%30
73	389	X	-0.008	%60
74	389	X	0	0
75	389	X	0	0

**Member Point Loads (BLC 6 : 0 Wind - Service)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Z	-0.02	%5
2	415	Z	-0.02	%85
3	415	Z	0	0
4	415	Z	0	0
5	415	Z	0	0
6	373	Z	-0.004	%5
7	373	Z	-0.004	%30
8	373	Z	-0.004	%45
9	373	Z	-0.004	%70
10	373	Z	0	0
11	372	Z	-0.018	%5
12	372	Z	-0.018	%85
13	372	Z	-0.003	%30
14	372	Z	-0.001	%30
15	372	Z	0	0
16	429	Z	-0.02	%5
17	429	Z	-0.02	%85
18	429	Z	0	0
19	429	Z	0	0
20	429	Z	0	0
21	403	Z	-0.004	%5
22	403	Z	-0.004	%30

**Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
23	403	Z	-0.004	%45
24	403	Z	-0.004	%70
25	403	Z	0	0
26	402	Z	-0.018	%5
27	402	Z	-0.018	%85
28	402	Z	-0.003	%30
29	402	Z	-0.001	%30
30	402	Z	0	0
31	422	Z	-0.02	%5
32	422	Z	-0.02	%85
33	422	Z	0	0
34	422	Z	0	0
35	422	Z	0	0
36	388	Z	-0.004	%5
37	388	Z	-0.004	%30
38	388	Z	-0.004	%45
39	388	Z	-0.004	%70
40	388	Z	0	0
41	387	Z	-0.018	%5
42	387	Z	-0.018	%85
43	387	Z	-0.003	%30
44	387	Z	-0.001	%30
45	387	Z	0	0
46	375	Z	-0.002	%30
47	375	Z	0	0
48	375	Z	0	0
49	375	Z	0	0
50	375	Z	0	0
51	405	Z	-0.002	%30
52	405	Z	0	0
53	405	Z	0	0
54	405	Z	0	0
55	405	Z	0	0
56	390	Z	-0.006	%30
57	390	Z	0	0
58	390	Z	0	0
59	390	Z	0	0
60	390	Z	0	0
61	374	Z	-0.004	%30
62	374	Z	-0.004	%30
63	374	Z	-0.004	%60
64	374	Z	0	0
65	374	Z	0	0
66	404	Z	-0.004	%30
67	404	Z	-0.004	%30
68	404	Z	-0.004	%60
69	404	Z	0	0
70	404	Z	0	0
71	389	Z	-0.004	%30
72	389	Z	-0.004	%30
73	389	Z	-0.004	%60
74	389	Z	0	0
75	389	Z	0	0

**Member Point Loads (BLC 7 : 90 Wind - Service)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	X	-0.009	%5
2	415	X	-0.009	%85
3	415	X	0	0
4	415	X	0	0
5	415	X	0	0
6	373	X	-0.002	%5
7	373	X	-0.002	%30
8	373	X	-0.002	%45
9	373	X	-0.002	%70
10	373	X	0	0
11	372	X	-0.005	%5
12	372	X	-0.005	%85
13	372	X	-0.004	%30
14	372	X	-0.004	%30
15	372	X	0	0
16	429	X	-0.009	%5
17	429	X	-0.009	%85
18	429	X	0	0
19	429	X	0	0
20	429	X	0	0
21	403	X	-0.002	%5
22	403	X	-0.002	%30
23	403	X	-0.002	%45
24	403	X	-0.002	%70
25	403	X	0	0
26	402	X	-0.005	%5
27	402	X	-0.005	%85
28	402	X	-0.004	%30
29	402	X	-0.004	%30
30	402	X	0	0
31	422	X	-0.009	%5
32	422	X	-0.009	%85
33	422	X	0	0
34	422	X	0	0
35	422	X	0	0
36	388	X	-0.002	%5
37	388	X	-0.002	%30
38	388	X	-0.002	%45
39	388	X	-0.002	%70
40	388	X	0	0
41	387	X	-0.005	%5
42	387	X	-0.005	%85
43	387	X	-0.004	%30
44	387	X	-0.004	%30
45	387	X	0	0
46	375	X	-0.002	%30
47	375	X	0	0
48	375	X	0	0
49	375	X	0	0
50	375	X	0	0
51	405	X	-0.002	%30
52	405	X	0	0
53	405	X	0	0
54	405	X	0	0
55	405	X	0	0

**Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
56	390	X	-0.01	%30
57	390	X	0	0
58	390	X	0	0
59	390	X	0	0
60	390	X	0	0
61	374	X	-0.002	%30
62	374	X	-0.001	%30
63	374	X	-0.003	%60
64	374	X	0	0
65	374	X	0	0
66	404	X	-0.002	%30
67	404	X	-0.001	%30
68	404	X	-0.003	%60
69	404	X	0	0
70	404	X	0	0
71	389	X	-0.002	%30
72	389	X	-0.001	%30
73	389	X	-0.003	%60
74	389	X	0	0
75	389	X	0	0

**Member Point Loads (BLC 8 : Ice)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Y	-0.143	%5
2	415	Y	-0.143	%85
3	415	Y	0	0
4	415	Y	0	0
5	415	Y	0	0
6	373	Y	-0.035	%5
7	373	Y	-0.035	%30
8	373	Y	-0.034	%45
9	373	Y	-0.034	%70
10	373	Y	0	0
11	372	Y	-0.14	%5
12	372	Y	-0.14	%85
13	372	Y	-0.037	%30
14	372	Y	-0.027	%30
15	372	Y	0	0
16	429	Y	-0.143	%5
17	429	Y	-0.143	%85
18	429	Y	0	0
19	429	Y	0	0
20	429	Y	0	0
21	403	Y	-0.035	%5
22	403	Y	-0.035	%30
23	403	Y	-0.034	%45
24	403	Y	-0.034	%70
25	403	Y	0	0
26	402	Y	-0.14	%5
27	402	Y	-0.14	%85
28	402	Y	-0.037	%30
29	402	Y	-0.027	%30
30	402	Y	0	0
31	422	Y	-0.143	%5
32	422	Y	-0.143	%85

**Member Point Loads (BLC 8 : Ice) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
33	422	Y	0	0
34	422	Y	0	0
35	422	Y	0	0
36	388	Y	-0.035	%5
37	388	Y	-0.035	%30
38	388	Y	-0.034	%45
39	388	Y	-0.034	%70
40	388	Y	0	0
41	387	Y	-0.14	%5
42	387	Y	-0.14	%85
43	387	Y	-0.037	%30
44	387	Y	-0.027	%30
45	387	Y	0	0
46	375	Y	-0.032	%30
47	375	Y	0	0
48	375	Y	0	0
49	375	Y	0	0
50	375	Y	0	0
51	405	Y	-0.032	%30
52	405	Y	0	0
53	405	Y	0	0
54	405	Y	0	0
55	405	Y	0	0
56	390	Y	-0.082	%30
57	390	Y	0	0
58	390	Y	0	0
59	390	Y	0	0
60	390	Y	0	0
61	374	Y	-0.032	%30
62	374	Y	-0.03	%30
63	374	Y	-0.032	%60
64	374	Y	0	0
65	374	Y	0	0
66	404	Y	-0.032	%30
67	404	Y	-0.03	%30
68	404	Y	-0.032	%60
69	404	Y	0	0
70	404	Y	0	0
71	389	Y	-0.032	%30
72	389	Y	-0.03	%30
73	389	Y	-0.032	%60
74	389	Y	0	0
75	389	Y	0	0

**Member Point Loads (BLC 9 : 0 Seismic)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	Z	-0.047	%5
2	415	Z	-0.047	%85
3	415	Z	0	0
4	415	Z	0	0
5	415	Z	0	0
6	373	Z	-0.014	%5
7	373	Z	-0.014	%30
8	373	Z	-0.025	%45
9	373	Z	-0.025	%70

**Member Point Loads (BLC 9 : 0 Seismic) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
10	373	Z	0	0
11	372	Z	-0.027	%5
12	372	Z	-0.027	%85
13	372	Z	-0.022	%30
14	372	Z	-0.013	%30
15	372	Z	0	0
16	429	Z	-0.047	%5
17	429	Z	-0.047	%85
18	429	Z	0	0
19	429	Z	0	0
20	429	Z	0	0
21	403	Z	-0.014	%5
22	403	Z	-0.014	%30
23	403	Z	-0.025	%45
24	403	Z	-0.025	%70
25	403	Z	0	0
26	402	Z	-0.027	%5
27	402	Z	-0.027	%85
28	402	Z	-0.022	%30
29	402	Z	-0.013	%30
30	402	Z	0	0
31	422	Z	-0.047	%5
32	422	Z	-0.047	%85
33	422	Z	0	0
34	422	Z	0	0
35	422	Z	0	0
36	388	Z	-0.014	%5
37	388	Z	-0.014	%30
38	388	Z	-0.025	%45
39	388	Z	-0.025	%70
40	388	Z	0	0
41	387	Z	-0.027	%5
42	387	Z	-0.027	%85
43	387	Z	-0.022	%30
44	387	Z	-0.013	%30
45	387	Z	0	0
46	375	Z	-0.006	%30
47	375	Z	0	0
48	375	Z	0	0
49	375	Z	0	0
50	375	Z	0	0
51	405	Z	-0.006	%30
52	405	Z	0	0
53	405	Z	0	0
54	405	Z	0	0
55	405	Z	0	0
56	390	Z	-0.008	%30
57	390	Z	0	0
58	390	Z	0	0
59	390	Z	0	0
60	390	Z	0	0
61	374	Z	-0.019	%30
62	374	Z	-0.013	%30
63	374	Z	-0.022	%60
64	374	Z	0	0



**Member Point Loads (BLC 9 : 0 Seismic) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
65	374	Z	0	0
66	404	Z	-0.019	%30
67	404	Z	-0.013	%30
68	404	Z	-0.022	%60
69	404	Z	0	0
70	404	Z	0	0
71	389	Z	-0.019	%30
72	389	Z	-0.013	%30
73	389	Z	-0.022	%60
74	389	Z	0	0
75	389	Z	0	0

**Member Point Loads (BLC 10 : 90 Seismic)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	415	X	-0.047	%5
2	415	X	-0.047	%85
3	415	X	0	0
4	415	X	0	0
5	415	X	0	0
6	373	X	-0.014	%5
7	373	X	-0.014	%30
8	373	X	-0.025	%45
9	373	X	-0.025	%70
10	373	X	0	0
11	372	X	-0.027	%5
12	372	X	-0.027	%85
13	372	X	-0.022	%30
14	372	X	-0.013	%30
15	372	X	0	0
16	429	X	-0.047	%5
17	429	X	-0.047	%85
18	429	X	0	0
19	429	X	0	0
20	429	X	0	0
21	403	X	-0.014	%5
22	403	X	-0.014	%30
23	403	X	-0.025	%45
24	403	X	-0.025	%70
25	403	X	0	0
26	402	X	-0.027	%5
27	402	X	-0.027	%85
28	402	X	-0.022	%30
29	402	X	-0.013	%30
30	402	X	0	0
31	422	X	-0.047	%5
32	422	X	-0.047	%85
33	422	X	0	0
34	422	X	0	0
35	422	X	0	0
36	388	X	-0.014	%5
37	388	X	-0.014	%30
38	388	X	-0.025	%45
39	388	X	-0.025	%70
40	388	X	0	0
41	387	X	-0.027	%5

**Member Point Loads (BLC 10 : 90 Seismic) (Continued)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
42	387	X	-0.027	%85
43	387	X	-0.022	%30
44	387	X	-0.013	%30
45	387	X	0	0
46	375	X	-0.006	%30
47	375	X	0	0
48	375	X	0	0
49	375	X	0	0
50	375	X	0	0
51	405	X	-0.006	%30
52	405	X	0	0
53	405	X	0	0
54	405	X	0	0
55	405	X	0	0
56	390	X	-0.008	%30
57	390	X	0	0
58	390	X	0	0
59	390	X	0	0
60	390	X	0	0
61	374	X	-0.019	%30
62	374	X	-0.013	%30
63	374	X	-0.022	%60
64	374	X	0	0
65	374	X	0	0
66	404	X	-0.019	%30
67	404	X	-0.013	%30
68	404	X	-0.022	%60
69	404	X	0	0
70	404	X	0	0
71	389	X	-0.019	%30
72	389	X	-0.013	%30
73	389	X	-0.022	%60
74	389	X	0	0
75	389	X	0	0

**Member Point Loads (BLC 15 : Maint LL 1)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	189	Y	-0.25	%5

**Member Point Loads (BLC 16 : Maint LL 2)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%5

**Member Point Loads (BLC 17 : Maint LL 3)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	191	Y	-0.25	%5



**Member Point Loads (BLC 18 : Maint LL 4)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	3	Y	-0.25	%5

**Member Point Loads (BLC 19 : Maint LL 5)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	190	Y	-0.25	%5

**Member Point Loads (BLC 20 : Maint LL 6)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	2	Y	-0.25	%5

**Member Point Loads (BLC 21 : Maint LL 7)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	189	Y	-0.25	%95

**Member Point Loads (BLC 22 : Maint LL 8)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

**Member Point Loads (BLC 23 : Maint LL 9)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	191	Y	-0.25	%95

**Member Point Loads (BLC 24 : Maint LL 10)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	3	Y	-0.25	%95

**Member Point Loads (BLC 25 : Maint LL 11)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	190	Y	-0.25	%95

**Member Point Loads (BLC 26 : Maint LL 12)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	2	Y	-0.25	%95

**Member Point Loads (BLC 27 : Maint LL 13)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	40	Y	-0.25	%5



**Member Point Loads (BLC 28 : Maint LL 14)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	42	Y	-0.25	%5

**Member Point Loads (BLC 29 : Maint LL 15)**

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	41	Y	-0.25	%5

**Member Distributed Loads (BLC 2 : 0 Wind - No Ice)**

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.009	-0.009	0	%100
2	2	Z	-0.009	-0.009	0	%100
3	3	Z	-0.009	-0.009	0	%100
4	4	Z	-0.01	-0.01	0	%100
5	5	Z	-0.01	-0.01	0	%100
6	6	Z	-0.01	-0.01	0	%100
7	7	Z	-0.01	-0.01	0	%100
8	8	Z	-0.01	-0.01	0	%100
9	9	Z	-0.01	-0.01	0	%100
10	10	Z	-0.013	-0.013	0	%100
11	11	Z	-0.013	-0.013	0	%100
12	12	Z	-0.012	-0.012	0	%100
13	13	Z	-0.012	-0.012	0	%100
14	14	Z	-0.013	-0.013	0	%100
15	15	Z	-0.013	-0.013	0	%100
16	16	Z	-0.012	-0.012	0	%100
17	17	Z	-0.012	-0.012	0	%100
18	18	Z	-0.013	-0.013	0	%100
19	19	Z	-0.013	-0.013	0	%100
20	20	Z	-0.012	-0.012	0	%100
21	21	Z	-0.012	-0.012	0	%100
22	22	Z	-0.009	-0.009	0	%100
23	23	Z	-0.009	-0.009	0	%100
24	24	Z	-0.009	-0.009	0	%100
25	25	Z	-0.009	-0.009	0	%100
26	26	Z	-0.008	-0.008	0	%100
27	27	Z	-0.008	-0.008	0	%100
28	28	Z	-0.009	-0.009	0	%100
29	29	Z	-0.009	-0.009	0	%100
30	30	Z	-0.009	-0.009	0	%100
31	31	Z	-0.009	-0.009	0	%100
32	32	Z	-0.008	-0.008	0	%100
33	33	Z	-0.008	-0.008	0	%100
34	34	Z	-0.009	-0.009	0	%100
35	35	Z	-0.009	-0.009	0	%100
36	36	Z	-0.009	-0.009	0	%100
37	37	Z	-0.009	-0.009	0	%100
38	38	Z	-0.008	-0.008	0	%100
39	39	Z	-0.008	-0.008	0	%100
40	40	Z	-0.014	-0.014	0	%100
41	41	Z	-0.014	-0.014	0	%100
42	42	Z	-0.014	-0.014	0	%100
43	43	Z	-0.002	-0.002	0	%100
44	44	Z	-0.002	-0.002	0	%100



**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
45	45	Z	-0.002	-0.002	0	%100
46	46	Z	-0.002	-0.002	0	%100
47	47	Z	-0.002	-0.002	0	%100
48	48	Z	-0.002	-0.002	0	%100
49	49	Z	-0.002	-0.002	0	%100
50	50	Z	-0.003	-0.003	0	%100
51	51	Z	-0.003	-0.003	0	%100
52	52	Z	-0.002	-0.002	0	%100
53	53	Z	-0.002	-0.002	0	%100
54	54	Z	-0.003	-0.003	0	%100
55	55	Z	-0.002	-0.002	0	%100
56	56	Z	-0.002	-0.002	0	%100
57	57	Z	-0.004	-0.004	0	%100
58	58	Z	-0.004	-0.004	0	%100
59	59	Z	-0.004	-0.004	0	%100
60	60	Z	-0.004	-0.004	0	%100
61	61	Z	-0.004	-0.004	0	%100
62	62	Z	-0.004	-0.004	0	%100
63	63	Z	-0.004	-0.004	0	%100
64	64	Z	-0.005	-0.005	0	%100
65	65	Z	-0.005	-0.005	0	%100
66	66	Z	-0.004	-0.004	0	%100
67	67	Z	-0.004	-0.004	0	%100
68	68	Z	-0.004	-0.004	0	%100
69	69	Z	-0.003	-0.003	0	%100
70	70	Z	-0.003	-0.003	0	%100
71	71	Z	-0.002	-0.002	0	%100
72	72	Z	-0.004	-0.004	0	%100
73	73	Z	-0.004	-0.004	0	%100
74	74	Z	-0.004	-0.004	0	%100
75	75	Z	-0.004	-0.004	0	%100
76	76	Z	-0.004	-0.004	0	%100
77	77	Z	-0.004	-0.004	0	%100
78	78	Z	-0.004	-0.004	0	%100
79	79	Z	-0.004	-0.004	0	%100
80	80	Z	-0.004	-0.004	0	%100
81	81	Z	-0.004	-0.004	0	%100
82	82	Z	-0.004	-0.004	0	%100
83	83	Z	-0.003	-0.003	0	%100
84	84	Z	-0.003	-0.003	0	%100
85	85	Z	-0.003	-0.003	0	%100
86	86	Z	-0.002	-0.002	0	%100
87	189	Z	-0.008	-0.008	0	%100
88	190	Z	-0.008	-0.008	0	%100
89	191	Z	-0.008	-0.008	0	%100
90	192	Z	-0.015	-0.015	0	%100
91	193	Z	-0.015	-0.015	0	%100
92	194	Z	-0.015	-0.015	0	%100
93	195	Z	-0.007	-0.007	0	%100
94	196	Z	-0.007	-0.007	0	%100
95	197	Z	-0.007	-0.007	0	%100
96	198	Z	-0.007	-0.007	0	%100
97	199	Z	-0.007	-0.007	0	%100
98	200	Z	-0.007	-0.007	0	%100
99	201	Z	-0.007	-0.007	0	%100



**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
100	202	Z	-0.007	-0.007	0	%100
101	203	Z	-0.007	-0.007	0	%100
102	204	Z	-0.007	-0.007	0	%100
103	205	Z	-0.007	-0.007	0	%100
104	206	Z	-0.007	-0.007	0	%100
105	207	Z	-0.007	-0.007	0	%100
106	208	Z	-0.007	-0.007	0	%100
107	209	Z	-0.007	-0.007	0	%100
108	210	Z	-0.006	-0.006	0	%100
109	211	Z	-0.006	-0.006	0	%100
110	212	Z	-0.006	-0.006	0	%100
111	213	Z	-0.006	-0.006	0	%100
112	214	Z	-0.006	-0.006	0	%100
113	215	Z	-0.006	-0.006	0	%100
114	220	Z	-0.002	-0.002	0	%100
115	221	Z	-0.002	-0.002	0	%100
116	222	Z	-0.002	-0.002	0	%100
117	223	Z	-0.002	-0.002	0	%100
118	224	Z	-0.002	-0.002	0	%100
119	225	Z	-0.002	-0.002	0	%100
120	226	Z	-0.002	-0.002	0	%100
121	227	Z	-0.003	-0.003	0	%100
122	228	Z	-0.003	-0.003	0	%100
123	229	Z	-0.002	-0.002	0	%100
124	230	Z	-0.002	-0.002	0	%100
125	231	Z	-0.003	-0.003	0	%100
126	232	Z	-0.002	-0.002	0	%100
127	233	Z	-0.002	-0.002	0	%100
128	234	Z	-0.004	-0.004	0	%100
129	235	Z	-0.004	-0.004	0	%100
130	236	Z	-0.004	-0.004	0	%100
131	237	Z	-0.004	-0.004	0	%100
132	238	Z	-0.004	-0.004	0	%100
133	239	Z	-0.004	-0.004	0	%100
134	240	Z	-0.004	-0.004	0	%100
135	241	Z	-0.005	-0.005	0	%100
136	242	Z	-0.005	-0.005	0	%100
137	243	Z	-0.004	-0.004	0	%100
138	244	Z	-0.004	-0.004	0	%100
139	245	Z	-0.004	-0.004	0	%100
140	246	Z	-0.003	-0.003	0	%100
141	247	Z	-0.003	-0.003	0	%100
142	248	Z	-0.002	-0.002	0	%100
143	249	Z	-0.004	-0.004	0	%100
144	250	Z	-0.004	-0.004	0	%100
145	251	Z	-0.004	-0.004	0	%100
146	252	Z	-0.004	-0.004	0	%100
147	253	Z	-0.004	-0.004	0	%100
148	254	Z	-0.004	-0.004	0	%100
149	255	Z	-0.004	-0.004	0	%100
150	256	Z	-0.004	-0.004	0	%100
151	257	Z	-0.004	-0.004	0	%100
152	258	Z	-0.004	-0.004	0	%100
153	259	Z	-0.004	-0.004	0	%100
154	260	Z	-0.003	-0.003	0	%100



**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
155	261	Z	-0.003	-0.003	0	%100
156	262	Z	-0.003	-0.003	0	%100
157	263	Z	-0.002	-0.002	0	%100
158	292	Z	-0.002	-0.002	0	%100
159	293	Z	-0.002	-0.002	0	%100
160	294	Z	-0.002	-0.002	0	%100
161	295	Z	-0.002	-0.002	0	%100
162	296	Z	-0.002	-0.002	0	%100
163	297	Z	-0.002	-0.002	0	%100
164	298	Z	-0.002	-0.002	0	%100
165	299	Z	-0.003	-0.003	0	%100
166	300	Z	-0.003	-0.003	0	%100
167	301	Z	-0.002	-0.002	0	%100
168	302	Z	-0.002	-0.002	0	%100
169	303	Z	-0.003	-0.003	0	%100
170	304	Z	-0.002	-0.002	0	%100
171	305	Z	-0.002	-0.002	0	%100
172	306	Z	-0.004	-0.004	0	%100
173	307	Z	-0.004	-0.004	0	%100
174	308	Z	-0.004	-0.004	0	%100
175	309	Z	-0.004	-0.004	0	%100
176	310	Z	-0.004	-0.004	0	%100
177	311	Z	-0.004	-0.004	0	%100
178	312	Z	-0.004	-0.004	0	%100
179	313	Z	-0.005	-0.005	0	%100
180	314	Z	-0.005	-0.005	0	%100
181	315	Z	-0.004	-0.004	0	%100
182	316	Z	-0.004	-0.004	0	%100
183	317	Z	-0.004	-0.004	0	%100
184	318	Z	-0.003	-0.003	0	%100
185	319	Z	-0.003	-0.003	0	%100
186	320	Z	-0.002	-0.002	0	%100
187	321	Z	-0.004	-0.004	0	%100
188	322	Z	-0.004	-0.004	0	%100
189	323	Z	-0.004	-0.004	0	%100
190	324	Z	-0.004	-0.004	0	%100
191	325	Z	-0.004	-0.004	0	%100
192	326	Z	-0.004	-0.004	0	%100
193	327	Z	-0.004	-0.004	0	%100
194	328	Z	-0.004	-0.004	0	%100
195	329	Z	-0.004	-0.004	0	%100
196	330	Z	-0.004	-0.004	0	%100
197	331	Z	-0.004	-0.004	0	%100
198	332	Z	-0.003	-0.003	0	%100
199	333	Z	-0.003	-0.003	0	%100
200	334	Z	-0.003	-0.003	0	%100
201	335	Z	-0.002	-0.002	0	%100
202	372	Z	-0.008	-0.008	0	%100
203	373	Z	-0.008	-0.008	0	%100
204	374	Z	-0.008	-0.008	0	%100
205	375	Z	-0.008	-0.008	0	%100
206	377	Z	-0.008	-0.008	0	%100
207	387	Z	-0.008	-0.008	0	%100
208	388	Z	-0.008	-0.008	0	%100
209	389	Z	-0.008	-0.008	0	%100

**Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
210	390	Z	-0.008	-0.008	0	%100
211	392	Z	-0.008	-0.008	0	%100
212	402	Z	-0.008	-0.008	0	%100
213	403	Z	-0.008	-0.008	0	%100
214	404	Z	-0.008	-0.008	0	%100
215	405	Z	-0.008	-0.008	0	%100
216	407	Z	-0.008	-0.008	0	%100
217	413	Z	-0.014	-0.014	0	%100
218	414	Z	-0.014	-0.014	0	%100
219	415	Z	-0.008	-0.008	0	%100
220	420	Z	-0.014	-0.014	0	%100
221	421	Z	-0.014	-0.014	0	%100
222	422	Z	-0.008	-0.008	0	%100
223	427	Z	-0.014	-0.014	0	%100
224	428	Z	-0.014	-0.014	0	%100
225	429	Z	-0.008	-0.008	0	%100

**Member Distributed Loads (BLC 3 : 90 Wind - No Ice)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.009	-0.009	0	%100
2	2	X	-0.009	-0.009	0	%100
3	3	X	-0.009	-0.009	0	%100
4	4	X	-0.01	-0.01	0	%100
5	5	X	-0.01	-0.01	0	%100
6	6	X	-0.01	-0.01	0	%100
7	7	X	-0.01	-0.01	0	%100
8	8	X	-0.01	-0.01	0	%100
9	9	X	-0.01	-0.01	0	%100
10	10	X	-0.013	-0.013	0	%100
11	11	X	-0.013	-0.013	0	%100
12	12	X	-0.012	-0.012	0	%100
13	13	X	-0.012	-0.012	0	%100
14	14	X	-0.013	-0.013	0	%100
15	15	X	-0.013	-0.013	0	%100
16	16	X	-0.012	-0.012	0	%100
17	17	X	-0.012	-0.012	0	%100
18	18	X	-0.013	-0.013	0	%100
19	19	X	-0.013	-0.013	0	%100
20	20	X	-0.012	-0.012	0	%100
21	21	X	-0.012	-0.012	0	%100
22	22	X	-0.009	-0.009	0	%100
23	23	X	-0.009	-0.009	0	%100
24	24	X	-0.009	-0.009	0	%100
25	25	X	-0.009	-0.009	0	%100
26	26	X	-0.008	-0.008	0	%100
27	27	X	-0.008	-0.008	0	%100
28	28	X	-0.009	-0.009	0	%100
29	29	X	-0.009	-0.009	0	%100
30	30	X	-0.009	-0.009	0	%100
31	31	X	-0.009	-0.009	0	%100
32	32	X	-0.008	-0.008	0	%100
33	33	X	-0.008	-0.008	0	%100
34	34	X	-0.009	-0.009	0	%100
35	35	X	-0.009	-0.009	0	%100
36	36	X	-0.009	-0.009	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
 7:43:02 PM  
 Checked By : \_\_\_\_\_

**Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
37	37	X	-0.009	-0.009	0	%100
38	38	X	-0.008	-0.008	0	%100
39	39	X	-0.008	-0.008	0	%100
40	40	X	-0.014	-0.014	0	%100
41	41	X	-0.014	-0.014	0	%100
42	42	X	-0.014	-0.014	0	%100
43	43	X	-0.002	-0.002	0	%100
44	44	X	-0.002	-0.002	0	%100
45	45	X	-0.002	-0.002	0	%100
46	46	X	-0.002	-0.002	0	%100
47	47	X	-0.002	-0.002	0	%100
48	48	X	-0.002	-0.002	0	%100
49	49	X	-0.002	-0.002	0	%100
50	50	X	-0.003	-0.003	0	%100
51	51	X	-0.003	-0.003	0	%100
52	52	X	-0.002	-0.002	0	%100
53	53	X	-0.002	-0.002	0	%100
54	54	X	-0.003	-0.003	0	%100
55	55	X	-0.002	-0.002	0	%100
56	56	X	-0.002	-0.002	0	%100
57	57	X	-0.004	-0.004	0	%100
58	58	X	-0.004	-0.004	0	%100
59	59	X	-0.004	-0.004	0	%100
60	60	X	-0.004	-0.004	0	%100
61	61	X	-0.004	-0.004	0	%100
62	62	X	-0.004	-0.004	0	%100
63	63	X	-0.004	-0.004	0	%100
64	64	X	-0.005	-0.005	0	%100
65	65	X	-0.005	-0.005	0	%100
66	66	X	-0.004	-0.004	0	%100
67	67	X	-0.004	-0.004	0	%100
68	68	X	-0.004	-0.004	0	%100
69	69	X	-0.003	-0.003	0	%100
70	70	X	-0.003	-0.003	0	%100
71	71	X	-0.002	-0.002	0	%100
72	72	X	-0.004	-0.004	0	%100
73	73	X	-0.004	-0.004	0	%100
74	74	X	-0.004	-0.004	0	%100
75	75	X	-0.004	-0.004	0	%100
76	76	X	-0.004	-0.004	0	%100
77	77	X	-0.004	-0.004	0	%100
78	78	X	-0.004	-0.004	0	%100
79	79	X	-0.004	-0.004	0	%100
80	80	X	-0.004	-0.004	0	%100
81	81	X	-0.004	-0.004	0	%100
82	82	X	-0.004	-0.004	0	%100
83	83	X	-0.003	-0.003	0	%100
84	84	X	-0.003	-0.003	0	%100
85	85	X	-0.003	-0.003	0	%100
86	86	X	-0.002	-0.002	0	%100
87	189	X	-0.008	-0.008	0	%100
88	190	X	-0.008	-0.008	0	%100
89	191	X	-0.008	-0.008	0	%100
90	192	X	-0.015	-0.015	0	%100
91	193	X	-0.015	-0.015	0	%100

**Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
92	194	X	-0.015	-0.015	0	%100
93	195	X	-0.007	-0.007	0	%100
94	196	X	-0.007	-0.007	0	%100
95	197	X	-0.007	-0.007	0	%100
96	198	X	-0.007	-0.007	0	%100
97	199	X	-0.007	-0.007	0	%100
98	200	X	-0.007	-0.007	0	%100
99	201	X	-0.007	-0.007	0	%100
100	202	X	-0.007	-0.007	0	%100
101	203	X	-0.007	-0.007	0	%100
102	204	X	-0.007	-0.007	0	%100
103	205	X	-0.007	-0.007	0	%100
104	206	X	-0.007	-0.007	0	%100
105	207	X	-0.007	-0.007	0	%100
106	208	X	-0.007	-0.007	0	%100
107	209	X	-0.007	-0.007	0	%100
108	210	X	-0.006	-0.006	0	%100
109	211	X	-0.006	-0.006	0	%100
110	212	X	-0.006	-0.006	0	%100
111	213	X	-0.006	-0.006	0	%100
112	214	X	-0.006	-0.006	0	%100
113	215	X	-0.006	-0.006	0	%100
114	220	X	-0.002	-0.002	0	%100
115	221	X	-0.002	-0.002	0	%100
116	222	X	-0.002	-0.002	0	%100
117	223	X	-0.002	-0.002	0	%100
118	224	X	-0.002	-0.002	0	%100
119	225	X	-0.002	-0.002	0	%100
120	226	X	-0.002	-0.002	0	%100
121	227	X	-0.003	-0.003	0	%100
122	228	X	-0.003	-0.003	0	%100
123	229	X	-0.002	-0.002	0	%100
124	230	X	-0.002	-0.002	0	%100
125	231	X	-0.003	-0.003	0	%100
126	232	X	-0.002	-0.002	0	%100
127	233	X	-0.002	-0.002	0	%100
128	234	X	-0.004	-0.004	0	%100
129	235	X	-0.004	-0.004	0	%100
130	236	X	-0.004	-0.004	0	%100
131	237	X	-0.004	-0.004	0	%100
132	238	X	-0.004	-0.004	0	%100
133	239	X	-0.004	-0.004	0	%100
134	240	X	-0.004	-0.004	0	%100
135	241	X	-0.005	-0.005	0	%100
136	242	X	-0.005	-0.005	0	%100
137	243	X	-0.004	-0.004	0	%100
138	244	X	-0.004	-0.004	0	%100
139	245	X	-0.004	-0.004	0	%100
140	246	X	-0.003	-0.003	0	%100
141	247	X	-0.003	-0.003	0	%100
142	248	X	-0.002	-0.002	0	%100
143	249	X	-0.004	-0.004	0	%100
144	250	X	-0.004	-0.004	0	%100
145	251	X	-0.004	-0.004	0	%100
146	252	X	-0.004	-0.004	0	%100

**Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
147	253	X	-0.004	-0.004	0	%100
148	254	X	-0.004	-0.004	0	%100
149	255	X	-0.004	-0.004	0	%100
150	256	X	-0.004	-0.004	0	%100
151	257	X	-0.004	-0.004	0	%100
152	258	X	-0.004	-0.004	0	%100
153	259	X	-0.004	-0.004	0	%100
154	260	X	-0.003	-0.003	0	%100
155	261	X	-0.003	-0.003	0	%100
156	262	X	-0.003	-0.003	0	%100
157	263	X	-0.002	-0.002	0	%100
158	292	X	-0.002	-0.002	0	%100
159	293	X	-0.002	-0.002	0	%100
160	294	X	-0.002	-0.002	0	%100
161	295	X	-0.002	-0.002	0	%100
162	296	X	-0.002	-0.002	0	%100
163	297	X	-0.002	-0.002	0	%100
164	298	X	-0.002	-0.002	0	%100
165	299	X	-0.003	-0.003	0	%100
166	300	X	-0.003	-0.003	0	%100
167	301	X	-0.002	-0.002	0	%100
168	302	X	-0.002	-0.002	0	%100
169	303	X	-0.003	-0.003	0	%100
170	304	X	-0.002	-0.002	0	%100
171	305	X	-0.002	-0.002	0	%100
172	306	X	-0.004	-0.004	0	%100
173	307	X	-0.004	-0.004	0	%100
174	308	X	-0.004	-0.004	0	%100
175	309	X	-0.004	-0.004	0	%100
176	310	X	-0.004	-0.004	0	%100
177	311	X	-0.004	-0.004	0	%100
178	312	X	-0.004	-0.004	0	%100
179	313	X	-0.005	-0.005	0	%100
180	314	X	-0.005	-0.005	0	%100
181	315	X	-0.004	-0.004	0	%100
182	316	X	-0.004	-0.004	0	%100
183	317	X	-0.004	-0.004	0	%100
184	318	X	-0.003	-0.003	0	%100
185	319	X	-0.003	-0.003	0	%100
186	320	X	-0.002	-0.002	0	%100
187	321	X	-0.004	-0.004	0	%100
188	322	X	-0.004	-0.004	0	%100
189	323	X	-0.004	-0.004	0	%100
190	324	X	-0.004	-0.004	0	%100
191	325	X	-0.004	-0.004	0	%100
192	326	X	-0.004	-0.004	0	%100
193	327	X	-0.004	-0.004	0	%100
194	328	X	-0.004	-0.004	0	%100
195	329	X	-0.004	-0.004	0	%100
196	330	X	-0.004	-0.004	0	%100
197	331	X	-0.004	-0.004	0	%100
198	332	X	-0.003	-0.003	0	%100
199	333	X	-0.003	-0.003	0	%100
200	334	X	-0.003	-0.003	0	%100
201	335	X	-0.002	-0.002	0	%100

**Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
202	372	X	-0.008	-0.008	0	%100
203	373	X	-0.008	-0.008	0	%100
204	374	X	-0.008	-0.008	0	%100
205	375	X	-0.008	-0.008	0	%100
206	377	X	-0.008	-0.008	0	%100
207	387	X	-0.008	-0.008	0	%100
208	388	X	-0.008	-0.008	0	%100
209	389	X	-0.008	-0.008	0	%100
210	390	X	-0.008	-0.008	0	%100
211	392	X	-0.008	-0.008	0	%100
212	402	X	-0.008	-0.008	0	%100
213	403	X	-0.008	-0.008	0	%100
214	404	X	-0.008	-0.008	0	%100
215	405	X	-0.008	-0.008	0	%100
216	407	X	-0.008	-0.008	0	%100
217	413	X	-0.014	-0.014	0	%100
218	414	X	-0.014	-0.014	0	%100
219	415	X	-0.008	-0.008	0	%100
220	420	X	-0.014	-0.014	0	%100
221	421	X	-0.014	-0.014	0	%100
222	422	X	-0.008	-0.008	0	%100
223	427	X	-0.014	-0.014	0	%100
224	428	X	-0.014	-0.014	0	%100
225	429	X	-0.008	-0.008	0	%100

**Member Distributed Loads (BLC 4 : 0 Wind - Ice)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.002	-0.002	0	%100
2	2	Z	-0.002	-0.002	0	%100
3	3	Z	-0.002	-0.002	0	%100
4	4	Z	-0.004	-0.004	0	%100
5	5	Z	-0.004	-0.004	0	%100
6	6	Z	-0.004	-0.004	0	%100
7	7	Z	-0.004	-0.004	0	%100
8	8	Z	-0.004	-0.004	0	%100
9	9	Z	-0.004	-0.004	0	%100
10	10	Z	-0.004	-0.004	0	%100
11	11	Z	-0.004	-0.004	0	%100
12	12	Z	-0.004	-0.004	0	%100
13	13	Z	-0.004	-0.004	0	%100
14	14	Z	-0.004	-0.004	0	%100
15	15	Z	-0.004	-0.004	0	%100
16	16	Z	-0.004	-0.004	0	%100
17	17	Z	-0.004	-0.004	0	%100
18	18	Z	-0.004	-0.004	0	%100
19	19	Z	-0.004	-0.004	0	%100
20	20	Z	-0.004	-0.004	0	%100
21	21	Z	-0.004	-0.004	0	%100
22	22	Z	-0.004	-0.004	0	%100
23	23	Z	-0.004	-0.004	0	%100
24	24	Z	-0.004	-0.004	0	%100
25	25	Z	-0.004	-0.004	0	%100
26	26	Z	-0.004	-0.004	0	%100
27	27	Z	-0.004	-0.004	0	%100
28	28	Z	-0.004	-0.004	0	%100





**Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
29	29	Z	-0.004	-0.004	0	%100
30	30	Z	-0.004	-0.004	0	%100
31	31	Z	-0.004	-0.004	0	%100
32	32	Z	-0.004	-0.004	0	%100
33	33	Z	-0.004	-0.004	0	%100
34	34	Z	-0.004	-0.004	0	%100
35	35	Z	-0.004	-0.004	0	%100
36	36	Z	-0.004	-0.004	0	%100
37	37	Z	-0.004	-0.004	0	%100
38	38	Z	-0.004	-0.004	0	%100
39	39	Z	-0.004	-0.004	0	%100
40	40	Z	-0.005	-0.005	0	%100
41	41	Z	-0.005	-0.005	0	%100
42	42	Z	-0.005	-0.005	0	%100
43	43	Z	-0.003	-0.003	0	%100
44	44	Z	-0.003	-0.003	0	%100
45	45	Z	-0.003	-0.003	0	%100
46	46	Z	-0.003	-0.003	0	%100
47	47	Z	-0.003	-0.003	0	%100
48	48	Z	-0.003	-0.003	0	%100
49	49	Z	-0.003	-0.003	0	%100
50	50	Z	-0.003	-0.003	0	%100
51	51	Z	-0.003	-0.003	0	%100
52	52	Z	-0.003	-0.003	0	%100
53	53	Z	-0.003	-0.003	0	%100
54	54	Z	-0.003	-0.003	0	%100
55	55	Z	-0.003	-0.003	0	%100
56	56	Z	-0.003	-0.003	0	%100
57	57	Z	-0.003	-0.003	0	%100
58	58	Z	-0.003	-0.003	0	%100
59	59	Z	-0.003	-0.003	0	%100
60	60	Z	-0.003	-0.003	0	%100
61	61	Z	-0.003	-0.003	0	%100
62	62	Z	-0.003	-0.003	0	%100
63	63	Z	-0.003	-0.003	0	%100
64	64	Z	-0.003	-0.003	0	%100
65	65	Z	-0.003	-0.003	0	%100
66	66	Z	-0.003	-0.003	0	%100
67	67	Z	-0.003	-0.003	0	%100
68	68	Z	-0.003	-0.003	0	%100
69	69	Z	-0.003	-0.003	0	%100
70	70	Z	-0.003	-0.003	0	%100
71	71	Z	-0.003	-0.003	0	%100
72	72	Z	-0.003	-0.003	0	%100
73	73	Z	-0.003	-0.003	0	%100
74	74	Z	-0.003	-0.003	0	%100
75	75	Z	-0.003	-0.003	0	%100
76	76	Z	-0.003	-0.003	0	%100
77	77	Z	-0.003	-0.003	0	%100
78	78	Z	-0.003	-0.003	0	%100
79	79	Z	-0.003	-0.003	0	%100
80	80	Z	-0.003	-0.003	0	%100
81	81	Z	-0.003	-0.003	0	%100
82	82	Z	-0.003	-0.003	0	%100
83	83	Z	-0.003	-0.003	0	%100

**Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
84	84	Z	-0.003	-0.003	0	%100
85	85	Z	-0.003	-0.003	0	%100
86	86	Z	-0.003	-0.003	0	%100
87	189	Z	-0.001	-0.001	0	%100
88	190	Z	-0.001	-0.001	0	%100
89	191	Z	-0.001	-0.001	0	%100
90	192	Z	-0.005	-0.005	0	%100
91	193	Z	-0.005	-0.005	0	%100
92	194	Z	-0.005	-0.005	0	%100
93	195	Z	-0.003	-0.003	0	%100
94	196	Z	-0.003	-0.003	0	%100
95	197	Z	-0.003	-0.003	0	%100
96	198	Z	-0.003	-0.003	0	%100
97	199	Z	-0.003	-0.003	0	%100
98	200	Z	-0.003	-0.003	0	%100
99	201	Z	-0.003	-0.003	0	%100
100	202	Z	-0.003	-0.003	0	%100
101	203	Z	-0.003	-0.003	0	%100
102	204	Z	-0.003	-0.003	0	%100
103	205	Z	-0.003	-0.003	0	%100
104	206	Z	-0.003	-0.003	0	%100
105	207	Z	-0.003	-0.003	0	%100
106	208	Z	-0.003	-0.003	0	%100
107	209	Z	-0.003	-0.003	0	%100
108	210	Z	-0.001	-0.001	0	%100
109	211	Z	-0.001	-0.001	0	%100
110	212	Z	-0.001	-0.001	0	%100
111	213	Z	-0.001	-0.001	0	%100
112	214	Z	-0.001	-0.001	0	%100
113	215	Z	-0.001	-0.001	0	%100
114	220	Z	-0.003	-0.003	0	%100
115	221	Z	-0.003	-0.003	0	%100
116	222	Z	-0.003	-0.003	0	%100
117	223	Z	-0.003	-0.003	0	%100
118	224	Z	-0.003	-0.003	0	%100
119	225	Z	-0.003	-0.003	0	%100
120	226	Z	-0.003	-0.003	0	%100
121	227	Z	-0.003	-0.003	0	%100
122	228	Z	-0.003	-0.003	0	%100
123	229	Z	-0.003	-0.003	0	%100
124	230	Z	-0.003	-0.003	0	%100
125	231	Z	-0.003	-0.003	0	%100
126	232	Z	-0.003	-0.003	0	%100
127	233	Z	-0.003	-0.003	0	%100
128	234	Z	-0.003	-0.003	0	%100
129	235	Z	-0.003	-0.003	0	%100
130	236	Z	-0.003	-0.003	0	%100
131	237	Z	-0.003	-0.003	0	%100
132	238	Z	-0.003	-0.003	0	%100
133	239	Z	-0.003	-0.003	0	%100
134	240	Z	-0.003	-0.003	0	%100
135	241	Z	-0.003	-0.003	0	%100
136	242	Z	-0.003	-0.003	0	%100
137	243	Z	-0.003	-0.003	0	%100
138	244	Z	-0.003	-0.003	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
 7:43:02 PM  
 Checked By : \_\_\_\_\_

**Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
139	245	Z	-0.003	-0.003	0	%100
140	246	Z	-0.003	-0.003	0	%100
141	247	Z	-0.003	-0.003	0	%100
142	248	Z	-0.003	-0.003	0	%100
143	249	Z	-0.003	-0.003	0	%100
144	250	Z	-0.003	-0.003	0	%100
145	251	Z	-0.003	-0.003	0	%100
146	252	Z	-0.003	-0.003	0	%100
147	253	Z	-0.003	-0.003	0	%100
148	254	Z	-0.003	-0.003	0	%100
149	255	Z	-0.003	-0.003	0	%100
150	256	Z	-0.003	-0.003	0	%100
151	257	Z	-0.003	-0.003	0	%100
152	258	Z	-0.003	-0.003	0	%100
153	259	Z	-0.003	-0.003	0	%100
154	260	Z	-0.003	-0.003	0	%100
155	261	Z	-0.003	-0.003	0	%100
156	262	Z	-0.003	-0.003	0	%100
157	263	Z	-0.003	-0.003	0	%100
158	292	Z	-0.003	-0.003	0	%100
159	293	Z	-0.003	-0.003	0	%100
160	294	Z	-0.003	-0.003	0	%100
161	295	Z	-0.003	-0.003	0	%100
162	296	Z	-0.003	-0.003	0	%100
163	297	Z	-0.003	-0.003	0	%100
164	298	Z	-0.003	-0.003	0	%100
165	299	Z	-0.003	-0.003	0	%100
166	300	Z	-0.003	-0.003	0	%100
167	301	Z	-0.003	-0.003	0	%100
168	302	Z	-0.003	-0.003	0	%100
169	303	Z	-0.003	-0.003	0	%100
170	304	Z	-0.003	-0.003	0	%100
171	305	Z	-0.003	-0.003	0	%100
172	306	Z	-0.003	-0.003	0	%100
173	307	Z	-0.003	-0.003	0	%100
174	308	Z	-0.003	-0.003	0	%100
175	309	Z	-0.003	-0.003	0	%100
176	310	Z	-0.003	-0.003	0	%100
177	311	Z	-0.003	-0.003	0	%100
178	312	Z	-0.003	-0.003	0	%100
179	313	Z	-0.003	-0.003	0	%100
180	314	Z	-0.003	-0.003	0	%100
181	315	Z	-0.003	-0.003	0	%100
182	316	Z	-0.003	-0.003	0	%100
183	317	Z	-0.003	-0.003	0	%100
184	318	Z	-0.003	-0.003	0	%100
185	319	Z	-0.003	-0.003	0	%100
186	320	Z	-0.003	-0.003	0	%100
187	321	Z	-0.003	-0.003	0	%100
188	322	Z	-0.003	-0.003	0	%100
189	323	Z	-0.003	-0.003	0	%100
190	324	Z	-0.003	-0.003	0	%100
191	325	Z	-0.003	-0.003	0	%100
192	326	Z	-0.003	-0.003	0	%100
193	327	Z	-0.003	-0.003	0	%100

**Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
194	328	Z	-0.003	-0.003	0	%100
195	329	Z	-0.003	-0.003	0	%100
196	330	Z	-0.003	-0.003	0	%100
197	331	Z	-0.003	-0.003	0	%100
198	332	Z	-0.003	-0.003	0	%100
199	333	Z	-0.003	-0.003	0	%100
200	334	Z	-0.003	-0.003	0	%100
201	335	Z	-0.003	-0.003	0	%100
202	372	Z	-0.001	-0.001	0	%100
203	373	Z	-0.001	-0.001	0	%100
204	374	Z	-0.001	-0.001	0	%100
205	375	Z	-0.001	-0.001	0	%100
206	377	Z	-0.001	-0.001	0	%100
207	387	Z	-0.001	-0.001	0	%100
208	388	Z	-0.001	-0.001	0	%100
209	389	Z	-0.001	-0.001	0	%100
210	390	Z	-0.001	-0.001	0	%100
211	392	Z	-0.001	-0.001	0	%100
212	402	Z	-0.001	-0.001	0	%100
213	403	Z	-0.001	-0.001	0	%100
214	404	Z	-0.001	-0.001	0	%100
215	405	Z	-0.001	-0.001	0	%100
216	407	Z	-0.001	-0.001	0	%100
217	413	Z	-0.005	-0.005	0	%100
218	414	Z	-0.005	-0.005	0	%100
219	415	Z	-0.001	-0.001	0	%100
220	420	Z	-0.005	-0.005	0	%100
221	421	Z	-0.005	-0.005	0	%100
222	422	Z	-0.001	-0.001	0	%100
223	427	Z	-0.005	-0.005	0	%100
224	428	Z	-0.005	-0.005	0	%100
225	429	Z	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 5 : 90 Wind - Ice)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.002	-0.002	0	%100
2	2	X	-0.002	-0.002	0	%100
3	3	X	-0.002	-0.002	0	%100
4	4	X	-0.004	-0.004	0	%100
5	5	X	-0.004	-0.004	0	%100
6	6	X	-0.004	-0.004	0	%100
7	7	X	-0.004	-0.004	0	%100
8	8	X	-0.004	-0.004	0	%100
9	9	X	-0.004	-0.004	0	%100
10	10	X	-0.004	-0.004	0	%100
11	11	X	-0.004	-0.004	0	%100
12	12	X	-0.004	-0.004	0	%100
13	13	X	-0.004	-0.004	0	%100
14	14	X	-0.004	-0.004	0	%100
15	15	X	-0.004	-0.004	0	%100
16	16	X	-0.004	-0.004	0	%100
17	17	X	-0.004	-0.004	0	%100
18	18	X	-0.004	-0.004	0	%100
19	19	X	-0.004	-0.004	0	%100
20	20	X	-0.004	-0.004	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
 7:43:02 PM  
 Checked By : \_\_\_\_\_

**Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
21	21	X	-0.004	-0.004	0	%100
22	22	X	-0.004	-0.004	0	%100
23	23	X	-0.004	-0.004	0	%100
24	24	X	-0.004	-0.004	0	%100
25	25	X	-0.004	-0.004	0	%100
26	26	X	-0.004	-0.004	0	%100
27	27	X	-0.004	-0.004	0	%100
28	28	X	-0.004	-0.004	0	%100
29	29	X	-0.004	-0.004	0	%100
30	30	X	-0.004	-0.004	0	%100
31	31	X	-0.004	-0.004	0	%100
32	32	X	-0.004	-0.004	0	%100
33	33	X	-0.004	-0.004	0	%100
34	34	X	-0.004	-0.004	0	%100
35	35	X	-0.004	-0.004	0	%100
36	36	X	-0.004	-0.004	0	%100
37	37	X	-0.004	-0.004	0	%100
38	38	X	-0.004	-0.004	0	%100
39	39	X	-0.004	-0.004	0	%100
40	40	X	-0.005	-0.005	0	%100
41	41	X	-0.005	-0.005	0	%100
42	42	X	-0.005	-0.005	0	%100
43	43	X	-0.003	-0.003	0	%100
44	44	X	-0.003	-0.003	0	%100
45	45	X	-0.003	-0.003	0	%100
46	46	X	-0.003	-0.003	0	%100
47	47	X	-0.003	-0.003	0	%100
48	48	X	-0.003	-0.003	0	%100
49	49	X	-0.003	-0.003	0	%100
50	50	X	-0.003	-0.003	0	%100
51	51	X	-0.003	-0.003	0	%100
52	52	X	-0.003	-0.003	0	%100
53	53	X	-0.003	-0.003	0	%100
54	54	X	-0.003	-0.003	0	%100
55	55	X	-0.003	-0.003	0	%100
56	56	X	-0.003	-0.003	0	%100
57	57	X	-0.003	-0.003	0	%100
58	58	X	-0.003	-0.003	0	%100
59	59	X	-0.003	-0.003	0	%100
60	60	X	-0.003	-0.003	0	%100
61	61	X	-0.003	-0.003	0	%100
62	62	X	-0.003	-0.003	0	%100
63	63	X	-0.003	-0.003	0	%100
64	64	X	-0.003	-0.003	0	%100
65	65	X	-0.003	-0.003	0	%100
66	66	X	-0.003	-0.003	0	%100
67	67	X	-0.003	-0.003	0	%100
68	68	X	-0.003	-0.003	0	%100
69	69	X	-0.003	-0.003	0	%100
70	70	X	-0.003	-0.003	0	%100
71	71	X	-0.003	-0.003	0	%100
72	72	X	-0.003	-0.003	0	%100
73	73	X	-0.003	-0.003	0	%100
74	74	X	-0.003	-0.003	0	%100
75	75	X	-0.003	-0.003	0	%100



**Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
76	76	X	-0.003	-0.003	0	%100
77	77	X	-0.003	-0.003	0	%100
78	78	X	-0.003	-0.003	0	%100
79	79	X	-0.003	-0.003	0	%100
80	80	X	-0.003	-0.003	0	%100
81	81	X	-0.003	-0.003	0	%100
82	82	X	-0.003	-0.003	0	%100
83	83	X	-0.003	-0.003	0	%100
84	84	X	-0.003	-0.003	0	%100
85	85	X	-0.003	-0.003	0	%100
86	86	X	-0.003	-0.003	0	%100
87	189	X	-0.001	-0.001	0	%100
88	190	X	-0.001	-0.001	0	%100
89	191	X	-0.001	-0.001	0	%100
90	192	X	-0.005	-0.005	0	%100
91	193	X	-0.005	-0.005	0	%100
92	194	X	-0.005	-0.005	0	%100
93	195	X	-0.003	-0.003	0	%100
94	196	X	-0.003	-0.003	0	%100
95	197	X	-0.003	-0.003	0	%100
96	198	X	-0.003	-0.003	0	%100
97	199	X	-0.003	-0.003	0	%100
98	200	X	-0.003	-0.003	0	%100
99	201	X	-0.003	-0.003	0	%100
100	202	X	-0.003	-0.003	0	%100
101	203	X	-0.003	-0.003	0	%100
102	204	X	-0.003	-0.003	0	%100
103	205	X	-0.003	-0.003	0	%100
104	206	X	-0.003	-0.003	0	%100
105	207	X	-0.003	-0.003	0	%100
106	208	X	-0.003	-0.003	0	%100
107	209	X	-0.003	-0.003	0	%100
108	210	X	-0.001	-0.001	0	%100
109	211	X	-0.001	-0.001	0	%100
110	212	X	-0.001	-0.001	0	%100
111	213	X	-0.001	-0.001	0	%100
112	214	X	-0.001	-0.001	0	%100
113	215	X	-0.001	-0.001	0	%100
114	220	X	-0.003	-0.003	0	%100
115	221	X	-0.003	-0.003	0	%100
116	222	X	-0.003	-0.003	0	%100
117	223	X	-0.003	-0.003	0	%100
118	224	X	-0.003	-0.003	0	%100
119	225	X	-0.003	-0.003	0	%100
120	226	X	-0.003	-0.003	0	%100
121	227	X	-0.003	-0.003	0	%100
122	228	X	-0.003	-0.003	0	%100
123	229	X	-0.003	-0.003	0	%100
124	230	X	-0.003	-0.003	0	%100
125	231	X	-0.003	-0.003	0	%100
126	232	X	-0.003	-0.003	0	%100
127	233	X	-0.003	-0.003	0	%100
128	234	X	-0.003	-0.003	0	%100
129	235	X	-0.003	-0.003	0	%100
130	236	X	-0.003	-0.003	0	%100

**Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
131	237	X	-0.003	-0.003	0	%100
132	238	X	-0.003	-0.003	0	%100
133	239	X	-0.003	-0.003	0	%100
134	240	X	-0.003	-0.003	0	%100
135	241	X	-0.003	-0.003	0	%100
136	242	X	-0.003	-0.003	0	%100
137	243	X	-0.003	-0.003	0	%100
138	244	X	-0.003	-0.003	0	%100
139	245	X	-0.003	-0.003	0	%100
140	246	X	-0.003	-0.003	0	%100
141	247	X	-0.003	-0.003	0	%100
142	248	X	-0.003	-0.003	0	%100
143	249	X	-0.003	-0.003	0	%100
144	250	X	-0.003	-0.003	0	%100
145	251	X	-0.003	-0.003	0	%100
146	252	X	-0.003	-0.003	0	%100
147	253	X	-0.003	-0.003	0	%100
148	254	X	-0.003	-0.003	0	%100
149	255	X	-0.003	-0.003	0	%100
150	256	X	-0.003	-0.003	0	%100
151	257	X	-0.003	-0.003	0	%100
152	258	X	-0.003	-0.003	0	%100
153	259	X	-0.003	-0.003	0	%100
154	260	X	-0.003	-0.003	0	%100
155	261	X	-0.003	-0.003	0	%100
156	262	X	-0.003	-0.003	0	%100
157	263	X	-0.003	-0.003	0	%100
158	292	X	-0.003	-0.003	0	%100
159	293	X	-0.003	-0.003	0	%100
160	294	X	-0.003	-0.003	0	%100
161	295	X	-0.003	-0.003	0	%100
162	296	X	-0.003	-0.003	0	%100
163	297	X	-0.003	-0.003	0	%100
164	298	X	-0.003	-0.003	0	%100
165	299	X	-0.003	-0.003	0	%100
166	300	X	-0.003	-0.003	0	%100
167	301	X	-0.003	-0.003	0	%100
168	302	X	-0.003	-0.003	0	%100
169	303	X	-0.003	-0.003	0	%100
170	304	X	-0.003	-0.003	0	%100
171	305	X	-0.003	-0.003	0	%100
172	306	X	-0.003	-0.003	0	%100
173	307	X	-0.003	-0.003	0	%100
174	308	X	-0.003	-0.003	0	%100
175	309	X	-0.003	-0.003	0	%100
176	310	X	-0.003	-0.003	0	%100
177	311	X	-0.003	-0.003	0	%100
178	312	X	-0.003	-0.003	0	%100
179	313	X	-0.003	-0.003	0	%100
180	314	X	-0.003	-0.003	0	%100
181	315	X	-0.003	-0.003	0	%100
182	316	X	-0.003	-0.003	0	%100
183	317	X	-0.003	-0.003	0	%100
184	318	X	-0.003	-0.003	0	%100
185	319	X	-0.003	-0.003	0	%100



**Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
186	320	X	-0.003	-0.003	0	%100
187	321	X	-0.003	-0.003	0	%100
188	322	X	-0.003	-0.003	0	%100
189	323	X	-0.003	-0.003	0	%100
190	324	X	-0.003	-0.003	0	%100
191	325	X	-0.003	-0.003	0	%100
192	326	X	-0.003	-0.003	0	%100
193	327	X	-0.003	-0.003	0	%100
194	328	X	-0.003	-0.003	0	%100
195	329	X	-0.003	-0.003	0	%100
196	330	X	-0.003	-0.003	0	%100
197	331	X	-0.003	-0.003	0	%100
198	332	X	-0.003	-0.003	0	%100
199	333	X	-0.003	-0.003	0	%100
200	334	X	-0.003	-0.003	0	%100
201	335	X	-0.003	-0.003	0	%100
202	372	X	-0.001	-0.001	0	%100
203	373	X	-0.001	-0.001	0	%100
204	374	X	-0.001	-0.001	0	%100
205	375	X	-0.001	-0.001	0	%100
206	377	X	-0.001	-0.001	0	%100
207	387	X	-0.001	-0.001	0	%100
208	388	X	-0.001	-0.001	0	%100
209	389	X	-0.001	-0.001	0	%100
210	390	X	-0.001	-0.001	0	%100
211	392	X	-0.001	-0.001	0	%100
212	402	X	-0.001	-0.001	0	%100
213	403	X	-0.001	-0.001	0	%100
214	404	X	-0.001	-0.001	0	%100
215	405	X	-0.001	-0.001	0	%100
216	407	X	-0.001	-0.001	0	%100
217	413	X	-0.005	-0.005	0	%100
218	414	X	-0.005	-0.005	0	%100
219	415	X	-0.001	-0.001	0	%100
220	420	X	-0.005	-0.005	0	%100
221	421	X	-0.005	-0.005	0	%100
222	422	X	-0.001	-0.001	0	%100
223	427	X	-0.005	-0.005	0	%100
224	428	X	-0.005	-0.005	0	%100
225	429	X	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 6 : 0 Wind - Service)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.0003	-0.0003	0	%100
2	2	Z	-0.0003	-0.0003	0	%100
3	3	Z	-0.0003	-0.0003	0	%100
4	4	Z	-0.0006	-0.0006	0	%100
5	5	Z	-0.0006	-0.0006	0	%100
6	6	Z	-0.0006	-0.0006	0	%100
7	7	Z	-0.0006	-0.0006	0	%100
8	8	Z	-0.0006	-0.0006	0	%100
9	9	Z	-0.0006	-0.0006	0	%100
10	10	Z	-0.0008	-0.0008	0	%100
11	11	Z	-0.0008	-0.0008	0	%100
12	12	Z	-0.0008	-0.0008	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
13	13	Z	-0.0008	-0.0008	0	%100
14	14	Z	-0.0008	-0.0008	0	%100
15	15	Z	-0.0008	-0.0008	0	%100
16	16	Z	-0.0008	-0.0008	0	%100
17	17	Z	-0.0008	-0.0008	0	%100
18	18	Z	-0.0008	-0.0008	0	%100
19	19	Z	-0.0008	-0.0008	0	%100
20	20	Z	-0.0008	-0.0008	0	%100
21	21	Z	-0.0008	-0.0008	0	%100
22	22	Z	-0.0005	-0.0005	0	%100
23	23	Z	-0.0005	-0.0005	0	%100
24	24	Z	-0.0006	-0.0006	0	%100
25	25	Z	-0.0006	-0.0006	0	%100
26	26	Z	-0.0005	-0.0005	0	%100
27	27	Z	-0.0005	-0.0005	0	%100
28	28	Z	-0.0005	-0.0005	0	%100
29	29	Z	-0.0005	-0.0005	0	%100
30	30	Z	-0.0006	-0.0006	0	%100
31	31	Z	-0.0006	-0.0006	0	%100
32	32	Z	-0.0005	-0.0005	0	%100
33	33	Z	-0.0005	-0.0005	0	%100
34	34	Z	-0.0005	-0.0005	0	%100
35	35	Z	-0.0005	-0.0005	0	%100
36	36	Z	-0.0006	-0.0006	0	%100
37	37	Z	-0.0006	-0.0006	0	%100
38	38	Z	-0.0005	-0.0005	0	%100
39	39	Z	-0.0005	-0.0005	0	%100
40	40	Z	-0.0009	-0.0009	0	%100
41	41	Z	-0.0009	-0.0009	0	%100
42	42	Z	-0.0009	-0.0009	0	%100
43	43	Z	-1e-04	-1e-04	0	%100
44	44	Z	-1e-04	-1e-04	0	%100
45	45	Z	-1e-04	-1e-04	0	%100
46	46	Z	-1e-04	-1e-04	0	%100
47	47	Z	-1e-04	-1e-04	0	%100
48	48	Z	-1e-04	-1e-04	0	%100
49	49	Z	-1e-04	-1e-04	0	%100
50	50	Z	-0.0002	-0.0002	0	%100
51	51	Z	-0.0002	-0.0002	0	%100
52	52	Z	-0.0002	-0.0002	0	%100
53	53	Z	-1e-04	-1e-04	0	%100
54	54	Z	-0.0002	-0.0002	0	%100
55	55	Z	-0.0002	-0.0002	0	%100
56	56	Z	-0.0002	-0.0002	0	%100
57	57	Z	-0.0003	-0.0003	0	%100
58	58	Z	-0.0003	-0.0003	0	%100
59	59	Z	-0.0003	-0.0003	0	%100
60	60	Z	-0.0002	-0.0002	0	%100
61	61	Z	-0.0003	-0.0003	0	%100
62	62	Z	-0.0003	-0.0003	0	%100
63	63	Z	-0.0003	-0.0003	0	%100
64	64	Z	-0.0003	-0.0003	0	%100
65	65	Z	-0.0003	-0.0003	0	%100
66	66	Z	-0.0003	-0.0003	0	%100
67	67	Z	-0.0003	-0.0003	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
68	68	Z	-0.0002	-0.0002	0	%100
69	69	Z	-0.0002	-0.0002	0	%100
70	70	Z	-0.0002	-0.0002	0	%100
71	71	Z	-0.0002	-0.0002	0	%100
72	72	Z	-0.0003	-0.0003	0	%100
73	73	Z	-0.0003	-0.0003	0	%100
74	74	Z	-0.0002	-0.0002	0	%100
75	75	Z	-0.0002	-0.0002	0	%100
76	76	Z	-0.0003	-0.0003	0	%100
77	77	Z	-0.0003	-0.0003	0	%100
78	78	Z	-0.0003	-0.0003	0	%100
79	79	Z	-0.0003	-0.0003	0	%100
80	80	Z	-0.0003	-0.0003	0	%100
81	81	Z	-0.0003	-0.0003	0	%100
82	82	Z	-0.0002	-0.0002	0	%100
83	83	Z	-0.0002	-0.0002	0	%100
84	84	Z	-0.0002	-0.0002	0	%100
85	85	Z	-0.0002	-0.0002	0	%100
86	86	Z	-1e-04	-1e-04	0	%100
87	189	Z	-0.0003	-0.0003	0	%100
88	190	Z	-0.0003	-0.0003	0	%100
89	191	Z	-0.0003	-0.0003	0	%100
90	192	Z	-0.001	-0.001	0	%100
91	193	Z	-0.001	-0.001	0	%100
92	194	Z	-0.001	-0.001	0	%100
93	195	Z	-0.0004	-0.0004	0	%100
94	196	Z	-0.0004	-0.0004	0	%100
95	197	Z	-0.0004	-0.0004	0	%100
96	198	Z	-0.0004	-0.0004	0	%100
97	199	Z	-0.0004	-0.0004	0	%100
98	200	Z	-0.0004	-0.0004	0	%100
99	201	Z	-0.0004	-0.0004	0	%100
100	202	Z	-0.0004	-0.0004	0	%100
101	203	Z	-0.0004	-0.0004	0	%100
102	204	Z	-0.0004	-0.0004	0	%100
103	205	Z	-0.0004	-0.0004	0	%100
104	206	Z	-0.0004	-0.0004	0	%100
105	207	Z	-0.0004	-0.0004	0	%100
106	208	Z	-0.0004	-0.0004	0	%100
107	209	Z	-0.0004	-0.0004	0	%100
108	210	Z	-0.0002	-0.0002	0	%100
109	211	Z	-0.0002	-0.0002	0	%100
110	212	Z	-0.0002	-0.0002	0	%100
111	213	Z	-0.0002	-0.0002	0	%100
112	214	Z	-0.0002	-0.0002	0	%100
113	215	Z	-0.0002	-0.0002	0	%100
114	220	Z	-1e-04	-1e-04	0	%100
115	221	Z	-1e-04	-1e-04	0	%100
116	222	Z	-1e-04	-1e-04	0	%100
117	223	Z	-1e-04	-1e-04	0	%100
118	224	Z	-1e-04	-1e-04	0	%100
119	225	Z	-1e-04	-1e-04	0	%100
120	226	Z	-1e-04	-1e-04	0	%100
121	227	Z	-0.0002	-0.0002	0	%100
122	228	Z	-0.0002	-0.0002	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
123	229	Z	-0.0002	-0.0002	0	%100
124	230	Z	-1e-04	-1e-04	0	%100
125	231	Z	-0.0002	-0.0002	0	%100
126	232	Z	-0.0002	-0.0002	0	%100
127	233	Z	-0.0002	-0.0002	0	%100
128	234	Z	-0.0003	-0.0003	0	%100
129	235	Z	-0.0003	-0.0003	0	%100
130	236	Z	-0.0003	-0.0003	0	%100
131	237	Z	-0.0002	-0.0002	0	%100
132	238	Z	-0.0003	-0.0003	0	%100
133	239	Z	-0.0003	-0.0003	0	%100
134	240	Z	-0.0003	-0.0003	0	%100
135	241	Z	-0.0003	-0.0003	0	%100
136	242	Z	-0.0003	-0.0003	0	%100
137	243	Z	-0.0003	-0.0003	0	%100
138	244	Z	-0.0003	-0.0003	0	%100
139	245	Z	-0.0002	-0.0002	0	%100
140	246	Z	-0.0002	-0.0002	0	%100
141	247	Z	-0.0002	-0.0002	0	%100
142	248	Z	-0.0002	-0.0002	0	%100
143	249	Z	-0.0003	-0.0003	0	%100
144	250	Z	-0.0003	-0.0003	0	%100
145	251	Z	-0.0002	-0.0002	0	%100
146	252	Z	-0.0002	-0.0002	0	%100
147	253	Z	-0.0003	-0.0003	0	%100
148	254	Z	-0.0003	-0.0003	0	%100
149	255	Z	-0.0003	-0.0003	0	%100
150	256	Z	-0.0003	-0.0003	0	%100
151	257	Z	-0.0003	-0.0003	0	%100
152	258	Z	-0.0003	-0.0003	0	%100
153	259	Z	-0.0002	-0.0002	0	%100
154	260	Z	-0.0002	-0.0002	0	%100
155	261	Z	-0.0002	-0.0002	0	%100
156	262	Z	-0.0002	-0.0002	0	%100
157	263	Z	-1e-04	-1e-04	0	%100
158	292	Z	-1e-04	-1e-04	0	%100
159	293	Z	-1e-04	-1e-04	0	%100
160	294	Z	-1e-04	-1e-04	0	%100
161	295	Z	-1e-04	-1e-04	0	%100
162	296	Z	-1e-04	-1e-04	0	%100
163	297	Z	-1e-04	-1e-04	0	%100
164	298	Z	-1e-04	-1e-04	0	%100
165	299	Z	-0.0002	-0.0002	0	%100
166	300	Z	-0.0002	-0.0002	0	%100
167	301	Z	-0.0002	-0.0002	0	%100
168	302	Z	-1e-04	-1e-04	0	%100
169	303	Z	-0.0002	-0.0002	0	%100
170	304	Z	-0.0002	-0.0002	0	%100
171	305	Z	-0.0002	-0.0002	0	%100
172	306	Z	-0.0003	-0.0003	0	%100
173	307	Z	-0.0003	-0.0003	0	%100
174	308	Z	-0.0003	-0.0003	0	%100
175	309	Z	-0.0002	-0.0002	0	%100
176	310	Z	-0.0003	-0.0003	0	%100
177	311	Z	-0.0003	-0.0003	0	%100

**Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
178	312	Z	-0.0003	-0.0003	0	%100
179	313	Z	-0.0003	-0.0003	0	%100
180	314	Z	-0.0003	-0.0003	0	%100
181	315	Z	-0.0003	-0.0003	0	%100
182	316	Z	-0.0003	-0.0003	0	%100
183	317	Z	-0.0002	-0.0002	0	%100
184	318	Z	-0.0002	-0.0002	0	%100
185	319	Z	-0.0002	-0.0002	0	%100
186	320	Z	-0.0002	-0.0002	0	%100
187	321	Z	-0.0003	-0.0003	0	%100
188	322	Z	-0.0003	-0.0003	0	%100
189	323	Z	-0.0002	-0.0002	0	%100
190	324	Z	-0.0002	-0.0002	0	%100
191	325	Z	-0.0003	-0.0003	0	%100
192	326	Z	-0.0003	-0.0003	0	%100
193	327	Z	-0.0003	-0.0003	0	%100
194	328	Z	-0.0003	-0.0003	0	%100
195	329	Z	-0.0003	-0.0003	0	%100
196	330	Z	-0.0003	-0.0003	0	%100
197	331	Z	-0.0002	-0.0002	0	%100
198	332	Z	-0.0002	-0.0002	0	%100
199	333	Z	-0.0002	-0.0002	0	%100
200	334	Z	-0.0002	-0.0002	0	%100
201	335	Z	-1e-04	-1e-04	0	%100
202	372	Z	-0.0003	-0.0003	0	%100
203	373	Z	-0.0003	-0.0003	0	%100
204	374	Z	-0.0003	-0.0003	0	%100
205	375	Z	-0.0003	-0.0003	0	%100
206	377	Z	-0.0003	-0.0003	0	%100
207	387	Z	-0.0003	-0.0003	0	%100
208	388	Z	-0.0003	-0.0003	0	%100
209	389	Z	-0.0003	-0.0003	0	%100
210	390	Z	-0.0003	-0.0003	0	%100
211	392	Z	-0.0003	-0.0003	0	%100
212	402	Z	-0.0003	-0.0003	0	%100
213	403	Z	-0.0003	-0.0003	0	%100
214	404	Z	-0.0003	-0.0003	0	%100
215	405	Z	-0.0003	-0.0003	0	%100
216	407	Z	-0.0003	-0.0003	0	%100
217	413	Z	-0.0009	-0.0009	0	%100
218	414	Z	-0.0009	-0.0009	0	%100
219	415	Z	-0.0003	-0.0003	0	%100
220	420	Z	-0.0009	-0.0009	0	%100
221	421	Z	-0.0009	-0.0009	0	%100
222	422	Z	-0.0003	-0.0003	0	%100
223	427	Z	-0.0009	-0.0009	0	%100
224	428	Z	-0.0009	-0.0009	0	%100
225	429	Z	-0.0003	-0.0003	0	%100

**Member Distributed Loads (BLC 7 : 90 Wind - Service)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.0003	-0.0003	0	%100
2	2	X	-0.0003	-0.0003	0	%100
3	3	X	-0.0003	-0.0003	0	%100
4	4	X	-0.0006	-0.0006	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
5	5	X	-0.0006	-0.0006	0	%100
6	6	X	-0.0006	-0.0006	0	%100
7	7	X	-0.0006	-0.0006	0	%100
8	8	X	-0.0006	-0.0006	0	%100
9	9	X	-0.0006	-0.0006	0	%100
10	10	X	-0.0008	-0.0008	0	%100
11	11	X	-0.0008	-0.0008	0	%100
12	12	X	-0.0008	-0.0008	0	%100
13	13	X	-0.0008	-0.0008	0	%100
14	14	X	-0.0008	-0.0008	0	%100
15	15	X	-0.0008	-0.0008	0	%100
16	16	X	-0.0008	-0.0008	0	%100
17	17	X	-0.0008	-0.0008	0	%100
18	18	X	-0.0008	-0.0008	0	%100
19	19	X	-0.0008	-0.0008	0	%100
20	20	X	-0.0008	-0.0008	0	%100
21	21	X	-0.0008	-0.0008	0	%100
22	22	X	-0.0005	-0.0005	0	%100
23	23	X	-0.0005	-0.0005	0	%100
24	24	X	-0.0006	-0.0006	0	%100
25	25	X	-0.0006	-0.0006	0	%100
26	26	X	-0.0005	-0.0005	0	%100
27	27	X	-0.0005	-0.0005	0	%100
28	28	X	-0.0005	-0.0005	0	%100
29	29	X	-0.0005	-0.0005	0	%100
30	30	X	-0.0006	-0.0006	0	%100
31	31	X	-0.0006	-0.0006	0	%100
32	32	X	-0.0005	-0.0005	0	%100
33	33	X	-0.0005	-0.0005	0	%100
34	34	X	-0.0005	-0.0005	0	%100
35	35	X	-0.0005	-0.0005	0	%100
36	36	X	-0.0006	-0.0006	0	%100
37	37	X	-0.0006	-0.0006	0	%100
38	38	X	-0.0005	-0.0005	0	%100
39	39	X	-0.0005	-0.0005	0	%100
40	40	X	-0.0009	-0.0009	0	%100
41	41	X	-0.0009	-0.0009	0	%100
42	42	X	-0.0009	-0.0009	0	%100
43	43	X	-1e-04	-1e-04	0	%100
44	44	X	-1e-04	-1e-04	0	%100
45	45	X	-1e-04	-1e-04	0	%100
46	46	X	-1e-04	-1e-04	0	%100
47	47	X	-1e-04	-1e-04	0	%100
48	48	X	-1e-04	-1e-04	0	%100
49	49	X	-1e-04	-1e-04	0	%100
50	50	X	-0.0002	-0.0002	0	%100
51	51	X	-0.0002	-0.0002	0	%100
52	52	X	-0.0002	-0.0002	0	%100
53	53	X	-1e-04	-1e-04	0	%100
54	54	X	-0.0002	-0.0002	0	%100
55	55	X	-0.0002	-0.0002	0	%100
56	56	X	-0.0002	-0.0002	0	%100
57	57	X	-0.0003	-0.0003	0	%100
58	58	X	-0.0003	-0.0003	0	%100
59	59	X	-0.0003	-0.0003	0	%100

**Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
60	60	X	-0.0002	-0.0002	0	%100
61	61	X	-0.0003	-0.0003	0	%100
62	62	X	-0.0003	-0.0003	0	%100
63	63	X	-0.0003	-0.0003	0	%100
64	64	X	-0.0003	-0.0003	0	%100
65	65	X	-0.0003	-0.0003	0	%100
66	66	X	-0.0003	-0.0003	0	%100
67	67	X	-0.0003	-0.0003	0	%100
68	68	X	-0.0002	-0.0002	0	%100
69	69	X	-0.0002	-0.0002	0	%100
70	70	X	-0.0002	-0.0002	0	%100
71	71	X	-0.0002	-0.0002	0	%100
72	72	X	-0.0003	-0.0003	0	%100
73	73	X	-0.0003	-0.0003	0	%100
74	74	X	-0.0002	-0.0002	0	%100
75	75	X	-0.0002	-0.0002	0	%100
76	76	X	-0.0003	-0.0003	0	%100
77	77	X	-0.0003	-0.0003	0	%100
78	78	X	-0.0003	-0.0003	0	%100
79	79	X	-0.0003	-0.0003	0	%100
80	80	X	-0.0003	-0.0003	0	%100
81	81	X	-0.0003	-0.0003	0	%100
82	82	X	-0.0002	-0.0002	0	%100
83	83	X	-0.0002	-0.0002	0	%100
84	84	X	-0.0002	-0.0002	0	%100
85	85	X	-0.0002	-0.0002	0	%100
86	86	X	-1e-04	-1e-04	0	%100
87	189	X	-0.0003	-0.0003	0	%100
88	190	X	-0.0003	-0.0003	0	%100
89	191	X	-0.0003	-0.0003	0	%100
90	192	X	-0.001	-0.001	0	%100
91	193	X	-0.001	-0.001	0	%100
92	194	X	-0.001	-0.001	0	%100
93	195	X	-0.0004	-0.0004	0	%100
94	196	X	-0.0004	-0.0004	0	%100
95	197	X	-0.0004	-0.0004	0	%100
96	198	X	-0.0004	-0.0004	0	%100
97	199	X	-0.0004	-0.0004	0	%100
98	200	X	-0.0004	-0.0004	0	%100
99	201	X	-0.0004	-0.0004	0	%100
100	202	X	-0.0004	-0.0004	0	%100
101	203	X	-0.0004	-0.0004	0	%100
102	204	X	-0.0004	-0.0004	0	%100
103	205	X	-0.0004	-0.0004	0	%100
104	206	X	-0.0004	-0.0004	0	%100
105	207	X	-0.0004	-0.0004	0	%100
106	208	X	-0.0004	-0.0004	0	%100
107	209	X	-0.0004	-0.0004	0	%100
108	210	X	-0.0002	-0.0002	0	%100
109	211	X	-0.0002	-0.0002	0	%100
110	212	X	-0.0002	-0.0002	0	%100
111	213	X	-0.0002	-0.0002	0	%100
112	214	X	-0.0002	-0.0002	0	%100
113	215	X	-0.0002	-0.0002	0	%100
114	220	X	-1e-04	-1e-04	0	%100



**Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
115	221	X	-1e-04	-1e-04	0	%100
116	222	X	-1e-04	-1e-04	0	%100
117	223	X	-1e-04	-1e-04	0	%100
118	224	X	-1e-04	-1e-04	0	%100
119	225	X	-1e-04	-1e-04	0	%100
120	226	X	-1e-04	-1e-04	0	%100
121	227	X	-0.0002	-0.0002	0	%100
122	228	X	-0.0002	-0.0002	0	%100
123	229	X	-0.0002	-0.0002	0	%100
124	230	X	-1e-04	-1e-04	0	%100
125	231	X	-0.0002	-0.0002	0	%100
126	232	X	-0.0002	-0.0002	0	%100
127	233	X	-0.0002	-0.0002	0	%100
128	234	X	-0.0003	-0.0003	0	%100
129	235	X	-0.0003	-0.0003	0	%100
130	236	X	-0.0003	-0.0003	0	%100
131	237	X	-0.0002	-0.0002	0	%100
132	238	X	-0.0003	-0.0003	0	%100
133	239	X	-0.0003	-0.0003	0	%100
134	240	X	-0.0003	-0.0003	0	%100
135	241	X	-0.0003	-0.0003	0	%100
136	242	X	-0.0003	-0.0003	0	%100
137	243	X	-0.0003	-0.0003	0	%100
138	244	X	-0.0003	-0.0003	0	%100
139	245	X	-0.0002	-0.0002	0	%100
140	246	X	-0.0002	-0.0002	0	%100
141	247	X	-0.0002	-0.0002	0	%100
142	248	X	-0.0002	-0.0002	0	%100
143	249	X	-0.0003	-0.0003	0	%100
144	250	X	-0.0003	-0.0003	0	%100
145	251	X	-0.0002	-0.0002	0	%100
146	252	X	-0.0002	-0.0002	0	%100
147	253	X	-0.0003	-0.0003	0	%100
148	254	X	-0.0003	-0.0003	0	%100
149	255	X	-0.0003	-0.0003	0	%100
150	256	X	-0.0003	-0.0003	0	%100
151	257	X	-0.0003	-0.0003	0	%100
152	258	X	-0.0003	-0.0003	0	%100
153	259	X	-0.0002	-0.0002	0	%100
154	260	X	-0.0002	-0.0002	0	%100
155	261	X	-0.0002	-0.0002	0	%100
156	262	X	-0.0002	-0.0002	0	%100
157	263	X	-1e-04	-1e-04	0	%100
158	292	X	-1e-04	-1e-04	0	%100
159	293	X	-1e-04	-1e-04	0	%100
160	294	X	-1e-04	-1e-04	0	%100
161	295	X	-1e-04	-1e-04	0	%100
162	296	X	-1e-04	-1e-04	0	%100
163	297	X	-1e-04	-1e-04	0	%100
164	298	X	-1e-04	-1e-04	0	%100
165	299	X	-0.0002	-0.0002	0	%100
166	300	X	-0.0002	-0.0002	0	%100
167	301	X	-0.0002	-0.0002	0	%100
168	302	X	-1e-04	-1e-04	0	%100
169	303	X	-0.0002	-0.0002	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
 7:43:02 PM  
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**Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
170	304	X	-0.0002	-0.0002	0	%100
171	305	X	-0.0002	-0.0002	0	%100
172	306	X	-0.0003	-0.0003	0	%100
173	307	X	-0.0003	-0.0003	0	%100
174	308	X	-0.0003	-0.0003	0	%100
175	309	X	-0.0002	-0.0002	0	%100
176	310	X	-0.0003	-0.0003	0	%100
177	311	X	-0.0003	-0.0003	0	%100
178	312	X	-0.0003	-0.0003	0	%100
179	313	X	-0.0003	-0.0003	0	%100
180	314	X	-0.0003	-0.0003	0	%100
181	315	X	-0.0003	-0.0003	0	%100
182	316	X	-0.0003	-0.0003	0	%100
183	317	X	-0.0002	-0.0002	0	%100
184	318	X	-0.0002	-0.0002	0	%100
185	319	X	-0.0002	-0.0002	0	%100
186	320	X	-0.0002	-0.0002	0	%100
187	321	X	-0.0003	-0.0003	0	%100
188	322	X	-0.0003	-0.0003	0	%100
189	323	X	-0.0002	-0.0002	0	%100
190	324	X	-0.0002	-0.0002	0	%100
191	325	X	-0.0003	-0.0003	0	%100
192	326	X	-0.0003	-0.0003	0	%100
193	327	X	-0.0003	-0.0003	0	%100
194	328	X	-0.0003	-0.0003	0	%100
195	329	X	-0.0003	-0.0003	0	%100
196	330	X	-0.0003	-0.0003	0	%100
197	331	X	-0.0002	-0.0002	0	%100
198	332	X	-0.0002	-0.0002	0	%100
199	333	X	-0.0002	-0.0002	0	%100
200	334	X	-0.0002	-0.0002	0	%100
201	335	X	-1e-04	-1e-04	0	%100
202	372	X	-0.0003	-0.0003	0	%100
203	373	X	-0.0003	-0.0003	0	%100
204	374	X	-0.0003	-0.0003	0	%100
205	375	X	-0.0003	-0.0003	0	%100
206	377	X	-0.0003	-0.0003	0	%100
207	387	X	-0.0003	-0.0003	0	%100
208	388	X	-0.0003	-0.0003	0	%100
209	389	X	-0.0003	-0.0003	0	%100
210	390	X	-0.0003	-0.0003	0	%100
211	392	X	-0.0003	-0.0003	0	%100
212	402	X	-0.0003	-0.0003	0	%100
213	403	X	-0.0003	-0.0003	0	%100
214	404	X	-0.0003	-0.0003	0	%100
215	405	X	-0.0003	-0.0003	0	%100
216	407	X	-0.0003	-0.0003	0	%100
217	413	X	-0.0009	-0.0009	0	%100
218	414	X	-0.0009	-0.0009	0	%100
219	415	X	-0.0003	-0.0003	0	%100
220	420	X	-0.0009	-0.0009	0	%100
221	421	X	-0.0009	-0.0009	0	%100
222	422	X	-0.0003	-0.0003	0	%100
223	427	X	-0.0009	-0.0009	0	%100
224	428	X	-0.0009	-0.0009	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
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 Checked By : \_\_\_\_\_

**Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
225	429	X	-0.0003	-0.0003	0	%100

**Member Distributed Loads (BLC 8 : Ice)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.006	-0.006	0	%100
2	2	Y	-0.006	-0.006	0	%100
3	3	Y	-0.006	-0.006	0	%100
4	4	Y	-0.006	-0.006	0	%100
5	5	Y	-0.006	-0.006	0	%100
6	6	Y	-0.006	-0.006	0	%100
7	7	Y	-0.006	-0.006	0	%100
8	8	Y	-0.006	-0.006	0	%100
9	9	Y	-0.006	-0.006	0	%100
10	10	Y	-0.008	-0.008	0	%100
11	11	Y	-0.008	-0.008	0	%100
12	12	Y	-0.008	-0.008	0	%100
13	13	Y	-0.008	-0.008	0	%100
14	14	Y	-0.008	-0.008	0	%100
15	15	Y	-0.008	-0.008	0	%100
16	16	Y	-0.008	-0.008	0	%100
17	17	Y	-0.008	-0.008	0	%100
18	18	Y	-0.008	-0.008	0	%100
19	19	Y	-0.008	-0.008	0	%100
20	20	Y	-0.008	-0.008	0	%100
21	21	Y	-0.008	-0.008	0	%100
22	22	Y	-0.005	-0.005	0	%100
23	23	Y	-0.005	-0.005	0	%100
24	24	Y	-0.005	-0.005	0	%100
25	25	Y	-0.005	-0.005	0	%100
26	26	Y	-0.005	-0.005	0	%100
27	27	Y	-0.005	-0.005	0	%100
28	28	Y	-0.005	-0.005	0	%100
29	29	Y	-0.005	-0.005	0	%100
30	30	Y	-0.005	-0.005	0	%100
31	31	Y	-0.005	-0.005	0	%100
32	32	Y	-0.005	-0.005	0	%100
33	33	Y	-0.005	-0.005	0	%100
34	34	Y	-0.005	-0.005	0	%100
35	35	Y	-0.005	-0.005	0	%100
36	36	Y	-0.005	-0.005	0	%100
37	37	Y	-0.005	-0.005	0	%100
38	38	Y	-0.005	-0.005	0	%100
39	39	Y	-0.005	-0.005	0	%100
40	40	Y	-0.009	-0.009	0	%100
41	41	Y	-0.009	-0.009	0	%100
42	42	Y	-0.009	-0.009	0	%100
43	43	Y	-0.007	-0.007	0	%100
44	44	Y	-0.007	-0.007	0	%100
45	45	Y	-0.007	-0.007	0	%100
46	46	Y	-0.007	-0.007	0	%100
47	47	Y	-0.007	-0.007	0	%100
48	48	Y	-0.007	-0.007	0	%100
49	49	Y	-0.007	-0.007	0	%100
50	50	Y	-0.007	-0.007	0	%100
51	51	Y	-0.007	-0.007	0	%100

