ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

April 16, 2014

Via Hand Delivery

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

Re: **Request of Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of an Existing Tower at 6 Shirley Street, Norwalk, Connecticut**

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes ("C.G.S.") §16-50aa, as amended, Cellco Partnership d/b/a Verizon Wireless ("Cellco") hereby requests an order from the Connecticut Siting Council ("Council") to approve the shared use by Cellco of an existing 376-foot guyed lattice tower, owned by Connoisseur Media of Connecticut LLC ("CMC") at 6 Shirley Street in Norwalk, Connecticut (the "Property"). Cellco requests that the Council find that the proposed shared use of the CMC tower satisfies the criteria of C.G.S § 16-50aa and issue an order approving the proposed shared use. A copy of this letter is being sent to Norwalk's Mayor, Harry W. Rilling.

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Background

CMC maintains a 376-foot guyed lattice communications tower on a 5.91 acre parcel at 6 Shirley Street in Norwalk. The existing tower supports numerous antennas at various heights. AT&T Wireless maintains antennas on the tower at the 78-foot level. (*See* Tower Input/Output Summary included in the Detailed Structural Analysis

and Reinforcement Report (the "Structural Report") in Attachment 1).[1]

Cellco is licensed by the Federal Communications Commission ("FCC") to provide wireless services throughout the State of Connecticut. Cellco and CMC have agreed to the proposed shared use of the 6 Shirley Street tower pursuant to mutually acceptable terms and conditions, and CMC has authorized Cellco to apply for all necessary permits and approvals that may be required to share the existing tower. (*See* Owner's authorization letter included in Attachment 2).

Cellco proposes to install twelve (12) antennas and six (6) remote radio heads (RRHs) at the 101-foot level on the tower. Equipment associated with Cellco's antennas will be located inside an existing, and recently abandoned, 10' x 20' shelter. Cellco will also install a new diesel-fueled back-up generator on a 4-foot by 8-foot concrete pad adjacent to its shelter. Included in Attachment 3 are Cellco's Project Plans showing limits of the 5.91 acre CMC parcel, the fenced facility compound area, the location of all existing and proposed structures and related site improvements, and a tower elevation drawing.

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use." Cellco respectfully submits that the shared use of the CMC tower satisfies these criteria.

A. Technical Feasibility. The existing tower with certain structural modifications is capable of supporting Cellco's antennas and related equipment. The proposed shared use of this tower is, therefore, technically feasible. *See* Structural Analysis included in Attachment 1.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the shared use of an existing tower such as the CMC tower in Norwalk. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. In addition, § 16-50x(a) directs the Council to "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building

[1] Please note that the Structural Report contemplates both the shared use of the CMC tower by Cellco and certain facility modifications planned by AT&T. This tower share filing seeks only the approval of Cellco's shared use.

permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use of the CMC tower would have a minimal environmental effect, for the following reasons:

1. The proposed installation of twelve (12) antennas and six (6) RRHs at the 101-foot level on the existing 376-foot tower would have an insignificant incremental visual impact on the area around the existing tower.

   All of Cellco's improvements will occur within the limits of the existing fenced facility compound. Cellco will utilize an existing 10' x 20' equipment shelter located to the north of the tower for its equipment. Ground disturbance associated with Cellco's shared use is limited to that needed to install a new 4' x 8' concrete generator pad. No tree clearing or significant ground disturbance is necessary to install the new generator pad. Cellco's shared use of this tower would therefore, not cause any significant change or alteration in the physical or environmental characteristics of the Property.

2. Noise associated with the equipment shelter's air conditioning ("A/C") units was evaluated for compliance with State and/or local noise standards. According to the Noise Compliance Study included in Attachment 4, noise from the shelter's A/C units will not exceed State and/or local noise limits. Noise associated with Cellco's emergency back-up generator is exempt from State and local noise standards.

3. Operation of Cellco's antennas at this site would not exceed the Maximum Permissible Exposure ("MPE") standards adopted by the Federal Communications Commission ("FCC"). Included in Attachment 5 are Far Field Approximation tables for each of Cellco's operating frequencies, which demonstrate the proposed Cellco antennas will operate well within the FCC's standards.

4. Under ordinary operating conditions, the proposed installation would not require the use of any water or sanitary facilities and would not generate air emissions or discharges to water bodies or sanitary facilities. After construction is complete the

proposed installations would not generate any increased traffic to the CMC facility other than periodic (monthly) maintenance visits to the cell site.

The proposed shared use of the CMC facility would, therefore, have a minimal environmental effect, and is environmentally feasible.

D. Economic Feasibility. As previously mentioned, CMC and Cellco have entered into a lease for the shared use of the existing tower on mutually agreeable terms. The proposed tower sharing is, therefore, economically feasible. (*See* Attachment 2).

E. Public Safety Concerns. As discussed above, the tower, with certain structural modifications is capable of supporting Cellco's full array of antennas, RRHs and related equipment. Cellco is not aware of any public safety concerns relative to the proposed sharing of the existing CMC tower. In fact, the provision of new and improved wireless service through shared use of the existing tower is expected to enhance the safety and welfare of area residents and members of the general public traveling in and through the City of Norwalk.

Conclusion

For the reasons discussed above, the proposed shared use of the existing CMC tower at 6 Shirley Street in Norwalk satisfies the criteria stated in C.G.S. § 16-50aa and advances the General Assembly's and the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The Applicant, therefore, respectfully requests that the Council issue an order approving the proposed shared use of the CMC tower.

Thank you for your consideration of this matter.

Very truly yours,

Kenneth C. Baldwin

Enclosures
Copy to:
Harry W. Rilling, Mayor
Connoisseur Media of Connecticut LLC
Sandy M. Carter

ATTACHMENT 1

DETAILED STRUCTURAL ANALYSIS AND REINFORCEMENT OF AN EXISTING 376' GUYED TOWER FOR PROPOSED ANTENNA ARRANGEMENTS

Site I.D: (AT&T) CT2138
(VZW) Norwalk 9 CT

Address: 6 Shirley Street
Norwalk, CT

prepared for

verizonwireless

Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

at&t

AT&T
550 Cochituate Road
Framingham, MA 01701

prepared by

URS

URS CORPORATION
500 ENTERPRISE DRIVE, SUITE 3B
ROCKY HILL, CT 06067
TEL. 860-529-8882

36917421.00000 (VZ5-172) Rev. 1
36928671.00000 (SAI-075) Rev. 1

April 9, 2014

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis and evaluation of the existing 376' guyed lattice tower located at 6 Shirley Street in Norwalk, Connecticut. The analysis was conducted in accordance with the 2005 Connecticut State Building Code which requires a three second gust wind speed of 110 mph which converts to a 90 mph fastest mile per 2003 IBC (Table 1609.3.1) and the TIA/EIA-222-F standard for a wind velocity of 85 mph (fastest mile). The wind speed for the design is 90 mph (fastest mile) and 78 mph (fastest mile) concurrent with ½" ice. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Introduction Section of this report. The proposed AT&T and Verizon antenna arrangements are as follows:

Proposed Antenna and Mount	Carrier	Antenna Center Elevation
Remove: **(6) P65-15-XLH-RR Panel Antennas (UMTS)** **(3) P65-15-XLH-RR Panel Antennas (LTE)** **(6) TT19-08P111-001 TMA Units** **(6) CM1007-DBPXBC-03 Diplexer Units** **(3) Existing Boom Gates**	**AT&T (Existing)**	**@ 78'**
Install: **(3) Andrew SBNH-1D6565C Panel Antennas (UMTS)** **(9) CCI HPA-65R-BUU-H6 Panel Antennas (LTE)** **(6) Ericsson RRUS-11 RRH Units** **(6) Ericsson RRUS-12 RRH Units** **(3) Ericsson RRUS-E2 RRH Units** **(3) Ericsson RRUS-32 RRH Units** **(6) Ericsson A2 Module Units** **(3) DTMABP7819VG12A-BP TMA Units** **(3) DC6-48-60-18-8F "Squid" Surge Suppressors** **(1) Fiber Optic Cable** **(6) DC cables** **(3) Sector Frame Mounts w/ Stand-off Arm (USF12-496-U)** **(3) 2" Mounting Pipes with Standoffs**	**AT&T (Proposed)**	**@ 78'**
(3) Amphenol BXA-70063-6CF-2 Panel Antennas (700 MHz LTE) **(3) 700 MHz RRH Units** **(3) Amphenol BXA-70063-6CF-2 Panel Antennas (850 MHz)** **(3) Amphenol BXA-171063-12CF-EDIN-2 Panel Antennas (PCS)** **(3) Amphenol BXA-171063-12CF-EDIN-2 Panel Antennas (2100 MHz LTE)** **(3) AWS RRH Units** **(1) DB-T1-6Z-8AB-0Z Distribution Box** **(2) 1 5/8" Fiber Optic Cables**	**Verizon (Proposed)**	**@ 101'**

The results of an initial analysis indicated the tower structure, guy cables, and foundation did not have sufficient capacity to support the proposed loadings without modification. The required modifications are shown in SK-1 thru SK-5. **Once the modifications are performed, the tower, guy cables, and foundation are considered structurally adequate with the wind loading classification specified above and all the existing and proposed antenna loading. No installation of new antennas or equipment shall occur until the modifications have been completed.**

1.) EXECUTIVE SUMMARY *(continued)*

This analysis is based on:

1) The tower structure's theoretical capacity, not including any assessment of the condition of the tower.

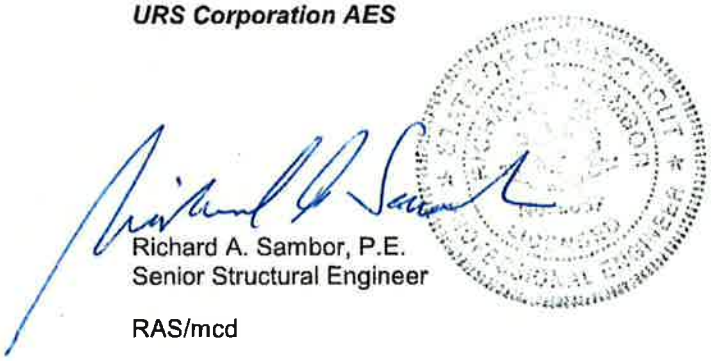
2) Tower geometry, structural member sizes and foundation information taken from original design documents prepared by Stainless, Inc., report number 3124, dated May 25, 1984.
3) Existing Appurtenances and Cables provided by Northeast Towers, Inc., dated December 18, 2013
4) Additional appurtenance information provided by Connoisseur Media Connecticut, dated February 7, 2014
5) AT&T proposed antenna arrangement information taken from AT&T RF Data Sheet, dated December 3, 2013.
6) Verizon proposed antenna arrangement information taken from Verizon RF Data Sheet dated September 25, 2013.
7) Antenna and mount configuration as specified on the following page of this report.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumption of the antenna and mount configuration as well as the physical condition of the tower and connections. Notify the engineer in writing immediately if any of the information in this report is found to be other than specified.

If you should have any questions, please call.

Sincerely,

URS Corporation AES



Richard A. Sambor, P.E.
Senior Structural Engineer

RAS/mcd

cc: IA, CF/Book – URS

2. INTRODUCTION

The subject tower is located at 6 Shirley Street in Norwalk, Connecticut. The structure is a 376' guyed lattice tower.

The inventory is summarized in the table below:

Antenna Type	*Carrier*	*Mount*	*Antenna Centerline Elevation*	*Cable*
(1) LED Beacon	Unknown (existing)	Top Mounted	376'	(1) 1/2"
2 Bay FM Antenna w/ Radomes	Main FM Antenna (existing)	Pole Mounted	345'	(1) 1-5/8"
6' Grid Dish	STL Dish (existing)	Leg Mounted	330'	(1) 7/8"
Radio Box Antenna	Unknown (existing)	6' Stand-off	311'	(2) 7/8"
(1) Sinclair SD214-SF2PSNM Antenna	Rainbow (existing)	Leg Mounted	310'	(1) 7/8"
(1) Andrew DB413-B	Unknown (existing)	Leg Mounted	310'	(1) 1 5/8"
20' Whip	RPU (existing)	3' Stand Off	280'	(1) 7/8"
20' Whip	Ademco (existing)	3' Stand Off	264'	(1) 7/8"
3 Bay FM Antenna	Aux FM Antenna (existing)	Leg Mounted	260'	(1) 1-5/8"
(2) L-810 LED Lamps	Unknown (existing)	Pipe Mounted	255'	(1) 1/2"
(1) 6' Whip Antenna	Unknown (existing)	Pipe Mounted	252'	(1) 7/8"
-----	(existing)	(1) 5'-6" 2" Mount Pipe	194'	----
---	(existing)	3' Stand Off	170'	---
(1) 15"x15"x1/2" Square Dish	Unknown (existing)	Leg Mounted	157'-6"	(1) 1/4"
(1) 4' Grid Dish	Unknown (existing)	Pipe Mounted	144'	(1) 1/2"
(2) L-810 LED Lamps	Unknown (existing)	Pipe Mounted	139'	(1) 1/2"

Antenna Type	Carrier	Mount	Antenna Centerline Elevation	Cable
(6) Amphenol BXA-70063-6CF-2 Panel Antennas (3) 700 MHz RRH Units (6) Amphenol BXA-171063-12CF-EDIN-2 Panel Antennas (2100 MHz LTE) (3) AWS RRH Units (1) DB-T1-6Z-8AB-0Z Distribution Box	Verizon (Proposed)	(3) T-Frame Mounts	101'	(2) 1 5/8" Fiber Optic Cables
(3) Andrew SBNH-1D6565C Panel Antennas (UMTS) (9) CCI HPA-65R-BUU-H6 Panel Antennas (LTE) (6) Ericsson RRUS-11 RRH Units (6) Ericsson RRUS-12 RRH Units (3) Ericsson RRUS-E2 RRH Units (3) Ericsson RRUS-32 RRH Units (6) Ericsson A2 Module Units (3)DTMABP7819VG12A-BP TMA Units (3) DC6-48-60-18-8F Surge Suppressors	AT&T (Proposed)	(3) USF-496-U Sector Frames w/ (3) 2" Mounting Pipes for RRH Units	78'	(12) 1 1/4" (1) Fiber Optic (6) DC Cables

Note: Dipole and Omni directional antenna elevations are taken at base of antenna.

This structural analysis of the communications tower was performed by URS Corporation (URS) for AT&T and Verizon. The purpose of this analysis was to investigate the structural integrity of the reinforced tower and foundation with its existing and proposed antenna loads. This analysis was conducted to evaluate stress on the tower and the effect of forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

The structural analysis was done in accordance with the 2005 Connecticut State Building Code, TIA/EIA-222-F—Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, and the American Institute of Steel Construction (AISC) Manual of Steel Construction—Allowable Stress Design (ASD).

The analysis was conducted using TNX Tower 6.0.0.8. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA.

The Connecticut State Building Code requires a three second gust wind speed of 110 mph which converts to a 90 mph fastest mile per 2003 IBC (Table 1609.3.1). The TIA/EIA-222-F requires a basic wind speed of 85 mph fastest mile.

Load Condition 1 = 90 mph (fastest mile) Wind Load (without ice) + Tower Dead Load
Load Condition 2 = 78 mph (fastest mile) Wind Load (with ice) + Ice Load + Tower Dead Load

Please note that wind pressure is a function of velocity squared. Under Load Condition 2, a 25 percent reduction in wind pressure is allowed by code to account for the unlikelihood of the full wind pressure and ice load occurring at the same time. The same results may be achieved by utilizing a lower wind pressure without taking the 25 percent reduction, as shown above.

The TIA/EIA standard permits a one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For the purposes of this analysis, in computing the load capacity the allowable stresses of the tower members were increased by one-third.

4. FINDINGS AND EVALUATION

Stresses on the tower structure were evaluated to compare with allowable stresses in accordance with AISC. The results of an initial analysis indicated that the tower, guy cables, and foundation required modification. The required modifications are shown in SK-1 through SK-5 located in Section 6 of this report. This analysis indicated that once these modifications are performed, the tower, guy cables, and foundation are considered structurally adequate with the wind load classification specified above and the proposed antenna loading. The table below summarizes the critical members for each tower component.

Table 1: Tower Component vs. Capacity Summary

COMPONENT (SECTION NO.)	CONTROLLING COMPONENT / ELEVATION	STRESS RATIO (% CAPACITY)	PASS/FAIL
Pole (L2)	HSS 8.625x0.322 / 345.5' – 360.5'	35.5	**Pass**
Leg (T16)	2 1/2" ODx0.250" w/ 2-7/8" Half Pipe (Schedule 80) / 264.8' – 269.85'	99.2	**Pass**
Diagonal (T46)	P1.5x0.120 / 52.7' – 57.75'	98.7	**Pass**
Horizontal (T35)	P1.5x0.120 / 108.25' – 133.5'	9.4	**Pass**
Secondary Horizontal (T17)	SR 1" / 259.75' – 264.8'	7.8	**Pass**
Top Girt (T42)	P1.5x0.120 / 72.9' – 77.95'	21.1	**Pass**
Guy Cable A (T2)	11/16" Dia. EHS Cable / 335.5' – 340.5'	94.6	**Pass**
Guy Cable B (T44)	11/16" Dia. EHS Cable / 62.8' – 67.85'	95.2	**Pass**
Guy Cable C (T44)	11/16" Dia. EHS Cable / 62.8' – 67.85'	95.8	**Pass**
Top Guy Pull-off (T44)	2L2x2x3/16 / 62.8' – 67.85'	24.7	**Pass**

TABLE 2: Foundation Summary

Foundation	Component	Percent Capacity	Pass/Fail	Comments:
8.5' x 8.5' Concrete Pad	Bearing Pressure	90.3	**Pass**	Allowable Bearing Pressure is 4 ksf per original design
Inner Guy Anchor	Uplift	83.0	**Pass**	
Inner Guy Anchor	Sliding	93.0	**Pass**	
Outer Guy Anchor	Uplift	93.5	**Pass**	

Insulator Summary: The existing (Austin Base Insulator A-0881) insulator shall be replaced with a new insulator capable of sustaining the loading indicated in the below Table

Component	Loading (kips)
Compression	200.264
Shear	1.433

Note: URS recommends the use of a base insulator with a minimum compressive capacity of 215 kips, as indicated in SK-1.

5. CONCLUSIONS AND RECOMMENDATIONS

The results of an initial analysis indicated the tower structure and foundation did not have sufficient capacity to support the proposed loadings without modification. The required modifications are shown in SK-1 thru SK-5. **Once the modifications are performed, the tower, guy cables, and foundation are considered structurally adequate with the wind loading classification specified above and all the existing and proposed antenna loading. No installation of new antennas or equipment shall occur until the modifications have been completed.**

Limitations/Assumptions:

This report is based on the following:

1. Tower inventory as listed in this report.
2. Tower is properly installed and maintained.
3. All members are as specified in the original design documents and are in good condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower is in plumb condition.
7. All member protective coatings are in good condition.
8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
9. Foundations were properly constructed to support original design loads as specified in the original design documents.
10. All coaxial cable is installed as specified in Section 6 of this report.

URS is not responsible for any modifications completed prior to or hereafter in which URS is not or was not directly involved. Modifications include but are not limited to:

A. Adding antennas
B. Removing/replacing antennas
C. Adding coaxial cables

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Ongoing and Periodic Inspection and Maintenance:

After the Contractor has successfully completed the installation and the work has been accepted, the owner will be responsible for the ongoing and periodic inspection and maintenance of the tower.

The owner shall refer to TIA/EIA-222-F for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system be performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F section 14.1, Note 1: It is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.

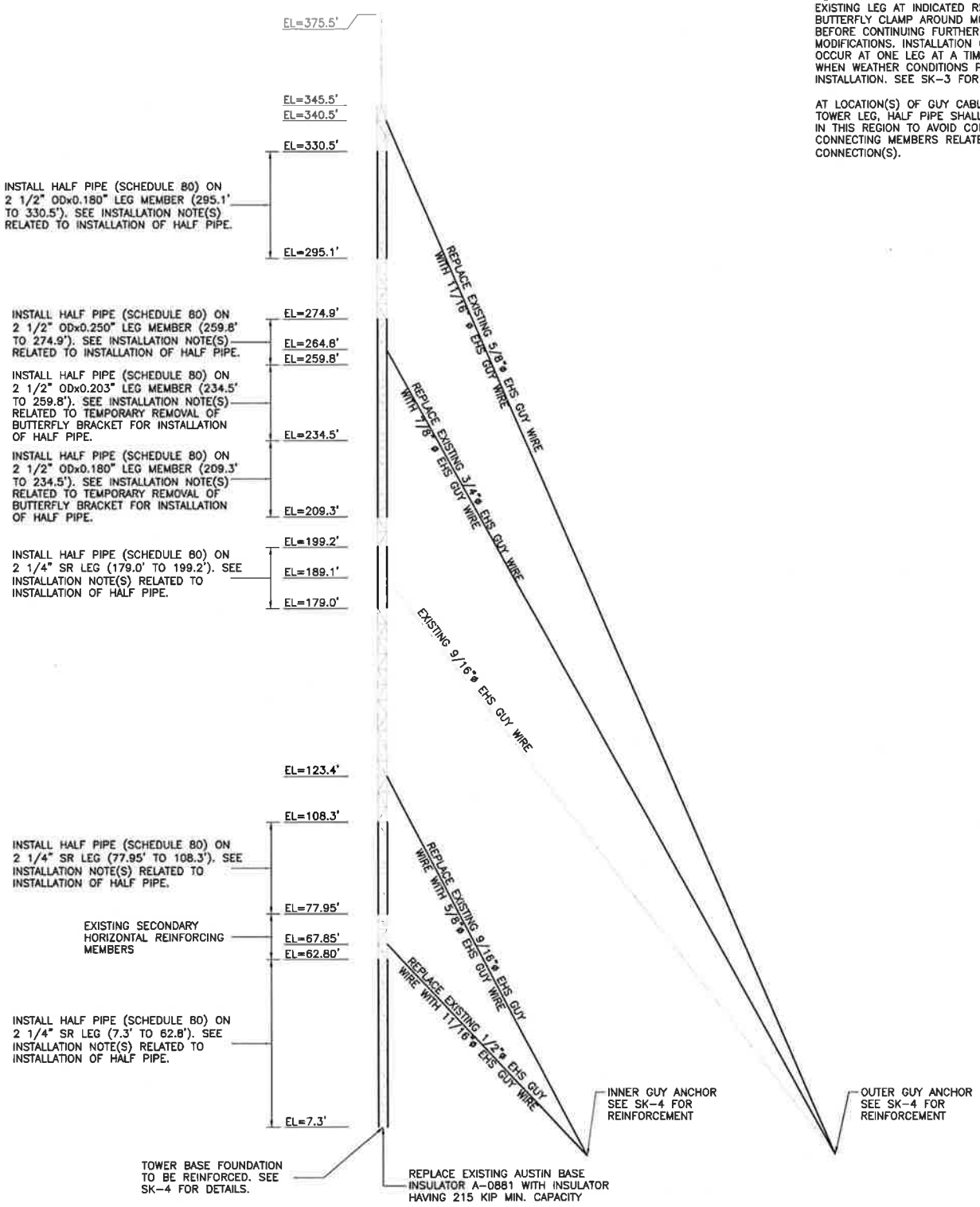
6. DRAWINGS AND DATA

TOWER REINFORCEMENT DRAWINGS SK-1 THRU SK-5

SEE SHEET SK-5 FOR STRUCTURAL NOTES.

INSTALLATION NOTES:
TEMPORARILY DISCONNECT EXISTING BUTTERFLY CLAMP ON ONE LEG TO INSTALL HALF PIPE TO EXISTING LEG AT INDICATED REGION. RECONNECT BUTTERFLY CLAMP AROUND MODIFIED TOWER LEG BEFORE CONTINUING FURTHER TOWER MODIFICATIONS. INSTALLATION OF HALF PIPE MUST OCCUR AT ONE LEG AT A TIME AND MUST OCCUR WHEN WEATHER CONDITIONS PERMIT THE MEMBER INSTALLATION. SEE SK-3 FOR DETAILS.

AT LOCATION(S) OF GUY CABLE CONNECTIONS TO TOWER LEG, HALF PIPE SHALL BE REDUCED ONLY IN THIS REGION TO AVOID CONFLICT WITH CONNECTING MEMBERS RELATED TO GUYED CABLE CONNECTION(S).



1 / SK-1 **TOWER ELEVATION - LEG REINFORCEMENT**

SCALE: 1" = 50'-0"

NOTE: REFER TO SK-2 FOR ADDITIONAL TOWER REINFORCEMENT REQUIREMENTS

PROJECT NO. 36917421	URS CORPORATION AES	AT&T / VERIZON WIRELESS
Designed by: MCD	500 ENTERPRISE DRIVE	
Drawn by: MCD	ROCKY HILL, CONNECTICUT	NORWALK, CT
Checked by: KAB	(860)-529-8882	SITE ADDRESS: 6 SHIRLEY STREET
Approved by: RAS		NORWALK, CONNECTICUT 06850

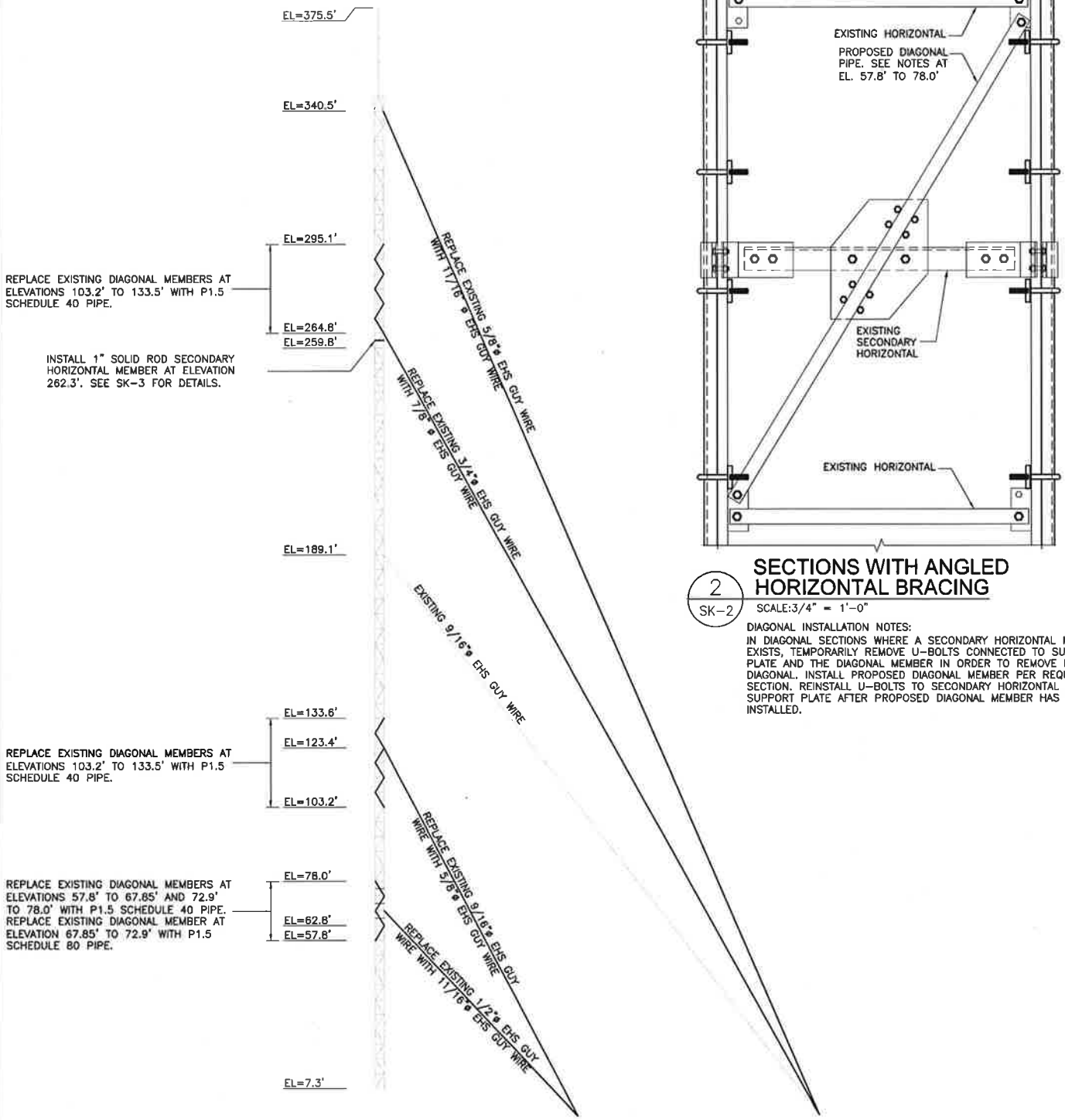
REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 04/09/2014 | Job No. VZ5-172 | File No.

Dwg. No. SK-1

Dwg. 1 of 5

SEE SHEET SK-5 FOR STRUCTURAL NOTES.



2 / SK-2 SECTIONS WITH ANGLED HORIZONTAL BRACING

SCALE:3/4" = 1'-0"

DIAGONAL INSTALLATION NOTES:
IN DIAGONAL SECTIONS WHERE A SECONDARY HORIZONTAL MEMBER EXISTS, TEMPORARILY REMOVE U-BOLTS CONNECTED TO SUPPORT PLATE AND THE DIAGONAL MEMBER IN ORDER TO REMOVE EXISTING DIAGONAL. INSTALL PROPOSED DIAGONAL MEMBER PER REQUIRED SECTION. REINSTALL U-BOLTS TO SECONDARY HORIZONTAL SUPPORT PLATE AFTER PROPOSED DIAGONAL MEMBER HAS BEEN INSTALLED.

1 / SK-2 TOWER ELEVATION - DIAGONAL & HORIZONTAL REINFORCEMENT

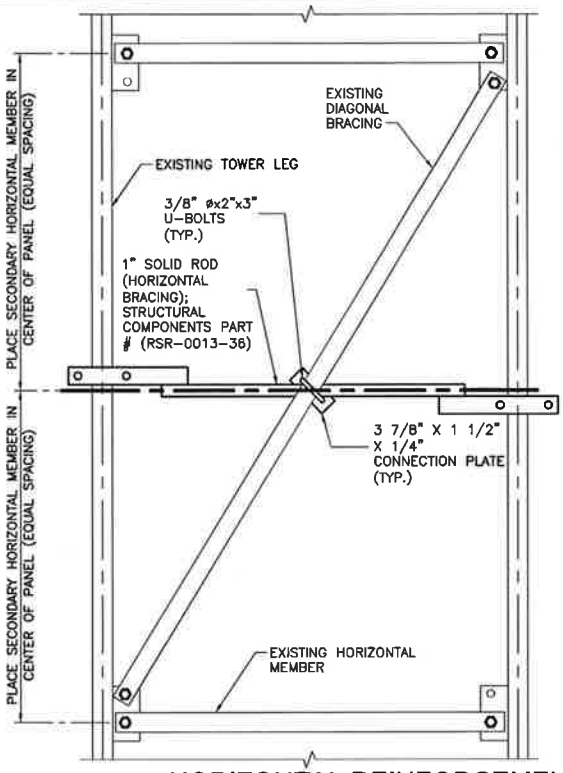
SCALE: 1" = 50'-0"
NOTE: REFER TO SK-1 FOR ADDITIONAL TOWER REINFORCEMENT REQUIREMENTS
REFER TO SK-1 FOR FOUNDATION AND INSULATOR REQUIREMENTS.

PROJECT NO. 36917421	URS CORPORATION AES	AT&T / VERIZON WIRELESS
Designed by: MCD	500 ENTERPRISE DRIVE	NORWALK, CT
Drawn by: MCD	ROCKY HILL, CONNECTICUT	SITE ADDRESS: 6 SHIRLEY STREET
Checked by: KAB	(860)-529-8882	NORWALK, CONNECTICUT 06850
Approved by: RAS		

REV.	DATE:	DESCRIPTION

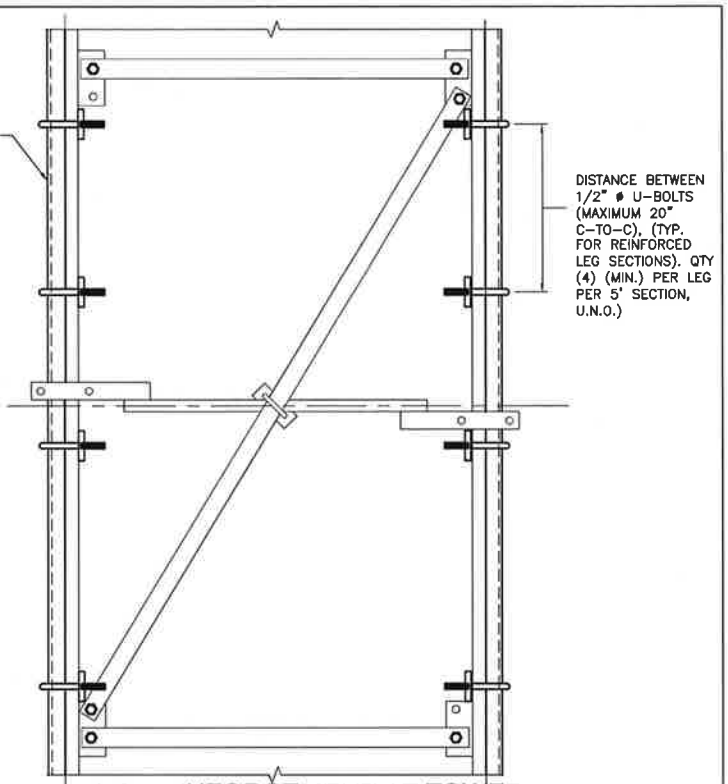
Scale: AS NOTED | Date: 04/09/2014 | Job No. VZ5-172 | File No. | Dwg. 2 of 5

Dwg. No. SK-2



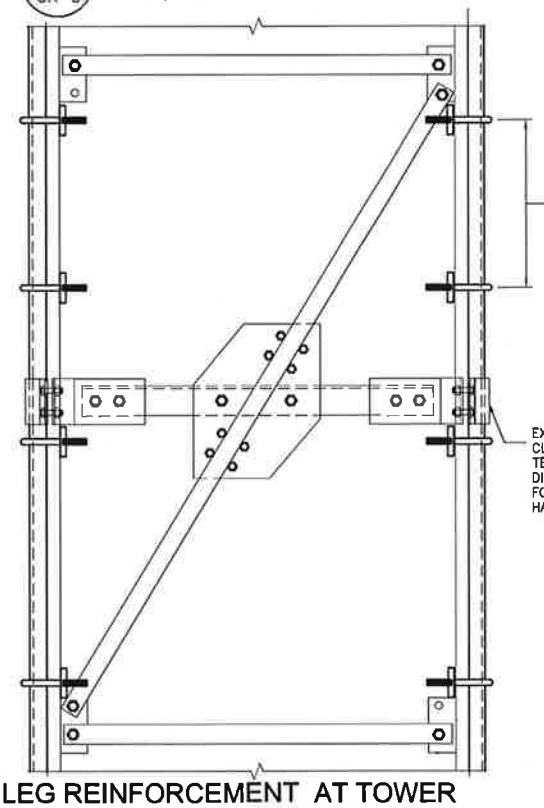
1 SK-3 HORIZONTAL REINFORCEMENT AT TOWER SECTIONS

SCALE:3/4" = 1'-0"



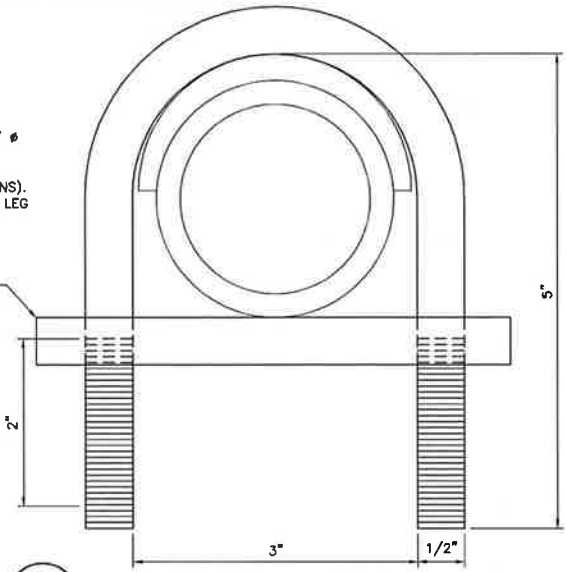
2 SK-3 LEG REINFORCEMENT AT TOWER SECTIONS W/ HORIZONTAL BRACING

SCALE:3/4" = 1'-0"
NOTE:
U-BOLT LOCATION(S) SHOWN ARE FOR ESTIMATING PURPOSES AND ARE NOT INTENDED AS EXACT MEASUREMENTS.



3 SK-3 LEG REINFORCEMENT AT TOWER SECTIONS W/ ANGLED HORIZONTAL BRACING

SCALE:3/4" = 1'-0"
NOTE:
U-BOLT LOCATION(S) SHOWN ARE FOR ESTIMATING PURPOSES AND ARE NOT INTENDED AS EXACT MEASUREMENTS.



4 SK-3 U-BOLT FOR LEG REINFORCEMENT

SCALE: 6" = 1'-0"

NOTES:
SOLID ROD HORIZONTAL BRACING (IN DETAIL 1) LISTED FROM STRUCTURAL COMPONENTS OF BOULDER, COLORADO. PART NUMBERS ARE FOR DESCRIPTION PURPOSES. NEW HORIZONTAL BRACING REINFORCEMENT SHALL BE, AT MINIMUM, EQUIVALENT TO THE DETAIL(S) SHOWN.

U-BOLT DISTANCE FROM END OF HALF PIPE SHALL BE 3" (MAX.) FROM END, U.N.O. U-BOLT MATERIAL SHALL BE (AT MINUMUM) GRADE 2 ASTM J4289 HOT DIPPED GALVANIZED.

HALF PIPE REINFORCEMENT SHALL HAVE ENDS ABUTTED AGAINST EACH OTHER TO MINIMIZE GAPS BETWEEN THE REINFORCEMENT DURING INSTALLATION.

PROJECT NO.	36917421
Designed by:	MCD
Drawn by:	MCD
Checked by:	KAB
Approved by:	RAS

URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
(860)-529-8882

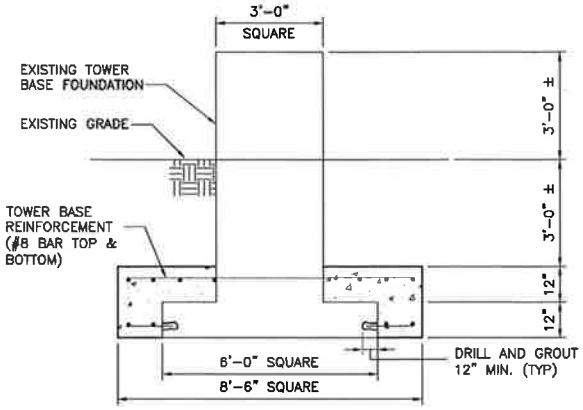
AT&T / VERIZON WIRELESS

SITE ADDRESS: NORWALK, CT
6 SHIRLEY STREET
NORWALK, CONNECTICUT 06850

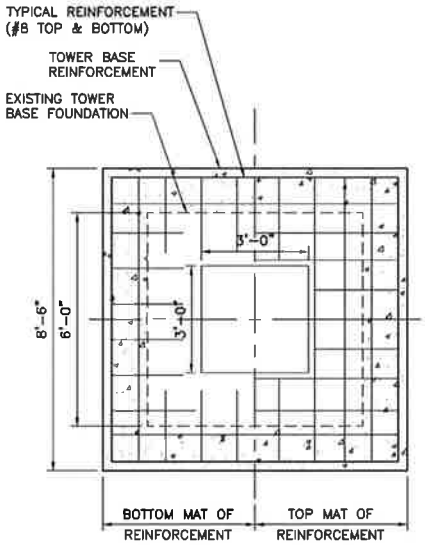
REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 04/09/2014
Job No. VZ5-172 | File No.

Dwg. No. SK-3



ELEVATION



PLAN

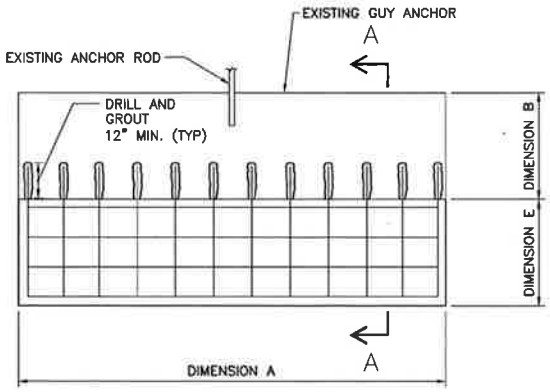
1 SK-4 **TOWER BASE REINFORCEMENT DETAILS**

SCALE: 3/16" = 1'-0"

NOTES:
1. MINIMUM REINFORCEMENT SHALL BE #8 @ 12" (EACH WAY) TOP AND BOTTOM.
2. PROPOSED CONCRETE SHALL BE PLACED ON UNDISTURBED SOIL OR 6" OF COMPACTED GRAVEL FILL.

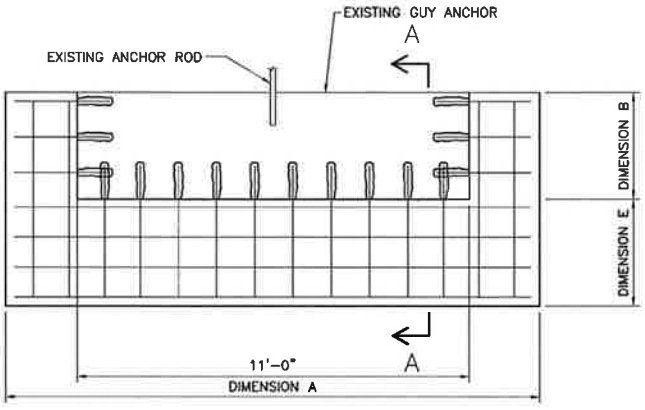
ANCHOR BLOCK DIMENSIONS					
ANCHOR LOCATION	A	B	C	D	E
INNER	15.0'	2.0'	4.0'	2.0'	3.0'
OUTER	12.0'	6.0'	4.0'	3.0'	4.0'

NOTE:
EXISTING ANCHOR BLOCK DIMENSIONS TAKEN FROM ORIGINAL DESIGN PREPARED BY STAINLESS, INC., DATED MAY 25, 1984.



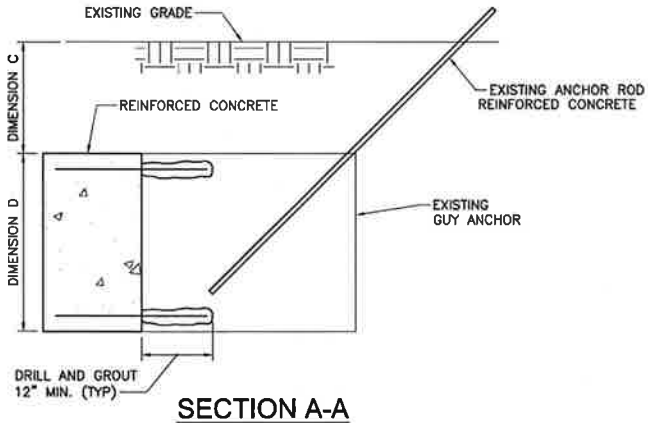
2 SK-2 **EXTERIOR CONCRETE GUY ANCHOR REINFORCEMENT PLAN**

SCALE: 3/16" = 1'-0"



3 SK-2 **INTERIOR CONCRETE GUY ANCHOR REINFORCEMENT PLAN**

SCALE: 3/16" = 1'-0"



SECTION A-A

PROJECT NO. 36917421	URS CORPORATION AES	AT&T / VERIZON WIRELESS
Designed by: MCD	500 ENTERPRISE DRIVE	
Drawn by: MCD	ROCKY HILL, CONNECTICUT	NORWALK, CT
Checked by: KAB	(860)-529-8882	SITE ADDRESS: 6 SHIRLEY STREET
Approved by: RAS		NORWALK, CONNECTICUT 06850

REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 04/09/2014 | Job No. VZ5-172 | File No.

Dwg. No. SK-4

Dwg. 4 of 5

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH THE CONNECTICUT STATE BUILDING AND LIFE SAFETY CODES, SUPPLEMENTS AND AMENDMENTS.
2. CONTRACTOR IS TO REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB-CONTRACTORS AND ALL RELATED PARTIES. THE SUB-CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON DRAWINGS OR WRITTEN IN SPECIFICATIONS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION AND ELECTRICAL SUB-CONTRACTORS SHALL PAY FOR THEIR PERMITS.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND ENSURE THE DISTRIBUTION OF NEW DRAWINGS TO SUB-CONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. CONTRACTOR SHALL FURNISH 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
7. INSTALLATION OF THIS WIRELESS COMMUNICATIONS EQUIPMENT SITE REQUIRES WORK IN THE IMMEDIATE VICINITY OF EXISTING TELECOMMUNICATION SYSTEMS. THE CONTRACTOR SHALL PROVIDE AND COORDINATE THE METHODS OF PROTECTION WITH THE VARIOUS TELECOMMUNICATION CARRIERS AND THE TOWER OWNER.
8. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER MFR'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR ARCHITECT.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
10. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ARCHITECT FOR REVIEW. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTAL TO THE ARCHITECT FOR REVIEW.
11. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA. SUBMIT TO THE ARCHITECT ANY DISCREPANCIES FROM THE DRAWINGS.
12. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
13. COORDINATE ALL CIVIL AND ELECTRICAL DRAWINGS FOR THE LOCATION OF ALL OPENINGS, RECESSES, BUILT-IN WORK, ETC.
14. CONTRACTOR TO CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO VERIFY AND IDENTIFY THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS IDENTIFIED PRIOR TO COMMENCING WORK IN THE CONTRACT AREA.
15. CONTRACTOR SHALL COMPLY WITH OWNER ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
16. EXISTING DIMENSIONS OF STRUCTURE SHOWN ON THESE DOCUMENTS ARE BASED ON ORIGINAL MANUFACTURER'S DESIGN DOCUMENTS PREPARED BY STAINLESS, INC., DATED MAY 25, 1984, AND ARE NOT GUARANTEED. CONTRACTOR SHALL TAKE FIELD DIMENSIONS AS NECESSARY TO ASSURE PROPER FIT OF ALL FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENT ARE SUBMITTED FOR REVIEW, DIMENSIONS ARE PROVIDED FOR THE ENGINEER'S REFERENCE ONLY.
17. CONTRACTOR TO VERIFY REQUIRED CLEARANCES INCLUDING BUT NOT LIMITED TO EXISTING BUILDINGS, EQUIPMENT PADS AND SHELTERS PRIOR TO COMMENCING WORK.

STRUCTURAL NOTES

1. SOIL BEARING CAPACITY OF 4,000 PSF USED FOR FOUNDATION DESIGN. GENERAL CONTRACTOR RESPONSIBLE FOR VERIFYING BEARING CAPACITIES.
2. ALL SURFACES MUST BE FREE OF STANDING WATER PRIOR TO PLACING.
3. COMPACTED GRAVEL FILL PER CONNECTICUT DOT STANDARD SPEC. SECTION M.02.01 AND ASTM D1557.
4. CONTACT THE ENGINEER IF GROUND WATER IS IN ENCOUNTERED AND DEWATERING IS REQUIRED.
5. EXCAVATED SOIL SHALL BE PLACED IN 8" LOOSE DEPTH LAYERS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY OBTAINED IN THE STANDARD COMPACTION TEST. BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL.

STRUCTURAL NOTES (CONTINUED)

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318 AND THE SPECIFICATION CAST-IN-PLACE CONCRETE.
2. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI IN 28 DAYS AND SHALL CONTAIN 5%-7% AIR ENTRAINMENT.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH.....3 IN.

   CONCRETE EXPOSED TO EARTH OR WEATHER:

   #6 AND LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

   SLAB AND WALL.....3/4 IN.
   BEAMS AND COLUMNS.....1 1/2 IN.

5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING
7. COLD WEATHER CONCRETE PLACING SHALL BE IN ACCORDANCE WITH ACI-306.
8. NO FOOTING SHALL BE PLACED ON FROZEN GROUND. UNCURED CONCRETE SHALL BE PROTECTED AGAINST FROST.
9. APPLY NON-SLIP BROOM FINISH IMMEDIATELY AFTER TROWEL FINISHING.
10. CONCRETE MAT SHALL BE PORTLAND CEMENT TYPE I OR TYPE II; 28 DAY COMPRESSIVE STRENGTH F'c = 3,500 PSI. PLAIN CONCRETE. PLACE IN ACCORDANCE WITH ACI MANUAL OF CONCRETE PRACTICE.

STRUCTURAL STEEL MATERIAL:

STRUCTURAL STEEL BEAMS, CHANNELS, PLATES & ANGLES.....		ASTMA572 GRADE 50
PIPE COLUMN.....		ASTM A53 GRADE B
STUB COLUMNS	FY=46 KSI	ASTM A500
BOLTS		ASTM A325-N

STRUCTURAL STEEL SHALL CONFORM TO ALL REQUIREMENTS OF THE 1999 AISC-LRFD SPECIFICATION, AS REFERENCED IN THE CODE.

UNLESS OTHERWISE NOTED, ALL STEEL WILL BE GALVANIZED IN ACCORDANCE WITH ASTM 123 AFTER FABRICATION. TOUCH UP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINC-IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH-UP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL STEEL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. SUBMIT 2 SETS OF PRINTS FOR THE ENGINEER REVIEW.

EXISTING DIMENSIONS OF STRUCTURE SHOWN ON THESE DOCUMENTS ARE NOT GUARANTEED. CONTRACTOR SHALL TAKE FIELD DIMENSIONS AS NECESSARY TO ASSURE PROPER FIT OF ALL FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENT ARE SUBMITTED FOR REVIEW, DIMENSIONS ARE PROVIDED FOR THE ENGINEER'S REFERENCE ONLY.

CONNECTION ANGLES SHALL HAVE A MINIMUM THICKNESS OF 5/16" AND MINIMUM OF (2) 3/4" BOLTS.

ALL BOLT HOLES WILL BE DRILLED OR PUNCHED, WITH BURRS REMOVED PRIOR TO COATING.

MILL BEARING ENDS OF COLUMNS, STIFFENERS, AND OTHER BEARING SURFACES TO TRANSFER LOAD OVER ENTIRE CROSS SECTION.

THE OMISSION OF ANY MATERIAL THAT WAS SHOWN ON THE CONTRACT DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF PROVIDING THE SAME.

ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS STANDARDS, USING E70XX ELECTRODES UNLESS OTHERWISE NOTED. WHERE WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZES PER "PREQUALIFIED WELDED JOINTS" TABLES IN AISC "MANUAL OF STEEL CONSTRUCTION", NINTH EDITION.

CONNECTIONS / FIELD ASSEMBLY:

BOLTED CONNECTIONS: UNLESS OTHERWISE NOTED, ALL JOINTS ARE SLIP CRITICAL TYPE, REQUIRING 3/4" DIA. A325-N BOLTS, A563 NUTS AND F436 WASHERS, ALL GALVANIZED. BEVELED WASHERS SHALL BE USED ON BEAM FLANGES HAVING A SLOPE GREATER THAN 1:20.

NON-STRUCTURAL CONNECTIONS, SUCH AS FOR STEEL GRATING, MAY USE 5/8" DIA. GALVANIZED ASTM A307 BOLTS, UNLESS OTHERWISE NOTED.

STRUCTURE IS DESIGNED TO BE LEVEL AND PLUMB, SELF-SUPPORTING AND STABLE AFTER WORK IS COMPLETED.

COMMENCEMENT OF STRUCTURAL STEEL WORK WITHOUT NOTIFYING THE ENGINEER OF ANY DISCREPANCIES WILL BE CONSIDERED ACCEPTANCE OF PRECEDING WORK.

IF WELDING GALVANIZED MATERIALS, USE PRECAUTIONS & PROCEDURES PER AWS D1.1.

THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. NO MEMBER OF THE TOWER SHALL BE LEFT DISCONNECTED FOR THE NEXT WORKING DAY. THE CONTRACTOR SHALL BE AWARE OF WEATHER AND WIND CONDITIONS AND NOT PERFORM MEMBER REPLACEMENT IN A WIND.

INSPECTIONS:

SPECIAL INSPECTIONS ARE REQUIRED PER THE CODE FOR STRUCTURAL STEEL WORK.

OWNER WILL SUPPLY THE SERVICES OF A SPECIAL INSPECTOR AND TESTING AGENTS AS REQUIRED. CONTRACTOR SHALL COORDINATE INSPECTIONS OF FABRICATOR'S AND ERECTOR'S WORK AND MATERIALS TO MEET THE REQUIREMENTS OF THE STATEMENT OF SPECIAL INSPECTIONS FOR THIS PROJECT.

COPIES OF TESTING AND INSPECTION REPORTS WILL BE PROVIDED TO THE OWNER, BUILDING OFFICIAL, ENGINEER OF RECORD AND CONTRACTOR.

PROJECT NO. 36917421
Designed by: MCD
Drawn by: MCD
Checked by: KAB
Approved by: RAS

URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CONNECTICUT
(860)-529-8882

AT&T / VERIZON WIRELESS

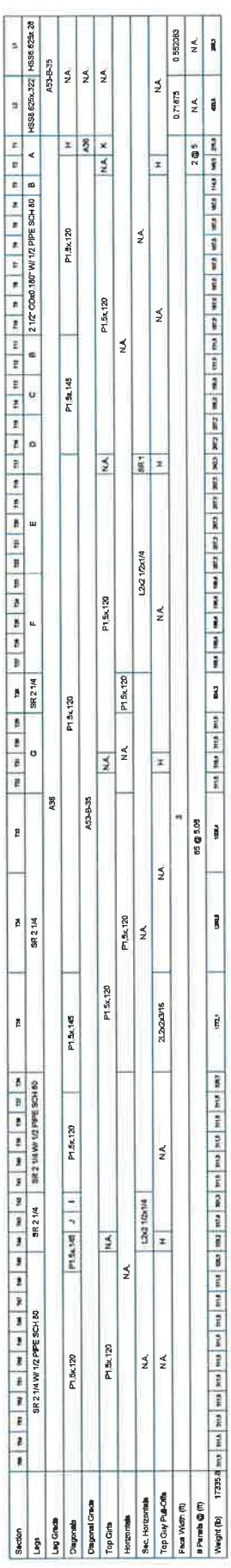
NORWALK, CT
SITE ADDRESS: 6 SHIRLEY STREET
NORWALK, CONNECTICUT 06850

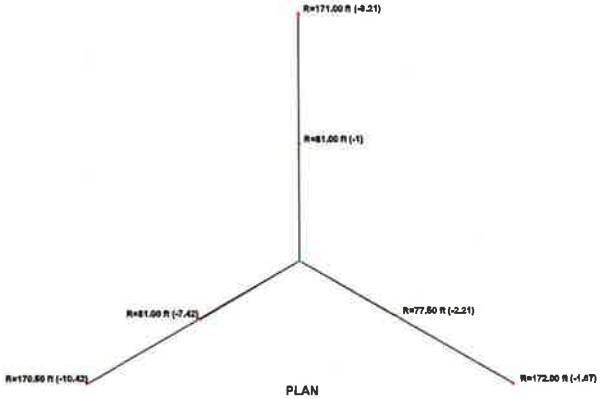
REV.	DATE:	DESCRIPTION

Scale: AS NOTED | Date: 04/09/2014
Job No. VZ5-172 | File No.

Dwg. No. SK-5
Dwg. 5 of 5

TNX TOWER INPUT/OUTPUT SUMMARY





PLAN

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Flash Beacon Lighting	378	RH_2X40-AWS (VZW)	101
2 Bay FM Antenna (Radio)	345	D9-T1-62-8AB-0Z (VZW)	101
6' x 3' Grid Dish (Unknown)	330	(2) CM1007-D6PXBC-003 (ATI)	78
6' Stand-off	315	USF12-486-U (ATI)	78
Radio	311	USF12-486-U (ATI)	78
DB413-B	310	USF12-486-U (ATI)	78
6D214-6F2P2SNM Dipole	310	(3) HPA-65R-BUU-H6 (ATI)	78
3' Stand-off	280	(3) HPA-65R-BUU-H6 (ATI)	78
22' Whip (RPU)	280	(3) HPA-65R-BUU-H6 (ATI)	78
3' Stand-off	264	SBNH-1D6565C (ATI)	78
22' Whip (Adernco)	264	SBNH-1D6565C (ATI)	78
3 Bay Circulary Polarized FM Antenna (Aux FM Antenna)	260	SBNH-1D6565C (ATI)	78
		(2) RRUS-11 (ATI)	78
L-810 Flashing Beacon	255	(2) RRUS-11 (ATI)	78
L-810 Flashing Beacon	255	(2) RRUS-11 (ATI)	78
2' Dia ft' Omni	252	DTMABP7819VG12A-BP (ATI)	78
7' Whip (RPU)	210	DTMABP7819VG12A-BP (ATI)	78
2" x 96" Schedule 40 Pipe	194	DTMABP7819VG12A-BP (ATI)	78
3' Stand-off	170	(2) RRUS-12 (ATI)	78
3' Stand-off	160	(2) RRUS-12 (ATI)	78
3' Stand-off	160	(2) RRUS-12 (ATI)	78
FPA2SD012-N w/Mount Pipe	158	RRUS-E2 (ATI)	78
88084-03A	144	RRUS-E2 (ATI)	78
L-810 Flashing Beacon	139	RRUS-E2 (ATI)	78
L-810 Flashing Beacon	139	RRUS-32 (ATI)	78
(2) BXA-171063-12CF-EDIN-X (VZW)	101	RRUS-32 (ATI)	78
6'6" Boom Gate (VZW)	101	RRUS-32 (ATI)	78
6'6" Boom Gate (VZW)	101	(2) RRUS A3 Module (ATI)	78
8'6" Boom Gate (VZW)	101	(2) RRUS A3 Module (ATI)	78
RH_2X40-AWS (VZW)	101	(2) RRUS A3 Module (ATI)	78
(2) BXA-70063-6CF (VZW)	101	DC6-48-60-18-8F (ATI)	78
(2) BXA-70063-6CF (VZW)	101	DC6-48-60-18-8F (ATI)	78
(2) BXA-70063-6CF (VZW)	101	DC6-48-60-18-8F (ATI)	78
(2) BXA-171063-12CF-EDIN-X (VZW)	101	(2) CM1007-D6PXBC-003 (ATI)	78
(2) BXA-171063-12CF-EDIN-X (VZW)	101	(2) CM1007-D6PXBC-003 (ATI)	78
RH_2X40-AWS (VZW)	101		

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Stainless Inc. 2.5x0.203	G	SR 2 1/4 W/ 1/2 PIPE SCH 80
B	Stainless Inc. 2.5x0.180	H	2Lx2x3/16
C	Stainless Inc. 2.5x0.250	I	P1.5x.145
D	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	J	P1.5x.3
E	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	K	C4x5.4
F	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A53-B-35	35 ksi	60 ksi
A36	36 ksi	58 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 90 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 78 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 60 mph wind.
5. As of January 1, 2006 the basic wind speed for this site has increased from 85mph (fastest mile) to 90 mph (fastest mile)
6. TOWER RATING: 99.2%

URS Corporation
500 Enterprise Drive, Suite 3B
Rocky Hill, CT 06067
Phone: 860-529-8882
FAX: 860-529-3991

Job:	376' Guyed Tower
Project:	(VZ5-172 & SAI-078) Shirley Street, Norwalk, C
Client: VZW & AT&T	Drawn by: MCD / Appd:
Code: TIA/EIA-222-F	Date: 04/02/14 / Scale: NTS
Path:	Dwg No. E-1

TNX TOWER GUY TENSIONS AND TOWER REACTIONS

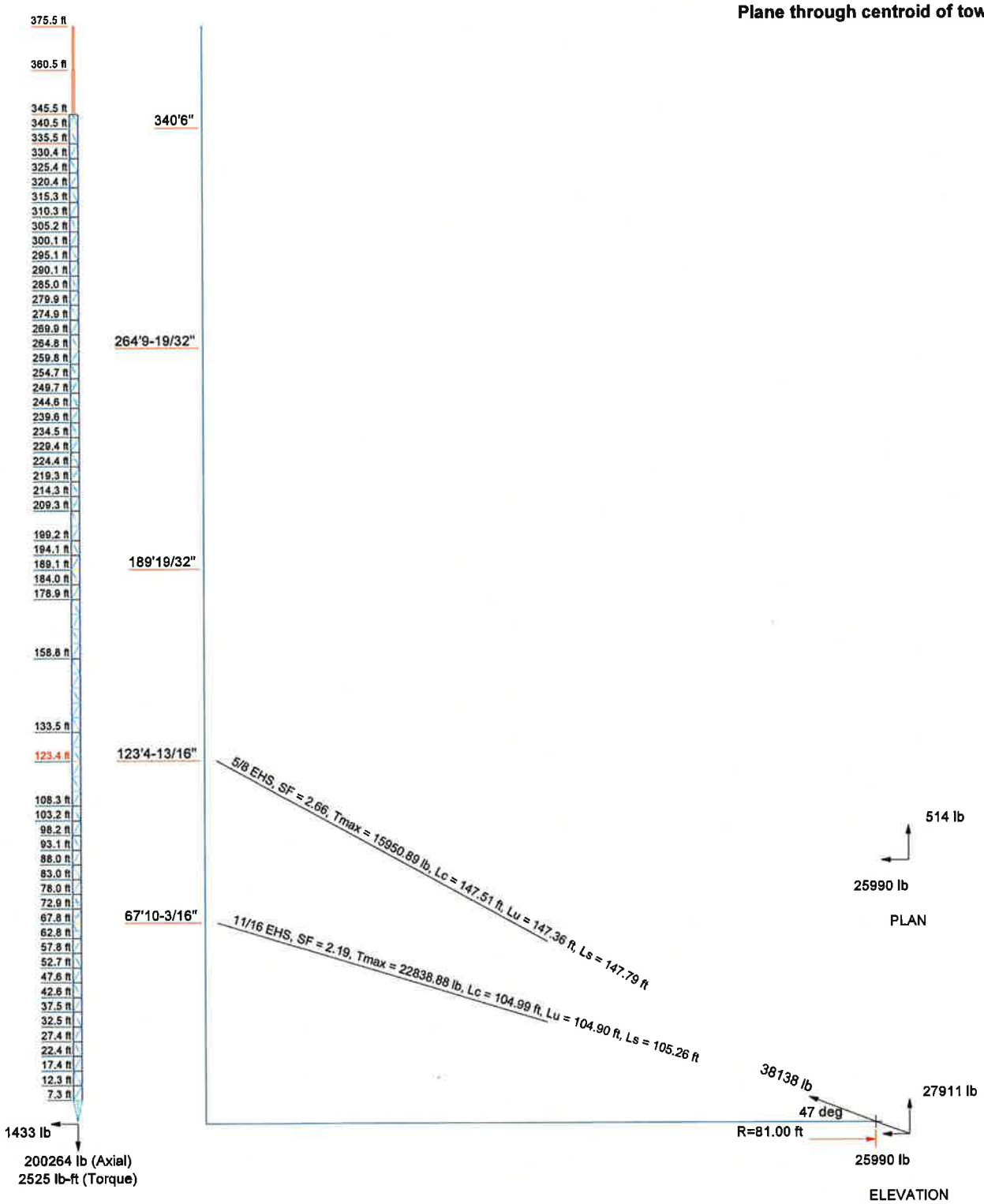
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'A'@81 ft Azimuth 0 deg Elev -1 ft

Plane through centroid of tower



URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Job: **376' Guyed Tower**		
	Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, C*		
	Client: VZW & AT&T	Drawn by: MCD	App'd:
	Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS
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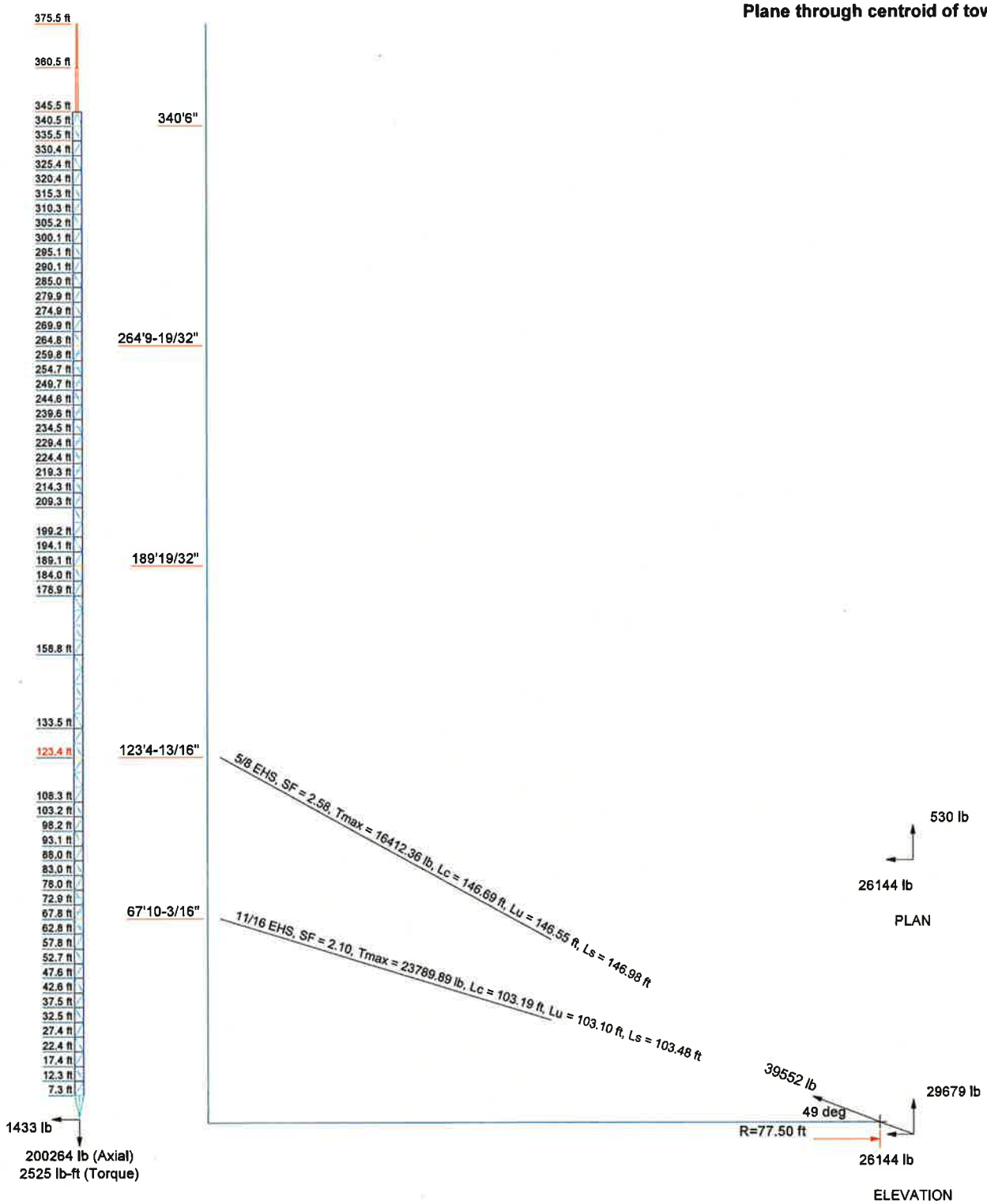
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'B'@77.5 ft Azimuth 120 deg Elev -2.21 ft

Plane through centroid of tower



URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Job: **376' Guyed Tower**		
	Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, CT*		
	Client: VZW & AT&T	Drawn by: MCD	App'd:
	Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS
	Path: Y:\MCD Shirley Street - Temporary Folder\ERI Files\MCD Design - Shirley Tower.eri		Dwg No. E-6

