



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

June 26, 2020

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

RE: **Notice of Exempt Modification for T-Mobile:  
823530 - T-Mobile Site ID: CT11364B  
580 Chapel Street, Thomaston, CT 06787  
Latitude: 41° 39' 48.48" / Longitude: -73° 4' 27.41"**

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 172-foot mount on the existing 175-foot Monopole Tower, located at 580 Chapel Street, Thomaston, CT. The tower is owned by Crown Castle and the property is owned by the Town of Thomaston. T-Mobile now intends to replace three (3) existing antennas with three (3) new 600/700/1900/2100 MHz antennas. The new antennas will be installed at the 172-ft level of the tower.

**Planned Modifications:**

**Tower:**

Remove and Replace:

(3) LNX 6515DS-A1M Antenna **(REMOVE)** - (3) RFS-APXVAARR24\_43-U-NA20 Antenna  
600/700/1900/2100 MHz **(REPLACE)**

Install New:

(3) 1 5/8" Hybrid Fiber Line  
(3) TMA  
(3) Radio 4449 B12/B71

Existing to Remain:

(12) 1 5/8" Coax  
(3) EMS RR90-17-02DP Antennas (Dormant)  
(3) TMA

**Ground:**

Upgrade to existing ground cabinet. (Internally)

The facility was approved by the Town of Thomaston Zoning Board of Appeals on July 18, 2000 with the conditions. T-Mobile's proposed exempt modification complies with those conditions.

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 Edmond V. Mone, First Selectman for the Town of Thomaston, as the municipality and property owner, Stacey Sefcik, Land Use Administrator and ZEO and Crown Castle is the tower owner.

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

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Sincerely,

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

Attachments

cc:

Edmond V. Mone, First Selectman (*via email to emone@thomastonct.org*)  
Town of Thomaston – Town Hall  
158 Main Street  
Thomaston, CT 06787  
860-283-4421

Melanie A. Bachman

Page 3

Stacey Sefcik, ZEO (*via email to [ssefcik@thomastonct.org](mailto:ssefcik@thomastonct.org)*)  
Town of Thomaston – Town Hall  
158 Main Street  
Thomaston, CT 06787  
860-283-8411

Crown Castle, Tower Owner

**From:** [Zsamba, Anne Marie](#)  
**To:** [emone@thomastonct.org](mailto:emone@thomastonct.org)  
**Subject:** Notice of Exempt Modification - 580 Chapel Street - T-Mobile - 823530  
**Date:** Friday, June 26, 2020 10:59:00 AM  
**Attachments:** [EM-T-MOBILE\\_580\\_CHAPEL\\_STREET\\_THOMASTON\\_823530\\_CT11364B\\_notice.pdf](#)

---

Dear First Selectman Mone:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council, today June 26, 2020.

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

Best,  
Anne Marie Zsamba

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

**CROWN CASTLE**  
3 Corporate Park Drive, Suite 101  
Clifton Park, NY 12065  
[CrownCastle.com](http://CrownCastle.com)



**From:** [Zsamba, Anne Marie](#)  
**To:** "[ssefcik@thomastonct.org](mailto:ssefcik@thomastonct.org)"  
**Subject:** Notice of Exempt Modification - 580 Chapel Street - T-Mobile - 823530  
**Date:** Friday, June 26, 2020 10:59:00 AM  
**Attachments:** [EM-T-MOBILE\\_580\\_CHAPEL\\_STREET\\_THOMASTON\\_823530\\_CT11364B\\_notice.pdf](#)

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Dear Ms. Sefcik:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council, today June 26, 2020.

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

Best,  
Anne Marie Zsamba

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

**CROWN CASTLE**  
3 Corporate Park Drive, Suite 101  
Clifton Park, NY 12065  
[CrownCastle.com](http://CrownCastle.com)

# Exhibit A

## **Original Facility Approval**

THOMASTON ZONING BOARD OF APPEALS  
TOWN HALL  
THOMASTON, CT 06787


CERTIFICATE OF VARIANCE

This is to certify that the Thomaston Zoning Board of Appeals held a public hearing on July 18, 2000, at 7:45 pm in Meeting Room 1 of the Town Hall on an application from Voice Stream Wireless Corporation of 100 Filley St., Bloomfield, CT. The applicants sought a variance to permit their locating a ground mounted tower for a wireless communications facility on the west side of Chapel Street, approximately 1,000 feet distant from the intersection of Chapel Street with Prospect Street. The proposed tower is 175 feet in height. The applicants requested permission to locate the tower 201 feet from the property line. The property is owned by the Town of Thomaston and is located in an RA-40 zone.

Sec. 27.4.e of the Zoning Regulations of the Town of Thomaston provides that: "...the minimum distance from the base of any proposed ground mounted regulated facility to any property line, roadway, habitable dwelling, business or industrial use, public recreational areas, or public pathway shall be the height of the facility and mount, including any antennas or other appurtenances plus fifty per cent." Thus, 262.5 feet was the required setback.

With quorum present, the Board voted unanimously to grant the variance. The reasons were: topographic considerations; soil conditions on other parts of the site; and concerns over elevation on the site.

ATTEST: Joseph F. Wassong, Jr.

  
Chairman, TZBA

Town of Thomaston  
Planning & Zoning Board  
158 Main Street  
Thomaston, Connecticut 06787

Return Receipt Requested

November 9, 2000

Voice Stream Wireless  
100 Filley Street  
Bloomfield, CT 06002

Re: Special Permit Approval for a Commercial  
Cellular Telecommunications Tower  
Chapel Street, Thomaston, Conn.

---

Dear Sirs:

At its meeting on Wednesday, November 1, 2000, the Thomaston Planning and Zoning Commission approved your Special Permit Application to construct a commercial cellular communications tower on municipal property at the end of Chapel Street.

The application was approved with the following conditions:

1. Conduct an annual RF inspection and submit the results to the Commission.
2. Regrade the driveway as noted in Land Tech's letter dated October 6, 2000.
3. Agreed to the terms and conditions as noted in a FAX from Planimetrics dated November 1, 2000, regarding items 12-15.
4. If the Town decides not to have the tower removed, then the site plan and mylar must be revised. Any undertaking regarding the Town's tower shall be done in accordance with the conditions of the signed contract.

Sincerely,



Samuel Barto  
Staff, TPZC  
Land Use Officer / ZEO

# Town of Thomaston

SELECTMAN'S OFFICE  
TOWN HALL  
158 MAIN STREET  
THOMASTON, CONNECTICUT 06787  
203-4421

April 25, 2000

## SELECTMEN'S MEETING MINUTES

At a meeting of the Board of Selectmen held on April 25, 2000 the following business was conducted:

The meeting opened at 4:00 p.m. with the Entire Board in attendance.

Also attending were Thomas C. Cusa of In Telecom, Inc., Sam Barto Town Planner and Attorney George Seabourne.

Selectman Brammer read a Fair Housing Resolution and a Fair Housing Policy Statement. (Copies Attached)

Selectman DuPont made a motion to adopt the Fair Housing Resolution and the Fair Housing Policy Statement seconded by Selectman O'Connell and passed unanimously by Selectman Brammer.

Selectman Brammer explained that as recipients of Small Cities Funding from the Department of Economic and Community Development we must adopt the above to reaffirm our commitment to Fair Housing. Larry Wagner the Town's Grants Coordinator has been the administrator of the Town's projects and programs and Lorraine Babb is our designated representative and is responsible for the enforcement and implementation of the Fair Housing Regulations.

Sam Barto reported to the Board of Selectmen that the roadway system in Phase III of the Highwood Farms Subdivision has been inspected by Town Engineer Bob Oley, Highway Superintendent Gerry Grohoski and by himself and it is their recommendation that it be accepted as a Town Road.

Selectman O'Connell made a motion to approve Phase III Section of the Highwood Farms Subdivision as a Town approved road seconded by Selectman DuPont and passed unanimously by Selectman Brammer.

Selectman DuPont made a motion to add Highwood Farms Subdivision--Phase V to today's Agenda seconded by Selectman O'Connell and passed unanimously by Selectman Brammer.

Selectman O'Connell made a motion to release the lots in Phase V of the Highwood Farms Subdivision in exchange for an irrevocable letter of credit in the amount of \$60,000.00 seconded by Selectman DuPont and passed unanimously by Selectman Brammer.

(Copy of Irrevocable Standby Letter of Credit Attached)

Selectman Brammer reported that Representatives from the Water Company will be meeting with him at 9:30 a.m. in his office on April 27th to discuss the design of the Water Extension to upper High Street.

SELECTMEN'S MEETING  
MINUTES (Cont'd)

The Board of Selectmen briefly went over Town Attorney Rybak's suggestions for the Proposed Lease Agreement between the Town of Thomaston and Omnipoint Communications, Inc. regarding the Communications Tower on Chapel Street.

Mr. Cusa said looking over the suggested changes, they will be acceptable, however items that might involve Federal Regulations would be out of their control.

Selectman O'Connell made a motion to accept the Proposed Lease Agreement between the Town of Thomaston and Omnipoint Communications, Inc. with the suggested changes made by Attorney Rybak and subject to the approval of the Inland Wetlands Commission, Planning and Zoning Commission and Town Meeting Approval seconded by Selectman DuPont and passed unanimously by Selectman Brammer.

Selectman DuPont made a motion to approve Glenn C. Clark's request that his remaining vacation time for this year (4 days) be held past his anniversary date of July 6, 2000 as he is going on a cruise in May of 2001 seconded by Selectman O'Connell and passed unanimously by Selectman Brammer.

At 4:32 p.m. Selectman DuPont made a motion to adjourn the meeting seconded by Selectman O'Connell and passed unanimously by Selectman Brammer.

Signed Clifford C. Brammer, Jr.  
Clifford C. Brammer, Jr.  
First Selectman

Signed Roger DuPont  
Roger DuPont  
Selectman

Signed Richard A. O'Connell  
Richard A. O'Connell  
Selectman

Town of Thomaston  
Planning & Zoning Board  
158 Main Street  
Thomaston, Connecticut 06787

August 7, 2000

Voice Stream Wireless  
100 Filley Street  
Bloomfield, CT 06002

Attn: Mr. Rick Frazier

Re: Special Permit Application for a Commercial  
Telecommunications Tower and Facility

Dear Mr. Frazier:

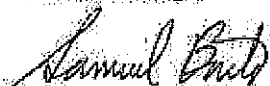
At its meeting on August 2, 2000, the Thomaston Planning and Zoning Commission accepted your Special Permit Application. The public hearing is scheduled for Wednesday, September 6, 2000, at 7:00 p.m. The meeting will be held in the Lena Morton Art Gallery.

The Commission has scheduled an on-site inspection for Wednesday, August 30, 2000, at 6:30 p.m. In accordance with the Zoning Regulations, Section 27.7, Part L, the Commission requests that you send aloft a site identification balloon on or just prior to the day of inspection. My office will publish a legal notice prior to the raising. The site walk will be open to the public.

Please make sure to address each of the requirements in Article XXVII at the public hearing. This should insure a very thorough and informative public hearing.

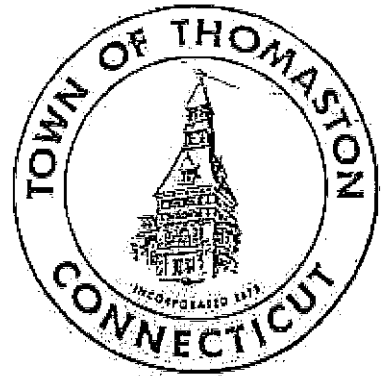
If you have any questions, comments or suggestions, please feel free to call the Land Use Office at 283-8411.

Sincerely,

  
Samuel Barto  
Land Use Officer

Please Note: The balloon shall also be raised at least 3 days prior to the public hearing.

cc: Bruce Hoben



SPECIAL PERMIT APPLICATION

Town of Thomaston, Connecticut

Date Received:

Application for a Special Permit

Applicant: Voice Stream / Omnipoint Wireless

Address: 100 Filley St Bloomfield, CT 06002

The undersigned hereby makes application to the Planning and Zoning Commission for a SPECIAL PERMIT in accordance with the provisions of Section 3.11 - Schedule A - Permitted Uses and Article IX of the Thomaston Zoning Regulations.

Signature: [Signature] Date: 7/29/00

Section 1. Previous Application

Has a previous Special Permit Application been filed with the Commission for the same premises? Yes:        No:   ✓  

Section 2. Placement on Agenda

In order for the Commission to consider your application, it must be received in the Planning and Zoning Office (Land-Use Office) no later than five (5) working days prior to the next regularly scheduled meeting.

Section 3. Plans and Documentation

All Special Permit applications, unless otherwise prescribed in the Zoning Regulations or directed by the Commission, must be accompanied by the following documentation:



Town of Thomaston  
Planning & Zoning Board  
158 Main Street  
Thomaston, Connecticut 06787

August 7, 2000

Voice Stream Wireless  
100 Pilley Street  
Bloomfield, CT 06002

Attn: Mr. Rick Frazier

Re: Special Permit Application for a Commercial  
Telecommunications Tower and Facility  
-----

Dear Mr. Frazier:

At its meeting on August 2, 2000, the Thomaston Planning and Zoning Commission accepted your Special Permit Application. The public hearing is scheduled for Wednesday, September 6, 2000, at 7:00 p.m. The meeting will be held in the Lena Morton Art Gallery.

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Please make sure to address each of the requirements in Article XXVII at the public hearing. This should insure a very thorough and informative public hearing.

If you have any questions, comments or suggestions, please feel free to call the Land Use Office at 283-8411.

Sincerely,



Samuel Barto  
Land Use Officer

Please Note: The balloon shall also be raised at least 3 days prior to the public hearing.

cc: Bruce Hoben

- a. A "Statement of Use" which shall detail the proposed use of the site.
- b. Site Plan and Landscaping Plan.
- c. Architectural and Construction Plan
- d. Flood Hazard Area Data
- e. Soil Erosion and Sedimentation Control Plan
- f. All other pertinent information and documentation that may be required by the Commission in order to make a decision on the application.

Section 4. Application Fees

- a. Standard Application Fee: \$ 150.00
- b. Home Occupation Permit: \$ 100.00

Section 5. Waiver of Requirements

Does the applicant request the Commission to waive any of the required documentation as specified in Sections 9.3.2, 9.3.3 or 9.3.4 of the Zoning Regulations?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If yes, please specify: \_\_\_\_\_

Section 6. Extension of Review Period

Will the applicant consent to a formal extension of time in order for the Commission to take action on this application?

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If yes, please specify period or date: \_\_\_\_\_

#### Section 7. Failure to Submit

---

Failure by an applicant to submit any or all of the required or requested documentation under Section 3.11 or Article IX may be grounds for the Commission to consider the application as being incomplete.

#### Section 8. Review by Town Engineer

---

The applicant shall be responsible for paying all inspection and review costs incurred by the Town Engineer during the review process.

If additional on-site inspection and review is necessary and required by the Commission after the approval is granted and prior to completion of the project, the applicant shall also be responsible for these costs.

The costs shall be no more per hour than what is assessed to the Town in any given year by the Town Engineer.

#### Section 9. Public Hearing

---

The Thomaston Planning and Zoning Commission will conduct a "Public Hearing" on this application. The applicant, or their authorized agent, must be present at the hearing and should be prepared to present information showing how the proposed use of the site along with the buildings, structures, and facilities will conform to the standards as specified in these Regulations.

All standards as specified in Article IX are in addition to other requirements as contained in the Regulations which may be applicable in the District in which the Special Permit is proposed.

#### Section 10. Inspection of Property

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The Commission is authorized by the submission of this application to inspect the premises.

Section 11. Additional Information  
-----

The Commission may obtain additional documentation and information on its own initiative but will need to rely upon data presented to it by the applicant.

Section 12. Modification of Approval  
-----

If approval is granted by the Planning and Zoning Commission, it may be subject to modifications deemed necessary to conform to specific standards of the Regulations. It may also be subject to appropriate conditions and safeguards necessary to conserve public health and safety, convenience, welfare and property values in the neighborhood.

Applicants Signature: \_\_\_\_\_



Home Phone: <sup>960</sup> 693 2724

Business Phone: 860-677 9267

-----  
OFFICE USE

Commission date when application was received: \_\_\_\_\_

Date of initial Public Hearing: \_\_\_\_\_

Public Hearing was continued to: \_\_\_\_\_

Date of Approval: \_\_\_\_\_ Disapproval: \_\_\_\_\_

Was approval modified: Yes: \_\_\_\_\_ No: \_\_\_\_\_

If yes, give specifics: \_\_\_\_\_  
\_\_\_\_\_

Land-Use Officer: \_\_\_\_\_ Date: \_\_\_\_\_

Samuel L. Barto  
Staff, PZC

# Exhibit B

## Property Card

# Thomaston, CT : Commercial Property Record Card

[ [Back to Search Results](#) ]

[ [Start a New Search](#) ] [ [Help with Printing](#) ]

## Search For Properties

Account

Name

Street Name

Search

Reset

Account	Card	Map-Block-Lot	Location	Zoning	State Class	Acres
T0304400	1	55-03-08	580 CHAPEL ST	RA80	MUNICIPALITIES	6.540
<b>Living Units</b>						
0						

## Owner Information

Thomaston Town Of  
158 Main St  
Thomaston CT 06787

## Deed Information

**Book/Page:** 56/664  
**Deed Date:** 1966/05/04

## Building Information

**Building No:** 0  
**Year Built:** 0  
**No of Units:** 0  
**Structure Type:**  
**Grade:**  
**Identical Units:** 0

## Valuation

**Land:** \$218,700  
**Building:** \$0  
**Total:** \$218,700  
**Net Assessment:** \$153,090

## Property Picture



## Sales History

Book/Page	Date	Price	Type	Validity
-----------	------	-------	------	----------

## Out Building Information

Structure Code	Width	Lgth/SqFt	Year	RCNLD
----------------	-------	-----------	------	-------

## Exterior/Interior Information

Levels	Size	Use Type	Ext. Walls	Const. Type	Partitions	Heating	A/C	Plumbing	Condition	Func. Utility	Unadj. RCNLD
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## Building Sketch

	<u>Descriptor/Area</u>
--	------------------------

**Notice**

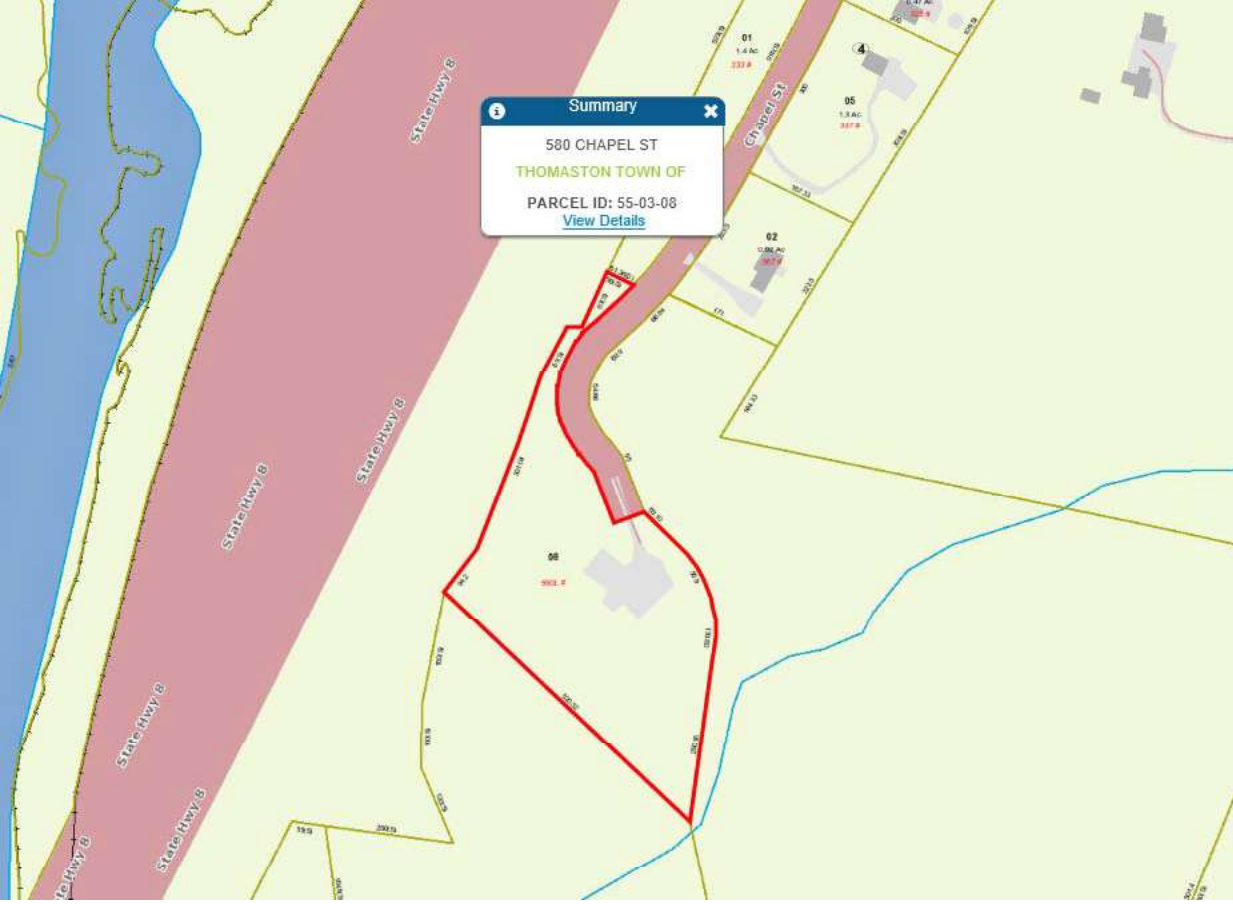
**Tax Year 2019 Values**

The information delivered through this on-line database is provided in the spirit of open access to government information and is intended as an enhanced service and convenience for citizens of Thomaston, CT.

The providers of this database: CLT, Big Room Studios, and Thomaston, CT assume no liability for any error or omission in the information provided here.

Comments regarding this service should be directed to: [rdudek@thomastonct.org](mailto:rdudek@thomastonct.org).





**Summary**

580 CHAPEL ST  
THOMASTON TOWN OF  
PARCEL ID: 55-03-08  
[View Details](#)



# Exhibit C

## **Construction Drawings**

# T-Mobile

T-MOBILE SITE NAME:  
**CT364/CHAPEL ST. MONOPOLE**

T-MOBILE SITE NUMBER:  
**CT11364B**

CROWN BU: 823530 / APP#: 479829  
**CUSTOM CONFIGURATION**

580 CHAPEL ST  
THOMASTON, CT 06787

EXISTING 175'-0" MONOPOLE



CT11364B  
BU #: 823530  
CT364/CHAPEL ST. MONOPOLE  
580 CHAPEL ST  
THOMASTON, CT 06787  
EXISTING 175'-0" MONOPOLE

### PROJECT SUMMARY

SITE TYPE: EXISTING EQUIPMENT UPGRADE  
SITE ADDRESS: 580 CHAPEL ST  
THOMASTON, CT 06787  
JURISDICTION: LITCHFIELD COUNTY

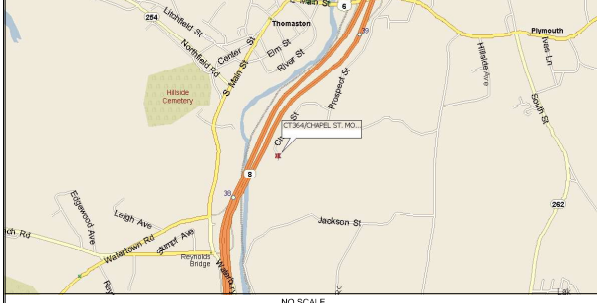
MOBS  
LATITUDE: 41.663449° N  
LONGITUDE: 73.074208° W

TOWER OWNER: CROWN CASTLE  
3200 HORIZON DRIVE, SUITE 150  
KING OF PRUSSIA, PA 19406  
JASON SMITH  
(610) 435-3225

CUSTOMER/APPLICANT: T-MOBILE  
4 SYLVAN WAY  
PARLISSIPPANY, NJ 07054  
(973) 397-4800

OCCUPANCY TYPE: UNMANNED  
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

### LOCATION MAP



### DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T-1	TITLE SHEET	2
A-1	OVERALL SITE PLAN	2
A-2	ANTENNA/CABLE SCHEDULE AND AZIMUTH PLANS	2
A-2.1	H-FRAME DETAILS	2
A-3	TOWER ELEVATION	2
A-4	ANTENNA AND RRU DETAILS	2
E-1	PANEL SCHEDULE AND ONE-LINE DIAGRAM	2

### CONTACT INFORMATION

A&E FIRM: B+T GROUP  
1717 S. BRIDLER, STE. 300  
TULSA, OK 74119  
CONTACT: MIKE DAVIES  
PHONE: (918) 587-4630

ELECTRIC: EVERSOURCE ENERGY  
PROVIDER: (800) 288-2000

TELECOM: OPTIMUM  
PROVIDER: (855) 267-8468

### DRIVING DIRECTIONS

DEPART FROM BRADLEY INTERNATIONAL AIRPORT ON TERMINAL RD. ROAD NAME CHANGES TO BRADLEY FIELD CONNECTOR. ROAD NAME CHANGES TO CT-20 (BRADLEY FIELD CONNECTOR). TAKE RAMP (RIGHT) ONTO I-91 (RICHARD P HORAN MEMORIAL HWY). AT EXIT 32A-32B, TURN RIGHT ONTO RAMP. TAKE RAMP (LEFT) ONTO I-84 (US-6). AT EXIT 38, TURN RIGHT ONTO RAMP. ROAD NAME CHANGES TO US-6 (COLT HWY). TURN LEFT ONTO PROSPECT ST. TURN RIGHT ONTO CHAPEL ST. BEAR RIGHT ONTO ACCESS ROAD AND ARRIVE AT CT364/CHAPEL ST. MONOPOLE.

### A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
T-MOBILE PROP:		
T-MOBILE R.F. MGR.:		
T-MOBILE NetOps:		
T-MOBILE CONST. MGR.:		
INTERCONNECT:		
T-MOBILE SITE DEV. MGR.:		
PROPERTY OWNER:		
PLANNING:		

### CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING/DWELLING	2018 CT STATE BLDG CODE
STRUCTURAL	2018 CT STATE BLDG CODE
MECHANICAL	2018 CT STATE BLDG CODE
ELECTRICAL	NEC 2017

### PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES:

- REMOVE (1) DUS41.
- REMOVE (6) B12 RADIOS FROM GROUND.
- REMOVE & REPLACE (3) EXISTING ANTENNAS AT 172'-0".
- RELOCATE (3) EXISTING TMA's.
- INSTALL (6) NEW BRUS AT 172'-0".
- INSTALL (3) NEW TMA'S AT 172'-0".
- INSTALL (1) NEW B&T PCS.
- INSTALL (2) NEW BB 650s.

### DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

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

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

PROJECT NO: 1312TR06L01  
CHECKED BY: FWP

ISSUED FOR:

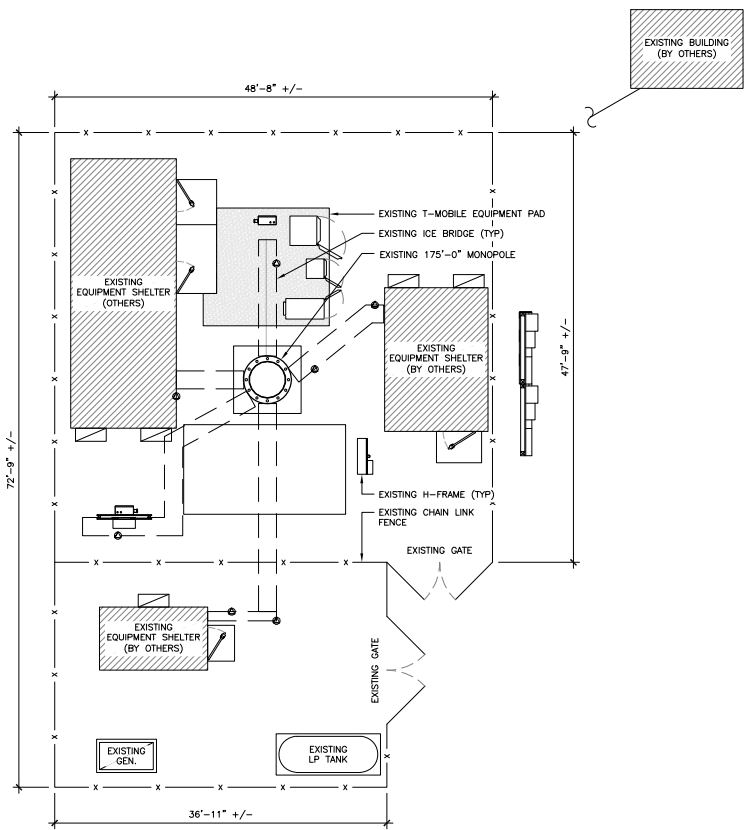
REV	DATE	DESCR
0	7/23/19	PMC CONSTRUCTION
1	9/24/19	M.C. CONSTRUCTION
2	4/14/20	GEN CONSTRUCTION

B&T ENGINEERING, INC.  
PEC-00012564  
Expires 2/10/21



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

SHEET NUMBER: T-1  
REVISION: 2



**1 OVERALL SITE PLAN**  
 SCALE: 0 4 8 16 32



- GENERAL NOTES:**
- SUBJECT PROPERTY IS SITUATED AT 580 CHAPEL ST, THOMASTON, CT 06787.
  - APPLICANT: T-MOBILE  
 A DELAWARE LIMITED LIABILITY COMPANY  
 4 SYLVAN WAY  
 PARSIPPANY, NEW JERSEY 07054  
 (973) 397-4800  
 TOWER OWNER: CROWN CASTLE INTERNATIONAL
  - THE APPLICANT IS TO UPDATE THEIR NETWORK BY INSTALLING THREE (3) NEW PANEL ANTENNAS, THREE (3) TMAS, SIX (6) RRUS, AND ONE (1) ADDITIONAL CABLE MOUNTED ON AN EXISTING MONOPOLE.
  - THIS FACILITY SHALL BE VISITED ON THE AVERAGE OF ONCE A MONTH FOR MAINTENANCE AND SHALL BE MONITORED FROM A REMOTE FACILITY.
  - THE EXISTING SITE IS LOCATED AT LATITUDE OF 41.663449' N± AND LONGITUDE OF 73.074208' W±. THE HORIZONTAL DATUM ARE IN TERMS OF NORTH AMERICAN DATUM OF 1983 (NAD 83).
  - THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND EACH OF THE DRAWINGS HAVE BEEN REVISED TO INDICATED "ISSUED FOR CONSTRUCTION"
  - ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
    - CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
    - CURRENT PREVAILING UTILITY COMPANY AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
  - THE CONTRACTOR SHALL NOTIFY B+T GROUP, P.A. IMMEDIATELY IF ANY FIELD-CONDITIONS ENCOUNTERED DIFFER FROM THOSE REPRESENTED HEREON, AND/OR IF SUCH CONDITIONS WOULD OR COULD RENDER THE DESIGN SHOWN HEREON INAPPROPRIATE AND/OR INEFFECTIVE.
  - THE CONTRACTOR IS RESPONSIBLE TO PROTECT, REPAIR AND/OR REPLACE ANY DAMAGED STRUCTURES, UTILITIES OR LANDSCAPED AREA WHICH MAY BE DISTURBED DURING THE CONSTRUCTION OF THIS FACILITY.
  - THE CONSTRUCTION CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ALL CONSTRUCTION MEANS AND METHODS. THE CONSTRUCTION CONTRACTOR IS ALSO RESPONSIBLE FOR ALL JOB SITE SAFETY.
  - SITE INFORMATION SHOWN TAKEN FROM CROWN CASTLE SITE PLANS AND FROM CROWN CASTLE INSPECTION PHOTOS.
  - NO GUARANTEE IS MADE NOR SHOULD BE ASSUMED AS TO THE COMPLETENESS OR ACCURACY OF THE HORIZONTAL OR VERTICAL LOCATIONS. ALL PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN PRIOR TO CONSTRUCTION ACTIVITIES.
  - ALL IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE TOWNSHIP ENGINEER WHO WILL BE GIVEN PROPER NOTIFICATION PRIOR TO THE START OF ANY CONSTRUCTION.



CT11364B  
 BU #: 823530  
 580 CHAPEL ST  
 THOMASTON, CT 06787  
 EXISTING 175'-0" MONOPOLE

PROJECT NO: 1317170.01.01  
 CHECKED BY: FWP

ISSUED FOR:

REV	DATE	DESCR
0	7/23/19	PMC CONSTRUCTION
1	9/24/19	M.C. CONSTRUCTION
2	4/14/20	GEN CONSTRUCTION

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 Expires 2/10/21

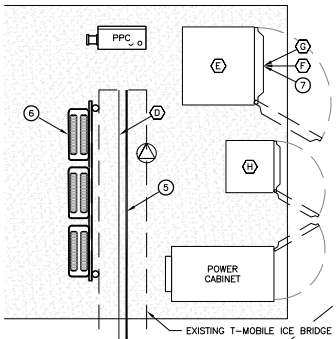


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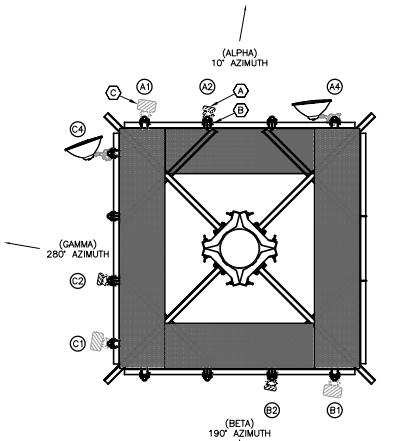
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 REVISION: 2

LEGEND	
EXISTING/DEMOLITION NOTES	INSTALLATION NOTES
(A) EXISTING EMS RR90-17-02DP ANTENNA TO REMAIN (TOTAL OF 3)	(1) INSTALL RFS APXVAARR24_43-U-NA20 (8 FT) ANTENNAS ON EXISTING MOUNT. PROVIDE NEW 2 3/8" OD SCH.40 PIPE MAST (LENGTH TO BE V.I.F) (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(B) EXISTING TMA TO BE RELOCATED (SEE INSTALLATION NOTE 2)	(2) RELOCATE EXISTING TMA BEHIND ANTENNA (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(C) EXISTING ANDREW LNX-6515DS-A1M ANTENNA TO BE REMOVED (TOTAL OF 3)	(3) INSTALL NEW TMA BEHIND ANTENNA (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(D) EXISTING 1 5/8" COAX TO REMAIN (TOTAL OF 12)	(4) INSTALL RADIO 4448 B12/B71 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(E) EXISTING RBS 6201 ODE TO REMAIN (TOTAL OF 1)	(5) INSTALL (1) 6x12 HCS FIBER. RUN FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING
(F) EXISTING DUS41 TO BE REMOVED (TOTAL OF 1)	(6) INSTALL RADIO 4415 B66A TO BE INSTALLED ON PROPOSED H-FRAME (TOTAL OF 3)
(G) EXISTING B12 RADIO TO BE REMOVED (TOTAL OF 6)	(7) INSTALL (2) BB 6630s
(H) EXISTING BBU TO REMAIN (TOTAL OF 1)	

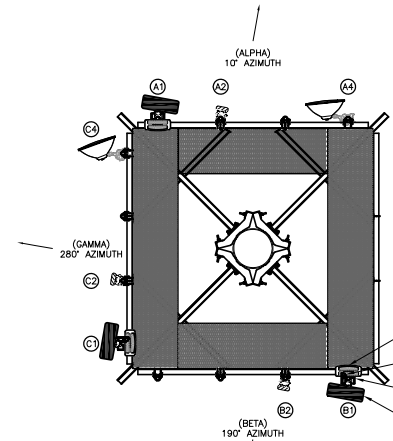
ANTENNA AND CABLE SCHEDULE										
SECTOR	POSITION	EXISTING ANTENNAS	PROPOSED ANTENNA CONFIGURATION	E-TILT	M-TILT	ANTENNA CENTERLINE	TMA/RRU	CABLES	JUMPER TYPE	CABLE LENGTH
10° - ALPHA	A1	RFS APXVAARR24_43-U-NA20	LTE GSM B71 B12 B66A	Z/Z/Z /Z	0°		2/2	(4) 1 5/8" COAX (1) 6x12 HCS FIBER	DC/FIBER & 1/2" COAX	222'-0"
	A2	EMS RR90-17-02DP	-	-	0°	172°-0"	0/0	-	-	-
	A4	ANDREW VHLP2.6 MW DISH	-	-	-	-	-	-	-	-
190° - BETA	B1	RFS APXVAARR24_43-U-NA20	LTE GSM B71 B12 B66A	Z/Z/Z /Z	0°		2/2	(4) 1 5/8" COAX SHARED FIBER	DC/FIBER & 1/2" COAX	222'-0"
	B2	EMS RR90-17-02DP	-	-	0°	172°-0"	0/0	-	-	-
280° - GAMMA	C1	RFS APXVAARR24_43-U-NA20	LTE GSM B71 B12 B66A	Z/Z/Z /Z	0°		2/2	(4) 1 5/8" COAX SHARED FIBER	DC/FIBER & 1/2" COAX	222'-0"
	C2	EMS RR90-17-02DP	-	-	0°	172°-0"	0/0	-	-	-
	C4	ANDREW VHLP2.6 MW DISH	-	-	-	-	-	-	-	-



1 ENLARGED AREA PLAN  
SCALE: 0' 1' 2' 4' 8' 16'



2 EXISTING ANTENNA ORIENTATION  
SCALE: 0' 1' 2' 4' 8' 16'



3 PROPOSED ANTENNA ORIENTATION  
SCALE: 0' 1' 2' 4' 8' 16'

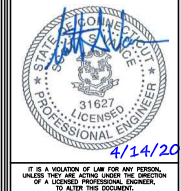


CT11364B  
BU #: 823530  
580 CHAPEL ST  
THOMASTON, CT 06787  
EXISTING 175-JP MONOPOLE

PROJECT NO: 13170.061.01  
CHECKED BY: FWP

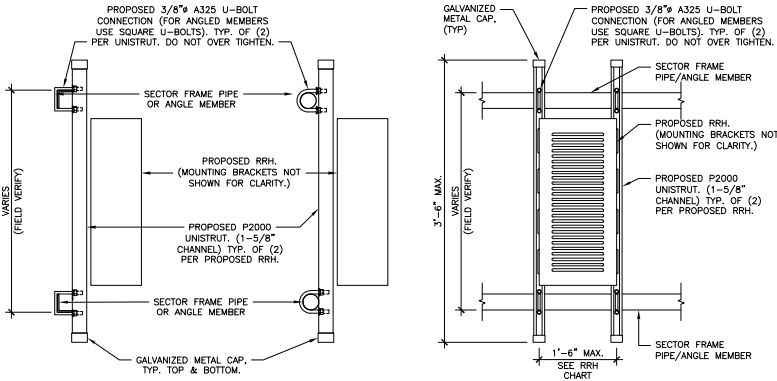
ISSUED FOR:			
REV	DATE	BY	DESCRIPTION
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1	9/24/19	M.C.	CONSTRUCTION
2	4/14/20	GEH	CONSTRUCTION

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SHEET NUMBER: A-2  
REVISION: 2



1 RRH UNISTRUT H-FRAME MOUNTING DETAIL  
SCALE: N.T.S.



CT11364B  
BU #: 823530  
580 CHAPEL ST  
THOMASTON, CT 06787  
EXISTING 175-JP MONOPOLE

PROJECT NO: 1717R.061.01  
CHECKED BY: FWP

ISSUED FOR:

REV	DATE	BY	DESCRIPTION
0	7/23/19	PMC	CONSTRUCTION
1	9/24/19	M.C.	CONSTRUCTION
2	4/14/20	GEN	CONSTRUCTION

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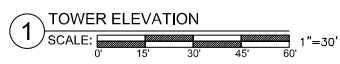
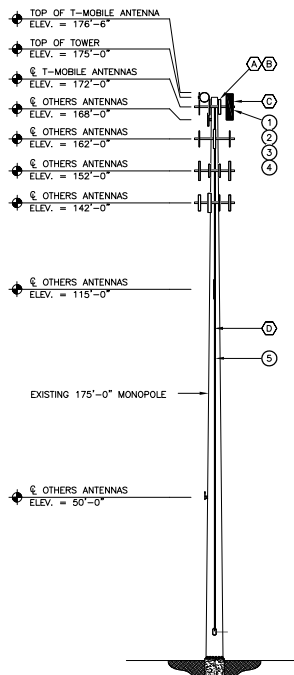
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LEGEND	
EXISTING/DEMOLITION NOTES	INSTALLATION NOTES
(A) EXISTING EMS RR90-17-02DP ANTENNA TO REMAIN (TOTAL OF 3)	(1) INSTALL RFS APXVARR24_43-U-NA20 (8 FT) ANTENNAS ON EXISTING MOUNT. PROVIDE NEW 2 3/8" OD SCH.40 PIPE MAST (LENGTH TO BE V.I.F) (TYP. OF 1 PER SECTOR, TOTAL OF 3)
(B) EXISTING TMA TO BE RELOCATED (SEE INSTALLATION NOTE 2)	(2) RELOCATE EXISTING TMA BEHIND ANTENNA (TYP. OF 1 PER SECTOR, TOTAL OF 3)
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(D) EXISTING 1 5/8" COAX TO REMAIN (TOTAL OF 12)	(4) INSTALL RADIO 4449 B12/B71 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
	(5) INSTALL (1) 8x12 HCS FIBER. RUN FROM EQUIPMENT TO ANTENNAS FOLLOWING EXISTING ROUTING

EXISTING TOWER IS SUFFICIENT PER STRUCTURAL ANALYSIS BY FDH INFRASTRUCTURE SERVICES DATED 6/19/19.

EXISTING MOUNT IS SUFFICIENT PER MOUNT ANALYSIS BY MASTECH NETWORK SOLUTIONS DATED 6/7/19.

LEGEND:  
  
 ■ NEW  
 □ EXISTING  
 □ FUTURE



CT11364B  
 BU #: 823530  
 CT364/CHAPEL ST. MONOPOLE  
 580 CHAPEL ST  
 THOMASTON, CT 06787  
 EXISTING 175'-0" MONOPOLE

PROJECT NO: 131719.01.01  
 CHECKED BY: FWP

ISSUED FOR:		
REV	DATE	DESCRIPTION
0	7/23/19	PMC CONSTRUCTION
1	9/24/19	M.C. CONSTRUCTION
2	4/14/20	GEN CONSTRUCTION

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4/14/20  
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SHEET NUMBER:	REVISION:
A-3	2

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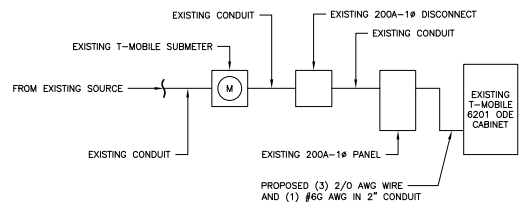
CT11364B  
 BU #: 823530  
 580 CHAPEL ST.  
 THOMASTON, CT 06787  
 EXISTING 175-JP MONOPOLE

FINAL PANEL SCHEDULE							
LOAD	POLES	AMPS	BUS		AMPS	POLES	LOAD
			L1	L2			
RBS 6201 ODE	2	100A	1	2	60A	2	EQUIPMENT
LIGHT & GFI	1	20A	11	12			

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

REPLACE EXISTING BREAKER IN POSITION 1 AND 3 WITH A NEW 2P 100A BREAKER  
 REPLACE EXISTING WIRES FOR EXISTING 6201 ODE CABINET WITH (3) 2/0 AWG THHN (COPPER) AND (1) #6G AWG MINIMUM CONDUIT SIZE TO BE 2".  
 IF 100A BREAKER WILL NOT PROPERLY FIT IN EXISTING PANEL, REPLACE (E) PANEL WITH SQUARE D PANEL Q01204M200RB (OR APPROVED EQUAL).  
 UPGRADE FEEDER WIRES TO MEET AMPACITY IF NEW PANEL IS REQUIRED.  
 FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING DOCUMENTS AND PHOTOS

1 FINAL T-MOBILE PANEL DETAIL  
 SCALE: N.T.S.

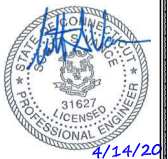


2 ONE-LINE DIAGRAM  
 SCALE: N.T.S.

PROJECT NO: 13170.061.01  
 CHECKED BY: FWP

ISSUED FOR:			
REV	DATE	BY	DESCRIPTION
0	7/23/19	FWP	CONSTRUCTION
1	9/24/19	M.C.	CONSTRUCTION
2	4/14/20	GEN	CONSTRUCTION

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



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SHEET NUMBER: E-1 REVISION: 2



# Exhibit D

## **Structural Analysis Report**



Date: **June 19, 2019**

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

FDH Infrastructure Services, LLC  
6521 Meriden Drive Suite 107  
Raleigh, NC 27616  
919.755.1012

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

**Carrier Designation:** **T-Mobile Co-Locate**  
**Carrier Site Number:** CT11364B  
**Carrier Site Name:** CT364/Chapel St. Monopole

**Crown Castle Designation:** **Crown Castle BU Number:** 823530  
**Crown Castle Site Name:** CT364/Chapel St. Monopole  
**Crown Castle JDE Job Number:** 559233  
**Crown Castle Work Order Number:** 1749544  
**Crown Castle Order Number:** 479829 Rev. 0

**Engineering Firm Designation:** **FDH-IS Project Number:** 19BMUT1400

**Site Data:** **580 Chapel Street, Thomaston, Litchfield County, CT**  
**Latitude 41° 39' 48.48", Longitude -73° 4' 27.41"**  
**175 Foot - Monopole Tower**

Dear Denice Nicholson,

FDH Infrastructure Services, LLC 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-79.8%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully Submitted by:

Aditya Chingale, EI  
Project Engineer I

Reviewed by:

Krystyn M. Perez, PE  
Vice President of Structural Engineering  
CT PE License No. 32975



06/19/2019

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### 2) ANALYSIS CRITERIA

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### 3) ANALYSIS PROCEDURE

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- 3.2) Assumptions

### 4) ANALYSIS RESULTS

- Table 4 - Section Capacity (Summary)
- Table 5 – Tower Component Stresses vs. Capacity – LC7
- 4.1) Recommendations

### 5) APPENDIX A

- tnxTower Output

### 6) APPENDIX B

- Base Level Drawing

### 7) APPENDIX C

- Additional Calculations

## 1) INTRODUCTION

This tower is a 175 ft Monopole tower designed by Pirod Manufactures Inc.

## 2) ANALYSIS CRITERIA

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Wind Speed:</b>	120 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1.5 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)
172.0	172.0	1	-	Platform Mount [LP 701-1]	13	1-5/8
		3	ems wireless	RR90-17-02DP		
		3	ericsson	KRY 112 144/1		
		3	ericsson	KRY 112 489/2		
		3	ericsson	RADIO 4449 B12/B71		
		3	rfs celwave	APXVAARR24_43-U-NA20		

**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)
172.0	175.0	2	andrew	VHLP2.6	3	7/8
	168.0	1	bird tech group	OA20-67-DIN		
		1	lone star electronics	LS-230C		
168.0	171.0	1	lone star electronics	LS-230C	6	7/8
	168.0	1	-	Side Arm Mount [SO 701-1]		
162.0	162.0	3	alcatel lucent	800MHz 2X50W RRH W/FILTER	4	1-1/4
		3	alcatel lucent	PCS 1900MHz 2x40W		
		3	alcatel lucent	TD-RRH8x20-25		
		1	-	Platform Mount [LP 712-1]		
		3	rfs celwave	APXVSP18-C-A20		
		3	rfs celwave	APXVTM14-C-120		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
152.0	152.0	1	-	Heavy 12' UPNY Boom [SM 801-3]	1 6	1-3/8 1-5/8
		6	antel	LPA-80080/4CF		
		6	commscope	NNHH-65B-R4		
		1	raycap	RVZDC-6600-PF-48		
		3	samsung telecomm	RFV01U-D1A		
		3	samsung telecomm	RFV01U-D2A		
142.0	143.0	1	cci antennas	HPA65R-BU4A	2 6 12 2	3/8 3/4 1-5/8 Conduit
		2	cci antennas	HPA65R-BU6A		
		3	ericsson	RADIO 4415 B30		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14		
		3	ericsson	RRUS 8843 B2/B66A		
		2	kathrein	80010964		
		4	kathrein	80010965		
		3	powerwave tech	7770.00		
		6	powerwave tech	LGP21401		
	2	raycap	DC6-48-60-18-8F			
	142.0	1	-	Miscellaneous [NA 507-1]		
		1	-	Platform Mount [LP 303-1]		
		1	raycap	DC6-48-60-18-8F		
115.0	115.0	3	rfs celwave	APXV18-206517S-C	6	1-5/8
50.0	50.0	1	-	Side Arm Mount [SO 701-1]	1	1/2
		1	pctel	GPS-TMG-HR-26NCM		

### 3) ANALYSIS PROCEDURE

**Table 3 - Documents Provided**

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	FDH Engineering, Inc.	3462674	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Pirod, Inc.	3464631	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Pirod, Inc.	3462695	CCISITES

#### 3.1) Analysis Method

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

**3.2) Assumptions**

- 1) Tower and structures were built and maintained in accordance with the manufacturer’s specifications.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) Base plate design methodology of the manufacturer has been reviewed and found to be an acceptable means of designing to resist the full capacity of the bolts and shaft.