**Member Distributed Loads (BLC 8 : Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
52	52	Y	-0.007	-0.007	0	%100
53	53	Y	-0.007	-0.007	0	%100
54	54	Y	-0.007	-0.007	0	%100
55	55	Y	-0.007	-0.007	0	%100
56	56	Y	-0.007	-0.007	0	%100
57	57	Y	-0.003	-0.003	0	%100
58	58	Y	-0.003	-0.003	0	%100
59	59	Y	-0.003	-0.003	0	%100
60	60	Y	-0.003	-0.003	0	%100
61	61	Y	-0.003	-0.003	0	%100
62	62	Y	-0.003	-0.003	0	%100
63	63	Y	-0.003	-0.003	0	%100
64	64	Y	-0.003	-0.003	0	%100
65	65	Y	-0.003	-0.003	0	%100
66	66	Y	-0.003	-0.003	0	%100
67	67	Y	-0.003	-0.003	0	%100
68	68	Y	-0.003	-0.003	0	%100
69	69	Y	-0.003	-0.003	0	%100
70	70	Y	-0.003	-0.003	0	%100
71	71	Y	-0.003	-0.003	0	%100
72	72	Y	-0.003	-0.003	0	%100
73	73	Y	-0.003	-0.003	0	%100
74	74	Y	-0.003	-0.003	0	%100
75	75	Y	-0.003	-0.003	0	%100
76	76	Y	-0.003	-0.003	0	%100
77	77	Y	-0.003	-0.003	0	%100
78	78	Y	-0.003	-0.003	0	%100
79	79	Y	-0.003	-0.003	0	%100
80	80	Y	-0.003	-0.003	0	%100
81	81	Y	-0.003	-0.003	0	%100
82	82	Y	-0.003	-0.003	0	%100
83	83	Y	-0.003	-0.003	0	%100
84	84	Y	-0.003	-0.003	0	%100
85	85	Y	-0.003	-0.003	0	%100
86	86	Y	-0.003	-0.003	0	%100
87	189	Y	-0.005	-0.005	0	%100
88	190	Y	-0.005	-0.005	0	%100
89	191	Y	-0.005	-0.005	0	%100
90	192	Y	-0.008	-0.008	0	%100
91	193	Y	-0.008	-0.008	0	%100
92	194	Y	-0.008	-0.008	0	%100
93	195	Y	-0.004	-0.004	0	%100
94	196	Y	-0.004	-0.004	0	%100
95	197	Y	-0.004	-0.004	0	%100
96	198	Y	-0.004	-0.004	0	%100
97	199	Y	-0.004	-0.004	0	%100
98	200	Y	-0.004	-0.004	0	%100
99	201	Y	-0.004	-0.004	0	%100
100	202	Y	-0.004	-0.004	0	%100
101	203	Y	-0.004	-0.004	0	%100
102	204	Y	-0.004	-0.004	0	%100
103	205	Y	-0.004	-0.004	0	%100
104	206	Y	-0.004	-0.004	0	%100
105	207	Y	-0.004	-0.004	0	%100
106	208	Y	-0.004	-0.004	0	%100

**Member Distributed Loads (BLC 8 : Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
107	209	Y	-0.004	-0.004	0	%100
108	210	Y	-0.004	-0.004	0	%100
109	211	Y	-0.004	-0.004	0	%100
110	212	Y	-0.004	-0.004	0	%100
111	213	Y	-0.004	-0.004	0	%100
112	214	Y	-0.004	-0.004	0	%100
113	215	Y	-0.004	-0.004	0	%100
114	220	Y	-0.007	-0.007	0	%100
115	221	Y	-0.007	-0.007	0	%100
116	222	Y	-0.007	-0.007	0	%100
117	223	Y	-0.007	-0.007	0	%100
118	224	Y	-0.007	-0.007	0	%100
119	225	Y	-0.007	-0.007	0	%100
120	226	Y	-0.007	-0.007	0	%100
121	227	Y	-0.007	-0.007	0	%100
122	228	Y	-0.007	-0.007	0	%100
123	229	Y	-0.007	-0.007	0	%100
124	230	Y	-0.007	-0.007	0	%100
125	231	Y	-0.007	-0.007	0	%100
126	232	Y	-0.007	-0.007	0	%100
127	233	Y	-0.007	-0.007	0	%100
128	234	Y	-0.003	-0.003	0	%100
129	235	Y	-0.003	-0.003	0	%100
130	236	Y	-0.003	-0.003	0	%100
131	237	Y	-0.003	-0.003	0	%100
132	238	Y	-0.003	-0.003	0	%100
133	239	Y	-0.003	-0.003	0	%100
134	240	Y	-0.003	-0.003	0	%100
135	241	Y	-0.003	-0.003	0	%100
136	242	Y	-0.003	-0.003	0	%100
137	243	Y	-0.003	-0.003	0	%100
138	244	Y	-0.003	-0.003	0	%100
139	245	Y	-0.003	-0.003	0	%100
140	246	Y	-0.003	-0.003	0	%100
141	247	Y	-0.003	-0.003	0	%100
142	248	Y	-0.003	-0.003	0	%100
143	249	Y	-0.003	-0.003	0	%100
144	250	Y	-0.003	-0.003	0	%100
145	251	Y	-0.003	-0.003	0	%100
146	252	Y	-0.003	-0.003	0	%100
147	253	Y	-0.003	-0.003	0	%100
148	254	Y	-0.003	-0.003	0	%100
149	255	Y	-0.003	-0.003	0	%100
150	256	Y	-0.003	-0.003	0	%100
151	257	Y	-0.003	-0.003	0	%100
152	258	Y	-0.003	-0.003	0	%100
153	259	Y	-0.003	-0.003	0	%100
154	260	Y	-0.003	-0.003	0	%100
155	261	Y	-0.003	-0.003	0	%100
156	262	Y	-0.003	-0.003	0	%100
157	263	Y	-0.003	-0.003	0	%100
158	292	Y	-0.007	-0.007	0	%100
159	293	Y	-0.007	-0.007	0	%100
160	294	Y	-0.007	-0.007	0	%100
161	295	Y	-0.007	-0.007	0	%100



**Member Distributed Loads (BLC 8 : Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
162	296	Y	-0.007	-0.007	0	%100
163	297	Y	-0.007	-0.007	0	%100
164	298	Y	-0.007	-0.007	0	%100
165	299	Y	-0.007	-0.007	0	%100
166	300	Y	-0.007	-0.007	0	%100
167	301	Y	-0.007	-0.007	0	%100
168	302	Y	-0.007	-0.007	0	%100
169	303	Y	-0.007	-0.007	0	%100
170	304	Y	-0.007	-0.007	0	%100
171	305	Y	-0.007	-0.007	0	%100
172	306	Y	-0.003	-0.003	0	%100
173	307	Y	-0.003	-0.003	0	%100
174	308	Y	-0.003	-0.003	0	%100
175	309	Y	-0.003	-0.003	0	%100
176	310	Y	-0.003	-0.003	0	%100
177	311	Y	-0.003	-0.003	0	%100
178	312	Y	-0.003	-0.003	0	%100
179	313	Y	-0.003	-0.003	0	%100
180	314	Y	-0.003	-0.003	0	%100
181	315	Y	-0.003	-0.003	0	%100
182	316	Y	-0.003	-0.003	0	%100
183	317	Y	-0.003	-0.003	0	%100
184	318	Y	-0.003	-0.003	0	%100
185	319	Y	-0.003	-0.003	0	%100
186	320	Y	-0.003	-0.003	0	%100
187	321	Y	-0.003	-0.003	0	%100
188	322	Y	-0.003	-0.003	0	%100
189	323	Y	-0.003	-0.003	0	%100
190	324	Y	-0.003	-0.003	0	%100
191	325	Y	-0.003	-0.003	0	%100
192	326	Y	-0.003	-0.003	0	%100
193	327	Y	-0.003	-0.003	0	%100
194	328	Y	-0.003	-0.003	0	%100
195	329	Y	-0.003	-0.003	0	%100
196	330	Y	-0.003	-0.003	0	%100
197	331	Y	-0.003	-0.003	0	%100
198	332	Y	-0.003	-0.003	0	%100
199	333	Y	-0.003	-0.003	0	%100
200	334	Y	-0.003	-0.003	0	%100
201	335	Y	-0.003	-0.003	0	%100
202	372	Y	-0.005	-0.005	0	%100
203	373	Y	-0.005	-0.005	0	%100
204	374	Y	-0.005	-0.005	0	%100
205	375	Y	-0.005	-0.005	0	%100
206	377	Y	-0.005	-0.005	0	%100
207	387	Y	-0.005	-0.005	0	%100
208	388	Y	-0.005	-0.005	0	%100
209	389	Y	-0.005	-0.005	0	%100
210	390	Y	-0.005	-0.005	0	%100
211	392	Y	-0.005	-0.005	0	%100
212	402	Y	-0.005	-0.005	0	%100
213	403	Y	-0.005	-0.005	0	%100
214	404	Y	-0.005	-0.005	0	%100
215	405	Y	-0.005	-0.005	0	%100
216	407	Y	-0.005	-0.005	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

3/22/2022  
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**Member Distributed Loads (BLC 8 : Ice) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
217	413	Y	-0.01	-0.01	0	%100
218	414	Y	-0.01	-0.01	0	%100
219	415	Y	-0.005	-0.005	0	%100
220	420	Y	-0.01	-0.01	0	%100
221	421	Y	-0.01	-0.01	0	%100
222	422	Y	-0.005	-0.005	0	%100
223	427	Y	-0.01	-0.01	0	%100
224	428	Y	-0.01	-0.01	0	%100
225	429	Y	-0.005	-0.005	0	%100

**Member Distributed Loads (BLC 9 : 0 Seismic)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.002	-0.002	0	%100
2	2	Z	-0.002	-0.002	0	%100
3	3	Z	-0.002	-0.002	0	%100
4	4	Z	-0.001	-0.001	0	%100
5	5	Z	-0.001	-0.001	0	%100
6	6	Z	-0.001	-0.001	0	%100
7	7	Z	-0.001	-0.001	0	%100
8	8	Z	-0.001	-0.001	0	%100
9	9	Z	-0.001	-0.001	0	%100
10	10	Z	-0.002	-0.002	0	%100
11	11	Z	-0.002	-0.002	0	%100
12	12	Z	-0.002	-0.002	0	%100
13	13	Z	-0.002	-0.002	0	%100
14	14	Z	-0.002	-0.002	0	%100
15	15	Z	-0.002	-0.002	0	%100
16	16	Z	-0.002	-0.002	0	%100
17	17	Z	-0.002	-0.002	0	%100
18	18	Z	-0.002	-0.002	0	%100
19	19	Z	-0.002	-0.002	0	%100
20	20	Z	-0.002	-0.002	0	%100
21	21	Z	-0.002	-0.002	0	%100
22	22	Z	-0.0009	-0.0009	0	%100
23	23	Z	-0.0009	-0.0009	0	%100
24	24	Z	-0.0009	-0.0009	0	%100
25	25	Z	-0.0009	-0.0009	0	%100
26	26	Z	-0.0009	-0.0009	0	%100
27	27	Z	-0.0009	-0.0009	0	%100
28	28	Z	-0.0009	-0.0009	0	%100
29	29	Z	-0.0009	-0.0009	0	%100
30	30	Z	-0.0009	-0.0009	0	%100
31	31	Z	-0.0009	-0.0009	0	%100
32	32	Z	-0.0009	-0.0009	0	%100
33	33	Z	-0.0009	-0.0009	0	%100
34	34	Z	-0.0009	-0.0009	0	%100
35	35	Z	-0.0009	-0.0009	0	%100
36	36	Z	-0.0009	-0.0009	0	%100
37	37	Z	-0.0009	-0.0009	0	%100
38	38	Z	-0.0009	-0.0009	0	%100
39	39	Z	-0.0009	-0.0009	0	%100
40	40	Z	-0.003	-0.003	0	%100
41	41	Z	-0.003	-0.003	0	%100
42	42	Z	-0.003	-0.003	0	%100
43	43	Z	-0.002	-0.002	0	%100





Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
44	44	Z	-0.002	-0.002	0	%100
45	45	Z	-0.002	-0.002	0	%100
46	46	Z	-0.002	-0.002	0	%100
47	47	Z	-0.002	-0.002	0	%100
48	48	Z	-0.002	-0.002	0	%100
49	49	Z	-0.002	-0.002	0	%100
50	50	Z	-0.002	-0.002	0	%100
51	51	Z	-0.002	-0.002	0	%100
52	52	Z	-0.002	-0.002	0	%100
53	53	Z	-0.002	-0.002	0	%100
54	54	Z	-0.002	-0.002	0	%100
55	55	Z	-0.002	-0.002	0	%100
56	56	Z	-0.002	-0.002	0	%100
57	57	Z	-0.0004	-0.0004	0	%100
58	58	Z	-0.0004	-0.0004	0	%100
59	59	Z	-0.0004	-0.0004	0	%100
60	60	Z	-0.0004	-0.0004	0	%100
61	61	Z	-0.0004	-0.0004	0	%100
62	62	Z	-0.0004	-0.0004	0	%100
63	63	Z	-0.0004	-0.0004	0	%100
64	64	Z	-0.0004	-0.0004	0	%100
65	65	Z	-0.0004	-0.0004	0	%100
66	66	Z	-0.0004	-0.0004	0	%100
67	67	Z	-0.0004	-0.0004	0	%100
68	68	Z	-0.0003	-0.0003	0	%100
69	69	Z	-0.0003	-0.0003	0	%100
70	70	Z	-0.0003	-0.0003	0	%100
71	71	Z	-0.0002	-0.0002	0	%100
72	72	Z	-0.0004	-0.0004	0	%100
73	73	Z	-0.0004	-0.0004	0	%100
74	74	Z	-0.0004	-0.0004	0	%100
75	75	Z	-0.0004	-0.0004	0	%100
76	76	Z	-0.0004	-0.0004	0	%100
77	77	Z	-0.0004	-0.0004	0	%100
78	78	Z	-0.0004	-0.0004	0	%100
79	79	Z	-0.0004	-0.0004	0	%100
80	80	Z	-0.0004	-0.0004	0	%100
81	81	Z	-0.0004	-0.0004	0	%100
82	82	Z	-0.0004	-0.0004	0	%100
83	83	Z	-0.0003	-0.0003	0	%100
84	84	Z	-0.0003	-0.0003	0	%100
85	85	Z	-0.0003	-0.0003	0	%100
86	86	Z	-0.0002	-0.0002	0	%100
87	189	Z	-0.001	-0.001	0	%100
88	190	Z	-0.001	-0.001	0	%100
89	191	Z	-0.001	-0.001	0	%100
90	192	Z	-0.002	-0.002	0	%100
91	193	Z	-0.002	-0.002	0	%100
92	194	Z	-0.002	-0.002	0	%100
93	195	Z	-0.0005	-0.0005	0	%100
94	196	Z	-0.0005	-0.0005	0	%100
95	197	Z	-0.0005	-0.0005	0	%100
96	198	Z	-0.0005	-0.0005	0	%100
97	199	Z	-0.0005	-0.0005	0	%100
98	200	Z	-0.0005	-0.0005	0	%100

**Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
99	201	Z	-0.0005	-0.0005	0	%100
100	202	Z	-0.0005	-0.0005	0	%100
101	203	Z	-0.0005	-0.0005	0	%100
102	204	Z	-0.0005	-0.0005	0	%100
103	205	Z	-0.0005	-0.0005	0	%100
104	206	Z	-0.0005	-0.0005	0	%100
105	207	Z	-0.0005	-0.0005	0	%100
106	208	Z	-0.0005	-0.0005	0	%100
107	209	Z	-0.0005	-0.0005	0	%100
108	210	Z	-0.0008	-0.0008	0	%100
109	211	Z	-0.0008	-0.0008	0	%100
110	212	Z	-0.0008	-0.0008	0	%100
111	213	Z	-0.0008	-0.0008	0	%100
112	214	Z	-0.0008	-0.0008	0	%100
113	215	Z	-0.0008	-0.0008	0	%100
114	220	Z	-0.002	-0.002	0	%100
115	221	Z	-0.002	-0.002	0	%100
116	222	Z	-0.002	-0.002	0	%100
117	223	Z	-0.002	-0.002	0	%100
118	224	Z	-0.002	-0.002	0	%100
119	225	Z	-0.002	-0.002	0	%100
120	226	Z	-0.002	-0.002	0	%100
121	227	Z	-0.002	-0.002	0	%100
122	228	Z	-0.002	-0.002	0	%100
123	229	Z	-0.002	-0.002	0	%100
124	230	Z	-0.002	-0.002	0	%100
125	231	Z	-0.002	-0.002	0	%100
126	232	Z	-0.002	-0.002	0	%100
127	233	Z	-0.002	-0.002	0	%100
128	234	Z	-0.0004	-0.0004	0	%100
129	235	Z	-0.0004	-0.0004	0	%100
130	236	Z	-0.0004	-0.0004	0	%100
131	237	Z	-0.0004	-0.0004	0	%100
132	238	Z	-0.0004	-0.0004	0	%100
133	239	Z	-0.0004	-0.0004	0	%100
134	240	Z	-0.0004	-0.0004	0	%100
135	241	Z	-0.0004	-0.0004	0	%100
136	242	Z	-0.0004	-0.0004	0	%100
137	243	Z	-0.0004	-0.0004	0	%100
138	244	Z	-0.0004	-0.0004	0	%100
139	245	Z	-0.0003	-0.0003	0	%100
140	246	Z	-0.0003	-0.0003	0	%100
141	247	Z	-0.0003	-0.0003	0	%100
142	248	Z	-0.0002	-0.0002	0	%100
143	249	Z	-0.0004	-0.0004	0	%100
144	250	Z	-0.0004	-0.0004	0	%100
145	251	Z	-0.0004	-0.0004	0	%100
146	252	Z	-0.0004	-0.0004	0	%100
147	253	Z	-0.0004	-0.0004	0	%100
148	254	Z	-0.0004	-0.0004	0	%100
149	255	Z	-0.0004	-0.0004	0	%100
150	256	Z	-0.0004	-0.0004	0	%100
151	257	Z	-0.0004	-0.0004	0	%100
152	258	Z	-0.0004	-0.0004	0	%100
153	259	Z	-0.0004	-0.0004	0	%100



Company : B+T Group  
 Designer : KR  
 Job Number : 79982.007.01  
 Model Name : 876317 - Waterbury

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**Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
154	260	Z	-0.0003	-0.0003	0	%100
155	261	Z	-0.0003	-0.0003	0	%100
156	262	Z	-0.0003	-0.0003	0	%100
157	263	Z	-0.0002	-0.0002	0	%100
158	292	Z	-0.002	-0.002	0	%100
159	293	Z	-0.002	-0.002	0	%100
160	294	Z	-0.002	-0.002	0	%100
161	295	Z	-0.002	-0.002	0	%100
162	296	Z	-0.002	-0.002	0	%100
163	297	Z	-0.002	-0.002	0	%100
164	298	Z	-0.002	-0.002	0	%100
165	299	Z	-0.002	-0.002	0	%100
166	300	Z	-0.002	-0.002	0	%100
167	301	Z	-0.002	-0.002	0	%100
168	302	Z	-0.002	-0.002	0	%100
169	303	Z	-0.002	-0.002	0	%100
170	304	Z	-0.002	-0.002	0	%100
171	305	Z	-0.002	-0.002	0	%100
172	306	Z	-0.0004	-0.0004	0	%100
173	307	Z	-0.0004	-0.0004	0	%100
174	308	Z	-0.0004	-0.0004	0	%100
175	309	Z	-0.0004	-0.0004	0	%100
176	310	Z	-0.0004	-0.0004	0	%100
177	311	Z	-0.0004	-0.0004	0	%100
178	312	Z	-0.0004	-0.0004	0	%100
179	313	Z	-0.0004	-0.0004	0	%100
180	314	Z	-0.0004	-0.0004	0	%100
181	315	Z	-0.0004	-0.0004	0	%100
182	316	Z	-0.0004	-0.0004	0	%100
183	317	Z	-0.0003	-0.0003	0	%100
184	318	Z	-0.0003	-0.0003	0	%100
185	319	Z	-0.0003	-0.0003	0	%100
186	320	Z	-0.0002	-0.0002	0	%100
187	321	Z	-0.0004	-0.0004	0	%100
188	322	Z	-0.0004	-0.0004	0	%100
189	323	Z	-0.0004	-0.0004	0	%100
190	324	Z	-0.0004	-0.0004	0	%100
191	325	Z	-0.0004	-0.0004	0	%100
192	326	Z	-0.0004	-0.0004	0	%100
193	327	Z	-0.0004	-0.0004	0	%100
194	328	Z	-0.0004	-0.0004	0	%100
195	329	Z	-0.0004	-0.0004	0	%100
196	330	Z	-0.0004	-0.0004	0	%100
197	331	Z	-0.0004	-0.0004	0	%100
198	332	Z	-0.0003	-0.0003	0	%100
199	333	Z	-0.0003	-0.0003	0	%100
200	334	Z	-0.0003	-0.0003	0	%100
201	335	Z	-0.0002	-0.0002	0	%100
202	372	Z	-0.001	-0.001	0	%100
203	373	Z	-0.001	-0.001	0	%100
204	374	Z	-0.001	-0.001	0	%100
205	375	Z	-0.001	-0.001	0	%100
206	377	Z	-0.001	-0.001	0	%100
207	387	Z	-0.001	-0.001	0	%100
208	388	Z	-0.001	-0.001	0	%100



**Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
209	389	Z	-0.001	-0.001	0	%100
210	390	Z	-0.001	-0.001	0	%100
211	392	Z	-0.001	-0.001	0	%100
212	402	Z	-0.001	-0.001	0	%100
213	403	Z	-0.001	-0.001	0	%100
214	404	Z	-0.001	-0.001	0	%100
215	405	Z	-0.001	-0.001	0	%100
216	407	Z	-0.001	-0.001	0	%100
217	413	Z	-0.003	-0.003	0	%100
218	414	Z	-0.003	-0.003	0	%100
219	415	Z	-0.001	-0.001	0	%100
220	420	Z	-0.003	-0.003	0	%100
221	421	Z	-0.003	-0.003	0	%100
222	422	Z	-0.001	-0.001	0	%100
223	427	Z	-0.003	-0.003	0	%100
224	428	Z	-0.003	-0.003	0	%100
225	429	Z	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 10 : 90 Seismic)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.002	-0.002	0	%100
2	2	X	-0.002	-0.002	0	%100
3	3	X	-0.002	-0.002	0	%100
4	4	X	-0.001	-0.001	0	%100
5	5	X	-0.001	-0.001	0	%100
6	6	X	-0.001	-0.001	0	%100
7	7	X	-0.001	-0.001	0	%100
8	8	X	-0.001	-0.001	0	%100
9	9	X	-0.001	-0.001	0	%100
10	10	X	-0.002	-0.002	0	%100
11	11	X	-0.002	-0.002	0	%100
12	12	X	-0.002	-0.002	0	%100
13	13	X	-0.002	-0.002	0	%100
14	14	X	-0.002	-0.002	0	%100
15	15	X	-0.002	-0.002	0	%100
16	16	X	-0.002	-0.002	0	%100
17	17	X	-0.002	-0.002	0	%100
18	18	X	-0.002	-0.002	0	%100
19	19	X	-0.002	-0.002	0	%100
20	20	X	-0.002	-0.002	0	%100
21	21	X	-0.002	-0.002	0	%100
22	22	X	-0.0009	-0.0009	0	%100
23	23	X	-0.0009	-0.0009	0	%100
24	24	X	-0.0009	-0.0009	0	%100
25	25	X	-0.0009	-0.0009	0	%100
26	26	X	-0.0009	-0.0009	0	%100
27	27	X	-0.0009	-0.0009	0	%100
28	28	X	-0.0009	-0.0009	0	%100
29	29	X	-0.0009	-0.0009	0	%100
30	30	X	-0.0009	-0.0009	0	%100
31	31	X	-0.0009	-0.0009	0	%100
32	32	X	-0.0009	-0.0009	0	%100
33	33	X	-0.0009	-0.0009	0	%100
34	34	X	-0.0009	-0.0009	0	%100
35	35	X	-0.0009	-0.0009	0	%100

**Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
36	36	X	-0.0009	-0.0009	0	%100
37	37	X	-0.0009	-0.0009	0	%100
38	38	X	-0.0009	-0.0009	0	%100
39	39	X	-0.0009	-0.0009	0	%100
40	40	X	-0.003	-0.003	0	%100
41	41	X	-0.003	-0.003	0	%100
42	42	X	-0.003	-0.003	0	%100
43	43	X	-0.002	-0.002	0	%100
44	44	X	-0.002	-0.002	0	%100
45	45	X	-0.002	-0.002	0	%100
46	46	X	-0.002	-0.002	0	%100
47	47	X	-0.002	-0.002	0	%100
48	48	X	-0.002	-0.002	0	%100
49	49	X	-0.002	-0.002	0	%100
50	50	X	-0.002	-0.002	0	%100
51	51	X	-0.002	-0.002	0	%100
52	52	X	-0.002	-0.002	0	%100
53	53	X	-0.002	-0.002	0	%100
54	54	X	-0.002	-0.002	0	%100
55	55	X	-0.002	-0.002	0	%100
56	56	X	-0.002	-0.002	0	%100
57	57	X	-0.0004	-0.0004	0	%100
58	58	X	-0.0004	-0.0004	0	%100
59	59	X	-0.0004	-0.0004	0	%100
60	60	X	-0.0004	-0.0004	0	%100
61	61	X	-0.0004	-0.0004	0	%100
62	62	X	-0.0004	-0.0004	0	%100
63	63	X	-0.0004	-0.0004	0	%100
64	64	X	-0.0004	-0.0004	0	%100
65	65	X	-0.0004	-0.0004	0	%100
66	66	X	-0.0004	-0.0004	0	%100
67	67	X	-0.0004	-0.0004	0	%100
68	68	X	-0.0003	-0.0003	0	%100
69	69	X	-0.0003	-0.0003	0	%100
70	70	X	-0.0003	-0.0003	0	%100
71	71	X	-0.0002	-0.0002	0	%100
72	72	X	-0.0004	-0.0004	0	%100
73	73	X	-0.0004	-0.0004	0	%100
74	74	X	-0.0004	-0.0004	0	%100
75	75	X	-0.0004	-0.0004	0	%100
76	76	X	-0.0004	-0.0004	0	%100
77	77	X	-0.0004	-0.0004	0	%100
78	78	X	-0.0004	-0.0004	0	%100
79	79	X	-0.0004	-0.0004	0	%100
80	80	X	-0.0004	-0.0004	0	%100
81	81	X	-0.0004	-0.0004	0	%100
82	82	X	-0.0004	-0.0004	0	%100
83	83	X	-0.0003	-0.0003	0	%100
84	84	X	-0.0003	-0.0003	0	%100
85	85	X	-0.0003	-0.0003	0	%100
86	86	X	-0.0002	-0.0002	0	%100
87	189	X	-0.001	-0.001	0	%100
88	190	X	-0.001	-0.001	0	%100
89	191	X	-0.001	-0.001	0	%100
90	192	X	-0.002	-0.002	0	%100

**Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
91	193	X	-0.002	-0.002	0	%100
92	194	X	-0.002	-0.002	0	%100
93	195	X	-0.0005	-0.0005	0	%100
94	196	X	-0.0005	-0.0005	0	%100
95	197	X	-0.0005	-0.0005	0	%100
96	198	X	-0.0005	-0.0005	0	%100
97	199	X	-0.0005	-0.0005	0	%100
98	200	X	-0.0005	-0.0005	0	%100
99	201	X	-0.0005	-0.0005	0	%100
100	202	X	-0.0005	-0.0005	0	%100
101	203	X	-0.0005	-0.0005	0	%100
102	204	X	-0.0005	-0.0005	0	%100
103	205	X	-0.0005	-0.0005	0	%100
104	206	X	-0.0005	-0.0005	0	%100
105	207	X	-0.0005	-0.0005	0	%100
106	208	X	-0.0005	-0.0005	0	%100
107	209	X	-0.0005	-0.0005	0	%100
108	210	X	-0.0008	-0.0008	0	%100
109	211	X	-0.0008	-0.0008	0	%100
110	212	X	-0.0008	-0.0008	0	%100
111	213	X	-0.0008	-0.0008	0	%100
112	214	X	-0.0008	-0.0008	0	%100
113	215	X	-0.0008	-0.0008	0	%100
114	220	X	-0.002	-0.002	0	%100
115	221	X	-0.002	-0.002	0	%100
116	222	X	-0.002	-0.002	0	%100
117	223	X	-0.002	-0.002	0	%100
118	224	X	-0.002	-0.002	0	%100
119	225	X	-0.002	-0.002	0	%100
120	226	X	-0.002	-0.002	0	%100
121	227	X	-0.002	-0.002	0	%100
122	228	X	-0.002	-0.002	0	%100
123	229	X	-0.002	-0.002	0	%100
124	230	X	-0.002	-0.002	0	%100
125	231	X	-0.002	-0.002	0	%100
126	232	X	-0.002	-0.002	0	%100
127	233	X	-0.002	-0.002	0	%100
128	234	X	-0.0004	-0.0004	0	%100
129	235	X	-0.0004	-0.0004	0	%100
130	236	X	-0.0004	-0.0004	0	%100
131	237	X	-0.0004	-0.0004	0	%100
132	238	X	-0.0004	-0.0004	0	%100
133	239	X	-0.0004	-0.0004	0	%100
134	240	X	-0.0004	-0.0004	0	%100
135	241	X	-0.0004	-0.0004	0	%100
136	242	X	-0.0004	-0.0004	0	%100
137	243	X	-0.0004	-0.0004	0	%100
138	244	X	-0.0004	-0.0004	0	%100
139	245	X	-0.0003	-0.0003	0	%100
140	246	X	-0.0003	-0.0003	0	%100
141	247	X	-0.0003	-0.0003	0	%100
142	248	X	-0.0002	-0.0002	0	%100
143	249	X	-0.0004	-0.0004	0	%100
144	250	X	-0.0004	-0.0004	0	%100
145	251	X	-0.0004	-0.0004	0	%100



**Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)**

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
146	252	X	-0.0004	-0.0004	0 %100
147	253	X	-0.0004	-0.0004	0 %100
148	254	X	-0.0004	-0.0004	0 %100
149	255	X	-0.0004	-0.0004	0 %100
150	256	X	-0.0004	-0.0004	0 %100
151	257	X	-0.0004	-0.0004	0 %100
152	258	X	-0.0004	-0.0004	0 %100
153	259	X	-0.0004	-0.0004	0 %100
154	260	X	-0.0003	-0.0003	0 %100
155	261	X	-0.0003	-0.0003	0 %100
156	262	X	-0.0003	-0.0003	0 %100
157	263	X	-0.0002	-0.0002	0 %100
158	292	X	-0.002	-0.002	0 %100
159	293	X	-0.002	-0.002	0 %100
160	294	X	-0.002	-0.002	0 %100
161	295	X	-0.002	-0.002	0 %100
162	296	X	-0.002	-0.002	0 %100
163	297	X	-0.002	-0.002	0 %100
164	298	X	-0.002	-0.002	0 %100
165	299	X	-0.002	-0.002	0 %100
166	300	X	-0.002	-0.002	0 %100
167	301	X	-0.002	-0.002	0 %100
168	302	X	-0.002	-0.002	0 %100
169	303	X	-0.002	-0.002	0 %100
170	304	X	-0.002	-0.002	0 %100
171	305	X	-0.002	-0.002	0 %100
172	306	X	-0.0004	-0.0004	0 %100
173	307	X	-0.0004	-0.0004	0 %100
174	308	X	-0.0004	-0.0004	0 %100
175	309	X	-0.0004	-0.0004	0 %100
176	310	X	-0.0004	-0.0004	0 %100
177	311	X	-0.0004	-0.0004	0 %100
178	312	X	-0.0004	-0.0004	0 %100
179	313	X	-0.0004	-0.0004	0 %100
180	314	X	-0.0004	-0.0004	0 %100
181	315	X	-0.0004	-0.0004	0 %100
182	316	X	-0.0004	-0.0004	0 %100
183	317	X	-0.0003	-0.0003	0 %100
184	318	X	-0.0003	-0.0003	0 %100
185	319	X	-0.0003	-0.0003	0 %100
186	320	X	-0.0002	-0.0002	0 %100
187	321	X	-0.0004	-0.0004	0 %100
188	322	X	-0.0004	-0.0004	0 %100
189	323	X	-0.0004	-0.0004	0 %100
190	324	X	-0.0004	-0.0004	0 %100
191	325	X	-0.0004	-0.0004	0 %100
192	326	X	-0.0004	-0.0004	0 %100
193	327	X	-0.0004	-0.0004	0 %100
194	328	X	-0.0004	-0.0004	0 %100
195	329	X	-0.0004	-0.0004	0 %100
196	330	X	-0.0004	-0.0004	0 %100
197	331	X	-0.0004	-0.0004	0 %100
198	332	X	-0.0003	-0.0003	0 %100
199	333	X	-0.0003	-0.0003	0 %100
200	334	X	-0.0003	-0.0003	0 %100



**Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
201	335	X	-0.0002	-0.0002	0	%100
202	372	X	-0.001	-0.001	0	%100
203	373	X	-0.001	-0.001	0	%100
204	374	X	-0.001	-0.001	0	%100
205	375	X	-0.001	-0.001	0	%100
206	377	X	-0.001	-0.001	0	%100
207	387	X	-0.001	-0.001	0	%100
208	388	X	-0.001	-0.001	0	%100
209	389	X	-0.001	-0.001	0	%100
210	390	X	-0.001	-0.001	0	%100
211	392	X	-0.001	-0.001	0	%100
212	402	X	-0.001	-0.001	0	%100
213	403	X	-0.001	-0.001	0	%100
214	404	X	-0.001	-0.001	0	%100
215	405	X	-0.001	-0.001	0	%100
216	407	X	-0.001	-0.001	0	%100
217	413	X	-0.003	-0.003	0	%100
218	414	X	-0.003	-0.003	0	%100
219	415	X	-0.001	-0.001	0	%100
220	420	X	-0.003	-0.003	0	%100
221	421	X	-0.003	-0.003	0	%100
222	422	X	-0.001	-0.001	0	%100
223	427	X	-0.003	-0.003	0	%100
224	428	X	-0.003	-0.003	0	%100
225	429	X	-0.001	-0.001	0	%100

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	18	Y	-0.003	-0.002	0	0.583
2	18	Y	-0.002	-0.002	0.583	1.166
3	18	Y	-0.002	-0.003	1.166	1.749
4	18	Y	-0.003	-0.002	1.749	2.332
5	18	Y	-0.002	-2.275e-05	2.332	2.914
6	19	Y	-0.003	-0.002	0	0.583
7	19	Y	-0.002	-0.002	0.583	1.166
8	19	Y	-0.002	-0.003	1.166	1.749
9	19	Y	-0.003	-0.002	1.749	2.332
10	19	Y	-0.002	-2.332e-05	2.332	2.914
11	36	Y	-0.005	-0.006	0	0.332
12	36	Y	-0.006	-0.006	0.332	0.664
13	36	Y	-0.006	-0.006	0.664	0.995
14	36	Y	-0.006	-0.004	0.995	1.327
15	36	Y	-0.004	-0.003	1.327	1.659
16	37	Y	-0.004	-0.006	0	0.332
17	37	Y	-0.006	-0.007	0.332	0.664
18	37	Y	-0.007	-0.006	0.664	0.995
19	37	Y	-0.006	-0.004	0.995	1.327
20	37	Y	-0.004	-0.003	1.327	1.659
21	38	Y	-0.0004544	-0.005	0	0.117
22	38	Y	-0.005	-0.008	0.117	0.233
23	38	Y	-0.008	-0.006	0.233	0.35
24	38	Y	-0.006	-0.005	0.35	0.467
25	38	Y	-0.005	-0.008	0.467	0.583
26	39	Y	-0.0004436	-0.005	0	0.117
27	39	Y	-0.005	-0.008	0.117	0.233

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
28	39	Y	-0.008	-0.006	0.233	0.35
29	39	Y	-0.006	-0.005	0.35	0.467
30	39	Y	-0.005	-0.008	0.467	0.583
31	42	Y	-0.002	-0.003	0	0.594
32	42	Y	-0.003	-0.006	0.594	1.188
33	42	Y	-0.006	-0.005	1.188	1.783
34	42	Y	-0.005	-0.001	1.783	2.377
35	42	Y	-0.001	-6.965e-05	2.377	2.971
36	124	Y	-0.001	-0.001	0.009	0.161
37	125	Y	-0.002	-0.001	0	0.167
38	127	Y	-0.009	-0.005	0	0.142
39	127	Y	-0.005	-5.095e-05	0.142	0.285
40	128	Y	-0.001	-0.002	0	0.095
41	128	Y	-0.002	-0.002	0.095	0.189
42	128	Y	-0.002	-0.0001828	0.189	0.284
43	130	Y	-0.0009467	-0.0009467	0	0.167
44	135	Y	-0.001	-0.001	0.005	0.167
45	136	Y	-0.002	-0.001	0	0.167
46	138	Y	-0.009	-0.005	0	0.142
47	138	Y	-0.005	4.022e-07	0.142	0.285
48	140	Y	-0.001	-0.002	0	0.095
49	140	Y	-0.002	-0.002	0.095	0.189
50	140	Y	-0.002	-0.0001829	0.189	0.284
51	144	Y	-0.0009471	-0.0009471	0	0.167
52	8	Y	-0.003	-0.003	0	0.604
53	9	Y	-0.003	-0.003	0	0.604
54	20	Y	-0.001	-0.001	1.518	2.386
55	21	Y	-0.001	-0.001	1.518	2.386
56	34	Y	-0.001	-0.001	0.24	1.124
57	35	Y	-0.001	-0.001	0.24	1.124
58	36	Y	-0.003	-0.003	0	0.829
59	36	Y	-0.003	-0.003	0.829	1.659
60	37	Y	-0.003	-0.003	0	0.829
61	37	Y	-0.003	-0.003	0.829	1.659
62	42	Y	-0.01	-0.01	2.229	2.834
63	129	Y	-0.004	-0.004	0	0.284
64	142	Y	-0.004	-0.004	0	0.285
65	20	Y	-0.003	-0.002	0	0.477
66	20	Y	-0.002	-0.002	0.477	0.954
67	20	Y	-0.002	-0.002	0.954	1.431
68	20	Y	-0.002	-0.002	1.431	1.909
69	20	Y	-0.002	-0.0005369	1.909	2.386
70	21	Y	-0.003	-0.002	0	0.477
71	21	Y	-0.002	-0.002	0.477	0.954
72	21	Y	-0.002	-0.002	0.954	1.431
73	21	Y	-0.002	-0.002	1.431	1.909
74	21	Y	-0.002	-0.0005368	1.909	2.386
75	34	Y	-0.004	-0.007	0	0.225
76	34	Y	-0.007	-0.006	0.225	0.45
77	34	Y	-0.006	-0.005	0.45	0.674
78	34	Y	-0.005	-0.006	0.674	0.899
79	34	Y	-0.006	-0.004	0.899	1.124
80	35	Y	-0.004	-0.007	0	0.225
81	35	Y	-0.007	-0.006	0.225	0.45
82	35	Y	-0.006	-0.005	0.45	0.674

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
83	35	Y	-0.005	-0.006	0.674	0.899
84	35	Y	-0.006	-0.004	0.899	1.124
85	42	Y	-6.111e-05	-0.0008514	2.122	2.547
86	42	Y	-0.0008514	-0.002	2.547	2.971
87	42	Y	-0.002	-0.004	2.971	3.395
88	42	Y	-0.004	-0.003	3.395	3.82
89	42	Y	-0.003	-6.111e-05	3.82	4.244
90	126	Y	-0.003	-0.0008514	0	0.167
91	129	Y	-0.007	-0.003	0	0.095
92	129	Y	-0.003	-0.001	0.095	0.19
93	129	Y	-0.001	-0.003	0.19	0.284
94	132	Y	-0.0009189	-0.0009189	0	0.167
95	137	Y	-0.003	-0.0009189	0	0.167
96	142	Y	-0.009	-0.003	0	0.095
97	142	Y	-0.003	-0.0007445	0.095	0.19
98	142	Y	-0.0007445	-0.003	0.19	0.285
99	145	Y	-0.0009192	-0.0009192	0	0.167
100	213	Y	-0.0002347	-0.0002347	5.636	6.142
101	215	Y	-0.0002356	-0.0002356	0	0.501
102	17	Y	3.421e-05	-0.002	0.239	1.312
103	17	Y	-0.002	-0.005	1.312	2.386
104	20	Y	3.421e-05	-0.002	0.239	1.312
105	20	Y	-0.002	-0.005	1.312	2.386
106	205	Y	-0.001	-0.01	0	0.556
107	205	Y	-0.01	-0.01	0.556	1.111
108	205	Y	-0.01	-0.001	1.111	1.667
109	206	Y	-0.017	-0.009	0	0.556
110	206	Y	-0.009	-0.009	0.556	1.111
111	206	Y	-0.009	-0.017	1.111	1.667
112	207	Y	-0.013	-0.013	4.781e-07	1.667
113	208	Y	-0.017	-0.009	0	0.556
114	208	Y	-0.009	-0.009	0.556	1.111
115	208	Y	-0.009	-0.017	1.111	1.667
116	209	Y	-0.001	-0.01	0	0.556
117	209	Y	-0.01	-0.01	0.556	1.111
118	209	Y	-0.01	-0.001	1.111	1.667
119	214	Y	-0.0008547	-0.000854	0	3.071
120	214	Y	-0.000854	-0.0008532	3.071	6.142
121	215	Y	-0.0008535	-0.0008541	0	3.071
122	215	Y	-0.0008541	-0.0008548	3.071	6.142
123	12	Y	3.421e-05	-0.002	0.239	1.312
124	12	Y	-0.002	-0.005	1.312	2.386
125	21	Y	3.421e-05	-0.002	0.239	1.312
126	21	Y	-0.002	-0.005	1.312	2.386
127	200	Y	-0.001	-0.01	0	0.556
128	200	Y	-0.01	-0.01	0.556	1.111
129	200	Y	-0.01	-0.001	1.111	1.667
130	201	Y	-0.017	-0.009	0	0.556
131	201	Y	-0.009	-0.009	0.556	1.111
132	201	Y	-0.009	-0.017	1.111	1.667
133	202	Y	-0.013	-0.013	1.789e-07	1.667
134	203	Y	-0.017	-0.009	0	0.556
135	203	Y	-0.009	-0.009	0.556	1.111
136	203	Y	-0.009	-0.017	1.111	1.667
137	204	Y	-0.001	-0.01	0	0.556

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
138	204	Y	-0.01	-0.01	0.556	1.111
139	204	Y	-0.01	-0.001	1.111	1.667
140	212	Y	-0.0008547	-0.000854	0	3.071
141	212	Y	-0.000854	-0.0008532	3.071	6.142
142	213	Y	-0.0008535	-0.0008541	0	3.071
143	213	Y	-0.0008541	-0.0008548	3.071	6.142
144	13	Y	3.421e-05	-0.002	0.239	1.312
145	13	Y	-0.002	-0.005	1.312	2.386
146	16	Y	3.421e-05	-0.002	0.239	1.312
147	16	Y	-0.002	-0.005	1.312	2.386
148	195	Y	-0.001	-0.01	0	0.556
149	195	Y	-0.01	-0.01	0.556	1.111
150	195	Y	-0.01	-0.001	1.111	1.667
151	196	Y	-0.017	-0.009	0	0.556
152	196	Y	-0.009	-0.009	0.556	1.111
153	196	Y	-0.009	-0.017	1.111	1.667
154	197	Y	-0.013	-0.013	2.192e-07	1.667
155	198	Y	-0.017	-0.009	0	0.556
156	198	Y	-0.009	-0.009	0.556	1.111
157	198	Y	-0.009	-0.017	1.111	1.667
158	199	Y	-0.001	-0.01	0	0.556
159	199	Y	-0.01	-0.01	0.556	1.111
160	199	Y	-0.01	-0.001	1.111	1.667
161	210	Y	-0.0008547	-0.000854	0	3.071
162	210	Y	-0.000854	-0.0008532	3.071	6.142
163	211	Y	-0.0008535	-0.0008541	0	3.071
164	211	Y	-0.0008541	-0.0008548	3.071	6.142
165	10	Y	-0.003	-0.002	0	0.583
166	10	Y	-0.002	-0.002	0.583	1.166
167	10	Y	-0.002	-0.003	1.166	1.749
168	10	Y	-0.003	-0.002	1.749	2.332
169	10	Y	-0.002	-2.275e-05	2.332	2.914
170	11	Y	-0.003	-0.002	0	0.583
171	11	Y	-0.002	-0.002	0.583	1.166
172	11	Y	-0.002	-0.003	1.166	1.749
173	11	Y	-0.003	-0.002	1.749	2.332
174	11	Y	-0.002	-2.332e-05	2.332	2.914
175	24	Y	-0.005	-0.006	0	0.332
176	24	Y	-0.006	-0.006	0.332	0.664
177	24	Y	-0.006	-0.006	0.664	0.995
178	24	Y	-0.006	-0.004	0.995	1.327
179	24	Y	-0.004	-0.003	1.327	1.659
180	25	Y	-0.004	-0.006	0	0.332
181	25	Y	-0.006	-0.006	0.332	0.664
182	25	Y	-0.006	-0.005	0.664	0.995
183	25	Y	-0.005	-0.004	0.995	1.327
184	25	Y	-0.004	-0.004	1.327	1.659
185	26	Y	-0.0004545	-0.005	0	0.117
186	26	Y	-0.005	-0.008	0.117	0.233
187	26	Y	-0.008	-0.006	0.233	0.35
188	26	Y	-0.006	-0.005	0.35	0.467
189	26	Y	-0.005	-0.008	0.467	0.583
190	27	Y	-0.0004475	-0.005	0	0.117
191	27	Y	-0.005	-0.008	0.117	0.233
192	27	Y	-0.008	-0.006	0.233	0.35

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
193	27	Y	-0.006	-0.005	0.35	0.467
194	27	Y	-0.005	-0.008	0.467	0.583
195	40	Y	-0.002	-0.003	0	0.594
196	40	Y	-0.003	-0.006	0.594	1.188
197	40	Y	-0.006	-0.005	1.188	1.783
198	40	Y	-0.005	-0.001	1.783	2.377
199	40	Y	-0.001	-6.965e-05	2.377	2.971
200	148	Y	-0.001	-0.001	0.009	0.161
201	149	Y	-0.002	-0.001	0	0.167
202	151	Y	-0.009	-0.005	0	0.142
203	151	Y	-0.005	-7.032e-05	0.142	0.285
204	152	Y	-0.001	-0.002	0	0.095
205	152	Y	-0.002	-0.002	0.095	0.189
206	152	Y	-0.002	-0.0001828	0.189	0.284
207	154	Y	-0.0009467	-0.0009467	0	0.167
208	156	Y	-0.001	-0.001	0.005	0.167
209	157	Y	-0.002	-0.001	0	0.167
210	159	Y	-0.009	-0.005	0	0.142
211	159	Y	-0.005	4.025e-07	0.142	0.285
212	160	Y	-0.001	-0.002	0	0.095
213	160	Y	-0.002	-0.002	0.095	0.189
214	160	Y	-0.002	-0.0001829	0.189	0.284
215	162	Y	-0.0009471	-0.0009471	0	0.167
216	4	Y	-0.003	-0.003	0	0.604
217	5	Y	-0.003	-0.003	0	0.604
218	12	Y	-0.001	-0.001	1.518	2.386
219	13	Y	-0.001	-0.001	1.518	2.386
220	22	Y	-0.001	-0.001	0.24	1.124
221	23	Y	-0.001	-0.001	0.24	1.124
222	24	Y	-0.003	-0.003	0	0.829
223	24	Y	-0.003	-0.003	0.829	1.659
224	25	Y	-0.003	-0.003	0	0.829
225	25	Y	-0.003	-0.003	0.829	1.659
226	40	Y	-0.01	-0.01	2.229	2.834
227	153	Y	-0.004	-0.004	0	0.285
228	161	Y	-0.004	-0.004	0	0.284
229	12	Y	-0.003	-0.002	0	0.477
230	12	Y	-0.002	-0.002	0.477	0.954
231	12	Y	-0.002	-0.002	0.954	1.431
232	12	Y	-0.002	-0.002	1.431	1.909
233	12	Y	-0.002	-0.0005381	1.909	2.386
234	13	Y	-0.003	-0.002	0	0.477
235	13	Y	-0.002	-0.002	0.477	0.954
236	13	Y	-0.002	-0.002	0.954	1.431
237	13	Y	-0.002	-0.002	1.431	1.909
238	13	Y	-0.002	-0.0005372	1.909	2.386
239	22	Y	-0.004	-0.007	0	0.225
240	22	Y	-0.007	-0.006	0.225	0.45
241	22	Y	-0.006	-0.005	0.45	0.674
242	22	Y	-0.005	-0.006	0.674	0.899
243	22	Y	-0.006	-0.004	0.899	1.124
244	23	Y	-0.004	-0.007	0	0.225
245	23	Y	-0.007	-0.006	0.225	0.45
246	23	Y	-0.006	-0.005	0.45	0.674
247	23	Y	-0.005	-0.006	0.674	0.899

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
248	23	Y	-0.006	-0.004	0.899	1.124
249	40	Y	-6.111e-05	-0.0008515	2.122	2.547
250	40	Y	-0.0008515	-0.002	2.547	2.971
251	40	Y	-0.002	-0.004	2.971	3.395
252	40	Y	-0.004	-0.003	3.395	3.82
253	40	Y	-0.003	-6.111e-05	3.82	4.244
254	150	Y	-0.003	-0.0008515	0	0.167
255	153	Y	-0.009	-0.003	0	0.095
256	153	Y	-0.003	-0.0007423	0.095	0.19
257	153	Y	-0.0007423	-0.003	0.19	0.285
258	155	Y	-0.0009192	-0.0009192	0	0.167
259	158	Y	-0.003	-0.0009192	0	0.167
260	161	Y	-0.006	-0.004	0	0.071
261	161	Y	-0.004	-0.002	0.071	0.142
262	161	Y	-0.002	-0.002	0.142	0.213
263	161	Y	-0.002	-0.002	0.213	0.284
264	163	Y	-0.0009189	-0.0009189	0	0.167
265	211	Y	-0.0002332	-0.0002332	5.636	6.142
266	213	Y	-0.0002371	-0.0002371	0	0.501
267	14	Y	-0.003	-0.002	0	0.583
268	14	Y	-0.002	-0.002	0.583	1.166
269	14	Y	-0.002	-0.003	1.166	1.749
270	14	Y	-0.003	-0.002	1.749	2.332
271	14	Y	-0.002	-2.237e-05	2.332	2.914
272	15	Y	-0.003	-0.002	0	0.583
273	15	Y	-0.002	-0.002	0.583	1.166
274	15	Y	-0.002	-0.003	1.166	1.749
275	15	Y	-0.003	-0.002	1.749	2.332
276	15	Y	-0.002	-2.294e-05	2.332	2.914
277	30	Y	-0.005	-0.006	0	0.332
278	30	Y	-0.006	-0.006	0.332	0.664
279	30	Y	-0.006	-0.006	0.664	0.995
280	30	Y	-0.006	-0.004	0.995	1.327
281	30	Y	-0.004	-0.003	1.327	1.659
282	31	Y	-0.004	-0.006	0	0.332
283	31	Y	-0.006	-0.007	0.332	0.664
284	31	Y	-0.007	-0.006	0.664	0.995
285	31	Y	-0.006	-0.004	0.995	1.327
286	31	Y	-0.004	-0.003	1.327	1.659
287	32	Y	-0.0004558	-0.005	0	0.117
288	32	Y	-0.005	-0.008	0.117	0.233
289	32	Y	-0.008	-0.006	0.233	0.35
290	32	Y	-0.006	-0.005	0.35	0.467
291	32	Y	-0.005	-0.008	0.467	0.583
292	33	Y	-0.0004453	-0.005	0	0.117
293	33	Y	-0.005	-0.008	0.117	0.233
294	33	Y	-0.008	-0.006	0.233	0.35
295	33	Y	-0.006	-0.005	0.35	0.467
296	33	Y	-0.005	-0.008	0.467	0.583
297	41	Y	-0.002	-0.003	0	0.594
298	41	Y	-0.003	-0.006	0.594	1.188
299	41	Y	-0.006	-0.005	1.188	1.783
300	41	Y	-0.005	-0.001	1.783	2.377
301	41	Y	-0.001	-6.965e-05	2.377	2.971
302	131	Y	-0.001	-0.001	0.005	0.167

**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
303	133	Y	-0.002	-0.001	0	0.167
304	139	Y	-0.009	-0.005	0	0.142
305	139	Y	-0.005	-4.477e-05	0.142	0.285
306	141	Y	-0.001	-0.002	0	0.095
307	141	Y	-0.002	-0.002	0.095	0.189
308	141	Y	-0.002	-0.0001827	0.189	0.284
309	146	Y	-0.0009471	-0.0009471	0	0.167
310	164	Y	-0.001	-0.001	0.009	0.161
311	165	Y	-0.002	-0.001	0	0.167
312	167	Y	-0.009	-0.004	0	0.142
313	167	Y	-0.004	-5.279e-05	0.142	0.285
314	168	Y	-0.001	-0.002	0	0.095
315	168	Y	-0.002	-0.002	0.095	0.189
316	168	Y	-0.002	-0.0001827	0.189	0.284
317	170	Y	-0.0009467	-0.0009467	0	0.167
318	6	Y	-0.003	-0.003	0	0.604
319	7	Y	-0.003	-0.003	0	0.604
320	16	Y	-0.001	-0.001	1.518	2.386
321	17	Y	-0.001	-0.001	1.518	2.386
322	28	Y	-0.001	-0.001	0.24	1.124
323	29	Y	-0.001	-0.001	0.24	1.124
324	30	Y	-0.003	-0.003	0	0.829
325	30	Y	-0.003	-0.003	0.829	1.659
326	31	Y	-0.003	-0.003	0	0.829
327	31	Y	-0.003	-0.003	0.829	1.659
328	41	Y	-0.01	-0.01	2.229	2.834
329	143	Y	-0.004	-0.004	0	0.285
330	169	Y	-0.004	-0.004	0	0.285
331	16	Y	-0.003	-0.002	0	0.477
332	16	Y	-0.002	-0.002	0.477	0.954
333	16	Y	-0.002	-0.002	0.954	1.431
334	16	Y	-0.002	-0.002	1.431	1.909
335	16	Y	-0.002	-0.0005387	1.909	2.386
336	17	Y	-0.003	-0.002	0	0.477
337	17	Y	-0.002	-0.002	0.477	0.954
338	17	Y	-0.002	-0.002	0.954	1.431
339	17	Y	-0.002	-0.002	1.431	1.909
340	17	Y	-0.002	-0.0005372	1.909	2.386
341	28	Y	-0.004	-0.007	0	0.225
342	28	Y	-0.007	-0.006	0.225	0.45
343	28	Y	-0.006	-0.005	0.45	0.674
344	28	Y	-0.005	-0.006	0.674	0.899
345	28	Y	-0.006	-0.004	0.899	1.124
346	29	Y	-0.004	-0.007	0	0.225
347	29	Y	-0.007	-0.006	0.225	0.45
348	29	Y	-0.006	-0.005	0.45	0.674
349	29	Y	-0.005	-0.006	0.674	0.899
350	29	Y	-0.006	-0.004	0.899	1.124
351	41	Y	-6.081e-05	-0.0008583	2.122	2.547
352	41	Y	-0.0008583	-0.002	2.547	2.971
353	41	Y	-0.002	-0.004	2.971	3.395
354	41	Y	-0.004	-0.003	3.395	3.82
355	41	Y	-0.003	-6.081e-05	3.82	4.244
356	134	Y	-0.003	-0.0008583	0	0.167
357	143	Y	-0.007	-0.003	0	0.095



**Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]	
358	143	Y	-0.003	-0.001	0.095	0.19
359	143	Y	-0.001	-0.003	0.19	0.285
360	147	Y	-0.0009156	-0.0009156	0	0.167
361	166	Y	-0.003	-0.0009156	0	0.167
362	169	Y	-0.009	-0.003	0	0.095
363	169	Y	-0.003	-0.0007361	0.095	0.19
364	169	Y	-0.0007361	-0.003	0.19	0.285
365	171	Y	-0.0009159	-0.0009159	0	0.167
366	211	Y	-0.0002372	-0.0002372	0	0.501
367	215	Y	-0.0002332	-0.0002332	5.636	6.142

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads)**

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]	
1	10	Y	-0.002	-0.0009574	0	0.583
2	10	Y	-0.0009574	-0.001	0.583	1.166
3	10	Y	-0.001	-0.002	1.166	1.749
4	10	Y	-0.002	-0.001	1.749	2.332
5	10	Y	-0.001	-1.258e-05	2.332	2.914
6	11	Y	-0.002	-0.0009576	0	0.583
7	11	Y	-0.0009576	-0.001	0.583	1.166
8	11	Y	-0.001	-0.002	1.166	1.749
9	11	Y	-0.002	-0.001	1.749	2.332
10	11	Y	-0.001	-1.29e-05	2.332	2.914
11	24	Y	-0.002	-0.003	0	0.332
12	24	Y	-0.003	-0.004	0.332	0.664
13	24	Y	-0.004	-0.003	0.664	0.995
14	24	Y	-0.003	-0.002	0.995	1.327
15	24	Y	-0.002	-0.001	1.327	1.659
16	25	Y	-0.002	-0.003	0	0.332
17	25	Y	-0.003	-0.004	0.332	0.664
18	25	Y	-0.004	-0.003	0.664	0.995
19	25	Y	-0.003	-0.002	0.995	1.327
20	25	Y	-0.002	-0.002	1.327	1.659
21	26	Y	-0.0002513	-0.003	0	0.117
22	26	Y	-0.003	-0.005	0.117	0.233
23	26	Y	-0.005	-0.003	0.233	0.35
24	26	Y	-0.003	-0.003	0.35	0.467
25	26	Y	-0.003	-0.005	0.467	0.583
26	27	Y	-0.0002474	-0.003	0	0.117
27	27	Y	-0.003	-0.005	0.117	0.233
28	27	Y	-0.005	-0.003	0.233	0.35
29	27	Y	-0.003	-0.003	0.35	0.467
30	27	Y	-0.003	-0.005	0.467	0.583
31	40	Y	-0.000832	-0.002	0	0.594
32	40	Y	-0.002	-0.003	0.594	1.188
33	40	Y	-0.003	-0.003	1.188	1.783
34	40	Y	-0.003	-0.000615	1.783	2.377
35	40	Y	-0.000615	-3.851e-05	2.377	2.971
36	148	Y	-0.0007348	-0.0007348	0.009	0.161
37	149	Y	-0.001	-0.0007348	0	0.167
38	151	Y	-0.005	-0.002	0	0.142
39	151	Y	-0.002	-3.888e-05	0.142	0.285
40	152	Y	-0.0008043	-0.001	0	0.095
41	152	Y	-0.001	-0.001	0.095	0.189
42	152	Y	-0.001	-0.0001011	0.189	0.284