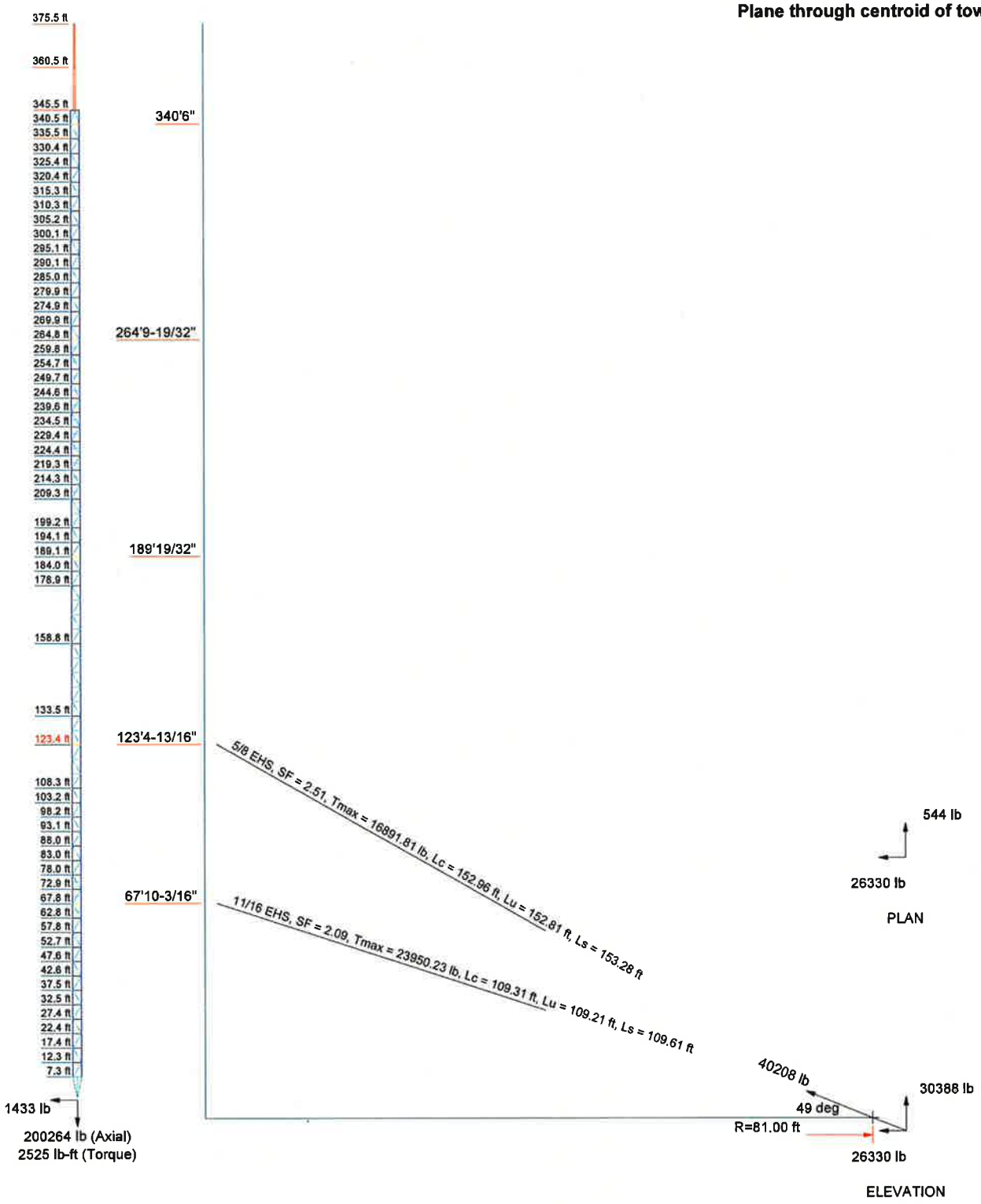
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'C'@81 ft Azimuth 240 deg Elev -7.42 ft

Plane through centroid of tower



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Job: *376' Guyed Tower*		
Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, CT*		
Client: VZW & AT&T	Drawn by: MCD	App'd:
Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS
Path: Y:\MCD Shirley Street - Temporary Folder\ADR Files\MCD Design - Shirley Tower.eri		Dwg No. E-6

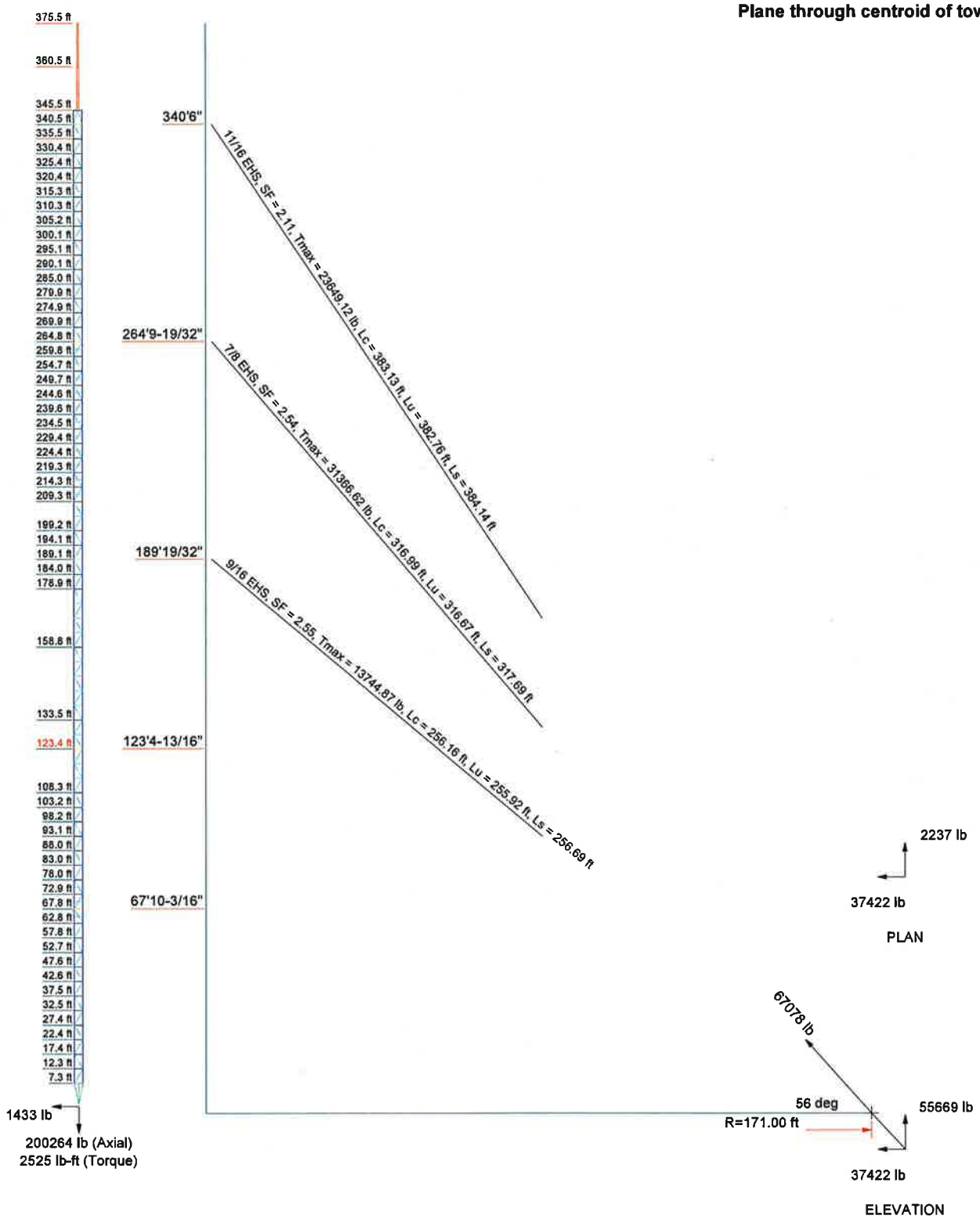
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'A'@171 ft Azimuth 0 deg Elev -3.21 ft

Plane through centroid of tower



URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Job: ***376' Guyed Tower***		
	Project: ***(VZ5-172 & SAI-078) Shirley Street, Norwalk, C***		
	Client: VZW & AT&T	Drawn by: MCD	App'd:
	Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS
	Path: Y:\MCD Shirley Street - Temporary Folder\ERI Files\MCD Design - Shirley Tower.eri		Dwg No. E-6

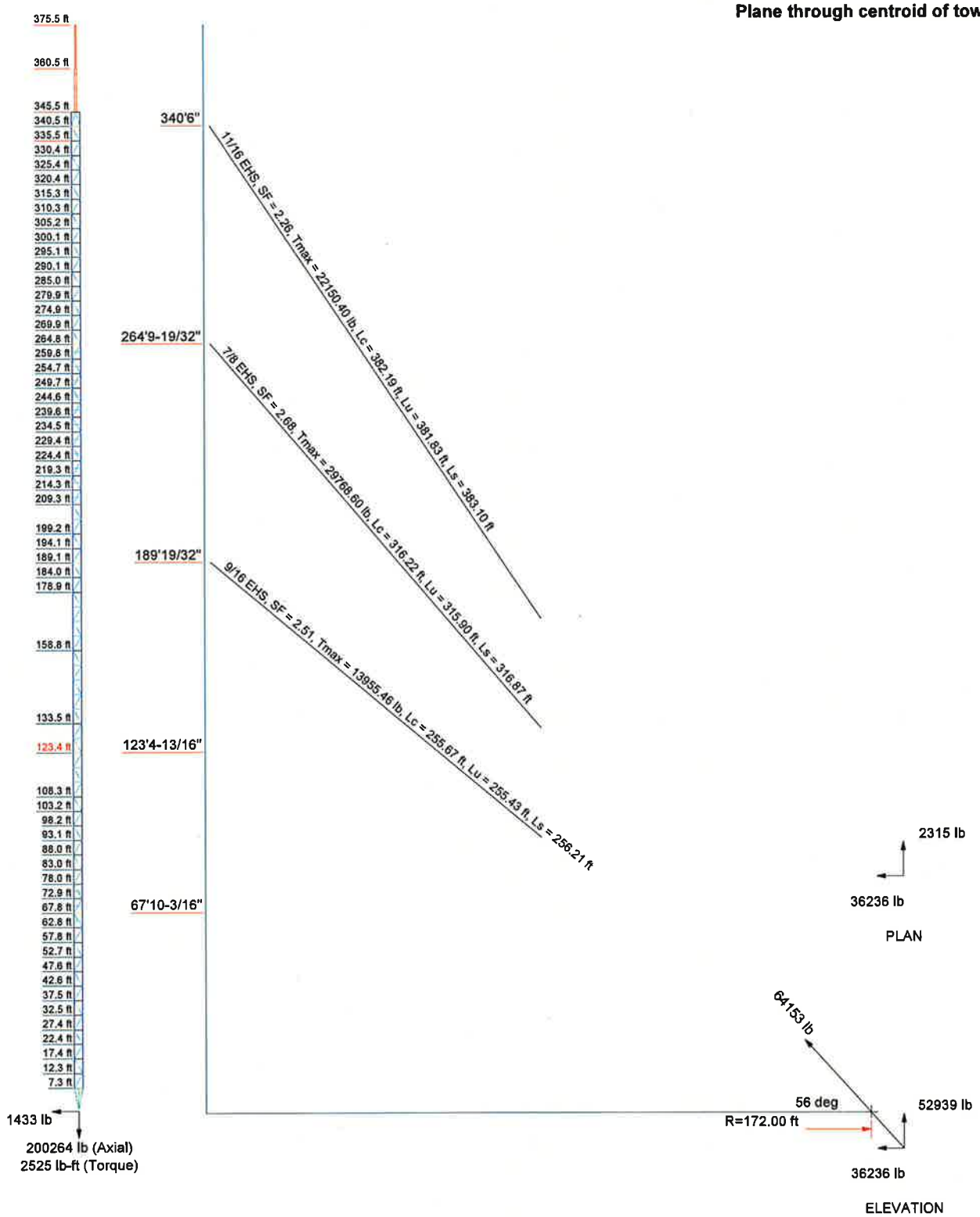
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'B'@172 ft Azimuth 120 deg Elev -1.67 ft

Plane through centroid of tower



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500 Enterprise Drive, Suite 3B
Rocky Hill, CT 06067
Phone: 860-529-8882
FAX: 860-529-3991

Job: *376' Guyed Tower*			
Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, CT*			
Client: VZW & AT&T	Drawn by: MCD	App'd:	
Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS	
Path:		Dwg No. E-6	

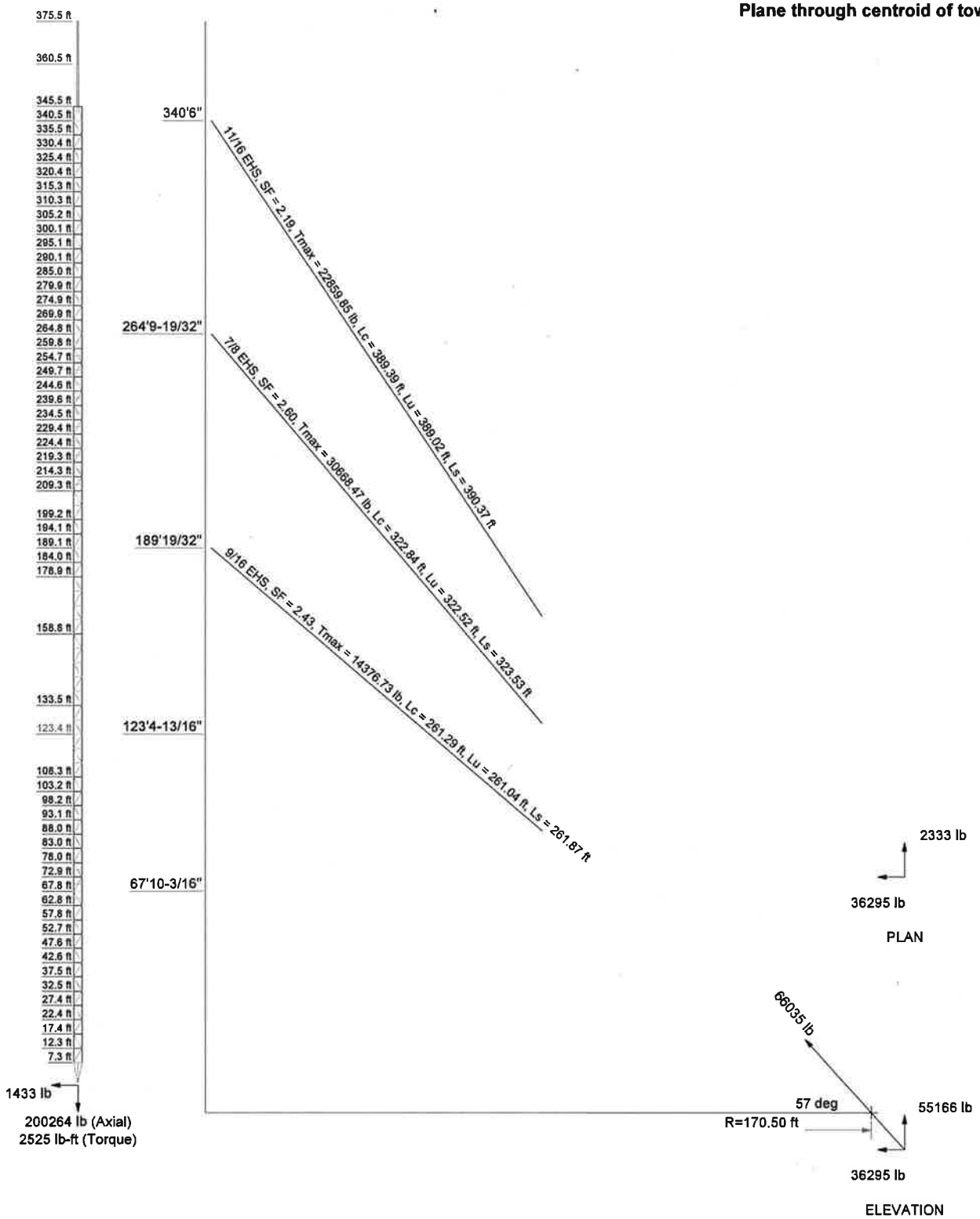
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 90 mph/78 mph 0.5000 in Ice

Maximum Values

Anchor 'C'@170.5 ft Azimuth 240 deg Elev -10.42 ft

Plane through centroid of tower



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Rocky Hill, CT 06067
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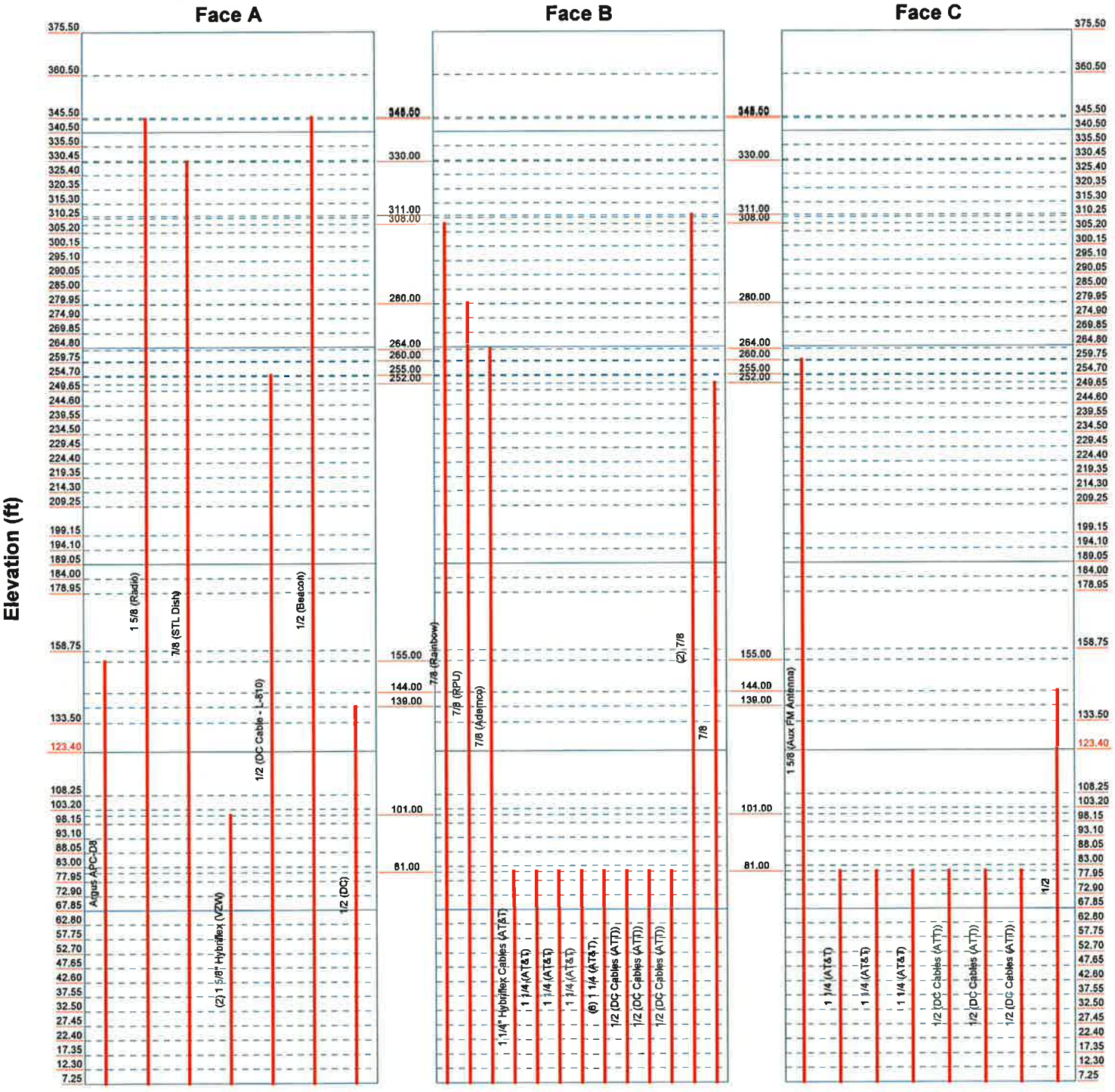
Job: *376' Guyed Tower*			
Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, C*			
Client: VZW & AT&T	Drawn by: MCD	App'd:	
Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS	
Path: Y:\MCD\Shirley Street - Temporary Folder\ERI Files\MCD Design - Shirley Tower.eri		Dwg No. E-6	

TNX TOWER FEEDLINE DISTRIBUTION CHART

Feedline Distribution Chart
7'3" - 375'6"

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



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Rocky Hill, CT 06067
Phone: 860-529-8882
FAX: 860-529-3991

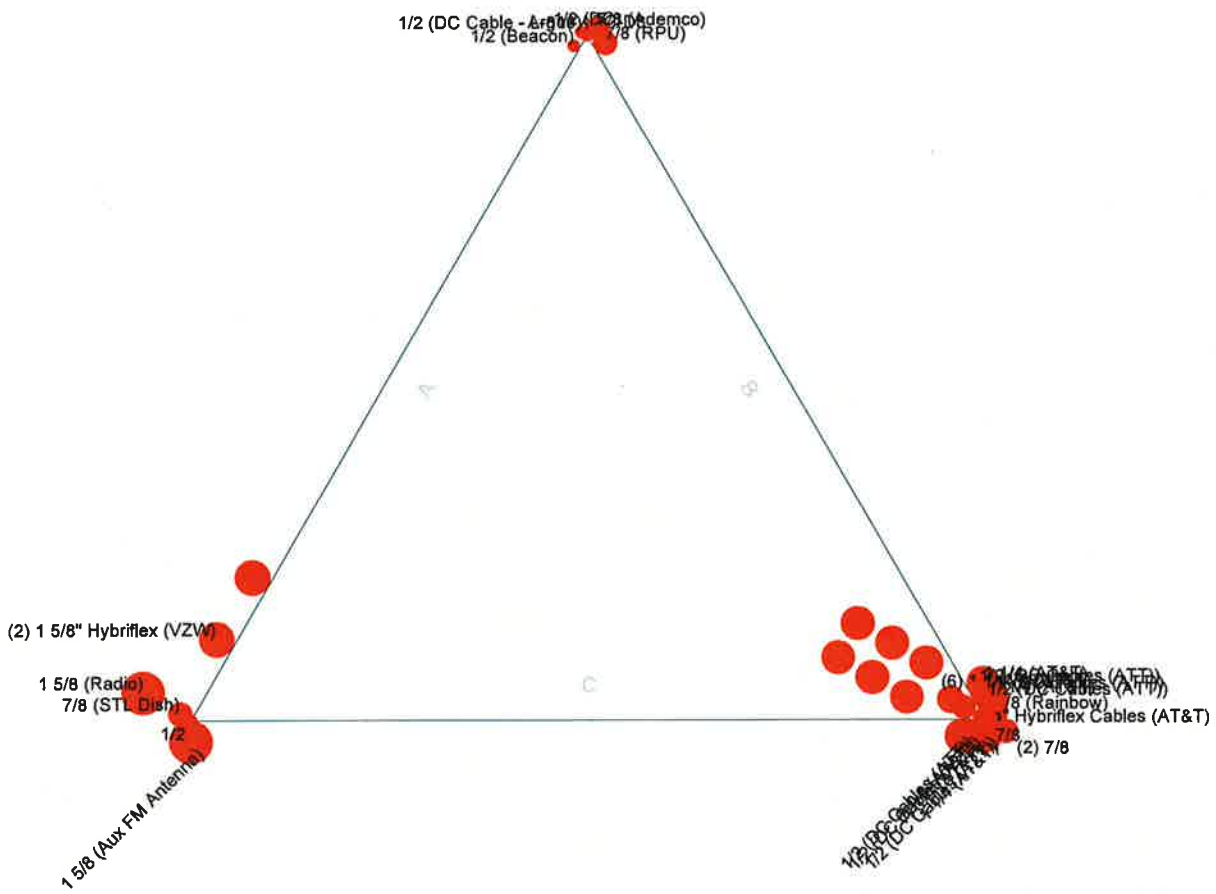
Job: **376' Guyed Tower**			
Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, CT*			
Client: VZW & AT&T	Drawn by: MCD	App'd:	
Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS	
Path: \\VMOD Shirley Street - Temporary Folder\CAD Files\MOD Design - Shirley Tower.dwg		Dwg No. E-7	

TNX TOWER FEEDLINE PLAN

Feedline Plan

Round Flat App In Face App Out Face

Leg A:
(1) 1/4" Coax Cable
(3) 1/2" Coax Cables
(2) 7/8" Coax Cables



Leg C:
(2) 1 5/8" Fiber Optic Cables
(2) 1 5/8" Coax Cables
(1) 7/8" Coax Cable
(1) 1/2" Coax Cable

Leg B:
(4) 7/8" Coax Cables
(1) 1 1/4" Fiber Optic Cable
(6) DC Cables
(12) 1 1/4" Coax Cables

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Job: *376' Guyed Tower*			
Project: *(VZ5-172 & SAI-078) Shirley Street, Norwalk, CT*			
Client: VZW & AT&T	Drawn by: MCD	App'd:	
Code: TIA/EIA-222-F	Date: 04/02/14	Scale: NTS	
Path: Y:\MCD Shirley Street - Temporary Folder\EDI Files\MCD Design - Shirley Tower.dwg		Dwg No. E-7	

TNX TOWER DETAILED OUTPUT

tnxTower	Job	Page
	376' Guyed Tower	1 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date 18:52:46 04/02/14
	Client VZW & AT&T	Designed by MCD

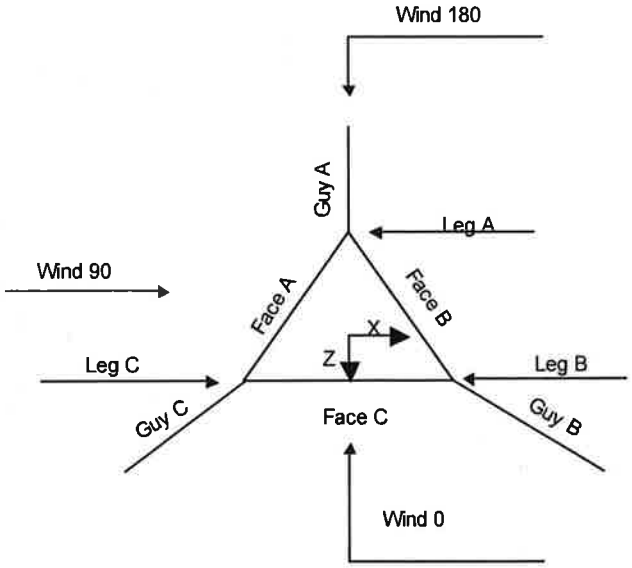
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 375.50 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 3.00 ft at the top and 3.00 ft at the base.
An index plate is provided at the 3x guyed -tower connection.
There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Fairfield County, Connecticut.
Basic wind speed of 90 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 78 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
As of January 1, 2006 the basic wind speed for this site has increased from 85mph (fastest mile) to 90 mph (fastest mile).
I-Beam base is 7.25 ft above the pivot.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.0664.
Safety factor used in guy design is 2.
Stress ratio used in tower member design is 1.333.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Treat Feedline Bundles As Cylinder
Consider Moments - Horizontals	Assume Legs Pinned	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Diagonals	√ Assume Rigid Index Plate	√ Calculate Redundant Bracing Forces
Use Moment Magnification	√ Use Clear Spans For Wind Area	Ignore Redundant Members in FEA
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	√ SR Leg Bolts Resist Compression
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	√ All Leg Panels Have Same Allowable
Escalate Ice	Bypass Mast Stability Checks	Offset Girt At Foundation
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Consider Feedline Torque
Use Special Wind Profile	√ Project Wind Area of Appurt.	Include Angle Block Shear Check
√ Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Poles
√ Leg Bolts Are At Top Of Section	√ SR Members Have Cut Ends	Include Shear-Torsion Interaction
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
Add IBC .6D+W Combination		



Corner & Starmount Guyed Tower

Pole Section Geometry

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	375.50-360.50	15.00	HSS6.625x.28	A53-B-35 (35 ksi)	
L2	360.50-345.50	15.00	HSS8.625x.322	A53-B-35 (35 ksi)	

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
L1 375.50-360.50				1	1	1		
L2 360.50-345.50				1	1	1		

Tower Section Geometry

tnxTower	Job	Page
	376' Guyed Tower	3 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date 18:52:46 04/02/14
	Client VZW & AT&T	Designed by MCD

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	345.50-340.50			3.00	1	5.00
T2	340.50-335.50			3.00	1	5.00
T3	335.50-330.45			3.00	1	5.05
T4	330.45-325.40			3.00	1	5.05
T5	325.40-320.35			3.00	1	5.05
T6	320.35-315.30			3.00	1	5.05
T7	315.30-310.25			3.00	1	5.05
T8	310.25-305.20			3.00	1	5.05
T9	305.20-300.15			3.00	1	5.05
T10	300.15-295.10			3.00	1	5.05
T11	295.10-290.05			3.00	1	5.05
T12	290.05-285.00			3.00	1	5.05
T13	285.00-279.95			3.00	1	5.05
T14	279.95-274.90			3.00	1	5.05
T15	274.90-269.85			3.00	1	5.05
T16	269.85-264.80			3.00	1	5.05
T17	264.80-259.75			3.00	1	5.05
T18	259.75-254.70			3.00	1	5.05
T19	254.70-249.65			3.00	1	5.05
T20	249.65-244.60			3.00	1	5.05
T21	244.60-239.55			3.00	1	5.05
T22	239.55-234.50			3.00	1	5.05
T23	234.50-229.45			3.00	1	5.05
T24	229.45-224.40			3.00	1	5.05
T25	224.40-219.35			3.00	1	5.05
T26	219.35-214.30			3.00	1	5.05
T27	214.30-209.25			3.00	1	5.05
T28	209.25-199.15			3.00	1	10.10
T29	199.15-194.10			3.00	1	5.05
T30	194.10-189.05			3.00	1	5.05
T31	189.05-184.00			3.00	1	5.05
T32	184.00-178.95			3.00	1	5.05
T33	178.95-158.75			3.00	1	20.20
T34	158.75-133.50			3.00	1	25.25
T35	133.50-108.25			3.00	1	25.25
T36	108.25-103.20			3.00	1	5.05
T37	103.20-98.15			3.00	1	5.05
T38	98.15-93.10			3.00	1	5.05
T39	93.10-88.05			3.00	1	5.05
T40	88.05-83.00			3.00	1	5.05
T41	83.00-77.95			3.00	1	5.05
T42	77.95-72.90			3.00	1	5.05
T43	72.90-67.85			3.00	1	5.05
T44	67.85-62.80			3.00	1	5.05
T45	62.80-57.75			3.00	1	5.05
T46	57.75-52.70			3.00	1	5.05
T47	52.70-47.65			3.00	1	5.05
T48	47.65-42.60			3.00	1	5.05
T49	42.60-37.55			3.00	1	5.05
T50	37.55-32.50			3.00	1	5.05
T51	32.50-27.45			3.00	1	5.05
T52	27.45-22.40			3.00	1	5.05
T53	22.40-17.35			3.00	1	5.05
T54	17.35-12.30			3.00	1	5.05
T55	12.30-7.25			3.00	1	5.05

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	345.50-340.50	5.00	K Brace Down	No	Yes	0.0000	0.0000
T2	340.50-335.50	5.00	Diag Down	No	Yes	0.0000	0.0000
T3	335.50-330.45	5.05	Diag Up	No	Yes	0.0000	0.0000
T4	330.45-325.40	5.05	Diag Down	No	Yes	0.0000	0.0000
T5	325.40-320.35	5.05	Diag Up	No	Yes	0.0000	0.0000
T6	320.35-315.30	5.05	Diag Down	No	Yes	0.0000	0.0000
T7	315.30-310.25	5.05	Diag Up	No	Yes	0.0000	0.0000
T8	310.25-305.20	5.05	Diag Down	No	Yes	0.0000	0.0000
T9	305.20-300.15	5.05	Diag Up	No	Yes	0.0000	0.0000
T10	300.15-295.10	5.05	Diag Down	No	Yes	0.0000	0.0000
T11	295.10-290.05	5.05	Diag Up	No	Yes	0.0000	0.0000
T12	290.05-285.00	5.05	Diag Down	No	Yes	0.0000	0.0000
T13	285.00-279.95	5.05	Diag Up	No	Yes	0.0000	0.0000
T14	279.95-274.90	5.05	Diag Down	No	Yes	0.0000	0.0000
T15	274.90-269.85	5.05	Diag Up	No	Yes	0.0000	0.0000
T16	269.85-264.80	5.05	Diag Down	No	Yes	0.0000	0.0000
T17	264.80-259.75	5.05	Diag Up	No	Yes	0.0000	0.0000
T18	259.75-254.70	5.05	Diag Down	No	Yes	0.0000	0.0000
T19	254.70-249.65	5.05	Diag Up	No	Yes	0.0000	0.0000
T20	249.65-244.60	5.05	Diag Down	No	Yes	0.0000	0.0000
T21	244.60-239.55	5.05	Diag Up	No	Yes	0.0000	0.0000
T22	239.55-234.50	5.05	Diag Down	No	Yes	0.0000	0.0000
T23	234.50-229.45	5.05	Diag Up	No	Yes	0.0000	0.0000
T24	229.45-224.40	5.05	Diag Down	No	Yes	0.0000	0.0000
T25	224.40-219.35	5.05	Diag Up	No	Yes	0.0000	0.0000
T26	219.35-214.30	5.05	Diag Down	No	Yes	0.0000	0.0000
T27	214.30-209.25	5.05	Diag Up	No	Yes	0.0000	0.0000
T28	209.25-199.15	5.05	K Brace Left	No	Yes	0.0000	0.0000
T29	199.15-194.10	5.05	Diag Down	No	Yes	0.0000	0.0000
T30	194.10-189.05	5.05	Diag Up	No	Yes	0.0000	0.0000
T31	189.05-184.00	5.05	Diag Down	No	Yes	0.0000	0.0000
T32	184.00-178.95	5.05	Diag Up	No	Yes	0.0000	0.0000
T33	178.95-158.75	5.05	K Brace Left	No	Yes	0.0000	0.0000
T34	158.75-133.50	5.05	K Brace Right	No	Yes	0.0000	0.0000
T35	133.50-108.25	5.05	K Brace Left	No	Yes	0.0000	0.0000
T36	108.25-103.20	5.05	Diag Down	No	Yes	0.0000	0.0000
T37	103.20-98.15	5.05	Diag Up	No	Yes	0.0000	0.0000
T38	98.15-93.10	5.05	Diag Down	No	Yes	0.0000	0.0000
T39	93.10-88.05	5.05	Diag Up	No	Yes	0.0000	0.0000
T40	88.05-83.00	5.05	Diag Down	No	Yes	0.0000	0.0000
T41	83.00-77.95	5.05	Diag Up	No	Yes	0.0000	0.0000
T42	77.95-72.90	5.05	Diag Down	No	Yes	0.0000	0.0000
T43	72.90-67.85	5.05	Diag Up	No	Yes	0.0000	0.0000
T44	67.85-62.80	5.05	Diag Down	No	Yes	0.0000	0.0000
T45	62.80-57.75	5.05	Diag Up	No	Yes	0.0000	0.0000
T46	57.75-52.70	5.05	Diag Down	No	Yes	0.0000	0.0000
T47	52.70-47.65	5.05	Diag Up	No	Yes	0.0000	0.0000
T48	47.65-42.60	5.05	Diag Down	No	Yes	0.0000	0.0000
T49	42.60-37.55	5.05	Diag Up	No	Yes	0.0000	0.0000
T50	37.55-32.50	5.05	Diag Down	No	Yes	0.0000	0.0000
T51	32.50-27.45	5.05	Diag Up	No	Yes	0.0000	0.0000
T52	27.45-22.40	5.05	Diag Down	No	Yes	0.0000	0.0000
T53	22.40-17.35	5.05	Diag Up	No	Yes	0.0000	0.0000
T54	17.35-12.30	5.05	Diag Down	No	Yes	0.0000	0.0000
T55	12.30-7.25	5.05	Diag Up	No	Yes	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 345.50-340.50	Pipe	Stainless Inc. 2.5x0.203	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16	A36 (36 ksi)
T2 340.50-335.50	Pipe	Stainless Inc. 2.5x0.203	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T3 335.50-330.45	Pipe	Stainless Inc. 2.5x0.180	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T4 330.45-325.40	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T5 325.40-320.35	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T6 320.35-315.30	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T7 315.30-310.25	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T8 310.25-305.20	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T9 305.20-300.15	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T10 300.15-295.10	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T11 295.10-290.05	Pipe	Stainless Inc. 2.5x0.180	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T12 290.05-285.00	Pipe	Stainless Inc. 2.5x0.180	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T13 285.00-279.95	Pipe	Stainless Inc. 2.5x0.250	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T14 279.95-274.90	Pipe	Stainless Inc. 2.5x0.250	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T15 274.90-269.85	Arbitrary Shape	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T16 269.85-264.80	Arbitrary Shape	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T17 264.80-259.75	Arbitrary Shape	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T18 259.75-254.70	Arbitrary Shape	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T19 254.70-249.65	Arbitrary Shape	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T20 249.65-244.60	Arbitrary Shape	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T21 244.60-239.55	Arbitrary Shape	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T22 239.55-234.50	Arbitrary Shape	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T23 234.50-229.45	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T24 229.45-224.40	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T25 224.40-219.35	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T26 219.35-214.30	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T27 214.30-209.25	Arbitrary Shape	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T28 209.25-199.15	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T29 199.15-194.10	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T30 194.10-189.05	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T31 189.05-184.00	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T32 184.00-178.95	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T33 178.95-158.75	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T34 158.75-133.50	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T35 133.50-108.25	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T36 108.25-103.20	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T37 103.20-98.15	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T38 98.15-93.10	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T39 93.10-88.05	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T40 88.05-83.00	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T41 83.00-77.95	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T42 77.95-72.90	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T43 72.90-67.85	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.2	A53-B-35 (35 ksi)
T44 67.85-62.80	Solid Round	2 1/4	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T45 62.80-57.75	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.145	A53-B-35 (35 ksi)
T46 57.75-52.70	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T47 52.70-47.65	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T48 47.65-42.60	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T49 42.60-37.55	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T50 37.55-32.50	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T51 32.50-27.45	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T52 27.45-22.40	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T53 22.40-17.35	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T54 17.35-12.30	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T55 12.30-7.25	Arbitrary Shape	SR 2 1/4 W/ 1/2 PIPE SCH 80	A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 345.50-340.50	Channel	C4x5.4	A36 (36 ksi)	Pipe		A36 (36 ksi)
T2 340.50-335.50	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T3 335.50-330.45	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T4 330.45-325.40	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T5 325.40-320.35	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T6 320.35-315.30	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T7 315.30-310.25	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T8 310.25-305.20	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T9 305.20-300.15	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T10 300.15-295.10	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T11 295.10-290.05	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T12 290.05-285.00	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T13 285.00-279.95	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T14 279.95-274.90	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T15 274.90-269.85	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T16 269.85-264.80	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T17 264.80-259.75	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T18 259.75-254.70	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T19 254.70-249.65	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T20 249.65-244.60	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T21 244.60-239.55	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T22 239.55-234.50	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T23 234.50-229.45	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T24 229.45-224.40	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T25 224.40-219.35	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T26 219.35-214.30	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T27 214.30-209.25	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T28 209.25-199.15	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T29 199.15-194.10	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T30 194.10-189.05	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T31 189.05-184.00	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T32 184.00-178.95	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T33 178.95-158.75	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T34 158.75-133.50	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T35 133.50-108.25	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T36 108.25-103.20	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T37 103.20-98.15	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T38 98.15-93.10	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T39 93.10-88.05	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T40 88.05-83.00	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T41 83.00-77.95	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T42 77.95-72.90	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T43 72.90-67.85	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T44 67.85-62.80	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T45 62.80-57.75	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T46 57.75-52.70	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T47 52.70-47.65	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T48 47.65-42.60	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T49 42.60-37.55	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T50 37.55-32.50	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T51 32.50-27.45	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T52 27.45-22.40	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T53 22.40-17.35	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T54 17.35-12.30	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)
T55 12.30-7.25	Pipe	P1.5x.120	A53-B-35 (35 ksi)	Pipe		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 345.50-340.50	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T2 340.50-335.50	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T3 335.50-330.45	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T4 330.45-325.40	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T5 325.40-320.35	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T6 320.35-315.30	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T7 315.30-310.25	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T8 310.25-305.20	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T9 305.20-300.15	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T10 300.15-295.10	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T11 295.10-290.05	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T12 290.05-285.00	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T13 285.00-279.95	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T14 279.95-274.90	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T15 274.90-269.85	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T16 269.85-264.80	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T17 264.80-259.75	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T18 259.75-254.70	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T19 254.70-249.65	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T20 249.65-244.60	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T21 244.60-239.55	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T22 239.55-234.50	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T23 234.50-229.45	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T24 229.45-224.40	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T25 224.40-219.35	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T26 219.35-214.30	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T27 214.30-209.25	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T28 209.25-199.15	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T29 199.15-194.10	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T30 194.10-189.05	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T31 189.05-184.00	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T32 184.00-178.95	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T33 178.95-158.75	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T34 158.75-133.50	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T35 133.50-108.25	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T36 108.25-103.20	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T37 103.20-98.15	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T38 98.15-93.10	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T39 93.10-88.05	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T40 88.05-83.00	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T41 83.00-77.95	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T42 77.95-72.90	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T43 72.90-67.85	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T44 67.85-62.80	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T45 62.80-57.75	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T46 57.75-52.70	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T47 52.70-47.65	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T48 47.65-42.60	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T49 42.60-37.55	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T50 37.55-32.50	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T51 32.50-27.45	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T52 27.45-22.40	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T53 22.40-17.35	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T54 17.35-12.30	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)
T55 12.30-7.25	None	Solid Round		A36 (36 ksi)	Pipe	P1.5x.120	A53-B-35 (35 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T17 264.80-259.75	Solid Round	1	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T18 259.75-254.70	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T19 254.70-249.65	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T20 249.65-244.60	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T21 244.60-239.55	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T22 239.55-234.50	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T23 234.50-229.45	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 229.45-224.40	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T25 224.40-219.35	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T26 219.35-214.30	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T27 214.30-209.25	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T42 77.95-72.90	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T43 72.90-67.85	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T44 67.85-62.80	Single Angle	L2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T1 345.50-340.50	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T2 340.50-335.50	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T3 335.50-330.45	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T4 330.45-325.40	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T5 325.40-320.35	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T6 320.35-315.30	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T7 315.30-310.25	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T8 310.25-305.20	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T9 305.20-300.15	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T10	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft^2	in					in	in
300.15-295.10			(36 ksi)					
T11	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
295.10-290.05			(36 ksi)					
T12	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
290.05-285.00			(36 ksi)					
T13	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
285.00-279.95			(36 ksi)					
T14	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
279.95-274.90			(36 ksi)					
T15	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
274.90-269.85			(36 ksi)					
T16	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
269.85-264.80			(36 ksi)					
T17	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
264.80-259.75			(36 ksi)					
T18	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
259.75-254.70			(36 ksi)					
T19	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
254.70-249.65			(36 ksi)					
T20	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
249.65-244.60			(36 ksi)					
T21	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
244.60-239.55			(36 ksi)					
T22	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
239.55-234.50			(36 ksi)					
T23	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
234.50-229.45			(36 ksi)					
T24	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
229.45-224.40			(36 ksi)					
T25	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
224.40-219.35			(36 ksi)					
T26	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
219.35-214.30			(36 ksi)					
T27	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
214.30-209.25			(36 ksi)					
T28	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
209.25-199.15			(36 ksi)					
T29	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
199.15-194.10			(36 ksi)					
T30	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
194.10-189.05			(36 ksi)					
T31	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
189.05-184.00			(36 ksi)					
T32	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
184.00-178.95			(36 ksi)					
T33	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
178.95-158.75			(36 ksi)					
T34	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
158.75-133.50			(36 ksi)					
T35	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
133.50-108.25			(36 ksi)					
T36	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
108.25-103.20			(36 ksi)					
T37	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
103.20-98.15			(36 ksi)					
T38	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
98.15-93.10			(36 ksi)					
T39	0.00	0.0000	A36	1	1	1	Mid-Pt	Mid-Pt
93.10-88.05			(36 ksi)					

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T40 88.05-83.00	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T41 83.00-77.95	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T42 77.95-72.90	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T43 72.90-67.85	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T44 67.85-62.80	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T45 62.80-57.75	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T46 57.75-52.70	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T47 52.70-47.65	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T48 47.65-42.60	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T49 42.60-37.55	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T50 37.55-32.50	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T51 32.50-27.45	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T52 27.45-22.40	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T53 22.40-17.35	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T54 17.35-12.30	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt
T55 12.30-7.25	0.00	0.0000	A36 (36 ksi)	1	1	1	Mid-Pt	Mid-Pt

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 345.50-340.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 340.50-335.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 335.50-330.45	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 330.45-325.40	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 325.40-320.35	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T6 320.35-315.30	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 315.30-310.25	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Brace Diags X	K Brace Diags Y	Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T8	Yes	Yes	1	1		1		1		1		1		1		1	
310.25-305.20					1		1		1		1		1		1		1
T9	Yes	Yes	1	1		1		1		1		1		1		1	
305.20-300.15					1		1		1		1		1		1		1
T10	Yes	Yes	1	1		1		1		1		1		1		1	
300.15-295.10					1		1		1		1		1		1		1
T11	Yes	Yes	1	1		1		1		1		1		1		1	
295.10-290.05					1		1		1		1		1		1		1
T12	Yes	Yes	1	1		1		1		1		1		1		1	
290.05-285.00					1		1		1		1		1		1		1
T13	Yes	Yes	1	1		1		1		1		1		1		1	
285.00-279.95					1		1		1		1		1		1		1
T14	Yes	Yes	1	1		1		1		1		1		1		1	
279.95-274.90					1		1		1		1		1		1		1
T15	Yes	Yes	1	1		1		1		1		1		1		1	
274.90-269.85					1		1		1		1		1		1		1
T16	Yes	Yes	1	1		1		1		1		1		1		1	
269.85-264.80					1		1		1		1		1		1		1
T17	Yes	Yes	1	1		1		1		1		1		1		1	
264.80-259.75					1		1		1		1		1		1		1
T18	Yes	Yes	1	1		1		1		1		1		1		1	
259.75-254.70					1		1		1		1		1		1		1
T19	Yes	Yes	1	1		1		1		1		1		1		1	
254.70-249.65					1		1		1		1		1		1		1
T20	Yes	Yes	1	1		1		1		1		1		1		1	
249.65-244.60					1		1		1		1		1		1		1
T21	Yes	Yes	1	1		1		1		1		1		1		1	
244.60-239.55					1		1		1		1		1		1		1
T22	Yes	Yes	1	1		1		1		1		1		1		1	
239.55-234.50					1		1		1		1		1		1		1
T23	Yes	Yes	1	1		1		1		1		1		1		1	
234.50-229.45					1		1		1		1		1		1		1
T24	Yes	Yes	1	1		1		1		1		1		1		1	
229.45-224.40					1		1		1		1		1		1		1
T25	Yes	Yes	1	1		1		1		1		1		1		1	
224.40-219.35					1		1		1		1		1		1		1
T26	Yes	Yes	1	1		1		1		1		1		1		1	
219.35-214.30					1		1		1		1		1		1		1
T27	Yes	Yes	1	1		1		1		1		1		1		1	
214.30-209.25					1		1		1		1		1		1		1
T28	Yes	Yes	1	1		1		1		1		1		1		1	
209.25-199.15					1		1		1		1		1		1		1
T29	Yes	Yes	1	1		1		1		1		1		1		1	
199.15-194.10					1		1		1		1		1		1		1
T30	Yes	Yes	1	1		1		1		1		1		1		1	
194.10-189.05					1		1		1		1		1		1		1
T31	Yes	Yes	1	1		1		1		1		1		1		1	
189.05-184.00					1		1		1		1		1		1		1
T32	Yes	Yes	1	1		1		1		1		1		1		1	
184.00-178.95					1		1		1		1		1		1		1
T33	Yes	Yes	1	1		1		1		1		1		1		1	
178.95-158.75					1		1		1		1		1		1		1
T34	Yes	Yes	1	1		1		1		1		1		1		1	
158.75-133.50					1		1		1		1		1		1		1
T35	Yes	Yes	1	1		1		1		1		1		1		1	
133.50-108.25					1		1		1		1		1		1		1
T36	Yes	Yes	1	1		1		1		1		1		1		1	
108.25-103.20					1		1		1		1		1		1		1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Brace Diags X	K Brace Diags Y	Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T37	Yes	Yes	1	1		1		1		1		1		1		1	
103.20-98.15				1		1		1		1		1		1		1	
T38	Yes	Yes	1	1		1		1		1		1		1		1	
98.15-93.10				1		1		1		1		1		1		1	
T39	Yes	Yes	1	1		1		1		1		1		1		1	
93.10-88.05				1		1		1		1		1		1		1	
T40	Yes	Yes	1	1		1		1		1		1		1		1	
88.05-83.00				1		1		1		1		1		1		1	
T41	Yes	Yes	1	1		1		1		1		1		1		1	
83.00-77.95				1		1		1		1		1		1		1	
T42	Yes	Yes	1	1		1		1		1		1		1		1	
77.95-72.90				1		1		1		1		1		1		1	
T43	Yes	Yes	1	1		1		1		1		1		1		1	
72.90-67.85				1		1		1		1		1		1		1	
T44	Yes	Yes	1	1		1		1		1		1		1		1	
67.85-62.80				1		1		1		1		1		1		1	
T45	Yes	Yes	1	1		1		1		1		1		1		1	
62.80-57.75				1		1		1		1		1		1		1	
T46	Yes	Yes	1	1		1		1		1		1		1		1	
57.75-52.70				1		1		1		1		1		1		1	
T47	Yes	Yes	1	1		1		1		1		1		1		1	
52.70-47.65				1		1		1		1		1		1		1	
T48	Yes	Yes	1	1		1		1		1		1		1		1	
47.65-42.60				1		1		1		1		1		1		1	
T49	Yes	Yes	1	1		1		1		1		1		1		1	
42.60-37.55				1		1		1		1		1		1		1	
T50	Yes	Yes	1	1		1		1		1		1		1		1	
37.55-32.50				1		1		1		1		1		1		1	
T51	Yes	Yes	1	1		1		1		1		1		1		1	
32.50-27.45				1		1		1		1		1		1		1	
T52	Yes	Yes	1	1		1		1		1		1		1		1	
27.45-22.40				1		1		1		1		1		1		1	
T53	Yes	Yes	1	1		1		1		1		1		1		1	
22.40-17.35				1		1		1		1		1		1		1	
T54	Yes	Yes	1	1		1		1		1		1		1		1	
17.35-12.30				1		1		1		1		1		1		1	
T55	Yes	Yes	1	1		1		1		1		1		1		1	
12.30-7.25				1		1		1		1		1		1		1	

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
345.50-340.50														
T2	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
340.50-335.50														

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T3	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
335.50-330.45														
T4	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
330.45-325.40														
T5	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
325.40-320.35														
T6	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
320.35-315.30														
T7	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
315.30-310.25														
T8	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
310.25-305.20														
T9	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
305.20-300.15														
T10	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
300.15-295.10														
T11	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
295.10-290.05														
T12	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
290.05-285.00														
T13	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
285.00-279.95														
T14	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
279.95-274.90														
T15	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
274.90-269.85														
T16	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
269.85-264.80														
T17	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
264.80-259.75														
T18	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
259.75-254.70														
T19	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
254.70-249.65														
T20	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
249.65-244.60														
T21	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
244.60-239.55														
T22	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
239.55-234.50														
T23	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
234.50-229.45														
T24	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
229.45-224.40														
T25	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
224.40-219.35														
T26	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
219.35-214.30														
T27	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
214.30-209.25														
T28	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
209.25-199.15														
T29	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
199.15-194.10														
T30	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
194.10-189.05														

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T31	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
189.05-184.00 T32	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
184.00-178.95 T33	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
178.95-158.75 T34	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
158.75-133.50 T35	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
133.50-108.25 T36	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
108.25-103.20 T37	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
103.20-98.15 T38	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
98.15-93.10 T39	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
93.10-88.05 T40	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
88.05-83.00 T41	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
83.00-77.95 T42	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
77.95-72.90 T43	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
72.90-67.85 T44	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
67.85-62.80 T45	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
62.80-57.75 T46	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
57.75-52.70 T47	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
52.70-47.65 T48	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
47.65-42.60 T49	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
42.60-37.55 T50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
37.55-32.50 T51	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
32.50-27.45 T52	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
27.45-22.40 T53	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
22.40-17.35 T54	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
17.35-12.30 T55 12.30-7.25	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension lb	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
340.5	EHS	A	11/16	5000.00	10%	21000	0.813	382.81	171.00	0.0000	-3.21	100%
		B	11/16	5000.00	10%	21000	0.813	381.88	172.00	0.0000	-1.67	100%
		C	11/16	5000.00	10%	21000	0.813	389.07	170.50	0.0000	-10.42	100%
264.8	EHS	A	7/8	7970.00	10%	19000	1.581	316.70	171.00	0.0000	-3.21	100%
		B	7/8	7970.00	10%	19000	1.581	315.94	172.00	0.0000	-1.67	100%
		C	7/8	7970.00	10%	19000	1.581	322.56	170.50	0.0000	-10.42	100%
189.05	EHS	A	9/16	3500.00	10%	21000	0.671	255.94	171.00	0.0000	-3.21	100%
		B	9/16	3500.00	10%	21000	0.671	255.45	172.00	0.0000	-1.67	100%
		C	9/16	3500.00	10%	21000	0.671	261.07	170.50	0.0000	-10.42	100%
123.4	EHS	A	5/8	4240.00	10%	21000	0.813	147.38	81.00	0.0000	-1.00	100%
		B	5/8	4240.00	10%	21000	0.813	146.57	77.50	0.0000	-2.21	100%
		C	5/8	4240.00	10%	21000	0.813	152.83	81.00	0.0000	-7.42	100%
67.85	EHS	A	11/16	5000.00	10%	21000	0.813	104.91	81.00	0.0000	-1.00	100%
		B	11/16	5000.00	10%	21000	0.813	103.11	77.50	0.0000	-2.21	100%
		C	11/16	5000.00	10%	21000	0.813	109.22	81.00	0.0000	-7.42	100%

Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
340.5	Corner						
264.8	Corner						
189.05	Corner						
123.4	Corner						
67.85	Corner						

Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
340.50	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16
264.80	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16
189.05	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16
123.40	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16
67.85	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Double Equal Angle	2L2x2x3/16

Guy Data (cont'd)

Guy Elevation ft	Cable Weight A lb	Cable Weight B lb	Cable Weight C lb	Cable Weight D lb	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
340.5	311.23	310.46	316.31		11.60 5.9 sec/pulse	11.55 5.9 sec/pulse	11.98 6.0 sec/pulse	
264.8	500.71	499.50	509.96		9.70 5.4 sec/pulse	9.66 5.4 sec/pulse	10.06 5.5 sec/pulse	
189.05	171.74	171.41	175.18		6.17 4.3 sec/pulse	6.15 4.3 sec/pulse	6.42 4.4 sec/pulse	
123.4	119.82	119.16	124.25		2.06 2.5 sec/pulse	2.04 2.5 sec/pulse	2.21 2.6 sec/pulse	
67.85	85.29	83.83	88.80		0.89 1.6 sec/pulse	0.86 1.6 sec/pulse	0.96 1.7 sec/pulse	

Guy Data (cont'd)

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
340.5	No	No			1	1	1	1
264.8	No	No			1	1	1	1
189.05	No	No			1	1	1	1
123.4	No	No			1	1	1	1
67.85	No	No			1	1	1	1

Guy Data (cont'd)

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
340.5	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
264.8	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
189.05	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
123.4	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
67.85	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Insulator Data

Guy Elevation ft	#	Length in	Diameter in	Weight lb	Equivalent Unit Weight plf	Equivalent Diameter in	Equivalent Diameter w/Ice in

340.5	8	0.0000	0.6250	0.81	A	0.813	0.6875	1.6875
					B	0.813	0.6875	1.6875
					C	0.813	0.6875	1.6875
264.8	5	0.0000	0.7500	1.16	A	1.581	0.8750	1.8750
					B	1.581	0.8750	1.8750
					C	1.581	0.8750	1.8750
189.05	4	0.0000	0.5625	0.67	A	0.671	0.5625	1.5625
					B	0.671	0.5625	1.5625
					C	0.671	0.5625	1.5625
123.4	2	0.0000	0.5625	0.67	A	0.813	0.6250	1.6250
					B	0.813	0.6250	1.6250
					C	0.813	0.6250	1.6250
67.85	2	0.0000	0.5000	0.52	A	0.813	0.6875	1.6875
					B	0.813	0.6875	1.6875
					C	0.813	0.6875	1.6875

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
340.5	A	168.65	33	25	0.5000
	B	169.42	33	25	0.5000
	C	165.04	33	25	0.5000
264.8	A	130.80	31	23	0.5000
	B	131.57	31	23	0.5000
	C	127.19	30	23	0.5000
189.05	A	92.92	28	21	0.5000
	B	93.69	28	21	0.5000
	C	89.32	28	21	0.5000
123.4	A	61.20	25	19	0.5000
	B	60.60	25	19	0.5000
	C	57.99	24	18	0.5000
67.85	A	33.43	21	16	0.5000
	B	32.82	21	16	0.5000
	C	30.22	21	16	0.5000

Guy-Mast Forces (Excluding Wind) - No Ice

Guy Elevation ft	Guy Location	Chord Angle °	Guy Tension Top Bottom lb	F_x lb	F_y lb	F_z lb	M_x lb-ft	M_y lb-ft	M_z lb-ft
340.5	A	63.7810	5279.20 5000.00	0.00	4766.27	-2269.93	-8255.42	0.00	0.00
	B	63.5445	5277.95 5000.00	1982.04	4755.92	1144.33	4118.74	0.00	-7133.87
	C	64.3157	5285.05 5000.00	-1929.56	4792.44	1114.03	4150.38	-0.00	7188.66
			Sum:	**52.48**	14314.63	**-11.57**	**13.70**	0.00	**54.79**
264.8	A	57.7246	8393.33 7970.00	0.00	7167.57	-4367.37	-12414.59	0.00	0.00
	B	57.4224	8390.90 7970.00	3813.22	7142.80	2201.56	6185.84	0.00	-10714.20
	C	58.4829	8404.72 7970.00	-3705.20	7234.26	2139.20	6265.06	-0.00	10851.40

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom	F_x	F_y	F_z	M_x	M_y	M_z
ft		°	lb	lb	lb	lb	lb-ft	lb-ft	lb-ft
			Sum:	108.02	21544.63	-26.61	36.31	0.00	137.20
189.05	A	48.6389	3628.89 3500.00	0.00	2761.06	-2354.87	-4782.30	0.00	0.00
	B	48.2427	3627.86 3500.00	2055.05	2744.16	1186.48	2376.51	0.00	-4116.24
	C	49.7660	3633.73 3500.00	-1994.75	2810.45	1151.67	2433.92	-0.00	4215.67
			Sum:	60.30	8315.67	-16.71	28.13	0.00	99.43
123.4	A	57.4946	4341.05 4240.00	0.00	3678.24	-2305.49	-6370.89	0.00	0.00
	B	58.9016	4342.03 4240.00	1919.29	3733.86	1108.10	3233.61	0.00	-5600.78
	C	58.7870	4346.26 4240.00	-1926.59	3733.77	1112.32	3233.54	-0.00	5600.65
			Sum:	-7.30	11145.86	-85.07	96.26	-0.00	-0.13
67.85	A	40.9767	5055.93 5000.00	0.00	3339.72	-3795.88	-5784.56	0.00	0.00
	B	42.7585	5056.91 5000.00	3197.28	3455.76	1845.95	2992.77	0.00	-5183.63
	C	43.5181	5061.14 5000.00	-3159.12	3508.34	1823.92	3038.31	-0.00	5262.51
			Sum:	38.16	10303.81	-126.01	246.53	0.00	78.88

Guy-Mast Forces (Excluding Wind) - Ice

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom	F_x	F_y	F_z	M_x	M_y	M_z
ft		°	lb	lb	lb	lb	lb-ft	lb-ft	lb-ft
340.5	A	63.7810	7488.57 6960.27	0.00	6775.19	-3189.89	-11734.98	0.00	0.00
	B	63.5445	7488.24 6962.31	2786.00	6762.01	1608.50	5856.07	0.00	-10143.01
	C	64.3157	7496.44 6957.06	-2710.87	6811.61	1565.12	5899.03	-0.00	10217.42
			Sum:	75.12	20348.81	-16.27	20.12	0.00	74.41
264.8	A	57.7246	11448.69 10800.47	0.00	9788.56	-5937.72	-16954.29	0.00	0.00
	B	57.4224	11446.75 10802.26	5185.06	9756.11	2993.60	8449.04	0.00	-14634.16
	C	58.4829	11462.56 10796.90	-5036.27	9877.83	2907.69	8554.45	-0.00	14816.74
			Sum:	148.79	29422.50	-36.43	49.20	0.00	182.58
189.05	A	48.6389	5180.63 4927.07	0.00	3961.84	-3338.08	-6862.10	0.00	0.00
	B	48.2427	5180.92 4929.39	2914.26	3939.30	1682.55	3411.53	0.00	-5908.95
	C	49.7660	5186.57 4923.50	-2826.34	4031.08	1631.79	3491.02	-0.00	6046.62
			Sum:	87.92	11932.21	-23.75	40.45	0.00	137.67
123.4	A	57.4946	6030.23 5843.76	0.00	5117.38	-3190.00	-8863.56	0.00	0.00
	B	58.9016	6028.51	2654.16	5191.36	1532.38	4495.85	0.00	-7787.04

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom lb	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		lb	lb	lb	lb-ft	lb-ft	lb-ft
			5840.23						
	C	58.7870	6037.57	-2665.24	5194.31	1538.78	4498.41	-0.00	7791.47
			5841.48						
			Sum:	-11.08	15503.05	-118.84	130.69	-0.00	4.43
67.85	A	40.9767	7056.13	0.00	4673.01	-5286.96	-8093.89	0.00	0.00
			6950.30						
	B	42.7585	7054.61	4451.23	4832.14	2569.92	4184.76	0.00	-7248.21
			6946.92						
	C	43.5181	7063.64	-4399.40	4908.02	2540.00	4250.47	-0.00	7362.03
			6947.94						
			Sum:	51.83	14413.17	-177.05	341.34	0.00	113.82

Guy-Mast Forces (Excluding Wind) - Service

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom lb	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		lb	lb	lb	lb-ft	lb-ft	lb-ft
340.5	A	63.7810	5279.20	0.00	4766.27	-2269.93	-8255.42	0.00	0.00
			5000.00						
	B	63.5445	5277.95	1982.04	4755.92	1144.33	4118.74	0.00	-7133.87
			5000.00						
	C	64.3157	5285.05	-1929.56	4792.44	1114.03	4150.38	-0.00	7188.66
			5000.00						
			Sum:	52.48	14314.63	-11.57	13.70	0.00	54.79
264.8	A	57.7246	8393.33	0.00	7167.57	-4367.37	-12414.59	0.00	0.00
			7970.00						
	B	57.4224	8390.90	3813.22	7142.80	2201.56	6185.84	0.00	-10714.20
			7970.00						
	C	58.4829	8404.72	-3705.20	7234.26	2139.20	6265.06	-0.00	10851.40
			7970.00						
			Sum:	108.02	21544.63	-26.61	36.31	0.00	137.20
189.05	A	48.6389	3628.89	0.00	2761.06	-2354.87	-4782.30	0.00	0.00
			3500.00						
	B	48.2427	3627.86	2055.05	2744.16	1186.48	2376.51	0.00	-4116.24
			3500.00						
	C	49.7660	3633.73	-1994.75	2810.45	1151.67	2433.92	-0.00	4215.67
			3500.00						
			Sum:	60.30	8315.67	-16.71	28.13	0.00	99.43
123.4	A	57.4946	4341.05	0.00	3678.24	-2305.49	-6370.89	0.00	0.00
			4240.00						
	B	58.9016	4342.03	1919.29	3733.86	1108.10	3233.61	0.00	-5600.78
			4240.00						
	C	58.7870	4346.26	-1926.59	3733.77	1112.32	3233.54	-0.00	5600.65
			4240.00						
			Sum:	-7.30	11145.86	-85.07	96.26	-0.00	-0.13
67.85	A	40.9767	5055.93	0.00	3339.72	-3795.88	-5784.56	0.00	0.00
			5000.00						
	B	42.7585	5056.91	3197.28	3455.76	1845.95	2992.77	0.00	-5183.63
			5000.00						
	C	43.5181	5061.14	-3159.12	3508.34	1823.92	3038.31	-0.00	5262.51
			5000.00						
			Sum:	38.16	10303.81	-126.01	246.53	0.00	78.88

Guy-Tensioning Information

				Temperature At Time Of Tensioning													
				0 F		20 F		40 F		60 F		80 F		100 F		120 F	
Guy Elevation		H	V	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept
ft		ft	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft	lb	ft
340.5	A	169.27	343.71	5428	10.70	5285	10.99	5142	11.29	5000	11.60	4859	11.93	4718	12.28	4579	12.64
	B	170.27	342.17	5435	10.64	5289	10.93	5144	11.23	5000	11.55	4856	11.88	4714	12.23	4572	12.60
	C	168.77	350.92	5412	11.08	5274	11.37	5137	11.66	5000	11.98	4864	12.30	4729	12.65	4594	13.01
264.8	A	169.27	268.01	8868	8.74	8566	9.04	8267	9.36	7970	9.70	7676	10.06	7385	10.45	7098	10.86
	B	170.27	266.47	8883	8.68	8576	8.99	8272	9.31	7970	9.66	7671	10.02	7376	10.41	7085	10.83
	C	168.77	275.22	8831	9.10	8542	9.40	8255	9.72	7970	10.06	7688	10.42	7409	10.80	7133	11.21
189.05	A	169.27	192.26	4148	5.22	3929	5.51	3713	5.82	3500	6.17	3290	6.56	3084	6.99	2883	7.47
	B	170.27	190.72	4157	5.19	3936	5.48	3716	5.80	3500	6.15	3287	6.54	3078	6.98	2875	7.46
	C	168.77	199.47	4118	5.47	3910	5.75	3704	6.07	3500	6.42	3299	6.80	3102	7.22	2910	7.69
123.4	A	79.27	124.40	4788	1.83	4605	1.90	4422	1.98	4240	2.06	4058	2.15	3877	2.25	3697	2.36
	B	75.77	125.61	4747	1.82	4578	1.89	4409	1.96	4240	2.04	4072	2.12	3904	2.21	3737	2.31
	C	79.27	130.82	4750	1.98	4579	2.05	4409	2.13	4240	2.21	4071	2.30	3903	2.40	3735	2.51
67.85	A	79.27	68.85	6312	0.71	5874	0.76	5436	0.82	5000	0.89	4566	0.97	4134	1.08	3707	1.20
	B	75.77	70.06	6242	0.69	5827	0.74	5413	0.79	5000	0.86	4589	0.94	4180	1.03	3774	1.14
	C	79.27	75.27	6210	0.78	5806	0.83	5402	0.89	5000	0.96	4599	1.05	4201	1.15	3806	1.27

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Argus APC-D8	A	No	Ar (Leg)	155.00 - 6.00	0.0000	0	1	1	0.3125	0.3125		0.50
1 5/8 (Radio)	A	Yes	Ar (CfAe)	345.00 - 6.00	1.5000	-0.5	1	1	1.9800	1.9800		1.04
7/8 (STL Dish)	A	Yes	Ar (CfAe)	330.00 - 6.00	0.0000	-0.5	1	1	1.1100	1.1100		0.54
7/8 (Rainbow)	B	Yes	Ar (CfAe)	308.00 - 6.00	0.0000	0.5	1	1	1.1100	1.1100		0.54
7/8 (RPU)	B	Yes	Ar (CfAe)	280.00 - 6.00	0.0000	-0.48	1	1	1.1100	1.1100		0.54
7/8 (Ademco)	B	Yes	Ar (CfAe)	264.00 - 6.00	0.0000	-0.5	1	1	1.1100	1.1100		0.54
1 5/8 (Aux FM Antenna)	C	Yes	Ar (CfAe)	260.00 - 6.00	0.0000	0.5	1	1	1.9800	1.9800		1.04
1 5/8" Hybriflex (VZW)	A	Yes	Ar (CfAe)	101.00 - 6.00	0.0000	-0.35	2	2	1.6250	1.6250		0.21
1 1/4" Hybriflex Cables (AT&T)	B	No	Ar (Leg)	81.00 - 6.00	0.0000	0.05	1	1	1.2500	1.2500		0.42
1/2 (DC Cable - L-810)	A	Yes	Ar (CfAe)	255.00 - 6.00	0.0000	0.5	1	1	0.5800	0.5800		0.25
1/2 (Beacon)	A	No	Ar (CfAe)	345.50 - 6.00	0.0000	0.48	1	1	0.5800	0.5800		0.25
1 1/4 (AT&T)	C	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	-0.5	1	1	1.5500	1.5500		0.66
1 1/4	C	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	-0.48	1	1	1.5500	1.5500		0.66