This analysis may be affected if any assumptions are not valid or have been made in error. FDH Infrastructure Services, LLC 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 <sup>2</sup>	Pass / Fail
L1	175 - 164.25	Pole	TP26x22x0.25	1	-5.07	1202.11	5.0	Pass
L2	164.25 - 129.67	Pole	TP34.0625x24.4135x0.3125	2	-19.14	1996.21	30.1	Pass
L3	129.67 - 96	Pole	TP41.75x32.452x0.375	3	-27.39	2940.31	41.4	Pass
L4	96 - 63.17	Pole	TP49.0625x39.8421x0.375	4	-37.02	3460.73	53.6	Pass
L5	63.17 - 31.17	Pole	TP56.125x46.9602x0.375	5	-48.16	3964.26	64.1	Pass
L6	31.17 - 0	Pole	TP62.9375x53.8475x0.375	6	-63.20	4574.01	74.8	Pass
							Summary	
						Pole (L6)	74.8	Pass
						<b>RATING =</b>	<b>74.8</b>	<b>Pass</b>

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

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1, 2	Anchor Rods	0	67.5	Pass
1, 3	Base Plate	0	OK	Pass
1, 2	Base Foundation	0	79.8	Pass
1, 2	Base Foundation Soil Interaction	0	78.3	Pass

<b>Structure Rating (max from all components) =</b>	<b>79.8%<sup>2</sup></b>
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Notes:

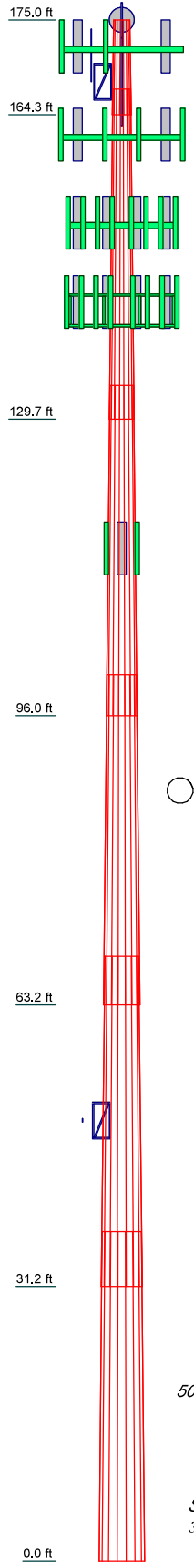
- 1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.
- 2) Ratings per TIA-222-H Section 15.5
- 3) Base plate is assumed to have the same capacity as their respective anchor bolts or shaft.

**4.1) Recommendations**

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

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

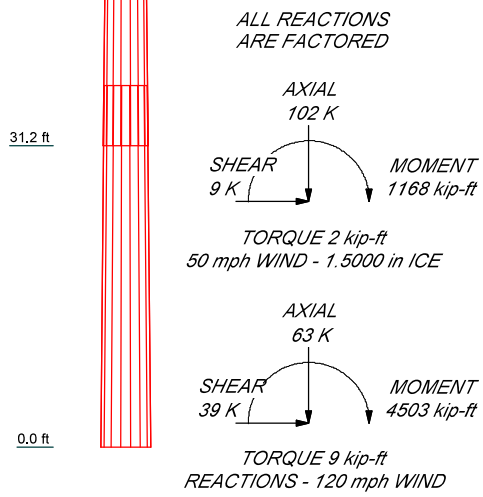
Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	10.75	18	0.2500	2.92	22.0000	26.0000	A572-65	0.7
2	37.50	18	0.3125	3.83	24.4135	34.0625	A572-65	3.7
3	37.50	18	0.3750	4.67	32.4520	41.7500	A572-65	5.6
4	37.50	18	0.3750	5.50	39.8421	49.0625	A572-65	6.7
5	37.50	18	0.3750	6.25	46.9602	56.1250	A572-65	7.8
6	37.42	18	0.3750	53.8475	62.9375		A572-65	8.8
Grade								33.2



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

**TOWER DESIGN NOTES**

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TIA-222-H Annex S
9. TOWER RATING: 74.8%



**FDH Infrastructure Services**  
 6521 Meridien Drive  
 Raleigh, NC 27616  
 Phone: 919.755.1012  
 FAX: 919.755.1031

Job: <b>CT364/Chapel St. Monopole (BU# 823530)</b>		
Project: <b>19BMUT1400</b>		
Client: Crown Castle	Drawn by: Aditya Chingale	App'd:
Code: TIA-222-H	Date: 06/19/19	Scale: NTS
Path:		Dwg No. E-1



<b>tnxTower</b>  <b>FDH Infrastructure Services</b> 6521 Meridien Drive Raleigh, NC 27616 Phone: 919.755.1012 FAX: 919.755.1031	<b>Job</b> CT364/Chapel St. Monopole (BU# 823530)	<b>Page</b> 1 of 17
	<b>Project</b> 19BMUT1400	<b>Date</b> 09:40:29 06/19/19
	<b>Client</b> Crown Castle	<b>Designed by</b> Aditya Chingale

## 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 Litchfield County, Connecticut.
- Tower base elevation above sea level: 543.00 ft.
- Basic wind speed of 120 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- TIA-222-H Annex S.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.05.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used:  $K_{es}(F_w) = 0.95$ ,  $K_{es}(t_i) = 0.85$ .
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

- |  |   |   |
|--|---|---|
| <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="text-align: center;">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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### 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	175.00-164.25	10.75	2.92	18	22.0000	26.0000	0.2500	1.0000	A572-65 (65 ksi)
L2	164.25-129.67	37.50	3.83	18	24.4135	34.0625	0.3125	1.2500	A572-65 (65 ksi)
L3	129.67-96.00	37.50	4.67	18	32.4520	41.7500	0.3750	1.5000	A572-65 (65 ksi)
L4	96.00-63.17	37.50	5.50	18	39.8421	49.0625	0.3750	1.5000	A572-65 (65 ksi)
L5	63.17-31.17	37.50	6.25	18	46.9602	56.1250	0.3750	1.5000	A572-65 (65 ksi)
L6	31.17-0.00	37.42		18	53.8475	62.9375	0.3750	1.5000	A572-65 (65 ksi)

### 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	22.3008	17.2586	1031.4832	7.7212	11.1760	92.2945	2064.3237	8.6310	3.4320	13.728
	26.3625	20.4326	1711.6544	9.1412	13.2080	129.5922	3425.5610	10.2183	4.1360	16.544
L2	25.5048	23.9052	1754.2802	8.5559	12.4021	141.4508	3510.8687	11.9549	3.7468	11.99
	34.5398	33.4758	4817.4335	11.9812	17.3038	278.4040	9641.2058	16.7411	5.4450	17.424
L3	33.8591	38.1797	4963.1506	11.3873	16.4856	301.0593	9932.8318	19.0935	5.0516	13.471
	42.3362	49.2466	10650.9822	14.6881	21.2090	502.1916	21315.9793	24.6280	6.6880	17.835
L4	41.5648	46.9757	9244.4481	14.0108	20.2398	456.7464	18501.0602	23.4923	6.3522	16.939
	49.7615	57.9503	17355.1378	17.2841	24.9238	696.3293	34733.1119	28.9807	7.9750	21.267
L5	48.9917	55.4480	15202.6322	16.5377	23.8558	637.2728	30425.2683	27.7293	7.6050	20.28
	56.9330	66.3564	26056.1506	19.7913	28.5115	913.8821	52146.5865	33.1845	9.2180	24.581
L6	56.1620	63.6457	22991.5268	18.9827	27.3545	840.5012	46013.3064	31.8289	8.8172	23.512
	63.8506	74.4650	36822.8946	22.2097	31.9722	1151.7142	73694.2417	37.2396	10.4170	27.779

Tower Elevation ft	Gusset Area (per face) ft <sup>2</sup>	Gusset Thickness in	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 175.00-164.25				1	1	1			
L2 164.25-129.67				1	1	1			
L3 129.67-96.00				1	1	1			
L4 96.00-63.17				1	1	1			
L5 63.17-31.17				1	1	1			
L6 31.17-0.00				1	1	1			

### Feed Line/Linear Appurtenances - Entered As Round Or Flat

<b>tnxTower</b>  <b>FDH Infrastructure Services</b> 6521 Meridien Drive Raleigh, NC 27616 Phone: 919.755.1012 FAX: 919.755.1031	<b>Job</b> CT364/Chapel St. Monopole (BU# 823530)	<b>Page</b> 3 of 17
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	<b>Client</b> Crown Castle	<b>Designed by</b> Aditya Chingale

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
**** Safety Line 3/8	C	No	Surface Ar (CaAa)	175.00 - 0.00	1	1	0.000 0.000	0.3750		0.22
**** **** **** **** **50**										
LDF4-50A(1/2)	A	No	Surface Ar (CaAa)	50.00 - 0.00	1	1	-0.438 -0.438	0.6250		0.15
**** ****115****										
LDF7-50A(1-5/8)	A	No	Surface Ar (CaAa)	115.00 - 0.00	6	1	-0.250 0.000	1.9800		0.82
**** MLCH 12X6 AWG(1-3/8)	B	No	Surface Ar (CaAa)	152.00 - 0.00	1	1	-0.313 -0.313	1.4300		1.72
**** **** ****										
HCS 6X12 4AWG(1-5/8)	C	No	Surface Ar (CaAa)	172.00 - 0.00	1	1	0.250 0.250	1.6600		2.40
**** **** **** ****										

### 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 plf
**** **142**									
AVA7-50(1-5/8)	C	No	No	Inside Pole	142.00 - 0.00	12	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.70 0.70 0.70 0.70
FB-L98-002-XXX(3/8)	C	No	No	Inside Pole	142.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.06 0.06 0.06 0.06
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	142.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.58 0.58 0.58 0.58
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	142.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.06 0.06 0.06 0.06
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	142.00 - 0.00	4	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.58 0.58 0.58 0.58
2"	C	No	No	Inside Pole	142.00 - 0.00	2	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	1.15 1.15 1.15

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C <sub>A</sub> A <sub>1</sub> ft <sup>2</sup> /ft	Weight plf
****							2" Ice	0.00	1.15
**168**									
LDF5-50A(7/8)	C	No	No	Inside Pole	168.00 - 0.00	6	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
****									
**162									
HB114-1-08U4-M5J (1-1/4)	A	No	No	Inside Pole	162.00 - 0.00	3	No Ice	0.00	1.08
							1/2" Ice	0.00	1.08
							1" Ice	0.00	1.08
							2" Ice	0.00	1.08
HB114-21U3M12-XXF(1-1/4)	A	No	No	Inside Pole	162.00 - 0.00	1	No Ice	0.00	1.22
							1/2" Ice	0.00	1.22
							1" Ice	0.00	1.22
							2" Ice	0.00	1.22
****									
****									
****									
**152**									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	152.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
****									
**172**									
AVA5-50(7/8)	C	No	No	Inside Pole	172.00 - 0.00	3	No Ice	0.00	0.30
							1/2" Ice	0.00	0.30
							1" Ice	0.00	0.30
							2" Ice	0.00	0.30
****									
****172****									
LDF7-50A(1-5/8)	C	No	No	Inside Pole	172.00 - 0.00	12	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
****									
****									
****									
****									

### 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>1</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>1</sub> Out Face ft <sup>2</sup>	Weight K
L1	175.00-164.25	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.690	0.000	0.11
L2	164.25-129.67	A	0.000	0.000	0.000	0.000	0.14
		B	0.000	0.000	3.193	0.000	0.15
		C	0.000	0.000	7.037	0.000	0.71
L3	129.67-96.00	A	0.000	0.000	3.762	0.000	0.24

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Tower Section	Tower Elevation ft	Face	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{IAI}$ In Face ft <sup>2</sup>	$C_{IAI}$ Out Face ft <sup>2</sup>	Weight K
L4	96.00-63.17	B	0.000	0.000	4.815	0.000	0.22
		C	0.000	0.000	6.852	0.000	1.00
		A	0.000	0.000	6.500	0.000	0.31
L5	63.17-31.17	B	0.000	0.000	4.695	0.000	0.22
		C	0.000	0.000	6.681	0.000	0.97
		A	0.000	0.000	7.513	0.000	0.30
L6	31.17-0.00	B	0.000	0.000	4.576	0.000	0.21
		C	0.000	0.000	6.512	0.000	0.95
		A	0.000	0.000	8.120	0.000	0.30
		B	0.000	0.000	4.457	0.000	0.21
		C	0.000	0.000	6.343	0.000	0.92

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

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{IAI}$ In Face ft <sup>2</sup>	$C_{IAI}$ Out Face ft <sup>2</sup>	Weight K
L1	175.00-164.25	A	1.502	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	7.246	0.000	0.19
L2	164.25-129.67	A	1.480	0.000	0.000	0.000	0.000	0.14
		B		0.000	0.000	9.900	0.000	0.27
		C		0.000	0.000	27.808	0.000	1.03
L3	129.67-96.00	A	1.441	0.000	0.000	9.385	0.000	0.96
		B		0.000	0.000	14.779	0.000	0.40
		C		0.000	0.000	26.780	0.000	1.30
L4	96.00-63.17	A	1.392	0.000	0.000	15.963	0.000	1.49
		B		0.000	0.000	14.158	0.000	0.38
		C		0.000	0.000	25.607	0.000	1.26
L5	63.17-31.17	A	1.321	0.000	0.000	21.663	0.000	1.47
		B		0.000	0.000	13.484	0.000	0.37
		C		0.000	0.000	24.328	0.000	1.21
L6	31.17-0.00	A	1.180	0.000	0.000	24.594	0.000	1.39
		B		0.000	0.000	12.695	0.000	0.35
		C		0.000	0.000	22.818	0.000	1.16

### Feed Line Center of Pressure

Section	Elevation ft	$CP_x$ in	$CP_z$ in	$CP_x$ Ice in	$CP_z$ Ice in
L1	175.00-164.25	-0.4791	1.1089	-0.6467	2.3284
L2	164.25-129.67	-0.3407	0.6683	-0.4242	1.6082
L3	129.67-96.00	-1.0080	0.0644	-1.4533	0.7855
L4	96.00-63.17	-1.1958	-0.0628	-2.2652	0.5705
L5	63.17-31.17	-1.3314	0.0094	-2.8871	0.8569
L6	31.17-0.00	-1.7612	0.0713	-3.2600	1.0261

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

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### 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	Safety Line 3/8	164.25 - 175.00	1.0000	1.0000
L1	35	HCS 6X12 4AWG(1-5/8)	164.25 - 172.00	1.0000	1.0000
L1	27	MLCH 12X6 AWG(1-3/8)	164.25 - 152.00	1.0000	1.0000
L2	2	Safety Line 3/8	129.67 - 164.25	1.0000	1.0000
L2	23	LDF7-50A(1-5/8)	129.67 - 115.00	1.0000	1.0000
L2	27	MLCH 12X6 AWG(1-3/8)	129.67 - 152.00	1.0000	1.0000
L2	35	HCS 6X12 4AWG(1-5/8)	129.67 - 164.25	1.0000	1.0000
L3	2	Safety Line 3/8	96.00 - 129.67	1.0000	1.0000
L3	23	LDF7-50A(1-5/8)	96.00 - 115.00	1.0000	1.0000
L3	27	MLCH 12X6 AWG(1-3/8)	96.00 - 129.67	1.0000	1.0000
L3	35	HCS 6X12 4AWG(1-5/8)	96.00 - 129.67	1.0000	1.0000
L4	2	Safety Line 3/8	63.17 - 96.00	1.0000	1.0000
L4	20	LDF4-50A(1/2)	63.17 - 50.00	1.0000	1.0000
L4	23	LDF7-50A(1-5/8)	63.17 - 96.00	1.0000	1.0000
L4	27	MLCH 12X6 AWG(1-3/8)	63.17 - 96.00	1.0000	1.0000
L4	35	HCS 6X12 4AWG(1-5/8)	63.17 - 96.00	1.0000	1.0000
L5	2	Safety Line 3/8	31.17 - 63.17	1.0000	1.0000
L5	20	LDF4-50A(1/2)	31.17 - 50.00	1.0000	1.0000
L5	23	LDF7-50A(1-5/8)	31.17 - 63.17	1.0000	1.0000
L5	27	MLCH 12X6 AWG(1-3/8)	31.17 - 63.17	1.0000	1.0000
L5	35	HCS 6X12 4AWG(1-5/8)	31.17 - 63.17	1.0000	1.0000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>1</sub> A <sub>1</sub> Front ft <sup>2</sup>	C <sub>1</sub> A <sub>1</sub> Side ft <sup>2</sup>	Weight K	
Lightning Rod 5/8x6'	A	From Leg	0.00	0.0000	175.00	No Ice	0.38	0.38	0.05
			0.00			1/2" Ice	0.99	0.99	0.05
			0.00			1" Ice	1.62	1.62	0.06
						2" Ice	2.46	2.46	0.09
**172** ***									
OA20-67-DIN	A	From Leg	4.00	-90.0000	172.00	No Ice	2.00	2.00	0.01
			0.00			1/2" Ice	3.03	3.03	0.02
			-4.00			1" Ice	4.06	4.06	0.03
						2" Ice	6.12	6.12	0.06
LS-230C	A	From Leg	4.00	-90.0000	172.00	No Ice	1.61	1.61	0.01
			0.00			1/2" Ice	2.34	2.34	0.02



<b>tnxTower</b>  <b>FDH Infrastructure Services</b> 6521 Meridien Drive Raleigh, NC 27616 Phone: 919.755.1012 FAX: 919.755.1031	<b>Job</b>		CT364/Chapel St. Monopole (BU# 823530)		<b>Page</b>		8 of 17	
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	<b>Client</b>		Crown Castle		<b>Designed by</b>		Aditya Chingale	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>1</sub> Front	C <sub>A</sub> A <sub>1</sub> Side	Weight	
			Horz	Lateral						Vert
			0.00				1/2" Ice	1.81	1.44	0.09
			0.00				1" Ice	1.98	1.60	0.11
							2" Ice	2.34	1.92	0.16
Pipe Mount	A	From Leg	4.00	0.0000	172.00		No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.50	1.50	0.03
			0.00				1" Ice	1.81	1.81	0.04
							2" Ice	2.47	2.47	0.08
(3) Pipe Mount	C	From Leg	4.00	0.0000	172.00		No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.50	1.50	0.03
			0.00				1" Ice	1.81	1.81	0.04
							2" Ice	2.47	2.47	0.08
(2) Pipe Mount	A	From Leg	4.00	-90.0000	172.00		No Ice	1.20	1.20	0.02
			0.00				1/2" Ice	1.50	1.50	0.03
			0.00				1" Ice	1.81	1.81	0.04
							2" Ice	2.47	2.47	0.08
Platform Mount [LP 701-1]	C	None		0.0000	172.00		No Ice	59.15	59.15	2.75
							1/2" Ice	71.12	71.12	3.42
							1" Ice	83.09	83.09	4.10
							2" Ice	107.03	107.03	5.45
**168** LS-230C	A	From Face	3.00	0.0000	168.00		No Ice	1.61	1.61	0.01
			0.00				1/2" Ice	2.34	2.34	0.02
			3.00				1" Ice	2.80	2.80	0.04
							2" Ice	3.68	3.68	0.09
Side Arm Mount [SO 701-1]	A	From Face	1.50	0.0000	168.00		No Ice	0.85	1.67	0.07
			0.00				1/2" Ice	1.14	2.34	0.08
			0.00				1" Ice	1.43	3.01	0.09
							2" Ice	2.01	4.35	0.12
**162** APXVTM14-C-120 w/ Mount Pipe	A	From Leg	4.00	0.0000	162.00		No Ice	4.09	2.86	0.08
			0.00				1/2" Ice	4.48	3.23	0.13
			0.00				1" Ice	4.88	3.61	0.19
							2" Ice	5.71	4.40	0.33
APXVTM14-C-120 w/ Mount Pipe	B	From Leg	4.00	0.0000	162.00		No Ice	4.09	2.86	0.08
			0.00				1/2" Ice	4.48	3.23	0.13
			0.00				1" Ice	4.88	3.61	0.19
							2" Ice	5.71	4.40	0.33
APXVTM14-C-120 w/ Mount Pipe	C	From Leg	4.00	0.0000	162.00		No Ice	4.09	2.86	0.08
			0.00				1/2" Ice	4.48	3.23	0.13
			0.00				1" Ice	4.88	3.61	0.19
							2" Ice	5.71	4.40	0.33
APXVSP18-C-A20 w/ Mount Pipe	A	From Leg	4.00	0.0000	162.00		No Ice	4.60	4.01	0.10
			0.00				1/2" Ice	5.05	4.45	0.16
			0.00				1" Ice	5.50	4.89	0.23
							2" Ice	6.44	5.82	0.42
APXVSP18-C-A20 w/ Mount Pipe	B	From Leg	4.00	0.0000	162.00		No Ice	4.60	4.01	0.10
			0.00				1/2" Ice	5.05	4.45	0.16
			0.00				1" Ice	5.50	4.89	0.23
							2" Ice	6.44	5.82	0.42
APXVSP18-C-A20 w/ Mount Pipe	C	From Leg	4.00	0.0000	162.00		No Ice	4.60	4.01	0.10
			0.00				1/2" Ice	5.05	4.45	0.16
			0.00				1" Ice	5.50	4.89	0.23
							2" Ice	6.44	5.82	0.42
TD-RRH8x20-25	A	From Leg	4.00	0.0000	162.00		No Ice	3.70	1.29	0.07
			0.00				1/2" Ice	3.95	1.46	0.09
			0.00				1" Ice	4.20	1.64	0.12
							2" Ice	4.72	2.02	0.18



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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>1</sub> Front	C <sub>A</sub> A <sub>1</sub> Side	Weight
			Horz	Vert					
TD-RRH8x20-25	B	From Leg	4.00	0.0000	162.00	No Ice	3.70	1.29	0.07
			0.00			1/2" Ice	3.95	1.46	0.09
			0.00			1" Ice	4.20	1.64	0.12
						2" Ice	4.72	2.02	0.18
TD-RRH8x20-25	C	From Leg	4.00	0.0000	162.00	No Ice	3.70	1.29	0.07
			0.00			1/2" Ice	3.95	1.46	0.09
			0.00			1" Ice	4.20	1.64	0.12
						2" Ice	4.72	2.02	0.18
800MHz 2X50W RRH W/FILTER	A	From Leg	4.00	0.0000	162.00	No Ice	2.06	1.93	0.06
			0.00			1/2" Ice	2.24	2.11	0.09
			0.00			1" Ice	2.43	2.29	0.11
						2" Ice	2.83	2.68	0.17
800MHz 2X50W RRH W/FILTER	B	From Leg	4.00	0.0000	162.00	No Ice	2.06	1.93	0.06
			0.00			1/2" Ice	2.24	2.11	0.09
			0.00			1" Ice	2.43	2.29	0.11
						2" Ice	2.83	2.68	0.17
800MHz 2X50W RRH W/FILTER	C	From Leg	4.00	0.0000	162.00	No Ice	2.06	1.93	0.06
			0.00			1/2" Ice	2.24	2.11	0.09
			0.00			1" Ice	2.43	2.29	0.11
						2" Ice	2.83	2.68	0.17
PCS 1900MHz 2x40W	A	From Leg	4.00	0.0000	162.00	No Ice	2.35	1.28	0.04
			0.00			1/2" Ice	2.55	1.43	0.06
			0.00			1" Ice	2.75	1.60	0.08
						2" Ice	3.18	1.95	0.14
PCS 1900MHz 2x40W	B	From Leg	4.00	0.0000	162.00	No Ice	2.35	1.28	0.04
			0.00			1/2" Ice	2.55	1.43	0.06
			0.00			1" Ice	2.75	1.60	0.08
						2" Ice	3.18	1.95	0.14
PCS 1900MHz 2x40W	C	From Leg	4.00	0.0000	162.00	No Ice	2.35	1.28	0.04
			0.00			1/2" Ice	2.55	1.43	0.06
			0.00			1" Ice	2.75	1.60	0.08
						2" Ice	3.18	1.95	0.14
Platform Mount [LP 712-1]	C	None		0.0000	162.00	No Ice	24.53	24.53	1.34
						1/2" Ice	29.94	29.94	1.65
						1" Ice	35.35	35.35	1.96
						2" Ice	46.17	46.17	2.58
Pipe Mount	A	From Leg	4.00	0.0000	162.00	No Ice	1.20	1.20	0.02
			0.00			1/2" Ice	1.50	1.50	0.03
			0.00			1" Ice	1.81	1.81	0.04
						2" Ice	2.47	2.47	0.08
Pipe Mount	B	From Leg	4.00	0.0000	162.00	No Ice	1.20	1.20	0.02
			0.00			1/2" Ice	1.50	1.50	0.03
			0.00			1" Ice	1.81	1.81	0.04
						2" Ice	2.47	2.47	0.08
Pipe Mount	C	From Leg	4.00	0.0000	162.00	No Ice	1.20	1.20	0.02
			0.00			1/2" Ice	1.50	1.50	0.03
			0.00			1" Ice	1.81	1.81	0.04
						2" Ice	2.47	2.47	0.08
**152**									
(2) NNHH-65B-R4 w/ Mount Pipe	A	From Leg	3.00	0.0000	152.00	No Ice	7.55	4.23	0.11
			0.00			1/2" Ice	8.04	4.67	0.20
			0.00			1" Ice	8.53	5.12	0.30
						2" Ice	9.56	6.05	0.53
(2) NNHH-65B-R4 w/ Mount Pipe	B	From Leg	3.00	0.0000	152.00	No Ice	7.55	4.23	0.11
			0.00			1/2" Ice	8.04	4.67	0.20
			0.00			1" Ice	8.53	5.12	0.30
						2" Ice	9.56	6.05	0.53

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>1</sub> Front	C <sub>A</sub> A <sub>1</sub> Side	Weight
			Horz	Vert					
(2) NNHH-65B-R4 w/ Mount Pipe	C	From Leg	3.00	0.0000	152.00	No Ice	7.55	4.23	0.11
			0.00			1/2" Ice	8.04	4.67	0.20
			0.00			1" Ice	8.53	5.12	0.30
						2" Ice	9.56	6.05	0.53
(2) LPA-80080/4CF w/ Mount Pipe	A	From Leg	3.00	0.0000	152.00	No Ice	2.62	5.40	0.01
			0.00			1/2" Ice	2.92	5.73	0.05
			0.00			1" Ice	3.23	6.06	0.08
						2" Ice	3.85	6.75	0.17
(2) LPA-80080/4CF w/ Mount Pipe	B	From Leg	3.00	0.0000	152.00	No Ice	2.62	5.40	0.01
			0.00			1/2" Ice	2.92	5.73	0.05
			0.00			1" Ice	3.23	6.06	0.08
						2" Ice	3.85	6.75	0.17
(2) LPA-80080/4CF w/ Mount Pipe	C	From Leg	3.00	0.0000	152.00	No Ice	2.62	5.40	0.01
			0.00			1/2" Ice	2.92	5.73	0.05
			0.00			1" Ice	3.23	6.06	0.08
						2" Ice	3.85	6.75	0.17
RFV01U-D2A	A	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.01	0.07
			0.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
RFV01U-D2A	B	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.01	0.07
			0.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
RFV01U-D2A	C	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.01	0.07
			0.00			1/2" Ice	2.05	1.14	0.09
			0.00			1" Ice	2.22	1.28	0.11
						2" Ice	2.60	1.59	0.15
RFV01U-D1A	A	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.25	0.08
			0.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RFV01U-D1A	B	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.25	0.08
			0.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RFV01U-D1A	C	From Leg	3.00	0.0000	152.00	No Ice	1.88	1.25	0.08
			0.00			1/2" Ice	2.05	1.39	0.10
			0.00			1" Ice	2.22	1.54	0.12
						2" Ice	2.60	1.86	0.18
RVZDC-6600-PF-48	B	From Leg	3.00	0.0000	152.00	No Ice	4.06	3.10	0.03
			0.00			1/2" Ice	4.32	3.34	0.07
			0.00			1" Ice	4.58	3.58	0.11
						2" Ice	5.14	4.09	0.20
(2) 2.375" x 10' Horizontal Pipe	A	From Leg	3.00	0.0000	152.00	No Ice	2.38	0.05	0.04
			0.00			1/2" Ice	3.06	0.08	0.06
			0.00			1" Ice	3.75	0.11	0.09
						2" Ice	5.15	0.21	0.18
(2) 2.375" x 10' Horizontal Pipe	B	From Leg	3.00	0.0000	152.00	No Ice	2.38	0.05	0.04
			0.00			1/2" Ice	3.06	0.08	0.06
			0.00			1" Ice	3.75	0.11	0.09
						2" Ice	5.15	0.21	0.18
(2) 2.375" x 10' Horizontal Pipe	C	From Leg	3.00	0.0000	152.00	No Ice	2.38	0.05	0.04
			0.00			1/2" Ice	3.06	0.08	0.06
			0.00			1" Ice	3.75	0.11	0.09
						2" Ice	5.15	0.21	0.18
Heavy 12' UPNY Boom [SM	C	None		0.0000	152.00	No Ice	20.40	20.40	0.88

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	<b>Client</b>		Crown Castle		<b>Designed by</b>		Aditya Chingale	

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>1</sub> Front	C <sub>A</sub> A <sub>1</sub> Side	Weight
			Horz	Vert					
801-3]									
						1/2" Ice	26.30	26.30	1.25
						1" Ice	32.20	32.20	1.63
						2" Ice	44.00	44.00	2.39
**142**									
7770.00 w/ Mount Pipe	A	From Leg	3.00	0.0000	142.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			1.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	B	From Leg	3.00	0.0000	142.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			1.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	C	From Leg	3.00	0.0000	142.00	No Ice	5.75	4.25	0.06
			0.00			1/2" Ice	6.18	5.01	0.10
			1.00			1" Ice	6.61	5.71	0.16
						2" Ice	7.49	7.16	0.29
HPA65R-BU6A w/ Mount Pipe	A	From Leg	3.00	0.0000	142.00	No Ice	8.09	7.19	0.07
			0.00			1/2" Ice	8.64	8.36	0.14
			1.00			1" Ice	9.16	9.24	0.21
						2" Ice	10.22	11.05	0.39
HPA65R-BU6A w/ Mount Pipe	C	From Leg	3.00	0.0000	142.00	No Ice	8.09	7.19	0.07
			0.00			1/2" Ice	8.64	8.36	0.14
			1.00			1" Ice	9.16	9.24	0.21
						2" Ice	10.22	11.05	0.39
HPA65R-BU4A w/ Mount Pipe	B	From Leg	3.00	0.0000	142.00	No Ice	5.20	4.66	0.05
			0.00			1/2" Ice	5.58	5.27	0.10
			1.00			1" Ice	5.97	5.89	0.15
						2" Ice	6.79	7.18	0.28
(2) 80010965 w/ Mount Pipe	A	From Leg	3.00	0.0000	142.00	No Ice	13.81	7.16	0.13
			0.00			1/2" Ice	14.35	7.96	0.22
			1.00			1" Ice	14.89	8.77	0.32
						2" Ice	15.99	10.44	0.55
(2) 80010964 w/ Mount Pipe	B	From Leg	3.00	0.0000	142.00	No Ice	10.23	5.51	0.11
			0.00			1/2" Ice	10.74	6.37	0.18
			1.00			1" Ice	11.24	7.12	0.26
						2" Ice	12.25	8.64	0.45
(2) 80010965 w/ Mount Pipe	C	From Leg	3.00	0.0000	142.00	No Ice	13.81	7.16	0.13
			0.00			1/2" Ice	14.35	7.96	0.22
			1.00			1" Ice	14.89	8.77	0.32
						2" Ice	15.99	10.44	0.55
(2) LGP21401	A	From Leg	3.00	0.0000	142.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			1.00			1" Ice	1.38	0.54	0.03
						2" Ice	1.69	0.77	0.05
(2) LGP21401	B	From Leg	3.00	0.0000	142.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			1.00			1" Ice	1.38	0.54	0.03
						2" Ice	1.69	0.77	0.05
(2) LGP21401	C	From Leg	3.00	0.0000	142.00	No Ice	1.10	0.35	0.01
			0.00			1/2" Ice	1.24	0.44	0.02
			1.00			1" Ice	1.38	0.54	0.03
						2" Ice	1.69	0.77	0.05
RRUS 4478 B14	A	From Leg	3.00	0.0000	142.00	No Ice	1.84	1.06	0.06
			0.00			1/2" Ice	2.01	1.20	0.08
			1.00			1" Ice	2.19	1.34	0.09
						2" Ice	2.57	1.66	0.14
RRUS 4478 B14	B	From Leg	3.00	0.0000	142.00	No Ice	1.84	1.06	0.06

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	<b>Client</b> Crown Castle	<b>Designed by</b> Aditya Chingale

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>1</sub> Front	C <sub>A</sub> A <sub>1</sub> Side	Weight
			Horz	Lateral					
			0.00			1/2" Ice	2.01	1.20	0.08
			1.00			1" Ice	2.19	1.34	0.09
						2" Ice	2.57	1.66	0.14
RRUS 4478 B14	C	From Leg	3.00	0.0000	142.00	No Ice	1.84	1.06	0.06
			0.00			1/2" Ice	2.01	1.20	0.08
			1.00			1" Ice	2.19	1.34	0.09
						2" Ice	2.57	1.66	0.14
DC6-48-60-18-8F	A	From Leg	3.00	0.0000	142.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			1.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
DC6-48-60-18-8F	B	From Leg	3.00	0.0000	142.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			1.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
DC6-48-60-18-8F	C	From Face	1.00	0.0000	142.00	No Ice	1.21	1.21	0.03
			0.00			1/2" Ice	1.89	1.89	0.05
			0.00			1" Ice	2.11	2.11	0.08
						2" Ice	2.57	2.57	0.14
RADIO 4415 B30	A	From Leg	3.00	0.0000	142.00	No Ice	1.64	0.64	0.04
			0.00			1/2" Ice	1.80	0.75	0.05
			1.00			1" Ice	1.97	0.87	0.07
						2" Ice	2.33	1.13	0.11
RADIO 4415 B30	B	From Leg	3.00	0.0000	142.00	No Ice	1.64	0.64	0.04
			0.00			1/2" Ice	1.80	0.75	0.05
			1.00			1" Ice	1.97	0.87	0.07
						2" Ice	2.33	1.13	0.11
RADIO 4415 B30	C	From Leg	3.00	0.0000	142.00	No Ice	1.64	0.64	0.04
			0.00			1/2" Ice	1.80	0.75	0.05
			1.00			1" Ice	1.97	0.87	0.07
						2" Ice	2.33	1.13	0.11
RRUS 4449 B5/B12	A	From Leg	3.00	0.0000	142.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			1.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	B	From Leg	3.00	0.0000	142.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			1.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 4449 B5/B12	C	From Leg	3.00	0.0000	142.00	No Ice	1.97	1.41	0.07
			0.00			1/2" Ice	2.14	1.56	0.09
			1.00			1" Ice	2.33	1.73	0.11
						2" Ice	2.72	2.07	0.16
RRUS 8843 B2/B66A	A	From Leg	3.00	0.0000	142.00	No Ice	1.64	1.35	0.07
			0.00			1/2" Ice	1.80	1.50	0.09
			1.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
RRUS 8843 B2/B66A	B	From Leg	3.00	0.0000	142.00	No Ice	1.64	1.35	0.07
			0.00			1/2" Ice	1.80	1.50	0.09
			1.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
RRUS 8843 B2/B66A	C	From Leg	3.00	0.0000	142.00	No Ice	1.64	1.35	0.07
			0.00			1/2" Ice	1.80	1.50	0.09
			1.00			1" Ice	1.97	1.65	0.11
						2" Ice	2.32	1.99	0.16
Platform Mount [LP 303-1]	C	None		0.0000	142.00	No Ice	14.66	14.66	1.25
						1/2" Ice	18.87	18.87	1.48



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	<b>Client</b> Crown Castle	<b>Designed by</b> Aditya Chingale

## Load Combinations

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

## Maximum Tower Deflections - Service Wind

<b>tnxTower</b>  <b>FDH Infrastructure Services</b> 6521 Meridien Drive Raleigh, NC 27616 Phone: 919.755.1012 FAX: 919.755.1031	<b>Job</b> CT364/Chapel St. Monopole (BU# 823530)	<b>Page</b> 15 of 17
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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	175 - 164.25	24.736	40	1.1867	0.0162
L2	167.17 - 129.67	22.794	40	1.1805	0.0137
L3	133.5 - 96	14.877	46	1.0329	0.0063
L4	100.67 - 63.17	8.528	46	0.7957	0.0034
L5	68.67 - 31.17	3.994	46	0.5400	0.0020
L6	37.42 - 0	1.214	46	0.2910	0.0009

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

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
175.00	VHLP2.6	40	24.736	1.1867	0.0168	48091
172.00	OA20-67-DIN	40	23.991	1.1850	0.0158	48091
168.00	LS-230C	40	22.999	1.1816	0.0144	35179
162.00	APXVTM14-C-120 w/ Mount Pipe	40	21.521	1.1703	0.0126	22102
152.00	(2) NNHH-65B-R4 w/ Mount Pipe	40	19.102	1.1354	0.0100	14281
142.00	7770.00 w/ Mount Pipe	46	16.772	1.0847	0.0080	10542
115.00	APXV18-206517S-C w/ Mount Pipe	46	11.097	0.9045	0.0046	7761
50.00	Side Arm Mount [SO 701-1]	46	2.115	0.3905	0.0013	6346

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	175 - 164.25	106.101	16	5.0657	0.0697
L2	167.17 - 129.67	97.817	16	5.0510	0.0593
L3	133.5 - 96	63.876	16	4.4396	0.0273
L4	100.67 - 63.17	36.600	16	3.4207	0.0145
L5	68.67 - 31.17	17.131	16	2.3189	0.0084
L6	37.42 - 0	5.203	16	1.2480	0.0039

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

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
175.00	VHLP2.6	16	106.101	5.0657	0.0701	14350
172.00	OA20-67-DIN	16	102.923	5.0636	0.0658	14350
168.00	LS-230C	16	98.693	5.0545	0.0604	10368
162.00	APXVTM14-C-120 w/ Mount Pipe	16	92.384	5.0134	0.0530	5993
152.00	(2) NNHH-65B-R4 w/ Mount Pipe	16	82.036	4.8720	0.0422	3597
142.00	7770.00 w/ Mount Pipe	16	72.022	4.6594	0.0333	2559
115.00	APXV18-206517S-C w/ Mount Pipe	16	47.636	3.8901	0.0190	1828
50.00	Side Arm Mount [SO 701-1]	16	9.069	1.6757	0.0056	1480

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### 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 $\frac{P_u}{\phi P_n}$
L1	175 - 164.25 (1)	TP26x22x0.25	10.75	0.00	0.0	19.5705	-5.07	1144.87	0.004
L2	164.25 - 129.67 (2)	TP34.0625x24.4135x0.3125	37.50	0.00	0.0	32.4983	-19.14	1901.15	0.010
L3	129.67 - 96 (3)	TP41.75x32.452x0.375	37.50	0.00	0.0	47.8684	-27.39	2800.30	0.010
L4	96 - 63.17 (4)	TP49.0625x39.8421x0.375	37.50	0.00	0.0	56.3407	-37.02	3295.93	0.011
L5	63.17 - 31.17 (5)	TP56.125x46.9602x0.375	37.50	0.00	0.0	64.5384	-48.16	3775.49	0.013
L6	31.17 - 0 (6)	TP62.9375x53.8475x0.375	37.42	0.00	0.0	74.4650	-63.20	4356.20	0.015

### Pole Bending Design Data

Section No.	Elevation ft	Size	M <sub>ux</sub> kip-ft	φM <sub>ux</sub> kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M <sub>uy</sub> kip-ft	φM <sub>uy</sub> kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L1	175 - 164.25 (1)	TP26x22x0.25	34.32	729.12	0.047	0.00	729.12	0.000
L2	164.25 - 129.67 (2)	TP34.0625x24.4135x0.3125	481.43	1584.18	0.304	0.00	1584.18	0.000
L3	129.67 - 96 (3)	TP41.75x32.452x0.375	1208.12	2847.12	0.424	0.00	2847.12	0.000
L4	96 - 63.17 (4)	TP49.0625x39.8421x0.375	2066.02	3755.71	0.550	0.00	3755.71	0.000
L5	63.17 - 31.17 (5)	TP56.125x46.9602x0.375	3091.12	4686.62	0.660	0.00	4686.62	0.000
L6	31.17 - 0 (6)	TP62.9375x53.8475x0.375	4503.05	5847.24	0.770	0.00	5847.24	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V <sub>u</sub> K	φV <sub>n</sub> K	Ratio $\frac{V_u}{\phi V_n}$	Actual T <sub>u</sub> kip-ft	φT <sub>n</sub> kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	175 - 164.25 (1)	TP26x22x0.25	6.22	343.46	0.018	3.31	741.85	0.004
L2	164.25 - 129.67 (2)	TP34.0625x24.4135x0.3125	20.32	570.35	0.036	6.47	1636.53	0.004
L3	129.67 - 96 (3)	TP41.75x32.452x0.375	24.06	840.09	0.029	6.46	2958.81	0.002
L4	96 - 63.17 (4)	TP49.0625x39.8421x0.375	29.87	988.78	0.030	7.55	4098.86	0.002
L5	63.17 - 31.17 (5)	TP56.125x46.9602x0.375	35.57	1132.65	0.031	8.98	5378.43	0.002
L6	31.17 - 0 (6)	TP62.9375x53.8475x0.375	39.43	1306.86	0.030	9.23	7160.17	0.001



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	<b>Client</b> Crown Castle	<b>Designed by</b> Aditya Chingale

### Pole Interaction Design Data

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$\frac{P_u}{P_n}$	$\frac{M_{ux}}{M_{nx}}$	$\frac{M_{uy}}{M_{ny}}$	$\frac{V_u}{V_n}$	$\frac{T_u}{T_n}$			
L1	175 - 164.25 (1)	0.004	0.047	0.000	0.018	0.004	0.052	1.050	4.8.2
L2	164.25 - 129.67 (2)	0.010	0.304	0.000	0.036	0.004	0.316	1.050	4.8.2
L3	129.67 - 96 (3)	0.010	0.424	0.000	0.029	0.002	0.435	1.050	4.8.2
L4	96 - 63.17 (4)	0.011	0.550	0.000	0.030	0.002	0.562	1.050	4.8.2
L5	63.17 - 31.17 (5)	0.013	0.660	0.000	0.031	0.002	0.673	1.050	4.8.2
L6	31.17 - 0 (6)	0.015	0.770	0.000	0.030	0.001	0.786	1.050	4.8.2

### Section Capacity Table

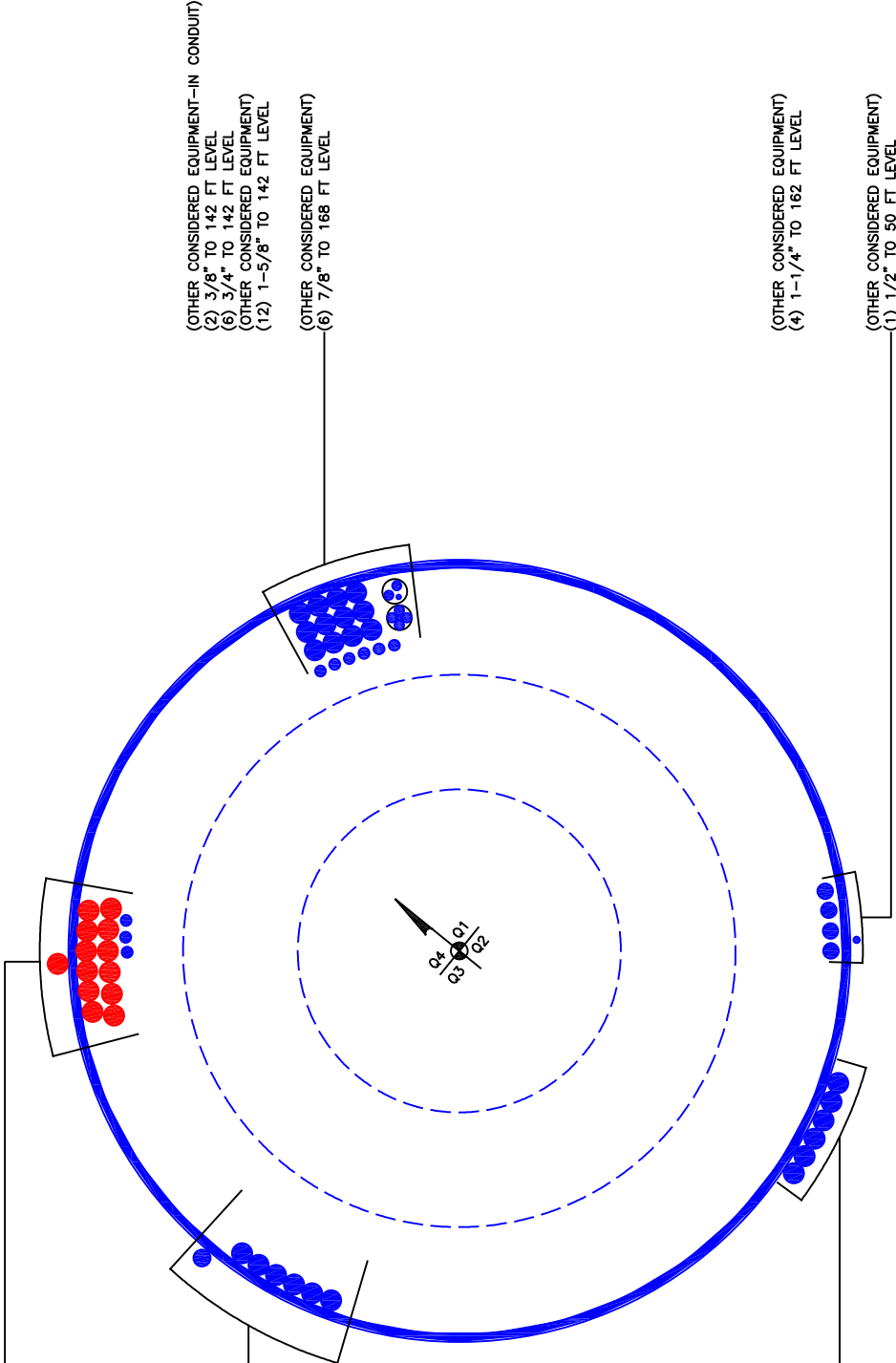
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
L1	175 - 164.25	Pole	TP26x22x0.25	1	-5.07	1202.11	5.0	Pass
L2	164.25 - 129.67	Pole	TP34.0625x24.4135x0.3125	2	-19.14	1996.21	30.1	Pass
L3	129.67 - 96	Pole	TP41.75x32.452x0.375	3	-27.39	2940.31	41.4	Pass
L4	96 - 63.17	Pole	TP49.0625x39.8421x0.375	4	-37.02	3460.73	53.6	Pass
L5	63.17 - 31.17	Pole	TP56.125x46.9602x0.375	5	-48.16	3964.26	64.1	Pass
L6	31.17 - 0	Pole	TP62.9375x53.8475x0.375	6	-63.20	4574.01	74.8	Pass
Summary								
Pole (L6)							74.8	Pass
<b>RATING =</b>							<b>74.8</b>	<b>Pass</b>

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



(OTHER CONSIDERED EQUIPMENT)  
 (3) 7/8" TO 172 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION)  
 (13) 1-5/8" TO 172 FT LEVEL



(OTHER CONSIDERED EQUIPMENT)  
 (1) 1-3/8" TO 152 FT LEVEL  
 (6) 1-5/8" TO 152 FT LEVEL

(OTHER CONSIDERED EQUIPMENT-IN CONDUIT)  
 (2) 3/8" TO 142 FT LEVEL  
 (6) 3/4" TO 142 FT LEVEL  
 (OTHER CONSIDERED EQUIPMENT)  
 (12) 1-5/8" TO 142 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)  
 (6) 7/8" TO 168 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)  
 (6) 1-5/8" TO 115 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)  
 (4) 1-1/4" TO 162 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)  
 (1) 1/2" TO 50 FT LEVEL

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

# Monopole Base Plate Connection

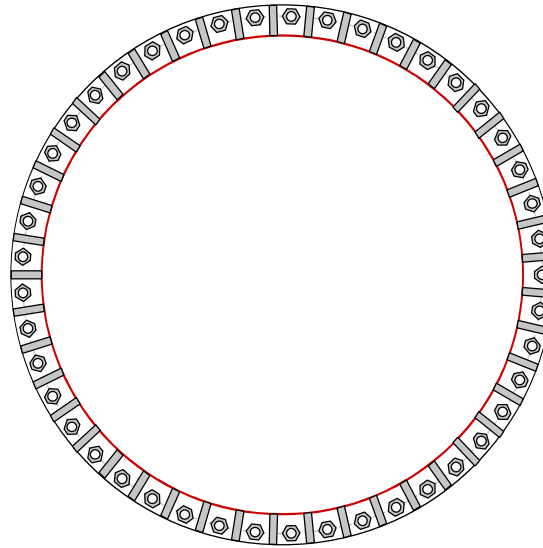


Site Info	
BU #	823530
Site Name	CT364/Chapel St.
Order #	479829 Rev 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
$I_{ar}$ (in)	1.25

Applied Loads	
Moment (kip-ft)	4503.05
Axial Force (kips)	63.20
Shear Force (kips)	39.43

\*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results		
<b>Anchor Rod Data</b> <hr/> (45) 1-1/4" $\phi$ bolts (A687 N; $F_y=105$ ksi, $F_u=125$ ksi) on 68" BC	<b>Anchor Rod Summary</b> <span style="float: right;"><i>(units of kips, kip-in)</i></span>		
<b>Base Plate Data</b> <hr/> 71" OD x 1.5" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi)	$P_{u\_c} = 72.03$ $V_u = 0.88$ $\mu = n/a$	$\phi P_{n\_c} = 101.75$ $\phi V_n = 30.52$ $\phi M_n = n/a$	<b>Stress Rating</b> <b>67.5%</b> <span style="color: green;">Pass</span>
<b>Stiffener Data</b> <hr/> (45) 12"H x 4"W x 1"T, Notch: 0.5" plate: $F_y = 50$ ksi ; weld: $F_y = 70$ ksi horiz. weld: 0.5" fillet vert. weld: 0.25" fillet	<b>Base Plate Summary</b> <hr/> Max Stress (ksi): - Allowable Stress (ksi): - Stress Rating: <b>Pi rod OK</b>		
<b>Pole Data</b> <hr/> 62.9375" x 0.375" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)	<b>Stiffener Summary</b> <hr/> Horizontal Weld: <b>Pi rod OK</b> Vertical Weld: <b>Pi rod OK</b> Plate Flexure+Shear: <b>Pi rod OK</b> Plate Tension+Shear: <b>Pi rod OK</b> Plate Compression: <b>Pi rod OK</b>		
	<b>Pole Summary</b> <hr/> Punching Shear: <b>Pi rod OK</b>		