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
43	154	Y	-0.0005234	-0.0005234	0	0.167
44	156	Y	-0.0006914	-0.0006914	0.005	0.167
45	157	Y	-0.001	-0.0006914	0	0.167
46	159	Y	-0.005	-0.002	0	0.142
47	159	Y	-0.002	2.226e-07	0.142	0.285
48	160	Y	-0.0008039	-0.001	0	0.095
49	160	Y	-0.001	-0.001	0.095	0.189
50	160	Y	-0.001	-0.0001011	0.189	0.284
51	162	Y	-0.0005237	-0.0005237	0	0.167
52	4	Y	-0.002	-0.002	0	0.604
53	5	Y	-0.002	-0.002	0	0.604
54	12	Y	-0.0007738	-0.0007738	1.518	2.386
55	13	Y	-0.0007738	-0.0007738	1.518	2.386
56	22	Y	-0.0008624	-0.0008624	0.24	1.124
57	23	Y	-0.0008624	-0.0008624	0.24	1.124
58	24	Y	-0.002	-0.002	0	0.829
59	24	Y	-0.002	-0.002	0.829	1.659
60	25	Y	-0.002	-0.002	0	0.829
61	25	Y	-0.002	-0.002	0.829	1.659
62	40	Y	-0.006	-0.006	2.229	2.834
63	153	Y	-0.003	-0.003	0	0.285
64	161	Y	-0.003	-0.003	0	0.284
65	12	Y	-0.002	-0.001	0	0.477
66	12	Y	-0.001	-0.001	0.477	0.954
67	12	Y	-0.001	-0.001	0.954	1.431
68	12	Y	-0.001	-0.001	1.431	1.909
69	12	Y	-0.001	-0.0003229	1.909	2.386
70	13	Y	-0.002	-0.001	0	0.477
71	13	Y	-0.001	-0.001	0.477	0.954
72	13	Y	-0.001	-0.001	0.954	1.431
73	13	Y	-0.001	-0.001	1.431	1.909
74	13	Y	-0.001	-0.0003223	1.909	2.386
75	22	Y	-0.002	-0.004	0	0.225
76	22	Y	-0.004	-0.004	0.225	0.45
77	22	Y	-0.004	-0.003	0.45	0.674
78	22	Y	-0.003	-0.003	0.674	0.899
79	22	Y	-0.003	-0.002	0.899	1.124
80	23	Y	-0.002	-0.004	0	0.225
81	23	Y	-0.004	-0.004	0.225	0.45
82	23	Y	-0.004	-0.003	0.45	0.674
83	23	Y	-0.003	-0.003	0.674	0.899
84	23	Y	-0.003	-0.002	0.899	1.124
85	40	Y	-3.667e-05	-0.0005109	2.122	2.547
86	40	Y	-0.0005109	-0.001	2.547	2.971
87	40	Y	-0.001	-0.002	2.971	3.395
88	40	Y	-0.002	-0.002	3.395	3.82
89	40	Y	-0.002	-3.667e-05	3.82	4.244
90	150	Y	-0.002	-0.0005109	0	0.167
91	153	Y	-0.005	-0.002	0	0.095
92	153	Y	-0.002	-0.0004454	0.095	0.19
93	153	Y	-0.0004454	-0.002	0.19	0.285
94	155	Y	-0.0005515	-0.0005515	0	0.167
95	158	Y	-0.002	-0.0005515	0	0.167
96	161	Y	-0.004	-0.002	0	0.071
97	161	Y	-0.002	-0.001	0.071	0.142

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
98	161	Y	-0.001	-0.001	0.142	0.213
99	161	Y	-0.001	-0.001	0.213	0.284
100	163	Y	-0.0005513	-0.0005513	0	0.167
101	211	Y	-0.0001399	-0.0001399	5.636	6.142
102	213	Y	-0.0001423	-0.0001423	0	0.501
103	14	Y	-0.002	-0.001	0	0.583
104	14	Y	-0.001	-0.001	0.583	1.166
105	14	Y	-0.001	-0.002	1.166	1.749
106	14	Y	-0.002	-0.001	1.749	2.332
107	14	Y	-0.001	-1.342e-05	2.332	2.914
108	15	Y	-0.002	-0.001	0	0.583
109	15	Y	-0.001	-0.001	0.583	1.166
110	15	Y	-0.001	-0.002	1.166	1.749
111	15	Y	-0.002	-0.001	1.749	2.332
112	15	Y	-0.001	-1.377e-05	2.332	2.914
113	30	Y	-0.003	-0.003	0	0.332
114	30	Y	-0.003	-0.004	0.332	0.664
115	30	Y	-0.004	-0.003	0.664	0.995
116	30	Y	-0.003	-0.002	0.995	1.327
117	30	Y	-0.002	-0.002	1.327	1.659
118	31	Y	-0.003	-0.003	0	0.332
119	31	Y	-0.003	-0.004	0.332	0.664
120	31	Y	-0.004	-0.003	0.664	0.995
121	31	Y	-0.003	-0.002	0.995	1.327
122	31	Y	-0.002	-0.002	1.327	1.659
123	32	Y	-0.0002735	-0.003	0	0.117
124	32	Y	-0.003	-0.005	0.117	0.233
125	32	Y	-0.005	-0.004	0.233	0.35
126	32	Y	-0.004	-0.003	0.35	0.467
127	32	Y	-0.003	-0.005	0.467	0.583
128	33	Y	-0.0002672	-0.003	0	0.117
129	33	Y	-0.003	-0.005	0.117	0.233
130	33	Y	-0.005	-0.004	0.233	0.35
131	33	Y	-0.004	-0.003	0.35	0.467
132	33	Y	-0.003	-0.005	0.467	0.583
133	41	Y	-0.0009028	-0.002	0	0.594
134	41	Y	-0.002	-0.003	0.594	1.188
135	41	Y	-0.003	-0.003	1.188	1.783
136	41	Y	-0.003	-0.006672	1.783	2.377
137	41	Y	-0.0006672	-4.179e-05	2.377	2.971
138	131	Y	-0.0007503	-0.0007503	0.005	0.167
139	133	Y	-0.001	-0.0007503	0	0.167
140	139	Y	-0.005	-0.003	0	0.142
141	139	Y	-0.003	-2.686e-05	0.142	0.285
142	141	Y	-0.0008689	-0.001	0	0.095
143	141	Y	-0.001	-0.001	0.095	0.189
144	141	Y	-0.001	-0.0001096	0.189	0.284
145	146	Y	-0.0005683	-0.0005683	0	0.167
146	164	Y	-0.0007974	-0.0007974	0.009	0.161
147	165	Y	-0.001	-0.0007974	0	0.167
148	167	Y	-0.005	-0.003	0	0.142
149	167	Y	-0.003	-3.167e-05	0.142	0.285
150	168	Y	-0.000869	-0.001	0	0.095
151	168	Y	-0.001	-0.001	0.095	0.189
152	168	Y	-0.001	-0.0001096	0.189	0.284

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
153	170	Y	-0.000568	-0.000568	0	0.167
154	6	Y	-0.002	-0.002	0	0.604
155	7	Y	-0.002	-0.002	0	0.604
156	16	Y	-0.0007738	-0.0007738	1.518	2.386
157	17	Y	-0.0007738	-0.0007738	1.518	2.386
158	28	Y	-0.0008624	-0.0008624	0.24	1.124
159	29	Y	-0.0008624	-0.0008624	0.24	1.124
160	30	Y	-0.002	-0.002	0	0.829
161	30	Y	-0.002	-0.002	0.829	1.659
162	31	Y	-0.002	-0.002	0	0.829
163	31	Y	-0.002	-0.002	0.829	1.659
164	41	Y	-0.006	-0.006	2.229	2.834
165	143	Y	-0.003	-0.003	0	0.285
166	169	Y	-0.003	-0.003	0	0.285
167	16	Y	-0.002	-0.001	0	0.477
168	16	Y	-0.001	-0.001	0.477	0.954
169	16	Y	-0.001	-0.001	0.954	1.431
170	16	Y	-0.001	-0.001	1.431	1.909
171	16	Y	-0.001	-0.0003232	1.909	2.386
172	17	Y	-0.002	-0.001	0	0.477
173	17	Y	-0.001	-0.001	0.477	0.954
174	17	Y	-0.001	-0.001	0.954	1.431
175	17	Y	-0.001	-0.001	1.431	1.909
176	17	Y	-0.001	-0.0003223	1.909	2.386
177	28	Y	-0.002	-0.004	0	0.225
178	28	Y	-0.004	-0.004	0.225	0.45
179	28	Y	-0.004	-0.003	0.45	0.674
180	28	Y	-0.003	-0.003	0.674	0.899
181	28	Y	-0.003	-0.002	0.899	1.124
182	29	Y	-0.002	-0.004	0	0.225
183	29	Y	-0.004	-0.004	0.225	0.45
184	29	Y	-0.004	-0.003	0.45	0.674
185	29	Y	-0.003	-0.003	0.674	0.899
186	29	Y	-0.003	-0.002	0.899	1.124
187	41	Y	-3.649e-05	-0.000515	2.122	2.547
188	41	Y	-0.000515	-0.001	2.547	2.971
189	41	Y	-0.001	-0.002	2.971	3.395
190	41	Y	-0.002	-0.002	3.395	3.82
191	41	Y	-0.002	-3.649e-05	3.82	4.244
192	134	Y	-0.002	-0.000515	0	0.167
193	143	Y	-0.004	-0.002	0	0.095
194	143	Y	-0.002	-0.0008185	0.095	0.19
195	143	Y	-0.0008185	-0.002	0.19	0.285
196	147	Y	-0.0005494	-0.0005494	0	0.167
197	166	Y	-0.002	-0.0005494	0	0.167
198	169	Y	-0.005	-0.002	0	0.095
199	169	Y	-0.002	-0.0004417	0.095	0.19
200	169	Y	-0.0004417	-0.002	0.19	0.285
201	171	Y	-0.0005496	-0.0005496	0	0.167
202	211	Y	-0.0001423	-0.0001423	0	0.501
203	215	Y	-0.0001399	-0.0001399	5.636	6.142
204	18	Y	-0.002	-0.001	0	0.583
205	18	Y	-0.001	-0.001	0.583	1.166
206	18	Y	-0.001	-0.002	1.166	1.749
207	18	Y	-0.002	-0.001	1.749	2.332

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
208	18	Y	-0.001	-1.365e-05	2.332	2.914
209	19	Y	-0.002	-0.001	0	0.583
210	19	Y	-0.001	-0.001	0.583	1.166
211	19	Y	-0.001	-0.002	1.166	1.749
212	19	Y	-0.002	-0.001	1.749	2.332
213	19	Y	-0.001	-1.399e-05	2.332	2.914
214	36	Y	-0.003	-0.003	0	0.332
215	36	Y	-0.003	-0.004	0.332	0.664
216	36	Y	-0.004	-0.003	0.664	0.995
217	36	Y	-0.003	-0.002	0.995	1.327
218	36	Y	-0.002	-0.002	1.327	1.659
219	37	Y	-0.003	-0.003	0	0.332
220	37	Y	-0.003	-0.004	0.332	0.664
221	37	Y	-0.004	-0.003	0.664	0.995
222	37	Y	-0.003	-0.002	0.995	1.327
223	37	Y	-0.002	-0.002	1.327	1.659
224	38	Y	-0.0002727	-0.003	0	0.117
225	38	Y	-0.003	-0.005	0.117	0.233
226	38	Y	-0.005	-0.004	0.233	0.35
227	38	Y	-0.004	-0.003	0.35	0.467
228	38	Y	-0.003	-0.005	0.467	0.583
229	39	Y	-0.0002662	-0.003	0	0.117
230	39	Y	-0.003	-0.005	0.117	0.233
231	39	Y	-0.005	-0.004	0.233	0.35
232	39	Y	-0.004	-0.003	0.35	0.467
233	39	Y	-0.003	-0.005	0.467	0.583
234	42	Y	-0.0009028	-0.002	0	0.594
235	42	Y	-0.002	-0.003	0.594	1.188
236	42	Y	-0.003	-0.003	1.188	1.783
237	42	Y	-0.003	-0.0006674	1.783	2.377
238	42	Y	-0.0006674	-4.179e-05	2.377	2.971
239	124	Y	-0.0007974	-0.0007974	0.009	0.161
240	125	Y	-0.001	-0.0007974	0	0.167
241	127	Y	-0.005	-0.003	0	0.142
242	127	Y	-0.003	-3.057e-05	0.142	0.285
243	128	Y	-0.0008728	-0.001	0	0.095
244	128	Y	-0.001	-0.001	0.095	0.189
245	128	Y	-0.001	-0.0001097	0.189	0.284
246	130	Y	-0.000568	-0.000568	0	0.167
247	135	Y	-0.0007503	-0.0007503	0.005	0.167
248	136	Y	-0.001	-0.0007503	0	0.167
249	138	Y	-0.005	-0.003	0	0.142
250	138	Y	-0.003	2.413e-07	0.142	0.285
251	140	Y	-0.0008724	-0.001	0	0.095
252	140	Y	-0.001	-0.001	0.095	0.189
253	140	Y	-0.001	-0.0001097	0.189	0.284
254	144	Y	-0.0005683	-0.0005683	0	0.167
255	8	Y	-0.002	-0.002	0	0.604
256	9	Y	-0.002	-0.002	0	0.604
257	20	Y	-0.0007738	-0.0007738	1.518	2.386
258	21	Y	-0.0007738	-0.0007738	1.518	2.386
259	34	Y	-0.0008624	-0.0008624	0.24	1.124
260	35	Y	-0.0008624	-0.0008624	0.24	1.124
261	36	Y	-0.002	-0.002	0	0.829
262	36	Y	-0.002	-0.002	0.829	1.659

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
263	37	Y	-0.002	-0.002	0	0.829
264	37	Y	-0.002	-0.002	0.829	1.659
265	42	Y	-0.006	-0.006	2.229	2.834
266	129	Y	-0.003	-0.003	0	0.284
267	142	Y	-0.003	-0.003	0	0.285
268	20	Y	-0.002	-0.001	0	0.477
269	20	Y	-0.001	-0.001	0.477	0.954
270	20	Y	-0.001	-0.001	0.954	1.431
271	20	Y	-0.001	-0.001	1.431	1.909
272	20	Y	-0.001	-0.0003221	1.909	2.386
273	21	Y	-0.002	-0.001	0	0.477
274	21	Y	-0.001	-0.001	0.477	0.954
275	21	Y	-0.001	-0.001	0.954	1.431
276	21	Y	-0.001	-0.001	1.431	1.909
277	21	Y	-0.001	-0.0003221	1.909	2.386
278	34	Y	-0.002	-0.004	0	0.225
279	34	Y	-0.004	-0.004	0.225	0.45
280	34	Y	-0.004	-0.003	0.45	0.674
281	34	Y	-0.003	-0.003	0.674	0.899
282	34	Y	-0.003	-0.002	0.899	1.124
283	35	Y	-0.002	-0.004	0	0.225
284	35	Y	-0.004	-0.004	0.225	0.45
285	35	Y	-0.004	-0.003	0.45	0.674
286	35	Y	-0.003	-0.003	0.674	0.899
287	35	Y	-0.003	-0.002	0.899	1.124
288	42	Y	-3.667e-05	-0.0005108	2.122	2.547
289	42	Y	-0.0005108	-0.001	2.547	2.971
290	42	Y	-0.001	-0.002	2.971	3.395
291	42	Y	-0.002	-0.002	3.395	3.82
292	42	Y	-0.002	-3.667e-05	3.82	4.244
293	126	Y	-0.002	-0.0005108	0	0.167
294	129	Y	-0.004	-0.002	0	0.095
295	129	Y	-0.002	-0.0008123	0.095	0.19
296	129	Y	-0.0008123	-0.002	0.19	0.284
297	132	Y	-0.0005513	-0.0005513	0	0.167
298	137	Y	-0.002	-0.0005513	0	0.167
299	142	Y	-0.005	-0.002	0	0.095
300	142	Y	-0.002	-0.0004467	0.095	0.19
301	142	Y	-0.0004467	-0.002	0.19	0.285
302	145	Y	-0.0005515	-0.0005515	0	0.167
303	213	Y	-0.0001408	-0.0001408	5.636	6.142
304	215	Y	-0.0001413	-0.0001413	0	0.501
305	17	Y	2.053e-05	-0.001	0.239	1.312
306	17	Y	-0.001	-0.003	1.312	2.386
307	20	Y	2.052e-05	-0.001	0.239	1.312
308	20	Y	-0.001	-0.003	1.312	2.386
309	205	Y	-0.0007689	-0.006	0	0.556
310	205	Y	-0.006	-0.006	0.556	1.111
311	205	Y	-0.006	-0.0007689	1.111	1.667
312	206	Y	-0.01	-0.005	0	0.556
313	206	Y	-0.005	-0.005	0.556	1.111
314	206	Y	-0.005	-0.01	1.111	1.667
315	207	Y	-0.008	-0.008	4.781e-07	1.667
316	208	Y	-0.01	-0.005	0	0.556
317	208	Y	-0.005	-0.005	0.556	1.111

**Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)**

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
318	208	Y	-0.005	-0.01	1.111	1.667
319	209	Y	-0.0007689	-0.006	0	0.556
320	209	Y	-0.006	-0.006	0.556	1.111
321	209	Y	-0.006	-0.0007689	1.111	1.667
322	214	Y	-0.0005128	-0.0005124	0	3.071
323	214	Y	-0.0005124	-0.0005119	3.071	6.142
324	215	Y	-0.0005121	-0.0005125	0	3.071
325	215	Y	-0.0005125	-0.0005129	3.071	6.142
326	12	Y	2.052e-05	-0.001	0.239	1.312
327	12	Y	-0.001	-0.003	1.312	2.386
328	21	Y	2.053e-05	-0.001	0.239	1.312
329	21	Y	-0.001	-0.003	1.312	2.386
330	200	Y	-0.0007689	-0.006	0	0.556
331	200	Y	-0.006	-0.006	0.556	1.111
332	200	Y	-0.006	-0.0007689	1.111	1.667
333	201	Y	-0.01	-0.005	0	0.556
334	201	Y	-0.005	-0.005	0.556	1.111
335	201	Y	-0.005	-0.01	1.111	1.667
336	202	Y	-0.008	-0.008	1.789e-07	1.667
337	203	Y	-0.01	-0.005	0	0.556
338	203	Y	-0.005	-0.005	0.556	1.111
339	203	Y	-0.005	-0.01	1.111	1.667
340	204	Y	-0.0007689	-0.006	0	0.556
341	204	Y	-0.006	-0.006	0.556	1.111
342	204	Y	-0.006	-0.0007689	1.111	1.667
343	212	Y	-0.0005128	-0.0005124	0	3.071
344	212	Y	-0.0005124	-0.0005119	3.071	6.142
345	213	Y	-0.0005121	-0.0005125	0	3.071
346	213	Y	-0.0005125	-0.0005129	3.071	6.142
347	13	Y	2.053e-05	-0.001	0.239	1.312
348	13	Y	-0.001	-0.003	1.312	2.386
349	16	Y	2.052e-05	-0.001	0.239	1.312
350	16	Y	-0.001	-0.003	1.312	2.386
351	195	Y	-0.0007689	-0.006	0	0.556
352	195	Y	-0.006	-0.006	0.556	1.111
353	195	Y	-0.006	-0.0007689	1.111	1.667
354	196	Y	-0.01	-0.005	0	0.556
355	196	Y	-0.005	-0.005	0.556	1.111
356	196	Y	-0.005	-0.01	1.111	1.667
357	197	Y	-0.008	-0.008	2.192e-07	1.667
358	198	Y	-0.01	-0.005	0	0.556
359	198	Y	-0.005	-0.005	0.556	1.111
360	198	Y	-0.005	-0.01	1.111	1.667
361	199	Y	-0.0007689	-0.006	0	0.556
362	199	Y	-0.006	-0.006	0.556	1.111
363	199	Y	-0.006	-0.0007689	1.111	1.667
364	210	Y	-0.0005128	-0.0005124	0	3.071
365	210	Y	-0.0005124	-0.0005119	3.071	6.142
366	211	Y	-0.0005121	-0.0005125	0	3.071
367	211	Y	-0.0005125	-0.0005129	3.071	6.142

**Member Area Loads (BLC 1 : Dead)**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	102	90	91	103	Y	Two Way	-0.01
2	103	91	107	106	Y	Two Way	-0.01



**Member Area Loads (BLC 1 : Dead) (Continued)**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
3	106	107	92	104	Y	Two Way	-0.01
4	29	17	18	30	Y	Two Way	-0.01
5	30	18	33	32	Y	Two Way	-0.01
6	32	33	19	31	Y	Two Way	-0.01
7	63	51	52	64	Y	Two Way	-0.01
8	64	52	67	66	Y	Two Way	-0.01
9	66	65	53	67	Y	Two Way	-0.01
10	66	194	193	33	Y	Two Way	-0.01
11	195	67	106	196	Y	Two Way	-0.01
12	192	197	107	32	Y	Two Way	-0.01

**Member Area Loads (BLC 8 : Ice)**

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	102	90	91	103	Y	Two Way	-0.006
2	103	91	107	106	Y	Two Way	-0.006
3	106	107	92	104	Y	Two Way	-0.006
4	29	17	18	30	Y	Two Way	-0.006
5	30	18	33	32	Y	Two Way	-0.006
6	32	33	19	31	Y	Two Way	-0.006
7	63	51	52	64	Y	Two Way	-0.006
8	64	52	67	66	Y	Two Way	-0.006
9	66	65	53	67	Y	Two Way	-0.006
10	66	194	193	33	Y	Two Way	-0.006
11	195	67	106	196	Y	Two Way	-0.006
12	192	197	107	32	Y	Two Way	-0.006

**Node Loads and Enforced Displacements (BLC 11 : Live Load a)**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /ft, k*s <sup>2</sup> *ft)]
1	348	L	Y	-0.5
2	378	L	Y	-0.5
3	408	L	Y	-0.5

**Node Loads and Enforced Displacements (BLC 12 : Live Load b)**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /ft, k*s <sup>2</sup> *ft)]
1	352	L	Y	-0.5
2	382	L	Y	-0.5
3	412	L	Y	-0.5

**Node Loads and Enforced Displacements (BLC 13 : Live Load c)**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /ft, k*s <sup>2</sup> *ft)]
1	360	L	Y	-0.5
2	390	L	Y	-0.5
3	420	L	Y	-0.5

**Node Loads and Enforced Displacements (BLC 14 : Live Load d)**

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s <sup>2</sup> /ft, k*s <sup>2</sup> *ft)]
1	356	L	Y	-0.5
2	386	L	Y	-0.5
3	416	L	Y	-0.5

**Basic Load Cases**

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		75		12
2	0 Wind - No Ice	WLZ			75	225	
3	90 Wind - No Ice	WLX			75	225	
4	0 Wind - Ice	WLZ			75	225	
5	90 Wind - Ice	WLX			75	225	
6	0 Wind - Service	WLZ			75	225	
7	90 Wind - Service	WLX			75	225	
8	Ice	OL1			75	225	12
9	0 Seismic	ELZ			75	225	
10	90 Seismic	ELX			75	225	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL		3			
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	BLC 1 Transient Area Loads	None				367	
31	BLC 8 Transient Area Loads	None				367	

**Load Combinations**

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1



**Load Combinations (Continued)**

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
21	1.2 D + 1.0 - 210 W/lce	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/lce	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/lce	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/lce	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/lce	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5

**Load Combinations (Continued)**

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

**Envelope Node Reactions**

Node Label	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC		
1	186	max	0.676	5	3.782	14	14.708	2	0.027	8	0.953	11	0.018	11
2		min	-0.715	11	1.285	8	-3.41	8	-0.155	2	-0.851	5	-0.011	5
3	187	max	0.084	69	0.135	14	-4.269	8	-0.028	8	0.041	97	0.007	11
4		min	-0.017	3	0.058	8	-17.781	14	-0.135	14	-0.143	69	-0.006	5
5	296	max	11.189	18	3.692	18	0.835	13	0.077	18	0.831	3	0.121	18
6		min	-1.217	12	1.378	12	-6.445	19	0.001	11	-0.729	9	-0.01	13
7	297	max	-4.403	12	0.134	19	8.553	18	0.066	17	0.127	9	0.112	19
8		min	-14.915	18	0.06	13	2.491	12	0.019	12	-0.21	3	0.029	12
9	342	max	1.197	4	3.707	22	1.149	3	0.067	22	1.013	8	0.007	3
10		min	-11.217	22	1.389	4	-6.778	9	-0.007	4	-0.921	2	-0.128	22
11	343	max	14.929	22	0.134	22	8.673	22	0.064	23	0.118	12	-0.029	3
12		min	4.355	4	0.061	4	2.588	4	0.019	4	-0.202	6	-0.114	21
13	Totals:	max	6.403	5	11.331	18	8.994	2						
14		min	-6.403	11	5.548	12	-8.994	8						

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn	
1	389	PIPE 2.0	0.647	4.792	8	0.365	4.792	9	9.837	32.13	1.872	1.872	1.321	H3-6	
2	404	PIPE 2.0	0.735	4.688	8	0.364	4.792	7	9.837	32.13	1.872	1.872	1.34	H3-6	
3	1	PIPE 2.5	0.208	3.125	7	0.314	3.125	8	14.559	50.715	3.596	3.596	2.24	H3-6	
4	2	PIPE 2.5	0.262	2.865	13	0.284	3.125	3	14.559	50.715	3.596	3.596	2.143	H1-1b	
5	19	L3X3X6	0.272	0	20	0.272	1.214	z	7	65.297	66.465	2.243	5.174	1.32	H2-1
6	11	L3X3X6	0.27	0	15	0.272	1.214	z	3	65.297	66.465	2.243	5.174	1.31	H2-1
7	3	PIPE 2.5	0.258	2.865	9	0.241	3.125	12	14.559	50.715	3.596	3.596	2.079	H1-1b	
8	15	L3X3X6	0.276	0	24	0.238	1.214	z	11	65.297	66.465	2.243	5.174	1.36	H2-1

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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
9	374	PIPE 2.0	0.568	4.688	2	0.226	4.688	11			9.837	32.13	1.872	1.872	1.793	H1-1b
10	14	L3X3X6	0.237	0	15	0.19	2.763	y	23		65.297	66.465	2.243	5.174	1.5	H2-1
11	18	L3X3X6	0.235	0	22	0.185	2.763	y	20		65.297	66.465	2.243	5.174	1.5	H2-1
12	10	L3X3X6	0.231	0	18	0.184	2.763	y	16		65.297	66.465	2.243	5.174	1.5	H2-1
13	191	PIPE 2.0	0.235	2.995	3	0.152	12.24	20			6.295	32.13	1.872	1.872	1.963	H1-1b
14	189	PIPE 2.0	0.228	2.865	16	0.152	12.24	15			6.295	32.13	1.872	1.872	1.837	H1-1b
15	190	PIPE 2.0	0.249	2.995	8	0.15	12.24	23			6.295	32.13	1.872	1.872	2.477	H1-1b
16	16	L3X3X6	0.434	0	23	0.139	0.696	z	23		65.719	66.465	2.243	5.174	1.069	H2-1
17	20	L3X3X6	0.437	0	19	0.139	0.696	z	19		65.719	66.465	2.243	5.174	1.073	H2-1
18	12	L3X3X6	0.435	0	14	0.139	0.696	z	15		65.719	66.465	2.243	5.174	1.087	H2-1
19	21	L3X3X6	0.417	0	14	0.139	2.386	y	20		65.719	66.465	2.243	5.174	1.442	H2-1
20	17	L3X3X6	0.41	0	18	0.137	2.386	y	24		65.719	66.465	2.243	5.174	1.408	H2-1
21	13	L3X3X6	0.41	0	21	0.135	2.386	y	15		65.719	66.465	2.243	5.174	1.42	H2-1
22	388	PIPE 2.0	0.447	4.688	8	0.124	4.688	20			9.837	32.13	1.872	1.872	2.693	H1-1b
23	63	PL3/8"X1"	0.303	0	14	0.124	0.221	y	25		10.789	17.1	0.135	0.356	2.87	H1-1b
24	403	PIPE 2.0	0.424	4.688	13	0.123	4.688	24			9.837	32.13	1.872	1.872	3	H1-1b
25	312	PL3/8"X1"	0.295	0	21	0.121	0.221	y	20		10.789	17.1	0.135	0.356	2.882	H1-1b
26	240	PL3/8"X1"	0.29	0	17	0.119	0.221	y	16		10.789	17.1	0.135	0.356	2.88	H1-1b
27	373	PIPE 2.0	0.366	4.688	3	0.119	4.688	16			9.837	32.13	1.872	1.872	3	H1-1b
28	402	PIPE 2.0	0.593	4.792	2	0.114	4.688	22			9.837	32.13	1.872	1.872	3	H1-1b
29	6	PL3/8"x3"	0.071	0	20	0.114	0	y	25		36.436	50.625	0.396	3.164	1.521	H1-1b
30	372	PIPE 2.0	0.662	4.688	2	0.114	4.688	14			9.837	32.13	1.872	1.872	3	H1-1b
31	8	PL3/8"x3"	0.07	0	16	0.113	0	y	22		36.436	50.625	0.396	3.164	1.52	H1-1b
32	387	PIPE 2.0	0.593	4.792	8	0.113	4.688	19			9.837	32.13	1.872	1.872	3	H1-1b
33	4	PL3/8"x3"	0.071	0	25	0.112	0	y	18		36.436	50.625	0.396	3.164	1.488	H1-1b
34	390	PIPE 2.0	0.316	4.688	4	0.108	4.688	3			9.837	32.13	1.872	1.872	3	H1-1b
35	192	WT4X2.25X0.38	0.012	1.219	6	0.103	2.437	y	2		63.333	71.381	4.228	1.315	1.136	H1-1b
36	405	PIPE 2.0	0.345	4.688	8	0.102	4.688	8			9.837	32.13	1.872	1.872	3	H1-1b
37	194	WT4X2.25X0.38	0.012	1.219	10	0.084	2.437	z	7		63.333	71.381	4.228	1.315	1.136	H1-1b
38	429	PIPE 2.0	0.362	2.5	8	0.083	2.5	2			9.837	32.13	1.872	1.872	1.013	H1-1b
39	41	HSS4X3X4	0.129	0.177	23	0.082	0.884	z	84		83.04	91.665	8.19	10.001	1.52	H1-1b
40	193	WT4X2.25X0.38	0.012	1.219	2	0.082	2.437	y	10		63.333	71.381	4.228	1.315	1.136	H1-1b
41	42	HSS4X3X4	0.129	0.177	19	0.081	0.884	z	80		83.04	91.665	8.19	10.001	1.518	H1-1b
42	40	HSS4X3X4	0.129	0.177	15	0.081	0.884	z	75		83.04	91.665	8.19	10.001	1.547	H1-1b
43	422	PIPE 2.0	0.37	2.5	8	0.079	2.5	8			9.837	32.13	1.872	1.872	1.224	H1-1b
44	375	PIPE 2.0	0.276	4.688	13	0.079	4.688	11			9.837	32.13	1.872	1.872	2.045	H1-1b
45	7	PL3/8"x3"	0.095	0.605	23	0.072	0	y	2		36.436	50.625	0.396	3.164	2.02	H1-1b
46	230	PL1/2"x4"	0.256	0.648	8	0.071	0.648	y	3		72.914	90	0.938	7.5	3	H1-1b
47	302	PL1/2"x4"	0.31	0.634	8	0.066	0.648	y	7		72.914	90	0.938	7.5	3	H1-1b
48	53	PL1/2"x4"	0.296	0.634	13	0.065	0.648	y	11		72.914	90	0.938	7.5	3	H1-1b
49	5	PL3/8"x3"	0.092	0.605	14	0.064	0	y	7		36.436	50.625	0.396	3.164	1.969	H1-1b
50	9	PL3/8"x3"	0.093	0.605	19	0.062	0	y	58		36.436	50.625	0.396	3.164	2.058	H1-1b
51	229	PL1/2"x4"	0.148	0	8	0.056	0.718	y	3		69.487	90	0.938	7.5	1.248	H1-1b
52	301	PL1/2"x4"	0.184	0	8	0.054	0.718	y	7		69.487	90	0.938	7.5	1.274	H1-1b
53	228	PL1/2"x4"	0.108	0	8	0.053	0.958	y	3		56.789	90	0.938	7.5	2.094	H1-1b
54	52	PL1/2"x4"	0.153	0	12	0.053	0.718	y	11		69.487	90	0.938	7.5	1.301	H1-1b
55	300	PL1/2"x4"	0.118	0	8	0.053	0.958	y	7		56.789	90	0.938	7.5	2.18	H1-1b
56	51	PL1/2"x4"	0.103	0.958	13	0.049	0.958	y	11		56.789	90	0.938	7.5	2.223	H1-1b
57	299	PL1/2"x4"	0.216	0.917	8	0.049	0.917	y	7		59.059	90	0.938	7.5	1.42	H1-1b
58	227	PL1/2"x4"	0.171	0.917	8	0.049	0.917	y	3		59.059	90	0.938	7.5	1.479	H1-1b
59	415	PIPE 2.0	0.364	2.5	8	0.049	2.5	7			9.837	32.13	1.872	1.872	1.292	H1-1b
60	50	PL1/2"x4"	0.205	0.917	12	0.045	0.917	y	11		59.059	90	0.938	7.5	1.379	H1-1b
61	38	PL3/8"x2-3/8"	0.223	0	20	0.042	0	y	7		32.767	40.68	0.323	2.018	1.342	H1-1b
62	32	PL3/8"x2-3/8"	0.218	0	24	0.041	0	y	24		32.767	40.68	0.323	2.018	1.351	H1-1b
63	35	PL3/8"x2-3/8"	0.2	0	25	0.039	0	y	8		32.767	40.68	0.323	2.018	1.406	H1-1b