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
(AT&T) 1 1/4	C	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	-0.47	1	1	1.5500	1.5500		0.66
(AT&T) 1 1/4	B	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	0.48	1	1	1.5500	1.5500		0.66
(AT&T) 1 1/4	B	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	0.47	1	1	1.5500	1.5500		0.66
(AT&T) 1 1/4	B	Yes	Ar (CfAe)	81.00 - 6.00	0.0000	0.46	1	1	1.5500	1.5500		0.66
(AT&T) 1 1/4	B	No	Ar (Leg)	81.00 - 6.00	0.0000	0.15	6	3	0.2500	1.5500		0.66
(AT&T) 1/2	B	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	0.48	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 1/2	B	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	0.47	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 1/2	B	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	0.46	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 1/2	C	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	-0.5	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 1/2	C	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	-0.48	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 1/2	C	Yes	Ar (CfAe)	81.00 - 6.00	0.2500	-0.47	1	1	0.5800	0.5800		0.25
(DC Cables (ATT)) 7/8	B	No	Ar (Leg)	311.00 - 6.00	0.0000	0	2	2	1.1100	1.1100		0.54
7/8	B	No	Ar (Leg)	252.00 - 6.00	0.0000	0	1	1	1.1100	1.1100		0.54
1/2	C	No	Ar (Leg)	144.00 - 6.00	0.0000	0	1	1	0.5800	0.5800		0.25
1/2 (DC)	A	No	Ar (Leg)	139.00 - 6.00	0.0000	0	1	1	0.5800	0.5800		0.25

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	375.50-360.50	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	0.000	0.000	0.00
L2	360.50-345.50	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	0.000	0.000	0.00
T1	345.50-340.50	A	0.984	0.000	0.000	0.000	5.93
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T2	340.50-335.50	A	1.067	0.000	0.000	0.000	6.45
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T3	335.50-330.45	A	1.077	0.000	0.000	0.000	6.51
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T4	330.45-325.40	A	1.503	0.000	0.000	0.000	9.00
		B	0.000	0.000	0.000	0.000	0.00

tnxTower	Job	Page
	376' Guyed Tower	25 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	**Project** (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	**Date** 18:52:46 04/02/14
	Client VZW & AT&T	**Designed by** MCD

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C	0.000	0.000	0.000	0.000	0.00
T5	325.40-320.35	A	1.544	0.000	0.000	0.000	9.24
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T6	320.35-315.30	A	1.544	0.000	0.000	0.000	9.24
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T7	315.30-310.25	A	1.544	0.000	0.000	0.000	9.24
		B	0.139	0.000	0.000	0.000	0.81
		C	0.139	0.000	0.000	0.000	0.00
T8	310.25-305.20	A	1.544	0.000	0.000	0.000	9.24
		B	1.193	0.000	0.000	0.000	6.97
		C	0.934	0.000	0.000	0.000	0.00
T9	305.20-300.15	A	1.544	0.000	0.000	0.000	9.24
		B	1.401	0.000	0.000	0.000	8.18
		C	0.934	0.000	0.000	0.000	0.00
T10	300.15-295.10	A	1.544	0.000	0.000	0.000	9.24
		B	1.401	0.000	0.000	0.000	8.18
		C	0.934	0.000	0.000	0.000	0.00
T11	295.10-290.05	A	1.544	0.000	0.000	0.000	9.24
		B	1.401	0.000	0.000	0.000	8.18
		C	0.934	0.000	0.000	0.000	0.00
T12	290.05-285.00	A	1.544	0.000	0.000	0.000	9.24
		B	1.401	0.000	0.000	0.000	8.18
		C	0.934	0.000	0.000	0.000	0.00
T13	285.00-279.95	A	1.544	0.000	0.000	0.000	9.24
		B	1.406	0.000	0.000	0.000	8.21
		C	0.934	0.000	0.000	0.000	0.00
T14	279.95-274.90	A	1.544	0.000	0.000	0.000	9.24
		B	1.869	0.000	0.000	0.000	10.91
		C	0.934	0.000	0.000	0.000	0.00
T15	274.90-269.85	A	1.544	0.000	0.000	0.000	9.24
		B	1.869	0.000	0.000	0.000	10.91
		C	0.934	0.000	0.000	0.000	0.00
T16	269.85-264.80	A	1.544	0.000	0.000	0.000	9.24
		B	1.869	0.000	0.000	0.000	10.91
		C	0.934	0.000	0.000	0.000	0.00
T17	264.80-259.75	A	1.544	0.000	0.000	0.000	9.24
		B	2.262	0.000	0.000	0.000	13.20
		C	0.976	0.000	0.000	0.000	0.26
T18	259.75-254.70	A	1.559	0.000	0.000	0.000	9.32
		B	2.336	0.000	0.000	0.000	13.64
		C	1.768	0.000	0.000	0.000	5.25
T19	254.70-249.65	A	1.789	0.000	0.000	0.000	10.50
		B	2.553	0.000	0.000	0.000	14.90
		C	1.985	0.000	0.000	0.000	5.25
T20	249.65-244.60	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T21	244.60-239.55	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T22	239.55-234.50	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T23	234.50-229.45	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T24	229.45-224.40	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T25	224.40-219.35	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T26	219.35-214.30	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T27	214.30-209.25	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T28	209.25-199.15	A	3.577	0.000	0.000	0.000	21.01
		B	5.606	0.000	0.000	0.000	32.72
		C	4.469	0.000	0.000	0.000	10.50
T29	199.15-194.10	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T30	194.10-189.05	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T31	189.05-184.00	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T32	184.00-178.95	A	1.789	0.000	0.000	0.000	10.50
		B	2.803	0.000	0.000	0.000	16.36
		C	2.235	0.000	0.000	0.000	5.25
T33	178.95-158.75	A	7.154	0.000	0.000	0.000	42.02
		B	11.211	0.000	0.000	0.000	65.45
		C	8.938	0.000	0.000	0.000	21.01
T34	158.75-133.50	A	10.276	0.000	0.000	0.000	64.64
		B	14.839	0.000	0.000	0.000	81.81
		C	11.681	0.000	0.000	0.000	28.89
T35	133.50-108.25	A	12.041	0.000	0.000	0.000	71.46
		B	15.892	0.000	0.000	0.000	81.81
		C	12.394	0.000	0.000	0.000	32.57
T36	108.25-103.20	A	2.408	0.000	0.000	0.000	14.29
		B	3.178	0.000	0.000	0.000	16.36
		C	2.479	0.000	0.000	0.000	6.51
T37	103.20-98.15	A	3.180	0.000	0.000	0.000	15.50
		B	3.178	0.000	0.000	0.000	16.36
		C	2.479	0.000	0.000	0.000	6.51
T38	98.15-93.10	A	3.776	0.000	0.000	0.000	16.43
		B	3.178	0.000	0.000	0.000	16.36
		C	2.479	0.000	0.000	0.000	6.51
T39	93.10-88.05	A	3.776	0.000	0.000	0.000	16.43
		B	3.178	0.000	0.000	0.000	16.36
		C	2.479	0.000	0.000	0.000	6.51
T40	88.05-83.00	A	3.776	0.000	0.000	0.000	16.43
		B	3.178	0.000	0.000	0.000	16.36
		C	2.479	0.000	0.000	0.000	6.51
T41	83.00-77.95	A	3.776	0.000	0.000	0.000	16.43
		B	6.302	0.000	0.000	0.000	38.06
		C	5.602	0.000	0.000	0.000	14.84
T42	77.95-72.90	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T43	72.90-67.85	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T44	67.85-62.80	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T45	62.80-57.75	A	3.776	0.000	0.000	0.000	16.43

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T46	57.75-52.70	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T47	52.70-47.65	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T48	47.65-42.60	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T49	42.60-37.55	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T50	37.55-32.50	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T51	32.50-27.45	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T52	27.45-22.40	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T53	22.40-17.35	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T54	17.35-12.30	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30
T55	12.30-7.25	A	3.776	0.000	0.000	0.000	16.43
		B	8.350	0.000	0.000	0.000	52.29
		C	7.651	0.000	0.000	0.000	20.30

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	375.50-360.50	A	0.500	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	0.000	0.000	0.00
L2	360.50-345.50	A	0.500	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	0.000	0.000	0.00
T1	345.50-340.50	A	0.500	1.776	0.000	0.000	0.000	16.05
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T2	340.50-335.50	A	0.500	1.900	0.000	0.000	0.000	17.32
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T3	335.50-330.45	A	0.500	1.919	0.000	0.000	0.000	17.50
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T4	330.45-325.40	A	0.500	2.728	0.000	0.000	0.000	24.50
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T5	325.40-320.35	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C		0.000	0.000	0.000	0.000	0.00
T6	320.35-315.30	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T7	315.30-310.25	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		0.264	0.000	0.000	0.000	2.29
		C		0.264	0.000	0.000	0.000	0.00
T8	310.25-305.20	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.268	0.000	0.000	0.000	19.65
		C		1.776	0.000	0.000	0.000	0.00
T9	305.20-300.15	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.664	0.000	0.000	0.000	23.08
		C		1.776	0.000	0.000	0.000	0.00
T10	300.15-295.10	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.664	0.000	0.000	0.000	23.08
		C		1.776	0.000	0.000	0.000	0.00
T11	295.10-290.05	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.664	0.000	0.000	0.000	23.08
		C		1.776	0.000	0.000	0.000	0.00
T12	290.05-285.00	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.664	0.000	0.000	0.000	23.08
		C		1.776	0.000	0.000	0.000	0.00
T13	285.00-279.95	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		2.673	0.000	0.000	0.000	23.16
		C		1.776	0.000	0.000	0.000	0.00
T14	279.95-274.90	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		3.552	0.000	0.000	0.000	30.77
		C		1.776	0.000	0.000	0.000	0.00
T15	274.90-269.85	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		3.552	0.000	0.000	0.000	30.77
		C		1.776	0.000	0.000	0.000	0.00
T16	269.85-264.80	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		3.552	0.000	0.000	0.000	30.77
		C		1.776	0.000	0.000	0.000	0.00
T17	264.80-259.75	A	0.500	2.807	0.000	0.000	0.000	25.19
		B		4.299	0.000	0.000	0.000	37.25
		C		1.838	0.000	0.000	0.000	0.64
T18	259.75-254.70	A	0.500	2.846	0.000	0.000	0.000	25.46
		B		4.440	0.000	0.000	0.000	38.47
		C		3.030	0.000	0.000	0.000	12.90
T19	254.70-249.65	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		4.853	0.000	0.000	0.000	42.05
		C		3.443	0.000	0.000	0.000	12.90
T20	249.65-244.60	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T21	244.60-239.55	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T22	239.55-234.50	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T23	234.50-229.45	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T24	229.45-224.40	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T25	224.40-219.35	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
T26	219.35-214.30	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T27	214.30-209.25	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T28	209.25-199.15	A	0.500	6.944	0.000	0.000	0.000	59.57
		B		10.656	0.000	0.000	0.000	92.32
		C		7.836	0.000	0.000	0.000	25.80
T29	199.15-194.10	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T30	194.10-189.05	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T31	189.05-184.00	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T32	184.00-178.95	A	0.500	3.472	0.000	0.000	0.000	29.78
		B		5.328	0.000	0.000	0.000	46.16
		C		3.918	0.000	0.000	0.000	12.90
T33	178.95-158.75	A	0.500	13.887	0.000	0.000	0.000	119.14
		B		21.311	0.000	0.000	0.000	184.65
		C		15.672	0.000	0.000	0.000	51.61
T34	158.75-133.50	A	0.500	21.818	0.000	0.000	0.000	175.35
		B		29.714	0.000	0.000	0.000	230.81
		C		20.972	0.000	0.000	0.000	74.06
T35	133.50-108.25	A	0.500	26.770	0.000	0.000	0.000	197.05
		B		32.725	0.000	0.000	0.000	230.81
		C		22.914	0.000	0.000	0.000	87.48
T36	108.25-103.20	A	0.500	5.354	0.000	0.000	0.000	39.41
		B		6.545	0.000	0.000	0.000	46.16
		C		4.583	0.000	0.000	0.000	17.50
T37	103.20-98.15	A	0.500	6.601	0.000	0.000	0.000	48.02
		B		6.545	0.000	0.000	0.000	46.16
		C		4.583	0.000	0.000	0.000	17.50
T38	98.15-93.10	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		6.545	0.000	0.000	0.000	46.16
		C		4.583	0.000	0.000	0.000	17.50
T39	93.10-88.05	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		6.545	0.000	0.000	0.000	46.16
		C		4.583	0.000	0.000	0.000	17.50
T40	88.05-83.00	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		6.545	0.000	0.000	0.000	46.16
		C		4.583	0.000	0.000	0.000	17.50
T41	83.00-77.95	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		10.914	0.915	0.000	0.000	105.26
		C		8.952	0.915	0.000	0.000	43.32
T42	77.95-72.90	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T43	72.90-67.85	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T44	67.85-62.80	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T45	62.80-57.75	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T46	57.75-52.70	A	0.500	7.563	0.000	0.000	0.000	54.66

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T47	52.70-47.65	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T48	47.65-42.60	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T49	42.60-37.55	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T50	37.55-32.50	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T51	32.50-27.45	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T52	27.45-22.40	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T53	22.40-17.35	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T54	17.35-12.30	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25
T55	12.30-7.25	A	0.500	7.563	0.000	0.000	0.000	54.66
		B		13.779	1.515	0.000	0.000	144.02
		C		11.817	1.515	0.000	0.000	60.25

Feed Line Shielding

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
L1	375.50-360.50		0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
L2	360.50-345.50		0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
T1	345.50-340.50	A	0.000	0.083	0.136	0.204
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T2	340.50-335.50	A	0.040	0.121	0.028	0.041
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T3	335.50-330.45	A	0.061	0.153	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T4	330.45-325.40	A	0.092	0.252	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T5	325.40-320.35	A	0.095	0.261	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T6	320.35-315.30	A	0.095	0.261	0.000	0.000

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T7	315.30-310.25	A	0.095	0.261	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T8	310.25-305.20	A	0.095	0.261	0.000	0.000
		B	0.019	0.060	0.000	0.000
		C	0.000	0.000	0.000	0.000
T9	305.20-300.15	A	0.095	0.261	0.000	0.000
		B	0.034	0.108	0.000	0.000
		C	0.000	0.000	0.000	0.000
T10	300.15-295.10	A	0.095	0.261	0.000	0.000
		B	0.034	0.108	0.000	0.000
		C	0.000	0.000	0.000	0.000
T11	295.10-290.05	A	0.112	0.289	0.000	0.000
		B	0.040	0.120	0.000	0.000
		C	0.000	0.000	0.000	0.000
T12	290.05-285.00	A	0.112	0.289	0.000	0.000
		B	0.040	0.120	0.000	0.000
		C	0.000	0.000	0.000	0.000
T13	285.00-279.95	A	0.112	0.289	0.000	0.000
		B	0.041	0.121	0.000	0.000
		C	0.000	0.000	0.000	0.000
T14	279.95-274.90	A	0.112	0.289	0.000	0.000
		B	0.080	0.240	0.000	0.000
		C	0.000	0.000	0.000	0.000
T15	274.90-269.85	A	0.112	0.289	0.000	0.000
		B	0.080	0.240	0.000	0.000
		C	0.000	0.000	0.000	0.000
T16	269.85-264.80	A	0.112	0.289	0.000	0.000
		B	0.080	0.240	0.000	0.000
		C	0.000	0.000	0.000	0.000
T17	264.80-259.75	A	0.084	0.279	0.043	0.071
		B	0.086	0.329	0.044	0.083
		C	0.003	0.008	0.001	0.002
T18	259.75-254.70	A	0.096	0.302	0.043	0.072
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T19	254.70-249.65	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T20	249.65-244.60	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T21	244.60-239.55	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T22	239.55-234.50	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T23	234.50-229.45	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T24	229.45-224.40	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T25	224.40-219.35	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T26	219.35-214.30	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
		C	0.061	0.174	0.028	0.041
T27	214.30-209.25	A	0.113	0.389	0.051	0.093
		B	0.103	0.369	0.046	0.088
		C	0.061	0.174	0.028	0.041
T28	209.25-199.15	A	0.226	0.685	0.000	0.000
		B	0.205	0.650	0.000	0.000
		C	0.122	0.306	0.000	0.000
T29	199.15-194.10	A	0.113	0.343	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T30	194.10-189.05	A	0.113	0.343	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T31	189.05-184.00	A	0.075	0.273	0.051	0.093
		B	0.068	0.259	0.046	0.088
		C	0.040	0.122	0.028	0.041
T32	184.00-178.95	A	0.113	0.343	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T33	178.95-158.75	A	0.452	1.370	0.000	0.000
		B	0.410	1.300	0.000	0.000
		C	0.244	0.612	0.000	0.000
T34	158.75-133.50	A	0.565	1.713	0.000	0.000
		B	0.513	1.625	0.000	0.000
		C	0.305	0.765	0.000	0.000
T35	133.50-108.25	A	0.627	1.825	0.051	0.093
		B	0.569	1.732	0.046	0.088
		C	0.338	0.815	0.028	0.041
T36	108.25-103.20	A	0.133	0.379	0.000	0.000
		B	0.121	0.359	0.000	0.000
		C	0.072	0.169	0.000	0.000
T37	103.20-98.15	A	0.170	0.495	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T38	98.15-93.10	A	0.213	0.612	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T39	93.10-88.05	A	0.213	0.612	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T40	88.05-83.00	A	0.213	0.612	0.000	0.000
		B	0.103	0.325	0.000	0.000
		C	0.061	0.153	0.000	0.000
T41	83.00-77.95	A	0.213	0.612	0.000	0.000
		B	0.222	0.709	0.000	0.000
		C	0.180	0.537	0.000	0.000
T42	77.95-72.90	A	0.251	0.760	0.096	0.166
		B	0.352	1.193	0.135	0.260
		C	0.303	0.980	0.116	0.213
T43	72.90-67.85	A	0.251	0.760	0.096	0.166
		B	0.352	1.193	0.135	0.260
		C	0.303	0.980	0.116	0.213
T44	67.85-62.80	A	0.179	0.636	0.192	0.331
		B	0.251	0.998	0.270	0.520
		C	0.216	0.820	0.232	0.427
T45	62.80-57.75	A	0.251	0.677	0.000	0.000
		B	0.352	1.063	0.000	0.000
		C	0.303	0.873	0.000	0.000
T46	57.75-52.70	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
T47	52.70-47.65	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T48	47.65-42.60	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T49	42.60-37.55	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T50	37.55-32.50	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T51	32.50-27.45	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T52	27.45-22.40	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T53	22.40-17.35	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T54	17.35-12.30	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000
T55	12.30-7.25	A	0.213	0.612	0.000	0.000
		B	0.299	0.961	0.000	0.000
		C	0.258	0.789	0.000	0.000

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	375.50-360.50	0.0000	0.0000	0.0000	0.0000
L2	360.50-345.50	0.0000	0.0000	0.0000	0.0000
T1	345.50-340.50	-0.8394	0.0437	-0.8152	-0.2749
T2	340.50-335.50	-1.4433	0.1892	-1.3869	-0.2190
T3	335.50-330.45	-1.5074	0.2022	-1.4336	-0.2176
T4	330.45-325.40	-1.9563	0.5185	-2.1565	0.2265
T5	325.40-320.35	-2.0132	0.5506	-2.2284	0.2683
T6	320.35-315.30	-2.0132	0.5506	-2.2284	0.2683
T7	315.30-310.25	-1.7598	0.6576	-1.8828	0.4200
T8	310.25-305.20	-0.1773	1.3409	0.1432	1.3250
T9	305.20-300.15	0.0782	1.4611	0.4474	1.4708
T10	300.15-295.10	0.0782	1.4611	0.4474	1.4708
T11	295.10-290.05	0.0965	1.4896	0.4540	1.4245
T12	290.05-285.00	0.0964	1.4875	0.4533	1.4225
T13	285.00-279.95	0.0966	1.4807	0.4535	1.4147
T14	279.95-274.90	0.1189	0.8241	0.4668	0.6644
T15	274.90-269.85	0.1115	0.7729	0.4649	0.6617
T16	269.85-264.80	0.1116	0.7738	0.4655	0.6626
T17	264.80-259.75	0.0864	0.2829	0.4340	0.0759
T18	259.75-254.70	-0.6589	0.6406	-0.2802	0.3916
T19	254.70-249.65	-0.4161	0.5019	0.0070	0.1271
T20	249.65-244.60	-0.1568	0.6312	0.3153	0.3009
T21	244.60-239.55	-0.1568	0.6312	0.3153	0.3009
T22	239.55-234.50	-0.1568	0.6312	0.3153	0.3009

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T23	234.50-229.45	-0.1568	0.6312	0.3153	0.3009
T24	229.45-224.40	-0.1568	0.6312	0.3153	0.3009
T25	224.40-219.35	-0.1568	0.6312	0.3153	0.3009
T26	219.35-214.30	-0.1568	0.6312	0.3153	0.3009
T27	214.30-209.25	-0.1568	0.6312	0.3153	0.3009
T28	209.25-199.15	-0.2527	0.7511	0.2538	0.3159
T29	199.15-194.10	-0.2291	0.6808	0.2465	0.3068
T30	194.10-189.05	-0.2293	0.6815	0.2468	0.3072
T31	189.05-184.00	-0.2101	0.6679	0.2587	0.3060
T32	184.00-178.95	-0.2293	0.6815	0.2468	0.3072
T33	178.95-158.75	-0.2525	0.7505	0.2536	0.3157
T34	158.75-133.50	-0.3590	0.5754	0.0531	-0.0712
T35	133.50-108.25	-0.4554	0.3624	-0.1646	-0.3482
T36	108.25-103.20	-0.4216	0.3335	-0.1636	-0.3410
T37	103.20-98.15	-1.0457	0.5328	-0.7478	-0.1489
T38	98.15-93.10	-1.4713	0.6687	-1.1545	-0.0033
T39	93.10-88.05	-1.4713	0.6687	-1.1545	-0.0033
T40	88.05-83.00	-1.4713	0.6687	-1.1545	-0.0033
T41	83.00-77.95	1.8025	2.1835	2.0005	1.6432
T42	77.95-72.90	3.1659	2.7495	3.1868	2.1809
T43	72.90-67.85	3.1638	2.7477	3.1848	2.1795
T44	67.85-62.80	3.1236	2.7053	3.1549	2.1524
T45	62.80-57.75	3.1569	2.7715	3.3187	2.3119
T46	57.75-52.70	3.2217	2.8401	3.3690	2.3573
T47	52.70-47.65	3.2217	2.8401	3.3690	2.3573
T48	47.65-42.60	3.2217	2.8401	3.3690	2.3573
T49	42.60-37.55	3.2217	2.8401	3.3690	2.3573
T50	37.55-32.50	3.2217	2.8401	3.3690	2.3573
T51	32.50-27.45	3.2217	2.8401	3.3690	2.3573
T52	27.45-22.40	3.2217	2.8401	3.3690	2.3573
T53	22.40-17.35	3.2217	2.8401	3.3690	2.3573
T54	17.35-12.30	3.2217	2.8401	3.3690	2.3573
T55	12.30-7.25	3.2217	2.8401	3.3690	2.3573

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
2 Bay FM Antenna (Radio)	C	From Leg	0.00 0.00 0.00	0.0000	345.00	No Ice 1/2" Ice		15.00 20.00	15.00 20.00	150.00 195.00
6' Stand-off	C	From Leg	3.00 0.00 0.00	0.0000	315.00	No Ice 1/2" Ice		1.20 1.40	4.50 5.50	75.00 125.00
22' Whip (RPU)	B	From Leg	3.00 0.00 0.00	0.0000	280.00	No Ice 1/2" Ice		17.60 22.08	17.60 22.08	350.42 516.08
3' Stand-off	B	From Leg	1.50 0.00 0.00	0.0000	280.00	No Ice 1/2" Ice		1.00 1.20	2.00 2.70	50.00 75.00
22' Whip	C	From Leg	3.00	0.0000	264.00	No Ice		17.60	17.60	350.42

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(Ademco)			0.00			1/2" Ice	22.08	22.08	516.08
			0.00						
3' Stand-off	C	From Leg	1.50	0.0000	264.00	No Ice	1.00	2.00	50.00
			0.00			1/2" Ice	1.20	2.70	75.00
			0.00						
3 Bay Circulary Polarized FM Antenna	C	From Leg	0.00	0.0000	260.00	No Ice	14.60	14.60	243.00
			0.00			1/2" Ice	17.90	17.90	547.00
(Aux FM Antenna)			0.00						
7' Whip	C	From Leg	0.00	0.0000	210.00	No Ice	1.74	1.74	37.30
(RPU)			0.00			1/2" Ice	2.60	2.60	52.85
			0.00						
3' Stand-off	C	From Leg	1.50	0.0000	170.00	No Ice	1.00	2.00	50.00
			0.00			1/2" Ice	1.20	2.70	75.00
			0.00						
PVC LOOP									
PVC LOOP									
(2) BXA-70063-6CF	A	From Leg	0.00	0.0000	101.00	No Ice	7.73	4.16	17.00
(VZW)			0.00			1/2" Ice	8.27	4.60	59.49
			0.00						
(2) BXA-70063-6CF	B	From Leg	0.00	0.0000	101.00	No Ice	7.73	4.16	17.00
(VZW)			0.00			1/2" Ice	8.27	4.60	59.49
			0.00						
(2) BXA-70063-6CF	C	From Leg	0.00	0.0000	101.00	No Ice	7.73	4.16	17.00
(VZW)			0.00			1/2" Ice	8.27	4.60	59.49
			0.00						
(2) BXA-171063-12CF-EDIN-X	A	From Leg	0.00	0.0000	101.00	No Ice	4.80	3.63	12.80
			0.00			1/2" Ice	5.25	4.06	40.29
(VZW)			0.00						
(2) BXA-171063-12CF-EDIN-X	B	From Leg	0.00	0.0000	101.00	No Ice	4.80	3.63	12.80
			0.00			1/2" Ice	5.25	4.06	40.29
(VZW)			0.00						
(2) BXA-171063-12CF-EDIN-X	C	From Leg	0.00	0.0000	101.00	No Ice	4.80	3.63	12.80
			0.00			1/2" Ice	5.25	4.06	40.29
(VZW)			0.00						
RH_2X40-AWS	A	From Leg	0.00	0.0000	101.00	No Ice	2.52	1.59	44.00
(VZW)			0.00			1/2" Ice	2.75	1.80	61.40
			0.00						
RH_2X40-AWS	B	From Leg	0.00	0.0000	101.00	No Ice	2.52	1.59	44.00
(VZW)			0.00			1/2" Ice	2.75	1.80	61.40
			0.00						
RH_2X40-AWS	C	From Leg	0.00	0.0000	101.00	No Ice	2.52	1.59	44.00
(VZW)			0.00			1/2" Ice	2.75	1.80	61.40
			0.00						
DB-T1-6Z-8AB-0Z	C	None		0.0000	101.00	No Ice	5.35	2.40	44.00
(VZW)						1/2" Ice	5.75	2.72	72.88
2" Dia 6' Omni	B	From Leg	0.00	0.0000	252.00	No Ice	1.20	1.20	5.00
			0.00			1/2" Ice	1.80	1.80	14.39
			0.00						
2" x 96" Schedule 40 Pipe	B	None		0.0000	194.00	No Ice	1.60	1.60	29.20
						1/2" Ice	2.42	2.42	41.65
3' Stand-off	C	From Leg	1.50	0.0000	169.00	No Ice	1.00	2.00	50.00
			0.00			1/2" Ice	1.20	2.70	75.00
			0.00						
3' Stand-off	B	From Leg	1.50	0.0000	169.00	No Ice	1.00	2.00	50.00
			0.00			1/2" Ice	1.20	2.70	75.00
			0.00						
L-810 Flashing Beacon	A	From Leg	3.00	0.0000	139.00	No Ice	0.20	0.20	3.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00			1/2" Ice	0.28	0.28	5.93
			0.00						
L-810 Flashing Beacon	C	From Leg	3.00	0.0000	139.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	5.93
			0.00						
8'6" Boom Gate (VZW)	A	From Leg	0.00	0.0000	101.00	No Ice	9.30	9.30	251.00
			0.50			1/2" Ice	14.50	14.50	344.00
			0.00						
8'6" Boom Gate (VZW)	B	From Leg	0.00	0.0000	101.00	No Ice	9.30	9.30	251.00
			0.50			1/2" Ice	14.50	14.50	344.00
			0.00						
8'6" Boom Gate (VZW)	C	From Leg	0.00	0.0000	101.00	No Ice	9.30	9.30	251.00
			0.50			1/2" Ice	14.50	14.50	344.00
			0.00						
FPA5250D12-N w/Mount Pipe	A	From Leg	0.00	0.0000	158.00	No Ice	3.27	1.86	27.45
			0.00			1/2" Ice	4.06	2.68	51.62
			0.00						
DB413-B	C	From Leg	0.00	0.0000	310.00	No Ice	2.55	2.55	32.00
			0.00			1/2" Ice	4.59	4.59	41.60
			0.00						
SD214-SF2P2SNM Dipole	A	From Leg	0.00	0.0000	310.00	No Ice	99.17	13.33	93.00
			0.00			1/2" Ice	101.00	15.60	469.49
			0.00						
Radio	B	From Leg	0.00	0.0000	311.00	No Ice	1.40	1.56	20.00
			6.00			1/2" Ice	1.56	1.73	34.37
			0.00						
L-810 Flashing Beacon	A	From Leg	3.00	0.0000	255.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	5.93
			0.00						
L-810 Flashing Beacon	C	From Leg	3.00	0.0000	255.00	No Ice	0.20	0.20	3.00
			0.00			1/2" Ice	0.28	0.28	5.93
			0.00						
Flash Beacon Lighting	A	None		0.0000	376.00	No Ice	2.70	2.70	50.00
						1/2" Ice	3.10	3.10	70.00
(2) CM1007-DBPXBC-003 (AT&T)	A	From Leg	0.00	0.0000	78.00	No Ice	0.43	0.16	6.61
			0.00			1/2" Ice	0.52	0.21	10.10
			0.00						
(2) CM1007-DBPXBC-003 (AT&T)	B	From Leg	0.00	0.0000	78.00	No Ice	0.43	0.16	6.61
			0.00			1/2" Ice	0.52	0.21	10.10
			0.00						
(2) CM1007-DBPXBC-003 (AT&T)	C	From Leg	0.00	0.0000	78.00	No Ice	0.43	0.16	6.61
			0.00			1/2" Ice	0.52	0.21	10.10
			0.00						
USF12-496-U (AT&T)	A	From Leg	0.00	0.0000	78.00	No Ice	15.00	15.00	549.49
			0.50			1/2" Ice	20.60	20.60	699.49
			0.00						
USF12-496-U (AT&T)	B	From Leg	0.00	0.0000	78.00	No Ice	15.00	15.00	549.49
			0.50			1/2" Ice	20.60	20.60	699.49
			0.00						
USF12-496-U (AT&T)	C	From Leg	0.00	0.0000	78.00	No Ice	15.00	15.00	549.49
			0.50			1/2" Ice	20.60	20.60	699.49
			0.00						
(3) HPA-65R-BUU-H6 (AT&T)	A	From Leg	0.00	0.0000	78.00	No Ice	10.36	6.45	56.00
			0.00			1/2" Ice	10.93	6.91	118.99
			0.00						
(3) HPA-65R-BUU-H6 (AT&T)	B	From Leg	0.00	0.0000	78.00	No Ice	10.36	6.45	56.00
			0.00			1/2" Ice	10.93	6.91	118.99

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00						
(3) HPA-65R-BUU-H6	C	From Leg	0.00	0.0000	78.00	No Ice	10.36	6.45	56.00
(AT&T)			0.00			1/2" Ice	10.93	6.91	118.99
			0.00						
SBNH-1D6565C	A	From Leg	0.00	0.0000	78.00	No Ice	11.45	7.70	60.80
(AT&T)			0.00			1/2" Ice	12.06	8.29	126.67
			0.00						
SBNH-1D6565C	B	From Leg	0.00	0.0000	78.00	No Ice	11.45	7.70	60.80
(AT&T)			0.00			1/2" Ice	12.06	8.29	126.67
			0.00						
SBNH-1D6565C	C	From Leg	0.00	0.0000	78.00	No Ice	11.45	7.70	60.80
(AT&T)			0.00			1/2" Ice	12.06	8.29	126.67
			0.00						
(2) RRUS-11	A	From Leg	0.00	0.0000	78.00	No Ice	3.26	1.38	50.00
(AT&T)			0.00			1/2" Ice	3.50	1.56	70.87
			0.00						
(2) RRUS-11	B	From Leg	0.00	0.0000	78.00	No Ice	3.26	1.38	50.00
(AT&T)			0.00			1/2" Ice	3.50	1.56	70.87
			0.00						
(2) RRUS-11	C	From Leg	0.00	0.0000	78.00	No Ice	3.26	1.38	50.00
(AT&T)			0.00			1/2" Ice	3.50	1.56	70.87
			0.00						
DTMABP7819VG12A-BP	A	From Leg	0.00	0.0000	78.00	No Ice	1.59	0.58	20.00
(AT&T)			0.00			1/2" Ice	1.76	0.70	29.77
			0.00						
DTMABP7819VG12A-BP	B	From Leg	0.00	0.0000	78.00	No Ice	1.59	0.58	20.00
(AT&T)			0.00			1/2" Ice	1.76	0.70	29.77
			0.00						
DTMABP7819VG12A-BP	C	From Leg	0.00	0.0000	78.00	No Ice	1.59	0.58	20.00
(AT&T)			0.00			1/2" Ice	1.76	0.70	29.77
			0.00						
(2) RRUS-12	A	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	50.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	73.22
			0.00						
(2) RRUS-12	B	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	50.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	73.22
			0.00						
(2) RRUS-12	C	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	50.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	73.22
			0.00						
RRUS-E2	A	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	58.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	81.22
			0.00						
RRUS-E2	B	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	58.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	81.22
			0.00						
RRUS-E2	C	From Leg	0.00	0.0000	78.00	No Ice	3.67	1.49	58.00
(AT&T)			0.00			1/2" Ice	3.93	1.67	81.22
			0.00						
RRUS-32	A	From Leg	0.00	0.0000	78.00	No Ice	3.87	2.76	77.00
(AT&T)			0.00			1/2" Ice	4.15	3.02	104.93
			0.00						
RRUS-32	B	From Leg	0.00	0.0000	78.00	No Ice	3.87	2.76	77.00
(AT&T)			0.00			1/2" Ice	4.15	3.02	104.93
			0.00						
RRUS-32	C	From Leg	0.00	0.0000	78.00	No Ice	3.87	2.76	77.00
(AT&T)			0.00			1/2" Ice	4.15	3.02	104.93

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00						
(2) RRUS A2 Module (AT&T)	A	From Leg	0.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	2.41 2.62	0.54 0.67	22.00 34.66
(2) RRUS A2 Module (AT&T)	B	From Leg	0.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	2.41 2.62	0.54 0.67	22.00 34.66
(2) RRUS A2 Module (AT&T)	C	From Leg	0.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	2.41 2.62	0.54 0.67	22.00 34.66
DC6-48-60-18-8F (AT&T)	A	None		0.0000	78.00	No Ice 1/2" Ice	1.27 1.46	1.27 1.46	20.00 35.12
DC6-48-60-18-8F (AT&T)	B	None		0.0000	78.00	No Ice 1/2" Ice	1.27 1.46	1.27 1.46	20.00 35.12
DC6-48-60-18-8F (AT&T)	C	None		0.0000	78.00	No Ice 1/2" Ice	1.27 1.46	1.27 1.46	20.00 35.12

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
6' x 3' Grid Dish (Unknown)	C	Grid	From Leg	0.00 0.00 0.00	0.0000		330.00	6.00	No Ice 1/2" Ice	5.00 6.00	50.00 60.00
SSG4-23A	C	Grid	From Leg	1.00 0.00 0.00	0.0000		144.00	4.00	No Ice 1/2" Ice	12.60 13.09	100.00 167.19

Tower Pressures - No Ice

G_H = 1.079 (base tower), 1.079 (upper structure)

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
L1	368.00	1.992	41	8.281	A	0.000	8.281	8.281	100.00	0.000	0.000
375.50-360.50					B	0.000	8.281		100.00	0.000	0.000
					C	0.000	8.281		100.00	0.000	0.000
L2	353.00	1.968	41	10.781	A	0.000	10.781	10.781	100.00	0.000	0.000
360.50-345.50					B	0.000	10.781		100.00	0.000	0.000
					C	0.000	10.781		100.00	0.000	0.000
T1	343.00	1.952	40	16.042	A	2.414	3.067	2.083	38.01	0.000	0.000
345.50-340.50					B	2.550	2.083		44.97	0.000	0.000

tnxTower	Job: 376' Guyed Tower	Page: 39 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	2.550	2.083		44.97	0.000	0.000
T2	338.00	1.944	40	16.042	A	0.438	3.788	2.083	49.30	0.000	0.000
340.50-335.50					B	0.465	2.762		64.56	0.000	0.000
					C	0.465	2.762		64.56	0.000	0.000
T3	332.98	1.936	40	16.202	A	0.000	4.153	2.104	50.67	0.000	0.000
335.50-330.45					B	0.000	3.136		67.09	0.000	0.000
					C	0.000	3.136		67.09	0.000	0.000
T4	327.93	1.927	40	16.360	A	2.420	2.440	2.420	49.79	0.000	0.000
330.45-325.40					B	2.420	1.029		70.16	0.000	0.000
					C	2.420	1.029		70.16	0.000	0.000
T5	322.88	1.919	40	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
325.40-320.35					B	2.420	1.024		70.27	0.000	0.000
					C	2.420	1.024		70.27	0.000	0.000
T6	317.83	1.91	40	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
320.35-315.30					B	2.420	1.024		70.27	0.000	0.000
					C	2.420	1.024		70.27	0.000	0.000
T7	312.78	1.901	39	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
315.30-310.25					B	2.420	1.162		67.55	0.000	0.000
					C	2.420	1.162		67.55	0.000	0.000
T8	307.73	1.893	39	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
310.25-305.20					B	2.420	2.198		52.40	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T9	302.68	1.884	39	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
305.20-300.15					B	2.420	2.391		50.30	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T10	297.63	1.875	39	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
300.15-295.10					B	2.420	2.391		50.30	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T11	292.58	1.865	39	16.202	A	0.000	4.745	2.104	44.35	0.000	0.000
295.10-290.05					B	0.000	4.673		45.03	0.000	0.000
					C	0.000	4.246		49.55	0.000	0.000
T12	287.53	1.856	38	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
290.05-285.00					B	0.000	4.680		44.96	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T13	282.48	1.847	38	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
285.00-279.95					B	0.000	4.684		44.92	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T14	277.43	1.837	38	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
279.95-274.90					B	0.000	5.107		41.20	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T15	272.38	1.828	38	16.360	A	2.420	2.643	2.420	47.79	0.000	0.000
274.90-269.85					B	2.420	2.999		44.66	0.000	0.000
					C	2.420	2.145		53.01	0.000	0.000
T16	267.33	1.818	38	16.360	A	2.420	2.637	2.420	47.85	0.000	0.000
269.85-264.80					B	2.420	2.992		44.71	0.000	0.000
					C	2.420	2.139		53.08	0.000	0.000
T17	262.28	1.808	37	16.360	A	2.838	2.368	2.420	46.48	0.000	0.000
264.80-259.75					B	2.837	3.084		40.87	0.000	0.000
					C	2.880	1.881		50.82	0.000	0.000
T18	257.23	1.798	37	16.360	A	2.838	2.486	2.420	45.45	0.000	0.000
259.75-254.70					B	2.835	3.257		39.72	0.000	0.000
					C	2.854	2.730		43.33	0.000	0.000
T19	252.18	1.788	37	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
254.70-249.65					B	2.835	3.474		38.35	0.000	0.000
					C	2.854	2.948		41.71	0.000	0.000
T20	247.13	1.778	37	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
249.65-244.60					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T21	242.08	1.767	37	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
244.60-239.55					B	2.835	3.724		36.89	0.000	0.000

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft^2	e	ft^2	ft^2	ft^2		ft^2	ft^2
					C	2.854	3.197		39.99	0.000	0.000
T22	237.03	1.757	36	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
239.55-234.50					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T23	231.98	1.746	36	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
234.50-229.45					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T24	226.93	1.735	36	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
229.45-224.40					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T25	221.88	1.724	36	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
224.40-219.35					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T26	216.83	1.712	36	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
219.35-214.30					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T27	211.78	1.701	35	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
214.30-209.25					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T28	204.20	1.683	35	32.194	A	0.000	9.207	3.788	41.14	0.000	0.000
209.25-199.15					B	0.000	11.257		33.65	0.000	0.000
					C	0.000	10.204		37.12	0.000	0.000
T29	196.63	1.665	35	16.360	A	2.419	2.713	2.419	47.14	0.000	0.000
199.15-194.10					B	2.419	3.737		39.29	0.000	0.000
					C	2.419	3.211		42.97	0.000	0.000
T30	191.58	1.653	34	16.360	A	2.419	2.707	2.419	47.19	0.000	0.000
194.10-189.05					B	2.419	3.732		39.33	0.000	0.000
					C	2.419	3.205		43.01	0.000	0.000
T31	186.53	1.64	34	16.360	A	2.833	2.396	2.419	46.26	0.000	0.000
189.05-184.00					B	2.838	3.418		38.67	0.000	0.000
					C	2.856	2.877		42.19	0.000	0.000
T32	181.48	1.627	34	16.360	A	2.419	2.707	2.419	47.19	0.000	0.000
184.00-178.95					B	2.419	3.732		39.33	0.000	0.000
					C	2.419	3.205		43.01	0.000	0.000
T33	168.85	1.594	33	64.388	A	0.000	18.431	7.575	41.10	0.000	0.000
178.95-158.75					B	0.000	22.530		33.62	0.000	0.000
					C	0.000	20.423		37.09	0.000	0.000
T34	146.13	1.53	32	80.484	A	0.000	24.379	9.469	38.84	0.000	0.000
158.75-133.50					B	0.000	28.995		32.66	0.000	0.000
					C	0.000	26.044		36.36	0.000	0.000
T35	120.88	1.449	30	80.484	A	0.418	26.649	9.469	34.98	0.000	0.000
133.50-108.25					B	0.422	30.557		30.56	0.000	0.000
					C	0.441	27.290		34.14	0.000	0.000
T36	105.73	1.395	29	16.360	A	2.419	3.495	2.419	40.90	0.000	0.000
108.25-103.20					B	2.419	4.278		36.12	0.000	0.000
					C	2.419	3.627		40.01	0.000	0.000
T37	100.68	1.375	29	16.360	A	2.419	4.042	2.419	37.44	0.000	0.000
103.20-98.15					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T38	95.63	1.355	28	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
98.15-93.10					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T39	90.58	1.334	28	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
93.10-88.05					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T40	85.53	1.313	27	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
88.05-83.00					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T41	80.48	1.29	27	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
83.00-77.95					B	2.419	7.112		25.38	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	2.419	6.454		27.26	0.000	0.000
T42	75.43	1.266	26	16.097	A	0.373	6.636	1.894	27.02	0.000	0.000
77.95-72.90					B	0.334	11.109		16.55	0.000	0.000
					C	0.352	10.458		17.52	0.000	0.000
T43	70.38	1.242	26	16.097	A	0.373	6.642	1.894	27.00	0.000	0.000
72.90-67.85					B	0.334	11.115		16.54	0.000	0.000
					C	0.352	10.465		17.51	0.000	0.000
T44	65.33	1.215	25	16.097	A	0.745	6.363	1.894	26.64	0.000	0.000
67.85-62.80					B	0.667	10.865		16.42	0.000	0.000
					C	0.705	10.200		17.37	0.000	0.000
T45	60.28	1.188	25	16.360	A	2.419	4.745	2.419	33.77	0.000	0.000
62.80-57.75					B	2.419	9.218		20.79	0.000	0.000
					C	2.419	8.567		22.02	0.000	0.000
T46	55.23	1.158	24	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
57.75-52.70					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T47	50.18	1.127	23	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
52.70-47.65					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T48	45.13	1.094	23	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
47.65-42.60					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T49	40.08	1.057	22	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
42.60-37.55					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T50	35.03	1.017	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
37.55-32.50					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T51	29.98	1	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
32.50-27.45					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T52	24.93	1	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
27.45-22.40					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T53	19.88	1	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
22.40-17.35					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T54	14.83	1	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
17.35-12.30					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T55 12.30-7.25	9.78	1	21	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000

Tower Pressure - With Ice

G_H = 1.079 (base tower), 1.079 (upper structure)

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1	368.00	1.992	31	0.5000	9.531	A	0.000	9.531	9.531	100.00	0.000	0.000
375.50-360.50						B	0.000	9.531		100.00	0.000	0.000
						C	0.000	9.531		100.00	0.000	0.000
L2	353.00	1.968	31	0.5000	12.031	A	0.000	12.031	12.031	100.00	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
360.50-345.50						B	0.000	12.031		100.00	0.000	0.000
						C	0.000	12.031		100.00	0.000	0.000
T1	343.00	1.952	30	0.5000	16.458	A	2.346	5.651	2.917	36.47	0.000	0.000
345.50-340.50						B	2.550	3.959		44.81	0.000	0.000
						C	2.550	3.959		44.81	0.000	0.000
T2	338.00	1.944	30	0.5000	16.458	A	0.424	6.058	2.917	44.99	0.000	0.000
340.50-335.50						B	0.465	4.280		61.47	0.000	0.000
						C	0.465	4.280		61.47	0.000	0.000
T3	332.98	1.936	30	0.5000	16.623	A	0.000	6.432	2.946	45.80	0.000	0.000
335.50-330.45						B	0.000	4.666		63.13	0.000	0.000
						C	0.000	4.666		63.13	0.000	0.000
T4	327.93	1.927	30	0.5000	16.781	A	2.981	4.192	2.981	41.56	0.000	0.000
330.45-325.40						B	2.981	1.716		63.47	0.000	0.000
						C	2.981	1.716		63.47	0.000	0.000
T5	322.88	1.919	30	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
325.40-320.35						B	2.981	1.706		63.60	0.000	0.000
						C	2.981	1.706		63.60	0.000	0.000
T6	317.83	1.91	30	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
320.35-315.30						B	2.981	1.706		63.60	0.000	0.000
						C	2.981	1.706		63.60	0.000	0.000
T7	312.78	1.901	30	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
315.30-310.25						B	2.981	1.970		60.21	0.000	0.000
						C	2.981	1.970		60.21	0.000	0.000
T8	307.73	1.893	29	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
310.25-305.20						B	2.981	3.914		43.23	0.000	0.000
						C	2.981	3.482		46.12	0.000	0.000
T9	302.68	1.884	29	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
305.20-300.15						B	2.981	4.262		41.16	0.000	0.000
						C	2.981	3.482		46.12	0.000	0.000
T10	297.63	1.875	29	0.5000	16.781	A	2.981	4.252	2.981	41.21	0.000	0.000
300.15-295.10						B	2.981	4.262		41.16	0.000	0.000
						C	2.981	3.482		46.12	0.000	0.000
T11	292.58	1.865	29	0.5000	16.623	A	0.000	7.356	2.946	40.05	0.000	0.000
295.10-290.05						B	0.000	7.382		39.90	0.000	0.000
						C	0.000	6.614		44.54	0.000	0.000
T12	287.53	1.856	29	0.5000	16.623	A	0.000	7.366	2.946	39.99	0.000	0.000
290.05-285.00						B	0.000	7.392		39.85	0.000	0.000
						C	0.000	6.624		44.47	0.000	0.000
T13	282.48	1.847	29	0.5000	16.623	A	0.000	7.366	2.946	39.99	0.000	0.000
285.00-279.95						B	0.000	7.400		39.81	0.000	0.000
						C	0.000	6.624		44.47	0.000	0.000
T14	277.43	1.837	29	0.5000	16.623	A	0.000	7.366	2.946	39.99	0.000	0.000
279.95-274.90						B	0.000	8.161		36.10	0.000	0.000
						C	0.000	6.624		44.47	0.000	0.000
T15	272.38	1.828	28	0.5000	16.781	A	2.981	4.415	2.981	40.30	0.000	0.000
274.90-269.85						B	2.981	5.209		36.40	0.000	0.000
						C	2.981	3.673		44.80	0.000	0.000
T16	267.33	1.818	28	0.5000	16.781	A	2.981	4.405	2.981	40.36	0.000	0.000
269.85-264.80						B	2.981	5.199		36.44	0.000	0.000
						C	2.981	3.663		44.87	0.000	0.000
T17	262.28	1.808	28	0.5000	16.781	A	3.372	4.349	2.981	38.61	0.000	0.000
264.80-259.75						B	3.359	5.792		32.57	0.000	0.000
						C	3.440	3.651		42.03	0.000	0.000
T18	257.23	1.798	28	0.5000	16.781	A	3.370	4.481	2.981	37.97	0.000	0.000
259.75-254.70						B	3.354	6.008		31.84	0.000	0.000
						C	3.401	4.793		36.38	0.000	0.000
T19	252.18	1.788	28	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
254.70-249.65						B	3.354	6.421		30.49	0.000	0.000
						C	3.401	5.206		34.63	0.000	0.000
T20	247.13	1.778	28	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000

tnxTower	Job: 376' Guyed Tower	Page: 43 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
249.65-244.60						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T21	242.08	1.767	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
244.60-239.55						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T22	237.03	1.757	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
239.55-234.50						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T23	231.98	1.746	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
234.50-229.45						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T24	226.93	1.735	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
229.45-224.40						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T25	221.88	1.724	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
224.40-219.35						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T26	216.83	1.712	27	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
219.35-214.30						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T27	211.78	1.701	26	0.5000	16.781	A	3.350	5.020	2.981	35.62	0.000	0.000
214.30-209.25						B	3.354	6.896		29.08	0.000	0.000
						C	3.401	5.681		32.82	0.000	0.000
T28	204.20	1.683	26	0.5000	33.035	A	0.000	15.178	5.471	36.04	0.000	0.000
209.25-199.15						B	0.000	18.924		28.91	0.000	0.000
						C	0.000	16.449		33.26	0.000	0.000
T29	196.63	1.665	26	0.5000	16.780	A	2.980	4.858	2.980	38.02	0.000	0.000
199.15-194.10						B	2.980	6.731		30.69	0.000	0.000
						C	2.980	5.493		35.17	0.000	0.000
T30	191.58	1.653	26	0.5000	16.780	A	2.980	4.848	2.980	38.07	0.000	0.000
194.10-189.05						B	2.980	6.722		30.72	0.000	0.000
						C	2.980	5.484		35.21	0.000	0.000
T31	186.53	1.64	26	0.5000	16.780	A	3.352	4.569	2.980	37.62	0.000	0.000
189.05-184.00						B	3.357	6.439		30.42	0.000	0.000
						C	3.404	5.166		34.77	0.000	0.000
T32	181.48	1.627	25	0.5000	16.780	A	2.980	4.848	2.980	38.07	0.000	0.000
184.00-178.95						B	2.980	6.722		30.72	0.000	0.000
						C	2.980	5.484		35.21	0.000	0.000
T33	168.85	1.594	25	0.5000	66.071	A	0.000	30.382	10.942	36.01	0.000	0.000
178.95-158.75						B	0.000	37.876		28.89	0.000	0.000
						C	0.000	32.925		33.23	0.000	0.000
T34	146.13	1.53	24	0.5000	82.589	A	0.000	42.448	13.677	32.22	0.000	0.000
158.75-133.50						B	0.000	50.432		27.12	0.000	0.000
						C	0.000	42.550		32.14	0.000	0.000
T35	120.88	1.449	23	0.5000	82.589	A	0.376	47.855	13.677	28.36	0.000	0.000
133.50-108.25						B	0.381	53.903		25.20	0.000	0.000
						C	0.427	45.008		30.10	0.000	0.000
T36	105.73	1.395	22	0.5000	16.780	A	2.980	6.887	2.980	30.20	0.000	0.000
108.25-103.20						B	2.980	8.097		26.90	0.000	0.000
						C	2.980	6.325		32.03	0.000	0.000
T37	100.68	1.375	21	0.5000	16.780	A	2.980	7.825	2.980	27.58	0.000	0.000
103.20-98.15						B	2.980	7.939		27.29	0.000	0.000
						C	2.980	6.149		32.64	0.000	0.000
T38 98.15-93.10	95.63	1.355	21	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	2.980	7.939		27.29	0.000	0.000
						C	2.980	6.149		32.64	0.000	0.000
T39 93.10-88.05	90.58	1.334	21	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	2.980	7.939		27.29	0.000	0.000
						C	2.980	6.149		32.64	0.000	0.000
T40 88.05-83.00	85.53	1.313	20	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						B	2.980	7.939		27.29	0.000	0.000
						C	2.980	6.149		32.64	0.000	0.000
T41 83.00-77.95	80.48	1.29	20	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	3.895	11.924		18.84	0.000	0.000
						C	3.895	10.134		21.24	0.000	0.000
T42 77.95-72.90	75.43	1.266	20	0.5000	16.518	A	0.303	11.680	2.735	22.83	0.000	0.000
						B	1.724	17.462		14.26	0.000	0.000
						C	1.770	15.714		15.65	0.000	0.000
T43 72.90-67.85	70.38	1.242	19	0.5000	16.518	A	0.303	11.690	2.735	22.81	0.000	0.000
						B	1.724	17.473		14.25	0.000	0.000
						C	1.770	15.724		15.64	0.000	0.000
T44 67.85-62.80	65.33	1.215	19	0.5000	16.518	A	0.606	11.463	2.735	22.66	0.000	0.000
						B	1.933	17.316		14.21	0.000	0.000
						C	2.026	15.532		15.58	0.000	0.000
T45 62.80-57.75	60.28	1.188	18	0.5000	16.780	A	2.980	8.798	2.980	25.30	0.000	0.000
						B	4.495	14.627		15.58	0.000	0.000
						C	4.495	12.855		17.18	0.000	0.000
T46 57.75-52.70	55.23	1.158	18	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T47 52.70-47.65	50.18	1.127	18	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T48 47.65-42.60	45.13	1.094	17	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T49 42.60-37.55	40.08	1.057	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T50 37.55-32.50	35.03	1.017	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T51 32.50-27.45	29.98	1	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T52 27.45-22.40	24.93	1	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T53 22.40-17.35	19.88	1	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T54 17.35-12.30	14.83	1	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000
T55 12.30-7.25	9.78	1	16	0.5000	16.780	A	2.980	8.670	2.980	25.58	0.000	0.000
						B	4.495	14.537		15.66	0.000	0.000
						C	4.495	12.747		17.28	0.000	0.000

Tower Pressure - Service

G_H = 1.079 (base tower), 1.079 (upper structure)

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1	368.00	1.992	18	8.281	A	0.000	8.281	8.281	100.00	0.000	0.000
375.50-360.50					B	0.000	8.281		100.00	0.000	0.000
					C	0.000	8.281		100.00	0.000	0.000
L2	353.00	1.968	18	10.781	A	0.000	10.781	10.781	100.00	0.000	0.000
360.50-345.50					B	0.000	10.781		100.00	0.000	0.000
					C	0.000	10.781		100.00	0.000	0.000
T1	343.00	1.952	18	16.042	A	2.414	3.067	2.083	38.01	0.000	0.000
345.50-340.50					B	2.550	2.083		44.97	0.000	0.000
					C	2.550	2.083		44.97	0.000	0.000
T2	338.00	1.944	18	16.042	A	0.438	3.788	2.083	49.30	0.000	0.000
340.50-335.50					B	0.465	2.762		64.56	0.000	0.000
					C	0.465	2.762		64.56	0.000	0.000
T3	332.98	1.936	18	16.202	A	0.000	4.153	2.104	50.67	0.000	0.000
335.50-330.45					B	0.000	3.136		67.09	0.000	0.000
					C	0.000	3.136		67.09	0.000	0.000
T4	327.93	1.927	18	16.360	A	2.420	2.440	2.420	49.79	0.000	0.000
330.45-325.40					B	2.420	1.029		70.16	0.000	0.000
					C	2.420	1.029		70.16	0.000	0.000
T5	322.88	1.919	18	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
325.40-320.35					B	2.420	1.024		70.27	0.000	0.000
					C	2.420	1.024		70.27	0.000	0.000
T6	317.83	1.91	18	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
320.35-315.30					B	2.420	1.024		70.27	0.000	0.000
					C	2.420	1.024		70.27	0.000	0.000
T7	312.78	1.901	18	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
315.30-310.25					B	2.420	1.162		67.55	0.000	0.000
					C	2.420	1.162		67.55	0.000	0.000
T8	307.73	1.893	17	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
310.25-305.20					B	2.420	2.198		52.40	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T9	302.68	1.884	17	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
305.20-300.15					B	2.420	2.391		50.30	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T10	297.63	1.875	17	16.360	A	2.420	2.473	2.420	49.46	0.000	0.000
300.15-295.10					B	2.420	2.391		50.30	0.000	0.000
					C	2.420	1.958		55.27	0.000	0.000
T11	292.58	1.865	17	16.202	A	0.000	4.745	2.104	44.35	0.000	0.000
295.10-290.05					B	0.000	4.673		45.03	0.000	0.000
					C	0.000	4.246		49.55	0.000	0.000
T12	287.53	1.856	17	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
290.05-285.00					B	0.000	4.680		44.96	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T13	282.48	1.847	17	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
285.00-279.95					B	0.000	4.684		44.92	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T14	277.43	1.837	17	16.202	A	0.000	4.751	2.104	44.29	0.000	0.000
279.95-274.90					B	0.000	5.107		41.20	0.000	0.000
					C	0.000	4.253		49.48	0.000	0.000
T15	272.38	1.828	17	16.360	A	2.420	2.643	2.420	47.79	0.000	0.000
274.90-269.85					B	2.420	2.999		44.66	0.000	0.000
					C	2.420	2.145		53.01	0.000	0.000
T16	267.33	1.818	17	16.360	A	2.420	2.637	2.420	47.85	0.000	0.000
269.85-264.80					B	2.420	2.992		44.71	0.000	0.000
					C	2.420	2.139		53.08	0.000	0.000
T17	262.28	1.808	17	16.360	A	2.838	2.368	2.420	46.48	0.000	0.000
264.80-259.75					B	2.837	3.084		40.87	0.000	0.000
					C	2.880	1.881		50.82	0.000	0.000
T18	257.23	1.798	17	16.360	A	2.838	2.486	2.420	45.45	0.000	0.000
259.75-254.70					B	2.835	3.257		39.72	0.000	0.000
					C	2.854	2.730		43.33	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T19	252.18	1.788	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
254.70-249.65					B	2.835	3.474		38.35	0.000	0.000
					C	2.854	2.948		41.71	0.000	0.000
T20	247.13	1.778	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
249.65-244.60					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T21	242.08	1.767	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
244.60-239.55					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T22	237.03	1.757	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
239.55-234.50					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T23	231.98	1.746	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
234.50-229.45					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T24	226.93	1.735	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
229.45-224.40					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T25	221.88	1.724	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
224.40-219.35					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T26	216.83	1.712	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
219.35-214.30					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T27	211.78	1.701	16	16.360	A	2.830	2.699	2.420	43.76	0.000	0.000
214.30-209.25					B	2.835	3.724		36.89	0.000	0.000
					C	2.854	3.197		39.99	0.000	0.000
T28	204.20	1.683	16	32.194	A	0.000	9.207	3.788	41.14	0.000	0.000
209.25-199.15					B	0.000	11.257		33.65	0.000	0.000
					C	0.000	10.204		37.12	0.000	0.000
T29	196.63	1.665	15	16.360	A	2.419	2.713	2.419	47.14	0.000	0.000
199.15-194.10					B	2.419	3.737		39.29	0.000	0.000
					C	2.419	3.211		42.97	0.000	0.000
T30	191.58	1.653	15	16.360	A	2.419	2.707	2.419	47.19	0.000	0.000
194.10-189.05					B	2.419	3.732		39.33	0.000	0.000
					C	2.419	3.205		43.01	0.000	0.000
T31	186.53	1.64	15	16.360	A	2.833	2.396	2.419	46.26	0.000	0.000
189.05-184.00					B	2.838	3.418		38.67	0.000	0.000
					C	2.856	2.877		42.19	0.000	0.000
T32	181.48	1.627	15	16.360	A	2.419	2.707	2.419	47.19	0.000	0.000
184.00-178.95					B	2.419	3.732		39.33	0.000	0.000
					C	2.419	3.205		43.01	0.000	0.000
T33	168.85	1.594	15	64.388	A	0.000	18.431	7.575	41.10	0.000	0.000
178.95-158.75					B	0.000	22.530		33.62	0.000	0.000
					C	0.000	20.423		37.09	0.000	0.000
T34	146.13	1.53	14	80.484	A	0.000	24.379	9.469	38.84	0.000	0.000
158.75-133.50					B	0.000	28.995		32.66	0.000	0.000
					C	0.000	26.044		36.36	0.000	0.000
T35	120.88	1.449	13	80.484	A	0.418	26.649	9.469	34.98	0.000	0.000
133.50-108.25					B	0.422	30.557		30.56	0.000	0.000
					C	0.441	27.290		34.14	0.000	0.000
T36	105.73	1.395	13	16.360	A	2.419	3.495	2.419	40.90	0.000	0.000
108.25-103.20					B	2.419	4.278		36.12	0.000	0.000
					C	2.419	3.627		40.01	0.000	0.000
T37	100.68	1.375	13	16.360	A	2.419	4.042	2.419	37.44	0.000	0.000
103.20-98.15					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T38	95.63	1.355	12	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
98.15-93.10					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T39	90.58	1.334	12	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
93.10-88.05					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T40	85.53	1.313	12	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
88.05-83.00					B	2.419	4.107		37.07	0.000	0.000
					C	2.419	3.449		41.22	0.000	0.000
T41	80.48	1.29	12	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
83.00-77.95					B	2.419	7.112		25.38	0.000	0.000
					C	2.419	6.454		27.26	0.000	0.000
T42	75.43	1.266	12	16.097	A	0.373	6.636	1.894	27.02	0.000	0.000
77.95-72.90					B	0.334	11.109		16.55	0.000	0.000
					C	0.352	10.458		17.52	0.000	0.000
T43	70.38	1.242	11	16.097	A	0.373	6.642	1.894	27.00	0.000	0.000
72.90-67.85					B	0.334	11.115		16.54	0.000	0.000
					C	0.352	10.465		17.51	0.000	0.000
T44	65.33	1.215	11	16.097	A	0.745	6.363	1.894	26.64	0.000	0.000
67.85-62.80					B	0.667	10.865		16.42	0.000	0.000
					C	0.705	10.200		17.37	0.000	0.000
T45	60.28	1.188	11	16.360	A	2.419	4.745	2.419	33.77	0.000	0.000
62.80-57.75					B	2.419	9.218		20.79	0.000	0.000
					C	2.419	8.567		22.02	0.000	0.000
T46	55.23	1.158	11	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
57.75-52.70					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T47	50.18	1.127	10	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
52.70-47.65					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T48	45.13	1.094	10	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
47.65-42.60					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T49	40.08	1.057	10	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
42.60-37.55					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T50	35.03	1.017	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
37.55-32.50					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T51	29.98	1	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
32.50-27.45					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T52	24.93	1	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
27.45-22.40					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T53	19.88	1	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
22.40-17.35					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T54	14.83	1	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
17.35-12.30					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000
T55 12.30-7.25	9.78	1	9	16.360	A	2.419	4.594	2.419	34.49	0.000	0.000
					B	2.419	9.082		21.03	0.000	0.000
					C	2.419	8.424		22.31	0.000	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.59	1	1	1	8.281	217.74	14.52	C
375.50-360.50			B	1	0.59	1	1	1	8.281			
			C	1	0.59	1	1	1	8.281			
L2	0.00	400.48	A	1	0.59	1	1	1	10.781	280.12	18.67	C
360.50-345.50			B	1	0.59	1	1	1	10.781			
			C	1	0.59	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	1	1	4.345	415.82	83.16	A
345.50-340.50			B	0.289	2.326	0.613	1	1	3.826			
			C	0.289	2.326	0.613	1	1	3.826			
T2	6.45	149.53	A	0.263	2.398	0.605	1	1	2.731	284.83	56.97	A
340.50-335.50			B	0.201	2.592	0.591	1	1	2.096			
			C	0.201	2.592	0.591	1	1	2.096			
T3	6.51	114.76	A	0.256	2.419	0.604	1	1	2.506	262.52	51.98	A
335.50-330.45			B	0.194	2.618	0.589	1	1	1.848			
			C	0.194	2.618	0.589	1	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	1	1	3.920	389.46	77.12	A
330.45-325.40			B	0.211	2.56	0.593	1	1	3.030			
			C	0.211	2.56	0.593	1	1	3.030			
T5	9.24	166.96	A	0.299	2.298	0.616	1	1	3.942	388.98	77.03	A
325.40-320.35			B	0.21	2.561	0.593	1	1	3.026			
			C	0.21	2.561	0.593	1	1	3.026			
T6	9.24	166.96	A	0.299	2.298	0.616	1	1	3.942	387.23	76.68	A
320.35-315.30			B	0.21	2.561	0.593	1	1	3.026			
			C	0.21	2.561	0.593	1	1	3.026			
T7	10.05	166.96	A	0.299	2.298	0.616	1	1	3.942	385.46	76.33	A
315.30-310.25			B	0.219	2.534	0.594	1	1	3.111			
			C	0.219	2.534	0.594	1	1	3.111			
T8	16.21	166.96	A	0.299	2.298	0.616	1	1	3.942	383.67	75.97	A
310.25-305.20			B	0.282	2.344	0.611	1	1	3.762			
			C	0.268	2.386	0.607	1	1	3.607			
T9	17.42	166.96	A	0.299	2.298	0.616	1	1	3.942	381.86	75.62	A
305.20-300.15			B	0.294	2.312	0.614	1	1	3.888			
			C	0.268	2.386	0.607	1	1	3.607			
T10	17.42	166.96	A	0.299	2.298	0.616	1	1	3.942	380.03	75.25	A
300.15-295.10			B	0.294	2.312	0.614	1	1	3.888			
			C	0.268	2.386	0.607	1	1	3.607			
T11	17.42	131.50	A	0.293	2.315	0.614	1	1	2.912	281.38	55.72	A
295.10-290.05			B	0.288	2.327	0.612	1	1	2.862			
			C	0.262	2.402	0.605	1	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	1	1	2.916	280.29	55.50	A
290.05-285.00			B	0.289	2.326	0.613	1	1	2.867			
			C	0.262	2.401	0.605	1	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	1	1	2.916	278.87	55.22	A
285.00-279.95			B	0.289	2.325	0.613	1	1	2.869			
			C	0.262	2.401	0.605	1	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	1	1	2.916	293.99	58.21	B
279.95-274.90			B	0.315	2.256	0.621	1	1	3.169			
			C	0.262	2.401	0.605	1	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	1	1	4.056	389.43	77.11	B
274.90-269.85			B	0.331	2.216	0.626	1	1	4.297			
			C	0.279	2.353	0.61	1	1	3.728			
T16	20.15	207.17	A	0.309	2.272	0.619	1	1	4.051	387.12	76.66	B
269.85-264.80			B	0.331	2.217	0.626	1	1	4.292			
			C	0.279	2.354	0.61	1	1	3.724			
T17	22.70	242.34	A	0.318	2.249	0.622	1	1	4.311	416.47	82.47	B
264.80-259.75			B	0.362	2.144	0.637	1	1	4.801			
			C	0.291	2.32	0.613	1	1	4.033			
T18	28.20	207.31	A	0.325	2.231	0.624	1	1	4.389	420.01	83.17	B
259.75-254.70			B	0.372	2.121	0.641	1	1	4.922			
			C	0.341	2.192	0.629	1	1	4.572			

tnxTower	Job: 376' Guyed Tower	Page: 49 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	1	1	4.526	425.24	84.21	B
254.70-249.65			B	0.386	2.093	0.646	1	1	5.079			
			C	0.355	2.161	0.634	1	1	4.723			
T20	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	431.64	85.47	B
249.65-244.60			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T21	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	429.10	84.97	B
244.60-239.55			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T22	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	426.52	84.46	B
239.55-234.50			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T23	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	423.91	83.94	B
234.50-229.45			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T24	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	421.25	83.42	B
229.45-224.40			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T25	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	418.55	82.88	B
224.40-219.35			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T26	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	415.81	82.34	B
219.35-214.30			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T27	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	413.02	81.79	B
214.30-209.25			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T28	64.24	504.21	A	0.286	2.334	0.612	1	1	5.632	582.36	57.66	B
209.25-199.15			B	0.35	2.172	0.632	1	1	7.118			
			C	0.317	2.252	0.621	1	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	1	1	4.101	379.35	75.12	B
199.15-194.10			B	0.376	2.113	0.642	1	1	4.819			
			C	0.344	2.185	0.63	1	1	4.443			
T30	32.12	311.54	A	0.313	2.261	0.62	1	1	4.097	376.35	74.52	B
194.10-189.05			B	0.376	2.114	0.642	1	1	4.815			
			C	0.344	2.186	0.63	1	1	4.439			
T31	32.12	339.40	A	0.32	2.245	0.622	1	1	4.324	388.47	76.92	B
189.05-184.00			B	0.382	2.1	0.645	1	1	5.041			
			C	0.35	2.17	0.633	1	1	4.677			
T32	32.12	311.54	A	0.313	2.261	0.62	1	1	4.097	370.57	73.38	B
184.00-178.95			B	0.376	2.114	0.642	1	1	4.815			
			C	0.344	2.186	0.63	1	1	4.439			
T33	128.47	1008.41	A	0.286	2.333	0.612	1	1	11.276	1103.79	54.64	B
178.95-158.75			B	0.35	2.172	0.632	1	1	14.249			
			C	0.317	2.251	0.621	1	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	1	1	15.037	1356.21	53.71	B
158.75-133.50			B	0.36	2.148	0.636	1	1	18.446			
			C	0.324	2.235	0.623	1	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	1	1	17.145	1368.36	54.19	B
133.50-108.25			B	0.385	2.095	0.646	1	1	20.149			
			C	0.345	2.184	0.631	1	1	17.649			
T36	37.17	328.28	A	0.362	2.145	0.637	1	1	4.644	333.41	66.02	B
108.25-103.20			B	0.409	2.046	0.655	1	1	5.223			
			C	0.37	2.127	0.64	1	1	4.739			
T37	38.38	311.54	A	0.395	2.074	0.65	1	1	5.044	323.83	64.12	B
103.20-98.15			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T38	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	333.27	66.00	A
98.15-93.10			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			

tnxTower	Job: 376' Guyed Tower	Page: 50 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	328.15	64.98	A
93.10-88.05			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T40	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	322.81	63.92	A
88.05-83.00			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T41	69.33	311.54	A	0.429	2.01	0.664	1	1	5.468	403.78	79.96	B
83.00-77.95			B	0.583	1.816	0.743	1	1	7.704			
			C	0.542	1.851	0.72	1	1	7.066			
T42	89.02	301.31	A	0.435	1.998	0.667	1	1	4.797	479.78	95.01	B
77.95-72.90			B	0.711	1.777	0.828	1	1	9.529			
			C	0.672	1.777	0.8	1	1	8.719			
T43	89.02	317.42	A	0.436	1.997	0.667	1	1	4.802	470.81	93.23	B
72.90-67.85			B	0.711	1.777	0.828	1	1	9.537			
			C	0.672	1.777	0.8	1	1	8.727			
T44	89.02	329.17	A	0.442	1.988	0.669	1	1	5.005	469.21	92.91	B
67.85-62.80			B	0.716	1.778	0.832	1	1	9.705			
			C	0.677	1.776	0.804	1	1	8.907			
T45	89.02	328.28	A	0.438	1.994	0.668	1	1	5.588	474.74	94.01	B
62.80-57.75			B	0.711	1.777	0.828	1	1	10.052			
			C	0.672	1.777	0.8	1	1	9.273			
T46	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	455.11	90.12	B
57.75-52.70			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T47	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	442.81	87.69	B
52.70-47.65			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T48	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	429.59	85.07	B
47.65-42.60			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T49	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	415.27	82.23	B
42.60-37.55			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T50	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	399.59	79.13	B
37.55-32.50			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T51	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	392.85	77.79	B
32.50-27.45			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T52	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	392.85	77.79	B
27.45-22.40			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T53	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	392.85	77.79	B
22.40-17.35			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T54	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	392.85	77.79	B
17.35-12.30			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T55	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	392.85	77.79	B
12.30-7.25			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
Sum Weight:	2750.22	17335.81								24682.20		

