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

VIA ELECTRONIC MAIL

August 31, 2022

Jack Andrews
Zoning Manager
Centerline Communications, LLC
10130 Donleigh Drive
Columbia, MD 21046
jmandrews@clinellc.com

RE: **EM-AT&T-084-220728** – AT&T notice of intent to modify an existing telecommunications facility located at 181-1 Research Drive, Milford, Connecticut.

Dear Mr. Andrews:

The Connecticut Siting Council (Council) is in receipt of your correspondence of August 25, 2022 submitted in response to the Council's August 25, 2022 notifications of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/RDM/emr

From: John Andrews <jmandrews@clinellc.com>
Sent: Thursday, August 25, 2022 4:06 PM
To: Robidoux, Evan <Evan.Robidoux@ct.gov>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: RE: Council 2nd Incomplete Letter for EM-AT&T-084-220728 (181-1 Research Drive, Milford)

Attached are all of the documents that I filed with the CSC with the requested drawings tacked onto the end. I have also attached the drawings separately. I will send you a hard copy tomorrow. Thanks

John Andrews Jr. | Project Manager
10130 Donleigh Drive, Columbia, MD 21046
Centerline Communications
750 W Center St, Suite 301 | West Bridgewater, MA 02379
Mobile: 443.677.0144
jmandrews@clinellc.com | www.centerlinecommunications.com

July 9, 2022

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

Re: Exempt Modification Request – AT&T Site 13748383
AT&T Wireless Telecommunications Facility @ 185 Research Drive, Milford, CT 06460
AKA 203 Research Drive
EM-CING-084-148-014-060623; EM-CING-084-080917; EM-CING-084-110314

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove existing twelve (12) abandoned Metro antennas at the Rad center of one hundred seventy five (175) feet, six (6) TMAs, six (6) RRUs, two (2) squids, one (1) pair of 1 x 12 AT&T was initially approved by the Siting Council in case number TS-AT&T-033-010213. fiber trunks, one (1) pair of 1x 18 fiber trunks, and twelve (12) coax cables;
- Install twelve (12) antennas, three (3) RRHs, one (1) filter, two (2) squids, two (2) 24 pair fiber trunks, three (3) Y cables and two (2) DC trunks.
- Ground work includes removing twenty four (24) diplexers and removing UMTS BBU; and installing one (1) 6648 with XCEDE cable and four (4) rectifiers.

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2), and as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of AT&T's intent to modify a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A §16-50j-73, a copy of this letter is being sent to the following individuals: American Tower Corporation as Tower Operator/Owner; Damatto Investments LLC as Property Owner; the Honorable Benjamin G. Blake, Mayor of Milford, and David B. Sulkis, the Milford City Planner.

The applicant's proposal falls squarely within those activities explicitly provided for in R.C.S.A. §16-50j-89. Specifically:

1. The proposed modifications will NOT result in an increase in the height of the existing structure.
2. The proposed modifications will NOT require an extension of the site boundary.
3. The proposed modifications will NOT increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

Jack Andrews, Zoning Manager 10130 Donleigh Drive, Columbia, MD 21046 (443) 677-0144
Centerline Communications • 750 W Center Street, Suite 301, W Bridgewater, MA 02379

4. The operation of the modified facility will NOT increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.
5. The proposed modifications will NOT cause an ineligible change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis enclosed herewith.

For the foregoing reasons, AT&T respectfully requests that the Council approve this Exempt Modification request for this tower located at 185 Research Drive, Milford, CT 06460.

If you have any questions, please feel free to contact me.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
443-677-0144

Enclosures:
Exhibit 1 – Letter of Authorization from tower owner
Exhibit 2 – Property Card and GIS
Exhibit 3 – Construction and Mount Modification Drawings
Exhibit 4 – Structural Analysis Report
Exhibit 5 – Antenna Mount Analysis Report
Exhibit 6 – EME Study Report
Exhibit 7 – Four (4) Notice Confirmations

cc:
American Tower Corporation - Tower Operator/Owner
Damatto Investments LLC - Property Owner
The Honorable Benjamin G. Blake - Mayor of Milford
David B. Sulkis - Milford City Planner

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

CENTERLINE COMMUNICATIONS LLC/ AT&T MOBILITY

I, Margaret Robinson, Vice President, US Tower Legal Division on behalf of American Tower*, owner/operator of the tower facility located at the address identified below (the "Tower Facilities"), do hereby authorize AT&T MOBILITY, CENTERLINE COMMUNICATIONS LLC, its successors and assigns, to act as American Tower's non-exclusive agent for the purpose of filing and securing any zoning, land-use, building permit and/or electrical permit application(s) and approvals of the applicable jurisdiction for and to conduct the construction of the installation of antennas and related telecommunications equipment on the Tower Facility located at the above address. This installation shall not affect adjoining lands and will occur only within the area leased by American Tower.

American Tower understands that the application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by American Tower of conditions related to American Tower's installation. Any such conditions of approval or modifications will not be effective unless approved in writing by American Tower.

The above authorization does not permit AT&T MOBILITY, CENTERLINE COMMUNICATIONS LLC to modify or alter any existing permit(s) and/or zoning or land-use conditions or impose any additional conditions unrelated to American Tower's installation of telecommunications equipment without the prior written approval of American Tower.

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

ATC Asset #	Site Name	Project Number	Site Address
283420	STONEYBROOK RD CT	13682835	23 Stonybrook Road, Stratford, Connecticut
243036	WEST HAVEN & RT 162 CT	13682841	668 Jones Hill Road, West Haven, Connecticut
302479	Rkhl - Rocky Hill	13683394	699 West Street, Rocky Hill, Connecticut
302537	Middletown CT 3	13747862	47 Inwood Road, Rocky Hill, Connecticut
302535	Milford CT 2	13748383	185 Research Drive, Milford, Connecticut
302473	E H F R - Prestige Park	13748397	310 Prestige Park Road, East Hartford, Connecticut
302505	Wshn - West Haven	13748405	204 Burwell Street, West Haven, Connecticut
302489	Enfd - Enfield	13753208	77 Town Farm Road, Enfield, Connecticut
302524	Beacon Falls	13753210	664 Rimmon Hill Road, Seymour, Connecticut
310968	WSPT-WESTPORT REBUILD CT	13753216	180A Bayberry Lane, Westport, Connecticut
302526	Naugatuck (telephone Pole)	13753218	585 South Main St. (soc. Club), Naugatuck, Connecticut
310972	WATERFORD REBUILD CT	13753547	15 Miner Lane, Waterford, Connecticut
302538	Parsonage Hill Aka Wallin	13753549	922 Northrop Road, Wallingford, Connecticut
370624	Mankes Silo	13754283	1338 Highland Ave, Cheshire, Connecticut

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88017	SHELTON-TRUMBULL	13755484	14 OXFORD DRIVE/BOOTH HILL RD, Shelton, Connecticut
414240	Byram Park CT	13755490	48 RITCH AVENUE WEST, Greenwich, Connecticut
283423	NAUGATUCK CT	13755758	880 Andrew Mountain Road, Naugatuck, Connecticut
302480	Woodbridge CT 1	13756843	77 Pease Road, Woodbridge, Connecticut
411183	WATERFORD CT	13756866	53 Dayton Rd. Waterford, Connecticut
302540	Madison CT 6	13757740	8 Old 79, Madison, Connecticut
411259	CT Collinsville CAC 802816 CT	13757764	650 Albany Turnpike, Collinsville, Connecticut
411256	CANTON CT	13757774	14 CANTON SPRINGS ROAD, Canton, Connecticut
302493	Nrwc - Norwich	13757776	225 Rogers Road, Norwich, Connecticut
302476	Wtbr - Waterbury	13757794	352 Garden Circle, Waterbury, Connecticut
302475	Sttn - Southington	13757796	80 Shuttle Meadow Road, Southington, Connecticut
302494	Hddm - Haddam	13757798	139 Morris Hubbard Rd, Higganum, Connecticut
283419	PINE ORCHARD BRANFORD CT	13757800	123 Pine Orchard Road, Brrandford, Connecticut
302482	North Havent CT 1	13757802	15 Dewight Street, North Haven, Connecticut
302485	Mdfd - Middlefield	13757806	134 Kikapoo Road, Middlefield, Connecticut
302500	Brst - Bristol	13757810	790 Willis Street, Bristol, Connecticut
302467	Bilkays Express	13757812	90 North Plains Industrial Rd. Wallingford, Connecticut
302536	Cherry Hill-branford	13759895	4 Beaver Road, Brandford, Connecticut
302482	North Havent CT 1	14050356	15 Dewight Street, North Haven, Connecticut
311305	GLFD-GUILFORD REBUILD CT	14050358	10 Tanner Marsh Road, Guilford, Connecticut
411261	CROMWELLSW CT	14089799	99 Christian Hill Road, Cromwell, Connecticut
302481	Hrfr - South	14090117	289 Mountain Street, Hartford, Connecticut

Signature: _____

Margaret Robinson, Vice President
US Tower Legal Division

See attached Notary Block

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION
CENTERLINE COMMUNICATIONS LLC/ AT&T MOBILITY

NOTARY BLOCK

COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal of American Tower (Tower Facility owner), personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

WITNESS my hand and official seal, this 30th day of June, 2022.

NOTARY SEAL

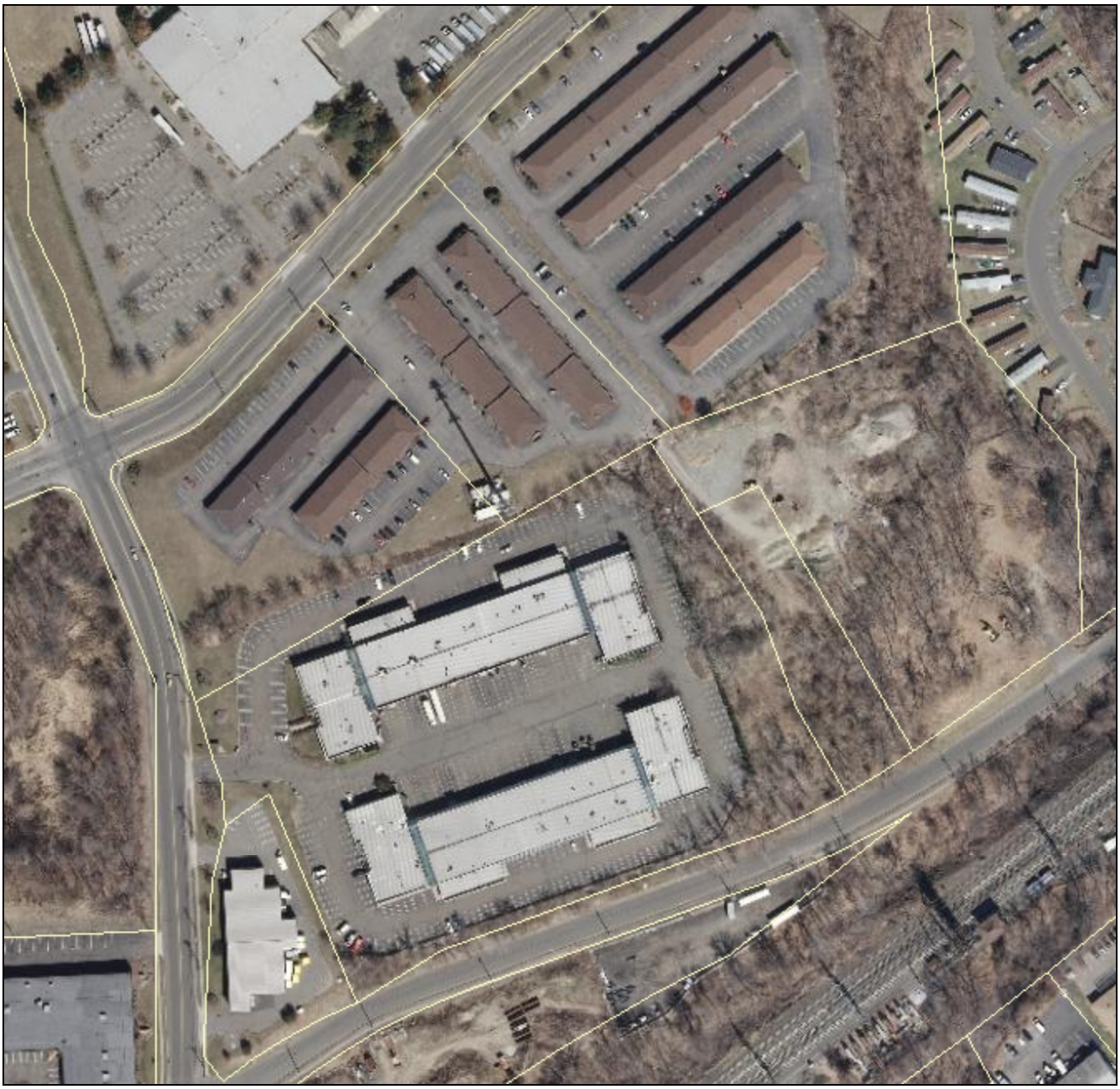
MELISSA ANN METZLER
Notary Public
Commonwealth of Massachusetts
My Commission Expires March 14, 2025

Notary Public
My Commission Expires: March 14, 2025

City of Milford

Geographic Information System (GIS)

Date Printed: 7/8/2022



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The City of Milford and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 200 feet

0 200 Feet

N W E S

City of Milford, CT

Property Listing Report

Map Block Lot	091 807	Bldg #	1	Sec #	1	PID	19613	Account	004864

Property Information

Property Location	205-215 RESEARCH DR
Owner	DAMATO INVESTMENTS LLC
Co-Owner	na
Mailing Address	183 QUARRY RD MILFORD CT 06460
Land Use	4020 IND OFFICE
Land Class	I
Zoning Code	ID
Census Tract	

Neighborhood	N
Acreage	2.14
Utilities	
Lot Setting/Desc	UNKNOWN UNKNOWN
Book / Page	02289/0578
Fire District	2

Photo

Sketch

Primary Construction Details

Year Built	1988
Building Desc.	IND OFFICE
Building Style	Office/Warehs
Building Grade	AVERAGE
Stories	1
Occupancy	12.00
Exterior Walls	Brick/Stn Vene
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	Concr-Finished

Heating Fuel	Gas
Heating Type	Hot Air-no Duc
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Industrial
Building Condition	4
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	10.00
First Floor Use	NA
Foundation	NA

Report Created On 7/8/2022

City of Milford, CT

Property Listing Report

Map Block Lot	091 807	Bldg #	1	Sec #	1	PID	19613	Account	004864

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	742390	519670
Extras	0	0
Improvements		
Outbuildings	105000	73500
Land	613340	429340
Total	1460730	1022510

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	9600	9600
Total Area	9600	9600

Outbuilding and Extra Features

Type	Description
PAVING-ASPHALT	70000 S.F.

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
DAMATO INVESTMENTS LLC	02289/0578	1998-07-07	0
DAMATO JOHN C JR & SUTHERLAND	01942/0499	1992-12-31	587500
DAMATO JOHN C JR & JOHN C	01942/0484	1992-12-31	587500
DAMATO LOUIS J & JOHN C	01416/0090	1985-12-11	0

Report Created On 7/8/2022

City of Milford, CT

Property Listing Report

Map Block Lot	091 807 13A6	Bldg #	2	Sec #	1	PID	19613	Account	004864

Photo

Sketch

Primary Construction Details

Year Built	1988
Building Desc.	Industrial
Building Style	Office/Warehs
Building Grade	AVERAGE
Stories	1
Occupancy	14.00
Exterior Walls	Brick/Stn Vene
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	Concr-Finished

Heating Fuel	Gas
Heating Type	Hot Air-no Duc
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(*Industrial / Commercial Details)

Building Use	IND BLDG MDL-96
Building Condition	4
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	10.00
First Floor Use	NA
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	11200	11200

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	11200	11200

Report Created On 7/8/2022

City of Milford, CT

Property Listing Report

Map Block Lot	091 807	Bldg #	1	Sec #	1	PID	19614	Account	004863

Property Information

Property Location	181-185 RESEARCH DR
Owner	DAMATO INVESTMENTS LLC
Co-Owner	na
Mailing Address	183 QUARRY RD MILFORD CT 06460
Land Use	4020 IND OFFICE
Land Class	I
Zoning Code	ID
Census Tract	AB 1437

Neighborhood	N
Acreage	2.57
Utilities	
Lot Setting/Desc	UNKNOWN UNKNOWN
Book / Page	02289/0578
Fire District	2

Photo

Sketch

Primary Construction Details

Year Built	1988
Building Desc.	IND OFFICE
Building Style	Office/Warehs
Building Grade	AVERAGE
Stories	1
Occupancy	13.00
Exterior Walls	Brick/Stn Vene
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	Concr-Finished

Heating Fuel	Gas
Heating Type	Hot Air-no Duc
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	0

(*Industrial / Commercial Details)

Building Use	Industrial
Building Condition	4
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	10.00
First Floor Use	NA
Foundation	NA

Report Created On 7/8/2022

City of Milford, CT

Property Listing Report

Map Block Lot	091 807	Bldg #	1	Sec #	1	PID	19614	Account	004863

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	523170	366220
Extras	0	0
Improvements		
Outbuildings	191250	133880
Land	672320	470620
Total	1386740	970720

Outbuilding and Extra Features

Type	Description
PAVING-ASPHALT	85000 S.F.

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	10400	10400
Total Area	10400	10400

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
DAMATO INVESTMENTS LLC	02289/0578	1998-07-07	0
DAMATO JOHN C JR & SUTHERLAND	01942/0499	1992-12-31	587500
DAMATO JOHN C JR & JOHN C	01942/0484	1992-12-31	587500
DAMATO LOUIS J & JOHN C	01416/0900	1985-12-11	0

Report Created On 7/8/2022

City of Milford, CT

Property Listing Report

Map Block Lot	091 807 13A7	Bldg #	2	Sec #	1	PID	19614	Account	004863

Photo

Sketch

Primary Construction Details

Year Built	1988
Building Desc.	Industrial
Building Style	Office/Warehs
Building Grade	AVERAGE
Stories	1
Occupancy	9.00
Exterior Walls	Brick/Stn Vene
Exterior Walls 2	NA
Roof Style	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Walls	Drywall/Sheet
Interior Walls 2	NA
Interior Floors 1	Concr-Finished
Interior Floors 2	Carpet

Heating Fuel	Gas
Heating Type	Hot Air-no Duc
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(*Industrial / Commercial Details)

Building Use	IND BLDG MDL-96
Building Condition	4
Sprinkler %	NA
Heat / AC	HEAT/AC PKGS
Frame Type	WOOD FRAME
Baths / Plumbing	AVERAGE
Ceiling / Wall	SUS-CEIL & WL
Rooms / Prtns	AVERAGE
Wall Height	10.00
First Floor Use	NA
Foundation	NA

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	7200	7200

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	7200	7200

Report Created On 7/8/2022

Radio Frequency Exposure Analysis Report

June 17, 2022

American Tower on behalf of AT&T

AT&T Site Name: Milford CT 2
Site Number: CT2169
FA#: 10035075
USID: 61189

Site Address: 203 RESEARCH DRIVE, MILFORD, CT 06460

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	10.40325 µW/cm^2
Cumulative General Population % MPE (Ground Level):	1.04043%

June 17, 2022

Centerline
Attn: John Luca, Associate Project Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **Milford CT 2**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **203 RESEARCH DRIVE, MILFORD, CT 06460** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density (Location: approximately 371' northwest of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
AT&T A 1	QUINTEL QD8616-7 V1	700	13.06	167.00	4.00	40.00	3233.40	0.00000	466.67	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	1900	15.26	167.00	4.00	40.00	5366.36	0.00000	1000.00	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	2100	15.72	167.00	4.00	60.00	8958.00	0.00000	1000.00	0.00000
AT&T A 1	QUINTEL QD8616-7 V1	700	13.06	167.00	2.00	40.00	1616.70	0.00000	466.67	0.00000
AT&T A 2	Ericsson AIR6449	3700	23.45	165.50	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T A 3	Ericsson AIR6419	3450	23.45	168.50	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T A 4	CCI DMP65R-BU8D	700	12.25	167.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T A 4	CCI DMP65R-BU8D	850	12.55	167.00	4.00	40.00	2878.19	0.00000	566.67	0.00000
AT&T A 4	CCI DMP65R-BU8D	2300	14.95	167.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	700	13.06	167.00	4.00	40.00	3233.40	0.00000	466.67	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	1900	15.03	167.00	4.00	40.00	5089.09	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	2100	15.27	167.00	4.00	60.00	8080.00	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7 V1	700	13.08	167.00	2.00	40.00	1626.37	0.00000	466.67	0.00000
AT&T B 6	Ericsson AIR6449	3700	23.45	165.50	1.00	108.40	23989.95	0.00000	1000.00	0.00000
AT&T B 7	Ericsson AIR6419	3450	23.45	168.50	1.00	108.40	23989.95	0.00000	1000.00	0.00000
AT&T B 8	CCI DMP65R-BU8D	700	12.25	167.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	850	12.75	167.00	4.00	40.00	3013.84	0.00000	566.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	2300	14.95	167.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7 V1	700	13.06	167.00	4.00	40.00	3233.40	0.00009	466.67	0.00002
AT&T C 9	QUINTEL QD8616-7 V1	1900	15.03	167.00	4.00	40.00	5089.09	0.00019	1000.00	0.00002
AT&T C 9	QUINTEL QD8616-7 V1	2100	15.27	167.00	4.00	60.00	8080.00	0.00024	1000.00	0.00002
AT&T C 9	QUINTEL QD8616-7 V1	700	13.08	167.00	2.00	40.00	1626.37	0.00007	466.67	0.00002
AT&T C 10	Ericsson AIR6449	3700	23.45	165.50	1.00	108.40	23989.95	0.00058	1000.00	0.00006
AT&T C 11	Ericsson AIR6419	3450	23.45	168.50	1.00	108.40	23989.95	0.00045	1000.00	0.00005
AT&T C 12	CCI DMP65R-BU8D	700	12.25	167.00	4.00	40.00	2686.09	0.00014	466.67	0.00003
AT&T C 12	CCI DMP65R-BU8D	850	12.75	167.00	4.00	40.00	3013.84	0.00014	566.67	0.00003
AT&T C 12	CCI DMP65R-BU8D	2300	14.95	167.00	4.00	25.00	3126.08	0.00006	1000.00	0.00001
Unknown A 13	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown A 14	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown A 15	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown A 16	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 17	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 18	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 19	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 20	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00000	566.67	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
Unknown C 21	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00003	566.67	0.00001
Unknown C 22	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00003	566.67	0.00001
Unknown C 23	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00003	566.67	0.00001
Unknown C 24	GENERIC PANEL 6FT	850	12.62	185.00	1.00	60.00	1096.86	0.00003	566.67	0.00001
T-Mobile A 25	GENERIC PANEL 6FT	1900	15.84	145.00	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile A 26	GENERIC PANEL 6FT	600	12.33	145.00	2.00	60.00	2052.02	0.00000	400.00	0.00000
T-Mobile A 27	GENERIC PANEL 6FT	700	12.33	145.00	2.00	60.00	2052.02	0.00000	466.67	0.00000
T-Mobile A 28	GENERIC PANEL 6FT	2100	15.84	145.00	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile B 29	GENERIC PANEL 6FT	1900	15.84	145.00	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile B 30	GENERIC PANEL 6FT	600	12.33	145.00	2.00	60.00	2052.02	0.00000	400.00	0.00000
T-Mobile B 31	GENERIC PANEL 6FT	700	12.33	145.00	2.00	60.00	2052.02	0.00000	466.67	0.00000
T-Mobile B 32	GENERIC PANEL 6FT	2100	15.84	145.00	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile C 33	GENERIC PANEL 6FT	1900	15.84	145.00	2.00	60.00	4604.49	0.00009	1000.00	0.00001
T-Mobile C 34	GENERIC PANEL 6FT	600	12.33	145.00	2.00	60.00	2052.02	0.00009	400.00	0.00002
T-Mobile C 35	GENERIC PANEL 6FT	700	12.33	145.00	2.00	60.00	2052.02	0.00009	466.67	0.00002
T-Mobile C 36	GENERIC PANEL 6FT	2100	15.84	145.00	2.00	60.00	4604.49	0.00009	1000.00	0.00001
Verizon A 37	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00000	566.67	0.00000
Verizon A 38	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00000	1000.00	0.00000
Verizon A 39	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00000	1000.00	0.00000
Verizon A 40	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00000	466.67	0.00000
Verizon B 41	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00000	566.67	0.00000
Verizon B 42	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00000	1000.00	0.00000
Verizon B 43	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00000	1000.00	0.00000
Verizon B 44	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00000	466.67	0.00000
Verizon C 45	GENERIC PANEL 6FT	850	12.62	126.00	4.00	40.00	2924.96	0.00016	566.67	0.00003
Verizon C 46	GENERIC PANEL 6FT	1900	15.84	126.00	4.00	40.00	6139.32	0.00016	1000.00	0.00002
Verizon C 47	GENERIC PANEL 6FT	2100	16.39	126.00	4.00	40.00	6968.19	0.00017	1000.00	0.00002
Verizon C 48	GENERIC PANEL 6FT	700	12.33	126.00	4.00	40.00	2736.02	0.00016	466.67	0.00003
							Cumulative Power Density:	**10.40325 μW/cm²**	**Cumulative % MPE:**	**1.04043%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **Compliant** with FCC rules and regulations.

Katrina Styx
RF EME Technical Writer
Centerline Communications, LLC

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

TOWER ENGINEERING PROFESSIONALS

Structural Analysis Report

Structure	:	**183 ft Monopole**
ATC Site Name	:	**Milford CT 2,CT**
ATC Site Number	:	**302535**
Engineering Number	:	**13748383_C3_04**
Proposed Carrier	:	**AT&T MOBILITY**
Carrier Site Name	:	**MRCTB050847**
Carrier Site Number	:	**CTCN002169**
Site Location	:	**185 Research Drive** **Milford, CT 06460-7733** **41.2404, -73.0119**
County	:	**New Haven**
Date	:	**April 5, 2022**
Max Usage	:	**94%**
Result	:	**Pass**

Prepared By:

Chris Tahara, E.I.
TEP

Reviewed By:

STATE OF CONNECTICUT
AARON THOMAS RUCKER
32608
LICENSED PROFESSIONAL ENGINEER

04/06/2022

COA : PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 183 ft Monopole to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	Summit Manufacturing Drawing #1237-D1, dated September 9, 1994
Foundation Drawing	Summit Manufacturing Drawing #1237-F1 dated October 10, 1994 Mapping by ARIA Services for ATC #302535, dated March 29, 2022
Geotechnical Report	French & Parrello Project #93N035CR1, dated November 2, 1993
Modifications	ATC Job #42659834, dated January 16, 2009 ATC Job #43915332, dated September 2, 2009 ATC Job #56682734, dated April 16, 2014
Mount Analysis	ATC Job #13748383_C8_01, dated March 7, 2022

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	120 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.20, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

****Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, Annex S.**

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
185.0	3	Alcatel-Lucent 1900 MHz 4X45 RRH	Platform with Handrails	(3) 1 1/4" Hybriflex Cable (3) 1 5/8" Hybriflex (1) 1.7" (43.2mm) Hybrid (2) 1/2" Coax (2) 2" conduit (6) 5/16" (0.31"-7.9mm) Coax	CLEARWIRE CORPORATION
	6	Alcatel-Lucent RRH2x50-08			
	2	DragonWave Horizon Compact			
	3	Nokia 2.5G MAA - AAHC(64T64R)			
	3	Argus LLPX310R			
	3	Commscope NNVV-65B-R4			
	2	DragonWave A-ANT-18G-2-C			
	3	Andrew 844G65VTZASX		(12) 1 5/8" Coax	SPRINT NEXTEL
	6	Decibel DB844H90E-XY			
167.0	3	Ericsson RRUS 4426 B66	Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (2) 2" conduit	AT&T MOBILITY
	1	Raycap DC6-48-60-18-8F (23.5" Height)			
	1	Commscope WCS-IMFQ-AMT			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 32 B2			
145.0	3	Ericsson KRY 112 489/2	Platform with Handrails	(2) 1 1/4" Hybriflex Cable (2) 1 5/8" (1.63"-41.3mm) Fiber (6) 1 5/8" Coax	T-MOBILE
	3	Ericsson Radio 4449 B71 B85A			
	3	Ericsson RRUS 4415 B25			
	3	Ericsson Air6449 B41			
	3	Ericsson AIR32 B66Aa/B2a			
	3	RFS APXVAARR24_43-U-NA20			
127.0	3	Commscope CBC78T-DS-43-2X	Platform with Handrails	(2) 1 1/4" Hybriflex Cable (18) 7/8" Coax (6) 1 5/8" Coax	VERIZON WIRELESS
	3	Andrew HBXX-6517DS-A2M (43 lbs)			
	2	Raycap RRFDC-3315-PF-48			
126.0	3	Samsung B5/B13 RRH-BR04C			
	3	Antel BXA-80063/6CF			
	3	Samsung B2/B66A RRH-BR049			
	6	Commscope JAHH-45B-R3B			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
175.0	3	RFS APXV18-206517S-C	-	(6) 1 5/8" Coax	METRO PCS INC
167.0	6	CCI TPX-070821	-	(2) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax	AT&T MOBILITY
	6	Kaelus DBCT108F1V92-1			
	6	Powerwave Allgon LGP21401			
	1	Raycap DC6-48-60-18-8F (23.5" Height)			
	1	Raycap DC6-48-60-18-8F ("Squid")			
	3	Kathrein Scala 80010964			
	3	Ericsson RRUS 11 (Band 4)			
	3	Ericsson RRUS-32 (77 lbs)			
	3	Powerwave Allgon 7770.00			
	3	CCI OPA-65R-LCUU-H4			
	3	Quintel QS66512-2			
	3	Ericsson RRUS 4478 B5			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
169.0	3	Ericsson AIR 6419 B77G	Platform with Handrails	(1) 0.39" (10mm) Fiber Trunk (2) 0.92" (23.4mm) Cable (2) 0.96" (24.3mm) Cable (1) 2" conduit	AT&T MOBILITY
167.0	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 32 B30			
	3	Ericsson RRUS E2 B29			
	2	Raycap DC9-48-60-24-8C-EV			
	3	CCI DMP65R-BU8D			
	3	Quintel QD8616-7			
165.0	3	Ericsson Air 6449 B77D			

[1] Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	79%	Pass
Shaft	87%	Pass
Base Plate	29%	Pass
Reinforcement	94%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	4545.0	88%
Axial (Kips)	76.7	5%
Shear (Kips)	36.1	77%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
185.0	DragonWave A-ANT-18G-2-C	CLEARWIRE CORPORATION	3.213	2.040
169.0	Ericsson AIR 6419 B77G	AT&T MOBILITY	2.720	1.990
167.0	Ericsson RRUS 32 B30	AT&T MOBILITY	2.650	1.970
	Ericsson RRUS 4449 B5, B12			
	Ericsson RRUS E2 B29			
	Raycap DC9-48-60-24-8C-EV			
	CCI DMP65R-BU8D			
	Quintel QD8616-7			
165.0	Ericsson Air 6449 B77D	AT&T MOBILITY	2.581	1.960

***Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H**

Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

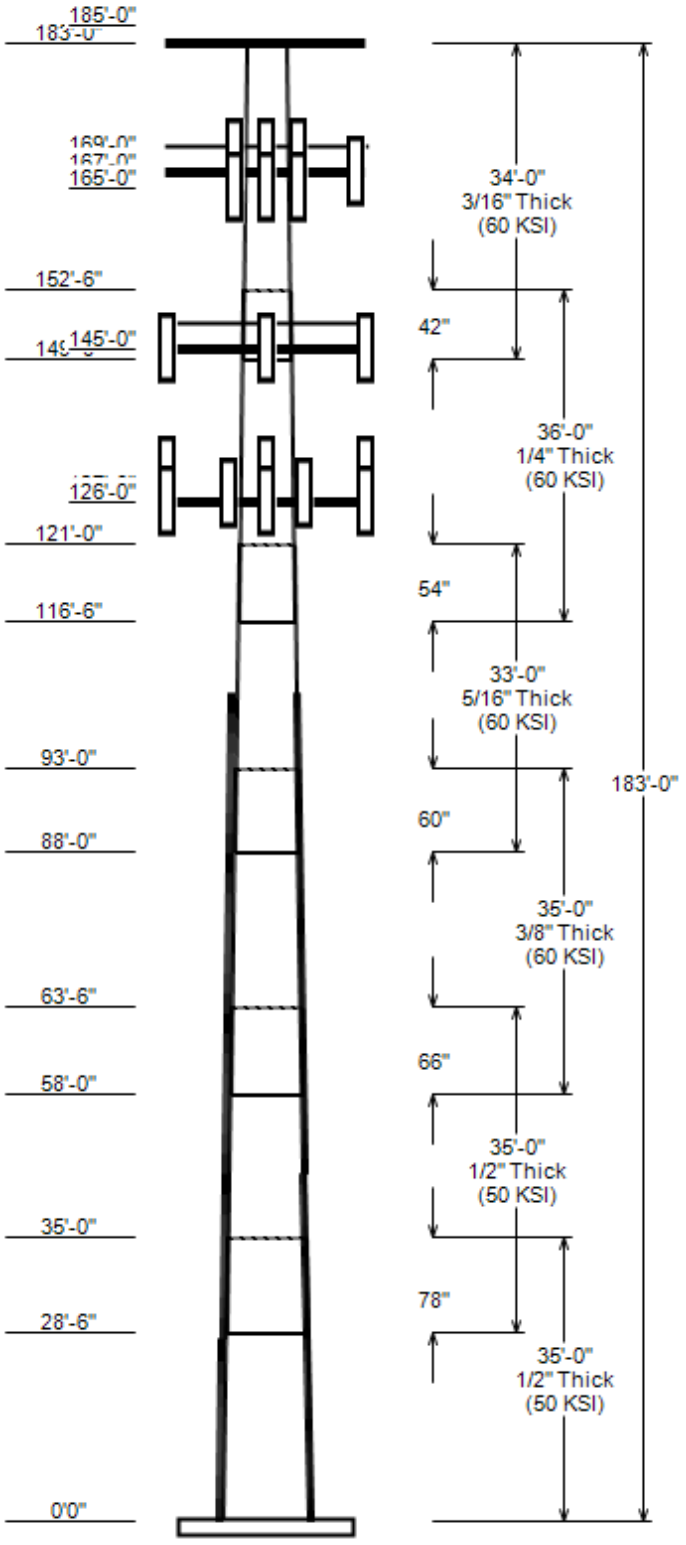
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

JOB INFORMATION

Asset :	302535, Milford CT 2	Height :	183 ft
Client :	AT&T MOBILITY	Base Width :	48.62
Code :	ANSI/TIA-222-H	Shape :	18 Sides



SITE PARAMETERS

Nominal Wind: 116.96 mph wind with no ic **Topo Category:** 1

Ice Wind: 48.73 mph wind with 0.850" **Topo Method:** Method 1

Base Elev (ft): 0.00 **Taper :** 0.17500(In/ft) **Topo Feature:**

Structure Class: II **Exposure :** B **S_s :** 0.2 **S_1** : 0.053

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in) Across Flats Top	Diameter (in) Across Flats Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	35.000	42.50	48.62	0.500		0.000	18 Sides	50
2	35.000	38.51	44.64	0.500	Slip Joint	78.000	18 Sides	50
3	35.000	34.10	40.22	0.375	Slip Joint	66.000	18 Sides	60
4	33.000	29.83	35.60	0.312	Slip Joint	60.000	18 Sides	60
5	36.000	24.82	31.12	0.250	Slip Joint	54.000	18 Sides	60
6	34.000	19.86	25.81	0.188	Slip Joint	42.000	18 Sides	60

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
185.0	185.0	2	DragonWave Horizon Compact
185.0	185.0	6	Alcatel-Lucent RRH2x50-08
185.0	185.0	3	Alcatel-Lucent 1900 MHz 4X45 R
185.0	185.0	6	Decibel DB844H90E-XY
185.0	185.0	3	Nokia 2.5G MAA - AAHC(64T64R)
185.0	185.0	3	Argus LLPX310R
185.0	185.0	2	DragonWave A-ANT-18G-2-C
185.0	185.0	3	Andrew 844G65VTZASX
185.0	185.0	3	Commscope NNVV-65B-R4
183.0	183.0	1	Flat Platform w/ Handrails
169.0	169.0	3	Ericsson AIR 6419 B77G
167.0	167.0	1	Commscope WCS-IMFQ-AMT
167.0	167.0	1	Raycap DC6-48-60-18-8F (23.5"
167.0	167.0	3	Ericsson RRUS 4426 B66
167.0	167.0	3	Ericsson RRUS 4478 B14
167.0	167.0	3	Ericsson RRUS 4449 B5, B12
167.0	167.0	3	Ericsson RRUS 32 B2
167.0	167.0	3	Ericsson RRUS 32 B30
167.0	167.0	3	Ericsson RRUS E2 B29
167.0	167.0	2	Raycap DC9-48-60-24-8C-EV
167.0	167.0	3	CCI DMP65R-BU8D
167.0	167.0	3	Quintel QD8616-7
167.0	167.0	1	Generic Round Platform with Ha
165.0	165.0	3	Ericsson Air 6449 B77D
145.0	145.0	3	Ericsson KRY 112 489/2
145.0	145.0	3	Ericsson Radio 4449 B71 B85A
145.0	145.0	3	Ericsson RRUS 4415 B25
145.0	145.0	3	Ericsson Air6449 B41
145.0	145.0	3	Ericsson AIR32 B66Aa/B2a
145.0	145.0	1	Generic Mount Reinforcement
145.0	145.0	3	RFS APXVAARR24_43-U-NA20
145.0	145.0	1	Round Platform w/ Handrails
127.0	127.0	3	Commscope CBC78T-DS-43-2X
127.0	127.0	2	Raycap RRFDC-3315-PF-48
127.0	127.0	3	Andrew HBXX-6517DS-A2M (43 lbs
126.0	126.0	3	Samsung B2/B66A RRH-BR049
126.0	126.0	3	Samsung B5/B13 RRH-BR04C
126.0	127.0	3	Antel BXA-80063/6CF
126.0	126.0	6	Commscope JAHH-45B-R3B
126.0	126.0	1	Flat Platform w/ Handrails

JOB INFORMATION			
Asset :	302535, Milford CT 2	Height :	183 ft
Client :	AT&T MOBILITY	Base Width :	48.62
Code :	ANSI/TIA-222-H	Shape :	18 Sides

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
5.0	185.0	2" conduit	Yes
5.0	185.0	1/2" Coax	Yes
5.0	185.0	1.7" (43.2mm) Hybrid	No
5.0	185.0	1 5/8" Coax	No
5.0	185.0	1 1/4" Hybriflex Cable	Yes
0.0	185.0	5/16" (0.31"-7.9mm) Coax	No
0.0	185.0	1 5/8" Hybriflex	No
5.0	167.0	2" conduit	No
5.0	167.0	2" conduit	No
5.0	167.0	0.39" (10mm) Fiber Trunk	Yes
0.0	167.0	0.96" (24.3mm) Cable	No
0.0	167.0	0.92" (23.4mm) Cable	No
0.0	167.0	0.78" (19.7mm) 8 AWG 6	Yes
0.0	167.0	0.39" (10mm) Fiber Trunk	No
0.0	145.0	1 5/8" Coax	Yes
0.0	145.0	1 5/8" (1.63"-41.3mm) Fiber	No
0.0	145.0	1 1/4" Hybriflex Cable	Yes
0.0	127.0	7/8" Coax	No
0.0	127.0	7/8" Coax	Yes
0.0	127.0	1 1/4" Hybriflex Cable	Yes
5.0	126.0	1 5/8" Coax	No
0.0	110.8	#20 Reinforcement	Yes
0.0	110.8	#20 Reinforcement	Yes
0.0	110.8	#20 Reinforcement	Yes
0.0	110.8	#20 Reinforcement	Yes

LOAD CASES

1.2D + 1.0W Normal	116.96 mph wind with no ice
0.9D + 1.0W Normal	116.96 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	48.73 mph wind with 0.850" radial
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	4544.99	36.13	76.70
0.9D + 1.0W Normal	4455.71	36.10	57.51
1.2D + 1.0Di + 1.0Wi Normal	1031.19	7.52	101.20
1.2D + 1.0Ev + 1.0Eh Normal	291.34	1.93	77.19
0.9D - 1.0Ev + 1.0Eh Normal	283.79	1.92	53.26
1.0D + 1.0W Service Normal	1058.38	8.50	63.97

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	183.00	38.560	2.040

ANALYSIS PARAMETERS

Location:	New Haven County,CT	**Height:**	183 ft
Type and Shape:	Taper, 18 Sides	**Base Diameter:**	48.62 in
Manufacturer:	Undetermined	**Top Diameter:**	19.86 in
K_d (non-service):	0.95	**Taper:**	0.1750 in/ft
K_e:	1.00	**Rotation:**	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed w/o Ice:**	117 mph
Risk Category:	II	**Design Wind Speed w/Ice:**	49 mph
Topo Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	0.85 in
Crest Height:	0 ft	**HMSL:**	94.20 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	3.31
T_L (sec):	6	**P:**	1	**C_s:**	0.030
S_s:	0.200	**S_1:**	0.053	**C_s Max:**	0.030
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.213	**S_{d1}:**	0.085		

LOAD CASES

1.2D + 1.0W Normal	116.96 mph wind with no ice
0.9D + 1.0W Normal	116.96 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	48.73 mph wind with 0.850" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in^2)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (in)	Top Area (in^2)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	35.00	0.5000	50		0.00	8,516	48.62	0.000	76.36	22,340.4	15.38	97.24	42.50	35.00	66.65	14,852.4	13.22	85.00	0.1749
2-18	35.00	0.5000	50	Slip	78.00	7,763	44.64	28.500	70.04	17,236.9	13.98	89.27	38.51	63.50	60.32	11,012.9	11.82	77.03	0.1749
3-18	35.00	0.3750	60	Slip	66.00	5,215	40.22	58.000	47.43	9,516.0	17.15	107.27	34.10	93.00	40.14	5,769.5	14.27	90.94	0.1749
4-18	33.00	0.3125	60	Slip	60.00	3,609	35.60	88.000	35.00	5,507.3	18.33	113.93	29.83	121.00	29.28	3,222.8	15.07	95.46	0.1749
								116.50								1,487.0			
5-18	36.00	0.2500	60	Slip	54.00	2,694	31.12	0	24.49	2,948.3	20.18	124.47	24.82	152.50	19.50		15.74	99.28	0.1749
								149.00								572.4			
6-18	34.00	0.1875	60	Slip	42.00	1,559	25.81	0	15.25	1,264.4	22.51	137.64	19.86	183.00	11.71		16.91	105.92	0.1749

Shaft Weight 29,356

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
185.00	Andrew 844G65VTZASX	3	0.75	0.000	16.00	5.310	0.67	98.90	5.872	0.67
185.00	DragonWave A-ANT-18G-2-C	2	1.00	0.000	27.10	4.688	1.00	83.58	5.425	1.00
185.00	Argus LLPX310R	3	0.75	0.000	28.60	4.292	0.60	80.76	5.249	0.60
185.00	Nokia 2.5G MAA - AAHC(64T64R)	3	0.75	0.000	103.60	4.203	0.64	168.85	4.979	0.64
185.00	Decibel DB844H90E-XY	6	0.75	0.000	14.00	3.615	0.67	71.37	3.538	0.67
185.00	Commscope NNVV-65B-R4	3	0.75	0.000	77.40	12.271	0.64	222.83	13.894	0.64
185.00	Alcatel-Lucent RRH2x50-08	6	0.75	0.000	52.90	1.701	0.50	87.20	2.200	0.50
185.00	DragonWave Horizon Compact	2	0.75	0.000	10.60	0.721	0.50	23.61	1.050	0.50
185.00	Alcatel-Lucent 1900 MHz 4X45 R	3	0.75	0.000	60.00	2.322	0.50	106.64	2.947	0.50
183.00	Flat Platform w/ Handrails	1	1.00	0.000	2000.00	42.400	1.00	2822.52	54.538	1.00
169.00	Ericsson AIR 6419 B77G	3	0.75	0.000	66.10	3.797	0.65	121.82	4.554	0.65
167.00	Ericsson RRUS 4426 B66	3	0.75	0.000	48.40	1.650	0.50	74.01	2.137	0.50
167.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	3429.10	41.222	1.00
167.00	Quintel QD8616-7	3	0.75	0.000	150.00	18.815	0.65	368.43	20.935	0.65
167.00	CCI DMP65R-BU8D	3	0.75	0.000	95.70	17.871	0.63	290.66	19.985	0.63
167.00	Raycap DC9-48-60-24-8C-EV	2	0.75	0.000	16.00	4.788	0.50	90.05	5.632	0.50
167.00	Ericsson RRUS E2 B29	3	0.75	0.000	60.00	3.145	0.50	106.39	3.810	0.50
167.00	Ericsson RRUS 32 B30	3	0.75	0.000	60.00	2.743	0.50	102.20	3.414	0.50
167.00	Ericsson RRUS 32 B2	3	0.75	0.000	53.00	2.743	0.50	95.19	3.414	0.50
167.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	107.97	2.504	0.50
167.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	91.62	2.357	0.50
167.00	Raycap DC6-48-60-18-8F (23.5"	1	0.75	0.000	20.00	1.260	0.50	50.20	1.638	0.50
167.00	Commscope WCS-IMFQ-AMT	1	0.75	0.000	29.50	0.989	0.50	48.82	1.368	0.50
165.00	Ericsson Air 6449 B77D	3	0.75	0.000	81.60	4.028	0.65	140.46	4.815	0.65
145.00	Ericsson RRUS 4415 B25	3	0.75	0.000	46.00	1.842	0.50	73.70	2.349	0.50
145.00	Ericsson AIR32 B66Aa/B2a	3	0.75	0.000	132.20	6.510	0.67	222.37	7.747	0.67
145.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	309.33	11.730	1.00
145.00	RFS APXVAARR24_43-U-NA20	3	0.75	0.000	127.90	20.243	0.63	349.68	22.338	0.63
145.00	Round Platform w/ Handrails	1	1.00	0.000	2000.00	27.200	1.00	2732.02	41.009	1.00
145.00	Ericsson Radio 4449 B71 B85A	3	0.75	0.000	75.00	1.650	0.50	108.97	2.130	0.50
145.00	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	180.99	6.579	0.63
145.00	Ericsson KRY 112 489/2	3	0.75	0.000	15.40	0.559	0.50	25.38	0.855	0.50
127.00	Commscope CBC78T-DS-43-2X	3	0.75	0.000	20.70	0.552	0.50	33.03	0.836	0.50
127.00	Andrew HBXX-6517DS-A2M (43 lbs	3	0.75	0.000	43.00	8.528	0.68	141.18	10.150	0.68
127.00	Raycap RRFDC-3315-PF-48	2	0.75	0.000	26.90	2.512	0.50	71.37	3.093	0.50
126.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.875	0.50	119.98	2.378	0.50
126.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.875	0.50	102.21	2.378	0.50
126.00	Antel BXA-80063/6CF	3	0.75	1.000	14.90	7.582	0.65	93.89	9.123	0.65
126.00	Commscope JAHH-45B-R3B	6	0.75	0.000	83.80	11.400	0.63	211.25	12.955	0.63
126.00	Flat Platform w/ Handrails	1	1.00	0.000	2000.00	42.400	1.00	2792.72	54.098	1.00
Totals	Num Loadings: 40	111			15,110.20			25,825.18		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
5.00	185.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	SPRINT NEXTEL

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	185.00	6	5/16" (0.31"-7.9mm) C	0.31	0.05	N	0	0	0	0	0	N	CLEARWIRE COR
0.00	185.00	3	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	CLEARWIRE COR
5.00	185.00	3	1 1/4" Hybriflex Cabl	1.54	1	N	3	1	1	150	1	Y	CLEARWIRE COR
5.00	185.00	2	2" conduit	2.38	3.65	N	2	1	1	150	1	Y	CLEARWIRE COR
5.00	185.00	2	1/2" Coax	0.63	0.15	N	2	1	1	150	2	Y	CLEARWIRE COR
5.00	185.00	1	1.7" (43.2mm) Hybrid	1.7	1.78	N	0	0	0	0	0	N	CLEARWIRE COR
0.00	167.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	4	1	1	210	1	Y	AT&T MOBILITY
5.00	167.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	2	1	1	240	1	Y	AT&T MOBILITY
0.00	167.00	2	0.92" (23.4mm) Cable	0.92	0.89	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	167.00	2	0.96" (24.3mm) Cable	0.96	0.88	N	0	0	0	0	0	N	AT&T MOBILITY
5.00	167.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	167.00	1	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
5.00	167.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	145.00	6	1 5/8" Coax	1.98	0.82	N	6	1	1	250	1	Y	T-MOBILE
0.00	145.00	2	1 1/4" Hybriflex Cabl	1.54	1	N	2	1	1	350	1	Y	T-MOBILE
0.00	145.00	2	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	T-MOBILE
0.00	127.00	12	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	VERIZON WIREL
0.00	127.00	6	7/8" Coax	1.09	0.33	N	6	1	1	0	1	Y	VERIZON WIREL
0.00	127.00	2	1 1/4" Hybriflex Cabl	1.54	1	N	2	1	1	0	1	Y	VERIZON WIREL
5.00	126.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIREL
0.00	110.80	1	#20 Reinforcement	4	4.68	N	1	0	0	270	0	Y	
0.00	110.80	1	#20 Reinforcement	4	4.68	N	1	0	0	180	0	Y	
0.00	110.80	1	#20 Reinforcement	4	4.68	N	1	0	0	0	0	Y	
0.00	110.80	1	#20 Reinforcement	4	4.68	N	1	0	0	90	0	Y	

ADDITIONAL STEEL

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connectors Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	22.50	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	20.00	3.31	5/8" A36 U-Bolt	N
22.50	43.00	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	18.00	3.31	5/8" A36 U-Bolt	Y
43.00	102.50	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	Y

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
0.00		0.5000	48.620	76.364	22,340.40	15.38	97.24	63.5	905.0	0.0	0.0	19.640	7,654.20	0.0
5.00		0.5000	47.745	74.976	21,144.30	15.07	95.49	63.5	872.3	0.0	1,287.4	19.640	7,412.80	334.0
10.00		0.5000	46.871	73.588	19,991.70	14.77	93.74	63.5	840.1	0.0	1,263.8	19.640	7,175.20	334.0
15.00		0.5000	45.996	72.200	18,881.70	14.46	91.99	63.5	808.5	0.0	1,240.2	19.640	6,941.50	334.0
20.00		0.5000	45.122	70.812	17,813.60	14.15	90.24	63.5	777.6	0.0	1,216.6	19.640	6,711.70	334.0
22.50	Reinf. Top Reinf Bottom	0.5000	44.684	70.118	17,295.00	13.99	89.37	63.5	762.3	0.0	599.4	19.640	6,598.30	167.0
25.00		0.5000	44.247	69.424	16,786.50	13.84	88.49	63.5	747.2	0.0	593.5	19.640	6,485.80	167.0
28.50	Bot - Section 2	0.5000	43.635	68.453	16,091.60	13.62	87.27	63.5	726.4	0.0	821.0	19.640	6,330.00	233.8
30.00		0.5000	43.372	68.036	15,799.70	13.53	86.74	63.5	717.5	0.0	704.8	19.640	6,518.00	100.2
35.00	Top - Section 1	0.5000	43.498	68.235	15,938.80	13.58	87.00	63.5	721.7	0.0	2,318.5	19.640	6,295.40	334.0
40.00		0.5000	42.623	66.847	14,985.90	13.27	85.25	63.5	692.5	0.0	1,149.1	19.640	6,076.60	334.0
43.00	Reinf. Top Reinf Bottom	0.5000	42.099	66.015	14,432.70	13.08	84.20	63.5	675.2	0.0	678.1	19.640	5,947.20	200.4
45.00		0.5000	41.749	65.459	14,071.70	12.96	83.50	63.5	663.9	0.0	447.4	19.640	5,861.80	133.6
50.00		0.5000	40.874	64.071	13,195.40	12.65	81.75	63.5	635.9	0.0	1,101.9	19.640	5,650.80	334.0
55.00		0.5000	40.000	62.684	12,356.40	12.34	80.00	63.5	608.4	0.0	1,078.3	19.640	5,443.60	334.0
58.00	Bot - Section 3	0.5000	39.475	61.851	11,870.40	12.16	78.95	63.5	592.3	0.0	635.6	19.640	5,321.20	200.4
60.00		0.5000	39.125	61.296	11,553.60	12.03	78.25	63.5	581.6	0.0	740.4	19.640	5,414.50	133.6
63.50	Top - Section 2	0.3750	39.263	46.284	8,843.30	16.70	104.70	76.2	443.6	0.0	1,279.8	19.640	5,272.20	233.8
65.00		0.3750	39.000	45.972	8,665.50	16.57	104.00	76.2	437.6	0.0	235.4	19.640	5,211.80	100.2
70.00		0.3750	38.126	44.931	8,090.10	16.16	101.67	76.2	417.9	0.0	773.3	19.640	5,012.90	334.0
75.00		0.3750	37.251	43.890	7,540.70	15.75	99.34	76.2	398.7	0.0	755.6	19.640	4,818.00	334.0
80.00		0.3750	36.377	42.849	7,016.80	15.34	97.00	76.2	379.9	0.0	737.9	19.640	4,626.90	334.0
85.00		0.3750	35.502	41.808	6,517.80	14.93	94.67	76.2	361.6	0.0	720.2	19.640	4,439.70	334.0
88.00	Bot - Section 4	0.3750	34.977	41.184	6,230.00	14.68	93.27	76.2	350.8	0.0	423.6	19.640	4,329.20	200.4
90.00		0.3750	34.627	40.767	6,043.00	14.52	92.34	76.2	343.7	0.0	515.9	19.640	4,387.00	133.6
93.00	Top - Section 3	0.3125	34.728	34.134	5,107.90	17.83	111.13	75	289.7	0.0	764.1	19.640	4,277.20	200.4
95.00		0.3125	34.378	33.787	4,953.70	17.63	110.01	75.2	283.8	0.0	231.1	19.640	4,204.70	133.6
100.00		0.3125	33.503	32.920	4,581.90	17.14	107.21	75.7	269.4	0.0	567.5	19.640	4,026.40	334.0
102.50	Reinf. Top	0.3125	33.066	32.486	4,403.20	16.89	105.81	76	262.3	0.0	278.2	19.640	3,938.70	167.0
105.00		0.3125	32.629	32.052	4,229.20	16.65	104.41	76.2	255.3	0.0	274.5			
110.00		0.3125	31.754	31.185	3,895.00	16.15	101.61	76.2	241.6	0.0	538.0			
115.00		0.3125	30.879	30.318	3,578.90	15.66	98.81	76.2	228.3	0.0	523.2			
116.50	Bot - Section 5	0.3125	30.617	30.057	3,487.60	15.51	97.97	76.2	224.4	0.0	154.1			
120.00		0.3125	30.005	29.450	3,280.40	15.17	96.02	76.2	215.3	0.0	643.2			
121.00	Top - Section 4	0.2500	30.330	23.868	2,728.50	19.63	121.32	73.1	177.2	0.0	181.4			
125.00		0.2500	29.630	23.312	2,542.50	19.14	118.52	73.6	169.0	0.0	321.1			
126.00		0.2500	29.455	23.174	2,497.30	19.01	117.82	73.8	167.0	0.0	79.1			
127.00		0.2500	29.280	23.035	2,452.70	18.89	117.12	73.9	165.0	0.0	78.6			
130.00		0.2500	28.756	22.618	2,322.10	18.52	115.02	74.3	159.1	0.0	233.0			
135.00		0.2500	27.881	21.925	2,114.90	17.90	111.52	74.9	149.4	0.0	378.9			
140.00		0.2500	27.007	21.231	1,920.30	17.28	108.03	75.6	140.1	0.0	367.1			
145.00		0.2500	26.132	20.537	1,738.10	16.67	104.53	76.2	131.0	0.0	355.3			
149.00	Bot - Section 6	0.2500	25.432	19.981	1,600.90	16.17	101.73	76.2	124.0	0.0	275.7			
150.00		0.2500	25.257	19.843	1,567.80	16.05	101.03	76.2	122.3	0.0	119.5			
152.50	Top - Section 5	0.1875	25.195	14.882	1,175.90	21.93	134.37	70.7	91.9	0.0	295.0			
155.00		0.1875	24.758	14.622	1,115.30	21.52	132.04	71.2	88.7	0.0	125.5			
160.00		0.1875	23.883	14.101	1,000.40	20.70	127.38	72	82.5	0.0	244.3			
165.00		0.1875	23.009	13.581	893.60	19.87	122.71	72.9	76.5	0.0	235.5			
167.00		0.1875	22.659	13.373	853.20	19.55	120.85	73.2	74.2	0.0	91.7			
169.00		0.1875	22.309	13.165	813.90	19.22	118.98	73.6	71.9	0.0	90.3			
170.00		0.1875	22.134	13.060	794.80	19.05	118.05	73.7	70.7	0.0	44.6			
175.00		0.1875	21.259	12.540	703.50	18.23	113.38	74.6	65.2	0.0	217.8			
180.00		0.1875	20.385	12.020	619.50	17.41	108.72	75.4	59.9	0.0	208.9			
183.00		0.1875	19.860	11.707	572.40	16.91	105.92	76	56.8	0.0	121.1			
								Totals:			29,356.0			6,847.0

Load Case: 1.2D + 1.0W Normal — 116.96 mph wind with no ice — 28 Iterations
Gust Response Factor: 1.10
Dead load Factor: 1.20
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-76.70	-36.13	0.00	-4,545.0	0.00	4,544.99	4,364.18	1,030.91	4,481.01	4,310.15	0	0	0.801
5.00	-74.34	-35.87	0.00	-4,364.3	0.00	4,364.33	4,284.87	1,012.17	4,319.63	4,154.11	0.11	-0.21	0.793
10.00	-71.78	-35.59	0.00	-4,185.0	0.00	4,184.99	4,205.55	993.44	4,161.21	4,000.95	0.45	-0.42	0.784
15.00	-69.26	-35.29	0.00	-4,007.1	0.00	4,007.06	4,126.23	974.70	4,005.75	3,850.66	1.01	-0.64	0.775
20.00	-66.79	-35.05	0.00	-3,830.6	0.00	3,830.62	4,046.91	955.96	3,853.25	3,703.25	1.79	-0.85	0.766
22.50	-65.55	-34.89	0.00	-3,743.0	0.00	3,743.00	4,007.25	946.59	3,778.11	3,630.62	2.27	-0.96	0.760
25.00	-64.31	-34.70	0.00	-3,655.8	0.00	3,655.78	3,967.59	937.23	3,703.71	3,558.71	2.8	-1.07	0.755
28.50	-62.63	-34.52	0.00	-3,534.3	0.00	3,534.34	3,912.06	924.11	3,600.79	3,459.25	3.65	-1.23	0.747
30.00	-61.43	-34.29	0.00	-3,482.6	0.00	3,482.56	3,888.27	918.49	3,557.12	3,417.06	4.05	-1.3	0.735
35.00	-57.63	-33.86	0.00	-3,311.1	0.00	3,311.12	3,899.64	921.18	3,577.96	3,437.19	5.52	-1.51	0.703
40.00	-55.25	-33.50	0.00	-3,141.8	0.00	3,141.84	3,820.32	902.44	3,433.91	3,298.00	7.22	-1.73	0.690
43.00	-53.84	-33.26	0.00	-3,041.3	0.00	3,041.34	3,772.73	891.20	3,348.90	3,215.87	8.35	-1.85	0.682
45.00	-52.87	-32.95	0.00	-2,974.8	0.00	2,974.82	3,741.00	883.70	3,292.82	3,161.69	9.14	-1.94	0.676
50.00	-50.54	-32.44	0.00	-2,810.1	0.00	2,810.07	3,661.68	864.96	3,154.70	3,028.25	11.28	-2.14	0.662
55.00	-48.26	-32.00	0.00	-2,647.9	0.00	2,647.86	3,582.36	846.23	3,019.53	2,897.69	13.64	-2.35	0.646
58.00	-46.91	-31.71	0.00	-2,551.9	0.00	2,551.86	3,534.77	834.99	2,939.85	2,820.73	15.15	-2.47	0.636
60.00	-45.61	-31.35	0.00	-2,488.4	0.00	2,488.44	3,503.04	827.49	2,887.32	2,770.01	16.21	-2.56	0.623
63.50	-43.40	-30.93	0.00	-2,378.7	0.00	2,378.71	3,173.45	749.81	2,633.80	2,534.72	18.14	-2.7	0.599
65.00	-42.79	-30.56	0.00	-2,332.3	0.00	2,332.32	3,152.77	744.75	2,598.39	2,501.05	19	-2.76	0.594
70.00	-40.87	-29.88	0.00	-2,179.5	0.00	2,179.51	3,081.38	727.89	2,482.07	2,388.54	22.01	-2.99	0.574
75.00	-38.98	-29.18	0.00	-2,030.1	0.00	2,030.12	3,010.00	711.02	2,368.41	2,278.62	25.27	-3.22	0.554
80.00	-37.12	-28.46	0.00	-1,884.2	0.00	1,884.25	2,938.61	694.16	2,257.42	2,171.28	28.77	-3.45	0.533
85.00	-35.30	-27.82	0.00	-1,742.0	0.00	1,741.96	2,867.22	677.30	2,149.09	2,066.54	32.49	-3.67	0.511
88.00	-34.22	-27.43	0.00	-1,658.5	0.00	1,658.49	2,824.39	667.18	2,085.37	2,004.94	34.84	-3.8	0.498
90.00	-33.22	-27.06	0.00	-1,603.6	0.00	1,603.64	2,795.83	660.43	2,043.42	1,964.39	36.45	-3.89	0.483
93.00	-31.73	-26.62	0.00	-1,522.5	0.00	1,522.46	2,304.07	552.98	1,718.97	1,629.57	38.94	-4.02	0.520
95.00	-31.06	-26.17	0.00	-1,469.2	0.00	1,469.23	2,286.91	547.35	1,684.21	1,600.84	40.64	-4.1	0.507
100.00	-29.44	-25.53	0.00	-1,338.4	0.00	1,338.38	2,243.45	533.30	1,598.85	1,529.73	45.05	-4.32	0.476
102.50	-28.64	-25.15	0.00	-1,274.6	0.00	1,274.55	2,221.41	526.28	1,557.00	1,494.57	47.34	-4.43	0.460
102.50	-28.64	-25.15	0.00	-1,274.6	0.00	1,274.55	2,221.41	526.28	1,557.00	1,494.57	47.34	-4.43	0.868
105.00	-27.99	-24.70	0.00	-1,211.7	0.00	1,211.67	2,198.16	519.25	1,515.71	1,458.99	49.68	-4.53	0.845
110.00	-26.74	-24.04	0.00	-1,088.2	0.00	1,088.16	2,138.67	505.20	1,434.79	1,380.72	54.64	-4.92	0.803
115.00	-25.64	-23.56	0.00	-967.9	0.00	967.94	2,079.18	491.14	1,356.09	1,304.61	59.99	-5.3	0.757
116.50	-25.28	-23.44	0.00	-932.6	0.00	932.59	2,061.33	486.93	1,332.92	1,282.20	61.67	-5.41	0.742
120.00	-24.18	-23.24	0.00	-850.6	0.00	850.56	2,019.69	477.09	1,279.61	1,230.65	65.72	-5.66	0.705
121.00	-23.83	-23.11	0.00	-827.3	0.00	827.32	1,570.80	386.66	1,050.52	971.76	66.92	-5.74	0.870
125.00	-23.08	-22.94	0.00	-734.9	0.00	734.87	1,545.06	377.66	1,002.22	933.42	71.83	-6.01	0.806
126.00	-19.66	-19.05	0.00	-711.5	0.00	711.51	1,538.55	375.41	990.33	923.90	73.1	-6.09	0.785
127.00	-19.23	-18.31	0.00	-692.5	0.00	692.46	1,532.00	373.16	978.50	914.41	74.38	-6.17	0.772
130.00	-18.70	-18.09	0.00	-637.5	0.00	637.52	1,512.17	366.42	943.45	886.12	78.33	-6.41	0.734
135.00	-17.86	-17.76	0.00	-547.1	0.00	547.09	1,478.47	355.18	886.45	839.56	85.22	-6.77	0.666
140.00	-17.04	-17.42	0.00	-458.3	0.00	458.29	1,443.97	343.94	831.23	793.78	92.48	-7.11	0.592
145.00	-12.31	-13.11	0.00	-371.2	0.00	371.17	1,408.40	332.69	777.79	748.69	100.07	-7.41	0.506
149.00	-11.76	-12.91	0.00	-318.7	0.00	318.72	1,370.33	323.70	736.31	708.57	106.36	-7.64	0.460
150.00	-11.56	-12.79	0.00	-305.8	0.00	305.81	1,360.81	321.45	726.12	698.71	107.96	-7.69	0.448
152.50	-11.08	-12.60	0.00	-273.8	0.00	273.83	947.28	241.09	544.56	487.59	112.01	-7.83	0.576
155.00	-10.79	-12.37	0.00	-242.3	0.00	242.34	936.36	236.87	525.68	473.48	116.13	-7.95	0.526
160.00	-10.23	-12.03	0.00	-180.5	0.00	180.51	913.92	228.44	488.93	445.56	124.58	-8.22	0.419
165.00	-9.44	-11.48	0.00	-120.4	0.00	120.36	890.67	220.01	453.51	418.08	133.28	-8.43	0.301
167.00	-4.66	-6.43	0.00	-97.4	0.00	97.40	881.15	216.64	439.71	407.21	136.82	-8.5	0.245
169.00	-4.30	-6.05	0.00	-84.6	0.00	84.55	871.50	213.27	426.13	396.43	140.38	-8.56	0.219
170.00	-4.23	-5.88	0.00	-78.5	0.00	78.50	866.62	211.58	419.42	391.07	142.17	-8.59	0.206
175.00	-3.85	-5.55	0.00	-49.1	0.00	49.11	841.77	203.15	386.66	364.59	151.2	-8.71	0.140
180.00	-3.48	-5.27	0.00	-21.4	0.00	21.38	816.11	194.72	355.23	338.68	160.32	-8.78	0.068
183.00	0.00	-4.68	0.00	-5.6	0.00	5.57	800.33	189.66	337.02	323.42	165.82	-8.8	0.018