# Pier and Pad Foundation



BU # :	823530
Site Name:	CT364/Chapel St
App. Number:	479829 R0

TIA-222 Revision:	H
Tower Type:	Monopole

Top & Bot. Pad Rein. Different?:	<input type="checkbox"/>
Block Foundation?:	<input type="checkbox"/>

Superstructure Analysis Reactions		
Compression, $P_{comp}$ :	63	kips
Base Shear, $V_{u\_comp}$ :	39	kips
Moment, $M_u$ :	4503	ft-kips
Tower Height, $H$ :	175	ft
BP Dist. Above Fdn, $bp_{dist}$ :	2.5	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	277.25	39.00	13.4%	Pass
<i>Bearing Pressure (ksf)</i>	23.16	4.78	20.6%	Pass
<i>Overtuning (kip*ft)</i>	6181.46	4842.63	78.3%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	6230.23	4727.25	72.3%	Pass
<i>Pier Compression (kip)</i>	21089.12	108.72	0.5%	Pass
<i>Pad Flexure (kip*ft)</i>	2826.15	2367.60	79.8%	Pass
<i>Pad Shear - 1-way (kips)</i>	627.95	406.39	61.6%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.000	0.0%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	3889.71	2836.35	69.4%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$ :	7.5	ft
Ext. Above Grade, $E$ :	0.5	ft
Pier Rebar Size, $Sc$ :	9	
Pier Rebar Quantity, $mc$ :	36	
Pier Tie/Spiral Size, $St$ :	4	
Pier Tie/Spiral Quantity, $mt$ :	10	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, $cc_{pier}$ :	3	in

\*Rating per TIA-222-H Section 15.5

Soil Rating*:	78.3%
Structural Rating*:	79.8%

Pad Properties		
Depth, $D$ :	8	ft
Pad Width, $W$ :	22.5	ft
Pad Thickness, $T$ :	2.75	ft
Pad Rebar Size (Bottom), $Sp$ :	9	
Pad Rebar Quantity (Bottom), $mp$ :	23	
Pad Clear Cover, $cc_{pad}$ :	3	in

Material Properties		
Rebar Grade, $Fy$ :	60	ksi
Concrete Compressive Strength, $F'c$ :	3	ksi
Dry Concrete Density, $\delta c$ :	150	pcf

Soil Properties		
Total Soil Unit Weight, $\gamma$ :	110	pcf
Ultimate Net Bearing, $Q_{net}$ :	30.000	ksf
Cohesion, $C_u$ :	0.000	ksf
Friction Angle, $\phi$ :	28	degrees
SPT Blow Count, $N_{blows}$ :	27	
Base Friction, $\mu$ :	0.45	
Neglected Depth, $N$ :	3.75	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, $gw$ :	12	ft

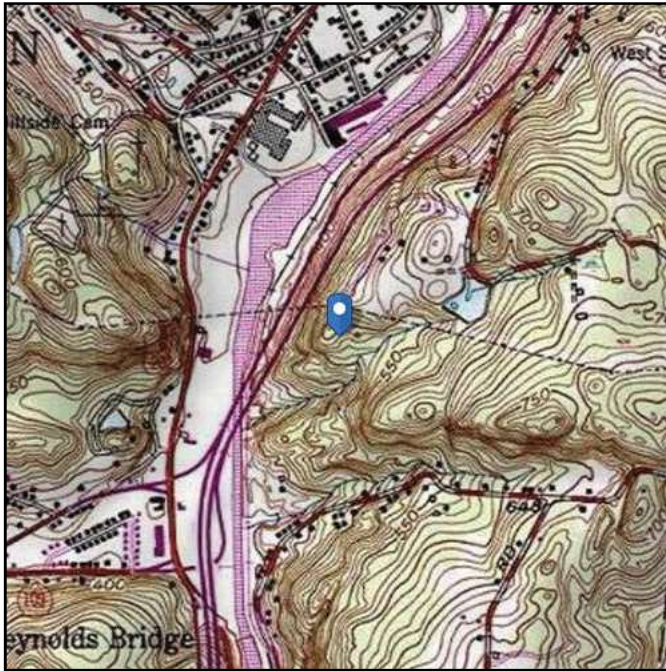
<--Toggle between Gross and Net

# ASCE 7 Hazards Report

**Address:**  
No Address at This  
Location

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

**Elevation:** 543 ft (NAVD 88)  
**Latitude:** 41.663467  
**Longitude:** -73.074281



## Wind

### Results:

Wind Speed:	118 Vmph	120 mph per JDX
10-year MRI	76 Vmph	
25-year MRI	85 Vmph	
50-year MRI	91 Vmph	
100-year MRI	97 Vmph	

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

**Date Accessed:** Tue Jun 18 2019

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

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

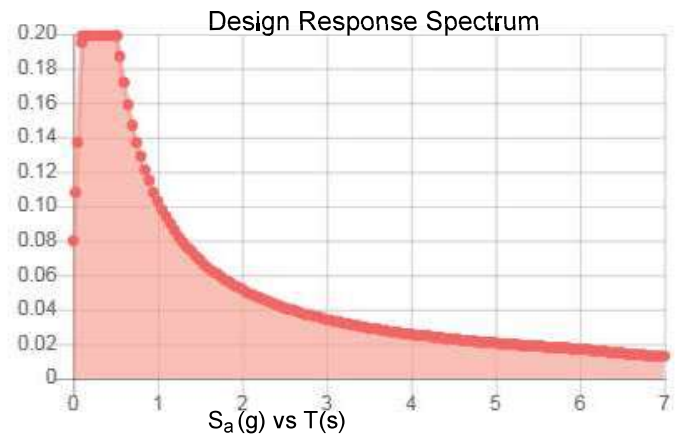
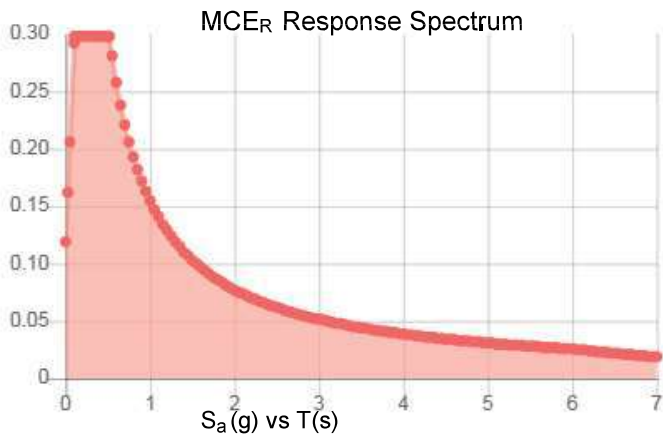
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

**Site Soil Class:** D - Stiff Soil

**Results:**

$S_s$ :	0.186	$S_{DS}$ :	0.199
$S_1$ :	0.064	$S_{D1}$ :	0.103
$F_a$ :	1.6	$T_L$ :	6
$F_v$ :	2.4	PGA :	0.096
$S_{MS}$ :	0.298	PGA <sub>M</sub> :	0.153
$S_{M1}$ :	0.155	F <sub>PGA</sub> :	1.6
		$I_e$ :	1

**Seismic Design Category** B



**Data Accessed:**

Tue Jun 18 2019

**Date Source:**

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



## Ice

---

**Results:**

Ice Thickness: 0.75 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

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

**Date Accessed:** Tue Jun 18 2019

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

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

---

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# Exhibit E

## **Mount Analysis**

# MasTec Network Solutions

Date: June 7, 2019

Charles McGuirt  
Crown Castle  
3530 Toringdon Way Suite 300  
Charlotte, NC 28277

MasTec Network Solutions  
507 Airport Blvd, Suite 111  
Morrisville, NC 27560  
(919) 674-5866

**Subject:** Mount Analysis

**Carrier Designation:** T-Mobile Equipment Change-Out  
Carrier Site Number: CT11364B  
Carrier Site Name: CT364/Chapel St Monopole

**Crown Castle Designation:** Crown Castle BU Number: 823530  
Crown Castle Site Name: CT364/Chapel St Monopole  
Crown Castle JDE Number: 559233  
Crown Castle Order Number: 479829 Revision 0

**Engineering Firm Designation:** Crown Castle Project Number: 18813-MNO1

**Site Data:** 580 Chapel Street, Thomaston, Litchfield County, CT 06787  
Latitude: 41° 39' 48.48" Longitude: -73° 4' 27.41"

**Structure Information** Tower Height & Type: 175 ft Monopole  
Mount Elevation: 169 ft  
Mount Width & Type: 14.5 ft Platform Mount

Dear Charles McGuirt,

Mastec Network Solutions is pleased to submit this "Mount Analysis Report" to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

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

**Platform Mount**

**Sufficient**

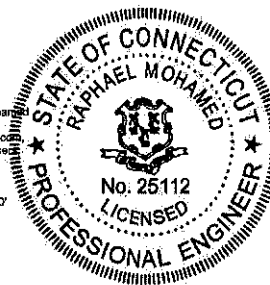
This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Richard Torbert, EI

Respectfully Submitted by:

Raphael Mohamed

Digitally signed by Raphael Mohamed  
DN: cn=Raphael Mohamed, ou=Users,  
o=MasTec Network Solutions,  
ou=Service Lines, dc=mastec,  
dc=mastec  
Date: 2019.06.07 23:16:16-04'00'



Raphael I. Mohamed, PE,  
Senior Director of Engineering  
CT PE License No. 25112

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3.2) Assumptions

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**1) INTRODUCTION**

This is a 14.5 ft Platform Mount mapped by Pier Structural Engineering Corp., dated April 18, 2019.

**2) ANALYSIS CRITERIA**

<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category</b>	II
<b>Wind Speed:</b>	120 mph
<b>Exposure Category:</b>	B
<b>Topographic Factor:</b>	1
<b>Ice Thickness:</b>	1.5 in
<b>Wind Speed with Ice:</b>	40 mph
<b>Seismic Ss:</b>	0.186
<b>Seismic S1:</b>	0.064
<b>Live Loading Wind Speed:</b>	30 mph
<b>Live Loading at Mid/End-Points:</b>	250 lb
<b>Man Live Loading at Mount Pipes</b>	500 lb

**Table 1 - Proposed Loading Configuration**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
172.0	172.0	3	EMS Wireless	RR90-17-02DP	14.5-ft Platform
		3	RFS	APXVAARR24_43-U-NA20	
		3	Ericsson	KRY 112 144/1	
		3	Ericsson	KRY 112 489/2	
		3	Ericsson	Radio 4449 B12/B71	

**Table 2 – Other Considered Equipment**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
172.0	175.0	2	Andrew	VHLP2.6	14.5-ft Platform
	168.0	1	Bird Tech Group	OA20-67-DIN	
		1	Lone Star Electronics	LS-230C	

**3) ANALYSIS PROCEDURE**

**Table 3 - Documents Provided**

Document	Remarks	Reference	Source
4-ORDER INFORMATION	CROWN CASTLE	Order No. 479829 Rev.0	CCIsites
4-MOUNT MAPPING	Pier Structural Engineering Corp.	Project No. 19651-06	On File

### 3.1) Analysis Method

RISA-3D (Version No. 17.0.2), 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.

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

### 3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) Steel grades have been assumed as follows, unless noted otherwise:
 

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM 500 (GR B-46)
Pipe	ASTM A53 (GR B-35)
Connection Bolts	ASTM A325

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

## 4) ANALYSIS RESULTS

**Table 4 - Mount Component Stresses vs. Capacity**

Notes	Component	Beam No.	Centerline (ft)	% Capacity	Pass / Fail
1	Frame Rail	--	172	56.7	Pass
1	Support Angle 2	--	172	69.7	Pass
1	Support Angle 1	--	172	25.0	Pass
1	Arm	--	172	58.3	Pass
1	Mount Pipe	--	172	54.9	Pass
1	10' MP	--	172	60.7	Pass
1	Tower Connection	--	172	92.3	Pass

<b>Structure Rating (max from all components) =</b>	<b>92.3%</b>
---	--------------

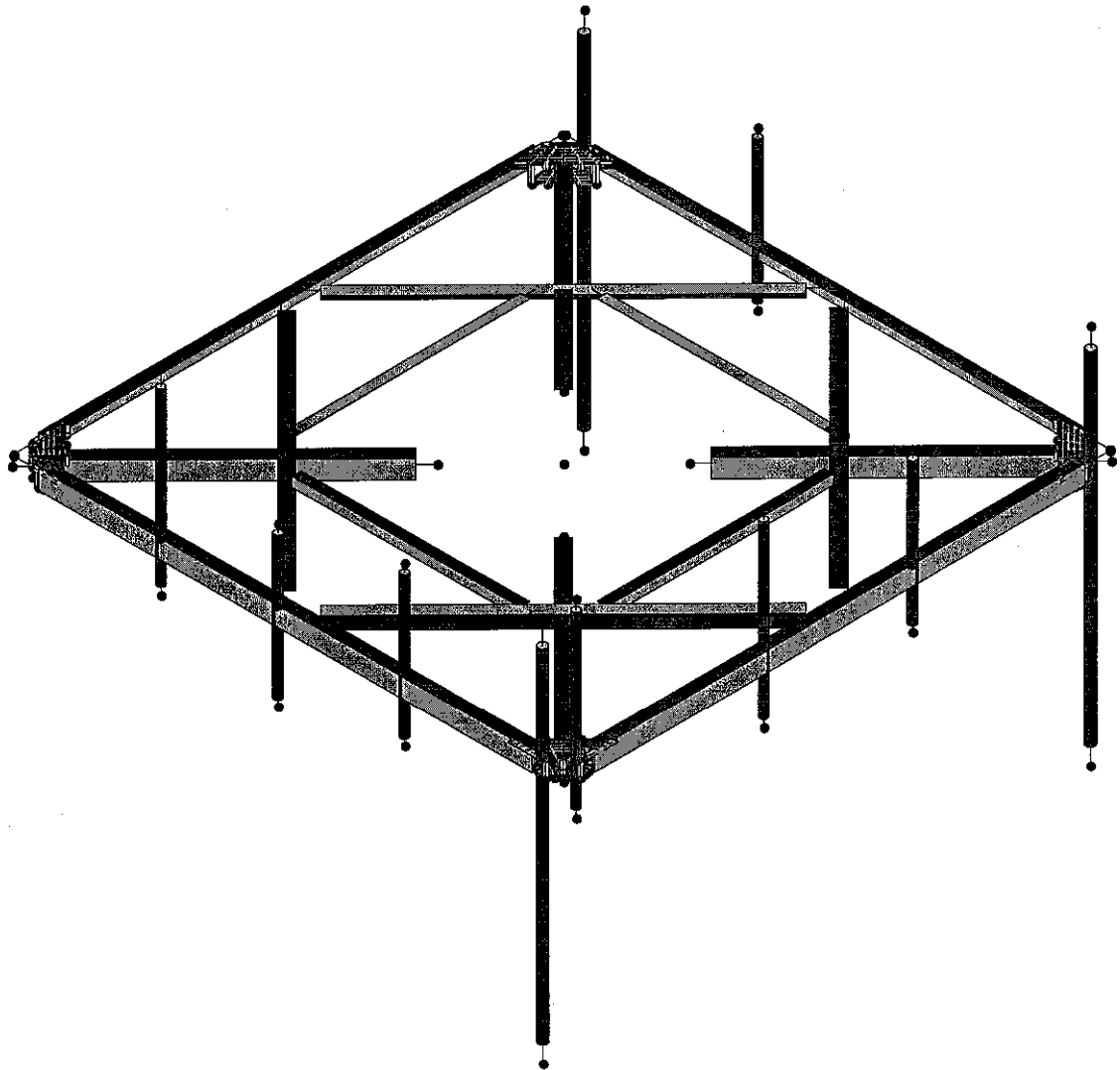
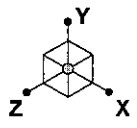
Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.

### 4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

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



Envelope Only Solution

MasTec

RJT

18813-MNO1

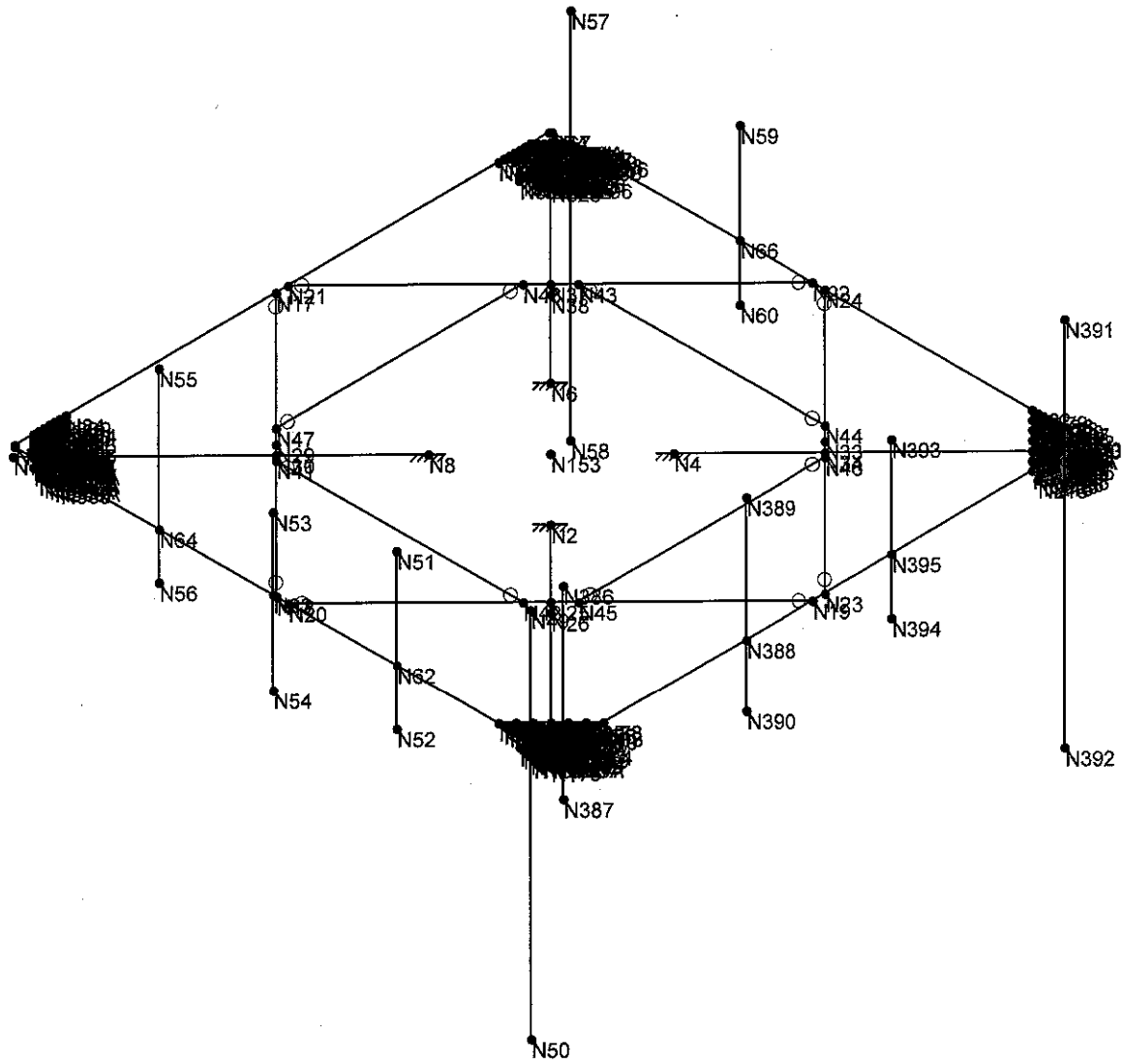
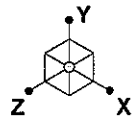
823530 - CT364/Chapel St. Monopole

Rendered View

June 7, 2019 at 8:00 PM

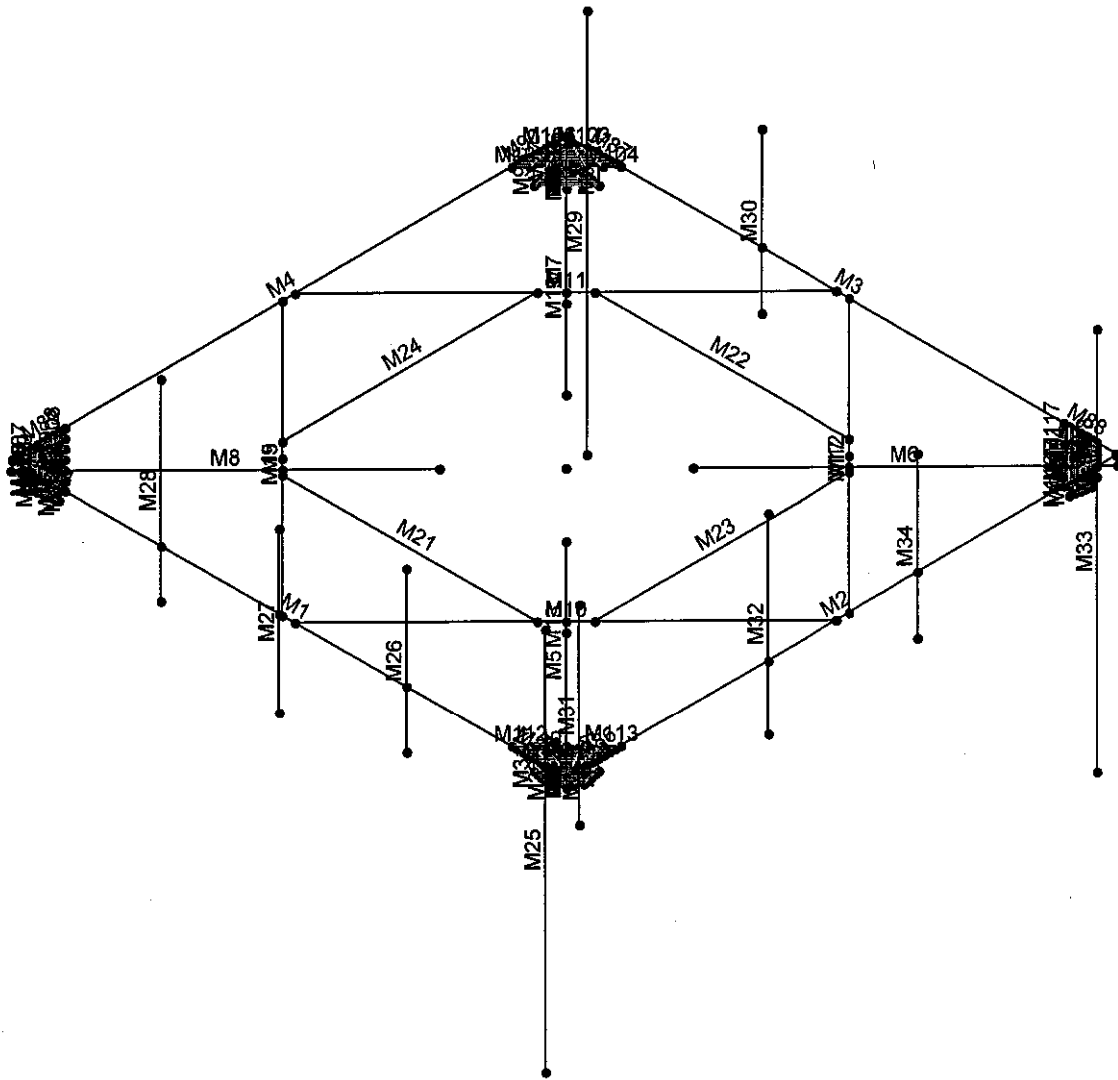
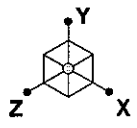
823530 - Updated.R3D





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MasTec	823530 - CT364/Chapel St. Monopole	Joint Labels
RJT		June 7, 2019 at 7:59 PM
18813-MNO1		823530 - Updated.R3D



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MasTec

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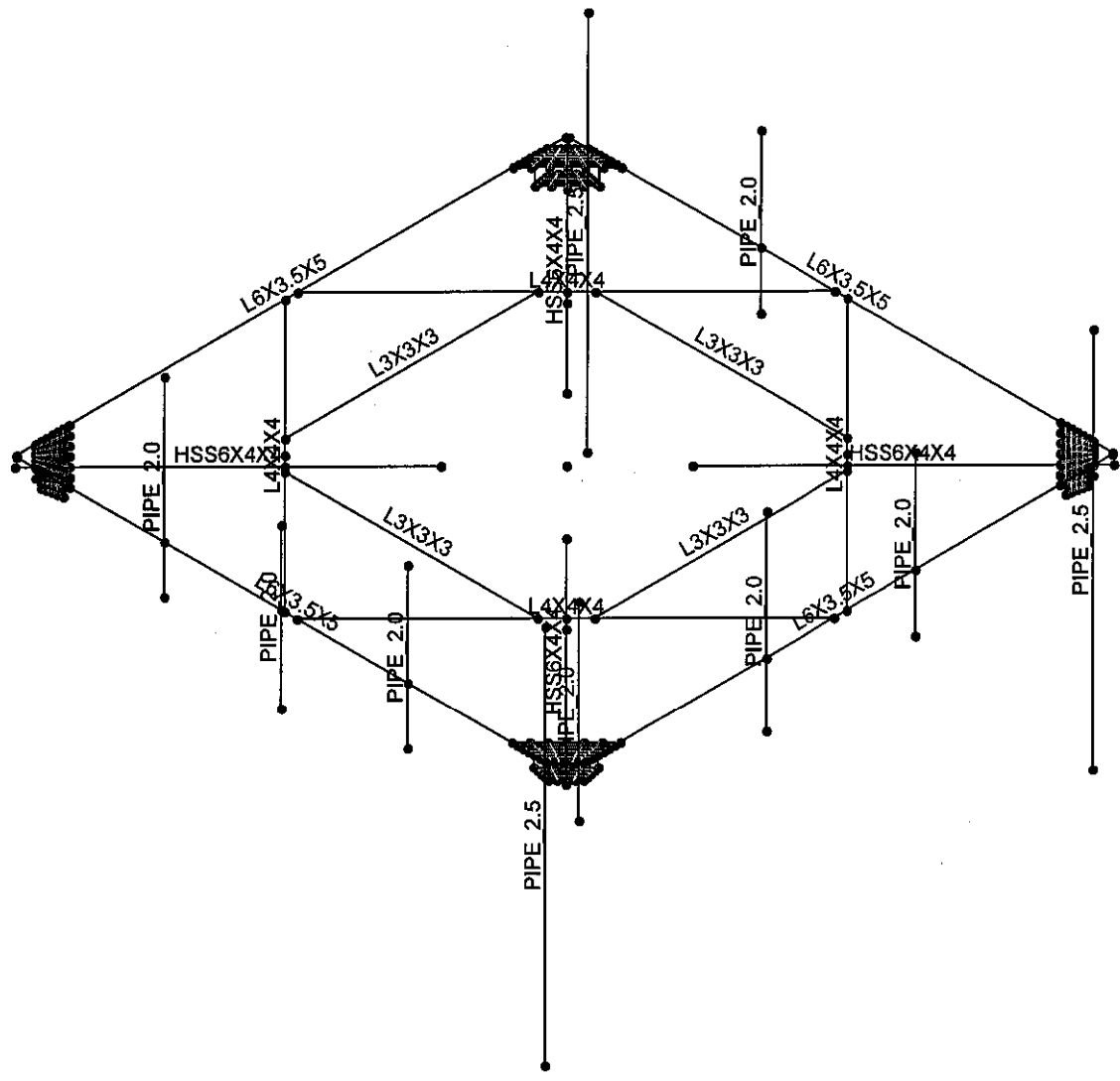
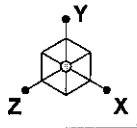
18813-MNO1

823530 - CT364/Chapel St. Monopole

Member Labels

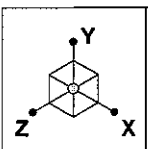
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823530 - Updated.R3D

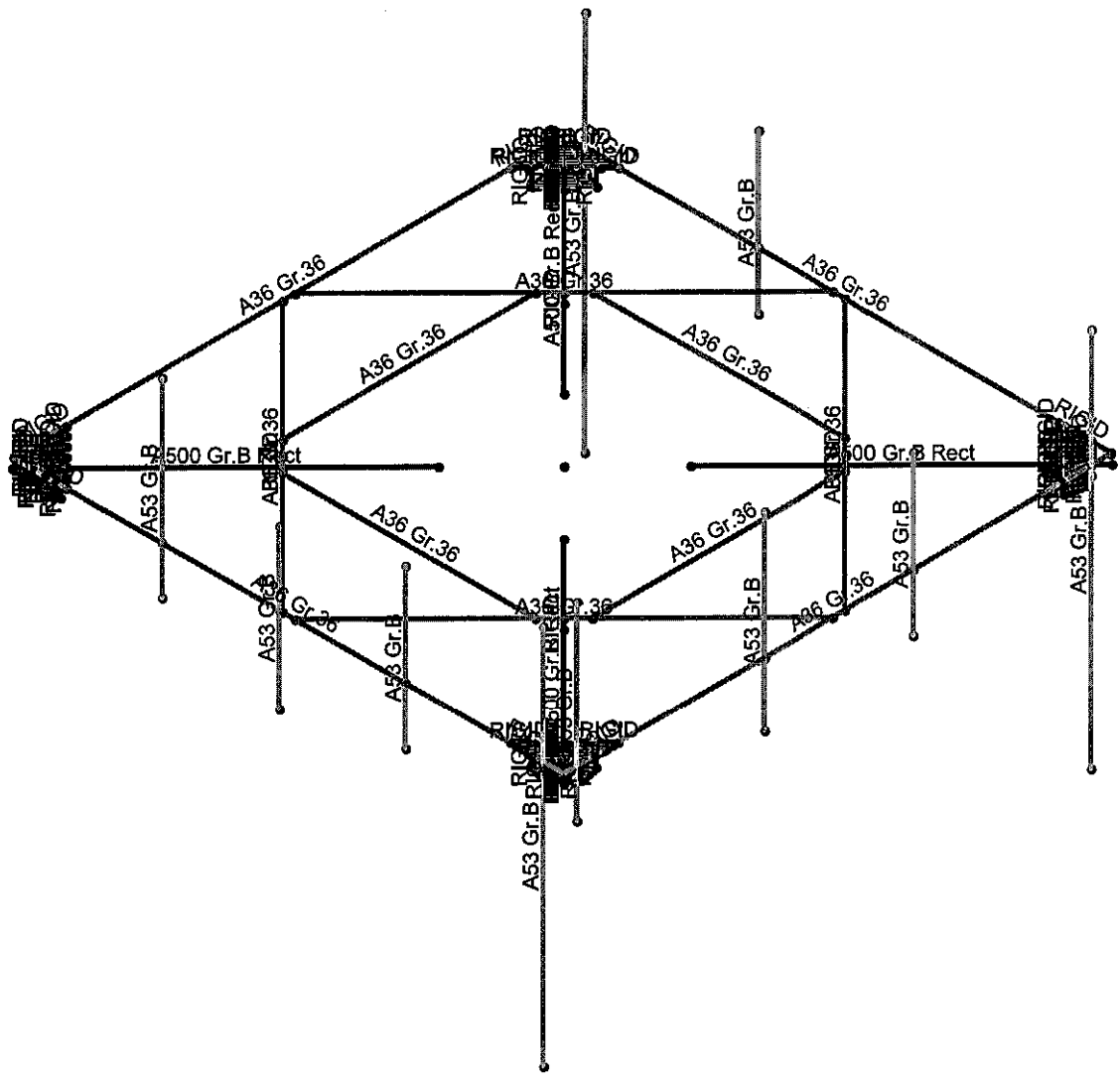


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MasTec	823530 - CT364/Chapel St. Monopole	Member Shapes
RJT		June 7, 2019 at 8:01 PM
18813-MNO1		823530 - Updated.R3D



Material Sets	
	RIGID
	A36 Gr.36
	A500 Gr.B Rect
	A53 Gr.B

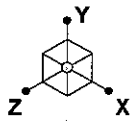


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MasTec
RJT
18813-MNO1

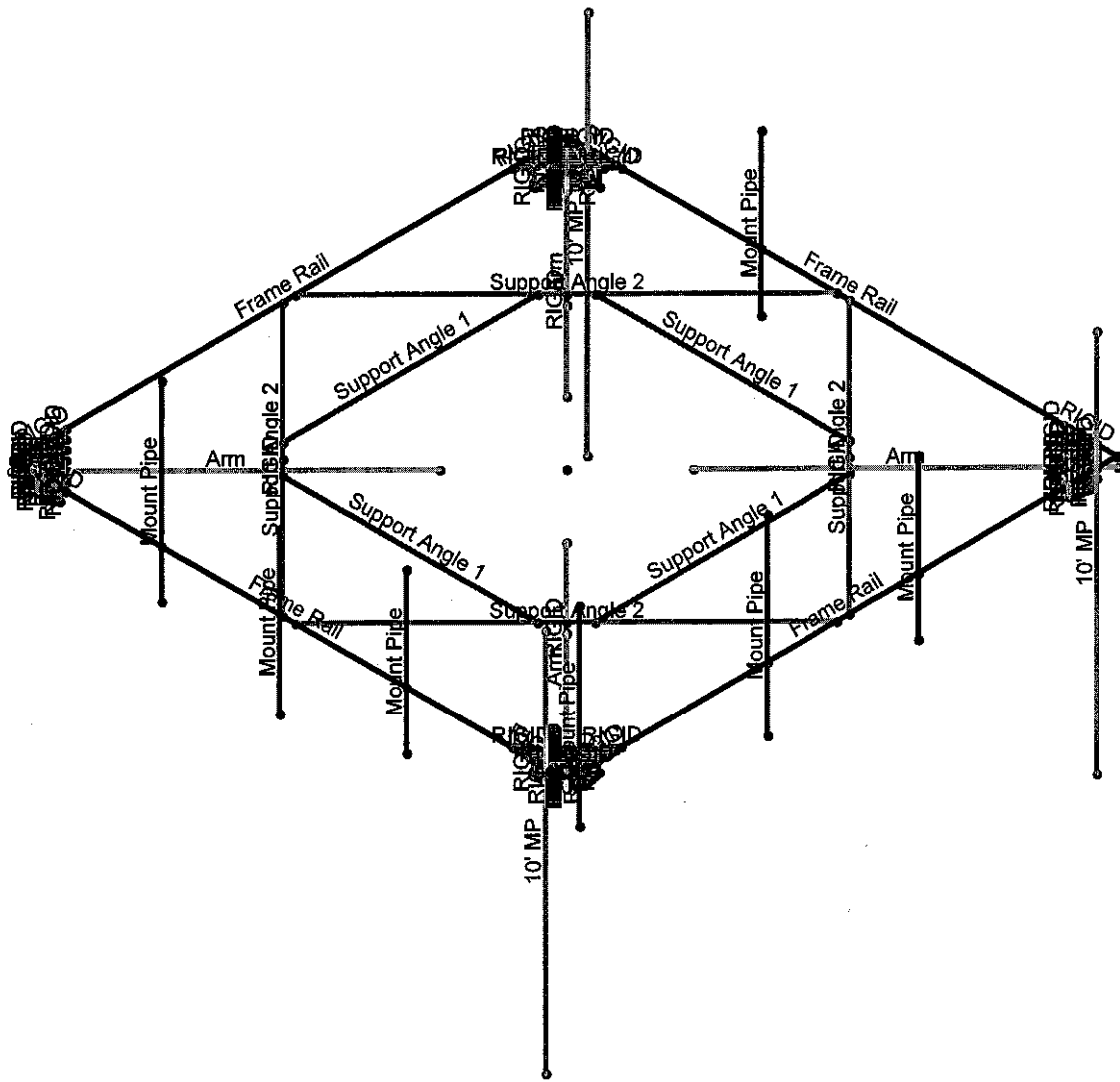
823530 - CT364/Chapel St. Monopole

Material Sets
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823530 - Updated.R3D



Section Sets

	Frame Rail 2
	Support Angle 1
	Arm
	Mount Pipe
	10' MP
	RIGID



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MasTec
RJT
18813-MNO1

823530 - CT364/Chapel St. Monopole

Section Sets
June 7, 2019 at 8:01 PM
823530 - Updated.R3D





**APPENDIX B**  
**SOFTWARE INPUT CALCULATIONS**





Mount Analysis Tool

Site Name	CT364/Chapel St. Monopole
Site ID	823530
Job Number	18813-MN01
Code	H
Mount Existing?	Yes
Risk Category	II

Legend	Input	Maximum Capacity	69.7%	PASS
	Calculated			

Analysis Parameters	
Mount Height	172
Exposure Category	B
Ultimate Wind Speed	120
Ice Wind Speed	50
Design Ice Thickness, $t_i$	1.5
Maintenance Wind Speed	30
Run Earthquake Analysis?	Yes
Ground Elevation	545
$S_1$	0.064
$S_2$	0.199
Vertical Seismic Loads, $E_v$	0.040
Seismic Response Coefficient, $C_s$	0.100
$C_{s,Min}$	0.050

Wind Parameters	
Gust Effect Factor, $G_e$	1.000
$K_z$	1.154
$K_d$	1.000
$K_{zt}$	0.950
$R_e$	35.769
$C/D$	128.901
$t_e$	1.769
$t_g$	6.210
$C/D_{ice}$	53.709
$S_{ice}$	2.275
$C/D_{Maintenance}$	32.225
Ice Dead Grating	0.008256567

Pipe Mounts (Orientation Drawn Top-Down)			
Rise 3D Label	Elevation (ft)	Length (in)	Diameter (in)
M28	172	60	2.375
M25	172	120	2.875
M32	172	60	2.375
M33	172	120	2.875
M30	172	50	2.375
M29	172	120	2.875
M26	172	50	2.375
M27	172	50	2.375
M34	172	50	2.375

Appurtenances					
Model	Type	Height (in)	Width (in)	Depth (in)	Weight (lb)
EMS Wireless RR90-17-02DP	Antenna	56	8	2.75	13.5
RFS APXVAARR24-4S-U-MA20	Antenna	95.9	24	8.7	128
Ericsson KRY 112 144/1	RRU, TMA, Etc	7	6	3	11
Ericsson KRY 112 489/2	RRU, TMA, Etc	11	6.1	3.94	15.4
Ericsson Radio 4449 B12/B71	RRU, TMA, Etc	14.95	13.19	9.25	75
Andrew VHL P2.6 (By Others)	RRU, TMA, Etc	35	35	19.1	48
OA2D-67-DIN (By Others)	RRU, TMA, Etc	83	2	20	9
LS-240C (By Others)	Round	84	2.3	2.3	11









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



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

June 7, 2019  
 7:54 PM  
 Checked By: \_\_\_\_\_

**(Global) Model Settings**

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 14th(360-10): LRFD
Adjust Stiffness?	Yes(Iterative)
RISACONNECTION Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-12: LRFD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min. 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

June 7, 2019  
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**(Global) Model Settings, Continued**

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

**Hot Rolled Steel Properties**

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

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Frame Rail	L6X3.5X5	Beam	Single Angle	A36 Gr.36	Typical	2.89	2.84	10.9	.099
2	Support Angle 2	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
3	Support Angle 1	L3X3X3	Beam	Single Angle	A36 Gr.36	Typical	1.09	.948	.948	.014
4	Arm	HSS6X4X4	Beam	Tube	A500 Gr.B Rect	Typical	4.3	11.1	20.9	23.6
5	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
6	10' MP	PIPE 2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89

**Joint Coordinates and Temperatures**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	7.25	0.	7.25	0	
2	N2	1.652071	0.	1.652071	0	
3	N3	7.25	0.	-7.25	0	
4	N4	1.652071	0.	-1.652071	0	
5	N5	-7.25	0.	-7.25	0	
6	N6	-1.652071	0.	-1.652071	0	
7	N7	-7.25	0.	7.25	0	
8	N8	-1.652071	0.	1.652071	0	



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

June 7, 2019  
 7:54 PM  
 Checked By: \_\_\_\_\_

**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
9	N17	-7.25	.25	0.166667	0	
10	N18	-0.166667	.25	7.25	0	
11	N19	7.25	.25	0.166667	0	
12	N20	0.166667	.25	-7.25	0	
13	N21	-7.25	.25	-0.166667	0	
14	N22	-0.166667	.25	-7.25	0	
15	N23	7.25	.25	-0.166667	0	
16	N24	0.166667	.25	-7.25	0	
17	N25	3.708333	.25	3.708333	0	
18	N26	3.708333	0	3.708333	0	
19	N29	-3.708333	.25	3.708333	0	
20	N30	-3.708333	0	3.708333	0	
21	N33	3.708333	.25	-3.708333	0	
22	N34	3.708333	0	-3.708333	0	
23	N37	-3.708333	.25	-3.708333	0	
24	N38	-3.708333	0	-3.708333	0	
25	N41	-3.333333	.25	4.083333	0	
26	N42	3.333333	.25	4.083333	0	
27	N43	-3.333333	.25	-4.083333	0	
28	N44	3.333333	.25	-4.083333	0	
29	N45	4.083333	.25	3.333333	0	
30	N46	4.083333	.25	-3.333333	0	
31	N47	-4.083333	.25	3.333333	0	
32	N48	-4.083333	.25	-3.333333	0	
33	N49	6.708333	3.333333	7.25	0	
34	N50	6.708333	-6.666667	7.25	0	
35	N51	3.083333	2.916667	7.25	0	
36	N52	3.083333	-1.25	7.25	0	
37	N53	-2.5	2.166667	7.25	0	
38	N54	-2.5	-2	7.25	0	
39	N55	-3.333333	4	7.25	0	
40	N56	-3.333333	-1	7.25	0	
41	N57	-6.708333	3.333333	-7.25	0	
42	N58	-6.708333	-6.666667	-7.25	0	
43	N59	-2.166667	2.916667	-7.25	0	
44	N60	-2.166667	-1.25	-7.25	0	
45	N62	3.083333	.25	7.25	0	
46	N63	.25	.25	7.25	0	
47	N64	-3.333333	.25	7.25	0	
48	N66	-2.166667	.25	-7.25	0	
49	N67	-7.208333	.25	-7.25	0	
50	N68	-7.208333	.25	7.25	0	
51	N69	7.208333	.25	7.25	0	
52	N70	7.208333	.25	-7.25	0	
53	N71	7.25	.25	7.208333	0	
54	N72	-7.25	.25	7.208333	0	
55	N73	7.25	.25	-7.208333	0	
56	N74	-7.25	.25	-7.208333	0	
57	N153	-0	0	-0	0	
58	N386	7.25	4	6.911458	0	
59	N387	7.25	-1	6.911458	0	
60	N388	7.25	.25	1.994792	0	
61	N389	7.25	3.583333	1.994792	0	
62	N390	7.25	-1.416667	1.994792	0	
63	N391	7.25	3.333333	-6.708333	0	
64	N392	7.25	-6.666667	-6.708333	0	
65	N393	7.25	2.916667	-1.994792	0	





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
66	N394	7.25	-1.25	-1.994792	0	
67	N395	7.25	.25	-1.994792	0	
68	N68A	6.708333	.25	7.25	0	
69	N69A	7.25	.25	6.911458	0	
70	N70A	7.25	.25	-6.708333	0	
71	N71A	-6.708333	.25	-7.25	0	
72	N72A	5.833333	.25	7.25	0	
73	N73A	-6.708333	.25	7.25	0	
74	N74A	-5.833333	.25	7.25	0	
75	N76	7.25	.25	-5.833333	0	
76	N77	7.25	.25	6.708333	0	
77	N78	7.25	.25	5.833333	0	
78	N80	-5.833333	.25	-7.25	0	
79	N81	6.708333	.25	-7.25	0	
80	N82	5.833333	.25	-7.25	0	
81	N83	-7.25	.25	6.708333	0	
82	N84	-7.25	.25	5.833333	0	
83	N85	-7.25	.25	-6.708333	0	
84	N86	-7.25	.25	-5.833333	0	
85	N85A	6.069444	.25	7.013889	0	
86	N86A	6.305556	.25	6.777778	0	
87	N87	6.541667	.25	6.541667	0	
88	N88	6.777778	.25	6.305556	0	
89	N89	7.013889	.25	6.069444	0	
90	N90	5.979167	.25	7.25	0	
91	N91	6.190972	.25	7.038194	0	
92	N92	6.402778	.25	6.826389	0	
93	N93	6.614583	.25	6.614583	0	
94	N94	6.826389	.25	6.402778	0	
95	N95	7.038194	.25	6.190972	0	
96	N96	7.25	.25	5.979167	0	
97	N97	6.125	.25	7.25	0	
98	N98	6.3125	.25	7.0625	0	
99	N99	6.5	.25	6.875	0	
100	N100	6.6875	.25	6.6875	0	
101	N101	6.875	.25	6.5	0	
102	N102	7.0625	.25	6.3125	0	
103	N103	7.25	.25	6.125	0	
104	N104	6.270833	.25	7.25	0	
105	N105	6.434028	.25	7.086806	0	
106	N106	6.597222	.25	6.923611	0	
107	N107	6.760417	.25	6.760417	0	
108	N108	6.923611	.25	6.597222	0	
109	N109	7.086806	.25	6.434028	0	
110	N110	7.25	.25	6.270833	0	
111	N111	6.416667	.25	7.25	0	
112	N112	6.555556	.25	7.111111	0	
113	N113	6.694444	.25	6.972222	0	
114	N114	6.833333	.25	6.833333	0	
115	N115	6.972222	.25	6.694444	0	
116	N116	7.111111	.25	6.555556	0	
117	N117	7.25	.25	6.416667	0	
118	N118	6.5625	.25	7.25	0	
119	N119	6.677083	.25	7.135417	0	
120	N120	6.791667	.25	7.020833	0	
121	N121	6.90625	.25	6.90625	0	
122	N122	7.020833	.25	6.791667	0	



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
123	N123	7.135417	.25	6.677083	0	
124	N124	7.25	.25	6.5625	0	
125	N125	6.798611	.25	7.159722	0	
126	N126	6.888889	.25	7.069444	0	
127	N127	6.979167	.25	6.979167	0	
128	N128	7.069444	.25	6.888889	0	
129	N129	7.159722	.25	6.798611	0	
130	N130	6.190972	-.25	7.038194	0	
131	N131	6.402778	-.25	6.826389	0	
132	N132	6.614583	-.25	6.614583	0	
133	N133	6.826389	-.25	6.402778	0	
134	N134	7.038194	-.25	6.190972	0	
135	N135	6.3125	-.25	7.0625	0	
136	N136	6.5	-.25	6.875	0	
137	N137	6.6875	-.25	6.6875	0	
138	N138	6.875	-.25	6.5	0	
139	N139	7.0625	-.25	6.3125	0	
140	N140	6.434028	-.25	7.086806	0	
141	N141	6.597222	-.25	6.923611	0	
142	N142	6.760417	-.25	6.760417	0	
143	N143	6.923611	-.25	6.597222	0	
144	N144	7.086806	-.25	6.434028	0	
145	N145	6.555556	-.25	7.111111	0	
146	N146	6.694444	-.25	6.972222	0	
147	N147	6.833333	-.25	6.833333	0	
148	N148	6.972222	-.25	6.694444	0	
149	N149	7.111111	-.25	6.555556	0	
150	N150	6.677083	-.25	7.135417	0	
151	N151	6.791667	-.25	7.020833	0	
152	N152	6.90625	-.25	6.90625	0	
153	N153A	7.020833	-.25	6.791667	0	
154	N154	7.135417	-.25	6.677083	0	
155	N155	6.541667	0	6.541667	0	
156	N156	6.614583	0	6.614583	0	
157	N157	6.6875	0	6.6875	0	
158	N158	6.760417	0	6.760417	0	
159	N159	6.833333	0	6.833333	0	
160	N160	6.90625	0	6.90625	0	
161	N161	6.979167	0	6.979167	0	
162	N169	6.541667	-.25	6.541667	0	
163	N175	6.979167	-.25	6.979167	0	
164	N168	7.013889	.25	-6.069444	0	
165	N169A	6.777778	.25	-6.305556	0	
166	N170	6.541667	.25	-6.541667	0	
167	N171	6.305556	.25	-6.777778	0	
168	N172	6.069444	.25	-7.013889	0	
169	N173	7.25	.25	-5.979167	0	
170	N174	7.038194	.25	-6.190972	0	
171	N175A	6.826389	.25	-6.402778	0	
172	N176	6.614583	.25	-6.614583	0	
173	N177	6.402778	.25	-6.826389	0	
174	N178	6.190972	.25	-7.038194	0	
175	N179	5.979167	.25	-7.25	0	
176	N180	7.25	.25	-6.125	0	
177	N181	7.0625	.25	-6.3125	0	
178	N182	6.875	.25	-6.5	0	
179	N183	6.6875	.25	-6.6875	0	