Tower Forces - No Ice - Wind 45 To Face

tnxTower	Job: 376' Guyed Tower	Page: 51 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.59	1	1	1	8.281	217.74	14.52	C
375.50-360.50			B	1	0.59	1	1	1	8.281			
			C	1	0.59	1	1	1	8.281			
L2	0.00	400.48	A	1	0.59	1	1	1	10.781	280.12	18.67	C
360.50-345.50			B	1	0.59	1	1	1	10.781			
			C	1	0.59	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.825	1	3.923	375.39	75.08	A
345.50-340.50			B	0.289	2.326	0.613	0.825	1	3.380			
			C	0.289	2.326	0.613	0.825	1	3.380			
T2	6.45	149.53	A	0.263	2.398	0.605	0.825	1	2.654	276.84	55.37	A
340.50-335.50			B	0.201	2.592	0.591	0.825	1	2.015			
			C	0.201	2.592	0.591	0.825	1	2.015			
T3	6.51	114.76	A	0.256	2.419	0.604	0.825	1	2.506	262.52	51.98	A
335.50-330.45			B	0.194	2.618	0.589	0.825	1	1.848			
			C	0.194	2.618	0.589	0.825	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.825	1	3.497	347.39	68.79	A
330.45-325.40			B	0.211	2.56	0.593	0.825	1	2.606			
			C	0.211	2.56	0.593	0.825	1	2.606			
T5	9.24	166.96	A	0.299	2.298	0.616	0.825	1	3.519	347.19	68.75	A
325.40-320.35			B	0.21	2.561	0.593	0.825	1	2.603			
			C	0.21	2.561	0.593	0.825	1	2.603			
T6	9.24	166.96	A	0.299	2.298	0.616	0.825	1	3.519	345.63	68.44	A
320.35-315.30			B	0.21	2.561	0.593	0.825	1	2.603			
			C	0.21	2.561	0.593	0.825	1	2.603			
T7	10.05	166.96	A	0.299	2.298	0.616	0.825	1	3.519	344.06	68.13	A
315.30-310.25			B	0.219	2.534	0.594	0.825	1	2.687			
			C	0.219	2.534	0.594	0.825	1	2.687			
T8	16.21	166.96	A	0.299	2.298	0.616	0.825	1	3.519	342.46	67.81	A
310.25-305.20			B	0.282	2.344	0.611	0.825	1	3.338			
			C	0.268	2.386	0.607	0.825	1	3.184			
T9	17.42	166.96	A	0.299	2.298	0.616	0.825	1	3.519	340.84	67.49	A
305.20-300.15			B	0.294	2.312	0.614	0.825	1	3.465			
			C	0.268	2.386	0.607	0.825	1	3.184			
T10	17.42	166.96	A	0.299	2.298	0.616	0.825	1	3.519	339.21	67.17	A
300.15-295.10			B	0.294	2.312	0.614	0.825	1	3.465			
			C	0.268	2.386	0.607	0.825	1	3.184			
T11	17.42	131.50	A	0.293	2.315	0.614	0.825	1	2.912	281.38	55.72	A
295.10-290.05			B	0.288	2.327	0.612	0.825	1	2.862			
			C	0.262	2.402	0.605	0.825	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.825	1	2.916	280.29	55.50	A
290.05-285.00			B	0.289	2.326	0.613	0.825	1	2.867			
			C	0.262	2.401	0.605	0.825	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.825	1	2.916	278.87	55.22	A
285.00-279.95			B	0.289	2.325	0.613	0.825	1	2.869			
			C	0.262	2.401	0.605	0.825	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.825	1	2.916	293.99	58.21	B
279.95-274.90			B	0.315	2.256	0.621	0.825	1	3.169			
			C	0.262	2.401	0.605	0.825	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.825	1	3.632	351.05	69.51	B
274.90-269.85			B	0.331	2.216	0.626	0.825	1	3.873			
			C	0.279	2.353	0.61	0.825	1	3.304			
T16	20.15	207.17	A	0.309	2.272	0.619	0.825	1	3.628	348.93	69.09	B
269.85-264.80			B	0.331	2.217	0.626	0.825	1	3.869			
			C	0.279	2.354	0.61	0.825	1	3.300			
T17	22.70	242.34	A	0.318	2.249	0.622	0.825	1	3.814	373.40	73.94	B
264.80-259.75			B	0.362	2.144	0.637	0.825	1	4.305			
			C	0.291	2.32	0.613	0.825	1	3.529			
T18	28.20	207.31	A	0.325	2.231	0.624	0.825	1	3.893	377.67	74.79	B
259.75-254.70			B	0.372	2.121	0.641	0.825	1	4.425			
			C	0.341	2.192	0.629	0.825	1	4.073			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.825	1	4.031	383.70	75.98	B
254.70-249.65			B	0.386	2.093	0.646	0.825	1	4.583			
			C	0.355	2.161	0.634	0.825	1	4.223			
T20	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	390.95	77.42	B
249.65-244.60			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T21	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	388.65	76.96	B
244.60-239.55			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T22	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	386.32	76.50	B
239.55-234.50			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T23	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	383.95	76.03	B
234.50-229.45			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T24	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	381.54	75.55	B
229.45-224.40			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T25	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	379.09	75.07	B
224.40-219.35			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T26	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	376.61	74.58	B
219.35-214.30			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T27	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	374.08	74.08	B
214.30-209.25			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T28	64.24	504.21	A	0.286	2.334	0.612	0.825	1	5.632	582.36	57.66	B
209.25-199.15			B	0.35	2.172	0.632	0.825	1	7.118			
			C	0.317	2.252	0.621	0.825	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.825	1	3.678	346.03	68.52	B
199.15-194.10			B	0.376	2.113	0.642	0.825	1	4.396			
			C	0.344	2.185	0.63	0.825	1	4.020			
T30	32.12	311.54	A	0.313	2.261	0.62	0.825	1	3.674	343.26	67.97	B
194.10-189.05			B	0.376	2.114	0.642	0.825	1	4.392			
			C	0.344	2.186	0.63	0.825	1	4.016			
T31	32.12	339.40	A	0.32	2.245	0.622	0.825	1	3.828	350.19	69.35	B
189.05-184.00			B	0.382	2.1	0.645	0.825	1	4.544			
			C	0.35	2.17	0.633	0.825	1	4.177			
T32	32.12	311.54	A	0.313	2.261	0.62	0.825	1	3.674	337.99	66.93	B
184.00-178.95			B	0.376	2.114	0.642	0.825	1	4.392			
			C	0.344	2.186	0.63	0.825	1	4.016			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.825	1	11.276	1103.79	54.64	B
178.95-158.75			B	0.35	2.172	0.632	0.825	1	14.249			
			C	0.317	2.251	0.621	0.825	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.825	1	15.037	1356.21	53.71	B
158.75-133.50			B	0.36	2.148	0.636	0.825	1	18.446			
			C	0.324	2.235	0.623	0.825	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.825	1	17.071	1363.34	53.99	B
133.50-108.25			B	0.385	2.095	0.646	0.825	1	20.075			
			C	0.345	2.184	0.631	0.825	1	17.571			
T36	37.17	328.28	A	0.362	2.145	0.637	0.825	1	4.221	306.39	60.67	B
108.25-103.20			B	0.409	2.046	0.655	0.825	1	4.799			
			C	0.37	2.127	0.64	0.825	1	4.316			
T37	38.38	311.54	A	0.395	2.074	0.65	0.825	1	4.621	296.91	58.79	B
103.20-98.15			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T38	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	307.47	60.89	A
98.15-93.10			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			

tnxTower	Job: 376' Guyed Tower	Page: 53 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	302.74	59.95	A
93.10-88.05			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T40	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	297.82	58.97	A
88.05-83.00			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T41	69.33	311.54	A	0.429	2.01	0.664	0.825	1	5.045	381.59	75.56	B
83.00-77.95			B	0.583	1.816	0.743	0.825	1	7.281			
			C	0.542	1.851	0.72	0.825	1	6.643			
T42	89.02	301.31	A	0.435	1.998	0.667	0.825	1	4.731	476.84	94.42	B
77.95-72.90			B	0.711	1.777	0.828	0.825	1	9.470			
			C	0.672	1.777	0.8	0.825	1	8.658			
T43	89.02	317.42	A	0.436	1.997	0.667	0.825	1	4.737	467.93	92.66	B
72.90-67.85			B	0.711	1.777	0.828	0.825	1	9.479			
			C	0.672	1.777	0.8	0.825	1	8.666			
T44	89.02	329.17	A	0.442	1.988	0.669	0.825	1	4.874	463.56	91.79	B
67.85-62.80			B	0.716	1.778	0.832	0.825	1	9.588			
			C	0.677	1.776	0.804	0.825	1	8.783			
T45	89.02	328.28	A	0.438	1.994	0.668	0.825	1	5.164	454.75	90.05	B
62.80-57.75			B	0.711	1.777	0.828	0.825	1	9.629			
			C	0.672	1.777	0.8	0.825	1	8.849			
T46	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	435.62	86.26	B
57.75-52.70			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T47	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	423.85	83.93	B
52.70-47.65			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T48	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	411.20	81.43	B
47.65-42.60			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T49	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	397.49	78.71	B
42.60-37.55			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T50	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	382.48	75.74	B
37.55-32.50			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T51	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	376.03	74.46	B
32.50-27.45			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T52	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	376.03	74.46	B
27.45-22.40			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T53	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	376.03	74.46	B
22.40-17.35			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T54	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	376.03	74.46	B
17.35-12.30			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T55	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	376.03	74.46	B
12.30-7.25			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
Sum Weight:	2750.22	17335.81								23319.81		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.59	1	1	1	8.281	217.74	14.52	C
375.50-360.50			B	1	0.59	1	1	1	8.281			
			C	1	0.59	1	1	1	8.281			
L2	0.00	400.48	A	1	0.59	1	1	1	10.781	280.12	18.67	C
360.50-345.50			B	1	0.59	1	1	1	10.781			
			C	1	0.59	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.8	1	3.862	369.61	73.92	A
345.50-340.50			B	0.289	2.326	0.613	0.8	1	3.316			
			C	0.289	2.326	0.613	0.8	1	3.316			
T2	6.45	149.53	A	0.263	2.398	0.605	0.8	1	2.644	275.70	55.14	A
340.50-335.50			B	0.201	2.592	0.591	0.8	1	2.003			
			C	0.201	2.592	0.591	0.8	1	2.003			
T3	6.51	114.76	A	0.256	2.419	0.604	0.8	1	2.506	262.52	51.98	A
335.50-330.45			B	0.194	2.618	0.589	0.8	1	1.848			
			C	0.194	2.618	0.589	0.8	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.8	1	3.436	341.38	67.60	A
330.45-325.40			B	0.211	2.56	0.593	0.8	1	2.546			
			C	0.211	2.56	0.593	0.8	1	2.546			
T5	9.24	166.96	A	0.299	2.298	0.616	0.8	1	3.458	341.23	67.57	A
325.40-320.35			B	0.21	2.561	0.593	0.8	1	2.542			
			C	0.21	2.561	0.593	0.8	1	2.542			
T6	9.24	166.96	A	0.299	2.298	0.616	0.8	1	3.458	339.69	67.27	A
320.35-315.30			B	0.21	2.561	0.593	0.8	1	2.542			
			C	0.21	2.561	0.593	0.8	1	2.542			
T7	10.05	166.96	A	0.299	2.298	0.616	0.8	1	3.458	338.14	66.96	A
315.30-310.25			B	0.219	2.534	0.594	0.8	1	2.627			
			C	0.219	2.534	0.594	0.8	1	2.627			
T8	16.21	166.96	A	0.299	2.298	0.616	0.8	1	3.458	336.57	66.65	A
310.25-305.20			B	0.282	2.344	0.611	0.8	1	3.278			
			C	0.268	2.386	0.607	0.8	1	3.123			
T9	17.42	166.96	A	0.299	2.298	0.616	0.8	1	3.458	334.98	66.33	A
305.20-300.15			B	0.294	2.312	0.614	0.8	1	3.404			
			C	0.268	2.386	0.607	0.8	1	3.123			
T10	17.42	166.96	A	0.299	2.298	0.616	0.8	1	3.458	333.38	66.02	A
300.15-295.10			B	0.294	2.312	0.614	0.8	1	3.404			
			C	0.268	2.386	0.607	0.8	1	3.123			
T11	17.42	131.50	A	0.293	2.315	0.614	0.8	1	2.912	281.38	55.72	A
295.10-290.05			B	0.288	2.327	0.612	0.8	1	2.862			
			C	0.262	2.402	0.605	0.8	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.8	1	2.916	280.29	55.50	A
290.05-285.00			B	0.289	2.326	0.613	0.8	1	2.867			
			C	0.262	2.401	0.605	0.8	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.8	1	2.916	278.87	55.22	A
285.00-279.95			B	0.289	2.325	0.613	0.8	1	2.869			
			C	0.262	2.401	0.605	0.8	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.8	1	2.916	293.99	58.21	B
279.95-274.90			B	0.315	2.256	0.621	0.8	1	3.169			
			C	0.262	2.401	0.605	0.8	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.8	1	3.572	345.57	68.43	B
274.90-269.85			B	0.331	2.216	0.626	0.8	1	3.813			
			C	0.279	2.353	0.61	0.8	1	3.244			
T16	20.15	207.17	A	0.309	2.272	0.619	0.8	1	3.567	343.47	68.01	B
269.85-264.80			B	0.331	2.217	0.626	0.8	1	3.809			
			C	0.279	2.354	0.61	0.8	1	3.240			
T17	22.70	242.34	A	0.318	2.249	0.622	0.8	1	3.743	367.25	72.72	B
264.80-259.75			B	0.362	2.144	0.637	0.8	1	4.234			
			C	0.291	2.32	0.613	0.8	1	3.457			
T18	28.20	207.31	A	0.325	2.231	0.624	0.8	1	3.822	371.62	73.59	B
259.75-254.70			B	0.372	2.121	0.641	0.8	1	4.355			
			C	0.341	2.192	0.629	0.8	1	4.001			

tnxTower	Job: 376' Guyed Tower	Page: 55 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.8	1	3.960	377.76	74.80	B
254.70-249.65			B	0.386	2.093	0.646	0.8	1	4.512			
			C	0.355	2.161	0.634	0.8	1	4.152			
T20	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	385.14	76.26	B
249.65-244.60			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T21	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	382.87	75.82	B
244.60-239.55			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T22	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	380.57	75.36	B
239.55-234.50			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T23	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	378.24	74.90	B
234.50-229.45			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T24	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	375.87	74.43	B
229.45-224.40			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T25	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	373.46	73.95	B
224.40-219.35			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T26	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	371.01	73.47	B
219.35-214.30			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T27	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	368.52	72.97	B
214.30-209.25			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T28	64.24	504.21	A	0.286	2.334	0.612	0.8	1	5.632	582.36	57.66	B
209.25-199.15			B	0.35	2.172	0.632	0.8	1	7.118			
			C	0.317	2.252	0.621	0.8	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.8	1	3.618	341.27	67.58	B
199.15-194.10			B	0.376	2.113	0.642	0.8	1	4.335			
			C	0.344	2.185	0.63	0.8	1	3.959			
T30	32.12	311.54	A	0.313	2.261	0.62	0.8	1	3.614	338.53	67.04	B
194.10-189.05			B	0.376	2.114	0.642	0.8	1	4.331			
			C	0.344	2.186	0.63	0.8	1	3.955			
T31	32.12	339.40	A	0.32	2.245	0.622	0.8	1	3.757	344.73	68.26	B
189.05-184.00			B	0.382	2.1	0.645	0.8	1	4.473			
			C	0.35	2.17	0.633	0.8	1	4.105			
T32	32.12	311.54	A	0.313	2.261	0.62	0.8	1	3.614	333.33	66.01	B
184.00-178.95			B	0.376	2.114	0.642	0.8	1	4.331			
			C	0.344	2.186	0.63	0.8	1	3.955			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.8	1	11.276	1103.79	54.64	B
178.95-158.75			B	0.35	2.172	0.632	0.8	1	14.249			
			C	0.317	2.251	0.621	0.8	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.8	1	15.037	1356.21	53.71	B
158.75-133.50			B	0.36	2.148	0.636	0.8	1	18.446			
			C	0.324	2.235	0.623	0.8	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.8	1	17.061	1362.62	53.97	B
133.50-108.25			B	0.385	2.095	0.646	0.8	1	20.065			
			C	0.345	2.184	0.631	0.8	1	17.560			
T36	37.17	328.28	A	0.362	2.145	0.637	0.8	1	4.160	302.53	59.91	B
108.25-103.20			B	0.409	2.046	0.655	0.8	1	4.739			
			C	0.37	2.127	0.64	0.8	1	4.255			
T37	38.38	311.54	A	0.395	2.074	0.65	0.8	1	4.561	293.07	58.03	B
103.20-98.15			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T38	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	303.79	60.16	A
98.15-93.10			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			

tnxTower	Job: 376' Guyed Tower	Page: 56 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	299.12	59.23	A
93.10-88.05			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T40	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	294.25	58.27	A
88.05-83.00			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T41	69.33	311.54	A	0.429	2.01	0.664	0.8	1	4.984	378.42	74.93	B
83.00-77.95			B	0.583	1.816	0.743	0.8	1	7.220			
			C	0.542	1.851	0.72	0.8	1	6.582			
T42	89.02	301.31	A	0.435	1.998	0.667	0.8	1	4.722	476.42	94.34	B
77.95-72.90			B	0.711	1.777	0.828	0.8	1	9.462			
			C	0.672	1.777	0.8	0.8	1	8.649			
T43	89.02	317.42	A	0.436	1.997	0.667	0.8	1	4.728	467.52	92.58	B
72.90-67.85			B	0.711	1.777	0.828	0.8	1	9.470			
			C	0.672	1.777	0.8	0.8	1	8.657			
T44	89.02	329.17	A	0.442	1.988	0.669	0.8	1	4.856	462.75	91.63	B
67.85-62.80			B	0.716	1.778	0.832	0.8	1	9.571			
			C	0.677	1.776	0.804	0.8	1	8.766			
T45	89.02	328.28	A	0.438	1.994	0.668	0.8	1	5.104	451.89	89.48	B
62.80-57.75			B	0.711	1.777	0.828	0.8	1	9.568			
			C	0.672	1.777	0.8	0.8	1	8.789			
T46	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	432.84	85.71	B
57.75-52.70			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T47	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	421.14	83.39	B
52.70-47.65			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T48	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	408.57	80.90	B
47.65-42.60			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T49	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	394.95	78.21	B
42.60-37.55			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T50	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	380.04	75.25	B
37.55-32.50			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T51	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	373.62	73.99	B
32.50-27.45			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T52	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	373.62	73.99	B
27.45-22.40			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T53	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	373.62	73.99	B
22.40-17.35			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T54	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	373.62	73.99	B
17.35-12.30			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T55	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	373.62	73.99	B
12.30-7.25			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
Sum Weight:	2750.22	17335.81								23125.18		

Tower Forces - No Ice - Wind 90 To Face

tnxTower	Job: 376' Guyed Tower	Page: 57 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.59	1	1	1	8.281	217.74	14.52	C
375.50-360.50			B	1	0.59	1	1	1	8.281			
			C	1	0.59	1	1	1	8.281			
L2	0.00	400.48	A	1	0.59	1	1	1	10.781	280.12	18.67	C
360.50-345.50			B	1	0.59	1	1	1	10.781			
			C	1	0.59	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.85	1	3.983	381.17	76.23	A
345.50-340.50			B	0.289	2.326	0.613	0.85	1	3.443			
			C	0.289	2.326	0.613	0.85	1	3.443			
T2	6.45	149.53	A	0.263	2.398	0.605	0.85	1	2.665	277.98	55.60	A
340.50-335.50			B	0.201	2.592	0.591	0.85	1	2.027			
			C	0.201	2.592	0.591	0.85	1	2.027			
T3	6.51	114.76	A	0.256	2.419	0.604	0.85	1	2.506	262.52	51.98	A
335.50-330.45			B	0.194	2.618	0.589	0.85	1	1.848			
			C	0.194	2.618	0.589	0.85	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.85	1	3.557	353.40	69.98	A
330.45-325.40			B	0.211	2.56	0.593	0.85	1	2.667			
			C	0.211	2.56	0.593	0.85	1	2.667			
T5	9.24	166.96	A	0.299	2.298	0.616	0.85	1	3.579	353.16	69.93	A
325.40-320.35			B	0.21	2.561	0.593	0.85	1	2.663			
			C	0.21	2.561	0.593	0.85	1	2.663			
T6	9.24	166.96	A	0.299	2.298	0.616	0.85	1	3.579	351.58	69.62	A
320.35-315.30			B	0.21	2.561	0.593	0.85	1	2.663			
			C	0.21	2.561	0.593	0.85	1	2.663			
T7	10.05	166.96	A	0.299	2.298	0.616	0.85	1	3.579	349.97	69.30	A
315.30-310.25			B	0.219	2.534	0.594	0.85	1	2.748			
			C	0.219	2.534	0.594	0.85	1	2.748			
T8	16.21	166.96	A	0.299	2.298	0.616	0.85	1	3.579	348.35	68.98	A
310.25-305.20			B	0.282	2.344	0.611	0.85	1	3.399			
			C	0.268	2.386	0.607	0.85	1	3.244			
T9	17.42	166.96	A	0.299	2.298	0.616	0.85	1	3.579	346.70	68.65	A
305.20-300.15			B	0.294	2.312	0.614	0.85	1	3.525			
			C	0.268	2.386	0.607	0.85	1	3.244			
T10	17.42	166.96	A	0.299	2.298	0.616	0.85	1	3.579	345.04	68.33	A
300.15-295.10			B	0.294	2.312	0.614	0.85	1	3.525			
			C	0.268	2.386	0.607	0.85	1	3.244			
T11	17.42	131.50	A	0.293	2.315	0.614	0.85	1	2.912	281.38	55.72	A
295.10-290.05			B	0.288	2.327	0.612	0.85	1	2.862			
			C	0.262	2.402	0.605	0.85	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.85	1	2.916	280.29	55.50	A
290.05-285.00			B	0.289	2.326	0.613	0.85	1	2.867			
			C	0.262	2.401	0.605	0.85	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.85	1	2.916	278.87	55.22	A
285.00-279.95			B	0.289	2.325	0.613	0.85	1	2.869			
			C	0.262	2.401	0.605	0.85	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.85	1	2.916	293.99	58.21	B
279.95-274.90			B	0.315	2.256	0.621	0.85	1	3.169			
			C	0.262	2.401	0.605	0.85	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.85	1	3.693	356.53	70.60	B
274.90-269.85			B	0.331	2.216	0.626	0.85	1	3.934			
			C	0.279	2.353	0.61	0.85	1	3.365			
T16	20.15	207.17	A	0.309	2.272	0.619	0.85	1	3.688	354.38	70.18	B
269.85-264.80			B	0.331	2.217	0.626	0.85	1	3.930			
			C	0.279	2.354	0.61	0.85	1	3.361			
T17	22.70	242.34	A	0.318	2.249	0.622	0.85	1	3.885	379.55	75.16	B
264.80-259.75			B	0.362	2.144	0.637	0.85	1	4.376			
			C	0.291	2.32	0.613	0.85	1	3.601			
T18	28.20	207.31	A	0.325	2.231	0.624	0.85	1	3.964	383.72	75.98	B
259.75-254.70			B	0.372	2.121	0.641	0.85	1	4.496			
			C	0.341	2.192	0.629	0.85	1	4.144			

tnxTower	Job: 376' Guyed Tower	Page: 58 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.85	1	4.101	389.63	77.15	B
254.70-249.65			B	0.386	2.093	0.646	0.85	1	4.653			
			C	0.355	2.161	0.634	0.85	1	4.295			
T20	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	396.76	78.57	B
249.65-244.60			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T21	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	394.43	78.10	B
244.60-239.55			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T22	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	392.06	77.64	B
239.55-234.50			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T23	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	389.66	77.16	B
234.50-229.45			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T24	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	387.21	76.68	B
229.45-224.40			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T25	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	384.73	76.18	B
224.40-219.35			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T26	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	382.21	75.68	B
219.35-214.30			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T27	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	379.64	75.18	B
214.30-209.25			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T28	64.24	504.21	A	0.286	2.334	0.612	0.85	1	5.632	582.36	57.66	B
209.25-199.15			B	0.35	2.172	0.632	0.85	1	7.118			
			C	0.317	2.252	0.621	0.85	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.85	1	3.738	350.79	69.46	B
199.15-194.10			B	0.376	2.113	0.642	0.85	1	4.456			
			C	0.344	2.185	0.63	0.85	1	4.080			
T30	32.12	311.54	A	0.313	2.261	0.62	0.85	1	3.735	347.99	68.91	B
194.10-189.05			B	0.376	2.114	0.642	0.85	1	4.452			
			C	0.344	2.186	0.63	0.85	1	4.076			
T31	32.12	339.40	A	0.32	2.245	0.622	0.85	1	3.899	355.66	70.43	B
189.05-184.00			B	0.382	2.1	0.645	0.85	1	4.615			
			C	0.35	2.17	0.633	0.85	1	4.248			
T32	32.12	311.54	A	0.313	2.261	0.62	0.85	1	3.735	342.64	67.85	B
184.00-178.95			B	0.376	2.114	0.642	0.85	1	4.452			
			C	0.344	2.186	0.63	0.85	1	4.076			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.85	1	11.276	1103.79	54.64	B
178.95-158.75			B	0.35	2.172	0.632	0.85	1	14.249			
			C	0.317	2.251	0.621	0.85	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.85	1	15.037	1356.21	53.71	B
158.75-133.50			B	0.36	2.148	0.636	0.85	1	18.446			
			C	0.324	2.235	0.623	0.85	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.85	1	17.082	1364.06	54.02	B
133.50-108.25			B	0.385	2.095	0.646	0.85	1	20.086			
			C	0.345	2.184	0.631	0.85	1	17.583			
T36	37.17	328.28	A	0.362	2.145	0.637	0.85	1	4.281	310.25	61.44	B
108.25-103.20			B	0.409	2.046	0.655	0.85	1	4.860			
			C	0.37	2.127	0.64	0.85	1	4.376			
T37	38.38	311.54	A	0.395	2.074	0.65	0.85	1	4.682	300.76	59.56	B
103.20-98.15			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T38	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	311.16	61.62	A
98.15-93.10			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			

tnxTower	Job: 376' Guyed Tower	Page: 59 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	306.37	60.67	A
93.10-88.05			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T40	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	301.39	59.68	A
88.05-83.00			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T41	69.33	311.54	A	0.429	2.01	0.664	0.85	1	5.105	384.76	76.19	B
83.00-77.95			B	0.583	1.816	0.743	0.85	1	7.341			
			C	0.542	1.851	0.72	0.85	1	6.703			
T42	89.02	301.31	A	0.435	1.998	0.667	0.85	1	4.741	477.26	94.51	B
77.95-72.90			B	0.711	1.777	0.828	0.85	1	9.479			
			C	0.672	1.777	0.8	0.85	1	8.666			
T43	89.02	317.42	A	0.436	1.997	0.667	0.85	1	4.746	468.34	92.74	B
72.90-67.85			B	0.711	1.777	0.828	0.85	1	9.487			
			C	0.672	1.777	0.8	0.85	1	8.674			
T44	89.02	329.17	A	0.442	1.988	0.669	0.85	1	4.893	464.37	91.95	B
67.85-62.80			B	0.716	1.778	0.832	0.85	1	9.605			
			C	0.677	1.776	0.804	0.85	1	8.801			
T45	89.02	328.28	A	0.438	1.994	0.668	0.85	1	5.225	457.61	90.61	B
62.80-57.75			B	0.711	1.777	0.828	0.85	1	9.689			
			C	0.672	1.777	0.8	0.85	1	8.910			
T46	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	438.41	86.81	B
57.75-52.70			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T47	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	426.56	84.47	B
52.70-47.65			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T48	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	413.83	81.95	B
47.65-42.60			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T49	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	400.03	79.21	B
42.60-37.55			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T50	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	384.93	76.22	B
37.55-32.50			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T51	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	378.43	74.94	B
32.50-27.45			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T52	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	378.43	74.94	B
27.45-22.40			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T53	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	378.43	74.94	B
22.40-17.35			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T54	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	378.43	74.94	B
17.35-12.30			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T55	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	378.43	74.94	B
12.30-7.25			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
Sum Weight:	2750.22	17335.81								23514.43		

Tower Forces - With Ice - Wind Normal To Face

tnxTower	Job: 376' Guyed Tower	Page: 60 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	331.63	A	1	0.624	1	1	1	9.531	198.94	13.26	C
375.50-360.50			B	1	0.624	1	1	1	9.531			
			C	1	0.624	1	1	1	9.531			
L2	0.00	484.09	A	1	0.59	1	1	1	12.031	234.44	15.63	C
360.50-345.50			B	1	0.59	1	1	1	12.031			
			C	1	0.59	1	1	1	12.031			
T1	16.05	420.00	A	0.486	1.919	0.69	1	1	6.247	392.72	78.54	A
345.50-340.50			B	0.395	2.073	0.65	1	1	5.122			
			C	0.395	2.073	0.65	1	1	5.122			
T2	17.32	223.52	A	0.394	2.076	0.649	1	1	4.357	295.06	59.01	A
340.50-335.50			B	0.288	2.328	0.612	1	1	3.086			
			C	0.288	2.328	0.612	1	1	3.086			
T3	17.50	175.05	A	0.387	2.09	0.646	1	1	4.157	282.29	55.90	A
335.50-330.45			B	0.281	2.349	0.61	1	1	2.847			
			C	0.281	2.349	0.61	1	1	2.847			
T4	24.50	245.81	A	0.427	2.012	0.663	1	1	5.761	374.88	74.23	A
330.45-325.40			B	0.28	2.351	0.61	1	1	4.027			
			C	0.28	2.351	0.61	1	1	4.027			
T5	25.19	245.81	A	0.431	2.006	0.665	1	1	5.807	375.04	74.27	A
325.40-320.35			B	0.279	2.352	0.61	1	1	4.021			
			C	0.279	2.352	0.61	1	1	4.021			
T6	25.19	245.81	A	0.431	2.006	0.665	1	1	5.807	373.36	73.93	A
320.35-315.30			B	0.279	2.352	0.61	1	1	4.021			
			C	0.279	2.352	0.61	1	1	4.021			
T7	27.48	245.81	A	0.431	2.006	0.665	1	1	5.807	371.65	73.59	A
315.30-310.25			B	0.295	2.309	0.614	1	1	4.191			
			C	0.295	2.309	0.614	1	1	4.191			
T8	44.84	245.81	A	0.431	2.006	0.665	1	1	5.807	369.93	73.25	A
310.25-305.20			B	0.411	2.043	0.656	1	1	5.549			
			C	0.385	2.094	0.646	1	1	5.229			
T9	48.27	245.81	A	0.431	2.006	0.665	1	1	5.807	368.48	72.97	B
305.20-300.15			B	0.432	2.005	0.665	1	1	5.815			
			C	0.385	2.094	0.646	1	1	5.229			
T10	48.27	245.81	A	0.431	2.006	0.665	1	1	5.807	366.71	72.62	B
300.15-295.10			B	0.432	2.005	0.665	1	1	5.815			
			C	0.385	2.094	0.646	1	1	5.229			
T11	48.27	196.10	A	0.443	1.986	0.67	1	1	4.928	307.33	60.86	B
295.10-290.05			B	0.444	1.983	0.671	1	1	4.950			
			C	0.398	2.068	0.651	1	1	4.304			
T12	48.27	196.10	A	0.443	1.985	0.67	1	1	4.936	306.20	60.63	B
290.05-285.00			B	0.445	1.982	0.671	1	1	4.959			
			C	0.399	2.067	0.651	1	1	4.312			
T13	48.35	219.56	A	0.443	1.985	0.67	1	1	4.936	304.94	60.38	B
285.00-279.95			B	0.445	1.982	0.671	1	1	4.966			
			C	0.399	2.067	0.651	1	1	4.312			
T14	55.96	219.56	A	0.443	1.985	0.67	1	1	4.936	333.34	66.01	B
279.95-274.90			B	0.491	1.912	0.693	1	1	5.655			
			C	0.399	2.067	0.651	1	1	4.312			
T15	55.96	289.03	A	0.441	1.989	0.669	1	1	5.935	386.83	76.60	B
274.90-269.85			B	0.488	1.916	0.691	1	1	6.583			
			C	0.397	2.071	0.65	1	1	5.369			
T16	55.96	289.03	A	0.44	1.99	0.669	1	1	5.927	384.44	76.13	B
269.85-264.80			B	0.487	1.917	0.691	1	1	6.574			
			C	0.396	2.072	0.65	1	1	5.361			
T17	63.08	342.27	A	0.46	1.957	0.678	1	1	6.320	422.71	83.70	B
264.80-259.75			B	0.545	1.848	0.722	1	1	7.539			
			C	0.423	2.021	0.661	1	1	5.854			
T18	76.83	304.92	A	0.468	1.945	0.682	1	1	6.425	428.37	84.83	B
259.75-254.70			B	0.558	1.836	0.729	1	1	7.732			
			C	0.488	1.916	0.692	1	1	6.716			

tnxTower	Job: 376' Guyed Tower	Page: 61 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	84.74	304.92	A	0.499	1.902	0.697	1	1	6.848	442.67	87.66	B
254.70-249.65			B	0.583	1.816	0.743	1	1	8.126			
			C	0.513	1.884	0.704	1	1	7.067			
T20	88.85	304.92	A	0.499	1.902	0.697	1	1	6.848	461.00	91.29	B
249.65-244.60			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T21	88.85	304.92	A	0.499	1.902	0.697	1	1	6.848	458.28	90.75	B
244.60-239.55			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T22	88.85	304.92	A	0.499	1.902	0.697	1	1	6.848	455.53	90.20	B
239.55-234.50			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T23	88.85	297.46	A	0.499	1.902	0.697	1	1	6.848	452.74	89.65	B
234.50-229.45			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T24	88.85	297.46	A	0.499	1.902	0.697	1	1	6.848	449.90	89.09	B
229.45-224.40			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T25	88.85	297.46	A	0.499	1.902	0.697	1	1	6.848	447.02	88.52	B
224.40-219.35			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T26	88.85	297.46	A	0.499	1.902	0.697	1	1	6.848	444.08	87.94	B
219.35-214.30			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T27	88.85	297.46	A	0.499	1.902	0.697	1	1	6.848	441.10	87.35	B
214.30-209.25			B	0.611	1.798	0.76	1	1	8.597			
			C	0.541	1.852	0.719	1	1	7.488			
T28	177.70	620.16	A	0.459	1.958	0.678	1	1	10.285	718.67	71.16	B
209.25-199.15			B	0.573	1.823	0.737	1	1	13.954			
			C	0.498	1.903	0.696	1	1	11.456			
T29	88.85	369.40	A	0.467	1.946	0.681	1	1	6.290	404.87	80.17	B
199.15-194.10			B	0.579	1.819	0.741	1	1	7.967			
			C	0.505	1.894	0.7	1	1	6.826			
T30	88.85	369.40	A	0.467	1.947	0.681	1	1	6.282	401.50	79.50	B
194.10-189.05			B	0.578	1.819	0.74	1	1	7.957			
			C	0.504	1.894	0.7	1	1	6.818			
T31	88.85	411.39	A	0.472	1.939	0.684	1	1	6.476	406.97	80.59	B
189.05-184.00			B	0.584	1.815	0.744	1	1	8.146			
			C	0.511	1.886	0.703	1	1	7.036			
T32	88.85	369.40	A	0.467	1.947	0.681	1	1	6.282	395.33	78.28	B
184.00-178.95			B	0.578	1.819	0.74	1	1	7.957			
			C	0.504	1.894	0.7	1	1	6.818			
T33	355.39	1240.31	A	0.46	1.958	0.678	1	1	20.594	1362.51	67.45	B
178.95-158.75			B	0.573	1.823	0.738	1	1	27.937			
			C	0.498	1.902	0.697	1	1	22.937			
T34	480.22	1550.39	A	0.514	1.883	0.705	1	1	29.914	1769.26	70.07	B
158.75-133.50			B	0.611	1.798	0.76	1	1	38.337			
			C	0.515	1.881	0.705	1	1	30.014			
T35	515.34	1697.62	A	0.584	1.815	0.744	1	1	35.977	1859.99	73.66	B
133.50-108.25			B	0.657	1.78	0.79	1	1	42.982			
			C	0.55	1.843	0.724	1	1	33.030			
T36	103.07	390.45	A	0.588	1.812	0.746	1	1	8.120	391.15	77.46	B
108.25-103.20			B	0.66	1.779	0.792	1	1	9.395			
			C	0.555	1.839	0.727	1	1	7.577			
T37	111.68	369.40	A	0.644	1.783	0.781	1	1	9.095	379.02	75.05	B
103.20-98.15			B	0.651	1.781	0.786	1	1	9.220			
			C	0.544	1.849	0.721	1	1	7.413			
T38	118.32	369.40	A	0.694	1.776	0.816	1	1	10.054	406.01	80.40	A
98.15-93.10			B	0.651	1.781	0.786	1	1	9.220			
			C	0.544	1.849	0.721	1	1	7.413			

tnxTower	Job: 376' Guyed Tower	Page: 62 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	118.32	369.40	A	0.694	1.776	0.816	1	1	10.054	399.76	79.16	A
93.10-88.05			B	0.651	1.781	0.786	1	1	9.220			
			C	0.544	1.849	0.721	1	1	7.413			
T40	118.32	369.40	A	0.694	1.776	0.816	1	1	10.054	393.26	77.87	A
88.05-83.00			B	0.651	1.781	0.786	1	1	9.220			
			C	0.544	1.849	0.721	1	1	7.413			
T41	203.24	369.40	A	0.694	1.776	0.816	1	1	10.054	681.76	135.00	B
83.00-77.95			B	0.943	1.991	1	1	1	15.819			
			C	0.836	1.847	0.926	1	1	13.284			
T42	258.93	382.77	A	0.725	1.78	0.838	1	1	10.096	702.03*	139.02	C
77.95-72.90			B	1	2.1	1	1	1	19.186			
			C	1	2.1	1	1	1	17.484			
T43	258.93	398.89	A	0.726	1.78	0.839	1	1	10.110	688.27*	136.29	C
72.90-67.85			B	1	2.1	1	1	1	19.196			
			C	1	2.1	1	1	1	17.494			
T44	258.93	424.76	A	0.731	1.781	0.842	1	1	10.261	673.78*	133.42	C
67.85-62.80			B	1	2.1	1	1	1	19.248			
			C	1	2.1	1	1	1	17.558			
T45	258.93	390.45	A	0.702	1.776	0.821	1	1	10.205	668.94*	132.46	C
62.80-57.75			B	1	2.1	1	1	1	19.122			
			C	1	2.1	1	1	1	17.351			
T46	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	652.42*	129.19	C
57.75-52.70			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T47	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	634.79*	125.70	C
52.70-47.65			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T48	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	615.83*	121.95	C
47.65-42.60			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T49	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	595.30*	117.88	C
42.60-37.55			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T50	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	572.83*	113.43	C
37.55-32.50			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T51	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	563.16*	111.52	C
32.50-27.45			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T52	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	563.16*	111.52	C
27.45-22.40			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T53	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	563.16*	111.52	C
22.40-17.35			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T54	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	563.16*	111.52	C
17.35-12.30			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
T55	258.93	369.40	A	0.694	1.776	0.816	1	1	10.054	563.16*	111.52	C
12.30-7.25			B	1	2.1	1	1	1	19.032			
			C	1	2.1	1	1	1	17.242			
Sum Weight:	7824.86	22274.88			*$2A_g$ limit					29520.06		

Tower Forces - With Ice - Wind 45 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	331.63	A	1	0.624	1	1	1	9.531	198.94	13.26	C
375.50-360.50			B	1	0.624	1	1	1	9.531			
			C	1	0.624	1	1	1	9.531			
L2	0.00	484.09	A	1	0.59	1	1	1	12.031	234.44	15.63	C
360.50-345.50			B	1	0.59	1	1	1	12.031			
			C	1	0.59	1	1	1	12.031			
T1	16.05	420.00	A	0.486	1.919	0.69	0.825	1	5.837	366.92	73.38	A
345.50-340.50			B	0.395	2.073	0.65	0.825	1	4.676			
			C	0.395	2.073	0.65	0.825	1	4.676			
T2	17.32	223.52	A	0.394	2.076	0.649	0.825	1	4.282	290.04	58.01	A
340.50-335.50			B	0.288	2.328	0.612	0.825	1	3.005			
			C	0.288	2.328	0.612	0.825	1	3.005			
T3	17.50	175.05	A	0.387	2.09	0.646	0.825	1	4.157	282.29	55.90	A
335.50-330.45			B	0.281	2.349	0.61	0.825	1	2.847			
			C	0.281	2.349	0.61	0.825	1	2.847			
T4	24.50	245.81	A	0.427	2.012	0.663	0.825	1	5.239	340.94	67.51	A
330.45-325.40			B	0.28	2.351	0.61	0.825	1	3.506			
			C	0.28	2.351	0.61	0.825	1	3.506			
T5	25.19	245.81	A	0.431	2.006	0.665	0.825	1	5.286	341.35	67.59	A
325.40-320.35			B	0.279	2.352	0.61	0.825	1	3.500			
			C	0.279	2.352	0.61	0.825	1	3.500			
T6	25.19	245.81	A	0.431	2.006	0.665	0.825	1	5.286	339.82	67.29	A
320.35-315.30			B	0.279	2.352	0.61	0.825	1	3.500			
			C	0.279	2.352	0.61	0.825	1	3.500			
T7	27.48	245.81	A	0.431	2.006	0.665	0.825	1	5.286	338.27	66.98	A
315.30-310.25			B	0.295	2.309	0.614	0.825	1	3.670			
			C	0.295	2.309	0.614	0.825	1	3.670			
T8	44.84	245.81	A	0.431	2.006	0.665	0.825	1	5.286	336.70	66.67	A
310.25-305.20			B	0.411	2.043	0.656	0.825	1	5.027			
			C	0.385	2.094	0.646	0.825	1	4.707			
T9	48.27	245.81	A	0.431	2.006	0.665	0.825	1	5.286	335.42	66.42	B
305.20-300.15			B	0.432	2.005	0.665	0.825	1	5.293			
			C	0.385	2.094	0.646	0.825	1	4.707			
T10	48.27	245.81	A	0.431	2.006	0.665	0.825	1	5.286	333.82	66.10	B
300.15-295.10			B	0.432	2.005	0.665	0.825	1	5.293			
			C	0.385	2.094	0.646	0.825	1	4.707			
T11	48.27	196.10	A	0.443	1.986	0.67	0.825	1	4.928	307.33	60.86	B
295.10-290.05			B	0.444	1.983	0.671	0.825	1	4.950			
			C	0.398	2.068	0.651	0.825	1	4.304			
T12	48.27	196.10	A	0.443	1.985	0.67	0.825	1	4.936	306.20	60.63	B
290.05-285.00			B	0.445	1.982	0.671	0.825	1	4.959			
			C	0.399	2.067	0.651	0.825	1	4.312			
T13	48.35	219.56	A	0.443	1.985	0.67	0.825	1	4.936	304.94	60.38	B
285.00-279.95			B	0.445	1.982	0.671	0.825	1	4.966			
			C	0.399	2.067	0.651	0.825	1	4.312			
T14	55.96	219.56	A	0.443	1.985	0.67	0.825	1	4.936	333.34	66.01	B
279.95-274.90			B	0.491	1.912	0.693	0.825	1	5.655			
			C	0.399	2.067	0.651	0.825	1	4.312			
T15	55.96	289.03	A	0.441	1.989	0.669	0.825	1	5.413	356.18	70.53	B
274.90-269.85			B	0.488	1.916	0.691	0.825	1	6.061			
			C	0.397	2.071	0.65	0.825	1	4.847			
T16	55.96	289.03	A	0.44	1.99	0.669	0.825	1	5.405	353.93	70.09	B
269.85-264.80			B	0.487	1.917	0.691	0.825	1	6.053			
			C	0.396	2.072	0.65	0.825	1	4.840			
T17	63.08	342.27	A	0.46	1.957	0.678	0.825	1	5.730	389.75	77.18	B
264.80-259.75			B	0.545	1.848	0.722	0.825	1	6.951			
			C	0.423	2.021	0.661	0.825	1	5.252			
T18	76.83	304.92	A	0.468	1.945	0.682	0.825	1	5.835	395.85	78.39	B
259.75-254.70			B	0.558	1.836	0.729	0.825	1	7.145			
			C	0.488	1.916	0.692	0.825	1	6.121			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	84.74	304.92	A	0.499	1.902	0.697	0.825	1	6.262	410.69	81.32	B
254.70-249.65			B	0.583	1.816	0.743	0.825	1	7.539			
			C	0.513	1.884	0.704	0.825	1	6.472			
T20	88.85	304.92	A	0.499	1.902	0.697	0.825	1	6.262	429.52	85.05	B
249.65-244.60			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T21	88.85	304.92	A	0.499	1.902	0.697	0.825	1	6.262	426.99	84.55	B
244.60-239.55			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T22	88.85	304.92	A	0.499	1.902	0.697	0.825	1	6.262	424.43	84.04	B
239.55-234.50			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T23	88.85	297.46	A	0.499	1.902	0.697	0.825	1	6.262	421.82	83.53	B
234.50-229.45			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T24	88.85	297.46	A	0.499	1.902	0.697	0.825	1	6.262	419.18	83.01	B
229.45-224.40			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T25	88.85	297.46	A	0.499	1.902	0.697	0.825	1	6.262	416.49	82.47	B
224.40-219.35			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T26	88.85	297.46	A	0.499	1.902	0.697	0.825	1	6.262	413.76	81.93	B
219.35-214.30			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T27	88.85	297.46	A	0.499	1.902	0.697	0.825	1	6.262	410.99	81.38	B
214.30-209.25			B	0.611	1.798	0.76	0.825	1	8.010			
			C	0.541	1.852	0.719	0.825	1	6.893			
T28	177.70	620.16	A	0.459	1.958	0.678	0.825	1	10.285	718.67	71.16	B
209.25-199.15			B	0.573	1.823	0.737	0.825	1	13.954			
			C	0.498	1.903	0.696	0.825	1	11.456			
T29	88.85	369.40	A	0.467	1.946	0.681	0.825	1	5.768	378.36	74.92	B
199.15-194.10			B	0.579	1.819	0.741	0.825	1	7.445			
			C	0.505	1.894	0.7	0.825	1	6.304			
T30	88.85	369.40	A	0.467	1.947	0.681	0.825	1	5.760	375.18	74.29	B
194.10-189.05			B	0.578	1.819	0.74	0.825	1	7.436			
			C	0.504	1.894	0.7	0.825	1	6.296			
T31	88.85	411.39	A	0.472	1.939	0.684	0.825	1	5.889	377.62	74.78	B
189.05-184.00			B	0.584	1.815	0.744	0.825	1	7.559			
			C	0.511	1.886	0.703	0.825	1	6.440			
T32	88.85	369.40	A	0.467	1.947	0.681	0.825	1	5.760	369.42	73.15	B
184.00-178.95			B	0.578	1.819	0.74	0.825	1	7.436			
			C	0.504	1.894	0.7	0.825	1	6.296			
T33	355.39	1240.31	A	0.46	1.958	0.678	0.825	1	20.594	1362.51	67.45	B
178.95-158.75			B	0.573	1.823	0.738	0.825	1	27.937			
			C	0.498	1.902	0.697	0.825	1	22.937			
T34	480.22	1550.39	A	0.514	1.883	0.705	0.825	1	29.914	1769.26	70.07	B
158.75-133.50			B	0.611	1.798	0.76	0.825	1	38.337			
			C	0.515	1.881	0.705	0.825	1	30.014			
T35	515.34	1697.62	A	0.584	1.815	0.744	0.825	1	35.911	1857.11	73.55	B
133.50-108.25			B	0.657	1.78	0.79	0.825	1	42.915			
			C	0.55	1.843	0.724	0.825	1	32.955			
T36	103.07	390.45	A	0.588	1.812	0.746	0.825	1	7.598	369.44	73.16	B
108.25-103.20			B	0.66	1.779	0.792	0.825	1	8.873			
			C	0.555	1.839	0.727	0.825	1	7.056			
T37	111.68	369.40	A	0.644	1.783	0.781	0.825	1	8.574	357.58	70.81	B
103.20-98.15			B	0.651	1.781	0.786	0.825	1	8.698			
			C	0.544	1.849	0.721	0.825	1	6.892			
T38	118.32	369.40	A	0.694	1.776	0.816	0.825	1	9.532	384.95	76.23	A
98.15-93.10			B	0.651	1.781	0.786	0.825	1	8.698			
			C	0.544	1.849	0.721	0.825	1	6.892			

tnxTower	Job: 376' Guyed Tower	Page: 65 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T39	118.32	369.40	A	0.694	1.776	0.816	0.825	1	9.532	379.02	75.05	A
93.10-88.05			B	0.651	1.781	0.786	0.825	1	8.698			
			C	0.544	1.849	0.721	0.825	1	6.892			
T40	118.32	369.40	A	0.694	1.776	0.816	0.825	1	9.532	372.86	73.83	A
88.05-83.00			B	0.651	1.781	0.786	0.825	1	8.698			
			C	0.544	1.849	0.721	0.825	1	6.892			
T41	203.24	369.40	A	0.694	1.776	0.816	0.825	1	9.532	652.38	129.18	B
83.00-77.95			B	0.943	1.991	1	0.825	1	15.137			
			C	0.836	1.847	0.926	0.825	1	12.602			
T42	258.93	382.77	A	0.725	1.78	0.838	0.825	1	10.043	702.03*	139.02	C
77.95-72.90			B	1	2.1	1	0.825	1	18.884			
			C	1	2.1	1	0.825	1	17.174			
T43	258.93	398.89	A	0.726	1.78	0.839	0.825	1	10.057	688.27*	136.29	C
72.90-67.85			B	1	2.1	1	0.825	1	18.895			
			C	1	2.1	1	0.825	1	17.184			
T44	258.93	424.76	A	0.731	1.781	0.842	0.825	1	10.155	673.78*	133.42	C
67.85-62.80			B	1	2.1	1	0.825	1	18.910			
			C	1	2.1	1	0.825	1	17.204			
T45	258.93	390.45	A	0.702	1.776	0.821	0.825	1	9.684	668.94*	132.46	C
62.80-57.75			B	1	2.1	1	0.825	1	18.336			
			C	1	2.1	1	0.825	1	16.564			
T46	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	652.42*	129.19	C
57.75-52.70			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T47	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	634.79*	125.70	C
52.70-47.65			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T48	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	615.83*	121.95	C
47.65-42.60			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T49	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	595.30*	117.88	C
42.60-37.55			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T50	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	572.83*	113.43	C
37.55-32.50			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T51	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	563.16*	111.52	C
32.50-27.45			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T52	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	563.16*	111.52	C
27.45-22.40			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T53	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	563.16*	111.52	C
22.40-17.35			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T54	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	563.16*	111.52	C
17.35-12.30			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
T55	258.93	369.40	A	0.694	1.776	0.816	0.825	1	9.532	563.16*	111.52	C
12.30-7.25			B	1	2.1	1	0.825	1	18.245			
			C	1	2.1	1	0.825	1	16.455			
Sum Weight:	7824.86	22274.88			*$2A_g$ limit					28604.70		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
L1	0.00	331.63	A	1	0.624	1	1	1	9.531	198.94	13.26	C
375.50-360.50			B	1	0.624	1	1	1	9.531			
			C	1	0.624	1	1	1	9.531			
L2	0.00	484.09	A	1	0.59	1	1	1	12.031	234.44	15.63	C
360.50-345.50			B	1	0.59	1	1	1	12.031			
			C	1	0.59	1	1	1	12.031			
T1	16.05	420.00	A	0.486	1.919	0.69	0.8	1	5.778	363.23	72.65	A
345.50-340.50			B	0.395	2.073	0.65	0.8	1	4.612			
			C	0.395	2.073	0.65	0.8	1	4.612			
T2	17.32	223.52	A	0.394	2.076	0.649	0.8	1	4.272	289.32	57.86	A
340.50-335.50			B	0.288	2.328	0.612	0.8	1	2.993			
			C	0.288	2.328	0.612	0.8	1	2.993			
T3	17.50	175.05	A	0.387	2.09	0.646	0.8	1	4.157	282.29	55.90	A
335.50-330.45			B	0.281	2.349	0.61	0.8	1	2.847			
			C	0.281	2.349	0.61	0.8	1	2.847			
T4	24.50	245.81	A	0.427	2.012	0.663	0.8	1	5.165	336.09	66.55	A
330.45-325.40			B	0.28	2.351	0.61	0.8	1	3.431			
			C	0.28	2.351	0.61	0.8	1	3.431			
T5	25.19	245.81	A	0.431	2.006	0.665	0.8	1	5.211	336.54	66.64	A
325.40-320.35			B	0.279	2.352	0.61	0.8	1	3.425			
			C	0.279	2.352	0.61	0.8	1	3.425			
T6	25.19	245.81	A	0.431	2.006	0.665	0.8	1	5.211	335.03	66.34	A
320.35-315.30			B	0.279	2.352	0.61	0.8	1	3.425			
			C	0.279	2.352	0.61	0.8	1	3.425			
T7	27.48	245.81	A	0.431	2.006	0.665	0.8	1	5.211	333.50	66.04	A
315.30-310.25			B	0.295	2.309	0.614	0.8	1	3.595			
			C	0.295	2.309	0.614	0.8	1	3.595			
T8	44.84	245.81	A	0.431	2.006	0.665	0.8	1	5.211	331.95	65.73	A
310.25-305.20			B	0.411	2.043	0.656	0.8	1	4.953			
			C	0.385	2.094	0.646	0.8	1	4.633			
T9	48.27	245.81	A	0.431	2.006	0.665	0.8	1	5.211	330.70	65.49	B
305.20-300.15			B	0.432	2.005	0.665	0.8	1	5.219			
			C	0.385	2.094	0.646	0.8	1	4.633			
T10	48.27	245.81	A	0.431	2.006	0.665	0.8	1	5.211	329.12	65.17	B
300.15-295.10			B	0.432	2.005	0.665	0.8	1	5.219			
			C	0.385	2.094	0.646	0.8	1	4.633			
T11	48.27	196.10	A	0.443	1.986	0.67	0.8	1	4.928	307.33	60.86	B
295.10-290.05			B	0.444	1.983	0.671	0.8	1	4.950			
			C	0.398	2.068	0.651	0.8	1	4.304			
T12	48.27	196.10	A	0.443	1.985	0.67	0.8	1	4.936	306.20	60.63	B
290.05-285.00			B	0.445	1.982	0.671	0.8	1	4.959			
			C	0.399	2.067	0.651	0.8	1	4.312			
T13	48.35	219.56	A	0.443	1.985	0.67	0.8	1	4.936	304.94	60.38	B
285.00-279.95			B	0.445	1.982	0.671	0.8	1	4.966			
			C	0.399	2.067	0.651	0.8	1	4.312			
T14	55.96	219.56	A	0.443	1.985	0.67	0.8	1	4.936	333.34	66.01	B
279.95-274.90			B	0.491	1.912	0.693	0.8	1	5.655			
			C	0.399	2.067	0.651	0.8	1	4.312			
T15	55.96	289.03	A	0.441	1.989	0.669	0.8	1	5.339	351.80	69.66	B
274.90-269.85			B	0.488	1.916	0.691	0.8	1	5.987			
			C	0.397	2.071	0.65	0.8	1	4.773			
T16	55.96	289.03	A	0.44	1.99	0.669	0.8	1	5.331	349.57	69.22	B
269.85-264.80			B	0.487	1.917	0.691	0.8	1	5.978			
			C	0.396	2.072	0.65	0.8	1	4.765			
T17	63.08	342.27	A	0.46	1.957	0.678	0.8	1	5.646	385.04	76.25	B
264.80-259.75			B	0.545	1.848	0.722	0.8	1	6.867			
			C	0.423	2.021	0.661	0.8	1	5.166			
T18	76.83	304.92	A	0.468	1.945	0.682	0.8	1	5.751	391.21	77.47	B
259.75-254.70			B	0.558	1.836	0.729	0.8	1	7.062			
			C	0.488	1.916	0.692	0.8	1	6.036			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	84.74	304.92	A	0.499	1.902	0.697	0.8	1	6.178	406.12	80.42	B
254.70-249.65			B	0.583	1.816	0.743	0.8	1	7.455			
			C	0.513	1.884	0.704	0.8	1	6.387			
T20	88.85	304.92	A	0.499	1.902	0.697	0.8	1	6.178	425.02	84.16	B
249.65-244.60			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T21	88.85	304.92	A	0.499	1.902	0.697	0.8	1	6.178	422.52	83.67	B
244.60-239.55			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T22	88.85	304.92	A	0.499	1.902	0.697	0.8	1	6.178	419.98	83.17	B
239.55-234.50			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T23	88.85	297.46	A	0.499	1.902	0.697	0.8	1	6.178	417.41	82.65	B
234.50-229.45			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T24	88.85	297.46	A	0.499	1.902	0.697	0.8	1	6.178	414.79	82.14	B
229.45-224.40			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T25	88.85	297.46	A	0.499	1.902	0.697	0.8	1	6.178	412.13	81.61	B
224.40-219.35			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T26	88.85	297.46	A	0.499	1.902	0.697	0.8	1	6.178	409.43	81.08	B
219.35-214.30			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T27	88.85	297.46	A	0.499	1.902	0.697	0.8	1	6.178	406.68	80.53	B
214.30-209.25			B	0.611	1.798	0.76	0.8	1	7.926			
			C	0.541	1.852	0.719	0.8	1	6.808			
T28	177.70	620.16	A	0.459	1.958	0.678	0.8	1	10.285	718.67	71.16	B
209.25-199.15			B	0.573	1.823	0.737	0.8	1	13.954			
			C	0.498	1.903	0.696	0.8	1	11.456			
T29	88.85	369.40	A	0.467	1.946	0.681	0.8	1	5.694	374.58	74.17	B
199.15-194.10			B	0.579	1.819	0.741	0.8	1	7.371			
			C	0.505	1.894	0.7	0.8	1	6.230			
T30	88.85	369.40	A	0.467	1.947	0.681	0.8	1	5.686	371.42	73.55	B
194.10-189.05			B	0.578	1.819	0.74	0.8	1	7.361			
			C	0.504	1.894	0.7	0.8	1	6.222			
T31	88.85	411.39	A	0.472	1.939	0.684	0.8	1	5.806	373.42	73.95	B
189.05-184.00			B	0.584	1.815	0.744	0.8	1	7.475			
			C	0.511	1.886	0.703	0.8	1	6.355			
T32	88.85	369.40	A	0.467	1.947	0.681	0.8	1	5.686	365.72	72.42	B
184.00-178.95			B	0.578	1.819	0.74	0.8	1	7.361			
			C	0.504	1.894	0.7	0.8	1	6.222			
T33	355.39	1240.31	A	0.46	1.958	0.678	0.8	1	20.594	1362.51	67.45	B
178.95-158.75			B	0.573	1.823	0.738	0.8	1	27.937			
			C	0.498	1.902	0.697	0.8	1	22.937			
T34	480.22	1550.39	A	0.514	1.883	0.705	0.8	1	29.914	1769.26	70.07	B
158.75-133.50			B	0.611	1.798	0.76	0.8	1	38.337			
			C	0.515	1.881	0.705	0.8	1	30.014			
T35	515.34	1697.62	A	0.584	1.815	0.744	0.8	1	35.902	1856.70	73.53	B
133.50-108.25			B	0.657	1.78	0.79	0.8	1	42.905			
			C	0.55	1.843	0.724	0.8	1	32.944			
T36	103.07	390.45	A	0.588	1.812	0.746	0.8	1	7.524	366.33	72.54	B
108.25-103.20			B	0.66	1.779	0.792	0.8	1	8.799			
			C	0.555	1.839	0.727	0.8	1	6.981			
T37	111.68	369.40	A	0.644	1.783	0.781	0.8	1	8.499	354.52	70.20	B
103.20-98.15			B	0.651	1.781	0.786	0.8	1	8.624			
			C	0.544	1.849	0.721	0.8	1	6.817			
T38	118.32	369.40	A	0.694	1.776	0.816	0.8	1	9.458	381.94	75.63	A
98.15-93.10			B	0.651	1.781	0.786	0.8	1	8.624			
			C	0.544	1.849	0.721	0.8	1	6.817			