Load Case: 0.9D + 1.0W Normal 116.96 mph wind with no ice 28 Iterations
Gust Response Factor: 1.10
Dead load Factor: 0.90
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-57.51	-36.10	0.00	-4,455.7	0.00	4,455.71	4,364.18	1,030.91	4,481.01	4,310.15	0	0	0.782
5.00	-55.71	-35.76	0.00	-4,275.2	0.00	4,275.24	4,284.87	1,012.17	4,319.63	4,154.11	0.11	-0.21	0.774
10.00	-53.76	-35.41	0.00	-4,096.4	0.00	4,096.45	4,205.55	993.44	4,161.21	4,000.95	0.44	-0.42	0.765
15.00	-51.84	-35.05	0.00	-3,919.4	0.00	3,919.41	4,126.23	974.70	4,005.75	3,850.66	0.99	-0.63	0.755
20.00	-49.97	-34.76	0.00	-3,744.2	0.00	3,744.18	4,046.91	955.96	3,853.25	3,703.25	1.76	-0.84	0.745
22.50	-49.03	-34.58	0.00	-3,657.3	0.00	3,657.27	4,007.25	946.59	3,778.11	3,630.62	2.22	-0.94	0.740
25.00	-48.08	-34.35	0.00	-3,570.8	0.00	3,570.83	3,967.59	937.23	3,703.71	3,558.71	2.75	-1.05	0.735
28.50	-46.80	-34.15	0.00	-3,450.6	0.00	3,450.60	3,912.06	924.11	3,600.79	3,459.25	3.57	-1.2	0.727
30.00	-45.89	-33.88	0.00	-3,399.4	0.00	3,399.38	3,888.27	918.49	3,557.12	3,417.06	3.96	-1.27	0.715
35.00	-43.01	-33.41	0.00	-3,230.0	0.00	3,229.98	3,899.64	921.18	3,577.96	3,437.19	5.4	-1.48	0.684
40.00	-41.21	-33.03	0.00	-3,062.9	0.00	3,062.90	3,820.32	902.44	3,433.91	3,298.00	7.06	-1.69	0.670
43.00	-40.14	-32.78	0.00	-2,963.8	0.00	2,963.81	3,772.73	891.20	3,348.90	3,215.87	8.17	-1.81	0.662
45.00	-39.40	-32.44	0.00	-2,898.3	0.00	2,898.26	3,741.00	883.70	3,292.82	3,161.69	8.94	-1.89	0.657
50.00	-37.63	-31.90	0.00	-2,736.1	0.00	2,736.08	3,661.68	864.96	3,154.70	3,028.25	11.03	-2.09	0.642
55.00	-35.91	-31.44	0.00	-2,576.6	0.00	2,576.58	3,582.36	846.23	3,019.53	2,897.69	13.33	-2.3	0.626
58.00	-34.89	-31.15	0.00	-2,482.3	0.00	2,482.26	3,534.77	834.99	2,939.85	2,820.73	14.82	-2.42	0.617
60.00	-33.91	-30.78	0.00	-2,420.0	0.00	2,419.96	3,503.04	827.49	2,887.32	2,770.01	15.85	-2.5	0.604
63.50	-32.24	-30.36	0.00	-2,312.2	0.00	2,312.25	3,173.45	749.81	2,633.80	2,534.72	17.73	-2.64	0.580
65.00	-31.77	-29.97	0.00	-2,266.7	0.00	2,266.72	3,152.77	744.75	2,598.39	2,501.05	18.57	-2.7	0.575
70.00	-30.32	-29.26	0.00	-2,116.9	0.00	2,116.88	3,081.38	727.89	2,482.07	2,388.54	21.51	-2.92	0.556
75.00	-28.89	-28.54	0.00	-1,970.6	0.00	1,970.58	3,010.00	711.02	2,368.41	2,278.62	24.69	-3.14	0.536
80.00	-27.48	-27.81	0.00	-1,827.9	0.00	1,827.87	2,938.61	694.16	2,257.42	2,171.28	28.1	-3.36	0.515
85.00	-26.11	-27.18	0.00	-1,688.8	0.00	1,688.81	2,867.22	677.30	2,149.09	2,066.54	31.73	-3.58	0.494
88.00	-25.29	-26.78	0.00	-1,607.3	0.00	1,607.28	2,824.39	667.18	2,085.37	2,004.94	34.02	-3.7	0.481
90.00	-24.53	-26.41	0.00	-1,553.7	0.00	1,553.72	2,795.83	660.43	2,043.42	1,964.39	35.59	-3.79	0.466
93.00	-23.42	-25.98	0.00	-1,474.5	0.00	1,474.49	2,304.07	552.98	1,718.97	1,629.57	38.01	-3.91	0.501
95.00	-22.90	-25.52	0.00	-1,422.5	0.00	1,422.52	2,286.91	547.35	1,684.21	1,600.84	39.66	-4	0.489
100.00	-21.69	-24.89	0.00	-1,294.9	0.00	1,294.92	2,243.45	533.30	1,598.85	1,529.73	43.96	-4.21	0.459
102.50	-21.08	-24.51	0.00	-1,232.7	0.00	1,232.69	2,221.41	526.28	1,557.00	1,494.57	46.19	-4.31	0.443
102.50	-21.08	-24.51	0.00	-1,232.7	0.00	1,232.69	2,221.41	526.28	1,557.00	1,494.57	46.19	-4.31	0.836
105.00	-20.58	-24.04	0.00	-1,171.4	0.00	1,171.41	2,198.16	519.25	1,515.71	1,458.99	48.47	-4.41	0.814
110.00	-19.63	-23.36	0.00	-1,051.2	0.00	1,051.21	2,138.67	505.20	1,434.79	1,380.72	53.29	-4.79	0.773
115.00	-18.80	-22.87	0.00	-934.4	0.00	934.44	2,079.18	491.14	1,356.09	1,304.61	58.5	-5.15	0.727
116.50	-18.52	-22.73	0.00	-900.1	0.00	900.14	2,061.33	486.93	1,332.92	1,282.20	60.13	-5.26	0.713
120.00	-17.69	-22.54	0.00	-820.6	0.00	820.60	2,019.69	477.09	1,279.61	1,230.65	64.07	-5.51	0.678
121.00	-17.41	-22.39	0.00	-798.1	0.00	798.06	1,570.80	386.66	1,050.52	971.76	65.23	-5.58	0.836
125.00	-16.84	-22.22	0.00	-708.5	0.00	708.48	1,545.06	377.66	1,002.22	933.42	70.01	-5.84	0.773
126.00	-14.35	-18.43	0.00	-685.8	0.00	685.84	1,538.55	375.41	990.33	923.90	71.24	-5.92	0.754
127.00	-14.04	-17.69	0.00	-667.4	0.00	667.41	1,532.00	373.16	978.50	914.41	72.49	-6	0.741
130.00	-13.63	-17.45	0.00	-614.3	0.00	614.34	1,512.17	366.42	943.45	886.12	76.32	-6.22	0.705
135.00	-12.99	-17.12	0.00	-527.1	0.00	527.11	1,478.47	355.18	886.45	839.56	83.01	-6.57	0.639
140.00	-12.37	-16.77	0.00	-441.5	0.00	441.53	1,443.97	343.94	831.23	793.78	90.05	-6.9	0.567
145.00	-8.91	-12.62	0.00	-357.7	0.00	357.68	1,408.40	332.69	777.79	748.69	97.42	-7.19	0.485
149.00	-8.50	-12.43	0.00	-307.2	0.00	307.19	1,370.33	323.70	736.31	708.57	103.52	-7.41	0.441
150.00	-8.35	-12.31	0.00	-294.8	0.00	294.76	1,360.81	321.45	726.12	698.71	105.08	-7.46	0.429
152.50	-7.98	-12.13	0.00	-264.0	0.00	263.97	947.28	241.09	544.56	487.59	109.01	-7.59	0.552
155.00	-7.76	-11.90	0.00	-233.7	0.00	233.66	936.36	236.87	525.68	473.48	113	-7.71	0.504
160.00	-7.35	-11.57	0.00	-174.2	0.00	174.18	913.92	228.44	488.93	445.56	121.19	-7.97	0.402
165.00	-6.76	-11.05	0.00	-116.4	0.00	116.35	890.67	220.01	453.51	418.08	129.63	-8.17	0.288
167.00	-3.32	-6.20	0.00	-94.3	0.00	94.26	881.15	216.64	439.71	407.21	133.06	-8.24	0.236
169.00	-3.05	-5.85	0.00	-81.8	0.00	81.85	871.50	213.27	426.13	396.43	136.51	-8.3	0.211
170.00	-3.01	-5.67	0.00	-76.0	0.00	76.00	866.62	211.58	419.42	391.07	138.25	-8.33	0.199
175.00	-2.73	-5.36	0.00	-47.6	0.00	47.64	841.77	203.15	386.66	364.59	147	-8.44	0.135
180.00	-2.45	-5.10	0.00	-20.9	0.00	20.86	816.11	194.72	355.23	338.68	155.85	-8.51	0.065
183.00	0.00	-4.68	0.00	-5.6	0.00	5.57	800.33	189.66	337.02	323.42	161.18	-8.53	0.018

Load Case: 1.2D + 1.0Di + 1.0Wi Normal		48.73 mph wind with 0.850" radial ice			27 Iterations
Gust Response Factor:	1.10	Ice Dead Load Factor	1.00		
Dead load Factor:	1.20			Ice Importance Factor	1.00
Wind Load Factor:	1.00				

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-101.20	-7.52	0.00	-1,031.2	0.00	1,031.19	4,364.18	1,030.91	4,481.01	4,310.15	0	0	0.197
5.00	-98.60	-7.49	0.00	-993.6	0.00	993.57	4,284.87	1,012.17	4,319.63	4,154.11	0.03	-0.05	0.195
10.00	-95.68	-7.46	0.00	-956.1	0.00	956.10	4,205.55	993.44	4,161.21	4,000.95	0.1	-0.1	0.194
15.00	-92.78	-7.43	0.00	-918.8	0.00	918.78	4,126.23	974.70	4,005.75	3,850.66	0.23	-0.15	0.192
20.00	-89.90	-7.40	0.00	-881.6	0.00	881.63	4,046.91	955.96	3,853.25	3,703.25	0.41	-0.2	0.190
22.50	-88.46	-7.38	0.00	-863.1	0.00	863.13	4,007.25	946.59	3,778.11	3,630.62	0.52	-0.22	0.189
25.00	-87.03	-7.36	0.00	-844.7	0.00	844.67	3,967.59	937.23	3,703.71	3,558.71	0.64	-0.25	0.188
28.50	-85.04	-7.34	0.00	-818.9	0.00	818.90	3,912.06	924.11	3,600.79	3,459.25	0.83	-0.28	0.187
30.00	-83.76	-7.31	0.00	-807.9	0.00	807.89	3,888.27	918.49	3,557.12	3,417.06	0.92	-0.3	0.184
35.00	-79.53	-7.25	0.00	-771.3	0.00	771.33	3,899.64	921.18	3,577.96	3,437.19	1.26	-0.35	0.177
40.00	-76.70	-7.20	0.00	-735.1	0.00	735.06	3,820.32	902.44	3,433.91	3,298.00	1.65	-0.4	0.174
43.00	-75.02	-7.17	0.00	-713.5	0.00	713.46	3,772.73	891.20	3,348.90	3,215.87	1.91	-0.43	0.173
45.00	-73.90	-7.13	0.00	-699.1	0.00	699.12	3,741.00	883.70	3,292.82	3,161.69	2.1	-0.45	0.171
50.00	-71.13	-7.05	0.00	-663.5	0.00	663.49	3,661.68	864.96	3,154.70	3,028.25	2.59	-0.5	0.168
55.00	-68.38	-6.98	0.00	-628.2	0.00	628.23	3,582.36	846.23	3,019.53	2,897.69	3.14	-0.54	0.165
58.00	-66.75	-6.94	0.00	-607.3	0.00	607.28	3,534.77	834.99	2,939.85	2,820.73	3.49	-0.57	0.163
60.00	-65.28	-6.89	0.00	-593.4	0.00	593.40	3,503.04	827.49	2,887.32	2,770.01	3.73	-0.59	0.160
63.50	-62.73	-6.84	0.00	-569.3	0.00	569.27	3,173.45	749.81	2,633.80	2,534.72	4.18	-0.63	0.155
65.00	-62.01	-6.79	0.00	-559.0	0.00	559.01	3,152.77	744.75	2,598.39	2,501.05	4.38	-0.64	0.153
70.00	-59.63	-6.71	0.00	-525.1	0.00	525.06	3,081.38	727.89	2,482.07	2,388.54	5.08	-0.7	0.149
75.00	-57.27	-6.62	0.00	-491.5	0.00	491.52	3,010.00	711.02	2,368.41	2,278.62	5.85	-0.75	0.145
80.00	-54.94	-6.52	0.00	-458.4	0.00	458.44	2,938.61	694.16	2,257.42	2,171.28	6.66	-0.81	0.140
85.00	-52.63	-6.43	0.00	-425.8	0.00	425.84	2,867.22	677.30	2,149.09	2,066.54	7.54	-0.86	0.135
88.00	-51.25	-6.38	0.00	-406.5	0.00	406.54	2,824.39	667.18	2,085.37	2,004.94	8.09	-0.89	0.132
90.00	-50.05	-6.32	0.00	-393.8	0.00	393.78	2,795.83	660.43	2,043.42	1,964.39	8.47	-0.92	0.128
93.00	-48.27	-6.26	0.00	-374.8	0.00	374.81	2,304.07	552.98	1,718.97	1,629.57	9.06	-0.95	0.139
95.00	-47.41	-6.19	0.00	-362.3	0.00	362.29	2,286.91	547.35	1,684.21	1,600.84	9.46	-0.97	0.136
100.00	-45.29	-6.10	0.00	-331.3	0.00	331.33	2,243.45	533.30	1,598.85	1,529.73	10.5	-1.02	0.128
102.50	-44.23	-6.05	0.00	-316.1	0.00	316.07	2,221.41	526.28	1,557.00	1,494.57	11.05	-1.05	0.124
102.50	-44.23	-6.05	0.00	-316.1	0.00	316.07	2,221.41	526.28	1,557.00	1,494.57	11.05	-1.05	0.232
105.00	-43.38	-5.99	0.00	-301.0	0.00	300.96	2,198.16	519.25	1,515.71	1,458.99	11.6	-1.08	0.226
110.00	-41.70	-5.91	0.00	-271.0	0.00	271.01	2,138.67	505.20	1,434.79	1,380.72	12.78	-1.17	0.216
115.00	-40.18	-5.85	0.00	-241.5	0.00	241.46	2,079.18	491.14	1,356.09	1,304.61	14.06	-1.27	0.205
116.50	-39.73	-5.81	0.00	-232.7	0.00	232.69	2,061.33	486.93	1,332.92	1,282.20	14.46	-1.29	0.201
120.00	-38.35	-5.76	0.00	-212.3	0.00	212.34	2,019.69	477.09	1,279.61	1,230.65	15.43	-1.36	0.192
121.00	-37.96	-5.73	0.00	-206.6	0.00	206.58	1,570.80	386.66	1,050.52	971.76	15.72	-1.38	0.237
125.00	-36.88	-5.68	0.00	-183.7	0.00	183.67	1,545.06	377.66	1,002.22	933.42	16.9	-1.44	0.221
126.00	-31.53	-4.80	0.00	-177.9	0.00	177.91	1,538.55	375.41	990.33	923.90	17.21	-1.46	0.213
127.00	-30.67	-4.63	0.00	-173.1	0.00	173.11	1,532.00	373.16	978.50	914.41	17.51	-1.48	0.209
130.00	-29.96	-4.56	0.00	-159.2	0.00	159.23	1,512.17	366.42	943.45	886.12	18.47	-1.54	0.200
135.00	-28.79	-4.47	0.00	-136.4	0.00	136.41	1,478.47	355.18	886.45	839.56	20.13	-1.63	0.182
140.00	-27.64	-4.38	0.00	-114.0	0.00	114.04	1,443.97	343.94	831.23	793.78	21.89	-1.72	0.163
145.00	-20.44	-3.31	0.00	-92.2	0.00	92.16	1,408.40	332.69	777.79	748.69	23.73	-1.79	0.138
149.00	-19.67	-3.25	0.00	-78.9	0.00	78.90	1,370.33	323.70	736.31	708.57	25.25	-1.85	0.126
150.00	-19.42	-3.22	0.00	-75.6	0.00	75.65	1,360.81	321.45	726.12	698.71	25.64	-1.86	0.123
152.50	-18.80	-3.16	0.00	-67.6	0.00	67.60	947.28	241.09	544.56	487.59	26.63	-1.9	0.159
155.00	-18.37	-3.09	0.00	-59.7	0.00	59.70	936.36	236.87	525.68	473.48	27.63	-1.93	0.146
160.00	-17.55	-2.99	0.00	-44.2	0.00	44.25	913.92	228.44	488.93	445.56	29.68	-1.99	0.119
165.00	-16.31	-2.84	0.00	-29.3	0.00	29.32	890.67	220.01	453.51	418.08	31.8	-2.04	0.089
167.00	-8.50	-1.61	0.00	-23.6	0.00	23.65	881.15	216.64	439.71	407.21	32.66	-2.06	0.068
169.00	-7.88	-1.52	0.00	-20.4	0.00	20.42	871.50	213.27	426.13	396.43	33.52	-2.08	0.061
170.00	-7.75	-1.46	0.00	-18.9	0.00	18.90	866.62	211.58	419.42	391.07	33.96	-2.08	0.057
175.00	-7.11	-1.36	0.00	-11.6	0.00	11.59	841.77	203.15	386.66	364.59	36.16	-2.11	0.040
180.00	-6.49	-1.24	0.00	-4.8	0.00	4.82	816.11	194.72	355.23	338.68	38.37	-2.13	0.022
183.00	0.00	-1.00	0.00	-1.1	0.00	1.10	800.33	189.66	337.02	323.42	39.71	-2.13	0.003

Load Case: 1.0D + 1.0W Service Normal 60 mph Wind with No Ice 26 Iterations
Gust Response Factor: 1.10
Dead load Factor: 1.00
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-63.97	-8.50	0.00	-1,058.4	0.00	1,058.38	4,364.18	1,030.91	4,481.01	4,310.15	0	0	0.195
5.00	-62.11	-8.43	0.00	-1,015.9	0.00	1,015.87	4,284.87	1,012.17	4,319.63	4,154.11	0.03	-0.05	0.193
10.00	-60.08	-8.35	0.00	-973.7	0.00	973.74	4,205.55	993.44	4,161.21	4,000.95	0.1	-0.1	0.190
15.00	-58.07	-8.27	0.00	-932.0	0.00	931.99	4,126.23	974.70	4,005.75	3,850.66	0.23	-0.15	0.188
20.00	-56.09	-8.21	0.00	-890.6	0.00	890.63	4,046.91	955.96	3,853.25	3,703.25	0.42	-0.2	0.186
22.50	-55.10	-8.17	0.00	-870.1	0.00	870.11	4,007.25	946.59	3,778.11	3,630.62	0.53	-0.22	0.184
25.00	-54.13	-8.12	0.00	-849.7	0.00	849.70	3,967.59	937.23	3,703.71	3,558.71	0.65	-0.25	0.183
28.50	-52.77	-8.07	0.00	-821.3	0.00	821.29	3,912.06	924.11	3,600.79	3,459.25	0.85	-0.29	0.181
30.00	-51.83	-8.01	0.00	-809.2	0.00	809.18	3,888.27	918.49	3,557.12	3,417.06	0.94	-0.3	0.178
35.00	-48.75	-7.90	0.00	-769.1	0.00	769.13	3,899.64	921.18	3,577.96	3,437.19	1.28	-0.35	0.170
40.00	-46.84	-7.82	0.00	-729.6	0.00	729.61	3,820.32	902.44	3,433.91	3,298.00	1.68	-0.4	0.167
43.00	-45.70	-7.76	0.00	-706.2	0.00	706.15	3,772.73	891.20	3,348.90	3,215.87	1.94	-0.43	0.165
45.00	-44.94	-7.68	0.00	-690.6	0.00	690.64	3,741.00	883.70	3,292.82	3,161.69	2.13	-0.45	0.164
50.00	-43.08	-7.56	0.00	-652.2	0.00	652.23	3,661.68	864.96	3,154.70	3,028.25	2.62	-0.5	0.160
55.00	-41.24	-7.45	0.00	-614.4	0.00	614.44	3,582.36	846.23	3,019.53	2,897.69	3.17	-0.55	0.156
58.00	-40.14	-7.38	0.00	-592.1	0.00	592.08	3,534.77	834.99	2,939.85	2,820.73	3.52	-0.58	0.154
60.00	-39.10	-7.30	0.00	-577.3	0.00	577.31	3,503.04	827.49	2,887.32	2,770.01	3.77	-0.59	0.150
63.50	-37.28	-7.20	0.00	-551.8	0.00	551.77	3,173.45	749.81	2,633.80	2,534.72	4.22	-0.63	0.145
65.00	-36.82	-7.11	0.00	-541.0	0.00	540.97	3,152.77	744.75	2,598.39	2,501.05	4.42	-0.64	0.143
70.00	-35.28	-6.95	0.00	-505.4	0.00	505.42	3,081.38	727.89	2,482.07	2,388.54	5.12	-0.7	0.139
75.00	-33.76	-6.78	0.00	-470.7	0.00	470.69	3,010.00	711.02	2,368.41	2,278.62	5.88	-0.75	0.134
80.00	-32.26	-6.61	0.00	-436.8	0.00	436.79	2,938.61	694.16	2,257.42	2,171.28	6.69	-0.8	0.129
85.00	-30.77	-6.46	0.00	-403.7	0.00	403.74	2,867.22	677.30	2,149.09	2,066.54	7.55	-0.85	0.124
88.00	-29.89	-6.37	0.00	-384.4	0.00	384.35	2,824.39	667.18	2,085.37	2,004.94	8.1	-0.88	0.120
90.00	-29.07	-6.28	0.00	-371.6	0.00	371.61	2,795.83	660.43	2,043.42	1,964.39	8.47	-0.9	0.117
93.00	-27.85	-6.18	0.00	-352.8	0.00	352.77	2,304.07	552.98	1,718.97	1,629.57	9.05	-0.93	0.126
95.00	-27.32	-6.07	0.00	-340.4	0.00	340.40	2,286.91	547.35	1,684.21	1,600.84	9.45	-0.95	0.123
100.00	-25.99	-5.93	0.00	-310.0	0.00	310.03	2,243.45	533.30	1,598.85	1,529.73	10.47	-1	0.115
102.50	-25.33	-5.84	0.00	-295.2	0.00	295.22	2,221.41	526.28	1,557.00	1,494.57	11	-1.03	0.111
102.50	-25.33	-5.84	0.00	-295.2	0.00	295.22	2,221.41	526.28	1,557.00	1,494.57	11	-1.03	0.209
105.00	-24.84	-5.73	0.00	-280.6	0.00	280.63	2,198.16	519.25	1,515.71	1,458.99	11.55	-1.05	0.204
110.00	-23.87	-5.57	0.00	-252.0	0.00	251.98	2,138.67	505.20	1,434.79	1,380.72	12.7	-1.14	0.194
115.00	-22.99	-5.46	0.00	-224.1	0.00	224.12	2,079.18	491.14	1,356.09	1,304.61	13.94	-1.23	0.183
116.50	-22.74	-5.43	0.00	-215.9	0.00	215.93	2,061.33	486.93	1,332.92	1,282.20	14.33	-1.26	0.180
120.00	-21.86	-5.39	0.00	-196.9	0.00	196.93	2,019.69	477.09	1,279.61	1,230.65	15.28	-1.31	0.171
121.00	-21.61	-5.35	0.00	-191.5	0.00	191.54	1,570.80	386.66	1,050.52	971.76	15.55	-1.33	0.211
125.00	-21.02	-5.31	0.00	-170.1	0.00	170.13	1,545.06	377.66	1,002.22	933.42	16.7	-1.39	0.196
126.00	-17.88	-4.41	0.00	-164.7	0.00	164.71	1,538.55	375.41	990.33	923.90	16.99	-1.41	0.190
127.00	-17.50	-4.24	0.00	-160.3	0.00	160.31	1,532.00	373.16	978.50	914.41	17.29	-1.43	0.187
130.00	-17.10	-4.18	0.00	-147.6	0.00	147.60	1,512.17	366.42	943.45	886.12	18.21	-1.49	0.178
135.00	-16.45	-4.11	0.00	-126.7	0.00	126.69	1,478.47	355.18	886.45	839.56	19.81	-1.57	0.162
140.00	-15.81	-4.03	0.00	-106.2	0.00	106.16	1,443.97	343.94	831.23	793.78	21.49	-1.65	0.145
145.00	-11.51	-3.03	0.00	-86.0	0.00	86.02	1,408.40	332.69	777.79	748.69	23.26	-1.72	0.123
149.00	-11.06	-2.99	0.00	-73.9	0.00	73.89	1,370.33	323.70	736.31	708.57	24.72	-1.77	0.112
150.00	-10.90	-2.96	0.00	-70.9	0.00	70.90	1,360.81	321.45	726.12	698.71	25.09	-1.78	0.110
152.50	-10.50	-2.92	0.00	-63.5	0.00	63.50	947.28	241.09	544.56	487.59	26.04	-1.81	0.141
155.00	-10.26	-2.86	0.00	-56.2	0.00	56.21	936.36	236.87	525.68	473.48	26.99	-1.84	0.130
160.00	-9.80	-2.79	0.00	-41.9	0.00	41.90	913.92	228.44	488.93	445.56	28.96	-1.91	0.105
165.00	-9.11	-2.66	0.00	-28.0	0.00	27.97	890.67	220.01	453.51	418.08	30.98	-1.96	0.077
167.00	-4.59	-1.49	0.00	-22.6	0.00	22.65	881.15	216.64	439.71	407.21	31.81	-1.97	0.061
169.00	-4.25	-1.41	0.00	-19.7	0.00	19.67	871.50	213.27	426.13	396.43	32.64	-1.99	0.055
170.00	-4.18	-1.37	0.00	-18.3	0.00	18.26	866.62	211.58	419.42	391.07	33.05	-1.99	0.052
175.00	-3.83	-1.29	0.00	-11.4	0.00	11.44	841.77	203.15	386.66	364.59	35.15	-2.02	0.036
180.00	-3.49	-1.23	0.00	-5.0	0.00	4.99	816.11	194.72	355.23	338.68	37.28	-2.04	0.019
183.00	0.00	-1.10	0.00	-1.3	0.00	1.31	800.33	189.66	337.02	323.42	38.56	-2.04	0.004

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.200
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.053
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.213
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.085
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_S:	0.030
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	3.310
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	63.970 k
Seismic Base Shear (E):	1.920 k

1.2D + 1.0Ev + 1.0Eh Normal **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
53	181.5	200	6,600	0.010	18	249
52	177.5	341	10,744	0.016	30	424
51	172.5	350	10,411	0.015	29	435
50	169.5	71	2,041	0.003	6	88
49	168	143	4,040	0.006	11	178
48	166	179	4,922	0.007	14	222
47	162.5	453	11,955	0.017	33	563
46	157.5	462	11,450	0.017	32	574
45	153.75	234	5,534	0.008	15	291
44	151.25	404	9,234	0.013	26	502
43	149.5	163	3,641	0.005	10	202
42	147	450	9,714	0.014	27	559
41	142.5	623	12,656	0.018	35	775
40	137.5	635	12,007	0.017	33	789
39	132.5	647	11,357	0.016	32	804
38	128.5	394	6,502	0.009	18	489
37	126.5	140	2,243	0.003	6	174
36	125.5	146	2,292	0.003	6	181
35	123	587	8,879	0.013	25	729
34	120.5	248	3,598	0.005	10	308
33	118.25	876	12,245	0.018	34	1,088
32	115.75	254	3,400	0.005	9	315
31	112.5	870	11,016	0.016	31	1,082
30	107.5	964	11,138	0.016	31	1,198
29	103.75	487	5,247	0.008	15	606
28	101.25	658	6,747	0.010	19	818
27	97.5	1,327	12,618	0.018	35	1,649
26	94	535	4,728	0.007	13	665
25	91.5	1,220	10,214	0.015	28	1,516
24	89	820	6,494	0.009	18	1,019
23	86.5	880	6,581	0.010	18	1,093
22	82.5	1,480	10,073	0.015	28	1,839
21	77.5	1,498	8,996	0.013	25	1,861
20	72.5	1,515	7,966	0.012	22	1,883

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
19	67.5	1,533	6,985	0.010	19	1,905
18	64.25	463	1,913	0.003	5	576
17	61.75	1,812	6,908	0.010	19	2,251
16	59	1,044	3,635	0.005	10	1,298
15	56.5	1,092	3,485	0.005	10	1,356
14	52.5	1,838	5,066	0.007	14	2,284
13	47.5	1,862	4,201	0.006	12	2,314
12	44	751	1,455	0.002	4	934
11	41.5	1,134	1,953	0.003	5	1,409
10	37.5	1,909	2,685	0.004	7	2,372
9	32.5	3,078	3,252	0.005	9	3,825
8	29.25	933	798	0.001	2	1,159
7	26.75	1,353	968	0.001	3	1,681
6	23.75	973	549	0.001	2	1,210
5	21.25	979	442	0.001	1	1,217
4	17.5	1,976	605	0.001	2	2,456
3	12.5	2,000	313	0.000	1	2,485
2	7.5	2,024	114	0.000	0	2,515
1	2.5	1,856	12	0.000	0	2,307
DragonWave Horizon Compact	183	21	710	0.001	2	26
Alcatel-Lucent RRH2x50-08	183	317	10,629	0.015	30	394
Alcatel-Lucent 1900 MHz 4X45 RRH	183	180	6,028	0.009	17	224
Decibel DB844H90E-XY	183	84	2,813	0.004	8	104
Nokia 2.5G MAA - AAHC(64T64R)	183	311	10,408	0.015	29	386
Argus LLPX310R	183	86	2,873	0.004	8	107
DragonWave A-ANT-18G-2-C	183	54	1,815	0.003	5	67
Andrew 844G65VTZASX	183	48	1,607	0.002	4	60
Commscope NNVV-65B-R4	183	232	7,776	0.011	22	289
Flat Platform w/ Handrails	183	2,000	66,978	0.097	187	2,485
Flat Platform w/ Handrails	126	2,000	31,752	0.046	89	2,485
Ericsson AIR 6419 B77G	169	198	5,664	0.008	16	246
Commscope WCS-IMFQ-AMT	167	30	823	0.001	2	37
Raycap DC6-48-60-18-8F (23.5" Height)	167	20	558	0.001	2	25
Ericsson RRUS 4426 B66	167	145	4,049	0.006	11	180
Ericsson RRUS 4478 B14	167	180	5,012	0.007	14	223
Ericsson RRUS 4449 B5, B12	167	213	5,940	0.009	17	265
Ericsson RRUS 32 B2	167	159	4,434	0.006	12	198
Ericsson RRUS 32 B30	167	180	5,020	0.007	14	224
Ericsson RRUS E2 B29	167	180	5,020	0.007	14	224
Raycap DC9-48-60-24-8C-EV	167	32	892	0.001	2	40
CCI DMP65R-BU8D	167	287	8,007	0.012	22	357
Quintel QD8616-7	167	450	12,550	0.018	35	559
Generic Round Platform with Handrails	167	2,500	69,722	0.101	194	3,107
Ericsson Air 6449 B77D	165	245	6,665	0.010	19	304
Ericsson KRY 112 489/2	145	46	971	0.001	3	57
Ericsson Radio 4449 B71 B85A	145	225	4,731	0.007	13	280
Ericsson RRUS 4415 B25	145	138	2,901	0.004	8	171
Ericsson Air6449 B41	145	312	6,560	0.010	18	388
Ericsson AIR32 B66Aa/B2a	145	397	8,339	0.012	23	493
Generic Mount Reinforcement	145	200	4,205	0.006	12	249
RFS APXVAARR24_43-U-NA20	145	384	8,067	0.012	22	477
Round Platform w/ Handrails	145	2,000	42,050	0.061	117	2,485
Commscope CBC78T-DS-43-2X	127	62	1,002	0.002	3	77
Raycap RRFDC-3315-PF-48	127	54	868	0.001	2	67
Andrew HBXX-6517DS-A2M (43 lbs)	127	129	2,081	0.003	6	160
Samsung B2/B66A RRH-BR049	126	253	4,020	0.006	11	315
Samsung B5/B13 RRH-BR04C	126	211	3,348	0.005	9	262
Antel BXA-80063/6CF	126	45	710	0.001	2	56
Commscope JAHH-45B-R3B	126	503	7,982	0.012	22	625
		63,974	688,205	1.000	1,919	79,498

0.9D - 1.0Ev + 1.0Eh Normal **Seismic (Reduced DL)**

Segment	Height Above Base	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)

	(ft)					
53	181.5	200	6,600	0.010	18	172
52	177.5	341	10,744	0.016	30	292
51	172.5	350	10,411	0.015	29	300
50	169.5	71	2,041	0.003	6	61
49	168	143	4,040	0.006	11	123
48	166	179	4,922	0.007	14	153
47	162.5	453	11,955	0.017	33	388
46	157.5	462	11,450	0.017	32	396
45	153.75	234	5,534	0.008	15	201
44	151.25	404	9,234	0.013	26	346
43	149.5	163	3,641	0.005	10	140
42	147	450	9,714	0.014	27	385
41	142.5	623	12,656	0.018	35	534
40	137.5	635	12,007	0.017	33	544
39	132.5	647	11,357	0.016	32	555
38	128.5	394	6,502	0.009	18	338
37	126.5	140	2,243	0.003	6	120
36	125.5	146	2,292	0.003	6	125
35	123	587	8,879	0.013	25	503
34	120.5	248	3,598	0.005	10	212
33	118.25	876	12,245	0.018	34	751
32	115.75	254	3,400	0.005	9	218
31	112.5	870	11,016	0.016	31	746
30	107.5	964	11,138	0.016	31	826
29	103.75	487	5,247	0.008	15	418
28	101.25	658	6,747	0.010	19	564
27	97.5	1,327	12,618	0.018	35	1,138
26	94	535	4,728	0.007	13	459
25	91.5	1,220	10,214	0.015	28	1,046
24	89	820	6,494	0.009	18	703
23	86.5	880	6,581	0.010	18	754
22	82.5	1,480	10,073	0.015	28	1,269
21	77.5	1,498	8,996	0.013	25	1,284
20	72.5	1,515	7,966	0.012	22	1,299
19	67.5	1,533	6,985	0.010	19	1,314
18	64.25	463	1,913	0.003	5	397
17	61.75	1,812	6,908	0.010	19	1,553
16	59	1,044	3,635	0.005	10	895
15	56.5	1,092	3,485	0.005	10	936
14	52.5	1,838	5,066	0.007	14	1,576
13	47.5	1,862	4,201	0.006	12	1,596
12	44	751	1,455	0.002	4	644
11	41.5	1,134	1,953	0.003	5	972
10	37.5	1,909	2,685	0.004	7	1,637
9	32.5	3,078	3,252	0.005	9	2,639
8	29.25	933	798	0.001	2	800
7	26.75	1,353	968	0.001	3	1,160
6	23.75	973	549	0.001	2	835
5	21.25	979	442	0.001	1	840
4	17.5	1,976	605	0.001	2	1,694
3	12.5	2,000	313	0.000	1	1,715
2	7.5	2,024	114	0.000	0	1,735
1	2.5	1,856	12	0.000	0	1,591
DragonWave Horizon Compact	183	21	710	0.001	2	18
Alcatel-Lucent RRH2x50-08	183	317	10,629	0.015	30	272
Alcatel-Lucent 1900 MHz 4X45 RRH	183	180	6,028	0.009	17	154
Decibel DB844H90E-XY	183	84	2,813	0.004	8	72
Nokia 2.5G MAA - AAHC(64T64R)	183	311	10,408	0.015	29	266
Argus LLPX310R	183	86	2,873	0.004	8	74
DragonWave A-ANT-18G-2-C	183	54	1,815	0.003	5	46
Andrew 844G65VTZASX	183	48	1,607	0.002	4	41
Commscope NNVV-65B-R4	183	232	7,776	0.011	22	199
Flat Platform w/ Handrails	183	2,000	66,978	0.097	187	1,715
Flat Platform w/ Handrails	126	2,000	31,752	0.046	89	1,715
Ericsson AIR 6419 B77G	169	198	5,664	0.008	16	170
Commscope WCS-IMFQ-AMT	167	30	823	0.001	2	25
Raycap DC6-48-60-18-8F (23.5" Height)	167	20	558	0.001	2	17
Ericsson RRUS 4426 B66	167	145	4,049	0.006	11	124
Ericsson RRUS 4478 B14	167	180	5,012	0.007	14	154
Ericsson RRUS 4449 B5, B12	167	213	5,940	0.009	17	183
Ericsson RRUS 32 B2	167	159	4,434	0.006	12	136
Ericsson RRUS 32 B30	167	180	5,020	0.007	14	154
Ericsson RRUS E2 B29	167	180	5,020	0.007	14	154

	(ft)					
Raycap DC9-48-60-24-8C-EV	167	32	892	0.001	2	27
CCI DMP65R-BU8D	167	287	8,007	0.012	22	246
Quintel QD8616-7	167	450	12,550	0.018	35	386
Generic Round Platform with Handrails	167	2,500	69,722	0.101	194	2,143
Ericsson Air 6449 B77D	165	245	6,665	0.010	19	210
Ericsson KRY 112 489/2	145	46	971	0.001	3	40
Ericsson Radio 4449 B71 B85A	145	225	4,731	0.007	13	193
Ericsson RRUS 4415 B25	145	138	2,901	0.004	8	118
Ericsson Air6449 B41	145	312	6,560	0.010	18	267
Ericsson AIR32 B66Aa/B2a	145	397	8,339	0.012	23	340
Generic Mount Reinforcement	145	200	4,205	0.006	12	171
RFS APXVAARR24_43-U-NA20	145	384	8,067	0.012	22	329
Round Platform w/ Handrails	145	2,000	42,050	0.061	117	1,715
Commscope CBC78T-DS-43-2X	127	62	1,002	0.002	3	53
Raycap RRFDC-3315-PF-48	127	54	868	0.001	2	46
Andrew HBXX-6517DS-A2M (43 lbs)	127	129	2,081	0.003	6	111
Samsung B2/B66A RRH-BR049	126	253	4,020	0.006	11	217
Samsung B5/B13 RRH-BR04C	126	211	3,348	0.005	9	181
Antel BXA-80063/6CF	126	45	710	0.001	2	38
Commscope JAHH-45B-R3B	126	503	7,982	0.012	22	431
		63,974	688,205	1.000	1,919	54,847

1.2D + 1.0Ev + 1.0Eh Normal **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-77.19	-1.93	0.00	-291.34	0.00	291.34	4,364.18	1,030.91	4,481	4,310.15	0.00	0.00	0.06
5.00	-74.68	-1.94	0.00	-281.70	0.00	281.70	4,284.87	1,012.17	4,320	4,154.11	0.01	-0.01	0.06
10.00	-72.19	-1.96	0.00	-271.98	0.00	271.98	4,205.55	993.44	4,161	4,000.95	0.03	-0.03	0.06
15.00	-69.73	-1.97	0.00	-262.18	0.00	262.18	4,126.23	974.70	4,006	3,850.66	0.07	-0.04	0.06
20.00	-68.52	-1.98	0.00	-252.31	0.00	252.31	4,046.91	955.96	3,853	3,703.25	0.12	-0.06	0.06
22.50	-67.31	-1.99	0.00	-247.35	0.00	247.35	4,007.25	946.59	3,778	3,630.62	0.15	-0.06	0.06
22.50	-67.31	-1.99	0.00	-247.35	0.00	247.35	4,007.25	946.59	3,778	3,630.62	0.15	-0.06	0.06
25.00	-65.63	-2.00	0.00	-242.37	0.00	242.37	3,967.59	937.23	3,704	3,558.71	0.18	-0.07	0.06
28.50	-64.47	-2.00	0.00	-235.39	0.00	235.39	3,912.06	924.11	3,601	3,459.25	0.24	-0.08	0.06
30.00	-60.64	-2.00	0.00	-232.39	0.00	232.39	3,888.27	918.49	3,557	3,417.06	0.26	-0.08	0.06
35.00	-58.27	-2.00	0.00	-222.41	0.00	222.41	3,899.64	921.18	3,578	3,437.19	0.36	-0.10	0.06
40.00	-56.86	-2.00	0.00	-212.41	0.00	212.41	3,820.32	902.44	3,434	3,298.00	0.47	-0.11	0.06
43.00	-55.92	-2.00	0.00	-206.41	0.00	206.41	3,772.73	891.20	3,349	3,215.87	0.55	-0.12	0.06
43.00	-55.92	-2.00	0.00	-206.41	0.00	206.41	3,772.73	891.20	3,349	3,215.87	0.55	-0.12	0.06
45.00	-53.61	-2.00	0.00	-202.40	0.00	202.40	3,741.00	883.70	3,293	3,161.69	0.60	-0.13	0.06
50.00	-51.33	-1.99	0.00	-192.42	0.00	192.42	3,661.68	864.96	3,155	3,028.25	0.74	-0.14	0.06
55.00	-49.97	-1.99	0.00	-182.47	0.00	182.47	3,582.36	846.23	3,020	2,897.69	0.90	-0.16	0.05
58.00	-48.67	-1.98	0.00	-176.52	0.00	176.52	3,534.77	834.99	2,940	2,820.73	1.00	-0.16	0.05
60.00	-46.42	-1.96	0.00	-172.56	0.00	172.56	3,503.04	827.49	2,887	2,770.01	1.07	-0.17	0.05
63.50	-45.84	-1.96	0.00	-165.71	0.00	165.71	3,173.45	749.81	2,634	2,534.72	1.20	-0.18	0.05
65.00	-43.94	-1.94	0.00	-162.77	0.00	162.77	3,152.77	744.75	2,598	2,501.05	1.25	-0.18	0.05
70.00	-42.05	-1.92	0.00	-153.07	0.00	153.07	3,081.38	727.89	2,482	2,388.54	1.46	-0.20	0.05
75.00	-40.19	-1.90	0.00	-143.46	0.00	143.46	3,010.00	711.02	2,368	2,278.62	1.68	-0.22	0.05
80.00	-38.35	-1.88	0.00	-133.95	0.00	133.95	2,938.61	694.16	2,257	2,171.28	1.91	-0.23	0.05
85.00	-37.26	-1.86	0.00	-124.56	0.00	124.56	2,867.22	677.30	2,149	2,066.54	2.16	-0.25	0.05
88.00	-36.24	-1.85	0.00	-118.97	0.00	118.97	2,824.39	667.18	2,085	2,004.94	2.32	-0.26	0.04
90.00	-34.72	-1.81	0.00	-115.28	0.00	115.28	2,795.83	660.43	2,043	1,964.39	2.43	-0.26	0.04
93.00	-34.06	-1.80	0.00	-109.84	0.00	109.84	2,304.07	552.98	1,719	1,629.57	2.60	-0.27	0.05
95.00	-32.41	-1.77	0.00	-106.23	0.00	106.23	2,286.91	547.35	1,684	1,600.84	2.72	-0.28	0.05
100.00	-31.59	-1.75	0.00	-97.40	0.00	97.40	2,243.45	533.30	1,599	1,529.73	3.02	-0.30	0.04
102.50	-30.99	-1.74	0.00	-93.03	0.00	93.03	2,221.41	526.28	1,557	1,494.57	3.18	-0.30	0.04
102.50	-30.99	-1.74	0.00	-93.03	0.00	93.03	2,221.41	526.28	1,557	1,494.57	3.18	-0.30	0.08
105.00	-29.79	-1.71	0.00	-88.69	0.00	88.69	2,198.16	519.25	1,516	1,458.99	3.34	-0.31	0.07
110.00	-28.71	-1.69	0.00	-80.15	0.00	80.15	2,138.67	505.20	1,435	1,380.72	3.68	-0.34	0.07
115.00	-28.39	-1.68	0.00	-71.72	0.00	71.72	2,079.18	491.14	1,356	1,304.61	4.05	-0.37	0.07
116.50	-27.30	-1.65	0.00	-69.20	0.00	69.20	2,061.33	486.93	1,333	1,282.20	4.17	-0.38	0.07
120.00	-26.99	-1.64	0.00	-63.43	0.00	63.43	2,019.69	477.09	1,280	1,230.65	4.45	-0.39	0.07
121.00	-26.26	-1.62	0.00	-61.79	0.00	61.79	1,570.80	386.66	1,051	971.76	4.53	-0.40	0.08
125.00	-26.08	-1.62	0.00	-55.32	0.00	55.32	1,545.06	377.66	1,002	933.42	4.88	-0.42	0.08
126.00	-22.17	-1.45	0.00	-53.70	0.00	53.70	1,538.55	375.41	990	923.90	4.97	-0.43	0.07

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
127.00	-21.37	-1.42	0.00	-52.25	0.00	52.25	1,532.00	373.16	978	914.41	5.06	-0.43	0.07
130.00	-20.57	-1.39	0.00	-47.99	0.00	47.99	1,512.17	366.42	943	886.12	5.34	-0.45	0.07
135.00	-19.78	-1.36	0.00	-41.05	0.00	41.05	1,478.47	355.18	886	839.56	5.82	-0.48	0.06
140.00	-19.00	-1.33	0.00	-34.25	0.00	34.25	1,443.97	343.94	831	793.78	6.34	-0.50	0.06
145.00	-13.85	-1.04	0.00	-27.63	0.00	27.63	1,408.40	332.69	778	748.69	6.88	-0.53	0.05
149.00	-13.65	-1.03	0.00	-23.47	0.00	23.47	1,370.33	323.70	736	708.57	7.32	-0.54	0.04
150.00	-13.14	-1.00	0.00	-22.44	0.00	22.44	1,360.81	321.45	726	698.71	7.44	-0.55	0.04
152.50	-12.85	-0.98	0.00	-19.94	0.00	19.94	947.28	241.09	545	487.59	7.73	-0.56	0.05
155.00	-12.28	-0.95	0.00	-17.48	0.00	17.48	936.36	236.87	526	473.48	8.02	-0.57	0.05
160.00	-11.72	-0.91	0.00	-12.72	0.00	12.72	913.92	228.44	489	445.56	8.63	-0.58	0.04
165.00	-11.19	-0.88	0.00	-8.15	0.00	8.15	890.67	220.01	454	418.08	9.25	-0.60	0.03
167.00	-5.58	-0.47	0.00	-6.39	0.00	6.39	881.15	216.64	440	407.21	9.50	-0.60	0.02
169.00	-5.25	-0.44	0.00	-5.45	0.00	5.45	871.50	213.27	426	396.43	9.75	-0.61	0.02
170.00	-4.81	-0.41	0.00	-5.01	0.00	5.01	866.62	211.58	419	391.07	9.88	-0.61	0.02
175.00	-4.39	-0.38	0.00	-2.95	0.00	2.95	841.77	203.15	387	364.59	10.52	-0.62	0.01
180.00	-4.14	-0.36	0.00	-1.07	0.00	1.07	816.11	194.72	355	338.68	11.17	-0.62	0.01
183.00	0.00	-0.31	0.00	0.00	0.00	0.00	800.33	189.66	337	323.42	11.56	-0.62	0.00

0.9D - 1.0Ev + 1.0Eh Normal **Seismic (Reduced DL)**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-53.26	-1.92	0.00	-283.79	0.00	283.79	4,364.18	1,030.91	4,481	4,310.15	0.00	0.00	0.06
5.00	-51.52	-1.94	0.00	-274.16	0.00	274.16	4,284.87	1,012.17	4,320	4,154.11	0.01	-0.01	0.06
10.00	-49.80	-1.95	0.00	-264.49	0.00	264.49	4,205.55	993.44	4,161	4,000.95	0.03	-0.03	0.06
15.00	-48.11	-1.95	0.00	-254.76	0.00	254.76	4,126.23	974.70	4,006	3,850.66	0.06	-0.04	0.06
20.00	-47.27	-1.96	0.00	-244.98	0.00	244.98	4,046.91	955.96	3,853	3,703.25	0.11	-0.05	0.06
22.50	-46.44	-1.96	0.00	-240.08	0.00	240.08	4,007.25	946.59	3,778	3,630.62	0.14	-0.06	0.06
22.50	-46.44	-1.96	0.00	-240.08	0.00	240.08	4,007.25	946.59	3,778	3,630.62	0.14	-0.06	0.06
25.00	-45.27	-1.97	0.00	-235.17	0.00	235.17	3,967.59	937.23	3,704	3,558.71	0.18	-0.07	0.06
28.50	-44.48	-1.97	0.00	-228.28	0.00	228.28	3,912.06	924.11	3,601	3,459.25	0.23	-0.08	0.06
30.00	-41.84	-1.96	0.00	-225.33	0.00	225.33	3,888.27	918.49	3,557	3,417.06	0.26	-0.08	0.06
35.00	-40.20	-1.96	0.00	-215.51	0.00	215.51	3,899.64	921.18	3,578	3,437.19	0.35	-0.10	0.05
40.00	-39.23	-1.96	0.00	-205.69	0.00	205.69	3,820.32	902.44	3,434	3,298.00	0.46	-0.11	0.05
43.00	-38.58	-1.96	0.00	-199.80	0.00	199.80	3,772.73	891.20	3,349	3,215.87	0.53	-0.12	0.05
43.00	-38.58	-1.96	0.00	-199.80	0.00	199.80	3,772.73	891.20	3,349	3,215.87	0.53	-0.12	0.05
45.00	-36.99	-1.95	0.00	-195.87	0.00	195.87	3,741.00	883.70	3,293	3,161.69	0.58	-0.12	0.05
50.00	-35.41	-1.95	0.00	-186.10	0.00	186.10	3,661.68	864.96	3,155	3,028.25	0.72	-0.14	0.05
55.00	-34.47	-1.94	0.00	-176.37	0.00	176.37	3,582.36	846.23	3,020	2,897.69	0.87	-0.15	0.05
58.00	-33.58	-1.93	0.00	-170.55	0.00	170.55	3,534.77	834.99	2,940	2,820.73	0.97	-0.16	0.05
60.00	-32.02	-1.91	0.00	-166.69	0.00	166.69	3,503.04	827.49	2,887	2,770.01	1.04	-0.17	0.05
63.50	-31.63	-1.91	0.00	-160.00	0.00	160.00	3,173.45	749.81	2,634	2,534.72	1.16	-0.18	0.05
65.00	-30.31	-1.89	0.00	-157.14	0.00	157.14	3,152.77	744.75	2,598	2,501.05	1.22	-0.18	0.05
70.00	-29.01	-1.87	0.00	-147.68	0.00	147.68	3,081.38	727.89	2,482	2,388.54	1.41	-0.19	0.05
75.00	-27.73	-1.85	0.00	-138.32	0.00	138.32	3,010.00	711.02	2,368	2,278.62	1.63	-0.21	0.04
80.00	-26.46	-1.82	0.00	-129.07	0.00	129.07	2,938.61	694.16	2,257	2,171.28	1.85	-0.23	0.04
85.00	-25.70	-1.81	0.00	-119.95	0.00	119.95	2,867.22	677.30	2,149	2,066.54	2.10	-0.24	0.04
88.00	-25.00	-1.79	0.00	-114.53	0.00	114.53	2,824.39	667.18	2,085	2,004.94	2.25	-0.25	0.04
90.00	-23.95	-1.76	0.00	-110.95	0.00	110.95	2,795.83	660.43	2,043	1,964.39	2.36	-0.26	0.04
93.00	-23.50	-1.75	0.00	-105.67	0.00	105.67	2,304.07	552.98	1,719	1,629.57	2.52	-0.27	0.04
95.00	-22.36	-1.71	0.00	-102.17	0.00	102.17	2,286.91	547.35	1,684	1,600.84	2.64	-0.27	0.04
100.00	-21.79	-1.69	0.00	-93.61	0.00	93.61	2,243.45	533.30	1,599	1,529.73	2.93	-0.29	0.04
102.50	-21.38	-1.68	0.00	-89.37	0.00	89.37	2,221.41	526.28	1,557	1,494.57	3.08	-0.29	0.04
102.50	-21.38	-1.68	0.00	-89.37	0.00	89.37	2,221.41	526.28	1,557	1,494.57	3.08	-0.29	0.07
105.00	-20.55	-1.65	0.00	-85.17	0.00	85.17	2,198.16	519.25	1,516	1,458.99	3.24	-0.30	0.07
110.00	-19.80	-1.63	0.00	-76.91	0.00	76.91	2,138.67	505.20	1,435	1,380.72	3.57	-0.33	0.07
115.00	-19.58	-1.62	0.00	-68.78	0.00	68.78	2,079.18	491.14	1,356	1,304.61	3.92	-0.36	0.06
116.50	-18.83	-1.59	0.00	-66.35	0.00	66.35	2,061.33	486.93	1,333	1,282.20	4.04	-0.36	0.06
120.00	-18.62	-1.58	0.00	-60.80	0.00	60.80	2,019.69	477.09	1,280	1,230.65	4.31	-0.38	0.06
121.00	-18.12	-1.56	0.00	-59.22	0.00	59.22	1,570.80	386.66	1,051	971.76	4.39	-0.39	0.07
125.00	-17.99	-1.55	0.00	-53.00	0.00	53.00	1,545.06	377.66	1,002	933.42	4.72	-0.41	0.07
126.00	-15.29	-1.39	0.00	-51.45	0.00	51.45	1,538.55	375.41	990	923.90	4.81	-0.41	0.07
127.00	-14.74	-1.36	0.00	-50.05	0.00	50.05	1,532.00	373.16	978	914.41	4.90	-0.42	0.06
130.00	-14.19	-1.33	0.00	-45.96	0.00	45.96	1,512.17	366.42	943	886.12	5.16	-0.43	0.06
135.00	-13.64	-1.30	0.00	-39.29	0.00	39.29	1,478.47	355.18	886	839.56	5.63	-0.46	0.06
140.00	-13.11	-1.27	0.00	-32.78	0.00	32.78	1,443.97	343.94	831	793.78	6.13	-0.48	0.05
145.00	-9.55	-1.00	0.00	-26.44	0.00	26.44	1,408.40	332.69	778	748.69	6.65	-0.51	0.04

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
149.00	-9.41	-0.99	0.00	-22.46	0.00	22.46	1,370.33	323.70	736	708.57	7.08	-0.52	0.04
150.00	-9.07	-0.96	0.00	-21.47	0.00	21.47	1,360.81	321.45	726	698.71	7.19	-0.53	0.04
152.50	-8.87	-0.94	0.00	-19.07	0.00	19.07	947.28	241.09	545	487.59	7.47	-0.54	0.05
155.00	-8.47	-0.91	0.00	-16.72	0.00	16.72	936.36	236.87	526	473.48	7.75	-0.54	0.04
160.00	-8.08	-0.87	0.00	-12.17	0.00	12.17	913.92	228.44	489	445.56	8.33	-0.56	0.04
165.00	-7.72	-0.84	0.00	-7.80	0.00	7.80	890.67	220.01	454	418.08	8.93	-0.58	0.03
167.00	-3.85	-0.45	0.00	-6.12	0.00	6.12	881.15	216.64	440	407.21	9.17	-0.58	0.02
169.00	-3.62	-0.43	0.00	-5.22	0.00	5.22	871.50	213.27	426	396.43	9.42	-0.59	0.02
170.00	-3.32	-0.39	0.00	-4.80	0.00	4.80	866.62	211.58	419	391.07	9.54	-0.59	0.02
175.00	-3.03	-0.36	0.00	-2.83	0.00	2.83	841.77	203.15	387	364.59	10.16	-0.59	0.01
180.00	-2.85	-0.34	0.00	-1.02	0.00	1.02	816.11	194.72	355	338.68	10.78	-0.60	0.01
183.00	0.00	-0.31	0.00	0.00	0.00	0.00	800.33	189.66	337	323.42	11.16	-0.60	0.00

ANALYSIS SUMMARY

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	36.13	0.00	76.70	0.00	0.00	4544.99	121.00	0.87
0.9D + 1.0W Normal	36.10	0.00	57.51	0.00	0.00	4455.71	102.50	0.84
1.2D + 1.0Di + 1.0Wi Normal	7.52	0.00	101.20	0.00	0.00	1031.19	121.00	0.24
1.2D + 1.0Ev + 1.0Eh Normal	2.00	0.00	77.19	0.00	0.00	291.34	121.00	0.08
0.9D - 1.0Ev + 1.0Eh Normal	1.97	0.00	53.26	0.00	0.00	283.79	121.00	0.07
1.0D + 1.0W Service Normal	8.50	0.00	63.97	0.00	0.00	1058.38	121.00	0.21

ADDITIONAL STEEL SUMMARY

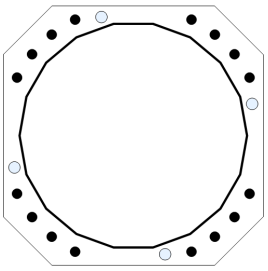
			Intermediate Connectors				Max member		
Elev From (ft)	Elev To (ft)	Member	VQ/I	Shear Applied (kips)	Shear (phiVn) (kips)	Ratio	Pu (kip)	PhiPn (kip)	Ratio
0.00	22.50	SOL #20 All Thread Bar	185.7	3.7	16.8	0.221	253.1	343.1	0.7376
22.50	43.00	SOL #20 All Thread Bar	198.9	3.6	16.8	0.213	242.7	345.0	0.7034
43.00	102.50	SOL #20 All Thread Bar	296.2	8.9	16.8	0.5286	231.2	330.5	0.6995

			Upper Termination Connectors					Lower Termination Connectors				
Elev From (ft)	Elev To (ft)	Member	MQ/I	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kip)	Num Reqd	Num Actual	Ratio
0.00	22.50	SOL #20 All Thread Bar	0	12	0	0	0.0000	0	12	0	0	0.0000
22.50	43.00	SOL #20 All Thread Bar	0	12	0	0	0.0000	0	12	0	0	0.0000
43.00	102.50	SOL #20 All Thread Bar	180.1159	12	16	16	0.9381	0	12	0	0	0.0000

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 15895)

Width:	56	in
Shape:	Square	
Thickness:	2.75	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Clip Length:	10.5	in
Rod Detail Type:	c	
Clear Distance	-	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	116	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 16267]	Cluster	16	2.25	56	A615-75	75	100	6	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 986]	#20	2.5	80	100	Angle	2.19	55.50	15

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (16) 2.25"ø [ID 16267]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	0.464	25.04	12.53	-26.686	2313.678	-185.86	0.04
2	0.678	21.80	17.57	-26.018	2199.314	-181.12	0.81
3	0.893	17.57	21.80	-24.160	1896.485	-167.93	1.55
4	1.107	12.53	25.04	-21.196	1459.968	-146.90	2.22
5	2.035	-12.53	25.04	0.272	1.079	5.49	3.66
6	2.249	-17.57	21.80	5.940	115.443	45.72	3.56
7	2.463	-21.80	17.57	11.337	418.272	84.03	3.31
8	2.678	-25.04	12.53	16.215	854.789	118.66	2.90
9	3.606	-25.04	-12.53	26.686	2313.678	192.98	0.04
10	3.820	-21.80	-17.57	26.018	2199.314	188.24	0.81
11	4.034	-17.57	-21.80	24.160	1896.485	175.04	1.55
12	4.248	-12.53	-25.04	21.196	1459.968	154.01	2.22
13	5.176	12.53	-25.04	-0.272	1.079	1.63	3.66
14	5.391	17.57	-21.80	-5.940	115.443	-38.61	3.56
15	5.605	21.80	-17.57	-11.337	418.272	-76.92	3.31
16	5.819	25.04	-12.53	-16.215	854.789	-111.54	2.90

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 986]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)
1	1.833	-7.18	26.80	-5.295	139.540	-43.37
2	3.403	-26.80	-7.18	27.240	3644.303	253.50
3	4.974	7.18	-26.80	5.295	139.540	53.26
4	0.262	26.80	7.18	-27.240	3644.303	-243.61

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	48.6198"ø x 0.5" (18 Sides)	3372.7	76.70	36.13	0.742
Bolt Group	Original (16) 2.25"ø	3372.7	-	36.13	0.742
Dywidag Group	(4) #20	1172.3	-	-	0.258
	TOTALS	**4544.99**	**76.7**	**36.13**	

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	48.6198"ø x 0.5" (18 Sides)	75.2032	-	-	21773.08	-
Bolt Group	Original (16) 2.25"ø	3.9761	3.2477	0.8393	18518.05	4.5
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	7567.69	-

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	48.74	in
Point-to-Point Diameter:	49.50	in
Flat Width:	8.595	in
Flat Radians:	0.349	rad

PLATE PROPERTIES

Neutral Axis:	116	°
Bend Line Lower Limit:		rad
Bend Line Upper Limit:	-0.153	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	30.451	0.00	57.572	756.3	2590.7	0.292
Corner	29.699	0.00	56.150	612.9	2526.8	0.243

ELASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	16	2.25	193.0	0.0	243.6	0.792	0.792

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity ϕPn (k)	Ratio
4	#20	55.50	253.5	368.2	0.689

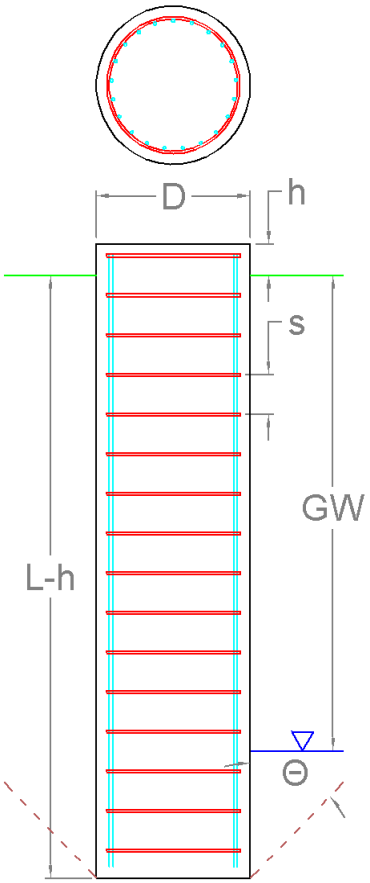
Pier Foundation Analysis (ANSI/TIA-222-H)

Foundation Analysis Parameters			
Pier Diameter	*D*	7.30	ft
Pier Embedment	*L-h*	22.5	ft
Pier Height above Ground	*H*	0.50	ft
Water Table Depth [BGL]	*GW*	99	ft
Pullout Angle	Θ	30	°
Unit Weight of Concrete		150	pcf
Uplift Skin Friction Factor		1.000	

Reactions		
Moment, M_u	4,545.0	k-ft
Shear, V_u	36.1	k
Axial, P_u	76.7	k
Uplift, T_u	0.0	k

Soil Properties

Layer Depth (ft)		Unit Weight	Cohesion	Friction Angle	Ultimate Skin Friction	Ultimate Bearing Pressure
TOP	BTM	pcf	psf	°	psf	psf
0.0	2.0	124	0	0	0	0
2.0	3.5	134	3,702	0	0	0
3.5	5.5	134	4,207	0	2,060	0
5.5	10.5	134	4,368	0	2,104	0
10.5	15.5	135	4,944	0	2,239	0
15.5	23.5	135	5,017	0	2,258	41,780



Soil Strength Capacities		
Volume of Concrete	962.6	ft^3
Weight of Concrete [Buoyancy Considered]	144.4	k
Average Soil Unit Weight	133.6	pcf
Skin Friction Resistance	955.0	k
Compressive Bearing Resistance	1,748.6	k
Pullout Weight [Minus Concrete Weight]	979.3	k
Compressive Force, P_u	95.2	k
Nominal Compressive Capacity, $\phi_s P_n$	2,027.7	k
$P_u / \phi_s P_n$	**4.7%**	
Total Lateral Resistance	5,207.8	k
Inflection Point [BGL]	13.1	ft
Moment at Inflection Point, M_D	5,036.3	k-ft
Nominal Moment Capacity, $\phi_s M_n$	19,012.7	k-ft
$M_D / \phi_s M_n$	**26.5%**	

Pier Strength Capacities			
Concrete Compressive Strength, f'_c		3,000	psi
Rebar Size #		11	
Rebar Area (Single)		1.56	in^2
Rebar Quantity		21	
Rebar Yield Strength, F_y		60	ksi
Vertical Rebar Clear Cover		3	in
Tie Rebar Size #		4	
Tie Rebar Area (Single)		0.20	in^2
Tie Rebar Spacing	*s*	12.0	in
Tie Rebar Yield Strength, F_y		60	ksi
Rebar Cage Diameter		79.19	in
Strength Bending/Tension Reduction Factor, ϕ_B		0.90	
Strength Shear Reduction Factor, ϕ_V		0.75	
Strength Compression Reduction Factor, ϕ_C		0.65	
Steel Elastic Modulus		29,000	ksi
Design Moment, M_u		4,566.2	k-ft
Moment Capacity, $\phi_B M_n$		5,171.7	k-ft
$M_u / \phi_B M_n$		**88.3%**	
Design Shear, V_u		461.8	k
Shear Capacity, $\phi_V V_n$		603.4	k
$V_u / \phi_V V_n$		**76.5%**	
Design Compression, P_u		95.2	k
Compression Capacity, $\phi_P P_n$		8,970.4	k
$P_u / \phi_P P_n$		**1.1%**	
Bending Reinforcement Ratio		0.005	

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

efi global

Antenna Mount Analysis Report

ATC Site Name	:	**Milford CT 2**
ATC Site Number	:	**302535**
Engineering Number	:	**13748383_C8_01**
Mount Elevation	:	**163.5 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**MRCTB050847**
Carrier Site Number	:	**CTCN002169**
Site Location	:	**185 Research Drive** **Milford, CT 06460-7733** **41.24041944, -73.01190000**
County	:	**New Haven**
Date	:	**March 7, 2022**
Max Usage	:	**84%**
Result	:	**Pass**

3/7/2022

STATE OF CONNECTICUT
RICHARD L. PETERMAN
No. 30077
LICENSED
PROFESSIONAL ENGINEER

Prepared By:
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EFI Global, Inc.

Reviewed By:
Richard L. Peterman, P.E.
EFI Global, Inc.

COA#: PEC.0001245

Table of Contents

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 163.5 ft.