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
180	N184	6.5	.25	-6.875	0	
181	N185	6.3125	.25	-7.0625	0	
182	N186	6.125	.25	-7.25	0	
183	N187	7.25	.25	-6.270833	0	
184	N188	7.086806	.25	-6.434028	0	
185	N189	6.923611	.25	-6.597222	0	
186	N190	6.760417	.25	-6.760417	0	
187	N191	6.597222	.25	-6.923611	0	
188	N192	6.434028	.25	-7.086806	0	
189	N193	6.270833	.25	-7.25	0	
190	N194	7.25	.25	-6.416667	0	
191	N195	7.111111	.25	-6.555556	0	
192	N196	6.972222	.25	-6.694444	0	
193	N197	6.833333	.25	-6.833333	0	
194	N198	6.694444	.25	-6.972222	0	
195	N199	6.555556	.25	-7.111111	0	
196	N200	6.416667	.25	-7.25	0	
197	N201	7.25	.25	-6.5625	0	
198	N202	7.135417	.25	-6.677083	0	
199	N203	7.020833	.25	-6.791667	0	
200	N204	6.90625	.25	-6.90625	0	
201	N205	6.791667	.25	-7.020833	0	
202	N206	6.677083	.25	-7.135417	0	
203	N207	6.5625	.25	-7.25	0	
204	N208	7.159722	.25	-6.798611	0	
205	N209	7.069444	.25	-6.888889	0	
206	N210	6.979167	.25	-6.979167	0	
207	N211	6.888889	.25	-7.069444	0	
208	N212	6.798611	.25	-7.159722	0	
209	N213	7.038194	-.25	-6.190972	0	
210	N214	6.826389	-.25	-6.402778	0	
211	N215	6.614583	-.25	-6.614583	0	
212	N216	6.402778	-.25	-6.826389	0	
213	N217	6.190972	-.25	-7.038194	0	
214	N218	7.0625	-.25	-6.3125	0	
215	N219	6.875	-.25	-6.5	0	
216	N220	6.6875	-.25	-6.6875	0	
217	N221	6.5	-.25	-6.875	0	
218	N222	6.3125	-.25	-7.0625	0	
219	N223	7.086806	-.25	-6.434028	0	
220	N224	6.923611	-.25	-6.597222	0	
221	N225	6.760417	-.25	-6.760417	0	
222	N226	6.597222	-.25	-6.923611	0	
223	N227	6.434028	-.25	-7.086806	0	
224	N228	7.111111	-.25	-6.555556	0	
225	N229	6.972222	-.25	-6.694444	0	
226	N230	6.833333	-.25	-6.833333	0	
227	N231	6.694444	-.25	-6.972222	0	
228	N232	6.555556	-.25	-7.111111	0	
229	N233	7.135417	-.25	-6.677083	0	
230	N234	7.020833	-.25	-6.791667	0	
231	N235	6.90625	-.25	-6.90625	0	
232	N236	6.791667	-.25	-7.020833	0	
233	N237	6.677083	-.25	-7.135417	0	
234	N238	6.541667	0	-6.541667	0	
235	N239	6.614583	0	-6.614583	0	
236	N240	6.6875	0	-6.6875	0	



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
237	N241	6.760417	0	-6.760417	0	
238	N242	6.833333	0	-6.833333	0	
239	N243	6.90625	0	-6.90625	0	
240	N244	6.979167	0	-6.979167	0	
241	N245	6.541667	-25	-6.541667	0	
242	N246	6.979167	-25	-6.979167	0	
243	N251	-6.069444	.25	-7.013889	0	
244	N252	-6.305556	.25	-6.777778	0	
245	N253	-6.541667	.25	-6.541667	0	
246	N254	-6.777778	.25	-6.305556	0	
247	N255	-7.013889	.25	-6.069444	0	
248	N256	-5.979167	.25	-7.25	0	
249	N257	-6.190972	.25	-7.038194	0	
250	N258	-6.402778	.25	-6.826389	0	
251	N259	-6.614583	.25	-6.614583	0	
252	N260	-6.826389	.25	-6.402778	0	
253	N261	-7.038194	.25	-6.190972	0	
254	N262	-7.25	.25	-5.979167	0	
255	N263	-6.125	.25	-7.25	0	
256	N264	-6.3125	.25	-7.0625	0	
257	N265	-6.5	.25	-6.875	0	
258	N266	-6.6875	.25	-6.6875	0	
259	N267	-6.875	.25	-6.5	0	
260	N268	-7.0625	.25	-6.3125	0	
261	N269	-7.25	.25	-6.125	0	
262	N270	-6.270833	.25	-7.25	0	
263	N271	-6.434028	.25	-7.086806	0	
264	N272	-6.597222	.25	-6.923611	0	
265	N273	-6.760417	.25	-6.760417	0	
266	N274	-6.923611	.25	-6.597222	0	
267	N275	-7.086806	.25	-6.434028	0	
268	N276	-7.25	.25	-6.270833	0	
269	N277	-6.416667	.25	-7.25	0	
270	N278	-6.555556	.25	-7.111111	0	
271	N279	-6.694444	.25	-6.972222	0	
272	N280	-6.833333	.25	-6.833333	0	
273	N281	-6.972222	.25	-6.694444	0	
274	N282	-7.111111	.25	-6.555556	0	
275	N283	-7.25	.25	-6.416667	0	
276	N284	-6.5625	.25	-7.25	0	
277	N285	-6.677083	.25	-7.135417	0	
278	N286	-6.791667	.25	-7.020833	0	
279	N287	-6.90625	.25	-6.90625	0	
280	N288	-7.020833	.25	-6.791667	0	
281	N289	-7.135417	.25	-6.677083	0	
282	N290	-7.25	.25	-6.5625	0	
283	N291	-6.798611	.25	-7.159722	0	
284	N292	-6.888889	.25	-7.069444	0	
285	N293	-6.979167	.25	-6.979167	0	
286	N294	-7.069444	.25	-6.888889	0	
287	N295	-7.159722	.25	-6.798611	0	
288	N296	-6.190972	-25	-7.038194	0	
289	N297	-6.402778	-25	-6.826389	0	
290	N298	-6.614583	-25	-6.614583	0	
291	N299	-6.826389	-25	-6.402778	0	
292	N300	-7.038194	-25	-6.190972	0	
293	N301	-6.3125	-25	-7.0625	0	





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
294	N302	-6.5	-25	-6.875	0	
295	N303	-6.6875	-25	-6.6875	0	
296	N304	-6.875	-25	-6.5	0	
297	N305	-7.0625	-25	-6.3125	0	
298	N306	-6.434028	-25	-7.086806	0	
299	N307	-6.597222	-25	-6.923611	0	
300	N308	-6.760417	-25	-6.760417	0	
301	N309	-6.923611	-25	-6.597222	0	
302	N310	-7.086806	-25	-6.434028	0	
303	N311	-6.555556	-25	-7.111111	0	
304	N312	-6.694444	-25	-6.972222	0	
305	N313	-6.833333	-25	-6.833333	0	
306	N314	-6.972222	-25	-6.694444	0	
307	N315	-7.111111	-25	-6.555556	0	
308	N316	-6.677083	-25	-7.135417	0	
309	N317	-6.791667	-25	-7.020833	0	
310	N318	-6.90625	-25	-6.90625	0	
311	N319	-7.020833	-25	-6.791667	0	
312	N320	-7.135417	-25	-6.677083	0	
313	N321	-6.541667	0	-6.541667	0	
314	N322	-6.614583	0	-6.614583	0	
315	N323	-6.6875	0	-6.6875	0	
316	N324	-6.760417	0	-6.760417	0	
317	N325	-6.833333	0	-6.833333	0	
318	N326	-6.90625	0	-6.90625	0	
319	N327	-6.979167	0	-6.979167	0	
320	N328	-6.541667	-25	-6.541667	0	
321	N329	-6.979167	-25	-6.979167	0	
322	N334	-7.013889	25	6.069444	0	
323	N335	-6.777778	25	6.305556	0	
324	N336	-6.541667	25	6.541667	0	
325	N337	-6.305556	25	6.777778	0	
326	N338	-6.069444	25	7.013889	0	
327	N339	-7.25	25	5.979167	0	
328	N340	-7.038194	25	6.190972	0	
329	N341	-6.826389	25	6.402778	0	
330	N342	-6.614583	25	6.614583	0	
331	N343	-6.402778	25	6.826389	0	
332	N344	-6.190972	25	7.038194	0	
333	N345	-5.979167	25	7.25	0	
334	N346	-7.25	25	6.125	0	
335	N347	-7.0625	25	6.3125	0	
336	N348	-6.875	25	6.5	0	
337	N349	-6.6875	25	6.6875	0	
338	N350	-6.5	25	6.875	0	
339	N351	-6.3125	25	7.0625	0	
340	N352	-6.125	25	7.25	0	
341	N353	-7.25	25	6.270833	0	
342	N354	-7.086806	25	6.434028	0	
343	N355	-6.923611	25	6.597222	0	
344	N356	-6.760417	25	6.760417	0	
345	N357	-6.597222	25	6.923611	0	
346	N358	-6.434028	25	7.086806	0	
347	N359	-6.270833	25	7.25	0	
348	N360	-7.25	25	6.416667	0	
349	N361	-7.111111	25	6.555556	0	
350	N362	-6.972222	25	6.694444	0	



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
351	N363	-6.833333	.25	6.833333	0	
352	N364	-6.694444	.25	6.972222	0	
353	N365	-6.555556	.25	7.111111	0	
354	N366	-6.416667	.25	7.25	0	
355	N367	-7.25	.25	6.5625	0	
356	N368	-7.135417	.25	6.677083	0	
357	N369	-7.020833	.25	6.791667	0	
358	N370	-6.90625	.25	6.90625	0	
359	N371	-6.791667	.25	7.020833	0	
360	N372	-6.677083	.25	7.135417	0	
361	N373	-6.5625	.25	7.25	0	
362	N374	-7.159722	.25	6.798611	0	
363	N375	-7.069444	.25	6.888889	0	
364	N376	-6.979167	.25	6.979167	0	
365	N377	-6.888889	.25	7.069444	0	
366	N378	-6.798611	.25	7.159722	0	
367	N379	-7.038194	-.25	6.190972	0	
368	N380	-6.826389	-.25	6.402778	0	
369	N381	-6.614583	-.25	6.614583	0	
370	N382	-6.402778	-.25	6.826389	0	
371	N383	-6.190972	-.25	7.038194	0	
372	N384	-7.0625	-.25	6.3125	0	
373	N385	-6.875	-.25	6.5	0	
374	N386A	-6.6875	-.25	6.6875	0	
375	N387A	-6.5	-.25	6.875	0	
376	N388A	-6.3125	-.25	7.0625	0	
377	N389A	-7.086806	-.25	6.434028	0	
378	N390A	-6.923611	-.25	6.597222	0	
379	N391A	-6.760417	-.25	6.760417	0	
380	N392A	-6.597222	-.25	6.923611	0	
381	N393A	-6.434028	-.25	7.086806	0	
382	N394A	-7.111111	-.25	6.555556	0	
383	N395A	-6.972222	-.25	6.694444	0	
384	N396	-6.833333	-.25	6.833333	0	
385	N397	-6.694444	-.25	6.972222	0	
386	N398	-6.555556	-.25	7.111111	0	
387	N399	-7.135417	-.25	6.677083	0	
388	N400	-7.020833	-.25	6.791667	0	
389	N401	-6.90625	-.25	6.90625	0	
390	N402	-6.791667	-.25	7.020833	0	
391	N403	-6.677083	-.25	7.135417	0	
392	N404	-6.541667	0	6.541667	0	
393	N405	-6.614583	0	6.614583	0	
394	N406	-6.6875	0	6.6875	0	
395	N407	-6.760417	0	6.760417	0	
396	N408	-6.833333	0	6.833333	0	
397	N409	-6.90625	0	6.90625	0	
398	N410	-6.979167	0	6.979167	0	
399	N411	-6.541667	-.25	6.541667	0	
400	N412	-6.979167	-.25	6.979167	0	

**Joint Boundary Conditions**

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N6	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N4	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction



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**Joint Boundary Conditions (Continued)**

Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot. [k-ft/rad]	Y Rot. [k-ft/rad]	Z Rot. [k-ft/rad]
3 N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4 N8	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

**Member Primary Data**

Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1 M1	N68	N69		180	Frame Rail	Beam	Single Angle	A36 Gr.36	Typical
2 M2	N71	N73		180	Frame Rail	Beam	Single Angle	A36 Gr.36	Typical
3 M3	N70	N67		180	Frame Rail	Beam	Single Angle	A36 Gr.36	Typical
4 M4	N74	N72		180	Frame Rail	Beam	Single Angle	A36 Gr.36	Typical
5 M5	N1	N2		180	Arm	Beam	Tube	A500 Gr.B...	Typical
6 M6	N3	N4		180	Arm	Beam	Tube	A500 Gr.B...	Typical
7 M7	N5	N6		180	Arm	Beam	Tube	A500 Gr.B...	Typical
8 M8	N7	N8		180	Arm	Beam	Tube	A500 Gr.B...	Typical
9 M9	N17	N18		180	Support Angle 2	Beam	Single Angle	A36 Gr.36	Typical
10 M10	N19	N20		90	Support Angle 2	Beam	Single Angle	A36 Gr.36	Typical
11 M11	N21	N22		90	Support Angle 2	Beam	Single Angle	A36 Gr.36	Typical
12 M12	N23	N24		180	Support Angle 2	Beam	Single Angle	A36 Gr.36	Typical
13 M13	N25	N26			RIGID	None	None	RIGID	Typical
14 M15	N29	N30			RIGID	None	None	RIGID	Typical
15 M17	N33	N34			RIGID	None	None	RIGID	Typical
16 M19	N37	N38			RIGID	None	None	RIGID	Typical
17 M21	N41	N42		180	Support Angle 1	Beam	Single Angle	A36 Gr.36	Typical
18 M22	N43	N44		90	Support Angle 1	Beam	Single Angle	A36 Gr.36	Typical
19 M23	N45	N46		180	Support Angle 1	Beam	Single Angle	A36 Gr.36	Typical
20 M24	N47	N48		90	Support Angle 1	Beam	Single Angle	A36 Gr.36	Typical
21 M25	N49	N50		180	10' MP	Column	Pipe	A53 Gr.B	Typical
22 M26	N51	N52		180	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
23 M27	N53	N54		180	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
24 M28	N55	N56		180	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
25 M29	N57	N58		180	10' MP	Column	Pipe	A53 Gr.B	Typical
26 M30	N59	N60		180	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
27 M31	N386	N387			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
28 M32	N389	N390			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
29 M33	N392	N391			10' MP	Column	Pipe	A53 Gr.B	Typical
30 M34	N393	N394			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
31 M31A	N91	N130			RIGID	None	None	RIGID	Typical
32 M32A	N119	N150			RIGID	None	None	RIGID	Typical
33 M33A	N123	N154			RIGID	None	None	RIGID	Typical
34 M34A	N95	N134			RIGID	None	None	RIGID	Typical
35 M35	N87	N155			RIGID	None	None	RIGID	Typical
36 M36	N132	N156			RIGID	None	None	RIGID	Typical
37 M37	N93	N156			RIGID	None	None	RIGID	Typical
38 M38	N100	N157			RIGID	None	None	RIGID	Typical
39 M39	N107	N158			RIGID	None	None	RIGID	Typical
40 M40	N114	N159			RIGID	None	None	RIGID	Typical
41 M41	N121	N160			RIGID	None	None	RIGID	Typical
42 M42	N127	N161			RIGID	None	None	RIGID	Typical
43 M43	N137	N157			RIGID	None	None	RIGID	Typical
44 M44	N142	N158			RIGID	None	None	RIGID	Typical
45 M45	N147	N159			RIGID	None	None	RIGID	Typical
46 M46	N152	N160			RIGID	None	None	RIGID	Typical
47 M47	N170	N238			RIGID	None	None	RIGID	Typical
48 M48	N215	N239			RIGID	None	None	RIGID	Typical
49 M49	N176	N239			RIGID	None	None	RIGID	Typical
50 M50	N183	N240			RIGID	None	None	RIGID	Typical



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**Member Primary Data (Continued)**

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
51	M51	N190	N241			RIGID	None	None	RIGID	Typical
52	M52	N197	N242			RIGID	None	None	RIGID	Typical
53	M53	N204	N243			RIGID	None	None	RIGID	Typical
54	M54	N210	N244			RIGID	None	None	RIGID	Typical
55	M55	N220	N240			RIGID	None	None	RIGID	Typical
56	M56	N225	N241			RIGID	None	None	RIGID	Typical
57	M57	N230	N242			RIGID	None	None	RIGID	Typical
58	M58	N235	N243			RIGID	None	None	RIGID	Typical
59	M59	N253	N321			RIGID	None	None	RIGID	Typical
60	M60	N298	N322			RIGID	None	None	RIGID	Typical
61	M61	N259	N322			RIGID	None	None	RIGID	Typical
62	M62	N266	N323			RIGID	None	None	RIGID	Typical
63	M63	N273	N324			RIGID	None	None	RIGID	Typical
64	M64	N280	N325			RIGID	None	None	RIGID	Typical
65	M65	N287	N326			RIGID	None	None	RIGID	Typical
66	M66	N293	N327			RIGID	None	None	RIGID	Typical
67	M67	N303	N323			RIGID	None	None	RIGID	Typical
68	M68	N308	N324			RIGID	None	None	RIGID	Typical
69	M69	N313	N325			RIGID	None	None	RIGID	Typical
70	M70	N318	N326			RIGID	None	None	RIGID	Typical
71	M71	N336	N404			RIGID	None	None	RIGID	Typical
72	M72	N381	N405			RIGID	None	None	RIGID	Typical
73	M73	N342	N405			RIGID	None	None	RIGID	Typical
74	M74	N349	N406			RIGID	None	None	RIGID	Typical
75	M75	N356	N407			RIGID	None	None	RIGID	Typical
76	M76	N363	N408			RIGID	None	None	RIGID	Typical
77	M77	N370	N409			RIGID	None	None	RIGID	Typical
78	M78	N376	N410			RIGID	None	None	RIGID	Typical
79	M79	N386A	N406			RIGID	None	None	RIGID	Typical
80	M80	N391A	N407			RIGID	None	None	RIGID	Typical
81	M81	N396	N408			RIGID	None	None	RIGID	Typical
82	M82	N401	N409			RIGID	None	None	RIGID	Typical
83	M83	N72A	N68A			RIGID	None	None	RIGID	Typical
84	M84	N74A	N73A			RIGID	None	None	RIGID	Typical
85	M85	N76	N70A			RIGID	None	None	RIGID	Typical
86	M86	N78	N77			RIGID	None	None	RIGID	Typical
87	M87	N80	N71A			RIGID	None	None	RIGID	Typical
88	M88	N82	N81			RIGID	None	None	RIGID	Typical
89	M89	N84	N83			RIGID	None	None	RIGID	Typical
90	M90	N86	N85			RIGID	None	None	RIGID	Typical
91	M91	N174	N213			RIGID	None	None	RIGID	Typical
92	M92	N202	N233			RIGID	None	None	RIGID	Typical
93	M93	N206	N237			RIGID	None	None	RIGID	Typical
94	M94	N178	N217			RIGID	None	None	RIGID	Typical
95	M95	N257	N296			RIGID	None	None	RIGID	Typical
96	M96	N285	N316			RIGID	None	None	RIGID	Typical
97	M97	N289	N320			RIGID	None	None	RIGID	Typical
98	M98	N261	N300			RIGID	None	None	RIGID	Typical
99	M99	N340	N379			RIGID	None	None	RIGID	Typical
100	M100	N368	N399			RIGID	None	None	RIGID	Typical
101	M101	N372	N403			RIGID	None	None	RIGID	Typical
102	M102	N344	N383			RIGID	None	None	RIGID	Typical
103	M103	N71A	N291			RIGID	None	None	RIGID	Typical
104	M104	N80	N251			RIGID	None	None	RIGID	Typical
105	M105	N86	N255			RIGID	None	None	RIGID	Typical
106	M106	N85	N295			RIGID	None	None	RIGID	Typical
107	M107	N83	N374			RIGID	None	None	RIGID	Typical





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**Member Primary Data (Continued)**

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
108	M108	N84	N334			RIGID	None	None	RIGID	Typical
109	M109	N74A	N338			RIGID	None	None	RIGID	Typical
110	M110	N73A	N378			RIGID	None	None	RIGID	Typical
111	M111	N68A	N125			RIGID	None	None	RIGID	Typical
112	M112	N72A	N85A			RIGID	None	None	RIGID	Typical
113	M113	N78	N89			RIGID	None	None	RIGID	Typical
114	M114	N77	N129			RIGID	None	None	RIGID	Typical
115	M115	N70A	N208			RIGID	None	None	RIGID	Typical
116	M116	N76	N168			RIGID	None	None	RIGID	Typical
117	M117	N82	N172			RIGID	None	None	RIGID	Typical
118	M118	N81	N212			RIGID	None	None	RIGID	Typical

**Joint Loads and Enforced Displacements (BLC 42 : Man 1 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1	N20	L	Y	-25

**Joint Loads and Enforced Displacements (BLC 43 : Man 2 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1	N23	L	Y	-25

**Joint Loads and Enforced Displacements (BLC 44 : Man 3 (500 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1	N22	L	Y	-25

**Joint Loads and Enforced Displacements (BLC 45 : Man 4 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1				0

**Joint Loads and Enforced Displacements (BLC 46 : Man 5 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1				0

**Joint Loads and Enforced Displacements (BLC 47 : Man 6 (250 lbs))**

	Joint Label	L,D,M	Direction	Magnitude[(k.k-ft), (in.rad), (k*s^2/f...]
1				0

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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Y	-048	%9.6
2	M25	Y	-128	%50
3	M25	Y	-075	%30
4	M32	Y	-048	%9.6
5	M32	Y	-011	%30
6	M33	Y	-128	%50
7	M33	Y	-075	%30
8	M30	Y	-014	%50
9	M30	Y	-011	%4.5
10	M30	Y	-015	%6.5
11	M29	Y	-128	%50
12	M29	Y	-075	%30
13	M26	Y	-014	%50



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

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
14	M26	Y	-011	%4.5
15	M26	Y	-015	%6.5
16	M27	Y	-009	%30.5
17	M34	Y	-014	%50
18	M34	Y	-011	%4.5
19	M34	Y	-015	%6.5

**Member Point Loads (BLC 2 : Ice Dead)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Y	-263	%9.6
2	M25	Y	-472	%50
3	M25	Y	-048	%30
4	M32	Y	-263	%9.6
5	M32	Y	-062	%30
6	M33	Y	-472	%50
7	M33	Y	-048	%30
8	M30	Y	-103	%50
9	M30	Y	-011	%4.5
10	M30	Y	-018	%6.5
11	M29	Y	-472	%50
12	M29	Y	-048	%30
13	M26	Y	-103	%50
14	M26	Y	-011	%4.5
15	M26	Y	-018	%6.5
16	M27	Y	-327	%30.5
17	M34	Y	-103	%50
18	M34	Y	-011	%4.5
19	M34	Y	-018	%6.5

**Member Point Loads (BLC 3 : Full Wind Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Z	-104	%9.6
2	M25	Z	-362	%10
3	M32	Z	-302	%9.6
4	M32	Z	-058	%30
5	M33	Z	-159	%10
6	M30	Z	-078	0
7	M29	Z	-362	%10
8	M26	Z	-078	0
9	M27	Z	-082	%30.5
10	M34	Z	-035	0
11	M25	Z	-362	%90
12	M33	Z	-159	%90
13	M30	Z	-078	%100
14	M29	Z	-362	%90
15	M26	Z	-078	%100
16	M34	Z	-035	%100

**Member Point Loads (BLC 4 : Full Wind Antenna (30 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Z	-133	%9.6
2	M25	Z	-27	%10
3	M32	Z	-218	%9.6
4	M32	Z	-05	%30
5	M33	Z	-182	%10



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**Member Point Loads (BLC 4 : Full Wind Antenna (30 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
6	M30	Z	-.058	0
7	M29	Z	-.27	%10
8	M26	Z	-.058	0
9	M27	Z	-.167	%30.5
10	M34	Z	-.04	0
11	M25	Z	-.27	%90
12	M33	Z	-.182	%90
13	M30	Z	-.058	%100
14	M29	Z	-.27	%90
15	M26	Z	-.058	%100
16	M34	Z	-.04	%100
17	M28	X	.077	%9.6
18	M25	X	.156	%10
19	M25	X	.005	%30
20	M32	X	.126	%9.6
21	M32	X	.029	%30
22	M33	X	.105	%10
23	M33	X	.015	%30
24	M30	X	.034	0
25	M30	X	.001	%4.5
26	M30	X	.002	%6.5
27	M29	X	.156	%10
28	M29	X	.005	%30
29	M26	X	.034	0
30	M26	X	.001	%4.5
31	M26	X	.002	%6.5
32	M27	X	.097	%30.5
33	M34	X	.023	0
34	M34	X	.002	%4.5
35	M34	X	.005	%6.5
36	M25	X	.156	%90
37	M33	X	.105	%90
38	M30	X	.034	%100
39	M29	X	.156	%90
40	M26	X	.034	%100
41	M34	X	.023	%100

**Member Point Loads (BLC 5 : Full Wind Antenna (60 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
1	M28	Z	-.126	%9.6
2	M25	Z	-.105	%10
3	M32	Z	-.077	%9.6
4	M32	Z	-.029	%30
5	M33	Z	-.156	%10
6	M30	Z	-.023	0
7	M29	Z	-.105	%10
8	M26	Z	-.023	0
9	M27	Z	-.207	%30.5
10	M34	Z	-.034	0
11	M25	Z	-.105	%90
12	M33	Z	-.156	%90
13	M30	Z	-.023	%100
14	M29	Z	-.105	%90
15	M26	Z	-.023	%100
16	M34	Z	-.034	%100
17	M28	X	.218	%9.6



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**Member Point Loads (BLC 5 : Full Wind Antenna (60 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
18	M25	X	.182	%10
19	M25	X	.027	%30
20	M32	X	.133	%9.6
21	M32	X	.05	%30
22	M33	X	.27	%10
23	M33	X	.009	%30
24	M30	X	.04	0
25	M30	X	.004	%4.5
26	M30	X	.008	%6.5
27	M29	X	.182	%10
28	M29	X	.027	%30
29	M26	X	.04	0
30	M26	X	.004	%4.5
31	M26	X	.008	%6.5
32	M27	X	.359	%30.5
33	M34	X	.058	0
34	M34	X	.001	%4.5
35	M34	X	.003	%6.5
36	M25	X	.182	%90
37	M33	X	.27	%90
38	M30	X	.04	%100
39	M29	X	.182	%90
40	M26	X	.04	%100
41	M34	X	.058	%100

**Member Point Loads (BLC 6 : Full Wind Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Z	0	%9.6
2	M25	Z	0	%10
3	M32	Z	0	%9.6
4	M32	Z	0	%30
5	M33	Z	0	%10
6	M30	Z	0	0
7	M29	Z	0	%10
8	M26	Z	0	0
9	M27	Z	0	%30.5
10	M34	Z	0	0
11	M25	Z	0	%90
12	M33	Z	0	%90
13	M30	Z	0	%100
14	M29	Z	0	%90
15	M26	Z	0	%100
16	M34	Z	0	%100
17	M28	X	.302	%9.6
18	M25	X	.159	%10
19	M25	X	.041	%30
20	M32	X	.104	%9.6
21	M32	X	.058	%30
22	M33	X	.362	%10
23	M33	X	0	%30
24	M30	X	.035	0
25	M30	X	.006	%4.5
26	M30	X	.013	%6.5
27	M29	X	.159	%10
28	M29	X	.041	%30
29	M26	X	.035	0



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**Member Point Loads (BLC 6 : Full Wind Antenna (90 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
30	M26	X	.006	%4.5
31	M26	X	.013	%6.5
32	M27	X	.525	%30.5
33	M34	X	.078	0
34	M34	X	0	%4.5
35	M34	X	0	%6.5
36	M25	X	.159	%90
37	M33	X	.362	%90
38	M30	X	.035	%100
39	M29	X	.159	%90
40	M26	X	.035	%100
41	M34	X	.078	%100

**Member Point Loads (BLC 7 : Full Wind Antenna (120 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	.126	%9.6
2	M25	Z	.105	%10
3	M32	Z	.077	%9.6
4	M32	Z	.029	%30
5	M33	Z	.156	%10
6	M30	Z	.023	0
7	M29	Z	.105	%10
8	M26	Z	.023	0
9	M27	Z	.207	%30.5
10	M34	Z	.034	0
11	M25	Z	.105	%90
12	M33	Z	.156	%90
13	M30	Z	.023	%100
14	M29	Z	.105	%90
15	M26	Z	.023	%100
16	M34	Z	.034	%100
17	M28	X	.218	%9.6
18	M25	X	.182	%10
19	M25	X	.027	%30
20	M32	X	.133	%9.6
21	M32	X	.05	%30
22	M33	X	.27	%10
23	M33	X	.009	%30
24	M30	X	.04	0
25	M30	X	.004	%4.5
26	M30	X	.008	%6.5
27	M29	X	.182	%10
28	M29	X	.027	%30
29	M26	X	.04	0
30	M26	X	.004	%4.5
31	M26	X	.008	%6.5
32	M27	X	.359	%30.5
33	M34	X	.058	0
34	M34	X	.001	%4.5
35	M34	X	.003	%6.5
36	M25	X	.182	%90
37	M33	X	.27	%90
38	M30	X	.04	%100
39	M29	X	.182	%90
40	M26	X	.04	%100
41	M34	X	.058	%100





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**Member Point Loads (BLC 8 : Full Wind Antenna (150 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	.133	%9.6
2	M25	Z	.27	%10
3	M32	Z	.218	%9.6
4	M32	Z	.05	%30
5	M33	Z	.182	%10
6	M30	Z	.058	0
7	M29	Z	.27	%10
8	M26	Z	.058	0
9	M27	Z	.167	%30.5
10	M34	Z	.04	0
11	M25	Z	.27	%90
12	M33	Z	.182	%90
13	M30	Z	.058	%100
14	M29	Z	.27	%90
15	M26	Z	.058	%100
16	M34	Z	.04	%100
17	M28	X	.077	%9.6
18	M25	X	.156	%10
19	M25	X	.005	%30
20	M32	X	.126	%9.6
21	M32	X	.029	%30
22	M33	X	.105	%10
23	M33	X	.015	%30
24	M30	X	.034	0
25	M30	X	.001	%4.5
26	M30	X	.002	%6.5
27	M29	X	.156	%10
28	M29	X	.005	%30
29	M26	X	.034	0
30	M26	X	.001	%4.5
31	M26	X	.002	%6.5
32	M27	X	.097	%30.5
33	M34	X	.023	0
34	M34	X	.002	%4.5
35	M34	X	.005	%6.5
36	M25	X	.156	%90
37	M33	X	.105	%90
38	M30	X	.034	%100
39	M29	X	.156	%90
40	M26	X	.034	%100
41	M34	X	.023	%100

**Member Point Loads (BLC 15 : Ice Wind Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	-.045	%9.6
2	M25	Z	-.074	%10
3	M32	Z	-.077	%9.6
4	M32	Z	-.022	%30
5	M33	Z	-.038	%10
6	M30	Z	-.02	0
7	M29	Z	-.074	%10
8	M26	Z	-.02	0
9	M27	Z	-.035	%30.5
10	M34	Z	-.012	0
11	M25	Z	-.074	%90
12	M33	Z	-.038	%90



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**Member Point Loads (BLC 15 : Ice Wind Antenna (0 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
13	M30	Z	-.02	%100
14	M29	Z	-.074	%90
15	M26	Z	-.02	%100
16	M34	Z	-.012	%100

**Member Point Loads (BLC 16 : Ice Wind Antenna (30 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	-.046	%9.6
2	M25	Z	-.056	%10
3	M32	Z	-.06	%9.6
4	M32	Z	-.019	%30
5	M33	Z	-.04	%10
6	M30	Z	-.015	0
7	M29	Z	-.056	%10
8	M26	Z	-.015	0
9	M27	Z	-.046	%30.5
10	M34	Z	-.012	0
11	M25	Z	-.056	%90
12	M33	Z	-.04	%90
13	M30	Z	-.015	%100
14	M29	Z	-.056	%90
15	M26	Z	-.015	%100
16	M34	Z	-.012	%100
17	M28	X	.027	%9.6
18	M25	X	.032	%10
19	M25	X	.002	%30
20	M32	X	.034	%9.6
21	M32	X	.011	%30
22	M33	X	.023	%10
23	M33	X	.005	%30
24	M30	X	.009	0
25	M30	X	0	%4.5
26	M30	X	.001	%6.5
27	M29	X	.032	%10
28	M29	X	.002	%30
29	M26	X	.009	0
30	M26	X	0	%4.5
31	M26	X	.001	%6.5
32	M27	X	.027	%30.5
33	M34	X	.007	0
34	M34	X	.001	%4.5
35	M34	X	.002	%6.5
36	M25	X	.032	%90
37	M33	X	.023	%90
38	M30	X	.009	%100
39	M29	X	.032	%90
40	M26	X	.009	%100
41	M34	X	.007	%100

**Member Point Loads (BLC 17 : Ice Wind Antenna (60 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	-.034	%9.6
2	M25	Z	-.023	%10
3	M32	Z	-.027	%9.6
4	M32	Z	-.011	%30
5	M33	Z	-.032	%10



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**Member Point Loads (BLC 17 : Ice Wind Antenna (60 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
6	M30	Z	-.007	0
7	M29	Z	-.023	%10
8	M26	Z	-.007	0
9	M27	Z	-.046	%30.5
10	M34	Z	-.009	0
11	M25	Z	-.023	%90
12	M33	Z	-.032	%90
13	M30	Z	-.007	%100
14	M29	Z	-.023	%90
15	M26	Z	-.007	%100
16	M34	Z	-.009	%100
17	M28	X	.06	%9.6
18	M25	X	.04	%10
19	M25	X	.008	%30
20	M32	X	.046	%9.6
21	M32	X	.019	%30
22	M33	X	.056	%10
23	M33	X	.003	%30
24	M30	X	.012	0
25	M30	X	.002	%4.5
26	M30	X	.004	%6.5
27	M29	X	.04	%10
28	M29	X	.008	%30
29	M26	X	.012	0
30	M26	X	.002	%4.5
31	M26	X	.004	%6.5
32	M27	X	.079	%30.5
33	M34	X	.015	0
34	M34	X	.001	%4.5
35	M34	X	.001	%6.5
36	M25	X	.04	%90
37	M33	X	.056	%90
38	M30	X	.012	%100
39	M29	X	.04	%90
40	M26	X	.012	%100
41	M34	X	.015	%100

**Member Point Loads (BLC 18 : Ice Wind Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft. %]
1	M28	Z	0	%9.6
2	M25	Z	0	%10
3	M32	Z	0	%9.6
4	M32	Z	0	%30
5	M33	Z	0	%10
6	M30	Z	0	0
7	M29	Z	0	%10
8	M26	Z	0	0
9	M27	Z	0	%30.5
10	M34	Z	0	0
11	M25	Z	0	%90
12	M33	Z	0	%90
13	M30	Z	0	%100
14	M29	Z	0	%90
15	M26	Z	0	%100
16	M34	Z	0	%100
17	M28	X	.077	%9.6





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**Member Point Loads (BLC 18 : Ice Wind Antenna (90 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
18	M25	X	.038	%10
19	M25	X	.012	%30
20	M32	X	.045	%9.6
21	M32	X	.022	%30
22	M33	X	.074	%10
23	M33	X	0	%30
24	M30	X	.012	0
25	M30	X	.004	%4.5
26	M30	X	.006	%6.5
27	M29	X	.038	%10
28	M29	X	.012	%30
29	M26	X	.012	0
30	M26	X	.004	%4.5
31	M26	X	.006	%6.5
32	M27	X	.11	%30.5
33	M34	X	.02	0
34	M34	X	0	%4.5
35	M34	X	0	%6.5
36	M25	X	.038	%90
37	M33	X	.074	%90
38	M30	X	.012	%100
39	M29	X	.038	%90
40	M26	X	.012	%100
41	M34	X	.02	%100

**Member Point Loads (BLC 19 : Ice Wind Antenna (120 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Z	.034	%9.6
2	M25	Z	.023	%10
3	M32	Z	.027	%9.6
4	M32	Z	.011	%30
5	M33	Z	.032	%10
6	M30	Z	.007	0
7	M29	Z	.023	%10
8	M26	Z	.007	0
9	M27	Z	.046	%30.5
10	M34	Z	.009	0
11	M25	Z	.023	%90
12	M33	Z	.032	%90
13	M30	Z	.007	%100
14	M29	Z	.023	%90
15	M26	Z	.007	%100
16	M34	Z	.009	%100
17	M28	X	.06	%9.6
18	M25	X	.04	%10
19	M25	X	.008	%30
20	M32	X	.046	%9.6
21	M32	X	.019	%30
22	M33	X	.056	%10
23	M33	X	.003	%30
24	M30	X	.012	0
25	M30	X	.002	%4.5
26	M30	X	.004	%6.5
27	M29	X	.04	%10
28	M29	X	.008	%30
29	M26	X	.012	0



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**Member Point Loads (BLC 19 : Ice Wind Antenna (120 Deg)) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
30	M26	X	.002	%4.5
31	M26	X	.004	%6.5
32	M27	X	.079	%30.5
33	M34	X	.015	0
34	M34	X	.001	%4.5
35	M34	X	.001	%6.5
36	M25	X	.04	%90
37	M33	X	.056	%90
38	M30	X	.012	%100
39	M29	X	.04	%90
40	M26	X	.012	%100
41	M34	X	.015	%100

**Member Point Loads (BLC 20 : Ice Wind Antenna (150 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft,%]
1	M28	Z	.046	%9.6
2	M25	Z	.023	%10
3	M32	Z	.027	%9.6
4	M32	Z	.011	%30
5	M33	Z	.032	%10
6	M30	Z	.007	0
7	M29	Z	.023	%10
8	M26	Z	.007	0
9	M27	Z	.046	%30.5
10	M34	Z	.009	0
11	M25	Z	.023	%90
12	M33	Z	.032	%90
13	M30	Z	.007	%100
14	M29	Z	.023	%90
15	M26	Z	.007	%100
16	M34	Z	.009	%100
17	M28	X	.027	%9.6
18	M25	X	.04	%10
19	M25	X	.008	%30
20	M32	X	.046	%9.6
21	M32	X	.019	%30
22	M33	X	.056	%10
23	M33	X	.003	%30
24	M30	X	.012	0
25	M30	X	.002	%4.5
26	M30	X	.004	%6.5
27	M29	X	.04	%10
28	M29	X	.008	%30
29	M26	X	.012	0
30	M26	X	.002	%4.5
31	M26	X	.004	%6.5
32	M27	X	.079	%30.5
33	M34	X	.015	0
34	M34	X	.001	%4.5
35	M34	X	.001	%6.5
36	M25	X	.04	%90
37	M33	X	.056	%90
38	M30	X	.012	%100
39	M29	X	.04	%90
40	M26	X	.012	%100
41	M34	X	.015	%100



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**Member Point Loads (BLC 27 : Seismic Antenna (0 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Z	-.005	%9.6
2	M25	Z	-.013	%50
3	M25	Z	-.007	%30
4	M32	Z	-.005	%9.6
5	M32	Z	-.001	%30
6	M33	Z	-.013	%50
7	M33	Z	-.007	%30
8	M30	Z	-.001	%50
9	M30	Z	-.001	%4.5
10	M30	Z	-.002	%6.5
11	M29	Z	-.013	%50
12	M29	Z	-.007	%30
13	M26	Z	-.001	%50
14	M26	Z	-.001	%4.5
15	M26	Z	-.002	%6.5
16	M27	Z	-.001	%30.5
17	M34	Z	-.001	%50
18	M34	Z	-.001	%4.5
19	M34	Z	-.002	%6.5

**Member Point Loads (BLC 28 : Seismic Antenna (90 Deg))**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	X	.005	%9.6
2	M25	X	.013	%50
3	M25	X	.007	%30
4	M32	X	.005	%9.6
5	M32	X	.001	%30
6	M33	X	.013	%50
7	M33	X	.007	%30
8	M30	X	.001	%50
9	M30	X	.001	%4.5
10	M30	X	.002	%6.5
11	M29	X	.013	%50
12	M29	X	.007	%30
13	M26	X	.001	%50
14	M26	X	.001	%4.5
15	M26	X	.002	%6.5
16	M27	X	.001	%30.5
17	M34	X	.001	%50
18	M34	X	.001	%4.5
19	M34	X	.002	%6.5

**Member Point Loads (BLC 41 : Seismic Vertical Antennas)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
1	M28	Y	-.01	%9.6
2	M25	Y	-.026	%50
3	M25	Y	-.015	%30
4	M32	Y	-.01	%9.6
5	M32	Y	-.002	%30
6	M33	Y	-.026	%50
7	M33	Y	-.015	%30
8	M30	Y	-.003	%50
9	M30	Y	-.002	%4.5
10	M30	Y	-.003	%6.5
11	M29	Y	-.026	%50
12	M29	Y	-.015	%30



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**Member Point Loads (BLC 41 : Seismic Vertical Antennas) (Continued)**

	Member Label	Direction	Magnitude[k.k-ft]	Location[ft.%]
13	M26	Y	-003	%50
14	M26	Y	-002	%4.5
15	M26	Y	-003	%6.5
16	M27	Y	-002	%30.5
17	M34	Y	-003	%50
18	M34	Y	-002	%4.5
19	M34	Y	-003	%6.5

**Member Distributed Loads (BLC 2 : Ice Dead)**

	Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-019	-019	0	%100
2	M2	Y	-019	-019	0	%100
3	M3	Y	-019	-019	0	%100
4	M4	Y	-019	-019	0	%100
5	M5	Y	-019	-019	0	%100
6	M6	Y	-019	-019	0	%100
7	M7	Y	-019	-019	0	%100
8	M8	Y	-019	-019	0	%100
9	M9	Y	-016	-016	0	%100
10	M10	Y	-016	-016	0	%100
11	M11	Y	-016	-016	0	%100
12	M12	Y	-016	-016	0	%100
13	M13	Y	-004	-004	0	%100
14	M15	Y	-004	-004	0	%100
15	M17	Y	-004	-004	0	%100
16	M19	Y	-004	-004	0	%100
17	M21	Y	-013	-013	0	%100
18	M22	Y	-013	-013	0	%100
19	M23	Y	-013	-013	0	%100
20	M24	Y	-013	-013	0	%100
21	M25	Y	-01	-01	0	%100
22	M26	Y	-009	-009	0	%100
23	M27	Y	-009	-009	0	%100
24	M28	Y	-009	-009	0	%100
25	M29	Y	-01	-01	0	%100
26	M30	Y	-009	-009	0	%100
27	M31	Y	-009	-009	0	%100
28	M32	Y	-009	-009	0	%100
29	M33	Y	-01	-01	0	%100
30	M34	Y	-009	-009	0	%100
31	M31A	Y	-004	-004	0	%100
32	M32A	Y	-004	-004	0	%100
33	M33A	Y	-004	-004	0	%100
34	M34A	Y	-004	-004	0	%100
35	M35	Y	-004	-004	0	%100
36	M36	Y	-004	-004	0	%100
37	M37	Y	-004	-004	0	%100
38	M38	Y	-004	-004	0	%100
39	M39	Y	-004	-004	0	%100
40	M40	Y	-004	-004	0	%100
41	M41	Y	-004	-004	0	%100
42	M42	Y	-004	-004	0	%100
43	M43	Y	-004	-004	0	%100
44	M44	Y	-004	-004	0	%100
45	M45	Y	-004	-004	0	%100





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**Member Distributed Loads (BLC 2 : Ice Dead) (Continued)**

Member Label	Direction	Start Magnitudek/ft....	End Magnitudek/ft.F...	Start Locationft.%1	End Locationft.%1
46	M46	Y	-004	-004	0 %100
47	M47	Y	-004	-004	0 %100
48	M48	Y	-004	-004	0 %100
49	M49	Y	-004	-004	0 %100
50	M50	Y	-004	-004	0 %100
51	M51	Y	-004	-004	0 %100
52	M52	Y	-004	-004	0 %100
53	M53	Y	-004	-004	0 %100
54	M54	Y	-004	-004	0 %100
55	M55	Y	-004	-004	0 %100
56	M56	Y	-004	-004	0 %100
57	M57	Y	-004	-004	0 %100
58	M58	Y	-004	-004	0 %100
59	M59	Y	-004	-004	0 %100
60	M60	Y	-004	-004	0 %100
61	M61	Y	-004	-004	0 %100
62	M62	Y	-004	-004	0 %100
63	M63	Y	-004	-004	0 %100
64	M64	Y	-004	-004	0 %100
65	M65	Y	-004	-004	0 %100
66	M66	Y	-004	-004	0 %100
67	M67	Y	-004	-004	0 %100
68	M68	Y	-004	-004	0 %100
69	M69	Y	-004	-004	0 %100
70	M70	Y	-004	-004	0 %100
71	M71	Y	-004	-004	0 %100
72	M72	Y	-004	-004	0 %100
73	M73	Y	-004	-004	0 %100
74	M74	Y	-004	-004	0 %100
75	M75	Y	-004	-004	0 %100
76	M76	Y	-004	-004	0 %100
77	M77	Y	-004	-004	0 %100
78	M78	Y	-004	-004	0 %100
79	M79	Y	-004	-004	0 %100
80	M80	Y	-004	-004	0 %100
81	M81	Y	-004	-004	0 %100
82	M82	Y	-004	-004	0 %100
83	M83	Y	-004	-004	0 %100
84	M84	Y	-004	-004	0 %100
85	M85	Y	-004	-004	0 %100
86	M86	Y	-004	-004	0 %100
87	M87	Y	-004	-004	0 %100
88	M88	Y	-004	-004	0 %100
89	M89	Y	-004	-004	0 %100
90	M90	Y	-004	-004	0 %100
91	M91	Y	-004	-004	0 %100
92	M92	Y	-004	-004	0 %100
93	M93	Y	-004	-004	0 %100
94	M94	Y	-004	-004	0 %100
95	M95	Y	-004	-004	0 %100
96	M96	Y	-004	-004	0 %100
97	M97	Y	-004	-004	0 %100
98	M98	Y	-004	-004	0 %100
99	M99	Y	-004	-004	0 %100
100	M100	Y	-004	-004	0 %100
101	M101	Y	-004	-004	0 %100
102	M102	Y	-004	-004	0 %100



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**Member Distributed Loads (BLC 2 : Ice Dead) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
103	M103	Y	-004	-004	0	%100
104	M104	Y	-004	-004	0	%100
105	M105	Y	-004	-004	0	%100
106	M106	Y	-004	-004	0	%100
107	M107	Y	-004	-004	0	%100
108	M108	Y	-004	-004	0	%100
109	M109	Y	-004	-004	0	%100
110	M110	Y	-004	-004	0	%100
111	M111	Y	-004	-004	0	%100
112	M112	Y	-004	-004	0	%100
113	M113	Y	-004	-004	0	%100
114	M114	Y	-004	-004	0	%100
115	M115	Y	-004	-004	0	%100
116	M116	Y	-004	-004	0	%100
117	M117	Y	-004	-004	0	%100
118	M118	Y	-004	-004	0	%100

**Member Distributed Loads (BLC 9 : Full Wind Members (0 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-036	-036	0	%100
2	M2	Z	0	0	0	%100
3	M3	Z	-036	-036	0	%100
4	M4	Z	0	0	0	%100
5	M5	Z	-018	-018	0	%100
6	M6	Z	-018	-018	0	%100
7	M7	Z	-018	-018	0	%100
8	M8	Z	-018	-018	0	%100
9	M9	Z	-012	-012	0	%100
10	M10	Z	-012	-012	0	%100
11	M11	Z	-012	-012	0	%100
12	M12	Z	-012	-012	0	%100
13	M21	Z	-018	-018	0	%100
14	M22	Z	-018	-018	0	%100
15	M23	Z	0	0	0	%100
16	M24	Z	0	0	0	%100
17	M25	Z	-01	-01	0	%10
18	M28	Z	-009	-009	0	%100
19	M29	Z	-01	-01	0	%10
20	M31	Z	-009	-009	0	%100
21	M33	Z	-01	-01	0	%100
22	M34	Z	-009	-009	0	%100
23	M25	Z	-01	-01	%90	%100
24	M27	Z	-009	-009	%61	%100
25	M29	Z	-01	-01	%90	%100
26	M32	Z	-009	-009	%60	%100
27	M1	X	0	0	0	%100
28	M2	X	0	0	0	%100
29	M3	X	0	0	0	%100
30	M4	X	0	0	0	%100
31	M5	X	0	0	0	%100
32	M6	X	0	0	0	%100
33	M7	X	0	0	0	%100
34	M8	X	0	0	0	%100
35	M9	X	0	0	0	%100
36	M10	X	0	0	0	%100
37	M11	X	0	0	0	%100



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**Member Distributed Loads (BLC 9 : Full Wind Members (0 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
38	M12	X	0	0	0	%100
39	M21	X	0	0	0	%100
40	M22	X	0	0	0	%100
41	M23	X	0	0	0	%100
42	M24	X	0	0	0	%100
43	M25	X	0	0	0	%100
44	M26	X	0	0	0	%100
45	M27	X	0	0	0	%100
46	M29	X	0	0	0	%100
47	M30	X	0	0	0	%100
48	M31	X	0	0	0	%100
49	M32	X	0	0	0	%100
50	M33	X	0	0	0	%10
51	M28	X	0	0	%19.2	%100
52	M33	X	0	0	%90	%100

**Member Distributed Loads (BLC 10 : Full Wind Members (30 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-.023	-.023	0	%100
2	M2	Z	-.008	-.008	0	%100
3	M3	Z	-.023	-.023	0	%100
4	M4	Z	-.008	-.008	0	%100
5	M5	Z	-.029	-.029	0	%100
6	M6	Z	-.002	-.002	0	%100
7	M7	Z	-.029	-.029	0	%100
8	M8	Z	-.002	-.002	0	%100
9	M9	Z	-.019	-.019	0	%100
10	M10	Z	-.001	-.001	0	%100
11	M11	Z	-.001	-.001	0	%100
12	M12	Z	-.019	-.019	0	%100
13	M21	Z	-.012	-.012	0	%100
14	M22	Z	-.012	-.012	0	%100
15	M23	Z	-.004	-.004	0	%100
16	M24	Z	-.004	-.004	0	%100
17	M25	Z	-.009	-.009	0	%10
18	M28	Z	-.007	-.007	0	%100
19	M29	Z	-.009	-.009	0	%10
20	M31	Z	-.007	-.007	0	%100
21	M33	Z	-.009	-.009	0	%100
22	M34	Z	-.007	-.007	0	%100
23	M25	Z	-.009	-.009	%90	%100
24	M27	Z	-.007	-.007	%61	%100
25	M29	Z	-.009	-.009	%90	%100
26	M32	Z	-.007	-.007	%60	%100
27	M1	X	.013	.013	0	%100
28	M2	X	.004	.004	0	%100
29	M3	X	.013	.013	0	%100
30	M4	X	.004	.004	0	%100
31	M5	X	.017	.017	0	%100
32	M6	X	.001	.001	0	%100
33	M7	X	.017	.017	0	%100
34	M8	X	.001	.001	0	%100
35	M9	X	.011	.011	0	%100
36	M10	X	.001	.001	0	%100
37	M11	X	.001	.001	0	%100
38	M12	X	.011	.011	0	%100