tnxTower	Job: 376' Guyed Tower	Page: 68 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T39	118.32	369.40	A	0.694	1.776	0.816	0.8	1	9.458	376.06	74.47	A
93.10-88.05			B	0.651	1.781	0.786	0.8	1	8.624			
			C	0.544	1.849	0.721	0.8	1	6.817			
T40	118.32	369.40	A	0.694	1.776	0.816	0.8	1	9.458	369.95	73.26	A
88.05-83.00			B	0.651	1.781	0.786	0.8	1	8.624			
			C	0.544	1.849	0.721	0.8	1	6.817			
T41	203.24	369.40	A	0.694	1.776	0.816	0.8	1	9.458	648.19	128.35	B
83.00-77.95			B	0.943	1.991	1	0.8	1	15.040			
			C	0.836	1.847	0.926	0.8	1	12.505			
T42	258.93	382.77	A	0.725	1.78	0.838	0.8	1	10.035	702.03*	139.02	C
77.95-72.90			B	1	2.1	1	0.8	1	18.841			
			C	1	2.1	1	0.8	1	17.130			
T43	258.93	398.89	A	0.726	1.78	0.839	0.8	1	10.049	688.27*	136.29	C
72.90-67.85			B	1	2.1	1	0.8	1	18.852			
			C	1	2.1	1	0.8	1	17.140			
T44	258.93	424.76	A	0.731	1.781	0.842	0.8	1	10.140	673.78*	133.42	C
67.85-62.80			B	1	2.1	1	0.8	1	18.862			
			C	1	2.1	1	0.8	1	17.153			
T45	258.93	390.45	A	0.702	1.776	0.821	0.8	1	9.609	668.94*	132.46	C
62.80-57.75			B	1	2.1	1	0.8	1	18.223			
			C	1	2.1	1	0.8	1	16.452			
T46	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	652.42*	129.19	C
57.75-52.70			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T47	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	634.79*	125.70	C
52.70-47.65			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T48	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	615.83*	121.95	C
47.65-42.60			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T49	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	595.30*	117.88	C
42.60-37.55			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T50	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	572.83*	113.43	C
37.55-32.50			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T51	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	563.16*	111.52	C
32.50-27.45			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T52	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	563.16*	111.52	C
27.45-22.40			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T53	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	563.16*	111.52	C
22.40-17.35			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T54	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	563.16*	111.52	C
17.35-12.30			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
T55	258.93	369.40	A	0.694	1.776	0.816	0.8	1	9.458	563.16*	111.52	C
12.30-7.25			B	1	2.1	1	0.8	1	18.133			
			C	1	2.1	1	0.8	1	16.343			
Sum Weight:	7824.86	22274.88			*2A_g limit					28473.93		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	331.63	A	1	0.624	1	1	1	9.531	198.94	13.26	C
375.50-360.50			B	1	0.624	1	1	1	9.531			
			C	1	0.624	1	1	1	9.531			
L2	0.00	484.09	A	1	0.59	1	1	1	12.031	234.44	15.63	C
360.50-345.50			B	1	0.59	1	1	1	12.031			
			C	1	0.59	1	1	1	12.031			
T1	16.05	420.00	A	0.486	1.919	0.69	0.85	1	5.895	370.60	74.12	A
345.50-340.50			B	0.395	2.073	0.65	0.85	1	4.740			
			C	0.395	2.073	0.65	0.85	1	4.740			
T2	17.32	223.52	A	0.394	2.076	0.649	0.85	1	4.293	290.76	58.15	A
340.50-335.50			B	0.288	2.328	0.612	0.85	1	3.016			
			C	0.288	2.328	0.612	0.85	1	3.016			
T3	17.50	175.05	A	0.387	2.09	0.646	0.85	1	4.157	282.29	55.90	A
335.50-330.45			B	0.281	2.349	0.61	0.85	1	2.847			
			C	0.281	2.349	0.61	0.85	1	2.847			
T4	24.50	245.81	A	0.427	2.012	0.663	0.85	1	5.314	345.79	68.47	A
330.45-325.40			B	0.28	2.351	0.61	0.85	1	3.580			
			C	0.28	2.351	0.61	0.85	1	3.580			
T5	25.19	245.81	A	0.431	2.006	0.665	0.85	1	5.360	346.17	68.55	A
325.40-320.35			B	0.279	2.352	0.61	0.85	1	3.574			
			C	0.279	2.352	0.61	0.85	1	3.574			
T6	25.19	245.81	A	0.431	2.006	0.665	0.85	1	5.360	344.61	68.24	A
320.35-315.30			B	0.279	2.352	0.61	0.85	1	3.574			
			C	0.279	2.352	0.61	0.85	1	3.574			
T7	27.48	245.81	A	0.431	2.006	0.665	0.85	1	5.360	343.04	67.93	A
315.30-310.25			B	0.295	2.309	0.614	0.85	1	3.744			
			C	0.295	2.309	0.614	0.85	1	3.744			
T8	44.84	245.81	A	0.431	2.006	0.665	0.85	1	5.360	341.44	67.61	A
310.25-305.20			B	0.411	2.043	0.656	0.85	1	5.102			
			C	0.385	2.094	0.646	0.85	1	4.782			
T9	48.27	245.81	A	0.431	2.006	0.665	0.85	1	5.360	340.15	67.36	B
305.20-300.15			B	0.432	2.005	0.665	0.85	1	5.368			
			C	0.385	2.094	0.646	0.85	1	4.782			
T10	48.27	245.81	A	0.431	2.006	0.665	0.85	1	5.360	338.51	67.03	B
300.15-295.10			B	0.432	2.005	0.665	0.85	1	5.368			
			C	0.385	2.094	0.646	0.85	1	4.782			
T11	48.27	196.10	A	0.443	1.986	0.67	0.85	1	4.928	307.33	60.86	B
295.10-290.05			B	0.444	1.983	0.671	0.85	1	4.950			
			C	0.398	2.068	0.651	0.85	1	4.304			
T12	48.27	196.10	A	0.443	1.985	0.67	0.85	1	4.936	306.20	60.63	B
290.05-285.00			B	0.445	1.982	0.671	0.85	1	4.959			
			C	0.399	2.067	0.651	0.85	1	4.312			
T13	48.35	219.56	A	0.443	1.985	0.67	0.85	1	4.936	304.94	60.38	B
285.00-279.95			B	0.445	1.982	0.671	0.85	1	4.966			
			C	0.399	2.067	0.651	0.85	1	4.312			
T14	55.96	219.56	A	0.443	1.985	0.67	0.85	1	4.936	333.34	66.01	B
279.95-274.90			B	0.491	1.912	0.693	0.85	1	5.655			
			C	0.399	2.067	0.651	0.85	1	4.312			
T15	55.96	289.03	A	0.441	1.989	0.669	0.85	1	5.488	360.56	71.40	B
274.90-269.85			B	0.488	1.916	0.691	0.85	1	6.136			
			C	0.397	2.071	0.65	0.85	1	4.922			
T16	55.96	289.03	A	0.44	1.99	0.669	0.85	1	5.480	358.29	70.95	B
269.85-264.80			B	0.487	1.917	0.691	0.85	1	6.127			
			C	0.396	2.072	0.65	0.85	1	4.914			
T17	63.08	342.27	A	0.46	1.957	0.678	0.85	1	5.815	394.46	78.11	B
264.80-259.75			B	0.545	1.848	0.722	0.85	1	7.035			
			C	0.423	2.021	0.661	0.85	1	5.338			
T18	76.83	304.92	A	0.468	1.945	0.682	0.85	1	5.919	400.50	79.31	B
259.75-254.70			B	0.558	1.836	0.729	0.85	1	7.229			
			C	0.488	1.916	0.692	0.85	1	6.206			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	84.74	304.92	A	0.499	1.902	0.697	0.85	1	6.345	415.26	82.23	B
254.70-249.65			B	0.583	1.816	0.743	0.85	1	7.622			
			C	0.513	1.884	0.704	0.85	1	6.557			
T20	88.85	304.92	A	0.499	1.902	0.697	0.85	1	6.345	434.01	85.94	B
249.65-244.60			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T21	88.85	304.92	A	0.499	1.902	0.697	0.85	1	6.345	431.46	85.44	B
244.60-239.55			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T22	88.85	304.92	A	0.499	1.902	0.697	0.85	1	6.345	428.87	84.92	B
239.55-234.50			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T23	88.85	297.46	A	0.499	1.902	0.697	0.85	1	6.345	426.24	84.40	B
234.50-229.45			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T24	88.85	297.46	A	0.499	1.902	0.697	0.85	1	6.345	423.57	83.87	B
229.45-224.40			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T25	88.85	297.46	A	0.499	1.902	0.697	0.85	1	6.345	420.85	83.34	B
224.40-219.35			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T26	88.85	297.46	A	0.499	1.902	0.697	0.85	1	6.345	418.09	82.79	B
219.35-214.30			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T27	88.85	297.46	A	0.499	1.902	0.697	0.85	1	6.345	415.29	82.24	B
214.30-209.25			B	0.611	1.798	0.76	0.85	1	8.094			
			C	0.541	1.852	0.719	0.85	1	6.978			
T28	177.70	620.16	A	0.459	1.958	0.678	0.85	1	10.285	718.67	71.16	B
209.25-199.15			B	0.573	1.823	0.737	0.85	1	13.954			
			C	0.498	1.903	0.696	0.85	1	11.456			
T29	88.85	369.40	A	0.467	1.946	0.681	0.85	1	5.843	382.15	75.67	B
199.15-194.10			B	0.579	1.819	0.741	0.85	1	7.520			
			C	0.505	1.894	0.7	0.85	1	6.379			
T30	88.85	369.40	A	0.467	1.947	0.681	0.85	1	5.835	378.94	75.04	B
194.10-189.05			B	0.578	1.819	0.74	0.85	1	7.510			
			C	0.504	1.894	0.7	0.85	1	6.371			
T31	88.85	411.39	A	0.472	1.939	0.684	0.85	1	5.973	381.81	75.61	B
189.05-184.00			B	0.584	1.815	0.744	0.85	1	7.643			
			C	0.511	1.886	0.703	0.85	1	6.525			
T32	88.85	369.40	A	0.467	1.947	0.681	0.85	1	5.835	373.12	73.89	B
184.00-178.95			B	0.578	1.819	0.74	0.85	1	7.510			
			C	0.504	1.894	0.7	0.85	1	6.371			
T33	355.39	1240.31	A	0.46	1.958	0.678	0.85	1	20.594	1362.51	67.45	B
178.95-158.75			B	0.573	1.823	0.738	0.85	1	27.937			
			C	0.498	1.902	0.697	0.85	1	22.937			
T34	480.22	1550.39	A	0.514	1.883	0.705	0.85	1	29.914	1769.26	70.07	B
158.75-133.50			B	0.611	1.798	0.76	0.85	1	38.337			
			C	0.515	1.881	0.705	0.85	1	30.014			
T35	515.34	1697.62	A	0.584	1.815	0.744	0.85	1	35.921	1857.52	73.57	B
133.50-108.25			B	0.657	1.78	0.79	0.85	1	42.924			
			C	0.55	1.843	0.724	0.85	1	32.965			
T36	103.07	390.45	A	0.588	1.812	0.746	0.85	1	7.673	372.54	73.77	B
108.25-103.20			B	0.66	1.779	0.792	0.85	1	8.948			
			C	0.555	1.839	0.727	0.85	1	7.130			
T37	111.68	369.40	A	0.644	1.783	0.781	0.85	1	8.648	360.64	71.41	B
103.20-98.15			B	0.651	1.781	0.786	0.85	1	8.773			
			C	0.544	1.849	0.721	0.85	1	6.966			
T38	118.32	369.40	A	0.694	1.776	0.816	0.85	1	9.607	387.95	76.82	A
98.15-93.10			B	0.651	1.781	0.786	0.85	1	8.773			
			C	0.544	1.849	0.721	0.85	1	6.966			

tnxTower	Job: 376' Guyed Tower	Page: 71 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T39	118.32	369.40	A	0.694	1.776	0.816	0.85	1	9.607	381.99	75.64	A
93.10-88.05			B	0.651	1.781	0.786	0.85	1	8.773			
			C	0.544	1.849	0.721	0.85	1	6.966			
T40	118.32	369.40	A	0.694	1.776	0.816	0.85	1	9.607	375.78	74.41	A
88.05-83.00			B	0.651	1.781	0.786	0.85	1	8.773			
			C	0.544	1.849	0.721	0.85	1	6.966			
T41	203.24	369.40	A	0.694	1.776	0.816	0.85	1	9.607	656.58	130.02	B
83.00-77.95			B	0.943	1.991	1	0.85	1	15.235			
			C	0.836	1.847	0.926	0.85	1	12.699			
T42	258.93	382.77	A	0.725	1.78	0.838	0.85	1	10.050	702.03*	139.02	C
77.95-72.90			B	1	2.1	1	0.85	1	18.927			
			C	1	2.1	1	0.85	1	17.218			
T43	258.93	398.89	A	0.726	1.78	0.839	0.85	1	10.064	688.27*	136.29	C
72.90-67.85			B	1	2.1	1	0.85	1	18.938			
			C	1	2.1	1	0.85	1	17.229			
T44	258.93	424.76	A	0.731	1.781	0.842	0.85	1	10.170	673.78*	133.42	C
67.85-62.80			B	1	2.1	1	0.85	1	18.959			
			C	1	2.1	1	0.85	1	17.254			
T45	258.93	390.45	A	0.702	1.776	0.821	0.85	1	9.758	668.94*	132.46	C
62.80-57.75			B	1	2.1	1	0.85	1	18.448			
			C	1	2.1	1	0.85	1	16.676			
T46	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	652.42*	129.19	C
57.75-52.70			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T47	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	634.79*	125.70	C
52.70-47.65			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T48	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	615.83*	121.95	C
47.65-42.60			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T49	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	595.30*	117.88	C
42.60-37.55			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T50	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	572.83*	113.43	C
37.55-32.50			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T51	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	563.16*	111.52	C
32.50-27.45			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T52	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	563.16*	111.52	C
27.45-22.40			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T53	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	563.16*	111.52	C
22.40-17.35			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T54	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	563.16*	111.52	C
17.35-12.30			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
T55	258.93	369.40	A	0.694	1.776	0.816	0.85	1	9.607	563.16*	111.52	C
12.30-7.25			B	1	2.1	1	0.85	1	18.358			
			C	1	2.1	1	0.85	1	16.568			
Sum Weight:	7824.86	22274.88			*2A_g limit					28735.46		

Tower Forces - Service - Wind Normal To Face

tnxTower	Job: 376' Guyed Tower	Page: 72 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.877	1	1	1	8.281	143.92	9.59	C
375.50-360.50			B	1	0.877	1	1	1	8.281			
			C	1	0.877	1	1	1	8.281			
L2	0.00	400.48	A	1	0.628	1	1	1	10.781	132.42	8.83	C
360.50-345.50			B	1	0.628	1	1	1	10.781			
			C	1	0.628	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	1	1	4.345	184.81	36.96	A
345.50-340.50			B	0.289	2.326	0.613	1	1	3.826			
			C	0.289	2.326	0.613	1	1	3.826			
T2	6.45	149.53	A	0.263	2.398	0.605	1	1	2.731	126.59	25.32	A
340.50-335.50			B	0.201	2.592	0.591	1	1	2.096			
			C	0.201	2.592	0.591	1	1	2.096			
T3	6.51	114.76	A	0.256	2.419	0.604	1	1	2.506	116.68	23.10	A
335.50-330.45			B	0.194	2.618	0.589	1	1	1.848			
			C	0.194	2.618	0.589	1	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	1	1	3.920	173.09	34.28	A
330.45-325.40			B	0.211	2.56	0.593	1	1	3.030			
			C	0.211	2.56	0.593	1	1	3.030			
T5	9.24	166.96	A	0.299	2.298	0.616	1	1	3.942	172.88	34.23	A
325.40-320.35			B	0.21	2.561	0.593	1	1	3.026			
			C	0.21	2.561	0.593	1	1	3.026			
T6	9.24	166.96	A	0.299	2.298	0.616	1	1	3.942	172.10	34.08	A
320.35-315.30			B	0.21	2.561	0.593	1	1	3.026			
			C	0.21	2.561	0.593	1	1	3.026			
T7	10.05	166.96	A	0.299	2.298	0.616	1	1	3.942	171.32	33.92	A
315.30-310.25			B	0.219	2.534	0.594	1	1	3.111			
			C	0.219	2.534	0.594	1	1	3.111			
T8	16.21	166.96	A	0.299	2.298	0.616	1	1	3.942	170.52	33.77	A
310.25-305.20			B	0.282	2.344	0.611	1	1	3.762			
			C	0.268	2.386	0.607	1	1	3.607			
T9	17.42	166.96	A	0.299	2.298	0.616	1	1	3.942	169.72	33.61	A
305.20-300.15			B	0.294	2.312	0.614	1	1	3.888			
			C	0.268	2.386	0.607	1	1	3.607			
T10	17.42	166.96	A	0.299	2.298	0.616	1	1	3.942	168.90	33.45	A
300.15-295.10			B	0.294	2.312	0.614	1	1	3.888			
			C	0.268	2.386	0.607	1	1	3.607			
T11	17.42	131.50	A	0.293	2.315	0.614	1	1	2.912	125.06	24.76	A
295.10-290.05			B	0.288	2.327	0.612	1	1	2.862			
			C	0.262	2.402	0.605	1	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	1	1	2.916	124.57	24.67	A
290.05-285.00			B	0.289	2.326	0.613	1	1	2.867			
			C	0.262	2.401	0.605	1	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	1	1	2.916	123.94	24.54	A
285.00-279.95			B	0.289	2.325	0.613	1	1	2.869			
			C	0.262	2.401	0.605	1	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	1	1	2.916	130.66	25.87	B
279.95-274.90			B	0.315	2.256	0.621	1	1	3.169			
			C	0.262	2.401	0.605	1	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	1	1	4.056	173.08	34.27	B
274.90-269.85			B	0.331	2.216	0.626	1	1	4.297			
			C	0.279	2.353	0.61	1	1	3.728			
T16	20.15	207.17	A	0.309	2.272	0.619	1	1	4.051	172.05	34.07	B
269.85-264.80			B	0.331	2.217	0.626	1	1	4.292			
			C	0.279	2.354	0.61	1	1	3.724			
T17	22.70	242.34	A	0.318	2.249	0.622	1	1	4.311	185.10	36.65	B
264.80-259.75			B	0.362	2.144	0.637	1	1	4.801			
			C	0.291	2.32	0.613	1	1	4.033			
T18	28.20	207.31	A	0.325	2.231	0.624	1	1	4.389	186.67	36.96	B
259.75-254.70			B	0.372	2.121	0.641	1	1	4.922			
			C	0.341	2.192	0.629	1	1	4.572			

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	1	1	4.526	188.99	37.42	B
254.70-249.65			B	0.386	2.093	0.646	1	1	5.079			
			C	0.355	2.161	0.634	1	1	4.723			
T20	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	191.84	37.99	B
249.65-244.60			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T21	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	190.71	37.76	B
244.60-239.55			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T22	32.12	207.31	A	0.338	2.2	0.628	1	1	4.526	189.57	37.54	B
239.55-234.50			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T23	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	188.40	37.31	B
234.50-229.45			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T24	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	187.22	37.07	B
229.45-224.40			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T25	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	186.02	36.84	B
224.40-219.35			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T26	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	184.80	36.59	B
219.35-214.30			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T27	32.12	199.42	A	0.338	2.2	0.628	1	1	4.526	183.56	36.35	B
214.30-209.25			B	0.401	2.062	0.652	1	1	5.263			
			C	0.37	2.127	0.64	1	1	4.899			
T28	64.24	504.21	A	0.286	2.334	0.612	1	1	5.632	258.83	25.63	B
209.25-199.15			B	0.35	2.172	0.632	1	1	7.118			
			C	0.317	2.252	0.621	1	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	1	1	4.101	168.60	33.39	B
199.15-194.10			B	0.376	2.113	0.642	1	1	4.819			
			C	0.344	2.185	0.63	1	1	4.443			
T30	32.12	311.54	A	0.313	2.261	0.62	1	1	4.097	167.27	33.12	B
194.10-189.05			B	0.376	2.114	0.642	1	1	4.815			
			C	0.344	2.186	0.63	1	1	4.439			
T31	32.12	339.40	A	0.32	2.245	0.622	1	1	4.324	172.65	34.19	B
189.05-184.00			B	0.382	2.1	0.645	1	1	5.041			
			C	0.35	2.17	0.633	1	1	4.677			
T32	32.12	311.54	A	0.313	2.261	0.62	1	1	4.097	164.70	32.61	B
184.00-178.95			B	0.376	2.114	0.642	1	1	4.815			
			C	0.344	2.186	0.63	1	1	4.439			
T33	128.47	1008.41	A	0.286	2.333	0.612	1	1	11.276	490.57	24.29	B
178.95-158.75			B	0.35	2.172	0.632	1	1	14.249			
			C	0.317	2.251	0.621	1	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	1	1	15.037	602.76	23.87	B
158.75-133.50			B	0.36	2.148	0.636	1	1	18.446			
			C	0.324	2.235	0.623	1	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	1	1	17.145	608.16	24.09	B
133.50-108.25			B	0.385	2.095	0.646	1	1	20.149			
			C	0.345	2.184	0.631	1	1	17.649			
T36	37.17	328.28	A	0.362	2.145	0.637	1	1	4.644	148.18	29.34	B
108.25-103.20			B	0.409	2.046	0.655	1	1	5.223			
			C	0.37	2.127	0.64	1	1	4.739			
T37	38.38	311.54	A	0.395	2.074	0.65	1	1	5.044	143.92	28.50	B
103.20-98.15			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T38	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	148.12	29.33	A
98.15-93.10			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			

tnxTower	Job: 376' Guyed Tower	Page: 74 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	145.84	28.88	A
93.10-88.05			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T40	39.31	311.54	A	0.429	2.01	0.664	1	1	5.468	143.47	28.41	A
88.05-83.00			B	0.399	2.066	0.651	1	1	5.093			
			C	0.359	2.152	0.636	1	1	4.611			
T41	69.33	311.54	A	0.429	2.01	0.664	1	1	5.468	179.46	35.54	B
83.00-77.95			B	0.583	1.816	0.743	1	1	7.704			
			C	0.542	1.851	0.72	1	1	7.066			
T42	89.02	301.31	A	0.435	1.998	0.667	1	1	4.797	213.24	42.23	B
77.95-72.90			B	0.711	1.777	0.828	1	1	9.529			
			C	0.672	1.777	0.8	1	1	8.719			
T43	89.02	317.42	A	0.436	1.997	0.667	1	1	4.802	209.25	41.44	B
72.90-67.85			B	0.711	1.777	0.828	1	1	9.537			
			C	0.672	1.777	0.8	1	1	8.727			
T44	89.02	329.17	A	0.442	1.988	0.669	1	1	5.005	208.54	41.29	B
67.85-62.80			B	0.716	1.778	0.832	1	1	9.705			
			C	0.677	1.776	0.804	1	1	8.907			
T45	89.02	328.28	A	0.438	1.994	0.668	1	1	5.588	211.00	41.78	B
62.80-57.75			B	0.711	1.777	0.828	1	1	10.052			
			C	0.672	1.777	0.8	1	1	9.273			
T46	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	202.27	40.05	B
57.75-52.70			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T47	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	196.81	38.97	B
52.70-47.65			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T48	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	190.93	37.81	B
47.65-42.60			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T49	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	184.56	36.55	B
42.60-37.55			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T50	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	177.60	35.17	B
37.55-32.50			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T51	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	174.60	34.57	B
32.50-27.45			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T52	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	174.60	34.57	B
27.45-22.40			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T53	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	174.60	34.57	B
22.40-17.35			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T54	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	174.60	34.57	B
17.35-12.30			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
T55	89.02	311.54	A	0.429	2.01	0.664	1	1	5.468	174.60	34.57	B
12.30-7.25			B	0.703	1.776	0.822	1	1	9.885			
			C	0.663	1.778	0.794	1	1	9.108			
Sum Weight:	2750.22	17335.81								11024.94		

Tower Forces - Service - Wind 45 To Face

tnxTower	Job: 376' Guyed Tower	Page: 75 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.877	1	1	1	8.281	143.92	9.59	C
375.50-360.50			B	1	0.877	1	1	1	8.281			
			C	1	0.877	1	1	1	8.281			
L2	0.00	400.48	A	1	0.628	1	1	1	10.781	132.42	8.83	C
360.50-345.50			B	1	0.628	1	1	1	10.781			
			C	1	0.628	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.825	1	3.923	166.84	33.37	A
345.50-340.50			B	0.289	2.326	0.613	0.825	1	3.380			
			C	0.289	2.326	0.613	0.825	1	3.380			
T2	6.45	149.53	A	0.263	2.398	0.605	0.825	1	2.654	123.04	24.61	A
340.50-335.50			B	0.201	2.592	0.591	0.825	1	2.015			
			C	0.201	2.592	0.591	0.825	1	2.015			
T3	6.51	114.76	A	0.256	2.419	0.604	0.825	1	2.506	116.68	23.10	A
335.50-330.45			B	0.194	2.618	0.589	0.825	1	1.848			
			C	0.194	2.618	0.589	0.825	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.825	1	3.497	154.40	30.57	A
330.45-325.40			B	0.211	2.56	0.593	0.825	1	2.606			
			C	0.211	2.56	0.593	0.825	1	2.606			
T5	9.24	166.96	A	0.299	2.298	0.616	0.825	1	3.519	154.31	30.56	A
325.40-320.35			B	0.21	2.561	0.593	0.825	1	2.603			
			C	0.21	2.561	0.593	0.825	1	2.603			
T6	9.24	166.96	A	0.299	2.298	0.616	0.825	1	3.519	153.62	30.42	A
320.35-315.30			B	0.21	2.561	0.593	0.825	1	2.603			
			C	0.21	2.561	0.593	0.825	1	2.603			
T7	10.05	166.96	A	0.299	2.298	0.616	0.825	1	3.519	152.91	30.28	A
315.30-310.25			B	0.219	2.534	0.594	0.825	1	2.687			
			C	0.219	2.534	0.594	0.825	1	2.687			
T8	16.21	166.96	A	0.299	2.298	0.616	0.825	1	3.519	152.20	30.14	A
310.25-305.20			B	0.282	2.344	0.611	0.825	1	3.338			
			C	0.268	2.386	0.607	0.825	1	3.184			
T9	17.42	166.96	A	0.299	2.298	0.616	0.825	1	3.519	151.49	30.00	A
305.20-300.15			B	0.294	2.312	0.614	0.825	1	3.465			
			C	0.268	2.386	0.607	0.825	1	3.184			
T10	17.42	166.96	A	0.299	2.298	0.616	0.825	1	3.519	150.76	29.85	A
300.15-295.10			B	0.294	2.312	0.614	0.825	1	3.465			
			C	0.268	2.386	0.607	0.825	1	3.184			
T11	17.42	131.50	A	0.293	2.315	0.614	0.825	1	2.912	125.06	24.76	A
295.10-290.05			B	0.288	2.327	0.612	0.825	1	2.862			
			C	0.262	2.402	0.605	0.825	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.825	1	2.916	124.57	24.67	A
290.05-285.00			B	0.289	2.326	0.613	0.825	1	2.867			
			C	0.262	2.401	0.605	0.825	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.825	1	2.916	123.94	24.54	A
285.00-279.95			B	0.289	2.325	0.613	0.825	1	2.869			
			C	0.262	2.401	0.605	0.825	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.825	1	2.916	130.66	25.87	B
279.95-274.90			B	0.315	2.256	0.621	0.825	1	3.169			
			C	0.262	2.401	0.605	0.825	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.825	1	3.632	156.02	30.90	B
274.90-269.85			B	0.331	2.216	0.626	0.825	1	3.873			
			C	0.279	2.353	0.61	0.825	1	3.304			
T16	20.15	207.17	A	0.309	2.272	0.619	0.825	1	3.628	155.08	30.71	B
269.85-264.80			B	0.331	2.217	0.626	0.825	1	3.869			
			C	0.279	2.354	0.61	0.825	1	3.300			
T17	22.70	242.34	A	0.318	2.249	0.622	0.825	1	3.814	165.96	32.86	B
264.80-259.75			B	0.362	2.144	0.637	0.825	1	4.305			
			C	0.291	2.32	0.613	0.825	1	3.529			
T18	28.20	207.31	A	0.325	2.231	0.624	0.825	1	3.893	167.85	33.24	B
259.75-254.70			B	0.372	2.121	0.641	0.825	1	4.425			
			C	0.341	2.192	0.629	0.825	1	4.073			

tnxTower	Job: 376' Guyed Tower	Page: 76 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.825	1	4.031	170.53	33.77	B
254.70-249.65			B	0.386	2.093	0.646	0.825	1	4.583			
			C	0.355	2.161	0.634	0.825	1	4.223			
T20	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	173.76	34.41	B
249.65-244.60			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T21	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	172.73	34.20	B
244.60-239.55			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T22	32.12	207.31	A	0.338	2.2	0.628	0.825	1	4.031	171.70	34.00	B
239.55-234.50			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T23	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	170.64	33.79	B
234.50-229.45			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T24	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	169.57	33.58	B
229.45-224.40			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T25	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	168.49	33.36	B
224.40-219.35			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T26	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	167.38	33.14	B
219.35-214.30			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T27	32.12	199.42	A	0.338	2.2	0.628	0.825	1	4.031	166.26	32.92	B
214.30-209.25			B	0.401	2.062	0.652	0.825	1	4.767			
			C	0.37	2.127	0.64	0.825	1	4.400			
T28	64.24	504.21	A	0.286	2.334	0.612	0.825	1	5.632	258.83	25.63	B
209.25-199.15			B	0.35	2.172	0.632	0.825	1	7.118			
			C	0.317	2.252	0.621	0.825	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.825	1	3.678	153.79	30.45	B
199.15-194.10			B	0.376	2.113	0.642	0.825	1	4.396			
			C	0.344	2.185	0.63	0.825	1	4.020			
T30	32.12	311.54	A	0.313	2.261	0.62	0.825	1	3.674	152.56	30.21	B
194.10-189.05			B	0.376	2.114	0.642	0.825	1	4.392			
			C	0.344	2.186	0.63	0.825	1	4.016			
T31	32.12	339.40	A	0.32	2.245	0.622	0.825	1	3.828	155.64	30.82	B
189.05-184.00			B	0.382	2.1	0.645	0.825	1	4.544			
			C	0.35	2.17	0.633	0.825	1	4.177			
T32	32.12	311.54	A	0.313	2.261	0.62	0.825	1	3.674	150.22	29.75	B
184.00-178.95			B	0.376	2.114	0.642	0.825	1	4.392			
			C	0.344	2.186	0.63	0.825	1	4.016			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.825	1	11.276	490.57	24.29	B
178.95-158.75			B	0.35	2.172	0.632	0.825	1	14.249			
			C	0.317	2.251	0.621	0.825	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.825	1	15.037	602.76	23.87	B
158.75-133.50			B	0.36	2.148	0.636	0.825	1	18.446			
			C	0.324	2.235	0.623	0.825	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.825	1	17.071	605.93	24.00	B
133.50-108.25			B	0.385	2.095	0.646	0.825	1	20.075			
			C	0.345	2.184	0.631	0.825	1	17.571			
T36	37.17	328.28	A	0.362	2.145	0.637	0.825	1	4.221	136.17	26.96	B
108.25-103.20			B	0.409	2.046	0.655	0.825	1	4.799			
			C	0.37	2.127	0.64	0.825	1	4.316			
T37	38.38	311.54	A	0.395	2.074	0.65	0.825	1	4.621	131.96	26.13	B
103.20-98.15			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T38	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	136.66	27.06	A
98.15-93.10			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			

tnxTower	Job: 376' Guyed Tower	Page: 77 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	134.55	26.64	A
93.10-88.05			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T40	39.31	311.54	A	0.429	2.01	0.664	0.825	1	5.045	132.37	26.21	A
88.05-83.00			B	0.399	2.066	0.651	0.825	1	4.670			
			C	0.359	2.152	0.636	0.825	1	4.188			
T41	69.33	311.54	A	0.429	2.01	0.664	0.825	1	5.045	169.60	33.58	B
83.00-77.95			B	0.583	1.816	0.743	0.825	1	7.281			
			C	0.542	1.851	0.72	0.825	1	6.643			
T42	89.02	301.31	A	0.435	1.998	0.667	0.825	1	4.731	211.93	41.97	B
77.95-72.90			B	0.711	1.777	0.828	0.825	1	9.470			
			C	0.672	1.777	0.8	0.825	1	8.658			
T43	89.02	317.42	A	0.436	1.997	0.667	0.825	1	4.737	207.97	41.18	B
72.90-67.85			B	0.711	1.777	0.828	0.825	1	9.479			
			C	0.672	1.777	0.8	0.825	1	8.666			
T44	89.02	329.17	A	0.442	1.988	0.669	0.825	1	4.874	206.03	40.80	B
67.85-62.80			B	0.716	1.778	0.832	0.825	1	9.588			
			C	0.677	1.776	0.804	0.825	1	8.783			
T45	89.02	328.28	A	0.438	1.994	0.668	0.825	1	5.164	202.11	40.02	B
62.80-57.75			B	0.711	1.777	0.828	0.825	1	9.629			
			C	0.672	1.777	0.8	0.825	1	8.849			
T46	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	193.61	38.34	B
57.75-52.70			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T47	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	188.38	37.30	B
52.70-47.65			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T48	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	182.75	36.19	B
47.65-42.60			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T49	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	176.66	34.98	B
42.60-37.55			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T50	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	169.99	33.66	B
37.55-32.50			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T51	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	167.12	33.09	B
32.50-27.45			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T52	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	167.12	33.09	B
27.45-22.40			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T53	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	167.12	33.09	B
22.40-17.35			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T54	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	167.12	33.09	B
17.35-12.30			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
T55	89.02	311.54	A	0.429	2.01	0.664	0.825	1	5.045	167.12	33.09	B
12.30-7.25			B	0.703	1.776	0.822	0.825	1	9.462			
			C	0.663	1.778	0.794	0.825	1	8.685			
Sum Weight:	2750.22	17335.81								10419.43		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.877	1	1	1	8.281	143.92	9.59	C
375.50-360.50			B	1	0.877	1	1	1	8.281			
			C	1	0.877	1	1	1	8.281			
L2	0.00	400.48	A	1	0.628	1	1	1	10.781	132.42	8.83	C
360.50-345.50			B	1	0.628	1	1	1	10.781			
			C	1	0.628	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.8	1	3.862	164.27	32.85	A
345.50-340.50			B	0.289	2.326	0.613	0.8	1	3.316			
			C	0.289	2.326	0.613	0.8	1	3.316			
T2	6.45	149.53	A	0.263	2.398	0.605	0.8	1	2.644	122.53	24.51	A
340.50-335.50			B	0.201	2.592	0.591	0.8	1	2.003			
			C	0.201	2.592	0.591	0.8	1	2.003			
T3	6.51	114.76	A	0.256	2.419	0.604	0.8	1	2.506	116.68	23.10	A
335.50-330.45			B	0.194	2.618	0.589	0.8	1	1.848			
			C	0.194	2.618	0.589	0.8	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.8	1	3.436	151.73	30.04	A
330.45-325.40			B	0.211	2.56	0.593	0.8	1	2.546			
			C	0.211	2.56	0.593	0.8	1	2.546			
T5	9.24	166.96	A	0.299	2.298	0.616	0.8	1	3.458	151.66	30.03	A
325.40-320.35			B	0.21	2.561	0.593	0.8	1	2.542			
			C	0.21	2.561	0.593	0.8	1	2.542			
T6	9.24	166.96	A	0.299	2.298	0.616	0.8	1	3.458	150.97	29.90	A
320.35-315.30			B	0.21	2.561	0.593	0.8	1	2.542			
			C	0.21	2.561	0.593	0.8	1	2.542			
T7	10.05	166.96	A	0.299	2.298	0.616	0.8	1	3.458	150.28	29.76	A
315.30-310.25			B	0.219	2.534	0.594	0.8	1	2.627			
			C	0.219	2.534	0.594	0.8	1	2.627			
T8	16.21	166.96	A	0.299	2.298	0.616	0.8	1	3.458	149.59	29.62	A
310.25-305.20			B	0.282	2.344	0.611	0.8	1	3.278			
			C	0.268	2.386	0.607	0.8	1	3.123			
T9	17.42	166.96	A	0.299	2.298	0.616	0.8	1	3.458	148.88	29.48	A
305.20-300.15			B	0.294	2.312	0.614	0.8	1	3.404			
			C	0.268	2.386	0.607	0.8	1	3.123			
T10	17.42	166.96	A	0.299	2.298	0.616	0.8	1	3.458	148.17	29.34	A
300.15-295.10			B	0.294	2.312	0.614	0.8	1	3.404			
			C	0.268	2.386	0.607	0.8	1	3.123			
T11	17.42	131.50	A	0.293	2.315	0.614	0.8	1	2.912	125.06	24.76	A
295.10-290.05			B	0.288	2.327	0.612	0.8	1	2.862			
			C	0.262	2.402	0.605	0.8	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.8	1	2.916	124.57	24.67	A
290.05-285.00			B	0.289	2.326	0.613	0.8	1	2.867			
			C	0.262	2.401	0.605	0.8	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.8	1	2.916	123.94	24.54	A
285.00-279.95			B	0.289	2.325	0.613	0.8	1	2.869			
			C	0.262	2.401	0.605	0.8	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.8	1	2.916	130.66	25.87	B
279.95-274.90			B	0.315	2.256	0.621	0.8	1	3.169			
			C	0.262	2.401	0.605	0.8	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.8	1	3.572	153.58	30.41	B
274.90-269.85			B	0.331	2.216	0.626	0.8	1	3.813			
			C	0.279	2.353	0.61	0.8	1	3.244			
T16	20.15	207.17	A	0.309	2.272	0.619	0.8	1	3.567	152.65	30.23	B
269.85-264.80			B	0.331	2.217	0.626	0.8	1	3.809			
			C	0.279	2.354	0.61	0.8	1	3.240			
T17	22.70	242.34	A	0.318	2.249	0.622	0.8	1	3.743	163.22	32.32	B
264.80-259.75			B	0.362	2.144	0.637	0.8	1	4.234			
			C	0.291	2.32	0.613	0.8	1	3.457			
T18	28.20	207.31	A	0.325	2.231	0.624	0.8	1	3.822	165.16	32.71	B
259.75-254.70			B	0.372	2.121	0.641	0.8	1	4.355			
			C	0.341	2.192	0.629	0.8	1	4.001			

tnxTower	Job: 376' Guyed Tower	Page: 79 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.8	1	3.960	167.89	33.25	B
254.70-249.65			B	0.386	2.093	0.646	0.8	1	4.512			
			C	0.355	2.161	0.634	0.8	1	4.152			
T20	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	171.17	33.90	B
249.65-244.60			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T21	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	170.17	33.70	B
244.60-239.55			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T22	32.12	207.31	A	0.338	2.2	0.628	0.8	1	3.960	169.14	33.49	B
239.55-234.50			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T23	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	168.11	33.29	B
234.50-229.45			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T24	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	167.05	33.08	B
229.45-224.40			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T25	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	165.98	32.87	B
224.40-219.35			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T26	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	164.89	32.65	B
219.35-214.30			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T27	32.12	199.42	A	0.338	2.2	0.628	0.8	1	3.960	163.79	32.43	B
214.30-209.25			B	0.401	2.062	0.652	0.8	1	4.696			
			C	0.37	2.127	0.64	0.8	1	4.329			
T28	64.24	504.21	A	0.286	2.334	0.612	0.8	1	5.632	258.83	25.63	B
209.25-199.15			B	0.35	2.172	0.632	0.8	1	7.118			
			C	0.317	2.252	0.621	0.8	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.8	1	3.618	151.67	30.03	B
199.15-194.10			B	0.376	2.113	0.642	0.8	1	4.335			
			C	0.344	2.185	0.63	0.8	1	3.959			
T30	32.12	311.54	A	0.313	2.261	0.62	0.8	1	3.614	150.46	29.79	B
194.10-189.05			B	0.376	2.114	0.642	0.8	1	4.331			
			C	0.344	2.186	0.63	0.8	1	3.955			
T31	32.12	339.40	A	0.32	2.245	0.622	0.8	1	3.757	153.21	30.34	B
189.05-184.00			B	0.382	2.1	0.645	0.8	1	4.473			
			C	0.35	2.17	0.633	0.8	1	4.105			
T32	32.12	311.54	A	0.313	2.261	0.62	0.8	1	3.614	148.15	29.34	B
184.00-178.95			B	0.376	2.114	0.642	0.8	1	4.331			
			C	0.344	2.186	0.63	0.8	1	3.955			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.8	1	11.276	490.57	24.29	B
178.95-158.75			B	0.35	2.172	0.632	0.8	1	14.249			
			C	0.317	2.251	0.621	0.8	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.8	1	15.037	602.76	23.87	B
158.75-133.50			B	0.36	2.148	0.636	0.8	1	18.446			
			C	0.324	2.235	0.623	0.8	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.8	1	17.061	605.61	23.98	B
133.50-108.25			B	0.385	2.095	0.646	0.8	1	20.065			
			C	0.345	2.184	0.631	0.8	1	17.560			
T36	37.17	328.28	A	0.362	2.145	0.637	0.8	1	4.160	134.46	26.63	B
108.25-103.20			B	0.409	2.046	0.655	0.8	1	4.739			
			C	0.37	2.127	0.64	0.8	1	4.255			
T37	38.38	311.54	A	0.395	2.074	0.65	0.8	1	4.561	130.25	25.79	B
103.20-98.15			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T38	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	135.02	26.74	A
98.15-93.10			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			

tnxTower	Job: 376' Guyed Tower	Page: 80 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	132.94	26.32	A
93.10-88.05			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T40	39.31	311.54	A	0.429	2.01	0.664	0.8	1	4.984	130.78	25.90	A
88.05-83.00			B	0.399	2.066	0.651	0.8	1	4.610			
			C	0.359	2.152	0.636	0.8	1	4.128			
T41	69.33	311.54	A	0.429	2.01	0.664	0.8	1	4.984	168.19	33.30	B
83.00-77.95			B	0.583	1.816	0.743	0.8	1	7.220			
			C	0.542	1.851	0.72	0.8	1	6.582			
T42	89.02	301.31	A	0.435	1.998	0.667	0.8	1	4.722	211.74	41.93	B
77.95-72.90			B	0.711	1.777	0.828	0.8	1	9.462			
			C	0.672	1.777	0.8	0.8	1	8.649			
T43	89.02	317.42	A	0.436	1.997	0.667	0.8	1	4.728	207.79	41.15	B
72.90-67.85			B	0.711	1.777	0.828	0.8	1	9.470			
			C	0.672	1.777	0.8	0.8	1	8.657			
T44	89.02	329.17	A	0.442	1.988	0.669	0.8	1	4.856	205.67	40.73	B
67.85-62.80			B	0.716	1.778	0.832	0.8	1	9.571			
			C	0.677	1.776	0.804	0.8	1	8.766			
T45	89.02	328.28	A	0.438	1.994	0.668	0.8	1	5.104	200.84	39.77	B
62.80-57.75			B	0.711	1.777	0.828	0.8	1	9.568			
			C	0.672	1.777	0.8	0.8	1	8.789			
T46	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	192.37	38.09	B
57.75-52.70			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T47	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	187.17	37.06	B
52.70-47.65			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T48	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	181.59	35.96	B
47.65-42.60			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T49	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	175.53	34.76	B
42.60-37.55			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T50	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	168.91	33.45	B
37.55-32.50			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T51	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	166.06	32.88	B
32.50-27.45			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T52	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	166.06	32.88	B
27.45-22.40			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T53	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	166.06	32.88	B
22.40-17.35			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T54	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	166.06	32.88	B
17.35-12.30			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
T55	89.02	311.54	A	0.429	2.01	0.664	0.8	1	4.984	166.06	32.88	B
12.30-7.25			B	0.703	1.776	0.822	0.8	1	9.402			
			C	0.663	1.778	0.794	0.8	1	8.625			
Sum Weight:	2750.22	17335.81								10332.93		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
L1	0.00	266.35	A	1	0.877	1	1	1	8.281	143.92	9.59	C
375.50-360.50			B	1	0.877	1	1	1	8.281			
			C	1	0.877	1	1	1	8.281			
L2	0.00	400.48	A	1	0.628	1	1	1	10.781	132.42	8.83	C
360.50-345.50			B	1	0.628	1	1	1	10.781			
			C	1	0.628	1	1	1	10.781			
T1	5.93	275.87	A	0.342	2.191	0.63	0.85	1	3.983	169.41	33.88	A
345.50-340.50			B	0.289	2.326	0.613	0.85	1	3.443			
			C	0.289	2.326	0.613	0.85	1	3.443			
T2	6.45	149.53	A	0.263	2.398	0.605	0.85	1	2.665	123.55	24.71	A
340.50-335.50			B	0.201	2.592	0.591	0.85	1	2.027			
			C	0.201	2.592	0.591	0.85	1	2.027			
T3	6.51	114.76	A	0.256	2.419	0.604	0.85	1	2.506	116.68	23.10	A
335.50-330.45			B	0.194	2.618	0.589	0.85	1	1.848			
			C	0.194	2.618	0.589	0.85	1	1.848			
T4	9.00	166.96	A	0.297	2.304	0.615	0.85	1	3.557	157.07	31.10	A
330.45-325.40			B	0.211	2.56	0.593	0.85	1	2.667			
			C	0.211	2.56	0.593	0.85	1	2.667			
T5	9.24	166.96	A	0.299	2.298	0.616	0.85	1	3.579	156.96	31.08	A
325.40-320.35			B	0.21	2.561	0.593	0.85	1	2.663			
			C	0.21	2.561	0.593	0.85	1	2.663			
T6	9.24	166.96	A	0.299	2.298	0.616	0.85	1	3.579	156.26	30.94	A
320.35-315.30			B	0.21	2.561	0.593	0.85	1	2.663			
			C	0.21	2.561	0.593	0.85	1	2.663			
T7	10.05	166.96	A	0.299	2.298	0.616	0.85	1	3.579	155.54	30.80	A
315.30-310.25			B	0.219	2.534	0.594	0.85	1	2.748			
			C	0.219	2.534	0.594	0.85	1	2.748			
T8	16.21	166.96	A	0.299	2.298	0.616	0.85	1	3.579	154.82	30.66	A
310.25-305.20			B	0.282	2.344	0.611	0.85	1	3.399			
			C	0.268	2.386	0.607	0.85	1	3.244			
T9	17.42	166.96	A	0.299	2.298	0.616	0.85	1	3.579	154.09	30.51	A
305.20-300.15			B	0.294	2.312	0.614	0.85	1	3.525			
			C	0.268	2.386	0.607	0.85	1	3.244			
T10	17.42	166.96	A	0.299	2.298	0.616	0.85	1	3.579	153.35	30.37	A
300.15-295.10			B	0.294	2.312	0.614	0.85	1	3.525			
			C	0.268	2.386	0.607	0.85	1	3.244			
T11	17.42	131.50	A	0.293	2.315	0.614	0.85	1	2.912	125.06	24.76	A
295.10-290.05			B	0.288	2.327	0.612	0.85	1	2.862			
			C	0.262	2.402	0.605	0.85	1	2.569			
T12	17.42	131.50	A	0.293	2.314	0.614	0.85	1	2.916	124.57	24.67	A
290.05-285.00			B	0.289	2.326	0.613	0.85	1	2.867			
			C	0.262	2.401	0.605	0.85	1	2.574			
T13	17.45	154.97	A	0.293	2.314	0.614	0.85	1	2.916	123.94	24.54	A
285.00-279.95			B	0.289	2.325	0.613	0.85	1	2.869			
			C	0.262	2.401	0.605	0.85	1	2.574			
T14	20.15	154.97	A	0.293	2.314	0.614	0.85	1	2.916	130.66	25.87	B
279.95-274.90			B	0.315	2.256	0.621	0.85	1	3.169			
			C	0.262	2.401	0.605	0.85	1	2.574			
T15	20.15	207.17	A	0.309	2.271	0.619	0.85	1	3.693	158.46	31.38	B
274.90-269.85			B	0.331	2.216	0.626	0.85	1	3.934			
			C	0.279	2.353	0.61	0.85	1	3.365			
T16	20.15	207.17	A	0.309	2.272	0.619	0.85	1	3.688	157.50	31.19	B
269.85-264.80			B	0.331	2.217	0.626	0.85	1	3.930			
			C	0.279	2.354	0.61	0.85	1	3.361			
T17	22.70	242.34	A	0.318	2.249	0.622	0.85	1	3.885	168.69	33.40	B
264.80-259.75			B	0.362	2.144	0.637	0.85	1	4.376			
			C	0.291	2.32	0.613	0.85	1	3.601			
T18	28.20	207.31	A	0.325	2.231	0.624	0.85	1	3.964	170.54	33.77	B
259.75-254.70			B	0.372	2.121	0.641	0.85	1	4.496			
			C	0.341	2.192	0.629	0.85	1	4.144			

tnxTower	Job: 376' Guyed Tower	Page: 82 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T19	30.66	207.31	A	0.338	2.2	0.628	0.85	1	4.101	173.17	34.29	B
254.70-249.65			B	0.386	2.093	0.646	0.85	1	4.653			
			C	0.355	2.161	0.634	0.85	1	4.295			
T20	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	176.34	34.92	B
249.65-244.60			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T21	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	175.30	34.71	B
244.60-239.55			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T22	32.12	207.31	A	0.338	2.2	0.628	0.85	1	4.101	174.25	34.50	B
239.55-234.50			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T23	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	173.18	34.29	B
234.50-229.45			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T24	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	172.09	34.08	B
229.45-224.40			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T25	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	170.99	33.86	B
224.40-219.35			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T26	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	169.87	33.64	B
219.35-214.30			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T27	32.12	199.42	A	0.338	2.2	0.628	0.85	1	4.101	168.73	33.41	B
214.30-209.25			B	0.401	2.062	0.652	0.85	1	4.838			
			C	0.37	2.127	0.64	0.85	1	4.471			
T28	64.24	504.21	A	0.286	2.334	0.612	0.85	1	5.632	258.83	25.63	B
209.25-199.15			B	0.35	2.172	0.632	0.85	1	7.118			
			C	0.317	2.252	0.621	0.85	1	6.339			
T29	32.12	311.54	A	0.314	2.26	0.62	0.85	1	3.738	155.91	30.87	B
199.15-194.10			B	0.376	2.113	0.642	0.85	1	4.456			
			C	0.344	2.185	0.63	0.85	1	4.080			
T30	32.12	311.54	A	0.313	2.261	0.62	0.85	1	3.735	154.66	30.63	B
194.10-189.05			B	0.376	2.114	0.642	0.85	1	4.452			
			C	0.344	2.186	0.63	0.85	1	4.076			
T31	32.12	339.40	A	0.32	2.245	0.622	0.85	1	3.899	158.07	31.30	B
189.05-184.00			B	0.382	2.1	0.645	0.85	1	4.615			
			C	0.35	2.17	0.633	0.85	1	4.248			
T32	32.12	311.54	A	0.313	2.261	0.62	0.85	1	3.735	152.29	30.16	B
184.00-178.95			B	0.376	2.114	0.642	0.85	1	4.452			
			C	0.344	2.186	0.63	0.85	1	4.076			
T33	128.47	1008.41	A	0.286	2.333	0.612	0.85	1	11.276	490.57	24.29	B
178.95-158.75			B	0.35	2.172	0.632	0.85	1	14.249			
			C	0.317	2.251	0.621	0.85	1	12.689			
T34	175.34	1260.52	A	0.303	2.288	0.617	0.85	1	15.037	602.76	23.87	B
158.75-133.50			B	0.36	2.148	0.636	0.85	1	18.446			
			C	0.324	2.235	0.623	0.85	1	16.236			
T35	185.84	1372.09	A	0.336	2.204	0.628	0.85	1	17.082	606.25	24.01	B
133.50-108.25			B	0.385	2.095	0.646	0.85	1	20.086			
			C	0.345	2.184	0.631	0.85	1	17.583			
T36	37.17	328.28	A	0.362	2.145	0.637	0.85	1	4.281	137.89	27.30	B
108.25-103.20			B	0.409	2.046	0.655	0.85	1	4.860			
			C	0.37	2.127	0.64	0.85	1	4.376			
T37	38.38	311.54	A	0.395	2.074	0.65	0.85	1	4.682	133.67	26.47	B
103.20-98.15			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T38	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	138.29	27.38	A
98.15-93.10			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			

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	376' Guyed Tower	83 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date 18:52:46 04/02/14
	Client VZW & AT&T	Designed by MCD

Section Elevation ft	Add Weight lb	Self Weight lb	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F lb	w plf	Ctrl. Face
T39	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	136.17	26.96	A
93.10-88.05			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T40	39.31	311.54	A	0.429	2.01	0.664	0.85	1	5.105	133.95	26.53	A
88.05-83.00			B	0.399	2.066	0.651	0.85	1	4.731			
			C	0.359	2.152	0.636	0.85	1	4.248			
T41	69.33	311.54	A	0.429	2.01	0.664	0.85	1	5.105	171.00	33.86	B
83.00-77.95			B	0.583	1.816	0.743	0.85	1	7.341			
			C	0.542	1.851	0.72	0.85	1	6.703			
T42	89.02	301.31	A	0.435	1.998	0.667	0.85	1	4.741	212.12	42.00	B
77.95-72.90			B	0.711	1.777	0.828	0.85	1	9.479			
			C	0.672	1.777	0.8	0.85	1	8.666			
T43	89.02	317.42	A	0.436	1.997	0.667	0.85	1	4.746	208.15	41.22	B
72.90-67.85			B	0.711	1.777	0.828	0.85	1	9.487			
			C	0.672	1.777	0.8	0.85	1	8.674			
T44	89.02	329.17	A	0.442	1.988	0.669	0.85	1	4.893	206.39	40.87	B
67.85-62.80			B	0.716	1.778	0.832	0.85	1	9.605			
			C	0.677	1.776	0.804	0.85	1	8.801			
T45	89.02	328.28	A	0.438	1.994	0.668	0.85	1	5.225	203.38	40.27	B
62.80-57.75			B	0.711	1.777	0.828	0.85	1	9.689			
			C	0.672	1.777	0.8	0.85	1	8.910			
T46	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	194.85	38.58	B
57.75-52.70			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T47	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	189.58	37.54	B
52.70-47.65			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T48	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	183.92	36.42	B
47.65-42.60			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T49	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	177.79	35.21	B
42.60-37.55			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T50	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	171.08	33.88	B
37.55-32.50			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T51	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	168.19	33.31	B
32.50-27.45			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T52	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	168.19	33.31	B
27.45-22.40			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T53	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	168.19	33.31	B
22.40-17.35			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T54	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	168.19	33.31	B
17.35-12.30			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
T55	89.02	311.54	A	0.429	2.01	0.664	0.85	1	5.105	168.19	33.31	B
12.30-7.25			B	0.703	1.776	0.822	0.85	1	9.522			
			C	0.663	1.778	0.794	0.85	1	8.745			
Sum Weight:	2750.22	17335.81								10505.93		

Force Totals (Does not include forces on guys)

tnxTower	Job: 376' Guyed Tower	Page: 84 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Torques lb-ft
Leg Weight	13155.12			
Bracing Weight	4180.69			
Total Member Self-Weight	17335.81			
Guy Weight	3587.65			
Total Weight	30287.80			
Wind 0 deg - No Ice		-32.90	-42120.55	-2790.45
Wind 30 deg - No Ice		18550.24	-35505.51	1298.53
Wind 45 deg - No Ice		26117.89	-28849.01	3344.53
Wind 60 deg - No Ice		31847.69	-20274.71	5238.25
Wind 90 deg - No Ice		37192.65	53.21	7825.71
Wind 120 deg - No Ice		33191.89	21088.76	8147.23
Wind 135 deg - No Ice		26109.89	28826.63	7307.91
Wind 150 deg - No Ice		18543.42	35452.83	6088.61
Wind 180 deg - No Ice		14.17	40571.43	2786.25
Wind 210 deg - No Ice		-18567.80	35495.27	-1344.38
Wind 225 deg - No Ice		-26152.58	28854.48	-3380.06
Wind 240 deg - No Ice		-33228.86	21072.13	-5356.77
Wind 270 deg - No Ice		-37192.55	-32.88	-7779.86
Wind 300 deg - No Ice		-31859.68	-20297.98	-8024.50
Wind 315 deg - No Ice		-26153.78	-28814.39	-7323.93
Wind 330 deg - No Ice		-18600.19	-35420.05	-6088.61
Member Ice	4939.07			
Guy Ice	2677.77			
Total Weight Ice	46989.49			
Wind 0 deg - Ice		619.63	-45007.09	-869.32
Wind 30 deg - Ice		21032.14	-38185.26	2961.61
Wind 45 deg - Ice		29389.33	-31125.98	4521.94
Wind 60 deg - Ice		35736.25	-22055.25	5645.37
Wind 90 deg - Ice		41451.11	-354.02	6826.30
Wind 120 deg - Ice		36822.54	21966.93	6537.43
Wind 135 deg - Ice		29368.89	30751.30	6108.92
Wind 150 deg - Ice		20521.05	38020.46	4912.97
Wind 180 deg - Ice		-16.97	43744.27	1697.79
Wind 210 deg - Ice		-20562.63	38171.89	-2056.21
Wind 225 deg - Ice		-29026.85	31080.15	-3939.68
Wind 240 deg - Ice		-36414.94	22447.09	-5668.11
Wind 270 deg - Ice		-41204.78	-45.90	-7731.70
Wind 300 deg - Ice		-35427.57	-21857.43	-7343.16
Wind 315 deg - Ice		-29073.81	-30909.74	-6302.20
Wind 330 deg - Ice		-20531.79	-38014.26	-4912.97
Total Weight	30287.80			
Wind 0 deg - Service		-14.62	-18775.32	-1240.20
Wind 30 deg - Service		8272.09	-15827.92	577.12
Wind 45 deg - Service		11646.89	-12860.73	1486.46
Wind 60 deg - Service		14202.23	-9038.52	2328.11
Wind 90 deg - Service		16585.14	23.65	3478.09
Wind 120 deg - Service		14799.65	9400.32	3620.99
Wind 135 deg - Service		11643.34	12850.78	3247.96
Wind 150 deg - Service		8269.06	15804.51	2706.05
Wind 180 deg - Service		6.30	18086.82	1238.33
Wind 210 deg - Service		-8279.89	15823.37	-597.50
Wind 225 deg - Service		-11662.31	12863.16	-1502.25
Wind 240 deg - Service		-14816.08	9392.93	-2380.79
Wind 270 deg - Service		-16585.10	-14.61	-3457.72
Wind 300 deg - Service		-14207.55	-9048.86	-3566.45
Wind 315 deg - Service		-11662.84	-12845.34	-3255.08
Wind 330 deg - Service		-8294.29	-15789.94	-2706.05

Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice+Guy
3	Dead+Wind 30 deg - No Ice+Guy
4	Dead+Wind 45 deg - No Ice+Guy
5	Dead+Wind 60 deg - No Ice+Guy
6	Dead+Wind 90 deg - No Ice+Guy
7	Dead+Wind 120 deg - No Ice+Guy
8	Dead+Wind 135 deg - No Ice+Guy
9	Dead+Wind 150 deg - No Ice+Guy
10	Dead+Wind 180 deg - No Ice+Guy
11	Dead+Wind 210 deg - No Ice+Guy
12	Dead+Wind 225 deg - No Ice+Guy
13	Dead+Wind 240 deg - No Ice+Guy
14	Dead+Wind 270 deg - No Ice+Guy
15	Dead+Wind 300 deg - No Ice+Guy
16	Dead+Wind 315 deg - No Ice+Guy
17	Dead+Wind 330 deg - No Ice+Guy
18	Dead+Ice+Temp+Guy
19	Dead+Wind 0 deg+Ice+Temp+Guy
20	Dead+Wind 30 deg+Ice+Temp+Guy
21	Dead+Wind 45 deg+Ice+Temp+Guy
22	Dead+Wind 60 deg+Ice+Temp+Guy
23	Dead+Wind 90 deg+Ice+Temp+Guy
24	Dead+Wind 120 deg+Ice+Temp+Guy
25	Dead+Wind 135 deg+Ice+Temp+Guy
26	Dead+Wind 150 deg+Ice+Temp+Guy
27	Dead+Wind 180 deg+Ice+Temp+Guy
28	Dead+Wind 210 deg+Ice+Temp+Guy
29	Dead+Wind 225 deg+Ice+Temp+Guy
30	Dead+Wind 240 deg+Ice+Temp+Guy
31	Dead+Wind 270 deg+Ice+Temp+Guy
32	Dead+Wind 300 deg+Ice+Temp+Guy
33	Dead+Wind 315 deg+Ice+Temp+Guy
34	Dead+Wind 330 deg+Ice+Temp+Guy
35	Dead+Wind 0 deg - Service+Guy
36	Dead+Wind 30 deg - Service+Guy
37	Dead+Wind 45 deg - Service+Guy
38	Dead+Wind 60 deg - Service+Guy
39	Dead+Wind 90 deg - Service+Guy
40	Dead+Wind 120 deg - Service+Guy
41	Dead+Wind 135 deg - Service+Guy
42	Dead+Wind 150 deg - Service+Guy
43	Dead+Wind 180 deg - Service+Guy
44	Dead+Wind 210 deg - Service+Guy
45	Dead+Wind 225 deg - Service+Guy
46	Dead+Wind 240 deg - Service+Guy
47	Dead+Wind 270 deg - Service+Guy
48	Dead+Wind 300 deg - Service+Guy
49	Dead+Wind 315 deg - Service+Guy
50	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
L1	375.5 - 360.5	Pole	Max Tension	31	0.72	16.20	18.67
			Max. Compression	18	-401.63	4.04	2.58
			Max. Mx	14	-311.17	3446.51	-131.68
			Max. My	10	-312.00	160.45	-3667.91
			Max. Vy	15	-353.49	3242.73	1484.24
			Max. Vx	10	362.35	160.45	-3667.91
			Max. Torque	6			0.70
L2	360.5 - 345.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	18	-885.73	18.26	11.15
			Max. Mx	14	-712.34	10469.21	-339.94
			Max. My	10	-713.76	561.61	-11198.50
			Max. Vy	15	-629.99	9851.44	4452.95
			Max. Vx	10	655.37	561.61	-11198.50
			Max. Torque	15			-5.97
T1	345.5 - 340.5	Leg	Max Tension	22	2944.49	-63.34	103.40
			Max. Compression	13	-3002.02	22.61	-100.73
			Max. Mx	28	2493.74	158.03	-49.10
			Max. My	19	1527.26	72.49	203.04
			Max. Vy	15	321.88	151.75	111.57
			Max. Vx	19	417.03	72.49	203.04
		Diagonal	Max Tension	16	2659.27	0.00	0.00
			Max. Compression	19	-2877.87	0.00	0.00
			Max. Mx	19	903.39	7.84	0.00
			Max. My	25	1495.57	0.00	-0.67
			Max. Vy	19	-6.01	0.00	0.00
			Max. Vx	25	0.51	0.00	0.00
		Top Girt	Max Tension	19	0.11	312.58	-7.04
			Max. Compression	19	-0.11	-317.45	7.12
			Max. Mx	25	-0.01	-993.05	-5.96
			Max. My	24	0.09	441.37	-8.54
			Max. Vy	25	-668.53	-993.05	-5.96
			Max. Vx	24	-5.70	0.00	0.00
T2	340.5 - 335.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-19290.46	-225.86	24.14
			Max. Mx	28	-18947.85	-227.45	14.81
			Max. My	19	-18657.02	147.09	-208.07
			Max. Vy	30	95.79	155.19	-22.37
			Max. Vx	26	-100.16	-53.34	-190.85
		Diagonal	Max Tension	2	4267.54	0.00	0.00
			Max. Compression	2	-4393.91	0.00	0.00
			Max. Mx	19	-3643.01	6.69	0.00
			Max. My	33	-2468.43	0.00	0.38
			Max. Vy	19	-4.59	0.00	0.00
			Max. Vx	33	-0.26	0.00	0.00
		Guy A	Bottom Tension	27	23131.12		
			Top Tension	27	23649.12		
			Top Cable Vert	27	21509.47		
			Top Cable Norm	27	9829.72		
			Top Cable Tan	27	4.82		
			Bot Cable Vert	27	-20306.42		
			Bot Cable Norm	27	11076.91		
			Bot Cable Tan	27	4.82		
		Guy B	Bottom Tension	34	21637.81		
			Top Tension	34	22150.40		
			Top Cable Vert	34	20101.69		
			Top Cable Norm	34	9300.07		
			Top Cable Tan	34	266.63		
			Bot Cable Vert	34	-18964.44		
			Bot Cable Norm	34	10405.03		
			Bot Cable Tan	34	529.29		
		Guy C	Bottom Tension	20	22334.74		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Top Tension	20	22859.85		
			Top Cable Vert	20	20864.46		
			Top Cable Norm	20	9336.79		
			Top Cable Tan	20	266.75		
			Bot Cable Vert	20	-19718.93		
			Bot Cable Norm	20	10474.29		
			Bot Cable Tan	20	541.88		
		Top Guy Pull-Off	Max Tension	34	5634.09	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	1623.12	8.61	0.00
			Max. My	34	2467.35	0.00	-0.00
			Max. Vy	18	-11.49	0.00	0.00
			Max. Vx	34	0.00	0.00	0.00
T3	335.5 - 330.45	Leg	Max Tension	2	2829.14	-126.10	-26.49
			Max. Compression	27	-24894.96	268.52	23.62
			Max. Mx	27	-24894.96	268.52	23.62
			Max. My	30	-16510.12	-72.09	224.63
			Max. Vy	29	-113.03	258.02	29.24
			Max. Vx	26	97.13	-44.89	-180.28
		Diagonal	Max Tension	2	3807.07	0.00	0.00
			Max. Compression	2	-4411.81	0.00	0.00
			Max. Mx	19	-3618.45	6.75	0.00
			Max. My	25	-2437.65	0.00	-0.43
			Max. Vy	19	4.59	0.00	0.00
			Max. Vx	25	0.29	0.00	0.00
		Top Girt	Max Tension	34	219.31	0.00	0.00
			Max. Compression	8	-8.54	0.00	0.00
			Max. Mx	18	57.00	3.37	0.00
			Max. My	25	181.69	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T4	330.45 - 325.4	Leg	Max Tension	2	9109.39	-25.69	-116.71
			Max. Compression	27	-29896.22	32.41	291.10
			Max. Mx	2	-20616.62	110.35	216.17
			Max. My	19	-23862.92	-44.89	321.97
			Max. Vy	19	-138.71	-54.56	-280.27
			Max. Vx	19	-223.14	63.51	-240.55
		Diagonal	Max Tension	2	3617.04	0.00	0.00
			Max. Compression	10	-3936.91	0.00	0.00
			Max. Mx	19	-2635.79	6.76	0.00
			Max. My	33	-1698.13	0.00	0.41
			Max. Vy	19	-4.60	0.00	0.00
			Max. Vx	33	0.28	0.00	0.00
		Top Girt	Max Tension	20	405.66	0.00	0.00
			Max. Compression	2	-111.16	0.00	0.00
			Max. Mx	18	72.01	3.37	0.00
			Max. My	34	205.12	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T5	325.4 - 320.35	Leg	Max Tension	2	15269.01	-41.74	103.40
			Max. Compression	10	-35244.71	64.33	-297.03
			Max. Mx	2	-24314.22	127.34	-219.91
			Max. My	19	-26550.84	-64.61	-343.59
			Max. Vy	2	53.80	-85.01	-323.86
			Max. Vx	19	147.47	89.66	250.63
		Diagonal	Max Tension	10	3005.32	0.00	0.00
			Max. Compression	2	-3622.88	0.00	0.00
			Max. Mx	19	-2728.59	6.76	0.00
			Max. My	25	-2178.94	0.00	-0.44
			Max. Vy	19	-4.61	0.00	0.00
			Max. Vx	25	0.30	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Top Girt	Max Tension	34	348.20	0.00	0.00
			Max. Compression	7	-74.98	0.00	0.00
			Max. Mx	18	76.68	3.37	0.00
			Max. My	25	219.70	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T6	320.35 - 315.3	Leg	Max Tension	2	19538.01	-54.76	-60.05
			Max. Compression	10	-39976.01	71.64	323.10
			Max. Mx	2	-26038.83	157.47	212.32
			Max. My	19	-28059.79	-53.23	371.82
			Max. Vy	2	-63.17	-85.23	-324.02
			Max. Vx	19	-147.79	128.08	252.38
		Diagonal	Max Tension	2	2745.63	0.00	0.00
			Max. Compression	10	-3232.86	0.00	0.00
			Max. Mx	19	-1543.60	6.78	0.00
			Max. My	34	-796.87	0.00	0.42
			Max. Vy	19	-4.62	0.00	0.00
			Max. Vx	34	0.29	0.00	0.00
		Top Girt	Max Tension	20	322.92	0.00	0.00
			Max. Compression	2	-67.16	0.00	0.00
			Max. Mx	18	79.67	3.37	0.00
			Max. My	34	222.72	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T7	315.3 - 310.25	Leg	Max Tension	2	24525.61	2.42	-29.02
			Max. Compression	10	-45039.96	71.69	322.99
			Max. Mx	2	-28937.63	157.21	212.17
			Max. My	19	-27563.80	-53.06	371.71
			Max. Vy	9	111.17	50.68	21.51
			Max. Vx	17	344.96	137.60	155.57
		Diagonal	Max Tension	10	2643.95	0.00	0.00
			Max. Compression	2	-3075.58	0.00	0.00
			Max. Mx	19	-2212.30	6.78	0.00
			Max. My	25	-1092.86	0.00	-0.45
			Max. Vy	19	-4.62	0.00	0.00
			Max. Vx	25	0.31	0.00	0.00
		Top Girt	Max Tension	17	587.38	0.00	0.00
			Max. Compression	9	-294.51	0.00	0.00
			Max. Mx	18	80.67	3.37	0.00
			Max. My	25	126.69	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T8	310.25 - 305.2	Leg	Max Tension	2	21696.75	2.42	-28.69
			Max. Compression	10	-42635.15	-14.60	316.22
			Max. Mx	10	-42635.15	357.49	316.22
			Max. My	2	-30938.67	-119.93	-586.20
			Max. Vy	2	1400.74	2.42	-28.69
			Max. Vx	2	-1267.99	106.69	-260.39
		Diagonal	Max Tension	2	4182.44	0.00	0.00
			Max. Compression	28	-4623.11	0.00	0.00
			Max. Mx	19	4035.33	6.81	0.00
			Max. My	34	1242.33	0.00	0.44
			Max. Vy	19	-4.64	0.00	0.00
			Max. Vx	34	-0.30	0.00	0.00
		Top Girt	Max Tension	10	1900.73	0.00	0.00
			Max. Compression	2	-1777.35	0.00	0.00
			Max. Mx	18	83.70	3.37	0.00
			Max. My	34	895.55	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T9	305.2 - 300.15	Leg	Max Tension	2	17028.72	4.94	65.05