Supporting Documents

RFDS	RFDS dated January 21, 2022
Photos	Site photos from 2019
Mount Mapping	B+T Proj#: G0160723.001.01, dated February 6, 2022

Analysis

This antenna mount was analyzed using RISA-3D v19 analysis software

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Risk Category:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Feature:	Flat
Spectral Response:	Ss = 0.2, S_1 = 0.053
Seismic Design Category	B
Site Class:	D – Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Antenna Loading

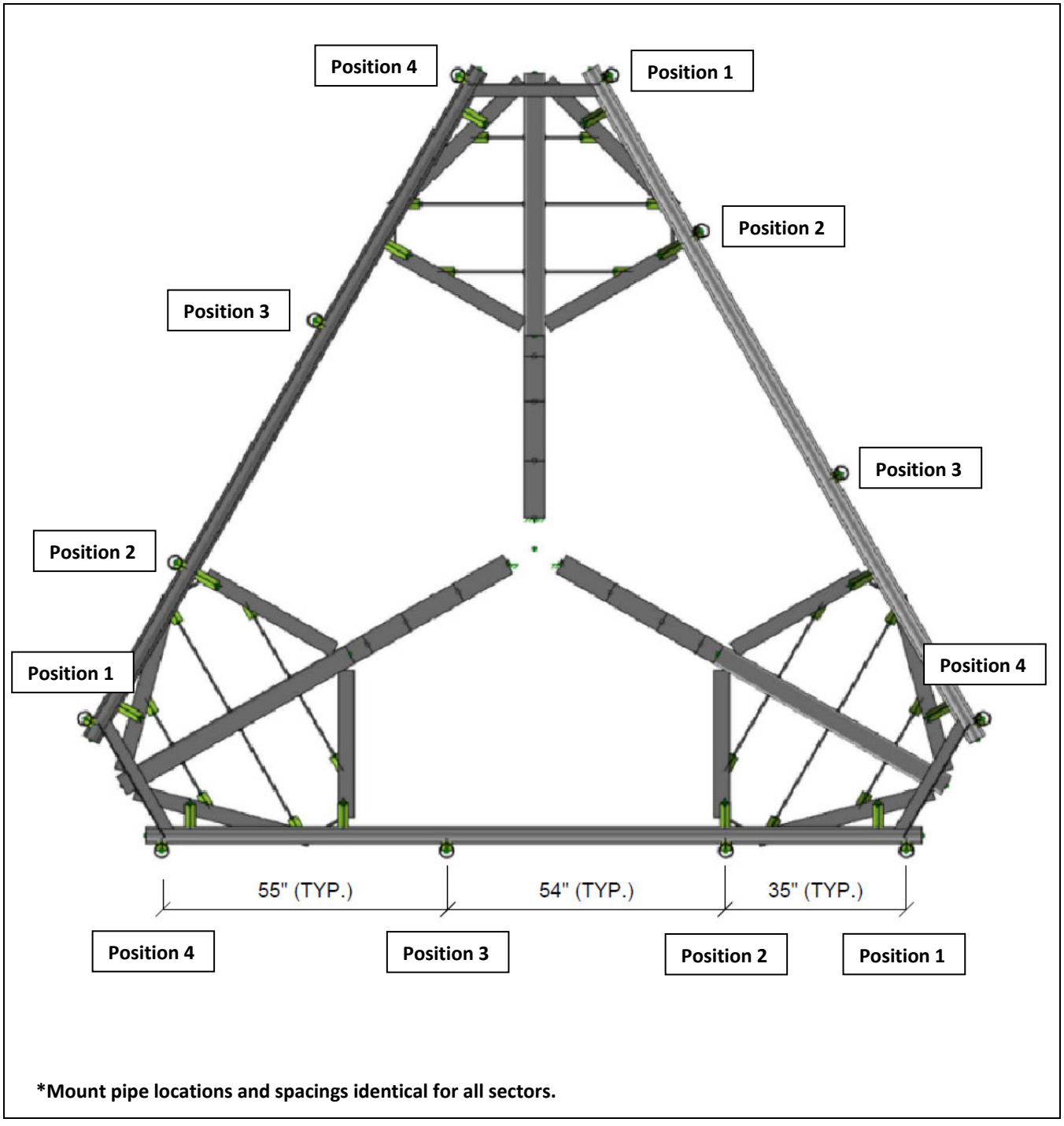
Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
163.5	169.0	3	Ericsson AIR 6419 B77G*
	167.0	3	CCI DMP65R-BU8D
		3	Quintel QD8616-7
		2	Raycap DC9-48-60-24-8C-EV**
		1	Raycap DC6-48-60-18-8F (23.5" Height)**
		3	Ericsson RRUS 4449 B5, B12
		3	Ericsson RRUS 32 B30
		3	Ericsson RRUS E2 B29
		3	Ericsson RRUS 4478 B14
		3	Ericsson RRUS 4426 B66
		3	Ericsson RRUS 32 B2
		1	Commscope WCS-IMFQ-AMT
	165.0	3	Ericsson AIR 6449 B77D*

*** AIR 6419 & AIR 6449 are stacked.**
**** Tower mounted.**

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontal Face Pipes	33%	Pass
Standoff Plate Members	48%	Pass
Standoff Tubes	38%	Pass
Grating Angles	39%	Pass
Support Rail Pipe	84%	Pass
Support Rail Connection Angles	63%	Pass
Mount Pipes	75%	Pass

Mount Layout



***Mount pipe locations and spacings identical for all sectors.**

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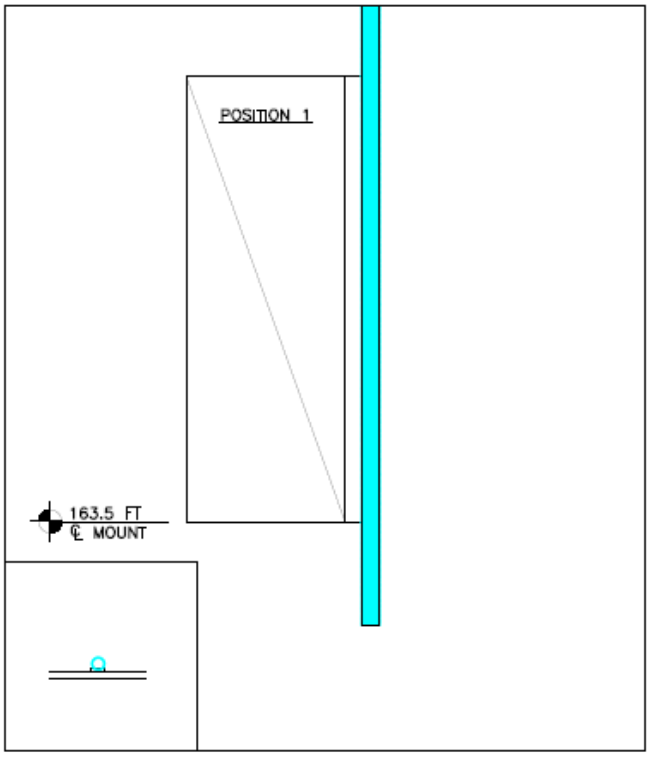
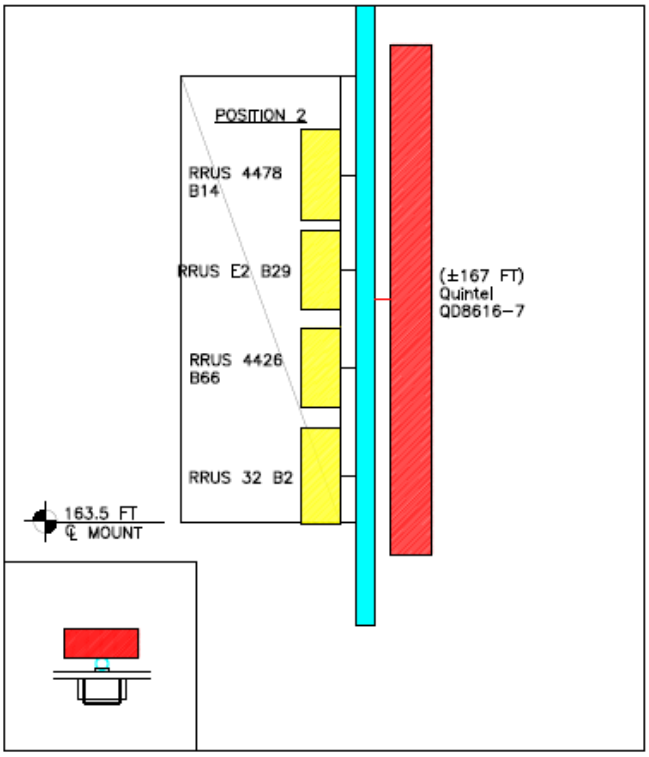
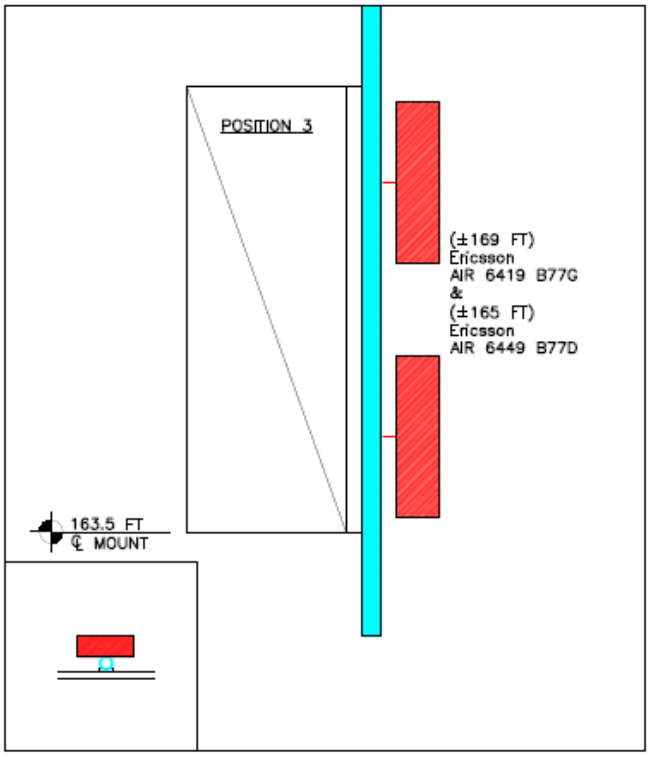
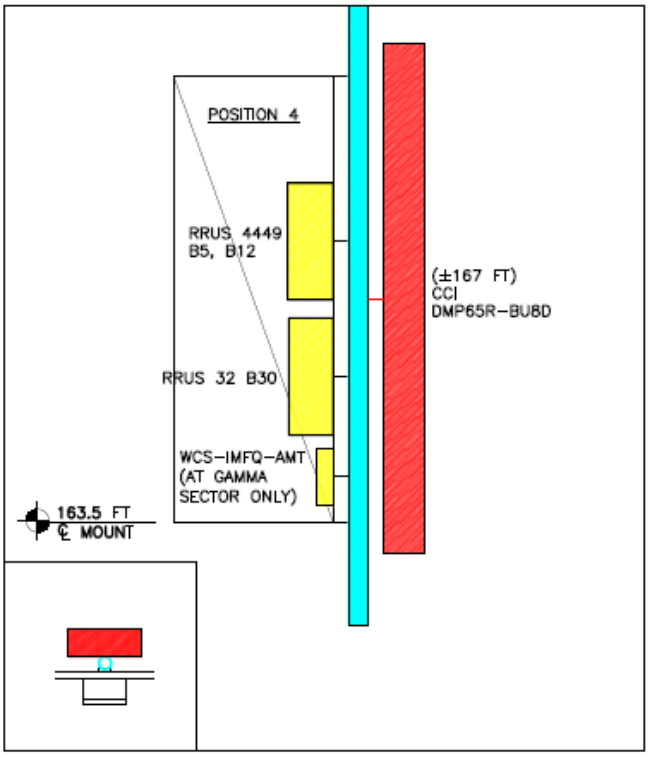
Equipment Layout









Standard Conditions

All engineering services performed by EFI Global, Inc. (EFI) are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of EFI

It is the responsibility of the client to ensure that the information provided to EFI and used in the performance of our engineering services is correct and complete.

EFI assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and EFI, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. EFI is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

CLIENT: ATC

PROJECT: 302535_13748383_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

Tower Height	181.00	ft	Type of Mount: Platform
Basic Wind Speed, V	120	mph	
Basic Wind Speed w/ Ice, V_i	50	mph	
Maintanence Load Factor, L_{FM}	0.0625	Load Factor for Maint. Load Cases (Basic Wind Speed=30 mph)	
Ultimate Ice Thickness, t_i	1	inches	

Table 2-3 Importance Factors

Structure Classification	Wind Load Without Ice	Wind Load With Ice	Ice Thickness	Earthquake
II	1	1	1	1

Table 2-4 Exposure Category Coefficients

Exposure Category	Zg	α	Kzmin	Ke	m
B	1200	7	0.7	0.9	0.55

Ground elevation factor, Ke

Zs	102	ft
Ke	1.00	

Table 2-5 Topographic Categories

Kzt 1.000

Table 2-2 Wind Directionality Factor, Kd

Structure Type	Kd	
2 Monopole	0.95	DOES NOT CHANGE

Gust Effect Factor Gh

Structure Type	Gh	
2 Monopole	1.00	DOES NOT CHANGE

Shielding Factor, Ka

Structure Type	Ka	
Monopole	0.90	DOES NOT CHANGE

Seismic Factors

Ss	0.2	
S1	0.053	
Fa	1.6	
Fv	2.4	
R	2	Truss or Pole

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	-	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	1.00	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	120	mph
Velocity Pressure	q_z	39.9	psf
Height Escalation Factor	K_{iz}	1.18	
Thickness of Radial Glaze Ice	T_{iz}	1.18	in

Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.21	
1 Second DSRAP	S_{D1}	0.08	
Importance Factor	I	1.00	
Response Modification Coefficient	R	2.00	
Seismic Response Coefficient	C_S	0.04	
Amplification Factor	A	1.00	
Seismic Design Category	SDC	B	

CLIENT: ATC

PROJECT: 302535_13748383_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

Rad Center **167.00** ft

Antenna AND Mount Without Ice

Mounting Pole	Height (ft)	Model Number	#	Weight (lbs)	H (in)	*W (in)	D (in)	Ka	**A_N (ft2)	***A_T (ft2)	Aspect (FRONT)	Aspect (SIDE)	Ca (FRONT)	Ca (SIDE)	K_z	q_z (psf)	Pounds: Wind Load (Front)	Wind Load (Side)	Dead Load	Total Wind Load (Front)	Total Wind Load (Side)	Total Dead Load	Lateral Load (Seismic)	Vertical Load (Seismic)
Pos. 1		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0	0	0	0	0	0
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				0	0	0	0	0
Pos. 2	**167.00**	Quintel QD8616-7	1	150.0	96.0	22.0	9.6	0.90	14.67	6.40	4.36	10.00	1.28	1.50	1.144	39.9	676.0	344.9	150	676	515	371	16	16
	167.00	RRUS 4478 B14	1	59.9	16.5	N/A	7.7	0.90	-	0.88	-	2.14	-	1.20	1.144	39.9	0.0	38.0	59.9					
	167.00	RRUS E2 B29	1	60.0	20.4	N/A	7.5	0.90	-	1.06	-	2.72	-	1.21	1.144	39.9	0.0	46.2	60					
	167.00	RRUS 4426 B66	1	48.4	15.0	N/A	5.8	0.90	-	0.60	-	2.59	-	1.20	1.144	39.9	0.0	26.1	48.4					
	167.00	RRUS 32 B2	1	53.0	27.2	N/A	7.0	0.90	-	1.32	-	3.89	-	1.26	1.144	39.9	0.0	59.9	53					
																				338	258	186	8	8
Pos. 3 Higher	**169.00**	Ericsson AIR 6419 B77G	1	66.1	28.3	16.1	7.9	0.90	3.16	1.55	1.76	3.58	1.20	1.25	1.148	40.1	136.9	69.9	66.1	137	70	66	3	3
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				69	35	34	1	1
Pos. 3 Lower	**165.00**	Ericsson AIR 6449 B77D	1	81.6	30.4	15.9	8.1	0.90	3.36	1.71	1.91	3.75	1.20	1.26	1.140	39.8	144.2	76.9	81.6	144	77	82	4	3
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
		Empty		0.0	-	-	-	0.90	-	-	-	-	-	-	-	-	0.0	0.0	0					
																				73	39	41	2	2
Pos. 4	**167.00**	CCI DMP65R-BU8D	1	95.7	96.0	20.7	7.7	0.90	13.80	5.13	4.64	12.47	1.29	1.58	1.144	39.9	642.1	291.8	95.7	642	425	249	11	11
	167.00	RRUS 4449 B5, B12	1	71.0	17.9	N/A	9.4	0.90	-	1.17	-	1.90	-	1.20	1.144	39.9	0.0	50.4	71					
	167.00	RRUS 32 B30	1	53.0	27.2	N/A	7.0	0.90	-	1.32	-	3.89	-	1.26	1.144	39.9	0.0	59.9	53					
(One Sector Only)	**167.00**	WCS-IMFQ-AMT	1	29.5	11.2	N/A	6.9	0.90	-	0.54	-	1.62	-	1.20	1.144	39.9	0.0	23.1	29.5					
																				322	213	125	5	5

* Enter N/A in the W column for front sheilded apurtanances.

** A_N is the product of H and W

*** A_T is the product of H and D

DL 687

Mount	Height (ft)	Member	*L (in)	**W (in)	D (in)	Weight (lb/ft)	*** Ca	K_z	q_z (psf)	Wind Load (PLF)	Lateral Load (Seismic)	Vertical Load (Seismic)
	167.00	3.0 STD Pipe	0.00	3.50	0.00		-	-	-	-	-	-
	167.00	2.5 STD Pipe	12.00	2.88	0.00		1.20	1.144	35.9	10	-	-
	167.00	2.0 STD Pipe	12.00	2.38	0.00		1.20	1.144	35.9	9	-	-
	167.00	(L3x3)	12.00	3.00	3.00		2.00	1.144	35.9	18	-	-
	167.00	(L2.5x2.5)	12.00	2.50	2.50		2.00	1.144	35.9	15	-	-
	167.00	Tube Radial (4x3)	12.00	3.00	4.00		2.00	1.144	35.9	18	-	-
	167.00	Solid Rectangle (3x3/8)	12.00	3.00	0.38		2.00	1.144	35.9	18	-	-
	167.00	Solid Rectangle (2 3/8 x 3/8)	12.00	2.38	0.38		2.00	1.144	35.9	14	-	-
	167.00	Solid Rectangle (1x3/8)	12.00	1.00	0.38		2.00	1.144	35.9	6	-	-
	167.00	Solid Rectangle (7/8x3/8)	12.00	0.88	0.38		2.00	1.144	35.9	5	-	-
	167.00	Solid Rectangle (3/4x3/8)	12.00	0.75	0.38		2.00	1.144	35.9	4	-	-
	167.00	Solid Rectangle (5/8x3/8)	12.00	0.63	0.38		2.00	1.144	35.9	4	-	-
	167.00	Solid Rectangle (1/2x4)	12.00	0.50	4.00		2.00	1.144	35.9	3	-	-
	167.00	Solid Rectangle (3/8x4)	12.00	0.38	4.00		2.00	1.144	35.9	2	-	-
	167.00	Double Angle (LL2.5x2.5x3x3)	0.00	5.00	2.50		-	-	-	-	-	-
	167.00	Channel (C3x3.5)	12.00	3.00	1.37		2.00	1.144	35.9	18	-	-
	167.00	A1000 Unistrut	12.00	1.25	1.25		2.00	1.144	35.9	7	-	-

* The dimension L is the longest dimension of the member

** The dimension W is the height or width of the member that resists wind load

*** Ca will equal 1.2 for round members and 2.0 for flat members

CLIENT: ATC

PROJECT: 302535_13748383_AT&T MOBILITY

SUBJECT: Antenna Loads - TIA 222 H Standard

ti (in) 1.176035 al 5.4881634 Kiz 1.176035 reduction 0.17361

Antenna AND Mount With Ice

Mounting Pole	Height (ft)	Model Number	#	H (in)	W (in)	D (in)	Ka	*A_N (ft2)	*A_T (ft2)	*Volume Ice (ft3)	*Weight Ice (lbs)	**Ca (FRONT)	**Ca (SIDE)	Kz	q_z (psf)	Pounds: Ice Wind Load (Front)	Ice Wind Load (Side)	Combined Wind Load (Front)	Combined Wind Load (Side)	Ice Dead Load	**Total Wind Load (Front)	**Total Wind Load (Side)	Total Ice Load
Pos. 1		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0	0	0	0
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					0	0	0
Pos. 2	**167.00**	Quintel QD8616-7	1	96.0	22.0	9.6	0.90	1.97	1.76	4.83	270.63	0.73	0.83	1.144	6.9	9.0	9.1	126.4	69.0	271	126	107	461
	167.00	RRUS 4478 B14	1	16.5	13.4	7.7	0.90	-	0.43	0.74	41.57	0.70	0.70	1.144	6.9	0.0	1.9	0.0	8.5	42			
	167.00	RRUS E2 B29	1	20.4	18.5	7.5	0.90	-	0.49	1.07	59.75	0.70	0.70	1.144	6.9	0.0	2.2	0.0	10.2	60			
	167.00	RRUS 4426 B66	1	15.0	13.2	5.8	0.90	-	0.38	0.61	34.08	0.70	0.70	1.144	6.9	0.0	1.7	0.0	6.2	34			
	167.00	RRUS 32 B2	1	27.2	12.1	7.0	0.90	-	0.60	0.98	54.78	0.70	0.71	1.144	6.9	0.0	2.7	0.0	13.1	55			
																					64	54	231
Pos. 3 Higher	**169.00**	Ericsson AIR 6419 B77G	1	28.3	16.1	7.9	0.90	0.76	0.63	1.27	71.26	0.70	0.71	1.148	7.0	3.3	2.8	27.1	14.9	71	27	15	71
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					14	8	36
Pos. 3 Lower	**165.00**	Ericsson AIR 6449 B77D	1	30.4	15.9	8.1	0.90	0.79	0.67	1.35	75.61	0.70	0.71	1.140	6.9	3.5	3.0	28.5	16.3	76	28	16	76
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
		Empty		-	-	-	0.90	-	-	-	0.00	-	-	-	-	0.0	0.0	0.0	0.0	0			
																					15	9	38
Pos. 4	**167.00**	CCI DMP65R-BU8D	1	96.0	20.7	7.7	0.90	1.94	1.73	4.33	242.69	0.74	0.86	1.144	6.9	9.0	9.3	120.4	60.0	243	120	89	371
	167.00	RRUS 4449 B5, B12	1	17.9	13.2	9.4	0.90	-	0.48	0.86	47.98	0.70	0.70	1.144	6.9	0.0	2.1	0.0	10.9	48			
	167.00	RRUS 32 B30	1	27.2	12.1	7.0	0.90	-	0.60	0.98	54.78	0.70	0.71	1.144	6.9	0.0	2.7	0.0	13.1	55			
(One Sector Only)	**167.00**	WCS-IMFQ-AMT	1	11.2	10.2	6.9	0.90	-	0.33	0.45	25.46	0.70	0.70	1.144	6.9	0.0	1.5	0.0	5.5	25			
																					61	45	186

* A_N ,A_T, Volume Ice and Weight Ice are calculated per unit

** Ca will equal 1.2 for all ice load calculations

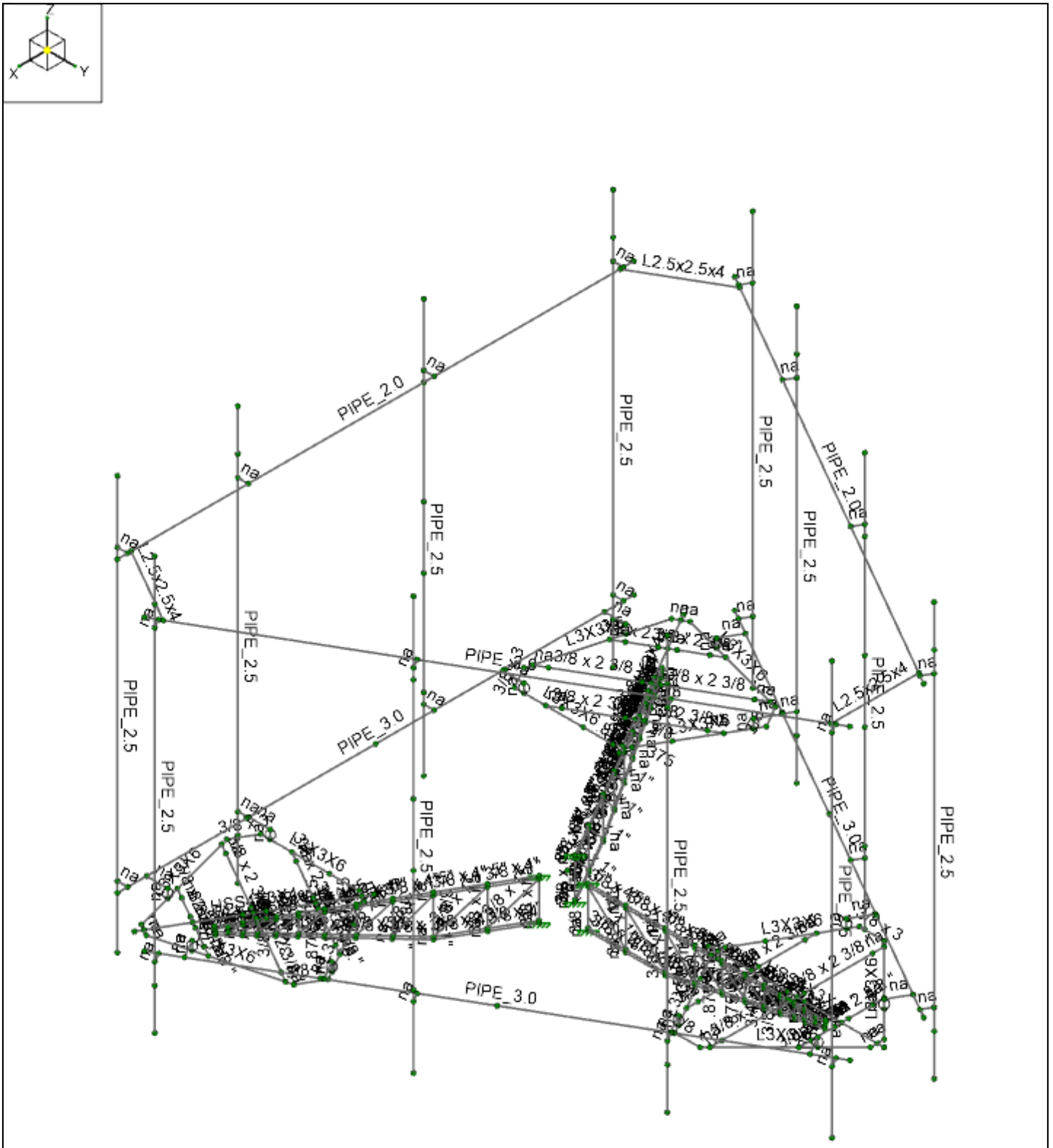
Mount	Height (ft)	Member	*L (in)	**W (in)	D (in)	***A_N (ft2)	Volume Ice (ft3)	Weight Ice (lbs)	****Ca (FRONT)	Kz	q_z (psf)	PLF: Ice Wind Load (Front)	Combined Wind Load (Front)	Ice Dead Load
	167.00	3.0 STD Pipe	0.00	3.50	0.00	-	-	-	-	-	-	-	-	-
	167.00	2.5 STD Pipe	12.00	2.88	0.00	0.28	0.10	5.82	1.20	1.144	6.2	2.1	3.9	6
	167.00	2.0 STD Pipe	12.00	2.38	0.00	0.27	0.09	5.10	1.20	1.144	6.2	2.0	3.5	5
	167.00	(L3x3)	12.00	3.00	3.00	0.28	0.10	5.49	1.20	1.144	6.2	2.1	5.2	5
	167.00	(L2.5x2.5)	12.00	2.50	2.50	0.28	0.08	4.57	1.20	1.144	6.2	2.1	4.7	5
	167.00	Tube Radial (4x3)	12.00	3.00	4.00	0.28	0.20	11.15	1.20	1.144	6.2	2.1	5.2	11
	167.00	Solid Rectangle (3x3/8)	12.00	3.00	0.38	0.28	0.11	6.36	1.20	1.144	6.2	2.1	5.2	6
	167.00	Solid Rectangle (2 3/8 x 3/8)	12.00	2.38	0.38	0.27	0.10	5.66	1.20	1.144	6.2	2.0	4.5	6
	167.00	Solid Rectangle (1x3/8)	12.00	1.00	0.38	0.25	0.07	4.11	1.20	1.144	6.2	1.9	2.9	4
	167.00	Solid Rectangle (7/8x3/8)	12.00	0.88	0.38	0.25	0.07	3.98	1.20	1.144	6.2	1.9	2.8	4
	167.00	Solid Rectangle (3/4x3/8)	12.00	0.75	0.38	0.25	0.07	3.83	1.20	1.144	6.2	1.8	2.6	4
	167.00	Solid Rectangle (1/2x4)	12.00	0.50	4.00	0.24	0.14	7.65	1.20	1.144	6.2	1.8	2.3	8
	167.00	Solid Rectangle (1/2x4)	12.00	0.50	4.00	0.24	0.14	7.65	1.20	1.144	6.2	1.8	2.3	8
	167.00	Solid Rectangle (3/8x4)	12.00	0.38	4.00	0.24	0.13	7.48	1.20	1.144	6.2	1.8	2.2	7
	167.00	Double Angle (LL2.5x2.5x3x3)	0.00	5.00	2.50	-	-	-	-	-	-	-	-	-
	167.00	Channel (C3x3.5)	12.00	3.00	1.37	0.28	0.12	6.74	1.20	1.144	6.2	2.1	5.2	7
	167.00	A1000 Unistrut	12.00	1.25	1.25	0.25	0.06	3.43	1.20	1.144	6.2	1.9	3.2	3

* The dimension L is the longest dimension of the member

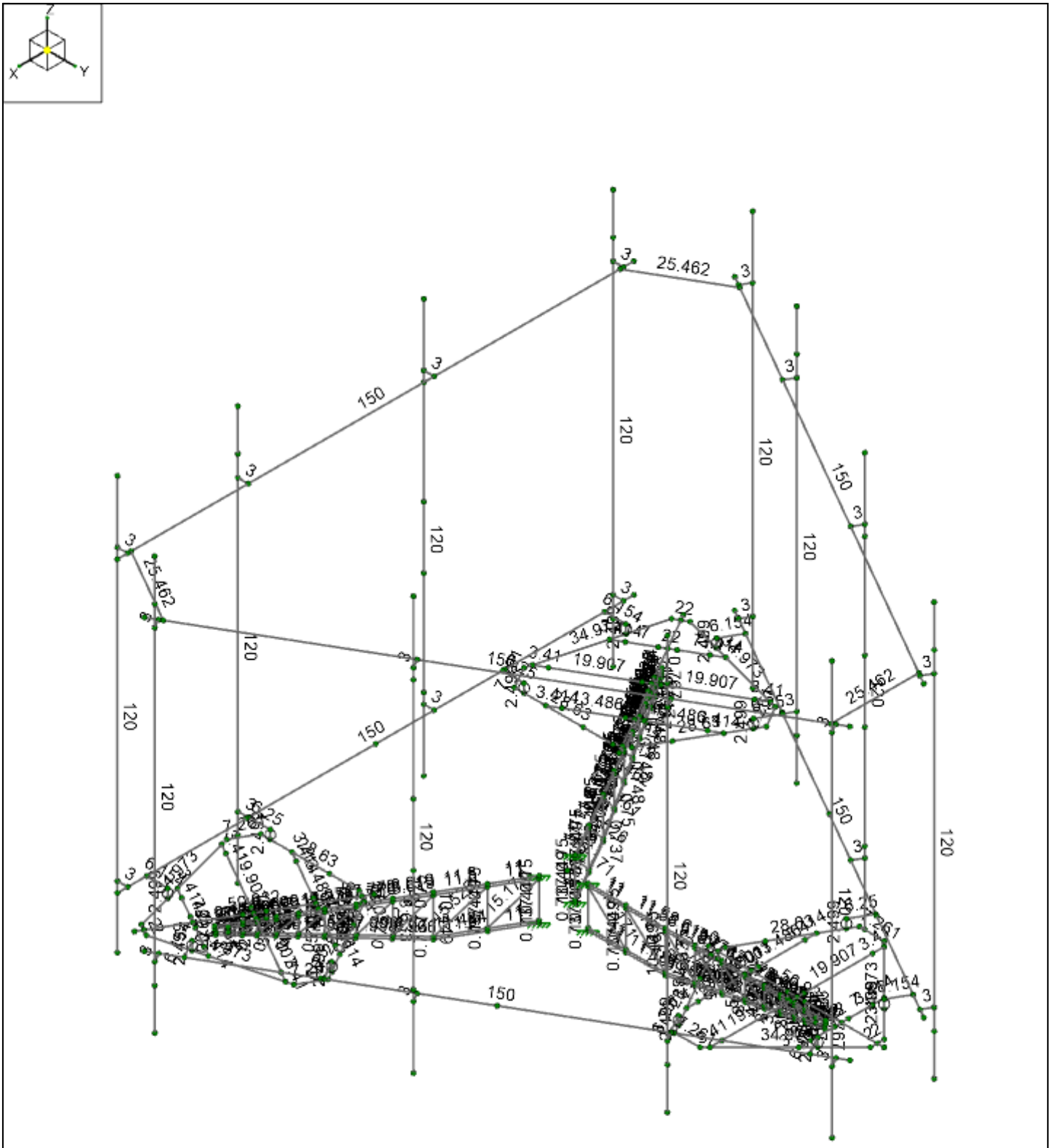
** The dimension W is the height or width of the member that resists wind load

*** A_N is the area of ice built up on the LW plane

**** Ca will equal 1.2 for all ice load calculations

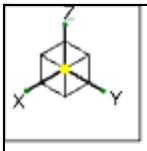


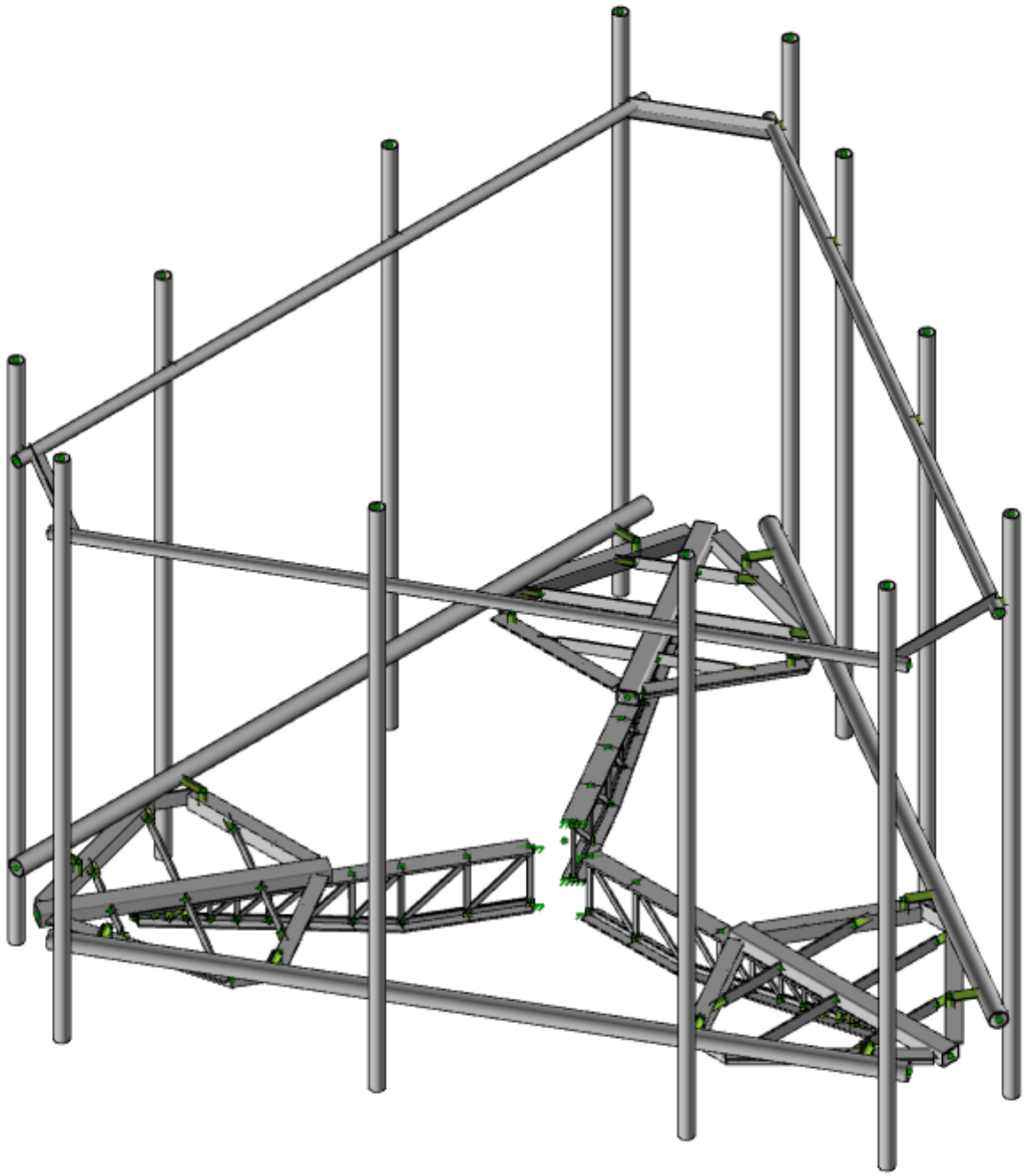
ATC/EFI	302535_13748383_AT&T MOBILITY	SK-1
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



Member Length (in) Displayed

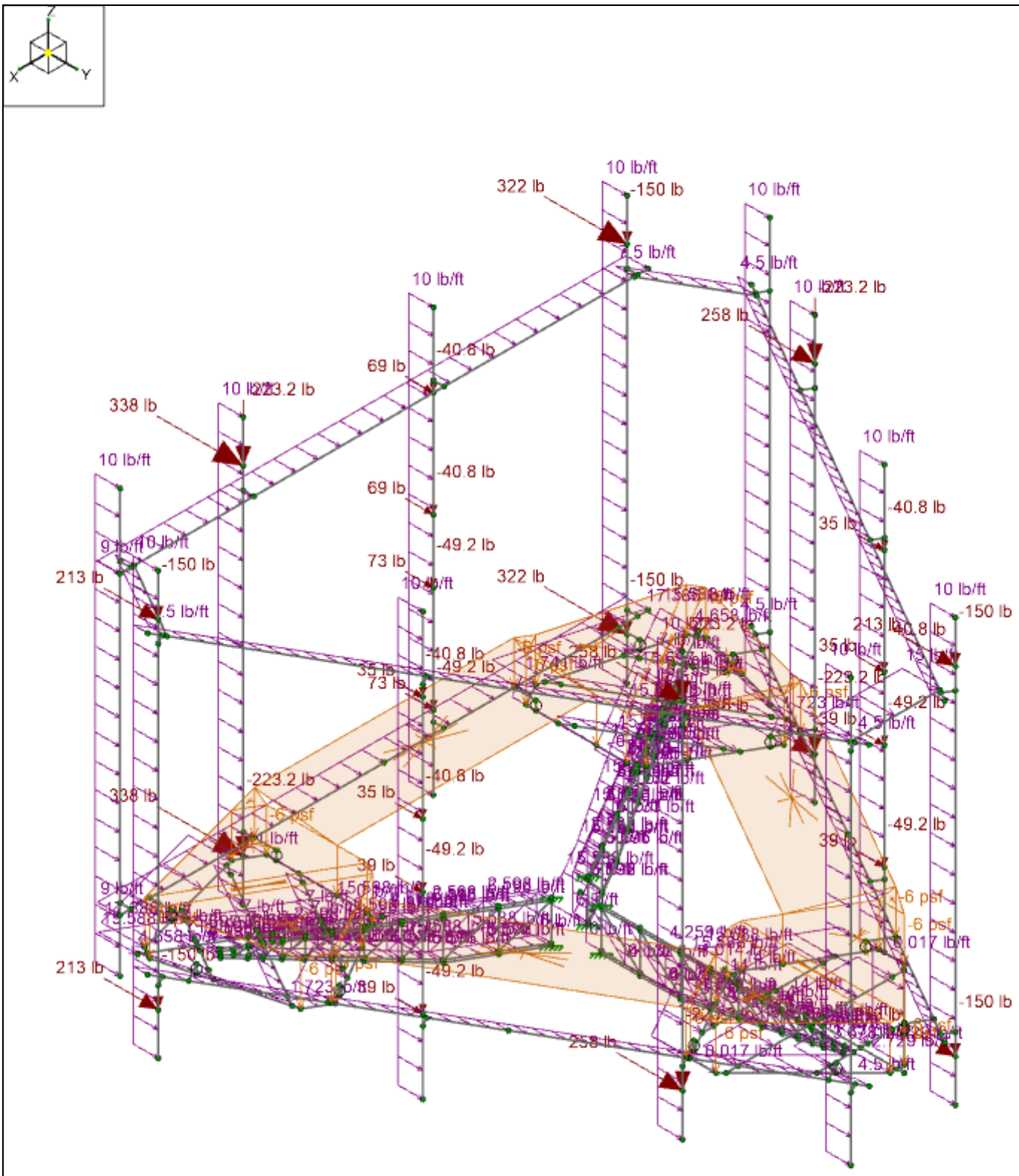
ATC/EFI	302535_13748383_AT&T MOBILITY	SK-2
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d





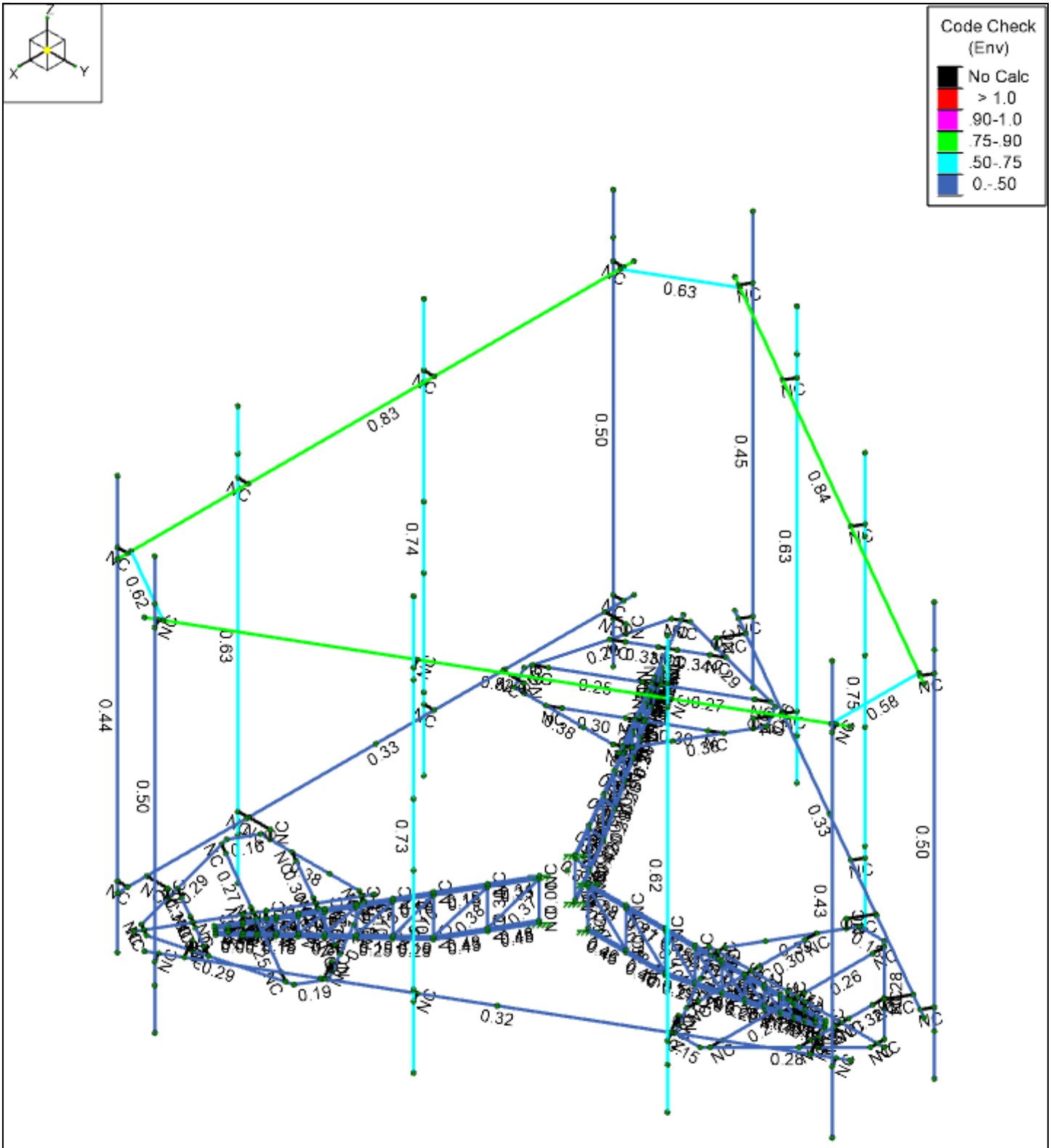
Member Length (in) Displayed

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-3
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



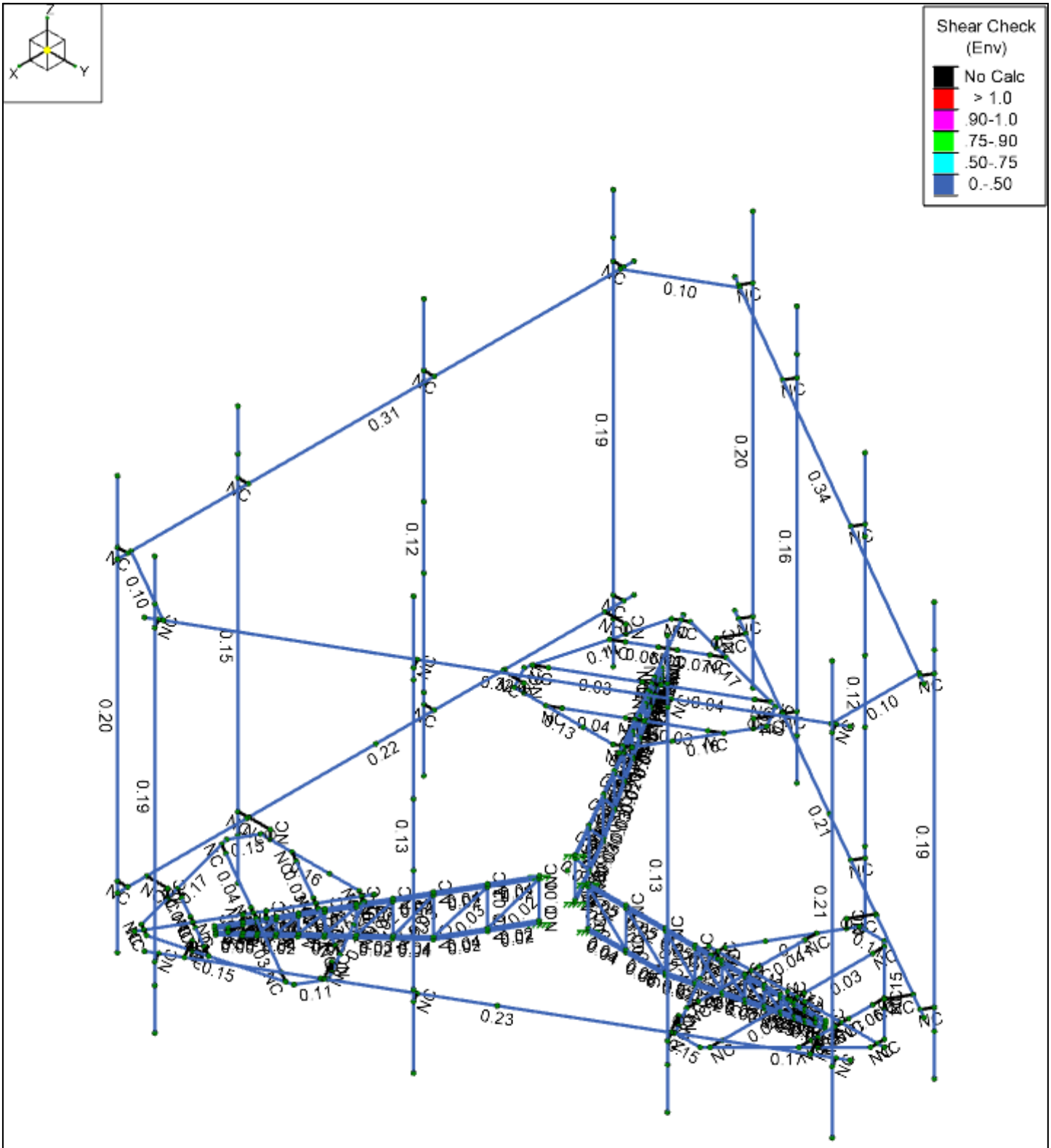
Loads: LC 1, DL + WL (NO ICE) 0 Degree

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-4
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



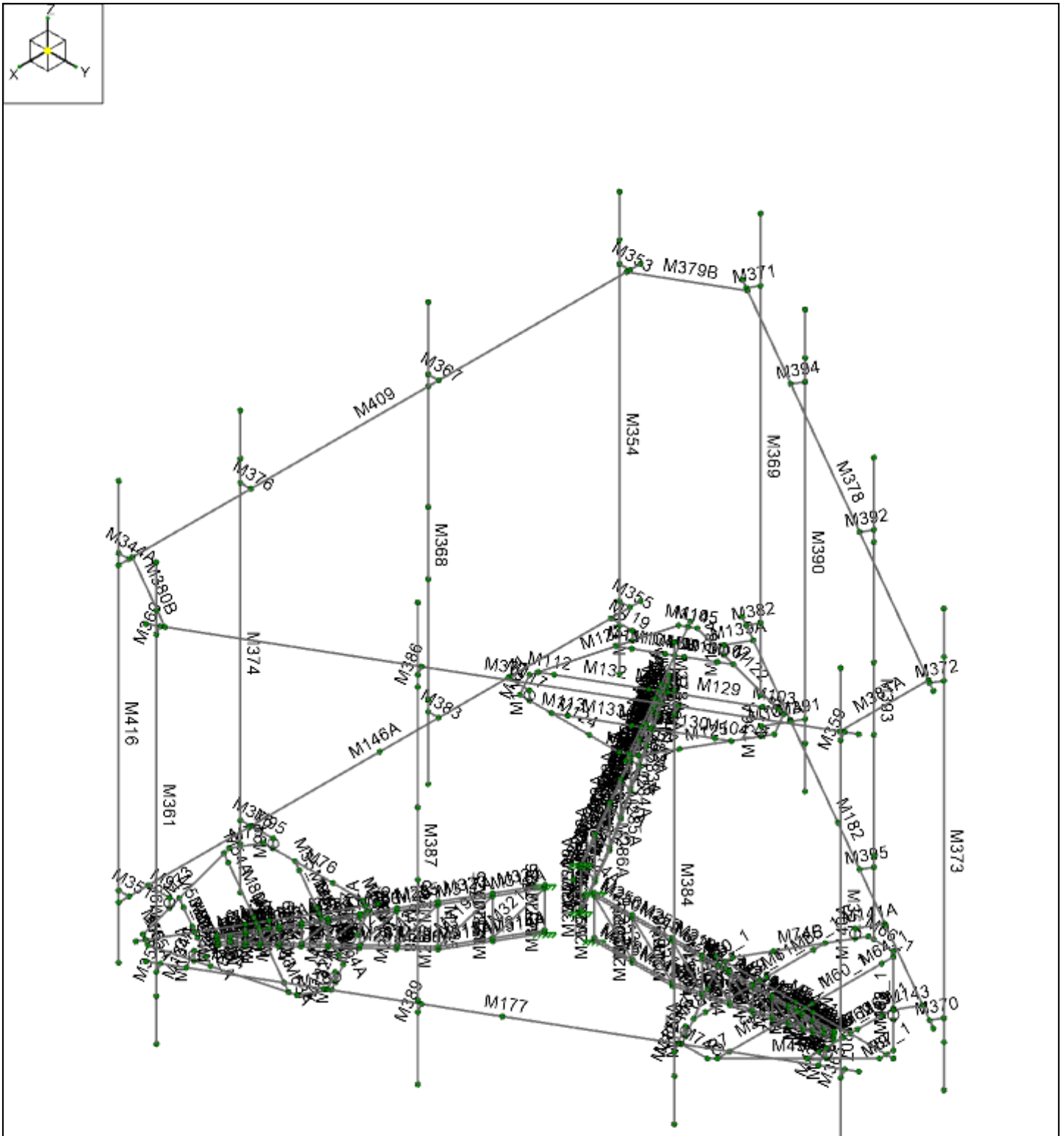
Member Code Checks Displayed (Enveloped)
Envelope Only Solution

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-5
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



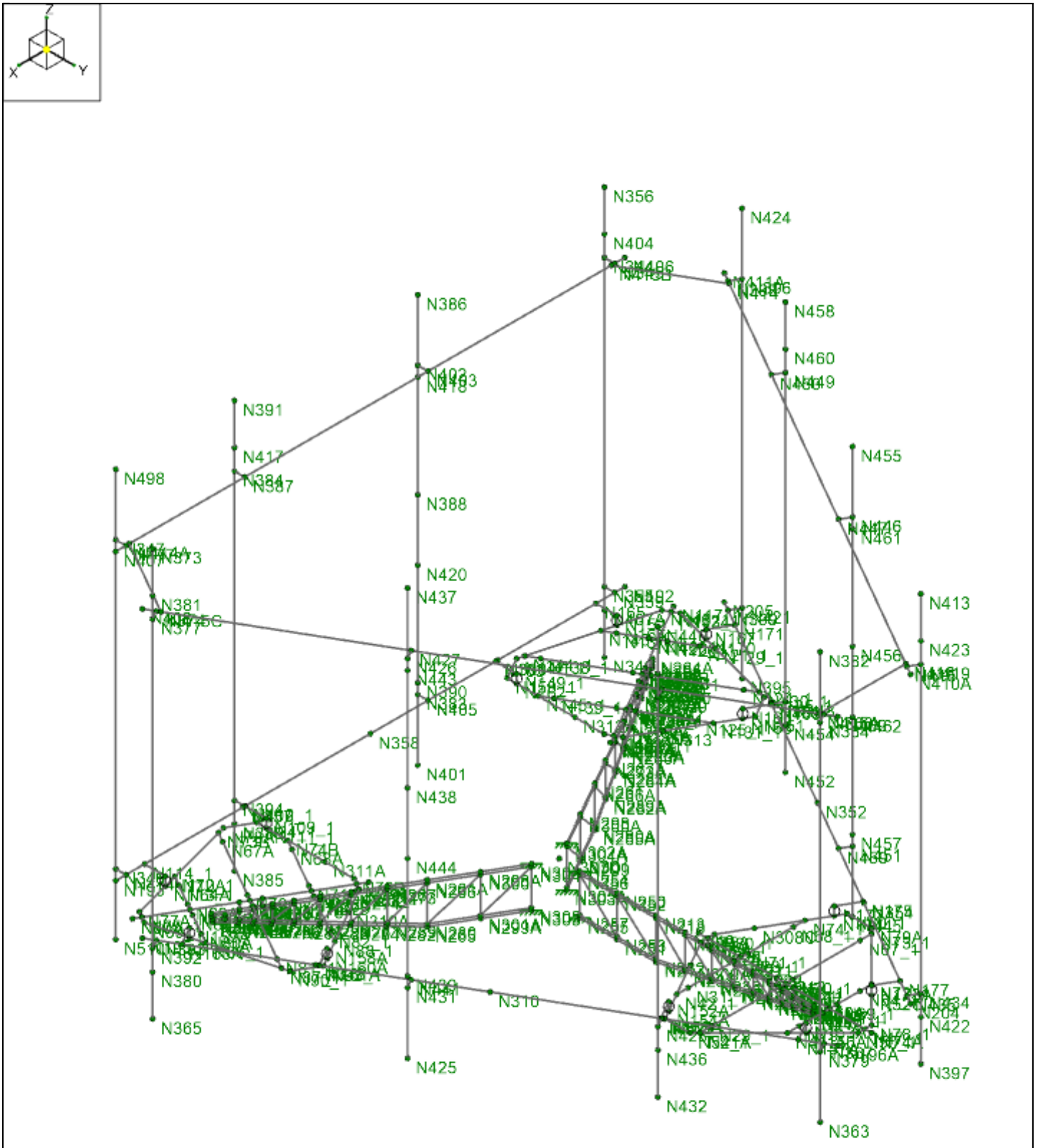
Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-6
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



Envelope Only Solution

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-7
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d



Envelope Only Solution

ATC/EFI	302535_13748383_AT&T MOBILITY	SK-8
AJ		Mar 07, 2022
049.03067 - 22100146		302535_13748383_AT&T MOBILITY.r3d

Model Settings

Solution

Members

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes

Wall Panels

Approximate Mesh Size (in)	12
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3

Processor Core Utilization

Single	No
Multiple (Optimum)	Yes
Maximum	No

Axis

Vertical Global Axis

Global Axis corresponding to vertical direction	Z
Convert Existing Data	Yes

Default Member Orientation

Default Global Plane for z-axis	XY

Plate Axis

Plate Local Axis Orientation	Nodal

Codes

Hot Rolled Steel	AISC 15th (360-16): LRFD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): LRFD
Cold Formed Steel	AISI S100-16: LRFD
Stiffness Adjustment	Yes (Iterative)
Wood	AF&PA NDS-05/08: ASD
Temperature	< 100F
Concrete	ACI 318-05
Masonry	ACI 530-05: ASD
Aluminum	AA ADM1-05: ASD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): ASD
Stiffness Adjustment	Yes (Iterative)

Concrete

Column Design

Analysis Methodology	Exact Integration Method
Parme Beta Factor	0.65

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	No
List forces which were ignored for design in the Detail Report	Yes

Rebar

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No

Model Settings (Continued)

Shear Reinforcement

Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Seismic

RISA-3D Seismic Load Options

Code	ASCE 7-05
Occupancy Cat	I or II
Drift Cat	Other
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	Yes

Site Parameters

S_1 (g)	1
SD_1 (g)	1
SD_S (g)	1
T_L (sec)	-1

Structure Characteristics

T Z (sec)	
T X (sec)	
C_tX	0.035
C_tExp. Z	0.75
C_tExp. X	0.75
R Z	8.5
R X	8.5
Ω_0Z	1
Ω_0X	1
C_dZ	4
C_dX	4
ρ Z	1
ρ X	1

Project Grid Lines

No Data to Print...

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	R10	N49_1	N52A		RIGID	None	None	RIGID	Typical
2	M140A	N174	N172A		RIGID	None	None	RIGID	Typical
3	M139A	N167	N171		RIGID	None	None	RIGID	Typical
4	M138A	N170	N167		RIGID	None	None	RIGID	Typical
5	M137A	N166	N169		RIGID	None	None	RIGID	Typical
6	M136A	N168	N166		RIGID	None	None	RIGID	Typical
7	M134A	N159A	N163A		RIGID	None	None	RIGID	Typical
8	M133A	N162A	N159A		RIGID	None	None	RIGID	Typical
9	M132A	N158A	N161A		RIGID	None	None	RIGID	Typical
10	M131A	N160A	N158A		RIGID	None	None	RIGID	Typical
11	M130A	N153A	N157A		RIGID	None	None	RIGID	Typical
12	M129A	N156A	N153A		RIGID	None	None	RIGID	Typical
13	M128A	N152A	N155A		RIGID	None	None	RIGID	Typical
14	M127A	N154A	N152A		RIGID	None	None	RIGID	Typical
15	M119	N152_1	N165		RIGID	None	None	RIGID	Typical
16	M118	N164	N152_1		RIGID	None	None	RIGID	Typical
17	M117	N149_1	N163		RIGID	None	None	RIGID	Typical
18	M116	N162	N149_1		RIGID	None	None	RIGID	Typical
19	M115	N133_1	N148_1		RIGID	None	None	RIGID	Typical
20	M114	N132_1	N146_1		RIGID	None	None	RIGID	Typical
21	M141A	N172A	N175		RIGID	None	None	RIGID	Typical
22	M113	N139_1	N145_1		RIGID	None	None	RIGID	Typical
23	M142	N52C	N173A		RIGID	None	None	RIGID	Typical
24	M265	N266	N261A		RIGID	None	None	RIGID	Typical
25	M308A	N293	N278	60	RIGID	None	None	RIGID	Typical
26	M296	N296A	N295A		RIGID	None	None	RIGID	Typical
27	M282	N265	N280		RIGID	None	None	RIGID	Typical
28	M281	N282	N289		RIGID	None	None	RIGID	Typical
29	M280	N284	N281		RIGID	None	None	RIGID	Typical
30	M279	N283	N290		RIGID	None	None	RIGID	Typical
31	M278	N285	N291		RIGID	None	None	RIGID	Typical
32	M277	N286	N292		RIGID	None	None	RIGID	Typical
33	M276	N287	N293		RIGID	None	None	RIGID	Typical
34	M275	N288	N294		RIGID	None	None	RIGID	Typical
35	M274	N297A	N296A		RIGID	None	None	RIGID	Typical
36	M273	N295A	N264		RIGID	None	None	RIGID	Typical
37	M272	N279	N272		RIGID	None	None	RIGID	Typical
38	M271	N278	N271		RIGID	None	None	RIGID	Typical
39	M270	N277	N263		RIGID	None	None	RIGID	Typical
40	M269	N276	N270		RIGID	None	None	RIGID	Typical
41	M268	N275	N269		RIGID	None	None	RIGID	Typical
42	M267	N274	N268		RIGID	None	None	RIGID	Typical
43	M266	N273	N267		RIGID	None	None	RIGID	Typical
44	M143	N173A	N177		RIGID	None	None	RIGID	Typical
45	M310A	N294	N279		RIGID	None	None	RIGID	Typical
46	M112	N138_1	N144_1		RIGID	None	None	RIGID	Typical
47	M110	N123_1	N142_1		RIGID	None	None	RIGID	Typical
48	M56_1	N75_1	N77A		RIGID	None	None	RIGID	Typical
49	M55_1	N68A	N74B		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
50	M54A	N67A	N73B		RIGID	None	None	RIGID	Typical
51	M53_1	N64A	N72A		RIGID	None	None	RIGID	Typical
52	M52_1	N66_1	N71A		RIGID	None	None	RIGID	Typical
53	M51_1	N65_1	N70A		RIGID	None	None	RIGID	Typical
54	M50_1	N63_1	N69A		RIGID	None	None	RIGID	Typical
55	M70_1	N49_1	N80_1		RIGID	None	None	RIGID	Typical
56	M67_1	N47_1	N78_1		RIGID	None	None	RIGID	Typical
57	M65_1	N68_1	N74_1		RIGID	None	None	RIGID	Typical
58	M64_1	N67_1	N73_1		RIGID	None	None	RIGID	Typical
59	M63_1	N64_1	N72_1		RIGID	None	None	RIGID	Typical
60	M59_1	N28_1	N71_1		RIGID	None	None	RIGID	Typical
61	M58_1	N27_1	N70_1		RIGID	None	None	RIGID	Typical
62	M57_1	N77_1	N69_1		RIGID	None	None	RIGID	Typical
63	M367	N403	N402		RIGID	None	None	RIGID	Typical
64	R9	N47_1	N50_1		RIGID	None	None	RIGID	Typical
65	R8	N31_1	N42_1		RIGID	None	None	RIGID	Typical
66	R7	N29_1	N41A		RIGID	None	None	RIGID	Typical
67	M57A	N76A	N79B		RIGID	None	None	RIGID	Typical
68	M111	N137_1	N143_1		RIGID	None	None	RIGID	Typical
69	M59A	N63_1	N83_1		RIGID	None	None	RIGID	Typical
70	M61A	N66_1	N85_1		RIGID	None	None	RIGID	Typical
71	M109	N122_1	N141_1		RIGID	None	None	RIGID	Typical
72	M108	N120_1	N140_1		RIGID	None	None	RIGID	Typical
73	M106	N133_1	N136_1		RIGID	None	None	RIGID	Typical
74	M105	N132_1	N134_1		RIGID	None	None	RIGID	Typical
75	M104	N125_1	N131_1		RIGID	None	None	RIGID	Typical
76	M103	N124_1	N130_1		RIGID	None	None	RIGID	Typical
77	M102	N121_1	N129_1		RIGID	None	None	RIGID	Typical
78	M101	N123_1	N128_1		RIGID	None	None	RIGID	Typical
79	M100	N122_1	N127_1		RIGID	None	None	RIGID	Typical
80	M99	N120_1	N126_1		RIGID	None	None	RIGID	Typical
81	M97	N110_1	N114_1		RIGID	None	None	RIGID	Typical
82	M96	N113_1	N110_1		RIGID	None	None	RIGID	Typical
83	M95	N109_1	N112_1		RIGID	None	None	RIGID	Typical
84	M94	N111_1	N109_1		RIGID	None	None	RIGID	Typical
85	M66A	N76A	N91_1		RIGID	None	None	RIGID	Typical
86	M65A	N75_1	N89_1		RIGID	None	None	RIGID	Typical
87	M64A	N82_1	N88_1		RIGID	None	None	RIGID	Typical
88	M63A	N81_1	N87_1		RIGID	None	None	RIGID	Typical
89	M62A	N80A	N86_1		RIGID	None	None	RIGID	Typical
90	M60A	N65_1	N84_1		RIGID	None	None	RIGID	Typical
91	R6	N79_1	N41_1		RIGID	None	None	RIGID	Typical
92	M311A	N306	N307		RIGID	None	None	RIGID	Typical
93	M325	N300	N298A	90	RIGID	None	None	RIGID	Typical
94	M351	N346	N474		RIGID	None	None	RIGID	Typical
95	M344A	N477	N347		RIGID	None	None	RIGID	Typical
96	M345	N279A	N307C		RIGID	None	None	RIGID	Typical
97	M344	N278A	N294A		RIGID	None	None	RIGID	Typical
98	M343	N279	N307B		RIGID	None	None	RIGID	Typical
99	M342	N278	N294		RIGID	None	None	RIGID	Typical
100	M341	N231	N259		RIGID	None	None	RIGID	Typical
101	M340	N230	N246		RIGID	None	None	RIGID	Typical
102	M331A	N299	N301	90	RIGID	None	None	RIGID	Typical
103	M330A	N303A	N305A	90	RIGID	None	None	RIGID	Typical
104	M329A	N304A	N302A	90	RIGID	None	None	RIGID	Typical
105	M328A	N300A	N298	90	RIGID	None	None	RIGID	Typical
106	M315	N262A	N133_1		RIGID	None	None	RIGID	Typical
107	M314	N306A	N260		RIGID	None	None	RIGID	Typical
108	M313	N294A	N279A		RIGID	None	None	RIGID	Typical
109	M312	N293A	N278A	120	RIGID	None	None	RIGID	Typical
110	M300A	N296	N295		RIGID	None	None	RIGID	Typical
111	M286A	N265A	N280A		RIGID	None	None	RIGID	Typical
112	M285A	N282A	N289A		RIGID	None	None	RIGID	Typical
113	M379	N412	N272A		RIGID	None	None	RIGID	Typical
114	M284A	N284A	N281A		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
115	M380	N410	N272		RIGID	None	None	RIGID	Typical
116	M391	N448	N453		RIGID	None	None	RIGID	Typical
117	M365	N379	N367		RIGID	None	None	RIGID	Typical
118	M376	N387	N384		RIGID	None	None	RIGID	Typical
119	M375	N394	N400		RIGID	None	None	RIGID	Typical
120	M360	N374	N377		RIGID	None	None	RIGID	Typical
121	M359	N366	N364		RIGID	None	None	RIGID	Typical
122	M358	N392	N393		RIGID	None	None	RIGID	Typical
123	M371	N398	N396		RIGID	None	None	RIGID	Typical
124	M389	N431	N441		RIGID	None	None	RIGID	Typical
125	M388	N430	N429		RIGID	None	None	RIGID	Typical
126	M372	N415	N419		RIGID	None	None	RIGID	Typical
127	M385	N428	N433		RIGID	None	None	RIGID	Typical
128	M386	N427	N426		RIGID	None	None	RIGID	Typical
129	M370	N434	N435		RIGID	None	None	RIGID	Typical
130	M382	N421	N399		RIGID	None	None	RIGID	Typical
131	M355	N355	N359		RIGID	None	None	RIGID	Typical
132	M353	N345	N344		RIGID	None	None	RIGID	Typical
133	M395	N451	N459		RIGID	None	None	RIGID	Typical
134	M394	N450	N449		RIGID	None	None	RIGID	Typical
135	M392	N447	N446		RIGID	None	None	RIGID	Typical
136	M381	N411	N224		RIGID	None	None	RIGID	Typical
137	M312A	N262	N76A		RIGID	None	None	RIGID	Typical
138	M283A	N283A	N290A		RIGID	None	None	RIGID	Typical
139	M281A	N286A	N292A		RIGID	None	None	RIGID	Typical
140	M213	N236	N233		RIGID	None	None	RIGID	Typical
141	M212	N235	N242		RIGID	None	None	RIGID	Typical
142	M211	N237	N243		RIGID	None	None	RIGID	Typical
143	M210	N238	N244		RIGID	None	None	RIGID	Typical
144	M209	N239	N245		RIGID	None	None	RIGID	Typical
145	M208	N240	N246		RIGID	None	None	RIGID	Typical
146	M207	N249	N248		RIGID	None	None	RIGID	Typical
147	M206	N247	N216		RIGID	None	None	RIGID	Typical
148	M205	N231	N224		RIGID	None	None	RIGID	Typical
149	M204	N230	N223		RIGID	None	None	RIGID	Typical
150	M203	N229	N215		RIGID	None	None	RIGID	Typical
151	M202	N228	N222		RIGID	None	None	RIGID	Typical
152	M201	N227	N221		RIGID	None	None	RIGID	Typical
153	M200	N226	N220		RIGID	None	None	RIGID	Typical
154	M199	N225	N219		RIGID	None	None	RIGID	Typical
155	M198	N218	N213		RIGID	None	None	RIGID	Typical
156	M328	N299A	N301A	90	RIGID	None	None	RIGID	Typical
157	M327	N303	N305	90	RIGID	None	None	RIGID	Typical
158	M326	N304	N302	90	RIGID	None	None	RIGID	Typical
159	M214	N234	N241		RIGID	None	None	RIGID	Typical
160	M282A	N285A	N291A		RIGID	None	None	RIGID	Typical
161	M215	N217	N232		RIGID	None	None	RIGID	Typical
162	M241	N245	N230		RIGID	None	None	RIGID	Typical
163	M280A	N287A	N293A		RIGID	None	None	RIGID	Typical
164	M279A	N288A	N294A		RIGID	None	None	RIGID	Typical
165	M278A	N297	N296		RIGID	None	None	RIGID	Typical
166	M277A	N295	N264A		RIGID	None	None	RIGID	Typical
167	M276A	N279A	N272A		RIGID	None	None	RIGID	Typical
168	M275A	N278A	N271A		RIGID	None	None	RIGID	Typical
169	M274A	N277A	N263A		RIGID	None	None	RIGID	Typical
170	M273A	N276A	N270A		RIGID	None	None	RIGID	Typical
171	M272A	N275A	N269A		RIGID	None	None	RIGID	Typical
172	M271A	N274A	N268A		RIGID	None	None	RIGID	Typical
173	M270A	N273A	N267A		RIGID	None	None	RIGID	Typical
174	M269A	N266A	N261		RIGID	None	None	RIGID	Typical
175	M260	N251	N253	90	RIGID	None	None	RIGID	Typical
176	M259	N255	N257	90	RIGID	None	None	RIGID	Typical
177	M258	N256	N254	90	RIGID	None	None	RIGID	Typical
178	M257	N252	N250	90	RIGID	None	None	RIGID	Typical
179	M244	N214	N49_1		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
180	M243	N258	N212		RIGID	None	None	RIGID	Typical
181	M242	N246	N231		RIGID	None	None	RIGID	Typical
182	M229	N248	N247		RIGID	None	None	RIGID	Typical
183	R5	N28_1	N39_1		RIGID	None	None	RIGID	Typical
184	M383	N383	N405		RIGID	None	None	RIGID	Typical
185	R3	N77_1	N35_1		RIGID	None	None	RIGID	Typical
186	R4	N27_1	N38_1		RIGID	None	None	RIGID	Typical
187	M357	N382	N363		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
188	M374	N391	N385		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
189	M387	N437	N425		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
190	M373	N413	N397		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
191	M384	N440	N432		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
192	M369	N424	N395		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
193	M354	N356	N349		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
194	M393	N455	N445		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
195	M390	N458	N452		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
196	M361	N373	N365		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
197	M368	N386	N401		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
198	M416	N498	N510		PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
199	M377	N409	N408		PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
200	M146A	N193	N192		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
201	M177	N196A	N195		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
202	M182	N205	N204		PIPE_3.0	Beam	HSS Pipe	A53 Gr.B	Typical
203	M409	N407	N406		PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
204	M378	N411A	N410A		PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
205	M122	N134_1	N135_1	180	L3X3X6	Beam	Single Angle	Q235	Typical
206	M76	N79B	N94_1	90	L3X3X6	Beam	Single Angle	Q235	Typical
207	M125	N136_1	N151_1	90	L3X3X6	Beam	Single Angle	Q235	Typical
208	M124	N148_1	N150_1	180	L3X3X6	Beam	Single Angle	Q235	Typical
209	M123	N146_1	N147_1	90	L3X3X6	Beam	Single Angle	Q235	Typical
210	M75	N91_1	N93_1	180	L3X3X6	Beam	Single Angle	Q235	Typical
211	M45A	N50_1	N52_1	180	L3X3X6	Beam	Single Angle	Q235	Typical
212	M68_1	N78_1	N79A	90	L3X3X6	Beam	Single Angle	Q235	Typical
213	M74B	N80_1	N60_1	180	L3X3X6	Beam	Single Angle	Q235	Typical
214	M75B	N52A	N62_1	90	L3X3X6	Beam	Single Angle	Q235	Typical
215	M73	N77A	N78A	180	L3X3X6	Beam	Single Angle	Q235	Typical
216	M74	N89_1	N90_1	90	L3X3X6	Beam	Single Angle	Q235	Typical
217	M381A	N416	N415A		L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
218	M379B	N415B	N414		L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
219	M380B	N415C	N414A		L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical
220	M126	N117_1	N118_1	90	HSS4X3X4	Beam	Tube	Q235	Typical
221	M77	N60A	N61_1	90	HSS4X3X4	Beam	Tube	Q235	Typical
222	M54_1	N74A	N75A	90	HSS4X3X4	Beam	Tube	Q235	Typical
223	M307A	N293	N277		3/8 x 5/8	Beam	RECT	A992	Typical
224	M239	N244	N229	90	3/8 x 5/8	Beam	RECT	A992	Typical
225	M240	N245	N229		3/8 x 5/8	Beam	RECT	A992	Typical
226	M310	N292A	N277A	120	3/8 x 5/8	Beam	RECT	A992	Typical
227	M311	N293A	N277A		3/8 x 5/8	Beam	RECT	A992	Typical
228	M306	N292	N277	60	3/8 x 5/8	Beam	RECT	A992	Typical
229	M288	N282	N265	90	3/8 x 4	Beam	RECT	A992	Typical
230	M286	N285	N284	90	3/8 x 4	Beam	RECT	A992	Typical
231	M287	N284	N282	90	3/8 x 4	Beam	RECT	A992	Typical
232	M313A	N265	N299A	90	3/8 x 4	Beam	RECT	A992	Typical
233	M290A	N285A	N284A	90	3/8 x 4	Beam	RECT	A992	Typical
234	M329	N297A	N287	90	3/8 x 4	Beam	RECT	A992	Typical
235	M335	N287	N285	90	3/8 x 4	Beam	RECT	A992	Typical
236	M219	N237	N236	90	3/8 x 4	Beam	RECT	A992	Typical
237	M220	N236	N234	90	3/8 x 4	Beam	RECT	A992	Typical
238	M221	N234	N217	90	3/8 x 4	Beam	RECT	A992	Typical
239	M245	N217	N251	90	3/8 x 4	Beam	RECT	A992	Typical
240	M246	N251	N255	90	3/8 x 4	Beam	RECT	A992	Typical
241	M261	N249	N239	90	3/8 x 4	Beam	RECT	A992	Typical
242	M268A	N239	N237	90	3/8 x 4	Beam	RECT	A992	Typical
243	M291A	N284A	N282A	90	3/8 x 4	Beam	RECT	A992	Typical
244	M292A	N282A	N265A	90	3/8 x 4	Beam	RECT	A992	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
245	M316	N265A	N299	90	3/8 x 4	Beam	RECT	A992	Typical
246	M317	N299	N303A	90	3/8 x 4	Beam	RECT	A992	Typical
247	M332B	N297	N287A	90	3/8 x 4	Beam	RECT	A992	Typical
248	M314A	N299A	N303	90	3/8 x 4	Beam	RECT	A992	Typical
249	M339	N287A	N285A	90	3/8 x 4	Beam	RECT	A992	Typical
250	M74C	N52_1	N62_1		3/8 x 3	Beam	RECT	Q235	Typical
251	M66_1	N79A	N60_1		3/8 x 3	Beam	RECT	Q235	Typical
252	M128	N135_1	N151_1		3/8 x 3	Beam	RECT	Q235	Typical
253	M127	N147_1	N150_1		3/8 x 3	Beam	RECT	Q235	Typical
254	M79	N78A	N94_1		3/8 x 3	Beam	RECT	Q235	Typical
255	M78	N90_1	N93_1		3/8 x 3	Beam	RECT	Q235	Typical
256	M85	N83_1	N80A		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
257	M134	N140_1	N137_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
258	M133	N142_1	N139_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
259	M132	N141_1	N138_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
260	M131	N126_1	N121_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
261	M130	N128_1	N125_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
262	M84	N85_1	N82_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
263	M31_1	N38_1	N29_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
264	M33_1	N39_1	N31_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
265	M34A	N35_1	N79_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
266	M60_1	N70_1	N67_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
267	M61_1	N71_1	N68_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
268	M62_1	N69_1	N64_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
269	M80	N70A	N67A		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
270	M81	N71A	N68A		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
271	M83	N84_1	N81_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
272	M129	N127_1	N124_1		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
273	M82	N69A	N64A		3/8 x 2 3/8 "	Beam	RECT	Q235	Typical
274	M320A	N301A	N300	60	3/8 x 1"	Beam	RECT	A992	Typical
275	M321A	N301A	N304		3/8 x 1"	Beam	RECT	A992	Typical
276	M322A	N305	N304	60	3/8 x 1"	Beam	RECT	A992	Typical
277	M331	N295A	N278		3/8 x 1"	Beam	RECT	A992	Typical
278	M222	N228	N226		3/8 x 1"	Beam	RECT	A992	Typical
279	M333	N278	N276		3/8 x 1"	Beam	RECT	A992	Typical
280	M334	N293	N291		3/8 x 1"	Beam	RECT	A992	Typical
281	M223	N226	N225		3/8 x 1"	Beam	RECT	A992	Typical
282	M224	N225	N218		3/8 x 1"	Beam	RECT	A992	Typical
283	M319A	N280	N300		3/8 x 1"	Beam	RECT	A992	Typical
284	M332	N296A	N293		3/8 x 1"	Beam	RECT	A992	Typical
285	M318A	N300	N304		3/8 x 1"	Beam	RECT	A992	Typical
286	M291	N273	N266		3/8 x 1"	Beam	RECT	A992	Typical
287	M316A	N301A	N305		3/8 x 1"	Beam	RECT	A992	Typical
288	M315A	N280	N301A		3/8 x 1"	Beam	RECT	A992	Typical
289	M299	N273	N281		3/8 x 1"	Beam	RECT	A992	Typical
290	M298	N289	N273		3/8 x 1"	Beam	RECT	A992	Typical
291	M297	N266	N289		3/8 x 1"	Beam	RECT	A992	Typical
292	M295	N280	N266		3/8 x 1"	Beam	RECT	A992	Typical
293	M294	N289	N280		3/8 x 1"	Beam	RECT	A992	Typical
294	M293	N281	N289		3/8 x 1"	Beam	RECT	A992	Typical
295	M292	N291	N281		3/8 x 1"	Beam	RECT	A992	Typical
296	M290	N274	N273		3/8 x 1"	Beam	RECT	A992	Typical
297	M289	N276	N274		3/8 x 1"	Beam	RECT	A992	Typical
298	M225	N243	N233		3/8 x 1"	Beam	RECT	A992	Typical
299	M317A	N266	N300		3/8 x 1"	Beam	RECT	A992	Typical
300	M226	N233	N241		3/8 x 1"	Beam	RECT	A992	Typical
301	M295A	N273A	N266A		3/8 x 1"	Beam	RECT	A992	Typical
302	M228	N232	N218		3/8 x 1"	Beam	RECT	A992	Typical
303	M299A	N280A	N266A		3/8 x 1"	Beam	RECT	A992	Typical
304	M301A	N266A	N289A		3/8 x 1"	Beam	RECT	A992	Typical
305	M321	N300A	N304A		3/8 x 1"	Beam	RECT	A992	Typical
306	M303A	N273A	N281A		3/8 x 1"	Beam	RECT	A992	Typical
307	M318	N280A	N301		3/8 x 1"	Beam	RECT	A992	Typical
308	M338	N293A	N291A		3/8 x 1"	Beam	RECT	A992	Typical
309	M337	N278A	N276A		3/8 x 1"	Beam	RECT	A992	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
310	M335A	N296	N293A		3/8 x 1"	Beam	RECT	A992	Typical
311	M227	N241	N232		3/8 x 1"	Beam	RECT	A992	Typical
312	M334A	N295	N278A		3/8 x 1"	Beam	RECT	A992	Typical
313	M325A	N305A	N304A	120	3/8 x 1"	Beam	RECT	A992	Typical
314	M324A	N301	N304A		3/8 x 1"	Beam	RECT	A992	Typical
315	M323A	N301	N300A	120	3/8 x 1"	Beam	RECT	A992	Typical
316	M322	N280A	N300A		3/8 x 1"	Beam	RECT	A992	Typical
317	M319	N301	N305A		3/8 x 1"	Beam	RECT	A992	Typical
318	M298A	N289A	N280A		3/8 x 1"	Beam	RECT	A992	Typical
319	M297A	N281A	N289A		3/8 x 1"	Beam	RECT	A992	Typical
320	M302A	N289A	N273A		3/8 x 1"	Beam	RECT	A992	Typical
321	M294A	N274A	N273A		3/8 x 1"	Beam	RECT	A992	Typical
322	M230	N218	N241		3/8 x 1"	Beam	RECT	A992	Typical
323	M231	N241	N225		3/8 x 1"	Beam	RECT	A992	Typical
324	M232	N225	N233		3/8 x 1"	Beam	RECT	A992	Typical
325	M247	N232	N253		3/8 x 1"	Beam	RECT	A992	Typical
326	M248	N253	N257		3/8 x 1"	Beam	RECT	A992	Typical
327	M249	N218	N252		3/8 x 1"	Beam	RECT	A992	Typical
328	M250	N252	N256		3/8 x 1"	Beam	RECT	A992	Typical
329	M251	N232	N252		3/8 x 1"	Beam	RECT	A992	Typical
330	M252	N253	N252		3/8 x 1"	Beam	RECT	A992	Typical
331	M253	N253	N256		3/8 x 1"	Beam	RECT	A992	Typical
332	M296A	N291A	N281A		3/8 x 1"	Beam	RECT	A992	Typical
333	M320	N266A	N300A		3/8 x 1"	Beam	RECT	A992	Typical
334	M254	N257	N256		3/8 x 1"	Beam	RECT	A992	Typical
335	M263	N247	N230		3/8 x 1"	Beam	RECT	A992	Typical
336	M264	N248	N245		3/8 x 1"	Beam	RECT	A992	Typical
337	M266A	N230	N228		3/8 x 1"	Beam	RECT	A992	Typical
338	M267A	N245	N243		3/8 x 1"	Beam	RECT	A992	Typical
339	M293A	N276A	N274A		3/8 x 1"	Beam	RECT	A992	Typical
340	M237	N243	N228		3/4 x 3/8	Beam	RECT	A992	Typical
341	M304	N291	N276	60	3/4 x 3/8	Beam	RECT	A992	Typical
342	M303	N291	N275		3/4 x 3/8	Beam	RECT	A992	Typical
343	M238	N244	N228		3/4 x 3/8	Beam	RECT	A992	Typical
344	M307	N291A	N275A		3/4 x 3/8	Beam	RECT	A992	Typical
345	M308	N291A	N276A	120	3/4 x 3/8	Beam	RECT	A992	Typical
346	M309	N292A	N276A		3/4 x 3/8	Beam	RECT	A992	Typical
347	M236	N243	N227		3/4 x 3/8	Beam	RECT	A992	Typical
348	M305	N292	N276		3/4 x 3/8	Beam	RECT	A992	Typical
349	M235	N242	N227		.875 x .375	Beam	RECT	A992	Typical
350	M233	N233	N226		.875 x .375	Beam	RECT	A992	Typical
351	M306A	N290A	N275A	120	.875 x .375	Beam	RECT	A992	Typical
352	M305A	N290A	N274A		.875 x .375	Beam	RECT	A992	Typical
353	M300	N281	N274	60	.875 x .375	Beam	RECT	A992	Typical
354	M301	N290	N274		.875 x .375	Beam	RECT	A992	Typical
355	M304A	N281A	N274A	120	.875 x .375	Beam	RECT	A992	Typical
356	M234	N242	N226		.875 x .375	Beam	RECT	A992	Typical
357	M302	N290	N275	60	.875 x .375	Beam	RECT	A992	Typical
358	M284	N268	N267	90	.5" x 4"	Beam	RECT	A992	Typical
359	M285	N267	N261A	90	.5" x 4"	Beam	RECT	A992	Typical
360	M323	N261A	N298A	90	.5" x 4"	Beam	RECT	A992	Typical
361	M324	N298A	N302	90	.5" x 4"	Beam	RECT	A992	Typical
362	M330	N264	N271	90	.5" x 4"	Beam	RECT	A992	Typical
363	M332A	N271	N270	90	.5" x 4"	Beam	RECT	A992	Typical
364	M216	N222	N220	90	.5" x 4"	Beam	RECT	A992	Typical
365	M327A	N298	N302A	90	.5" x 4"	Beam	RECT	A992	Typical
366	M333A	N264A	N271A	90	.5" x 4"	Beam	RECT	A992	Typical
367	M218	N219	N213	90	.5" x 4"	Beam	RECT	A992	Typical
368	M255	N213	N250	90	.5" x 4"	Beam	RECT	A992	Typical
369	M256	N250	N254	90	.5" x 4"	Beam	RECT	A992	Typical
370	M262	N216	N223	90	.5" x 4"	Beam	RECT	A992	Typical
371	M265A	N223	N222	90	.5" x 4"	Beam	RECT	A992	Typical
372	M287A	N270A	N268A	90	.5" x 4"	Beam	RECT	A992	Typical
373	M288A	N268A	N267A	90	.5" x 4"	Beam	RECT	A992	Typical
374	M336	N271A	N270A	90	.5" x 4"	Beam	RECT	A992	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
375	M289A	N267A	N261	90	.5" x 4"	Beam	RECT	A992	Typical
376	M326A	N261	N298	90	.5" x 4"	Beam	RECT	A992	Typical
377	M217	N220	N219	90	.5" x 4"	Beam	RECT	A992	Typical
378	M283	N270	N268	90	.5" x 4"	Beam	RECT	A992	Typical