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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
64	26	PL3/8"x2-3/8"	0.217	0	15	0.039	0	y	15	32.767	40.68	0.323	2.018	1.338	H1-1b	
65	211	PIPE 1.5	0.117	6.142	9	0.037	0.576	62	11.59	23.593	1.105	1.105	1.454	H1-1b		
66	215	PIPE 1.5	0.102	3.071	18	0.037	0.576	71	11.59	23.593	1.105	1.105	1.32	H1-1b		
67	213	PIPE 1.5	0.124	6.142	13	0.037	0.576	67	11.59	23.593	1.105	1.105	1.554	H1-1b		
68	23	PL3/8"x2-3/8"	0.199	0	21	0.037	0	y	3	32.767	40.68	0.323	2.018	1.4	H1-1b	
69	210	PIPE 1.5	0.109	6.142	3	0.036	0.576	62	11.59	23.593	1.105	1.105	1.152	H1-1b		
70	214	PIPE 1.5	0.115	6.142	12	0.036	0.576	70	11.59	23.593	1.105	1.105	1.108	H1-1b		
71	212	PIPE 1.5	0.132	6.142	8	0.036	0.576	67	11.59	23.593	1.105	1.105	1.102	H1-1b		
72	33	PL3/8"x2-3/8"	0.241	0	23	0.034	0	y	83	32.767	40.68	0.323	2.018	1.241	H1-1b	
73	27	PL3/8"x2-3/8"	0.242	0	15	0.034	0	y	75	32.767	40.68	0.323	2.018	1.244	H1-1b	
74	39	PL3/8"x2-3/8"	0.244	0	20	0.034	0	y	79	32.767	40.68	0.323	2.018	1.246	H1-1b	
75	29	PL3/8"x2-3/8"	0.198	0	17	0.034	0	y	24	32.767	40.68	0.323	2.018	1.402	H1-1b	
76	428	HSS4X4X3	0.167	2	8	0.033	2	y	9	80.281	81.27	9.634	9.634	2.038	H1-1b	
77	55	PL1/2"x4"	0.045	0.695	3	0.032	0.725	z	24	69.154	90	0.938	7.5	1.477	H1-1b	
78	414	HSS4X4X3	0.128	2	13	0.032	2	y	2	80.281	81.27	9.634	9.634	2.158	H1-1b	
79	232	PL1/2"x4"	0.051	0	3	0.032	0.725	z	16	69.154	90	0.938	7.5	1.598	H1-1b	
80	421	HSS4X4X3	0.15	2	8	0.032	2	y	7	80.281	81.27	9.634	9.634	2.176	H1-1b	
81	304	PL1/2"x4"	0.047	0	7	0.031	0.725	z	20	69.154	90	0.938	7.5	1.599	H1-1b	
82	61	PL3/8"X1"	0.191	0	14	0.03	0.468	y	23	7.134	17.1	0.135	0.356	2.371	H1-1b	
83	251	PL3/8"X1"	0.046	0.718	6	0.03	0.718	y	2	11.316	17.1	0.135	0.356	1.959	H1-1b*	
84	233	PL1/2"x4"	0.065	0	2	0.03	0.499	y	3	67.337	90	0.938	7.5	2.758	H1-1b	
85	250	PL3/8"X1"	0.064	0.958	6	0.03	0.958	y	3	8.2	17.1	0.135	0.356	2.235	H1-1b*	
86	238	PL3/8"X1"	0.183	0	18	0.03	0.468	y	15	7.134	17.1	0.135	0.356	2.376	H1-1b	
87	310	PL3/8"X1"	0.185	0	22	0.029	0.468	y	19	7.134	17.1	0.135	0.356	2.378	H1-1b	
88	74	PL3/8"X1"	0.058	0.718	2	0.029	0.718	y	10	11.316	17.1	0.135	0.356	2.073	H1-1b*	
89	249	PL3/8"X1"	0.082	0.917	6	0.029	0.917	y	3	8.73	17.1	0.135	0.356	2.24	H1-1b*	
90	322	PL3/8"X1"	0.065	0.958	10	0.028	0.958	y	7	8.2	17.1	0.135	0.356	2.235	H1-1b*	
91	321	PL3/8"X1"	0.083	0.917	10	0.028	0.917	y	7	8.73	17.1	0.135	0.356	2.24	H1-1b*	
92	30	PL3/8"x2-3/8"	0.192	0	24	0.028	0	y	24	32.767	40.68	0.323	2.018	1.912	H1-1b	
93	58	PL3/8"X1"	0.494	0.957	14	0.028	0.957	y	23	8.217	17.1	0.135	0.356	2.276	H1-1a	
94	36	PL3/8"x2-3/8"	0.195	0	20	0.027	0	y	20	32.767	40.68	0.323	2.018	1.899	H1-1b	
95	73	PL3/8"X1"	0.08	0.958	2	0.027	0.958	y	11	8.2	17.1	0.135	0.356	2.231	H1-1b*	
96	24	PL3/8"x2-3/8"	0.191	0	15	0.027	0	y	16	32.767	40.68	0.323	2.018	1.907	H1-1b	
97	205	PL3/8X1.5	0.06	0	21	0.027	1.667	y	71	11.63	18.225	0.142	0.563	1	H1-1b	
98	200	PL3/8X1.5	0.058	0	66	0.027	1.667	y	67	11.63	18.225	0.142	0.563	1	H1-1b	
99	195	PL3/8X1.5	0.06	0	24	0.027	1.667	y	62	11.63	18.225	0.142	0.563	1	H1-1b	
100	236	PL3/8"X1"	0.188	0.731	18	0.027	0.731	y	3	11.151	17.1	0.135	0.356	2.251	H1-1b	
101	307	PL3/8"X1"	0.481	0.957	22	0.027	0.957	y	21	8.217	17.1	0.135	0.356	2.277	H1-1a	
102	308	PL3/8"X1"	0.189	0.731	21	0.026	0.731	y	7	11.151	17.1	0.135	0.356	2.251	H1-1b	
103	72	PL3/8"X1"	0.099	0.917	2	0.026	0.917	y	11	8.73	17.1	0.135	0.356	2.238	H1-1b*	
104	235	PL3/8"X1"	0.478	0.957	18	0.026	0.957	y	14	8.217	17.1	0.135	0.356	2.277	H1-1a	
105	413	HSS4X4X3	0.069	2	13	0.025	2	y	8	80.281	81.27	9.634	9.634	2.195	H1-1b	
106	323	PL3/8"X1"	0.046	0.718	10	0.025	0.718	y	6	11.316	17.1	0.135	0.356	1.987	H1-1b*	
107	305	PL1/2"x4"	0.055	0	7	0.025	0.499	y	6	67.337	90	0.938	7.5	3	H1-1b	
108	56	PL1/2"x4"	0.055	0	22	0.025	0.499	y	10	67.337	90	0.938	7.5	2.393	H1-1b	
109	262	PL3/8"x3/4"	0	0.37	100	0.025	0.37	y	3	11.05	12.645	0.096	0.199	2.225	H1-1a	
110	222	PL3/8"x4"	0.241	0.742	19	0.024	0	y	3	41.15	67.5	0.527	5.625	1.274	H1-1a	
111	226	PL3/8"x4"	0.049	0	78	0.024	0	y	3	40.841	67.5	0.527	5.625	2.674	H1-1b	
112	329	PL3/8"X1"	0	0.871	100	0.023	0	y	7	9.322	17.1	0.135	0.356	1.522	H1-1a	
113	257	PL3/8"X1"	0	0.871	100	0.023	0.871	y	3	9.322	17.1	0.135	0.356	1.605	H1-1a	
114	239	PL3/8"X1"	0.087	0.741	17	0.023	0.741	y	3	11.026	17.1	0.135	0.356	2.1	H1-1b	
115	294	PL3/8"x4"	0.244	0.742	22	0.023	0	y	7	41.15	67.5	0.527	5.625	1.24	H1-1a	
116	80	PL3/8"X1"	0	0.871	100	0.023	0.871	y	11	9.322	17.1	0.135	0.356	1.537	H1-1a	
117	22	PL3/8"x2-3/8"	0.203	0	15	0.023	0	y	2	32.767	40.68	0.323	2.018	1.29	H1-1b	
118	334	PL3/8"x3/4"	0	0.37	100	0.022	0	y	7	11.05	12.645	0.096	0.199	2.228	H1-1a	

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn	
119	81	PL3/8"x1"	0	0.871	100	0.022	0.871	y	11	9.322	17.1	0.135	0.356	1.213	H1-1a
120	243	PL3/8"x1"	0.123	0	21	0.022	0	y	3	7.518	17.1	0.135	0.356	1.337	H1-1b*
121	258	PL3/8"x1"	0	0.871	100	0.022	0.871	y	3	9.322	17.1	0.135	0.356	1.303	H1-1a
122	34	PL3/8"x2-3/8"	0.204	0	19	0.022	0	y	7	32.767	40.68	0.323	2.018	1.291	H1-1b
123	330	PL3/8"x1"	0	0.871	100	0.022	0.871	y	7	9.322	17.1	0.135	0.356	1.303	H1-1a
124	392	PIPE 2.0	0.059	9.479	5	0.021	9.479	3	9.837	32.13	1.872	1.872	2.404	H1-1b	
125	224	PL3/8"x4"	0.276	1.045	18	0.021	0	y	3	25.241	67.5	0.527	5.625	1.129	H1-1a
126	225	PL3/8"x4"	0.084	0.347	19	0.021	0.339	y	3	41.24	67.5	0.527	5.529	1.053	H1-1b*
127	237	PL3/8"x1"	0.14	0.667	18	0.021	0.667	y	3	11.984	17.1	0.135	0.356	2.255	H1-1b
128	244	PL3/8"x1"	0.101	0	18	0.021	0.872	y	3	9.308	17.1	0.135	0.356	2.151	H1-1b*
129	298	PL3/8"x4"	0.049	0	80	0.021	0	y	6	40.841	67.5	0.527	5.625	2.92	H1-1b
130	44	PL3/8"x4"	0.451	0.958	14	0.021	0	y	11	29.576	67.5	0.527	5.625	2.203	H1-1a
131	223	PL3/8"x4"	0.156	0	18	0.021	0	y	3	45.284	67.5	0.527	5.625	1.153	H1-1b*
132	57	PL3/8"x1"	0.51	0.917	14	0.021	0.917	y	23	8.73	17.1	0.135	0.356	2.268	H1-1a
133	311	PL3/8"x1"	0.088	0.741	21	0.021	0.741	y	7	11.026	17.1	0.135	0.356	2.099	H1-1b
134	62	PL3/8"x1"	0.091	0.741	25	0.02	0.741	y	22	11.026	17.1	0.135	0.356	2.101	H1-1b
135	76	PL3/8"x1"	0.032	1.023	2	0.02	0.458	y	24	7.399	17.1	0.135	0.356	2.312	H1-1b*
136	67	PL3/8"x1"	0.105	0	14	0.02	0.872	y	70	9.308	17.1	0.135	0.356	2.151	H1-1b*
137	28	PL3/8"x2-3/8"	0.203	0	23	0.02	0	y	11	32.767	40.68	0.323	2.018	1.286	H1-1b
138	407	PIPE 2.0	0.065	0.208	9	0.02	9.479	7	9.837	32.13	1.872	1.872	1.714	H1-1b	
139	85	PL3/8"x3/4"	0	0.37	100	0.02	0	y	10	11.05	12.645	0.096	0.199	2.226	H1-1a
140	316	PL3/8"x1"	0.103	0	21	0.02	0.872	y	66	9.308	17.1	0.135	0.356	2.148	H1-1b*
141	309	PL3/8"x1"	0.142	0.667	21	0.02	0.667	y	7	11.984	17.1	0.135	0.356	2.255	H1-1b
142	253	PL3/8"x1"	0.026	1.023	6	0.02	0.458	y	15	7.399	17.1	0.135	0.356	2.309	H1-1b*
143	306	PL3/8"x1"	0.496	0.917	22	0.02	0.917	y	20	8.73	17.1	0.135	0.356	2.268	H1-1a
144	427	HSS4X4X3	0.084	2	8	0.02	2	y	4	80.281	81.27	9.634	9.634	2.175	H1-1b
145	315	PL3/8"x1"	0.124	0	14	0.02	0	y	6	7.518	17.1	0.135	0.356	1.324	H1-1b*
146	325	PL3/8"x1"	0.027	1.023	10	0.02	0.458	y	20	7.399	17.1	0.135	0.356	2.307	H1-1b*
147	49	PL3/8"x4"	0.052	0	25	0.02	0	y	10	40.841	67.5	0.527	5.625	2.803	H1-1b
148	234	PL3/8"x1"	0.495	0.917	19	0.019	0.917	y	15	8.73	17.1	0.135	0.356	2.269	H1-1a
149	31	PL3/8"x2-3/8"	0.205	0	25	0.019	0	y	3	32.767	40.68	0.323	2.018	1.658	H1-1b
150	296	PL3/8"x4"	0.277	1.045	22	0.019	0	y	6	25.241	67.5	0.527	5.601	1.105	H1-1a
151	261	PL3/8"x3/4"	0	0.467	100	0.019	0.467	y	3	10.197	12.645	0.096	0.199	2.242	H1-1a
152	60	PL3/8"x1"	0.146	0.667	14	0.019	0.667	y	23	11.984	17.1	0.135	0.356	2.254	H1-1b
153	25	PL3/8"x2-3/8"	0.203	0	16	0.019	0	y	8	32.767	40.68	0.323	2.018	1.649	H1-1b
154	295	PL3/8"x4"	0.157	0	22	0.019	0	y	6	45.284	67.5	0.527	5.625	1.116	H1-1b*
155	297	PL3/8"x4"	0.084	0.339	22	0.019	0.339	y	6	41.24	67.5	0.527	5.625	1.076	H1-1b*
156	59	PL3/8"x1"	0.193	0.731	14	0.019	0.731	y	23	11.151	17.1	0.135	0.356	2.25	H1-1b
157	263	PL3/8"x5/8"	0	0.288	100	0.018	0.288	y	3	9.838	10.53	0.082	0.139	2.27	H1-1a
158	78	PL3/8"x1"	0.012	0.499	2	0.018	0.499	y	23	10.763	17.1	0.135	0.356	2.41	H1-1b*
159	196	PL3/8X1.5	0.031	1.667	8	0.018	1.667	y	62	11.63	18.225	0.142	0.563	1	H1-1b
160	206	PL3/8X1.5	0.023	1.667	3	0.018	1.667	y	70	11.63	18.225	0.142	0.563	1	H1-1b
161	201	PL3/8X1.5	0.033	1.667	12	0.018	1.667	y	66	11.63	18.225	0.142	0.57	1.124	H1-1b
162	420	HSS4X4X3	0.081	2	8	0.018	2	y	12	80.281	81.27	9.634	9.634	2.141	H1-1b
163	327	PL3/8"x1"	0.01	0.499	9	0.018	0.499	y	19	10.763	17.1	0.135	0.356	2.45	H1-1b*
164	209	PL3/8X1.5	0.054	1.667	8	0.018	0	y	8	11.63	18.225	0.142	0.563	1	H1-1b
165	255	PL3/8"x1"	0.009	0.499	6	0.018	0.499	y	15	10.763	17.1	0.135	0.356	2.411	H1-1b*
166	47	PL3/8"x4"	0.289	1.045	14	0.017	0	y	10	25.241	67.5	0.527	5.625	1.129	H1-1a
167	377	PIPE 2.0	0.068	0.208	2	0.017	9.479	11	9.837	32.13	1.872	1.872	2.107	H1-1b	
168	293	PL3/8"x4"	0.434	0.958	21	0.017	0	y	8	29.576	67.5	0.527	5.625	2.258	H1-1a
169	48	PL3/8"x4"	0.089	0.339	14	0.017	0.339	y	10	41.24	67.5	0.527	5.625	1.081	H1-1b*
170	37	PL3/8"x2-3/8"	0.207	0	20	0.017	0	y	19	32.767	40.68	0.323	2.018	1.649	H1-1b
171	335	PL3/8"x5/8"	0	0.288	100	0.017	0	y	7	9.838	10.53	0.082	0.139	2.268	H1-1a
172	84	PL3/8"x3/4"	0	0.467	100	0.016	0	y	10	10.197	12.645	0.096	0.199	2.241	H1-1a
173	333	PL3/8"x3/4"	0	0.467	100	0.016	0	y	7	10.197	12.645	0.096	0.199	2.247	H1-1a



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

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn	
174	221	PL3/8"x4"	0.435	0.958	18	0.016	0	y	2	29.576	67.5	0.527	5.625	2.191	H1-1a
175	82	PL3/8"x1"	0	0.719	100	0.016	0.719	y	71	11.302	17.1	0.135	0.356	2.165	H1-1a
176	259	PL3/8"x1"	0	0.719	100	0.016	0.719	y	63	11.302	17.1	0.135	0.356	2.166	H1-1a
177	331	PL3/8"x1"	0	0.719	100	0.016	0.719	y	68	11.302	17.1	0.135	0.356	2.166	H1-1a
178	43	PL3/8"x4"	0.512	0.917	14	0.016	0	y	11	31.728	67.5	0.527	5.625	1.337	H1-1a
179	197	PL3/8X1.5	0.028	1.667	8	0.016	0	y	73	11.63	18.225	0.142	0.563	1	H1-1b
180	207	PL3/8X1.5	0.03	1.667	2	0.016	0	y	70	11.63	18.225	0.142	0.563	1	H1-1b
181	199	PL3/8X1.5	0.053	1.667	13	0.016	0	y	12	11.63	18.225	0.142	0.563	1	H1-1b
182	202	PL3/8X1.5	0.037	1.667	11	0.015	0	y	66	11.63	18.225	0.142	0.563	1	H1-1b
183	86	PL3/8"x5/8"	0	0.288	100	0.015	0	y	10	9.838	10.53	0.082	0.139	2.271	H1-1a
184	204	PL3/8X1.5	0.052	1.667	4	0.015	1.667	y	58	11.63	18.225	0.142	0.563	1	H1-1b
185	66	PL3/8"x1"	0.124	0	18	0.015	0	y	10	7.518	17.1	0.135	0.356	1.302	H1-1b*
186	198	PL3/8X1.5	0.028	1.667	13	0.015	0	y	73	11.63	18.225	0.142	0.563	1	H1-1b
187	208	PL3/8X1.5	0.038	1.667	13	0.015	0	y	69	11.63	18.225	0.142	0.563	1	H1-1b
188	203	PL3/8X1.5	0.041	1.667	10	0.015	0	y	65	11.63	18.225	0.142	0.563	1	H1-1b
189	46	PL3/8"x4"	0.164	0	14	0.015	0	y	10	45.284	67.5	0.527	5.625	1.152	H1-1b*
190	242	PL3/8"x1"	0.35	0	19	0.014	0	y	4	4.686	17.1	0.135	0.356	2.232	H1-1a
191	245	PL3/8"x7/8"	0.121	0.727	18	0.014	0.727	y	3	9.357	14.76	0.116	0.27	2.266	H1-1b*
192	314	PL3/8"x1"	0.352	0	23	0.014	1.294	y	6	4.686	17.1	0.135	0.356	2.231	H1-1a
193	231	PL1/2"x4"	0.049	1.023	19	0.014	0	y	3	53.245	90	0.938	7.5	2.145	H1-1b
194	45	PL3/8"x4"	0.25	0.742	14	0.014	0	y	11	41.15	67.5	0.527	5.625	1.344	H1-1a
195	77	PL3/8"x1"	0.035	0.725	2	0.014	0.325	y	83	11.23	17.1	0.135	0.356	2.683	H1-1b*
196	254	PL3/8"x1"	0.031	0.725	18	0.014	0.325	y	75	11.23	17.1	0.135	0.356	3	H1-1b*
197	292	PL3/8"x4"	0.494	0.917	22	0.014	0	y	8	31.728	67.5	0.527	5.625	1.457	H1-1a
198	326	PL3/8"x1"	0.032	0.725	21	0.014	0.325	y	80	11.23	17.1	0.135	0.356	3	H1-1b*
199	260	PL3/8"x7/8"	0	0.583	100	0.013	0	y	2	11.003	14.76	0.116	0.27	2.216	H1-1a
200	83	PL3/8"x7/8"	0	0.583	100	0.013	0	y	10	11.003	14.76	0.116	0.27	2.206	H1-1a
201	220	PL3/8"x4"	0.495	0.917	18	0.013	0	y	2	31.728	67.5	0.527	5.625	1.328	H1-1a
202	317	PL3/8"x7/8"	0.123	0.727	21	0.013	0.727	y	6	9.357	14.76	0.116	0.27	2.283	H1-1b*
203	332	PL3/8"x7/8"	0	0.583	100	0.013	0	y	66	11.003	14.76	0.116	0.27	2.233	H1-1a
204	68	PL3/8"x7/8"	0.126	0.727	14	0.012	0.727	y	9	9.357	14.76	0.116	0.27	2.26	H1-1b*
205	54	PL1/2"x4"	0.05	1.023	15	0.012	0	y	10	53.245	90	0.938	7.5	2.208	H1-1b
206	303	PL1/2"x4"	0.049	0	8	0.012	0	y	7	53.245	90	0.938	7.5	1.228	H1-1b
207	246	PL3/8"x3/4"	0.156	0.595	18	0.01	0.595	y	3	8.914	12.645	0.096	0.199	2.122	H1-1b*
208	318	PL3/8"x3/4"	0.158	0.595	21	0.01	0.595	y	6	8.914	12.645	0.096	0.199	2.114	H1-1b*
209	69	PL3/8"x3/4"	0.162	0.595	14	0.008	0.595	y	9	8.914	12.645	0.096	0.199	2.124	H1-1b*
210	247	PL3/8"x3/4"	0.055	0.487	18	0.008	0	y	3	10.006	12.645	0.096	0.199	2.205	H1-1b*
211	64	PL3/8"x1"	0.35	1.264	25	0.008	0	y	12	4.908	17.1	0.135	0.356	2.262	H1-1a
212	313	PL3/8"x1"	0.344	1.264	21	0.008	0	y	9	4.908	17.1	0.135	0.356	2.262	H1-1a
213	319	PL3/8"x3/4"	0.056	0.487	21	0.008	0.487	y	11	10.006	12.645	0.096	0.199	2.203	H1-1b*
214	65	PL3/8"x1"	0.358	0	14	0.007	1.294	y	70	4.686	17.1	0.135	0.356	2.237	H1-1a
215	70	PL3/8"x3/4"	0.058	0.487	15	0.007	0.487	y	3	10.006	12.645	0.096	0.199	2.204	H1-1b
216	241	PL3/8"x1"	0.341	1.264	19	0.006	1.264	y	14	4.908	17.1	0.135	0.356	2.263	H1-1a
217	71	PL3/8"x5/8"	0.054	0.397	14	0.005	0.397	y	84	9.25	10.53	0.082	0.139	2.189	H1-1b*
218	248	PL3/8"x5/8"	0.051	0.397	17	0.005	0.397	y	74	9.25	10.53	0.082	0.139	2.18	H1-1b*
219	320	PL3/8"x5/8"	0.052	0.397	21	0.005	0.397	y	80	9.25	10.53	0.082	0.139	2.18	H1-1b*
220	324	PL3/8"x1"	0.065	0.648	10	0.004	0	y	9	12.22	17.1	0.135	0.356	1.628	H1-1b*
221	75	PL3/8"x1"	0.075	0.648	2	0.004	0	y	13	12.22	17.1	0.135	0.356	1.723	H1-1b*
222	252	PL3/8"x1"	0.063	0.648	6	0.003	0.648	y	13	12.22	17.1	0.135	0.356	1.695	H1-1b*
223	79	PL3/8"x1"	0	0.871	20	0	0.871	y	8	9.322	17.1	0.135	0.356	2.381	H1-1b*
224	256	PL3/8"x1"	0	0.871	24	0	0.871	y	12	9.322	17.1	0.135	0.356	2.381	H1-1b*
225	328	PL3/8"x1"	0	0.871	16	0	0.871	y	4	9.322	17.1	0.135	0.356	2.381	H1-1b*

**APPENDIX D**  
**ADDITIONAL CALCULATIONS**

PROJECT	<b>79982.007.01 - Waterbury, CT</b>			<b>KSC</b>
SUBJECT	<b>Platform Mount Analysis</b>			
DATE	<b>03/22/22</b>	PAGE	1	OF 1



**B+T Group**  
 1717 S. Boulder, Suite 300  
 Tulsa, OK 74119  
 (918) 587-4630

[REF: AISC 360-05]

**Reactions at Bolted Connection**

Tension	:	14.716	k
Vertical Shear	:	3.781	k
Horizontal Shear	:	0.675	k
Torsion	:	0.018	k.ft
Moment from Horizontal Forces	:	0.953	k.ft
Moment from Vertical Forces	:	0.027	k.ft

**Bolt Parameters**

Bolt Grade	:	A325	
Bolt Diameter	:	0.625	in
Nominal Bolt Area	:	0.307	in <sup>2</sup>
Bolt spacing, Horizontal	:	6	in
Bolt spacing, Vertical	:	6	in
Bolt edge distance, plate height	:	1.5	in
Bolt edge distance, plate width	:	1.5	in
Total Number of Bolts	:	4	bolts

**Summary of Forces**

Shear Resultant Force	:	3.84	k
Force from Horz. Moment	:	1.73	k
Force from Vert. Moment	:	0.05	k
Shear Load / Bolt	:	0.96	k
Tension Load / Bolt	:	3.68	k
Resultant from Moments / Bolt	:	0.86	k

**Bolt Checks**

Nominal Tensile Stress, $F_{nt}$	:	90.00	ksi	[AISC Table J3.2]
Available Tensile Stress, $\Phi R_{nt}$	:	20.72	k/bolt	[Eq. J3-1]
Unity Check, Bolt Tension	:	<b>21.92%</b>		<b>OKAY</b>
Nominal Shear Stress, $F_{nv}$	:	48.00	ksi	[AISC Table J3.2]
Available Shear Stress, $\Phi R_{nv}$	:	11.05	k/bolt	[Eq. J3-1]
Unity Check, Bolt Shear	:	<b>41.98%</b>		<b>OKAY</b>
Unity Check, Combined	:	<b>63.90%</b>		<b>OKAY</b>
Available Bearing Strength, $\Phi R_n$	:	34.66	k/bolt	
Unity Check, Bolt Bearing	:	<b>2.77%</b>		<b>OKAY</b>

# Exhibit F

## **Power Density/RF Emissions Report**

## Radio Frequency Safety Survey Report Predictive (RFSSRP) Prepared For AT&T



<b>Site Name:</b>	WOLCOTT
<b>FA#</b>	10578275
<b>USID:</b>	228298
<b>Site ID:</b>	CT2860
<b>Address:</b>	150 MATTATUCK HEIGHTS WATERBURY, CT 06705
<b>County:</b>	NEW HAVEN
<b>Latitude:</b>	41.5378610
<b>Longitude:</b>	-72.9850280
<b>Structure Type:</b>	MONOPOLE
<b>Property Owner:</b>	WATERBURY TWIN LLC & 150 MH LLC
<b>Pace Job:</b>	MRCTB054272
<b>RFDS Technology:</b>	5G NR 1SR CBAND

### Report Information

**Report Writer:** Krishna Negi

**Report Generated Date:** 06-03-2022

### Compliance Statement

**AT&T Mobility Compliance Statement:** Based on the information collected, AT&T Mobility will be Compliant when the remediation recommended in section 5 or appropriate remediation determined by AT&T is implemented

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## 1. Executive Summary

### 1.1 Site Summary

Max Predictive Spatial Average MPE% & Location on Site (General Public)	27860.50% on Antennas Centerline Level & at AT&T Sec-A antenna no. #A3-1
Max Predictive Spatial Average MPE% on Ground (General Public)	1.15%
AT&T Mobility Site Compliance	AT&T Mobility will be Compliant by implementing remediation recommended as per section 5 in this report.