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	10	-38800.08	78.80	-278.68
			Max. Mx	10	4704.40	-114.12	-186.05
			Max. My	19	-21849.07	-40.51	-339.28
			Max. Vy	9	59.40	82.06	107.27
			Max. Vx	19	149.59	78.30	307.87
		Diagonal	Max Tension	11	4792.08	0.00	0.00
			Max. Compression	3	-5396.38	0.00	0.00
			Max. Mx	19	2492.17	6.81	0.00
			Max. My	25	1830.01	0.00	-0.47
			Max. Vy	19	-4.64	0.00	0.00
			Max. Vx	25	0.32	0.00	0.00
		Top Girt	Max Tension	17	384.72	0.00	0.00
			Max. Compression	2	-151.63	0.00	0.00
			Max. Mx	18	84.43	3.37	0.00
			Max. My	25	314.39	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T10	300.15 - 295.1	Leg	Max Tension	2	7828.50	-67.95	-95.81
			Max. Compression	10	-30026.62	0.11	236.55
			Max. Mx	10	-121.24	-114.22	-186.03
			Max. My	19	-23693.25	-40.66	-339.40
			Max. Vy	9	-52.26	46.42	133.31
			Max. Vx	19	-144.99	24.26	284.72
		Diagonal	Max Tension	3	5298.89	0.00	0.00
			Max. Compression	11	-5734.45	0.00	0.00
			Max. Mx	19	5059.76	6.83	0.00
			Max. My	34	1790.25	0.00	0.45
			Max. Vy	19	-4.65	0.00	0.00
			Max. Vx	34	0.31	0.00	0.00
		Top Girt	Max Tension	20	320.18	0.00	0.00
			Max. Compression	13	-44.38	0.00	0.00
			Max. Mx	18	88.25	3.37	0.00
			Max. My	25	76.84	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T11	295.1 - 290.05	Leg	Max Tension	2	1455.91	-154.47	0.25
			Max. Compression	10	-24665.38	217.22	24.62
			Max. Mx	25	-18653.23	-281.54	-18.68
			Max. My	19	-14172.15	163.13	234.50
			Max. Vy	24	-116.77	-280.29	-12.37
			Max. Vx	19	-111.81	-128.66	233.47
		Diagonal	Max Tension	11	5666.58	0.00	0.00
			Max. Compression	3	-6277.76	0.00	0.00
			Max. Mx	19	3315.59	9.55	0.00
			Max. My	25	2226.34	0.00	-0.65
			Max. Vy	19	-6.51	0.00	0.00
			Max. Vx	25	0.44	0.00	0.00
		Top Girt	Max Tension	33	317.00	0.00	0.00
			Max. Compression	7	-40.04	0.00	0.00
			Max. Mx	18	87.32	3.37	0.00
			Max. My	25	267.88	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T12	290.05 - 285	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-18236.97	-266.31	44.20
			Max. Mx	19	-18236.97	-266.31	44.20
			Max. My	25	-18083.10	105.84	-250.84
			Max. Vy	24	113.48	-263.89	-56.20
			Max. Vx	19	-110.83	97.01	244.41
		Diagonal	Max Tension	3	6139.43	0.00	0.00
			Max. Compression	28	-6545.05	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Mx	19	5843.33	9.57	0.00
			Max. My	34	2349.56	0.00	0.63
			Max. Vy	19	-6.52	0.00	0.00
			Max. Vx	34	-0.43	0.00	0.00
		Top Girt	Max Tension	27	272.20	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	85.75	3.37	0.00
			Max. My	34	244.69	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T13	285 - 279.95	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	29	-25990.67	166.45	222.31
			Max. Mx	34	-23069.26	290.32	4.44
			Max. My	29	-25715.14	-137.45	-320.84
			Max. Vy	2	-692.48	214.18	27.02
			Max. Vx	3	-942.05	-42.38	177.68
		Diagonal	Max Tension	11	6321.55	0.00	0.00
			Max. Compression	3	-6954.48	0.00	0.00
			Max. Mx	19	4043.32	9.55	0.00
			Max. My	25	2546.81	0.00	-0.64
			Max. Vy	19	-6.50	0.00	0.00
			Max. Vx	25	0.44	0.00	0.00
		Top Girt	Max Tension	27	288.15	0.00	0.00
			Max. Compression	6	-4.93	0.00	0.00
			Max. Mx	18	86.72	3.37	0.00
			Max. My	25	252.40	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T14	279.95 - 274.9	Leg	Max Tension	22	6521.63	-102.35	-81.93
			Max. Compression	19	-35308.77	-351.68	101.88
			Max. Mx	20	-31959.73	-355.26	42.90
			Max. My	25	-34125.27	128.19	-327.23
			Max. Vy	19	127.38	283.43	46.49
			Max. Vx	25	122.65	128.19	-327.23
		Diagonal	Max Tension	10	7423.05	0.00	0.00
			Max. Compression	2	-8518.09	0.00	0.00
			Max. Mx	19	4953.42	9.55	0.00
			Max. My	33	3429.49	0.00	0.62
			Max. Vy	19	-6.50	0.00	0.00
			Max. Vx	33	-0.42	0.00	0.00
		Top Girt	Max Tension	4	1195.16	0.00	0.00
			Max. Compression	12	-928.98	0.00	0.00
			Max. Mx	18	87.91	3.37	0.00
			Max. My	25	-362.08	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T15	274.9 - 269.85	Leg	Max Tension	27	16616.79	-99.19	141.69
			Max. Compression	19	-49232.83	67.20	-465.23
			Max. Mx	27	-23887.62	156.52	-223.53
			Max. My	19	-49232.83	67.20	-465.23
			Max. Vy	19	-62.16	-141.04	271.00
			Max. Vx	19	163.70	67.20	-465.23
		Diagonal	Max Tension	2	8285.56	0.00	0.00
			Max. Compression	10	-8181.01	0.00	0.00
			Max. Mx	19	7872.15	9.53	0.00
			Max. My	25	2564.64	0.00	-0.62
			Max. Vy	19	-6.49	0.00	0.00
			Max. Vx	25	0.43	0.00	0.00
		Top Girt	Max Tension	31	296.98	0.00	0.00
			Max. Compression	6	-40.27	0.00	0.00
			Max. Mx	18	89.68	3.37	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	25	249.38	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T16	269.85 - 264.8	Leg	Max Tension	27	25976.72	-29.82	-58.99
			Max. Compression	19	-58976.75	408.52	702.40
			Max. Mx	20	19661.87	-464.18	476.89
			Max. My	34	-12398.10	-156.78	881.11
			Max. Vy	3	122.55	-438.80	459.44
			Max. Vx	33	-245.28	-35.07	876.31
		Diagonal	Max Tension	10	8066.78	0.00	0.00
			Max. Compression	2	-9394.71	0.00	0.00
			Max. Mx	19	5108.23	9.51	0.00
			Max. My	33	3681.77	0.00	0.59
			Max. Vy	19	-6.48	0.00	0.00
			Max. Vx	33	-0.41	0.00	0.00
		Top Girt	Max Tension	19	296.76	0.00	0.00
			Max. Compression	9	-5.26	0.00	0.00
			Max. Mx	18	110.87	3.37	0.00
			Max. My	25	57.01	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T17	264.8 - 259.75	Leg	Max Tension	10	5771.91	-40.98	128.39
			Max. Compression	19	-65393.53	408.49	702.55
			Max. Mx	20	-5707.44	-464.18	476.89
			Max. My	34	-26186.59	-156.98	880.97
			Max. Vy	4	-353.35	-439.43	286.79
			Max. Vx	17	1067.92	-142.28	823.29
		Diagonal	Max Tension	26	4043.94	0.00	0.00
			Max. Compression	28	-5165.04	0.00	0.00
			Max. Mx	19	-3959.75	6.77	0.00
			Max. My	25	-1397.58	0.00	-0.41
			Max. Vy	19	-4.61	0.00	0.00
			Max. Vx	25	0.28	0.00	0.00
		Secondary Horizontal	Max Tension	19	1132.65	0.00	0.00
			Max. Compression	19	-1132.65	0.00	0.00
			Max. Mx	18	292.19	4.04	0.00
			Max. My	34	958.93	0.00	-0.00
			Max. Vy	18	-5.38	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
		Guy A	Bottom Tension	27	30724.76		
			Top Tension	27	31366.62		
			Top Cable Vert	27	26837.07		
			Top Cable Norm	27	16236.87		
			Top Cable Tan	27	5.07		
			Bot Cable Vert	27	-25506.76		
			Bot Cable Norm	27	17129.38		
			Bot Cable Tan	27	5.07		
		Guy B	Bottom Tension	33	29130.73		
			Top Tension	33	29768.60		
			Top Cable Vert	33	25405.17		
			Top Cable Norm	33	15515.75		
			Top Cable Tan	33	91.15		
			Bot Cable Vert	33	-24088.04		
			Bot Cable Norm	33	16380.18		
			Bot Cable Tan	33	235.04		
		Guy C	Bottom Tension	20	30011.80		
			Top Tension	20	30668.47		
			Top Cable Vert	20	26435.96		
			Top Cable Norm	20	15545.24		
			Top Cable Tan	20	202.13		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Bot Cable Vert	20	-25141.74		
			Bot Cable Norm	20	16382.52		
			Bot Cable Tan	20	463.05		
		Top Guy Pull-Off	Max Tension	20	9820.18	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	2923.04	8.61	0.00
			Max. My	25	1288.97	0.00	-0.00
			Max. Vy	18	11.49	0.00	0.00
			Max. Vx	25	0.00	0.00	0.00
T18	259.75 - 254.7	Leg	Max Tension	10	1205.30	-87.68	-280.25
			Max. Compression	19	-60964.40	97.65	599.25
			Max. Mx	19	-19533.74	-186.35	-391.84
			Max. My	19	-60964.40	97.65	599.25
			Max. Vy	19	-68.07	-186.35	-391.84
			Max. Vx	25	-240.30	2.64	596.26
		Diagonal	Max Tension	33	4025.81	0.00	0.00
			Max. Compression	26	-5104.50	0.00	0.00
			Max. Mx	19	-2157.55	6.77	0.00
			Max. My	33	-1711.79	0.00	0.40
			Max. Vy	19	-4.61	0.00	0.00
			Max. Vx	33	-0.27	0.00	0.00
		Secondary Horizontal	Max Tension	19	1055.93	0.00	0.00
			Max. Compression	19	-1055.93	0.00	0.00
			Max. Mx	18	293.81	-6.46	0.00
			Max. My	25	830.80	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	9	735.26	0.00	0.00
			Max. Compression	2	-301.90	0.00	0.00
			Max. Mx	18	149.06	3.37	0.00
			Max. My	34	195.68	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T19	254.7 - 249.65	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-55436.49	57.87	-621.66
			Max. Mx	19	-19847.92	-158.82	504.82
			Max. My	19	-55436.49	57.87	-621.66
			Max. Vy	19	66.54	-157.31	-529.36
			Max. Vx	19	251.52	57.87	-621.66
		Diagonal	Max Tension	26	3420.47	0.00	0.00
			Max. Compression	33	-4509.72	0.00	0.00
			Max. Mx	19	-3633.50	6.75	0.00
			Max. My	25	-130.79	0.00	-0.38
			Max. Vy	19	4.60	0.00	0.00
			Max. Vx	25	0.26	0.00	0.00
		Secondary Horizontal	Max Tension	19	960.19	0.00	0.00
			Max. Compression	19	-960.19	0.00	0.00
			Max. Mx	18	293.93	-6.46	0.00
			Max. My	25	820.98	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	26	404.30	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	171.45	3.37	0.00
			Max. My	25	390.74	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T20	249.65 - 244.6	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-53890.48	62.69	610.86

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Mx	19	-23058.79	-157.19	-529.42
			Max. My	19	-53820.97	57.83	-621.52
			Max. Vy	17	-60.02	-138.16	-385.77
			Max. Vx	19	-244.81	57.83	-621.52
		Diagonal	Max Tension	33	2891.44	0.00	0.00
			Max. Compression	26	-4009.70	0.00	0.00
			Max. Mx	19	-1421.41	6.75	0.00
			Max. My	33	-1006.12	0.00	0.37
			Max. Vy	19	4.60	0.00	0.00
			Max. Vx	33	-0.25	0.00	0.00
		Secondary Horizontal	Max Tension	19	933.41	0.00	0.00
			Max. Compression	19	-933.41	0.00	0.00
			Max. Mx	18	296.06	-6.46	0.00
			Max. My	25	714.11	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	23	432.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	178.76	3.37	0.00
			Max. My	34	415.59	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T21	244.6 - 239.55	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-50114.43	39.76	-610.38
			Max. Mx	19	-21931.17	-130.93	-536.35
			Max. My	19	-50044.90	62.70	610.99
			Max. Vy	17	58.26	-120.50	-406.59
			Max. Vx	19	243.90	39.76	-610.38
		Diagonal	Max Tension	26	2349.35	0.00	0.00
			Max. Compression	33	-3567.84	0.00	0.00
			Max. Mx	19	-2705.67	6.74	0.00
			Max. My	25	128.42	0.00	-0.36
			Max. Vy	19	4.59	0.00	0.00
			Max. Vx	25	0.24	0.00	0.00
		Secondary Horizontal	Max Tension	19	868.01	0.00	0.00
			Max. Compression	19	-868.01	0.00	0.00
			Max. Mx	18	296.38	-6.46	0.00
			Max. My	25	724.32	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	21	429.74	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	181.57	3.37	0.00
			Max. My	25	388.32	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T22	239.55 - 234.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-50022.19	53.63	623.78
			Max. Mx	19	-25068.04	-130.85	-536.39
			Max. My	19	-50022.19	53.63	623.78
			Max. Vy	17	-59.11	-120.38	-406.66
			Max. Vx	19	-246.28	39.72	-610.27
		Diagonal	Max Tension	32	1951.47	0.00	0.00
			Max. Compression	25	-3042.67	0.00	0.00
			Max. Mx	19	-589.18	6.74	0.00
			Max. My	33	-227.57	0.00	0.34
			Max. Vy	19	4.59	0.00	0.00
			Max. Vx	33	0.23	0.00	0.00
		Secondary	Max Tension	19	866.41	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Horizontal					
			Max. Compression	19	-866.41	0.00	0.00
			Max. Mx	18	298.41	-6.46	0.00
			Max. My	25	646.91	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	23	439.71	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	185.05	3.37	0.00
			Max. My	34	434.31	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T23	234.5 - 229.45	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-47840.32	33.15	-644.78
			Max. Mx	2	-18449.21	-112.89	-485.70
			Max. My	19	-47840.32	33.15	-644.78
			Max. Vy	17	54.30	-108.35	-439.38
			Max. Vx	19	252.60	33.15	-644.78
		Diagonal	Max Tension	25	1284.28	0.00	0.00
			Max. Compression	32	-2679.76	0.00	0.00
			Max. Mx	19	-1798.61	6.73	0.00
			Max. My	25	383.15	0.00	-0.34
			Max. Vy	19	4.58	0.00	0.00
			Max. Vx	25	0.23	0.00	0.00
		Secondary Horizontal	Max Tension	19	828.62	0.00	0.00
			Max. Compression	19	-828.62	0.00	0.00
			Max. Mx	18	298.56	-6.46	0.00
			Max. My	25	677.77	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	21	456.06	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	190.72	3.37	0.00
			Max. My	25	409.64	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T24	229.45 - 224.4	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-49233.75	52.17	648.08
			Max. Mx	2	-19532.97	-112.85	-485.74
			Max. My	19	-49233.75	52.17	648.08
			Max. Vy	17	-54.68	-108.29	-439.43
			Max. Vx	19	-258.35	33.11	-644.70
		Diagonal	Max Tension	15	1236.16	0.00	0.00
			Max. Compression	7	-2499.46	0.00	0.00
			Max. Mx	19	246.65	6.73	0.00
			Max. My	33	570.59	0.00	0.32
			Max. Vy	19	4.58	0.00	0.00
			Max. Vx	33	-0.22	0.00	0.00
		Secondary Horizontal	Max Tension	19	852.75	0.00	0.00
			Max. Compression	19	-852.75	0.00	0.00
			Max. Mx	18	300.50	-6.46	0.00
			Max. My	25	630.26	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	33	459.82	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	197.42	3.37	0.00
			Max. My	34	458.73	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	34	-0.00	0.00	0.00
T25	224.4 - 219.35	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-48652.79	33.54	-648.11
			Max. Mx	2	-18390.21	-119.71	-484.84
			Max. My	19	-48585.61	52.18	648.14
			Max. Vy	17	55.51	-112.67	-435.98
			Max. Vx	19	258.84	33.54	-648.11
		Diagonal	Max Tension	7	1813.27	0.00	0.00
			Max. Compression	14	-2639.95	0.00	0.00
			Max. Mx	19	-892.18	6.72	0.00
			Max. My	25	664.10	0.00	-0.32
			Max. Vy	19	4.57	0.00	0.00
			Max. Vx	25	0.21	0.00	0.00
		Secondary Horizontal	Max Tension	19	842.69	0.00	0.00
			Max. Compression	19	-842.69	0.00	0.00
			Max. Mx	18	300.82	-6.46	0.00
			Max. My	25	682.40	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	21	470.06	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	199.55	3.37	0.00
			Max. My	25	421.69	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T26	219.35 - 214.3	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-51545.69	67.76	618.74
			Max. Mx	2	-18091.39	-119.69	-484.86
			Max. My	19	-51478.48	33.51	-648.07
			Max. Vy	3	51.66	-107.23	427.54
			Max. Vx	19	-253.34	53.74	-19.14
		Diagonal	Max Tension	15	2150.42	0.00	0.00
			Max. Compression	7	-3418.89	0.00	0.00
			Max. Mx	19	1118.54	6.71	0.00
			Max. My	33	1416.14	0.00	0.30
			Max. Vy	19	4.57	0.00	0.00
			Max. Vx	33	0.20	0.00	0.00
		Secondary Horizontal	Max Tension	19	892.80	0.00	0.00
			Max. Compression	19	-892.80	0.00	0.00
			Max. Mx	18	303.07	-6.46	0.00
			Max. My	25	665.12	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	23	452.04	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	197.32	3.37	0.00
			Max. My	34	447.60	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T27	214.3 - 209.25	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-52621.91	47.99	-476.91
			Max. Mx	2	-16014.31	-109.86	482.77
			Max. My	19	-52555.02	67.79	618.77
			Max. Vy	34	67.67	-95.34	-376.81
			Max. Vx	26	236.25	-33.47	-411.34
		Diagonal	Max Tension	7	2899.75	0.00	0.00
			Max. Compression	14	-3573.00	0.00	0.00
			Max. Mx	19	173.97	6.70	0.00
			Max. My	25	1105.52	0.00	-0.29

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	19	4.56	0.00	0.00
			Max. Vx	25	0.20	0.00	0.00
		Secondary Horizontal	Max Tension	19	911.44	0.00	0.00
			Max. Compression	19	-911.44	0.00	0.00
			Max. Mx	18	305.31	-6.46	0.00
			Max. My	25	740.07	0.00	0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	32	425.22	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	177.32	3.37	0.00
			Max. My	25	371.04	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T28	209.25 - 199.15	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-59549.72	356.72	55.65
			Max. Mx	19	-57072.60	476.89	48.10
			Max. My	19	-21821.92	-119.56	412.45
			Max. Vy	19	166.78	476.89	48.10
			Max. Vx	19	145.06	-119.56	412.45
		Diagonal	Max Tension	7	3878.67	0.00	0.00
			Max. Compression	14	-4335.98	0.00	0.00
			Max. Mx	19	2326.21	6.70	0.00
			Max. My	33	2580.19	0.00	0.28
			Max. Vy	19	4.56	0.00	0.00
			Max. Vx	33	-0.19	0.00	0.00
		Horizontal	Max Tension	19	1031.43	0.00	0.00
			Max. Compression	19	-1031.43	0.00	0.00
			Max. Mx	18	309.60	3.37	0.00
			Max. My	25	850.58	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	27	397.64	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	145.92	3.37	0.00
			Max. My	34	338.65	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	34	-0.00	0.00	0.00
T29	199.15 - 194.1	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-65298.48	35.90	382.53
			Max. Mx	2	-11408.43	-104.25	-259.81
			Max. My	19	-65298.48	35.90	382.53
			Max. Vy	17	-49.34	-96.44	-213.21
			Max. Vx	19	-147.45	55.76	-356.71
		Diagonal	Max Tension	14	4278.33	0.00	0.00
			Max. Compression	7	-4900.48	0.00	0.00
			Max. Mx	19	3097.19	6.68	0.00
			Max. My	33	3349.98	0.00	0.26
			Max. Vy	19	4.55	0.00	0.00
			Max. Vx	33	-0.18	0.00	0.00
		Top Girt	Max Tension	22	299.18	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	106.86	3.37	0.00
			Max. My	33	288.41	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	33	-0.00	0.00	0.00
T30	194.1 - 189.05	Leg	Max Tension	10	1435.18	-15.77	145.27
			Max. Compression	19	-68894.17	246.39	-402.28
			Max. Mx	34	-9883.80	-269.27	-339.08

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	26	-31643.16	-59.95	-504.05
			Max. Vy	34	83.09	-269.27	-339.08
			Max. Vx	26	171.04	-59.95	-504.05
		Diagonal	Max Tension	6	4591.41	0.00	0.00
			Max. Compression	14	-5147.33	0.00	0.00
			Max. Mx	19	1759.19	6.67	0.00
			Max. My	32	-1844.28	0.00	0.26
			Max. Vy	19	4.54	0.00	0.00
			Max. Vx	32	0.17	0.00	0.00
		Top Girt	Max Tension	22	277.20	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	114.42	3.37	0.00
			Max. My	25	245.78	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T31	189.05 - 184	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-70479.81	24.79	417.16
			Max. Mx	34	-22605.86	-269.25	-339.09
			Max. My	26	-36367.07	-59.98	-504.05
			Max. Vy	34	-83.11	-269.25	-339.09
			Max. Vx	26	-180.98	-59.98	-504.05
		Diagonal	Max Tension	34	4148.28	0.00	0.00
			Max. Compression	25	-4833.32	0.00	0.00
			Max. Mx	19	-3412.09	6.66	0.00
			Max. My	32	-2213.29	0.00	0.23
			Max. Vy	19	4.54	0.00	0.00
			Max. Vx	32	0.16	0.00	0.00
		Guy A	Bottom Tension	27	13493.47		
			Top Tension	27	13744.87		
			Top Cable Vert	27	10529.65		
			Top Cable Norm	27	8834.47		
			Top Cable Tan	27	1.64		
			Bot Cable Vert	27	-9856.08		
			Bot Cable Norm	27	9215.83		
			Bot Cable Tan	27	1.64		
		Guy B	Bottom Tension	33	13706.37		
			Top Tension	33	13955.46		
			Top Cable Vert	33	10621.56		
			Top Cable Norm	33	9051.67		
			Top Cable Tan	33	68.36		
			Bot Cable Vert	33	-9952.85		
			Bot Cable Norm	33	9423.02		
			Bot Cable Tan	33	110.45		
		Guy C	Bottom Tension	21	14116.41		
			Top Tension	21	14376.73		
			Top Cable Vert	21	11184.86		
			Top Cable Norm	21	9032.43		
			Top Cable Tan	21	67.76		
			Bot Cable Vert	21	-10501.67		
			Bot Cable Norm	21	9432.63		
			Bot Cable Tan	21	116.24		
		Top Guy Pull-Off	Max Tension	34	5684.85	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	1769.65	8.61	0.00
			Max. My	33	1802.17	0.00	-0.00
			Max. Vy	18	-11.49	0.00	0.00
			Max. Vx	33	0.00	0.00	0.00
T32	184 - 178.95	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-63829.47	38.16	-391.58
			Max. Mx	2	-18411.19	-87.80	-300.67
			Max. My	19	-63738.00	24.77	417.15

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	17	46.06	-80.62	-254.86
			Max. Vx	19	161.25	38.16	-391.58
		Diagonal	Max Tension	25	3802.24	0.00	0.00
			Max. Compression	34	-4651.75	0.00	0.00
			Max. Mx	19	-4246.43	6.66	0.00
			Max. My	32	-1291.36	0.00	0.23
			Max. Vy	19	4.53	0.00	0.00
			Max. Vx	32	0.16	0.00	0.00
		Top Girt	Max Tension	22	261.57	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	124.47	3.37	0.00
			Max. My	25	243.07	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
T33	178.95 - 158.75	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-59514.15	-369.25	41.72
			Max. Mx	19	-59442.40	391.58	38.28
			Max. My	19	-32820.58	-112.49	345.91
			Max. Vy	24	153.28	-193.71	260.57
			Max. Vx	26	216.53	-173.94	-285.53
		Diagonal	Max Tension	34	3457.28	0.00	0.00
			Max. Compression	25	-4057.72	0.00	0.00
			Max. Mx	19	-2773.47	6.66	0.00
			Max. My	32	-1205.68	0.00	0.22
			Max. Vy	19	4.53	0.00	0.00
			Max. Vx	32	-0.15	0.00	0.00
		Horizontal	Max Tension	19	1030.82	0.00	0.00
			Max. Compression	19	-1030.82	0.00	0.00
			Max. Mx	18	387.37	3.37	0.00
			Max. My	25	815.95	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	22	313.21	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	119.48	3.37	0.00
			Max. My	33	302.61	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	33	-0.00	0.00	0.00
T34	158.75 - 133.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-46794.07	-297.21	30.03
			Max. Mx	19	-45546.10	-358.59	30.86
			Max. My	19	-42321.16	165.84	327.82
			Max. Vy	23	288.08	-320.17	13.00
			Max. Vx	19	-257.89	151.13	320.02
		Diagonal	Max Tension	32	3065.48	0.00	0.00
			Max. Compression	32	-3295.37	0.00	0.00
			Max. Mx	19	1568.32	6.65	0.00
			Max. My	32	-1321.34	0.00	0.20
			Max. Vy	19	4.53	0.00	0.00
			Max. Vx	32	0.13	0.00	0.00
		Horizontal	Max Tension	2	810.50	0.00	0.00
			Max. Compression	2	-810.50	0.00	0.00
			Max. Mx	18	407.18	3.37	0.00
			Max. My	25	675.87	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Top Girt	Max Tension	32	339.86	0.00	0.00
			Max. Compression	24	-17.32	0.00	0.00
			Max. Mx	18	112.63	3.37	0.00
			Max. My	33	335.48	0.00	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	33	0.00	0.00	0.00
T35	133.5 - 108.25	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	25	-60705.35	518.44	29.62
			Max. Mx	24	-59697.77	532.91	9.95
			Max. My	19	-60416.50	-270.63	-475.30
			Max. Vy	24	-205.51	-433.05	15.61
			Max. Vx	19	185.56	242.64	379.95
		Diagonal	Max Tension	9	6491.78	0.00	0.00
			Max. Compression	17	-7115.23	0.00	0.00
			Max. Mx	24	-3175.96	9.31	0.00
			Max. My	32	-1634.31	0.00	0.24
			Max. Vy	24	-6.34	0.00	0.00
			Max. Vx	32	-0.16	0.00	0.00
		Horizontal	Max Tension	25	1051.45	0.00	0.00
			Max. Compression	25	-1051.45	0.00	0.00
			Max. Mx	18	489.98	3.37	0.00
			Max. My	31	1025.66	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
		Top Girt	Max Tension	32	307.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	118.06	3.37	0.00
			Max. My	25	262.97	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	25	-0.00	0.00	0.00
		Guy A	Bottom Tension	28	15767.02		
			Top Tension	28	15950.89		
			Top Cable Vert	28	13533.28		
			Top Cable Norm	28	8442.72		
			Top Cable Tan	28	40.93		
			Bot Cable Vert	28	-13145.68		
			Bot Cable Norm	28	8704.06		
			Bot Cable Tan	28	171.22		
		Guy B	Bottom Tension	31	16226.88		
			Top Tension	31	16412.36		
			Top Cable Vert	31	14127.88		
			Top Cable Norm	31	8352.68		
			Top Cable Tan	31	34.99		
			Bot Cable Vert	31	-13745.18		
			Bot Cable Norm	31	8622.66		
			Bot Cable Tan	31	177.60		
		Guy C	Bottom Tension	23	16698.65		
			Top Tension	23	16891.81		
			Top Cable Vert	23	14522.85		
			Top Cable Norm	23	8626.64		
			Top Cable Tan	23	37.06		
			Bot Cable Vert	23	-14125.69		
			Bot Cable Norm	23	8903.74		
			Bot Cable Tan	23	181.66		
		Top Guy Pull-Off	Max Tension	26	5200.90	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	22	767.10	8.61	0.00
			Max. My	24	4254.06	0.00	0.00
			Max. Vy	22	-11.49	0.00	0.00
			Max. Vx	24	0.00	0.00	0.00
T36	108.25 - 103.2	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	34	-67467.61	-322.89	310.59
			Max. Mx	10	-50339.29	-384.47	371.18
			Max. My	29	-55152.76	-30.44	794.72
			Max. Vy	2	-113.22	376.24	307.75

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Vx	19	-280.80	-111.97	790.13
		Diagonal	Max Tension	17	5663.47	0.00	0.00
			Max. Compression	9	-6442.64	0.00	0.00
			Max. Mx	19	-3408.92	9.31	0.00
			Max. My	31	2037.11	0.00	0.20
			Max. Vy	19	-6.34	0.00	0.00
			Max. Vx	31	-0.14	0.00	0.00
		Top Girt	Max Tension	26	270.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	155.01	3.37	0.00
			Max. My	31	138.01	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T37	103.2 - 98.15	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-69015.87	-276.32	-368.08
			Max. Mx	7	-12185.72	-969.53	313.70
			Max. My	9	-40147.23	65.96	1012.00
			Max. Vy	2	619.81	376.21	307.86
			Max. Vx	17	755.89	54.21	718.06
		Diagonal	Max Tension	9	2429.44	0.00	0.00
			Max. Compression	17	-3268.50	0.00	0.00
			Max. Mx	24	-433.19	6.66	0.00
			Max. My	32	-1528.92	0.00	0.15
			Max. Vy	24	-4.54	0.00	0.00
			Max. Vx	32	0.10	0.00	0.00
		Top Girt	Max Tension	22	1149.31	0.00	0.00
			Max. Compression	7	-778.49	0.00	0.00
			Max. Mx	18	168.92	3.37	0.00
			Max. My	24	-709.14	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	24	0.00	0.00	0.00
T38	98.15 - 93.1	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	34	-69547.00	54.19	553.58
			Max. Mx	4	-59289.79	-311.19	-313.99
			Max. My	19	-66435.41	-78.46	-742.84
			Max. Vy	4	-104.63	-311.19	-313.99
			Max. Vx	19	-278.93	-78.46	-742.84
		Diagonal	Max Tension	15	2650.19	0.00	0.00
			Max. Compression	27	-3019.01	0.00	0.00
			Max. Mx	19	1554.79	6.67	0.00
			Max. My	31	-701.89	0.00	0.15
			Max. Vy	19	4.54	0.00	0.00
			Max. Vx	31	-0.10	0.00	0.00
		Top Girt	Max Tension	27	987.40	0.00	0.00
			Max. Compression	2	-582.05	0.00	0.00
			Max. Mx	18	173.44	3.37	0.00
			Max. My	31	-444.19	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T39	93.1 - 88.05	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-66051.88	-28.44	-507.01
			Max. Mx	3	-59491.66	138.19	358.77
			Max. My	19	-65045.74	4.05	608.13
			Max. Vy	3	47.24	-22.38	-425.33
			Max. Vx	19	228.67	59.03	-489.29
		Diagonal	Max Tension	27	2251.59	0.00	0.00
			Max. Compression	32	-3770.81	0.00	0.00
			Max. Mx	24	2048.31	6.68	0.00
			Max. My	32	-1522.13	0.00	0.15
			Max. Vy	24	-4.55	0.00	0.00
			Max. Vx	32	0.10	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Top Girt	Max Tension	34	346.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	174.18	3.37	0.00
			Max. My	31	307.86	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T40	88.05 - 83	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-65134.61	43.35	507.52
			Max. Mx	8	-45116.64	69.88	-355.84
			Max. My	19	-65026.08	-44.66	-528.75
			Max. Vy	12	30.78	-29.33	390.05
			Max. Vx	19	-223.85	43.35	507.52
		Diagonal	Max Tension	32	3363.46	0.00	0.00
			Max. Compression	27	-3778.59	0.00	0.00
			Max. Mx	19	2468.55	6.68	0.00
			Max. My	31	-1110.13	0.00	0.15
			Max. Vy	19	-4.55	0.00	0.00
			Max. Vx	31	-0.10	0.00	0.00
		Top Girt	Max Tension	26	440.41	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	175.12	3.37	0.00
			Max. My	31	61.82	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T41	83 - 77.95	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-64147.79	-13.30	-466.57
			Max. Mx	2	-20781.82	-147.32	-325.72
			Max. My	19	-61316.86	7.27	-592.06
			Max. Vy	13	-2041.91	-36.20	-285.49
			Max. Vx	3	2183.58	-7.32	-302.70
		Diagonal	Max Tension	27	3514.23	0.00	0.00
			Max. Compression	32	-5016.47	0.00	0.00
			Max. Mx	24	3436.66	6.69	0.00
			Max. My	24	260.00	0.00	-0.14
			Max. Vy	24	-4.55	0.00	0.00
			Max. Vx	24	0.10	0.00	0.00
		Top Girt	Max Tension	27	493.19	0.00	0.00
			Max. Compression	19	-24.61	0.00	0.00
			Max. Mx	18	175.62	3.37	0.00
			Max. My	23	5.04	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	23	0.00	0.00	0.00
T42	77.95 - 72.9	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-62995.66	212.92	400.75
			Max. Mx	24	-59924.68	505.92	21.17
			Max. My	19	-62931.66	-256.85	-459.51
			Max. Vy	24	203.45	-448.35	-26.23
			Max. Vx	19	217.90	-221.83	410.69
		Diagonal	Max Tension	14	12197.73	0.00	0.00
			Max. Compression	6	-12675.10	0.00	0.00
			Max. Mx	19	10082.83	9.36	0.00
			Max. My	30	-105.46	0.00	0.22
			Max. Vy	19	-6.38	0.00	0.00
			Max. Vx	30	-0.15	0.00	0.00
		Secondary Horizontal	Max Tension	19	1091.12	0.00	0.00
			Max. Compression	19	-1091.12	0.00	0.00
			Max. Mx	18	547.82	-6.46	0.00
			Max. My	31	917.54	0.00	-0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Top Girt	Max Tension	5	2697.89	0.00	0.00
			Max. Compression	13	-2374.17	0.00	0.00
			Max. Mx	18	162.99	3.37	0.00
			Max. My	31	-1818.51	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T43	72.9 - 67.85	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-64412.27	-318.58	499.43
			Max. Mx	34	-60524.13	565.88	89.01
			Max. My	19	-54169.23	-206.29	554.92
			Max. Vy	30	-244.93	-462.93	-13.75
			Max. Vx	19	-227.51	-31.26	139.48
		Diagonal	Max Tension	6	12618.70	0.00	0.00
			Max. Compression	31	-13632.49	0.00	0.00
			Max. Mx	24	11035.19	11.41	0.00
			Max. My	24	385.41	0.00	-0.25
			Max. Vy	24	7.77	0.00	0.00
			Max. Vx	24	0.17	0.00	0.00
		Secondary Horizontal	Max Tension	21	1115.65	0.00	0.00
			Max. Compression	21	-1115.65	0.00	0.00
			Max. Mx	18	551.17	-6.46	0.00
			Max. My	31	970.75	0.00	-0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
		Top Girt	Max Tension	27	418.84	0.00	0.00
			Max. Compression	19	-51.88	0.00	0.00
			Max. Mx	18	150.51	3.37	0.00
			Max. My	23	-9.72	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	23	0.00	0.00	0.00
T44	67.85 - 62.8	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	30	-69293.92	213.06	481.68
			Max. Mx	34	-65371.28	565.86	89.19
			Max. My	19	-64402.30	-206.38	554.88
			Max. Vy	19	261.70	552.57	103.31
			Max. Vx	19	231.51	-206.38	554.88
		Diagonal	Max Tension	34	6467.30	0.00	0.00
			Max. Compression	26	-7299.12	0.00	0.00
			Max. Mx	19	-4929.03	9.35	0.00
			Max. My	30	-345.94	0.00	0.18
			Max. Vy	19	-6.36	0.00	0.00
			Max. Vx	30	-0.12	0.00	0.00
		Secondary Horizontal	Max Tension	30	1200.21	0.00	0.00
			Max. Compression	30	-1200.21	0.00	0.00
			Max. Mx	18	628.23	-6.46	0.00
			Max. My	23	1108.94	0.00	-0.00
			Max. Vy	18	8.61	0.00	0.00
			Max. Vx	23	0.00	0.00	0.00
		Guy A	Bottom Tension	28	22734.14		
			Top Tension	28	22838.88		
			Top Cable Vert	28	15023.87		
			Top Cable Norm	28	17201.66		
			Top Cable Tan	28	25.11		
			Bot Cable Vert	28	-14765.78		
			Bot Cable Norm	28	17285.66		
			Bot Cable Tan	28	137.89		
		Guy B	Bottom Tension	31	23683.42		
			Top Tension	31	23789.89		
			Top Cable Vert	31	16189.63		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Top Cable Norm	31	17431.38		
			Top Cable Tan	31	39.73		
			Bot Cable Vert	31	-15933.75		
			Bot Cable Norm	31	17521.32		
			Bot Cable Tan	31	152.39		
		Guy C	Bottom Tension	23	23835.84		
			Top Tension	23	23950.23		
			Top Cable Vert	23	16534.12		
			Top Cable Norm	23	17327.30		
			Top Cable Tan	23	33.00		
			Bot Cable Vert	23	-16262.04		
			Bot Cable Norm	23	17426.13		
			Bot Cable Tan	23	153.33		
		Top Guy Pull-Off	Max Tension	28	10180.06	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	2740.62	8.61	0.00
			Max. My	31	10105.14	0.00	0.00
			Max. Vy	18	-11.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T45	62.8 - 57.75	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-67518.36	-35.94	-584.39
			Max. Mx	21	-52668.69	-75.88	-524.66
			Max. My	19	-63814.53	-14.42	-655.36
			Max. Vy	21	42.03	-75.88	-524.66
			Max. Vx	19	277.02	-14.42	-655.36
		Diagonal	Max Tension	26	5687.29	0.00	0.00
			Max. Compression	34	-6626.14	0.00	0.00
			Max. Mx	24	-4417.67	9.34	0.00
			Max. My	23	2686.11	0.00	-0.18
			Max. Vy	24	6.36	0.00	0.00
			Max. Vx	23	0.12	0.00	0.00
		Top Girt	Max Tension	28	407.74	0.00	0.00
			Max. Compression	20	-0.66	0.00	0.00
			Max. Mx	18	172.95	3.37	0.00
			Max. My	23	44.62	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	23	0.00	0.00	0.00
T46	57.75 - 52.7	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-71538.39	-3.92	634.04
			Max. Mx	21	-58430.38	-75.90	-524.66
			Max. My	19	-71367.99	-14.38	-655.37
			Max. Vy	21	-42.20	-75.90	-524.66
			Max. Vx	19	-289.70	-14.38	-655.37
		Diagonal	Max Tension	33	4563.01	0.00	0.00
			Max. Compression	26	-5708.77	0.00	0.00
			Max. Mx	19	-4011.12	6.68	0.00
			Max. My	30	-198.22	0.00	0.12
			Max. Vy	19	-4.55	0.00	0.00
			Max. Vx	30	-0.08	0.00	0.00
		Top Girt	Max Tension	21	591.82	0.00	0.00
			Max. Compression	30	-48.26	0.00	0.00
			Max. Mx	18	204.02	3.37	0.00
			Max. My	31	-4.44	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	31	0.00	0.00	0.00
T47	52.7 - 47.65	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-73812.04	-32.55	-658.90
			Max. Mx	19	-48040.51	-54.21	-559.57
			Max. My	19	-73812.04	-32.55	-658.90
			Max. Vy	20	30.68	-21.55	-623.55
			Max. Vx	19	281.85	47.40	-619.06

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
		Diagonal	Max Tension	26	3643.76	0.00	0.00
			Max. Compression	33	-4848.25	0.00	0.00
			Max. Mx	24	-2842.31	6.68	0.00
			Max. My	20	-2108.36	0.00	-0.13
			Max. Vy	24	-4.55	0.00	0.00
			Max. Vx	20	0.09	0.00	0.00
		Top Girt	Max Tension	28	562.50	0.00	0.00
			Max. Compression	19	-4.78	0.00	0.00
			Max. Mx	18	210.69	3.37	0.00
			Max. My	20	480.64	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T48	47.65 - 42.6	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-75896.06	-23.34	653.64
			Max. Mx	19	-74143.52	73.97	596.94
			Max. My	19	-74076.97	-32.52	-658.90
			Max. Vy	20	-33.25	-21.55	-623.55
			Max. Vx	19	-284.56	47.44	-619.06
		Diagonal	Max Tension	32	2949.42	0.00	0.00
			Max. Compression	22	-3869.98	0.00	0.00
			Max. Mx	19	-2694.11	6.68	0.00
			Max. My	30	147.67	0.00	0.12
			Max. Vy	19	-4.55	0.00	0.00
			Max. Vx	30	-0.08	0.00	0.00
		Top Girt	Max Tension	21	606.20	0.00	0.00
			Max. Compression	30	-35.79	0.00	0.00
			Max. Mx	18	212.29	3.37	0.00
			Max. My	30	-35.73	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	30	0.00	0.00	0.00
T49	42.6 - 37.55	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-78391.61	-15.23	-647.46
			Max. Mx	19	-77269.97	73.92	596.94
			Max. My	19	-77336.51	-40.15	-680.79
			Max. Vy	20	31.51	-15.23	-647.46
			Max. Vx	19	283.98	69.08	-620.14
		Diagonal	Max Tension	22	2172.60	0.00	0.00
			Max. Compression	32	-3316.84	0.00	0.00
			Max. Mx	24	-1196.14	6.69	0.00
			Max. My	20	-843.05	0.00	-0.13
			Max. Vy	24	-4.56	0.00	0.00
			Max. Vx	20	0.09	0.00	0.00
		Top Girt	Max Tension	28	585.78	0.00	0.00
			Max. Compression	19	-32.53	0.00	0.00
			Max. Mx	18	212.98	3.37	0.00
			Max. My	20	504.12	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T50	37.55 - 32.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	34	-78807.20	-4.41	630.49
			Max. Mx	19	-77156.63	83.41	602.02
			Max. My	19	-77090.09	-40.13	-680.80
			Max. Vy	19	-32.89	-40.13	-680.80
			Max. Vx	19	-285.20	69.12	-620.14
		Diagonal	Max Tension	15	1734.92	0.00	0.00
			Max. Compression	22	-2688.78	0.00	0.00
			Max. Mx	19	-1347.47	6.69	0.00
			Max. My	30	474.20	0.00	0.12
			Max. Vy	19	-4.56	0.00	0.00
			Max. Vx	30	-0.08	0.00	0.00
		Top Girt	Max Tension	21	599.99	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	30	-32.89	0.00	0.00
			Max. Mx	18	214.21	3.37	0.00
			Max. My	30	-32.81	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	30	0.00	0.00	0.00
T51	32.5 - 27.45	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-80717.70	-11.58	-653.29
			Max. Mx	19	-77983.47	83.37	602.02
			Max. My	19	-78050.01	-40.06	-685.09
			Max. Vy	19	32.74	-40.06	-685.09
			Max. Vx	19	285.79	70.52	-624.21
		Diagonal	Max Tension	6	1135.17	0.00	0.00
			Max. Compression	15	-2201.23	0.00	0.00
			Max. Mx	24	392.27	6.70	0.00
			Max. My	19	-193.40	0.00	-0.13
			Max. Vy	24	4.56	0.00	0.00
			Max. Vx	19	0.09	0.00	0.00
		Top Girt	Max Tension	28	580.13	0.00	0.00
			Max. Compression	19	-26.17	0.00	0.00
			Max. Mx	18	214.98	3.37	0.00
			Max. My	20	500.94	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T52	27.45 - 22.4	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-78730.28	68.74	590.39
			Max. Mx	19	-77387.74	75.80	605.22
			Max. My	19	-77321.20	-40.03	-685.10
			Max. Vy	19	-31.24	-40.03	-685.10
			Max. Vx	19	-285.47	70.56	-624.21
		Diagonal	Max Tension	31	1834.39	0.00	0.00
			Max. Compression	23	-2775.15	0.00	0.00
			Max. Mx	19	-40.64	6.71	0.00
			Max. My	30	778.07	0.00	0.12
			Max. Vy	19	-4.57	0.00	0.00
			Max. Vx	30	-0.08	0.00	0.00
		Top Girt	Max Tension	21	594.78	0.00	0.00
			Max. Compression	30	-26.93	0.00	0.00
			Max. Mx	18	216.07	3.37	0.00
			Max. My	30	-26.85	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	30	0.00	0.00	0.00
T53	22.4 - 17.35	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-78498.61	-18.12	-643.78
			Max. Mx	19	-75981.42	75.75	605.22
			Max. My	19	-76047.95	-39.05	-670.24
			Max. Vy	20	31.51	-18.12	-643.78
			Max. Vx	19	288.53	47.55	-638.28
		Diagonal	Max Tension	23	2558.73	0.00	0.00
			Max. Compression	31	-3923.74	0.00	0.00
			Max. Mx	24	1936.96	6.71	0.00
			Max. My	19	74.36	0.00	-0.14
			Max. Vy	24	-4.57	0.00	0.00
			Max. Vx	19	0.09	0.00	0.00
		Top Girt	Max Tension	27	574.08	0.00	0.00
			Max. Compression	19	-11.03	0.00	0.00
			Max. Mx	18	217.11	3.37	0.00
			Max. My	20	496.69	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T54	17.35 - 12.3	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-74908.55	82.62	592.71

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Mx	20	-74458.59	87.80	595.07
			Max. My	19	-72681.58	13.11	693.35
			Max. Vy	20	-35.30	-18.13	-643.78
			Max. Vx	19	-293.79	47.59	-638.29
		Diagonal	Max Tension	31	3797.06	0.00	0.00
			Max. Compression	23	-4742.09	0.00	0.00
			Max. Mx	19	1242.88	6.72	0.00
			Max. My	30	1097.15	0.00	0.12
			Max. Vy	19	-4.57	0.00	0.00
			Max. Vx	30	-0.08	0.00	0.00
		Top Girt	Max Tension	21	606.18	0.00	0.00
			Max. Compression	30	-38.43	0.00	0.00
			Max. Mx	18	216.67	3.37	0.00
			Max. My	30	-38.34	0.00	0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	30	0.00	0.00	0.00
T55	12.3 - 7.25	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-74421.99	-91.14	-854.36
			Max. Mx	20	-71836.83	-192.74	-678.30
			Max. My	20	-66015.85	-9.74	-874.31
			Max. Vy	20	69.88	-192.74	-678.30
			Max. Vx	20	337.81	-9.74	-874.31
		Diagonal	Max Tension	23	4163.35	0.00	0.00
			Max. Compression	31	-5510.91	0.00	0.00
			Max. Mx	23	4163.35	6.72	0.00
			Max. My	19	240.50	0.00	-0.14
			Max. Vy	23	-4.58	0.00	0.00
			Max. Vx	19	0.09	0.00	0.00
		Top Girt	Max Tension	27	501.93	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	221.57	3.37	0.00
			Max. My	20	481.27	0.00	-0.00
			Max. Vy	18	4.49	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Base Beam	Max Tension	30	13367.59	-27015.89	431.50
			Max. Compression	19	-53439.77	-5933.98	597.29
			Max. Mx	19	-19559.87	-27940.54	225.73
			Max. My	19	8.47	24.90	-4662.89
			Max. Vy	20	-19917.71	-27935.32	-567.75
			Max. Vx	23	-1256.00	-26975.21	-1763.97

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Guy C @ 170.5 ft Elev -10.42 ft Azimuth 240 deg	Max. Vert	13	-4038.36	-1384.25	797.83
	Max. H_x	13	-4038.36	-1384.25	797.83
	Max. H_z	20	-55225.92	-30693.78	19147.84
	Min. Vert	20	-55225.92	-30693.78	19147.84
	Min. H_x	21	-55165.92	-31105.69	18713.02
	Min. H_z	12	-4457.95	-1760.19	717.81
Guy B @ 172 ft Elev -1.67 ft Azimuth 120 deg	Max. Vert	7	-3642.55	1273.85	735.76

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
	Max. H_x	33	-52938.71	31068.33	18660.66
	Max. H_z	34	-52796.67	30551.08	19027.66
	Min. Vert	33	-52938.71	31068.33	18660.66
	Min. H_x	7	-3642.55	1273.85	735.76
	Min. H_z	8	-4068.79	1657.77	667.57
Guy A @ 171 ft Elev -3.21 ft Azimuth 0 deg	Max. Vert	35	-3030.92	-0.65	-1757.94
	Max. H_x	31	-29552.17	2227.42	-19200.27
	Max. H_z	2	-3267.20	-1.36	-1240.61
	Min. Vert	27	-55669.26	11.53	-37422.13
	Min. H_x	23	-29011.85	-2237.10	-18861.73
	Min. H_z	27	-55669.26	11.53	-37422.13
Guy C @ 81 ft Elev -7.42 ft Azimuth 240 deg	Max. Vert	13	-440.52	-172.60	99.83
	Max. H_x	13	-440.52	-172.60	99.83
	Max. H_z	20	-29892.83	-22289.94	13238.72
	Min. Vert	23	-30387.73	-22969.83	12874.82
	Min. H_x	23	-30387.73	-22969.83	12874.82
	Min. H_z	13	-440.52	-172.60	99.83
Guy B @ 77.5 ft Elev -2.21 ft Azimuth 120 deg	Max. Vert	7	-407.60	154.04	89.27
	Max. H_x	31	-29678.93	22806.35	12786.21
	Max. H_z	34	-28994.10	22004.21	13067.29
	Min. Vert	31	-29678.93	22806.35	12786.21
	Min. H_x	7	-407.60	154.04	89.27
	Min. H_z	7	-407.60	154.04	89.27
Guy A @ 81 ft Elev -1 ft Azimuth 0 deg	Max. Vert	2	-361.12	-0.10	-163.99
	Max. H_x	30	-23906.50	505.00	-22227.73
	Max. H_z	2	-361.12	-0.10	-163.99
	Min. Vert	28	-27911.45	309.11	-25989.73
	Min. H_x	24	-23661.76	-514.06	-22034.98
	Min. H_z	28	-27911.45	309.11	-25989.73
Mast	Max. Vert	19	200264.31	78.34	756.41
	Max. H_x	32	166583.77	1212.00	760.99
	Max. H_z	34	186597.19	734.00	906.87
	Max. M_x	1	0.00	9.18	7.17
	Max. M_z	1	0.00	9.18	7.17
	Max. Torsion	14	2407.20	764.29	109.03
	Min. Vert	1	92293.93	9.18	7.17
	Min. H_x	22	167116.65	-1119.51	718.28
	Min. H_z	27	167597.43	22.76	-1432.72
	Min. M_x	1	0.00	9.18	7.17
	Min. M_z	1	0.00	9.18	7.17
	Min. Torsion	22	-2524.52	-1119.51	718.28

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Dead Only	92293.93	-9.18	-7.17	0.00	0.00	-9.44
Dead+Wind 0 deg - No	164063.16	-4.05	-579.45	0.00	0.00	253.84

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Ice+Guy Dead+Wind 30 deg - No	150147.44	437.64	-596.64	0.00	0.00	1324.02
Ice+Guy Dead+Wind 45 deg - No	137115.72	631.00	-600.45	0.00	0.00	1829.56
Ice+Guy Dead+Wind 60 deg - No	125716.96	778.99	-487.53	0.00	0.00	2289.89
Ice+Guy Dead+Wind 90 deg - No	141092.20	730.45	-109.47	0.00	0.00	2409.29
Ice+Guy Dead+Wind 120 deg - No	154901.35	483.62	316.00	0.00	0.00	1894.75
Ice+Guy Dead+Wind 135 deg - No	149951.40	383.57	530.63	0.00	0.00	1531.87
Ice+Guy Dead+Wind 150 deg - No	144077.51	282.76	741.70	0.00	0.00	1073.96
Ice+Guy Dead+Wind 180 deg - No	127152.23	-12.30	955.64	0.00	0.00	-74.56
Ice+Guy Dead+Wind 210 deg - No	143911.66	-295.12	728.58	0.00	0.00	-1410.68
Ice+Guy Dead+Wind 225 deg - No	149502.40	-399.38	518.23	0.00	0.00	-1821.78
Ice+Guy Dead+Wind 240 deg - No	154043.82	-512.12	309.44	0.00	0.00	-2153.16
Ice+Guy Dead+Wind 270 deg - No	140177.09	-764.29	-109.03	0.00	0.00	-2407.20
Ice+Guy Dead+Wind 300 deg - No	125660.81	-795.23	-495.94	0.00	0.00	-2282.11
Ice+Guy Dead+Wind 315 deg - No	136340.98	-642.40	-630.05	0.00	0.00	-1733.99
Ice+Guy Dead+Wind 330 deg - No	149202.47	-446.29	-636.66	0.00	0.00	-1042.65
Dead+Ice+Temp+Guy	116539.62	-25.85	-20.78	0.00	0.00	-7.74
Dead+Wind 0 deg+Ice+Temp+Guy	200264.31	-78.34	-756.41	0.00	0.00	1187.22
Dead+Wind 30 deg+Ice+Temp+Guy	187821.16	637.79	-841.58	0.00	0.00	2222.88
Dead+Wind 45 deg+Ice+Temp+Guy	176301.83	934.46	-830.11	0.00	0.00	2497.65
Dead+Wind 60 deg+Ice+Temp+Guy	167116.65	1119.51	-718.28	0.00	0.00	2524.52
Dead+Wind 90 deg+Ice+Temp+Guy	181598.98	1008.58	-191.42	0.00	0.00	1931.62
Dead+Wind 120 deg+Ice+Temp+Guy	193584.03	575.44	447.10	0.00	0.00	1163.07
Dead+Wind 135 deg+Ice+Temp+Guy	189416.99	481.81	809.52	0.00	0.00	834.35
Dead+Wind 150 deg+Ice+Temp+Guy	182933.74	349.09	1107.76	0.00	0.00	320.60
Dead+Wind 180 deg+Ice+Temp+Guy	167597.43	-22.76	1432.72	0.00	0.00	-956.75
Dead+Wind 210 deg+Ice+Temp+Guy	183088.04	-397.93	1079.13	0.00	0.00	-2039.93
Dead+Wind 225 deg+Ice+Temp+Guy	188630.31	-588.88	776.25	0.00	0.00	-2294.21
Dead+Wind 240 deg+Ice+Temp+Guy	192488.26	-701.05	402.68	0.00	0.00	-2380.86
Dead+Wind 270 deg+Ice+Temp+Guy	180672.50	-1116.80	-227.36	0.00	0.00	-2209.65
Dead+Wind 300 deg+Ice+Temp+Guy	166583.77	-1212.00	-760.99	0.00	0.00	-1642.59
Dead+Wind 315	175072.73	-1017.86	-898.98	0.00	0.00	-1025.14

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
deg+Ice+Temp+Guy Dead+Wind 330	186597.19	-734.00	-906.87	0.00	0.00	-313.61
deg+Ice+Temp+Guy Dead+Wind 0 deg - Service+Guy	97056.09	-4.00	-657.62	0.00	0.00	-134.07
Dead+Wind 30 deg - Service+Guy	97758.31	240.61	-495.38	0.00	0.00	622.72
Dead+Wind 45 deg - Service+Guy	97641.29	340.09	-382.13	0.00	0.00	929.64
Dead+Wind 60 deg - Service+Guy	97376.47	417.04	-261.01	0.00	0.00	1171.93
Dead+Wind 90 deg - Service+Guy	96759.46	521.49	13.09	0.00	0.00	1426.18
Dead+Wind 120 deg - Service+Guy	96221.96	528.43	310.49	0.00	0.00	1344.17
Dead+Wind 135 deg - Service+Guy	96677.31	399.22	386.91	0.00	0.00	1123.63
Dead+Wind 150 deg - Service+Guy	97512.98	268.92	455.20	0.00	0.00	826.97
Dead+Wind 180 deg - Service+Guy	98355.03	-12.86	500.70	0.00	0.00	100.36
Dead+Wind 210 deg - Service+Guy	97834.61	-288.51	450.63	0.00	0.00	-667.61
Dead+Wind 225 deg - Service+Guy	97092.13	-411.01	379.35	0.00	0.00	-969.65
Dead+Wind 240 deg - Service+Guy	96760.17	-533.46	301.02	0.00	0.00	-1239.22
Dead+Wind 270 deg - Service+Guy	97439.67	-533.69	9.52	0.00	0.00	-1427.01
Dead+Wind 300 deg - Service+Guy	98051.86	-433.09	-262.12	0.00	0.00	-1307.55
Dead+Wind 315 deg - Service+Guy	98151.27	-354.23	-383.18	0.00	0.00	-1126.57
Dead+Wind 330 deg - Service+Guy	98040.99	-252.52	-494.97	0.00	0.00	-848.11

Solution Summary

Load Comb.	Sum of Applied Forces PX lb	PY lb	PZ lb	Sum of Reactions PX lb	PY lb	PZ lb	% Error
1	0.00	-30287.37	0.00	12.45	30287.39	-3.80	0.043%
2	-23.08	-30443.48	-48577.65	25.27	30441.23	48516.63	0.107%
3	21792.31	-30294.66	-41105.35	-21794.05	30293.00	41052.78	0.095%
4	30701.65	-30188.48	-33424.12	-30707.57	30187.42	33380.92	0.080%
5	37459.38	-30144.49	-23513.52	-37471.96	30144.12	23481.87	0.064%
6	43665.44	-30294.79	45.87	-43632.72	30293.99	-21.48	0.077%
7	38790.58	-30443.57	24308.73	-38744.46	30442.17	-24285.40	0.094%
8	30677.22	-30397.10	33381.77	-30632.38	30395.83	-33362.28	0.090%
9	21767.18	-30287.50	41035.64	-21723.59	30286.48	-41020.92	0.083%
10	4.35	-30131.26	47028.53	21.18	30132.04	-47061.95	0.075%
11	-21809.87	-30280.08	41095.11	21766.84	30279.04	-41079.04	0.083%
12	-30736.34	-30386.27	33429.59	30693.25	30385.01	-33409.03	0.087%
13	-38840.55	-30430.26	24310.93	38796.57	30428.89	-24286.70	0.091%
14	-43665.35	-30279.96	-25.54	43635.27	30279.22	49.42	0.072%
15	-37458.37	-30131.18	-23517.96	37471.33	30130.85	23488.50	0.060%
16	-30721.11	-30177.65	-33369.54	30729.14	30176.69	33329.17	0.076%
17	-21823.95	-30287.25	-41002.86	21829.12	30285.69	40952.57	0.091%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	% Error
18	0.00	-46988.76	0.00	12.07	46988.77	-2.70	0.026%
19	637.35	-47276.08	-56664.21	-635.45	47273.71	56601.28	0.085%
20	26885.29	-47002.54	-48294.66	-26890.69	47000.86	48239.89	0.076%
21	37665.01	-46807.27	-39385.39	-37675.70	46806.28	39339.68	0.065%
22	45867.90	-46726.43	-27902.30	-45882.80	46726.06	27864.06	0.058%
23	53137.59	-47003.19	-367.12	-53101.25	47002.27	397.47	0.067%
24	46930.99	-47276.96	27780.13	-46881.59	47275.35	-27754.84	0.077%
25	37615.17	-47191.31	38974.73	-37566.35	47189.87	-38954.71	0.073%
26	26341.33	-46989.41	48099.13	-26293.65	46988.36	-48085.37	0.069%
27	-34.69	-46701.44	55401.38	66.33	46700.46	-55359.82	0.072%
28	-26415.79	-46974.98	48281.29	26368.54	46973.89	-48265.98	0.069%
29	-37302.53	-47170.25	39339.56	37255.29	47168.84	-39318.61	0.072%
30	-46546.59	-47251.08	28294.14	46499.11	47249.53	-28268.17	0.075%
31	-52891.26	-46974.33	-32.80	52857.55	46973.46	61.87	0.063%
32	-45536.02	-46700.56	-27670.63	45551.67	46700.27	27635.70	0.054%
33	-37320.09	-46786.21	-39133.17	37332.25	46785.33	39090.68	0.062%
34	-26352.07	-46988.11	-48092.93	26360.26	46986.57	48041.28	0.072%
35	-10.26	-30356.76	-21645.14	10.82	30356.54	21631.41	0.037%
36	9713.01	-30290.61	-18316.74	-9713.99	30290.43	18303.05	0.037%
37	13684.12	-30243.42	-14894.11	-13685.96	30243.30	14881.48	0.035%
38	16696.31	-30223.87	-10477.99	-16697.06	30223.80	10466.09	0.033%
39	19461.94	-30290.67	20.39	-19453.64	30290.60	-14.07	0.029%
40	17287.95	-30356.79	10831.42	-17278.41	30356.68	-10827.02	0.029%
41	13673.26	-30336.14	14875.29	-13662.74	30336.04	-14871.62	0.031%
42	9701.84	-30287.43	18285.76	-9689.93	30287.34	-18282.52	0.034%
43	1.93	-30217.99	20956.65	2.79	30217.86	-20944.39	0.036%
44	-9720.81	-30284.13	18312.19	9709.11	30284.03	-18308.42	0.033%
45	-13699.54	-30331.33	14896.54	13689.03	30331.21	-14892.33	0.031%
46	-17310.13	-30350.90	10832.39	17300.63	30350.79	-10827.51	0.029%
47	-19461.90	-30284.08	-11.35	19454.27	30284.01	17.60	0.027%
48	-16695.86	-30217.95	-10479.96	16698.04	30217.90	10469.07	0.031%
49	-13692.77	-30238.61	-14869.85	13695.49	30238.50	14858.14	0.033%
50	-9727.07	-30287.32	-18271.19	9729.04	30287.16	18258.47	0.035%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	13	0.00000001	0.00004299
2	Yes	192	0.00019730	0.00013747
3	Yes	184	0.00019835	0.00012418
4	Yes	175	0.00019758	0.00010793
5	Yes	142	0.00019722	0.00008568
6	Yes	166	0.00019598	0.00009796
7	Yes	180	0.00019855	0.00011936
8	Yes	182	0.00019892	0.00011499
9	Yes	184	0.00019717	0.00010823
10	Yes	54	0.00019871	0.00009417
11	Yes	174	0.00019933	0.00010796
12	Yes	173	0.00019890	0.00011225
13	Yes	171	0.00019999	0.00011634
14	Yes	158	0.00019655	0.00009411
15	Yes	142	0.00019865	0.00008362
16	Yes	176	0.00019713	0.00010449
17	Yes	185	0.00019756	0.00012140
18	Yes	11	0.00020000	0.00005933

19	Yes	203	0.00019976	0.00013247
20	Yes	197	0.00019959	0.00011797
21	Yes	187	0.00019719	0.00010103
22	Yes	133	0.00019905	0.00008274
23	Yes	182	0.00019995	0.00009872
24	Yes	195	0.00019788	0.00011603
25	Yes	197	0.00019767	0.00011131
26	Yes	196	0.00019802	0.00010360
27	Yes	47	0.00019758	0.00008257
28	Yes	187	0.00019919	0.00010396
29	Yes	188	0.00019841	0.00010934
30	Yes	186	0.00019993	0.00011392
31	Yes	175	0.00019972	0.00009478
32	Yes	134	0.00019976	0.00007867
33	Yes	187	0.00019857	0.00009675
34	Yes	198	0.00019795	0.00011341
35	Yes	127	0.00019577	0.00005733
36	Yes	115	0.00019790	0.00005383
37	Yes	98	0.00019738	0.00005097
38	Yes	67	0.00019783	0.00004730
39	Yes	86	0.00019846	0.00004529
40	Yes	104	0.00019441	0.00004773
41	Yes	101	0.00019771	0.00004876
42	Yes	96	0.00019739	0.00005108
43	Yes	39	0.00019674	0.00005415
44	Yes	93	0.00019554	0.00004950
45	Yes	98	0.00019985	0.00004774
46	Yes	101	0.00019760	0.00004650
47	Yes	84	0.00019725	0.00004245
48	Yes	68	0.00019670	0.00004520
49	Yes	98	0.00019761	0.00004945
50	Yes	115	0.00019489	0.00005174

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	375.5 - 360.5	13.553	35	0.5517	2.4008
L2	360.5 - 345.5	11.941	35	0.4254	2.4009
T1	345.5 - 340.5	10.903	35	0.1951	2.4011
T2	340.5 - 335.5	10.701	35	0.1894	2.3971
T3	335.5 - 330.45	10.518	35	0.1988	2.4774
T4	330.45 - 325.4	10.314	35	0.2226	2.4090
T5	325.4 - 320.35	10.084	35	0.2427	2.4585
T6	320.35 - 315.3	9.828	35	0.2688	2.4226
T7	315.3 - 310.25	9.539	35	0.2996	2.4711
T8	310.25 - 305.2	9.213	35	0.3347	2.4169
T9	305.2 - 300.15	8.824	35	0.3682	2.4541
T10	300.15 - 295.1	8.400	35	0.3944	2.4043
T11	295.1 - 290.05	8.012	43	0.4123	2.4419
T12	290.05 - 285	7.641	43	0.4281	2.3459
T13	285 - 279.95	7.249	43	0.4266	2.4303
T14	279.95 - 274.9	6.853	43	0.4119	2.3576
T15	274.9 - 269.85	6.464	43	0.3829	2.4195
T16	269.85 - 264.8	6.097	43	0.3533	2.3713
T17	264.8 - 259.75	5.758	43	0.3121	2.4024
T18	259.75 - 254.7	5.490	43	0.2816	2.2995
T19	254.7 - 249.65	5.245	36	0.2537	2.3456
T20	249.65 - 244.6	5.033	36	0.2307	2.2013

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T21	244.6 - 239.55	4.859	37	0.2116	2.2484
T22	239.55 - 234.5	4.701	37	0.1957	2.1022
T23	234.5 - 229.45	4.543	37	0.1821	2.1489
T24	229.45 - 224.4	4.391	37	0.1726	1.9937
T25	224.4 - 219.35	4.238	37	0.1643	2.0468
T26	219.35 - 214.3	4.090	37	0.1558	1.8899
T27	214.3 - 209.25	3.941	37	0.1464	1.9443
T28	209.25 - 199.15	3.801	38	0.1353	1.7805
T29	199.15 - 194.1	3.552	38	0.1175	1.6730
T30	194.1 - 189.05	3.435	38	0.1081	1.6693
T31	189.05 - 184	3.325	38	0.0967	1.5722
T32	184 - 178.95	3.249	38	0.0874	1.5889
T33	178.95 - 158.75	3.179	38	0.0801	1.4909
T34	158.75 - 133.5	2.925	38	0.0611	1.3102
T35	133.5 - 108.25	2.603	38	0.0538	1.1382
T36	108.25 - 103.2	2.396	39	0.0539	0.9110
T37	103.2 - 98.15	2.354	39	0.0631	0.9044
T38	98.15 - 93.1	2.293	39	0.0744	0.8270
T39	93.1 - 88.05	2.224	35	0.0854	0.8086
T40	88.05 - 83	2.153	35	0.0954	0.7296
T41	83 - 77.95	2.066	35	0.1040	0.7090
T42	77.95 - 72.9	1.967	35	0.1110	0.6305
T43	72.9 - 67.85	1.835	35	0.1134	0.6633
T44	67.85 - 62.8	1.709	35	0.1047	0.5660
T45	62.8 - 57.75	1.621	35	0.0979	0.6212
T46	57.75 - 52.7	1.532	35	0.0961	0.4884
T47	52.7 - 47.65	1.443	35	0.0966	0.5379
T48	47.65 - 42.6	1.347	35	0.1014	0.3951
T49	42.6 - 37.55	1.243	35	0.1078	0.4477
T50	37.55 - 32.5	1.129	35	0.1150	0.3055
T51	32.5 - 27.45	1.004	35	0.1228	0.3562
T52	27.45 - 22.4	0.869	35	0.1305	0.2100
T53	22.4 - 17.35	0.724	35	0.1379	0.2577
T54	17.35 - 12.3	0.569	35	0.1446	0.1080
T55	12.3 - 7.25	0.405	35	0.1500	0.1517