Member Advanced Data

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
1	R10		Yes	** NA **	None
2	M140A	BenPIN	Yes	** NA **	None
3	M139A		Yes	** NA **	None
4	M138A	BenPIN	Yes	** NA **	None
5	M137A		Yes	** NA **	None
6	M136A	BenPIN	Yes	** NA **	None
7	M134A		Yes	** NA **	None
8	M133A	BenPIN	Yes	** NA **	None
9	M132A		Yes	** NA **	None
10	M131A	BenPIN	Yes	** NA **	None
11	M130A		Yes	** NA **	None
12	M129A	BenPIN	Yes	** NA **	None
13	M128A		Yes	** NA **	None
14	M127A	BenPIN	Yes	** NA **	None
15	M119		Yes	** NA **	None
16	M118	BenPIN	Yes	** NA **	None
17	M117		Yes	** NA **	None
18	M116	BenPIN	Yes	** NA **	None
19	M115		Yes	** NA **	None
20	M114		Yes	** NA **	None
21	M141A		Yes	** NA **	None
22	M113		Yes	** NA **	None
23	M142	BenPIN	Yes	** NA **	None
24	M265		Yes	** NA **	None
25	M308A		Yes	** NA **	None
26	M296		Yes	** NA **	None
27	M282		Yes	** NA **	None
28	M281		Yes	** NA **	None
29	M280		Yes	** NA **	None
30	M279		Yes	** NA **	None
31	M278		Yes	** NA **	None
32	M277		Yes	** NA **	None
33	M276		Yes	** NA **	None
34	M275		Yes	** NA **	None
35	M274		Yes	** NA **	None
36	M273		Yes	** NA **	None
37	M272		Yes	** NA **	None
38	M271		Yes	** NA **	None
39	M270		Yes	** NA **	None
40	M269		Yes	** NA **	None
41	M268		Yes	** NA **	None
42	M267		Yes	** NA **	None
43	M266		Yes	** NA **	None
44	M143		Yes	** NA **	None
45	M310A		Yes	** NA **	None
46	M112		Yes	** NA **	None
47	M110		Yes	** NA **	None
48	M56_1		Yes	** NA **	None
49	M55_1		Yes	** NA **	None
50	M54A		Yes	** NA **	None
51	M53_1		Yes	** NA **	None
52	M52_1		Yes	** NA **	None
53	M51_1		Yes	** NA **	None
54	M50_1		Yes	** NA **	None
55	M70_1		Yes	** NA **	None
56	M67_1		Yes	** NA **	None
57	M65_1		Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
58	M64_1		Yes	** NA **	None
59	M63_1		Yes	** NA **	None
60	M59_1		Yes	** NA **	None
61	M58_1		Yes	** NA **	None
62	M57_1		Yes	** NA **	None
63	M367		Yes	** NA **	None
64	R9		Yes	** NA **	None
65	R8		Yes	** NA **	None
66	R7		Yes	** NA **	None
67	M57A		Yes	** NA **	None
68	M111		Yes	** NA **	None
69	M59A		Yes	** NA **	None
70	M61A		Yes	** NA **	None
71	M109		Yes	** NA **	None
72	M108		Yes	** NA **	None
73	M106		Yes	** NA **	None
74	M105		Yes	** NA **	None
75	M104		Yes	** NA **	None
76	M103		Yes	** NA **	None
77	M102		Yes	** NA **	None
78	M101		Yes	** NA **	None
79	M100		Yes	** NA **	None
80	M99		Yes	** NA **	None
81	M97		Yes	** NA **	None
82	M96	BenPIN	Yes	** NA **	None
83	M95		Yes	** NA **	None
84	M94	BenPIN	Yes	** NA **	None
85	M66A		Yes	** NA **	None
86	M65A		Yes	** NA **	None
87	M64A		Yes	** NA **	None
88	M63A		Yes	** NA **	None
89	M62A		Yes	** NA **	None
90	M60A		Yes	** NA **	None
91	R6		Yes	** NA **	None
92	M311A		Yes	** NA **	None
93	M325		Yes	** NA **	None
94	M351		Yes	** NA **	None
95	M344A		Yes	** NA **	None
96	M345		Yes	** NA **	None
97	M344		Yes	** NA **	None
98	M343		Yes	** NA **	None
99	M342		Yes	** NA **	None
100	M341		Yes	** NA **	None
101	M340		Yes	** NA **	None
102	M331A		Yes	** NA **	None
103	M330A		Yes	** NA **	None
104	M329A		Yes	** NA **	None
105	M328A		Yes	** NA **	None
106	M315		Yes	** NA **	None
107	M314		Yes	** NA **	None
108	M313		Yes	** NA **	None
109	M312		Yes	** NA **	None
110	M300A		Yes	** NA **	None
111	M286A		Yes	** NA **	None
112	M285A		Yes	** NA **	None
113	M379		Yes	** NA **	None
114	M284A		Yes	** NA **	None
115	M380		Yes	** NA **	None
116	M391		Yes	** NA **	None
117	M365		Yes	** NA **	None
118	M376		Yes	** NA **	None
119	M375		Yes	** NA **	None
120	M360		Yes	** NA **	None
121	M359		Yes	** NA **	None
122	M358		Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
123	M371		Yes	** NA **	None
124	M389		Yes	** NA **	None
125	M388		Yes	** NA **	None
126	M372		Yes	** NA **	None
127	M385		Yes	** NA **	None
128	M386		Yes	** NA **	None
129	M370		Yes	** NA **	None
130	M382		Yes	** NA **	None
131	M355		Yes	** NA **	None
132	M353		Yes	** NA **	None
133	M395		Yes	** NA **	None
134	M394		Yes	** NA **	None
135	M392		Yes	** NA **	None
136	M381		Yes	** NA **	None
137	M312A		Yes	** NA **	None
138	M283A		Yes	** NA **	None
139	M281A		Yes	** NA **	None
140	M213		Yes	** NA **	None
141	M212		Yes	** NA **	None
142	M211		Yes	** NA **	None
143	M210		Yes	** NA **	None
144	M209		Yes	** NA **	None
145	M208		Yes	** NA **	None
146	M207		Yes	** NA **	None
147	M206		Yes	** NA **	None
148	M205		Yes	** NA **	None
149	M204		Yes	** NA **	None
150	M203		Yes	** NA **	None
151	M202		Yes	** NA **	None
152	M201		Yes	** NA **	None
153	M200		Yes	** NA **	None
154	M199		Yes	** NA **	None
155	M198		Yes	** NA **	None
156	M328		Yes	** NA **	None
157	M327		Yes	** NA **	None
158	M326		Yes	** NA **	None
159	M214		Yes	** NA **	None
160	M282A		Yes	** NA **	None
161	M215		Yes	** NA **	None
162	M241		Yes	** NA **	None
163	M280A		Yes	** NA **	None
164	M279A		Yes	** NA **	None
165	M278A		Yes	** NA **	None
166	M277A		Yes	** NA **	None
167	M276A		Yes	** NA **	None
168	M275A		Yes	** NA **	None
169	M274A		Yes	** NA **	None
170	M273A		Yes	** NA **	None
171	M272A		Yes	** NA **	None
172	M271A		Yes	** NA **	None
173	M270A		Yes	** NA **	None
174	M269A		Yes	** NA **	None
175	M260		Yes	** NA **	None
176	M259		Yes	** NA **	None
177	M258		Yes	** NA **	None
178	M257		Yes	** NA **	None
179	M244		Yes	** NA **	None
180	M243		Yes	** NA **	None
181	M242		Yes	** NA **	None
182	M229		Yes	** NA **	None
183	R5		Yes	** NA **	None
184	M383		Yes	** NA **	None
185	R3		Yes	** NA **	None
186	R4		Yes	** NA **	None
187	M357		Yes		None

Member Advanced Data (Continued)

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
188	M374		Yes		None
189	M387		Yes		None
190	M373		Yes		None
191	M384		Yes		None
192	M369		Yes		None
193	M354		Yes		None
194	M393		Yes		None
195	M390		Yes		None
196	M361		Yes		None
197	M368		Yes		None
198	M416		Yes		None
199	M377		Yes		None
200	M146A		Yes	Default	None
201	M177		Yes	Default	None
202	M182		Yes	Default	None
203	M409		Yes		None
204	M378		Yes		None
205	M122		Yes	Default	None
206	M76		Yes	Default	None
207	M125		Yes	Default	None
208	M124		Yes	Default	None
209	M123		Yes	Default	None
210	M75		Yes	Default	None
211	M45A		Yes	Default	None
212	M68_1		Yes	Default	None
213	M74B		Yes	Default	None
214	M75B		Yes	Default	None
215	M73		Yes	Default	None
216	M74		Yes	Default	None
217	M381A		Yes	Default	None
218	M379B		Yes	Default	None
219	M380B		Yes	Default	None
220	M126		Yes		None
221	M77		Yes		None
222	M54_1		Yes		None
223	M307A		Yes		None
224	M239		Yes		None
225	M240		Yes		None
226	M310		Yes		None
227	M311		Yes		None
228	M306		Yes		None
229	M288		Yes		None
230	M286		Yes		None
231	M287		Yes		None
232	M313A		Yes		None
233	M290A		Yes		None
234	M329		Yes		None
235	M335		Yes		None
236	M219		Yes		None
237	M220		Yes		None
238	M221		Yes		None
239	M245		Yes		None
240	M246		Yes		None
241	M261		Yes		None
242	M268A		Yes		None
243	M291A		Yes		None
244	M292A		Yes		None
245	M316		Yes		None
246	M317		Yes		None
247	M332B		Yes		None
248	M314A		Yes		None
249	M339		Yes		None
250	M74C		Yes		None
251	M66_1		Yes		None
252	M128		Yes		None

Member Advanced Data (Continued)

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
253	M127		Yes		None
254	M79		Yes		None
255	M78		Yes		None
256	M85		Yes		None
257	M134		Yes		None
258	M133		Yes		None
259	M132		Yes		None
260	M131		Yes		None
261	M130		Yes		None
262	M84		Yes		None
263	M31_1		Yes		None
264	M33_1		Yes		None
265	M34A		Yes		None
266	M60_1		Yes		None
267	M61_1		Yes		None
268	M62_1		Yes		None
269	M80		Yes		None
270	M81		Yes		None
271	M83		Yes		None
272	M129		Yes		None
273	M82		Yes		None
274	M320A		Yes		None
275	M321A		Yes		None
276	M322A		Yes		None
277	M331		Yes		None
278	M222		Yes		None
279	M333		Yes		None
280	M334		Yes		None
281	M223		Yes		None
282	M224		Yes		None
283	M319A		Yes		None
284	M332		Yes		None
285	M318A		Yes		None
286	M291		Yes		None
287	M316A		Yes		None
288	M315A		Yes		None
289	M299		Yes		None
290	M298		Yes		None
291	M297		Yes		None
292	M295		Yes		None
293	M294		Yes		None
294	M293		Yes		None
295	M292		Yes		None
296	M290		Yes		None
297	M289		Yes		None
298	M225		Yes		None
299	M317A		Yes		None
300	M226		Yes		None
301	M295A		Yes		None
302	M228		Yes		None
303	M299A		Yes		None
304	M301A		Yes		None
305	M321		Yes		None
306	M303A		Yes		None
307	M318		Yes		None
308	M338		Yes		None
309	M337		Yes		None
310	M335A		Yes		None
311	M227		Yes		None
312	M334A		Yes		None
313	M325A		Yes		None
314	M324A		Yes		None
315	M323A		Yes		None
316	M322		Yes		None
317	M319		Yes		None

Member Advanced Data (Continued)

	Label	I Release	Physical	Deflection Ratio Options	Seismic DR
318	M298A		Yes		None
319	M297A		Yes		None
320	M302A		Yes		None
321	M294A		Yes		None
322	M230		Yes		None
323	M231		Yes		None
324	M232		Yes		None
325	M247		Yes		None
326	M248		Yes		None
327	M249		Yes		None
328	M250		Yes		None
329	M251		Yes		None
330	M252		Yes		None
331	M253		Yes		None
332	M296A		Yes		None
333	M320		Yes		None
334	M254		Yes		None
335	M263		Yes		None
336	M264		Yes		None
337	M266A		Yes		None
338	M267A		Yes		None
339	M293A		Yes		None
340	M237		Yes		None
341	M304		Yes		None
342	M303		Yes		None
343	M238		Yes		None
344	M307		Yes		None
345	M308		Yes		None
346	M309		Yes		None
347	M236		Yes		None
348	M305		Yes		None
349	M235		Yes		None
350	M233		Yes		None
351	M306A		Yes		None
352	M305A		Yes		None
353	M300		Yes		None
354	M301		Yes		None
355	M304A		Yes		None
356	M234		Yes		None
357	M302		Yes		None
358	M284		Yes		None
359	M285		Yes		None
360	M323		Yes		None
361	M324		Yes		None
362	M330		Yes		None
363	M332A		Yes		None
364	M216		Yes		None
365	M327A		Yes		None
366	M333A		Yes		None
367	M218		Yes		None
368	M255		Yes		None
369	M256		Yes		None
370	M262		Yes		None
371	M265A		Yes		None
372	M287A		Yes		None
373	M288A		Yes		None
374	M336		Yes		None
375	M289A		Yes		None
376	M326A		Yes		None
377	M217		Yes		None
378	M283		Yes		None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	K y-y	K z-z	Function
1	M357	PIPE_2.5	120			Lbyy			Lateral
2	M374	PIPE_2.5	120			Lbyy			Lateral
3	M387	PIPE_2.5	120			Lbyy			Lateral
4	M373	PIPE_2.5	120			Lbyy			Lateral
5	M384	PIPE_2.5	120			Lbyy			Lateral
6	M369	PIPE_2.5	120			Lbyy			Lateral
7	M354	PIPE_2.5	120			Lbyy			Lateral
8	M393	PIPE_2.5	120			Lbyy			Lateral
9	M390	PIPE_2.5	120			Lbyy			Lateral
10	M361	PIPE_2.5	120			Lbyy			Lateral
11	M368	PIPE_2.5	120			Lbyy			Lateral
12	M416	PIPE_2.5	120			Lbyy			Lateral
13	M377	PIPE_2.0	150			Lbyy	0.65	0.65	Lateral
14	M146A	PIPE_3.0	150			Lbyy	0.65	0.65	Lateral
15	M177	PIPE_3.0	150			Lbyy	0.65	0.65	Lateral
16	M182	PIPE_3.0	150			Lbyy	0.65	0.65	Lateral
17	M409	PIPE_2.0	150			Lbyy	0.65	0.65	Lateral
18	M378	PIPE_2.0	150			Lbyy	0.65	0.65	Lateral
19	M122	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
20	M76	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
21	M125	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
22	M124	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
23	M123	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
24	M75	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
25	M45A	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
26	M68_1	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
27	M74B	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
28	M75B	L3X3X6	28.63	Segment	Segment	Lbyy	0.65	0.65	Lateral
29	M73	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
30	M74	L3X3X6	34.973	Segment	Segment	Lbyy	0.65	0.65	Lateral
31	M381A	L2.5x2.5x4	25.462			Lbyy			Lateral
32	M379B	L2.5x2.5x4	25.462			Lbyy			Lateral
33	M380B	L2.5x2.5x4	25.462			Lbyy			Lateral
34	M126	HSS4X3X4	50.932			Lbyy	1	1	Lateral
35	M77	HSS4X3X4	50.932			Lbyy	1	1	Lateral
36	M54_1	HSS4X3X4	50.932			Lbyy	1	1	Lateral
37	M307A	3/8 x 5/8	4.766			Lbyy	0.65	0.65	Lateral
38	M239	3/8 x 5/8	3.452			Lbyy	0.65	0.65	Lateral
39	M240	3/8 x 5/8	4.766			Lbyy	0.65	0.65	Lateral
40	M310	3/8 x 5/8	3.452			Lbyy	0.65	0.65	Lateral
41	M311	3/8 x 5/8	4.766			Lbyy	0.65	0.65	Lateral
42	M306	3/8 x 5/8	3.452			Lbyy	0.65	0.65	Lateral
43	M288	3/8 x 4	8.906			Lbyy	0.65	0.65	Lateral
44	M286	3/8 x 4	12.543			Lbyy	0.65	0.65	Lateral
45	M287	3/8 x 4	7.998			Lbyy	0.65	0.65	Lateral
46	M313A	3/8 x 4	11.5			Lbyy	0.65	0.65	Lateral
47	M290A	3/8 x 4	12.543			Lbyy	0.65	0.65	Lateral
48	M329	3/8 x 4	8.974			Lbyy	0.65	0.65	Lateral
49	M335	3/8 x 4	8.886			Lbyy	0.65	0.65	Lateral
50	M219	3/8 x 4	12.543			Lbyy	0.65	0.65	Lateral
51	M220	3/8 x 4	7.998			Lbyy	0.65	0.65	Lateral
52	M221	3/8 x 4	8.906			Lbyy	0.65	0.65	Lateral
53	M245	3/8 x 4	11.5			Lbyy	0.65	0.65	Lateral
54	M246	3/8 x 4	11			Lbyy	0.65	0.65	Lateral
55	M261	3/8 x 4	8.974			Lbyy	0.65	0.65	Lateral
56	M268A	3/8 x 4	8.886			Lbyy	0.65	0.65	Lateral
57	M291A	3/8 x 4	7.998			Lbyy	0.65	0.65	Lateral
58	M292A	3/8 x 4	8.906			Lbyy	0.65	0.65	Lateral
59	M316	3/8 x 4	11.5			Lbyy	0.65	0.65	Lateral
60	M317	3/8 x 4	11			Lbyy	0.65	0.65	Lateral
61	M332B	3/8 x 4	8.974			Lbyy	0.65	0.65	Lateral
62	M314A	3/8 x 4	11			Lbyy	0.65	0.65	Lateral
63	M339	3/8 x 4	8.886			Lbyy	0.65	0.65	Lateral
64	M74C	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral
65	M66_1	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	K y-y	K z-z	Function
66	M128	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral
67	M127	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral
68	M79	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral
69	M78	3/8 x 3	7.261			Lbyy	0.65	0.65	Lateral
70	M85	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
71	M134	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
72	M133	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
73	M132	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
74	M131	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
75	M130	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
76	M84	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
77	M31_1	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
78	M33_1	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
79	M34A	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
80	M60_1	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
81	M61_1	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
82	M62_1	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
83	M80	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
84	M81	3/8 x 2 3/8 "	13.486	6	6	Lbyy	0.65	0.65	Lateral
85	M83	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
86	M129	3/8 x 2 3/8 "	19.907	6	6	Lbyy	0.65	0.65	Lateral
87	M82	3/8 x 2 3/8 "	7	6	6	Lbyy	0.65	0.65	Lateral
88	M320A	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
89	M321A	3/8 x 1"	15.171			Lbyy	0.65	0.65	Lateral
90	M322A	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
91	M331	3/8 x 1"	9.128			Lbyy	0.65	0.65	Lateral
92	M222	3/8 x 1"	12.278			Lbyy	0.65	0.65	Lateral
93	M333	3/8 x 1"	8.699			Lbyy	0.65	0.65	Lateral
94	M334	3/8 x 1"	8.886			Lbyy	0.65	0.65	Lateral
95	M223	3/8 x 1"	7.776			Lbyy	0.65	0.65	Lateral
96	M224	3/8 x 1"	8.619			Lbyy	0.65	0.65	Lateral
97	M319A	3/8 x 1"	15.526			Lbyy	0.65	0.65	Lateral
98	M332	3/8 x 1"	9.103			Lbyy	0.65	0.65	Lateral
99	M318A	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
100	M291	3/8 x 1"	8.619			Lbyy	0.65	0.65	Lateral
101	M316A	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
102	M315A	3/8 x 1"	11.484			Lbyy	0.65	0.65	Lateral
103	M299	3/8 x 1"	10.462			Lbyy	0.65	0.65	Lateral
104	M298	3/8 x 1"	8.633			Lbyy	0.65	0.65	Lateral
105	M297	3/8 x 1"	12.161			Lbyy	0.65	0.65	Lateral
106	M295	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
107	M294	3/8 x 1"	8.771			Lbyy	0.65	0.65	Lateral
108	M293	3/8 x 1"	7.998			Lbyy	0.65	0.65	Lateral
109	M292	3/8 x 1"	12.543			Lbyy	0.65	0.65	Lateral
110	M290	3/8 x 1"	7.776			Lbyy	0.65	0.65	Lateral
111	M289	3/8 x 1"	12.278			Lbyy	0.65	0.65	Lateral
112	M225	3/8 x 1"	12.543			Lbyy	0.65	0.65	Lateral
113	M317A	3/8 x 1"	11.5			Lbyy	0.65	0.65	Lateral
114	M226	3/8 x 1"	7.998			Lbyy	0.65	0.65	Lateral
115	M295A	3/8 x 1"	8.619			Lbyy	0.65	0.65	Lateral
116	M228	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
117	M299A	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
118	M301A	3/8 x 1"	12.161			Lbyy	0.65	0.65	Lateral
119	M321	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
120	M303A	3/8 x 1"	10.462			Lbyy	0.65	0.65	Lateral
121	M318	3/8 x 1"	11.484			Lbyy	0.65	0.65	Lateral
122	M338	3/8 x 1"	8.886			Lbyy	0.65	0.65	Lateral
123	M337	3/8 x 1"	8.699			Lbyy	0.65	0.65	Lateral
124	M335A	3/8 x 1"	9.103			Lbyy	0.65	0.65	Lateral
125	M227	3/8 x 1"	8.771			Lbyy	0.65	0.65	Lateral
126	M334A	3/8 x 1"	9.128			Lbyy	0.65	0.65	Lateral
127	M325A	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
128	M324A	3/8 x 1"	15.171			Lbyy	0.65	0.65	Lateral
129	M323A	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
130	M322	3/8 x 1"	15.526			Lbyy	0.65	0.65	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	K y-y	K z-z	Function
131	M319	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
132	M298A	3/8 x 1"	8.771			Lbyy	0.65	0.65	Lateral
133	M297A	3/8 x 1"	7.998			Lbyy	0.65	0.65	Lateral
134	M302A	3/8 x 1"	8.633			Lbyy	0.65	0.65	Lateral
135	M294A	3/8 x 1"	7.776			Lbyy	0.65	0.65	Lateral
136	M230	3/8 x 1"	12.161			Lbyy	0.65	0.65	Lateral
137	M231	3/8 x 1"	8.633			Lbyy	0.65	0.65	Lateral
138	M232	3/8 x 1"	10.462			Lbyy	0.65	0.65	Lateral
139	M247	3/8 x 1"	11.484			Lbyy	0.65	0.65	Lateral
140	M248	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
141	M249	3/8 x 1"	11.5			Lbyy	0.65	0.65	Lateral
142	M250	3/8 x 1"	11			Lbyy	0.65	0.65	Lateral
143	M251	3/8 x 1"	15.526			Lbyy	0.65	0.65	Lateral
144	M252	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
145	M253	3/8 x 1"	15.171			Lbyy	0.65	0.65	Lateral
146	M296A	3/8 x 1"	12.543			Lbyy	0.65	0.65	Lateral
147	M320	3/8 x 1"	11.5			Lbyy	0.65	0.65	Lateral
148	M254	3/8 x 1"	10.449			Lbyy	0.65	0.65	Lateral
149	M263	3/8 x 1"	9.128			Lbyy	0.65	0.65	Lateral
150	M264	3/8 x 1"	9.103			Lbyy	0.65	0.65	Lateral
151	M266A	3/8 x 1"	8.699			Lbyy	0.65	0.65	Lateral
152	M267A	3/8 x 1"	8.886			Lbyy	0.65	0.65	Lateral
153	M293A	3/8 x 1"	12.278			Lbyy	0.65	0.65	Lateral
154	M237	3/4 x 3/8	4.437			Lbyy	0.65	0.65	Lateral
155	M304	3/4 x 3/8	4.437			Lbyy	0.65	0.65	Lateral
156	M303	3/4 x 3/8	7.145			Lbyy	0.65	0.65	Lateral
157	M238	3/4 x 3/8	5.846			Lbyy	0.65	0.65	Lateral
158	M307	3/4 x 3/8	7.145			Lbyy	0.65	0.65	Lateral
159	M308	3/4 x 3/8	4.437			Lbyy	0.65	0.65	Lateral
160	M309	3/4 x 3/8	5.846			Lbyy	0.65	0.65	Lateral
161	M236	3/4 x 3/8	7.145			Lbyy	0.65	0.65	Lateral
162	M305	3/4 x 3/8	5.846			Lbyy	0.65	0.65	Lateral
163	M235	.875 x .375	5.606			Lbyy	0.65	0.65	Lateral
164	M233	.875 x .375	6.999			Lbyy	0.65	0.65	Lateral
165	M306A	.875 x .375	5.606			Lbyy	0.65	0.65	Lateral
166	M305A	.875 x .375	8.719			Lbyy	0.65	0.65	Lateral
167	M300	.875 x .375	6.999			Lbyy	0.65	0.65	Lateral
168	M301	.875 x .375	8.719			Lbyy	0.65	0.65	Lateral
169	M304A	.875 x .375	6.999			Lbyy	0.65	0.65	Lateral
170	M234	.875 x .375	8.719			Lbyy	0.65	0.65	Lateral
171	M302	.875 x .375	5.606			Lbyy	0.65	0.65	Lateral
172	M284	.5" x 4"	7.776			Lbyy	0.65	0.65	Lateral
173	M285	.5" x 4"	8.619			Lbyy	0.65	0.65	Lateral
174	M323	.5" x 4"	11.5			Lbyy	0.65	0.65	Lateral
175	M324	.5" x 4"	11			Lbyy	0.65	0.65	Lateral
176	M330	.5" x 4"	9.128			Lbyy	0.65	0.65	Lateral
177	M332A	.5" x 4"	8.699			Lbyy	0.65	0.65	Lateral
178	M216	.5" x 4"	12.278			Lbyy	0.65	0.65	Lateral
179	M327A	.5" x 4"	11			Lbyy	0.65	0.65	Lateral
180	M333A	.5" x 4"	9.128			Lbyy	0.65	0.65	Lateral
181	M218	.5" x 4"	8.619			Lbyy	0.65	0.65	Lateral
182	M255	.5" x 4"	11.5			Lbyy	0.65	0.65	Lateral
183	M256	.5" x 4"	11			Lbyy	0.65	0.65	Lateral
184	M262	.5" x 4"	9.128			Lbyy	0.65	0.65	Lateral
185	M265A	.5" x 4"	8.699			Lbyy	0.65	0.65	Lateral
186	M287A	.5" x 4"	12.278			Lbyy	0.65	0.65	Lateral
187	M288A	.5" x 4"	7.776			Lbyy	0.65	0.65	Lateral
188	M336	.5" x 4"	8.699			Lbyy	0.65	0.65	Lateral
189	M289A	.5" x 4"	8.619			Lbyy	0.65	0.65	Lateral
190	M326A	.5" x 4"	11.5			Lbyy	0.65	0.65	Lateral
191	M217	.5" x 4"	7.776			Lbyy	0.65	0.65	Lateral
192	M283	.5" x 4"	12.278			Lbyy	0.65	0.65	Lateral

Node Coordinates

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
1	N74A	0	92.037	-2.499	
2	N75A	0	41.105	-2.499	
3	N77_1	0	79.5995	-2.499	
4	N79_1	9	79.5995	-2.499	
5	N27_1	0	66.6995	-2.499	
6	N28_1	0	53.410387	-2.499	
7	N29_1	21.907	66.6995	-2.499	
8	N31_1	15.486	53.4675	-2.499	
9	N35_1	2	79.5995	-2.499	
10	N38_1	2	66.6995	-2.499	
11	N39_1	2	53.4675	-2.499	
12	N41_1	12.4142	79.5995	-2.499	
13	N41A	25.317	66.6995	-2.499	
14	N42_1	18.90021	53.4675	-2.499	
15	N47_1	0	90.01371	-2.499	
16	N49_1	0	43.7103	-2.499	
17	N50_1	2	90.01371	-2.499	
18	N52_1	26.731121	65.28529	-2.499	
19	N52A	2	43.7103	-2.499	
20	N64_1	-9	79.5995	-2.499	
21	N67_1	-21.907	66.6995	-2.499	
22	N68_1	-15.486	53.4675	-2.499	
23	N69_1	-2	79.5995	-2.499	
24	N70_1	-2	66.6995	-2.499	
25	N71_1	-2	53.4675	-2.499	
26	N72_1	-12.4142	79.5995	-2.499	
27	N73_1	-25.317	66.6995	-2.499	
28	N74_1	-18.90021	53.4675	-2.499	
29	N78_1	-2	90.01371	-2.499	
30	N79A	-26.731121	65.28529	-2.499	
31	N80_1	-2	43.7103	-2.499	
32	N60_1	-26.79403	58.025	-2.499	
33	N62_1	26.79403	58.025	-2.499	
34	N52C	-9.647	82.367546	-2.499	
35	N60A	79.706299	-46.018453	-2.499	
36	N61_1	35.597894	-20.552453	-2.499	
37	N63_1	68.935108	-39.799703	-2.499	
38	N64A	64.43508	-47.593982	-2.499	
39	N65_1	57.763381	-33.349703	-2.499	
40	N66_1	46.304133	-26.733703	-2.499	
41	N67A	46.809852	-52.321772	-2.499	
42	N68A	38.561104	-40.145023	-2.499	
43	N69A	67.93508	-41.531804	-2.499	
44	N70A	56.763352	-35.081804	-2.499	
45	N71A	45.304104	-28.465804	-2.499	
46	N72A	62.72798	-50.550766	-2.499	
47	N73B	45.104852	-55.274919	-2.499	
48	N74B	36.853999	-43.101815	-2.499	
49	N75_1	77.954079	-45.006808	-2.499	
50	N76A	37.85415	-21.855103	-2.499	
51	N77A	76.95405	-46.738909	-2.499	
52	N78A	43.17305	-55.792478	-2.499	
53	N79B	36.854121	-23.587204	-2.499	
54	N80A	73.43508	-32.005525	-2.499	
55	N81_1	68.716852	-14.377735	-2.499	
56	N82_1	54.047104	-13.322484	-2.499	
57	N83_1	69.93508	-38.067703	-2.499	
58	N84_1	58.763352	-31.617703	-2.499	
59	N85_1	47.304104	-25.001703	-2.499	
60	N86_1	75.14218	-29.048741	-2.499	
61	N87_1	70.421852	-11.424588	-2.499	
62	N88_1	55.754209	-10.365692	-2.499	
63	N89_1	78.95405	-43.274808	-2.499	
64	N90_1	69.904171	-9.492819	-2.499	
65	N91_1	38.854121	-20.123103	-2.499	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
66	N93_1	63.648029	-5.808193	-2.499	
67	N94_1	36.853999	-52.216814	-2.499	
68	N109_1	36.854012	-49.442204	0	
69	N110_1	66.508778	-49.538324	0	
70	N111_1	36.854012	-49.442204	-2.499	
71	N112_1	36.854012	-55.692572	0	
72	N113_1	66.508778	-49.538323	-2.499	
73	N114_1	66.508778	-55.692572	0	
74	N117_1	-79.706271	-46.018234	-2.499	
75	N118_1	-35.597865	-20.552234	-2.499	
76	N120_1	-68.93508	-39.799484	-2.499	
77	N121_1	-73.43508	-32.005255	-2.499	
78	N122_1	-57.763352	-33.349484	-2.499	
79	N123_1	-46.304104	-26.733484	-2.499	
80	N124_1	-68.716852	-14.377465	-2.499	
81	N125_1	-54.047104	-13.322214	-2.499	
82	N126_1	-69.93508	-38.067433	-2.499	
83	N127_1	-58.763352	-31.617433	-2.499	
84	N128_1	-47.304104	-25.001433	-2.499	
85	N129_1	-75.14218	-29.048471	-2.499	
86	N130_1	-70.421852	-11.424318	-2.499	
87	N131_1	-55.754209	-10.365422	-2.499	
88	N132_1	-77.95405	-45.006589	-2.499	
89	N133_1	-37.854121	-21.854883	-2.499	
90	N134_1	-78.95405	-43.274538	-2.499	
91	N135_1	-69.904171	-9.492549	-2.499	
92	N136_1	-38.854121	-20.122833	-2.499	
93	N137_1	-64.43508	-47.593712	-2.499	
94	N138_1	-46.809852	-52.321502	-2.499	
95	N139_1	-38.561104	-40.144753	-2.499	
96	N140_1	-67.93508	-41.531534	-2.499	
97	N141_1	-56.763352	-35.081534	-2.499	
98	N142_1	-45.304104	-28.465534	-2.499	
99	N143_1	-62.72798	-50.550496	-2.499	
100	N144_1	-45.104852	-55.274649	-2.499	
101	N145_1	-36.853999	-43.101545	-2.499	
102	N146_1	-76.95405	-46.738639	-2.499	
103	N147_1	-43.17305	-55.792208	-2.499	
104	N148_1	-36.854121	-23.586934	-2.499	
105	N149_1	-36.854012	-49.441934	0	
106	N150_1	-36.853999	-52.216544	-2.499	
107	N151_1	-63.648029	-5.807923	-2.499	
108	N152_1	-66.508778	-49.538054	0	
109	N162	-36.854012	-49.441934	-2.499	
110	N163	-36.854012	-55.692302	0	
111	N164	-66.508778	-49.538053	-2.499	
112	N165	-66.508778	-55.692302	0	
113	N167	-76.155778	-32.828959	0	
114	N152A	24.391141	56.637706	0	
115	N153A	9.647	82.367546	0	
116	N154A	24.391141	56.637706	-2.499	
117	N155A	29.804118	59.76289	0	
118	N156A	9.647	82.367546	-2.499	
119	N157A	14.97679	85.444575	0	
120	N158A	61.245153	-7.195509	0	
121	N159A	76.155778	-32.829229	0	
122	N160A	61.245153	-7.195509	-2.499	
123	N161A	66.65813	-4.070325	0	
124	N162A	76.155777	-32.82923	-2.499	
125	N163A	81.485485	-29.752055	0	
126	N166	-61.245153	-7.195239	0	
127	N168	-61.245153	-7.195239	-2.499	
128	N169	-66.65813	-4.070055	0	
129	N170	-76.155777	-32.82896	-2.499	
130	N171	-81.485599	-29.751989	0	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
131	N172A	-24.391141	56.637706	0	
132	N173A	-9.647	82.367546	0	
133	N174	-24.391141	56.637707	-2.499	
134	N175	-29.804118	59.76289	0	
135	N177	-14.97679	85.444575	0	
136	N192	-75.000107	-55.692302	0	
137	N193	75.000107	-55.692572	0	
138	N195	85.731178	-37.105812	0	
139	N196A	10.731071	92.798377	0	
140	N204	-10.731071	92.798377	0	
141	N205	-85.731178	-37.105542	0	
142	N212	0	64	-2.499	
143	N260	-55.425626	-32	-2.499	
144	N307	55.425626	-32	-2.499	
145	N309	29.481151	60.322221	0	
146	N310	48.231123	27.846252	0	
147	N261A	24.681397	-14.249811	-4.249	
148	N262	37.85423	-21.85515	-4.249	
149	N263	53.599604	-30.945746	-4.249	
150	N264	64.951905	-37.5	-4.249	
151	N265	24.681397	-14.249811	-16.185	
152	N266	24.681397	-14.249811	-4.999	
153	N267	32.14589	-18.559438	-4.249	
154	N268	38.880003	-22.44738	-4.249	
155	N269	44.663773	-25.786642	-4.249	
156	N270	49.513387	-28.586568	-4.249	
157	N271	57.046946	-32.93607	-4.249	
158	N272	59.743176	-34.492739	-4.249	
159	N273	32.14589	-18.559438	-4.999	
160	N274	38.880003	-22.44738	-4.999	
161	N275	44.663773	-25.786642	-4.999	
162	N276	49.513387	-28.586568	-4.999	
163	N277	53.599604	-30.945746	-4.999	
164	N278	57.046946	-32.93607	-4.999	
165	N279	59.743176	-34.492739	-4.999	
166	N280	24.667353	-14.241703	-15.447725	
167	N281	38.880003	-22.44738	-11.998342	
168	N282	32.231655	-18.608954	-14.365243	
169	N283	44.796061	-25.863018	-11.33698	
170	N284	39.012399	-22.523819	-12.730954	
171	N285	49.645706	-28.662962	-10.168122	
172	N286	53.731878	-31.022114	-9.183276	
173	N287	57.179182	-33.012416	-8.35241	
174	N288	59.875384	-34.569069	-7.702574	
175	N289	32.099057	-18.532399	-13.631514	
176	N290	44.663773	-25.786641	-10.604963	
177	N291	49.513388	-28.586568	-9.435935	
178	N292	53.599604	-30.945746	-8.451337	
179	N293	57.046946	-32.93607	-7.620679	
180	N294	59.743177	-34.492739	-6.971005	
181	N295A	64.951905	-37.5	-4.999	
182	N296A	64.762922	-37.390891	-5.752262	
183	N297A	64.786703	-37.404621	-6.518851	
184	N298A	14.722104	-8.499811	-4.249	
185	N299A	14.722104	-8.499811	-16.185	
186	N300	14.722104	-8.499811	-4.999	
187	N301A	14.722104	-8.499811	-15.447547	
188	N302	5.196152	-3	-4.249	
189	N303	5.196152	-3	-16.185	
190	N304	5.196152	-3	-4.999	
191	N305	5.196152	-3	-15.447547	
192	N306	55.425626	-32	-4.249	
193	N307B	62.475492	-36.070242	-6.304813	
194	N308A	62.475493	-36.070243	-4.999	
195	N213	0	28.499622	-4.249	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
196	N214	0	43.7103	-4.249	
197	N215	0	61.891492	-4.249	
198	N216	0	75	-4.249	
199	N217	0	28.499622	-16.185	
200	N218	0	28.499622	-4.999	
201	N219	0	37.118877	-4.249	
202	N220	0	44.89476	-4.249	
203	N221	0	51.573283	-4.249	
204	N222	0	57.173135	-4.249	
205	N223	0	65.872139	-4.249	
206	N224	0	68.985478	-4.249	
207	N225	0	37.118877	-4.999	
208	N226	0	44.89476	-4.999	
209	N227	0	51.573283	-4.999	
210	N228	0	57.173135	-4.999	
211	N229	0	61.891492	-4.999	
212	N230	0	65.872139	-4.999	
213	N231	0	68.985478	-4.999	
214	N232	0	28.483406	-15.447725	
215	N233	0	44.89476	-11.998342	
216	N234	0	37.217909	-14.365243	
217	N235	0	51.726035	-11.33698	
218	N236	0	45.047638	-12.730954	
219	N237	0	57.325924	-10.168122	
220	N238	0	62.044229	-9.183276	
221	N239	0	66.024832	-8.35241	
222	N240	0	69.138138	-7.702574	
223	N241	0	37.064798	-13.631514	
224	N242	0	51.573283	-10.604963	
225	N243	0	57.173135	-9.435935	
226	N244	0	61.891492	-8.451337	
227	N245	0	65.872139	-7.620679	
228	N246	0	68.985478	-6.971005	
229	N247	0	75	-4.999	
230	N248	0	74.781781	-5.752262	
231	N249	0	74.809241	-6.518851	
232	N250	0	16.999622	-4.249	
233	N251	0	16.999622	-16.185	
234	N252	0	16.999622	-4.999	
235	N253	0	16.999622	-15.447547	
236	N254	0	6	-4.249	
237	N255	0	6	-16.185	
238	N256	0	6	-4.999	
239	N257	0	6	-15.447547	
240	N258	0	64	-4.249	
241	N259	0	72.140485	-6.304813	
242	N260A	0	72.140485	-4.999	
243	N261	-24.681397	-14.249811	-4.249	
244	N262A	-37.85423	-21.85515	-4.249	
245	N263A	-53.599604	-30.945746	-4.249	
246	N264A	-64.951905	-37.5	-4.249	
247	N265A	-24.681397	-14.249811	-16.185	
248	N266A	-24.681397	-14.249811	-4.999	
249	N267A	-32.14589	-18.559438	-4.249	
250	N268A	-38.880003	-22.44738	-4.249	
251	N269A	-44.663773	-25.786642	-4.249	
252	N270A	-49.513387	-28.586568	-4.249	
253	N271A	-57.046946	-32.93607	-4.249	
254	N272A	-59.743176	-34.492739	-4.249	
255	N273A	-32.14589	-18.559438	-4.999	
256	N274A	-38.880003	-22.44738	-4.999	
257	N275A	-44.663773	-25.786642	-4.999	
258	N276A	-49.513387	-28.586568	-4.999	
259	N277A	-53.599604	-30.945746	-4.999	
260	N278A	-57.046946	-32.93607	-4.999	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
261	N279A	-59.743176	-34.492739	-4.999	
262	N280A	-24.667353	-14.241703	-15.447725	
263	N281A	-38.880003	-22.44738	-11.998342	
264	N282A	-32.231655	-18.608954	-14.365243	
265	N283A	-44.796061	-25.863018	-11.33698	
266	N284A	-39.012399	-22.523819	-12.730954	
267	N285A	-49.645706	-28.662962	-10.168122	
268	N286A	-53.731878	-31.022114	-9.183276	
269	N287A	-57.179182	-33.012416	-8.35241	
270	N288A	-59.875384	-34.569069	-7.702574	
271	N289A	-32.099057	-18.532399	-13.631514	
272	N290A	-44.663773	-25.786641	-10.604963	
273	N291A	-49.513388	-28.586568	-9.435935	
274	N292A	-53.599604	-30.945746	-8.451337	
275	N293A	-57.046946	-32.93607	-7.620679	
276	N294A	-59.743177	-34.492739	-6.971005	
277	N295	-64.951905	-37.5	-4.999	
278	N296	-64.762922	-37.390891	-5.752262	
279	N297	-64.786703	-37.404621	-6.518851	
280	N298	-14.722104	-8.499811	-4.249	
281	N299	-14.722104	-8.499811	-16.185	
282	N300A	-14.722104	-8.499811	-4.999	
283	N301	-14.722104	-8.499811	-15.447547	
284	N302A	-5.196152	-3	-4.249	
285	N303A	-5.196152	-3	-16.185	
286	N304A	-5.196152	-3	-4.999	
287	N305A	-5.196152	-3	-15.447547	
288	N306A	-55.425626	-32	-4.249	
289	N307C	-62.475492	-36.070242	-6.304813	
290	N308B	-62.475493	-36.070243	-4.999	
291	N307D	0	0	-3.999	
292	N308C	-9.473817	48.025269	-2.499	
293	N309A	9.473817	48.025269	-2.499	
294	N310A	46.327902	-15.808071	-2.499	
295	N311A	36.854084	-32.217204	-2.499	
296	N312A	-36.854084	-32.216934	-2.499	
297	N313	-46.327902	-15.807801	-2.499	
298	N348	66.981178	-4.62986	0	
299	N351	-66.981151	-4.629685	0	
300	N352	-48.231123	27.846252	0	
301	N354	-29.481013	60.322331	0	
302	N357	37.5	-55.692536	0	
303	N358	0	-55.692504	0	
304	N360	-37.500165	-55.692472	0	
305	N474	72.000107	-55.692572	0	
306	N477	72.000107	-55.692566	84	
307	N498	72.000107	-58.692566	102	
308	N510	72.000107	-58.692566	-18	
309	N346	72.000107	-58.692566	0	
310	N347	72.000107	-58.692566	84	
311	N410	59.743176	-34.492739	-2.499	
312	N411	0	68.985478	-2.499	
313	N412	-59.743176	-34.492739	-2.499	
314	N406	-74.999893	-55.692307	84	
315	N407	75.000107	-55.692566	84	
316	N408	85.730899	-37.105659	84	
317	N409	10.731124	92.798281	84	
318	N410A	-10.731006	92.797966	84	
319	N411A	-85.731231	-37.105715	84	
320	N415A	12.731124	89.33418	84	
321	N416	-12.731006	89.333865	84	
322	N414	-83.731231	-33.641613	84	
323	N415B	-70.999893	-55.692307	84	
324	N414A	71.000107	-55.692566	84	
325	N415C	83.730899	-33.641557	84	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
326	N404	-71.999893	-58.692566	90	
327	N407A	-71.999893	-58.692566	-6	
328	N344	-71.999893	-58.692566	84	
329	N345	-71.999893	-55.692566	84	
330	N349	-71.999893	-58.692566	-18	
331	N355	-71.999893	-58.692566	0	
332	N356	-71.999893	-58.692566	102	
333	N363	14.8292	91.700205	-18	
334	N364	14.8292	91.700205	84	
335	N365	86.8292	-33.007453	-18	
336	N373	86.8292	-33.007453	102	
337	N377	86.8292	-33.007453	84	
338	N379	14.8292	91.700205	0	
339	N380	86.8292	-33.007453	-6	
340	N381	86.8292	-33.007453	90	
341	N382	14.8292	91.700205	102	
342	N392	86.8292	-33.007453	0	
343	N359	-71.999893	-55.692572	0	
344	N395	-86.829307	-33.007639	-18	
345	N396	-86.829307	-33.007639	84	
346	N397	-14.829307	91.70002	-18	
347	N413	-14.829307	91.70002	102	
348	N419	-14.829307	91.70002	84	
349	N366	12.231119	90.200202	84	
350	N421	-86.829307	-33.007639	0	
351	N367	12.231124	90.200205	0	
352	N422	-14.829307	91.70002	-6	
353	N423	-14.829307	91.70002	90	
354	N424	-86.829307	-33.007639	102	
355	N434	-14.829307	91.70002	0	
356	N383	-17.000107	-58.692566	0	
357	N374	84.230904	-34.50758	84	
358	N384	36.999893	-58.692566	84	
359	N385	36.999893	-58.692566	-18	
360	N386	-17.000107	-58.692566	102	
361	N387	36.999893	-55.692566	84	
362	N388	-17.000107	-58.692566	51	
363	N389	36.999893	-58.692566	-6	
364	N390	-17.000107	-58.692566	3	
365	N391	36.999893	-58.692566	102	
366	N394	36.999893	-58.692566	0	
367	N401	-17.000107	-58.692566	-18	
368	N402	-17.000107	-58.692566	84	
369	N403	-17.000107	-55.692566	84	
370	N417	36.999893	-58.692566	90	
371	N418	-17.000107	-58.692566	81	
372	N420	-17.000107	-58.692566	33	
373	N393	84.231043	-34.5075	0	
374	N398	-84.231231	-34.507639	84	
375	N399	-84.231265	-34.507619	0	
376	N415	-12.231231	90.20002	84	
377	N435	-12.231233	90.200021	0	
378	N400	36.999893	-55.692572	0	
379	N405	-17.000107	-55.692572	0	
380	N425	59.329307	14.623759	-18	
381	N426	59.329307	14.623759	84	
382	N427	56.731093	13.123679	84	
383	N428	32.329307	61.38913	0	
384	N429	32.329307	61.38913	84	
385	N430	29.731174	59.889098	84	
386	N431	59.329307	14.623759	0	
387	N432	32.329307	61.38913	-18	
388	N433	29.731211	59.889119	0	
389	N436	32.329307	61.38913	-6	
390	N437	59.329307	14.623759	102	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
391	N438	59.329307	14.623759	51	
392	N439	59.329307	14.623759	3	
393	N440	32.329307	61.38913	102	
394	N441	56.731181	13.12373	0	
395	N442	32.329307	61.38913	90	
396	N443	59.329307	14.623759	81	
397	N444	59.329307	14.623759	33	
398	N445	-42.3292	44.068808	-18	
399	N446	-42.3292	44.068808	84	
400	N447	-39.731124	42.568808	84	
401	N448	-69.3292	-2.696564	0	
402	N449	-69.3292	-2.696564	84	
403	N450	-66.731124	-4.196564	84	
404	N451	-42.3292	44.068808	0	
405	N452	-69.3292	-2.696564	-18	
406	N453	-66.73115	-4.196549	0	
407	N454	-69.3292	-2.696564	-6	
408	N455	-42.3292	44.068808	102	
409	N456	-42.3292	44.068808	51	
410	N457	-42.3292	44.068808	3	
411	N458	-69.3292	-2.696564	102	
412	N459	-39.731138	42.568816	0	
413	N460	-69.3292	-2.696564	90	
414	N461	-42.3292	44.068808	81	
415	N462	-42.3292	44.068808	33	

Node Boundary Conditions

	Y [k/in]	X Rot [k-ft/rad]	X [k/in]	Z Rot [k-ft/rad]	Z [k/in]	Node Label	Y Rot [k-ft/rad]
1						N261A	
2						N265	
3						N298A	
4						N299A	
5	Reaction	Reaction	Reaction	Reaction	Reaction	N302	Reaction
6	Reaction	Reaction	Reaction	Reaction	Reaction	N303	Reaction
7						N213	
8						N217	
9						N250	
10						N251	
11	Reaction	Reaction	Reaction	Reaction	Reaction	N254	Reaction
12	Reaction	Reaction	Reaction	Reaction	Reaction	N255	Reaction
13						N261	
14						N265A	
15						N298	
16						N299	
17	Reaction	Reaction	Reaction	Reaction	Reaction	N302A	Reaction
18	Reaction	Reaction	Reaction	Reaction	Reaction	N303A	Reaction

Basic Load Cases

	BLC Description	Category	Z Gravity	Nodal	Distributed	Area(Member)
1	DEAD LOAD	None	-1	24		18
2	DEAD LOAD ICE	None		24	192	18
3	WIND LOAD (NO ICE) FRONT	None		24	192	
4	WIND LOAD (NO ICE) SIDE	None		24	192	
5	WIND LOAD (ICE) FRONT	None		24	192	
6	WIND LOAD (ICE) SIDE	None		24	192	
7	LIVE LOAD 1	None		1		
8	LIVE LOAD 2	None		1		
9	LIVE LOAD 3	None		1		
10	MAINTENANCE LOAD 1	None		1		
11	MAINTENANCE LOAD 2	None		1		
12	MAINTENANCE LOAD 3	None		1		
13	MAINTENANCE LOAD 4	None		1		
14	BLC 1 Transient Area Loads	None			279	

Basic Load Cases (Continued)

	BLC Description	Category	Z Gravity	Nodal	Distributed	Area(Member)
15	BLC 2 Transient Area Loads	None			279	

Node Loads and Enforced Displacements (BLC 1 : DEAD LOAD)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	Z	-186
2	N389	L	Z	-186
3	N460	L	Z	-186
4	N454	L	Z	-186
5	N442	L	Z	-186
6	N436	L	Z	-186
7	N418	L	Z	-34
8	N388	L	Z	-34
9	N461	L	Z	-34
10	N456	L	Z	-34
11	N443	L	Z	-34
12	N438	L	Z	-34
13	N420	L	Z	-41
14	N390	L	Z	-41
15	N462	L	Z	-41
16	N457	L	Z	-41
17	N444	L	Z	-41
18	N439	L	Z	-41
19	N404	L	Z	-125
20	N407A	L	Z	-125
21	N423	L	Z	-125
22	N422	L	Z	-125
23	N381	L	Z	-125
24	N380	L	Z	-125

Node Loads and Enforced Displacements (BLC 2 : DEAD LOAD ICE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	Z	-231
2	N389	L	Z	-231
3	N460	L	Z	-231
4	N454	L	Z	-231
5	N442	L	Z	-231
6	N436	L	Z	-231
7	N418	L	Z	-36
8	N388	L	Z	-36
9	N461	L	Z	-36
10	N456	L	Z	-36
11	N443	L	Z	-36
12	N438	L	Z	-36
13	N420	L	Z	-38
14	N390	L	Z	-38
15	N462	L	Z	-38
16	N457	L	Z	-38
17	N444	L	Z	-38
18	N439	L	Z	-38
19	N404	L	Z	-186
20	N407A	L	Z	-186
21	N423	L	Z	-186
22	N422	L	Z	-186
23	N381	L	Z	-186
24	N380	L	Z	-186

Node Loads and Enforced Displacements (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	Y	338
2	N389	L	Y	338
3	N460	L	Y	258

Node Loads and Enforced Displacements (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
4	N454	L	Y	258
5	N442	L	Y	258
6	N436	L	Y	258
7	N418	L	Y	69
8	N388	L	Y	69
9	N461	L	Y	35
10	N456	L	Y	35
11	N443	L	Y	35
12	N438	L	Y	35
13	N420	L	Y	73
14	N390	L	Y	73
15	N462	L	Y	39
16	N457	L	Y	39
17	N444	L	Y	39
18	N439	L	Y	39
19	N404	L	Y	322
20	N407A	L	Y	322
21	N423	L	Y	213
22	N422	L	Y	213
23	N381	L	Y	213
24	N380	L	Y	213

Node Loads and Enforced Displacements (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	X	258
2	N389	L	X	258
3	N460	L	X	338
4	N454	L	X	338
5	N442	L	X	338
6	N436	L	X	338
7	N418	L	X	35
8	N388	L	X	35
9	N461	L	X	69
10	N456	L	X	69
11	N443	L	X	69
12	N438	L	X	69
13	N420	L	X	39
14	N390	L	X	39
15	N462	L	X	73
16	N457	L	X	73
17	N444	L	X	73
18	N439	L	X	73
19	N404	L	X	213
20	N407A	L	X	213
21	N423	L	X	322
22	N422	L	X	322
23	N381	L	X	322
24	N380	L	X	322

Node Loads and Enforced Displacements (BLC 5 : WIND LOAD (ICE) FRONT)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	Y	64
2	N389	L	Y	64
3	N460	L	Y	54
4	N454	L	Y	54
5	N442	L	Y	54
6	N436	L	Y	54
7	N418	L	Y	14
8	N388	L	Y	14
9	N461	L	Y	8
10	N456	L	Y	8
11	N443	L	Y	8
12	N438	L	Y	8

Node Loads and Enforced Displacements (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
13	N420	L	Y	15
14	N390	L	Y	15
15	N462	L	Y	9
16	N457	L	Y	9
17	N444	L	Y	9
18	N439	L	Y	9
19	N404	L	Y	61
20	N407A	L	Y	61
21	N423	L	Y	45
22	N422	L	Y	45
23	N381	L	Y	45
24	N380	L	Y	45

Node Loads and Enforced Displacements (BLC 6 : WIND LOAD (ICE) SIDE)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N417	L	X	54
2	N389	L	X	54
3	N460	L	X	64
4	N454	L	X	64
5	N442	L	X	64
6	N436	L	X	64
7	N418	L	X	8
8	N388	L	X	8
9	N461	L	X	14
10	N456	L	X	14
11	N443	L	X	14
12	N438	L	X	14
13	N420	L	X	9
14	N390	L	X	9
15	N462	L	X	15
16	N457	L	X	15
17	N444	L	X	15
18	N439	L	X	15
19	N404	L	X	45
20	N407A	L	X	45
21	N423	L	X	61
22	N422	L	X	61
23	N381	L	X	61
24	N380	L	X	61

Node Loads and Enforced Displacements (BLC 7 : LIVE LOAD 1)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N60A	L	Z	-250

Node Loads and Enforced Displacements (BLC 8 : LIVE LOAD 2)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N117_1	L	Z	-250

Node Loads and Enforced Displacements (BLC 9 : LIVE LOAD 3)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N74A	L	Z	-250

Node Loads and Enforced Displacements (BLC 10 : MAINTENANCE LOAD 1)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N510	L	Z	-500

Node Loads and Enforced Displacements (BLC 11 : MAINTENANCE LOAD 2)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N385	L	Z	-500

Node Loads and Enforced Displacements (BLC 12 : MAINTENANCE LOAD 3)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N401	L	Z	-500

Node Loads and Enforced Displacements (BLC 13 : MAINTENANCE LOAD 4)

	Node Label	L, D, M	Direction	Magnitude [(lb, k-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N349	L	Z	-500

Member Point Loads

No Data to Print...