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**Member Distributed Loads (BLC 10 : Full Wind Members (30 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
39	M21	X	.007	.007	0	%100
40	M22	X	.007	.007	0	%100
41	M23	X	.002	.002	0	%100
42	M24	X	.002	.002	0	%100
43	M25	X	.005	.005	0	%100
44	M26	X	.004	.004	0	%100
45	M27	X	.004	.004	0	%100
46	M29	X	.005	.005	0	%100
47	M30	X	.004	.004	0	%100
48	M31	X	.004	.004	0	%100
49	M32	X	.004	.004	0	%100
50	M33	X	.005	.005	0	%10
51	M28	X	.004	.004	%19.2	%100
52	M33	X	.005	.005	%90	%100

**Member Distributed Loads (BLC 11 : Full Wind Members (60 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-.004	-.004	0	%100
2	M2	Z	-.013	-.013	0	%100
3	M3	Z	-.004	-.004	0	%100
4	M4	Z	-.013	-.013	0	%100
5	M5	Z	-.017	-.017	0	%100
6	M6	Z	-.001	-.001	0	%100
7	M7	Z	-.017	-.017	0	%100
8	M8	Z	-.001	-.001	0	%100
9	M9	Z	-.011	-.011	0	%100
10	M10	Z	-.001	-.001	0	%100
11	M11	Z	-.001	-.001	0	%100
12	M12	Z	-.011	-.011	0	%100
13	M21	Z	-.002	-.002	0	%100
14	M22	Z	-.002	-.002	0	%100
15	M23	Z	-.007	-.007	0	%100
16	M24	Z	-.007	-.007	0	%100
17	M25	Z	-.005	-.005	0	%10
18	M28	Z	-.004	-.004	0	%100
19	M29	Z	-.005	-.005	0	%10
20	M31	Z	-.004	-.004	0	%100
21	M33	Z	-.005	-.005	0	%100
22	M34	Z	-.004	-.004	0	%100
23	M25	Z	-.005	-.005	%90	%100
24	M27	Z	-.004	-.004	%61	%100
25	M29	Z	-.005	-.005	%90	%100
26	M32	Z	-.004	-.004	%60	%100
27	M1	X	.008	.008	0	%100
28	M2	X	.023	.023	0	%100
29	M3	X	.008	.008	0	%100
30	M4	X	.023	.023	0	%100
31	M5	X	.029	.029	0	%100
32	M6	X	.002	.002	0	%100
33	M7	X	.029	.029	0	%100
34	M8	X	.002	.002	0	%100
35	M9	X	.019	.019	0	%100
36	M10	X	.001	.001	0	%100
37	M11	X	.001	.001	0	%100
38	M12	X	.019	.019	0	%100
39	M21	X	.004	.004	0	%100





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**Member Distributed Loads (BLC 11 : Full Wind Members (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
40	M22	X	.004	.004	0	%100
41	M23	X	.012	.012	0	%100
42	M24	X	.012	.012	0	%100
43	M25	X	.009	.009	0	%100
44	M26	X	.007	.007	0	%100
45	M27	X	.007	.007	0	%100
46	M29	X	.009	.009	0	%100
47	M30	X	.007	.007	0	%100
48	M31	X	.007	.007	0	%100
49	M32	X	.007	.007	0	%100
50	M33	X	.009	.009	0	%10
51	M28	X	.007	.007	%19.2	%100
52	M33	X	.009	.009	%90	%100

**Member Distributed Loads (BLC 12 : Full Wind Members (90 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	0	0	0	%100
2	M2	Z	0	0	0	%100
3	M3	Z	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M5	Z	0	0	0	%100
6	M6	Z	0	0	0	%100
7	M7	Z	0	0	0	%100
8	M8	Z	0	0	0	%100
9	M9	Z	0	0	0	%100
10	M10	Z	0	0	0	%100
11	M11	Z	0	0	0	%100
12	M12	Z	0	0	0	%100
13	M21	Z	0	0	0	%100
14	M22	Z	0	0	0	%100
15	M23	Z	0	0	0	%100
16	M24	Z	0	0	0	%100
17	M25	Z	0	0	0	%10
18	M28	Z	0	0	0	%100
19	M29	Z	0	0	0	%10
20	M31	Z	0	0	0	%100
21	M33	Z	0	0	0	%100
22	M34	Z	0	0	0	%100
23	M25	Z	0	0	%90	%100
24	M27	Z	0	0	%61	%100
25	M29	Z	0	0	%90	%100
26	M32	Z	0	0	%60	%100
27	M1	X	0	0	0	%100
28	M2	X	.036	.036	0	%100
29	M3	X	0	0	0	%100
30	M4	X	.036	.036	0	%100
31	M5	X	.018	.018	0	%100
32	M6	X	.018	.018	0	%100
33	M7	X	.018	.018	0	%100
34	M8	X	.018	.018	0	%100
35	M9	X	.012	.012	0	%100
36	M10	X	.012	.012	0	%100
37	M11	X	.012	.012	0	%100
38	M12	X	.012	.012	0	%100
39	M21	X	0	0	0	%100
40	M22	X	0	0	0	%100



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**Member Distributed Loads (BLC 12 : Full Wind Members (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
41	M23	X	.018	.018	0	%100
42	M24	X	.018	.018	0	%100
43	M25	X	.01	.01	0	%100
44	M26	X	.009	.009	0	%100
45	M27	X	.009	.009	0	%100
46	M29	X	.01	.01	0	%100
47	M30	X	.009	.009	0	%100
48	M31	X	.009	.009	0	%100
49	M32	X	.009	.009	0	%100
50	M33	X	.01	.01	0	%10
51	M28	X	.009	.009	%19.2	%100
52	M33	X	.01	.01	%90	%100

**Member Distributed Loads (BLC 13 : Full Wind Members (120 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	.004	.004	0	%100
2	M2	Z	.013	.013	0	%100
3	M3	Z	.004	.004	0	%100
4	M4	Z	.013	.013	0	%100
5	M5	Z	.001	.001	0	%100
6	M6	Z	.017	.017	0	%100
7	M7	Z	.001	.001	0	%100
8	M8	Z	.017	.017	0	%100
9	M9	Z	.001	.001	0	%100
10	M10	Z	.011	.011	0	%100
11	M11	Z	.011	.011	0	%100
12	M12	Z	.001	.001	0	%100
13	M21	Z	.002	.002	0	%100
14	M22	Z	.002	.002	0	%100
15	M23	Z	.007	.007	0	%100
16	M24	Z	.007	.007	0	%100
17	M25	Z	.005	.005	0	%10
18	M28	Z	.004	.004	0	%100
19	M29	Z	.005	.005	0	%10
20	M31	Z	.004	.004	0	%100
21	M33	Z	.005	.005	0	%100
22	M34	Z	.004	.004	0	%100
23	M25	Z	.005	.005	%90	%100
24	M27	Z	.004	.004	%61	%100
25	M29	Z	.005	.005	%90	%100
26	M32	Z	.004	.004	%60	%100
27	M1	X	.008	.008	0	%100
28	M2	X	.023	.023	0	%100
29	M3	X	.008	.008	0	%100
30	M4	X	.023	.023	0	%100
31	M5	X	.002	.002	0	%100
32	M6	X	.029	.029	0	%100
33	M7	X	.002	.002	0	%100
34	M8	X	.029	.029	0	%100
35	M9	X	.001	.001	0	%100
36	M10	X	.019	.019	0	%100
37	M11	X	.019	.019	0	%100
38	M12	X	.001	.001	0	%100
39	M21	X	.004	.004	0	%100
40	M22	X	.004	.004	0	%100
41	M23	X	.012	.012	0	%100



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**Member Distributed Loads (BLC 13 : Full Wind Members (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
42	M24	X	.012	.012	0	%100
43	M25	X	.009	.009	0	%100
44	M26	X	.007	.007	0	%100
45	M27	X	.007	.007	0	%100
46	M29	X	.009	.009	0	%100
47	M30	X	.007	.007	0	%100
48	M31	X	.007	.007	0	%100
49	M32	X	.007	.007	0	%100
50	M33	X	.009	.009	0	%10
51	M28	X	.007	.007	%19.2	%100
52	M33	X	.009	.009	%90	%100

**Member Distributed Loads (BLC 14 : Full Wind Members (150 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	.023	.023	0	%100
2	M2	Z	.008	.008	0	%100
3	M3	Z	.023	.023	0	%100
4	M4	Z	.008	.008	0	%100
5	M5	Z	.002	.002	0	%100
6	M6	Z	.029	.029	0	%100
7	M7	Z	.002	.002	0	%100
8	M8	Z	.029	.029	0	%100
9	M9	Z	.001	.001	0	%100
10	M10	Z	.019	.019	0	%100
11	M11	Z	.019	.019	0	%100
12	M12	Z	.001	.001	0	%100
13	M21	Z	.012	.012	0	%100
14	M22	Z	.012	.012	0	%100
15	M23	Z	.004	.004	0	%100
16	M24	Z	.004	.004	0	%100
17	M25	Z	.009	.009	0	%10
18	M28	Z	.007	.007	0	%100
19	M29	Z	.009	.009	0	%10
20	M31	Z	.007	.007	0	%100
21	M33	Z	.009	.009	0	%100
22	M34	Z	.007	.007	0	%100
23	M25	Z	.009	.009	%90	%100
24	M27	Z	.007	.007	%61	%100
25	M29	Z	.009	.009	%90	%100
26	M32	Z	.007	.007	%60	%100
27	M1	X	.013	.013	0	%100
28	M2	X	.004	.004	0	%100
29	M3	X	.013	.013	0	%100
30	M4	X	.004	.004	0	%100
31	M5	X	.001	.001	0	%100
32	M6	X	.017	.017	0	%100
33	M7	X	.001	.001	0	%100
34	M8	X	.017	.017	0	%100
35	M9	X	.001	.001	0	%100
36	M10	X	.011	.011	0	%100
37	M11	X	.011	.011	0	%100
38	M12	X	.001	.001	0	%100
39	M21	X	.007	.007	0	%100
40	M22	X	.007	.007	0	%100
41	M23	X	.002	.002	0	%100
42	M24	X	.002	.002	0	%100



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**Member Distributed Loads (BLC 14 : Full Wind Members (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
43	M25	X	.005	.005	0	%100
44	M26	X	.004	.004	0	%100
45	M27	X	.004	.004	0	%100
46	M29	X	.005	.005	0	%100
47	M30	X	.004	.004	0	%100
48	M31	X	.004	.004	0	%100
49	M32	X	.004	.004	0	%100
50	M33	X	.005	.005	0	%10
51	M28	X	.004	.004	%19.2	%100
52	M33	X	.005	.005	%90	%100

**Member Distributed Loads (BLC 21 : Ice Wind Members (0 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-.009	-.009	0	%100
2	M2	Z	0	0	0	%100
3	M3	Z	-.009	-.009	0	%100
4	M4	Z	0	0	0	%100
5	M5	Z	-.004	-.004	0	%100
6	M6	Z	-.004	-.004	0	%100
7	M7	Z	-.004	-.004	0	%100
8	M8	Z	-.004	-.004	0	%100
9	M9	Z	-.003	-.003	0	%100
10	M10	Z	-.003	-.003	0	%100
11	M11	Z	-.003	-.003	0	%100
12	M12	Z	-.003	-.003	0	%100
13	M13	Z	-.007	-.007	0	%100
14	M15	Z	-.007	-.007	0	%100
15	M17	Z	-.007	-.007	0	%100
16	M19	Z	-.007	-.007	0	%100
17	M21	Z	-.005	-.005	0	%100
18	M22	Z	-.005	-.005	0	%100
19	M23	Z	0	0	0	%100
20	M24	Z	0	0	0	%100
21	M25	Z	-.004	-.004	0	%10
22	M28	Z	-.004	-.004	0	%100
23	M29	Z	-.004	-.004	0	%10
24	M31	Z	-.004	-.004	0	%100
25	M33	Z	-.004	-.004	0	%100
26	M34	Z	-.004	-.004	0	%100
27	M31A	Z	-.005	-.005	0	%100
28	M32A	Z	-.005	-.005	0	%100
29	M33A	Z	-.005	-.005	0	%100
30	M34A	Z	-.005	-.005	0	%100
31	M35	Z	-.007	-.007	0	%100
32	M36	Z	-.007	-.007	0	%100
33	M37	Z	-.007	-.007	0	%100
34	M38	Z	-.007	-.007	0	%100
35	M39	Z	-.007	-.007	0	%100
36	M40	Z	-.007	-.007	0	%100
37	M41	Z	-.007	-.007	0	%100
38	M42	Z	-.007	-.007	0	%100
39	M43	Z	-.007	-.007	0	%100
40	M44	Z	-.007	-.007	0	%100
41	M45	Z	-.007	-.007	0	%100
42	M46	Z	-.007	-.007	0	%100
43	M47	Z	-.007	-.007	0	%100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 21 : Ice Wind Members (0 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude/k/ft...	End Magnitude/k/ft.F...	Start Location/ft.%]	End Location/ft.%]
44	M48	Z	-007	-007	0	%100
45	M49	Z	-007	-007	0	%100
46	M50	Z	-007	-007	0	%100
47	M51	Z	-007	-007	0	%100
48	M52	Z	-007	-007	0	%100
49	M53	Z	-007	-007	0	%100
50	M54	Z	-007	-007	0	%100
51	M55	Z	-007	-007	0	%100
52	M56	Z	-007	-007	0	%100
53	M57	Z	-007	-007	0	%100
54	M58	Z	-007	-007	0	%100
55	M59	Z	-007	-007	0	%100
56	M60	Z	-007	-007	0	%100
57	M61	Z	-007	-007	0	%100
58	M62	Z	-007	-007	0	%100
59	M63	Z	-007	-007	0	%100
60	M64	Z	-007	-007	0	%100
61	M65	Z	-007	-007	0	%100
62	M66	Z	-007	-007	0	%100
63	M67	Z	-007	-007	0	%100
64	M68	Z	-007	-007	0	%100
65	M69	Z	-007	-007	0	%100
66	M70	Z	-007	-007	0	%100
67	M71	Z	-007	-007	0	%100
68	M72	Z	-007	-007	0	%100
69	M73	Z	-007	-007	0	%100
70	M74	Z	-007	-007	0	%100
71	M75	Z	-007	-007	0	%100
72	M76	Z	-007	-007	0	%100
73	M77	Z	-007	-007	0	%100
74	M78	Z	-007	-007	0	%100
75	M79	Z	-007	-007	0	%100
76	M80	Z	-007	-007	0	%100
77	M81	Z	-007	-007	0	%100
78	M82	Z	-007	-007	0	%100
79	M83	Z	-003	-003	0	%100
80	M84	Z	-003	-003	0	%100
81	M85	Z	0	0	0	%100
82	M86	Z	0	0	0	%100
83	M87	Z	-003	-003	0	%100
84	M88	Z	-003	-003	0	%100
85	M89	Z	0	0	0	%100
86	M90	Z	0	0	0	%100
87	M91	Z	-005	-005	0	%100
88	M92	Z	-005	-005	0	%100
89	M93	Z	-005	-005	0	%100
90	M94	Z	-005	-005	0	%100
91	M95	Z	-005	-005	0	%100
92	M96	Z	-005	-005	0	%100
93	M97	Z	-005	-005	0	%100
94	M98	Z	-005	-005	0	%100
95	M99	Z	-005	-005	0	%100
96	M100	Z	-005	-005	0	%100
97	M101	Z	-005	-005	0	%100
98	M102	Z	-005	-005	0	%100
99	M103	Z	-004	-004	0	%100
100	M104	Z	-002	-002	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 21 : Ice Wind Members (0 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft. F...	End Magnitude[k/ft. F...	Start Location[ft. %]	End Location[ft. %]
101	M105	Z	-002	-002	0 %100
102	M106	Z	-004	-004	0 %100
103	M107	Z	-004	-004	0 %100
104	M108	Z	-002	-002	0 %100
105	M109	Z	-002	-002	0 %100
106	M110	Z	-004	-004	0 %100
107	M111	Z	-004	-004	0 %100
108	M112	Z	-002	-002	0 %100
109	M113	Z	-002	-002	0 %100
110	M114	Z	-004	-004	0 %100
111	M115	Z	-004	-004	0 %100
112	M116	Z	-002	-002	0 %100
113	M117	Z	-002	-002	0 %100
114	M118	Z	-004	-004	0 %100
115	M25	Z	-004	-004	%90 %100
116	M27	Z	-004	-004	%61 %100
117	M29	Z	-004	-004	%90 %100
118	M32	Z	-004	-004	%60 %100
119	M1	X	0	0	0 %100
120	M2	X	0	0	0 %100
121	M3	X	0	0	0 %100
122	M4	X	0	0	0 %100
123	M5	X	0	0	0 %100
124	M6	X	0	0	0 %100
125	M7	X	0	0	0 %100
126	M8	X	0	0	0 %100
127	M9	X	0	0	0 %100
128	M10	X	0	0	0 %100
129	M11	X	0	0	0 %100
130	M12	X	0	0	0 %100
131	M13	X	0	0	0 %100
132	M15	X	0	0	0 %100
133	M17	X	0	0	0 %100
134	M19	X	0	0	0 %100
135	M21	X	0	0	0 %100
136	M22	X	0	0	0 %100
137	M23	X	0	0	0 %100
138	M24	X	0	0	0 %100
139	M25	X	0	0	0 %100
140	M26	X	0	0	0 %100
141	M27	X	0	0	0 %100
142	M29	X	0	0	0 %100
143	M30	X	0	0	0 %100
144	M31	X	0	0	0 %100
145	M32	X	0	0	0 %100
146	M33	X	0	0	0 %10
147	M31A	X	0	0	0 %100
148	M32A	X	0	0	0 %100
149	M33A	X	0	0	0 %100
150	M34A	X	0	0	0 %100
151	M35	X	0	0	0 %100
152	M36	X	0	0	0 %100
153	M37	X	0	0	0 %100
154	M38	X	0	0	0 %100
155	M39	X	0	0	0 %100
156	M40	X	0	0	0 %100
157	M41	X	0	0	0 %100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 21 : Ice Wind Members (0 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Locationft.%1	End Locationft.%1
158	M42	X	0	0	0	%100
159	M43	X	0	0	0	%100
160	M44	X	0	0	0	%100
161	M45	X	0	0	0	%100
162	M46	X	0	0	0	%100
163	M47	X	0	0	0	%100
164	M48	X	0	0	0	%100
165	M49	X	0	0	0	%100
166	M50	X	0	0	0	%100
167	M51	X	0	0	0	%100
168	M52	X	0	0	0	%100
169	M53	X	0	0	0	%100
170	M54	X	0	0	0	%100
171	M55	X	0	0	0	%100
172	M56	X	0	0	0	%100
173	M57	X	0	0	0	%100
174	M58	X	0	0	0	%100
175	M59	X	0	0	0	%100
176	M60	X	0	0	0	%100
177	M61	X	0	0	0	%100
178	M62	X	0	0	0	%100
179	M63	X	0	0	0	%100
180	M64	X	0	0	0	%100
181	M65	X	0	0	0	%100
182	M66	X	0	0	0	%100
183	M67	X	0	0	0	%100
184	M68	X	0	0	0	%100
185	M69	X	0	0	0	%100
186	M70	X	0	0	0	%100
187	M71	X	0	0	0	%100
188	M72	X	0	0	0	%100
189	M73	X	0	0	0	%100
190	M74	X	0	0	0	%100
191	M75	X	0	0	0	%100
192	M76	X	0	0	0	%100
193	M77	X	0	0	0	%100
194	M78	X	0	0	0	%100
195	M79	X	0	0	0	%100
196	M80	X	0	0	0	%100
197	M81	X	0	0	0	%100
198	M82	X	0	0	0	%100
199	M83	X	0	0	0	%100
200	M84	X	0	0	0	%100
201	M85	X	0	0	0	%100
202	M86	X	0	0	0	%100
203	M87	X	0	0	0	%100
204	M88	X	0	0	0	%100
205	M89	X	0	0	0	%100
206	M90	X	0	0	0	%100
207	M91	X	0	0	0	%100
208	M92	X	0	0	0	%100
209	M93	X	0	0	0	%100
210	M94	X	0	0	0	%100
211	M95	X	0	0	0	%100
212	M96	X	0	0	0	%100
213	M97	X	0	0	0	%100
214	M98	X	0	0	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 21 : Ice Wind Members (0 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
215	M99	X	0	0	0	%100
216	M100	X	0	0	0	%100
217	M101	X	0	0	0	%100
218	M102	X	0	0	0	%100
219	M103	X	0	0	0	%100
220	M104	X	0	0	0	%100
221	M105	X	0	0	0	%100
222	M106	X	0	0	0	%100
223	M107	X	0	0	0	%100
224	M108	X	0	0	0	%100
225	M109	X	0	0	0	%100
226	M110	X	0	0	0	%100
227	M111	X	0	0	0	%100
228	M112	X	0	0	0	%100
229	M113	X	0	0	0	%100
230	M114	X	0	0	0	%100
231	M115	X	0	0	0	%100
232	M116	X	0	0	0	%100
233	M117	X	0	0	0	%100
234	M118	X	0	0	0	%100
235	M28	X	0	0	%19.2	%100
236	M33	X	0	0	%90	%100

**Member Distributed Loads (BLC 22 : Ice Wind Members (30 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-006	-006	0	%100
2	M2	Z	-001	-001	0	%100
3	M3	Z	-006	-006	0	%100
4	M4	Z	-001	-001	0	%100
5	M5	Z	-006	-006	0	%100
6	M6	Z	-001	-001	0	%100
7	M7	Z	-006	-006	0	%100
8	M8	Z	-001	-001	0	%100
9	M9	Z	-004	-004	0	%100
10	M10	Z	-001	-001	0	%100
11	M11	Z	-001	-001	0	%100
12	M12	Z	-004	-004	0	%100
13	M13	Z	-006	-006	0	%100
14	M15	Z	-006	-006	0	%100
15	M17	Z	-006	-006	0	%100
16	M19	Z	-006	-006	0	%100
17	M21	Z	-004	-004	0	%100
18	M22	Z	-004	-004	0	%100
19	M23	Z	-001	-001	0	%100
20	M24	Z	-001	-001	0	%100
21	M25	Z	-004	-004	0	%10
22	M28	Z	-004	-004	0	%100
23	M29	Z	-004	-004	0	%10
24	M31	Z	-004	-004	0	%100
25	M33	Z	-004	-004	0	%100
26	M34	Z	-004	-004	0	%100
27	M31A	Z	-004	-004	0	%100
28	M32A	Z	-004	-004	0	%100
29	M33A	Z	-004	-004	0	%100
30	M34A	Z	-004	-004	0	%100
31	M35	Z	-006	-006	0	%100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 22 : Ice Wind Members (30 Deg)) (Continued)**

Member Label	Direction	Start Magnitude(k/ft....)	End Magnitude(k/ft.F...	Start Location(ft.%)	End Location(ft.%)
32	M36	Z	-006	-006	0 %100
33	M37	Z	-006	-006	0 %100
34	M38	Z	-006	-006	0 %100
35	M39	Z	-006	-006	0 %100
36	M40	Z	-006	-006	0 %100
37	M41	Z	-006	-006	0 %100
38	M42	Z	-006	-006	0 %100
39	M43	Z	-006	-006	0 %100
40	M44	Z	-006	-006	0 %100
41	M45	Z	-006	-006	0 %100
42	M46	Z	-006	-006	0 %100
43	M47	Z	-006	-006	0 %100
44	M48	Z	-006	-006	0 %100
45	M49	Z	-006	-006	0 %100
46	M50	Z	-006	-006	0 %100
47	M51	Z	-006	-006	0 %100
48	M52	Z	-006	-006	0 %100
49	M53	Z	-006	-006	0 %100
50	M54	Z	-006	-006	0 %100
51	M55	Z	-006	-006	0 %100
52	M56	Z	-006	-006	0 %100
53	M57	Z	-006	-006	0 %100
54	M58	Z	-006	-006	0 %100
55	M59	Z	-006	-006	0 %100
56	M60	Z	-006	-006	0 %100
57	M61	Z	-006	-006	0 %100
58	M62	Z	-006	-006	0 %100
59	M63	Z	-006	-006	0 %100
60	M64	Z	-006	-006	0 %100
61	M65	Z	-006	-006	0 %100
62	M66	Z	-006	-006	0 %100
63	M67	Z	-006	-006	0 %100
64	M68	Z	-006	-006	0 %100
65	M69	Z	-006	-006	0 %100
66	M70	Z	-006	-006	0 %100
67	M71	Z	-006	-006	0 %100
68	M72	Z	-006	-006	0 %100
69	M73	Z	-006	-006	0 %100
70	M74	Z	-006	-006	0 %100
71	M75	Z	-006	-006	0 %100
72	M76	Z	-006	-006	0 %100
73	M77	Z	-006	-006	0 %100
74	M78	Z	-006	-006	0 %100
75	M79	Z	-006	-006	0 %100
76	M80	Z	-006	-006	0 %100
77	M81	Z	-006	-006	0 %100
78	M82	Z	-006	-006	0 %100
79	M83	Z	-003	-003	0 %100
80	M84	Z	-003	-003	0 %100
81	M85	Z	0	0	0 %100
82	M86	Z	0	0	0 %100
83	M87	Z	-003	-003	0 %100
84	M88	Z	-003	-003	0 %100
85	M89	Z	0	0	0 %100
86	M90	Z	0	0	0 %100
87	M91	Z	-004	-004	0 %100
88	M92	Z	-004	-004	0 %100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 22 : Ice Wind Members (30 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
89	M93	Z	- .004	- .004	0	%100
90	M94	Z	- .004	- .004	0	%100
91	M95	Z	- .004	- .004	0	%100
92	M96	Z	- .004	- .004	0	%100
93	M97	Z	- .004	- .004	0	%100
94	M98	Z	- .004	- .004	0	%100
95	M99	Z	- .004	- .004	0	%100
96	M100	Z	- .004	- .004	0	%100
97	M101	Z	- .004	- .004	0	%100
98	M102	Z	- .004	- .004	0	%100
99	M103	Z	- .003	- .003	0	%100
100	M104	Z	- .002	- .002	0	%100
101	M105	Z	- .002	- .002	0	%100
102	M106	Z	- .003	- .003	0	%100
103	M107	Z	- .003	- .003	0	%100
104	M108	Z	- .002	- .002	0	%100
105	M109	Z	- .002	- .002	0	%100
106	M110	Z	- .003	- .003	0	%100
107	M111	Z	- .003	- .003	0	%100
108	M112	Z	- .002	- .002	0	%100
109	M113	Z	- .002	- .002	0	%100
110	M114	Z	- .003	- .003	0	%100
111	M115	Z	- .003	- .003	0	%100
112	M116	Z	- .002	- .002	0	%100
113	M117	Z	- .002	- .002	0	%100
114	M118	Z	- .003	- .003	0	%100
115	M25	Z	- .004	- .004	%90	%100
116	M27	Z	- .004	- .004	%61	%100
117	M29	Z	- .004	- .004	%90	%100
118	M32	Z	- .004	- .004	%60	%100
119	M1	X	.003	.003	0	%100
120	M2	X	.001	.001	0	%100
121	M3	X	.003	.003	0	%100
122	M4	X	.001	.001	0	%100
123	M5	X	.004	.004	0	%100
124	M6	X	.001	.001	0	%100
125	M7	X	.004	.004	0	%100
126	M8	X	.001	.001	0	%100
127	M9	X	.003	.003	0	%100
128	M10	X	.001	.001	0	%100
129	M11	X	.001	.001	0	%100
130	M12	X	.003	.003	0	%100
131	M13	X	.004	.004	0	%100
132	M15	X	.004	.004	0	%100
133	M17	X	.004	.004	0	%100
134	M19	X	.004	.004	0	%100
135	M21	X	.002	.002	0	%100
136	M22	X	.002	.002	0	%100
137	M23	X	0	0	0	%100
138	M24	X	0	0	0	%100
139	M25	X	.002	.002	0	%100
140	M26	X	.002	.002	0	%100
141	M27	X	.002	.002	0	%100
142	M29	X	.002	.002	0	%100
143	M30	X	.002	.002	0	%100
144	M31	X	.002	.002	0	%100
145	M32	X	.002	.002	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 22 : Ice Wind Members (30 Deg)) (Continued)**

Member Label	Direction	Start Magnitude(k/ft...	End Magnitude(k/ft F...	Start Location(ft.%)	End Location(ft.%)
146	M33	X	.002	.002	0 %10
147	M31A	X	.002	.002	0 %100
148	M32A	X	.002	.002	0 %100
149	M33A	X	.002	.002	0 %100
150	M34A	X	.002	.002	0 %100
151	M35	X	.004	.004	0 %100
152	M36	X	.004	.004	0 %100
153	M37	X	.004	.004	0 %100
154	M38	X	.004	.004	0 %100
155	M39	X	.004	.004	0 %100
156	M40	X	.004	.004	0 %100
157	M41	X	.004	.004	0 %100
158	M42	X	.004	.004	0 %100
159	M43	X	.004	.004	0 %100
160	M44	X	.004	.004	0 %100
161	M45	X	.004	.004	0 %100
162	M46	X	.004	.004	0 %100
163	M47	X	.004	.004	0 %100
164	M48	X	.004	.004	0 %100
165	M49	X	.004	.004	0 %100
166	M50	X	.004	.004	0 %100
167	M51	X	.004	.004	0 %100
168	M52	X	.004	.004	0 %100
169	M53	X	.004	.004	0 %100
170	M54	X	.004	.004	0 %100
171	M55	X	.004	.004	0 %100
172	M56	X	.004	.004	0 %100
173	M57	X	.004	.004	0 %100
174	M58	X	.004	.004	0 %100
175	M59	X	.004	.004	0 %100
176	M60	X	.004	.004	0 %100
177	M61	X	.004	.004	0 %100
178	M62	X	.004	.004	0 %100
179	M63	X	.004	.004	0 %100
180	M64	X	.004	.004	0 %100
181	M65	X	.004	.004	0 %100
182	M66	X	.004	.004	0 %100
183	M67	X	.004	.004	0 %100
184	M68	X	.004	.004	0 %100
185	M69	X	.004	.004	0 %100
186	M70	X	.004	.004	0 %100
187	M71	X	.004	.004	0 %100
188	M72	X	.004	.004	0 %100
189	M73	X	.004	.004	0 %100
190	M74	X	.004	.004	0 %100
191	M75	X	.004	.004	0 %100
192	M76	X	.004	.004	0 %100
193	M77	X	.004	.004	0 %100
194	M78	X	.004	.004	0 %100
195	M79	X	.004	.004	0 %100
196	M80	X	.004	.004	0 %100
197	M81	X	.004	.004	0 %100
198	M82	X	.004	.004	0 %100
199	M83	X	.001	.001	0 %100
200	M84	X	.001	.001	0 %100
201	M85	X	0	0	0 %100
202	M86	X	0	0	0 %100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 22 : Ice Wind Members (30 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
203	M87	X	.001	.001	0	%100
204	M88	X	.001	.001	0	%100
205	M89	X	0	0	0	%100
206	M90	X	0	0	0	%100
207	M91	X	.002	.002	0	%100
208	M92	X	.002	.002	0	%100
209	M93	X	.002	.002	0	%100
210	M94	X	.002	.002	0	%100
211	M95	X	.002	.002	0	%100
212	M96	X	.002	.002	0	%100
213	M97	X	.002	.002	0	%100
214	M98	X	.002	.002	0	%100
215	M99	X	.002	.002	0	%100
216	M100	X	.002	.002	0	%100
217	M101	X	.002	.002	0	%100
218	M102	X	.002	.002	0	%100
219	M103	X	.002	.002	0	%100
220	M104	X	.001	.001	0	%100
221	M105	X	.001	.001	0	%100
222	M106	X	.002	.002	0	%100
223	M107	X	.002	.002	0	%100
224	M108	X	.001	.001	0	%100
225	M109	X	.001	.001	0	%100
226	M110	X	.002	.002	0	%100
227	M111	X	.002	.002	0	%100
228	M112	X	.001	.001	0	%100
229	M113	X	.001	.001	0	%100
230	M114	X	.002	.002	0	%100
231	M115	X	.002	.002	0	%100
232	M116	X	.001	.001	0	%100
233	M117	X	.001	.001	0	%100
234	M118	X	.002	.002	0	%100
235	M28	X	.002	.002	%19.2	%100
236	M33	X	.002	.002	%90	%100

**Member Distributed Loads (BLC 23 : Ice Wind Members (60 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	-.002	-.002	0	%100
2	M2	Z	-.002	-.002	0	%100
3	M3	Z	-.002	-.002	0	%100
4	M4	Z	-.002	-.002	0	%100
5	M5	Z	-.004	-.004	0	%100
6	M6	Z	-.001	-.001	0	%100
7	M7	Z	-.004	-.004	0	%100
8	M8	Z	-.001	-.001	0	%100
9	M9	Z	-.003	-.003	0	%100
10	M10	Z	-.001	-.001	0	%100
11	M11	Z	-.001	-.001	0	%100
12	M12	Z	-.003	-.003	0	%100
13	M13	Z	-.004	-.004	0	%100
14	M15	Z	-.004	-.004	0	%100
15	M17	Z	-.004	-.004	0	%100
16	M19	Z	-.004	-.004	0	%100
17	M21	Z	-.002	-.002	0	%100
18	M22	Z	-.002	-.002	0	%100
19	M23	Z	-.001	-.001	0	%100





Company : MasTec  
 Designer : RJT  
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**Member Distributed Loads (BLC 23 : Ice Wind Members (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude(k/ft....	End Magnitude(k/ft.F...	Start Location(ft.%1	End Location(ft.%1
20	M24	Z	-001	-001	0	%100
21	M25	Z	-002	-002	0	%10
22	M28	Z	-002	-002	0	%100
23	M29	Z	-002	-002	0	%10
24	M31	Z	-002	-002	0	%100
25	M33	Z	-002	-002	0	%100
26	M34	Z	-002	-002	0	%100
27	M31A	Z	-002	-002	0	%100
28	M32A	Z	-002	-002	0	%100
29	M33A	Z	-002	-002	0	%100
30	M34A	Z	-002	-002	0	%100
31	M35	Z	-004	-004	0	%100
32	M36	Z	-004	-004	0	%100
33	M37	Z	-004	-004	0	%100
34	M38	Z	-004	-004	0	%100
35	M39	Z	-004	-004	0	%100
36	M40	Z	-004	-004	0	%100
37	M41	Z	-004	-004	0	%100
38	M42	Z	-004	-004	0	%100
39	M43	Z	-004	-004	0	%100
40	M44	Z	-004	-004	0	%100
41	M45	Z	-004	-004	0	%100
42	M46	Z	-004	-004	0	%100
43	M47	Z	-004	-004	0	%100
44	M48	Z	-004	-004	0	%100
45	M49	Z	-004	-004	0	%100
46	M50	Z	-004	-004	0	%100
47	M51	Z	-004	-004	0	%100
48	M52	Z	-004	-004	0	%100
49	M53	Z	-004	-004	0	%100
50	M54	Z	-004	-004	0	%100
51	M55	Z	-004	-004	0	%100
52	M56	Z	-004	-004	0	%100
53	M57	Z	-004	-004	0	%100
54	M58	Z	-004	-004	0	%100
55	M59	Z	-004	-004	0	%100
56	M60	Z	-004	-004	0	%100
57	M61	Z	-004	-004	0	%100
58	M62	Z	-004	-004	0	%100
59	M63	Z	-004	-004	0	%100
60	M64	Z	-004	-004	0	%100
61	M65	Z	-004	-004	0	%100
62	M66	Z	-004	-004	0	%100
63	M67	Z	-004	-004	0	%100
64	M68	Z	-004	-004	0	%100
65	M69	Z	-004	-004	0	%100
66	M70	Z	-004	-004	0	%100
67	M71	Z	-004	-004	0	%100
68	M72	Z	-004	-004	0	%100
69	M73	Z	-004	-004	0	%100
70	M74	Z	-004	-004	0	%100
71	M75	Z	-004	-004	0	%100
72	M76	Z	-004	-004	0	%100
73	M77	Z	-004	-004	0	%100
74	M78	Z	-004	-004	0	%100
75	M79	Z	-004	-004	0	%100
76	M80	Z	-004	-004	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 23 : Ice Wind Members (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
77	M81	Z	-004	-004	0	%100
78	M82	Z	-004	-004	0	%100
79	M83	Z	-001	-001	0	%100
80	M84	Z	-001	-001	0	%100
81	M85	Z	0	0	0	%100
82	M86	Z	0	0	0	%100
83	M87	Z	-001	-001	0	%100
84	M88	Z	-001	-001	0	%100
85	M89	Z	0	0	0	%100
86	M90	Z	0	0	0	%100
87	M91	Z	-002	-002	0	%100
88	M92	Z	-002	-002	0	%100
89	M93	Z	-002	-002	0	%100
90	M94	Z	-002	-002	0	%100
91	M95	Z	-002	-002	0	%100
92	M96	Z	-002	-002	0	%100
93	M97	Z	-002	-002	0	%100
94	M98	Z	-002	-002	0	%100
95	M99	Z	-002	-002	0	%100
96	M100	Z	-002	-002	0	%100
97	M101	Z	-002	-002	0	%100
98	M102	Z	-002	-002	0	%100
99	M103	Z	-002	-002	0	%100
100	M104	Z	-001	-001	0	%100
101	M105	Z	-001	-001	0	%100
102	M106	Z	-002	-002	0	%100
103	M107	Z	-002	-002	0	%100
104	M108	Z	-001	-001	0	%100
105	M109	Z	-001	-001	0	%100
106	M110	Z	-002	-002	0	%100
107	M111	Z	-002	-002	0	%100
108	M112	Z	-001	-001	0	%100
109	M113	Z	-001	-001	0	%100
110	M114	Z	-002	-002	0	%100
111	M115	Z	-002	-002	0	%100
112	M116	Z	-001	-001	0	%100
113	M117	Z	-001	-001	0	%100
114	M118	Z	-002	-002	0	%100
115	M25	Z	-002	-002	%90	%100
116	M27	Z	-002	-002	%61	%100
117	M29	Z	-002	-002	%90	%100
118	M32	Z	-002	-002	%60	%100
119	M1	X	.003	.003	0	%100
120	M2	X	.004	.004	0	%100
121	M3	X	.003	.003	0	%100
122	M4	X	.004	.004	0	%100
123	M5	X	.006	.006	0	%100
124	M6	X	.001	.001	0	%100
125	M7	X	.006	.006	0	%100
126	M8	X	.001	.001	0	%100
127	M9	X	.004	.004	0	%100
128	M10	X	.001	.001	0	%100
129	M11	X	.001	.001	0	%100
130	M12	X	.004	.004	0	%100
131	M13	X	.006	.006	0	%100
132	M15	X	.006	.006	0	%100
133	M17	X	.006	.006	0	%100



Company : MasTec  
 Designer : RJT  
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**Member Distributed Loads (BLC 23 : Ice Wind Members (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft. ...	End Magnitude[k/ft. F...	Start Location[ft.%]	End Location[ft.%]
134	M19	X	.006	.006	0	%100
135	M21	X	.003	.003	0	%100
136	M22	X	.003	.003	0	%100
137	M23	X	.002	.002	0	%100
138	M24	X	.002	.002	0	%100
139	M25	X	.004	.004	0	%100
140	M26	X	.004	.004	0	%100
141	M27	X	.004	.004	0	%100
142	M29	X	.004	.004	0	%100
143	M30	X	.004	.004	0	%100
144	M31	X	.004	.004	0	%100
145	M32	X	.004	.004	0	%100
146	M33	X	.004	.004	0	%10
147	M31A	X	.004	.004	0	%100
148	M32A	X	.004	.004	0	%100
149	M33A	X	.004	.004	0	%100
150	M34A	X	.004	.004	0	%100
151	M35	X	.006	.006	0	%100
152	M36	X	.006	.006	0	%100
153	M37	X	.006	.006	0	%100
154	M38	X	.006	.006	0	%100
155	M39	X	.006	.006	0	%100
156	M40	X	.006	.006	0	%100
157	M41	X	.006	.006	0	%100
158	M42	X	.006	.006	0	%100
159	M43	X	.006	.006	0	%100
160	M44	X	.006	.006	0	%100
161	M45	X	.006	.006	0	%100
162	M46	X	.006	.006	0	%100
163	M47	X	.006	.006	0	%100
164	M48	X	.006	.006	0	%100
165	M49	X	.006	.006	0	%100
166	M50	X	.006	.006	0	%100
167	M51	X	.006	.006	0	%100
168	M52	X	.006	.006	0	%100
169	M53	X	.006	.006	0	%100
170	M54	X	.006	.006	0	%100
171	M55	X	.006	.006	0	%100
172	M56	X	.006	.006	0	%100
173	M57	X	.006	.006	0	%100
174	M58	X	.006	.006	0	%100
175	M59	X	.006	.006	0	%100
176	M60	X	.006	.006	0	%100
177	M61	X	.006	.006	0	%100
178	M62	X	.006	.006	0	%100
179	M63	X	.006	.006	0	%100
180	M64	X	.006	.006	0	%100
181	M65	X	.006	.006	0	%100
182	M66	X	.006	.006	0	%100
183	M67	X	.006	.006	0	%100
184	M68	X	.006	.006	0	%100
185	M69	X	.006	.006	0	%100
186	M70	X	.006	.006	0	%100
187	M71	X	.006	.006	0	%100
188	M72	X	.006	.006	0	%100
189	M73	X	.006	.006	0	%100
190	M74	X	.006	.006	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 23 : Ice Wind Members (60 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
191	M75	X	.006	.006	0	%100
192	M76	X	.006	.006	0	%100
193	M77	X	.006	.006	0	%100
194	M78	X	.006	.006	0	%100
195	M79	X	.006	.006	0	%100
196	M80	X	.006	.006	0	%100
197	M81	X	.006	.006	0	%100
198	M82	X	.006	.006	0	%100
199	M83	X	.003	.003	0	%100
200	M84	X	.003	.003	0	%100
201	M85	X	0	0	0	%100
202	M86	X	0	0	0	%100
203	M87	X	.003	.003	0	%100
204	M88	X	.003	.003	0	%100
205	M89	X	0	0	0	%100
206	M90	X	0	0	0	%100
207	M91	X	.004	.004	0	%100
208	M92	X	.004	.004	0	%100
209	M93	X	.004	.004	0	%100
210	M94	X	.004	.004	0	%100
211	M95	X	.004	.004	0	%100
212	M96	X	.004	.004	0	%100
213	M97	X	.004	.004	0	%100
214	M98	X	.004	.004	0	%100
215	M99	X	.004	.004	0	%100
216	M100	X	.004	.004	0	%100
217	M101	X	.004	.004	0	%100
218	M102	X	.004	.004	0	%100
219	M103	X	.003	.003	0	%100
220	M104	X	.002	.002	0	%100
221	M105	X	.002	.002	0	%100
222	M106	X	.003	.003	0	%100
223	M107	X	.003	.003	0	%100
224	M108	X	.002	.002	0	%100
225	M109	X	.002	.002	0	%100
226	M110	X	.003	.003	0	%100
227	M111	X	.003	.003	0	%100
228	M112	X	.002	.002	0	%100
229	M113	X	.002	.002	0	%100
230	M114	X	.003	.003	0	%100
231	M115	X	.003	.003	0	%100
232	M116	X	.002	.002	0	%100
233	M117	X	.002	.002	0	%100
234	M118	X	.003	.003	0	%100
235	M28	X	.004	.004	%19.2	%100
236	M33	X	.004	.004	%90	%100

**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	0	0	0	%100
2	M2	Z	0	0	0	%100
3	M3	Z	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M5	Z	0	0	0	%100
6	M6	Z	0	0	0	%100
7	M7	Z	0	0	0	%100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
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**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude(k/ft. ...)	End Magnitude(k/ft. F...	Start Location(ft. %)	End Location(ft. %)
8	M8	Z	0	0	0	%100
9	M9	Z	0	0	0	%100
10	M10	Z	0	0	0	%100
11	M11	Z	0	0	0	%100
12	M12	Z	0	0	0	%100
13	M13	Z	0	0	0	%100
14	M15	Z	0	0	0	%100
15	M17	Z	0	0	0	%100
16	M19	Z	0	0	0	%100
17	M21	Z	0	0	0	%100
18	M22	Z	0	0	0	%100
19	M23	Z	0	0	0	%100
20	M24	Z	0	0	0	%100
21	M25	Z	0	0	0	%10
22	M28	Z	0	0	0	%100
23	M29	Z	0	0	0	%10
24	M31	Z	0	0	0	%100
25	M33	Z	0	0	0	%100
26	M34	Z	0	0	0	%100
27	M31A	Z	0	0	0	%100
28	M32A	Z	0	0	0	%100
29	M33A	Z	0	0	0	%100
30	M34A	Z	0	0	0	%100
31	M35	Z	0	0	0	%100
32	M36	Z	0	0	0	%100
33	M37	Z	0	0	0	%100
34	M38	Z	0	0	0	%100
35	M39	Z	0	0	0	%100
36	M40	Z	0	0	0	%100
37	M41	Z	0	0	0	%100
38	M42	Z	0	0	0	%100
39	M43	Z	0	0	0	%100
40	M44	Z	0	0	0	%100
41	M45	Z	0	0	0	%100
42	M46	Z	0	0	0	%100
43	M47	Z	0	0	0	%100
44	M48	Z	0	0	0	%100
45	M49	Z	0	0	0	%100
46	M50	Z	0	0	0	%100
47	M51	Z	0	0	0	%100
48	M52	Z	0	0	0	%100
49	M53	Z	0	0	0	%100
50	M54	Z	0	0	0	%100
51	M55	Z	0	0	0	%100
52	M56	Z	0	0	0	%100
53	M57	Z	0	0	0	%100
54	M58	Z	0	0	0	%100
55	M59	Z	0	0	0	%100
56	M60	Z	0	0	0	%100
57	M61	Z	0	0	0	%100
58	M62	Z	0	0	0	%100
59	M63	Z	0	0	0	%100
60	M64	Z	0	0	0	%100
61	M65	Z	0	0	0	%100
62	M66	Z	0	0	0	%100
63	M67	Z	0	0	0	%100
64	M68	Z	0	0	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
65	M69	Z	0	0	%100
66	M70	Z	0	0	%100
67	M71	Z	0	0	%100
68	M72	Z	0	0	%100
69	M73	Z	0	0	%100
70	M74	Z	0	0	%100
71	M75	Z	0	0	%100
72	M76	Z	0	0	%100
73	M77	Z	0	0	%100
74	M78	Z	0	0	%100
75	M79	Z	0	0	%100
76	M80	Z	0	0	%100
77	M81	Z	0	0	%100
78	M82	Z	0	0	%100
79	M83	Z	0	0	%100
80	M84	Z	0	0	%100
81	M85	Z	0	0	%100
82	M86	Z	0	0	%100
83	M87	Z	0	0	%100
84	M88	Z	0	0	%100
85	M89	Z	0	0	%100
86	M90	Z	0	0	%100
87	M91	Z	0	0	%100
88	M92	Z	0	0	%100
89	M93	Z	0	0	%100
90	M94	Z	0	0	%100
91	M95	Z	0	0	%100
92	M96	Z	0	0	%100
93	M97	Z	0	0	%100
94	M98	Z	0	0	%100
95	M99	Z	0	0	%100
96	M100	Z	0	0	%100
97	M101	Z	0	0	%100
98	M102	Z	0	0	%100
99	M103	Z	0	0	%100
100	M104	Z	0	0	%100
101	M105	Z	0	0	%100
102	M106	Z	0	0	%100
103	M107	Z	0	0	%100
104	M108	Z	0	0	%100
105	M109	Z	0	0	%100
106	M110	Z	0	0	%100
107	M111	Z	0	0	%100
108	M112	Z	0	0	%100
109	M113	Z	0	0	%100
110	M114	Z	0	0	%100
111	M115	Z	0	0	%100
112	M116	Z	0	0	%100
113	M117	Z	0	0	%100
114	M118	Z	0	0	%100
115	M25	Z	0	0	%90
116	M27	Z	0	0	%61
117	M29	Z	0	0	%90
118	M32	Z	0	0	%60
119	M1	X	.002	.002	0
120	M2	X	.006	.006	0
121	M3	X	.002	.002	0