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
376.00	Flash Beacon Lighting	35	13.553	0.5517	2.4008	11687
345.00	2 Bay FM Antenna	35	10.881	0.1927	2.3979	4668
340.50	Guy	35	10.701	0.1894	2.3971	15095
330.00	6' x 3' Grid Dish	35	10.295	0.2246	2.4088	11648
315.00	6' Stand-off	35	9.521	0.3016	2.4704	7527
311.00	Radio	35	9.265	0.3294	2.4211	4739
310.00	DB413-B	35	9.195	0.3364	2.4167	4666
280.00	22' Whip	43	6.857	0.4121	2.3577	16218
264.80	Guy	43	5.758	0.3121	2.4024	3727
264.00	22' Whip	43	5.712	0.3064	2.3903	3917
260.00	3 Bay Circulary Polarized FM Antenna	43	5.502	0.2830	2.3008	11459
255.00	L-810 Flashing Beacon	36	5.259	0.2552	2.3482	12157
252.00	2" Dia 6' Omni	36	5.129	0.2407	2.2653	12771
210.00	7' Whip	37	3.821	0.1369	1.8101	27730
194.00	2" x 96" Schedule 40 Pipe	38	3.432	0.1079	1.6678	25607

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
189.05	Guy	38	3.325	0.0967	1.5722	7859
170.00	3' Stand-off	38	3.064	0.0697	1.4726	60714
169.00	3' Stand-off	38	3.052	0.0687	1.4631	68412
158.00	FPA5250D12-N w/Mount Pipe	38	2.915	0.0608	1.3091	78732
144.00	SSG4-23A	38	2.730	0.0575	1.2600	69629
139.00	L-810 Flashing Beacon	38	2.666	0.0561	1.2151	46312
123.40	Guy	38	2.508	0.0485	1.0169	81024
101.00	(2) BXA-70063-6CF	39	2.331	0.0679	0.8499	12356
78.00	(2) CM1007-DBPXBC-003	35	1.968	0.1109	0.6313	9498
67.85	Guy	35	1.709	0.1047	0.5660	6786

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	375.5 - 360.5	57.487	19	1.4728	3.6543
L2	360.5 - 345.5	53.068	19	1.2646	3.6551
T1	345.5 - 340.5	49.561	19	0.9084	3.9494
T2	340.5 - 335.5	48.612	19	0.8998	3.9333
T3	335.5 - 330.45	47.692	19	0.9306	3.8632
T4	330.45 - 325.4	46.715	19	0.9911	4.0189
T5	325.4 - 320.35	45.671	19	1.0375	3.9792
T6	320.35 - 315.3	44.568	19	1.0947	4.0619
T7	315.3 - 310.25	43.395	19	1.1593	4.0187
T8	310.25 - 305.2	42.145	19	1.2306	4.0638
T9	305.2 - 300.15	40.773	19	1.2966	3.9914
T10	300.15 - 295.1	39.332	19	1.3475	4.0502
T11	295.1 - 290.05	37.844	19	1.3812	3.9772
T12	290.05 - 285	36.334	19	1.4068	4.0998
T13	285 - 279.95	34.816	19	1.3957	3.9598
T14	279.95 - 274.9	33.321	19	1.3581	4.0457
T15	274.9 - 269.85	31.875	19	1.3020	3.9384
T16	269.85 - 264.8	30.497	19	1.2447	3.9854
T17	264.8 - 259.75	29.206	19	1.1615	3.9337
T18	259.75 - 254.7	28.089	19	1.0991	4.0172
T19	254.7 - 249.65	27.034	19	1.0397	3.7848
T20	249.65 - 244.6	26.039	19	0.9884	3.8339
T21	244.6 - 239.55	25.094	19	0.9428	3.6055
T22	239.55 - 234.5	24.193	19	0.9018	3.6525
T23	234.5 - 229.45	23.332	19	0.8632	3.4225
T24	229.45 - 224.4	22.507	19	0.8231	3.4775
T25	224.4 - 219.35	21.720	19	0.7821	3.2345
T26	219.35 - 214.3	20.971	19	0.7385	3.2883
T27	214.3 - 209.25	20.263	19	0.6905	3.0411
T28	209.25 - 199.15	19.600	19	0.6364	3.1007
T29	199.15 - 194.1	18.389	19	0.5587	2.9105
T30	194.1 - 189.05	17.835	19	0.5217	2.7454
T31	189.05 - 184	17.317	19	0.4793	2.7128
T32	184 - 178.95	16.908	19	0.4423	2.5718
T33	178.95 - 158.75	16.529	19	0.4110	2.5932
T34	158.75 - 133.5	15.288	24	0.3103	2.2975
T35	133.5 - 108.25	13.717	24	0.3007	1.7378
T36	108.25 - 103.2	12.184	24	0.3376	1.5807
T37	103.2 - 98.15	11.839	24	0.3656	1.4147
T38	98.15 - 93.1	11.453	19	0.3976	1.4355

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T39	93.1 - 88.05	11.017	19	0.4291	1.2448
T40	88.05 - 83	10.547	19	0.4578	1.2630
T41	83 - 77.95	10.041	19	0.4828	1.0689
T42	77.95 - 72.9	9.505	19	0.5028	1.0864
T43	72.9 - 67.85	8.907	19	0.5124	1.0006
T44	67.85 - 62.8	8.325	19	0.4969	0.9714
T45	62.8 - 57.75	7.848	19	0.4877	0.9627
T46	57.75 - 52.7	7.367	19	0.4897	0.8288
T47	52.7 - 47.65	6.885	19	0.4999	0.8584
T48	47.65 - 42.6	6.378	19	0.5178	0.6729
T49	42.6 - 37.55	5.841	19	0.5410	0.7352
T50	37.55 - 32.5	5.268	19	0.5674	0.5113
T51	32.5 - 27.45	4.658	19	0.5954	0.6185
T52	27.45 - 22.4	4.010	19	0.6234	0.3659
T53	22.4 - 17.35	3.324	19	0.6501	0.4697
T54	17.35 - 12.3	2.604	19	0.6738	0.1962
T55	12.3 - 7.25	1.853	19	0.6931	0.2887

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
376.00	Flash Beacon Lighting	19	57.487	1.4728	3.9477	5990
345.00	2 Bay FM Antenna	19	49.462	0.9043	3.9508	2435
340.50	Guy	19	48.612	0.8998	3.9333	7013
330.00	6' x 3' Grid Dish	19	46.625	0.9958	4.0230	4472
315.00	6' Stand-off	19	43.323	1.1634	4.0192	3162
311.00	Radio	19	42.338	1.2200	4.0633	2021
310.00	DB413-B	19	42.080	1.2341	4.0624	1993
280.00	22' Whip	19	33.335	1.3587	4.0456	6197
264.80	Guy	19	29.206	1.1615	3.9337	1743
264.00	22' Whip	19	29.019	1.1500	3.9472	1826
260.00	3 Bay Circulary Polarized FM Antenna	19	28.142	1.1020	4.0213	4684
255.00	L-810 Flashing Beacon	19	27.095	1.0431	3.7915	5196
252.00	2" Dia 6' Omni	19	26.494	1.0112	3.8134	5191
210.00	7' Whip	19	19.696	0.6441	3.0844	7070
194.00	2" x 96" Schedule 40 Pipe	19	17.824	0.5209	2.7440	7730
189.05	Guy	19	17.317	0.4793	2.7128	2794
170.00	3' Stand-off	24	15.934	0.3598	2.5614	12146
169.00	3' Stand-off	24	15.877	0.3544	2.5454	12879
158.00	FPA5250D12-N w/Mount Pipe	24	15.244	0.3089	2.2758	17805
144.00	SSG4-23A	24	14.374	0.2961	1.8895	18074
139.00	L-810 Flashing Beacon	24	14.058	0.2980	1.7932	15614
123.40	Guy	24	13.114	0.3034	1.7627	31158
101.00	(2) BXA-70063-6CF	24	11.675	0.3794	1.4288	5279
78.00	(2) CM1007-DBPXBC-003	19	9.510	0.5027	1.0876	3978
67.85	Guy	19	8.325	0.4969	0.9714	2417

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T lb	Allowable T_a lb	Required S.F.	Actual S.F.
T2	340.50 (A) (617)	11/16 EHS	5000.00	49999.91	23649.10	25000.00	2.000	2.114 ✓
	340.50 (B) (616)	11/16 EHS	5000.00	49999.91	22150.40	25000.00	2.000	2.257 ✓
	340.50 (C) (615)	11/16 EHS	5000.00	49999.91	22859.80	25000.00	2.000	2.187 ✓
T17	264.80 (A) (620)	7/8 EHS	7970.00	79699.84	31366.60	39850.00	2.000	2.541 ✓
	264.80 (B) (619)	7/8 EHS	7970.00	79699.84	29768.60	39850.00	2.000	2.677 ✓
	264.80 (C) (618)	7/8 EHS	7970.00	79699.84	30668.50	39850.00	2.000	2.599 ✓
T31	189.05 (A) (623)	9/16 EHS	3500.00	35000.04	13744.90	17500.00	2.000	2.546 ✓
	189.05 (B) (622)	9/16 EHS	3500.00	35000.04	13955.50	17500.00	2.000	2.508 ✓
	189.05 (C) (621)	9/16 EHS	3500.00	35000.04	14376.70	17500.00	2.000	2.434 ✓
T35	123.40 (A) (626)	5/8 EHS	4240.00	42399.99	15950.90	21200.00	2.000	2.658 ✓
	123.40 (B) (625)	5/8 EHS	4240.00	42399.99	16412.40	21200.00	2.000	2.583 ✓
	123.40 (C) (624)	5/8 EHS	4240.00	42399.99	16891.80	21200.00	2.000	2.510 ✓
T44	67.85 (A) (629)	11/16 EHS	5000.00	49999.91	22838.90	25000.00	2.000	2.189 ✓
	67.85 (B) (628)	11/16 EHS	5000.00	49999.91	23789.90	25000.00	2.000	2.102 ✓
	67.85 (C) (627)	11/16 EHS	5000.00	49999.91	23950.20	25000.00	2.000	2.088 ✓

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
L1	375.5 - 360.5 (1)	HSS6.625x.28	15.00	30.00	159.9	5.843	5.2182	-312.00	30490.70	0.010
L2	360.5 - 345.5 (2)	HSS8.625x.322	15.00	30.00	122.2	9.924	7.8461	-713.76	77865.50	0.009

Pole Bending Design Data

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
L1	375.5 - 360.5 (1)	HSS6.625x.28	3671.42	-5.515	23.100	0.239	0.00	0.000	23.100	0.000
L2	360.5 - 345.5 (2)	HSS8.625x.322	11212.58	-8.525	23.100	0.369	0.00	0.000	23.100	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	375.5 - 360.5 (1)	HSS6.625x.28	0.010	0.239	0.000	0.249 ✔	1.066	H1-3 ✔
L2	360.5 - 345.5 (2)	HSS8.625x.322	0.009	0.369	0.000	0.378 ✔	1.066	H1-3 ✔

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	Mast Stability Index	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	5.00	5.00	73.6 K=1.00	1.00	16.053	1.4649	-3002.02	23515.50	0.128
T2	340.5 - 335.5	Stainless Inc. 2.5x0.203	5.00	5.00	73.6 K=1.00	1.00	16.053	1.4649	-19290.50	23515.50	0.820
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	5.05	5.05	73.7 K=1.00	1.00	16.046	1.3119	-24895.00	21051.00	1.183
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-29896.20	37298.90	0.802
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-35244.70	37298.90	0.945
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-39976.00	37298.90	1.072
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-45040.00	37298.90	1.208
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-42635.20	37298.90	1.143
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-38800.10	37298.90	1.040
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7 K=1.00	1.00	16.046	2.3245	-30026.60	37298.90	0.805
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	5.05	5.05	73.7 K=1.00	1.00	16.046	1.3119	-24665.40	21051.00	1.172
T12	290.05 - 285	Stainless Inc. 2.5x0.180	5.05	5.05	73.7 K=1.00	1.00	16.046	1.3119	-18237.00	21051.00	0.866
T13	285 - 279.95	Stainless Inc. 2.5x0.250	5.05	5.05	75.7 K=1.00	1.00	15.826	1.7672	-25990.70	27965.90	0.929
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	5.05	5.05	75.7 K=1.00	1.00	15.826	1.7672	-35308.80	27965.90	1.263
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	5.05	73.6 K=1.00	1.00	16.052	2.7797	-49232.80	44620.30	1.103
T16	269.85 - 264.8	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	5.05	73.6 K=1.00	1.00	16.052	2.7797	-58976.80	44620.30	1.322
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	2.52	36.8 K=1.00	0.97	18.823	2.7797	-65393.50	52321.30	1.250
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	5.05	2.52	36.7 K=1.00	0.97	18.784	2.4775	-60964.40	46538.10	1.310
T19	254.7 - 249.65	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	5.05	2.52	36.7 K=1.00	0.96	18.717	2.4775	-55436.50	46370.00	1.196
T20	249.65 - 244.6	2 1/2" ODx0.203"	5.05	2.52	36.7	0.96	18.686	2.4775	-53890.50	46294.20	1.164

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	Mast Stability Index	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T21	244.6 - 239.55	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.203"	5.05	2.52	K=1.00 36.7	0.96	18.625	2.4775	-50114.40	46144.30	1.086
T22	239.55 - 234.5	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.203"	5.05	2.52	K=1.00 36.7	0.96	18.613	2.4775	-50022.20	46113.00	1.085
T23	234.5 - 229.45	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.180"	5.05	2.52	K=1.00 36.8	0.96	18.567	2.3245	-47840.30	43159.80	1.108
T24	229.45 - 224.4	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.180"	5.05	2.52	K=1.00 36.8	0.96	18.580	2.3245	-49233.80	43188.30	1.140
T25	224.4 - 219.35	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.180"	5.05	2.52	K=1.00 36.8	0.96	18.564	2.3245	-48652.80	43151.00	1.128
T26	219.35 - 214.3	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.180"	5.05	2.52	K=1.00 36.8	0.96	18.599	2.3245	-51545.70	43232.90	1.192
T27	214.3 - 209.25	W/ 1/2 PIPE SCH 80 2 1/2" ODx0.180"	5.05	2.52	K=1.00 36.8	0.96	18.607	2.3245	-52621.90	43251.10	1.217
T28	209.25 - 199.15	W/ 1/2 PIPE SCH 80 2 1/4	10.10	5.05	K=1.00 107.7	1.00	11.975	3.9761	-59549.70	47613.50	1.251
T29	199.15 - 194.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-65298.50	68502.50	0.953
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-68894.20	68502.50	1.006
T31	189.05 - 184	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-70479.80	68502.50	1.029
T32	184 - 178.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-63829.50	68502.50	0.932
T33	178.95 - 158.75	2 1/4	20.20	5.05	K=1.00 107.7	1.00	11.975	3.9761	-59514.10	47613.50	1.250
T34	158.75 - 133.5	2 1/4	25.25	5.05	K=1.00 107.7	1.00	11.975	3.9761	-46794.10	47613.50	0.983
T35	133.5 - 108.25	2 1/4	25.25	5.05	K=1.00 107.7	1.00	11.975	3.9761	-60705.40	47613.50	1.275
T36	108.25 - 103.2	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-67467.60	68502.50	0.985
T37	103.2 - 98.15	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-69015.90	68502.50	1.007
T38	98.15 - 93.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-69547.00	68502.50	1.015
T39	93.1 - 88.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-66051.90	68502.50	0.964
T40	88.05 - 83	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-65134.60	68502.50	0.951
T41	83 - 77.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-64147.80	68502.50	0.936
T42	77.95 - 72.9	2 1/4	5.05	2.52	K=1.00 53.9	1.00	18.004	3.9761	-62995.70	71585.40	0.880
T43	72.9 - 67.85	2 1/4	5.05	2.52	K=1.00 53.9	1.00	18.004	3.9761	-64412.30	71585.40	0.900
T44	67.85 - 62.8	2 1/4	5.05	2.52	K=1.00 53.9	0.99	17.861	3.9761	-69293.90	71016.70	0.976
T45	62.8 - 57.75	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-67518.40	68502.50	0.986
T46	57.75 - 52.7	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-71538.40	68502.50	1.044
T47	52.7 - 47.65	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-73812.00	68502.50	1.078
T48	47.65 - 42.6	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-75896.10	68502.50	1.108
T49	42.6 - 37.55	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	K=1.00 97.0	1.00	13.356	5.1290	-78391.60	68502.50	1.144

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	Mast Stability Index	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T50	37.55 - 32.5	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-78807.20	68502.50	1.150
T51	32.5 - 27.45	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-80717.70	68502.50	1.178
T52	27.45 - 22.4	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-78730.30	68502.50	1.149
T53	22.4 - 17.35	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-78498.60	68502.50	1.146
T54	17.35 - 12.3	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-74908.60	68502.50	1.094
T55	12.3 - 7.25	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0 K=1.00	1.00	13.356	5.1290	-74422.00	68502.50	1.086

Leg Bending Design Data (Compression)

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T2	340.5 - 335.5	Stainless Inc. 2.5x0.203	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T12	290.05 - 285	Stainless Inc. 2.5x0.180	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T13	285 - 279.95	Stainless Inc. 2.5x0.250	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T16	269.85 - 264.8	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T19	254.7 - 249.65	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T20	249.65 - 244.6	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T21	244.6 - 239.55	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T22	239.55 - 234.5	2 1/2" ODx0.203" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T23	234.5 - 229.45	PIPE SCH 80 2 1/2" ODx0.180" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T24	229.45 - 224.4	PIPE SCH 80 2 1/2" ODx0.180" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T25	224.4 - 219.35	PIPE SCH 80 2 1/2" ODx0.180" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T26	219.35 - 214.3	PIPE SCH 80 2 1/2" ODx0.180" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T27	214.3 - 209.25	PIPE SCH 80 2 1/2" ODx0.180" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T28	209.25 - 199.15	PIPE SCH 80 2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T29	199.15 - 194.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T31	189.05 - 184	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T32	184 - 178.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T33	178.95 - 158.75	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T34	158.75 - 133.5	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T35	133.5 - 108.25	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T36	108.25 - 103.2	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T37	103.2 - 98.15	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T38	98.15 - 93.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T39	93.1 - 88.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T40	88.05 - 83	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T41	83 - 77.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T42	77.95 - 72.9	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T43	72.9 - 67.85	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T44	67.85 - 62.8	2 1/4	0.00	0.000	27.000	0.000	0.00	0.000	27.000	0.000
T45	62.8 - 57.75	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T46	57.75 - 52.7	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T47	52.7 - 47.65	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T48	47.65 - 42.6	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T49	42.6 - 37.55	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T50	37.55 - 32.5	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T51	32.5 - 27.45	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T52	27.45 - 22.4	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T53	22.4 - 17.35	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T54	17.35 - 12.3	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T55	12.3 - 7.25	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000

Leg Interaction Design Data (Compression)

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	0.128	0.000	0.000	0.128 ✔	1.333	H1-3 ✔
T2	340.5 - 335.5	Stainless Inc. 2.5x0.203	0.820	0.000	0.000	0.820 ✔	1.333	H1-3 ✔
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	1.183	0.000	0.000	1.183 ✔	1.333	H1-3 ✔
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.802	0.000	0.000	0.802 ✔	1.333	H1-3 ✔
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.945	0.000	0.000	0.945 ✔	1.333	H1-3 ✔
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.072	0.000	0.000	1.072 ✔	1.333	H1-3 ✔
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.208	0.000	0.000	1.208 ✔	1.333	H1-3 ✔
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.143	0.000	0.000	1.143 ✔	1.333	H1-3 ✔
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.040	0.000	0.000	1.040 ✔	1.333	H1-3 ✔
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.805	0.000	0.000	0.805 ✔	1.333	H1-3 ✔
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	1.172	0.000	0.000	1.172 ✔	1.333	H1-3 ✔
T12	290.05 - 285	Stainless Inc. 2.5x0.180	0.866	0.000	0.000	0.866 ✔	1.333	H1-3 ✔
T13	285 - 279.95	Stainless Inc. 2.5x0.250	0.929	0.000	0.000	0.929 ✔	1.333	H1-3 ✔
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	1.263	0.000	0.000	1.263 ✔	1.333	H1-3 ✔
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	1.103	0.000	0.000	1.103 ✔	1.333	H1-3 ✔
T16	269.85 - 264.8	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	1.322	0.000	0.000	1.322 ✔	1.333	H1-3 ✔
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	1.250	0.000	0.000	1.250 ✔	1.333	H1-3 ✔
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	1.310	0.000	0.000	1.310 ✔	1.333	H1-3 ✔
T19	254.7 - 249.65	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	1.196	0.000	0.000	1.196 ✔	1.333	H1-3 ✔
T20	249.65 - 244.6	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	1.164	0.000	0.000	1.164 ✔	1.333	H1-3 ✔
T21	244.6 - 239.55	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	1.086	0.000	0.000	1.086 ✔	1.333	H1-3 ✔

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T22	239.55 - 234.5	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	1.085	0.000	0.000	1.085 ✔	1.333	H1-3 ✔
T23	234.5 - 229.45	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.108	0.000	0.000	1.108 ✔	1.333	H1-3 ✔
T24	229.45 - 224.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.140	0.000	0.000	1.140 ✔	1.333	H1-3 ✔
T25	224.4 - 219.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.128	0.000	0.000	1.128 ✔	1.333	H1-3 ✔
T26	219.35 - 214.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.192	0.000	0.000	1.192 ✔	1.333	H1-3 ✔
T27	214.3 - 209.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	1.217	0.000	0.000	1.217 ✔	1.333	H1-3 ✔
T28	209.25 - 199.15	2 1/4	1.251	0.000	0.000	1.251 ✔	1.333	H1-3 ✔
T29	199.15 - 194.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.953	0.000	0.000	0.953 ✔	1.333	H1-3 ✔
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.006	0.000	0.000	1.006 ✔	1.333	H1-3 ✔
T31	189.05 - 184	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.029	0.000	0.000	1.029 ✔	1.333	H1-3 ✔
T32	184 - 178.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.932	0.000	0.000	0.932 ✔	1.333	H1-3 ✔
T33	178.95 - 158.75	2 1/4	1.250	0.000	0.000	1.250 ✔	1.333	H1-3 ✔
T34	158.75 - 133.5	2 1/4	0.983	0.000	0.000	0.983 ✔	1.333	H1-3 ✔
T35	133.5 - 108.25	2 1/4	1.275	0.000	0.000	1.275 ✔	1.333	H1-3 ✔
T36	108.25 - 103.2	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.985	0.000	0.000	0.985 ✔	1.333	H1-3 ✔
T37	103.2 - 98.15	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.007	0.000	0.000	1.007 ✔	1.333	H1-3 ✔
T38	98.15 - 93.1	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.015	0.000	0.000	1.015 ✔	1.333	H1-3 ✔
T39	93.1 - 88.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.964	0.000	0.000	0.964 ✔	1.333	H1-3 ✔
T40	88.05 - 83	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.951	0.000	0.000	0.951 ✔	1.333	H1-3 ✔
T41	83 - 77.95	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.936	0.000	0.000	0.936 ✔	1.333	H1-3 ✔
T42	77.95 - 72.9	2 1/4	0.880	0.000	0.000	0.880 ✔	1.333	H1-3 ✔
T43	72.9 - 67.85	2 1/4	0.900	0.000	0.000	0.900 ✔	1.333	H1-3 ✔
T44	67.85 - 62.8	2 1/4	0.976	0.000	0.000	0.976 ✔	1.333	H1-3 ✔
T45	62.8 - 57.75	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.986	0.000	0.000	0.986 ✔	1.333	H1-3 ✔
T46	57.75 - 52.7	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.044	0.000	0.000	1.044 ✔	1.333	H1-3 ✔
T47	52.7 - 47.65	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.078	0.000	0.000	1.078 ✔	1.333	H1-3 ✔

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T48	47.65 - 42.6	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.108	0.000	0.000	1.108 ✔	1.333	H1-3 ✔
T49	42.6 - 37.55	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.144	0.000	0.000	1.144 ✔	1.333	H1-3 ✔
T50	37.55 - 32.5	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.150	0.000	0.000	1.150 ✔	1.333	H1-3 ✔
T51	32.5 - 27.45	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.178	0.000	0.000	1.178 ✔	1.333	H1-3 ✔
T52	27.45 - 22.4	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.149	0.000	0.000	1.149 ✔	1.333	H1-3 ✔
T53	22.4 - 17.35	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.146	0.000	0.000	1.146 ✔	1.333	H1-3 ✔
T54	17.35 - 12.3	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.094	0.000	0.000	1.094 ✔	1.333	H1-3 ✔
T55	12.3 - 7.25	SR 2 1/4 W/ 1/2 PIPE SCH 80	1.086	0.000	0.000	1.086 ✔	1.333	H1-3 ✔

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	2L2x2x3/16	5.22	4.86	107.2 K=1.14	12.041	1.4300	-2877.87	17218.20	0.167 ✔
T2	340.5 - 335.5	P1.5x.120	5.83	5.43	133.0 K=1.00	8.448	0.5202	-4393.91	4395.16	1.000 ✔
T3	335.5 - 330.45	P1.5x.120	5.87	5.47	133.9 K=1.00	8.325	0.5202	-4411.81	4331.15	1.019 ✔
T4	330.45 - 325.4	P1.5x.120	5.87	5.44	133.4 K=1.00	8.394	0.5202	-3936.91	4367.06	0.902 ✔
T5	325.4 - 320.35	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3622.88	4403.41	0.823 ✔
T6	320.35 - 315.3	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3232.86	4403.41	0.734 ✔
T7	315.3 - 310.25	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3075.58	4403.41	0.698 ✔
T8	310.25 - 305.2	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-4623.11	4403.41	1.050 ✔
T9	305.2 - 300.15	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-5396.38	4403.41	1.225 ✔
T10	300.15 - 295.1	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-5734.45	4403.41	1.302 ✔
T11	295.1 - 290.05	P1.5x.145	5.87	5.44	104.9 K=1.00	12.188	0.7995	-6277.76	9743.90	0.644 ✔
T12	290.05 - 285	P1.5x.145	5.87	5.47	105.4 K=1.00	12.134	0.7995	-6545.05	9700.83	0.675 ✔
T13	285 - 279.95	P1.5x.145	5.87	5.47	105.4 K=1.00	12.134	0.7995	-6954.48	9700.83	0.717 ✔
T14	279.95 - 274.9	P1.5x.145	5.87	5.47	105.4 K=1.00	12.134	0.7995	-8518.09	9700.83	0.878 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T15	274.9 - 269.85	P1.5x.145	5.87	5.44	104.9 K=1.00	12.188	0.7995	-8181.01	9743.90	0.840 ✓
T16	269.85 - 264.8	P1.5x.145	5.87	5.42	104.5 K=1.00	12.242	0.7995	-9394.71	9786.85	0.960 ✓
T17	264.8 - 259.75	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-5165.04	4403.41	1.173 ✓
T18	259.75 - 254.7	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-5104.50	4403.41	1.159 ✓
T19	254.7 - 249.65	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-4509.72	4403.41	1.024 ✓
T20	249.65 - 244.6	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-4009.70	4403.41	0.911 ✓
T21	244.6 - 239.55	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3567.84	4403.41	0.810 ✓
T22	239.55 - 234.5	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3042.67	4403.41	0.691 ✓
T23	234.5 - 229.45	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-2679.76	4403.41	0.609 ✓
T24	229.45 - 224.4	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-2499.46	4403.41	0.568 ✓
T25	224.4 - 219.35	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-2639.95	4403.41	0.600 ✓
T26	219.35 - 214.3	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3418.89	4403.41	0.776 ✓
T27	214.3 - 209.25	P1.5x.120	5.87	5.42	132.8 K=1.00	8.464	0.5202	-3573.00	4403.41	0.811 ✓
T28	209.25 - 199.15	P1.5x.120	5.87	5.51	134.9 K=1.00	8.202	0.5202	-4335.98	4267.22	1.016 ✓
T29	199.15 - 194.1	P1.5x.120	5.87	5.48	134.4 K=1.00	8.270	0.5202	-4900.48	4302.34	1.139 ✓
T30	194.1 - 189.05	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-5147.33	4337.88	1.187 ✓
T31	189.05 - 184	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-4833.32	4337.88	1.114 ✓
T32	184 - 178.95	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-4651.75	4337.88	1.072 ✓
T33	178.95 - 158.75	P1.5x.120	5.87	5.51	134.9 K=1.00	8.202	0.5202	-4057.72	4267.22	0.951 ✓
T34	158.75 - 133.5	P1.5x.120	5.87	5.51	134.9 K=1.00	8.202	0.5202	-3295.37	4267.22	0.772 ✓
T35	133.5 - 108.25	P1.5x.145	5.87	5.51	106.1 K=1.00	12.036	0.7995	-7115.23	9622.51	0.739 ✓
T36	108.25 - 103.2	P1.5x.145	5.87	5.48	105.7 K=1.00	12.090	0.7995	-6442.64	9665.79	0.667 ✓
T37	103.2 - 98.15	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3268.50	4337.88	0.753 ✓
T38	98.15 - 93.1	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3019.01	4337.88	0.696 ✓
T39	93.1 - 88.05	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3770.81	4337.88	0.869 ✓
T40	88.05 - 83	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3778.59	4337.88	0.871 ✓
T41	83 - 77.95	P1.5x.120	5.87	5.46	133.8	8.338	0.5202	-5016.47	4337.88	1.156

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
					K=1.00					✔
T42	77.95 - 72.9	P1.5x.145	5.87	5.48	105.7 K=1.00	12.090	0.7995	-12675.10	9665.79	1.311 ✔
T43	72.9 - 67.85	P1.5x.2	5.87	5.51	109.2 K=1.00	11.651	1.0681	-13632.50	12445.20	1.095 ✔
T44	67.85 - 62.8	P1.5x.145	5.87	5.51	106.1 K=1.00	12.036	0.7995	-7299.12	9622.51	0.759 ✔
T45	62.8 - 57.75	P1.5x.145	5.87	5.48	105.7 K=1.00	12.090	0.7995	-6626.14	9665.79	0.686 ✔
T46	57.75 - 52.7	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-5708.77	4337.88	1.316 ✔
T47	52.7 - 47.65	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-4848.25	4337.88	1.118 ✔
T48	47.65 - 42.6	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3869.98	4337.88	0.892 ✔
T49	42.6 - 37.55	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3316.84	4337.88	0.765 ✔
T50	37.55 - 32.5	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-2688.78	4337.88	0.620 ✔
T51	32.5 - 27.45	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-2201.23	4337.88	0.507 ✔
T52	27.45 - 22.4	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-2775.15	4337.88	0.640 ✔
T53	22.4 - 17.35	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-3923.74	4337.88	0.905 ✔
T54	17.35 - 12.3	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-4742.09	4337.88	1.093 ✔
T55	12.3 - 7.25	P1.5x.120	5.87	5.46	133.8 K=1.00	8.338	0.5202	-5510.91	4337.88	1.270 ✔

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T28	209.25 - 199.15	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-1031.43	8417.28	0.123 ✔
T33	178.95 - 158.75	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-1030.82	8417.28	0.122 ✔
T34	158.75 - 133.5	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-810.50	8417.28	0.096 ✔
T35	133.5 - 108.25	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-1051.45	8417.28	0.125 ✔

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T17	264.8 - 259.75	1	3.00	2.77	93.0 K=0.70	13.841	0.7854	-1132.65	10871.00	0.104 ✔
T18	259.75 - 254.7	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-1055.93	13866.30	0.076 ✔
T19	254.7 - 249.65	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-960.19	13866.30	0.069 ✔
T20	249.65 - 244.6	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-933.41	13866.30	0.067 ✔
T21	244.6 - 239.55	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-868.01	13866.30	0.063 ✔
T22	239.55 - 234.5	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-866.41	13866.30	0.062 ✔
T23	234.5 - 229.45	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-828.62	13866.30	0.060 ✔
T24	229.45 - 224.4	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-852.75	13866.30	0.061 ✔
T25	224.4 - 219.35	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-842.69	13866.30	0.061 ✔
T26	219.35 - 214.3	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-892.80	13866.30	0.064 ✔
T27	214.3 - 209.25	L2x2 1/2x1/4	3.00	2.77	99.2 K=1.27	13.081	1.0600	-911.44	13866.30	0.066 ✔
T42	77.95 - 72.9	L2x2 1/2x1/4	3.00	2.81	99.8 K=1.25	13.003	1.0600	-1091.12	13783.30	0.079 ✔
T43	72.9 - 67.85	L2x2 1/2x1/4	3.00	2.81	99.8 K=1.25	13.003	1.0600	-1115.65	13783.30	0.081 ✔
T44	67.85 - 62.8	L2x2 1/2x1/4	3.00	2.81	99.8 K=1.25	13.003	1.0600	-1200.21	13783.30	0.087 ✔

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	C4x5.4	3.00	2.79	74.6 K=1.00	15.944	1.5900	-0.11	25351.30	0.000 ✔
T3	335.5 - 330.45	P1.5x.120	3.00	2.79	68.4 K=1.00	16.229	0.5202	-8.54	8443.25	0.001 ✔
T4	330.45 - 325.4	P1.5x.120	3.00	2.79	68.4 K=1.00	16.229	0.5202	-111.16	8443.25	0.013 ✔
T5	325.4 - 320.35	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-74.98	8471.80	0.009 ✔
T6	320.35 - 315.3	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-67.16	8471.80	0.008 ✔
T7	315.3 - 310.25	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-294.52	8471.80	0.035 ✔
T8	310.25 - 305.2	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-1777.35	8471.80	0.210 ✔
T9	305.2 - 300.15	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-151.63	8471.80	0.018 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T10	300.15 - 295.1	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-44.38	8471.80	0.005 ✔
T11	295.1 - 290.05	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-40.04	8471.80	0.005 ✔
T13	285 - 279.95	P1.5x.120	3.00	2.79	68.4 K=1.00	16.229	0.5202	-4.93	8443.25	0.001 ✔
T14	279.95 - 274.9	P1.5x.120	3.00	2.79	68.4 K=1.00	16.229	0.5202	-928.98	8443.25	0.110 ✔
T15	274.9 - 269.85	P1.5x.120	3.00	2.79	68.4 K=1.00	16.229	0.5202	-40.27	8443.25	0.005 ✔
T16	269.85 - 264.8	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-5.26	8471.80	0.001 ✔
T18	259.75 - 254.7	P1.5x.120	3.00	2.77	67.8 K=1.00	16.284	0.5202	-301.90	8471.80	0.036 ✔
T34	158.75 - 133.5	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-17.32	8417.28	0.002 ✔
T37	103.2 - 98.15	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-778.48	8445.94	0.092 ✔
T38	98.15 - 93.1	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-582.05	8445.94	0.069 ✔
T41	83 - 77.95	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-24.61	8445.94	0.003 ✔
T42	77.95 - 72.9	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-2374.17	8445.94	0.281 ✔
T43	72.9 - 67.85	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-51.88	8417.28	0.006 ✔
T45	62.8 - 57.75	P1.5x.120	3.00	2.81	68.9 K=1.00	16.179	0.5202	-0.66	8417.28	0.000 ✔
T46	57.75 - 52.7	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-48.26	8445.94	0.006 ✔
T47	52.7 - 47.65	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-4.78	8445.94	0.001 ✔
T48	47.65 - 42.6	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-35.79	8445.94	0.004 ✔
T49	42.6 - 37.55	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-32.53	8445.94	0.004 ✔
T50	37.55 - 32.5	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-32.89	8445.94	0.004 ✔
T51	32.5 - 27.45	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-26.17	8445.94	0.003 ✔
T52	27.45 - 22.4	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-26.93	8445.94	0.003 ✔
T53	22.4 - 17.35	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-11.03	8445.94	0.001 ✔
T54	17.35 - 12.3	P1.5x.120	3.00	2.79	68.3 K=1.00	16.235	0.5202	-38.43	8445.94	0.005 ✔

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	5.00	5.00	73.6	21.600	1.4649	2944.49	31641.80	0.093
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	5.05	5.05	73.7	21.600	1.3119	2829.14	28337.70	0.100
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	9109.39	50209.20	0.181
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	15269.00	50209.20	0.304
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	19538.00	50209.20	0.389
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	24525.60	50209.20	0.488
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	21696.70	50209.20	0.432
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	17028.70	50209.20	0.339
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	5.05	5.05	73.7	21.600	2.3245	7828.50	50209.20	0.156
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	5.05	5.05	73.7	21.600	1.3119	1455.91	28337.70	0.051
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	5.05	5.05	75.7	21.600	1.7672	6521.63	38170.40	0.171
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	5.05	73.6	21.600	2.7797	16616.80	60041.50	0.277
T16	269.85 - 264.8	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	5.05	73.6	21.600	2.7797	25976.70	60041.50	0.433
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	5.05	2.52	36.8	21.600	2.7797	5771.91	60041.50	0.096
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	5.05	2.52	36.7	21.600	2.4775	1205.30	53514.00	0.023
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	5.05	5.05	97.0	21.600	5.1290	1435.18	110786.00	0.013

Leg Bending Design Data (Tension)

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	0.00	0.000	23.760	0.000	0.00	0.000	23.760	0.000
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T16	269.85 - 264.8	PIPE SCH 80 2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.00	0.000	21.600	0.000	0.00	0.000	21.600	0.000

Leg Interaction Design Data (Tension)

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	345.5 - 340.5	Stainless Inc. 2.5x0.203	0.093	0.000	0.000	0.093 ✔	1.333	H2-1 ✔
T3	335.5 - 330.45	Stainless Inc. 2.5x0.180	0.100	0.000	0.000	0.100 ✔	1.333	H2-1 ✔
T4	330.45 - 325.4	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.181	0.000	0.000	0.181 ✔	1.333	H2-1 ✔
T5	325.4 - 320.35	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.304	0.000	0.000	0.304 ✔	1.333	H2-1 ✔
T6	320.35 - 315.3	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.389	0.000	0.000	0.389 ✔	1.333	H2-1 ✔
T7	315.3 - 310.25	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.488	0.000	0.000	0.488 ✔	1.333	H2-1 ✔
T8	310.25 - 305.2	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.432	0.000	0.000	0.432 ✔	1.333	H2-1 ✔
T9	305.2 - 300.15	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.339	0.000	0.000	0.339 ✔	1.333	H2-1 ✔
T10	300.15 - 295.1	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	0.156	0.000	0.000	0.156 ✔	1.333	H2-1 ✔
T11	295.1 - 290.05	Stainless Inc. 2.5x0.180	0.051	0.000	0.000	0.051 ✔	1.333	H2-1 ✔
T14	279.95 - 274.9	Stainless Inc. 2.5x0.250	0.171	0.000	0.000	0.171 ✔	1.333	H2-1 ✔
T15	274.9 - 269.85	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.277	0.000	0.000	0.277 ✔	1.333	H2-1 ✔
T16	269.85 - 264.8	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.433	0.000	0.000	0.433 ✔	1.333	H2-1 ✔
T17	264.8 - 259.75	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	0.096	0.000	0.000	0.096 ✔	1.333	H2-1 ✔
T18	259.75 - 254.7	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	0.023	0.000	0.000	0.023 ✔	1.333	H2-1 ✔
T30	194.1 - 189.05	SR 2 1/4 W/ 1/2 PIPE SCH 80	0.013	0.000	0.000	0.013 ✔	1.333	H2-1 ✔

tnxTower	Job: 376' Guyed Tower	Page: 129 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	2L2x2x3/16	5.22	4.86	94.5	21.600	1.4300	2659.27	30888.00	0.086 ✔
T2	340.5 - 335.5	P1.5x.120	5.83	5.43	133.0	21.000	0.5202	4267.54	10925.20	0.391 ✔
T3	335.5 - 330.45	P1.5x.120	5.87	5.47	133.9	21.000	0.5202	3807.07	10925.20	0.348 ✔
T4	330.45 - 325.4	P1.5x.120	5.87	5.44	133.4	21.000	0.5202	3617.04	10925.20	0.331 ✔
T5	325.4 - 320.35	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	3005.32	10925.20	0.275 ✔
T6	320.35 - 315.3	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2745.63	10925.20	0.251 ✔
T7	315.3 - 310.25	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2643.95	10925.20	0.242 ✔
T8	310.25 - 305.2	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	4182.44	10925.20	0.383 ✔
T9	305.2 - 300.15	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	4792.08	10925.20	0.439 ✔
T10	300.15 - 295.1	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	5298.89	10925.20	0.485 ✔
T11	295.1 - 290.05	P1.5x.145	5.87	5.44	104.9	21.000	0.7995	5666.58	16788.60	0.338 ✔
T12	290.05 - 285	P1.5x.145	5.87	5.47	105.4	21.000	0.7995	6139.43	16788.60	0.366 ✔
T13	285 - 279.95	P1.5x.145	5.87	5.47	105.4	21.000	0.7995	6321.55	16788.60	0.377 ✔
T14	279.95 - 274.9	P1.5x.145	5.87	5.47	105.4	21.000	0.7995	7423.05	16788.60	0.442 ✔
T15	274.9 - 269.85	P1.5x.145	5.87	5.44	104.9	21.000	0.7995	8285.56	16788.60	0.494 ✔
T16	269.85 - 264.8	P1.5x.145	5.87	5.42	104.5	21.000	0.7995	8066.78	16788.60	0.480 ✔
T17	264.8 - 259.75	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	4043.94	10925.20	0.370 ✔
T18	259.75 - 254.7	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	4025.81	10925.20	0.368 ✔
T19	254.7 - 249.65	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	3420.47	10925.20	0.313 ✔
T20	249.65 - 244.6	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2891.44	10925.20	0.265 ✔
T21	244.6 - 239.55	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2349.35	10925.20	0.215 ✔
T22	239.55 - 234.5	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	1951.47	10925.20	0.179 ✔
T23	234.5 - 229.45	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	1284.28	10925.20	0.118 ✔
T24	229.45 - 224.4	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	1236.16	10925.20	0.113 ✔
T25	224.4 - 219.35	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	1813.27	10925.20	0.166 ✔

tnxTower	Job: 376' Guyed Tower	Page: 130 of 138
URS Corporation 500 Enterprise Drive, Suite 3B Rocky Hill, CT 06067 Phone: 860-529-8882 FAX: 860-529-3991	Project: (VZ5-172 & SAI-078) Shirley Street, Norwalk, CT	Date: 18:52:46 04/02/14
	Client: VZW & AT&T	Designed by: MCD

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T26	219.35 - 214.3	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2150.42	10925.20	0.197 ✓
T27	214.3 - 209.25	P1.5x.120	5.87	5.42	132.8	21.000	0.5202	2899.75	10925.20	0.265 ✓
T28	209.25 - 199.15	P1.5x.120	5.87	5.51	134.9	21.000	0.5202	3878.67	10925.20	0.355 ✓
T29	199.15 - 194.1	P1.5x.120	5.87	5.48	134.4	21.000	0.5202	4278.33	10925.20	0.392 ✓
T30	194.1 - 189.05	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	4591.41	10925.20	0.420 ✓
T31	189.05 - 184	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	4148.28	10925.20	0.380 ✓
T32	184 - 178.95	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	3802.24	10925.20	0.348 ✓
T33	178.95 - 158.75	P1.5x.120	5.87	5.51	134.9	21.000	0.5202	3457.28	10925.20	0.316 ✓
T34	158.75 - 133.5	P1.5x.120	5.87	5.51	134.9	21.000	0.5202	3065.48	10925.20	0.281 ✓
T35	133.5 - 108.25	P1.5x.145	5.87	5.51	106.1	21.000	0.7995	6491.78	16788.60	0.387 ✓
T36	108.25 - 103.2	P1.5x.145	5.87	5.48	105.7	21.000	0.7995	5663.47	16788.60	0.337 ✓
T37	103.2 - 98.15	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2429.44	10925.20	0.222 ✓
T38	98.15 - 93.1	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2650.19	10925.20	0.243 ✓
T39	93.1 - 88.05	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2251.59	10925.20	0.206 ✓
T40	88.05 - 83	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	3363.46	10925.20	0.308 ✓
T41	83 - 77.95	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	3514.23	10925.20	0.322 ✓
T42	77.95 - 72.9	P1.5x.145	5.87	5.48	105.7	21.000	0.7995	12197.70	16788.60	0.727 ✓
T43	72.9 - 67.85	P1.5x.2	5.87	5.51	109.2	21.000	1.0681	12618.70	22431.00	0.563 ✓
T44	67.85 - 62.8	P1.5x.145	5.87	5.51	106.1	21.000	0.7995	6467.30	16788.60	0.385 ✓
T45	62.8 - 57.75	P1.5x.145	5.87	5.48	105.7	21.000	0.7995	5687.29	16788.60	0.339 ✓
T46	57.75 - 52.7	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	4563.01	10925.20	0.418 ✓
T47	52.7 - 47.65	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	3643.76	10925.20	0.334 ✓
T48	47.65 - 42.6	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2949.42	10925.20	0.270 ✓
T49	42.6 - 37.55	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2172.60	10925.20	0.199 ✓
T50	37.55 - 32.5	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	1734.92	10925.20	0.159 ✓
T51	32.5 - 27.45	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	1135.17	10925.20	0.104 ✓
T52	27.45 - 22.4	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	1834.39	10925.20	0.168 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T53	22.4 - 17.35	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	2558.73	10925.20	0.234
T54	17.35 - 12.3	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	3797.06	10925.20	0.348
T55	12.3 - 7.25	P1.5x.120	5.87	5.46	133.8	21.000	0.5202	4163.35	10925.20	0.381

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T28	209.25 - 199.15	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	1031.43	10925.20	0.094
T33	178.95 - 158.75	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	1030.82	10925.20	0.094
T34	158.75 - 133.5	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	810.50	10925.20	0.074
T35	133.5 - 108.25	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	1051.45	10925.20	0.096

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T17	264.8 - 259.75	1	3.00	2.77	132.9	21.600	0.7854	1132.65	16964.60	0.067
T18	259.75 - 254.7	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	1055.93	22896.00	0.046
T19	254.7 - 249.65	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	960.19	22896.00	0.042
T20	249.65 - 244.6	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	933.41	22896.00	0.041
T21	244.6 - 239.55	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	868.01	22896.00	0.038
T22	239.55 - 234.5	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	866.41	22896.00	0.038
T23	234.5 - 229.45	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	828.62	22896.00	0.036
T24	229.45 - 224.4	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	852.75	22896.00	0.037
T25	224.4 - 219.35	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	842.69	22896.00	0.037
T26	219.35 - 214.3	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	892.80	22896.00	0.039

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T27	214.3 - 209.25	L2x2 1/2x1/4	3.00	2.77	56.1	21.600	1.0600	911.44	22896.00	0.040 ✓
T42	77.95 - 72.9	L2x2 1/2x1/4	3.00	2.81	57.0	21.600	1.0600	1091.12	22896.00	0.048 ✓
T43	72.9 - 67.85	L2x2 1/2x1/4	3.00	2.81	57.0	21.600	1.0600	1115.65	22896.00	0.049 ✓
T44	67.85 - 62.8	L2x2 1/2x1/4	3.00	2.81	57.0	21.600	1.0600	1200.21	22896.00	0.052 ✓

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T1	345.5 - 340.5	C4x5.4	3.00	2.79	74.6	21.600	1.5900	0.11	34344.00	0.000 ✓
T3	335.5 - 330.45	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	219.31	10925.20	0.020 ✓
T4	330.45 - 325.4	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	405.66	10925.20	0.037 ✓
T5	325.4 - 320.35	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	348.20	10925.20	0.032 ✓
T6	320.35 - 315.3	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	322.92	10925.20	0.030 ✓
T7	315.3 - 310.25	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	587.38	10925.20	0.054 ✓
T8	310.25 - 305.2	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	1900.73	10925.20	0.174 ✓
T9	305.2 - 300.15	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	384.72	10925.20	0.035 ✓
T10	300.15 - 295.1	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	320.18	10925.20	0.029 ✓
T11	295.1 - 290.05	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	317.00	10925.20	0.029 ✓
T12	290.05 - 285	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	272.20	10925.20	0.025 ✓
T13	285 - 279.95	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	288.15	10925.20	0.026 ✓
T14	279.95 - 274.9	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	1195.16	10925.20	0.109 ✓
T15	274.9 - 269.85	P1.5x.120	3.00	2.79	68.4	21.000	0.5202	296.98	10925.20	0.027 ✓
T16	269.85 - 264.8	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	296.76	10925.20	0.027 ✓
T18	259.75 - 254.7	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	735.26	10925.20	0.067 ✓
T19	254.7 - 249.65	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	404.30	10925.20	0.037 ✓
T20	249.65 - 244.6	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	432.17	10925.20	0.040 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T21	244.6 - 239.55	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	429.74	10925.20	0.039 ✔
T22	239.55 - 234.5	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	439.71	10925.20	0.040 ✔
T23	234.5 - 229.45	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	456.06	10925.20	0.042 ✔
T24	229.45 - 224.4	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	459.82	10925.20	0.042 ✔
T25	224.4 - 219.35	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	470.06	10925.20	0.043 ✔
T26	219.35 - 214.3	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	452.04	10925.20	0.041 ✔
T27	214.3 - 209.25	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	425.22	10925.20	0.039 ✔
T28	209.25 - 199.15	P1.5x.120	3.00	2.77	67.8	21.000	0.5202	397.64	10925.20	0.036 ✔
T29	199.15 - 194.1	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	299.18	10925.20	0.027 ✔
T30	194.1 - 189.05	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	277.20	10925.20	0.025 ✔
T32	184 - 178.95	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	261.57	10925.20	0.024 ✔
T33	178.95 - 158.75	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	313.21	10925.20	0.029 ✔
T34	158.75 - 133.5	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	339.86	10925.20	0.031 ✔
T35	133.5 - 108.25	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	307.17	10925.20	0.028 ✔
T36	108.25 - 103.2	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	270.17	10925.20	0.025 ✔
T37	103.2 - 98.15	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	1149.31	10925.20	0.105 ✔
T38	98.15 - 93.1	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	987.40	10925.20	0.090 ✔
T39	93.1 - 88.05	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	346.17	10925.20	0.032 ✔
T40	88.05 - 83	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	440.41	10925.20	0.040 ✔
T41	83 - 77.95	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	493.19	10925.20	0.045 ✔
T42	77.95 - 72.9	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	2697.89	10925.20	0.247 ✔
T43	72.9 - 67.85	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	418.84	10925.20	0.038 ✔
T45	62.8 - 57.75	P1.5x.120	3.00	2.81	68.9	21.000	0.5202	407.74	10925.20	0.037 ✔
T46	57.75 - 52.7	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	591.82	10925.20	0.054 ✔
T47	52.7 - 47.65	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	562.50	10925.20	0.051 ✔
T48	47.65 - 42.6	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	606.20	10925.20	0.055 ✔
T49	42.6 - 37.55	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	585.78	10925.20	0.054 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T50	37.55 - 32.5	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	599.99	10925.20	0.055 ✔
T51	32.5 - 27.45	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	580.13	10925.20	0.053 ✔
T52	27.45 - 22.4	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	594.78	10925.20	0.054 ✔
T53	22.4 - 17.35	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	574.08	10925.20	0.053 ✔
T54	17.35 - 12.3	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	606.18	10925.20	0.055 ✔
T55	12.3 - 7.25	P1.5x.120	3.00	2.79	68.3	21.000	0.5202	501.93	10925.20	0.046 ✔

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
T2	340.5 - 335.5	2L2x2x3/16	3.00	2.79	54.3	21.600	1.4300	5634.09	30888.00	0.182 ✔
T17	264.8 - 259.75	2L2x2x3/16	3.00	2.77	53.8	21.600	1.4300	9820.18	30888.00	0.318 ✔
T31	189.05 - 184	2L2x2x3/16	3.00	2.79	54.3	21.600	1.4300	5684.85	30888.00	0.184 ✔
T35	133.5 - 108.25	2L2x2x3/16	3.00	2.81	54.7	21.600	1.4300	5200.90	30888.00	0.168 ✔
T44	67.85 - 62.8	2L2x2x3/16	3.00	2.81	54.7	21.600	1.4300	10180.10	30888.00	0.330 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
L1	375.5 - 360.5	Pole	HSS6.625x.28	1	-312.00	32515.28	23.3	Pass
L2	360.5 - 345.5	Pole	HSS8.625x.322	2	-713.76	83035.77	35.5	Pass
T1	345.5 - 340.5	Leg	Stainless Inc. 2.5x0.203	3	-3002.02	31346.16	9.6	Pass
T2	340.5 - 335.5	Leg	Stainless Inc. 2.5x0.203	17	-19290.50	31346.16	61.5	Pass
T3	335.5 - 330.45	Leg	Stainless Inc. 2.5x0.180	26	-24895.00	28060.98	88.7	Pass
T4	330.45 - 325.4	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	35	-29896.20	49719.43	60.1	Pass
T5	325.4 - 320.35	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	44	-35244.70	49719.43	70.9	Pass
T6	320.35 - 315.3	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	53	-39976.00	49719.43	80.4	Pass
T7	315.3 - 310.25	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	62	-45040.00	49719.43	90.6	Pass
T8	310.25 - 305.2	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	71	-42635.20	49719.43	85.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
T9	305.2 - 300.15	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	80	-38800.10	49719.43	78.0	Pass
T10	300.15 - 295.1	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	89	-30026.60	49719.43	60.4	Pass
T11	295.1 - 290.05	Leg	Stainless Inc. 2.5x0.180	98	-24665.40	28060.98	87.9	Pass
T12	290.05 - 285	Leg	Stainless Inc. 2.5x0.180	107	-18237.00	28060.98	65.0	Pass
T13	285 - 279.95	Leg	Stainless Inc. 2.5x0.250	114	-25990.70	37278.54	69.7	Pass
T14	279.95 - 274.9	Leg	Stainless Inc. 2.5x0.250	125	-35308.80	37278.54	94.7	Pass
T15	274.9 - 269.85	Leg	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	134	-49232.80	59478.86	82.8	Pass
T16	269.85 - 264.8	Leg	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	143	-58976.80	59478.86	99.2	Pass
T17	264.8 - 259.75	Leg	2 1/2" ODx0.250" W/ 1/2 PIPE SCH 80	152	-65393.50	69744.29	93.8	Pass
T18	259.75 - 254.7	Leg	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	164	-60964.40	62035.29	98.3	Pass
T19	254.7 - 249.65	Leg	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	176	-55436.50	61811.21	89.7	Pass
T20	249.65 - 244.6	Leg	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	188	-53890.50	61710.16	87.3	Pass
T21	244.6 - 239.55	Leg	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	200	-50114.40	61510.35	81.5	Pass
T22	239.55 - 234.5	Leg	2 1/2" ODx0.203" W/ 1/2 PIPE SCH 80	212	-50022.20	61468.63	81.4	Pass
T23	234.5 - 229.45	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	224	-47840.30	57532.01	83.2	Pass
T24	229.45 - 224.4	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	236	-49233.80	57570.00	85.5	Pass
T25	224.4 - 219.35	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	248	-48652.80	57520.28	84.6	Pass
T26	219.35 - 214.3	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	260	-51545.70	57629.45	89.4	Pass
T27	214.3 - 209.25	Leg	2 1/2" ODx0.180" W/ 1/2 PIPE SCH 80	272	-52621.90	57653.72	91.3	Pass
T28	209.25 - 199.15	Leg	2 1/4	284	-59549.70	63468.79	93.8	Pass
T29	199.15 - 194.1	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	299	-65298.50	91313.83	71.5	Pass
T30	194.1 - 189.05	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	308	-68894.20	91313.83	75.4	Pass
T31	189.05 - 184	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	317	-70479.80	91313.83	77.2	Pass
T32	184 - 178.95	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	326	-63829.50	91313.83	69.9	Pass
T33	178.95 - 158.75	Leg	2 1/4	335	-59514.10	63468.79	93.8	Pass
T34	158.75 - 133.5	Leg	2 1/4	362	-46794.10	63468.79	73.7	Pass
T35	133.5 - 108.25	Leg	2 1/4	395	-60705.40	63468.79	95.6	Pass
T36	108.25 - 103.2	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	427	-67467.60	91313.83	73.9	Pass
T37	103.2 - 98.15	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	435	-69015.90	91313.83	75.6	Pass
T38	98.15 - 93.1	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	445	-69547.00	91313.83	76.2	Pass
T39	93.1 - 88.05	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	453	-66051.90	91313.83	72.3	Pass
T40	88.05 - 83	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	462	-65134.60	91313.83	71.3	Pass
T41	83 - 77.95	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	472	-64147.80	91313.83	70.2	Pass
T42	77.95 - 72.9	Leg	2 1/4	480	-62995.70	95423.33	66.0	Pass
T43	72.9 - 67.85	Leg	2 1/4	493	-64412.30	95423.33	67.5	Pass
T44	67.85 - 62.8	Leg	2 1/4	504	-69293.90	94665.26	73.2	Pass
T45	62.8 - 57.75	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	516	-67518.40	91313.83	73.9	Pass
T46	57.75 - 52.7	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	526	-71538.40	91313.83	78.3	Pass
T47	52.7 - 47.65	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	534	-73812.00	91313.83	80.8	Pass
T48	47.65 - 42.6	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	544	-75896.10	91313.83	83.1	Pass
T49	42.6 - 37.55	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	552	-78391.60	91313.83	85.8	Pass
T50	37.55 - 32.5	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	562	-78807.20	91313.83	86.3	Pass
T51	32.5 - 27.45	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	570	-80717.70	91313.83	88.4	Pass
T52	27.45 - 22.4	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	579	-78730.30	91313.83	86.2	Pass
T53	22.4 - 17.35	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	588	-78498.60	91313.83	86.0	Pass
T54	17.35 - 12.3	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	597	-74908.60	91313.83	82.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	SF*P_{allow} lb	% Capacity	Pass Fail
T55	12.3 - 7.25	Leg	SR 2 1/4 W/ 1/2 PIPE SCH 80	607	-74422.00	91313.83	81.5	Pass
T1	345.5 - 340.5	Diagonal	2L2x2x3/16	13	-2877.87	22951.86	12.5	Pass
T2	340.5 - 335.5	Diagonal	P1.5x.120	23	-4393.91	5858.75	75.0	Pass
T3	335.5 - 330.45	Diagonal	P1.5x.120	31	-4411.81	5773.42	76.4	Pass
T4	330.45 - 325.4	Diagonal	P1.5x.120	40	-3936.91	5821.29	67.6	Pass
T5	325.4 - 320.35	Diagonal	P1.5x.120	49	-3622.88	5869.75	61.7	Pass
T6	320.35 - 315.3	Diagonal	P1.5x.120	58	-3232.86	5869.75	55.1	Pass
T7	315.3 - 310.25	Diagonal	P1.5x.120	67	-3075.58	5869.75	52.4	Pass
T8	310.25 - 305.2	Diagonal	P1.5x.120	77	-4623.11	5869.75	78.8	Pass
T9	305.2 - 300.15	Diagonal	P1.5x.120	86	-5396.38	5869.75	91.9	Pass
T10	300.15 - 295.1	Diagonal	P1.5x.120	95	-5734.45	5869.75	97.7	Pass
T11	295.1 - 290.05	Diagonal	P1.5x.145	104	-6277.76	12988.62	48.3	Pass
T12	290.05 - 285	Diagonal	P1.5x.145	113	-6545.05	12931.21	50.6	Pass
T13	285 - 279.95	Diagonal	P1.5x.145	122	-6954.48	12931.21	53.8	Pass
T14	279.95 - 274.9	Diagonal	P1.5x.145	130	-8518.09	12931.21	65.9	Pass
T15	274.9 - 269.85	Diagonal	P1.5x.145	139	-8181.01	12988.62	63.0	Pass
T16	269.85 - 264.8	Diagonal	P1.5x.145	148	-9394.71	13045.87	72.0	Pass
T17	264.8 - 259.75	Diagonal	P1.5x.120	158	-5165.04	5869.75	88.0	Pass
T18	259.75 - 254.7	Diagonal	P1.5x.120	169	-5104.50	5869.75	87.0	Pass
T19	254.7 - 249.65	Diagonal	P1.5x.120	181	-4509.72	5869.75	76.8	Pass
T20	249.65 - 244.6	Diagonal	P1.5x.120	193	-4009.70	5869.75	68.3	Pass
T21	244.6 - 239.55	Diagonal	P1.5x.120	205	-3567.84	5869.75	60.8	Pass
T22	239.55 - 234.5	Diagonal	P1.5x.120	217	-3042.67	5869.75	51.8	Pass
T23	234.5 - 229.45	Diagonal	P1.5x.120	229	-2679.76	5869.75	45.7	Pass
T24	229.45 - 224.4	Diagonal	P1.5x.120	240	-2499.46	5869.75	42.6	Pass
T25	224.4 - 219.35	Diagonal	P1.5x.120	252	-2639.95	5869.75	45.0	Pass
T26	219.35 - 214.3	Diagonal	P1.5x.120	264	-3418.89	5869.75	58.2	Pass
T27	214.3 - 209.25	Diagonal	P1.5x.120	276	-3573.00	5869.75	60.9	Pass
T28	209.25 - 199.15	Diagonal	P1.5x.120	288	-4335.98	5688.20	76.2	Pass
T29	199.15 - 194.1	Diagonal	P1.5x.120	303	-4900.48	5735.02	85.4	Pass
T30	194.1 - 189.05	Diagonal	P1.5x.120	312	-5147.33	5782.39	89.0	Pass
T31	189.05 - 184	Diagonal	P1.5x.120	322	-4833.32	5782.39	83.6	Pass
T32	184 - 178.95	Diagonal	P1.5x.120	331	-4651.75	5782.39	80.4	Pass
T33	178.95 - 158.75	Diagonal	P1.5x.120	358	-4057.72	5688.20	71.3	Pass
T34	158.75 - 133.5	Diagonal	P1.5x.120	372	-3295.37	5688.20	57.9	Pass
T35	133.5 - 108.25	Diagonal	P1.5x.145	412	-7115.23	12826.80	55.5	Pass
T36	108.25 - 103.2	Diagonal	P1.5x.145	433	-6442.64	12884.50	50.0	Pass
T37	103.2 - 98.15	Diagonal	P1.5x.120	442	-3268.50	5782.39	56.5	Pass
T38	98.15 - 93.1	Diagonal	P1.5x.120	452	-3019.01	5782.39	52.2	Pass
T39	93.1 - 88.05	Diagonal	P1.5x.120	459	-3770.81	5782.39	65.2	Pass
T40	88.05 - 83	Diagonal	P1.5x.120	470	-3778.59	5782.39	65.3	Pass
T41	83 - 77.95	Diagonal	P1.5x.120	477	-5016.47	5782.39	86.8	Pass
T42	77.95 - 72.9	Diagonal	P1.5x.145	486	-12675.10	12884.50	98.4	Pass
T43	72.9 - 67.85	Diagonal	P1.5x.2	498	-13632.50	16589.45	82.2	Pass
T44	67.85 - 62.8	Diagonal	P1.5x.145	511	-7299.12	12826.80	56.9	Pass
T45	62.8 - 57.75	Diagonal	P1.5x.145	523	-6626.14	12884.50	51.4	Pass
T46	57.75 - 52.7	Diagonal	P1.5x.120	532	-5708.77	5782.39	98.7	Pass
T47	52.7 - 47.65	Diagonal	P1.5x.120	541	-4848.25	5782.39	83.8	Pass
T48	47.65 - 42.6	Diagonal	P1.5x.120	551	-3869.98	5782.39	66.9	Pass
T49	42.6 - 37.55	Diagonal	P1.5x.120	559	-3316.84	5782.39	57.4	Pass
T50	37.55 - 32.5	Diagonal	P1.5x.120	569	-2688.78	5782.39	46.5	Pass
T51	32.5 - 27.45	Diagonal	P1.5x.120	577	-2201.23	5782.39	38.1	Pass
T52	27.45 - 22.4	Diagonal	P1.5x.120	585	-2775.15	5782.39	48.0	Pass
T53	22.4 - 17.35	Diagonal	P1.5x.120	594	-3923.74	5782.39	67.9	Pass
T54	17.35 - 12.3	Diagonal	P1.5x.120	603	-4742.09	5782.39	82.0	Pass
T55	12.3 - 7.25	Diagonal	P1.5x.120	612	-5510.91	5782.39	95.3	Pass
T28	209.25 - 199.15	Horizontal	P1.5x.120	292	-1031.43	11220.23	9.2	Pass
T33	178.95 - 158.75	Horizontal	P1.5x.120	344	-1030.82	11220.23	9.2	Pass
T34	158.75 - 133.5	Horizontal	P1.5x.120	370	-810.50	11220.23	7.2	Pass
T35	133.5 - 108.25	Horizontal	P1.5x.120	404	-1051.45	11220.23	9.4	Pass
T17	264.8 - 259.75	Secondary Horizontal	1	160	-1132.65	14491.04	7.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	SF*P_{allow} lb	% Capacity	Pass Fail
T18	259.75 - 254.7	Secondary Horizontal	L2x2 1/2x1/4	172	-1055.93	18483.78	5.7	Pass
T19	254.7 - 249.65	Secondary Horizontal	L2x2 1/2x1/4	184	-960.19	18483.78	5.2	Pass
T20	249.65 - 244.6	Secondary Horizontal	L2x2 1/2x1/4	196	-933.41	18483.78	5.0	Pass
T21	244.6 - 239.55	Secondary Horizontal	L2x2 1/2x1/4	208	-868.01	18483.78	4.7	Pass
T22	239.55 - 234.5	Secondary Horizontal	L2x2 1/2x1/4	220	-866.41	18483.78	4.7	Pass
T23	234.5 - 229.45	Secondary Horizontal	L2x2 1/2x1/4	232	-828.62	18483.78	4.5	Pass
T24	229.45 - 224.4	Secondary Horizontal	L2x2 1/2x1/4	245	-852.75	18483.78	4.6	Pass
T25	224.4 - 219.35	Secondary Horizontal	L2x2 1/2x1/4	257	-842.69	18483.78	4.6	Pass
T26	219.35 - 214.3	Secondary Horizontal	L2x2 1/2x1/4	268	-892.80	18483.78	4.8	Pass
T27	214.3 - 209.25	Secondary Horizontal	L2x2 1/2x1/4	280	-911.44	18483.78	4.9	Pass
T42	77.95 - 72.9	Secondary Horizontal	L2x2 1/2x1/4	489	-1091.12	18373.14	5.9	Pass
T43	72.9 - 67.85	Secondary Horizontal	L2x2 1/2x1/4	502	-1115.65	18373.14	6.1	Pass
T44	67.85 - 62.8	Secondary Horizontal	L2x2 1/2x1/4	515	-1200.21	18373.14	6.5	Pass
T1	345.5 - 340.5	Top Girt	C4x5.4	8	-0.09	33793.28	3.7	Pass
T3	335.5 - 330.45	Top Girt	P1.5x.120	27	219.31	14563.29	1.5	Pass
T4	330.45 - 325.4	Top Girt	P1.5x.120	36	405.66	14563.29	2.8	Pass
T5	325.4 - 320.35	Top Girt	P1.5x.120	45	348.20	14563.29	2.4	Pass
T6	320.35 - 315.3	Top Girt	P1.5x.120	54	322.92	14563.29	2.2	Pass
T7	315.3 - 310.25	Top Girt	P1.5x.120	63	587.38	14563.29	4.0	Pass
T8	310.25 - 305.2	Top Girt	P1.5x.120	74	-1777.35	11292.91	15.7	Pass
T9	305.2 - 300.15	Top Girt	P1.5x.120	81	384.72	14563.29	2.6	Pass
T10	300.15 - 295.1	Top Girt	P1.5x.120	90	320.18	14563.29	2.2	Pass
T11	295.1 - 290.05	Top Girt	P1.5x.120	99	317.00	14563.29	2.2	Pass
T12	290.05 - 285	Top Girt	P1.5x.120	110	272.20	14563.29	1.9	Pass
T13	285 - 279.95	Top Girt	P1.5x.120	118	288.15	14563.29	2.0	Pass
T14	279.95 - 274.9	Top Girt	P1.5x.120	126	-928.98	11254.85	8.3	Pass
T15	274.9 - 269.85	Top Girt	P1.5x.120	135	296.98	14563.29	2.0	Pass
T16	269.85 - 264.8	Top Girt	P1.5x.120	145	296.76	14563.29	2.0	Pass
T18	259.75 - 254.7	Top Girt	P1.5x.120	167	735.26	14563.29	5.0	Pass
T19	254.7 - 249.65	Top Girt	P1.5x.120	178	404.30	14563.29	2.8	Pass
T20	249.65 - 244.6	Top Girt	P1.5x.120	189	432.17	14563.29	3.0	Pass
T21	244.6 - 239.55	Top Girt	P1.5x.120	203	429.74	14563.29	3.0	Pass
T22	239.55 - 234.5	Top Girt	P1.5x.120	213	439.71	14563.29	3.0	Pass
T23	234.5 - 229.45	Top Girt	P1.5x.120	227	456.06	14563.29	3.1	Pass
T24	229.45 - 224.4	Top Girt	P1.5x.120	238	459.82	14563.29	3.2	Pass
T25	224.4 - 219.35	Top Girt	P1.5x.120	251	470.06	14563.29	3.2	Pass
T26	219.35 - 214.3	Top Girt	P1.5x.120	261	452.04	14563.29	3.1	Pass
T27	214.3 - 209.25	Top Girt	P1.5x.120	273	425.22	14563.29	2.9	Pass
T28	209.25 - 199.15	Top Girt	P1.5x.120	287	397.64	14563.29	2.7	Pass
T29	199.15 - 194.1	Top Girt	P1.5x.120	300	299.18	14563.29	2.1	Pass
T30	194.1 - 189.05	Top Girt	P1.5x.120	311	277.20	14563.29	1.9	Pass
T32	184 - 178.95	Top Girt	P1.5x.120	329	261.57	14563.29	1.8	Pass
T33	178.95 - 158.75	Top Girt	P1.5x.120	336	313.21	14563.29	2.2	Pass
T34	158.75 - 133.5	Top Girt	P1.5x.120	364	339.86	14563.29	2.3	Pass
T35	133.5 - 108.25	Top Girt	P1.5x.120	396	307.17	14563.29	2.1	Pass
T36	108.25 - 103.2	Top Girt	P1.5x.120	431	270.17	14563.29	1.9	Pass
T37	103.2 - 98.15	Top Girt	P1.5x.120	440	1149.31	14563.29	7.9	Pass
T38	98.15 - 93.1	Top Girt	P1.5x.120	449	987.40	14563.29	6.8	Pass
T39	93.1 - 88.05	Top Girt	P1.5x.120	456	346.17	14563.29	2.4	Pass
T40	88.05 - 83	Top Girt	P1.5x.120	467	440.41	14563.29	3.0	Pass
T41	83 - 77.95	Top Girt	P1.5x.120	475	493.19	14563.29	3.4	Pass
T42	77.95 - 72.9	Top Girt	P1.5x.120	483	-2374.17	11258.44	21.1	Pass
T43	72.9 - 67.85	Top Girt	P1.5x.120	496	418.84	14563.29	2.9	Pass
T45	62.8 - 57.75	Top Girt	P1.5x.120	520	407.74	14563.29	2.8	Pass
T46	57.75 - 52.7	Top Girt	P1.5x.120	528	591.82	14563.29	4.1	Pass
T47	52.7 - 47.65	Top Girt	P1.5x.120	538	562.50	14563.29	3.9	Pass
T48	47.65 - 42.6	Top Girt	P1.5x.120	546	606.20	14563.29	4.2	Pass
T49	42.6 - 37.55	Top Girt	P1.5x.120	556	585.78	14563.29	4.0	Pass
T50	37.55 - 32.5	Top Girt	P1.5x.120	564	599.99	14563.29	4.1	Pass
T51	32.5 - 27.45	Top Girt	P1.5x.120	574	580.13	14563.29	4.0	Pass
T52	27.45 - 22.4	Top Girt	P1.5x.120	582	594.78	14563.29	4.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
T53	22.4 - 17.35	Top Girt	P1.5x.120	592	574.08	14563.29	3.9	Pass
T54	17.35 - 12.3	Top Girt	P1.5x.120	600	606.18	14563.29	4.2	Pass
T55	12.3 - 7.25	Top Girt	P1.5x.120	610	501.93	14563.29	3.4	Pass
T2	340.5 - 335.5	Guy A@340.5	11/16	617	23649.10	25000.00	94.6	Pass
T17	264.8 - 259.75	Guy A@264.8	7/8	620	31366.60	39850.00	78.7	Pass
T31	189.05 - 184	Guy A@189.05	9/16	623	13744.90	17500.00	78.5	Pass
T35	133.5 - 108.25	Guy A@123.4	5/8	626	15950.90	21200.00	75.2	Pass
T44	67.85 - 62.8	Guy A@67.85	11/16	629	22838.90	25000.00	91.4	Pass
T2	340.5 - 335.5	Guy B@340.5	11/16	616	22150.40	25000.00	88.6	Pass
T17	264.8 - 259.75	Guy B@264.8	7/8	619	29768.60	39850.00	74.7	Pass
T31	189.05 - 184	Guy B@189.05	9/16	622	13955.50	17500.00	79.7	Pass
T35	133.5 - 108.25	Guy B@123.4	5/8	625	16412.40	21200.00	77.4	Pass
T44	67.85 - 62.8	Guy B@67.85	11/16	628	23789.90	25000.00	95.2	Pass
T2	340.5 - 335.5	Guy C@340.5	11/16	615	22859.80	25000.00	91.4	Pass
T17	264.8 - 259.75	Guy C@264.8	7/8	618	30668.50	39850.00	77.0	Pass
T31	189.05 - 184	Guy C@189.05	9/16	621	14376.70	17500.00	82.2	Pass
T35	133.5 - 108.25	Guy C@123.4	5/8	624	16891.80	21200.00	79.7	Pass
T44	67.85 - 62.8	Guy C@67.85	11/16	627	23950.20	25000.00	95.8	Pass
T2	340.5 - 335.5	Top Guy Pull-Off@340.5	2L2x2x3/16	18	5634.09	41173.70	13.7	Pass
T17	264.8 - 259.75	Top Guy Pull-Off@264.8	2L2x2x3/16	153	9820.18	41173.70	23.9	Pass
T31	189.05 - 184	Top Guy Pull-Off@189.05	2L2x2x3/16	318	5684.85	41173.70	13.8	Pass
T35	133.5 - 108.25	Top Guy Pull-Off@123.4	2L2x2x3/16	416	5200.90	41173.70	12.6	Pass
T44	67.85 - 62.8	Top Guy Pull-Off@67.85	2L2x2x3/16	508	10180.10	41173.70	24.7	Pass