Member Distributed Loads (BLC 2 : DEAD LOAD ICE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M357	Z	-6	-6	0	%100
2	M374	Z	-6	-6	0	%100
3	M387	Z	-6	-6	0	%100
4	M373	Z	-6	-6	0	%100
5	M384	Z	-6	-6	0	%100
6	M369	Z	-6	-6	0	%100
7	M354	Z	-6	-6	0	%100
8	M393	Z	-6	-6	0	%100
9	M390	Z	-6	-6	0	%100
10	M361	Z	-6	-6	0	%100
11	M368	Z	-6	-6	0	%100
12	M416	Z	-6	-6	0	%100
13	M377	Z	-5	-5	0	%100
14	M146A	Z	-5	-5	0	%100
15	M177	Z	-5	-5	0	%100
16	M182	Z	-5	-5	0	%100
17	M409	Z	-5	-5	0	%100
18	M378	Z	-5	-5	0	%100
19	M122	Z	-5	-5	0	%100
20	M76	Z	-5	-5	0	%100
21	M125	Z	-5	-5	0	%100
22	M124	Z	-5	-5	0	%100
23	M123	Z	-5	-5	0	%100
24	M75	Z	-5	-5	0	%100
25	M45A	Z	-5	-5	0	%100
26	M68_1	Z	-5	-5	0	%100
27	M74B	Z	-5	-5	0	%100
28	M75B	Z	-5	-5	0	%100
29	M73	Z	-5	-5	0	%100
30	M74	Z	-5	-5	0	%100
31	M381A	Z	-5	-5	0	%100
32	M379B	Z	-5	-5	0	%100
33	M380B	Z	-5	-5	0	%100
34	M126	Z	-11	-11	0	%100
35	M77	Z	-11	-11	0	%100
36	M54_1	Z	-11	-11	0	%100
37	M307A	Z	-11	-11	0	%100
38	M239	Z	-11	-11	0	%100
39	M240	Z	-11	-11	0	%100
40	M310	Z	-7	-7	0	%100
41	M311	Z	-7	-7	0	%100
42	M306	Z	-7	-7	0	%100
43	M288	Z	-7	-7	0	%100
44	M286	Z	-7	-7	0	%100
45	M287	Z	-7	-7	0	%100

Member Distributed Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
46	M313A	Z	-7	-7	0	%100
47	M290A	Z	-7	-7	0	%100
48	M329	Z	-7	-7	0	%100
49	M335	Z	-7	-7	0	%100
50	M219	Z	-7	-7	0	%100
51	M220	Z	-7	-7	0	%100
52	M221	Z	-7	-7	0	%100
53	M245	Z	-7	-7	0	%100
54	M246	Z	-7	-7	0	%100
55	M261	Z	-7	-7	0	%100
56	M268A	Z	-7	-7	0	%100
57	M291A	Z	-7	-7	0	%100
58	M292A	Z	-7	-7	0	%100
59	M316	Z	-7	-7	0	%100
60	M317	Z	-7	-7	0	%100
61	M332B	Z	-7	-7	0	%100
62	M314A	Z	-7	-7	0	%100
63	M339	Z	-7	-7	0	%100
64	M74C	Z	-7	-7	0	%100
65	M66_1	Z	-7	-7	0	%100
66	M128	Z	-7	-7	0	%100
67	M127	Z	-7	-7	0	%100
68	M79	Z	-7	-7	0	%100
69	M78	Z	-7	-7	0	%100
70	M85	Z	-6	-6	0	%100
71	M134	Z	-6	-6	0	%100
72	M133	Z	-6	-6	0	%100
73	M132	Z	-6	-6	0	%100
74	M131	Z	-6	-6	0	%100
75	M130	Z	-6	-6	0	%100
76	M84	Z	-6	-6	0	%100
77	M31_1	Z	-6	-6	0	%100
78	M33_1	Z	-6	-6	0	%100
79	M34A	Z	-6	-6	0	%100
80	M60_1	Z	-6	-6	0	%100
81	M61_1	Z	-6	-6	0	%100
82	M62_1	Z	-6	-6	0	%100
83	M80	Z	-6	-6	0	%100
84	M81	Z	-6	-6	0	%100
85	M83	Z	-6	-6	0	%100
86	M129	Z	-6	-6	0	%100
87	M82	Z	-6	-6	0	%100
88	M320A	Z	-4	-4	0	%100
89	M321A	Z	-4	-4	0	%100
90	M322A	Z	-4	-4	0	%100
91	M331	Z	-4	-4	0	%100
92	M222	Z	-4	-4	0	%100
93	M333	Z	-4	-4	0	%100
94	M334	Z	-4	-4	0	%100
95	M223	Z	-4	-4	0	%100
96	M224	Z	-4	-4	0	%100
97	M319A	Z	-4	-4	0	%100
98	M332	Z	-4	-4	0	%100
99	M318A	Z	-4	-4	0	%100
100	M291	Z	-4	-4	0	%100
101	M316A	Z	-4	-4	0	%100
102	M315A	Z	-4	-4	0	%100
103	M299	Z	-4	-4	0	%100
104	M298	Z	-4	-4	0	%100
105	M297	Z	-4	-4	0	%100
106	M295	Z	-4	-4	0	%100
107	M294	Z	-4	-4	0	%100
108	M293	Z	-4	-4	0	%100
109	M292	Z	-4	-4	0	%100
110	M290	Z	-4	-4	0	%100

Member Distributed Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
111	M289	Z	-4	-4	0	%100
112	M225	Z	-4	-4	0	%100
113	M317A	Z	-4	-4	0	%100
114	M226	Z	-4	-4	0	%100
115	M295A	Z	-4	-4	0	%100
116	M228	Z	-4	-4	0	%100
117	M299A	Z	-4	-4	0	%100
118	M301A	Z	-4	-4	0	%100
119	M321	Z	-4	-4	0	%100
120	M303A	Z	-4	-4	0	%100
121	M318	Z	-4	-4	0	%100
122	M338	Z	-4	-4	0	%100
123	M337	Z	-4	-4	0	%100
124	M335A	Z	-4	-4	0	%100
125	M227	Z	-4	-4	0	%100
126	M334A	Z	-4	-4	0	%100
127	M325A	Z	-4	-4	0	%100
128	M324A	Z	-4	-4	0	%100
129	M323A	Z	-4	-4	0	%100
130	M322	Z	-4	-4	0	%100
131	M319	Z	-4	-4	0	%100
132	M298A	Z	-4	-4	0	%100
133	M297A	Z	-4	-4	0	%100
134	M302A	Z	-4	-4	0	%100
135	M294A	Z	-4	-4	0	%100
136	M230	Z	-4	-4	0	%100
137	M231	Z	-4	-4	0	%100
138	M232	Z	-4	-4	0	%100
139	M247	Z	-4	-4	0	%100
140	M248	Z	-4	-4	0	%100
141	M249	Z	-4	-4	0	%100
142	M250	Z	-4	-4	0	%100
143	M251	Z	-4	-4	0	%100
144	M252	Z	-4	-4	0	%100
145	M253	Z	-4	-4	0	%100
146	M296A	Z	-4	-4	0	%100
147	M320	Z	-4	-4	0	%100
148	M254	Z	-4	-4	0	%100
149	M263	Z	-4	-4	0	%100
150	M264	Z	-4	-4	0	%100
151	M266A	Z	-4	-4	0	%100
152	M267A	Z	-4	-4	0	%100
153	M293A	Z	-4	-4	0	%100
154	M237	Z	-4	-4	0	%100
155	M304	Z	-4	-4	0	%100
156	M303	Z	-4	-4	0	%100
157	M238	Z	-4	-4	0	%100
158	M307	Z	-4	-4	0	%100
159	M308	Z	-4	-4	0	%100
160	M309	Z	-4	-4	0	%100
161	M236	Z	-4	-4	0	%100
162	M305	Z	-4	-4	0	%100
163	M235	Z	-4	-4	0	%100
164	M233	Z	-4	-4	0	%100
165	M306A	Z	-4	-4	0	%100
166	M305A	Z	-4	-4	0	%100
167	M300	Z	-4	-4	0	%100
168	M301	Z	-4	-4	0	%100
169	M304A	Z	-4	-4	0	%100
170	M234	Z	-4	-4	0	%100
171	M302	Z	-4	-4	0	%100
172	M284	Z	-8	-8	0	%100
173	M285	Z	-8	-8	0	%100
174	M323	Z	-8	-8	0	%100
175	M324	Z	-8	-8	0	%100

Member Distributed Loads (BLC 2 : DEAD LOAD ICE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
176	M330	Z	-8	-8	0	%100
177	M332A	Z	-8	-8	0	%100
178	M216	Z	-8	-8	0	%100
179	M327A	Z	-8	-8	0	%100
180	M333A	Z	-8	-8	0	%100
181	M218	Z	-8	-8	0	%100
182	M255	Z	-8	-8	0	%100
183	M256	Z	-8	-8	0	%100
184	M262	Z	-8	-8	0	%100
185	M265A	Z	-8	-8	0	%100
186	M287A	Z	-8	-8	0	%100
187	M288A	Z	-8	-8	0	%100
188	M336	Z	-8	-8	0	%100
189	M289A	Z	-8	-8	0	%100
190	M326A	Z	-8	-8	0	%100
191	M217	Z	-8	-8	0	%100
192	M283	Z	-8	-8	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M357	PY	10	10	0	%100
2	M374	PY	10	10	0	%100
3	M387	PY	10	10	0	%100
4	M373	PY	10	10	0	%100
5	M384	PY	10	10	0	%100
6	M369	PY	10	10	0	%100
7	M354	PY	10	10	0	%100
8	M393	PY	10	10	0	%100
9	M390	PY	10	10	0	%100
10	M361	PY	10	10	0	%100
11	M368	PY	10	10	0	%100
12	M416	PY	10	10	0	%100
13	M377	PY	9	9	0	%100
14	M146A	PY	9	9	0	%100
15	M177	PY	9	9	0	%100
16	M182	PY	9	9	0	%100
17	M409	PY	9	9	0	%100
18	M378	PY	9	9	0	%100
19	M122	PY	18	18	0	%100
20	M76	PY	18	18	0	%100
21	M125	PY	18	18	0	%100
22	M124	PY	18	18	0	%100
23	M123	PY	18	18	0	%100
24	M75	PY	18	18	0	%100
25	M45A	PY	18	18	0	%100
26	M68_1	PY	18	18	0	%100
27	M74B	PY	18	18	0	%100
28	M75B	PY	18	18	0	%100
29	M73	PY	18	18	0	%100
30	M74	PY	18	18	0	%100
31	M381A	PY	15	15	0	%100
32	M379B	PY	15	15	0	%100
33	M380B	PY	15	15	0	%100
34	M126	PY	18	18	0	%100
35	M77	PY	18	18	0	%100
36	M54_1	PY	18	18	0	%100
37	M307A	PY	4	4	0	%100
38	M239	PY	4	4	0	%100
39	M240	PY	4	4	0	%100
40	M310	PY	4	4	0	%100
41	M311	PY	4	4	0	%100
42	M306	PY	4	4	0	%100
43	M288	PY	18	18	0	%100
44	M286	PY	18	18	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
45	M287	PY	18	18	0	%100
46	M313A	PY	18	18	0	%100
47	M290A	PY	18	18	0	%100
48	M329	PY	18	18	0	%100
49	M335	PY	18	18	0	%100
50	M219	PY	18	18	0	%100
51	M220	PY	18	18	0	%100
52	M221	PY	18	18	0	%100
53	M245	PY	18	18	0	%100
54	M246	PY	18	18	0	%100
55	M261	PY	18	18	0	%100
56	M268A	PY	18	18	0	%100
57	M291A	PY	18	18	0	%100
58	M292A	PY	18	18	0	%100
59	M316	PY	18	18	0	%100
60	M317	PY	18	18	0	%100
61	M332B	PY	18	18	0	%100
62	M314A	PY	18	18	0	%100
63	M339	PY	18	18	0	%100
64	M74C	PY	2	2	0	%100
65	M66_1	PY	2	2	0	%100
66	M128	PY	2	2	0	%100
67	M127	PY	2	2	0	%100
68	M79	PY	2	2	0	%100
69	M78	PY	2	2	0	%100
70	M85	PY	14	14	0	%100
71	M134	PY	14	14	0	%100
72	M133	PY	14	14	0	%100
73	M132	PY	14	14	0	%100
74	M131	PY	14	14	0	%100
75	M130	PY	14	14	0	%100
76	M84	PY	14	14	0	%100
77	M31_1	PY	14	14	0	%100
78	M33_1	PY	14	14	0	%100
79	M34A	PY	14	14	0	%100
80	M60_1	PY	14	14	0	%100
81	M61_1	PY	14	14	0	%100
82	M62_1	PY	14	14	0	%100
83	M80	PY	14	14	0	%100
84	M81	PY	14	14	0	%100
85	M83	PY	14	14	0	%100
86	M129	PY	14	14	0	%100
87	M82	PY	14	14	0	%100
88	M320A	PY	6	6	0	%100
89	M321A	PY	6	6	0	%100
90	M322A	PY	6	6	0	%100
91	M331	PY	6	6	0	%100
92	M222	PY	6	6	0	%100
93	M333	PY	6	6	0	%100
94	M334	PY	6	6	0	%100
95	M223	PY	6	6	0	%100
96	M224	PY	6	6	0	%100
97	M319A	PY	6	6	0	%100
98	M332	PY	6	6	0	%100
99	M318A	PY	6	6	0	%100
100	M291	PY	6	6	0	%100
101	M316A	PY	6	6	0	%100
102	M315A	PY	6	6	0	%100
103	M299	PY	6	6	0	%100
104	M298	PY	6	6	0	%100
105	M297	PY	6	6	0	%100
106	M295	PY	6	6	0	%100
107	M294	PY	6	6	0	%100
108	M293	PY	6	6	0	%100
109	M292	PY	6	6	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
110	M290	PY	6	6	0	%100
111	M289	PY	6	6	0	%100
112	M225	PY	6	6	0	%100
113	M317A	PY	6	6	0	%100
114	M226	PY	6	6	0	%100
115	M295A	PY	6	6	0	%100
116	M228	PY	6	6	0	%100
117	M299A	PY	6	6	0	%100
118	M301A	PY	6	6	0	%100
119	M321	PY	6	6	0	%100
120	M303A	PY	6	6	0	%100
121	M318	PY	6	6	0	%100
122	M338	PY	6	6	0	%100
123	M337	PY	6	6	0	%100
124	M335A	PY	6	6	0	%100
125	M227	PY	6	6	0	%100
126	M334A	PY	6	6	0	%100
127	M325A	PY	6	6	0	%100
128	M324A	PY	6	6	0	%100
129	M323A	PY	6	6	0	%100
130	M322	PY	6	6	0	%100
131	M319	PY	6	6	0	%100
132	M298A	PY	6	6	0	%100
133	M297A	PY	6	6	0	%100
134	M302A	PY	6	6	0	%100
135	M294A	PY	6	6	0	%100
136	M230	PY	6	6	0	%100
137	M231	PY	6	6	0	%100
138	M232	PY	6	6	0	%100
139	M247	PY	6	6	0	%100
140	M248	PY	6	6	0	%100
141	M249	PY	6	6	0	%100
142	M250	PY	6	6	0	%100
143	M251	PY	6	6	0	%100
144	M252	PY	6	6	0	%100
145	M253	PY	6	6	0	%100
146	M296A	PY	6	6	0	%100
147	M320	PY	6	6	0	%100
148	M254	PY	6	6	0	%100
149	M263	PY	6	6	0	%100
150	M264	PY	6	6	0	%100
151	M266A	PY	6	6	0	%100
152	M267A	PY	6	6	0	%100
153	M293A	PY	6	6	0	%100
154	M237	PY	4	4	0	%100
155	M304	PY	4	4	0	%100
156	M303	PY	4	4	0	%100
157	M238	PY	4	4	0	%100
158	M307	PY	4	4	0	%100
159	M308	PY	4	4	0	%100
160	M309	PY	4	4	0	%100
161	M236	PY	4	4	0	%100
162	M305	PY	4	4	0	%100
163	M235	PY	4	4	0	%100
164	M233	PY	4	4	0	%100
165	M306A	PY	4	4	0	%100
166	M305A	PY	4	4	0	%100
167	M300	PY	4	4	0	%100
168	M301	PY	4	4	0	%100
169	M304A	PY	4	4	0	%100
170	M234	PY	4	4	0	%100
171	M302	PY	4	4	0	%100
172	M284	PY	3	3	0	%100
173	M285	PY	3	3	0	%100
174	M323	PY	3	3	0	%100

Member Distributed Loads (BLC 3 : WIND LOAD (NO ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
175	M324	PY	3	3	0	%100
176	M330	PY	3	3	0	%100
177	M332A	PY	3	3	0	%100
178	M216	PY	3	3	0	%100
179	M327A	PY	3	3	0	%100
180	M333A	PY	3	3	0	%100
181	M218	PY	3	3	0	%100
182	M255	PY	3	3	0	%100
183	M256	PY	3	3	0	%100
184	M262	PY	3	3	0	%100
185	M265A	PY	3	3	0	%100
186	M287A	PY	3	3	0	%100
187	M288A	PY	3	3	0	%100
188	M336	PY	3	3	0	%100
189	M289A	PY	3	3	0	%100
190	M326A	PY	3	3	0	%100
191	M217	PY	3	3	0	%100
192	M283	PY	3	3	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M357	PX	10	10	0	%100
2	M374	PX	10	10	0	%100
3	M387	PX	10	10	0	%100
4	M373	PX	10	10	0	%100
5	M384	PX	10	10	0	%100
6	M369	PX	10	10	0	%100
7	M354	PX	10	10	0	%100
8	M393	PX	10	10	0	%100
9	M390	PX	10	10	0	%100
10	M361	PX	10	10	0	%100
11	M368	PX	10	10	0	%100
12	M416	PX	10	10	0	%100
13	M377	PX	9	9	0	%100
14	M146A	PX	9	9	0	%100
15	M177	PX	9	9	0	%100
16	M182	PX	9	9	0	%100
17	M409	PX	9	9	0	%100
18	M378	PX	9	9	0	%100
19	M122	PX	18	18	0	%100
20	M76	PX	18	18	0	%100
21	M125	PX	18	18	0	%100
22	M124	PX	18	18	0	%100
23	M123	PX	18	18	0	%100
24	M75	PX	18	18	0	%100
25	M45A	PX	18	18	0	%100
26	M68_1	PX	18	18	0	%100
27	M74B	PX	18	18	0	%100
28	M75B	PX	18	18	0	%100
29	M73	PX	18	18	0	%100
30	M74	PX	18	18	0	%100
31	M381A	PX	15	15	0	%100
32	M379B	PX	15	15	0	%100
33	M380B	PX	15	15	0	%100
34	M126	PX	18	18	0	%100
35	M77	PX	18	18	0	%100
36	M54_1	PX	18	18	0	%100
37	M307A	PX	4	4	0	%100
38	M239	PX	4	4	0	%100
39	M240	PX	4	4	0	%100
40	M310	PX	4	4	0	%100
41	M311	PX	4	4	0	%100
42	M306	PX	4	4	0	%100
43	M288	PX	18	18	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
44	M286	PX	18	18	0	%100
45	M287	PX	18	18	0	%100
46	M313A	PX	18	18	0	%100
47	M290A	PX	18	18	0	%100
48	M329	PX	18	18	0	%100
49	M335	PX	18	18	0	%100
50	M219	PX	18	18	0	%100
51	M220	PX	18	18	0	%100
52	M221	PX	18	18	0	%100
53	M245	PX	18	18	0	%100
54	M246	PX	18	18	0	%100
55	M261	PX	18	18	0	%100
56	M268A	PX	18	18	0	%100
57	M291A	PX	18	18	0	%100
58	M292A	PX	18	18	0	%100
59	M316	PX	18	18	0	%100
60	M317	PX	18	18	0	%100
61	M332B	PX	18	18	0	%100
62	M314A	PX	18	18	0	%100
63	M339	PX	18	18	0	%100
64	M74C	PX	2	2	0	%100
65	M66_1	PX	2	2	0	%100
66	M128	PX	2	2	0	%100
67	M127	PX	2	2	0	%100
68	M79	PX	2	2	0	%100
69	M78	PX	2	2	0	%100
70	M85	PX	14	14	0	%100
71	M134	PX	14	14	0	%100
72	M133	PX	14	14	0	%100
73	M132	PX	14	14	0	%100
74	M131	PX	14	14	0	%100
75	M130	PX	14	14	0	%100
76	M84	PX	14	14	0	%100
77	M31_1	PX	14	14	0	%100
78	M33_1	PX	14	14	0	%100
79	M34A	PX	14	14	0	%100
80	M60_1	PX	14	14	0	%100
81	M61_1	PX	14	14	0	%100
82	M62_1	PX	14	14	0	%100
83	M80	PX	14	14	0	%100
84	M81	PX	14	14	0	%100
85	M83	PX	14	14	0	%100
86	M129	PX	14	14	0	%100
87	M82	PX	14	14	0	%100
88	M320A	PX	6	6	0	%100
89	M321A	PX	6	6	0	%100
90	M322A	PX	6	6	0	%100
91	M331	PX	6	6	0	%100
92	M222	PX	6	6	0	%100
93	M333	PX	6	6	0	%100
94	M334	PX	6	6	0	%100
95	M223	PX	6	6	0	%100
96	M224	PX	6	6	0	%100
97	M319A	PX	6	6	0	%100
98	M332	PX	6	6	0	%100
99	M318A	PX	6	6	0	%100
100	M291	PX	6	6	0	%100
101	M316A	PX	6	6	0	%100
102	M315A	PX	6	6	0	%100
103	M299	PX	6	6	0	%100
104	M298	PX	6	6	0	%100
105	M297	PX	6	6	0	%100
106	M295	PX	6	6	0	%100
107	M294	PX	6	6	0	%100
108	M293	PX	6	6	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
109	M292	PX	6	6	0	%100
110	M290	PX	6	6	0	%100
111	M289	PX	6	6	0	%100
112	M225	PX	6	6	0	%100
113	M317A	PX	6	6	0	%100
114	M226	PX	6	6	0	%100
115	M295A	PX	6	6	0	%100
116	M228	PX	6	6	0	%100
117	M299A	PX	6	6	0	%100
118	M301A	PX	6	6	0	%100
119	M321	PX	6	6	0	%100
120	M303A	PX	6	6	0	%100
121	M318	PX	6	6	0	%100
122	M338	PX	6	6	0	%100
123	M337	PX	6	6	0	%100
124	M335A	PX	6	6	0	%100
125	M227	PX	6	6	0	%100
126	M334A	PX	6	6	0	%100
127	M325A	PX	6	6	0	%100
128	M324A	PX	6	6	0	%100
129	M323A	PX	6	6	0	%100
130	M322	PX	6	6	0	%100
131	M319	PX	6	6	0	%100
132	M298A	PX	6	6	0	%100
133	M297A	PX	6	6	0	%100
134	M302A	PX	6	6	0	%100
135	M294A	PX	6	6	0	%100
136	M230	PX	6	6	0	%100
137	M231	PX	6	6	0	%100
138	M232	PX	6	6	0	%100
139	M247	PX	6	6	0	%100
140	M248	PX	6	6	0	%100
141	M249	PX	6	6	0	%100
142	M250	PX	6	6	0	%100
143	M251	PX	6	6	0	%100
144	M252	PX	6	6	0	%100
145	M253	PX	6	6	0	%100
146	M296A	PX	6	6	0	%100
147	M320	PX	6	6	0	%100
148	M254	PX	6	6	0	%100
149	M263	PX	6	6	0	%100
150	M264	PX	6	6	0	%100
151	M266A	PX	6	6	0	%100
152	M267A	PX	6	6	0	%100
153	M293A	PX	6	6	0	%100
154	M237	PX	4	4	0	%100
155	M304	PX	4	4	0	%100
156	M303	PX	4	4	0	%100
157	M238	PX	4	4	0	%100
158	M307	PX	4	4	0	%100
159	M308	PX	4	4	0	%100
160	M309	PX	4	4	0	%100
161	M236	PX	4	4	0	%100
162	M305	PX	4	4	0	%100
163	M235	PX	4	4	0	%100
164	M233	PX	4	4	0	%100
165	M306A	PX	4	4	0	%100
166	M305A	PX	4	4	0	%100
167	M300	PX	4	4	0	%100
168	M301	PX	4	4	0	%100
169	M304A	PX	4	4	0	%100
170	M234	PX	4	4	0	%100
171	M302	PX	4	4	0	%100
172	M284	PX	3	3	0	%100
173	M285	PX	3	3	0	%100

Member Distributed Loads (BLC 4 : WIND LOAD (NO ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
174	M323	PX	3	3	0	%100
175	M324	PX	3	3	0	%100
176	M330	PX	3	3	0	%100
177	M332A	PX	3	3	0	%100
178	M216	PX	3	3	0	%100
179	M327A	PX	3	3	0	%100
180	M333A	PX	3	3	0	%100
181	M218	PX	3	3	0	%100
182	M255	PX	3	3	0	%100
183	M256	PX	3	3	0	%100
184	M262	PX	3	3	0	%100
185	M265A	PX	3	3	0	%100
186	M287A	PX	3	3	0	%100
187	M288A	PX	3	3	0	%100
188	M336	PX	3	3	0	%100
189	M289A	PX	3	3	0	%100
190	M326A	PX	3	3	0	%100
191	M217	PX	3	3	0	%100
192	M283	PX	3	3	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M357	PY	3.9	3.9	0	%100
2	M374	PY	3.9	3.9	0	%100
3	M387	PY	3.9	3.9	0	%100
4	M373	PY	3.9	3.9	0	%100
5	M384	PY	3.9	3.9	0	%100
6	M369	PY	3.9	3.9	0	%100
7	M354	PY	3.9	3.9	0	%100
8	M393	PY	3.9	3.9	0	%100
9	M390	PY	3.9	3.9	0	%100
10	M361	PY	3.9	3.9	0	%100
11	M368	PY	3.9	3.9	0	%100
12	M416	PY	3.9	3.9	0	%100
13	M377	PY	3.5	3.5	0	%100
14	M146A	PY	3.5	3.5	0	%100
15	M177	PY	3.5	3.5	0	%100
16	M182	PY	3.5	3.5	0	%100
17	M409	PY	3.5	3.5	0	%100
18	M378	PY	3.5	3.5	0	%100
19	M122	PY	5.2	5.2	0	%100
20	M76	PY	5.2	5.2	0	%100
21	M125	PY	5.2	5.2	0	%100
22	M124	PY	5.2	5.2	0	%100
23	M123	PY	5.2	5.2	0	%100
24	M75	PY	5.2	5.2	0	%100
25	M45A	PY	5.2	5.2	0	%100
26	M68_1	PY	5.2	5.2	0	%100
27	M74B	PY	5.2	5.2	0	%100
28	M75B	PY	5.2	5.2	0	%100
29	M73	PY	5.2	5.2	0	%100
30	M74	PY	5.2	5.2	0	%100
31	M381A	PY	4.7	4.7	0	%100
32	M379B	PY	4.7	4.7	0	%100
33	M380B	PY	4.7	4.7	0	%100
34	M126	PY	5.2	5.2	0	%100
35	M77	PY	5.2	5.2	0	%100
36	M54_1	PY	5.2	5.2	0	%100
37	M307A	PY	2.6	2.6	0	%100
38	M239	PY	2.6	2.6	0	%100
39	M240	PY	2.6	2.6	0	%100
40	M310	PY	2.6	2.6	0	%100
41	M311	PY	2.6	2.6	0	%100
42	M306	PY	2.6	2.6	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
43	M288	PY	5.2	5.2	0	%100
44	M286	PY	5.2	5.2	0	%100
45	M287	PY	5.2	5.2	0	%100
46	M313A	PY	5.2	5.2	0	%100
47	M290A	PY	5.2	5.2	0	%100
48	M329	PY	5.2	5.2	0	%100
49	M335	PY	5.2	5.2	0	%100
50	M219	PY	5.2	5.2	0	%100
51	M220	PY	5.2	5.2	0	%100
52	M221	PY	5.2	5.2	0	%100
53	M245	PY	5.2	5.2	0	%100
54	M246	PY	5.2	5.2	0	%100
55	M261	PY	5.2	5.2	0	%100
56	M268A	PY	5.2	5.2	0	%100
57	M291A	PY	5.2	5.2	0	%100
58	M292A	PY	5.2	5.2	0	%100
59	M316	PY	5.2	5.2	0	%100
60	M317	PY	5.2	5.2	0	%100
61	M332B	PY	5.2	5.2	0	%100
62	M314A	PY	5.2	5.2	0	%100
63	M339	PY	5.2	5.2	0	%100
64	M74C	PY	2.2	2.2	0	%100
65	M66_1	PY	2.2	2.2	0	%100
66	M128	PY	2.2	2.2	0	%100
67	M127	PY	2.2	2.2	0	%100
68	M79	PY	2.2	2.2	0	%100
69	M78	PY	2.2	2.2	0	%100
70	M85	PY	4.5	4.5	0	%100
71	M134	PY	4.5	4.5	0	%100
72	M133	PY	4.5	4.5	0	%100
73	M132	PY	4.5	4.5	0	%100
74	M131	PY	4.5	4.5	0	%100
75	M130	PY	4.5	4.5	0	%100
76	M84	PY	4.5	4.5	0	%100
77	M31_1	PY	4.5	4.5	0	%100
78	M33_1	PY	4.5	4.5	0	%100
79	M34A	PY	4.5	4.5	0	%100
80	M60_1	PY	4.5	4.5	0	%100
81	M61_1	PY	4.5	4.5	0	%100
82	M62_1	PY	4.5	4.5	0	%100
83	M80	PY	4.5	4.5	0	%100
84	M81	PY	4.5	4.5	0	%100
85	M83	PY	4.5	4.5	0	%100
86	M129	PY	4.5	4.5	0	%100
87	M82	PY	4.5	4.5	0	%100
88	M320A	PY	2.6	2.6	0	%100
89	M321A	PY	2.6	2.6	0	%100
90	M322A	PY	2.6	2.6	0	%100
91	M331	PY	2.6	2.6	0	%100
92	M222	PY	2.6	2.6	0	%100
93	M333	PY	2.6	2.6	0	%100
94	M334	PY	2.6	2.6	0	%100
95	M223	PY	2.6	2.6	0	%100
96	M224	PY	2.6	2.6	0	%100
97	M319A	PY	2.6	2.6	0	%100
98	M332	PY	2.6	2.6	0	%100
99	M318A	PY	2.6	2.6	0	%100
100	M291	PY	2.6	2.6	0	%100
101	M316A	PY	2.6	2.6	0	%100
102	M315A	PY	2.6	2.6	0	%100
103	M299	PY	2.6	2.6	0	%100
104	M298	PY	2.6	2.6	0	%100
105	M297	PY	2.6	2.6	0	%100
106	M295	PY	2.6	2.6	0	%100
107	M294	PY	2.6	2.6	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
108	M293	PY	2.6	2.6	0	%100
109	M292	PY	2.6	2.6	0	%100
110	M290	PY	2.6	2.6	0	%100
111	M289	PY	2.6	2.6	0	%100
112	M225	PY	2.6	2.6	0	%100
113	M317A	PY	2.6	2.6	0	%100
114	M226	PY	2.6	2.6	0	%100
115	M295A	PY	2.6	2.6	0	%100
116	M228	PY	2.6	2.6	0	%100
117	M299A	PY	2.6	2.6	0	%100
118	M301A	PY	2.6	2.6	0	%100
119	M321	PY	2.6	2.6	0	%100
120	M303A	PY	2.6	2.6	0	%100
121	M318	PY	2.6	2.6	0	%100
122	M338	PY	2.6	2.6	0	%100
123	M337	PY	2.6	2.6	0	%100
124	M335A	PY	2.6	2.6	0	%100
125	M227	PY	2.6	2.6	0	%100
126	M334A	PY	2.6	2.6	0	%100
127	M325A	PY	2.6	2.6	0	%100
128	M324A	PY	2.6	2.6	0	%100
129	M323A	PY	2.6	2.6	0	%100
130	M322	PY	2.6	2.6	0	%100
131	M319	PY	2.6	2.6	0	%100
132	M298A	PY	2.6	2.6	0	%100
133	M297A	PY	2.6	2.6	0	%100
134	M302A	PY	2.6	2.6	0	%100
135	M294A	PY	2.6	2.6	0	%100
136	M230	PY	2.6	2.6	0	%100
137	M231	PY	2.6	2.6	0	%100
138	M232	PY	2.6	2.6	0	%100
139	M247	PY	2.6	2.6	0	%100
140	M248	PY	2.6	2.6	0	%100
141	M249	PY	2.6	2.6	0	%100
142	M250	PY	2.6	2.6	0	%100
143	M251	PY	2.6	2.6	0	%100
144	M252	PY	2.6	2.6	0	%100
145	M253	PY	2.6	2.6	0	%100
146	M296A	PY	2.6	2.6	0	%100
147	M320	PY	2.6	2.6	0	%100
148	M254	PY	2.6	2.6	0	%100
149	M263	PY	2.6	2.6	0	%100
150	M264	PY	2.6	2.6	0	%100
151	M266A	PY	2.6	2.6	0	%100
152	M267A	PY	2.6	2.6	0	%100
153	M293A	PY	2.6	2.6	0	%100
154	M237	PY	2.3	2.3	0	%100
155	M304	PY	2.3	2.3	0	%100
156	M303	PY	2.3	2.3	0	%100
157	M238	PY	2.3	2.3	0	%100
158	M307	PY	2.3	2.3	0	%100
159	M308	PY	2.3	2.3	0	%100
160	M309	PY	2.3	2.3	0	%100
161	M236	PY	2.3	2.3	0	%100
162	M305	PY	2.3	2.3	0	%100
163	M235	PY	2.3	2.3	0	%100
164	M233	PY	2.3	2.3	0	%100
165	M306A	PY	2.3	2.3	0	%100
166	M305A	PY	2.3	2.3	0	%100
167	M300	PY	2.3	2.3	0	%100
168	M301	PY	2.3	2.3	0	%100
169	M304A	PY	2.3	2.3	0	%100
170	M234	PY	2.3	2.3	0	%100
171	M302	PY	2.3	2.3	0	%100
172	M284	PY	2.2	2.2	0	%100

Member Distributed Loads (BLC 5 : WIND LOAD (ICE) FRONT) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
173	M285	PY	2.2	2.2	0	%100
174	M323	PY	2.2	2.2	0	%100
175	M324	PY	2.2	2.2	0	%100
176	M330	PY	2.2	2.2	0	%100
177	M332A	PY	2.2	2.2	0	%100
178	M216	PY	2.2	2.2	0	%100
179	M327A	PY	2.2	2.2	0	%100
180	M333A	PY	2.2	2.2	0	%100
181	M218	PY	2.2	2.2	0	%100
182	M255	PY	2.2	2.2	0	%100
183	M256	PY	2.2	2.2	0	%100
184	M262	PY	2.2	2.2	0	%100
185	M265A	PY	2.2	2.2	0	%100
186	M287A	PY	2.2	2.2	0	%100
187	M288A	PY	2.2	2.2	0	%100
188	M336	PY	2.2	2.2	0	%100
189	M289A	PY	2.2	2.2	0	%100
190	M326A	PY	2.2	2.2	0	%100
191	M217	PY	2.2	2.2	0	%100
192	M283	PY	2.2	2.2	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M357	PX	3.9	3.9	0	%100
2	M374	PX	3.9	3.9	0	%100
3	M387	PX	3.9	3.9	0	%100
4	M373	PX	3.9	3.9	0	%100
5	M384	PX	3.9	3.9	0	%100
6	M369	PX	3.9	3.9	0	%100
7	M354	PX	3.9	3.9	0	%100
8	M393	PX	3.9	3.9	0	%100
9	M390	PX	3.9	3.9	0	%100
10	M361	PX	3.9	3.9	0	%100
11	M368	PX	3.9	3.9	0	%100
12	M416	PX	3.9	3.9	0	%100
13	M377	PX	3.5	3.5	0	%100
14	M146A	PX	3.5	3.5	0	%100
15	M177	PX	3.5	3.5	0	%100
16	M182	PX	3.5	3.5	0	%100
17	M409	PX	3.5	3.5	0	%100
18	M378	PX	3.5	3.5	0	%100
19	M122	PX	5.2	5.2	0	%100
20	M76	PX	5.2	5.2	0	%100
21	M125	PX	5.2	5.2	0	%100
22	M124	PX	5.2	5.2	0	%100
23	M123	PX	5.2	5.2	0	%100
24	M75	PX	5.2	5.2	0	%100
25	M45A	PX	5.2	5.2	0	%100
26	M68_1	PX	5.2	5.2	0	%100
27	M74B	PX	5.2	5.2	0	%100
28	M75B	PX	5.2	5.2	0	%100
29	M73	PX	5.2	5.2	0	%100
30	M74	PX	5.2	5.2	0	%100
31	M381A	PX	4.7	4.7	0	%100
32	M379B	PX	4.7	4.7	0	%100
33	M380B	PX	4.7	4.7	0	%100
34	M126	PX	5.2	5.2	0	%100
35	M77	PX	5.2	5.2	0	%100
36	M54_1	PX	5.2	5.2	0	%100
37	M307A	PX	2.6	2.6	0	%100
38	M239	PX	2.6	2.6	0	%100
39	M240	PX	2.6	2.6	0	%100
40	M310	PX	2.6	2.6	0	%100
41	M311	PX	2.6	2.6	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
42	M306	PX	2.6	2.6	0	%100
43	M288	PX	5.2	5.2	0	%100
44	M286	PX	5.2	5.2	0	%100
45	M287	PX	5.2	5.2	0	%100
46	M313A	PX	5.2	5.2	0	%100
47	M290A	PX	5.2	5.2	0	%100
48	M329	PX	5.2	5.2	0	%100
49	M335	PX	5.2	5.2	0	%100
50	M219	PX	5.2	5.2	0	%100
51	M220	PX	5.2	5.2	0	%100
52	M221	PX	5.2	5.2	0	%100
53	M245	PX	5.2	5.2	0	%100
54	M246	PX	5.2	5.2	0	%100
55	M261	PX	5.2	5.2	0	%100
56	M268A	PX	5.2	5.2	0	%100
57	M291A	PX	5.2	5.2	0	%100
58	M292A	PX	5.2	5.2	0	%100
59	M316	PX	5.2	5.2	0	%100
60	M317	PX	5.2	5.2	0	%100
61	M332B	PX	5.2	5.2	0	%100
62	M314A	PX	5.2	5.2	0	%100
63	M339	PX	5.2	5.2	0	%100
64	M74C	PX	2.2	2.2	0	%100
65	M66_1	PX	2.2	2.2	0	%100
66	M128	PX	2.2	2.2	0	%100
67	M127	PX	2.2	2.2	0	%100
68	M79	PX	2.2	2.2	0	%100
69	M78	PX	2.2	2.2	0	%100
70	M85	PX	4.5	4.5	0	%100
71	M134	PX	4.5	4.5	0	%100
72	M133	PX	4.5	4.5	0	%100
73	M132	PX	4.5	4.5	0	%100
74	M131	PX	4.5	4.5	0	%100
75	M130	PX	4.5	4.5	0	%100
76	M84	PX	4.5	4.5	0	%100
77	M31_1	PX	4.5	4.5	0	%100
78	M33_1	PX	4.5	4.5	0	%100
79	M34A	PX	4.5	4.5	0	%100
80	M60_1	PX	4.5	4.5	0	%100
81	M61_1	PX	4.5	4.5	0	%100
82	M62_1	PX	4.5	4.5	0	%100
83	M80	PX	4.5	4.5	0	%100
84	M81	PX	4.5	4.5	0	%100
85	M83	PX	4.5	4.5	0	%100
86	M129	PX	4.5	4.5	0	%100
87	M82	PX	4.5	4.5	0	%100
88	M320A	PX	2.6	2.6	0	%100
89	M321A	PX	2.6	2.6	0	%100
90	M322A	PX	2.6	2.6	0	%100
91	M331	PX	2.6	2.6	0	%100
92	M222	PX	2.6	2.6	0	%100
93	M333	PX	2.6	2.6	0	%100
94	M334	PX	2.6	2.6	0	%100
95	M223	PX	2.6	2.6	0	%100
96	M224	PX	2.6	2.6	0	%100
97	M319A	PX	2.6	2.6	0	%100
98	M332	PX	2.6	2.6	0	%100
99	M318A	PX	2.6	2.6	0	%100
100	M291	PX	2.6	2.6	0	%100
101	M316A	PX	2.6	2.6	0	%100
102	M315A	PX	2.6	2.6	0	%100
103	M299	PX	2.6	2.6	0	%100
104	M298	PX	2.6	2.6	0	%100
105	M297	PX	2.6	2.6	0	%100
106	M295	PX	2.6	2.6	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
107	M294	PX	2.6	2.6	0	%100
108	M293	PX	2.6	2.6	0	%100
109	M292	PX	2.6	2.6	0	%100
110	M290	PX	2.6	2.6	0	%100
111	M289	PX	2.6	2.6	0	%100
112	M225	PX	2.6	2.6	0	%100
113	M317A	PX	2.6	2.6	0	%100
114	M226	PX	2.6	2.6	0	%100
115	M295A	PX	2.6	2.6	0	%100
116	M228	PX	2.6	2.6	0	%100
117	M299A	PX	2.6	2.6	0	%100
118	M301A	PX	2.6	2.6	0	%100
119	M321	PX	2.6	2.6	0	%100
120	M303A	PX	2.6	2.6	0	%100
121	M318	PX	2.6	2.6	0	%100
122	M338	PX	2.6	2.6	0	%100
123	M337	PX	2.6	2.6	0	%100
124	M335A	PX	2.6	2.6	0	%100
125	M227	PX	2.6	2.6	0	%100
126	M334A	PX	2.6	2.6	0	%100
127	M325A	PX	2.6	2.6	0	%100
128	M324A	PX	2.6	2.6	0	%100
129	M323A	PX	2.6	2.6	0	%100
130	M322	PX	2.6	2.6	0	%100
131	M319	PX	2.6	2.6	0	%100
132	M298A	PX	2.6	2.6	0	%100
133	M297A	PX	2.6	2.6	0	%100
134	M302A	PX	2.6	2.6	0	%100
135	M294A	PX	2.6	2.6	0	%100
136	M230	PX	2.6	2.6	0	%100
137	M231	PX	2.6	2.6	0	%100
138	M232	PX	2.6	2.6	0	%100
139	M247	PX	2.6	2.6	0	%100
140	M248	PX	2.6	2.6	0	%100
141	M249	PX	2.6	2.6	0	%100
142	M250	PX	2.6	2.6	0	%100
143	M251	PX	2.6	2.6	0	%100
144	M252	PX	2.6	2.6	0	%100
145	M253	PX	2.6	2.6	0	%100
146	M296A	PX	2.6	2.6	0	%100
147	M320	PX	2.6	2.6	0	%100
148	M254	PX	2.6	2.6	0	%100
149	M263	PX	2.6	2.6	0	%100
150	M264	PX	2.6	2.6	0	%100
151	M266A	PX	2.6	2.6	0	%100
152	M267A	PX	2.6	2.6	0	%100
153	M293A	PX	2.6	2.6	0	%100
154	M237	PX	2.3	2.3	0	%100
155	M304	PX	2.3	2.3	0	%100
156	M303	PX	2.3	2.3	0	%100
157	M238	PX	2.3	2.3	0	%100
158	M307	PX	2.3	2.3	0	%100
159	M308	PX	2.3	2.3	0	%100
160	M309	PX	2.3	2.3	0	%100
161	M236	PX	2.3	2.3	0	%100
162	M305	PX	2.3	2.3	0	%100
163	M235	PX	2.3	2.3	0	%100
164	M233	PX	2.3	2.3	0	%100
165	M306A	PX	2.3	2.3	0	%100
166	M305A	PX	2.3	2.3	0	%100
167	M300	PX	2.3	2.3	0	%100
168	M301	PX	2.3	2.3	0	%100
169	M304A	PX	2.3	2.3	0	%100
170	M234	PX	2.3	2.3	0	%100
171	M302	PX	2.3	2.3	0	%100

Member Distributed Loads (BLC 6 : WIND LOAD (ICE) SIDE) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
172	M284	PX	2.2	2.2	0	%100
173	M285	PX	2.2	2.2	0	%100
174	M323	PX	2.2	2.2	0	%100
175	M324	PX	2.2	2.2	0	%100
176	M330	PX	2.2	2.2	0	%100
177	M332A	PX	2.2	2.2	0	%100
178	M216	PX	2.2	2.2	0	%100
179	M327A	PX	2.2	2.2	0	%100
180	M333A	PX	2.2	2.2	0	%100
181	M218	PX	2.2	2.2	0	%100
182	M255	PX	2.2	2.2	0	%100
183	M256	PX	2.2	2.2	0	%100
184	M262	PX	2.2	2.2	0	%100
185	M265A	PX	2.2	2.2	0	%100
186	M287A	PX	2.2	2.2	0	%100
187	M288A	PX	2.2	2.2	0	%100
188	M336	PX	2.2	2.2	0	%100
189	M289A	PX	2.2	2.2	0	%100
190	M326A	PX	2.2	2.2	0	%100
191	M217	PX	2.2	2.2	0	%100
192	M283	PX	2.2	2.2	0	%100

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M113	Z	-6.057	-3.098	0	0.854
2	M113	Z	-3.098	-2.092	0.854	1.707
3	M113	Z	-2.092	-2.114	1.707	2.561
4	M113	Z	-2.114	-1.21	2.561	3.414
5	M112	Z	-2.004	-1.857	0	1.137
6	M112	Z	-1.857	-1.436	1.137	2.273
7	M112	Z	-1.436	-0.74	2.273	3.41
8	M111	Z	-2.669	-1.693	0	1.707
9	M111	Z	-1.693	-0.718	1.707	3.414
10	M124	Z	-0.706	-1.241	0	5.726
11	M124	Z	-1.241	-1.064	5.726	11.452
12	M124	Z	-1.064	-0.977	11.452	17.178
13	M124	Z	-0.977	-1.516	17.178	22.904
14	M124	Z	-1.516	-1.879	22.904	28.63
15	M123	Z	-1.237	-0.932	0	6.995
16	M123	Z	-0.932	-1.379	6.995	13.989
17	M123	Z	-1.379	-1.661	13.989	20.984
18	M123	Z	-1.661	-0.927	20.984	27.979
19	M123	Z	-0.927	-0.092	27.979	34.973
20	M126	Z	-0.097	-1.127	0	13.582
21	M126	Z	-1.127	-1.576	13.582	27.164
22	M126	Z	-1.576	-1.102	27.164	40.746
23	M127	Z	-0.506	-2.241	0	2.42
24	M127	Z	-2.241	-2.543	2.42	4.84
25	M127	Z	-2.543	-1.272	4.84	7.261
26	M134	Z	-4.17	-1.268	0	1.4
27	M134	Z	-1.268	-1.206	1.4	2.8
28	M134	Z	-1.206	-3.26	2.8	4.2
29	M134	Z	-3.26	-4.306	4.2	5.6
30	M134	Z	-4.306	-5.069	5.6	7
31	M133	Z	-2.815	-3.721	0	2.697
32	M133	Z	-3.721	-3.699	2.697	5.394
33	M133	Z	-3.699	-3.871	5.394	8.092
34	M133	Z	-3.871	-3.63	8.092	10.789
35	M133	Z	-3.63	-1.857	10.789	13.486
36	M132	Z	-1.098	-4.313	0	3.981
37	M132	Z	-4.313	-5.717	3.981	7.963
38	M132	Z	-5.717	-4.633	7.963	11.944
39	M132	Z	-4.633	-3.928	11.944	15.926
40	M132	Z	-3.928	-4.281	15.926	19.907

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
41	M115	Z	-0.415	-0.415	6.665e-10	2
42	M114	Z	-0.219	-0.219	0	2
43	M110	Z	-0.682	-0.682	0	2
44	M109	Z	-0.528	-0.528	0	2
45	M108	Z	-0.481	-0.481	0	2
46	M106	Z	-0.415	-0.415	0	2
47	M105	Z	-0.219	-0.219	0	2
48	M101	Z	-0.682	-0.682	1.122e-11	2
49	M100	Z	-0.528	-0.528	0	2
50	M99	Z	-0.481	-0.481	0	2
51	M126	Z	-1.13	-1.442	0	10.186
52	M126	Z	-1.442	-1.45	10.186	20.373
53	M126	Z	-1.45	-1.418	20.373	30.559
54	M126	Z	-1.418	-1.329	30.559	40.746
55	M126	Z	-1.329	-0.916	40.746	50.932
56	M104	Z	-5.982	-3.726	0	0.854
57	M104	Z	-3.726	-2.698	0.854	1.707
58	M104	Z	-2.698	-1.747	1.707	2.561
59	M104	Z	-1.747	0.048	2.561	3.414
60	M103	Z	-4.056	-2.263	0	1.137
61	M103	Z	-2.263	-1.136	1.137	2.273
62	M103	Z	-1.136	-0.673	2.273	3.41
63	M102	Z	-2.673	-1.684	0	1.707
64	M102	Z	-1.684	-0.694	1.707	3.414
65	M122	Z	-1.235	-0.934	0	6.995
66	M122	Z	-0.934	-1.379	6.995	13.989
67	M122	Z	-1.379	-1.665	13.989	20.984
68	M122	Z	-1.665	-0.928	20.984	27.979
69	M122	Z	-0.928	-0.073	27.979	34.973
70	M125	Z	-0.7	-1.235	0	5.726
71	M125	Z	-1.235	-1.054	5.726	11.452
72	M125	Z	-1.054	-0.936	11.452	17.178
73	M125	Z	-0.936	-1.517	17.178	22.904
74	M125	Z	-1.517	-2.017	22.904	28.63
75	M128	Z	-0.679	-2.601	0	2.42
76	M128	Z	-2.601	-2.368	2.42	4.84
77	M128	Z	-2.368	-1.225	4.84	7.261
78	M131	Z	-4.18	-1.27	0	1.4
79	M131	Z	-1.27	-1.207	1.4	2.8
80	M131	Z	-1.207	-3.253	2.8	4.2
81	M131	Z	-3.253	-4.299	4.2	5.6
82	M131	Z	-4.299	-5.083	5.6	7
83	M130	Z	-2.792	-3.704	0	2.697
84	M130	Z	-3.704	-3.685	2.697	5.394
85	M130	Z	-3.685	-3.652	5.394	8.092
86	M130	Z	-3.652	-3.455	8.092	10.789
87	M130	Z	-3.455	-2.177	10.789	13.486
88	M129	Z	-1.152	-4.34	0	3.981
89	M129	Z	-4.34	-5.852	3.981	7.963
90	M129	Z	-5.852	-4.888	7.963	11.944
91	M129	Z	-4.888	-3.733	11.944	15.926
92	M129	Z	-3.733	-3.181	15.926	19.907
93	M65_1	Z	-6.056	-3.096	0	0.854
94	M65_1	Z	-3.096	-2.08	0.854	1.707
95	M65_1	Z	-2.08	-2.1	1.707	2.561
96	M65_1	Z	-2.1	-1.214	2.561	3.414
97	M64_1	Z	-2.043	-1.876	0	1.137
98	M64_1	Z	-1.876	-1.44	1.137	2.273
99	M64_1	Z	-1.44	-0.734	2.273	3.41
100	M63_1	Z	-2.694	-1.693	0	1.707
101	M63_1	Z	-1.693	-0.692	1.707	3.414
102	M68_1	Z	-1.238	-0.932	0	6.995
103	M68_1	Z	-0.932	-1.375	6.995	13.989
104	M68_1	Z	-1.375	-1.662	13.989	20.984
105	M68_1	Z	-1.662	-0.931	20.984	27.979

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
106	M68_1	Z	-0.931	-0.086	27.979	34.973
107	M74B	Z	-0.706	-1.241	0	5.726
108	M74B	Z	-1.241	-1.064	5.726	11.452
109	M74B	Z	-1.064	-0.974	11.452	17.178
110	M74B	Z	-0.974	-1.515	17.178	22.904
111	M74B	Z	-1.515	-1.885	22.904	28.63
112	M54_1	Z	-0.097	-1.127	0	13.582
113	M54_1	Z	-1.127	-1.576	13.582	27.164
114	M54_1	Z	-1.576	-1.102	27.164	40.746
115	M66_1	Z	-0.497	-2.242	0	2.42
116	M66_1	Z	-2.242	-2.541	2.42	4.84
117	M66_1	Z	-2.541	-1.277	4.84	7.261
118	M60_1	Z	-1.095	-4.311	0	3.981
119	M60_1	Z	-4.311	-5.719	3.981	7.963
120	M60_1	Z	-5.719	-4.638	7.963	11.944
121	M60_1	Z	-4.638	-3.929	11.944	15.926
122	M60_1	Z	-3.929	-4.277	15.926	19.907
123	M61_1	Z	-2.815	-3.721	0	2.697
124	M61_1	Z	-3.721	-3.699	2.697	5.394
125	M61_1	Z	-3.699	-3.871	5.394	8.092
126	M61_1	Z	-3.871	-3.63	8.092	10.789
127	M61_1	Z	-3.63	-1.857	10.789	13.486
128	M62_1	Z	-4.168	-1.267	0	1.4
129	M62_1	Z	-1.267	-1.205	1.4	2.8
130	M62_1	Z	-1.205	-3.257	2.8	4.2
131	M62_1	Z	-3.257	-4.31	4.2	5.6
132	M62_1	Z	-4.31	-5.086	5.6	7
133	R10	Z	-0.415	-0.415	0	2
134	M70_1	Z	-0.415	-0.415	0	2
135	M67_1	Z	-0.219	-0.219	0	2
136	M59_1	Z	-0.68	-0.68	0	2.001
137	M58_1	Z	-0.529	-0.529	0	2
138	M57_1	Z	-0.481	-0.481	0	2
139	R9	Z	-0.219	-0.219	0	2
140	R5	Z	-0.685	-0.685	0	1.987
141	R3	Z	-0.481	-0.481	0	2
142	R4	Z	-0.529	-0.529	0	2
143	M54_1	Z	-1.13	-1.443	0	10.186
144	M54_1	Z	-1.443	-1.452	10.186	20.373
145	M54_1	Z	-1.452	-1.42	20.373	30.559
146	M54_1	Z	-1.42	-1.328	30.559	40.746
147	M54_1	Z	-1.328	-0.911	40.746	50.932
148	R8	Z	-5.975	-3.723	0	0.854
149	R8	Z	-3.723	-2.702	0.854	1.707
150	R8	Z	-2.702	-1.747	1.707	2.561
151	R8	Z	-1.747	0.049	2.561	3.414
152	R7	Z	-4.102	-2.283	0	1.137
153	R7	Z	-2.283	-1.137	1.137	2.273
154	R7	Z	-1.137	-0.665	2.273	3.41
155	R6	Z	-2.679	-1.69	0	1.707
156	R6	Z	-1.69	-0.702	1.707	3.414
157	M45A	Z	-1.235	-0.933	0	6.995
158	M45A	Z	-0.933	-1.381	6.995	13.989
159	M45A	Z	-1.381	-1.663	13.989	20.984
160	M45A	Z	-1.663	-0.923	20.984	27.979
161	M45A	Z	-0.923	-0.076	27.979	34.973
162	M75B	Z	-0.7	-1.235	0	5.726
163	M75B	Z	-1.235	-1.056	5.726	11.452
164	M75B	Z	-1.056	-0.942	11.452	17.178
165	M75B	Z	-0.942	-1.517	17.178	22.904
166	M75B	Z	-1.517	-2.002	22.904	28.63
167	M74C	Z	-0.688	-2.601	0	2.42
168	M74C	Z	-2.601	-2.365	2.42	4.84
169	M74C	Z	-2.365	-1.225	4.84	7.261
170	M31_1	Z	-1.152	-4.339	0	3.981

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
171	M31_1	Z	-4.339	-5.847	3.981	7.963
172	M31_1	Z	-5.847	-4.884	7.963	11.944
173	M31_1	Z	-4.884	-3.727	11.944	15.926
174	M31_1	Z	-3.727	-3.171	15.926	19.907
175	M33_1	Z	-2.792	-3.704	0	2.697
176	M33_1	Z	-3.704	-3.685	2.697	5.394
177	M33_1	Z	-3.685	-3.652	5.394	8.092
178	M33_1	Z	-3.652	-3.453	8.092	10.789
179	M33_1	Z	-3.453	-2.171	10.789	13.486
180	M34A	Z	-4.181	-1.27	0	1.4
181	M34A	Z	-1.27	-1.208	1.4	2.8
182	M34A	Z	-1.208	-3.256	2.8	4.2
183	M34A	Z	-3.256	-4.307	4.2	5.6
184	M34A	Z	-4.307	-5.098	5.6	7
185	M64A	Z	-6.054	-3.096	0	0.854
186	M64A	Z	-3.096	-2.096	0.854	1.707
187	M64A	Z	-2.096	-2.124	1.707	2.561
188	M64A	Z	-2.124	-1.221	2.561	3.414
189	M63A	Z	-2.061	-1.858	0	1.137
190	M63A	Z	-1.858	-1.421	1.137	2.273
191	M63A	Z	-1.421	-0.749	2.273	3.41
192	M62A	Z	-2.673	-1.695	0	1.707
193	M62A	Z	-1.695	-0.717	1.707	3.414
194	M75	Z	-0.706	-1.241	0	5.726
195	M75	Z	-1.241	-1.064	5.726	11.452
196	M75	Z	-1.064	-0.974	11.452	17.178
197	M75	Z	-0.974	-1.517	17.178	22.904
198	M75	Z	-1.517	-1.894	22.904	28.63
199	M74	Z	-1.237	-0.932	0	6.995
200	M74	Z	-0.932	-1.379	6.995	13.989
201	M74	Z	-1.379	-1.661	13.989	20.984
202	M74	Z	-1.661	-0.928	20.984	27.979
203	M74	Z	-0.928	-0.097	27.979	34.973
204	M77	Z	-0.097	-1.127	0	13.582
205	M77	Z	-1.127	-1.576	13.582	27.164
206	M77	Z	-1.576	-1.102	27.164	40.746
207	M78	Z	-0.504	-2.225	0	2.42
208	M78	Z	-2.225	-2.53	2.42	4.84
209	M78	Z	-2.53	-1.28	4.84	7.261
210	M85	Z	-4.169	-1.267	0	1.4
211	M85	Z	-1.267	-1.205	1.4	2.8
212	M85	Z	-1.205	-3.255	2.8	4.2
213	M85	Z	-3.255	-4.304	4.2	5.6
214	M85	Z	-4.304	-5.081	5.6	7
215	M84	Z	-2.815	-3.721	0	2.697
216	M84	Z	-3.721	-3.699	2.697	5.394
217	M84	Z	-3.699	-3.871	5.394	8.092
218	M84	Z	-3.871	-3.63	8.092	10.789
219	M84	Z	-3.63	-1.857	10.789	13.486
220	M83	Z	-1.098	-4.313	0	3.981
221	M83	Z	-4.313	-5.717	3.981	7.963
222	M83	Z	-5.717	-4.634	7.963	11.944
223	M83	Z	-4.634	-3.927	11.944	15.926
224	M83	Z	-3.927	-4.277	15.926	19.907
225	M56_1	Z	-0.219	-0.219	0	2
226	M52_1	Z	-0.682	-0.682	0	2
227	M51_1	Z	-0.528	-0.528	0	2
228	M50_1	Z	-0.481	-0.481	0	2
229	M57A	Z	-0.415	-0.415	0	2
230	M59A	Z	-0.481	-0.481	0	2
231	M61A	Z	-0.682	-0.682	0	2
232	M66A	Z	-0.415	-0.415	4.179e-11	2
233	M65A	Z	-0.219	-0.219	0	2
234	M60A	Z	-0.528	-0.528	0	2
235	M77	Z	-1.13	-1.442	0	10.186

Member Distributed Loads (BLC 14 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
236	M77	Z	-1.442	-1.45	10.186	20.373
237	M77	Z	-1.45	-1.418	20.373	30.559
238	M77	Z	-1.418	-1.329	30.559	40.746
239	M77	Z	-1.329	-0.916	40.746	50.932
240	M55_1	Z	-5.981	-3.725	0	0.854
241	M55_1	Z	-3.725	-2.702	0.854	1.707
242	M55_1	Z	-2.702	-1.747	1.707	2.561
243	M55_1	Z	-1.747	0.049	2.561	3.414
244	M54A	Z	-4.081	-2.279	0	1.137
245	M54A	Z	-2.279	-1.14	1.137	2.273
246	M54A	Z	-1.14	-0.664	2.273	3.41
247	M53_1	Z	-2.679	-1.69	0	1.707
248	M53_1	Z	-1.69	-0.702	1.707	3.414
249	M76	Z	-0.7	-1.235	0	5.726
250	M76	Z	-1.235	-1.054	5.726	11.452
251	M76	Z	-1.054	-0.941	11.452	17.178
252	M76	Z	-0.941	-1.517	17.178	22.904
253	M76	Z	-1.517	-2.002	22.904	28.63
254	M73	Z	-1.235	-0.933	0	6.995
255	M73	Z	-0.933	-1.381	6.995	13.989
256	M73	Z	-1.381	-1.663	13.989	20.984
257	M73	Z	-1.663	-0.924	20.984	27.979
258	M73	Z	-0.924	-0.079	27.979	34.973
259	M79	Z	-0.674	-2.598	0	2.42
260	M79	Z	-2.598	-2.369	2.42	4.84
261	M79	Z	-2.369	-1.232	4.84	7.261
262	M80	Z	-1.152	-4.339	0	3.981
263	M80	Z	-4.339	-5.847	3.981	7.963
264	M80	Z	-5.847	-4.884	7.963	11.944
265	M80	Z	-4.884	-3.728	11.944	15.926
266	M80	Z	-3.728	-3.174	15.926	19.907
267	M81	Z	-2.792	-3.704	0	2.697
268	M81	Z	-3.704	-3.685	2.697	5.394
269	M81	Z	-3.685	-3.652	5.394	8.092
270	M81	Z	-3.652	-3.455	8.092	10.789
271	M81	Z	-3.455	-2.177	10.789	13.486
272	M82	Z	-4.181	-1.27	0	1.4
273	M82	Z	-1.27	-1.208	1.4	2.8
274	M82	Z	-1.208	-3.256	2.8	4.2
275	M82	Z	-3.256	-4.307	4.2	5.6
276	M82	Z	-4.307	-5.098	5.6	7
277	M177	Z	-9.841	-9.841	38.188	111.866
278	M182	Z	-9.852	-9.852	38.27	111.866
279	M146A	Z	-9.837	-9.837	38.156	111.864

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M113	Z	-6.648	-3.4	0	0.854
2	M113	Z	-3.4	-2.296	0.854	1.707
3	M113	Z	-2.296	-2.32	1.707	2.561
4	M113	Z	-2.32	-1.328	2.561	3.414
5	M112	Z	-2.199	-2.038	0	1.137
6	M112	Z	-2.038	-1.576	1.137	2.273
7	M112	Z	-1.576	-0.812	2.273	3.41
8	M111	Z	-2.93	-1.859	0	1.707
9	M111	Z	-1.859	-0.788	1.707	3.414
10	M124	Z	-0.775	-1.363	0	5.726
11	M124	Z	-1.363	-1.168	5.726	11.452
12	M124	Z	-1.168	-1.073	11.452	17.178
13	M124	Z	-1.073	-1.664	17.178	22.904
14	M124	Z	-1.664	-2.062	22.904	28.63
15	M123	Z	-1.358	-1.023	0	6.995
16	M123	Z	-1.023	-1.514	6.995	13.989
17	M123	Z	-1.514	-1.824	13.989	20.984

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
18	M123	Z	-1.824	-1.017	20.984	27.979
19	M123	Z	-1.017	-0.101	27.979	34.973
20	M126	Z	-0.106	-1.237	0	13.582
21	M126	Z	-1.237	-1.73	13.582	27.164
22	M126	Z	-1.73	-1.209	27.164	40.746
23	M127	Z	-0.55	-2.457	0	2.42
24	M127	Z	-2.457	-2.792	2.42	4.84
25	M127	Z	-2.792	-1.404	4.84	7.261
26	M134	Z	-4.577	-1.392	0	1.4
27	M134	Z	-1.392	-1.323	1.4	2.8
28	M134	Z	-1.323	-3.578	2.8	4.2
29	M134	Z	-3.578	-4.727	4.2	5.6
30	M134	Z	-4.727	-5.564	5.6	7
31	M133	Z	-3.09	-4.084	0	2.697
32	M133	Z	-4.084	-4.06	2.697	5.394
33	M133	Z	-4.06	-4.249	5.394	8.092
34	M133	Z	-4.249	-3.984	8.092	10.789
35	M133	Z	-3.984	-2.038	10.789	13.486
36	M132	Z	-1.205	-4.734	0	3.981
37	M132	Z	-4.734	-6.275	3.981	7.963
38	M132	Z	-6.275	-5.086	7.963	11.944
39	M132	Z	-5.086	-4.312	11.944	15.926
40	M132	Z	-4.312	-4.699	15.926	19.907
41	M115	Z	-0.456	-0.456	6.665e-10	2
42	M114	Z	-0.241	-0.241	0	2
43	M110	Z	-0.749	-0.749	0	2
44	M109	Z	-0.58	-0.58	0	2
45	M108	Z	-0.528	-0.528	0	2
46	M106	Z	-0.456	-0.456	0	2
47	M105	Z	-0.241	-0.241	0	2
48	M101	Z	-0.749	-0.749	1.122e-11	2
49	M100	Z	-0.58	-0.58	0	2
50	M99	Z	-0.528	-0.528	0	2
51	M126	Z	-1.24	-1.583	0	10.186
52	M126	Z	-1.583	-1.592	10.186	20.373
53	M126	Z	-1.592	-1.557	20.373	30.559
54	M126	Z	-1.557	-1.459	30.559	40.746
55	M126	Z	-1.459	-1.005	40.746	50.932
56	M104	Z	-6.566	-4.089	0	0.854
57	M104	Z	-4.089	-2.962	0.854	1.707
58	M104	Z	-2.962	-1.918	1.707	2.561
59	M104	Z	-1.918	0.053	2.561	3.414
60	M103	Z	-4.452	-2.484	0	1.137
61	M103	Z	-2.484	-1.247	1.137	2.273
62	M103	Z	-1.247	-0.739	2.273	3.41
63	M102	Z	-2.934	-1.848	0	1.707
64	M102	Z	-1.848	-0.762	1.707	3.414
65	M122	Z	-1.356	-1.025	0	6.995
66	M122	Z	-1.025	-1.514	6.995	13.989
67	M122	Z	-1.514	-1.828	13.989	20.984
68	M122	Z	-1.828	-1.018	20.984	27.979
69	M122	Z	-1.018	-0.081	27.979	34.973
70	M125	Z	-0.768	-1.355	0	5.726
71	M125	Z	-1.355	-1.157	5.726	11.452
72	M125	Z	-1.157	-1.027	11.452	17.178
73	M125	Z	-1.027	-1.665	17.178	22.904
74	M125	Z	-1.665	-2.214	22.904	28.63
75	M128	Z	-0.741	-2.852	0	2.42
76	M128	Z	-2.852	-2.601	2.42	4.84
77	M128	Z	-2.601	-1.352	4.84	7.261
78	M131	Z	-4.588	-1.394	0	1.4
79	M131	Z	-1.394	-1.325	1.4	2.8
80	M131	Z	-1.325	-3.57	2.8	4.2
81	M131	Z	-3.57	-4.719	4.2	5.6
82	M131	Z	-4.719	-5.579	5.6	7

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
83	M130	Z	-3.064	-4.065	0	2.697
84	M130	Z	-4.065	-4.045	2.697	5.394
85	M130	Z	-4.045	-4.009	5.394	8.092
86	M130	Z	-4.009	-3.792	8.092	10.789
87	M130	Z	-3.792	-2.389	10.789	13.486
88	M129	Z	-1.264	-4.764	0	3.981
89	M129	Z	-4.764	-6.423	3.981	7.963
90	M129	Z	-6.423	-5.366	7.963	11.944
91	M129	Z	-5.366	-4.097	11.944	15.926
92	M129	Z	-4.097	-3.491	15.926	19.907
93	M65_1	Z	-6.647	-3.399	0	0.854
94	M65_1	Z	-3.399	-2.283	0.854	1.707
95	M65_1	Z	-2.283	-2.305	1.707	2.561
96	M65_1	Z	-2.305	-1.332	2.561	3.414
97	M64_1	Z	-2.242	-2.059	0	1.137
98	M64_1	Z	-2.059	-1.58	1.137	2.273
99	M64_1	Z	-1.58	-0.805	2.273	3.41
100	M63_1	Z	-2.957	-1.858	0	1.707
101	M63_1	Z	-1.858	-0.76	1.707	3.414
102	M68_1	Z	-1.359	-1.023	0	6.995
103	M68_1	Z	-1.023	-1.509	6.995	13.989
104	M68_1	Z	-1.509	-1.824	13.989	20.984
105	M68_1	Z	-1.824	-1.022	20.984	27.979
106	M68_1	Z	-1.022	-0.095	27.979	34.973
107	M74B	Z	-0.775	-1.362	0	5.726
108	M74B	Z	-1.362	-1.168	5.726	11.452
109	M74B	Z	-1.168	-1.07	11.452	17.178
110	M74B	Z	-1.07	-1.663	17.178	22.904
111	M74B	Z	-1.663	-2.069	22.904	28.63
112	M54_1	Z	-0.106	-1.237	0	13.582
113	M54_1	Z	-1.237	-1.73	13.582	27.164
114	M54_1	Z	-1.73	-1.209	27.164	40.746
115	M66_1	Z	-0.557	-2.461	0	2.42
116	M66_1	Z	-2.461	-2.785	2.42	4.84
117	M66_1	Z	-2.785	-1.397	4.84	7.261
118	M60_1	Z	-1.202	-4.732	0	3.981
119	M60_1	Z	-4.732	-6.278	3.981	7.963
120	M60_1	Z	-6.278	-5.091	7.963	11.944
121	M60_1	Z	-5.091	-4.313	11.944	15.926
122	M60_1	Z	-4.313	-4.694	15.926	19.907
123	M61_1	Z	-3.09	-4.084	0	2.697
124	M61_1	Z	-4.084	-4.06	2.697	5.394
125	M61_1	Z	-4.06	-4.249	5.394	8.092
126	M61_1	Z	-4.249	-3.984	8.092	10.789
127	M61_1	Z	-3.984	-2.038	10.789	13.486
128	M62_1	Z	-4.575	-1.391	0	1.4
129	M62_1	Z	-1.391	-1.322	1.4	2.8
130	M62_1	Z	-1.322	-3.575	2.8	4.2
131	M62_1	Z	-3.575	-4.731	4.2	5.6
132	M62_1	Z	-4.731	-5.583	5.6	7
133	R10	Z	-0.456	-0.456	0	2
134	M70_1	Z	-0.456	-0.456	0	2
135	M67_1	Z	-0.241	-0.241	0	2
136	M59_1	Z	-0.746	-0.746	0	2.001
137	M58_1	Z	-0.581	-0.581	0	2
138	M57_1	Z	-0.528	-0.528	0	2
139	R9	Z	-0.241	-0.241	0	2
140	R5	Z	-0.751	-0.751	0	1.987
141	R3	Z	-0.528	-0.528	0	2
142	R4	Z	-0.581	-0.581	0	2
143	M54_1	Z	-1.241	-1.583	0	10.186
144	M54_1	Z	-1.583	-1.593	10.186	20.373
145	M54_1	Z	-1.593	-1.559	20.373	30.559
146	M54_1	Z	-1.559	-1.458	30.559	40.746
147	M54_1	Z	-1.458	-1	40.746	50.932