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
122	M4	X	.006	.006	0 %100
123	M5	X	.004	.004	0 %100
124	M6	X	.004	.004	0 %100
125	M7	X	.004	.004	0 %100
126	M8	X	.004	.004	0 %100
127	M9	X	.003	.003	0 %100
128	M10	X	.003	.003	0 %100
129	M11	X	.003	.003	0 %100
130	M12	X	.003	.003	0 %100
131	M13	X	.007	.007	0 %100
132	M15	X	.007	.007	0 %100
133	M17	X	.007	.007	0 %100
134	M19	X	.007	.007	0 %100
135	M21	X	.002	.002	0 %100
136	M22	X	.002	.002	0 %100
137	M23	X	.003	.003	0 %100
138	M24	X	.003	.003	0 %100
139	M25	X	.004	.004	0 %100
140	M26	X	.004	.004	0 %100
141	M27	X	.004	.004	0 %100
142	M29	X	.004	.004	0 %100
143	M30	X	.004	.004	0 %100
144	M31	X	.004	.004	0 %100
145	M32	X	.004	.004	0 %100
146	M33	X	.004	.004	0 %100
147	M31A	X	.005	.005	0 %100
148	M32A	X	.005	.005	0 %100
149	M33A	X	.005	.005	0 %100
150	M34A	X	.005	.005	0 %100
151	M35	X	.007	.007	0 %100
152	M36	X	.007	.007	0 %100
153	M37	X	.007	.007	0 %100
154	M38	X	.007	.007	0 %100
155	M39	X	.007	.007	0 %100
156	M40	X	.007	.007	0 %100
157	M41	X	.007	.007	0 %100
158	M42	X	.007	.007	0 %100
159	M43	X	.007	.007	0 %100
160	M44	X	.007	.007	0 %100
161	M45	X	.007	.007	0 %100
162	M46	X	.007	.007	0 %100
163	M47	X	.007	.007	0 %100
164	M48	X	.007	.007	0 %100
165	M49	X	.007	.007	0 %100
166	M50	X	.007	.007	0 %100
167	M51	X	.007	.007	0 %100
168	M52	X	.007	.007	0 %100
169	M53	X	.007	.007	0 %100
170	M54	X	.007	.007	0 %100
171	M55	X	.007	.007	0 %100
172	M56	X	.007	.007	0 %100
173	M57	X	.007	.007	0 %100
174	M58	X	.007	.007	0 %100
175	M59	X	.007	.007	0 %100
176	M60	X	.007	.007	0 %100
177	M61	X	.007	.007	0 %100
178	M62	X	.007	.007	0 %100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft. ...	End Magnitude[k/ft. F...	Start Location[ft.%]	End Location[ft.%]
179	M63	X	.007	.007	0	%100
180	M64	X	.007	.007	0	%100
181	M65	X	.007	.007	0	%100
182	M66	X	.007	.007	0	%100
183	M67	X	.007	.007	0	%100
184	M68	X	.007	.007	0	%100
185	M69	X	.007	.007	0	%100
186	M70	X	.007	.007	0	%100
187	M71	X	.007	.007	0	%100
188	M72	X	.007	.007	0	%100
189	M73	X	.007	.007	0	%100
190	M74	X	.007	.007	0	%100
191	M75	X	.007	.007	0	%100
192	M76	X	.007	.007	0	%100
193	M77	X	.007	.007	0	%100
194	M78	X	.007	.007	0	%100
195	M79	X	.007	.007	0	%100
196	M80	X	.007	.007	0	%100
197	M81	X	.007	.007	0	%100
198	M82	X	.007	.007	0	%100
199	M83	X	.003	.003	0	%100
200	M84	X	.003	.003	0	%100
201	M85	X	0	0	0	%100
202	M86	X	0	0	0	%100
203	M87	X	.003	.003	0	%100
204	M88	X	.003	.003	0	%100
205	M89	X	0	0	0	%100
206	M90	X	0	0	0	%100
207	M91	X	.005	.005	0	%100
208	M92	X	.005	.005	0	%100
209	M93	X	.005	.005	0	%100
210	M94	X	.005	.005	0	%100
211	M95	X	.005	.005	0	%100
212	M96	X	.005	.005	0	%100
213	M97	X	.005	.005	0	%100
214	M98	X	.005	.005	0	%100
215	M99	X	.005	.005	0	%100
216	M100	X	.005	.005	0	%100
217	M101	X	.005	.005	0	%100
218	M102	X	.005	.005	0	%100
219	M103	X	.004	.004	0	%100
220	M104	X	.002	.002	0	%100
221	M105	X	.002	.002	0	%100
222	M106	X	.004	.004	0	%100
223	M107	X	.004	.004	0	%100
224	M108	X	.002	.002	0	%100
225	M109	X	.002	.002	0	%100
226	M110	X	.004	.004	0	%100
227	M111	X	.004	.004	0	%100
228	M112	X	.002	.002	0	%100
229	M113	X	.002	.002	0	%100
230	M114	X	.004	.004	0	%100
231	M115	X	.004	.004	0	%100
232	M116	X	.002	.002	0	%100
233	M117	X	.002	.002	0	%100
234	M118	X	.004	.004	0	%100
235	M28	X	.004	.004	%19.2	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 24 : Ice Wind Members (90 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
236	M33	X	.004	.004	%90 %100

**Member Distributed Loads (BLC 25 : Ice Wind Members (120 Deg))**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	.002	.002	0 %100
2	M2	Z	.002	.002	0 %100
3	M3	Z	.002	.002	0 %100
4	M4	Z	.002	.002	0 %100
5	M5	Z	.001	.001	0 %100
6	M6	Z	.004	.004	0 %100
7	M7	Z	.001	.001	0 %100
8	M8	Z	.004	.004	0 %100
9	M9	Z	.001	.001	0 %100
10	M10	Z	.003	.003	0 %100
11	M11	Z	.003	.003	0 %100
12	M12	Z	.001	.001	0 %100
13	M13	Z	.004	.004	0 %100
14	M15	Z	.004	.004	0 %100
15	M17	Z	.004	.004	0 %100
16	M19	Z	.004	.004	0 %100
17	M21	Z	.002	.002	0 %100
18	M22	Z	.002	.002	0 %100
19	M23	Z	.001	.001	0 %100
20	M24	Z	.001	.001	0 %100
21	M25	Z	.002	.002	0 %10
22	M28	Z	.002	.002	0 %100
23	M29	Z	.002	.002	0 %10
24	M31	Z	.002	.002	0 %100
25	M33	Z	.002	.002	0 %100
26	M34	Z	.002	.002	0 %100
27	M31A	Z	.002	.002	0 %100
28	M32A	Z	.002	.002	0 %100
29	M33A	Z	.002	.002	0 %100
30	M34A	Z	.002	.002	0 %100
31	M35	Z	.004	.004	0 %100
32	M36	Z	.004	.004	0 %100
33	M37	Z	.004	.004	0 %100
34	M38	Z	.004	.004	0 %100
35	M39	Z	.004	.004	0 %100
36	M40	Z	.004	.004	0 %100
37	M41	Z	.004	.004	0 %100
38	M42	Z	.004	.004	0 %100
39	M43	Z	.004	.004	0 %100
40	M44	Z	.004	.004	0 %100
41	M45	Z	.004	.004	0 %100
42	M46	Z	.004	.004	0 %100
43	M47	Z	.004	.004	0 %100
44	M48	Z	.004	.004	0 %100
45	M49	Z	.004	.004	0 %100
46	M50	Z	.004	.004	0 %100
47	M51	Z	.004	.004	0 %100
48	M52	Z	.004	.004	0 %100
49	M53	Z	.004	.004	0 %100
50	M54	Z	.004	.004	0 %100
51	M55	Z	.004	.004	0 %100
52	M56	Z	.004	.004	0 %100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 25 : Ice Wind Members (120 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft...	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
53	M57	Z	.004	.004	0 %100
54	M58	Z	.004	.004	0 %100
55	M59	Z	.004	.004	0 %100
56	M60	Z	.004	.004	0 %100
57	M61	Z	.004	.004	0 %100
58	M62	Z	.004	.004	0 %100
59	M63	Z	.004	.004	0 %100
60	M64	Z	.004	.004	0 %100
61	M65	Z	.004	.004	0 %100
62	M66	Z	.004	.004	0 %100
63	M67	Z	.004	.004	0 %100
64	M68	Z	.004	.004	0 %100
65	M69	Z	.004	.004	0 %100
66	M70	Z	.004	.004	0 %100
67	M71	Z	.004	.004	0 %100
68	M72	Z	.004	.004	0 %100
69	M73	Z	.004	.004	0 %100
70	M74	Z	.004	.004	0 %100
71	M75	Z	.004	.004	0 %100
72	M76	Z	.004	.004	0 %100
73	M77	Z	.004	.004	0 %100
74	M78	Z	.004	.004	0 %100
75	M79	Z	.004	.004	0 %100
76	M80	Z	.004	.004	0 %100
77	M81	Z	.004	.004	0 %100
78	M82	Z	.004	.004	0 %100
79	M83	Z	.001	.001	0 %100
80	M84	Z	.001	.001	0 %100
81	M85	Z	0	0	0 %100
82	M86	Z	0	0	0 %100
83	M87	Z	.001	.001	0 %100
84	M88	Z	.001	.001	0 %100
85	M89	Z	0	0	0 %100
86	M90	Z	0	0	0 %100
87	M91	Z	.002	.002	0 %100
88	M92	Z	.002	.002	0 %100
89	M93	Z	.002	.002	0 %100
90	M94	Z	.002	.002	0 %100
91	M95	Z	.002	.002	0 %100
92	M96	Z	.002	.002	0 %100
93	M97	Z	.002	.002	0 %100
94	M98	Z	.002	.002	0 %100
95	M99	Z	.002	.002	0 %100
96	M100	Z	.002	.002	0 %100
97	M101	Z	.002	.002	0 %100
98	M102	Z	.002	.002	0 %100
99	M103	Z	.002	.002	0 %100
100	M104	Z	.001	.001	0 %100
101	M105	Z	.001	.001	0 %100
102	M106	Z	.002	.002	0 %100
103	M107	Z	.002	.002	0 %100
104	M108	Z	.001	.001	0 %100
105	M109	Z	.001	.001	0 %100
106	M110	Z	.002	.002	0 %100
107	M111	Z	.002	.002	0 %100
108	M112	Z	.001	.001	0 %100
109	M113	Z	.001	.001	0 %100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 25 : Ice Wind Members (120 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
110	M114	Z	.002	.002	0 %100
111	M115	Z	.002	.002	0 %100
112	M116	Z	.001	.001	0 %100
113	M117	Z	.001	.001	0 %100
114	M118	Z	.002	.002	0 %100
115	M25	Z	.002	.002	%90 %100
116	M27	Z	.002	.002	%61 %100
117	M29	Z	.002	.002	%90 %100
118	M32	Z	.002	.002	%60 %100
119	M1	X	.003	.003	0 %100
120	M2	X	.004	.004	0 %100
121	M3	X	.003	.003	0 %100
122	M4	X	.004	.004	0 %100
123	M5	X	.001	.001	0 %100
124	M6	X	.006	.006	0 %100
125	M7	X	.001	.001	0 %100
126	M8	X	.006	.006	0 %100
127	M9	X	.001	.001	0 %100
128	M10	X	.004	.004	0 %100
129	M11	X	.004	.004	0 %100
130	M12	X	.001	.001	0 %100
131	M13	X	.006	.006	0 %100
132	M15	X	.006	.006	0 %100
133	M17	X	.006	.006	0 %100
134	M19	X	.006	.006	0 %100
135	M21	X	.003	.003	0 %100
136	M22	X	.003	.003	0 %100
137	M23	X	.002	.002	0 %100
138	M24	X	.002	.002	0 %100
139	M25	X	.004	.004	0 %100
140	M26	X	.004	.004	0 %100
141	M27	X	.004	.004	0 %100
142	M29	X	.004	.004	0 %100
143	M30	X	.004	.004	0 %100
144	M31	X	.004	.004	0 %100
145	M32	X	.004	.004	0 %100
146	M33	X	.004	.004	0 %10
147	M31A	X	.004	.004	0 %100
148	M32A	X	.004	.004	0 %100
149	M33A	X	.004	.004	0 %100
150	M34A	X	.004	.004	0 %100
151	M35	X	.006	.006	0 %100
152	M36	X	.006	.006	0 %100
153	M37	X	.006	.006	0 %100
154	M38	X	.006	.006	0 %100
155	M39	X	.006	.006	0 %100
156	M40	X	.006	.006	0 %100
157	M41	X	.006	.006	0 %100
158	M42	X	.006	.006	0 %100
159	M43	X	.006	.006	0 %100
160	M44	X	.006	.006	0 %100
161	M45	X	.006	.006	0 %100
162	M46	X	.006	.006	0 %100
163	M47	X	.006	.006	0 %100
164	M48	X	.006	.006	0 %100
165	M49	X	.006	.006	0 %100
166	M50	X	.006	.006	0 %100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 25 : Ice Wind Members (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.E...	Start Location[ft.%]	End Location[ft.%]
167	M51	X	.006	.006	0	%100
168	M52	X	.006	.006	0	%100
169	M53	X	.006	.006	0	%100
170	M54	X	.006	.006	0	%100
171	M55	X	.006	.006	0	%100
172	M56	X	.006	.006	0	%100
173	M57	X	.006	.006	0	%100
174	M58	X	.006	.006	0	%100
175	M59	X	.006	.006	0	%100
176	M60	X	.006	.006	0	%100
177	M61	X	.006	.006	0	%100
178	M62	X	.006	.006	0	%100
179	M63	X	.006	.006	0	%100
180	M64	X	.006	.006	0	%100
181	M65	X	.006	.006	0	%100
182	M66	X	.006	.006	0	%100
183	M67	X	.006	.006	0	%100
184	M68	X	.006	.006	0	%100
185	M69	X	.006	.006	0	%100
186	M70	X	.006	.006	0	%100
187	M71	X	.006	.006	0	%100
188	M72	X	.006	.006	0	%100
189	M73	X	.006	.006	0	%100
190	M74	X	.006	.006	0	%100
191	M75	X	.006	.006	0	%100
192	M76	X	.006	.006	0	%100
193	M77	X	.006	.006	0	%100
194	M78	X	.006	.006	0	%100
195	M79	X	.006	.006	0	%100
196	M80	X	.006	.006	0	%100
197	M81	X	.006	.006	0	%100
198	M82	X	.006	.006	0	%100
199	M83	X	.003	.003	0	%100
200	M84	X	.003	.003	0	%100
201	M85	X	0	0	0	%100
202	M86	X	0	0	0	%100
203	M87	X	.003	.003	0	%100
204	M88	X	.003	.003	0	%100
205	M89	X	0	0	0	%100
206	M90	X	0	0	0	%100
207	M91	X	.004	.004	0	%100
208	M92	X	.004	.004	0	%100
209	M93	X	.004	.004	0	%100
210	M94	X	.004	.004	0	%100
211	M95	X	.004	.004	0	%100
212	M96	X	.004	.004	0	%100
213	M97	X	.004	.004	0	%100
214	M98	X	.004	.004	0	%100
215	M99	X	.004	.004	0	%100
216	M100	X	.004	.004	0	%100
217	M101	X	.004	.004	0	%100
218	M102	X	.004	.004	0	%100
219	M103	X	.003	.003	0	%100
220	M104	X	.002	.002	0	%100
221	M105	X	.002	.002	0	%100
222	M106	X	.003	.003	0	%100
223	M107	X	.003	.003	0	%100





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
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**Member Distributed Loads (BLC 25 : Ice Wind Members (120 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
224	M108	X	.002	.002	0	%100
225	M109	X	.002	.002	0	%100
226	M110	X	.003	.003	0	%100
227	M111	X	.003	.003	0	%100
228	M112	X	.002	.002	0	%100
229	M113	X	.002	.002	0	%100
230	M114	X	.003	.003	0	%100
231	M115	X	.003	.003	0	%100
232	M116	X	.002	.002	0	%100
233	M117	X	.002	.002	0	%100
234	M118	X	.003	.003	0	%100
235	M28	X	.004	.004	%19.2	%100
236	M33	X	.004	.004	%90	%100

**Member Distributed Loads (BLC 26 : Ice Wind Members (150 Deg))**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Z	.006	.006	0	%100
2	M2	Z	.001	.001	0	%100
3	M3	Z	.006	.006	0	%100
4	M4	Z	.001	.001	0	%100
5	M5	Z	.001	.001	0	%100
6	M6	Z	.006	.006	0	%100
7	M7	Z	.001	.001	0	%100
8	M8	Z	.006	.006	0	%100
9	M9	Z	.001	.001	0	%100
10	M10	Z	.004	.004	0	%100
11	M11	Z	.004	.004	0	%100
12	M12	Z	.001	.001	0	%100
13	M13	Z	.006	.006	0	%100
14	M15	Z	.006	.006	0	%100
15	M17	Z	.006	.006	0	%100
16	M19	Z	.006	.006	0	%100
17	M21	Z	.004	.004	0	%100
18	M22	Z	.004	.004	0	%100
19	M23	Z	.001	.001	0	%100
20	M24	Z	.001	.001	0	%100
21	M25	Z	.004	.004	0	%10
22	M28	Z	.004	.004	0	%100
23	M29	Z	.004	.004	0	%10
24	M31	Z	.004	.004	0	%100
25	M33	Z	.004	.004	0	%100
26	M34	Z	.004	.004	0	%100
27	M31A	Z	.004	.004	0	%100
28	M32A	Z	.004	.004	0	%100
29	M33A	Z	.004	.004	0	%100
30	M34A	Z	.004	.004	0	%100
31	M35	Z	.006	.006	0	%100
32	M36	Z	.006	.006	0	%100
33	M37	Z	.006	.006	0	%100
34	M38	Z	.006	.006	0	%100
35	M39	Z	.006	.006	0	%100
36	M40	Z	.006	.006	0	%100
37	M41	Z	.006	.006	0	%100
38	M42	Z	.006	.006	0	%100
39	M43	Z	.006	.006	0	%100
40	M44	Z	.006	.006	0	%100



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 26 : Ice Wind Members (150 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
41	M45	Z	.006	.006	0 %100
42	M46	Z	.006	.006	0 %100
43	M47	Z	.006	.006	0 %100
44	M48	Z	.006	.006	0 %100
45	M49	Z	.006	.006	0 %100
46	M50	Z	.006	.006	0 %100
47	M51	Z	.006	.006	0 %100
48	M52	Z	.006	.006	0 %100
49	M53	Z	.006	.006	0 %100
50	M54	Z	.006	.006	0 %100
51	M55	Z	.006	.006	0 %100
52	M56	Z	.006	.006	0 %100
53	M57	Z	.006	.006	0 %100
54	M58	Z	.006	.006	0 %100
55	M59	Z	.006	.006	0 %100
56	M60	Z	.006	.006	0 %100
57	M61	Z	.006	.006	0 %100
58	M62	Z	.006	.006	0 %100
59	M63	Z	.006	.006	0 %100
60	M64	Z	.006	.006	0 %100
61	M65	Z	.006	.006	0 %100
62	M66	Z	.006	.006	0 %100
63	M67	Z	.006	.006	0 %100
64	M68	Z	.006	.006	0 %100
65	M69	Z	.006	.006	0 %100
66	M70	Z	.006	.006	0 %100
67	M71	Z	.006	.006	0 %100
68	M72	Z	.006	.006	0 %100
69	M73	Z	.006	.006	0 %100
70	M74	Z	.006	.006	0 %100
71	M75	Z	.006	.006	0 %100
72	M76	Z	.006	.006	0 %100
73	M77	Z	.006	.006	0 %100
74	M78	Z	.006	.006	0 %100
75	M79	Z	.006	.006	0 %100
76	M80	Z	.006	.006	0 %100
77	M81	Z	.006	.006	0 %100
78	M82	Z	.006	.006	0 %100
79	M83	Z	.003	.003	0 %100
80	M84	Z	.003	.003	0 %100
81	M85	Z	0	0	0 %100
82	M86	Z	0	0	0 %100
83	M87	Z	.003	.003	0 %100
84	M88	Z	.003	.003	0 %100
85	M89	Z	0	0	0 %100
86	M90	Z	0	0	0 %100
87	M91	Z	.004	.004	0 %100
88	M92	Z	.004	.004	0 %100
89	M93	Z	.004	.004	0 %100
90	M94	Z	.004	.004	0 %100
91	M95	Z	.004	.004	0 %100
92	M96	Z	.004	.004	0 %100
93	M97	Z	.004	.004	0 %100
94	M98	Z	.004	.004	0 %100
95	M99	Z	.004	.004	0 %100
96	M100	Z	.004	.004	0 %100
97	M101	Z	.004	.004	0 %100



Company : MasTec  
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**Member Distributed Loads (BLC 26 : Ice Wind Members (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Locationft.%1	End Locationft.%1
98	M102	Z	.004	.004	0	%100
99	M103	Z	.003	.003	0	%100
100	M104	Z	.002	.002	0	%100
101	M105	Z	.002	.002	0	%100
102	M106	Z	.003	.003	0	%100
103	M107	Z	.003	.003	0	%100
104	M108	Z	.002	.002	0	%100
105	M109	Z	.002	.002	0	%100
106	M110	Z	.003	.003	0	%100
107	M111	Z	.003	.003	0	%100
108	M112	Z	.002	.002	0	%100
109	M113	Z	.002	.002	0	%100
110	M114	Z	.003	.003	0	%100
111	M115	Z	.003	.003	0	%100
112	M116	Z	.002	.002	0	%100
113	M117	Z	.002	.002	0	%100
114	M118	Z	.003	.003	0	%100
115	M25	Z	.004	.004	%90	%100
116	M27	Z	.004	.004	%61	%100
117	M29	Z	.004	.004	%90	%100
118	M32	Z	.004	.004	%60	%100
119	M1	X	.003	.003	0	%100
120	M2	X	.001	.001	0	%100
121	M3	X	.003	.003	0	%100
122	M4	X	.001	.001	0	%100
123	M5	X	.001	.001	0	%100
124	M6	X	.004	.004	0	%100
125	M7	X	.001	.001	0	%100
126	M8	X	.004	.004	0	%100
127	M9	X	.001	.001	0	%100
128	M10	X	.003	.003	0	%100
129	M11	X	.003	.003	0	%100
130	M12	X	.001	.001	0	%100
131	M13	X	.004	.004	0	%100
132	M15	X	.004	.004	0	%100
133	M17	X	.004	.004	0	%100
134	M19	X	.004	.004	0	%100
135	M21	X	.002	.002	0	%100
136	M22	X	.002	.002	0	%100
137	M23	X	0	0	0	%100
138	M24	X	0	0	0	%100
139	M25	X	.002	.002	0	%100
140	M26	X	.002	.002	0	%100
141	M27	X	.002	.002	0	%100
142	M29	X	.002	.002	0	%100
143	M30	X	.002	.002	0	%100
144	M31	X	.002	.002	0	%100
145	M32	X	.002	.002	0	%100
146	M33	X	.002	.002	0	%10
147	M31A	X	.002	.002	0	%100
148	M32A	X	.002	.002	0	%100
149	M33A	X	.002	.002	0	%100
150	M34A	X	.002	.002	0	%100
151	M35	X	.004	.004	0	%100
152	M36	X	.004	.004	0	%100
153	M37	X	.004	.004	0	%100
154	M38	X	.004	.004	0	%100



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**Member Distributed Loads (BLC 26 : Ice Wind Members (150 Deg)) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
155	M39	X	.004	.004	0 %100
156	M40	X	.004	.004	0 %100
157	M41	X	.004	.004	0 %100
158	M42	X	.004	.004	0 %100
159	M43	X	.004	.004	0 %100
160	M44	X	.004	.004	0 %100
161	M45	X	.004	.004	0 %100
162	M46	X	.004	.004	0 %100
163	M47	X	.004	.004	0 %100
164	M48	X	.004	.004	0 %100
165	M49	X	.004	.004	0 %100
166	M50	X	.004	.004	0 %100
167	M51	X	.004	.004	0 %100
168	M52	X	.004	.004	0 %100
169	M53	X	.004	.004	0 %100
170	M54	X	.004	.004	0 %100
171	M55	X	.004	.004	0 %100
172	M56	X	.004	.004	0 %100
173	M57	X	.004	.004	0 %100
174	M58	X	.004	.004	0 %100
175	M59	X	.004	.004	0 %100
176	M60	X	.004	.004	0 %100
177	M61	X	.004	.004	0 %100
178	M62	X	.004	.004	0 %100
179	M63	X	.004	.004	0 %100
180	M64	X	.004	.004	0 %100
181	M65	X	.004	.004	0 %100
182	M66	X	.004	.004	0 %100
183	M67	X	.004	.004	0 %100
184	M68	X	.004	.004	0 %100
185	M69	X	.004	.004	0 %100
186	M70	X	.004	.004	0 %100
187	M71	X	.004	.004	0 %100
188	M72	X	.004	.004	0 %100
189	M73	X	.004	.004	0 %100
190	M74	X	.004	.004	0 %100
191	M75	X	.004	.004	0 %100
192	M76	X	.004	.004	0 %100
193	M77	X	.004	.004	0 %100
194	M78	X	.004	.004	0 %100
195	M79	X	.004	.004	0 %100
196	M80	X	.004	.004	0 %100
197	M81	X	.004	.004	0 %100
198	M82	X	.004	.004	0 %100
199	M83	X	.001	.001	0 %100
200	M84	X	.001	.001	0 %100
201	M85	X	0	0	0 %100
202	M86	X	0	0	0 %100
203	M87	X	.001	.001	0 %100
204	M88	X	.001	.001	0 %100
205	M89	X	0	0	0 %100
206	M90	X	0	0	0 %100
207	M91	X	.002	.002	0 %100
208	M92	X	.002	.002	0 %100
209	M93	X	.002	.002	0 %100
210	M94	X	.002	.002	0 %100
211	M95	X	.002	.002	0 %100





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 Designer : RJT  
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**Member Distributed Loads (BLC 26 : Ice Wind Members (150 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft. ...	End Magnitude[k/ft. F...	Start Location[ft. %]	End Location[ft. %]
212	M96	X	.002	.002	0	%100
213	M97	X	.002	.002	0	%100
214	M98	X	.002	.002	0	%100
215	M99	X	.002	.002	0	%100
216	M100	X	.002	.002	0	%100
217	M101	X	.002	.002	0	%100
218	M102	X	.002	.002	0	%100
219	M103	X	.002	.002	0	%100
220	M104	X	.001	.001	0	%100
221	M105	X	.001	.001	0	%100
222	M106	X	.002	.002	0	%100
223	M107	X	.002	.002	0	%100
224	M108	X	.001	.001	0	%100
225	M109	X	.001	.001	0	%100
226	M110	X	.002	.002	0	%100
227	M111	X	.002	.002	0	%100
228	M112	X	.001	.001	0	%100
229	M113	X	.001	.001	0	%100
230	M114	X	.002	.002	0	%100
231	M115	X	.002	.002	0	%100
232	M116	X	.001	.001	0	%100
233	M117	X	.001	.001	0	%100
234	M118	X	.002	.002	0	%100
235	M28	X	.002	.002	%19.2	%100
236	M33	X	.002	.002	%90	%100

**Member Distributed Loads (BLC 48 : BLC 1 Transient Area Loads)**

	Member Label	Direction	Start Magnitude[k/ft. ...	End Magnitude[k/ft. F...	Start Location[ft. %]	End Location[ft. %]
1	M1	Y	-.000318	-.005	0	2.06
2	M1	Y	-.005	-.006	2.06	4.119
3	M1	Y	-.006	-.003	4.119	6.179
4	M1	Y	-.003	-.003	6.179	8.238
5	M1	Y	-.003	-.006	8.238	10.298
6	M1	Y	-.006	-.005	10.298	12.357
7	M1	Y	-.005	-.000318	12.357	14.417
8	M9	Y	-.006	-.009	5.009	6.01
9	M9	Y	-.009	-.01	6.01	7.012
10	M9	Y	-.01	-.01	7.012	8.014
11	M9	Y	-.01	-.007	8.014	9.016
12	M9	Y	-.007	-.0004102	9.016	10.017
13	M10	Y	-.007	-.008	5.009	6.01
14	M10	Y	-.008	-.009	6.01	7.012
15	M10	Y	-.009	-.009	7.012	8.014
16	M10	Y	-.009	-.007	8.014	9.016
17	M10	Y	-.007	-.003	9.016	10.017
18	M21	Y	-.001	-.003	.667	1.733
19	M21	Y	-.003	-.006	1.733	2.8
20	M21	Y	-.006	-.006	2.8	3.867
21	M21	Y	-.006	-.003	3.867	4.933
22	M21	Y	-.003	-.001	4.933	6
23	M109	Y	.002	.002	0	.083
24	M109	Y	.002	.000436	.083	.167
25	M109	Y	.000436	-.019	.167	.25
26	M109	Y	-.019	-.058	.25	.334
27	M110	Y	.0009358	-.004	0	.064
28	M110	Y	-.004	-.012	.064	.128



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 48 : BLC 1 Transient Area Loads) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
29	M111	Y	.0009358	-.004	0	.064
30	M111	Y	-.004	-.012	.064	.128
31	M112	Y	.002	.002	0	.083
32	M112	Y	.002	.0004267	.083	.167
33	M112	Y	.0004267	-.019	.167	.25
34	M112	Y	-.019	-.058	.25	.334
35	M2	Y	-.000318	-.005	0	2.06
36	M2	Y	-.005	-.006	2.06	4.119
37	M2	Y	-.006	-.003	4.119	6.179
38	M2	Y	-.003	-.003	6.179	8.238
39	M2	Y	-.003	-.006	8.238	10.298
40	M2	Y	-.006	-.005	10.298	12.357
41	M2	Y	-.005	-.000318	12.357	14.417
42	M10	Y	-.0004102	-.007	0	1.002
43	M10	Y	-.007	-.01	1.002	2.003
44	M10	Y	-.01	-.01	2.003	3.005
45	M10	Y	-.01	-.009	3.005	4.007
46	M10	Y	-.009	-.006	4.007	5.009
47	M12	Y	-.003	-.007	0	1.002
48	M12	Y	-.007	-.009	1.002	2.003
49	M12	Y	-.009	-.009	2.003	3.005
50	M12	Y	-.009	-.008	3.005	4.007
51	M12	Y	-.008	-.007	4.007	5.009
52	M23	Y	-.001	-.003	.667	1.733
53	M23	Y	-.003	-.006	1.733	2.8
54	M23	Y	-.006	-.006	2.8	3.867
55	M23	Y	-.006	-.003	3.867	4.933
56	M23	Y	-.003	-.001	4.933	6
57	M113	Y	.002	.002	0	.083
58	M113	Y	.002	.000436	.083	.167
59	M113	Y	.000436	-.019	.167	.25
60	M113	Y	-.019	-.058	.25	.334
61	M114	Y	.0009358	-.004	0	.064
62	M114	Y	-.004	-.012	.064	.128
63	M115	Y	.0009358	-.004	0	.064
64	M115	Y	-.004	-.012	.064	.128
65	M116	Y	.002	.002	0	.083
66	M116	Y	.002	.0004267	.083	.167
67	M116	Y	.0004267	-.019	.167	.25
68	M116	Y	-.019	-.058	.25	.334
69	M3	Y	-.000318	-.005	0	2.06
70	M3	Y	-.005	-.006	2.06	4.119
71	M3	Y	-.006	-.003	4.119	6.179
72	M3	Y	-.003	-.003	6.179	8.238
73	M3	Y	-.003	-.006	8.238	10.298
74	M3	Y	-.006	-.005	10.298	12.357
75	M3	Y	-.005	-.000318	12.357	14.417
76	M11	Y	-.006	-.008	5.009	6.01
77	M11	Y	-.008	-.009	6.01	7.012
78	M11	Y	-.009	-.008	7.012	8.014
79	M11	Y	-.008	-.007	8.014	9.016
80	M11	Y	-.007	-.005	9.016	10.017
81	M12	Y	-.007	-.008	5.009	6.01
82	M12	Y	-.008	-.009	6.01	7.012
83	M12	Y	-.009	-.01	7.012	8.014
84	M12	Y	-.01	-.007	8.014	9.016
85	M12	Y	-.007	-.0006361	9.016	10.017



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 48 : BLC 1 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....]	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]	
86	M22	Y	-001	-003	.667	1.733
87	M22	Y	-003	-007	1.733	2.8
88	M22	Y	-007	-006	2.8	3.867
89	M22	Y	-006	-003	3.867	4.933
90	M22	Y	-003	-001	4.933	6
91	M103	Y	.0009358	-004	0	.064
92	M103	Y	-004	-012	.064	.128
93	M104	Y	.002	.002	0	.083
94	M104	Y	.002	.0004267	.083	.167
95	M104	Y	.0004267	-019	.167	.25
96	M104	Y	-019	-058	.25	.334
97	M117	Y	.002	.002	0	.083
98	M117	Y	.002	.000436	.083	.167
99	M117	Y	.000436	-019	.167	.25
100	M117	Y	-019	-058	.25	.334
101	M118	Y	.0009358	-004	0	.064
102	M118	Y	-004	-012	.064	.128
103	M4	Y	-000318	-005	0	2.06
104	M4	Y	-005	-006	2.06	4.119
105	M4	Y	-006	-003	4.119	6.179
106	M4	Y	-003	-003	6.179	8.238
107	M4	Y	-003	-006	8.238	10.298
108	M4	Y	-006	-005	10.298	12.357
109	M4	Y	-005	-000318	12.357	14.417
110	M9	Y	-003	-007	0	1.002
111	M9	Y	-007	-009	1.002	2.003
112	M9	Y	-009	-009	2.003	3.005
113	M9	Y	-009	-008	3.005	4.007
114	M9	Y	-008	-007	4.007	5.009
115	M11	Y	-0004102	-007	0	1.002
116	M11	Y	-007	-01	1.002	2.003
117	M11	Y	-01	-01	2.003	3.005
118	M11	Y	-01	-009	3.005	4.007
119	M11	Y	-009	-006	4.007	5.009
120	M24	Y	-001	-003	.667	1.733
121	M24	Y	-003	-006	1.733	2.8
122	M24	Y	-006	-006	2.8	3.867
123	M24	Y	-006	-003	3.867	4.933
124	M24	Y	-003	-001	4.933	6
125	M105	Y	.002	.002	0	.083
126	M105	Y	.002	.000436	.083	.167
127	M105	Y	.000436	-019	.167	.25
128	M105	Y	-019	-058	.25	.334
129	M106	Y	.0009358	-004	0	.064
130	M106	Y	-004	-012	.064	.128
131	M107	Y	.0009358	-004	0	.064
132	M107	Y	-004	-012	.064	.128
133	M108	Y	.002	.002	0	.083
134	M108	Y	.002	.0004267	.083	.167
135	M108	Y	.0004267	-019	.167	.25
136	M108	Y	-019	-058	.25	.334
137	M1	Y	-000159	-4.84e-5	0	.721
138	M1	Y	-4.84e-5	-000319	.721	1.442
139	M1	Y	-000319	-000319	1.442	2.162
140	M1	Y	-000319	6.914e-6	2.162	2.883
141	M4	Y	6.914e-6	-000319	11.533	12.254
142	M4	Y	-000319	-000319	12.254	12.975





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 48 : BLC 1 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]	
143	M4	Y	-0.00319	-4.84e-5	12.975	13.696
144	M4	Y	-4.84e-5	-0.00159	13.696	14.417
145	M9	Y	8.659e-19	-0.004	4.007	4.408
146	M9	Y	-0.004	-0.007	4.408	4.808
147	M9	Y	-0.007	-0.007	4.808	5.209
148	M9	Y	-0.007	-0.004	5.209	5.61
149	M9	Y	-0.004	8.659e-19	5.61	6.01
150	M107	Y	-0.002	-0.002	0	.128
151	M108	Y	-0.005	-0.005	0	.334
152	M109	Y	-0.005	-0.005	0	.334
153	M110	Y	-0.002	-0.002	0	.128
154	M1	Y	6.914e-6	-0.003189	11.533	12.254
155	M1	Y	-0.003189	-0.003189	12.254	12.975
156	M1	Y	-0.003189	-4.84e-5	12.975	13.696
157	M1	Y	-4.84e-5	-0.00159	13.696	14.417
158	M2	Y	-0.00159	-4.84e-5	0	.721
159	M2	Y	-4.84e-5	-0.003189	.721	1.442
160	M2	Y	-0.003189	-0.003189	1.442	2.162
161	M2	Y	-0.003189	6.914e-6	2.162	2.883
162	M10	Y	-8.659e-19	-0.004	4.007	4.408
163	M10	Y	-0.004	-0.007	4.408	4.808
164	M10	Y	-0.007	-0.007	4.808	5.209
165	M10	Y	-0.007	-0.004	5.209	5.61
166	M10	Y	-0.004	8.659e-19	5.61	6.01
167	M111	Y	-0.002	-0.002	0	.128
168	M112	Y	-0.005	-0.005	0	.334
169	M113	Y	-0.005	-0.005	0	.334
170	M114	Y	-0.002	-0.002	0	.128
171	M2	Y	6.914e-6	-0.003189	11.533	12.254
172	M2	Y	-0.003189	-0.003189	12.254	12.975
173	M2	Y	-0.003189	-4.84e-5	12.975	13.696
174	M2	Y	-4.84e-5	-0.00159	13.696	14.417
175	M3	Y	-0.00159	-4.84e-5	0	.721
176	M3	Y	-4.84e-5	-0.003189	.721	1.442
177	M3	Y	-0.003189	-0.003189	1.442	2.162
178	M3	Y	-0.003189	6.914e-6	2.162	2.883
179	M12	Y	0	-0.004	4.007	4.408
180	M12	Y	-0.004	-0.007	4.408	4.808
181	M12	Y	-0.007	-0.007	4.808	5.209
182	M12	Y	-0.007	-0.004	5.209	5.61
183	M12	Y	-0.004	0	5.61	6.01
184	M115	Y	-0.002	-0.002	0	.128
185	M116	Y	-0.005	-0.005	0	.334
186	M117	Y	-0.005	-0.005	0	.334
187	M118	Y	-0.002	-0.002	0	.128
188	M3	Y	6.914e-6	-0.003189	11.533	12.254
189	M3	Y	-0.003189	-0.003189	12.254	12.975
190	M3	Y	-0.003189	-4.84e-5	12.975	13.696
191	M3	Y	-4.84e-5	-0.00159	13.696	14.417
192	M4	Y	-0.00159	-4.84e-5	0	.721
193	M4	Y	-4.84e-5	-0.003189	.721	1.442
194	M4	Y	-0.003189	-0.003189	1.442	2.162
195	M4	Y	-0.003189	6.914e-6	2.162	2.883
196	M11	Y	0	-0.004	4.007	4.408
197	M11	Y	-0.004	-0.007	4.408	4.808
198	M11	Y	-0.007	-0.007	4.808	5.209
199	M11	Y	-0.007	-0.004	5.209	5.61





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 48 : BLC 1 Transient Area Loads) (Continued)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
200	M11	Y	-.004	0	5.61	6.01
201	M103	Y	-.002	-.002	0	.128
202	M104	Y	-.005	-.005	0	.334
203	M105	Y	-.005	-.005	0	.334
204	M106	Y	-.002	-.002	0	.128

**Member Distributed Loads (BLC 49 : BLC 2 Transient Area Loads)**

	Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-.0005251	-.009	0	2.06
2	M1	Y	-.009	-.011	2.06	4.119
3	M1	Y	-.011	-.005	4.119	6.179
4	M1	Y	-.005	-.005	6.179	8.238
5	M1	Y	-.005	-.011	8.238	10.298
6	M1	Y	-.011	-.009	10.298	12.357
7	M1	Y	-.009	-.0005251	12.357	14.417
8	M9	Y	-.011	-.014	5.009	6.01
9	M9	Y	-.014	-.016	6.01	7.012
10	M9	Y	-.016	-.016	7.012	8.014
11	M9	Y	-.016	-.011	8.014	9.016
12	M9	Y	-.011	-.0006774	9.016	10.017
13	M10	Y	-.011	-.014	5.009	6.01
14	M10	Y	-.014	-.015	6.01	7.012
15	M10	Y	-.015	-.015	7.012	8.014
16	M10	Y	-.015	-.012	8.014	9.016
17	M10	Y	-.012	-.005	9.016	10.017
18	M21	Y	-.002	-.005	.667	1.733
19	M21	Y	-.005	-.01	1.733	2.8
20	M21	Y	-.01	-.01	2.8	3.867
21	M21	Y	-.01	-.005	3.867	4.933
22	M21	Y	-.005	-.002	4.933	6
23	M109	Y	.004	.003	0	.083
24	M109	Y	.003	.00072	.083	.167
25	M109	Y	.00072	-.032	.167	.25
26	M109	Y	-.032	-.095	.25	.334
27	M110	Y	.002	-.006	0	.064
28	M110	Y	-.006	-.02	.064	.128
29	M111	Y	.002	-.006	0	.064
30	M111	Y	-.006	-.02	.064	.128
31	M112	Y	.004	.003	0	.083
32	M112	Y	.003	.0007046	.083	.167
33	M112	Y	.0007046	-.032	.167	.25
34	M112	Y	-.032	-.096	.25	.334
35	M2	Y	-.0005251	-.009	0	2.06
36	M2	Y	-.009	-.011	2.06	4.119
37	M2	Y	-.011	-.005	4.119	6.179
38	M2	Y	-.005	-.005	6.179	8.238
39	M2	Y	-.005	-.011	8.238	10.298
40	M2	Y	-.011	-.009	10.298	12.357
41	M2	Y	-.009	-.0005251	12.357	14.417
42	M10	Y	-.0006774	-.011	0	1.002
43	M10	Y	-.011	-.016	1.002	2.003
44	M10	Y	-.016	-.016	2.003	3.005
45	M10	Y	-.016	-.014	3.005	4.007
46	M10	Y	-.014	-.011	4.007	5.009
47	M12	Y	-.005	-.012	0	1.002
48	M12	Y	-.012	-.015	1.002	2.003



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 49 : BLC 2 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]	
49	M12	Y	-015	-015	2.003	3.005
50	M12	Y	-015	-014	3.005	4.007
51	M12	Y	-014	-011	4.007	5.009
52	M23	Y	-002	-005	.667	1.733
53	M23	Y	-005	-.01	1.733	2.8
54	M23	Y	-.01	-.01	2.8	3.867
55	M23	Y	-.01	-.005	3.867	4.933
56	M23	Y	-.005	-.002	4.933	6
57	M113	Y	.004	.003	0	.083
58	M113	Y	.003	.00072	.083	.167
59	M113	Y	.00072	-.032	.167	.25
60	M113	Y	-.032	-.095	.25	.334
61	M114	Y	.002	-.006	0	.064
62	M114	Y	-.006	-.02	.064	.128
63	M115	Y	.002	-.006	0	.064
64	M115	Y	-.006	-.02	.064	.128
65	M116	Y	.004	.003	0	.083
66	M116	Y	.003	.0007046	.083	.167
67	M116	Y	.0007046	-.032	.167	.25
68	M116	Y	-.032	-.096	.25	.334
69	M3	Y	-.0005251	-.009	0	2.06
70	M3	Y	-.009	-.011	2.06	4.119
71	M3	Y	-.011	-.005	4.119	6.179
72	M3	Y	-.005	-.005	6.179	8.238
73	M3	Y	-.005	-.011	8.238	10.298
74	M3	Y	-.011	-.009	10.298	12.357
75	M3	Y	-.009	-.0005251	12.357	14.417
76	M11	Y	-.011	-.013	5.009	6.01
77	M11	Y	-.013	-.015	6.01	7.012
78	M11	Y	-.015	-.013	7.012	8.014
79	M11	Y	-.013	-.011	8.014	9.016
80	M11	Y	-.011	-.009	9.016	10.017
81	M12	Y	-.011	-.014	5.009	6.01
82	M12	Y	-.014	-.016	6.01	7.012
83	M12	Y	-.016	-.016	7.012	8.014
84	M12	Y	-.016	-.011	8.014	9.016
85	M12	Y	-.011	-.001	9.016	10.017
86	M22	Y	-.002	-.005	.667	1.733
87	M22	Y	-.005	-.011	1.733	2.8
88	M22	Y	-.011	-.011	2.8	3.867
89	M22	Y	-.011	-.005	3.867	4.933
90	M22	Y	-.005	-.002	4.933	6
91	M103	Y	.002	-.006	0	.064
92	M103	Y	-.006	-.02	.064	.128
93	M104	Y	.004	.003	0	.083
94	M104	Y	.003	.0007046	.083	.167
95	M104	Y	.0007046	-.032	.167	.25
96	M104	Y	-.032	-.096	.25	.334
97	M117	Y	.004	.003	0	.083
98	M117	Y	.003	.00072	.083	.167
99	M117	Y	.00072	-.032	.167	.25
100	M117	Y	-.032	-.095	.25	.334
101	M118	Y	.002	-.006	0	.064
102	M118	Y	-.006	-.02	.064	.128
103	M4	Y	-.0005251	-.009	0	2.06
104	M4	Y	-.009	-.011	2.06	4.119
105	M4	Y	-.011	-.005	4.119	6.179



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 49 : BLC 2 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude/k/ft...	End Magnitude/k/ft.F...	Start Locationft.%1	End Locationft.%1	
106	M4	Y	-0.005	-0.005	6.179	8.238
107	M4	Y	-0.005	-0.011	8.238	10.298
108	M4	Y	-0.011	-0.009	10.298	12.357
109	M4	Y	-0.009	-0.0005251	12.357	14.417
110	M9	Y	-0.005	-0.012	0	1.002
111	M9	Y	-0.012	-0.015	1.002	2.003
112	M9	Y	-0.015	-0.015	2.003	3.005
113	M9	Y	-0.015	-0.014	3.005	4.007
114	M9	Y	-0.014	-0.011	4.007	5.009
115	M11	Y	-0.0006774	-0.011	0	1.002
116	M11	Y	-0.011	-0.016	1.002	2.003
117	M11	Y	-0.016	-0.016	2.003	3.005
118	M11	Y	-0.016	-0.014	3.005	4.007
119	M11	Y	-0.014	-0.011	4.007	5.009
120	M24	Y	-0.002	-0.005	.667	1.733
121	M24	Y	-0.005	-0.01	1.733	2.8
122	M24	Y	-0.01	-0.01	2.8	3.867
123	M24	Y	-0.01	-0.005	3.867	4.933
124	M24	Y	-0.005	-0.002	4.933	6
125	M105	Y	.004	.003	0	.083
126	M105	Y	.003	.00072	.083	.167
127	M105	Y	.00072	-.032	.167	.25
128	M105	Y	-.032	-.095	.25	.334
129	M106	Y	.002	-0.006	0	.064
130	M106	Y	-0.006	-0.02	.064	.128
131	M107	Y	.002	-0.006	0	.064
132	M107	Y	-0.006	-0.02	.064	.128
133	M108	Y	.004	.003	0	.083
134	M108	Y	.003	.0007046	.083	.167
135	M108	Y	.0007046	-.032	.167	.25
136	M108	Y	-.032	-.096	.25	.334
137	M1	Y	-0.0002626	-7.992e-5	0	.721
138	M1	Y	-7.992e-5	-0.0005268	.721	1.442
139	M1	Y	-0.0005268	-0.0005268	1.442	2.162
140	M1	Y	-0.0005268	1.142e-5	2.162	2.883
141	M4	Y	1.142e-5	-0.0005268	11.533	12.254
142	M4	Y	-0.0005268	-0.0005268	12.254	12.975
143	M4	Y	-0.0005268	-7.992e-5	12.975	13.696
144	M4	Y	-7.992e-5	-0.0002626	13.696	14.417
145	M9	Y	1.732e-18	-0.006	4.007	4.408
146	M9	Y	-0.006	-0.011	4.408	4.808
147	M9	Y	-0.011	-0.011	4.808	5.209
148	M9	Y	-0.011	-0.006	5.209	5.61
149	M9	Y	-0.006	1.732e-18	5.61	6.01
150	M107	Y	-0.004	-0.004	0	.128
151	M108	Y	-0.009	-0.009	0	.334
152	M109	Y	-0.009	-0.009	0	.334
153	M110	Y	-0.004	-0.004	0	.128
154	M1	Y	1.142e-5	-0.0005267	11.533	12.254
155	M1	Y	-0.0005267	-0.0005267	12.254	12.975
156	M1	Y	-0.0005267	-7.992e-5	12.975	13.696
157	M1	Y	-7.992e-5	-0.0002626	13.696	14.417
158	M2	Y	-0.0002626	-7.992e-5	0	.721
159	M2	Y	-7.992e-5	-0.0005267	.721	1.442
160	M2	Y	-0.0005267	-0.0005267	1.442	2.162
161	M2	Y	-0.0005267	1.142e-5	2.162	2.883
162	M10	Y	8.659e-19	-0.006	4.007	4.408



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Member Distributed Loads (BLC 49 : BLC 2 Transient Area Loads) (Continued)**

Member Label	Direction	Start Magnitude[k/ft....	End Magnitude[k/ft.F...	Start Location[ft.%]	End Location[ft.%]	
163	M10	Y	-006	-011	4.408	4.808
164	M10	Y	-011	-011	4.808	5.209
165	M10	Y	-011	-006	5.209	5.61
166	M10	Y	-006	8.659e-19	5.61	6.01
167	M111	Y	-004	-004	0	.128
168	M112	Y	-009	-009	0	.334
169	M113	Y	-009	-009	0	.334
170	M114	Y	-004	-004	0	.128
171	M2	Y	1.142e-5	-0005267	11.533	12.254
172	M2	Y	-0005267	-0005267	12.254	12.975
173	M2	Y	-0005267	-7.992e-5	12.975	13.696
174	M2	Y	-7.992e-5	-0002626	13.696	14.417
175	M3	Y	-0002626	-7.992e-5	0	.721
176	M3	Y	-7.992e-5	-0005267	.721	1.442
177	M3	Y	-0005267	-0005267	1.442	2.162
178	M3	Y	-0005267	1.142e-5	2.162	2.883
179	M12	Y	0	-006	4.007	4.408
180	M12	Y	-006	-011	4.408	4.808
181	M12	Y	-011	-011	4.808	5.209
182	M12	Y	-011	-006	5.209	5.61
183	M12	Y	-006	0	5.61	6.01
184	M115	Y	-004	-004	0	.128
185	M116	Y	-009	-009	0	.334
186	M117	Y	-009	-009	0	.334
187	M118	Y	-004	-004	0	.128
188	M3	Y	1.142e-5	-0005267	11.533	12.254
189	M3	Y	-0005267	-0005267	12.254	12.975
190	M3	Y	-0005267	-7.992e-5	12.975	13.696
191	M3	Y	-7.992e-5	-0002626	13.696	14.417
192	M4	Y	-0002626	-7.992e-5	0	.721
193	M4	Y	-7.992e-5	-0005267	.721	1.442
194	M4	Y	-0005267	-0005267	1.442	2.162
195	M4	Y	-0005267	1.142e-5	2.162	2.883
196	M11	Y	0	-006	4.007	4.408
197	M11	Y	-006	-011	4.408	4.808
198	M11	Y	-011	-011	4.808	5.209
199	M11	Y	-011	-006	5.209	5.61
200	M11	Y	-006	0	5.61	6.01
201	M103	Y	-004	-004	0	.128
202	M104	Y	-009	-009	0	.334
203	M105	Y	-009	-009	0	.334
204	M106	Y	-004	-004	0	.128