**TABLE 1: Site Summary**

### 1.2 Signage Summary (Proposed)

AT&T Signage Locations	Sign Type									
	Safety Instructions	Notice Sign 2	Caution Sign 2	Caution Sign 2B	Caution Sign 2C	Caution 7"x7"	Warning Sign 1B	RF Exposure Map	Lock	Barriers
Access Point(s)				1						
Alpha										
Beta										
Gamma										

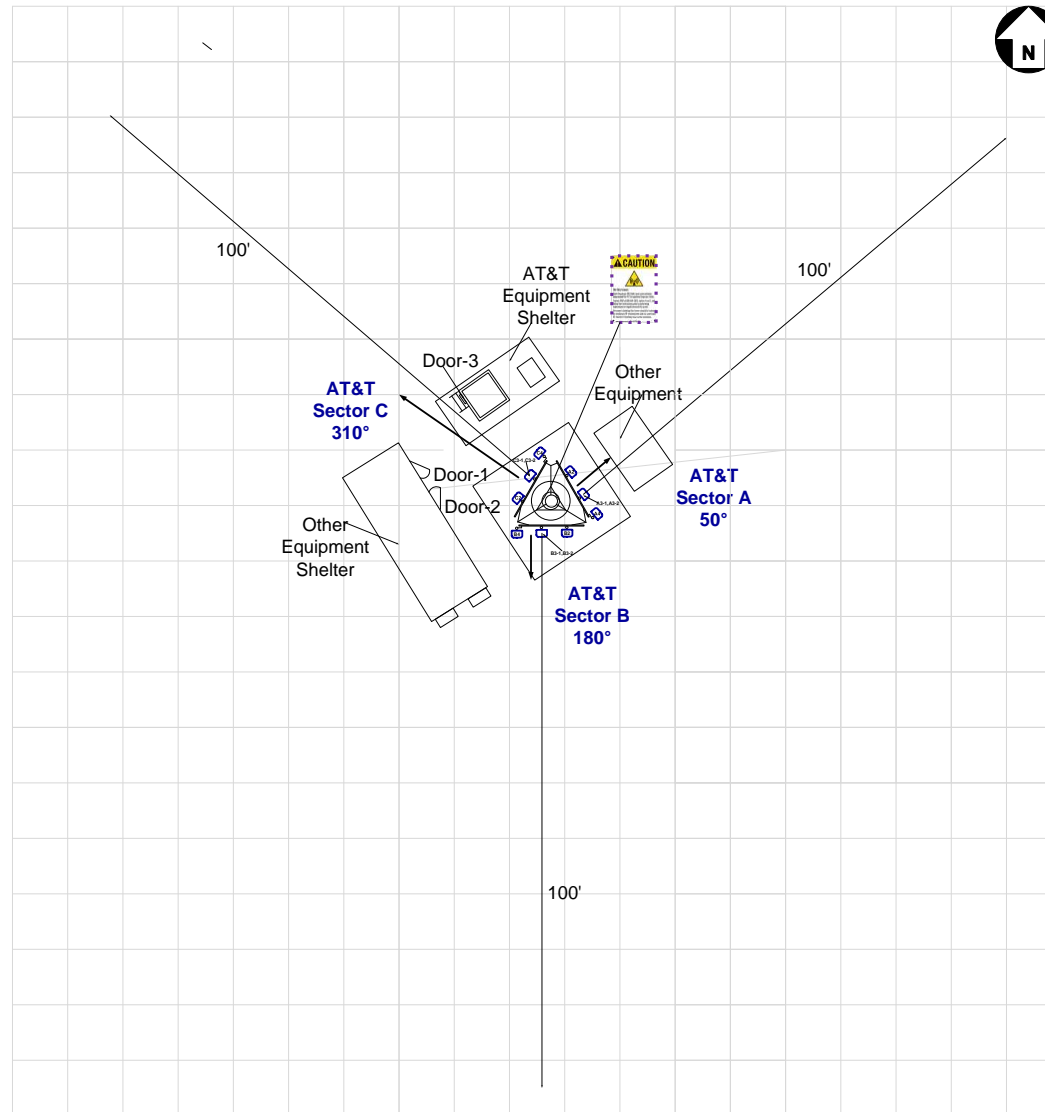
**TABLE 2: Signage Summary (Proposed)**

### 1.3 List of Documents used to prepare this Report

- CD
- RFDS



## 2. Site Scale Map



<b>AT&amp;T Antenna</b> Panel OMNI		<b>Proposed</b> Barrier Posts		<b>Proposed Signage</b>								<b>Map Scale = 10 ft</b>
		Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock		

### 3. Antenna Inventory

Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	Transmitter Power (Watts)	Total Loss (dB)	Total ERP (Watts)	Total EIRP (Watts)
A2	AT&T	Quintel	QD8616-7	Panel	700	LTE(FN)	50	72	12.75	8	120.00	0.5	2014.56	3305.07
A2	AT&T	Quintel	QD8616-7	Panel	700	LTE(B29)	50	72	12.75	8	60.00	0.5	1007.28	1652.54
A2	AT&T	Quintel	QD8616-7	Panel	1900	LTE/5G	50	62	15.05	8	120.00	0.5	3421.22	5612.82
A2	AT&T	Quintel	QD8616-7	Panel	2100	LTE/5G	50	62	15.35	8	120.00	0.5	3665.91	6014.25
A3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	50	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	50	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(B12)	50	68	13.21	8	120.00	0.5	2239.66	3674.36
A4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	850	5G	50	65	13.91	8	120.00	0.5	2631.37	4316.99
A4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2300	LTE	50	62	15.57	8	75.00	0.5	2410.25	3954.22
B2	AT&T	Quintel	QD8616-7	Panel	700	LTE(FN)	180	72	12.75	8	120.00	0.5	2014.56	3305.07
B2	AT&T	Quintel	QD8616-7	Panel	700	LTE(B29)	180	72	12.75	8	60.00	0.5	1007.28	1652.54
B2	AT&T	Quintel	QD8616-7	Panel	1900	LTE/5G	180	62	15.05	8	120.00	0.5	3421.22	5612.82
B2	AT&T	Quintel	QD8616-7	Panel	2100	LTE/5G	180	62	15.35	8	120.00	0.5	3665.91	6014.25
B3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	180	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	180	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(B12)	180	68	13.21	8	120.00	0.5	2239.66	3674.36
B4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	850	5G	180	65	13.91	8	120.00	0.5	2631.37	4316.99
B4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2300	LTE	180	62	15.57	8	75.00	0.5	2410.25	3954.22

**Table 3.1: Antenna Inventory Table**

Note: ^ **Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.**

\* 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor<sup>1</sup> are used to calculate Transmitter Power & ERP/EIRP

Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	Transmitter Power (Watts)	Total Loss (dB)	Total ERP (Watts)	Total EIRP (Watts)
C2	AT&T	Quintel	QD8616-7	Panel	700	LTE(FN)	310	72	12.75	8	120.00	0.5	2014.56	3305.07
C2	AT&T	Quintel	QD8616-7	Panel	700	LTE(B29)	310	72	12.75	8	60.00	0.5	1007.28	1652.54
C2	AT&T	Quintel	QD8616-7	Panel	1900	LTE/5G	310	62	15.05	8	120.00	0.5	3421.22	5612.82
C2	AT&T	Quintel	QD8616-7	Panel	2100	LTE/5G	310	62	15.35	8	120.00	0.5	3665.91	6014.25
C3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	310	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	310	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	700	LTE(B12)	310	68	13.21	8	120.00	0.5	2239.66	3674.36
C4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	850	5G	310	65	13.91	8	120.00	0.5	2631.37	4316.99
C4	AT&T	KMW	EPBQ-654L8H8-L2	Panel	2300	LTE	310	62	15.57	8	75.00	0.5	2410.25	3954.22

**Table 3.2: Antenna Inventory Table**

Note: ^ **Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.**

\* 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor<sup>1</sup> are used to calculate Transmitter Power & ERP/EIRP

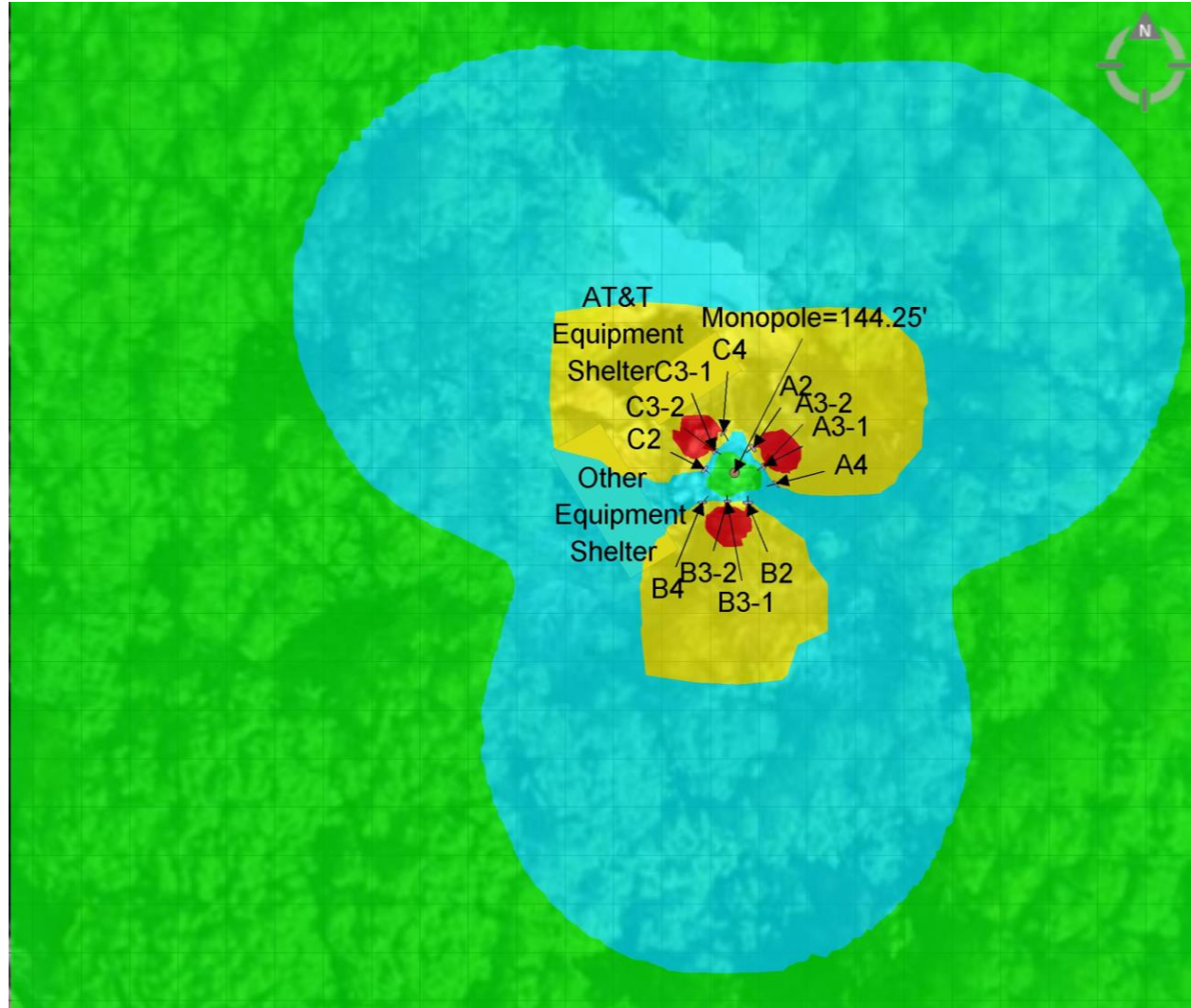
## Antenna Heights (Z)

Ant ID	Operator	Antenna Radiation Centerline	Z-Height from Ground
A2	AT&T	143.00	139.00
A3-1	AT&T	144.75	143.48
A3-2	AT&T	141.25	139.98
A4	AT&T	143.00	139.00
B2	AT&T	143.00	139.00
B3-1	AT&T	144.75	143.48
B3-2	AT&T	141.25	139.98
B4	AT&T	143.00	139.00
C2	AT&T	143.00	139.00
C3-1	AT&T	144.75	143.48
C3-2	AT&T	141.25	139.98
C4	AT&T	143.00	139.00

**Table 3.3: Antenna Height(s) Summary Table**

#### 4. Predicted Emission

##### 4.1 Predictive Cumulative MPE Contribution from All Sources at Antennas Centerline Level (143 ft.)



Max. Predictive Spatial Average MPE% = 27860.50%

% of FCC General Public Exposure Limit (Predictive Spatial Average)

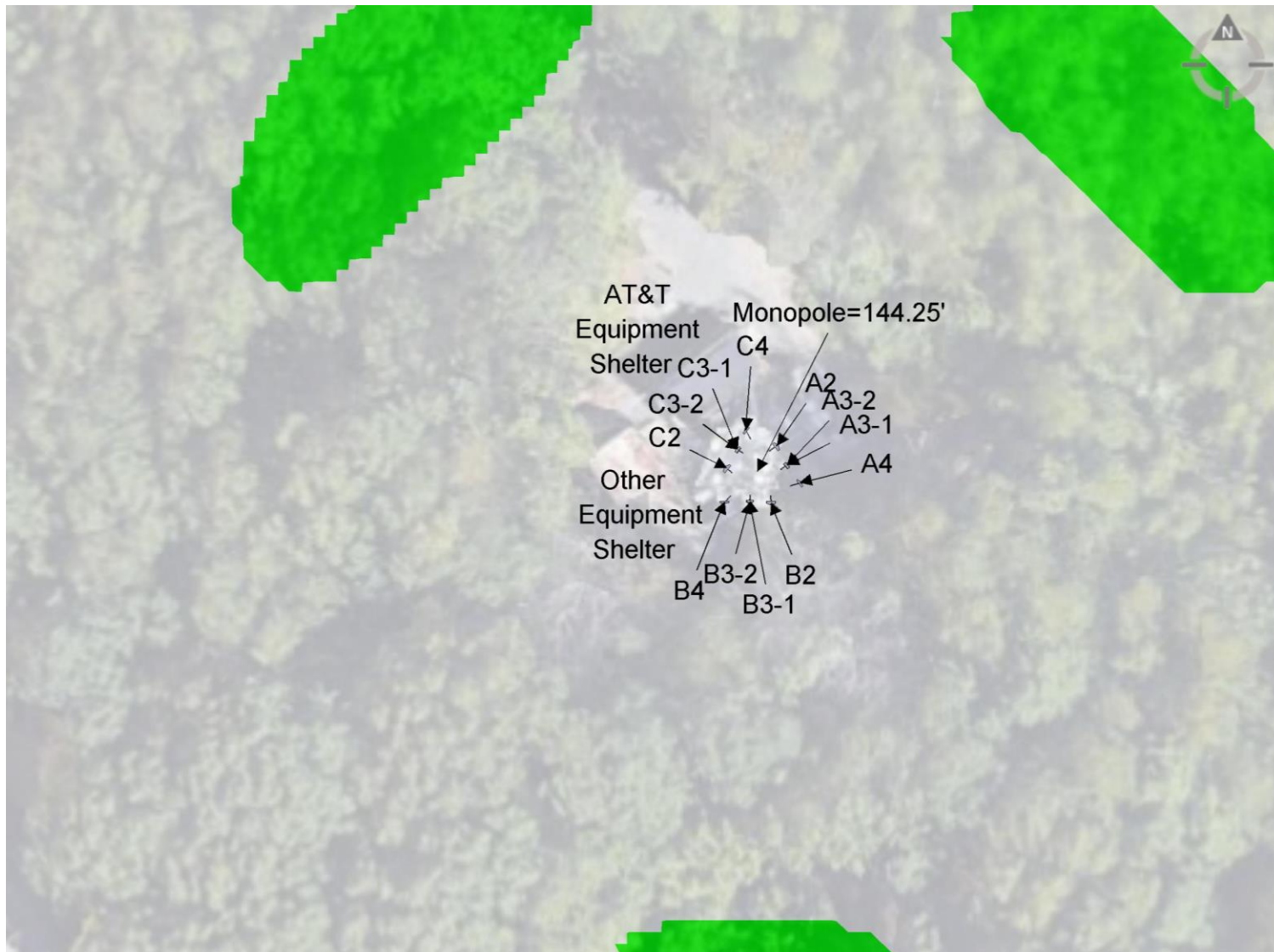
Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Proposed Barrier

Proposed Posts

Map Scale = 10 ft

**4.2 Predictive Cumulative MPE Contribution from All Sources at Ground Level (0 ft.)**



Max. Predictive Spatial Average MPE% = 1.15%

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Proposed Barrier

Proposed Posts

Map Scale = 10 ft

## 5. Statement of Compliance

### 5.1 *Statement of AT&T Mobility Compliance*

At the time of our Analysis, AT&T Mobility is required to take action to fulfill their Obligations to comply with the FCC's mandate as defined in OET-65

#### Recommendations

##### AT&T Alpha Sector:

- No Action Required

##### AT&T Beta Sector:

- No Action Required

##### AT&T Gamma Sector:

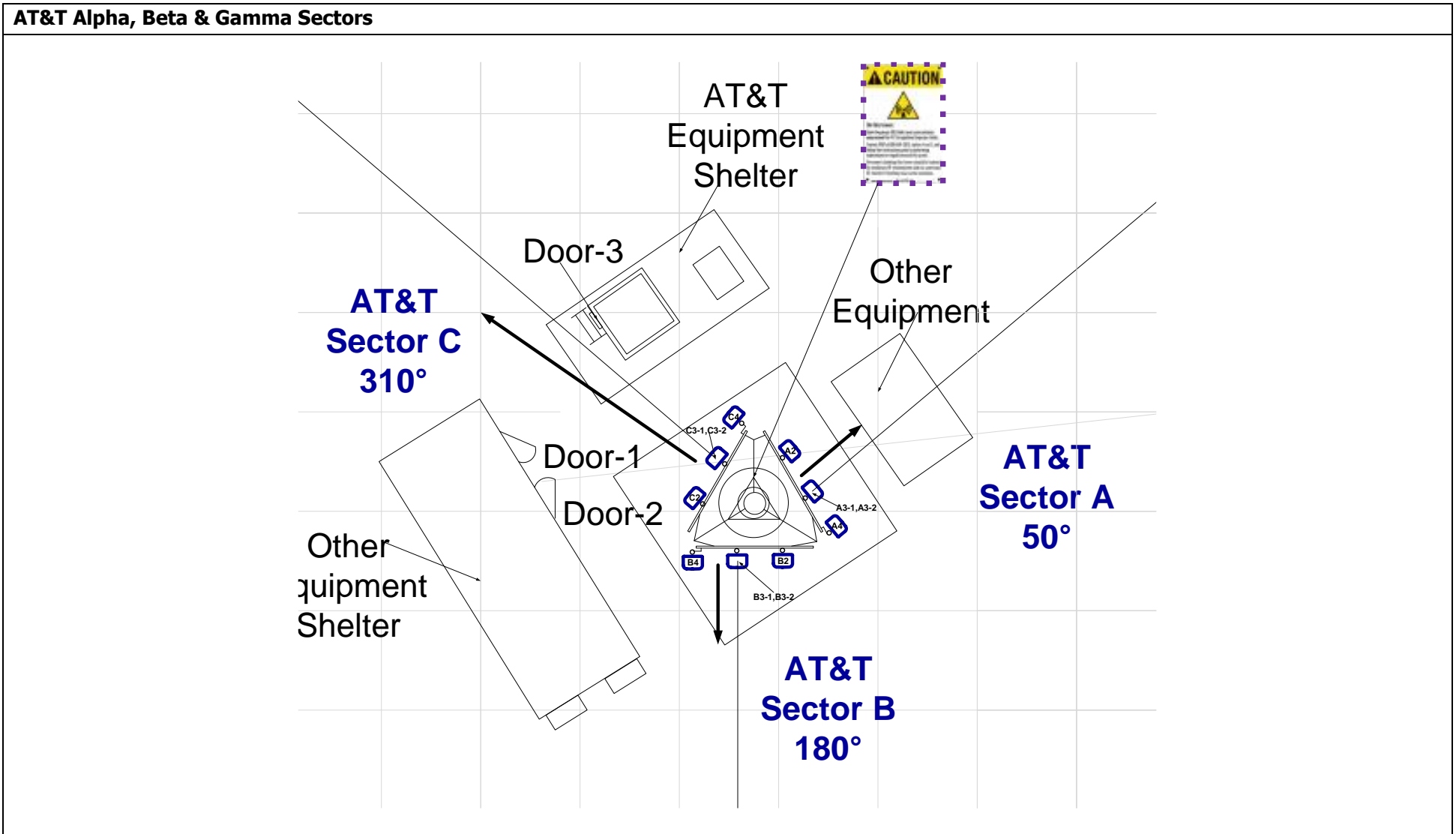
- No Action Required

##### Monopole:

- One Caution 2B Sign to be posted on the Monopole at climbing access, facing outwards so approaching people can see as shown in "Recommendations Map – Detailed View" on page 11. (1 Total Sign)



Recommendations Map – Detailed View



AT&T Antenna		Proposed		Proposed Signage								Map Scale = 10 ft
	Panel		Barrier									
	OMNI		Posts									

## Appendix A – Statement of Limiting Conditions

### General Model Assumptions

*In this site compliance report, it is assumed that all antennas are operating at full power at all times. AT&T has further recommended to assume a 75% duty cycle of maximum radiated power for all LTE & 5G carriers (& consider 100% duty cycle for all UMTS carriers).*

*In this site compliance report, it is assumed that Mechanical Tilt value of “0°” MUST be retained for C-BAND and/or DoD AAS<sup>^</sup> antenna(s) at all times to ensure that “EME (Predictive) Study” shall remain valid.*

*AT&T recommended to consider - For C-BAND and/or DoD AAS<sup>^</sup> antenna(s) 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor<sup>1</sup> are used to calculate Transmitter Power & ERP/EIRP.*

*AT&T recommended to use worst-case tilts for the simulations.*

<sup>1</sup> **Power Reduction Factor:** IEC Standard 62232: 2017 allows for a statistically conservative power density model to more realistically define the RF exposure area. AT&T recommends a “0.32” factor to calculate the “Actual Maximum” (time averaged) power value, which accounts for “Beam Scanning,” “Scheduling,” and “RBS Utilization” This recommended value is a conservative figure modelled and supported by other vendors and through measurements published in scientific articles and white papers by IEEE and others. Those publication are listed below:

1. IEEE Access, Time-Averaged Realistic Maximum Power Levels for the Assessment of RF Exposure for 5G Radio Base Stations Using Massive MIMO (Published Sept. 18, 2017 / BJÖRN THORS, ANDERS FURUSKÅR, DAVIDE COLOMBI, AND CHRISTER TÖRNEVIK)
2. IEEE Explore, A Statistical Approach for RF Exposure Compliance Boundary Assessment in Massive MIMO Systems (Published Jan. 25, 2018 / Paolo Baracca, Andreas Weber, Thorsten Wild, Christophe Grangeat)
3. IEEE Access, In-situ Measurement Methodology for the Assessment of 5G NR Massive MIMO Base Station Exposure at Sub-6 GHz Frequencies (Published Dec. 20, 2019 / SAM AERTS, LEEN VERLOOCK, MATTHIAS VAN DEN BOSSCHE, DAVIDE COLOMBI, LUC MARTENS, CHRISTER TÖRNEVIK AND WOUT JOSEPH)
4. Applied Sciences, Analysis of the Actual Power and EMF Exposure from Base Stations in a Commercial 5G Network (Published July 30, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)
5. Ofcom Technical Report, Electromagnetic Field (EMF) measurements near 5G mobile phone base stations (Published Feb. 21, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)

*MobileComm believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor). Thus, at any time, if power density measurements were made, we believe the real time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modelling in this way, MobileComm has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.*

### Use of Generic Antennas

*For the purposes of this report, the use of “Generic” as an antenna model, or “Other Carrier” for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer’s published data regarding the antenna’s physical characteristics makes more conservative assumptions.*

*Where the frequency is unknown, MobileComm uses the closest frequency in the antenna’s range that corresponds to the highest Maximum Exposure Limit (MPE), resulting in a conservative analysis.*

## Appendix B – FCC Guidelines and Emissions Threshold Limits

All power density values used in this report were analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  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 public 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 public 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 ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the 700 and 800 MHz Bands is approximately  $467 \mu\text{W}/\text{cm}^2$  and  $567 \mu\text{W}/\text{cm}^2$  respectively, and the general population exposure limit for the 1900 MHz PCS and 2100 MHz AWS bands is  $1000 \mu\text{W}/\text{cm}^2$ . 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, have been properly trained in RF safety 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, have been trained in RF safety and can exercise control over his or her exposure by leaving the area or by some other appropriate means. The Occupational/Controlled exposure limits all utilized frequency bands is five (5) times the FCC's General Public / Uncontrolled exposure limit.

Additional details can be found in FCC OET 65.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time [E] <sup>2</sup> , [H] <sup>2</sup> , or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

## Appendix C – Rules & Regulations

### Explanation of Applicable Rules and Regulations

*FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.*

*It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations.*

*A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.*

### Occupational Environment Explained

*The FCC definition of Occupational exposure limits apply to persons who:*

- *are exposed to RF energy as a consequence of their employment;*
- *have been made aware of the possibility of exposure; and*
- *can exercise control over their exposure.*

*FCC guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.*

*In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.*

## Appendix D – General Safety Recommendations

The following are general recommendations appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

- All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.
- The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:
  - adding new antennas that may have been located on the site
  - removing of any existing antennas
  - changes in the radiating power or number of RF emitters
- Post the appropriate SAFETY INSTRUCTIONS, NOTICE, CAUTION & WARNING sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in the report section above, to inform everyone who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. The signs below are examples of signs meeting FCC guidelines.



- Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.
- For a General Public environment the five color levels identified in measured RF emission diagram can be interpreted in the following manner:
  - White represents areas predicted to be greater than or equal to 0% and less than 1% of the MPE general public limits
  - Green represents areas predicted to be greater than or equal to 1% and less than 100% of the MPE general public limits
  - Blue represents areas predicted to be greater than or equal to 100% and lesser than 500% of the MPE general public limits.
  - Yellow represents areas predicted to be greater than or equal to 500% and lesser than 5000% of the MPE general public limits.
  - Red areas indicates safety predicted levels greater than or equal to 5000% of the MPE general public limits.



## Appendix E – References

### **1 - FCC Definition**

*FCC defines an Occupational or Controlled environment as one where persons are exposed to RF fields as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Typical criteria for an Occupational or Controlled environment is restricted access (i.e. locked doors, gates, etc.) to areas where antennas are located coupled with proper RF warning signage.*

*FCC defines a site as a General Public or Uncontrolled environment when human exposure to RF fields occurs to the general public or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over the exposure. Typical criteria for a General Public or Uncontrolled environment are unrestricted access (i.e. unlocked or no restrictions) to areas where antennas are located without proper RF warning signage being posted.*

### **2 - Physical Testing measurement procedure and Tools**

*The Narda Broadband Field Meter NBM-550 can make rapid conformance measurements with evaluation in the time domain when used in conjunction EA5091 probe. This probe is a so-called Shaped Probe, i.e. it is frequency weighted so that it automatically takes account of the FCC Occupational limit values. To collect data, the probe is pointed towards the potential source(s) of EME radiation and moved slowly from ground level up to slightly above head height (approx. 6 ft).*

*Spatial Average Measurement A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

### **3 - Site Safety Procedures**

*The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.*

**General Maintenance Work:** *Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.*

**Training and Qualification Verification:** *All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).*

**Physical Access Control:** *Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:*

- *Locked door or gate*
- *Alarmed door*
- *Locked ladder access*
- *Restrictive Barrier at antenna locations (e.g. Chain link with posted RF Sign)*



**RF Signage:** *Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.*

**Assume all antennas are active:** *Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.*

**Maintain a 3 foot clearance from all antennas:** *There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.*

**Rooftop RF Emissions Diagram:** *Section 4 of this report contains an RF Emissions Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas on the rooftop. This analysis is all theoretical and assumes a duty cycle of 75% for each transmitting antenna at full power. This analysis is a worst case scenario. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.*

#### **4 - Definitions**

**Compliance-** *The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.*

**Decibel (dB)** – *A unit for measuring power or strength of a signal.*

**Duty Cycle** – *The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 75% corresponds to continuous operation.*

**Effective (or Equivalent) Isotropic Radiated Power (EIRP)** – *The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna, this product is divided by the cable losses*

**Effective Radiated Power (ERP)** – *In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.*

**Gain (of an antenna in dbd)** – *The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from a reference dipole. Gain is a measure of the relative efficiency of a directional antennas as compared to a reference dipole.*

**General Population/Uncontrolled Environment** – *Defined by the FCC, as an area where RFR exposure may occur to persons who are unaware of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.*

**Generic Antenna** – *For the purposes of this report, the use of “Generic” as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.*

**Isotropic Antenna** – *An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.*

**Maximum Measurement** – *This measurement represents the single largest measurement recorded when performing a spatial average measurement.*

**Maximum Exposure Limit (MPE)** – *The RMS and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.*

**Occupational/Controlled Environment** – *Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are aware of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.*

**Radio Frequency Radiation** – *Electromagnetic waves that are propagated from antennas through space.*

**Spatial Average Measurement** – *A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

**Transmitter Power Output (TPO)** – *The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.*

## Appendix F – Proprietary Statement

*This report was prepared for the use of AT&T Mobility, LLC to meet requirements specified in AT&T's corporate RF safety guidelines. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by MobileComm are based solely on the information provided by AT&T Mobility and all observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to MobileComm so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.*