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
148	R8	Z	-6.559	-4.086	0	0.854
149	R8	Z	-4.086	-2.965	0.854	1.707
150	R8	Z	-2.965	-1.918	1.707	2.561
151	R8	Z	-1.918	0.053	2.561	3.414
152	R7	Z	-4.503	-2.505	0	1.137
153	R7	Z	-2.505	-1.248	1.137	2.273
154	R7	Z	-1.248	-0.73	2.273	3.41
155	R6	Z	-2.94	-1.855	0	1.707
156	R6	Z	-1.855	-0.771	1.707	3.414
157	M45A	Z	-1.355	-1.024	0	6.995
158	M45A	Z	-1.024	-1.516	6.995	13.989
159	M45A	Z	-1.516	-1.826	13.989	20.984
160	M45A	Z	-1.826	-1.013	20.984	27.979
161	M45A	Z	-1.013	-0.084	27.979	34.973
162	M75B	Z	-0.769	-1.356	0	5.726
163	M75B	Z	-1.356	-1.159	5.726	11.452
164	M75B	Z	-1.159	-1.034	11.452	17.178
165	M75B	Z	-1.034	-1.666	17.178	22.904
166	M75B	Z	-1.666	-2.198	22.904	28.63
167	M74C	Z	-0.748	-2.856	0	2.42
168	M74C	Z	-2.856	-2.599	2.42	4.84
169	M74C	Z	-2.599	-1.344	4.84	7.261
170	M31_1	Z	-1.265	-4.762	0	3.981
171	M31_1	Z	-4.762	-6.418	3.981	7.963
172	M31_1	Z	-6.418	-5.361	7.963	11.944
173	M31_1	Z	-5.361	-4.091	11.944	15.926
174	M31_1	Z	-4.091	-3.481	15.926	19.907
175	M33_1	Z	-3.064	-4.066	0	2.697
176	M33_1	Z	-4.066	-4.045	2.697	5.394
177	M33_1	Z	-4.045	-4.009	5.394	8.092
178	M33_1	Z	-4.009	-3.79	8.092	10.789
179	M33_1	Z	-3.79	-2.383	10.789	13.486
180	M34A	Z	-4.589	-1.394	0	1.4
181	M34A	Z	-1.394	-1.326	1.4	2.8
182	M34A	Z	-1.326	-3.574	2.8	4.2
183	M34A	Z	-3.574	-4.727	4.2	5.6
184	M34A	Z	-4.727	-5.596	5.6	7
185	M64A	Z	-6.646	-3.398	0	0.854
186	M64A	Z	-3.398	-2.3	0.854	1.707
187	M64A	Z	-2.3	-2.331	1.707	2.561
188	M64A	Z	-2.331	-1.34	2.561	3.414
189	M63A	Z	-2.262	-2.039	0	1.137
190	M63A	Z	-2.039	-1.559	1.137	2.273
191	M63A	Z	-1.559	-0.823	2.273	3.41
192	M62A	Z	-2.934	-1.86	0	1.707
193	M62A	Z	-1.86	-0.786	1.707	3.414
194	M75	Z	-0.775	-1.362	0	5.726
195	M75	Z	-1.362	-1.167	5.726	11.452
196	M75	Z	-1.167	-1.069	11.452	17.178
197	M75	Z	-1.069	-1.665	17.178	22.904
198	M75	Z	-1.665	-2.078	22.904	28.63
199	M74	Z	-1.358	-1.023	0	6.995
200	M74	Z	-1.023	-1.514	6.995	13.989
201	M74	Z	-1.514	-1.824	13.989	20.984
202	M74	Z	-1.824	-1.019	20.984	27.979
203	M74	Z	-1.019	-0.106	27.979	34.973
204	M77	Z	-0.106	-1.237	0	13.582
205	M77	Z	-1.237	-1.73	13.582	27.164
206	M77	Z	-1.73	-1.209	27.164	40.746
207	M78	Z	-0.546	-2.442	0	2.42
208	M78	Z	-2.442	-2.78	2.42	4.84
209	M78	Z	-2.78	-1.406	4.84	7.261
210	M85	Z	-4.576	-1.391	0	1.4
211	M85	Z	-1.391	-1.323	1.4	2.8
212	M85	Z	-1.323	-3.573	2.8	4.2

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
213	M85	Z	-3.573	-4.724	4.2	5.6
214	M85	Z	-4.724	-5.577	5.6	7
215	M84	Z	-3.09	-4.084	0	2.697
216	M84	Z	-4.084	-4.06	2.697	5.394
217	M84	Z	-4.06	-4.248	5.394	8.092
218	M84	Z	-4.248	-3.984	8.092	10.789
219	M84	Z	-3.984	-2.039	10.789	13.486
220	M83	Z	-1.206	-4.734	0	3.981
221	M83	Z	-4.734	-6.275	3.981	7.963
222	M83	Z	-6.275	-5.086	7.963	11.944
223	M83	Z	-5.086	-4.311	11.944	15.926
224	M83	Z	-4.311	-4.694	15.926	19.907
225	M56_1	Z	-0.241	-0.241	0	2
226	M52_1	Z	-0.749	-0.749	0	2
227	M51_1	Z	-0.58	-0.58	0	2
228	M50_1	Z	-0.528	-0.528	0	2
229	M57A	Z	-0.456	-0.456	0	2
230	M59A	Z	-0.528	-0.528	0	2
231	M61A	Z	-0.749	-0.749	0	2
232	M66A	Z	-0.456	-0.456	4.179e-11	2
233	M65A	Z	-0.241	-0.241	0	2
234	M60A	Z	-0.58	-0.58	0	2
235	M77	Z	-1.24	-1.583	0	10.186
236	M77	Z	-1.583	-1.592	10.186	20.373
237	M77	Z	-1.592	-1.557	20.373	30.559
238	M77	Z	-1.557	-1.459	30.559	40.746
239	M77	Z	-1.459	-1.005	40.746	50.932
240	M55_1	Z	-6.565	-4.089	0	0.854
241	M55_1	Z	-4.089	-2.966	0.854	1.707
242	M55_1	Z	-2.966	-1.918	1.707	2.561
243	M55_1	Z	-1.918	0.054	2.561	3.414
244	M54A	Z	-4.479	-2.501	0	1.137
245	M54A	Z	-2.501	-1.251	1.137	2.273
246	M54A	Z	-1.251	-0.729	2.273	3.41
247	M53_1	Z	-2.94	-1.855	0	1.707
248	M53_1	Z	-1.855	-0.771	1.707	3.414
249	M76	Z	-0.769	-1.356	0	5.726
250	M76	Z	-1.356	-1.157	5.726	11.452
251	M76	Z	-1.157	-1.032	11.452	17.178
252	M76	Z	-1.032	-1.666	17.178	22.904
253	M76	Z	-1.666	-2.198	22.904	28.63
254	M73	Z	-1.355	-1.024	0	6.995
255	M73	Z	-1.024	-1.516	6.995	13.989
256	M73	Z	-1.516	-1.826	13.989	20.984
257	M73	Z	-1.826	-1.014	20.984	27.979
258	M73	Z	-1.014	-0.087	27.979	34.973
259	M79	Z	-0.751	-2.854	0	2.42
260	M79	Z	-2.854	-2.597	2.42	4.84
261	M79	Z	-2.597	-1.343	4.84	7.261
262	M80	Z	-1.265	-4.762	0	3.981
263	M80	Z	-4.762	-6.418	3.981	7.963
264	M80	Z	-6.418	-5.361	7.963	11.944
265	M80	Z	-5.361	-4.092	11.944	15.926
266	M80	Z	-4.092	-3.484	15.926	19.907
267	M81	Z	-3.064	-4.065	0	2.697
268	M81	Z	-4.065	-4.045	2.697	5.394
269	M81	Z	-4.045	-4.009	5.394	8.092
270	M81	Z	-4.009	-3.792	8.092	10.789
271	M81	Z	-3.792	-2.389	10.789	13.486
272	M82	Z	-4.589	-1.394	0	1.4
273	M82	Z	-1.394	-1.326	1.4	2.8
274	M82	Z	-1.326	-3.574	2.8	4.2
275	M82	Z	-3.574	-4.727	4.2	5.6
276	M82	Z	-4.727	-5.596	5.6	7
277	M177	Z	-10.801	-10.801	38.188	111.866

Member Distributed Loads (BLC 15 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, k-ft/in]	End Magnitude [lb/ft, F, psf, k-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
278	M182	Z	-10.814	-10.814	38.27	111.866
279	M146A	Z	-10.797	-10.797	38.156	111.864

Member Area Loads (BLC 1 : DEAD LOAD)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N146_1	N147_1	N150_1	N148_1	Z	Two Way	-5
2	N134_1	N146_1	N148_1	N136_1	Z	Two Way	-5
3	N134_1	N136_1	N151_1	N135_1	Z	Two Way	-5
4	N78_1	N79A	N60_1	N80_1	Z	Two Way	-5
5	N50_1	N78_1	N80_1	N52A	Z	Two Way	-5
6	N50_1	N52A	N62_1	N52_1	Z	Two Way	-5
7	N90_1	N93_1	N91_1	N89_1	Z	Two Way	-5
8	N89_1	N91_1	N79B	N77A	Z	Two Way	-5
9	N77A	N79B	N94_1	N78A	Z	Two Way	-5
10	N52_1	N62_1	N155A	N52_1	Z	Two Way	-5
11	N79A	N175	N60_1	N79A	Z	Two Way	-5
12	N169	N135_1	N151_1	N169	Z	Two Way	-5
13	N150_1	N147_1	N163	N150_1	Z	Two Way	-5
14	N94_1	N112_1	N78A	N94_1	Z	Two Way	-5
15	N161A	N93_1	N90_1	N161A	Z	Two Way	-5
16	N155A	N309A	N310A	N161A	Z	Two Way	-5
17	N175	N169	N313	N308C	Z	Two Way	-5
18	N163	N112_1	N311A	N312A	Z	Two Way	-5

Member Area Loads (BLC 2 : DEAD LOAD ICE)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N146_1	N147_1	N150_1	N148_1	Z	Two Way	-5.488
2	N134_1	N146_1	N148_1	N136_1	Z	Two Way	-5.488
3	N134_1	N136_1	N151_1	N135_1	Z	Two Way	-5.488
4	N78_1	N79A	N60_1	N80_1	Z	Two Way	-5.488
5	N50_1	N78_1	N80_1	N52A	Z	Two Way	-5.488
6	N50_1	N52A	N62_1	N52_1	Z	Two Way	-5.488
7	N90_1	N93_1	N91_1	N89_1	Z	Two Way	-5.488
8	N89_1	N91_1	N79B	N77A	Z	Two Way	-5.488
9	N77A	N79B	N94_1	N78A	Z	Two Way	-5.488
10	N52_1	N62_1	N155A		Z	Two Way	-5.488
11	N79A	N175	N60_1		Z	Two Way	-5.488
12	N169	N135_1	N151_1		Z	Two Way	-5.488
13	N150_1	N147_1	N163		Z	Two Way	-5.488
14	N94_1	N112_1	N78A		Z	Two Way	-5.488
15	N161A	N93_1	N90_1		Z	Two Way	-5.488
16	N155A	N309A	N310A	N161A	Z	Two Way	-5.488
17	N175	N169	N313	N308C	Z	Two Way	-5.488
18	N163	N112_1	N311A	N312A	Z	Two Way	-5.488

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	DL + WL (NO ICE) 0 Degree	Yes	Y	1	1.2			3	1		
2	DL + WL (NO ICE) 30 Degree	Yes	Y	1	1.2			3	0.866	4	0.5
3	DL + WL (NO ICE) 60 Degree	Yes	Y	1	1.2			3	0.5	4	0.866
4	DL + WL (NO ICE) 90 Degree	Yes	Y	1	1.2					4	1
5	DL + WL (NO ICE) 120 Degree	Yes	Y	1	1.2			3	-0.5	4	0.866
6	DL + WL (NO ICE) 150 Degree	Yes	Y	1	1.2			3	-0.866	4	0.5
7	DL + WL (NO ICE) 180 Degree	Yes	Y	1	1.2			3	-1		
8	DL + WL (NO ICE) 210 Degree	Yes	Y	1	1.2			3	-0.866	4	-0.5
9	DL + WL (NO ICE) 240 Degree	Yes	Y	1	1.2			3	-0.5	4	-0.866
10	DL + WL (NO ICE) 270 Degree	Yes	Y	1	1.2					4	-1
11	DL + WL (NO ICE) 300 Degree	Yes	Y	1	1.2			3	0.5	4	-0.866
12	DL + WL (NO ICE) 330 Degree	Yes	Y	1	1.2			3	0.866	4	-0.5
13	DL + DL ICE + WL (ICE) 0 Degree	Yes	Y	1	1.2	2	1	5	1		
14	DL + DL ICE + WL (ICE) 30 Degree	Yes	Y	1	1.2	2	1	5	0.866	6	0.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
15	DL + DL ICE + WL (ICE) 60 Degree	Yes	Y	1	1.2	2	1	5	0.5	6	0.866
16	DL + DL ICE + WL (ICE) 90 Degree	Yes	Y	1	1.2	2	1			6	1
17	DL + DL ICE + WL (ICE) 120 Degree	Yes	Y	1	1.2	2	1	5	-0.5	6	0.866
18	DL + DL ICE + WL (ICE) 150 Degree	Yes	Y	1	1.2	2	1	5	-0.866	6	0.5
19	DL + DL ICE + WL (ICE) 180 Degree	Yes	Y	1	1.2	2	1	5	-1		
20	DL + DL ICE + WL (ICE) 210 Degree	Yes	Y	1	1.2	2	1	5	-0.866	6	-0.5
21	DL + DL ICE + WL (ICE) 240 Degree	Yes	Y	1	1.2	2	1	5	-0.5	6	-0.866
22	DL + DL ICE + WL (ICE) 270 Degree	Yes	Y	1	1.2	2	1			6	-1
23	DL + DL ICE + WL (ICE) 300 Degree	Yes	Y	1	1.2	2	1	5	0.5	6	-0.866
24	DL + DL ICE + WL (ICE) 330 Degree	Yes	Y	1	1.2	2	1	5	0.866	6	-0.5
25	DEAD LOAD + LIVE LOAD1	Yes	Y	1	1.2					7	1.5
26	DEAD LOAD + LIVE LOAD2	Yes	Y	1	1.2					8	1.5
27	DEAD LOAD + LIVE LOAD3	Yes	Y	1	1.2					9	1.5
28	DL + MAIN L1+30MPH WL FRONT	Yes	Y	1	1.2	10	1.5	3	0.063		
29	DL + MAIN L2+30MPH WL FRONT	Yes	Y	1	1.2	11	1.5	3	0.063		
30	DL + MAIN L3+30MPH WL FRONT	Yes	Y	1	1.2	12	1.5	3	0.063		
31	DL + MAIN L4+30MPH WL FRONT	Yes	Y	1	1.2	13	1.5	3	0.063		
32	DL + MAIN L1+30MPH WL SIDE	Yes	Y	1	1.2	10	1.5	4	0.063		
33	DL + MAIN L2+30MPH WL SIDE	Yes	Y	1	1.2	11	1.5	4	0.063		
34	DL + MAIN L3+30MPH WL SIDE	Yes	Y	1	1.2	12	1.5	4	0.063		
35	DL + MAIN L4+30MPH WL SIDE	Yes	Y	1	1.2	13	1.5	4	0.063		
36	DL + MAIN L1+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	10	1.5	3	-0.063		
37	DL + MAIN L2+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	11	1.5	3	-0.063		
38	DL + MAIN L3+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	12	1.5	3	-0.063		
39	DL + MAIN L4+30MPH WL FRONT (REVERSED)	Yes	Y	1	1.2	13	1.5	3	-0.063		
40	DL + MAIN L1+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	10	1.5	4	-0.063		
41	DL + MAIN L2+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	11	1.5	4	-0.063		
42	DL + MAIN L3+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	12	1.5	4	-0.063		
43	DL + MAIN L4+30MPH WL SIDE (REVERSED)	Yes	Y	1	1.2	13	1.5	4	-0.063		

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N302	max	10049.088	11	12648.583	5	3996.619	17	0.131	5	0.215	5	0.978	7
2		min	-21488.978	5	-5962.349	11	-303.088	11	-0.062	11	-0.091	11	-0.957	1
3	N303	max	20012.111	5	2970.198	11	136.629	17	0.09	5	0.167	5	0.311	5
4		min	-5423.633	11	-11461.321	5	-7.163	11	-0.026	11	-0.055	11	-0.375	11
5	N254	max	1149.278	10	10606.06	7	3985.216	13	0.099	7	0.008	11	2.068	4
6		min	-1174.559	4	-23878.377	1	-191.552	7	-0.241	1	-0.011	5	-2.034	10
7	N255	max	270.299	9	22290.389	1	136.472	13	0.054	7	0.015	10	0.595	3
8		min	-227.496	4	-5388.277	7	-2.334	7	-0.183	1	-0.015	4	-0.659	9
9	N302A	max	21452.6	9	12608.218	9	3995.617	21	0.124	9	0.097	3	1.324	1
10		min	-9990.54	3	-5967.732	3	-309.552	3	-0.05	3	-0.219	9	-1.275	7
11	N303A	max	5384.523	3	3090.339	3	136.613	21	0.089	9	0.056	3	0.258	1
12		min	-19990.092	9	-11545.283	9	-7.488	3	-0.025	3	-0.168	9	-0.291	7
13	Totals:	max	7196.898	10	6695.665	7	10791.845	14						
14		min	-7196.903	4	-6695.648	1	5348.346	8						

Envelope Node Displacements

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
1	N74A	max	0.208	4	0.022	1	0.145	7	4.133e-3	7	3.082e-3	5	1.705e-3	9
2		min	-0.208	10	-0.014	7	-0.306	1	-5.592e-3	1	-2.315e-3	11	-1.667e-3	3
3	N75A	max	0.122	4	0.02	1	0.01	7	1.804e-3	7	3.538e-3	5	2.262e-3	9
4		min	-0.12	10	-0.011	7	-0.074	13	-4.432e-3	1	-2.619e-3	11	-2.231e-3	3
5	N77_1	max	0.189	4	0.022	1	0.093	7	3.91e-3	7	3.167e-3	5	1.774e-3	9
6		min	-0.189	10	-0.014	7	-0.232	1	-5.954e-3	1	-2.362e-3	11	-1.751e-3	3
7	N79_1	max	0.189	4	0.022	11	0.078	7	5.134e-3	7	3.676e-3	4	1.537e-3	9
8		min	-0.189	10	-0.014	5	-0.232	1	-6.48e-3	1	-9.757e-4	10	-1.676e-3	3
9	N27_1	max	0.167	4	0.022	1	0.054	7	1.969e-3	7	3.284e-3	5	1.889e-3	9
10		min	-0.166	10	-0.013	7	-0.167	1	-3.585e-3	1	-2.43e-3	11	-1.837e-3	3
11	N28_1	max	0.146	4	0.021	1	0.03	7	1.646e-3	7	3.403e-3	5	1.888e-3	9
12		min	-0.143	10	-0.011	7	-0.122	1	-3.575e-3	1	-2.506e-3	11	-1.83e-3	3
13	N29_1	max	0.167	4	0.038	10	0.005	8	4.589e-3	7	5.055e-3	5	2.087e-3	10
14		min	-0.166	10	-0.032	4	-0.207	14	-5.075e-3	1	-6.275e-4	11	-1.903e-3	4

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
15	N31_1	max	0.146	4	0.034	10	-0.007	8	1.201e-3	7	6.134e-3	5	1.346e-3	10
16		min	-0.143	10	-0.025	4	-0.154	14	-3.882e-3	1	-9.998e-4	11	-1.606e-3	4
17	N35_1	max	0.189	4	0.021	1	0.089	7	3.91e-3	7	3.167e-3	5	1.774e-3	9
18		min	-0.189	10	-0.012	7	-0.229	1	-5.954e-3	1	-2.362e-3	11	-1.751e-3	3
19	N38_1	max	0.167	4	0.02	1	0.05	7	1.969e-3	7	3.284e-3	5	1.889e-3	9
20		min	-0.166	10	-0.011	7	-0.165	1	-3.585e-3	1	-2.43e-3	11	-1.837e-3	3
21	N39_1	max	0.146	4	0.019	1	0.026	7	1.646e-3	7	3.403e-3	5	1.888e-3	9
22		min	-0.143	10	-0.01	7	-0.119	1	-3.575e-3	1	-2.506e-3	11	-1.83e-3	3
23	N41_1	max	0.189	4	0.025	11	0.073	7	5.134e-3	7	3.676e-3	4	1.537e-3	9
24		min	-0.189	10	-0.017	5	-0.236	1	-6.48e-3	1	-9.757e-4	10	-1.676e-3	3
25	N41A	max	0.167	4	0.046	10	-0.002	8	4.589e-3	7	5.055e-3	5	2.087e-3	10
26		min	-0.166	10	-0.038	4	-0.221	14	-5.075e-3	1	-6.275e-4	11	-1.903e-3	4
27	N42_1	max	0.146	4	0.039	10	-0.013	9	1.201e-3	7	6.134e-3	5	1.346e-3	10
28		min	-0.143	10	-0.03	4	-0.171	15	-3.882e-3	1	-9.998e-4	11	-1.606e-3	4
29	N47_1	max	0.205	4	0.022	1	0.137	7	4.133e-3	7	3.082e-3	5	1.705e-3	9
30		min	-0.205	10	-0.014	7	-0.295	1	-5.592e-3	1	-2.315e-3	11	-1.667e-3	3
31	N49_1	max	0.128	4	0.02	1	0.014	7	1.804e-3	7	3.538e-3	5	2.262e-3	9
32		min	-0.125	10	-0.011	7	-0.084	1	-4.432e-3	1	-2.619e-3	11	-2.231e-3	3
33	N50_1	max	0.205	4	0.021	1	0.133	7	4.133e-3	7	3.082e-3	5	1.705e-3	9
34		min	-0.205	10	-0.013	7	-0.293	1	-5.592e-3	1	-2.315e-3	11	-1.667e-3	3
35	N52_1	max	0.164	4	0.049	10	-0.01	9	5.015e-3	7	4.492e-3	5	2.119e-3	10
36		min	-0.163	10	-0.041	4	-0.225	14	-4.368e-3	1	-1.049e-3	11	-1.895e-3	4
37	N52A	max	0.128	4	0.019	12	0.01	7	1.804e-3	7	3.538e-3	5	2.262e-3	9
38		min	-0.125	10	-0.009	6	-0.084	13	-4.432e-3	1	-2.619e-3	11	-2.231e-3	3
39	N64_1	max	0.19	4	0.032	2	0.111	7	4.689e-3	7	3.042e-3	6	1.833e-3	9
40		min	-0.189	10	-0.025	8	-0.252	1	-6.237e-3	1	-4.162e-3	12	-1.59e-3	3
41	N67_1	max	0.167	4	0.051	2	0.08	6	3.749e-3	7	1.194e-3	6	2.347e-3	9
42		min	-0.166	10	-0.046	8	-0.226	12	-4.505e-3	1	-3.889e-3	12	-2.659e-3	3
43	N68_1	max	0.145	4	0.043	3	0.047	6	1.024e-3	7	3.929e-4	6	2.054e-3	9
44		min	-0.144	10	-0.035	9	-0.158	1	-3.731e-3	1	-3.6e-3	12	-1.837e-3	3
45	N69_1	max	0.189	4	0.023	1	0.096	7	3.91e-3	7	3.167e-3	5	1.774e-3	9
46		min	-0.189	10	-0.015	7	-0.234	1	-5.954e-3	1	-2.362e-3	11	-1.751e-3	3
47	N70_1	max	0.167	4	0.023	1	0.058	7	1.969e-3	7	3.284e-3	5	1.889e-3	9
48		min	-0.166	10	-0.014	7	-0.17	1	-3.585e-3	1	-2.43e-3	11	-1.837e-3	3
49	N71_1	max	0.146	4	0.022	1	0.035	7	1.646e-3	7	3.403e-3	5	1.888e-3	9
50		min	-0.143	10	-0.013	7	-0.124	1	-3.575e-3	1	-2.506e-3	11	-1.83e-3	3
51	N72_1	max	0.19	4	0.037	2	0.119	7	4.689e-3	7	3.042e-3	6	1.833e-3	9
52		min	-0.189	10	-0.031	8	-0.263	1	-6.237e-3	1	-4.162e-3	12	-1.59e-3	3
53	N73_1	max	0.167	4	0.06	3	0.084	6	3.749e-3	7	1.194e-3	6	2.347e-3	9
54		min	-0.166	10	-0.053	9	-0.239	12	-4.505e-3	1	-3.889e-3	12	-2.659e-3	3
55	N74_1	max	0.145	4	0.049	3	0.048	6	1.024e-3	7	3.929e-4	6	2.054e-3	9
56		min	-0.144	10	-0.042	9	-0.17	12	-3.731e-3	1	-3.6e-3	12	-1.837e-3	3
57	N78_1	max	0.205	4	0.024	1	0.14	7	4.133e-3	7	3.082e-3	5	1.705e-3	9
58		min	-0.205	10	-0.016	7	-0.297	1	-5.592e-3	1	-2.315e-3	11	-1.667e-3	3
59	N79A	max	0.163	4	0.064	3	0.081	6	3.852e-3	6	1.346e-3	6	2.386e-3	9
60		min	-0.163	10	-0.057	9	-0.238	12	-3.635e-3	12	-3.206e-3	12	-2.742e-3	3
61	N80_1	max	0.128	4	0.022	1	0.019	7	1.804e-3	7	3.538e-3	5	2.262e-3	9
62		min	-0.125	10	-0.012	7	-0.086	1	-4.432e-3	1	-2.619e-3	11	-2.231e-3	3
63	N60_1	max	0.152	4	0.064	3	0.053	6	3.784e-3	6	-1.453e-3	6	1.823e-3	9
64		min	-0.15	10	-0.057	9	-0.213	12	-3.476e-3	12	-4.928e-3	24	-1.86e-3	3
65	N62_1	max	0.152	4	0.049	10	-0.026	9	4.974e-3	7	8.054e-3	18	1.257e-3	10
66		min	-0.149	10	-0.041	4	-0.228	15	-4.217e-3	1	-9.89e-4	12	-1.216e-3	4
67	N52C	max	0.194	4	0.033	2	0.125	7	4.335e-3	7	3.207e-3	6	1.781e-3	9
68		min	-0.193	10	-0.026	8	-0.272	1	-5.938e-3	1	-3.755e-3	12	-1.311e-3	3
69	N60A	max	0.06	10	0.131	10	0.159	11	3.916e-3	37	5.811e-3	4	2.857e-3	9
70		min	-0.053	4	-0.135	4	-0.32	5	-1.161e-3	1	-4.915e-3	10	-2.779e-3	3
71	N61_1	max	0.017	1	0.042	12	0.012	11	3.992e-3	37	4.804e-3	4	2.395e-3	9
72		min	-0.01	8	-0.048	6	-0.075	5	-8.567e-4	2	-2.98e-3	10	-2.346e-3	3
73	N63_1	max	0.044	10	0.102	10	0.103	11	4.051e-3	37	6.111e-3	4	2.737e-3	9
74		min	-0.037	4	-0.107	4	-0.241	5	-1.037e-3	1	-4.727e-3	10	-2.69e-3	3
75	N64A	max	0.063	10	0.091	10	0.087	11	5.32e-3	37	5.5e-3	4	2.758e-3	9
76		min	-0.057	4	-0.096	4	-0.24	5	-1.698e-3	12	-5.671e-3	10	-2.877e-3	3
77	N65_1	max	0.029	10	0.074	10	0.06	11	3.702e-3	37	4.057e-3	4	2.571e-3	9
78		min	-0.022	4	-0.08	4	-0.174	5	-9.037e-4	2	-3.067e-3	10	-2.503e-3	3
79	N66_1	max	0.017	11	0.054	11	0.035	11	3.741e-3	37	4.084e-3	4	2.61e-3	9

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
80		min	-0.01	5	-0.061	5	-0.126	5	-9.065e-4	2	-2.853e-3	10	-2.529e-3	3
81	N67A	max	0.075	9	0.058	11	0.003	12	5.927e-3	37	4.452e-3	4	2.337e-3	9
82		min	-0.07	3	-0.062	5	-0.206	18	-7.411e-5	1	-6.216e-3	10	-2.149e-3	3
83	N68A	max	0.048	10	0.043	12	-0.009	12	6.638e-3	41	3.729e-3	4	2.433e-3	9
84		min	-0.042	4	-0.049	6	-0.154	18	6.849e-4	3	-3.965e-3	10	-2.683e-3	3
85	N69A	max	0.049	10	0.099	10	0.099	11	4.051e-3	37	6.111e-3	4	2.737e-3	9
86		min	-0.042	4	-0.104	4	-0.239	5	-1.037e-3	1	-4.727e-3	10	-2.69e-3	3
87	N70A	max	0.033	10	0.072	11	0.056	11	3.702e-3	37	4.057e-3	4	2.571e-3	9
88		min	-0.026	4	-0.078	4	-0.171	5	-9.037e-4	2	-3.067e-3	10	-2.503e-3	3
89	N71A	max	0.02	11	0.053	11	0.031	11	3.741e-3	37	4.084e-3	4	2.61e-3	9
90		min	-0.013	5	-0.059	5	-0.123	5	-9.065e-4	2	-2.853e-3	10	-2.529e-3	3
91	N72A	max	0.071	10	0.086	10	0.081	11	5.32e-3	37	5.5e-3	4	2.758e-3	9
92		min	-0.065	3	-0.091	4	-0.244	5	-1.698e-3	12	-5.671e-3	10	-2.877e-3	3
93	N73B	max	0.082	9	0.056	11	-0.005	12	5.927e-3	37	4.452e-3	4	2.337e-3	9
94		min	-0.076	3	-0.06	5	-0.222	37	-7.411e-5	1	-6.216e-3	10	-2.149e-3	3
95	N74B	max	0.054	10	0.043	12	-0.02	1	6.638e-3	41	3.729e-3	4	2.433e-3	9
96		min	-0.048	4	-0.049	6	-0.17	19	6.849e-4	3	-3.965e-3	10	-2.683e-3	3
97	N75_1	max	0.057	10	0.126	10	0.15	11	3.916e-3	37	5.811e-3	4	2.857e-3	9
98		min	-0.051	4	-0.13	4	-0.308	5	-1.161e-3	1	-4.915e-3	10	-2.779e-3	3
99	N76A	max	0.016	1	0.043	12	0.017	11	3.992e-3	37	4.804e-3	4	2.395e-3	9
100		min	-0.009	7	-0.05	6	-0.087	5	-8.567e-4	2	-2.98e-3	10	-2.346e-3	3
101	N77A	max	0.062	10	0.123	10	0.146	11	3.916e-3	37	5.811e-3	4	2.857e-3	9
102		min	-0.055	4	-0.128	4	-0.305	5	-1.161e-3	1	-4.915e-3	10	-2.779e-3	3
103	N78A	max	0.083	9	0.054	11	-0.014	12	4.993e-3	37	4.193e-3	4	2.341e-3	9
104		min	-0.077	3	-0.058	5	-0.229	37	-4.938e-4	1	-6.441e-3	10	-2.112e-3	3
105	N79B	max	0.016	12	0.043	12	0.013	11	3.992e-3	37	4.804e-3	4	2.395e-3	9
106		min	-0.008	6	-0.049	6	-0.084	17	-8.567e-4	2	-2.98e-3	10	-2.346e-3	3
107	N80A	max	0.022	10	0.114	10	0.123	11	2.591e-3	37	7.59e-3	5	2.912e-3	9
108		min	-0.017	4	-0.119	4	-0.263	5	-1.509e-3	2	-5.683e-3	10	-2.65e-3	3
109	N81_1	max	0.033	3	0.103	10	0.09	11	9.755e-4	37	6.06e-3	4	2.556e-3	10
110		min	-0.03	9	-0.107	4	-0.236	5	-2.077e-3	13	-4.072e-3	10	-2.845e-3	4
111	N82_1	max	0.031	2	0.068	11	0.053	11	1.208e-3	37	5.014e-3	5	3.215e-3	9
112		min	-0.026	9	-0.074	5	-0.164	5	-1.834e-3	2	-1.06e-3	11	-2.969e-3	3
113	N83_1	max	0.04	10	0.104	10	0.107	11	4.051e-3	37	6.111e-3	4	2.737e-3	9
114		min	-0.033	4	-0.109	4	-0.244	5	-1.037e-3	1	-4.727e-3	10	-2.69e-3	3
115	N84_1	max	0.025	10	0.076	10	0.065	11	3.702e-3	37	4.057e-3	4	2.571e-3	9
116		min	-0.018	4	-0.082	4	-0.176	5	-9.037e-4	2	-3.067e-3	10	-2.503e-3	3
117	N85_1	max	0.015	12	0.056	11	0.04	11	3.741e-3	37	4.084e-3	4	2.61e-3	9
118		min	-0.008	6	-0.063	5	-0.129	5	-9.065e-4	2	-2.853e-3	10	-2.529e-3	3
119	N86_1	max	0.016	11	0.119	10	0.132	11	2.591e-3	37	7.59e-3	5	2.912e-3	9
120		min	-0.011	5	-0.123	4	-0.276	5	-1.509e-3	2	-5.683e-3	10	-2.65e-3	3
121	N87_1	max	0.041	3	0.108	10	0.094	10	9.755e-4	37	6.06e-3	4	2.556e-3	10
122		min	-0.037	9	-0.112	4	-0.249	4	-2.077e-3	13	-4.072e-3	10	-2.845e-3	4
123	N88_1	max	0.04	3	0.072	11	0.054	10	1.208e-3	37	5.014e-3	5	3.215e-3	9
124		min	-0.035	9	-0.077	5	-0.176	4	-1.834e-3	2	-1.06e-3	11	-2.969e-3	3
125	N89_1	max	0.053	10	0.129	10	0.154	11	3.916e-3	37	5.811e-3	4	2.857e-3	9
126		min	-0.046	4	-0.133	4	-0.31	5	-1.161e-3	1	-4.915e-3	10	-2.779e-3	3
127	N90_1	max	0.046	3	0.106	10	0.09	10	1.187e-3	37	4.995e-3	4	2.564e-3	10
128		min	-0.042	9	-0.11	4	-0.248	4	-1.851e-3	13	-4.256e-3	10	-2.898e-3	4
129	N91_1	max	0.018	2	0.044	12	0.022	11	3.992e-3	37	4.804e-3	4	2.395e-3	9
130		min	-0.011	8	-0.05	6	-0.09	5	-8.567e-4	2	-2.98e-3	10	-2.346e-3	3
131	N93_1	max	0.054	3	0.097	10	0.061	10	-1.044e-3	5	5.009e-3	4	2.905e-3	10
132		min	-0.05	9	-0.101	4	-0.221	4	-4.439e-3	23	-2.843e-3	10	-2.921e-3	4
133	N94_1	max	0.072	9	0.043	12	-0.034	1	6.622e-3	41	4.326e-3	4	2.37e-3	9
134		min	-0.068	3	-0.049	6	-0.228	37	5.312e-4	3	-8.435e-3	10	-2.321e-3	3
135	N109_1	max	0.055	9	0.099	1	-0.03	1	3.097e-2	7	4.143e-3	4	2.153e-3	9
136		min	-0.053	3	-0.119	7	-0.21	19	-2.55e-2	1	-5.222e-3	10	-2.257e-3	3
137	N110_1	max	0.05	9	0.116	11	0.1	11	2.909e-2	7	7.222e-3	4	2.902e-3	9
138		min	-0.048	3	-0.133	5	-0.26	5	-2.438e-2	1	-8.586e-3	10	-3.106e-3	3
139	N111_1	max	0.066	9	0.043	12	-0.03	1	6.744e-3	41	4.144e-3	4	2.153e-3	9
140		min	-0.062	3	-0.049	6	-0.21	19	5.008e-4	3	-7.075e-3	10	-2.257e-3	3
141	N112_1	max	0.068	9	0.099	1	0.13	1	3.097e-2	7	4.143e-3	4	2.153e-3	9
142		min	-0.067	3	-0.119	7	-0.357	7	-2.55e-2	1	-5.222e-3	10	-2.257e-3	3
143	N113_1	max	0.068	10	0.096	10	0.1	11	4.966e-3	37	5.407e-3	4	2.902e-3	9
144		min	-0.062	4	-0.101	4	-0.26	5	-1.624e-3	12	-5.232e-3	10	-3.106e-3	3

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
145	N114_1	max	0.068	9	0.116	11	0.208	12	2.909e-2	7	7.222e-3	4	2.902e-3	9
146		min	-0.067	3	-0.133	5	-0.397	6	-2.438e-2	1	-8.586e-3	10	-3.106e-3	3
147	N117_1	max	0.059	9	0.144	3	0.159	3	4.454e-3	8	2.854e-3	3	2.406e-3	10
148		min	-0.066	3	-0.148	9	-0.32	9	-4.388e-3	2	-4.465e-3	9	-2.364e-3	4
149	N118_1	max	0.024	7	0.067	2	0.012	3	4.068e-3	8	8.852e-4	4	2.152e-3	10
150		min	-0.034	1	-0.068	8	-0.075	9	-3.55e-3	2	-3.581e-3	10	-2.122e-3	4
151	N120_1	max	0.046	9	0.122	3	0.103	3	4.659e-3	8	2.619e-3	3	2.358e-3	10
152		min	-0.053	3	-0.125	9	-0.241	9	-4.333e-3	2	-4.757e-3	9	-2.333e-3	4
153	N121_1	max	0.034	8	0.132	3	0.087	3	3.009e-3	8	3.991e-3	3	2.377e-3	10
154		min	-0.041	2	-0.135	9	-0.24	9	-4.682e-3	2	-6.478e-3	9	-2.515e-3	4
155	N122_1	max	0.035	8	0.098	2	0.06	3	3.568e-3	8	1.02e-3	4	2.292e-3	10
156		min	-0.044	2	-0.101	8	-0.174	9	-3.497e-3	2	-2.801e-3	10	-2.233e-3	4
157	N123_1	max	0.027	8	0.083	2	0.035	3	3.622e-3	8	7.387e-4	4	2.32e-3	10
158		min	-0.036	2	-0.084	8	-0.126	9	-3.435e-3	2	-2.815e-3	10	-2.26e-3	4
159	N124_1	max	0.033	6	0.122	3	0.007	4	2.545e-3	8	2.381e-3	3	2.636e-3	10
160		min	-0.039	12	-0.124	9	-0.207	22	-6.119e-3	2	-4.982e-3	9	-2.457e-3	4
161	N125_1	max	0.028	6	0.094	2	-0.007	4	2.556e-3	8	-8.58e-4	4	2.723e-3	10
162		min	-0.038	12	-0.095	8	-0.154	22	-5.655e-3	2	-5.228e-3	22	-2.998e-3	4
163	N126_1	max	0.042	9	0.124	3	0.098	3	4.659e-3	8	2.619e-3	3	2.358e-3	10
164		min	-0.05	2	-0.127	9	-0.238	9	-4.333e-3	2	-4.757e-3	9	-2.333e-3	4
165	N127_1	max	0.033	8	0.1	2	0.056	3	3.568e-3	8	1.02e-3	4	2.292e-3	10
166		min	-0.042	2	-0.103	9	-0.171	9	-3.497e-3	2	-2.801e-3	10	-2.233e-3	4
167	N128_1	max	0.025	7	0.084	2	0.03	3	3.622e-3	8	7.387e-4	4	2.32e-3	10
168		min	-0.035	1	-0.086	8	-0.123	9	-3.435e-3	2	-2.815e-3	10	-2.26e-3	4
169	N129_1	max	0.03	8	0.136	3	0.081	3	3.009e-3	8	3.991e-3	3	2.377e-3	10
170		min	-0.037	2	-0.139	9	-0.244	9	-4.682e-3	2	-6.478e-3	9	-2.515e-3	4
171	N130_1	max	0.037	5	0.126	3	-0.001	4	2.545e-3	8	2.381e-3	3	2.636e-3	10
172		min	-0.043	11	-0.129	9	-0.221	22	-6.119e-3	2	-4.982e-3	9	-2.457e-3	4
173	N131_1	max	0.033	5	0.097	2	-0.016	5	2.556e-3	8	-8.58e-4	4	2.723e-3	10
174		min	-0.042	11	-0.098	8	-0.171	23	-5.655e-3	2	-5.228e-3	22	-2.998e-3	4
175	N132_1	max	0.057	9	0.141	3	0.15	3	4.454e-3	8	2.854e-3	3	2.406e-3	10
176		min	-0.064	3	-0.144	9	-0.308	9	-4.388e-3	2	-4.465e-3	9	-2.364e-3	4
177	N133_1	max	0.025	7	0.07	2	0.017	3	4.068e-3	8	8.851e-4	4	2.152e-3	10
178		min	-0.035	1	-0.072	8	-0.087	9	-3.55e-3	2	-3.581e-3	10	-2.122e-3	4
179	N134_1	max	0.053	9	0.143	3	0.146	3	4.454e-3	8	2.854e-3	3	2.406e-3	10
180		min	-0.06	3	-0.147	9	-0.305	9	-4.388e-3	2	-4.465e-3	9	-2.364e-3	4
181	N135_1	max	0.041	5	0.125	3	-0.01	4	2.705e-3	8	2.879e-3	3	2.686e-3	10
182		min	-0.047	11	-0.127	9	-0.225	22	-5.989e-3	2	-4.011e-3	9	-2.467e-3	4
183	N136_1	max	0.024	7	0.072	2	0.013	3	4.068e-3	8	8.851e-4	4	2.152e-3	10
184		min	-0.034	1	-0.073	8	-0.084	21	-3.55e-3	2	-3.581e-3	10	-2.122e-3	4
185	N137_1	max	0.062	9	0.113	3	0.123	3	6.693e-3	8	3.124e-3	3	2.484e-3	10
186		min	-0.068	3	-0.116	9	-0.263	9	-4.977e-3	2	-3.885e-3	9	-2.239e-3	4
187	N138_1	max	0.072	9	0.087	2	0.09	3	5.648e-3	8	3.137e-3	3	1.531e-3	10
188		min	-0.077	3	-0.088	8	-0.235	9	-2.961e-3	2	-2.432e-3	9	-1.84e-3	4
189	N139_1	max	0.049	9	0.07	2	0.054	3	6.113e-3	38	1.349e-3	34	2.025e-3	10
190		min	-0.057	3	-0.072	8	-0.165	9	-6.655e-4	2	-1.898e-3	10	-1.802e-3	4
191	N140_1	max	0.049	9	0.12	3	0.107	3	4.659e-3	8	2.619e-3	3	2.358e-3	10
192		min	-0.057	3	-0.123	9	-0.244	9	-4.333e-3	2	-4.757e-3	9	-2.333e-3	4
193	N141_1	max	0.038	8	0.097	2	0.065	3	3.568e-3	8	1.02e-3	4	2.292e-3	10
194		min	-0.046	2	-0.1	8	-0.176	9	-3.497e-3	2	-2.801e-3	10	-2.233e-3	4
195	N142_1	max	0.029	8	0.081	2	0.04	3	3.622e-3	8	7.387e-4	4	2.32e-3	10
196		min	-0.038	2	-0.083	8	-0.129	9	-3.435e-3	2	-2.815e-3	10	-2.26e-3	4
197	N143_1	max	0.068	9	0.11	3	0.132	3	6.693e-3	8	3.124e-3	3	2.484e-3	10
198		min	-0.074	3	-0.112	9	-0.276	9	-4.977e-3	2	-3.885e-3	9	-2.239e-3	4
199	N144_1	max	0.077	9	0.085	2	0.092	3	5.648e-3	8	3.137e-3	3	1.531e-3	10
200		min	-0.082	3	-0.086	8	-0.247	9	-2.961e-3	2	-2.432e-3	9	-1.84e-3	4
201	N145_1	max	0.054	9	0.069	2	0.054	3	6.113e-3	38	1.349e-3	34	2.025e-3	10
202		min	-0.061	3	-0.07	8	-0.176	9	-6.655e-4	2	-1.898e-3	10	-1.802e-3	4
203	N146_1	max	0.06	9	0.139	3	0.154	3	4.454e-3	8	2.854e-3	3	2.406e-3	10
204		min	-0.067	3	-0.142	9	-0.31	9	-4.388e-3	2	-4.465e-3	9	-2.364e-3	4
205	N147_1	max	0.077	9	0.082	2	0.088	3	4.668e-3	8	3.182e-3	3	1.454e-3	10
206		min	-0.083	3	-0.084	8	-0.245	9	-3.19e-3	2	-2.061e-3	9	-1.807e-3	4
207	N148_1	max	0.026	7	0.069	2	0.022	3	4.068e-3	8	8.851e-4	4	2.152e-3	10
208		min	-0.035	1	-0.07	8	-0.09	9	-3.55e-3	2	-3.581e-3	10	-2.122e-3	4
209	N149_1	max	0.061	9	0.13	1	0.056	3	3.184e-2	7	2.69e-3	34	1.432e-3	10

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
210		min	-0.063	3	-0.147	7	-0.205	9	-2.564e-2	1	-8.084e-4	9	-1.4e-3	4
211	N150_1	max	0.066	9	0.069	2	0.057	3	6.093e-3	38	4.444e-3	3	1.631e-3	10
212		min	-0.072	3	-0.071	8	-0.218	9	-6.033e-4	2	-1.748e-3	9	-1.663e-3	4
213	N151_1	max	0.045	5	0.118	3	-0.03	5	2.827e-3	8	1.132e-3	4	2.897e-3	10
214		min	-0.052	11	-0.118	9	-0.227	23	-9.221e-3	2	-3.924e-3	10	-2.865e-3	4
215	N152_1	max	0.053	9	0.165	2	0.139	3	2.995e-2	7	5.249e-3	4	2.658e-3	10
216		min	-0.06	3	-0.181	8	-0.284	9	-2.449e-2	1	-5.434e-3	10	-2.186e-3	4
217	N162	max	0.063	9	0.069	2	0.056	3	6.154e-3	38	3.381e-3	3	1.432e-3	10
218		min	-0.069	3	-0.071	8	-0.205	9	-4.375e-4	2	-1.727e-3	9	-1.4e-3	4
219	N163	max	0.068	9	0.13	1	0.191	2	3.184e-2	7	2.69e-3	34	1.432e-3	10
220		min	-0.07	3	-0.147	7	-0.379	8	-2.564e-2	1	-8.084e-4	9	-1.4e-3	4
221	N164	max	0.066	9	0.117	3	0.139	3	6.16e-3	8	2.756e-3	3	2.658e-3	10
222		min	-0.072	3	-0.12	9	-0.284	9	-4.912e-3	2	-3.85e-3	9	-2.186e-3	4
223	N165	max	0.067	9	0.165	2	0.249	2	2.995e-2	7	5.249e-3	4	2.658e-3	10
224		min	-0.071	3	-0.181	8	-0.429	8	-2.449e-2	1	-5.434e-3	10	-2.186e-3	4
225	N167	max	0.059	6	0.144	2	0.1	3	1.248e-2	6	2.325e-2	5	2.506e-3	10
226		min	-0.075	12	-0.138	8	-0.26	9	-1.607e-2	12	-2.673e-2	11	-2.736e-3	4
227	N152A	max	0.219	4	0.035	12	-0.022	9	1.43e-2	9	2.867e-2	3	1.229e-3	10
228		min	-0.202	10	-0.024	6	-0.211	15	-1.614e-2	3	-2.333e-2	9	-1.342e-3	4
229	N153A	max	0.258	3	0.049	1	0.091	7	1.536e-2	8	2.694e-2	3	1.251e-3	9
230		min	-0.246	10	-0.038	7	-0.251	1	-1.661e-2	2	-2.209e-2	9	-1.478e-3	3
231	N154A	max	0.151	4	0.046	10	-0.022	9	3.708e-3	7	7.543e-3	18	1.229e-3	10
232		min	-0.147	10	-0.039	4	-0.211	15	-4.059e-3	1	-1.005e-3	12	-1.342e-3	4
233	N155A	max	0.223	4	0.039	12	0.149	9	1.43e-2	9	2.867e-2	3	1.229e-3	10
234		min	-0.206	10	-0.028	6	-0.376	3	-1.614e-2	3	-2.333e-2	9	-1.342e-3	4
235	N156A	max	0.193	4	0.023	11	0.091	7	4.642e-3	7	3.465e-3	4	1.251e-3	9
236		min	-0.193	10	-0.015	5	-0.251	1	-6.064e-3	1	-1.329e-3	10	-1.478e-3	3
237	N157A	max	0.263	3	0.045	1	0.21	8	1.536e-2	8	2.694e-2	3	1.251e-3	9
238		min	-0.25	9	-0.035	7	-0.4	2	-1.661e-2	2	-2.209e-2	9	-1.478e-3	3
239	N158A	max	0.121	3	0.075	11	0.058	10	1.205e-2	9	2.847e-2	3	3.122e-3	10
240		min	-0.105	9	-0.068	5	-0.207	4	-1.635e-2	3	-2.369e-2	9	-3.073e-3	4
241	N159A	max	0.054	3	0.102	10	0.139	11	1.201e-2	8	2.741e-2	3	3.286e-3	9
242		min	-0.036	9	-0.099	4	-0.285	5	-1.458e-2	2	-2.253e-2	9	-2.795e-3	3
243	N160A	max	0.05	3	0.09	10	0.058	10	-6.003e-4	37	4.913e-3	4	3.122e-3	10
244		min	-0.046	9	-0.094	4	-0.207	4	-3.566e-3	24	-2.14e-3	10	-3.073e-3	4
245	N161A	max	0.13	3	0.088	11	0.204	10	1.205e-2	9	2.847e-2	3	3.122e-3	10
246		min	-0.114	9	-0.081	5	-0.392	4	-1.635e-2	3	-2.369e-2	9	-3.073e-3	4
247	N162A	max	0.024	10	0.122	10	0.139	11	3.046e-3	37	7.045e-3	5	3.286e-3	9
248		min	-0.019	4	-0.126	4	-0.285	5	-1.413e-3	2	-5.383e-3	10	-2.795e-3	3
249	N163A	max	0.062	3	0.118	10	0.262	10	1.201e-2	8	2.741e-2	3	3.286e-3	9
250		min	-0.046	9	-0.112	4	-0.442	4	-1.458e-2	2	-2.253e-2	9	-2.795e-3	3
251	N166	max	0.101	5	0.123	2	-0.026	5	1.253e-2	6	2.362e-2	5	3.009e-3	10
252		min	-0.119	11	-0.113	8	-0.21	23	-1.626e-2	12	-2.79e-2	11	-3.132e-3	4
253	N168	max	0.042	5	0.111	3	-0.026	5	2.788e-3	8	3.686e-4	4	3.009e-3	10
254		min	-0.049	11	-0.111	9	-0.21	23	-8.24e-3	2	-4.051e-3	22	-3.132e-3	4
255	N169	max	0.109	5	0.133	2	0.141	5	1.253e-2	6	2.362e-2	5	3.009e-3	10
256		min	-0.126	11	-0.123	8	-0.368	11	-1.626e-2	12	-2.79e-2	11	-3.132e-3	4
257	N170	max	0.035	8	0.138	3	0.1	3	3.217e-3	8	3.6e-3	3	2.506e-3	10
258		min	-0.042	2	-0.141	9	-0.26	9	-4.365e-3	2	-5.871e-3	9	-2.736e-3	4
259	N171	max	0.064	6	0.152	3	0.223	4	1.248e-2	6	2.325e-2	5	2.506e-3	10
260		min	-0.079	12	-0.145	9	-0.411	10	-1.607e-2	12	-2.673e-2	11	-2.736e-3	4
261	N172A	max	0.2	4	0.066	1	0.051	6	1.464e-2	5	2.271e-2	5	2.039e-3	8
262		min	-0.214	10	-0.055	7	-0.2	12	-1.662e-2	11	-2.881e-2	11	-2.017e-3	2
263	N173A	max	0.246	4	0.06	12	0.125	7	1.367e-2	5	2.214e-2	5	1.781e-3	9
264		min	-0.257	10	-0.046	6	-0.272	1	-1.662e-2	11	-2.684e-2	11	-1.311e-3	3
265	N174	max	0.15	4	0.06	3	0.051	6	2.842e-3	7	-1.029e-3	6	2.039e-3	8
266		min	-0.149	10	-0.053	9	-0.2	12	-3.501e-3	1	-4.561e-3	24	-2.017e-3	2
267	N175	max	0.205	4	0.074	1	0.19	6	1.464e-2	5	2.271e-2	5	2.039e-3	8
268		min	-0.219	10	-0.063	7	-0.379	12	-1.662e-2	11	-2.881e-2	11	-2.017e-3	2
269	N177	max	0.249	4	0.063	1	0.245	6	1.367e-2	5	2.214e-2	5	1.781e-3	9
270		min	-0.262	10	-0.052	7	-0.426	12	-1.662e-2	11	-2.684e-2	11	-1.311e-3	3
271	N192	max	0.067	9	0.17	2	0.282	2	2.914e-2	7	6.687e-3	4	2.618e-3	10
272		min	-0.07	3	-0.19	8	-0.465	8	-2.414e-2	1	-7.076e-3	10	-2.201e-3	4
273	N193	max	0.068	9	0.128	11	0.259	12	2.845e-2	7	8.766e-3	4	3.282e-3	9
274		min	-0.067	3	-0.146	5	-0.437	6	-2.413e-2	1	-9.88e-3	10	-3.44e-3	3

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
275	N195	max	0.039	3	0.132	10	0.295	10	1.265e-2	8	2.677e-2	3	3.744e-3	9
276		min	-0.02	9	-0.125	4	-0.479	4	-1.482e-2	2	-2.218e-2	9	-3.318e-3	3
277	N196A	max	0.271	3	0.047	1	0.257	8	1.562e-2	8	2.642e-2	3	7.25e-4	9
278		min	-0.256	9	-0.037	7	-0.436	2	-1.689e-2	2	-2.204e-2	9	-8.939e-4	3
279	N204	max	0.255	4	0.06	1	0.275	6	1.374e-2	6	2.196e-2	5	1.614e-3	8
280		min	-0.271	10	-0.047	7	-0.459	12	-1.669e-2	12	-2.616e-2	11	-1.195e-3	2
281	N205	max	0.05	6	0.163	3	0.275	4	1.315e-2	6	2.3e-2	5	3.025e-3	10
282		min	-0.067	12	-0.155	9	-0.454	10	-1.632e-2	12	-2.624e-2	11	-3.208e-3	4
283	N212	max	0.163	4	0.021	1	0.049	7	1.875e-3	7	3.304e-3	5	1.856e-3	9
284		min	-0.162	10	-0.012	7	-0.158	1	-3.518e-3	1	-2.443e-3	11	-1.795e-3	3
285	N260	max	0.033	8	0.095	2	0.055	3	3.545e-3	8	9.412e-4	4	2.307e-3	10
286		min	-0.042	2	-0.098	8	-0.164	9	-3.467e-3	2	-2.749e-3	10	-2.239e-3	4
287	N307	max	0.026	10	0.069	11	0.055	11	3.696e-3	37	4.001e-3	4	2.574e-3	9
288		min	-0.019	4	-0.075	5	-0.164	5	-9.047e-4	2	-2.991e-3	10	-2.495e-3	3
289	N309	max	0.224	4	0.039	12	0.149	9	1.43e-2	9	2.863e-2	3	1.283e-3	10
290		min	-0.207	10	-0.028	6	-0.376	3	-1.612e-2	3	-2.331e-2	9	-1.36e-3	4
291	N310	max	0.197	3	0.052	11	0.142	9	1.342e-2	9	2.874e-2	3	1.217e-3	10
292		min	-0.182	9	-0.043	5	-0.383	3	-1.661e-2	3	-2.439e-2	9	-1.284e-3	4
293	N261A	max	0.012	1	0.025	12	0.009	11	2.01e-3	37	2.364e-3	4	1.659e-3	12
294		min	-0.01	7	-0.027	6	-0.052	5	-9.356e-4	2	-1.424e-3	10	-1.677e-3	6
295	N262	max	0.018	12	0.043	12	0.017	11	3.992e-3	37	4.804e-3	4	2.395e-3	9
296		min	-0.014	6	-0.046	6	-0.087	5	-8.567e-4	2	-2.98e-3	10	-2.346e-3	3
297	N263	max	0.029	10	0.068	11	0.05	11	3.797e-3	37	4.302e-3	4	2.597e-3	9
298		min	-0.024	4	-0.071	5	-0.154	5	-8.57e-4	2	-3.022e-3	10	-2.516e-3	3
299	N264	max	0.044	10	0.094	10	0.079	11	3.709e-3	37	4.092e-3	4	2.566e-3	9
300		min	-0.039	4	-0.097	4	-0.205	5	-9.068e-4	2	-3.107e-3	10	-2.508e-3	3
301	N265	max	0.012	11	0.015	11	0.01	11	2.37e-3	5	5.728e-4	13	1.452e-3	11
302		min	-0.018	5	-0.009	5	-0.052	5	-1.872e-3	11	-1.275e-4	5	-1.303e-3	5
303	N266	max	0.012	1	0.025	12	0.009	11	2.01e-3	37	2.364e-3	4	1.659e-3	12
304		min	-0.01	7	-0.026	6	-0.052	5	-9.356e-4	2	-1.424e-3	10	-1.677e-3	6
305	N267	max	0.017	1	0.037	12	0.013	11	2.715e-3	37	2.66e-3	4	1.657e-3	11
306		min	-0.013	7	-0.04	6	-0.07	5	-1.25e-3	2	-1.919e-3	10	-1.656e-3	5
307	N268	max	0.018	12	0.044	12	0.02	11	3.511e-3	37	3.744e-3	4	2.429e-3	9
308		min	-0.014	6	-0.047	6	-0.091	5	-1.145e-3	2	-2.878e-3	10	-2.375e-3	3
309	N269	max	0.02	11	0.053	11	0.03	11	3.536e-3	37	3.697e-3	4	2.567e-3	9
310		min	-0.016	5	-0.056	5	-0.114	5	-1.112e-3	2	-2.708e-3	10	-2.494e-3	3
311	N270	max	0.025	11	0.061	11	0.041	11	3.675e-3	37	3.996e-3	4	2.611e-3	9
312		min	-0.02	5	-0.064	5	-0.135	5	-9.769e-4	2	-2.842e-3	10	-2.531e-3	3
313	N271	max	0.033	10	0.075	10	0.059	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
314		min	-0.028	4	-0.078	4	-0.17	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
315	N272	max	0.037	10	0.082	10	0.066	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
316		min	-0.032	4	-0.085	4	-0.182	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
317	N273	max	0.016	1	0.037	12	0.013	11	2.715e-3	37	2.66e-3	4	1.657e-3	11
318		min	-0.013	7	-0.039	6	-0.07	5	-1.25e-3	2	-1.919e-3	10	-1.656e-3	5
319	N274	max	0.019	12	0.044	12	0.02	11	3.511e-3	37	3.744e-3	4	2.429e-3	9
320		min	-0.016	6	-0.046	5	-0.091	5	-1.145e-3	2	-2.878e-3	10	-2.375e-3	3
321	N275	max	0.022	11	0.054	11	0.03	11	3.536e-3	37	3.697e-3	4	2.567e-3	9
322		min	-0.019	5	-0.056	5	-0.114	5	-1.112e-3	2	-2.708e-3	10	-2.494e-3	3
323	N276	max	0.027	11	0.062	11	0.041	11	3.675e-3	37	3.996e-3	4	2.611e-3	9
324		min	-0.023	5	-0.064	5	-0.135	5	-9.769e-4	2	-2.842e-3	10	-2.531e-3	3
325	N277	max	0.031	10	0.068	11	0.05	11	3.797e-3	37	4.302e-3	4	2.597e-3	9
326		min	-0.027	4	-0.07	5	-0.154	5	-8.57e-4	2	-3.022e-3	10	-2.516e-3	3
327	N278	max	0.036	10	0.076	10	0.059	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
328		min	-0.031	4	-0.078	4	-0.17	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
329	N279	max	0.04	10	0.083	10	0.066	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
330		min	-0.035	4	-0.085	4	-0.182	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
331	N280	max	0.013	11	0.016	11	0.01	11	2.37e-3	5	5.728e-4	13	1.452e-3	11
332		min	-0.018	5	-0.011	5	-0.051	5	-1.872e-3	11	-1.275e-4	5	-1.303e-3	5
333	N281	max	0.028	11	0.044	11	0.02	11	2.926e-3	7	2.55e-3	4	2.463e-3	10
334		min	-0.031	5	-0.038	5	-0.09	5	-1.964e-3	1	-1.675e-3	10	-2.318e-3	4
335	N282	max	0.021	11	0.03	11	0.014	11	2.528e-3	7	1.731e-3	3	2.108e-3	10
336		min	-0.026	5	-0.023	5	-0.069	5	-1.767e-3	1	-9.149e-4	9	-1.95e-3	4
337	N283	max	0.035	11	0.055	11	0.03	11	2.855e-3	7	3.156e-3	4	2.591e-3	10
338		min	-0.037	5	-0.05	5	-0.113	5	-1.647e-3	1	-2.128e-3	10	-2.463e-3	4
339	N284	max	0.029	11	0.044	11	0.021	11	2.926e-3	7	2.55e-3	4	2.463e-3	10

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
340		min	-0.032	5	-0.037	5	-0.091	5	-1.964e-3	1	-1.675e-3	10	-2.318e-3	4
341	N285	max	0.039	10	0.066	10	0.041	11	3.235e-3	37	3.659e-3	4	2.597e-3	10
342		min	-0.04	4	-0.061	4	-0.135	5	-1.255e-3	1	-2.548e-3	10	-2.488e-3	4
343	N286	max	0.043	10	0.075	10	0.05	11	3.554e-3	37	3.956e-3	4	2.596e-3	9
344		min	-0.043	4	-0.071	4	-0.154	5	-1.027e-3	2	-2.842e-3	10	-2.513e-3	3
345	N287	max	0.046	10	0.082	10	0.059	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
346		min	-0.045	4	-0.079	4	-0.171	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
347	N288	max	0.048	10	0.087	10	0.066	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
348		min	-0.046	4	-0.085	4	-0.183	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
349	N289	max	0.021	11	0.03	11	0.014	11	2.528e-3	7	1.731e-3	3	2.108e-3	10
350		min	-0.025	5	-0.024	5	-0.069	5	-1.767e-3	1	-9.149e-4	9	-1.95e-3	4
351	N290	max	0.034	11	0.055	11	0.03	11	2.855e-3	7	3.156e-3	4	2.591e-3	10
352		min	-0.035	5	-0.05	5	-0.113	5	-1.647e-3	1	-2.128e-3	10	-2.463e-3	4
353	N291	max	0.037	10	0.065	10	0.04	11	3.235e-3	37	3.659e-3	4	2.597e-3	10
354		min	-0.038	4	-0.061	4	-0.134	5	-1.255e-3	1	-2.548e-3	10	-2.488e-3	4
355	N292	max	0.041	10	0.073	10	0.05	11	3.554e-3	37	3.956e-3	4	2.596e-3	9
356		min	-0.04	4	-0.071	4	-0.154	5	-1.027e-3	2	-2.842e-3	10	-2.513e-3	3
357	N293	max	0.044	10	0.08	10	0.059	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
358		min	-0.042	4	-0.079	4	-0.17	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
359	N294	max	0.046	10	0.086	10	0.066	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
360		min	-0.043	4	-0.085	4	-0.182	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
361	N295A	max	0.047	10	0.095	10	0.079	11	3.709e-3	37	4.092e-3	4	2.566e-3	9
362		min	-0.042	4	-0.097	4	-0.205	5	-9.068e-4	2	-3.107e-3	10	-2.508e-3	3
363	N296A	max	0.049	10	0.096	10	0.078	11	3.709e-3	37	4.092e-3	4	2.566e-3	9
364		min	-0.045	4	-0.097	4	-0.204	5	-9.068e-4	2	-3.107e-3	10	-2.508e-3	3
365	N297A	max	0.051	10	0.097	10	0.078	11	3.709e-3	37	4.092e-3	4	2.566e-3	9
366		min	-0.048	4	-0.097	4	-0.204	5	-9.068e-4	2	-3.107e-3	10	-2.508e-3	3
367	N298A	max	0.005	2	0.008	1	0.003	11	9.761e-4	8	1.206e-3	4	1.379e-3	1
368		min	-0.003	8	-0.009	7	-0.023	17	-4.104e-4	2	-6.315e-4	10	-1.404e-3	7
369	N299A	max	0.004	11	0.004	41	0.003	11	1.e-3	5	3.692e-4	14	8.897e-4	11
370		min	-0.007	5	-0.001	5	-0.019	17	-7.526e-4	12	-8.564e-6	9	-7.661e-4	5
371	N300	max	0.004	2	0.008	12	0.003	11	9.761e-4	8	1.206e-3	4	1.379e-3	1
372		min	-0.003	8	-0.009	6	-0.023	17	-4.104e-4	2	-6.315e-4	10	-1.404e-3	7
373	N301A	max	0.004	11	0.004	11	0.003	11	1.e-3	5	3.692e-4	14	8.897e-4	11
374		min	-0.007	5	-0.002	5	-0.019	17	-7.526e-4	12	-8.564e-6	9	-7.661e-4	5
375	N302	max	0	5	0	11	0	11	0	11	0	11	0	1
376		min	0	11	0	5	0	17	0	5	0	5	0	7
377	N303	max	0	11	0	5	0	11	0	11	0	11	0	11
378		min	0	5	0	11	0	17	0	5	0	5	0	5
379	N304	max	0	5	0	11	0	11	0	11	0	11	0	12
380		min	0	11	0	5	0	17	0	5	0	5	0	6
381	N305	max	0	11	0	5	0	11	0	11	0	11	0	12
382		min	0	5	0	11	0	17	0	5	0	5	0	6
383	N306	max	0.031	10	0.071	10	0.055	11	3.696e-3	37	4.001e-3	4	2.574e-3	9
384		min	-0.026	4	-0.075	4	-0.164	5	-9.047e-4	2	-2.991e-3	10	-2.495e-3	3
385	N307B	max	0.047	10	0.091	10	0.072	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
386		min	-0.044	4	-0.091	4	-0.194	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
387	N308A	max	0.043	10	0.089	10	0.072	11	3.71e-3	37	4.094e-3	4	2.567e-3	9
388		min	-0.039	4	-0.091	4	-0.194	5	-9.06e-4	2	-3.106e-3	10	-2.509e-3	3
389	N213	max	0.067	4	0.008	1	0.007	7	6.183e-4	7	2.14e-3	5	4.286e-3	10
390		min	-0.066	10	-0.004	7	-0.051	13	-1.978e-3	1	-1.677e-3	11	-4.33e-3	4
391	N214	max	0.123	4	0.012	1	0.014	7	1.804e-3	7	3.538e-3	5	2.262e-3	9
392		min	-0.121	10	-0.007	7	-0.084	1	-4.432e-3	1	-2.619e-3	11	-2.231e-3	3
393	N215	max	0.154	4	0.015	1	0.044	7	1.947e-3	7	3.34e-3	5	1.825e-3	9
394		min	-0.154	10	-0.009	7	-0.149	1	-3.917e-3	1	-2.481e-3	11	-1.764e-3	3
395	N216	max	0.177	4	0.015	1	0.071	7	2.031e-3	7	3.272e-3	5	1.911e-3	9
396		min	-0.178	10	-0.009	7	-0.197	1	-3.632e-3	1	-2.429e-3	11	-1.868e-3	3
397	N217	max	0.03	3	0.003	7	0.008	7	4.443e-4	7	5.51e-3	4	2.416e-3	9
398		min	-0.033	9	-0.011	1	-0.05	13	-1.03e-3	1	-5.406e-3	10	-2.263e-3	3
399	N218	max	0.066	4	0.006	1	0.007	7	6.183e-4	7	2.14e-3	5	4.286e-3	10
400		min	-0.065	10	-0.004	7	-0.051	13	-1.978e-3	1	-1.677e-3	11	-4.33e-3	4
401	N219	max	0.103	4	0.01	1	0.011	7	7.875e-4	7	3.053e-3	5	3.573e-3	10
402		min	-0.102	10	-0.006	7	-0.068	13	-2.045e-3	1	-2.366e-3	11	-3.579e-3	4
403	N220	max	0.125	4	0.013	1	0.017	7	1.637e-3	7	3.564e-3	5	2.194e-3	9
404		min	-0.124	10	-0.008	7	-0.088	1	-3.145e-3	1	-2.669e-3	11	-2.16e-3	3