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[k/ssf]
1	N42	N69	N68	N41	Y	Two Way	-005
2	N71	N45	N46	N73	Y	Two Way	-005
3	N70	N44	N43	N67	Y	Two Way	-005
4	N74	N48	N47	N72	Y	Two Way	-005
5	N68	N72	N47	N41	Y	Two Way	-005
6	N42	N45	N71	N69	Y	Two Way	-005
7	N46	N44	N70	N73	Y	Two Way	-005
8	N48	N43	N67	N74	Y	Two Way	-005





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
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**Member Area Loads (BLC 2 : Ice Dead)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N42	N69	N68	N41	Y	Two Way	- .008
2	N71	N45	N46	N73	Y	Two Way	- .008
3	N70	N44	N43	N67	Y	Two Way	- .008
4	N74	N48	N47	N72	Y	Two Way	- .008
5	N68	N72	N47	N41	Y	Two Way	- .008
6	N42	N45	N71	N69	Y	Two Way	- .008
7	N46	N44	N70	N73	Y	Two Way	- .008
8	N48	N43	N67	N74	Y	Two Way	- .008

**Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me... Surface(...
1	Dead	None		-1			19		8
2	Ice Dead	None					19	118	8
3	Full Wind Antenna (0 Deg)	None					16		
4	Full Wind Antenna (30 Deg)	None					41		
5	Full Wind Antenna (60 Deg)	None					41		
6	Full Wind Antenna (90 Deg)	None					41		
7	Full Wind Antenna (120 Deg)	None					41		
8	Full Wind Antenna (150 Deg)	None					41		
9	Full Wind Members (0 Deg)	None						52	
10	Full Wind Members (30 Deg)	None						52	
11	Full Wind Members (60 Deg)	None						52	
12	Full Wind Members (90 Deg)	None						52	
13	Full Wind Members (120 Deg)	None						52	
14	Full Wind Members (150 Deg)	None						52	
15	Ice Wind Antenna (0 Deg)	None					16		
16	Ice Wind Antenna (30 Deg)	None					41		
17	Ice Wind Antenna (60 Deg)	None					41		
18	Ice Wind Antenna (90 Deg)	None					41		
19	Ice Wind Antenna (120 Deg)	None					41		
20	Ice Wind Antenna (150 Deg)	None					41		
21	Ice Wind Members (0 Deg)	None						236	
22	Ice Wind Members (30 Deg)	None						236	
23	Ice Wind Members (60 Deg)	None						236	
24	Ice Wind Members (90 Deg)	None						236	
25	Ice Wind Members (120 Deg)	None						236	
26	Ice Wind Members (150 Deg)	None						236	
27	Seismic Antenna (0 Deg)	None					19		
28	Seismic Antenna (90 Deg)	None					19		
29	Seismic Members (0 Deg)	None		- .04	- .1				
30	Seismic Members (30 Deg)	None	.05	- .04	- .086				
31	Seismic Members (60 Deg)	None	.086	- .04	- .05				
32	Seismic Members (90 Deg)	None	.1	- .04	- .095e...				
33	Seismic Members (120 Deg)	None	.086	- .04	.05				
34	Seismic Members (150 Deg)	None	.05	- .04	.086				
35	Seismic Members (180 Deg)	None	1.219e-17	- .04	.1				
36	Seismic Members (210 Deg)	None	-.05	- .04	.086				
37	Seismic Members (240 Deg)	None	-.086	- .04	.05				
38	Seismic Members (270 Deg)	None	-.1	- .04	1.829e-17				
39	Seismic Members (300 Deg)	None	-.086	- .04	- .05				
40	Seismic Members (330 Deg)	None	-.05	- .04	- .086				
41	Seismic Vertical Antennas	None					19		
42	Man 1 (500 lbs)	None				1			
43	Man 2 (500 lbs)	None				1			
44	Man 3 (500 lbs)	None				1			



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 Designer : RJT  
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**Basic Load Cases (Continued)**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distrib.	Area(Me.)	Surface...
45	Man 4 (250 lbs)	None				1				
46	Man 5 (250 lbs)	None				1				
47	Man 6 (250 lbs)	None				1				
48	BLC 1 Transient Area Loads	None						204		
49	BLC 2 Transient Area Loads	None						204		

**Load Combinations**

	Description	Sol.	PD.	SR.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
1	1.4D	Yes	Y		1	1.4														
2	1.2D + 1.0..	Yes	Y		1	1.2	3	1	9	1										
3	1.2D + 1.0..	Yes	Y		1	1.2	4	1	10	1										
4	1.2D + 1.0..	Yes	Y		1	1.2	5	1	11	1										
5	1.2D + 1.0..	Yes	Y		1	1.2	6	1	12	1										
6	1.2D + 1.0..	Yes	Y		1	1.2	7	1	13	1										
7	1.2D + 1.0..	Yes	Y		1	1.2	8	1	14	1										
8	1.2D + 1.0..	Yes	Y		1	1.2	3	-1	9	-1										
9	1.2D + 1.0..	Yes	Y		1	1.2	4	-1	10	-1										
10	1.2D + 1.0..	Yes	Y		1	1.2	5	-1	11	-1										
11	1.2D + 1.0..	Yes	Y		1	1.2	6	-1	12	-1										
12	1.2D + 1.0..	Yes	Y		1	1.2	7	-1	13	-1										
13	1.2D + 1.0..	Yes	Y		1	1.2	8	-1	14	-1										
14	1.2D + 1.0..	Yes	Y		1	1.2	2	1	15	1	21	1								
15	1.2D + 1.0..	Yes	Y		1	1.2	2	1	16	1	22	1								
16	1.2D + 1.0..	Yes	Y		1	1.2	2	1	17	1	23	1								
17	1.2D + 1.0..	Yes	Y		1	1.2	2	1	18	1	24	1								
18	1.2D + 1.0..	Yes	Y		1	1.2	2	1	19	1	25	1								
19	1.2D + 1.0..	Yes	Y		1	1.2	2	1	20	1	26	1								
20	1.2D + 1.0..	Yes	Y		1	1.2	2	1	15	-1	21	-1								
21	1.2D + 1.0..	Yes	Y		1	1.2	2	1	16	-1	22	-1								
22	1.2D + 1.0..	Yes	Y		1	1.2	2	1	17	-1	23	-1								
23	1.2D + 1.0..	Yes	Y		1	1.2	2	1	18	-1	24	-1								
24	1.2D + 1.0..	Yes	Y		1	1.2	2	1	19	-1	25	-1								
25	1.2D + 1.0..	Yes	Y		1	1.2	2	1	20	-1	26	-1								
26	1.2D + 1.5..	Yes	Y		1	1.2	3	.066	9	.066	42	1.5								
27	1.2D + 1.5..	Yes	Y		1	1.2	4	.066	10	.066	42	1.5								
28	1.2D + 1.5..	Yes	Y		1	1.2	5	.066	11	.066	42	1.5								
29	1.2D + 1.5..	Yes	Y		1	1.2	6	.066	12	.066	42	1.5								
30	1.2D + 1.5..	Yes	Y		1	1.2	7	.066	13	.066	42	1.5								
31	1.2D + 1.5..	Yes	Y		1	1.2	8	.066	14	.066	42	1.5								
32	1.2D + 1.5..	Yes	Y		1	1.2	3	-.066	9	-.066	42	1.5								
33	1.2D + 1.5..	Yes	Y		1	1.2	4	-.066	10	-.066	42	1.5								
34	1.2D + 1.5..	Yes	Y		1	1.2	5	-.066	11	-.066	42	1.5								
35	1.2D + 1.5..	Yes	Y		1	1.2	6	-.066	12	-.066	42	1.5								
36	1.2D + 1.5..	Yes	Y		1	1.2	7	-.066	13	-.066	42	1.5								
37	1.2D + 1.5..	Yes	Y		1	1.2	8	-.066	14	-.066	42	1.5								
38	1.2D + 1.5..	Yes	Y		1	1.2	3	.066	9	.066	43	1.5								
39	1.2D + 1.5..	Yes	Y		1	1.2	4	.066	10	.066	43	1.5								
40	1.2D + 1.5..	Yes	Y		1	1.2	5	.066	11	.066	43	1.5								
41	1.2D + 1.5..	Yes	Y		1	1.2	6	.066	12	.066	43	1.5								
42	1.2D + 1.5..	Yes	Y		1	1.2	7	.066	13	.066	43	1.5								
43	1.2D + 1.5..	Yes	Y		1	1.2	8	.066	14	.066	43	1.5								
44	1.2D + 1.5..	Yes	Y		1	1.2	3	-.066	9	-.066	43	1.5								
45	1.2D + 1.5..	Yes	Y		1	1.2	4	-.066	10	-.066	43	1.5								
46	1.2D + 1.5..	Yes	Y		1	1.2	5	-.066	11	-.066	43	1.5								
47	1.2D + 1.5..	Yes	Y		1	1.2	6	-.066	12	-.066	43	1.5								





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**Load Combinations (Continued)**

Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
48	1.2D + 1.5..	Yes	Y	1	1.2	7	-0.66	13	-0.66	43	1.5			
49	1.2D + 1.5..	Yes	Y	1	1.2	8	-0.66	14	-0.66	43	1.5			
50	1.2D + 1.5..	Yes	Y	1	1.2	3	0.66	9	0.66	44	1.5			
51	1.2D + 1.5..	Yes	Y	1	1.2	4	0.66	10	0.66	44	1.5			
52	1.2D + 1.5..	Yes	Y	1	1.2	5	0.66	11	0.66	44	1.5			
53	1.2D + 1.5..	Yes	Y	1	1.2	6	0.66	12	0.66	44	1.5			
54	1.2D + 1.5..	Yes	Y	1	1.2	7	0.66	13	0.66	44	1.5			
55	1.2D + 1.5..	Yes	Y	1	1.2	8	0.66	14	0.66	44	1.5			
56	1.2D + 1.5..	Yes	Y	1	1.2	3	-0.66	9	-0.66	44	1.5			
57	1.2D + 1.5..	Yes	Y	1	1.2	4	-0.66	10	-0.66	44	1.5			
58	1.2D + 1.5..	Yes	Y	1	1.2	5	-0.66	11	-0.66	44	1.5			
59	1.2D + 1.5..	Yes	Y	1	1.2	6	-0.66	12	-0.66	44	1.5			
60	1.2D + 1.5..	Yes	Y	1	1.2	7	-0.66	13	-0.66	44	1.5			
61	1.2D + 1.5..	Yes	Y	1	1.2	8	-0.66	14	-0.66	44	1.5			
62	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
63	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
64	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
65	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
66	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
67	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
68	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
69	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
70	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
71	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
72	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
73	1.2D + 1.5..	Yes	Y	1	1.2	45	1.5							
74	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
75	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
76	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
77	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
78	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
79	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
80	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
81	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
82	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
83	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
84	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
85	1.2D + 1.5..	Yes	Y	1	1.2	46	1.5							
86	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
87	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
88	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
89	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
90	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
91	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
92	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
93	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
94	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
95	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
96	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
97	1.2D + 1.5..	Yes	Y	1	1.2	47	1.5							
98	1.2D + 1.0..	Yes	Y	1	1.2	27	1	28		29	1	40	1	
99	1.2D + 1.0..	Yes	Y	1	1.2	27	866	28	5	30	1	40	1	
100	1.2D + 1.0..	Yes	Y	1	1.2	27	5	28	866	31	1	40	1	
101	1.2D + 1.0..	Yes	Y	1	1.2	27		28	1	32	1	40	1	
102	1.2D + 1.0..	Yes	Y	1	1.2	27	-5	28	866	33	1	40	1	
103	1.2D + 1.0..	Yes	Y	1	1.2	27	-866	28	5	34	1	40	1	
104	1.2D + 1.0..	Yes	Y	1	1.2	27	-1	28		35	1	40	1	



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**Load Combinations (Continued)**

	Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
105	1.2D + 1.0..	Yes	Y		1	1.2	27	-866	28	-5	36	1	40	1	
106	1.2D + 1.0..	Yes	Y		1	1.2	27	5	28	-866	37	1	40	1	
107	1.2D + 1.0..	Yes	Y		1	1.2	27		28	-1	38	1	40	1	
108	1.2D + 1.0..	Yes	Y		1	1.2	27	5	28	-866	39	1	40	1	
109	1.2D + 1.0..	Yes	Y		1	1.2	27	866	28	-5	40	1	40	1	

**Envelope Joint Reactions**

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N6	max	-843	13	2,593	19	-1,074	13	7,804	20	.637	7	-2,212	10
2		min	-9,607	19	941	12	-9,277	18	2,301	2	-4	13	-6,933	16
3	N4	max	8,607	22	3,084	24	-279	4	8,135	18	953	7	8,829	14
4		min	53	4	1,054	4	-8,845	22	2,706	4	-895	13	2,631	5
5	N2	max	9,207	24	3,554	20	9,509	25	-2,72	11	.981	9	10,683	17
6		min	1,529	5	1,121	3	1,487	7	-10,641	18	-1,248	3	3,112	11
7	N8	max	-1,28	9	2,33	14	8,002	15	-1,081	4	.672	8	-742	5
8		min	-8,254	15	679	9	1,722	9	-5,58	22	-696	2	-4,431	22
9	Totals:	max	5,553	11	11,508	17	5,323	2						
10		min	-5,553	5	4,045	7	-5,323	8						

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

Member	Shape	Code	Loc[ft]	LC	Shear	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn	phi*Mn	Cb	Egn	
1	M1	L6X3.5X5	.272	1,502	15	.471	1,502	z	7	12.833	93.636	2.872	9.893	2..	H2-1
2	M2	L6X3.5X5	.342	1,502	19	.567	6,908	z	12	12.833	93.636	2.872	7.99	1..	H2-1
3	M3	L6X3.5X5	.322	1,502	24	.097	7,509	z	8	12.833	93.636	2.872	7.92	1..	H2-1
4	M4	L6X3.5X5	.278	12,915	20	.040	7,058	z	20	12.833	93.636	2.872	6.881	1..	H2-1
5	M5	HSS6X4X4	.583	7,917	16	.134	.66	z	8	140.712	178.02	22.252	29,428	2..	H1-1b
6	M6	HSS6X4X4	.466	7,917	21	.137	.66	z	5	140.712	178.02	22.252	29,428	2..	H1-1b
7	M7	HSS6X4X4	.417	7,917	20	.135	.66	z	2	140.712	178.02	22.252	29,428	2..	H1-1b
8	M8	HSS6X4X4	.284	7,917	22	.080	7,917	y	18	140.712	178.02	22.252	29,428	2..	H1-1b
9	M9	L4X4X4	.665	5,009	16	.123	5,009	z	14	43.004	62.532	3.138	6.003	1	H2-1
10	M10	L4X4X4	.697	5,009	15	.130	5,009	y	25	43.004	62.532	3.138	6.003	1	H2-1
11	M11	L4X4X4	.493	5,009	19	.129	5,009	y	18	43.004	62.532	3.138	6.003	1	H2-1
12	M12	L4X4X4	.664	5,009	25	.113	5,009	z	19	43.004	62.532	3.138	6.003	1	H2-1
13	M21	L3X3X3	.250	3,333	14	.011	0	y	17	13.164	35.316	1.32	2.25	1..	H2-1
14	M22	L3X3X3	.244	3,333	20	.009	0	z	20	13.164	35.316	1.32	2.251	1..	H2-1
15	M23	L3X3X3	.241	3,333	23	.009	0	y	17	13.164	35.316	1.32	2.249	1..	H2-1
16	M24	L3X3X3	.242	3,333	17	.010	6,667	z	16	13.164	35.316	1.32	2.249	1..	H2-1
17	M25	PIPE 2.5	.607	3,125	8	.024	1,042		8	22.373	50.715	3.596	3.596	1..	H1-1b
18	M26	PIPE 2.0	.112	2,648	8	.008	0		8	26.092	32.13	1.872	1.872	1..	H1-1b
19	M27	PIPE 2.0	.188	1,91	5	.056	1,91		5	26.092	32.13	1.872	1.872	4..	H1-1b
20	M28	PIPE 2.0	.549	3,75	5	.034	3,75		5	23.809	32.13	1.872	1.872	1..	H1-1b
21	M29	PIPE 2.5	.607	3,125	2	.024	1,042		2	22.373	50.715	3.596	3.596	1..	H1-1b
22	M30	PIPE 2.0	.112	2,648	2	.008	0		2	26.092	32.13	1.872	1.872	1	H1-1b
23	M31	PIPE 2.0	.034	3,75	5	.004	3,75		5	23.809	32.13	1.872	1.872	1..	H1-1b
24	M32	PIPE 2.0	.520	3,333	8	.038	3,333		8	23.809	32.13	1.872	1.872	1..	H1-1b
25	M33	PIPE 2.5	.606	6,875	5	.024	6,979		5	22.373	50.715	3.596	3.596	1..	H1-1b
26	M34	PIPE 2.0	.112	2,648	5	.008	0		5	26.092	32.13	1.872	1.872	1..	H1-1b

**Envelope Plate/Shell Principal Stresses**

Plate	Surf	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
1	P2	max	T	5,103	18	1,302	20	1,975	15	2,355	15
2		min		195	11	-2,332	2	.087	11	784	38



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 Designer : RJT  
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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
3	max	2.94	2	.008	11	2.206	2	1.529	11	4.658	18		
4	min	-1.212	20	-5.097	18	.082	11	-.089	10	.168	11		
5	P3	max	T	5.373	13	.102	12	4.591	8	2.215	50	8.908	20
6	min	-.291	5	-8.909	20	.077	11	-.762	11	.191	11		
7	max	10.875	18	1.778	14	4.766	20	2.223	11	10.229	18		
8	min	.392	11	-3.923	13	.194	11	.191	10	.391	11		
9	P4	max	T	6.912	18	-.625	5	4.606	18	2.348	11	8.304	18
10	min	-.952	12	-2.929	13	.411	11	-.556	10	1.083	11		
11	max	3.011	13	-.959	12	5.413	18	2.3	3	11.814	18		
12	min	-1.988	20	-12.6	18	.612	11	-.593	2	1.527	11		
13	P5	max	T	6.719	15	-.092	13	4.66	15	.743	9	8.33	15
14	min	-.494	8	-2.752	20	.625	8	-.104	5	1.44	7		
15	max	.058	8	-2.274	8	5.418	14	1.379	13	11.698	14		
16	min	-1.715	23	-12.453	24	1.142	7	1.007	8	2.304	8		
17	P6	max	T	.582	7	.205	8	4.611	14	1.306	9	9.192	14
18	min	-.774	13	-9.163	14	.152	8	.572	7	.443	8		
19	max	11.218	14	1.244	15	4.997	14	536	8	10.659	14		
20	min	-.161	8	-.282	8	.061	8	-.656	7	.229	7		
21	P7	max	T	5.563	15	1.339	24	2.147	16	1.482	9	5.048	15
22	min	-.764	8	.148	9	.268	8	.716	3	.679	8		
23	max	-.084	9	-.577	8	2.223	15	2.306	7	5.106	15		
24	min	-1.208	24	-5.577	15	.207	8	-.759	2	.515	8		
25	P8	max	T	8.186	2	2.823	2	4.058	18	1.123	12	8.384	8
26	min	-4.063	8	-9.641	8	.049	11	-.325	10	.203	11		
27	max	10.597	8	4.23	8	4.707	18	2.352	11	9.239	8		
28	min	-2.428	2	-9.073	2	.168	11	-.62	2	.294	11		
29	P9	max	T	7.93	13	3.59	13	4.001	8	2.288	11	14.044	20
30	min	-8.471	20	-16.211	20	.326	11	-.775	10	.566	11		
31	max	13.94	7	11.831	18	3.157	8	2.324	15	12.77	20		
32	min	-2.522	13	-8.404	13	.01	62	-.722	107	.942	11		
33	P10	max	T	10.472	18	.786	8	6.006	18	2.175	12	11.32	18
34	min	-1.497	13	-1.861	14	.05	13	-.542	11	1.045	11		
35	max	2.865	13	.602	2	3.517	18	2.327	11	9.11	18		
36	min	-3.375	20	-10.291	18	.617	2	-.538	2	1.237	3		
37	P11	max	T	10.425	15	-.263	2	6.265	15	.501	9	11.622	15
38	min	.29	8	-2.183	20	.693	8	.195	7	1.267	8		
39	max	-.107	8	-1.453	8	3.45	14	1.739	3	8.8	14		
40	min	3.053	24	-9.91	14	.673	8	.831	8	1.402	8		
41	P12	max	T	-.455	8	-1.542	8	4.129	24	.77	12	14.501	14
42	min	-.865	14	-16.741	14	.544	8	.104	7	1.372	8		
43	max	14.047	14	12.207	14	1.244	13	2.223	4	13.224	14		
44	min	1.384	8	-.019	8	.136	4	-.771	2	1.394	8		
45	P13	max	T	1.527	3	-1.033	8	4.431	15	.24	9	8.374	15
46	min	-.748	10	-.788	14	.496	8	-.434	3	1.013	8		
47	max	9.143	14	.72	10	5.108	15	1.687	9	9.681	15		
48	min	1.242	8	-1.65	3	.592	8	1.098	3	1.214	8		
49	P14	max	T	3.736	18	1.691	15	2.094	8	1.72	10	3.771	8
50	min	.21	11	-1.451	13	.087	50	-.485	11	.333	11		
51	max	1.024	13	-.267	11	2.14	20	1.929	3	4.376	20		
52	min	-.493	14	-4.539	18	.191	11	-.655	4	.34	11		
53	P15	max	T	5.937	2	.902	2	5.268	20	2.311	6	10.207	20
54	min	-.589	8	-10.358	8	.48	11	-.775	56	.834	11		
55	max	8.685	8	1.792	20	3.613	8	2.343	12	8.055	8		
56	min	-.355	2	-.6	13	.315	4	-.537	11	.845	4		
57	P16	max	T	10.534	18	.523	3	5.824	18	.927	13	11.133	18
58	min	.365	12	-2.177	8	.315	12	-.397	10	.548	12		
59	max	2.297	13	-1.281	11	2.647	18	1.959	61	6.564	18		



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 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksj]	LC	Sigma2 [ksj]	LC	Tau Max [ksj]	LC	Angle [rad]	LC	Von Mises [ksj]	LC		
60	min	-2.095	16	-7.344	18	.554	10	-.724	11	1.315	10		
61	P17	max	T	10.018	15	-.373	4	6.119	14	.444	10	11.284	14
62	min	.85	8	-2.376	23	.793	8	.192	7	1.374	8		
63	max	.1	8	-.937	9	2.543	14	1.723	3	5.867	14		
64	min	-1.412	16	-6.421	15	.484	9	.767	8	.952	9		
65	P18	max	T	1.208	16	-.897	7	5.53	24	.812	13	10.55	24
66	min	.296	9	-9.954	24	.699	8	.385	7	1.257	8		
67	max	6.757	14	1.867	24	2.454	14	.831	7	6.049	14		
68	min	.5	7	-.43	8	.116	6	-.624	5	.594	6		
69	P19	max	T	4.01	15	1.729	16	1.189	14	2.326	5	3.488	15
70	min	.35	9	-.204	12	.075	8	-.709	6	.332	8		
71	max	.403	13	-.826	9	2.198	14	.784	7	4.624	14		
72	min	-.546	18	-4.835	15	.401	8	.172	13	.833	8		
73	P20	max	T	4.586	2	.516	14	2.279	2	2.229	10	4.572	2
74	min	.049	10	-3.899	8	.048	58	-.248	11	.17	57		
75	max	3.588	8	-.27	10	2.54	18	2.313	3	4.561	18		
76	min	-.27	3	-4.241	2	.367	11	-.574	4	.63	11		
77	P21	max	T	4.83	18	.075	3	4.199	20	2.336	10	7.285	20
78	min	.469	11	-5.151	8	.544	11	-.716	6	.945	11		
79	max	4.021	8	-.297	10	2.667	8	2.344	13	4.814	8		
80	min	-.515	4	-3.436	2	.184	4	-.652	12	.768	4		
81	P22	max	T	10.82	18	1.028	3	5.205	18	.558	13	10.621	18
82	min	1.593	11	-1.539	8	.689	11	-.594	8	1.497	11		
83	max	1.263	13	-.7	10	1.924	13	2.316	61	4.194	18		
84	min	-3.596	15	-4.72	18	.052	56	-.71	3	.61	10		
85	P23	max	T	9.914	15	.375	7	5.733	14	.531	13	10.76	14
86	min	1.666	8	-1.675	24	.784	8	.27	7	1.619	8		
87	max	.444	9	-.283	10	1.319	14	2.308	45	3.525	15		
88	min	-1.517	18	-4.004	15	.214	56	-.782	15	.454	11		
89	P24	max	T	6.006	15	-.066	6	4.594	24	.656	13	8.062	14
90	min	.939	8	-3.408	24	.686	8	.204	7	1.215	8		
91	max	1.413	13	-.527	10	1.487	24	.637	7	2.695	24		
92	min	-.548	6	-2.407	15	.158	5	-.686	3	.691	55		
93	P25	max	T	2.577	17	.426	18	1.081	16	2.311	5	2.395	17
94	min	.083	10	-1.052	12	.13	58	-.766	6	.339	58		
95	max	1.381	24	-.615	9	2.745	15	.635	7	5.023	16		
96	min	.025	6	-4.393	16	.536	9	-.042	13	.932	9		
97	P26	max	T	7.989	2	3.237	3	3.665	8	2.25	6	7.14	8
98	min	-.297	9	-6.933	8	.653	11	-.759	5	1.14	11		
99	max	7.123	8	.176	9	3.828	8	2.169	12	7.404	8		
100	min	-.42	3	-7.565	2	.297	11	-.108	11	.538	11		
101	P27	max	T	6.785	18	2.483	8	4.231	18	2.315	9	7.76	18
102	min	-2.503	13	-4.542	2	.694	12	-.777	7	1.63	10		
103	max	5.121	13	3.023	13	4.188	18	.457	2	7.326	18		
104	min	-2.081	7	-5.536	7	1.018	2	-.051	11	2.101	60		
105	P28	max	T	9.682	14	.466	12	5.313	15	.413	13	10.156	14
106	min	1.953	8	-3.588	8	1.212	10	-.707	8	2.382	10		
107	max	4.144	8	.206	9	2.994	13	2.356	43	5.628	13		
108	min	.226	33	-5.182	13	.077	43	-.785	103	.276	43		
109	P29	max	T	7.016	18	.142	8	5.328	14	.557	13	9.334	15
110	min	2.081	9	-3.946	14	1.019	9	-.068	7	2.06	9		
111	max	3.75	24	1.506	14	1.442	13	2.227	3	3.272	24		
112	min	.43	6	-1.014	7	.202	43	-.767	2	.684	5		
113	P30	max	T	9.482	14	1.169	25	4.161	14	.6	6	8.958	14
114	min	.979	8	-.347	8	.663	8	.401	12	1.191	8		
115	max	1.397	8	-.917	8	3.443	18	.118	9	7.03	14		
116	min	-1.53	13	-7.296	14	.635	13	-.493	3	1.971	12		





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**Envelope Plate/Shell Principal Stresses (Continued)**

	Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
117	P31	max	7.161	16	2.022	6	2.93	24	822	13	6.467	16
118		min	.604	9	-2.076	13	.489	8	.176	7	1.101	9
119		max	2.357	13	-.849	9	3.498	24	-.099	8	7.439	15
120		min	-2.18	6	-8.075	16	.235	7	-.617	5	1.31	8
121	P32	max	14.903	2	3.168	2	5.868	2	.884	13	13.599	2
122		min	-4.541	8	-15.2	8	.759	11	-.466	9	1.374	11
123		max	15.371	8	4.353	8	5.973	2	2.171	4	14.121	2
124		min	-3.637	2	-15.584	2	.476	11	-.773	3	.996	58
125	P33	max	8.473	18	.042	3	7.199	18	1.024	13	12.533	18
126		min	.377	11	-9.032	8	.805	11	-.364	9	1.459	11
127		max	8.917	8	3.001	20	5.447	13	1.924	5	9.489	2
128		min	.966	4	-7.565	2	.332	32	-.712	4	1.391	43
129	P34	max	11.131	14	.968	10	6.902	14	2.204	7	12.681	14
130		min	1.591	8	-3.741	7	.496	9	-.733	6	1.579	9
131		max	9.239	18	.138	6	4.582	18	2.028	12	9.201	18
132		min	.209	12	-3.792	13	.659	11	-.476	11	1.142	11
133	P35	max	7.375	18	.28	9	7.087	15	.794	13	12.276	15
134		min	1.539	13	-7.188	15	1.389	10	.045	8	2.636	10
135		max	15.081	14	1.454	24	6.859	14	.003	9	14.448	14
136		min	1.131	8	-.276	6	.513	8	-.761	7	1.083	8
137	P36	max	14.293	15	-.571	6	9.31	14	.105	12	16.877	14
138		min	1.85	8	-.462	24	1.336	8	-.395	7	2.371	8
139		max	3.03	9	.475	10	2.302	16	2.078	12	4.039	16
140		min	.042	3	-3.651	3	.386	60	-.57	11	.677	60
141	P37	max	3.346	7	-.717	7	5.531	16	.204	12	9.959	15
142		min	-1.458	13	-8.971	24	.943	9	-.551	7	2.009	9
143		max	6.077	24	1.52	13	3.629	16	2.303	9	6.517	15
144		min	-.075	8	-3.244	6	.479	8	.861	8	.997	8
145	P37A	max	1.455	13	.334	12	3.172	17	1.422	2	8.108	18
146		min	-2.808	18	-9.139	18	.192	11	.451	9	.333	11
147		max	4.95	8	2.713	18	1.965	8	2.35	14	4.527	8
148		min	-.007	12	-3.459	13	.117	51	-.771	50	.221	11
149	P38	max	11.044	20	2.773	18	4.158	20	1.615	3	9.964	20
150		min	-.878	13	-5.167	13	.091	11	-.416	4	.158	11
151		max	1.575	13	-.156	11	4.471	18	2.219	13	9.99	18
152		min	-1.839	18	-10.782	18	.069	11	-.757	12	.148	11
153	P39	max	11.456	14	2.745	14	4.355	14	.387	6	10.36	14
154		min	.645	8	-.109	8	.314	7	-.105	8	.648	7
155		max	1.154	8	-.315	8	4.876	14	2.226	10	10.628	14
156		min	-1.574	14	-11.327	14	.599	7	-.743	7	1.055	7
157	P40	max	.416	8	-.718	9	3.051	15	2.217	6	8.308	15
158		min	-3.411	14	-9.462	15	.334	10	-.73	7	.798	9
159		max	3.93	14	3.286	15	1.168	13	1.216	6	3.644	14
160		min	.51	9	-.481	7	.066	54	-.41	3	.443	9
161	P41	max	1.375	7	-.101	61	1.47	8	1.715	3	2.548	8
162		min	.16	61	-1.567	8	.131	61	-.695	4	.228	61
163		max	2.392	13	-.152	11	2.989	7	2.353	2	5.276	7
164		min	.221	11	-4.137	20	.187	11	-.738	13	.325	11
165	P42	max	7.019	18	2.836	18	2.141	8	1.106	13	6.116	18
166		min	.096	13	-1.571	13	.14	3	-.354	8	.431	11
167		max	.907	13	-.572	11	3.508	18	2.285	12	8.433	18
168		min	-2.442	15	-9.355	18	.191	11	.734	9	.504	11
169	P43	max	6.87	14	2.338	15	2.274	14	2.296	8	6.053	14
170		min	.505	9	-.655	8	.271	7	-.647	9	.576	9
171		max	.394	9	-1.237	9	3.903	14	2.292	9	8.691	15
172		min	-1.584	15	-9.374	15	.685	7	1.962	3	1.414	7
173	P44	max	1.893	14	-.168	9	1.66	14	2.305	8	2.885	14



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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksil]	LC	Sigma2 [ksil]	LC	Tau Max [ksil]	LC	Angle [rad]	LC	Von Mises [ksil]	LC		
174	min	.166	9	-1.428	14	.167	9	-.478	7	.29	9		
175	max	2.3	14	-1.199	8	3.618	14	2.18	12	6.403	14		
176	min	.322	9	-4.936	14	.26	8	1.64	8	.455	8		
177	P45	max	T	5.095	18	.051	10	2.651	18	2.119	3	5.201	18
178	min	.141	11	-1.363	13	.121	10	-.753	50	.271	10		
179	max	3.784	13	-.102	11	4.362	20	1.086	4	8.09	20		
180	min	.2	61	-7.255	20	.208	11	-.735	3	.375	11		
181	P46	max	T	4.163	17	2.624	15	1.16	2	1.004	8	3.644	17
182	min	.569	10	-.002	7	.136	8	-.592	7	.493	10		
183	max	2.672	8	-1.038	11	3.016	8	2.238	13	7.193	18		
184	min	-3.608	14	-8.252	18	.337	11	.793	8	.912	11		
185	P47	max	T	3.502	15	1.739	16	.93	14	2.121	7	3.033	15
186	min	.214	10	-.286	9	.033	6	.104	6	.2	10		
187	max	.412	13	-1.034	9	2.871	14	2.248	10	6.966	15		
188	min	-2.213	18	-7.774	15	.507	9	1.411	8	1.024	9		
189	P48	max	T	6.062	15	.094	9	3.221	15	1.35	8	6.261	15
190	min	.289	9	-.496	13	.097	9	.519	12	.255	9		
191	max	1.799	14	-.369	8	5.083	14	2.17	9	9.397	14		
192	min	.169	8	-8.367	14	.269	8	-2.025	7	.477	8		
193	P49	max	T	6.497	18	2.995	8	5.118	15	2.098	2	8.905	16
194	min	-1.857	13	-6.325	2	.351	10	1.275	9	.626	10		
195	max	5.473	13	2.716	2	3.145	20	.998	8	6.41	7		
196	min	-2.011	8	-7.169	7	.302	11	-.265	13	.973	11		
197	P50	max	T	7.974	2	2.184	2	2.895	2	1.563	8	7.137	2
198	min	-1.871	8	-6.124	8	.344	10	.255	3	.602	10		
199	max	2.43	8	-1.472	10	3.155	7	2.108	13	7.64	15		
200	min	-3.336	15	-8.741	15	.638	10	.958	7	1.384	10		
201	P51	max	T	1.806	7	.967	7	1.084	13	2.352	16	2.615	13
202	min	-.736	13	-2.904	13	.107	57	-.783	41	.268	55		
203	max	2.206	13	-.183	13	2.403	14	2.275	2	5.872	16		
204	min	-2.01	18	-6.599	18	.384	9	-.728	12	.706	9		
205	P52	max	T	8.224	15	1.314	13	4.609	16	1.412	9	8.722	16
206	min	.868	9	-1.787	7	.385	10	.543	13	.89	9		
207	max	.333	7	-.499	8	2.988	14	2.298	4	7.072	14		
208	min	-1.859	24	-7.808	14	.282	9	-.745	5	.688	8		
209	P53	max	T	4.389	16	1.165	17	1.831	11	2.353	47	3.941	16
210	min	.601	9	-2.074	11	.251	8	-.783	107	.565	8		
211	max	2.774	11	-.393	9	2.131	11	1.371	10	4.199	5		
212	min	-1.103	17	-4.472	16	.21	8	-.044	6	.41	8		
213	P54	max	T	4.907	11	-.297	9	4.602	5	2.186	35	8.583	5
214	min	-.325	24	-.8.2	16	.505	8	-.668	13	.967	8		
215	max	9.58	16	1.598	23	4.595	5	1.816	9	9.11	16		
216	min	.889	9	-3.774	11	.347	8	.215	6	1.029	8		
217	P55	max	T	6.045	16	-.439	4	4	16	1.676	9	7.223	16
218	min	-1.073	9	-3.159	11	.406	9	-.368	8	1.042	8		
219	max	2.781	11	-1.944	10	4.757	15	2.278	12	10.435	16		
220	min	-1.773	17	-11.18	16	.946	8	-.754	9	2.25	8		
221	P56	max	T	4.858	25	-.18	11	3.626	25	.503	6	6.4	25
222	min	-.269	5	-2.535	19	.579	5	-.019	12	1.313	5		
223	max	.276	4	-1.457	4	4.517	22	1.348	11	9.837	22		
224	min	-1.446	22	-10.48	22	.852	3	.968	5	1.613	4		
225	P57	max	T	.627	5	.432	5	3.824	23	1.51	5	7.587	23
226	min	-.943	11	-7.524	23	.098	5	1.003	10	.556	5		
227	max	8.89	23	1.444	11	3.963	23	-.01	5	8.449	23		
228	min	-.208	5	-.478	4	.128	5	-.483	11	.402	5		
229	P58	max	T	4.495	25	1.105	25	1.695	25	1.103	5	4.057	25
230	min	.823	6	.241	6	.291	6	.763	11	.733	6		





Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
231	max	B	-0.97	9	-653	6	1.76	25	2.346	8	4.105	25	
232	min		-1.006	15	-4.508	25	235	6	-735	34	583	6	
233	P59	max	T	7.563	11	2.77	11	3.454	16	1.06	10	8.761	5
234		min		-4.145	5	-10.064	5	397	8	-246	6	694	8
235		max	B	11.097	5	4.372	5	4.044	15	2.355	12	9.682	5
236		min		-2.444	11	-8.596	11	546	8	-643	11	977	8
237	P60	max	T	7.866	11	3.436	10	3.91	5	896	10	13.399	5
238		min		-7.757	4	-15.472	5	467	13	-738	8	1.569	8
239		max	B	14.885	5	10.457	16	3.522	11	2.32	36	12.905	5
240		min		-2.138	10	-9.05	11	.04	104	-76	23	1.271	8
241	P61	max	T	9.041	16	1.118	5	5.116	16	-207	3	9.691	16
242		min		-.977	10	-2.134	10	538	11	-671	10	1.368	9
243		max	B	2.252	11	.035	10	3.157	16	2.083	8	8.199	16
244		min		-2.986	17	-9.266	16	677	8	-718	9	1.515	12
245	P62	max	T	8.14	23	-5.11	2	5.109	23	396	9	9.353	23
246		min		-.403	5	-2.14	21	645	5	15	4	1.142	5
247		max	B	-.092	5	-.938	5	2.821	23	1.72	12	7.236	23
248		min		-2.516	23	-8.158	23	294	4	794	5	888	4
249	P63	max	T	-.548	5	-1.741	5	3.421	23	.77	11	11.956	23
250		min		-7.017	25	-13.805	23	596	5	146	4	1.542	5
251		max	B	11.355	25	9.817	23	1.043	11	2.154	13	10.667	25
252		min		1.609	6	.34	5	691	8	-687	12	1.403	6
253	P64	max	T	.833	11	-1.143	6	3.526	25	-.052	5	6.805	25
254		min		-.099	5	-6.53	25	556	6	-.44	11	1.128	6
255		max	B	7.566	25	.17	5	4.109	25	1.499	5	7.912	25
256		min		1.368	6	-1.113	11	637	6	1.089	11	1.324	6
257	P65	max	T	3.466	4	1.402	23	2.184	5	1.557	7	3.987	5
258		min		.316	8	-1.617	10	682	8	-772	8	274	8
259		max	B	.953	10	-.611	8	2.018	5	2.332	13	3.915	16
260		min		-.473	25	-4.035	16	342	8	-.505	35	651	8
261	P66	max	T	6.333	11	.972	10	4.785	5	2.291	3	9.993	5
262		min		-.799	5	-10.368	5	759	9	-781	17	1.599	8
263		max	B	9.273	5	1.602	17	3.943	5	2.286	10	8.663	5
264		min		-.185	11	-6.889	11	224	13	-783	9	407	13
265	P67	max	T	9.077	16	.505	12	5.094	16	.986	10	9.68	16
266		min		.59	9	-2.055	5	24	9	-.359	6	543	9
267		max	B	1.962	11	-1.469	8	2.668	4	2.231	8	5.9	16
268		min		-1.781	14	-6.565	16	64	34	-655	12	1.39	8
269	P68	max	T	7.958	23	-.643	3	5.071	23	.395	9	9.246	23
270		min		.693	5	-2.194	22	712	5	.198	4	1.234	5
271		max	B	-.034	6	-.548	5	2.02	24	1.73	13	4.63	24
272		min		-1.02	22	-5.053	23	244	5	824	5	521	5
273	P69	max	T	1.122	21	-.911	5	4.673	23	.79	11	8.857	23
274		min		.003	4	-8.269	23	546	5	468	5	1.013	5
275		max	B	5.29	25	1.591	23	1.857	25	2.346	4	4.704	25
276		min		.433	5	-.036	5	134	4	-719	3	453	5
277	P70	max	T	3.201	25	1.296	14	.955	25	2.241	4	2.789	25
278		min		.416	6	.184	9	663	6	-703	5	.37	6
279		max	B	.186	11	-.822	6	1.843	23	.725	5	3.866	24
280		min		-.418	16	-4.034	24	374	5	245	11	793	6
281	P71	max	T	4.881	11	.453	23	2.439	11	2.069	7	4.879	11
282		min		-.117	7	-3.723	5	694	31	-.217	8	245	30
283		max	B	3.541	5	-.343	6	2.338	11	2.293	12	4.804	11
284		min		-.259	12	-4.923	11	521	8	-781	9	921	8
285	P72	max	T	4.417	11	.043	12	3.728	17	2.324	7	6.464	17
286		min		.856	8	-4.974	5	821	9	-.76	3	1.474	8
287		max	B	4.075	5	-.429	7	2.839	5	2.298	11	5.071	5



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksil]	LC	Sigma2 [ksil]	LC	Tau Max [ksil]	LC	Angle [rad]	LC	Von Mises [ksil]	LC		
288		min		-462	13	-4.229	11	.311	13	-.773	10	.788	36
289	P73	max	T	9.306	15	1.022	12	4.526	16	.409	11	9.177	16
290		min		2.082	9	-1.565	5	.821	9	-.603	5	1.9	9
291		max	B	1.442	10	-1.032	7	1.923	11	2.281	34	3.687	16
292		min		-3.063	25	-4.198	16	.046	31	-.689	12	.937	7
293	P74	max	T	7.987	23	-.021	4	4.86	23	.522	13	8.98	23
294		min		1.163	5	-1.733	23	.603	5	.36	5	1.185	5
295		max	B	.172	6	-.483	6	1.134	25	2.314	54	2.692	25
296		min		-.763	19	-2.976	25	.184	9	-.749	48	.525	5
297	P75	max	T	5.161	23	-.069	4	3.972	22	.618	11	6.979	22
298		min		.855	5	-2.797	22	.507	4	.284	5	.946	5
299		max	B	1.016	11	-.58	4	1.057	23	.531	5	2.012	23
300		min		-.441	4	-1.917	25	.069	4	-.766	3	.525	4
301	P76	max	T	1.806	15	.327	19	.76	15	2.224	4	1.682	15
302		min		.164	8	-.322	11	.043	8	-.708	5	.142	8
303		max	B	1.092	22	-.961	6	2.3	23	.576	5	4.167	23
304		min		.01	4	-3.542	24	.565	6	.101	11	1.055	6
305	P77	max	T	8.828	11	3.051	12	3.823	5	2.305	7	7.846	11
306		min		.129	6	-6.856	5	.682	35	-.779	2	1.241	8
307		max	B	6.903	5	-.257	6	3.887	5	2.254	9	7.377	5
308		min		-.403	12	-8.358	11	.247	13	.236	8	.887	8
309	P78	max	T	6.077	16	2.636	5	3.61	15	2.33	3	6.708	16
310		min		-1.558	11	-4.422	10	1.06	7	-.715	7	1.907	8
311		max	B	5.347	11	3.116	10	3.598	16	.394	13	6.345	16
312		min		-2.665	5	-5.716	5	.894	10	.013	9	1.974	33
313	P79	max	T	8.771	23	.443	9	4.691	23	.365	11	9.091	23
314		min		1.375	4	-3.993	5	1.365	7	-.754	5	2.474	7
315		max	B	3.938	5	.29	17	2.993	11	2.354	102	5.495	11
316		min		.254	100	-4.815	11	.035	53	-.785	34	.25	100
317	P80	max	T	5.678	21	-.121	5	4.586	23	.494	11	8.012	22
318		min		1.063	3	-3.595	23	.771	4	-.06	5	1.397	4
319		max	B	3.762	22	1.541	23	1.14	11	.2	2	3.277	22
320		min		.156	4	-.281	5	.197	2	-.731	51	.382	4
321	P81	max	T	8.346	23	1.387	15	3.568	22	.877	4	7.796	23
322		min		1.011	5	-.119	9	.365	5	.388	9	.904	5
323		max	B	.598	6	-1.222	6	2.735	21	.029	6	5.88	25
324		min		-1.15	11	-6.263	25	.791	3	-.392	12	1.553	5
325	P82	max	T	5.635	25	1.147	16	2.404	23	.883	3	5.252	25
326		min		1.281	6	-1.138	11	.273	5	.396	6	1.128	6
327		max	B	1.398	11	-1.459	6	2.886	23	-.2	6	6.109	25
328		min		-1.184	4	-6.436	25	.332	5	-.569	3	1.284	6
329	P83	max	T	16.057	11	3.241	11	6.408	11	.871	10	14.707	11
330		min		-4.592	5	-15.382	5	1.019	8	-.458	6	1.765	8
331		max	B	15.57	5	4.545	5	6.367	11	2.233	13	15.061	11
332		min		-3.89	11	-16.624	11	.234	8	-.746	12	.584	8
333	P84	max	T	8.695	11	.303	12	6.328	16	.863	11	10.981	16
334		min		.862	7	-9.089	5	1.414	8	-.371	6	2.451	8
335		max	B	8.473	5	2.93	17	6.197	11	2.345	41	10.851	11
336		min		1.076	2	-7.791	11	.274	41	-.731	39	1.139	52
337	P85	max	T	10.262	22	.528	7	6.161	23	2.294	3	11.411	23
338		min		1.072	4	-4.546	4	1.032	6	-.581	2	1.825	6
339		max	B	8.152	16	.337	22	4.034	16	2.254	9	8.111	16
340		min		.601	9	-2.052	11	.406	9	.005	8	.729	9
341	P86	max	T	5.991	21	-.187	5	5.905	23	.701	12	10.227	23
342		min		1.323	3	-6.036	25	1.148	4	.162	5	2.024	4
343		max	B	13.711	23	1.56	22	6.103	23	-.271	6	13.024	23
344		min		.87	5	-.354	4	.438	5	-.752	4	.873	5



Company : MasTec  
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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
345	P87	max	T	13.102	22	-579	5	8.256	22	.039	11	15.099	22
346		min		1.614	5	-3.413	23	1.096	5	.329	5	1.968	5
347		max	B	1.506	6	-.102	9	1.771	15	1.631	11	3.116	15
348		min		.005	10	-2.328	12	.163	9	-.491	9	.288	9
349	P88	max	T	1.958	17	-.872	5	4.521	24	.016	11	8.352	23
350		min		-.613	11	-7.432	23	1.035	5	-.416	5	1.795	6
351		max	B	4.899	25	1.026	11	2.741	15	1.909	9	5.195	25
352		min		.222	6	-1.19	4	.38	6	1.065	5	.677	6
353	P89	max	T	1.366	10	-.427	9	2.695	15	1.502	10	6.917	15
354		min		-2.527	16	-7.803	16	.397	7	.563	6	.895	9
355		max	B	5.061	5	2.353	16	2.224	11	2.321	23	4.576	5
356		min		-.07	10	-3.836	11	.107	34	-.784	60	.364	8
357	P90	max	T	9.86	16	2.422	16	3.944	5	1.561	12	8.899	16
358		min		-.698	11	-5.186	11	.397	8	-.543	13	1.009	8
359		max	B	.822	11	-.799	9	3.805	16	1.994	10	8.48	16
360		min		-1.554	15	-9.142	16	.533	8	.824	6	1.002	9
361	P91	max	T	9.319	23	2.2	23	3.56	23	.358	8	8.437	23
362		min		.73	5	-.102	5	.416	5	-.046	5	.786	5
363		max	B	1.37	5	-.355	5	3.979	23	2.248	3	8.61	23
364		min		-1.276	11	-9.141	23	.65	6	-.602	4	1.129	6
365	P92	max	T	.481	5	-.1	6	2.354	25	2.17	2	6.582	23
366		min		-2.822	23	-7.522	23	.548	6	-.755	3	1.051	6
367		max	B	3.193	23	2.715	25	1.023	11	1.157	5	2.969	23
368		min		.591	6	-.302	5	.063	30	-.388	10	.61	6
369	P93	max	T	1.476	5	-.064	8	1.571	5	2.331	13	2.722	5
370		min		.086	8	-1.665	5	.075	8	-.593	35	.13	8
371		max	B	2.406	11	-.233	8	3.05	5	2.33	11	5.382	5
372		min		.046	8	-4.079	5	.139	8	-.727	9	.259	8
373	P94	max	T	6.202	16	2.411	16	2.204	5	1.162	11	5.415	16
374		min		.211	11	-1.243	11	.238	12	-.351	5	.518	12
375		max	B	.648	5	-1.329	8	3.049	16	2.168	10	7.214	16
376		min		-2.078	25	-7.963	16	.419	8	.765	6	1.164	8
377	P95	max	T	5.508	23	1.789	25	1.86	23	2.35	6	4.867	23
378		min		.538	6	-.7	5	.346	7	-.723	4	.713	6
379		max	B	.441	5	-1.573	6	3.205	25	2.265	5	7.01	23
380		min		-1.087	23	-7.49	23	.772	7	1.97	11	1.568	7
381	P96	max	T	1.619	23	-.087	6	1.419	23	.623	11	2.466	23
382		min		.14	6	-1.221	25	.114	6	-.542	5	.199	6
383		max	B	1.952	25	-.36	5	3.027	25	2.123	11	5.352	25
384		min		.362	6	-4.102	25	.376	6	1.746	5	.651	6
385	P97	max	T	4.35	16	.005	7	2.253	16	2.244	8	4.43	16
386		min		.338	9	-.963	11	.226	8	-.776	13	.444	8
387		max	B	3.673	11	-.445	8	4.362	5	1.131	13	8.054	5
388		min		.049	8	-7.152	5	.247	8	-.681	12	.472	8
389	P98	max	T	3.5	25	2.216	25	1.045	10	1.787	4	3.067	25
390		min		.702	6	.339	7	.112	4	-.541	3	.608	6
391		max	B	2.672	5	-1.419	8	3.152	5	2.219	10	6.178	16
392		min		-3.072	23	-7.056	16	.361	8	.798	5	1.229	8
393	P99	max	T	2.707	23	1.136	25	.794	23	1.773	3	2.356	23
394		min		.339	7	-.477	5	.061	7	.535	59	.297	7
395		max	B	-.098	11	-1.406	6	2.396	25	2.167	3	5.597	25
396		min		-1.367	15	-6.152	25	.597	6	1.495	5	1.313	6
397	P100	max	T	4.982	23	.095	4	2.658	23	1.213	5	5.158	23
398		min		.531	5	-.541	11	.249	5	.564	11	.515	5
399		max	B	1.521	25	-.652	5	4.229	25	2.116	4	7.81	25
400		min		.244	6	-6.938	25	.455	5	2.081	10	.812	5
401	P101	max	T	5.736	16	3.072	5	4.358	25	2.134	10	7.556	15