	Summary	
Pole (L2)	35.5	Pass
Leg (T16)	99.2	Pass
Diagonal (T46)	98.7	Pass
Horizontal (T35)	9.4	Pass
Secondary Horizontal (T17)	7.8	Pass
Top Girt (T42)	21.1	Pass
Guy A (T2)	94.6	Pass
Guy B (T44)	95.2	Pass
Guy C (T44)	95.8	Pass
Top Guy Pull-Off (T44)	24.7	Pass
RATING =	**99.2**	**Pass**

FOUNDATION ANALYSIS

URS

Job	367' Guyed Tower - Norwalk, CT	Project No.	VZ5-172 & SAI-078	Page / Sheet	of / 1 of 2
Description	Spread Footing w/ Pier Analysis - TIA Req	Computed by	MCD	Date	04/02/14
		Checked by		Date	

FOUNDATION ANALYSIS

TOWER FORCES:

Moment Caused by Tower	$M_t := 0 \cdot ft \cdot kips$
Shear at Base of Tower	$S_t := 2525 lb$
Max Compressive Force	$C_t := 200264 lb$
Height of Tower	$H_t := 375 \cdot ft$

FOOTING DIMENSIONS:

Overall Depth of Footing	$D_f := 5ft$
Length of Pier	$L_p := 7 \cdot ft$
Extension of Pier Above Grade	$L_{pag} := 3 \cdot ft$
Diameter of Pier	$d_p := 3 \cdot ft$
Thickness of Footing	$T_f := 1 \cdot ft$
Width of Footing:	$W_f := 6ft + 2.5ft$

PROPERTIES:

Internal Friction Angle of Soil	$\phi_s := 30 \cdot deg$
Allowable Bearing Capacity	$q_s := 4000 \cdot psf$
Unit Weight of Soil	$\gamma_s := 100 \cdot pcf$
Unit Weight of Concrete	$\gamma_c := 150 \cdot pcf$
Depth to Neglect	$n := 0ft$
Cohesion of Clay Type Soil Note: Use 0 for Sandy Soil	$c := 0 \cdot ksf$
Seismic Zone Factor: UBC Fig 23-2	$Z := 2$
Coefficient of Friction between Concrete:	$\mu := 0.45$

STABILITY OF FOOTING

Coefficient of Lateral Soil Pressure:

$$K_p := \frac{1 + \sin(\phi_s)}{1 - \sin(\phi_s)} \qquad K_p = 3$$

Passive Pressure:

$$P_{pn} := K_p \cdot \gamma_s \cdot n + c \cdot 2 \cdot \sqrt{K_p} \qquad P_{pn} = 0 \cdot ksf$$

$$P_{pt} := K_p \cdot \gamma_s \cdot (D_f - T_f) + c \cdot 2 \cdot \sqrt{K_p} \qquad P_{pt} = 1.2 \cdot ksf$$

$$P_{top} := if\left[n < (D_f - T_f), P_{pt}, P_{pn}\right] \qquad P_{top} = 1.2 \cdot ksf$$

$$P_{bot} := K_p \cdot \gamma_s \cdot D_f + c \cdot 2 \cdot \sqrt{K_p} \qquad P_{bot} = 1.5 \cdot ksf$$

$$P_{ave} := \frac{P_{top} + P_{bot}}{2} \qquad P_{ave} = 1.35 \cdot ksf$$

$$T_p := if\left[n < (D_f - T_f), T_f, (D_f - n)\right] \qquad T_p = 1 \cdot ft$$

$$A_p := W_f \cdot T_p \qquad A_p = 8.5 \cdot ft^2$$

Ultimate Shear:

$$S_u := P_{ave} \cdot A_p \qquad S_u = 11.475 \cdot kip$$

URS

Job	367' Guyed Tower - Norwalk, CT	Project No.	VZ5-172 & SAI-078	Page / Sheet	2 of 2
Description	Spread Footing w/ Pier Analysis - TIA Req	Computed by	MCD	Date	04/02/14
		Checked by		Date	

Weight of Concrete Pad:

$$WT_c := \left[\left(W_f^2 \cdot T_f\right) + d_p^2 L_p\right] \cdot \gamma_c \qquad WT_c = 20.2875 \cdot kip$$

Weight of Soil: above Footing:

$$WT_{s1} := \left[W_f^2 \cdot \left(\left|L_p - L_{pag}\right|\right) - \frac{d_p^2 \cdot \pi}{4} \cdot \left(\left|L_p - L_{pag}\right|\right)\right] \cdot \gamma_s \qquad WT_{s1} = 26.0726 \cdot kip$$

Weight of Soil Wedge at back face:

$$WT_{s2} := \left(\frac{D_f^2 \cdot \tan(\phi_s)}{2} \cdot W_f\right) \cdot \gamma_s \qquad WT_{s2} = 6.1343 \cdot kip$$

Total Weight:

$$WT_{tot} := WT_c + WT_{s1} + C_t \qquad WT_{tot} = 246.6241 \cdot kip$$

Resisting Moment:

$$M_r := \left(WT_{tot}\right) \cdot \frac{W_f}{2} + S_u \cdot \frac{T_f}{3} + WT_{s2} \cdot \left(W_f + \frac{D_f \cdot \tan(\phi_s)}{3}\right) \qquad M_r = 1110.022 \cdot kip \cdot ft$$

Overturning Moment:

$$M_{ot} := M_t + S_t \cdot \left(L_p + T_f\right) \qquad M_{ot} = 20.2 \cdot kip \cdot ft$$

Factor of Safety:

$$FS := \frac{M_r}{M_{ot}} \qquad FS_{req} := 2 \qquad FS = 54.95$$

$$SafetyCheck := \text{if}\left(FS > FS_{req}, \text{"Okay"}, \text{"No Good"}\right) \qquad SafetyCheck = \text{"Okay"}$$

BEARING PRESSURE CAUSED BY FOOTING

$$A_{mat} := W_f^2 \qquad A_{mat} = 72.25 \cdot ft^2$$

$$S := \frac{W_f^3}{6} \qquad S = 102.3542 \cdot ft^3$$

$$P_{max} := \frac{WT_{tot}}{A_{mat}} + \frac{M_{ot}}{S} \qquad P_{max} = 3.6108 \cdot ksf$$

$$P_{min} := \frac{WT_{tot}}{A_{mat}} - \frac{M_{ot}}{S} \qquad P_{min} = 3.2161 \cdot ksf$$

$$MaxPressure := \text{if}\left(P_{max} < q_s, \text{"Okay"}, \text{"No Good"}\right) \qquad MaxPressure = \text{"Okay"}$$

$$MinPressure := \text{if}\left[\left(P_{min} \geq 0\right) \cdot \left(P_{min} < q_s\right), \text{"Okay"}, \text{"No Good"}\right] \qquad MinPressure = \text{"Okay"}$$

URS

Job :	376' Guyed Tower - Norwalk, CT	**Project No.**	VZ5-172 & SAI-078	**Page**	of
Description:	Anchor Block Evaluation	**Computed by**	MCD	**Sheet**	of
	Inner Anchor Block	**Checked by**		**Date**	4/2/14
				Date	

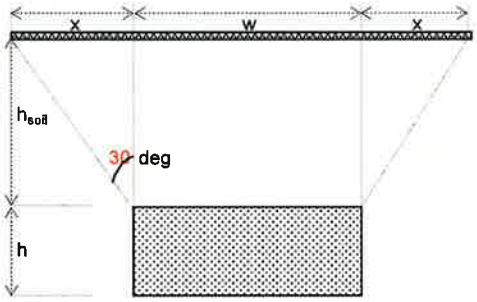
CHECK UPLIFT RESISTANCE

RESULTS FROM COMPUTER ANALYSIS:

Uplift =	30.388	kips
Sliding =	26.33	kips

CONCRETE PARAMETERS:

γ_{conc} =	150	pcf
w =	5	ft
h =	2	ft
d =	15	ft
Vol. =	*150*	ft^3
Wc =	*22.50*	kips



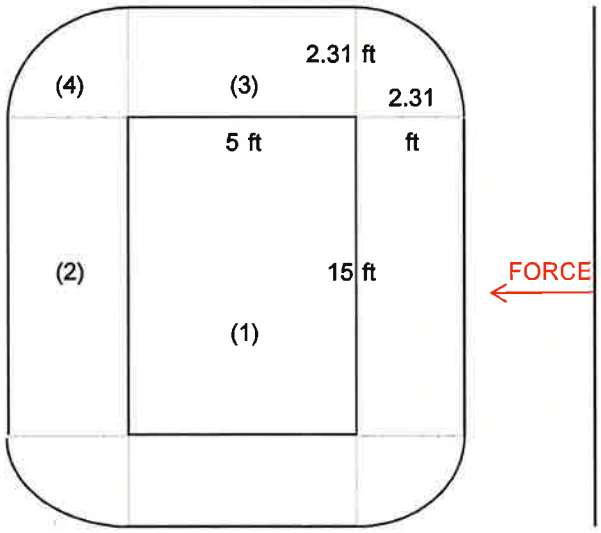
Foundation Section

SOIL PARAMETERS:

γ_{soil} =	100	pcf
h_{soil} =	4	ft
x =	*2.31*	ft

Soil Weight (Wr):

(1) =	30.00	kips
(2) =	13.86	kips
(3) =	4.62	kips
(4) =	2.23	kips
*(5) Anchor Reinf. =	0	kips
Total =	50.71	kips



Foundation Plan View

CHECK UPLIFT (PER EIA/TIA-222-F STANDARD & CT State Building Code):

Wr / 2.0 + Wc / 1.25 > UPLIFT				(Wr + Wc) / 2.0 > UPLIFT			
43.35	>	*30.388*	***OK***	*36.60*	>	*30.388*	***OK***

→ ***GUY ANCHORS AGAINST UPLIFT ARE ADEQUATE***

URS

Job :	376' Guyed Tower - Norwalk, CT	**Project No.**	VZ5-172 & SAI-078	**Page**	of
Description:	Anchor Block Evaluation	**Computed by**	MCD	**Sheet**	of
	Inner Anchor Block	**Checked by**		**Date**	4/2/14
				Date	

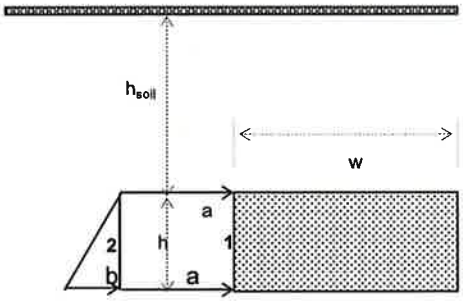
CHECK SLIDING RESISTANCE

SOIL PARAMETERS

$\gamma soil$ =	100	pcf
h_{soil} =	4	ft
h =	2	ft
ϕ =	30	degrees

ANCHOR PARAMETERS

w = 5.0 ft
h = 2.0 ft
d = 15.0 ft



Foundation Elevation View

K_a = 0.33

K_p = 3.00

Δ = 2.67

HORIZONTAL FORCES

1 =	32.00	k
2 =	3.20	k
RESIST TO SLIDING =	35.20	k

SOIL & CONCRETE WEIGHT =	Wr + Wc =	73.21	k
UPLIFT REACTIONS =		-30.388	k
SUM =		42.82	k

COEF. OF FRICTION, (0.5) =	21.41	k
RESIST TO SLIDING =	35.20	k
SUM =	56.61	k

SF AGAINST SLIDING

SF = 2.15 > 2 OK

→ ***GUY ANCHORS AGAINST SLIDING ARE ADEQUATE***

URS

Job :	376' Guyed Tower - Norwalk, CT	**Project No.**	VZ5-172 & SAI-078	**Page**	of
Description:	Anchor Block Evaluation	**Computed by**	MCD	**Sheet**	of
	Outer Anchor Block	**Checked by**		**Date**	4/2/14
				Date	

CHECK UPLIFT RESISTANCE

RESULTS FROM COMPUTER ANALYSIS:

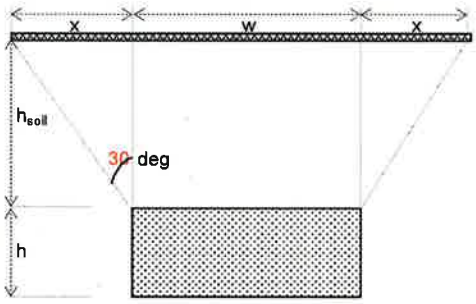
Uplift =	55.669	kips
Sliding =	37.422	kips

CONCRETE PARAMETERS:

γ_{conc} =	150	pcf
w =	10	ft
h =	3	ft
d =	12	ft

Note: dimension is 11' on two of the outter anchors

Vol. =	*360*	ft^3
Wc =	*54.00*	kips



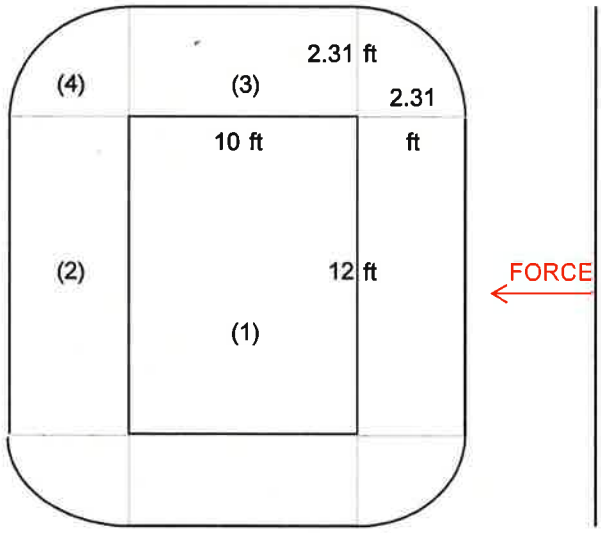
Foundation Section

SOIL PARAMETERS:

γ_{soil} =	100	pcf
h_{soil} =	4	ft
x =	*2.31*	ft

Soil Weight (Wr):

(1) =	48.00	kips
(2) =	11.09	kips
(3) =	9.24	kips
(4) =	2.23	kips
*(5) Anchor Reinf. =	0	kips
Total =	70.56	kips



Foundation Plan View

CHECK UPLIFT (PER EIA/TIA-222-F STANDARD & CT State Building Code):

Wr / 2.0 + Wc / 1.25 > UPLIFT				(Wr + Wc) / 2.0 > UPLIFT			
78.48	>	*55.669*	***OK***	*62.28*	>	*55.669*	***OK***

→ ***GUY ANCHORS AGAINST UPLIFT ARE ADEQUATE***

URS

Job :	376' Guyed Tower - Norwalk, CT	**Project No.**	VZ5-172 & SAI-078	**Page**	of
Description:	Anchor Block Evaluation	**Computed by**	MCD	**Sheet**	of
	Outer Anchor Block	**Checked by**		**Date**	4/2/14
				Date	

CHECK SLIDING RESISTANCE

SOIL PARAMETERS

$\gamma soil$ = 100 pcf

h_{soil} = 4 ft

h = 3 ft

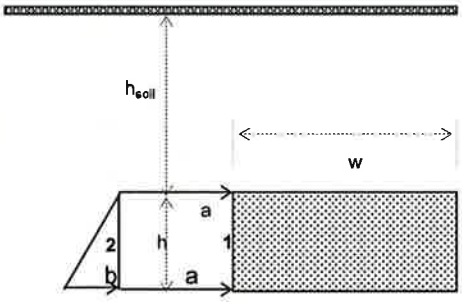
ϕ = 30 degrees

ANCHOR PARAMETERS

w = 10.0 ft

h = 3.0 ft

d = 12.0 ft



Foundation Elevation View

K_a = 0.33

K_p = 3.00

Δ = 2.67

HORIZONTAL FORCES

1 =	38.40	k
2 =	7.20	k
RESIST TO SLIDING =	45.60	k

SOIL & CONCRETE WEIGHT =	Wr + Wc =	124.56	k
UPLIFT REACTIONS =		-55.669	k
SUM =		68.89	k

COEF. OF FRICTION, (0.5) =	34.44	k
RESIST TO SLIDING =	45.60	k
SUM =	80.04	k

SF AGAINST SLIDING

SF = 2.14 > 2 OK

→ ***GUY ANCHORS AGAINST SLIDING ARE ADEQUATE***

ATTACHMENT 2

CONNOISSEUR MEDIA

Michael Driscoll
Connoisseur Media, LLC
136 Main St. Suite 202
Westport CT 06880

March 25, 2014

Re: Letter of Authorization
Norwalk 6 CT
Property located at 6 Shirley St. Norwalk, CT

To Whom It May Concern:

As the owner of property located at 6 Shirley St. Norwalk, CT permission is hereby granted to Verizon Wireless ("Verizon Wireless"), to submit any applications necessary to obtain the required approvals for antenna colocation from the CT Siting Council for its proposed installation and/or removal of antennas at the referenced site.

Very truly yours,

Connoisseur Media, LLC

By: Michael O Driscoll
Name: Michael O. Driscoll
Its: Executive Vice President

Verizon Wireless\LOA Form -Property owner

ATTACHMENT 3

Cellco Partnership

d.b.a. verizon wireless

WIRELESS COMMUNICATIONS FACILITY

NORWALK 9
6 SHIRLEY STREET
NORWALK, CT 06850

SITE DIRECTIONS

FROM: 99 EAST RIVER DRIVE, EAST HARTFORD, CT **TO:** 6 SHIRLEY STREET, NORWALK, CT 06850

1.	Head East on E River Drive toward Darlin St.	0.1 mi
2.	Turn right onto Darlin St.	331 ft
3.	Turn right onto the CT-2 W ramp to Downtown Hartford.	0.1 mi
4.	Merge onto CT-2 W.	0.5 mi
5.	Take left onto Columbus Blvd.	0.3 mi
6.	Turn left to merge onto Conlin-Whitehead Hwy/Whitehead Hwy.	0.2 mi
7.	Keep right at the fork, follow signs for I-91 S/New Haven and merge onto I-91 S.	18.1 mi
8.	Take exit 17 for CT-15 S/W Cross Pkwy.	0.4 mi
9.	Merge onto CT-15 S.	29.8 mi
10.	Take exit 52 for State Route 108 S/State Route 8 S toward Bridgeport.	0.6 mi
11.	Follow signs for CT-8 S/Bridgeport and merge onto CT-8 S.	5.2 mi
12.	Keep right at the fork, follow signs for Interstate 95 S/NY City and merge onto I-95 S.	13.3 mi
13.	Take exit 15 for US-7 toward Norwalk/Danbury.	0.3 mi
14.	Keep right at the fork, follow signs for So. Norwalk.	0.1 mi
15.	Turn right onto West Ave.	344 ft
16.	Take the 1st left toward Van Buren Ave.	476 ft
17.	Turn right onto Van Buren Ave.	0.1 mi
18.	Take the 1st left onto Maple St.	0.4 mi
19.	Turn right onto Stuart Ave.	0.1 mi
20.	Take the 1st left onto Nostrum Rd.	0.2 mi
21.	Turn right onto Eagle Rd	325 ft
22.	Take the 1st left onto Shirley St, and the destination will be on the right.	151 ft

GENERAL NOTES

1. PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELLCO PARTNERSHIP.

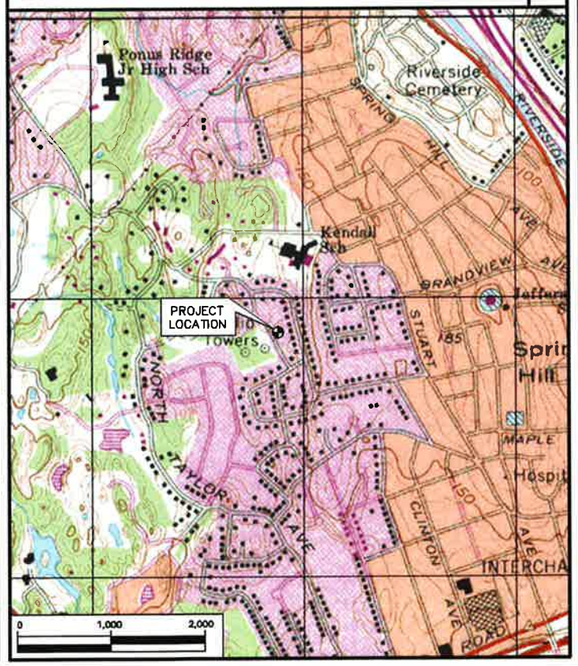
PROJECT SCOPE

1. THE SCOPE OF WORK GENERALLY INCLUDES THE INSTALLATION OF (12) PANEL ANTENNAS MOUNTED TO AN EXISTING 376' TALL GUYED TOWER AT A CENTERLINE ELEVATION OF 101' ABOVE GRADE.

2. THE EXISTING ABANDONED 10'x20' EQUIPMENT SHELTER AND ASSOCIATED ANTENNA CABLE ICE BRIDGE TO BE UTILIZED BY CELLCO PARTNERSHIP. A DIESEL FUELED EMERGENCY POWER GENERATOR TO BE INSTALLED AT GRADE.

VICINITY MAP

SCALE: 1" = 2000'



PROJECT SUMMARY

SITE NAME:	NORWALK 9
SITE ADDRESS:	6 SHIRLEY ST NORWALK, CT 06850
LESSEE/TENANT:	CELLCO PARTNERSHIP d.b.a. CELLCO PARTNERSHIP WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHIP (860) 803-8219
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD ROAD BRANFORD, CT 06405 (203) 488-0580
TOWER COORDINATES:	LATITUDE: 41°-06'-55.73" LONGITUDE: 73°-26'-03.64" GROUND ELEVATION: ±101' A.M.S.L. (REFERENCED FROM CSC DATABASE)

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
C-1	SITE LOCATION PLAN	1
C-2	ELEVATION, PLAN AND ANTENNA CONFIG.	1

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	04/14/14	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW
0	12/09/13	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW

Cellco Partnership d.b.a. verizon wireless

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63-2 North Branford Road, Branford, CT 06405

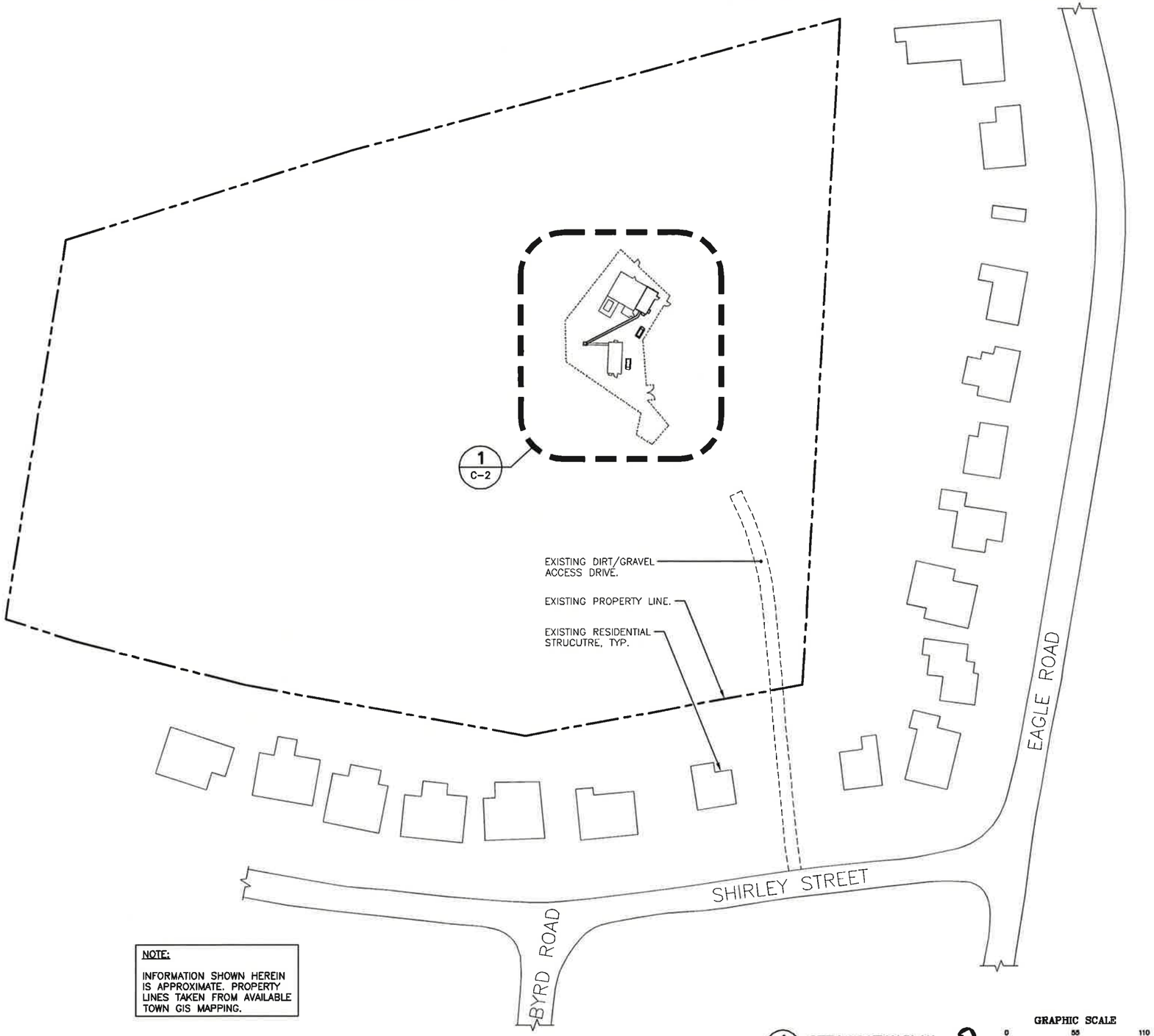
Cellco Partnership d/b/a Verizon Wireless
NORWALK 9
6 SHIRLEY STREET
NORWALK, CT 06850

DATE: 12/09/13
SCALE: AS NOTED
JOB NO. 13243.000

TITLE SHEET

T-1

DWG. 1 OF 3



NOTE:

INFORMATION SHOWN HEREIN IS APPROXIMATE. PROPERTY LINES TAKEN FROM AVAILABLE TOWN GIS MAPPING.

1 C-1 SITE LOCATION PLAN
SCALE: 1" = 110'-0"

TRUE NORTH

GRAPHIC SCALE
0 55 110
(IN FEET)
1 inch = 110 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	04/14/14	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW
0	12/09/13	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW

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Cellco Partnership d/b/a Verizon Wireless

NORWALK 9

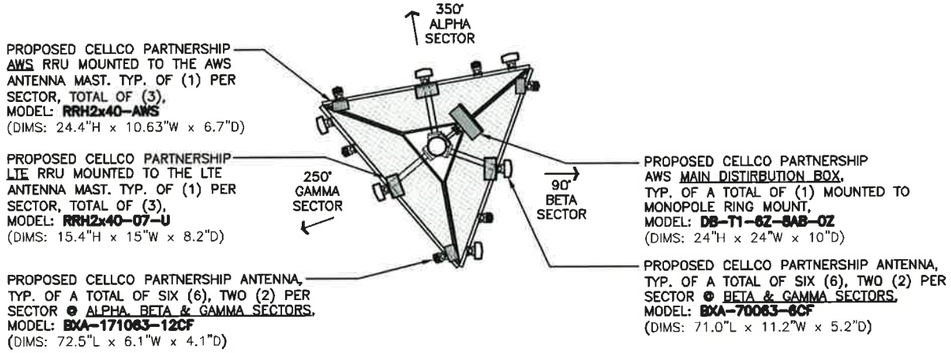
6 SHIRLEY STREET
NORWALK, CT 06850

DATE: 12/09/13
SCALE: AS NOTED
JOB NO. 13243.000

SITE LOCATION PLAN

C-1

DWG. 2 OF 3

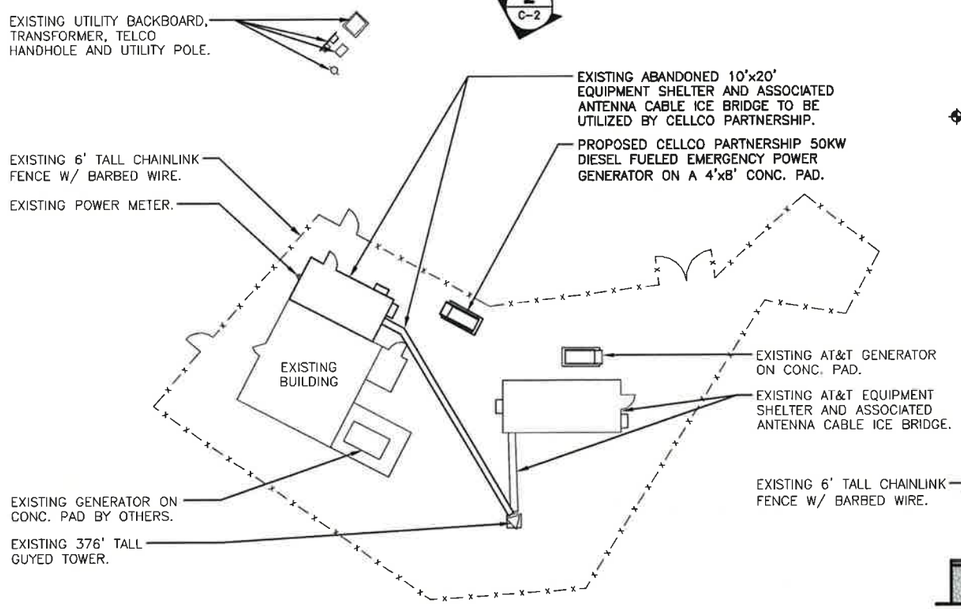


3 C-2 **ANTENNA CONFIGURATION - PLAN** (PROPOSED)
SCALE: 3/32" = 1'-0"

TRUE NORTH

NOTE:

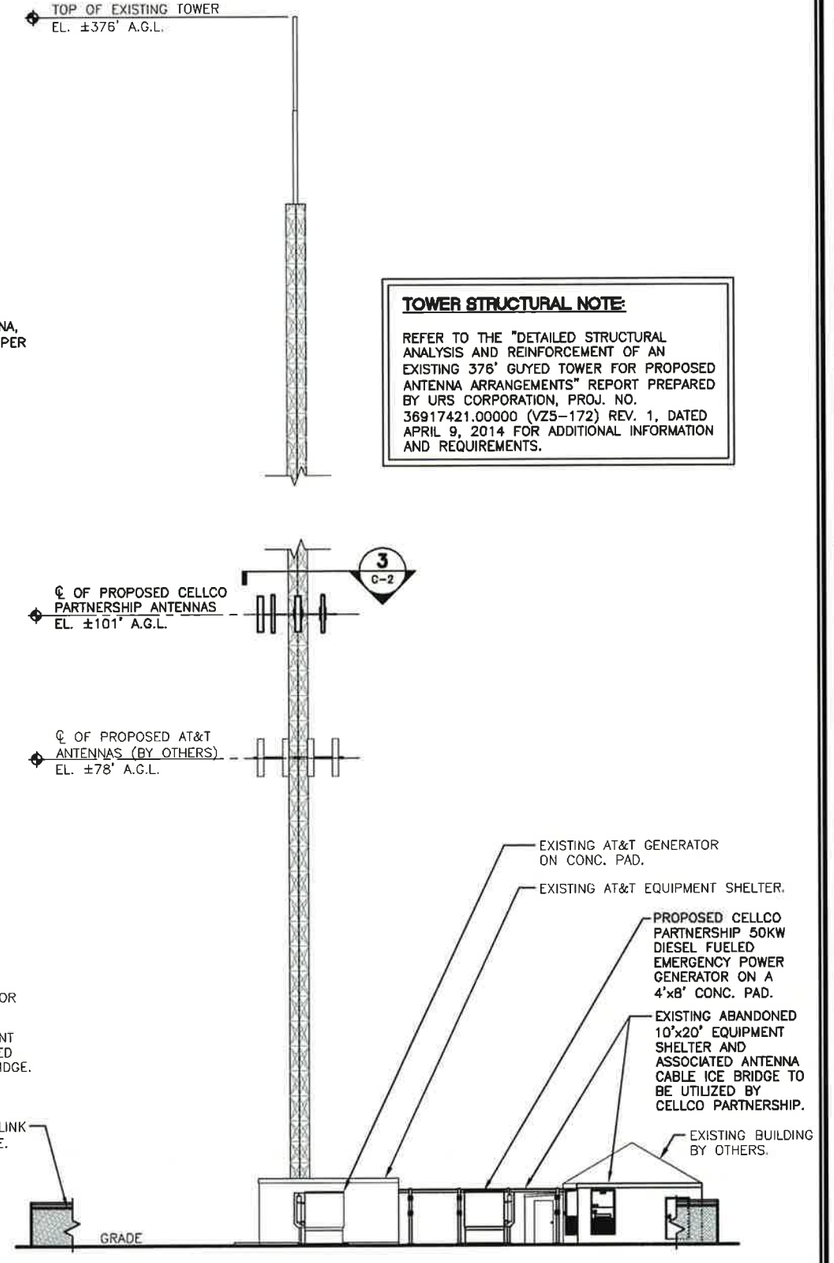
THERE IS NO LEASE AREA FOR THIS WIRELESS COMMUNICATIONS FACILITY. THE SITE OWNER OWNS THE ENTIRE PARCEL AS SHOWN ON SHEET C-1.



1 C-2 **COMPOUND PLAN - PROPOSED**
SCALE: 1" = 40'-0"

TRUE NORTH

GRAPHIC SCALE
0 20 40
(IN FEET)
1 inch = 40 ft.



TOWER STRUCTURAL NOTE:

REFER TO THE "DETAILED STRUCTURAL ANALYSIS AND REINFORCEMENT OF AN EXISTING 376' GUYED TOWER FOR PROPOSED ANTENNA ARRANGEMENTS" REPORT PREPARED BY URS CORPORATION, PROJ. NO. 36917421.00000 (VZ5-172) REV. 1, DATED APRIL 9, 2014 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

2 C-2 **EAST ELEVATION - PROPOSED**
SCALE: 1" = 30'-0"

GRAPHIC SCALE
0 15 30
(IN FEET)
1 inch = 30 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	04/14/14	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW
0	12/09/13	HMR	DMD	ISSUED FOR CSC - CLIENT REVIEW

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NORWALK, CT 06850

DATE: 12/09/13
SCALE: AS NOTED
JOB NO. 13243.000

ELEVATION, PLAN AND ANTENNA CONFIG.

C-2
DWG. 3 OF 3

ATTACHMENT 4

HMB

HMB Acoustics LLC 3 CherryTree Lane, Avon, Ct. 06001 860-677-5955

April 14, 2014

Harry M. Rocheville, EIT
Civil Engineer
Centek Engineering, Inc.
63-2 North Branford Road
Branford, Ct. 06405

Subject: Norwalk 9 - Noise Compliance Study

Dear Mr. Rocheville:

The noise levels for the V1, V2, A1, and A2 wall mounted HVAC units were calculated while they were running, as pairs, and for the combined levels when all four units were running simultaneously. The combined noise level from the V1 and V2 units as well as the combined noise level from the A1 and A2 units was then projected to each property line. The resultant noise level was compared to the Norwalk Noise Regulation. The Regulation allows a noise level of 55 dBA (daytime), and 45 dBA (nighttime), when measured as a Residential Receptor's property line. I found that the four HVAC units (V1, V2, A1, & A2) meet the conditions for compliance as set forth in the noise standards, at all property lines.

Allan Smardin
HMB Acoustics LLC

PROJECT INFORMATION:	Centek Job #:13243.000
Applicant:	Cellco Partnership d.b.a. Verizon Wireless
Applicant Site ID:	Norwalk 9
Site Owner:	Commodore Media of Norwalk, Inc.
Site Address:	6 Shirley Street, Norwalk, CT
Subject Zoning District:	Residential
Abutting Zoning District(s):	Residential

APPLICANT EQUIPMENT:

ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West
V-1	Wall Mounted HVAC	Marvair Compac 2/ unknown	184	313	138	466
V-2	Wall Mounted HVAC	Marvair Compac 2/ unknown	185	312	142	462

EXISTING COLOCATORS:

☒ AT&T	☐ Metro PCS	☐ Other:
☐ Sprint	☐ T Mobile	☐ Other:
☐ Nextel	☐ None	☐ Other:

EXISTING COLOCATOR EQUIPMENT OWNER: AT&T

ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West
A-1	Wall Mounted HVAC	Bard/ unknown	201	295	162	444
A-2	Wall Mounted HVAC	Bard/ unknown	225	270	165	444

EXISTING COLOCATOR EQUIPMENT OWNER:

ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

EXISTING COLOCATOR EQUIPMENT OWNER:						
ID	Noise Emitter	Make/Model	Prop. Line. Dist. (FT)			
			North	South	East	West

CONCLUSION:			
Daytime Regulation:	55 dBA	**Nighttime Regulation:**	45 dBA
Compliance:	☒ Yes ☐ No	**Compliance:**	☒ Yes ☐ No

BASIS OF FINDINGS:

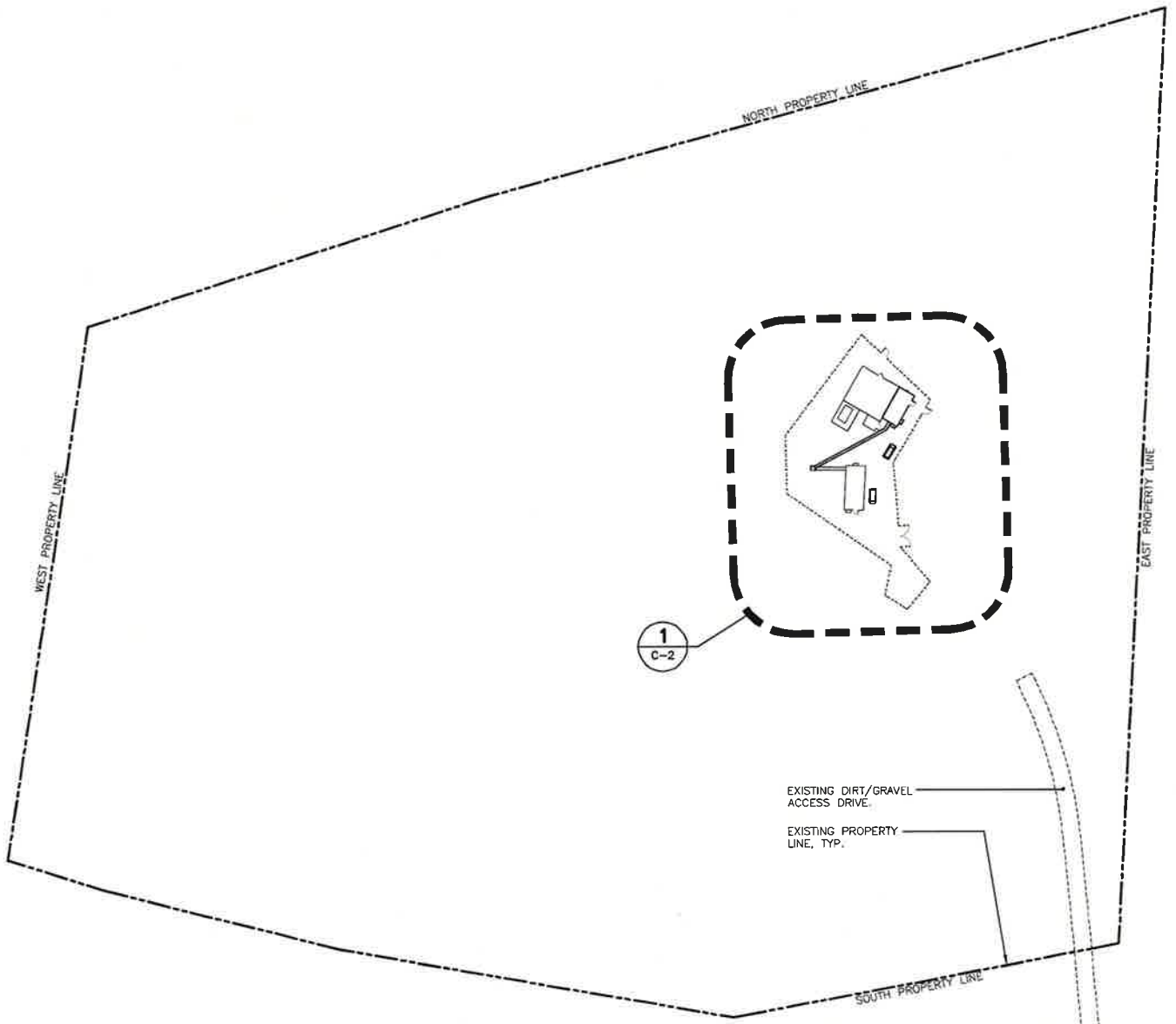
The combined noise level from HVAC units V1 & V2: North property line = 28 dBA,
South property line = 35 dBA, East property line = 41 dBA, West property line = 21 dBA

The combined noise level from HVAC units A1 & A2: North property line = 20 dBA
South property line = 34 dBA, East property line = 40 dBA, West property line = 31 dBA

The combined noise level from all four HVAC units running simultaneously:
North property line = 28 dBA, South property line = 38 dBA,
East property = 43 dBA, West property line = 31 dBA

The dBA levels take into account the acoustical shielding effect provided by other structures on the property.

Prepared By: Alan Smardin, HMB ACOUSTICS LLC Date: 4/14/2014



1 / C-1 SITE PLAN - PROPOSED
SCALE: 1" = 90'-0"

APPROXIMATE NORTH

GRAPHIC SCALE
0 20 40
(IN FEET)
1 inch = 40 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	04/14/14	HMR	CFC	NOSE DIAMTER INFORMATION

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NORWALK 9

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NORWALK, CT 06850

DATE: 04/14/14
SCALE: AS NOTED
JOB NO. 13243.000

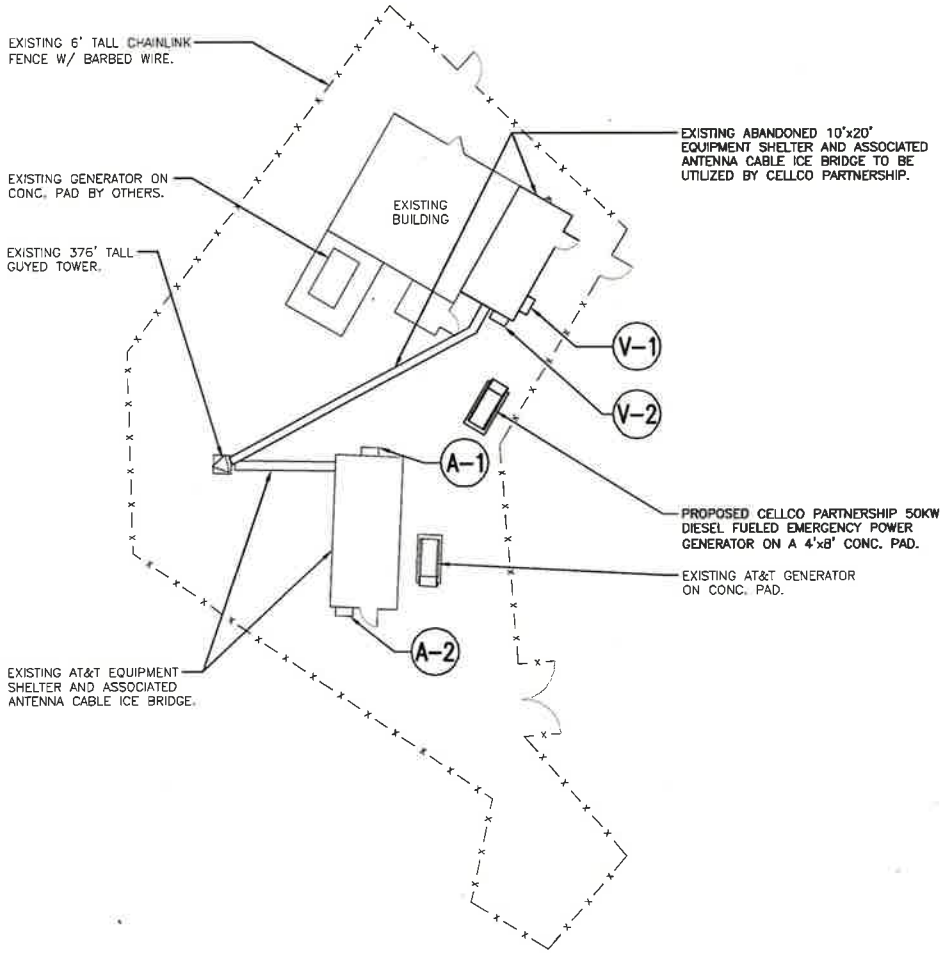
ELEVATION, PLAN AND ANTENNA CONFIG.

C-1

DWG. 1 OF 2

NOISE EMMITTER INFORMATION

- (V-1) WALL MOUNTED HVAC UNIT, MAKE: MARVAIR COMPAC II, MODEL: UNKNOWN
- (V-2) WALL MOUNTED HVAC UNIT, MAKE: MARVAIR COMPAC II, MODEL: UNKNOWN
- (A-1) WALL MOUNTED HVAC UNIT, MAKE: BARD, MODEL: UNKNOWN
- (A-2) WALL MOUNTED HVAC UNIT, MAKE: BARD, MODEL: UNKNOWN



1 / C-2 COMPOUND PLAN - PROPOSED
SCALE: 1" = 30'-0"

APPROXIMATE NORTH

GRAPHIC SCALE
0 15 30
(IN FEET)
1 inch = 30 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	04/14/14	HMR	CFC	NOISE EMMITTER INFORMATION

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NORWALK 9

6 SHIRLEY STREET
NORWALK, CT 06850

DATE: 04/14/14
SCALE: AS NOTED
JOB NO. 13243.000

COMPOUND PLAN

C-2

DWG. 2 OF 2

ATTACHMENT 5

Far Field Approximation
with downtilt variation

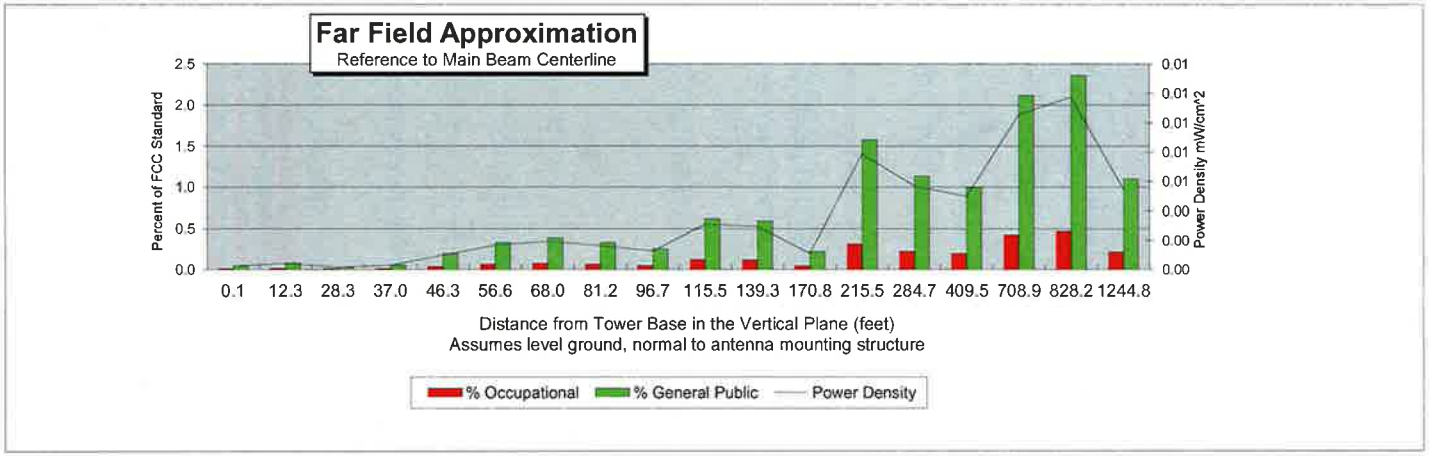
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	NORWALK 9, CT
Site #:	5-0365
Date:	09/25/13
Name:	Ryan Ulanday
File Name:	NORWALK 9, CT - FF Power

Operating Freq. (MHz)	**746.0**
Antenna Height (ft):	**90.0**
Antenna Gain (dBi):	**16.7**
Antenna Size (in.):	**71.0**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**840.0**



This approximation is only valid in the far field, which begins at: 62.6 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	87.0	87.9	91.5	94.5	98.6	103.8	110.4	119.0	130.1	144.6	164.3	191.7	232.4	297.7	418.7	714.2	832.7	1247.8	
Distance from Antenna Structure Base in Horizontal plane	0.1	12.3	28.3	37.0	46.3	56.6	68.0	81.2	96.7	115.5	139.3	170.8	215.5	284.7	409.5	708.9	828.2	1244.8	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.2	0.2	0.4	0.5	0.2	#NUM!
Percent of General Population Standard	0.0	0.1	0.0	0.1	0.2	0.3	0.4	0.3	0.3	0.6	0.6	0.2	1.6	1.1	1.0	2.1	2.4	1.1	#NUM!

Antenna Type BXA-70063-6CF-2-750MHz
Max% 2.36%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pov
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

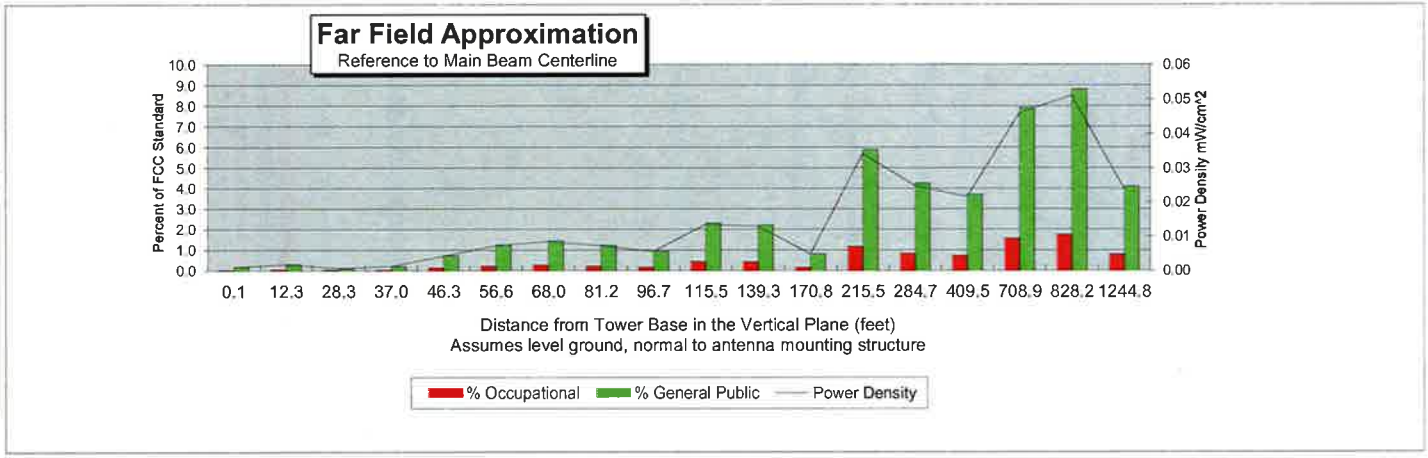
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	NORWALK 9, CT
Site #:	5-0365
Date:	09/25/13
Name:	Ryan Ulanday
File Name:	NORWALK 9, CT - FF Power

Operating Freq. (MHz)	**869.0**
Antenna Height (ft):	**90.0**
Antenna Gain (dBi):	**16.7**
Antenna Size (in.):	**71.0**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**3654.0**



This approximation is only valid in the far field, which begins at: 62.6 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	87.0	87.9	91.5	94.5	98.6	103.8	110.4	119.0	130.1	144.6	164.3	191.7	232.4	297.7	418.7	714.2	832.7	1247.8	
Distance from Antenna Structure Base in Horizontal plane	0.1	12.3	28.3	37.0	46.3	56.6	68.0	81.2	96.7	115.5	139.3	170.8	215.5	284.7	409.5	708.9	828.2	1244.8	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.03	0.02	0.02	0.05	0.05	0.02	#NUM!
Percent of Occupational Standard	0.0	0.1	0.0	0.0	0.1	0.2	0.3	0.2	0.2	0.5	0.4	0.2	1.2	0.9	0.7	1.6	1.8	0.8	#NUM!
Percent of General Population Standard	0.2	0.3	0.1	0.2	0.7	1.2	1.4	1.2	1.0	2.3	2.2	0.8	5.9	4.3	3.7	7.9	8.8	4.1	#NUM!

Antenna Type BXA-70063-6CF-2-750MHz
Max% 8.81%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pov
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

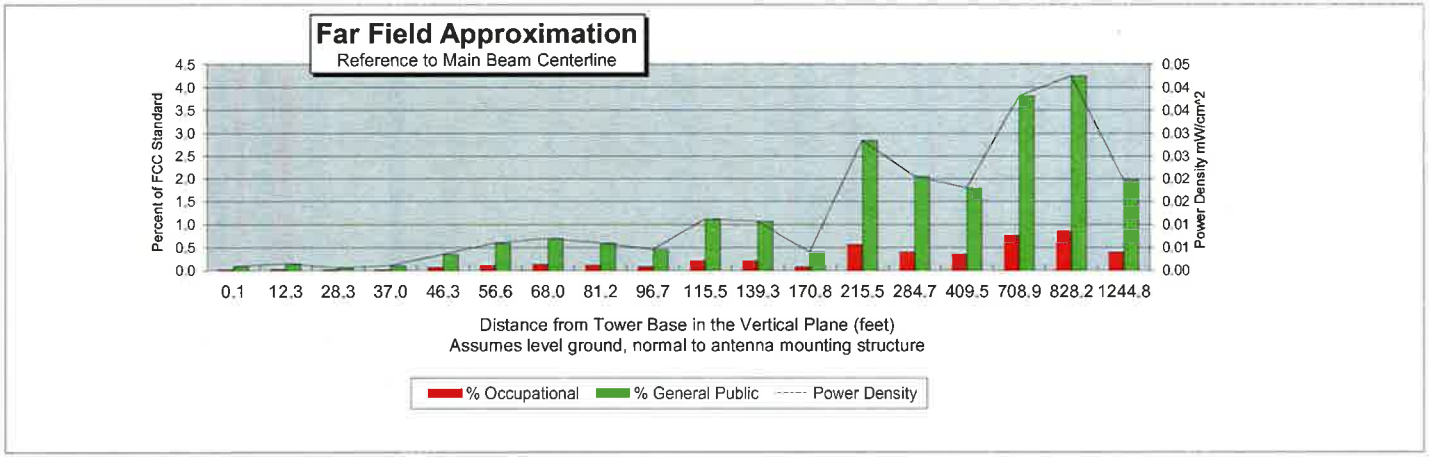
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	NORWALK 9, CT
Site #:	5-0365
Date:	09/25/13
Name:	Ryan Ulanday
File Name:	NORWALK 9, CT - FF Power

Operating Freq. (MHz)	**1710.0**
Antenna Height (ft):	**90.0**
Antenna Gain (dBi):	**19.1**
Antenna Size (in.):	**72.4**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**1750.0**



This approximation is only valid in the far field, which begins at: 65.1 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	87.0	87.9	91.5	94.5	98.6	103.8	110.4	119.0	130.1	144.6	164.3	191.7	232.4	297.7	418.7	714.2	832.7	1247.8	
Distance from Antenna Structure Base in Horizontal plane	0.1	12.3	28.3	37.0	46.3	56.6	68.0	81.2	96.7	115.5	139.3	170.8	215.5	284.7	409.5	708.9	828.2	1244.8	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.03	0.02	0.02	0.04	0.04	0.02	#NUM!
Percent of Occupational Standard	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.6	0.4	0.4	0.8	0.8	0.4	#NUM!
Percent of General Population Standard	0.1	0.1	0.1	0.1	0.4	0.6	0.7	0.6	0.5	1.1	1.1	0.4	2.8	2.0	1.8	3.8	4.2	2.0	#NUM!

Antenna Type BXA-171063-12CF-EDIN-2
Max% 4.25%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pov
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.

Far Field Approximation
with downtilt variation

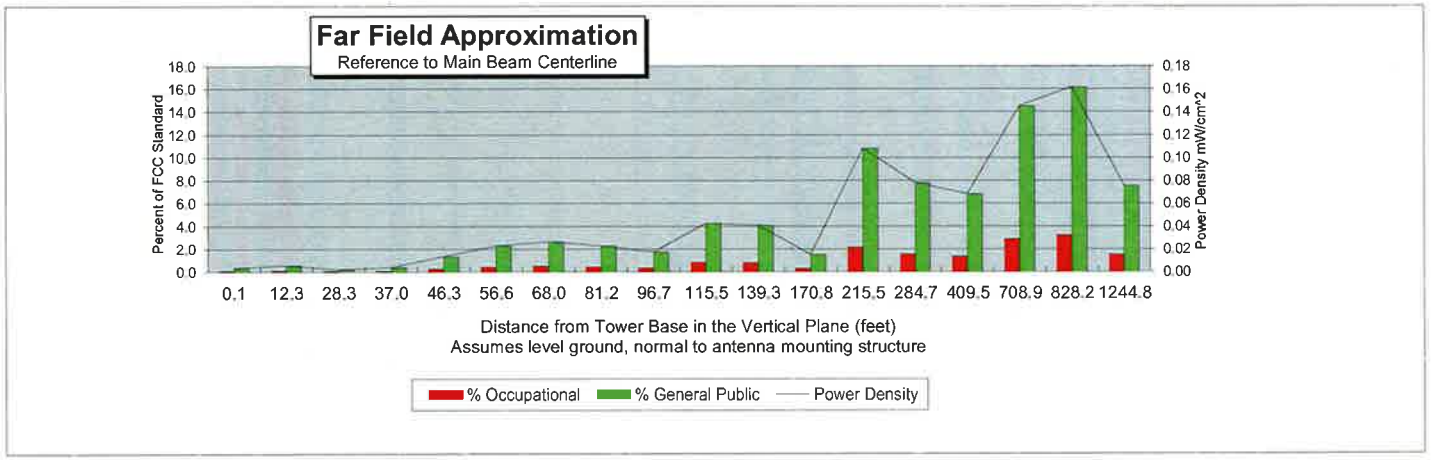
Estimated Radiated Emission

Single Emitter Far Field Model

Dipole / Wire/ Yagi Antenna Types

Location:	NORWALK 9, CT
Site #:	5-0365
Date:	09/25/13
Name:	Ryan Ulanday
File Name:	NORWALK 9, CT - FF Power

Operating Freq. (MHz)	**1971.0**
Antenna Height (ft):	**90.0**
Antenna Gain (dBi):	**18.7**
Antenna Size (in.):	**72.4**
Downtilt (degrees):	**2.0**
Feedline Loss (dB):	**0.0**
Power @ J4 (w):	**7290.0**



This approximation is only valid in the far field, which begins at: 65.1 Feet

Enter Main Beam Distance in feet below:

Calc Angle	90.0	82.0	72.0	67.0	62.0	57.0	52.0	47.0	42.0	37.0	32.0	27.0	22.0	17.0	12.0	7.0	6.0	4.0	
Solve for r, dx to antenna	87.0	87.9	91.5	94.5	98.6	103.8	110.4	119.0	130.1	144.6	164.3	191.7	232.4	297.7	418.7	714.2	832.7	1247.8	
Distance from Antenna Structure Base in Horizontal plane	0.1	12.3	28.3	37.0	46.3	56.6	68.0	81.2	96.7	115.5	139.3	170.8	215.5	284.7	409.5	708.9	828.2	1244.8	#NUM!
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2	0
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm^2)	0.00	0.01	0.00	0.00	0.01	0.02	0.03	0.02	0.02	0.04	0.04	0.02	0.11	0.08	0.07	0.14	0.16	0.08	#NUM!
Percent of Occupational Standard	0.1	0.1	0.0	0.1	0.3	0.5	0.5	0.5	0.3	0.8	0.8	0.3	2.2	1.6	1.4	2.9	3.2	1.5	#NUM!
Percent of General Population Standard	0.3	0.6	0.2	0.4	1.3	2.3	2.7	2.3	1.7	4.2	4.1	1.5	10.8	7.8	6.8	14.5	16.1	7.5	#NUM!

Antenna Type BXA-171063-12CF-EDIN-2
Max% 16.14%

Instructions:

1) Fill in Site Location, Site number, Date, Name of Person Responsible for Date, and enter File Name to ba saved as.
2) References to J4 refer to a point where the transmission line exits the equipment shelter and proceeds to the antenna(s). There is typically a connector located here where power measurements are made.
3) Enter Antenna Height (in feet to bottom of antenna), Antenna Gain (expressed as dBi, add 2.17 to dBd to obtain dBi), Antenna Size (vertical size in inches), Downtilt (in Degrees, enter zero if none), Feedline loss from J4 to Antenna, and J4 Pov
4) From manufacturer's plots, or data sheet, input Angle from mainbeam and dB below mainbeam centerline.
5) Enter Reflection coefficient (2.56 would be typical, 1 for free space)
6) Spreadsheet calculates actual power density, then relates as Occupational or General Population percentage of FCC Standard.
7) An odd distance may be entered in the rightmost column of the lower table.