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
405	N221	max	0.137	4	0.014	1	0.026	7	1.537e-3	7	3.552e-3	5	1.916e-3	9
406		min	-0.137	10	-0.008	7	-0.11	1	-3.165e-3	1	-2.691e-3	11	-1.867e-3	3
407	N222	max	0.147	4	0.014	1	0.036	7	1.727e-3	7	3.448e-3	5	1.816e-3	9
408		min	-0.147	10	-0.009	7	-0.13	1	-3.537e-3	1	-2.591e-3	11	-1.759e-3	3
409	N223	max	0.161	4	0.015	1	0.052	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
410		min	-0.161	10	-0.009	7	-0.164	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
411	N224	max	0.166	4	0.015	1	0.058	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
412		min	-0.167	10	-0.009	7	-0.175	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
413	N225	max	0.101	4	0.009	1	0.011	7	7.875e-4	7	3.053e-3	5	3.573e-3	10
414		min	-0.1	10	-0.005	7	-0.068	13	-2.045e-3	1	-2.366e-3	11	-3.579e-3	4
415	N226	max	0.123	4	0.01	1	0.017	7	1.637e-3	7	3.564e-3	5	2.194e-3	9
416		min	-0.122	10	-0.006	7	-0.088	1	-3.145e-3	1	-2.669e-3	11	-2.16e-3	3
417	N227	max	0.135	4	0.011	1	0.026	7	1.537e-3	7	3.552e-3	5	1.916e-3	9
418		min	-0.135	10	-0.007	7	-0.11	1	-3.165e-3	1	-2.691e-3	11	-1.867e-3	3
419	N228	max	0.144	4	0.012	1	0.036	7	1.727e-3	7	3.448e-3	5	1.816e-3	9
420		min	-0.145	10	-0.007	7	-0.13	1	-3.537e-3	1	-2.591e-3	11	-1.759e-3	3
421	N229	max	0.152	4	0.012	1	0.044	7	1.947e-3	7	3.34e-3	5	1.825e-3	9
422		min	-0.153	10	-0.008	7	-0.149	1	-3.917e-3	1	-2.481e-3	11	-1.764e-3	3
423	N230	max	0.159	4	0.013	1	0.052	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
424		min	-0.16	10	-0.008	7	-0.164	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
425	N231	max	0.164	4	0.013	1	0.058	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
426		min	-0.165	10	-0.008	7	-0.175	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
427	N232	max	0.034	3	0.002	7	0.008	7	4.443e-4	7	5.51e-3	4	2.416e-3	9
428		min	-0.036	9	-0.01	1	-0.05	13	-1.03e-3	1	-5.406e-3	10	-2.263e-3	3
429	N233	max	0.092	3	0.002	7	0.017	7	1.205e-3	7	4.981e-3	4	2.76e-3	9
430		min	-0.096	9	-0.007	1	-0.087	1	-2.533e-3	1	-4.562e-3	10	-2.616e-3	3
431	N234	max	0.061	3	0.003	7	0.011	7	8.47e-4	7	5.195e-3	4	2.782e-3	9
432		min	-0.065	9	-0.011	1	-0.067	1	-2.021e-3	1	-4.931e-3	10	-2.627e-3	3
433	N235	max	0.112	3	0.002	7	0.026	7	1.415e-3	7	4.416e-3	4	2.618e-3	9
434		min	-0.116	9	-0.007	1	-0.109	1	-2.978e-3	1	-3.846e-3	10	-2.49e-3	3
435	N236	max	0.089	3	0.003	7	0.018	7	1.205e-3	7	4.981e-3	4	2.76e-3	9
436		min	-0.093	9	-0.009	1	-0.088	1	-2.533e-3	1	-4.562e-3	10	-2.616e-3	3
437	N237	max	0.129	3	0.001	7	0.036	7	1.681e-3	7	3.812e-3	5	2.42e-3	9
438		min	-0.134	9	-0.004	1	-0.13	1	-3.385e-3	1	-3.093e-3	11	-2.314e-3	3
439	N238	max	0.142	3	0	6	0.044	7	1.859e-3	7	3.485e-3	5	2.186e-3	9
440		min	-0.146	9	-0.002	24	-0.148	1	-3.61e-3	1	-2.683e-3	11	-2.108e-3	3
441	N239	max	0.152	3	0.001	2	0.052	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
442		min	-0.155	9	-0.001	8	-0.165	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
443	N240	max	0.159	3	0.003	1	0.059	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
444		min	-0.162	9	-0.002	7	-0.176	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
445	N241	max	0.064	3	0.003	7	0.011	7	8.47e-4	7	5.195e-3	4	2.782e-3	9
446		min	-0.067	9	-0.009	1	-0.067	1	-2.021e-3	1	-4.931e-3	10	-2.627e-3	3
447	N242	max	0.114	3	0.001	7	0.026	7	1.415e-3	7	4.416e-3	4	2.618e-3	9
448		min	-0.118	9	-0.005	1	-0.109	1	-2.978e-3	1	-3.846e-3	10	-2.49e-3	3
449	N243	max	0.131	3	0	6	0.035	7	1.681e-3	7	3.812e-3	5	2.42e-3	9
450		min	-0.135	9	-0.002	24	-0.129	1	-3.385e-3	1	-3.093e-3	11	-2.314e-3	3
451	N244	max	0.143	3	0.001	2	0.044	7	1.859e-3	7	3.485e-3	5	2.186e-3	9
452		min	-0.147	9	-0.001	8	-0.148	1	-3.61e-3	1	-2.683e-3	11	-2.108e-3	3
453	N245	max	0.153	3	0.003	1	0.052	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
454		min	-0.156	9	-0.002	7	-0.164	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
455	N246	max	0.159	3	0.006	1	0.058	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
456		min	-0.162	9	-0.004	7	-0.175	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
457	N247	max	0.175	4	0.013	1	0.071	7	2.031e-3	7	3.272e-3	5	1.911e-3	9
458		min	-0.176	10	-0.008	7	-0.197	1	-3.632e-3	1	-2.429e-3	11	-1.868e-3	3
459	N248	max	0.172	3	0.01	1	0.07	7	2.031e-3	7	3.272e-3	5	1.911e-3	9
460		min	-0.174	9	-0.006	7	-0.196	1	-3.632e-3	1	-2.429e-3	11	-1.868e-3	3
461	N249	max	0.171	3	0.007	1	0.07	7	2.031e-3	7	3.272e-3	5	1.911e-3	9
462		min	-0.174	9	-0.005	7	-0.197	1	-3.632e-3	1	-2.429e-3	11	-1.868e-3	3
463	N250	max	0.021	4	0.004	1	0.002	7	2.525e-4	7	9.362e-4	5	3.225e-3	10
464		min	-0.02	10	-0.002	7	-0.023	13	-1.037e-3	1	-7.199e-4	11	-3.272e-3	4
465	N251	max	0.008	3	0.001	7	0.002	7	2.569e-4	7	2.186e-3	4	1.528e-3	9
466		min	-0.009	9	-0.006	1	-0.019	13	-6.255e-4	1	-2.149e-3	10	-1.405e-3	3
467	N252	max	0.02	4	0.003	1	0.002	7	2.525e-4	7	9.362e-4	5	3.225e-3	10
468		min	-0.02	10	-0.002	7	-0.023	13	-1.037e-3	1	-7.199e-4	11	-3.272e-3	4
469	N253	max	0.01	3	0.001	7	0.002	7	2.569e-4	7	2.186e-3	4	1.528e-3	9

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
470		min	-0.011	9	-0.005	1	-0.019	13	-6.255e-4	1	-2.149e-3	10	-1.405e-3	3
471	N254	max	0	4	0	1	0	7	0	1	0	5	0	10
472		min	0	10	0	7	0	13	0	7	0	11	0	4
473	N255	max	0	4	0	7	0	7	0	1	0	4	0	9
474		min	0	9	0	1	0	13	0	7	0	10	0	3
475	N256	max	0	3	0	1	0	7	0	1	0	9	0	10
476		min	0	10	0	7	0	13	0	7	0	3	0	4
477	N257	max	0	4	0	7	0	7	0	1	0	4	0	10
478		min	0	9	0	1	0	13	0	7	0	10	0	4
479	N258	max	0.158	4	0.015	1	0.049	7	1.875e-3	7	3.304e-3	5	1.856e-3	9
480		min	-0.158	10	-0.009	7	-0.158	1	-3.518e-3	1	-2.443e-3	11	-1.795e-3	3
481	N259	max	0.166	3	0.008	1	0.065	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
482		min	-0.169	9	-0.005	7	-0.187	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
483	N260A	max	0.17	4	0.013	1	0.065	7	2.029e-3	7	3.273e-3	5	1.91e-3	9
484		min	-0.171	10	-0.008	7	-0.187	1	-3.634e-3	1	-2.43e-3	11	-1.867e-3	3
485	N261	max	0.016	7	0.036	1	0.009	3	2.038e-3	7	4.635e-4	5	2.408e-3	7
486		min	-0.019	1	-0.037	7	-0.052	9	-1.768e-3	1	-1.844e-3	11	-2.492e-3	1
487	N262A	max	0.027	7	0.064	2	0.017	3	4.068e-3	8	8.851e-4	4	2.152e-3	10
488		min	-0.032	1	-0.065	8	-0.087	9	-3.55e-3	2	-3.581e-3	10	-2.122e-3	4
489	N263A	max	0.035	8	0.087	2	0.05	3	3.728e-3	8	1.008e-3	4	2.328e-3	10
490		min	-0.041	2	-0.089	8	-0.154	9	-3.494e-3	2	-3.084e-3	10	-2.262e-3	4
491	N264A	max	0.046	9	0.108	3	0.079	3	3.584e-3	8	1.078e-3	4	2.285e-3	10
492		min	-0.051	3	-0.111	9	-0.205	9	-3.511e-3	2	-2.839e-3	10	-2.234e-3	4
493	N265A	max	0.016	8	0.011	1	0.01	3	3.359e-3	8	8.61e-4	7	1.151e-3	8
494		min	-0.009	2	-0.008	7	-0.052	9	-3.086e-3	2	-1.429e-3	1	-1.05e-3	2
495	N266A	max	0.016	7	0.035	1	0.009	3	2.038e-3	7	4.635e-4	5	2.408e-3	7
496		min	-0.019	1	-0.035	7	-0.052	9	-1.768e-3	1	-1.844e-3	11	-2.492e-3	1
497	N267A	max	0.024	7	0.053	1	0.013	3	2.605e-3	8	5.632e-4	5	2.144e-3	8
498		min	-0.028	1	-0.054	7	-0.07	9	-2.564e-3	2	-1.965e-3	11	-2.178e-3	2
499	N268A	max	0.027	7	0.066	2	0.02	3	3.483e-3	8	7.901e-4	4	2.184e-3	10
500		min	-0.032	1	-0.066	8	-0.091	9	-3.502e-3	2	-2.503e-3	10	-2.15e-3	4
501	N269A	max	0.029	8	0.074	2	0.03	3	3.468e-3	8	7.554e-4	4	2.307e-3	10
502		min	-0.035	2	-0.076	8	-0.114	9	-3.395e-3	2	-2.545e-3	10	-2.257e-3	4
503	N270A	max	0.032	8	0.081	2	0.041	3	3.599e-3	8	8.761e-4	4	2.344e-3	10
504		min	-0.038	2	-0.083	8	-0.135	9	-3.433e-3	2	-2.823e-3	10	-2.283e-3	4
505	N271A	max	0.038	8	0.091	2	0.059	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
506		min	-0.043	2	-0.094	9	-0.17	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
507	N272A	max	0.04	8	0.097	3	0.065	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
508		min	-0.046	2	-0.1	9	-0.182	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
509	N273A	max	0.024	7	0.051	1	0.013	3	2.605e-3	8	5.632e-4	5	2.144e-3	8
510		min	-0.027	1	-0.052	7	-0.07	9	-2.564e-3	2	-1.965e-3	11	-2.178e-3	2
511	N274A	max	0.027	7	0.063	2	0.02	3	3.483e-3	8	7.901e-4	4	2.184e-3	10
512		min	-0.031	1	-0.064	8	-0.091	9	-3.502e-3	2	-2.503e-3	10	-2.15e-3	4
513	N275A	max	0.03	8	0.072	2	0.03	3	3.468e-3	8	7.554e-4	4	2.307e-3	10
514		min	-0.034	2	-0.073	8	-0.114	9	-3.395e-3	2	-2.545e-3	10	-2.257e-3	4
515	N276A	max	0.034	8	0.078	2	0.041	3	3.599e-3	8	8.761e-4	4	2.344e-3	10
516		min	-0.038	2	-0.08	8	-0.135	9	-3.433e-3	2	-2.823e-3	10	-2.283e-3	4
517	N277A	max	0.037	8	0.084	2	0.05	3	3.728e-3	8	1.008e-3	4	2.328e-3	10
518		min	-0.041	2	-0.086	8	-0.154	9	-3.494e-3	2	-3.084e-3	10	-2.262e-3	4
519	N278A	max	0.039	8	0.089	2	0.059	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
520		min	-0.043	2	-0.092	9	-0.17	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
521	N279A	max	0.041	8	0.094	3	0.065	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
522		min	-0.046	2	-0.098	9	-0.182	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
523	N280A	max	0.017	8	0.013	2	0.01	3	3.359e-3	8	8.61e-4	7	1.151e-3	8
524		min	-0.01	2	-0.01	7	-0.052	9	-3.086e-3	2	-1.429e-3	1	-1.05e-3	2
525	N281A	max	0.031	8	0.04	2	0.021	3	3.679e-3	7	1.188e-3	5	1.918e-3	9
526		min	-0.025	2	-0.04	8	-0.091	9	-3.422e-3	1	-2.495e-3	11	-1.745e-3	3
527	N282A	max	0.025	8	0.024	2	0.014	3	3.444e-3	8	8.808e-4	5	1.601e-3	9
528		min	-0.017	2	-0.023	8	-0.069	9	-3.112e-3	1	-1.999e-3	12	-1.45e-3	3
529	N283A	max	0.037	8	0.05	2	0.03	3	3.63e-3	8	1.098e-3	5	2.072e-3	9
530		min	-0.031	2	-0.051	8	-0.113	9	-3.367e-3	1	-2.688e-3	11	-1.904e-3	3
531	N284A	max	0.032	8	0.038	2	0.021	3	3.679e-3	7	1.188e-3	5	1.918e-3	9
532		min	-0.025	2	-0.038	8	-0.091	9	-3.422e-3	1	-2.495e-3	11	-1.745e-3	3
533	N285A	max	0.041	8	0.061	2	0.041	3	3.676e-3	8	1.044e-3	4	2.161e-3	10
534		min	-0.036	2	-0.062	8	-0.135	9	-3.434e-3	2	-2.805e-3	10	-2.02e-3	4

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
535	N286A	max	0.044	9	0.07	2	0.05	3	3.65e-3	8	1.039e-3	4	2.24e-3	10
536		min	-0.041	2	-0.072	9	-0.154	9	-3.466e-3	2	-2.879e-3	10	-2.139e-3	4
537	N287A	max	0.047	9	0.079	3	0.059	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
538		min	-0.044	3	-0.082	9	-0.171	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
539	N288A	max	0.048	9	0.087	3	0.066	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
540		min	-0.047	3	-0.089	9	-0.183	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
541	N289A	max	0.024	8	0.027	2	0.014	3	3.444e-3	8	8.808e-4	5	1.601e-3	9
542		min	-0.018	2	-0.025	8	-0.069	9	-3.112e-3	1	-1.999e-3	12	-1.45e-3	3
543	N290A	max	0.036	8	0.053	2	0.03	3	3.63e-3	8	1.098e-3	5	2.072e-3	9
544		min	-0.032	2	-0.053	8	-0.113	9	-3.367e-3	1	-2.688e-3	11	-1.904e-3	3
545	N291A	max	0.04	8	0.063	2	0.04	3	3.676e-3	8	1.044e-3	4	2.161e-3	10
546		min	-0.037	2	-0.065	8	-0.134	9	-3.434e-3	2	-2.805e-3	10	-2.02e-3	4
547	N292A	max	0.042	8	0.072	2	0.05	3	3.65e-3	8	1.039e-3	4	2.24e-3	10
548		min	-0.04	2	-0.074	8	-0.154	9	-3.466e-3	2	-2.879e-3	10	-2.139e-3	4
549	N293A	max	0.044	9	0.081	3	0.059	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
550		min	-0.044	3	-0.084	9	-0.17	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
551	N294A	max	0.046	9	0.088	3	0.065	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
552		min	-0.046	3	-0.091	9	-0.182	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
553	N295	max	0.047	9	0.105	3	0.079	3	3.584e-3	8	1.078e-3	4	2.285e-3	10
554		min	-0.051	3	-0.109	9	-0.205	9	-3.511e-3	2	-2.839e-3	10	-2.234e-3	4
555	N296	max	0.049	9	0.103	3	0.078	3	3.584e-3	8	1.078e-3	4	2.285e-3	10
556		min	-0.051	3	-0.106	9	-0.204	9	-3.511e-3	2	-2.839e-3	10	-2.234e-3	4
557	N297	max	0.051	9	0.1	3	0.078	3	3.584e-3	8	1.078e-3	4	2.285e-3	10
558		min	-0.052	3	-0.104	9	-0.204	9	-3.511e-3	2	-2.839e-3	10	-2.234e-3	4
559	N298	max	0.005	6	0.012	1	0.003	3	9.575e-4	7	2.056e-4	4	1.953e-3	7
560		min	-0.007	12	-0.012	7	-0.023	21	-7.546e-4	1	-9.726e-4	10	-2.031e-3	1
561	N299	max	0.007	8	0.003	30	0.003	3	1.403e-3	8	2.425e-4	6	6.66e-4	8
562		min	-0.003	2	-0.002	6	-0.019	21	-1.234e-3	2	-5.807e-4	12	-6.164e-4	2
563	N300A	max	0.005	6	0.011	1	0.003	3	9.575e-4	7	2.056e-4	4	1.953e-3	7
564		min	-0.006	12	-0.011	7	-0.023	21	-7.546e-4	1	-9.726e-4	10	-2.031e-3	1
565	N301	max	0.007	8	0.004	1	0.003	3	1.403e-3	8	2.425e-4	6	6.66e-4	8
566		min	-0.003	2	-0.002	7	-0.019	21	-1.234e-3	2	-5.807e-4	12	-6.164e-4	2
567	N302A	max	0	3	0	3	0	3	0	3	0	9	0	7
568		min	0	9	0	9	0	21	0	9	0	3	0	1
569	N303A	max	0	9	0	9	0	3	0	3	0	9	0	7
570		min	0	3	0	3	0	21	0	9	0	3	0	1
571	N304A	max	0	3	0	3	0	3	0	3	0	9	0	7
572		min	0	9	0	9	0	21	0	9	0	3	0	1
573	N305A	max	0	9	0	9	0	3	0	3	0	9	0	7
574		min	0	3	0	3	0	21	0	9	0	3	0	1
575	N306A	max	0.037	8	0.089	2	0.055	3	3.545e-3	8	9.412e-4	4	2.307e-3	10
576		min	-0.042	2	-0.092	8	-0.164	9	-3.467e-3	2	-2.749e-3	10	-2.239e-3	4
577	N307C	max	0.048	9	0.096	3	0.072	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
578		min	-0.049	3	-0.099	9	-0.194	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
579	N308B	max	0.044	9	0.1	3	0.072	3	3.586e-3	8	1.077e-3	4	2.285e-3	10
580		min	-0.048	3	-0.104	9	-0.194	9	-3.511e-3	2	-2.841e-3	10	-2.234e-3	4
581	N307D	max	0	43	0	43	0	43	0	43	0	43	0	43
582		min	0	1	0	1	0	1	0	1	0	1	0	1
583	N308C	max	0.136	4	0.033	2	0.037	7	1.338e-3	7	1.738e-3	5	2.021e-3	9
584		min	-0.134	10	-0.024	8	-0.12	1	-4.285e-3	1	-3.132e-3	11	-1.9e-3	3
585	N309A	max	0.136	4	0.025	11	0.002	8	1.387e-3	7	4.99e-3	5	1.953e-3	9
586		min	-0.134	10	-0.016	5	-0.113	14	-4.317e-3	1	-1.725e-3	11	-2.012e-3	3
587	N310A	max	0.026	2	0.054	11	0.042	11	2.534e-3	37	5.123e-3	5	2.742e-3	9
588		min	-0.02	8	-0.06	5	-0.124	5	-1.345e-3	2	-1.858e-3	11	-2.594e-3	3
589	N311A	max	0.029	10	0.043	12	0.001	12	5.521e-3	37	4.329e-3	4	2.613e-3	9
590		min	-0.022	4	-0.049	6	-0.113	18	9.854e-5	2	-3.415e-3	10	-2.646e-3	3
591	N312A	max	0.036	8	0.069	2	0.042	3	5.05e-3	38	1.014e-3	4	2.382e-3	10
592		min	-0.046	2	-0.07	8	-0.125	9	-1.944e-3	2	-2.837e-3	10	-2.26e-3	4
593	N313	max	0.026	6	0.082	2	0.003	4	3.287e-3	8	-1.249e-4	4	2.281e-3	10
594		min	-0.035	12	-0.084	8	-0.113	22	-4.647e-3	2	-4.616e-3	22	-2.337e-3	4
595	N348	max	0.128	3	0.089	11	0.205	10	1.208e-2	9	2.844e-2	3	3.047e-3	10
596		min	-0.113	9	-0.082	5	-0.392	4	-1.631e-2	3	-2.364e-2	9	-3.022e-3	4
597	N351	max	0.107	5	0.134	2	0.141	5	1.251e-2	6	2.361e-2	5	2.963e-3	10
598		min	-0.125	11	-0.124	8	-0.368	11	-1.624e-2	12	-2.786e-2	11	-3.051e-3	4
599	N352	max	0.168	4	0.105	2	0.141	5	1.462e-2	5	2.36e-2	5	1.637e-3	9

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
600		min	-0.183	10	-0.096	8	-0.381	11	-1.68e-2	11	-2.854e-2	11	-1.678e-3	3
601	N354	max	0.206	4	0.073	1	0.191	6	1.459e-2	5	2.271e-2	5	2.017e-3	9
602		min	-0.22	10	-0.062	7	-0.379	12	-1.662e-2	11	-2.877e-2	11	-2.014e-3	3
603	N357	max	0.068	9	0.098	1	0.13	1	3.092e-2	7	4.145e-3	4	2.202e-3	9
604		min	-0.067	3	-0.118	7	-0.357	7	-2.548e-2	1	-5.237e-3	10	-2.271e-3	3
605	N358	max	0.068	9	0.141	1	0.129	1	3.183e-2	7	1.542e-3	29	4.511e-4	8
606		min	-0.069	3	-0.158	7	-0.369	7	-2.656e-2	1	-9.709e-4	38	-5.216e-4	2
607	N360	max	0.068	9	0.13	1	0.193	2	3.18e-2	7	2.67e-3	34	1.486e-3	10
608		min	-0.07	3	-0.147	7	-0.38	8	-2.562e-2	1	-8.264e-4	9	-1.479e-3	4
609	N474	max	0.068	9	0.124	11	0.24	12	2.845e-2	7	8.766e-3	4	3.282e-3	9
610		min	-0.067	3	-0.141	5	-0.422	6	-2.413e-2	1	-9.88e-3	10	-3.44e-3	3
611	N477	max	1.347	4	1.749	1	0.261	12	1.537e-2	7	1.096e-2	4	2.198e-2	8
612		min	-1.358	10	-1.767	7	-0.462	6	-1.717e-2	1	-1.195e-2	10	-2.151e-2	2
613	N498	max	1.517	4	2.059	1	0.303	12	1.539e-2	7	1.098e-2	4	2.198e-2	8
614		min	-1.545	10	-2.044	7	-0.499	6	-1.719e-2	1	-1.197e-2	10	-2.151e-2	2
615	N510	max	0.248	10	0.438	8	0.302	12	2.842e-2	7	8.742e-3	4	3.282e-3	9
616		min	-0.227	4	-0.378	2	-0.497	6	-2.411e-2	1	-9.855e-3	10	-3.44e-3	3
617	N346	max	0.078	9	0.124	11	0.302	12	2.845e-2	7	8.766e-3	4	3.282e-3	9
618		min	-0.077	3	-0.141	5	-0.497	6	-2.413e-2	1	-9.88e-3	10	-3.44e-3	3
619	N347	max	1.319	4	1.749	1	0.303	12	1.537e-2	7	1.096e-2	4	2.198e-2	8
620		min	-1.33	10	-1.767	7	-0.499	6	-1.717e-2	1	-1.195e-2	10	-2.151e-2	2
621	N410	max	0.032	10	0.079	10	0.066	11	3.709e-3	37	4.093e-3	4	2.567e-3	9
622		min	-0.025	4	-0.085	4	-0.182	5	-9.07e-4	2	-3.107e-3	10	-2.509e-3	3
623	N411	max	0.171	4	0.022	1	0.058	7	2.03e-3	7	3.273e-3	5	1.91e-3	9
624		min	-0.17	10	-0.013	7	-0.175	1	-3.633e-3	1	-2.43e-3	11	-1.867e-3	3
625	N412	max	0.037	8	0.102	3	0.065	3	3.585e-3	8	1.078e-3	4	2.285e-3	10
626		min	-0.045	2	-0.105	9	-0.182	9	-3.512e-3	2	-2.84e-3	10	-2.234e-3	4
627	N406	max	1.347	4	1.835	1	0.31	2	1.566e-2	7	1.272e-2	4	1.845e-2	12
628		min	-1.359	10	-1.814	7	-0.512	8	-1.772e-2	1	-1.183e-2	10	-1.879e-2	6
629	N407	max	1.347	4	1.691	1	0.284	12	1.537e-2	7	1.096e-2	4	2.198e-2	8
630		min	-1.358	10	-1.707	7	-0.482	6	-1.717e-2	1	-1.195e-2	10	-2.151e-2	2
631	N408	max	1.612	4	1.508	1	0.328	10	1.267e-2	7	1.541e-2	4	2.038e-2	9
632		min	-1.62	10	-1.529	7	-0.53	4	-1.242e-2	1	-1.761e-2	10	-2.09e-2	3
633	N409	max	2.141	4	1.362	1	0.283	8	1.329e-2	8	1.653e-2	4	1.832e-2	4
634		min	-2.119	10	-1.364	7	-0.482	2	-1.157e-2	2	-1.755e-2	10	-1.782e-2	10
635	N410A	max	2.15	4	1.386	1	0.304	6	1.382e-2	6	1.755e-2	4	1.589e-2	4
636		min	-2.124	10	-1.382	7	-0.507	12	-1.209e-2	12	-1.62e-2	10	-1.647e-2	11
637	N411A	max	1.591	4	1.656	1	0.303	4	1.266e-2	7	1.666e-2	5	2.149e-2	11
638		min	-1.597	10	-1.635	7	-0.502	10	-1.265e-2	1	-1.465e-2	11	-2.091e-2	5
639	N415A	max	2.205	4	1.368	1	0.255	8	1.315e-2	8	1.613e-2	4	1.879e-2	4
640		min	-2.181	10	-1.369	7	-0.458	2	-1.134e-2	2	-1.701e-2	10	-1.826e-2	10
641	N416	max	2.205	4	1.396	1	0.275	6	1.354e-2	6	1.682e-2	4	1.632e-2	4
642		min	-2.181	10	-1.391	7	-0.481	12	-1.179e-2	12	-1.564e-2	10	-1.693e-2	11
643	N414	max	1.648	4	1.683	1	0.272	4	1.17e-2	7	1.672e-2	5	2.199e-2	11
644		min	-1.656	10	-1.662	7	-0.474	10	-1.185e-2	1	-1.471e-2	11	-2.138e-2	5
645	N415B	max	1.347	4	1.902	1	0.279	2	1.56e-2	7	1.17e-2	4	1.887e-2	12
646		min	-1.359	10	-1.883	7	-0.484	8	-1.753e-2	1	-1.072e-2	10	-1.924e-2	6
647	N414A	max	1.347	4	1.769	1	0.254	12	1.543e-2	7	9.962e-3	4	2.246e-2	8
648		min	-1.358	10	-1.787	7	-0.456	6	-1.716e-2	1	-1.109e-2	10	-2.195e-2	2
649	N415C	max	1.669	4	1.535	1	0.294	10	1.16e-2	7	1.528e-2	4	2.081e-2	9
650		min	-1.675	10	-1.555	7	-0.499	4	-1.149e-2	1	-1.742e-2	10	-2.137e-2	3
651	N404	max	1.399	4	1.992	1	0.331	2	1.585e-2	7	1.286e-2	4	1.845e-2	12
652		min	-1.407	10	-1.961	7	-0.53	8	-1.791e-2	1	-1.197e-2	10	-1.879e-2	6
653	N407A	max	0.112	9	0.112	4	0.331	2	2.895e-2	7	6.555e-3	4	2.618e-3	10
654		min	-0.112	3	-0.102	10	-0.528	8	-2.395e-2	1	-6.945e-3	10	-2.201e-3	4
655	N344	max	1.322	4	1.885	1	0.331	2	1.566e-2	7	1.272e-2	4	1.845e-2	12
656		min	-1.335	10	-1.866	7	-0.53	8	-1.772e-2	1	-1.183e-2	10	-1.879e-2	6
657	N345	max	1.347	4	1.885	1	0.287	2	1.566e-2	7	1.272e-2	4	1.845e-2	12
658		min	-1.359	10	-1.866	7	-0.491	8	-1.772e-2	1	-1.183e-2	10	-1.879e-2	6
659	N349	max	0.193	10	0.377	6	0.331	2	2.894e-2	7	6.548e-3	4	2.618e-3	10
660		min	-0.188	4	-0.307	12	-0.528	8	-2.394e-2	1	-6.937e-3	10	-2.201e-3	4
661	N355	max	0.073	9	0.168	2	0.331	2	2.914e-2	7	6.687e-3	4	2.618e-3	10
662		min	-0.075	3	-0.187	8	-0.528	8	-2.414e-2	1	-7.076e-3	10	-2.201e-3	4
663	N356	max	1.553	4	2.207	1	0.331	2	1.586e-2	7	1.286e-2	4	1.845e-2	12
664		min	-1.55	10	-2.151	7	-0.53	8	-1.792e-2	1	-1.197e-2	10	-1.879e-2	6

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
665	N363	max	0.141	9	0.249	8	0.305	8	1.56e-2	8	2.64e-2	3	7.25e-4	9
666		min	-0.205	3	-0.262	2	-0.501	2	-1.687e-2	2	-2.202e-2	9	-8.939e-4	3
667	N364	max	2.161	4	1.374	1	0.306	8	1.329e-2	8	1.653e-2	4	1.832e-2	4
668		min	-2.139	10	-1.375	7	-0.502	2	-1.157e-2	2	-1.755e-2	10	-1.782e-2	10
669	N365	max	0.361	9	0.32	9	0.347	10	1.253e-2	8	2.66e-2	3	3.744e-3	9
670		min	-0.426	3	-0.352	3	-0.545	4	-1.47e-2	2	-2.201e-2	9	-3.318e-3	3
671	N373	max	1.96	4	1.72	1	0.348	10	1.281e-2	7	1.561e-2	4	2.038e-2	9
672		min	-2.005	10	-1.745	7	-0.546	4	-1.256e-2	1	-1.781e-2	10	-2.09e-2	3
673	N377	max	1.679	4	1.494	1	0.348	10	1.267e-2	7	1.541e-2	4	2.038e-2	9
674		min	-1.685	10	-1.515	7	-0.546	4	-1.242e-2	1	-1.761e-2	10	-2.09e-2	3
675	N379	max	0.27	3	0.045	1	0.305	8	1.562e-2	8	2.642e-2	3	7.25e-4	9
676		min	-0.255	9	-0.035	7	-0.501	2	-1.689e-2	2	-2.204e-2	9	-8.939e-4	3
677	N380	max	0.097	9	0.181	9	0.347	10	1.254e-2	8	2.661e-2	3	3.744e-3	9
678		min	-0.107	3	-0.187	3	-0.545	4	-1.471e-2	2	-2.202e-2	9	-3.318e-3	3
679	N381	max	1.772	4	1.569	1	0.348	10	1.281e-2	7	1.56e-2	4	2.038e-2	9
680		min	-1.792	10	-1.591	7	-0.546	4	-1.255e-2	1	-1.78e-2	10	-2.09e-2	3
681	N382	max	2.459	4	1.571	1	0.306	8	1.331e-2	8	1.656e-2	4	1.832e-2	4
682		min	-2.455	10	-1.604	7	-0.502	2	-1.159e-2	2	-1.757e-2	10	-1.782e-2	10
683	N392	max	0.053	3	0.136	10	0.348	10	1.265e-2	8	2.677e-2	3	3.744e-3	9
684		min	-0.036	9	-0.128	4	-0.545	4	-1.482e-2	2	-2.218e-2	9	-3.318e-3	3
685	N359	max	0.067	9	0.168	2	0.269	2	2.914e-2	7	6.687e-3	4	2.618e-3	10
686		min	-0.07	3	-0.187	8	-0.451	8	-2.414e-2	1	-7.076e-3	10	-2.201e-3	4
687	N395	max	0.409	10	0.258	5	0.321	4	1.313e-2	6	2.297e-2	5	3.025e-3	10
688		min	-0.366	4	-0.307	11	-0.516	10	-1.63e-2	12	-2.622e-2	11	-3.208e-3	4
689	N396	max	1.659	4	1.641	1	0.323	4	1.266e-2	7	1.666e-2	5	2.149e-2	11
690		min	-1.666	10	-1.621	7	-0.518	10	-1.265e-2	1	-1.465e-2	11	-2.092e-2	5
691	N397	max	0.259	12	0.209	5	0.327	6	1.362e-2	6	2.179e-2	5	1.614e-3	8
692		min	-0.197	6	-0.25	11	-0.525	12	-1.657e-2	12	-2.599e-2	11	-1.195e-3	2
693	N413	max	2.486	4	1.624	1	0.328	6	1.394e-2	6	1.774e-2	4	1.589e-2	4
694		min	-2.437	10	-1.65	7	-0.527	12	-1.221e-2	12	-1.64e-2	10	-1.647e-2	11
695	N419	max	2.167	4	1.406	1	0.328	6	1.382e-2	6	1.755e-2	4	1.589e-2	4
696		min	-2.142	10	-1.4	7	-0.527	12	-1.209e-2	12	-1.62e-2	10	-1.647e-2	11
697	N366	max	2.189	4	1.366	1	0.262	8	1.329e-2	8	1.653e-2	4	1.832e-2	4
698		min	-2.165	10	-1.368	7	-0.464	2	-1.157e-2	2	-1.755e-2	10	-1.782e-2	10
699	N421	max	0.058	6	0.166	3	0.321	4	1.315e-2	6	2.3e-2	5	3.025e-3	10
700		min	-0.074	12	-0.158	9	-0.516	10	-1.632e-2	12	-2.624e-2	11	-3.208e-3	4
701	N367	max	0.269	3	0.046	1	0.24	8	1.562e-2	8	2.642e-2	3	7.25e-4	9
702		min	-0.254	9	-0.036	7	-0.423	2	-1.689e-2	2	-2.204e-2	9	-8.939e-4	3
703	N422	max	0.152	3	0.052	4	0.327	6	1.363e-2	6	2.18e-2	5	1.614e-3	8
704		min	-0.143	9	-0.057	10	-0.525	12	-1.658e-2	12	-2.6e-2	11	-1.195e-3	2
705	N423	max	2.273	4	1.478	1	0.328	6	1.394e-2	6	1.774e-2	4	1.589e-2	4
706		min	-2.241	10	-1.483	7	-0.527	12	-1.22e-2	12	-1.639e-2	10	-1.647e-2	11
707	N424	max	1.956	4	1.869	1	0.323	4	1.268e-2	7	1.668e-2	5	2.149e-2	11
708		min	-1.926	10	-1.849	7	-0.518	10	-1.267e-2	1	-1.467e-2	11	-2.092e-2	5
709	N434	max	0.254	4	0.064	1	0.327	6	1.374e-2	6	2.196e-2	5	1.614e-3	8
710		min	-0.27	10	-0.052	7	-0.525	12	-1.669e-2	12	-2.616e-2	11	-1.195e-3	2
711	N383	max	0.067	9	0.141	1	0.229	1	3.222e-2	7	3.713e-3	4	4.746e-4	12
712		min	-0.069	3	-0.157	7	-0.466	7	-2.704e-2	1	-2.251e-3	10	-4.929e-4	7
713	N374	max	1.654	4	1.528	1	0.302	10	1.267e-2	7	1.541e-2	4	2.038e-2	9
714		min	-1.661	10	-1.549	7	-0.506	4	-1.242e-2	1	-1.761e-2	10	-2.09e-2	3
715	N384	max	1.354	4	2.406	1	0.206	1	2.525e-2	7	9.309e-3	4	1.408e-2	7
716		min	-1.362	10	-2.476	7	-0.45	7	-2.694e-2	1	-9.744e-3	10	-1.274e-2	1
717	N385	max	0.159	10	0.435	7	0.206	1	3.074e-2	7	4.023e-3	4	2.163e-3	9
718		min	-0.139	4	-0.357	1	-0.45	7	-2.529e-2	1	-5.102e-3	10	-2.258e-3	3
719	N386	max	1.511	4	3.105	1	0.228	1	2.605e-2	7	8.504e-3	4	6.643e-3	2
720		min	-1.528	10	-3.158	7	-0.466	7	-2.763e-2	1	-8.633e-3	10	-7.77e-3	8
721	N387	max	1.346	4	2.406	1	0.125	1	2.525e-2	7	9.309e-3	4	1.408e-2	7
722		min	-1.358	10	-2.476	7	-0.375	7	-2.694e-2	1	-9.744e-3	10	-1.274e-2	1
723	N388	max	0.807	4	1.656	1	0.228	1	2.959e-2	7	2.18e-2	4	4.168e-3	2
724		min	-0.804	10	-1.775	7	-0.466	7	-2.997e-2	1	-2.248e-2	10	-4.864e-3	8
725	N389	max	0.101	9	0.073	8	0.206	1	3.075e-2	7	4.03e-3	4	2.163e-3	9
726		min	-0.094	3	-0.06	2	-0.45	7	-2.53e-2	1	-5.109e-3	10	-2.258e-3	3
727	N390	max	0.057	9	0.223	1	0.229	1	3.238e-2	7	6.212e-3	4	6.397e-4	1
728		min	-0.055	3	-0.254	7	-0.466	7	-2.765e-2	1	-4.976e-3	10	-7.003e-4	7
729	N391	max	1.524	4	2.894	1	0.206	1	2.546e-2	7	9.473e-3	4	1.408e-2	7

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
730		min	-1.54	10	-2.934	7	-0.45	7	-2.714e-2	1	-9.908e-3	10	-1.274e-2	1
731	N394	max	0.074	9	0.099	1	0.206	1	3.095e-2	7	4.186e-3	4	2.163e-3	9
732		min	-0.074	3	-0.119	7	-0.45	7	-2.55e-2	1	-5.265e-3	10	-2.258e-3	3
733	N401	max	0.105	9	0.423	7	0.229	1	3.22e-2	7	3.689e-3	4	4.746e-4	12
734		min	-0.133	3	-0.345	1	-0.466	7	-2.702e-2	1	-2.227e-3	10	-4.929e-4	7
735	N402	max	1.358	4	2.608	1	0.228	1	2.603e-2	7	8.48e-3	4	6.643e-3	2
736		min	-1.373	10	-2.689	7	-0.466	7	-2.76e-2	1	-8.609e-3	10	-7.77e-3	8
737	N403	max	1.346	4	2.608	1	0.145	1	2.603e-2	7	8.48e-3	4	6.643e-3	2
738		min	-1.357	10	-2.689	7	-0.388	8	-2.76e-2	1	-8.609e-3	10	-7.77e-3	8
739	N417	max	1.41	4	2.568	1	0.206	1	2.545e-2	7	9.466e-3	4	1.408e-2	7
740		min	-1.421	10	-2.628	7	-0.45	7	-2.714e-2	1	-9.9e-3	10	-1.274e-2	1
741	N418	max	1.329	4	2.525	1	0.228	1	2.629e-2	7	1.043e-2	4	6.418e-3	2
742		min	-1.343	10	-2.611	7	-0.466	7	-2.783e-2	1	-1.067e-2	10	-7.506e-3	8
743	N420	max	0.41	4	1.11	1	0.228	1	3.156e-2	7	2.117e-2	4	2.819e-3	2
744		min	-0.397	10	-1.224	7	-0.466	7	-3.048e-2	1	-2.15e-2	10	-3.279e-3	8
745	N393	max	0.048	3	0.127	10	0.283	10	1.265e-2	8	2.677e-2	3	3.744e-3	9
746		min	-0.03	9	-0.12	4	-0.465	4	-1.482e-2	2	-2.218e-2	9	-3.318e-3	3
747	N398	max	1.634	4	1.676	1	0.279	4	1.266e-2	7	1.666e-2	5	2.149e-2	11
748		min	-1.641	10	-1.655	7	-0.48	10	-1.265e-2	1	-1.465e-2	11	-2.092e-2	5
749	N399	max	0.055	6	0.159	3	0.256	4	1.315e-2	6	2.3e-2	5	3.025e-3	10
750		min	-0.071	12	-0.151	9	-0.438	10	-1.632e-2	12	-2.624e-2	11	-3.208e-3	4
751	N415	max	2.191	4	1.393	1	0.282	6	1.382e-2	6	1.755e-2	4	1.589e-2	4
752		min	-2.167	10	-1.389	7	-0.488	12	-1.209e-2	12	-1.62e-2	10	-1.647e-2	11
753	N435	max	0.253	4	0.061	1	0.264	6	1.374e-2	6	2.196e-2	5	1.614e-3	8
754		min	-0.268	10	-0.048	7	-0.447	12	-1.669e-2	12	-2.616e-2	11	-1.195e-3	2
755	N400	max	0.068	9	0.099	1	0.13	1	3.095e-2	7	4.186e-3	4	2.163e-3	9
756		min	-0.067	3	-0.119	7	-0.357	7	-2.55e-2	1	-5.265e-3	10	-2.258e-3	3
757	N405	max	0.067	9	0.141	1	0.147	1	3.222e-2	7	3.713e-3	4	4.746e-4	12
758		min	-0.069	3	-0.157	7	-0.369	7	-2.704e-2	1	-2.251e-3	10	-4.929e-4	7
759	N425	max	0.286	9	0.266	9	0.243	9	1.281e-2	9	2.881e-2	3	2.552e-3	10
760		min	-0.341	3	-0.329	3	-0.482	3	-1.671e-2	3	-2.497e-2	9	-2.582e-3	4
761	N426	max	2.529	4	1.682	1	0.243	9	1.536e-2	8	2.371e-2	3	1.025e-2	10
762		min	-2.45	10	-1.659	7	-0.482	3	-1.446e-2	2	-2.492e-2	9	-1.143e-2	4
763	N427	max	2.512	4	1.679	1	0.158	9	1.536e-2	8	2.371e-2	3	1.025e-2	10
764		min	-2.435	10	-1.653	7	-0.402	4	-1.446e-2	2	-2.492e-2	9	-1.143e-2	4
765	N428	max	0.226	4	0.041	12	0.231	9	1.429e-2	9	2.866e-2	3	1.239e-3	10
766		min	-0.208	10	-0.03	6	-0.475	3	-1.614e-2	3	-2.333e-2	9	-1.343e-3	4
767	N429	max	2.639	4	1.577	2	0.23	9	1.562e-2	8	2.413e-2	4	1.089e-2	2
768		min	-2.57	10	-1.548	8	-0.476	3	-1.442e-2	2	-2.533e-2	10	-9.589e-3	8
769	N430	max	2.65	4	1.549	2	0.145	9	1.562e-2	8	2.413e-2	4	1.089e-2	2
770		min	-2.579	10	-1.523	8	-0.395	3	-1.442e-2	2	-2.533e-2	10	-9.589e-3	8
771	N431	max	0.178	3	0.071	11	0.243	9	1.282e-2	9	2.883e-2	3	2.552e-3	10
772		min	-0.163	9	-0.064	5	-0.482	3	-1.672e-2	3	-2.5e-2	9	-2.582e-3	4
773	N432	max	0.213	9	0.267	9	0.231	9	1.421e-2	9	2.848e-2	3	1.239e-3	10
774		min	-0.292	3	-0.29	3	-0.475	3	-1.605e-2	3	-2.315e-2	9	-1.343e-3	4
775	N433	max	0.224	4	0.039	12	0.149	9	1.429e-2	9	2.866e-2	3	1.239e-3	10
776		min	-0.206	10	-0.028	6	-0.376	3	-1.614e-2	3	-2.333e-2	9	-1.343e-3	4
777	N436	max	0.062	4	0.096	9	0.231	9	1.421e-2	9	2.848e-2	3	1.239e-3	10
778		min	-0.077	10	-0.097	3	-0.475	3	-1.606e-2	3	-2.316e-2	9	-1.343e-3	4
779	N437	max	2.934	4	1.909	2	0.243	9	1.538e-2	8	2.373e-2	3	1.025e-2	10
780		min	-2.879	10	-1.897	8	-0.482	3	-1.448e-2	2	-2.494e-2	9	-1.143e-2	4
781	N438	max	1.672	4	1.066	1	0.243	9	2.376e-2	7	2.886e-2	4	7.226e-3	10
782		min	-1.569	10	-1.006	7	-0.482	3	-2.29e-2	1	-2.885e-2	10	-7.957e-3	4
783	N439	max	0.265	3	0.078	12	0.243	9	1.314e-2	8	2.905e-2	3	2.827e-3	10
784		min	-0.239	9	-0.06	6	-0.482	3	-1.66e-2	2	-2.549e-2	9	-2.898e-3	4
785	N440	max	3.077	4	1.839	2	0.23	9	1.576e-2	8	2.434e-2	4	1.089e-2	2
786		min	-3.029	10	-1.832	8	-0.476	3	-1.456e-2	2	-2.554e-2	10	-9.589e-3	8
787	N441	max	0.175	3	0.065	11	0.159	9	1.282e-2	9	2.883e-2	3	2.552e-3	10
788		min	-0.16	9	-0.058	5	-0.382	3	-1.672e-2	3	-2.5e-2	9	-2.582e-3	4
789	N442	max	2.785	4	1.665	2	0.23	9	1.575e-2	8	2.434e-2	4	1.089e-2	2
790		min	-2.723	10	-1.643	8	-0.476	3	-1.455e-2	2	-2.553e-2	10	-9.589e-3	8
791	N443	max	2.461	4	1.643	1	0.243	9	1.632e-2	8	2.4e-2	3	9.975e-3	10
792		min	-2.378	10	-1.617	7	-0.482	3	-1.534e-2	2	-2.513e-2	9	-1.112e-2	4
793	N444	max	1.144	3	0.651	2	0.243	9	2.282e-2	7	3.036e-2	4	5.576e-3	10
794		min	-1.048	9	-0.583	8	-0.482	3	-2.3e-2	1	-2.925e-2	10	-6.06e-3	4

Envelope Node Displacements (Continued)

	Node Label		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [rad]	LC	Y Rotation [rad]	LC	Z Rotation [rad]	LC
795	N445	max	0.342	11	0.259	5	0.244	5	1.516e-2	5	2.385e-2	5	1.937e-3	8
796		min	-0.259	5	-0.275	11	-0.482	11	-1.653e-2	11	-2.915e-2	11	-1.954e-3	2
797	N446	max	2.592	4	1.729	12	0.243	5	1.548e-2	6	2.479e-2	4	7.939e-3	7
798		min	-2.651	10	-1.668	6	-0.483	11	-1.487e-2	12	-2.346e-2	11	-9.044e-3	1
799	N447	max	2.592	4	1.707	12	0.157	5	1.548e-2	6	2.479e-2	4	7.939e-3	7
800		min	-2.652	10	-1.65	6	-0.401	11	-1.487e-2	12	-2.346e-2	11	-9.044e-3	1
801	N448	max	0.112	5	0.139	2	0.221	5	1.254e-2	6	2.362e-2	5	3.01e-3	10
802		min	-0.13	11	-0.128	8	-0.465	11	-1.627e-2	12	-2.789e-2	11	-3.124e-3	4
803	N449	max	2.228	5	1.816	1	0.22	5	1.551e-2	6	2.458e-2	5	1.627e-2	10
804		min	-2.292	11	-1.773	7	-0.466	11	-1.51e-2	12	-2.299e-2	11	-1.5e-2	4
805	N450	max	2.208	5	1.82	1	0.137	5	1.551e-2	6	2.458e-2	5	1.627e-2	10
806		min	-2.27	11	-1.774	7	-0.387	11	-1.51e-2	12	-2.299e-2	11	-1.5e-2	4
807	N451	max	0.188	4	0.097	2	0.244	5	1.517e-2	5	2.387e-2	5	1.937e-3	8
808		min	-0.202	10	-0.086	8	-0.482	11	-1.654e-2	11	-2.917e-2	11	-1.954e-3	2
809	N452	max	0.369	11	0.247	5	0.221	5	1.24e-2	6	2.344e-2	5	3.01e-3	10
810		min	-0.31	5	-0.304	11	-0.465	11	-1.612e-2	12	-2.771e-2	11	-3.124e-3	4
811	N453	max	0.108	5	0.134	2	0.141	5	1.254e-2	6	2.362e-2	5	3.01e-3	10
812		min	-0.126	11	-0.123	8	-0.368	11	-1.627e-2	12	-2.789e-2	11	-3.124e-3	4
813	N454	max	0.037	11	0.141	3	0.221	5	1.241e-2	6	2.345e-2	5	3.01e-3	10
814		min	-0.029	5	-0.153	9	-0.465	11	-1.613e-2	12	-2.771e-2	11	-3.124e-3	4
815	N455	max	3.039	4	1.996	12	0.243	5	1.551e-2	6	2.481e-2	4	7.939e-3	7
816		min	-3.071	10	-1.947	6	-0.483	11	-1.489e-2	12	-2.348e-2	11	-9.044e-3	1
817	N456	max	1.654	4	1.107	12	0.244	5	2.218e-2	7	3.091e-2	4	5.462e-3	7
818		min	-1.756	10	-1.045	6	-0.482	11	-2.254e-2	1	-3.017e-2	10	-6.145e-3	1
819	N457	max	0.256	4	0.127	1	0.244	5	1.516e-2	5	2.455e-2	5	2.106e-3	8
820		min	-0.284	10	-0.113	7	-0.482	11	-1.65e-2	11	-2.935e-2	11	-2.159e-3	2
821	N458	max	2.674	5	2.066	1	0.22	5	1.565e-2	6	2.476e-2	5	1.627e-2	10
822		min	-2.709	11	-2.032	7	-0.466	11	-1.524e-2	12	-2.317e-2	11	-1.5e-2	4
823	N459	max	0.187	4	0.092	2	0.159	5	1.517e-2	5	2.387e-2	5	1.937e-3	8
824		min	-0.2	10	-0.081	8	-0.382	11	-1.654e-2	11	-2.917e-2	11	-1.954e-3	2
825	N460	max	2.377	5	1.899	1	0.22	5	1.565e-2	6	2.475e-2	5	1.627e-2	10
826		min	-2.431	11	-1.859	7	-0.466	11	-1.524e-2	12	-2.316e-2	11	-1.5e-2	4
827	N461	max	2.517	4	1.682	12	0.243	5	1.626e-2	6	2.562e-2	4	7.714e-3	7
828		min	-2.58	10	-1.62	6	-0.483	11	-1.576e-2	12	-2.409e-2	10	-8.78e-3	1
829	N462	max	1.093	4	0.711	12	0.244	5	2.174e-2	7	3.088e-2	4	4.111e-3	7
830		min	-1.196	10	-0.662	6	-0.482	11	-2.255e-2	1	-3.157e-2	10	-4.563e-3	1

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M357	PIPE_2.5	0.433	101.25	12	0.207	101.25		4	22373.407	50715	3.596	3.596	1.8	H1-1b
2	M374	PIPE_2.5	0.627	101.25	4	0.149	101.25		6	22373.407	50715	3.596	3.596	1.856	H1-1b
3	M387	PIPE_2.5	0.729	101.25	6	0.133	101.25		5	22373.407	50715	3.596	3.596	1.903	H1-1b
4	M373	PIPE_2.5	0.5	101.25	2	0.193	101.25		10	22373.407	50715	3.596	3.596	1.885	H1-1b
5	M384	PIPE_2.5	0.616	101.25	12	0.134	101.25		2	22373.407	50715	3.596	3.596	1.861	H1-1b
6	M369	PIPE_2.5	0.45	101.25	8	0.198	101.25		12	22373.407	50715	3.596	3.596	1.869	H1-1b
7	M354	PIPE_2.5	0.501	101.25	10	0.19	101.25		6	22373.407	50715	3.596	3.596	1.841	H1-1b
8	M393	PIPE_2.5	0.746	101.25	2	0.117	101.25		1	22373.407	50715	3.596	3.596	1.91	H1-1b
9	M390	PIPE_2.5	0.628	101.25	8	0.156	101.25		10	22373.407	50715	3.596	3.596	1.859	H1-1b
10	M361	PIPE_2.5	0.501	101.25	6	0.188	18.75		3	22373.407	50715	3.596	3.596	1.867	H1-1b
11	M368	PIPE_2.5	0.735	101.25	10	0.116	101.25		9	22373.407	50715	3.596	3.596	1.86	H1-1b
12	M416	PIPE_2.5	0.439	101.25	4	0.205	101.25		8	22373.407	50715	3.596	3.596	1.85	H1-1b
13	M377	PIPE_2.0	0.824	146.875	6	0.324	146.875		6	14559.939	32130	1.872	1.872	2.222	H3-6
14	M146A	PIPE_3.0	0.327	39.063	10	0.219	142.188		8	45793.694	65205	5.749	5.749	3	H1-1b
15	M177	PIPE_3.0	0.323	39.063	6	0.232	142.188		4	45793.658	65205	5.749	5.749	3	H1-1b
16	M182	PIPE_3.0	0.334	39.063	2	0.209	142.188		12	45793.708	65205	5.749	5.749	3	H1-1b
17	M409	PIPE_2.0	0.828	146.875	10	0.314	146.875		10	14559.939	32130	1.872	1.872	2.213	H3-6
18	M378	PIPE_2.0	0.844	146.875	3	0.341	146.875		3	14559.939	32130	1.872	1.872	2.353	H3-6
19	M122	L3X3X6	0.293	0	9	0.171	34.973	z	13	65968.951	66465	2.243	5.174	1.5	H2-1
20	M76	L3X3X6	0.382	0	22	0.155	28.63	y	11	66148.647	66465	2.243	5.174	1.5	H2-1
21	M125	L3X3X6	0.38	0	14	0.157	28.63	y	3	66148.647	66465	2.243	5.174	1.5	H2-1
22	M124	L3X3X6	0.384	0	13	0.129	28.63	z	3	66148.647	66465	2.243	5.174	1.165	H2-1
23	M123	L3X3X6	0.288	0	9	0.144	33.152	y	10	65968.951	66465	2.243	5.174	1.5	H2-1
24	M75	L3X3X6	0.383	0	21	0.13	28.63	z	11	66148.647	66465	2.243	5.174	1.164	H2-1
25	M45A	L3X3X6	0.278	0	1	0.172	34.973	z	17	65968.951	66465	2.243	5.174	1.5	H2-1

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
26	M68_1	L3X3X6	0.277	0	1	0.149	33.152	y	2	65968.951	66465	2.243	5.174	1.5	H2-1
27	M74B	L3X3X6	0.386	0	17	0.124	28.63	z	7	66148.647	66465	2.243	5.174	1.165	H2-1
28	M75B	L3X3X6	0.381	0	19	0.15	28.63	y	7	66148.647	66465	2.243	5.174	1.5	H2-1
29	M73	L3X3X6	0.288	0	5	0.171	34.973	z	21	65968.951	66465	2.243	5.174	1.5	H2-1
30	M74	L3X3X6	0.292	0	5	0.149	33.152	y	5	65968.951	66465	2.243	5.174	1.5	H2-1
31	M381A	L2.5x2.5x4	0.577	0	3	0.098	25.462	z	10	33288.198	38556	1.114	2.537	1.5	H2-1
32	M379B	L2.5x2.5x4	0.627	0	11	0.097	0	z	6	33288.198	38556	1.114	2.537	1.5	H2-1
33	M380B	L2.5x2.5x4	0.62	25.462	4	0.096	25.462	z	2	33288.198	38556	1.114	2.537	1.5	H2-1
34	M126	HSS4X3X4	0.373	22.813	9	0.148	22.813	z	9	83040.402	91665	8.19	10.001	2.147	H1-1b
35	M77	HSS4X3X4	0.377	22.813	5	0.143	22.813	z	5	83040.402	91665	8.19	10.001	1.601	H1-1b
36	M54_1	HSS4X3X4	0.356	22.813	1	0.138	22.813	z	1	83040.402	91665	8.19	10.001	1.502	H1-1b
37	M307A	3/8 x 5/8	0.108	4.766	17	0.002	0	y	32	9933.862	10546.875	0.082	0.137	1.153	H1-1b*
38	M239	3/8 x 5/8	0.134	0	1	0.017	3.452	y	9	10220.704	10546.875	0.082	0.137	1.294	H1-1b*
39	M240	3/8 x 5/8	0.109	4.766	13	0.002	4.766	y	1	9933.862	10546.875	0.082	0.137	1.243	H1-1b*
40	M310	3/8 x 5/8	0.156	3.452	9	0.02	3.452	y	10	10220.704	10546.875	0.082	0.137	2.231	H1-1b
41	M311	3/8 x 5/8	0.107	4.766	21	0.002	0	y	43	9933.862	10546.875	0.082	0.137	1.188	H1-1b*
42	M306	3/8 x 5/8	0.157	3.452	5	0.025	3.452	y	5	10220.704	10546.875	0.082	0.137	2.231	H1-1b
43	M288	3/8 x 4	0.288	8.906	5	0.04	0	y	9	54763.771	67500	0.527	5.625	1.369	H1-1a
44	M286	3/8 x 4	0.301	5.749	5	0.019	12.543	y	11	44585.041	67500	0.527	5.625	1.41	H1-1a
45	M287	3/8 x 4	0.249	7.998	5	0.024	0	y	10	57024.39	67500	0.527	5.625	2.224	H1-1a
46	M313A	3/8 x 4	0.43	11.5	5	0.022	11.5	y	5	47631.679	67500	0.527	5.625	1.203	H1-1a
47	M290A	3/8 x 4	0.31	12.543	9	0.014	5.618	y	30	44585.041	67500	0.527	5.625	1.372	H1-1a
48	M329	3/8 x 4	0	5.702	11	0	5.702	y	8	54589.694	67500	0.527	5.625	2.573	H1-1b*
49	M335	3/8 x 4	0.181	4.073	5	0.017	8.886	y	11	54814.643	67500	0.527	5.625	1.144	H1-1b*
50	M219	3/8 x 4	0.29	12.543	1	0.028	5.618	y	9	44585.041	67500	0.527	5.625	1.291	H1-1a
51	M220	3/8 x 4	0.234	7.998	1	0.018	7.998	y	9	57024.39	67500	0.527	5.625	1.872	H1-1a
52	M221	3/8 x 4	0.267	8.906	1	0.022	8.906	y	9	54763.771	67500	0.527	5.625	1.569	H1-1a
53	M245	3/8 x 4	0.401	11.5	1	0.053	11.5	y	4	47631.679	67500	0.527	5.625	1.253	H1-1a
54	M246	3/8 x 4	0.45	11	2	0.039	11	y	10	49066.503	67500	0.527	5.625	1.147	H1-1a
55	M261	3/8 x 4	0	5.702	7	0	5.702	y	4	54589.694	67500	0.527	5.625	2.371	H1-1b*
56	M268A	3/8 x 4	0.173	4.073	1	0.027	8.886	y	9	54814.643	67500	0.527	5.625	1.118	H1-1b*
57	M291A	3/8 x 4	0.263	7.998	9	0.013	7.998	y	11	57024.39	67500	0.527	5.625	1.125	H1-1a
58	M292A	3/8 x 4	0.293	8.906	9	0.029	8.906	y	11	54763.771	67500	0.527	5.625	1.087	H1-1a
59	M316	3/8 x 4	0.425	11.5	9	0.03	11.5	y	8	47631.679	67500	0.527	5.285	1.032	H1-1a
60	M317	3/8 x 4	0.46	11	9	0.022	11	y	1	49066.503	67500	0.527	5.155	1.002	H1-1a
61	M332B	3/8 x 4	0	5.702	3	0	5.702	y	12	54589.694	67500	0.527	5.625	2.547	H1-1b*
62	M314A	3/8 x 4	0.477	11	5	0.017	11	y	12	49066.503	67500	0.527	5.625	1.116	H1-1a
63	M339	3/8 x 4	0.181	4.073	9	0.012	8.886	y	30	54814.643	67500	0.527	5.625	2.193	H1-1b*
64	M74C	3/8 x 3	0.153	7.261	7	0.149	0	y	18	32152.749	35437.5	0.277	2.215	2.254	H1-1b
65	M66_1	3/8 x 3	0.18	0	2	0.114	0	y	17	32152.749	35437.5	0.277	2.215	1.975	H1-1b
66	M128	3/8 x 3	0.159	7.261	3	0.149	0	y	14	32152.749	35437.5	0.277	2.215	2.243	H1-1b
67	M127	3/8 x 3	0.177	0	9	0.115	0	y	14	32152.749	35437.5	0.277	2.215	1.68	H1-1b
68	M79	3/8 x 3	0.16	7.261	11	0.15	0	y	22	32152.749	35437.5	0.277	2.215	2.246	H1-1b
69	M78	3/8 x 3	0.187	0	5	0.113	0	y	22	32152.749	35437.5	0.277	2.215	1.726	H1-1b
70	M85	3/8 x 2 3/8 "	0.338	0	5	0.06	0	y	5	26251.56	28054.688	0.219	1.388	1.407	H1-1b
71	M134	3/8 x 2 3/8 "	0.328	0	9	0.058	0	y	9	26251.56	28054.688	0.219	1.388	1.408	H1-1b
72	M133	3/8 x 2 3/8 "	0.297	0	24	0.036	0	y	24	26251.56	28054.688	0.219	1.388	1.387	H1-1b
73	M132	3/8 x 2 3/8 "	0.253	0	23	0.033	0	y	14	26251.56	28054.688	0.219	1.388	1.816	H1-1b
74	M131	3/8 x 2 3/8 "	0.339	0	9	0.067	0	y	9	26251.56	28054.688	0.219	1.388	1.409	H1-1b
75	M130	3/8 x 2 3/8 "	0.303	0	14	0.034	0	y	20	26251.56	28054.688	0.219	1.388	1.36	H1-1b
76	M84	3/8 x 2 3/8 "	0.296	0	20	0.036	0	y	20	26251.56	28054.688	0.219	1.388	1.388	H1-1b
77	M31_1	3/8 x 2 3/8 "	0.267	0	18	0.04	0	y	18	26251.56	28054.688	0.219	1.388	1.871	H1-1b
78	M33_1	3/8 x 2 3/8 "	0.303	0	18	0.034	0	y	23	26251.56	28054.688	0.219	1.388	1.36	H1-1b
79	M34A	3/8 x 2 3/8 "	0.322	0	1	0.064	0	y	1	26251.56	28054.688	0.219	1.388	1.409	H1-1b
80	M60_1	3/8 x 2 3/8 "	0.256	0	15	0.032	0	y	18	26251.56	28054.688	0.219	1.388	1.814	H1-1b
81	M61_1	3/8 x 2 3/8 "	0.299	0	16	0.037	0	y	16	26251.56	28054.688	0.219	1.388	1.386	H1-1b
82	M62_1	3/8 x 2 3/8 "	0.323	0	1	0.055	0	y	1	26251.56	28054.688	0.219	1.388	1.406	H1-1b
83	M80	3/8 x 2 3/8 "	0.268	0	21	0.041	0	y	22	26251.56	28054.688	0.219	1.388	1.872	H1-1b
84	M81	3/8 x 2 3/8 "	0.303	0	22	0.034	0	y	15	26251.56	28054.688	0.219	1.388	1.358	H1-1b
85	M83	3/8 x 2 3/8 "	0.254	0	19	0.032	0	y	22	26251.56	28054.688	0.219	1.388	1.815	H1-1b
86	M129	3/8 x 2 3/8 "	0.266	0	14	0.04	0	y	14	26251.56	28054.688	0.219	1.388	1.872	H1-1b
87	M82	3/8 x 2 3/8 "	0.328	0	5	0.066	0	y	5	26251.56	28054.688	0.219	1.388	1.409	H1-1b
88	M320A	3/8 x 1"	0.298	10.449	17	0.017	10.449	y	8	12655.26	16875	0.132	0.352	1.408	H1-1a
89	M321A	3/8 x 1"	0.374	15.171	17	0.016	0	y	5	9199.583	16875	0.132	0.352	2.268	H1-1a
90	M322A	3/8 x 1"	0.003	0	7	0	10.449	y	11	12655.26	16875	0.132	0.352	2.381	H1-1b