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 Designer : RJT  
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**Envelope Plate/Shell Principal Stresses (Continued)**

LC	Plate	Surf...	Sigma1 [ksil]	LC	Sigma2 [ksil]	LC	Tau Max [ksil]	LC	Angle [rad]	LC	Von Mises [ksil]	LC
402		min	-1.856	10	-6.531	11	.497	6	1.486	6	1.18	7
403		max	5.511	11	2.662	10	2.796	16	.991	5	6.707	5
404		min	-2.233	5	-7.538	5	.455	8	-.263	10	.874	8
405	P102	max	8.344	11	2.419	11	2.963	11	1.561	5	7.436	11
406		min	-1.935	5	-6.364	5	.333	29	.231	11	.608	29
407		max	2.437	5	-1.98	8	3.211	5	2.143	10	6.594	11
408		min	-2.856	25	-7.444	25	.678	8	.98	5	1.753	8
409	P103	max	1.124	5	.383	5	.84	11	2.279	53	1.992	11
410		min	-.69	25	-2.2	11	.085	8	.495	5	.265	3
411		max	1.556	11	-.313	11	1.937	25	2.284	9	4.431	25
412		min	-1.211	16	-4.857	16	.492	7	-.77	10	1.022	9
413	P104	max	6.882	25	.824	11	3.441	25	1.378	5	6.882	25
414		min	1.144	6	-.713	5	.778	6	.661	11	1.396	6
415		max	-.167	5	-.782	6	2.393	23	2.331	7	5.902	23
416		min	-1.896	15	-6.606	25	.255	6	-.669	3	.687	6
417	P105	max	3.45	2	.738	14	1.836	8	2.354	46	3.461	2
418		min	.358	5	-2.207	8	.171	5	-.782	34	.351	5
419		max	2.889	8	-.1	5	2.103	8	1.406	6	3.855	2
420		min	-.655	12	-3.874	2	.131	5	-.146	4	.228	5
421	P106	max	5.317	8	-.62	5	4.319	2	2.312	5	8.007	2
422		min	-.331	21	-7.175	2	.35	5	-.626	10	.664	5
423		max	6.488	14	1.663	20	4.039	2	1.801	7	7.404	2
424		min	.954	5	-3.987	8	.202	5	.181	3	.83	5
425	P107	max	4.135	2	-.516	12	2.444	2	1.524	6	4.558	2
426		min	-.824	7	-3.167	8	.194	6	-.457	4	.734	5
427		max	3.07	8	-1.6	7	3.658	22	2.322	9	8.21	24
428		min	-1.821	14	-8.892	14	.731	5	-.681	6	1.777	5
429	P108	max	3.68	8	-.058	8	2.203	21	.967	2	3.816	21
430		min	-.704	2	-2.359	15	.404	13	-.003	9	1.063	13
431		max	.285	2	-1.113	13	3.309	20	1.351	8	7.416	20
432		min	-1.422	18	-8.015	20	.659	13	.808	2	1.228	13
433	P109	max	1.14	2	.554	2	2.683	20	1.832	13	5.515	8
434		min	-.897	8	-5.909	8	.043	3	-.609	2	.418	3
435		max	6.713	8	1.392	8	2.661	8	1.049	2	6.136	8
436		min	-.305	2	-1.244	2	.09	13	-.482	7	.383	13
437	P110	max	2.845	21	.702	22	1.072	21	1.428	2	2.567	21
438		min	.264	3	.069	3	.098	3	.735	7	.237	3
439		max	.045	3	-.015	3	1.033	21	2.319	9	2.357	21
440		min	-.512	23	-2.567	21	.03	3	-.771	43	.054	3
441	P111	max	7.781	8	2.986	8	2.674	2	1.054	6	8.098	2
442		min	-3.969	2	-9.317	2	.209	5	-.356	3	.41	5
443		max	10.28	2	4.133	2	3.074	2	2.289	5	8.96	2
444		min	-2.658	8	-8.738	8	.34	5	-.747	9	.589	5
445	P112	max	8.624	8	3.698	8	3.752	2	2.321	5	12.136	2
446		min	6.497	2	-14.001	2	.353	10	-.773	4	.968	5
447		max	13.044	2	6.802	14	3.533	8	1.103	11	11.299	2
448		min	-2.429	8	-9.496	8	.021	109	-.709	10	.934	5
449	P113	max	5.786	14	.963	2	3.519	24	-.237	9	6.484	24
450		min	-1.262	7	-1.785	8	.203	7	-.705	7	1.225	6
451		max	2.534	8	.226	8	2.303	24	2.175	5	6.065	14
452		min	-2.696	2	-6.88	14	.657	5	-.694	6	1.313	6
453	P114	max	5.251	20	-.499	11	3.677	20	.615	3	6.561	20
454		min	-.637	2	-2.19	18	.193	2	.218	12	.872	13
455		max	.584	2	-.788	2	1.927	20	1.735	8	5.069	20
456		min	-1.888	20	-5.742	20	.37	13	.558	2	.767	13
457	P115	max	.478	2	-.116	2	2.617	20	.805	7	8.061	20
458		min	-4.074	21	-9.283	20	.297	2	.094	2	.546	2



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
459	max	B	6.753	21	6.402	20	1.018	8	2.194	10	6.563	20	
460	min		.231	2	-1.219	2	.045	44	-.627	9	.978	4	
461	P116	max	T	.808	8	-.256	3	2.092	21	.451	3	4.002	21
462		min		-.068	13	-3.791	21	.155	3	-.492	7	.286	3
463		max	B	4.626	21	.125	13	2.549	21	1.877	2	4.879	21
464		min		.324	3	-1.009	8	.122	3	-1.026	7	.293	3
465	P117	max	T	2.874	2	.955	21	2.034	2	2.349	31	3.622	2
466		min		.252	5	-1.641	8	.025	45	-.759	43	.28	5
467		max	B	1.118	2	-.257	6	1.897	2	2.312	10	3.376	2
468		min		-.267	10	-2.675	2	.246	5	-.512	44	.434	5
469	P118	max	T	6.75	8	.943	8	4.542	2	2.355	26	9.425	2
470		min		-.649	2	-9.732	2	.595	6	-.785	15	1.167	5
471		max	B	8.301	2	1.325	2	3.488	2	2.278	7	7.724	2
472		min		-.283	8	-7.054	8	.362	10	-.729	6	.628	10
473	P119	max	T	6.425	14	.464	9	3.629	14	.927	7	6.88	14
474		min		.693	6	-2.048	2	.221	6	-.4	3	.608	6
475		max	B	2.13	8	-1.306	4	2.36	8	2.093	44	4.181	24
476		min		-1.273	24	-4.67	24	.498	4	-.781	5	1.182	4
477	P120	max	T	5.535	20	-.542	12	3.708	20	.485	3	6.677	20
478		min		-.074	2	-1.891	19	.285	2	.256	12	.611	2
479		max	B	.618	2	-.53	13	1.263	20	1.716	9	2.92	20
480		min		-.723	7	-3.196	20	.255	13	.522	2	.52	13
481	P121	max	T	1.232	18	-.266	2	3.56	20	.793	8	6.608	20
482		min		.135	12	-5.936	20	.331	2	.228	2	.578	2
483		max	B	3.517	8	1.109	21	1.516	8	.772	2	3.301	8
484		min		.378	13	-.97	2	.242	12	-.581	11	.467	13
485	P122	max	T	1.692	21	.869	23	.506	8	2.151	12	1.465	21
486		min		.18	3	-.177	3	.1	26	-.647	13	.252	4
487		max	B	.308	7	-.377	3	1.334	20	.881	2	2.665	21
488		min		-.168	12	-2.676	21	.226	3	.208	8	.419	3
489	P123	max	T	4.898	8	.259	23	2.46	8	2.349	39	4.909	8
490		min		.036	4	-4.049	2	.006	108	-.617	36	.101	99
491		max	B	3.711	2	-.168	4	2.272	8	2.274	9	4.662	8
492		min		-.237	9	-4.772	8	.4	5	-.764	6	.695	5
493	P124	max	T	4.442	8	-.039	9	3.502	2	2.316	4	6.26	2
494		min		.591	5	-5.045	2	.63	6	-.758	12	1.145	6
495		max	B	4.032	2	-.221	4	2.584	8	2.292	8	4.749	8
496		min		-.211	10	-4.174	8	.407	10	-.777	7	.87	11
497	P125	max	T	7.285	22	1.022	20	3.423	14	.482	8	7.005	14
498		min		1.947	6	-1.603	2	.779	6	-.627	2	1.785	6
499		max	B	1.404	7	-.76	4	.2	7	2.351	36	3.524	8
500		min		-1.934	24	-3.385	20	.118	54	-.784	104	.665	4
501	P126	max	T	5.903	20	.041	13	3.734	20	.523	10	6.822	20
502		min		.77	2	-1.566	20	.392	2	.207	2	.777	2
503		max	B	.806	3	-.428	28	.809	9	2.325	11	1.641	9
504		min		-.382	23	-1.664	9	.149	45	-.781	7	.4	31
505	P127	max	T	3.932	20	-.124	13	3.189	20	.621	8	5.574	20
506		min		.552	2	-2.447	20	.382	2	.134	2	.683	2
507		max	B	1.018	8	-.465	12	1.018	18	.554	2	1.792	18
508		min		-.22	12	-1.358	14	.123	12	-.578	9	.403	12
509	P128	max	T	.748	11	.361	21	.356	8	2.349	104	.709	11
510		min		.152	32	-.441	7	.017	44	-.772	108	.136	31
511		max	B	1.013	20	-.592	3	1.726	20	.62	2	3.072	20
512		min		.044	13	-2.46	21	.376	3	.052	8	.686	3
513	P129	max	T	8.77	8	2.676	9	3.514	2	2.218	12	7.841	8
514		min		-.639	3	-7.147	2	.63	43	-.76	4	1.172	5
515		max	B	7.301	2	.557	3	3.606	2	2.226	6	7.263	8



Company : MasTec  
 Designer : RJT  
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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksii]	LC	Sigma2 [ksii]	LC	Tau Max [ksii]	LC	Angle [rad]	LC	Von Mises [ksii]	LC		
516	min	-3.573	9	-8.337	8	.122	10	.128	5	.598	5		
517	P130	max	T	4.879	2	2.386	2	3.072	21	2.287	3	5.327	20
518	min	-2.048	8	-4.551	8	.871	4	-.735	12	1.526	4		
519	max	B	5.438	8	3.229	8	2.93	14	.354	10	5.405	20	
520	min	-2.123	2	-4.968	2	.985	44	-.035	3	1.765	48		
521	P131	max	T	8.483	20	.508	6	4.118	20	2.356	2	8.362	20
522	min	1.383	18	-3.774	2	1.04	4	-.724	8	2.059	4		
523	max	B	3.973	2	.257	2	3.109	8	2.282	7	5.782	8	
524	min	.215	50	-5.215	8	.105	50	-.756	6	.213	50		
525	P132	max	T	5.064	18	.329	3	3.758	20	.517	8	6.623	20
526	min	1.342	12	-2.616	8	.767	13	-.251	2	1.525	13		
527	max	B	3.633	20	1.089	20	1.33	18	.968	12	3.253	18	
528	min	.294	13	-4.99	13	.031	11	-.635	9	.352	12		
529	P133	max	T	6.272	20	.527	10	3.025	20	.692	13	6.164	20
530	min	.296	2	-.486	4	.274	2	.286	3	.475	2		
531	max	B	1.298	3	-.481	3	2.215	19	.166	3	4.233	21	
532	min	-1.103	8	-4.095	21	.61	7	-.383	8	1.357	13		
533	P134	max	T	3.537	22	.702	12	1.762	20	.787	9	3.505	21
534	min	.802	3	-1.222	8	.242	13	-.039	2	.874	3		
535	max	B	1.502	8	-.775	3	2.107	20	.281	2	4.088	21	
536	min	-.807	13	-4.011	22	.261	13	-.492	11	.785	3		
537	P135	max	T	16.208	8	3.465	8	6.372	8	.874	7	14.783	8
538	min	-4.455	2	-15.128	2	.789	5	-.503	3	1.379	5		
539	max	B	15.38	2	4.244	2	6.411	8	2.294	20	15.23	8	
540	min	-4.013	8	-16.835	8	.233	40	-.726	9	.423	40		
541	P136	max	T	8.278	8	.143	9	5.461	2	.945	7	10.116	2
542	min	.412	4	-9.049	2	.888	6	-.409	3	1.647	6		
543	max	B	8.943	2	2.269	14	6.174	8	2.201	11	10.821	8	
544	min	.833	11	-7.83	8	.26	11	-.504	10	.728	11		
545	P137	max	T	10.878	20	.932	4	5.608	20	2.353	12	11.05	20
546	min	1.069	13	-2.915	13	.482	3	-.489	11	1.232	3		
547	max	B	6.193	2	.566	20	3.43	2	2.202	6	6.552	2	
548	min	.438	6	-2.925	8	.536	6	-.345	5	.934	6		
549	P138	max	T	5.976	15	.357	2	4.445	20	.714	8	7.802	20
550	min	1.679	11	-3.685	8	1.232	13	-.077	2	2.347	12		
551	max	B	10.937	20	1.571	18	4.686	20	.548	2	10.244	20	
552	min	.514	2	-.445	2	.283	13	-.585	12	.558	13		
553	P139	max	T	10.556	20	-.381	2	6.648	20	.058	8	12.16	20
554	min	.925	2	-2.74	20	.653	2	-.395	2	1.163	2		
555	max	B	2.627	3	-.197	44	1.624	15	1.923	7	2.929	15	
556	min	.162	7	-2.19	8	.443	32	-.085	6	.792	32		
557	P140	max	T	1.432	14	-.244	2	3.223	21	.063	8	5.977	20
558	min	-.731	8	-5.371	20	.656	3	-.554	2	1.157	3		
559	max	B	3.424	8	1.011	8	1.206	8	2.348	5	3.047	8	
560	min	-.313	2	-1.058	2	.162	4	-.272	4	.287	4		
561	P141	max	T	1.402	8	-.175	7	1.932	21	1.512	6	4.49	24
562	min	-1.807	13	-5.006	24	.178	4	.303	3	.693	4		
563	max	B	4.713	2	1.203	24	2.228	8	1.83	10	4.379	2	
564	min	-.121	6	-3.979	8	.076	43	-.764	20	.271	5		
565	P142	max	T	8.212	2	1.62	14	3.485	2	1.52	9	7.667	2
566	min	-.811	8	-.56	8	.206	5	-.6	10	.563	5		
567	max	B	1.216	7	-.991	5	2.451	24	2.1	7	5.578	24	
568	min	-1.167	24	-6.069	24	.387	5	.735	3	.902	5		
569	P143	max	T	6.107	20	1.649	8	2.324	20	.43	4	5.525	20
570	min	-.065	2	-.685	2	.181	3	-.697	2	.364	3		
571	max	B	1.901	2	.195	2	2.8	8	2.251	12	6.267	8	
572	min	-1.169	8	-6.77	8	.291	4	-.388	13	.571	4		





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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	max/min	LC	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
573	P144	max	T	.937	2	-.14	3	1.758	8	2.162	4	4.239	8
574		min		-1.809	20	-4.811	20	.23	4	-.761	12	.551	4
575		max	B	2.621	8	1.6	22	1.022	8	1.172	2	2.386	8
576		min		.157	3	-.623	2	.041	26	-.379	7	.226	4
577	P145	max	T	1.282	2	-.084	42	1.399	2	2.342	17	2.426	2
578		min		.122	29	-1.517	2	.104	30	-.752	29	.18	30
579		max	B	2.577	8	-.119	5	2.685	2	2.351	8	4.736	2
580		min		.051	5	-3.577	2	.085	5	-.736	7	.151	5
581	P146	max	T	4.383	2	1.714	14	2.002	2	1.164	8	4.206	2
582		min		.099	7	-1.479	8	.201	5	-.361	2	.553	9
583		max	B	.875	2	-1.039	5	1.855	14	2.206	7	4.683	24
584		min		-1.693	21	-5.265	24	.315	5	.672	3	.906	5
585	P147	max	T	3.677	20	1.171	20	1.253	20	2.287	13	3.254	20
586		min		.307	3	-1.261	2	.135	4	.121	12	.345	4
587		max	B	.544	2	-.612	4	2.086	20	2.332	2	4.592	20
588		min		-.895	8	-4.92	20	.298	4	1.954	7	.605	4
589	P148	max	T	1.327	8	-.078	4	1.095	8	2.193	2	1.911	8
590		min		.057	4	-.863	8	.068	4	-.595	13	.118	4
591		max	B	1.201	21	-.017	3	1.892	21	2.146	7	3.348	21
592		min		.148	4	-2.584	20	.131	3	1.006	3	.253	3
593	P149	max	T	2.515	24	.001	4	1.311	24	2.353	32	2.57	24
594		min		.182	5	-1.173	7	.122	5	-.783	44	.22	5
595		max	B	4.015	8	-.076	5	3.793	2	1.169	10	7.001	2
596		min		.02	5	-6.212	2	.048	5	-.653	9	.088	5
597	P150	max	T	2.916	20	1.704	21	.776	8	1.502	13	2.536	20
598		min		.448	2	.062	3	.076	13	-.552	12	.407	2
599		max	B	2.904	2	-1.093	4	2.85	2	2.236	7	4.937	2
600		min		-2.345	21	-4.697	24	.357	5	.765	2	1.014	4
601	P151	max	T	1.912	20	.709	21	.741	8	1.941	12	1.675	20
602		min		.203	4	-.612	2	.035	4	.514	5	.178	4
603		max	B	.198	2	-.678	4	1.531	21	2.137	12	3.53	21
604		min		-.816	24	-3.86	21	.25	4	1.26	2	.609	4
605	P152	max	T	3.23	20	.032	12	1.807	8	1.792	2	3.387	8
606		min		.217	3	-.511	8	.183	4	.554	7	.359	4
607		max	B	.932	21	.039	2	2.639	21	2.119	4	4.879	21
608		min		.125	4	-4.346	21	.082	3	.611	2	.182	3
609	P153	max	T	3.955	2	2.837	2	3.043	21	2.204	4	6.008	8
610		min		-1.828	7	-6.595	8	.262	4	.936	3	.481	4
611		max	B	5.829	8	2.245	8	2.363	2	1.014	2	5.94	2
612		min		-1.943	2	-6.668	2	.376	5	-.274	7	.839	44
613	P154	max	T	8.445	8	2.441	8	3.002	8	1.581	13	7.527	8
614		min		-1.943	2	-6.271	2	.28	11	.218	10	.509	11
615		max	B	2.732	2	-1.273	4	3.031	2	2.131	7	6.547	8
616		min		-2.103	22	-6.982	8	.518	4	.938	2	1.173	4
617	P155	max	T	1.495	2	.528	2	.818	8	2.349	39	1.922	8
618		min		-.483	8	-2.118	8	.029	26	-.735	38	.101	5
619		max	B	1.734	8	-.025	7	1.192	20	2.348	9	2.629	22
620		min		-.686	14	-2.86	23	.211	4	-.587	8	.585	4
621	P156	max	T	4.206	21	.732	8	2.046	21	1.495	2	4.15	21
622		min		.171	3	-.808	2	.339	3	.53	7	.611	3
623		max	B	.592	2	-.099	3	1.603	20	2.286	11	3.803	20
624		min		-1.045	22	-4.202	20	.18	4	-.729	4	.403	4
625	P157	max	T	3.475	19	.874	19	1.3	19	2.273	10	3.13	19
626		min		.637	12	.177	12	.23	12	2.151	13	.57	12
627		max	B	-.15	12	-.598	12	1.337	19	.763	5	3.112	19
628		min		-.741	19	-3.416	19	.224	12	.657	12	.539	12
629	P158	max	T	.411	14	-.471	12	2.876	19	2.136	10	5.628	19



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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
630	min	-.124	9	-5.496	19	.371	12	1.978	13	.65	12		
631	max	6.401	19	.667	19	2.867	19	.505	4	6.095	19		
632	min	.53	12	.035	12	.247	12	.359	12	.513	12		
633	P159	max	T	3.017	21	-.432	9	2.737	19	-.052	11	4.748	19
634	min	-.011	4	-2.676	16	.39	12	-.381	4	.746	12		
635	max	-.253	10	-1.336	12	3.692	19	1.945	3	8.069	19		
636	min	-1.331	16	-8.613	19	.493	12	1.908	10	1.2	12		
637	P160	max	T	5.043	19	-.482	11	3.582	20	.65	12	6.374	20
638	min	.614	12	-2.288	15	.694	11	-.244	9	1.221	11		
639	max	.357	9	-.867	9	4.741	15	1.343	13	10.415	15		
640	min	-1.665	15	-11.147	15	.612	9	.855	9	1.09	9		
641	P161	max	T	.651	9	-.67	9	3.871	15	1.25	12	7.795	15
642	min	-.137	24	-7.846	15	.608	8	.336	9	1.058	8		
643	max	8.344	15	1.105	19	3.727	15	-.395	4	7.937	15		
644	min	1.572	9	-.03	4	.526	9	-.571	10	1.387	9		
645	P162	max	T	4.189	18	1.055	15	1.656	19	1.512	12	3.825	19
646	min	.853	11	-.131	9	.331	11	.582	9	.775	11		
647	max	.152	10	-.849	12	1.759	19	2.326	11	3.941	18		
648	min	-.933	15	-.427	18	.305	12	-.785	21	.758	12		
649	P163	max	T	.338	19	-.918	12	2.658	19	.313	9	5.155	19
650	min	-.018	4	-4.978	19	.461	12	.185	12	.92	12		
651	max	5.833	19	-.018	12	3.17	19	1.93	7	6.102	19		
652	min	1.092	12	-.507	19	.555	12	1.818	12	1.101	12		
653	P164	max	T	-.734	12	-1.582	12	2.718	19	-.515	11	9.257	19
654	min	-5.252	19	-10.688	19	.424	12	-.668	4	1.371	12		
655	max	8.37	19	7.364	19	.6	14	1.939	4	7.915	19		
656	min	1.404	12	-.855	12	.126	45	.802	9	1.226	12		
657	P165	max	T	6.109	19	-.346	10	4.089	19	-.279	10	7.364	19
658	min	.627	12	-2.267	16	.621	12	-.433	4	1.076	12		
659	max	-.378	12	-1.253	12	2.142	19	1.938	3	5.649	19		
660	min	-2.156	20	-6.402	19	.437	12	1.534	10	1.113	12		
661	P166	max	T	7.817	18	-.378	10	4.754	18	.498	12	8.785	18
662	min	1.588	12	-1.814	16	1.092	12	.105	9	1.955	12		
663	max	-.203	9	-.898	9	2.98	15	1.63	9	7.662	15		
664	min	-2.682	15	-8.642	15	.347	9	1.351	12	.816	9		
665	P167	max	T	-.141	9	-1.239	9	3.37	15	.804	12	11.823	15
666	min	-6.912	15	-13.651	15	.428	10	-.204	9	1.175	9		
667	max	10.811	15	9.224	15	.794	15	2.043	12	10.111	15		
668	min	1.78	9	1.08	9	.026	11	.579	10	1.553	9		
669	P168	max	T	1.657	9	-.604	9	3.358	19	.125	12	6.249	18
670	min	-1.123	3	-6.192	15	.523	12	-.514	10	1.237	11		
671	max	7.122	15	.702	4	3.959	18	1.514	12	7.391	15		
672	min	.887	9	-1.447	10	.764	12	.996	9	1.558	11		
673	P169	max	T	2.309	19	1.011	19	.655	21	1.672	4	2.005	19
674	min	.399	12	.22	4	.079	12	1.109	12	.348	12		
675	max	-.05	11	-.626	12	1.485	19	-.353	10	3.116	19		
676	min	-.293	25	-3.244	19	.285	12	-.583	13	.6	12		
677	P170	max	T	.966	16	-1.039	12	3.72	19	-.682	12	7.023	19
678	min	.212	10	-6.515	19	.637	12	-.716	9	1.174	12		
679	max	3.712	19	1.288	16	1.213	21	.55	10	3.265	19		
680	min	.425	12	-.192	12	.116	12	-.464	13	.368	12		
681	P171	max	T	6.215	19	-.428	9	4.059	19	-.295	10	7.353	19
682	min	.918	12	-2.047	16	.712	12	-.407	4	1.251	12		
683	max	-.119	12	-.774	12	1.416	19	2.017	3	3.432	19		
684	min	-1.02	20	-3.816	19	.328	12	1.429	10	.722	12		
685	P172	max	T	7.851	18	.128	10	4.753	15	.446	13	8.718	15
686	min	1.765	12	-1.883	15	.906	9	.081	9	1.859	9		



Company : MasTec  
 Designer : RJT  
 Job Number : 18813-MNO1  
 Model Name : 823530 - CT364/Chapel St. Monopole

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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC		
687	max	B	-2	12	-988	9	2.123	15	1.563	28	4.995	15	
688	min		-1.388	19	-5.503	15	.271	9	1.214	10	.857	9	
689	P173	max	T	.995	20	-.285	9	4.592	15	.854	12	8.77	15
690		min		.179	12	-8.288	15	.498	9	.095	9	.886	10
691		max	B	5.097	15	1.594	15	1.751	15	-.042	10	4.516	15
692		min		.232	9	.118	10	.051	9	-.532	29	.201	9
693	P174	max	T	2.914	18	1.355	19	.943	15	1.966	20	2.528	18
694		min		.521	11	-.471	13	.153	11	-.642	6	.453	11
695		max	B	.097	12	-.613	9	1.781	15	.808	9	3.743	15
696		min		-.465	19	-3.901	15	.22	9	.31	12	.547	9
697	P175	max	T	1.172	22	.335	15	.446	22	1.267	5	1.06	22
698		min		-.176	5	.014	9	.03	5	-.152	4	.155	5
699		max	B	.838	19	-.691	12	1.893	19	-.26	9	3.445	18
700		min		.151	12	-2.956	18	.421	12	-.456	13	.778	12
701	P176	max	T	4.119	19	-.395	12	3.182	19	-.502	12	5.591	19
702		min		.853	12	-2.265	20	.624	12	-.532	9	1.104	12
703		max	B	.311	4	-.369	11	.847	20	.537	10	1.619	20
704		min		-.018	35	-1.533	20	.203	11	-.423	12	.388	11
705	P177	max	T	6.37	20	-.067	13	3.842	19	-.456	41	7.114	19
706		min		1.181	12	-1.326	19	.625	12	-.491	12	1.217	12
707		max	B	-.008	9	-.323	12	.784	21	.762	10	1.914	21
708		min		-.665	24	-2.132	21	.054	12	-.609	13	.285	12
709	P178	max	T	8.33	15	.445	10	4.369	15	.558	4	8.541	15
710		min		1.856	9	-.793	4	.74	9	.197	10	1.7	9
711		max	B	.138	4	-.211	12	.738	16	2.318	17	2.789	19
712		min		-1.848	21	-3.209	19	.005	11	-.736	5	.201	12
713	P179	max	T	4.487	18	.14	9	3.743	15	.722	12	6.52	15
714		min		.955	11	-3.043	15	.554	9	.018	9	1.142	10
715		max	B	.909	12	-.32	12	1.283	15	.801	9	2.27	15
716		min		-.542	6	-1.769	18	.09	8	-.382	33	.468	10
717	P180	max	T	1.98	19	.368	20	.811	7	2.239	45	1.826	19
718		min		.05	12	-1.214	13	.043	11	-.739	6	.139	11
719		max	B	1.119	15	-.455	12	2.147	18	.662	9	3.944	18
720		min		-.049	9	-3.485	19	.498	11	.023	12	.896	11
721	P181	max	T	4.437	19	.756	24	1.894	19	-.473	3	4.151	19
722		min		1.004	12	-.014	8	.363	12	-.779	10	.898	12
723		max	B	.06	7	-1.073	12	2.241	19	.498	10	4.798	19
724		min		-.739	25	-5.061	19	.388	12	.241	4	.96	12
725	P182	max	T	6.536	19	.915	20	2.852	19	-.445	52	6.162	19
726		min		1.219	12	-.069	3	.606	12	-.507	11	1.216	12
727		max	B	.744	3	-.862	12	2.363	17	.337	9	4.774	19
728		min		-.413	9	-4.853	19	.594	9	-.041	12	1.167	12
729	P183	max	T	4.848	15	-.311	12	3.629	18	-.225	4	6.379	18
730		min		-.869	9	-2.64	20	.923	12	-.376	10	1.606	9
731		max	B	3.03	19	1.295	19	.868	19	.642	10	2.634	19
732		min		.553	11	-.148	12	.143	11	-.541	12	.479	11
733	P184	max	T	6.274	19	-.198	10	4.172	18	.443	4	7.515	18
734		min		1.455	12	-2.302	16	.997	12	-.047	10	1.786	12
735		max	B	2.906	3	1.207	16	1.122	3	2.351	35	2.638	3
736		min		.079	10	-1.495	9	.038	21	-.735	29	.271	11
737	P185	max	T	7.128	15	.955	4	3.337	15	.615	9	6.913	15
738		min		.693	9	-.862	10	.705	9	.455	4	1.221	9
739		max	B	1.158	10	-.572	10	2.921	18	.021	4	5.526	15
740		min		-.448	4	-5.186	15	.764	12	-.407	9	1.356	8
741	P186	max	T	5.638	19	1.863	6	2.462	15	.788	13	5.06	19
742		min		.301	12	-1.73	13	.328	8	-.063	9	1.113	11
743		max	B	1.753	13	-.465	12	2.785	15	2.312	8	5.62	18





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**Envelope Plate/Shell Principal Stresses (Continued)**

Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Anole [rad]	LC	Von Mises [ksi]	LC		
744	min	-2.022	7	-6.205	19	.241	9	-.753	7	1.158	11		
745	P187	max	T	1.766	15	-.983	12	3.666	19	.321	12	6.694	19
746	min	.152	9	-5.784	19	.823	12	.135	9	1.434	12		
747	max	3.422	21	.084	7	1.927	21	1.957	12	3.657	21		
748	min	.282	12	-.562	25	.268	4	1.619	8	.488	4		
749	P188	max	T	10.465	19	-.592	12	6.605	19	.113	13	12.074	19
750	min	2.108	12	-2.746	19	1.35	12	.043	10	2.458	12		
751	max	2.083	3	-.018	5	1.408	15	2.353	35	2.509	15		
752	min	.129	8	-1.15	10	.365	6	-.778	29	.645	6		
753	P189	max	T	5.951	15	-.251	12	4.663	18	-.222	13	8.159	15
754	min	.652	9	-4.116	20	1.261	11	-.755	9	2.198	11		
755	max	10.824	19	1.249	16	4.799	19	.5	10	10.266	19		
756	min	1.869	12	.232	10	.817	12	.24	4	1.763	12		
757	P190	max	T	6.671	19	-.156	12	5.537	19	.544	4	9.657	19
758	min	1.498	12	-4.427	18	.827	12	.333	11	1.581	12		
759	max	11.451	15	1.154	15	5.149	15	2.323	7	10.92	15		
760	min	1.26	9	-.907	9	.942	11	-.699	6	1.759	10		
761	P191	max	T	10.615	15	-.291	9	7.271	15	.105	12	13.03	15
762	min	1.927	10	-3.927	15	1.127	9	-.483	9	2.123	9		
763	max	2.864	12	.979	25	1.656	7	.964	37	3.044	6		
764	min	.468	5	-2.709	6	.334	98	-.722	4	.717	109		
765	P192	max	T	3.339	9	-.113	9	4.392	19	.249	12	7.848	15
766	min	-1.103	13	-7.138	15	.978	11	-.637	9	1.734	11		
767	max	4.718	15	1.184	3	2.82	19	2.192	12	4.927	19		
768	min	.019	9	-3.591	9	.445	11	.916	9	.798	11		
769	P193	max	T	-.158	12	-.869	12	1.808	19	1.252	9	4.982	19
770	min	-2.066	19	-5.683	19	.356	12	.786	12	.802	12		
771	max	2.376	19	2.043	19	.192	14	2.222	4	2.228	19		
772	min	.455	12	.154	12	.045	60	-.74	25	.401	12		
773	P194	max	T	6.972	19	1.616	19	2.678	19	-.283	4	6.321	19
774	min	.855	12	-.137	12	.359	12	-.332	52	.796	12		
775	max	.055	12	-.675	12	2.957	19	1.186	9	6.338	19		
776	min	-.743	19	-6.677	19	.365	12	.921	12	.704	12		
777	P195	max	T	8.738	15	2.015	15	3.362	15	.541	9	7.925	15
778	min	.909	9	.303	9	.303	9	.268	12	.801	9		
779	max	-.153	4	-1.736	12	3.566	18	2.125	4	7.833	18		
780	min	-1.257	19	-8.382	18	.772	12	1.823	10	1.649	12		
781	P196	max	T	-.318	9	-1.301	12	2.451	19	2.092	4	6.403	18
782	min	-2.502	15	-7.252	18	.332	12	1.863	12	1.127	12		
783	max	3.183	15	2.385	17	.564	13	1.284	9	2.857	15		
784	min	.666	11	-.194	9	.053	45	-.175	13	.588	11		
785	P197	max	T	1.159	19	-.15	4	1.024	19	.016	12	1.779	19
786	min	.152	12	-.889	19	.152	12	-.434	9	.263	12		
787	max	1.488	19	-.45	12	2.285	19	1.168	12	4.037	19		
788	min	.239	12	3.082	19	.345	12	1.065	9	.606	12		
789	P198	max	T	4.075	19	1.398	19	1.338	19	-.094	4	3.586	19
790	min	.49	12	.167	12	.161	12	-.36	8	.431	12		
791	max	-.024	12	-.759	12	2.455	19	1.116	9	5.349	19		
792	min	-.789	19	-5.699	19	.367	12	.97	12	.747	12		
793	P199	max	T	5.262	15	1.815	19	1.736	15	.395	4	4.634	15
794	min	.83	9	-.327	4	.184	9	.164	10	.721	9		
795	max	.029	4	-1.455	12	2.888	15	2.214	4	6.459	18		
796	min	-1.425	21	-7.037	18	.582	9	1.819	10	1.414	12		
797	P200	max	T	1.263	15	-.085	9	1.142	15	.766	10	1.981	15
798	min	.159	9	-1.021	15	.122	9	.233	4	.214	9		
799	max	1.682	15	-.526	10	2.666	15	2.235	12	4.721	15		
800	min	.26	10	-3.65	15	.393	10	1.691	9	.694	10		



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**Envelope Plate/Shell Principal Stresses (Continued)**

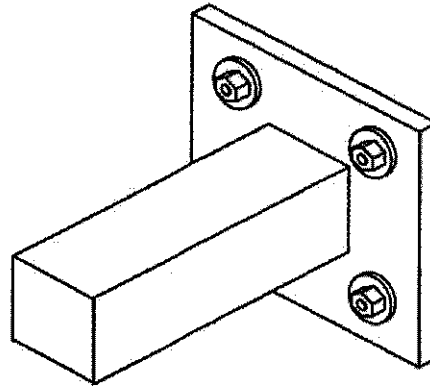
	Plate	Surf...	Sigma1 [ksi]	LC	Sigma2 [ksi]	LC	Tau Max [ksi]	LC	Angle [rad]	LC	Von Mises [ksi]	LC
801	P201	max	3.733	19	.009	13	1.966	19	-.596	9	3.836	19
802		min	.482	12	-.199	19	.237	12	-.753	13	.478	12
803		max	1.155	19	-.737	12	3.188	19	1.036	7	5.883	19
804		min	.196	12	-5.22	19	.467	12	1.013	4	.852	12
805	P202	max	1.906	19	.902	19	.502	19	2.051	4	1.651	19
806		min	.233	12	.169	12	.011	3	-.65	36	.208	12
807		max	-.255	4	-.984	12	1.835	19	1.255	4	4.367	19
808		min	-1.159	18	-4.829	19	.344	12	1.006	12	.874	12
809	P203	max	2.77	19	1.579	21	.637	15	1.004	4	2.406	19
810		min	.439	12	-.042	13	.13	8	.017	10	.423	12
811		max	.662	4	-1.12	12	2.156	15	2.29	13	5.292	18
812		min	-2.085	21	-5.999	18	.354	9	1.64	9	1.171	12
813	P204	max	4.39	18	-.052	11	2.325	18	.803	9	4.526	18
814		min	.863	12	-.259	18	.464	12	.475	12	.897	12
815		max	1.341	15	-.678	9	3.816	15	2.154	12	7.058	15
816		min	.128	10	-6.291	15	.406	9	2.012	9	.754	9
817	P205	max	5.246	19	.12	9	2.704	19	2.133	9	5.329	19
818		min	.891	12	-.406	3	.607	12	1.871	12	1.089	12
819		max	-.193	12	-.719	12	1.753	19	.964	9	4.364	19
820		min	-1.384	20	-4.888	19	.263	12	.638	12	.644	12
821	P206	max	.234	4	.179	3	.201	23	1.691	8	.768	21
822		min	-.509	20	-.885	21	.011	3	-.521	4	.136	5
823		max	-.094	9	-.946	12	1.397	19	1.646	13	3.394	19
824		min	-1.085	15	-3.777	19	.378	12	1.146	9	.867	12
825	P207	max	1.867	10	.409	10	.716	21	2.339	16	1.62	4
826		min	-.538	4	-1.821	4	.083	49	-.784	52	.191	47
827		max	.859	3	-.885	12	1.945	15	2.197	13	5.092	19
828		min	-1.99	21	-5.783	19	.454	11	1.289	9	1.167	48
829	P208	max	5.944	17	1.116	4	3.808	19	1.19	4	6.905	19
830		min	1.085	11	-1.838	21	.271	12	.887	12	1.002	12
831		max	.511	10	-.402	10	2.317	15	2.339	11	5.241	15
832		min	-1.055	15	-5.689	15	.413	9	-.687	6	.715	9

**APPENDIX D**  
**ADDITIONAL CALCUATIONS**



**Bolt Calculations:**

Bolt Size:	5/8
# Bolts:	4
Plate Width:	8.5
Plate Height:	8.5
Bolt H Gap:	6
Bolt V Gap:	6
Plate T:	0.75
Bolt Grade:	A325N
$F_u$ bolt:	120
$r$ :	4.243
$J$ :	72,000
Bolt Area, Normal:	0.307
Bolt Area, Net Tensile:	0.226



Allowable Shear:	12.4
Allowable Tension:	20.3

Tension Capacity:	92.3%
Shear Capacity:	19.6%
Combined Capacity:	85.7%

Bolt Capacity:	92.3%
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**Plate Calculations:**

Horizontal Member Height:	6
Horizontal Member Width:	4
Plate Grade:	A36
Plate $F_y$ :	36

$M_x$ =	7.860
$M_z$ =	0.000

$Z_x$ =	1.195
$Z_z$ =	1.195

$\phi M_{py}(X)$ =	38.728
$\phi M_{px}(X)$ =	38.728

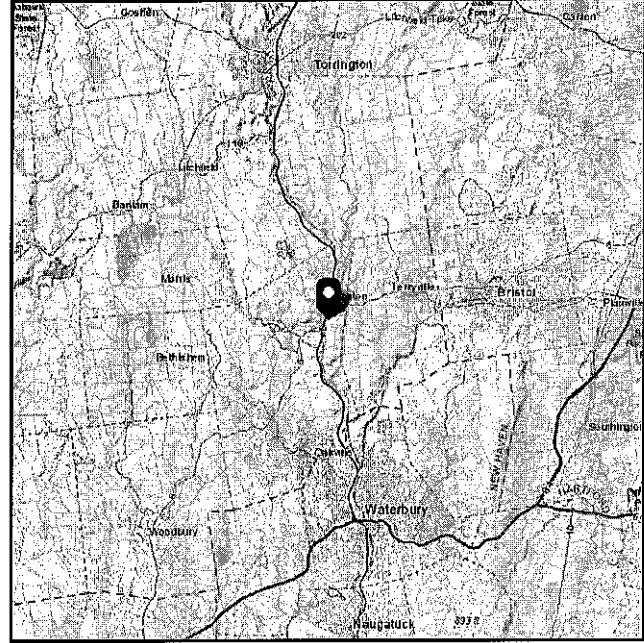
Plate Capacity:	20.3%
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# ASCE 7 Hazards Report

**Address:**  
No Address at This  
Location

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

**Elevation:** 543 ft (NAVD 88)  
**Latitude:** 41.663467  
**Longitude:** -73.074281



## Wind

### Results:

Wind Speed:	118 Vmph
10-year MRI	76 Vmph
25-year MRI	85 Vmph
50-year MRI	91 Vmph
100-year MRI	97 Vmph

Litchfield County and Thomaston Require an ultimate wind speed of 120 mph.

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

**Date Accessed:** Fri Jun 07 2019

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

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

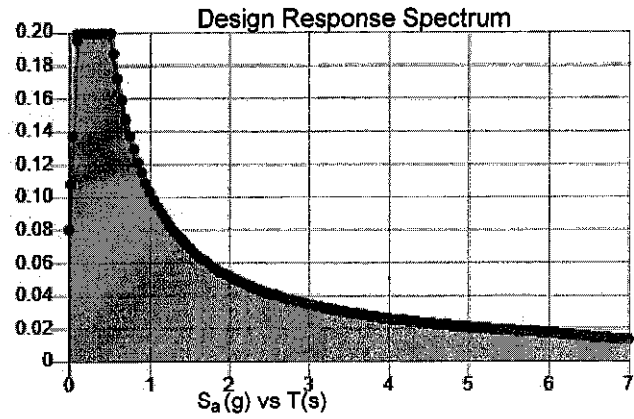
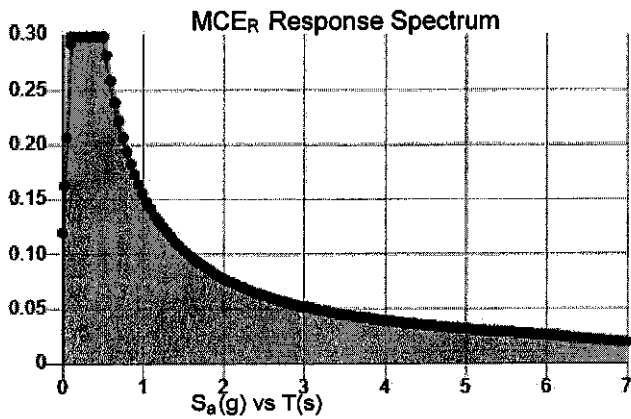
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

**Site Soil Class:** D - Stiff Soil

**Results:**

$S_s$ :	0.186	$S_{DS}$ :	0.199
$S_1$ :	0.064	$S_{D1}$ :	0.103
$F_a$ :	1.6	$T_L$ :	6
$F_v$ :	2.4	PGA :	0.096
$S_{MS}$ :	0.298	PGA <sub>M</sub> :	0.153
$S_{M1}$ :	0.155	F <sub>PGA</sub> :	1.6
		$I_e$ :	1

**Seismic Design Category** B



**Data Accessed:**

Fri Jun 07 2019

**Date Source:**

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

**Results:**

Ice Thickness: 0.75 in.  
Concurrent Temperature: 5 F  
Gust Speed: 50 mph

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

**Date Accessed:** Fri Jun 07 2019

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

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

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

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# Exhibit F

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

# Transcom Engineering, Inc.

Wireless Network Design and Deployment

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## Radio Frequency Emissions Analysis Report

**T-MOBILE** Existing Facility

**Site ID: CT11364B**

CT364/Chapel St. Monopole  
580 Chapel Street  
Thomaston, CT 06787

**May 31, 2019**

**Transcom Engineering Project Number: 737001-0110**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>23.48 %</b>



# Transcom Engineering, Inc.

Wireless Network Design and Deployment

May 31, 2019

T-MOBILE

Attn: Jason Overbey, RF Manager  
35 Griffin Road South  
Bloomfield, CT 6009

## Emissions Analysis for Site: **CT11364B – CT364/Chapel St. Monopole**

Transcom Engineering, Inc (“Transcom”) was directed to analyze the proposed upgrades to the T-MOBILE facility located at **580 Chapel Street, Thomaston, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 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 population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Population 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 limits for the 600 & 700 MHz bands are approximately  $400 \mu\text{W}/\text{cm}^2$  and  $467 \mu\text{W}/\text{cm}^2$  respectively. 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.

# Transcom Engineering, Inc.

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Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

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## CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **580 Chapel Street, Thomaston, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	2	60
GSM	1900 MHz (PCS)	1	15
LTE / 5G NR	600 MHz	2	40
LTE	700 MHz	2	20

*Table 1: Channel Data Table*

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The following antennas listed in *Table 2* were used in the modeling for transmission in the 600, 700 MHz, 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXVAARR24 43-U-NA20	172
A	2	EMS RR90-17-XXDP (Dormant)	172
B	1	RFS APXVAARR24 43-U-NA20	172
B	2	EMS RR90-17-XXDP (Dormant)	172
C	1	RFS APXVAARR24 43-U-NA20	172
C	2	EMS RR90-17-XXDP (Dormant)	172

*Table 2: Antenna Data*

All calculations were done with respect to uncontrolled / general population threshold limits.

Cable losses were factored in the calculations for this site. Since all **1900 MHz (PCS) & 2100 MHz (AWS)** radios are ground mounted the following cable loss values were used. For each ground mounted **1900 MHz (PCS)** radio there was **2.06 dB** of cable loss calculated into the system gains / losses for this site. For each ground mounted **2100 MHz (AWS)** radio there was **2.12 dB** of cable loss calculated into the system gains / losses for this site. These values were calculated based upon the manufacturers specifications for **200 feet of 1-5/8" coax**.

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## RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXVAARR24 43-U-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.65 / 16.35 / 12.95 / 13.35	11	335	7,497.52	1.41
Antenna A2	EMS RR90-17-XXDP	Dormant	N/A	0	0	0.00	0.00
Sector A Composite MPE%							<b>1.41</b>
Antenna B1	RFS APXVAARR24 43-U-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.65 / 16.35 / 12.95 / 13.35	11	335	7,497.52	1.41
Antenna B2	EMS RR90-17-XXDP	Dormant	N/A	0	0	0.00	0.00
Sector B Composite MPE%							<b>1.41</b>
Antenna C1	RFS APXVAARR24 43-U-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.65 / 16.35 / 12.95 / 13.35	11	335	7,497.52	1.41
Antenna C2	EMS RR90-17-XXDP	Dormant	N/A	0	0	0.00	0.00
Sector C Composite MPE%							<b>1.41</b>

*Table 3: T-MOBILE Emissions Levels*

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The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
T-MOBILE – Max Per Sector Value	<b>1.41 %</b>
Thomaston FD	0.18 %
Thomaston PD	0.03 %
Litch. Co. FD	0.18 %
CT State Police	0.06 %
Sprint	2.18 %
MetroPCS	0.57 %
Verizon Wireless	4.18 %
AT&T	14.69 %
<b>Site Total MPE %:</b>	<b>23.48 %</b>

*Table 4: All Carrier MPE Contributions*

T-MOBILE Sector A Total:	1.41 %
T-MOBILE Sector B Total:	1.41 %
T-MOBILE Sector C Total:	1.41 %
<b>Site Total:</b>	<b>23.48 %</b>

*Table 5: Site MPE Summary*



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FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile 1900 MHz (PCS) LTE	4	914.24	172	4.77	1900 MHz (PCS)	1000	0.48%
T-Mobile 2100 MHz (AWS) LTE	2	529.70	172	1.38	2100 MHz (AWS)	1000	0.14%
T-Mobile 1900 MHz (PCS) GSM	1	338.14	172	0.44	1900 MHz (PCS)	1000	0.04%
T-Mobile 600 MHz LTE / 5G NR	2	788.97	172	2.06	600 MHz	400	0.51%
T-Mobile 700 MHz LTE	2	432.54	172	1.13	700 MHz	467	0.24%
						<b>Total:</b>	<b>1.41%</b>

*Table 6: T-MOBILE Maximum Sector MPE Power Values*

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## Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-MOBILE facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-MOBILE Sector	Power Density Value (%)
Sector A:	1.41 %
Sector B:	1.41 %
Sector C:	1.41 %
T-MOBILE Maximum Total (per sector):	1.41 %
Site Total:	23.48 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **23.48 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.



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