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
91	M331	3/8 x 1"	0.001	5.99	19	0	5.99	y	19	13547.753	16875	0.132	0.352	2.68	H1-1b
92	M222	3/8 x 1"	0.085	12.278	1	0.012	5.5	y	14	11341.38	16875	0.132	0.352	3	H1-1b*
93	M333	3/8 x 1"	0.089	8.699	5	0.017	8.699	y	6	13823.529	16875	0.132	0.352	2.222	H1-1b
94	M334	3/8 x 1"	0.183	8.886	5	0.038	3.98	y	5	13703.985	16875	0.132	0.352	2.061	H1-1b
95	M223	3/8 x 1"	0.115	0	7	0.021	7.776	y	6	14388.926	16875	0.132	0.352	2.169	H1-1b
96	M224	3/8 x 1"	0.149	8.619	1	0.02	8.619	y	5	13873.944	16875	0.132	0.352	1.464	H1-1b*
97	M319A	3/8 x 1"	0.381	0	17	0.029	0	y	4	8939.285	16875	0.132	0.352	2.224	H1-1a
98	M332	3/8 x 1"	0.003	5.879	5	0.001	2.655	y	19	13563.658	16875	0.132	0.352	2.847	H1-1b*
99	M318A	3/8 x 1"	0.248	11	5	0.024	11	y	4	12267.071	16875	0.132	0.352	2.233	H1-1b
100	M291	3/8 x 1"	0.157	8.619	5	0.019	8.619	y	41	13873.944	16875	0.132	0.352	1.792	H1-1b*
101	M316A	3/8 x 1"	0.477	11	5	0.025	11	y	5	12267.071	16875	0.132	0.352	2.246	H1-1a
102	M315A	3/8 x 1"	0.482	11.484	5	0.037	11.484	y	5	11920.097	16875	0.132	0.352	2.262	H1-1a
103	M299	3/8 x 1"	0.125	0	19	0.022	0	y	10	12645.823	16875	0.132	0.352	2.29	H1-1b*
104	M298	3/8 x 1"	0.104	0	21	0.014	0	y	41	13865.475	16875	0.132	0.352	2.18	H1-1b*
105	M297	3/8 x 1"	0.101	0	21	0.026	0	y	10	11427.68	16875	0.132	0.352	1.149	H1-1b*
106	M295	3/8 x 1"	0.097	0	10	0.017	10.449	y	8	12655.127	16875	0.132	0.352	2.382	H1-1b
107	M294	3/8 x 1"	0.193	0	5	0.044	8.771	y	9	13777.468	16875	0.132	0.352	2.161	H1-1b*
108	M293	3/8 x 1"	0.194	0	5	0.027	7.998	y	9	14256.371	16875	0.132	0.352	2.186	H1-1b*
109	M292	3/8 x 1"	0.295	12.543	5	0.028	5.618	y	5	11146.786	16875	0.132	0.352	2.256	H1-1a
110	M290	3/8 x 1"	0.12	0	11	0.023	7.776	y	41	14388.926	16875	0.132	0.352	2.167	H1-1b
111	M289	3/8 x 1"	0.089	12.278	5	0.012	5.5	y	18	11341.38	16875	0.132	0.352	3	H1-1b*
112	M225	3/8 x 1"	0.283	12.543	1	0.031	5.618	y	2	11146.786	16875	0.132	0.352	2.243	H1-1a
113	M317A	3/8 x 1"	0.177	11.5	5	0.019	11.5	y	37	11908.392	16875	0.132	0.352	2.222	H1-1b
114	M226	3/8 x 1"	0.187	0	1	0.016	7.998	y	20	14256.371	16875	0.132	0.352	2.188	H1-1b*
115	M295A	3/8 x 1"	0.156	8.619	9	0.02	8.619	y	2	13873.944	16875	0.132	0.352	1.762	H1-1b*
116	M228	3/8 x 1"	0.093	0	18	0.031	10.449	y	4	12655.127	16875	0.132	0.352	1.152	H1-1b*
117	M299A	3/8 x 1"	0.093	0	14	0.024	0	y	1	12655.127	16875	0.132	0.352	1.153	H1-1b*
118	M301A	3/8 x 1"	0.1	0	13	0.013	0	y	10	11427.68	16875	0.132	0.352	1.155	H1-1b*
119	M321	3/8 x 1"	0.247	11	9	0.022	11	y	8	12267.071	16875	0.132	0.352	2.233	H1-1b
120	M303A	3/8 x 1"	0.125	0	23	0.014	0	y	30	12645.823	16875	0.132	0.352	2.293	H1-1b*
121	M318	3/8 x 1"	0.483	11.484	9	0.045	11.484	y	8	11920.097	16875	0.132	0.352	2.262	H1-1a
122	M338	3/8 x 1"	0.178	8.886	9	0.031	3.98	y	10	13703.985	16875	0.132	0.352	2.061	H1-1b
123	M337	3/8 x 1"	0.088	8.699	9	0.016	8.699	y	10	13823.529	16875	0.132	0.352	2.221	H1-1b
124	M335A	3/8 x 1"	0.003	5.879	9	0.001	2.655	y	19	13563.658	16875	0.132	0.352	2.848	H1-1b*
125	M227	3/8 x 1"	0.186	0	1	0.019	8.771	y	2	13777.468	16875	0.132	0.352	2.161	H1-1b*
126	M334A	3/8 x 1"	0.001	5.99	18	0	5.99	y	19	13547.753	16875	0.132	0.352	2.686	H1-1b
127	M325A	3/8 x 1"	0.003	0	7	0	10.449	y	3	12655.26	16875	0.132	0.352	2.381	H1-1b
128	M324A	3/8 x 1"	0.374	15.171	21	0.018	0	y	8	9199.583	16875	0.132	0.352	2.268	H1-1a
129	M323A	3/8 x 1"	0.297	10.449	21	0.022	0	y	1	12655.26	16875	0.132	0.352	1.409	H1-1a
130	M322	3/8 x 1"	0.384	0	9	0.025	0	y	9	8939.285	16875	0.132	0.352	2.278	H1-1a
131	M319	3/8 x 1"	0.476	11	9	0.03	11	y	8	12267.071	16875	0.132	0.352	2.246	H1-1a
132	M298A	3/8 x 1"	0.193	0	9	0.034	8.771	y	10	13777.468	16875	0.132	0.352	2.161	H1-1b*
133	M297A	3/8 x 1"	0.194	0	9	0.018	7.998	y	11	14256.371	16875	0.132	0.352	2.187	H1-1b*
134	M302A	3/8 x 1"	0.104	0	13	0.018	0	y	1	13865.475	16875	0.132	0.352	2.179	H1-1b*
135	M294A	3/8 x 1"	0.12	0	3	0.022	7.776	y	3	14388.926	16875	0.132	0.352	2.167	H1-1b
136	M230	3/8 x 1"	0.101	0	17	0.02	0	y	9	11427.68	16875	0.132	0.352	1.155	H1-1b*
137	M231	3/8 x 1"	0.104	0	17	0.021	8.633	y	4	13865.475	16875	0.132	0.352	2.179	H1-1b*
138	M232	3/8 x 1"	0.126	0	15	0.023	0	y	9	12645.823	16875	0.132	0.352	2.294	H1-1b*
139	M247	3/8 x 1"	0.463	11.484	1	0.056	11.484	y	3	11920.097	16875	0.132	0.352	2.263	H1-1a
140	M248	3/8 x 1"	0.459	11	1	0.039	11	y	3	12267.071	16875	0.132	0.352	2.247	H1-1a
141	M249	3/8 x 1"	0.167	11.5	1	0.02	11.5	y	4	11908.392	16875	0.132	0.352	2.222	H1-1b
142	M250	3/8 x 1"	0.236	11	1	0.022	11	y	12	12267.071	16875	0.132	0.352	2.233	H1-1b
143	M251	3/8 x 1"	0.377	0	13	0.032	0	y	3	8939.285	16875	0.132	0.352	2.221	H1-1a
144	M252	3/8 x 1"	0.297	10.449	13	0.028	10.449	y	4	12655.26	16875	0.132	0.352	1.411	H1-1a
145	M253	3/8 x 1"	0.372	15.171	13	0.028	0	y	3	9199.583	16875	0.132	0.352	2.271	H1-1a
146	M296A	3/8 x 1"	0.293	12.543	9	0.02	5.618	y	42	11146.786	16875	0.132	0.352	2.255	H1-1a
147	M320	3/8 x 1"	0.175	11.5	9	0.019	11.5	y	12	11908.392	16875	0.132	0.352	2.222	H1-1b
148	M254	3/8 x 1"	0.003	0	3	0	10.449	y	7	12655.26	16875	0.132	0.352	2.381	H1-1b
149	M263	3/8 x 1"	0.001	5.99	4	0	5.99	y	16	13547.753	16875	0.132	0.352	2.568	H1-1b
150	M264	3/8 x 1"	0.003	5.879	1	0.001	2.655	y	17	13563.658	16875	0.132	0.352	2.854	H1-1b*
151	M266A	3/8 x 1"	0.084	8.699	1	0.017	8.699	y	2	13823.529	16875	0.132	0.352	2.218	H1-1b
152	M267A	3/8 x 1"	0.173	8.886	1	0.037	3.98	y	2	13703.985	16875	0.132	0.352	2.084	H1-1b
153	M293A	3/8 x 1"	0.089	12.278	9	0.012	5.5	y	22	11341.38	16875	0.132	0.352	3	H1-1b*
154	M237	3/4 x 3/8	0.117	4.437	1	0.027	4.437	y	3	12016.216	12656.25	0.099	0.198	2.251	H1-1b
155	M304	3/4 x 3/8	0.123	4.437	5	0.023	4.437	y	6	12016.216	12656.25	0.099	0.198	2.249	H1-1b

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
156	M303	3/4 x 3/8	0.129	7.145	5	0.016	7.145	y	12	11062.878	12656.25	0.099	0.198	1.404	H1-1b*
157	M238	3/4 x 3/8	0.149	5.846	13	0.011	5.846	y	9	11565.74	12656.25	0.099	0.198	2.031	H1-1b*
158	M307	3/4 x 3/8	0.129	7.145	9	0.011	7.145	y	5	11062.878	12656.25	0.099	0.198	1.407	H1-1b*
159	M308	3/4 x 3/8	0.113	4.437	9	0.018	4.437	y	11	12016.216	12656.25	0.099	0.198	2.249	H1-1b
160	M309	3/4 x 3/8	0.151	5.846	9	0.006	0	y	5	11565.74	12656.25	0.099	0.198	2.175	H1-1b*
161	M236	3/4 x 3/8	0.128	7.145	13	0.021	7.145	y	9	11062.878	12656.25	0.099	0.198	1.994	H1-1b*
162	M305	3/4 x 3/8	0.151	5.846	5	0.009	0	y	12	11565.74	12656.25	0.099	0.198	2.174	H1-1b*
163	M235	.875 x .375	0.106	5.606	2	0.021	5.606	y	3	13591.605	14765.625	0.115	0.269	2.236	H1-1b
164	M233	.875 x .375	0.139	6.999	2	0.015	6.999	y	2	12976.616	14765.625	0.115	0.269	2.196	H1-1b
165	M306A	.875 x .375	0.091	5.606	10	0.015	5.606	y	11	13591.605	14765.625	0.115	0.269	2.234	H1-1b
166	M305A	.875 x .375	0.105	8.719	9	0.016	0	y	42	12083.824	14765.625	0.115	0.269	2.228	H1-1b*
167	M300	.875 x .375	0.134	0	19	0.015	0	y	29	12976.616	14765.625	0.115	0.269	2.206	H1-1b*
168	M301	.875 x .375	0.105	8.719	5	0.025	8.719	y	11	12083.824	14765.625	0.115	0.269	2.228	H1-1b*
169	M304A	.875 x .375	0.134	0	24	0.015	6.999	y	4	12976.616	14765.625	0.115	0.269	2.203	H1-1b*
170	M234	.875 x .375	0.102	8.719	1	0.031	8.719	y	9	12083.824	14765.625	0.115	0.269	2.223	H1-1b*
171	M302	.875 x .375	0.103	5.606	5	0.017	5.606	y	6	13591.605	14765.625	0.115	0.269	2.231	H1-1b
172	M284	.5" x 4"	0.255	1.215	3	0.032	0	z	11	82340.541	90000	0.938	7.5	1.092	H1-1b
173	M285	.5" x 4"	0.16	8.619	5	0.033	8.619	y	8	80682.612	90000	0.938	7.5	1.369	H1-1b*
174	M323	.5" x 4"	0.182	11.5	5	0.038	11.5	y	8	74088.723	90000	0.938	7.5	1.246	H1-1b
175	M324	.5" x 4"	0.338	11	5	0.037	11	y	8	75325.963	90000	0.938	7.5	1.16	H1-1a
176	M330	.5" x 4"	0	5.99	17	0	5.99	z	20	79618.38	90000	0.938	7.5	2.048	H1-1b*
177	M332A	.5" x 4"	0.136	1.903	5	0.021	3.896	z	5	80518.857	90000	0.938	7.5	3	H1-1b
178	M216	.5" x 4"	0.086	12.278	1	0.012	5.628	y	9	72098.729	90000	0.938	7.5	1.598	H1-1b*
179	M327A	.5" x 4"	0.341	11	9	0.04	11	y	1	75325.963	90000	0.938	7.5	1.135	H1-1a
180	M333A	.5" x 4"	0	5.99	21	0	5.99	z	24	79618.38	90000	0.938	7.5	2.067	H1-1b*
181	M218	.5" x 4"	0.152	8.619	1	0.05	8.619	y	4	80682.612	90000	0.938	7.5	1.872	H1-1b*
182	M255	.5" x 4"	0.214	11.5	3	0.051	11.5	y	4	74088.723	90000	0.938	7.5	1.683	H1-1b
183	M256	.5" x 4"	0.375	11	3	0.048	11	y	4	75325.963	90000	0.938	7.5	1.252	H1-1b
184	M262	.5" x 4"	0	5.99	13	0	5.99	y	4	79618.38	90000	0.938	7.256	1	H1-1b*
185	M265A	.5" x 4"	0.132	1.903	1	0.02	3.896	z	2	80518.857	90000	0.938	7.5	3	H1-1b
186	M287A	.5" x 4"	0.09	12.278	9	0.009	0	y	12	72098.729	90000	0.938	7.5	2.2	H1-1b*
187	M288A	.5" x 4"	0.257	1.215	11	0.036	7.776	y	1	82340.541	90000	0.938	7.5	1.107	H1-1b
188	M336	.5" x 4"	0.136	1.903	9	0.019	3.896	z	9	80518.857	90000	0.938	7.5	1.498	H1-1b
189	M289A	.5" x 4"	0.164	0	11	0.042	8.619	y	1	80682.612	90000	0.938	7.5	1.268	H1-1b
190	M326A	.5" x 4"	0.195	11.5	8	0.043	11.5	y	1	74088.723	90000	0.938	7.5	1.572	H1-1b
191	M217	.5" x 4"	0.259	1.215	3	0.041	7.776	y	5	82340.541	90000	0.938	7.5	1.165	H1-1b
192	M283	.5" x 4"	0.09	12.278	5	0.009	0	y	8	72098.729	90000	0.938	7.5	1.506	H1-1b*

CALCULATION SHEET

MOUNT TO TOWER CONNECTION CHECK:

FORCES FROM ANALYSIS RESULTS:

$V_x := 186.215lbf$ Horizontal shear per connection

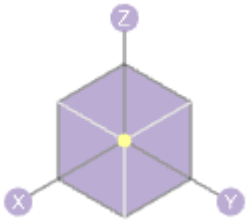
$V_y := 1587.988lbf$ Tension per connection

$V_z := 3767.951lbf$ Vertical shear per connection

$M_x := 0.424kip \cdot ft$ Moment about X-axis

$M_y := 0.007kip \cdot ft$ Moment about Y-axis

$M_z := 0.478kip \cdot ft$ Moment about Z-axis



DIMENSIONS OF PLATE:

$H := 17in$ Height of Plate

$W := 3in$ Width of Plate

$T := 0.1875in$ Thickness of Plate

$e := 1.25in$ Edge Distance of bolt

CONNECTION CHECK OF MOUNT TO TOWER:

Number of bolts per connection $n_{bolts} := 8$

Vertical shear per connection $V_z = 3.768 \times 10^{3}\ lbf$

Horizontal shear per connection $V_x = 186.2\ lbf$

Total resultant shear per bolt $V_{max} := \frac{\sqrt{V_z^{2} + V_x^{2}}}{n_{bolts}} = 0.47 \cdot kip$

Maximum tension per connection $T_{max} := \frac{V_y}{n_{bolts}} + \frac{M_z}{2(W - 2e)} + \frac{M_x}{2(W - 2e)} = 11022.5 \cdot lbf$

CALCULATION SHEET

CHECK BOLTS: MOUNT CONNECTION - Four bolts per support

Diameter of bolt : $d_b := \frac{5}{8}in$

Nominal unthreaded body area: $A_b := \frac{\pi}{4} \cdot d_b^{\,2} = 0.307 \cdot in^2$

Yield Stress: $F_y := 92ksi$

Tensile Stress: $F_u := 120ksi$

Nominal tensile stress for A325 threaded rod: $F_{nt} := 0.75 \cdot F_u = 90 \cdot ksi$

Nominal shear stress for A325 threaded rod: $F_{nv} := 0.45 \cdot F_u = 54 \cdot ksi$

Resistance factor for mechanical connections : $\phi := 0.75$

Allowable tensile capacity per bolt : $T_n := (\phi \cdot F_{nt} \cdot A_b) = 20.7 \cdot kip$

Allowable shear capacity per bolt : $V_n := (\phi \cdot F_{nv} \cdot A_b) = 12.4 \cdot kip$

Actual tensile force per bolt : $T_{actual} := T_{max} = 11.022 \cdot kip$

Actual shear force per bolt : $V_{actual} := V_{max} = 0.472 \cdot kip$

Usage : $\frac{T_{actual}}{T_n} = 53.2 \cdot \%$ <100%...OK!

$\frac{V_{actual}}{V_n} = 3.8 \cdot \%$ <100%...OK!

CALCULATION SHEET

COMBINED TENSION AND SHEAR CHECK FOR BOLTS:

(Can be ignored when required stress, in either shear or tension, is less than or equal to 30% of the correspoding available stress)

$$f_v := \frac{V_{actual}}{A_b} = 1.537 \cdot ksi$$

Required Shear Stress

$$f_t := \frac{T_{actual}}{A_b} = 35.928 \cdot ksi$$

Required Tensile Stress

$$F_{nt1} := \min\left[1.3F_{nt} - \frac{(F_{nt}) \cdot f_v}{\phi \cdot F_{nv}}, F_{nt}\right] = 90 \cdot ksi$$

Equation J3.3a Section 16.1-125

$$T_n := F_{nt1} \cdot A_b \cdot \phi = 20.709 \cdot kip$$

$$\frac{T_{actual} + V_{actual}}{T_n} = 55.5 \cdot \%$$

<100%...OK!

July 9, 2022

The Honorable Benjamin G. Blake
Milford Town Hall
110 River St.
Milford, CT 06460

Re: Exempt Modification Request – AT&T Site 13748383
AT&T Wireless Telecommunications Facility @ 185 Research Drive, Milford, CT 06460
AKA 203 Research Drive

Dear Mayor Blake:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove existing twelve (12) abandoned Metro antennas at the Rad center of one hundred seventy five (175) feet, six (6) TMAs, six (6) RRUs, two (2) squids, one (1) pair of 1 x 12 AT&T was initially approved by the Siting Council in case number TS-AT&T-033-010213. fiber trunks, one (1) pair of 1x 18 fiber trunks, and twelve (12) coax cables;
- Install twelve (12) antennas, three (3) RRHs, one (1) filter, two (2) squids, two (2) 24 pair fiber trunks, three (3) Y cables and two (2) DC trunks.
- Ground work includes removing twenty four (24) diplexers and removing UMTS BBU; and installing one (1) 6648 with XCEDE cable and four (4) rectifiers.

This letter is intended to serve as the required notice to the municipality's chief elected official. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

enclosures

July 9, 2022

DAMATO INVESTMENTS LLC
183 Quarry Road
Milford, CT 06460

Re: Exempt Modification Request – AT&T Site 13748383
AT&T Wireless Telecommunications Facility @ 185 Research Drive, Milford, CT 06460
AKA 203 Research Drive

Dear Property Owner:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove existing twelve (12) abandoned Metro antennas at the Rad center of one hundred seventy five (175) feet, six (6) TMAs, six (6) RRUs, two (2) squids, one (1) pair of 1 x 12 AT&T was initially approved by the Siting Council in case number TS-AT&T-033-010213. fiber trunks, one (1) pair of 1x 18 fiber trunks, and twelve (12) coax cables;
- Install twelve (12) antennas, three (3) RRHs, one (1) filter, two (2) squids, two (2) 24 pair fiber trunks, three (3) Y cables and two (2) DC trunks.
- Ground work includes removing twenty four (24) diplexers and removing UMTS BBU; and installing one (1) 6648 with XCEDE cable and four (4) rectifiers.

This letter is intended to serve as the required notice to the property owner. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

enclosures

July 9, 2022

Jacqueline Hall
Project Manager, Site Development
American Tower Corporation
10 Presidential Way
Woburn, MA 01801

Re: Exempt Modification Request – AT&T Site 13748383
AT&T Wireless Telecommunications Facility @ 185 Research Drive, Milford, CT 06460
AKA 203 Research Drive

Dear Ms. Hall:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove existing twelve (12) abandoned Metro antennas at the Rad center of one hundred seventy five (175) feet, six (6) TMAs, six (6) RRUs, two (2) squids, one (1) pair of 1 x 12 AT&T was initially approved by the Siting Council in case number TS-AT&T-033-010213. fiber trunks, one (1) pair of 1x 18 fiber trunks, and twelve (12) coax cables;
- Install twelve (12) antennas, three (3) RRHs, one (1) filter, two (2) squids, two (2) 24 pair fiber trunks, three (3) Y cables and two (2) DC trunks.
- Ground work includes removing twenty four (24) diplexers and removing UMTS BBU; and installing one (1) 6648 with XCEDE cable and four (4) rectifiers.

This letter is intended to serve as the required notice to the Tower Owner. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

enclosures

July 9, 2022

David B. Sulkis, City Planner
City of Milford
70 West River Street
Milford, CT 06460

Re: Exempt Modification Request – AT&T Site 13748383
AT&T Wireless Telecommunications Facility @ 185 Research Drive, Milford, CT 06460
AKA 203 Research Drive

Dear Mr. Sulkis:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction Drawings:

- Remove existing twelve (12) abandoned Metro antennas at the Rad center of one hundred seventy five (175) feet, six (6) TMAs, six (6) RRUs, two (2) squids, one (1) pair of 1 x 12 AT&T was initially approved by the Siting Council in case number TS-AT&T-033-010213. fiber trunks, one (1) pair of 1x 18 fiber trunks, and twelve (12) coax cables;
- Install twelve (12) antennas, three (3) RRHs, one (1) filter, two (2) squids, two (2) 24 pair fiber trunks, three (3) Y cables and two (2) DC trunks.
- Ground work includes removing twenty four (24) diplexers and removing UMTS BBU; and installing one (1) 6648 with XCEDE cable and four (4) rectifiers.

This letter is intended to serve as the required notice to the municipal planning agency. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

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Milford, CT

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Data provided by USPS

Tracking number 9505510391972200716905

Delivered
July 22, 11:43AM
Woburn, MA

View details on USPS

Call 1-800-275-8777

Track another package

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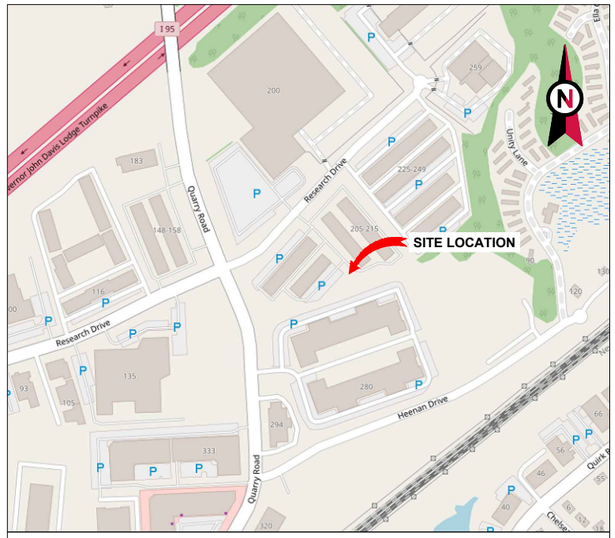
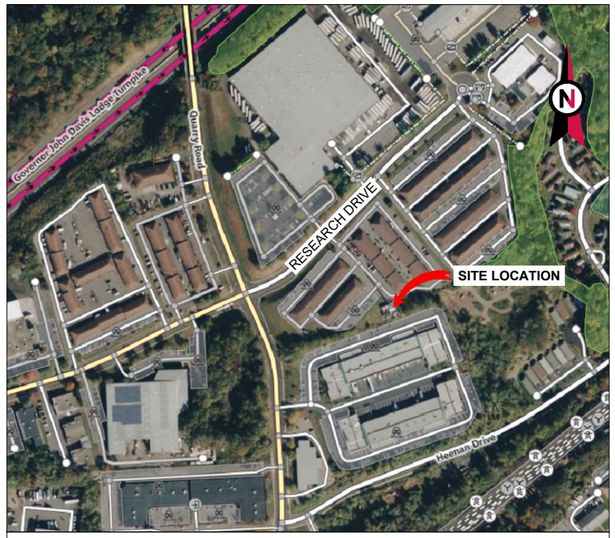


VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: MILFORD CT 2
ATC SITE NUMBER: 302535
AT&T PACE NUMBERS: MRCTB057959, MRCTB057613, MRCTB052107, MRCTB051036, MRCTB050847, MRCTB050908
AT&T SITE ID: CTL02169
AT&T FA CODE:10035075
AT&T SITE NAME: NEW HAVEN-WOODMONT
SITE ADDRESS: 203 RESEARCH DRIVE
MILFORD,CT 06460-7733



LOCATION MAP

AT&T 5G NR RADIO || 5G NR 1SR CBAND || 4TXRX RETROFIT BBU RECONFIGURATION AMENDMENT PLAN

COMPLIANCE CODE

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

1. 2018 CONNECTICUT STATE BUILDING CODE-AMENDMENTS TO IBC 2015
2. INTERNATIONAL BUILDING CODE 2015, INTERNATIONAL CODE COUNCIL
3. TIA-222-G-4, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
4. ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS
5. STEEL CONSTRUCTION MANUAL 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION
6. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: N/A
PHONE: N/A

TELEPHONE COMPANY: N/A
PHONE: N/A

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

PROJECT SUMMARY

SITE ADDRESS:

203 RESEARCH DRIVE
MILFORD,CT 06460-7733
COUNTY: NEW HAVEN

GEOGRAPHIC COORDINATES:

LATITUDE: 41.24041944°
LONGITUDE: -73.0119°
GROUND ELEVATION: 94.2' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

AT&T MOBILITY
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

ENGINEER:

DEWBERRY ENGINEERS INC.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

PROPERTY OWNER:

DAMATO INVESTMENTS LLC
185 RESEARCH DRIVE
MILFORD,CT 06460-7733

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE EXISTING ABANDONED METRO ANTENNAS AT RAD CENTER 175'-0", (12) ANTENNA(S), (6) TMA(S), (6) RRU(S), (2) SQUID(S), (1) 1X12 PAIR FIBER TRUNK(S), (1) 1X18 PAIR FIBER TRUNK(S) AND (12) COAX CABLE(S)

INSTALL (12) ANTENNA(S), (3) RRU(S), (1) FILTER, (2) SQUID(S), (2) 24 PAIR FIBER TRUNK(S), (3) Y CABLE(S) AND (2) DC TRUNK(S)

EXISTING (12) RRU(S), (1) SQUID(S), (6) DC TRUNK(S) AND (1) FIBER TRUNK(S) TO REMAIN. (3) RRU(S) IN SHELTER TO BE RELOCATED TO TOWER

GROUND WORK:

REMOVE (24) DIPLEXER(S) AND REMOVE/DECOM UMTS BBU

INSTALL (1) 6648 WITH XCEDE CABLE AND (4) RECTIFIERS

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM NEW HAVEN - TRAVEL ON I 95 SOUTH TO EXIT 40. TAKE LEFT AT OFF RAMP AND PROCEED TO FIRST SET OF LIGHTS AND TURN LEFT ON RESEARCH DRIVE. FOLLOW TO # 185

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	06/06/22	VL
G-002	GENERAL NOTES	0	06/06/22	VL
C-101	DETAILED SITE PLAN	0	06/06/22	VL
C-201	TOWER ELEVATION	0	06/06/22	VL
C-401	RF SCHEDULE AND ANTENNA INSTALLATION	0	06/06/22	VL
C-501	CONSTRUCTION DETAILS	0	06/06/22	VL
E-501	GROUNDING DETAILS	0	06/06/22	VL
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
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SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

AMERICAN TOWER®

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

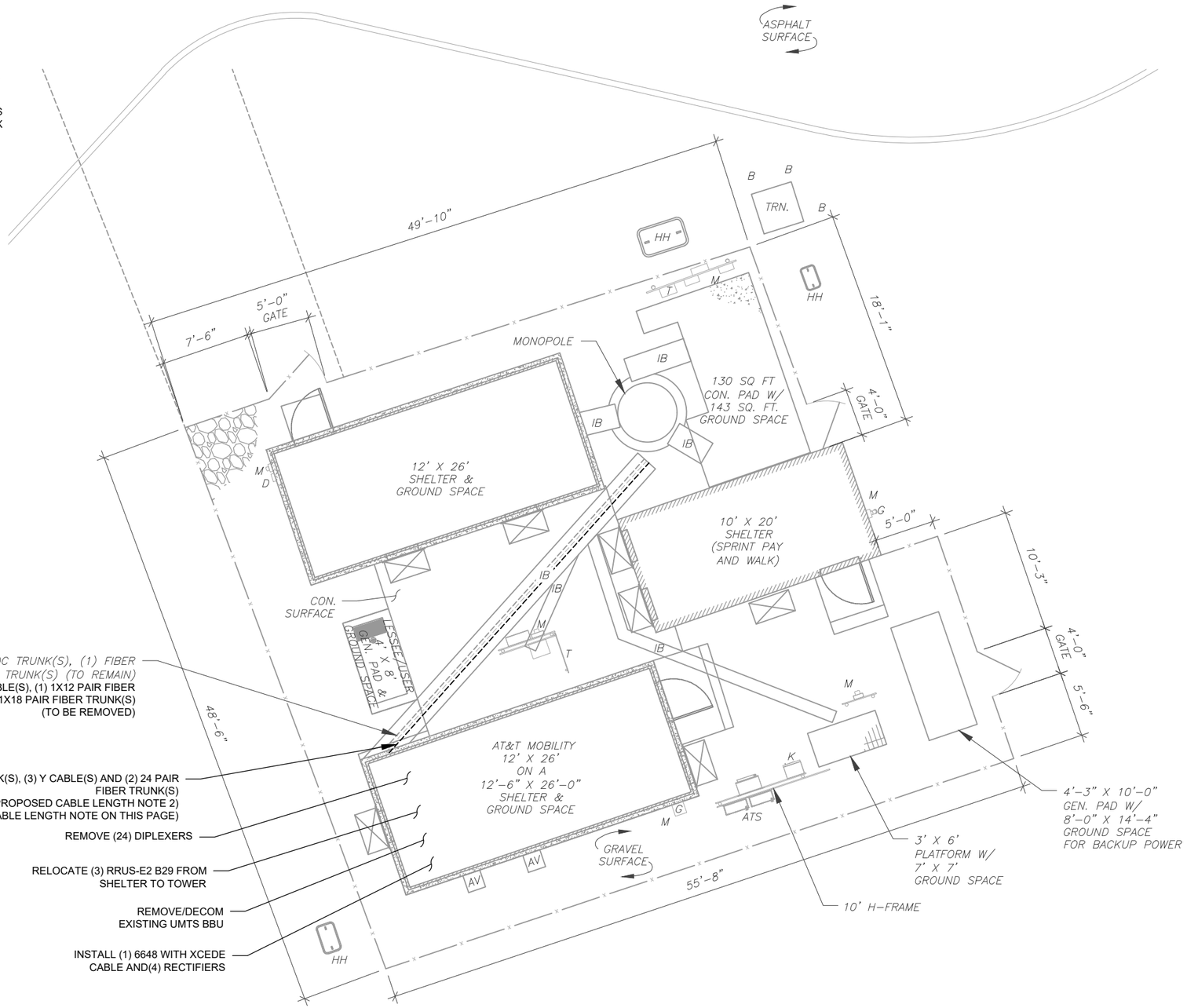
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——x——	CHAINLINK FENCE



PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **240'±**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

N

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ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

SEAL:

STATE OF CONNECTICUT 28971 LICENSED PROFESSIONAL ENGINEER

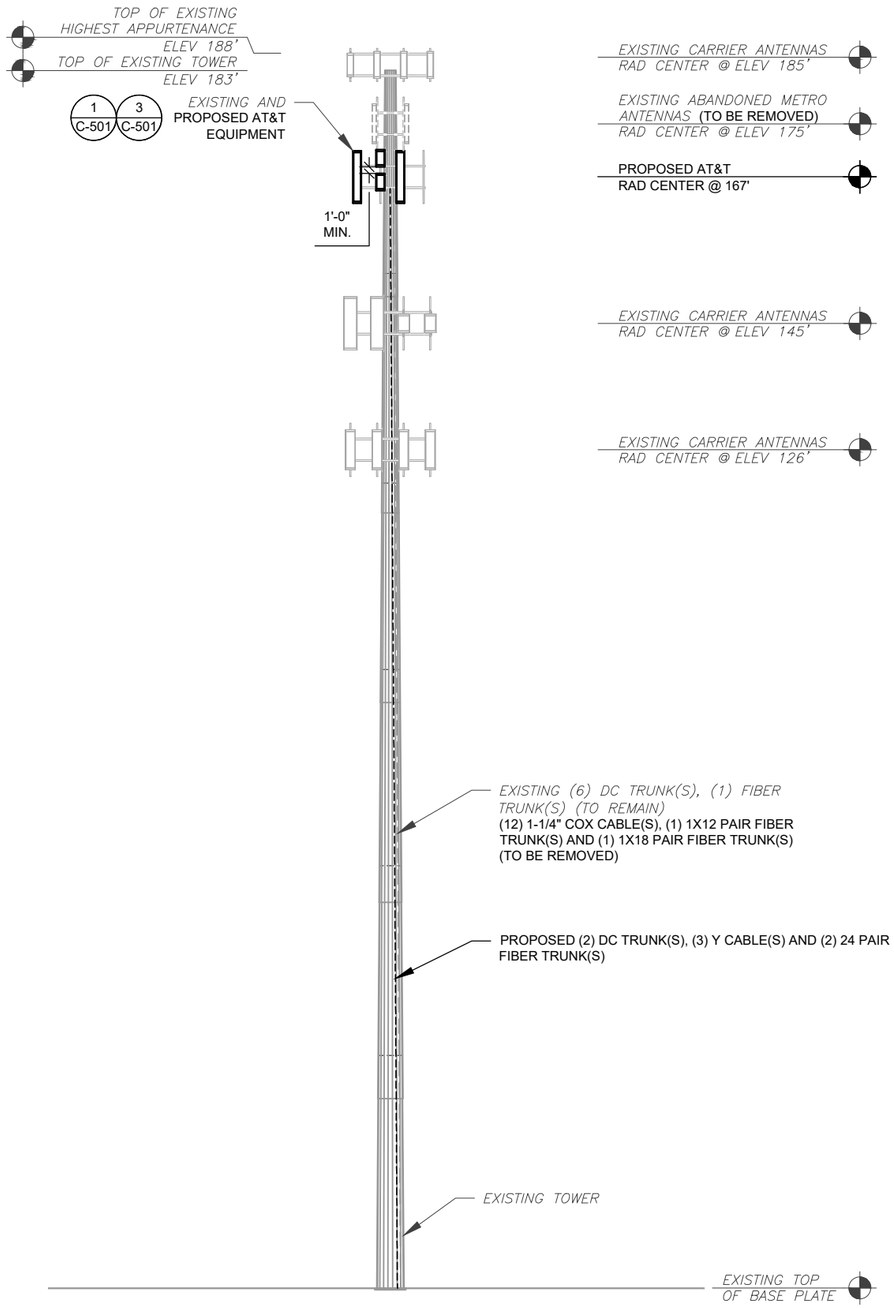
AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, INC., DATED 03/07/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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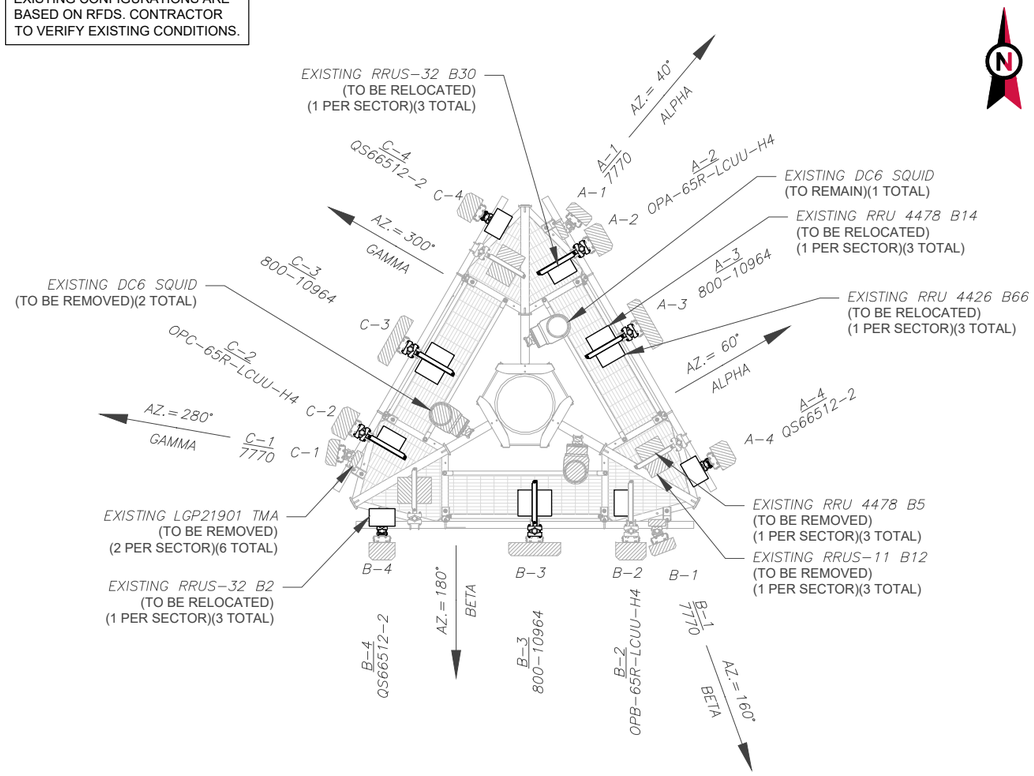
CUSTOMER #:	10035075

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

EXISTING CONFIGURATIONS ARE BASED ON RFDS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.

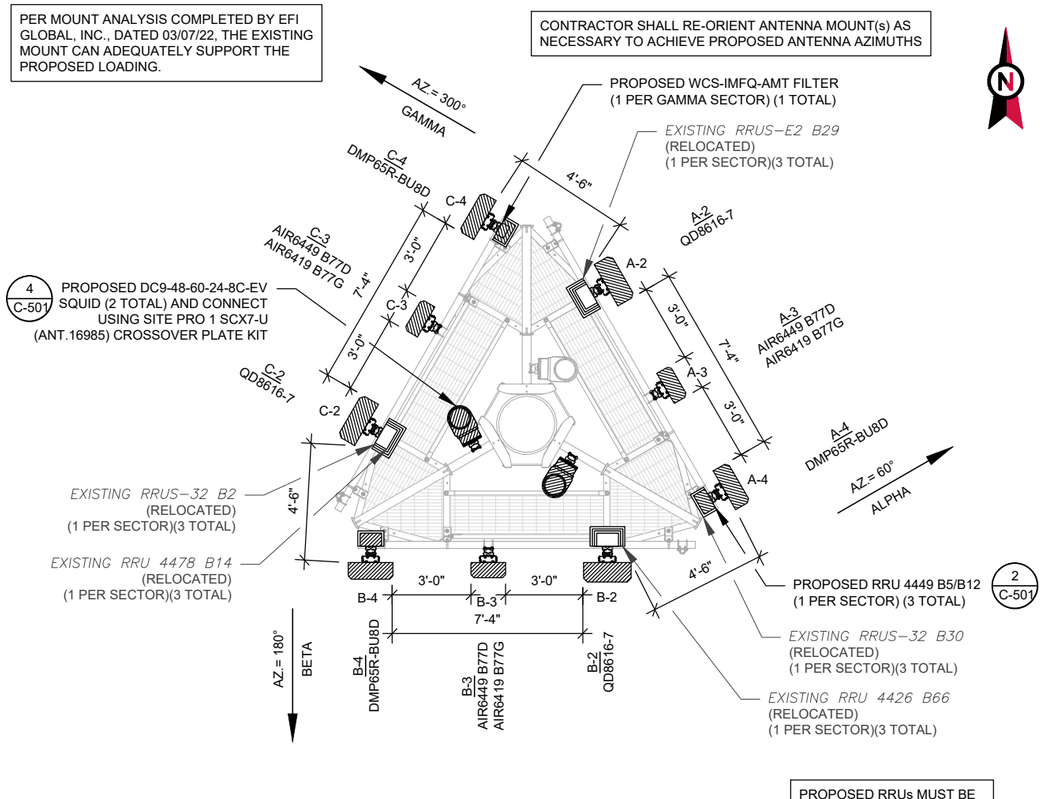


1 CURRENT ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, INC., DATED 03/07/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS



PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 8" AWAY FROM ALL ANTENNAS

2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	40°	A1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		60°	A2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			A3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			A4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL
BETA	167'	160°	B1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		180°	B2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			B3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			B4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL
GAMMA	167'	280°	C1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		300°	C2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			C3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			C4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL

EXISTING FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC6-48-60-18-8F	RMV
(1) DC6-48-60-18-8F	RMN

EXISTING CABLING SUMMARY

COAX	DC	FIBER	STATUS
(12)	–	(2)	RMV
–	(6)	(1)	RMN

NOTES

1. CONFIRM WITH AT&T REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	60°	A2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			A3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			A4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL
BETA	167'	180°	B2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			B3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			B4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL
GAMMA	167'	300°	C2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			C3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			C4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL

FINAL FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC9-48-60-24-8C-EV	ADD
(1) DC6-48-60-18-8F	RMN

FINAL CABLING SUMMARY

COAX	DC	FIBER	STATUS
-	(2)	(2)	ADD
–	(6)	(1)	RMN

3 EQUIPMENT SCHEDULES

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FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

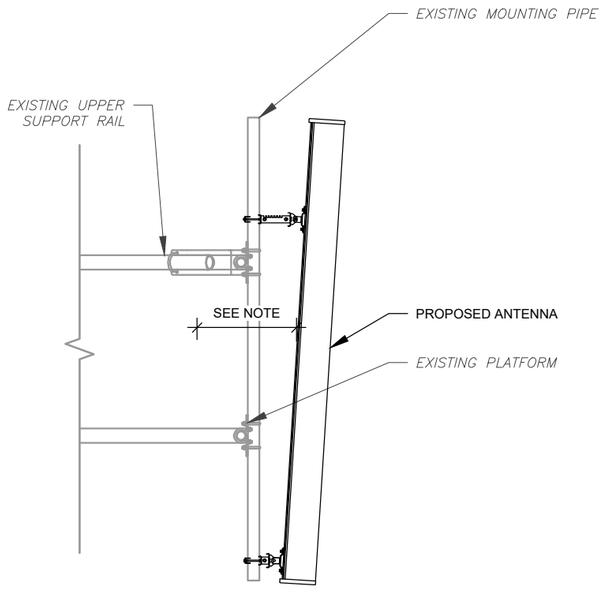
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

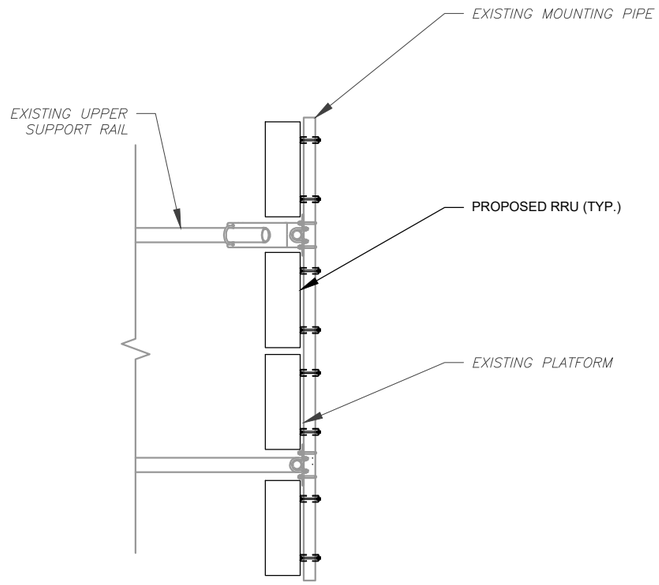
RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-401	0

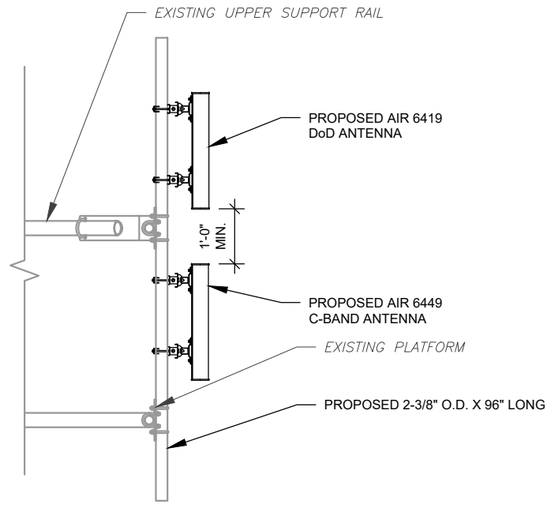


NOTE: 8" MINIMUM SEPARATION FROM BACK OF ANTENNA TO RRU

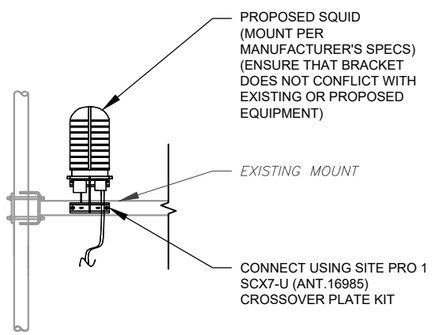
1 ANTENNA DETAIL
SCALE: N.T.S.



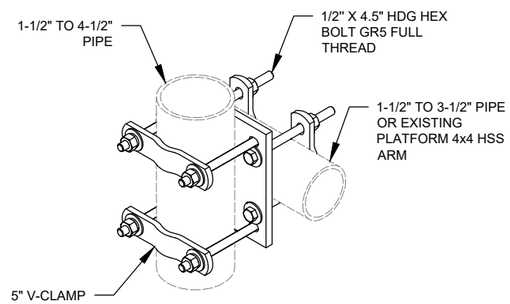
2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



4 PROPOSED SQUID MOUNTING
SCALE: N.T.S.



5 SITE PRO SCX7-U DETAIL
SCALE: N.T.S.

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MILFORD,CT 06460-7733

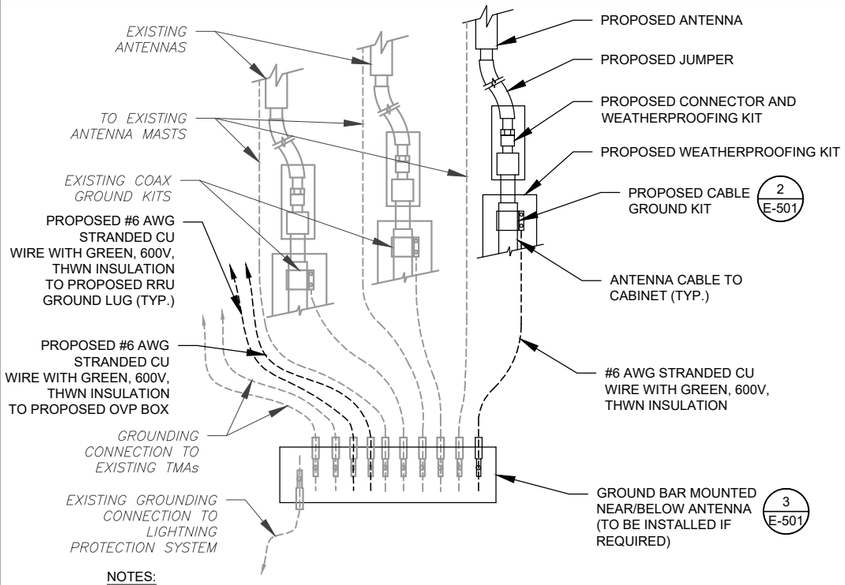
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

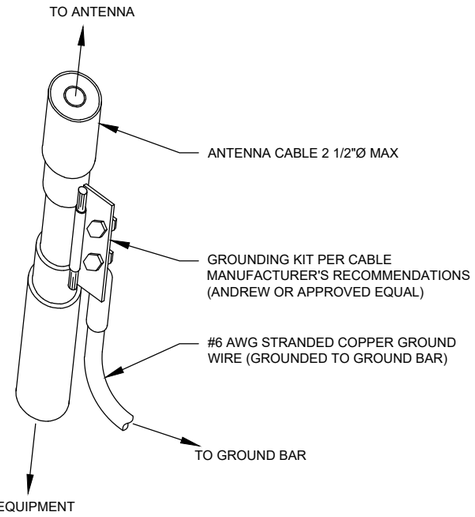


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH AT&T GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

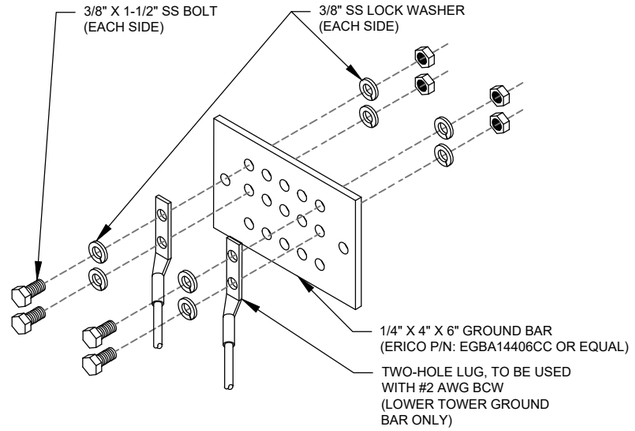


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

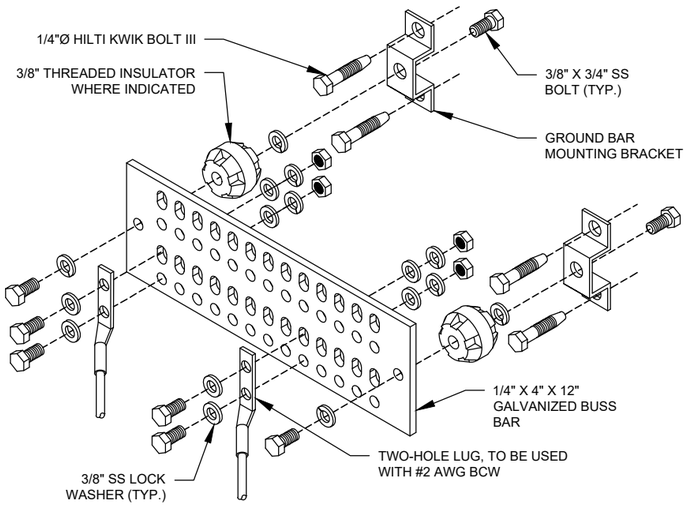


GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

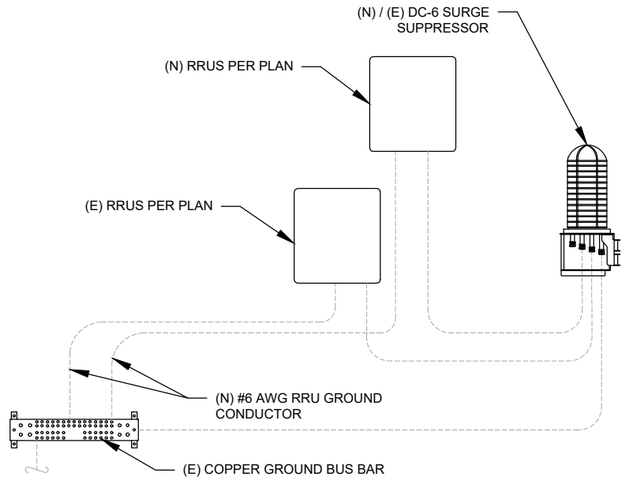


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

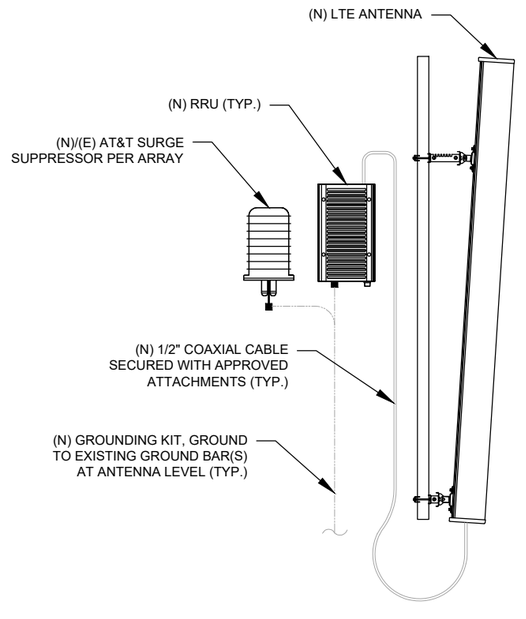
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
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MILFORD CT 2

AT&T SITE NAME:
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MILFORD,CT 06460-7733

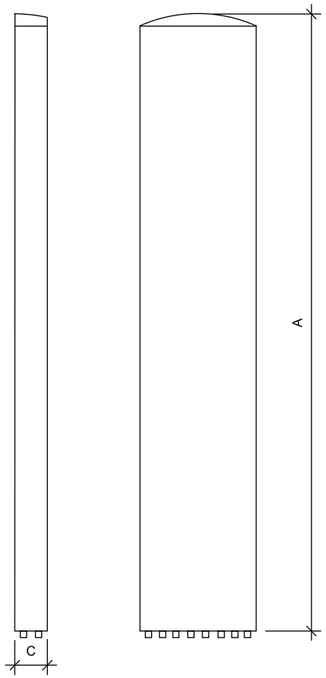
SEAL:

AT&T

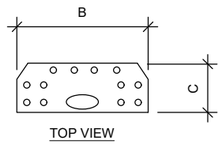
DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



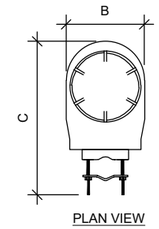
SIDE VIEW



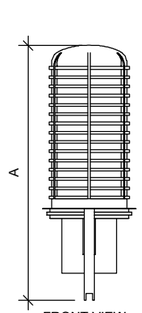
TOP VIEW

FRONT VIEW

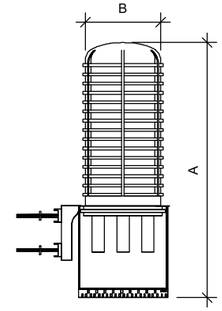
ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
QD8616-7	96.0"	22.0"	9.6"	150.0
AIR6449 B77D	28.3"	16.1"	7.9"	66.1
AIR6419 B77G	30.4"	15.9"	8.1"	81.6
DMP65R-BU8D	96"	20.7"	7.7"	95.7"



PLAN VIEW

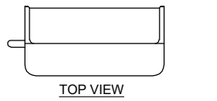


FRONT VIEW

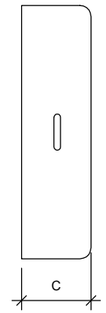


SIDW VIEW

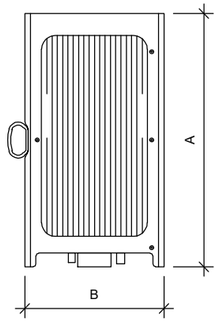
RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC9-48-60-24-8C-EV	31.4"	18.3"	10.2"	16.0



TOP VIEW



SIDW VIEW



FRONT VIEW

RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4449 B5\ B12	17.9"	13.2"	9.4"	71.0

1 EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

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ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

SEAL:

AT&T

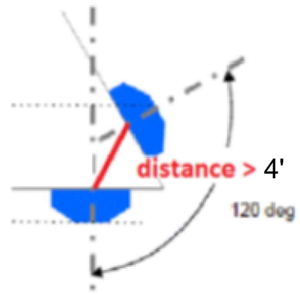
DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-601

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): >= 3’
- ❑ Vertical separation (between the tips of the antennas): > 3’
- ❑ Inter-sector separation: > 4' between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6°.

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CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-602

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

efi global

Antenna Mount Analysis Report

ATC Site Name	:	**Milford CT 2**
ATC Site Number	:	**302535**
Engineering Number	:	**13748383_C8_01**
Mount Elevation	:	**163.5 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**MRCTB050847**
Carrier Site Number	:	**CTCN002169**
Site Location	:	**185 Research Drive** **Milford, CT 06460-7733** **41.24041944, -73.01190000**
County	:	**New Haven**
Date	:	**March 7, 2022**
Max Usage	:	**84%**
Result	:	**Pass**

Prepared By:
Akhil Jayaraj, E.I.T.
EFI Global, Inc.

Reviewed By:
Richard L. Peterman, P.E.
EFI Global, Inc.

STATE OF CONNECTICUT · RICHARD L. PETERMAN · 30017 · LICENSED PROFESSIONAL ENGINEER
3/7/2022

COA#: PEC.0001245

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 163.5 ft.

Supporting Documents

RFDS	RFDS dated January 21, 2022
Photos	Site photos from 2019
Mount Mapping	B+T Proj#: G0160723.001.01, dated February 6, 2022

Analysis

This antenna mount was analyzed using RISA-3D v19 analysis software

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Risk Category:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Feature:	Flat
Spectral Response:	$S_s = 0.2$, $S_1 = 0.053$
Seismic Design Category	B
Site Class:	D – Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

EFI Global, Inc. – 1117 Perimeter Center West, Suite E500, Atlanta, GA 30338 – (470) 990-6593 – telecom@efiglobal.com

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

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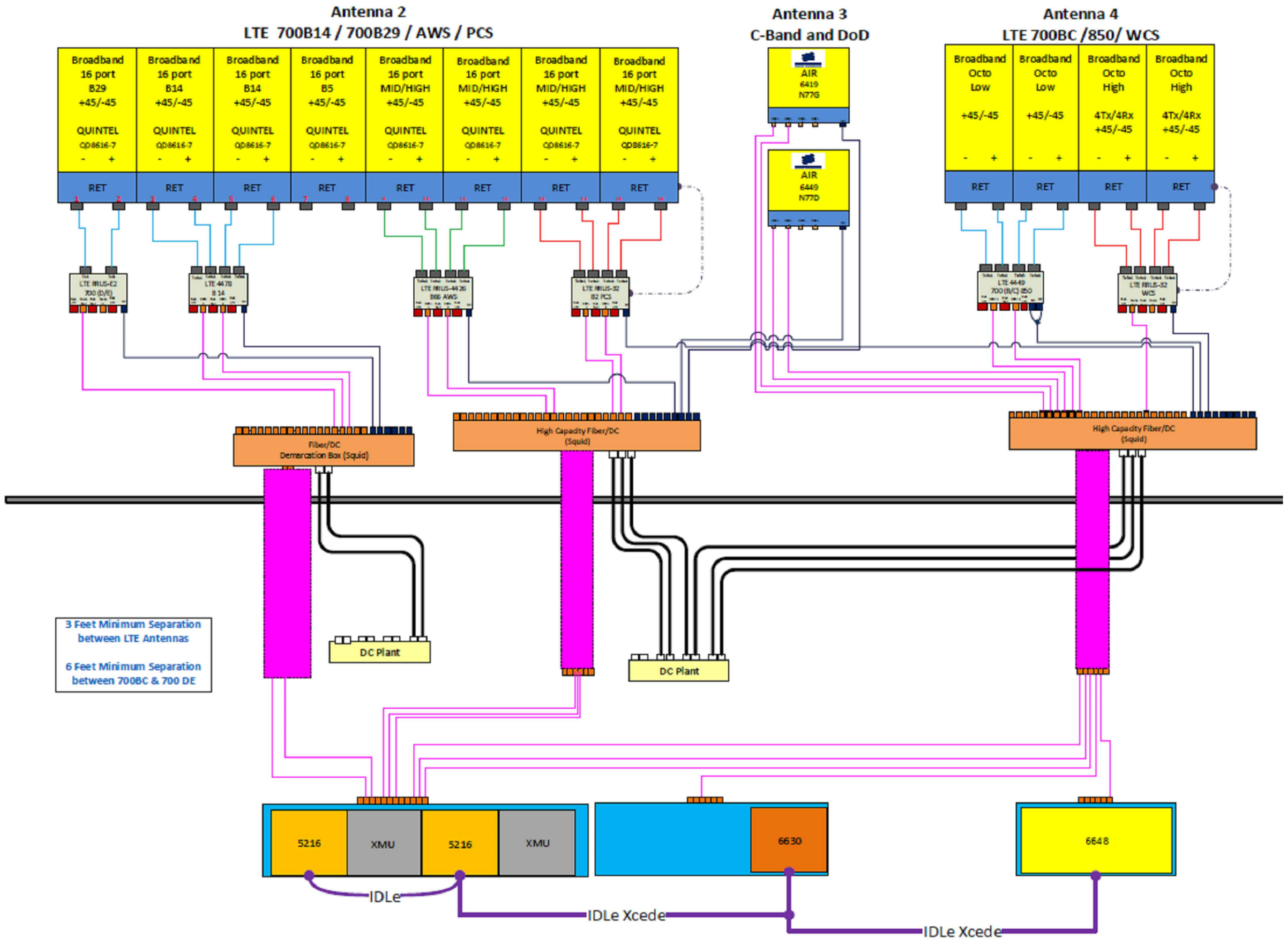
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-603



1 RFDS PLUMBING DIAGRAM

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

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PHONE: 617.695.3400
FAX: 617.695.3310

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

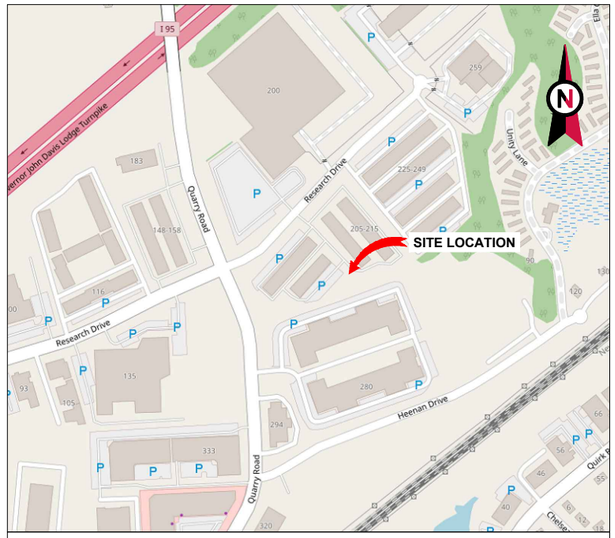
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

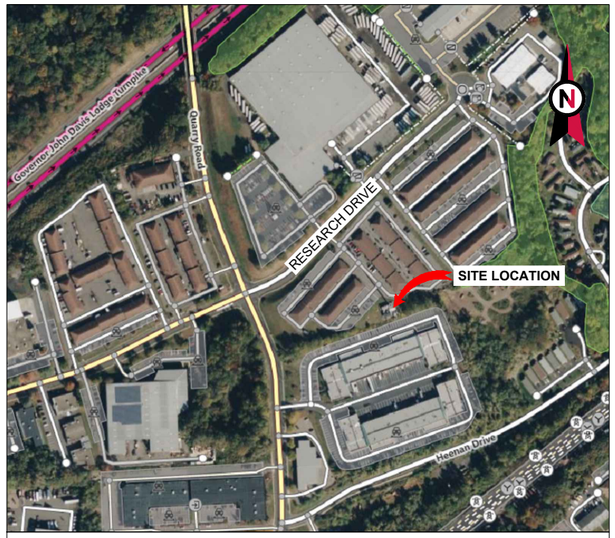
SHEET NUMBER:
R-604



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: MILFORD CT 2
ATC SITE NUMBER: 302535
AT&T PACE NUMBERS: MRCTB057959, MRCTB057613, MRCTB052107, MRCTB051036, MRCTB050847, MRCTB050908
AT&T SITE ID: CTL02169
AT&T FA CODE:10035075
AT&T SITE NAME: NEW HAVEN-WOODMONT
SITE ADDRESS: 203 RESEARCH DRIVE
MILFORD,CT 06460-7733



LOCATION MAP

AT&T 5G NR RADIO || 5G NR 1SR CBAND || 4TXRX RETROFIT BBU RECONFIGURATION AMENDMENT PLAN

COMPLIANCE CODE

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

1. 2018 CONNECTICUT STATE BUILDING CODE-AMENDMENTS TO IBC 2015
2. INTERNATIONAL BUILDING CODE 2015, INTERNATIONAL CODE COUNCIL
3. TIA-222-G-4, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
4. ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS
5. STEEL CONSTRUCTION MANUAL 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION
6. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: N/A
PHONE: N/A

TELEPHONE COMPANY: N/A
PHONE: N/A

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

PROJECT SUMMARY

SITE ADDRESS:

203 RESEARCH DRIVE
MILFORD,CT 06460-7733
COUNTY: NEW HAVEN

GEOGRAPHIC COORDINATES:

LATITUDE: 41.24041944°
LONGITUDE: -73.0119°
GROUND ELEVATION: 94.2' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

AT&T MOBILITY
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

ENGINEER:

DEWBERRY ENGINEERS INC.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

PROPERTY OWNER:

DAMATO INVESTMENTS LLC
185 RESEARCH DRIVE
MILFORD,CT 06460-7733

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE EXISTING ABANDONED METRO ANTENNAS AT RAD CENTER 175'-0", (12) ANTENNA(S), (6) TMA(S), (6) RRU(S), (2) SQUID(S), (1) 1X12 PAIR FIBER TRUNK(S), (1) 1X18 PAIR FIBER TRUNK(S) AND (12) COAX CABLE(S)

INSTALL (12) ANTENNA(S), (3) RRU(S), (1) FILTER, (2) SQUID(S), (2) 24 PAIR FIBER TRUNK(S), (3) Y CABLE(S) AND (2) DC TRUNK(S)

EXISTING (12) RRU(S), (1) SQUID(S), (6) DC TRUNK(S) AND (1) FIBER TRUNK(S) TO REMAIN. (3) RRU(S) IN SHELTER TO BE RELOCATED TO TOWER

GROUND WORK:

REMOVE (24) DIPLEXER(S) AND REMOVE/DECOM UMTS BBU

INSTALL (1) 6648 WITH XCEDE CABLE AND (4) RECTIFIERS

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

FROM NEW HAVEN - TRAVEL ON I 95 SOUTH TO EXIT 40. TAKE LEFT AT OFF RAMP AND PROCEED TO FIRST SET OF LIGHTS AND TURN LEFT ON RESEARCH DRIVE. FOLLOW TO # 185

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	06/06/22	VL
G-002	GENERAL NOTES	0	06/06/22	VL
C-101	DETAILED SITE PLAN	0	06/06/22	VL
C-201	TOWER ELEVATION	0	06/06/22	VL
C-401	RF SCHEDULE AND ANTENNA INSTALLATION	0	06/06/22	VL
C-501	CONSTRUCTION DETAILS	0	06/06/22	VL
E-501	GROUNDING DETAILS	0	06/06/22	VL
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

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CUSTOMER #:	10035075

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
302535

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MILFORD CT 2

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NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

SEAL:

AT&T

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CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

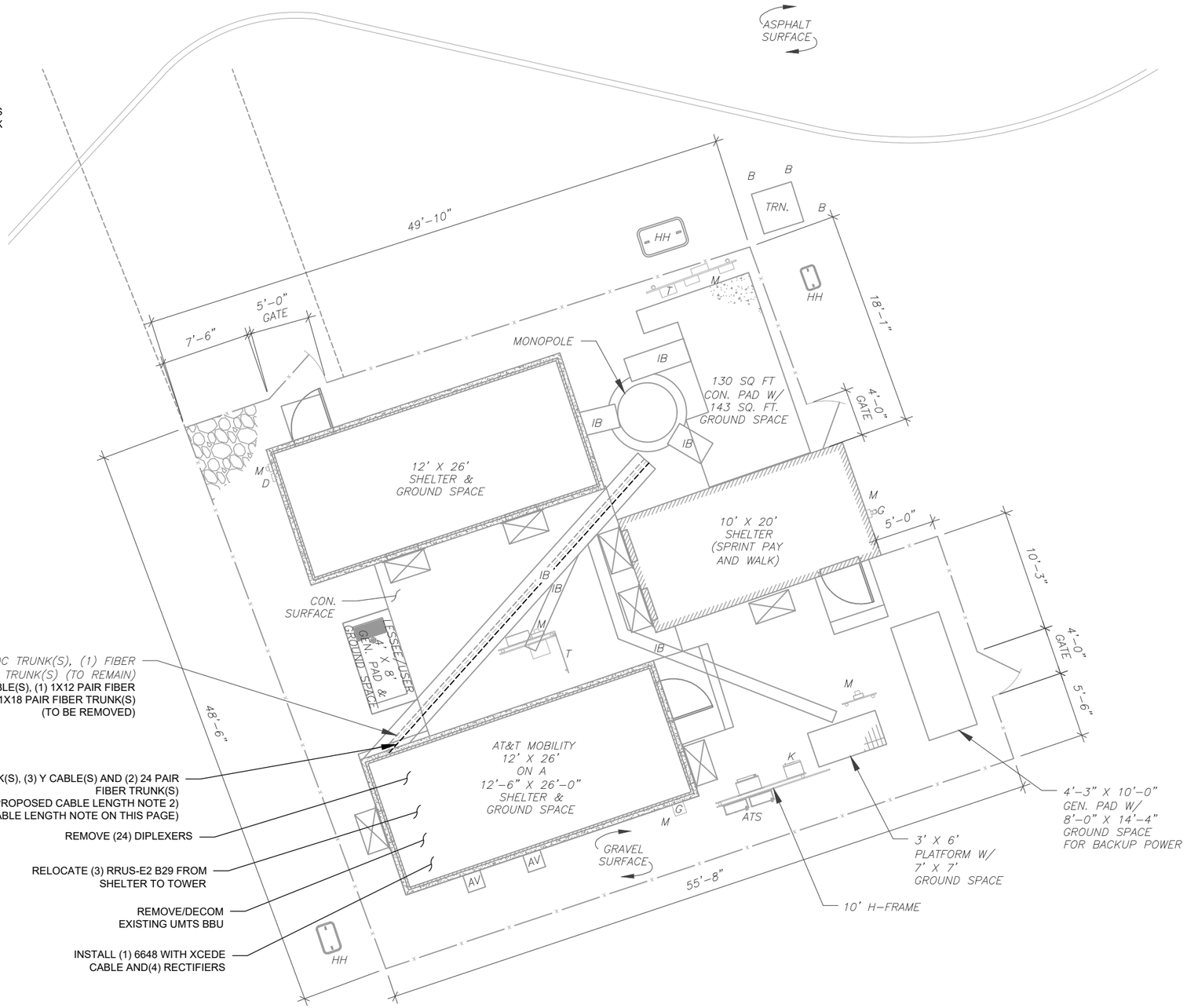
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——x——	CHAINLINK FENCE



PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **240'±**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

N

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MILFORD,CT 06460-7733

SEAL:

STATE OF CONNECTICUT 28971 LICENSED PROFESSIONAL ENGINEER

AT&T

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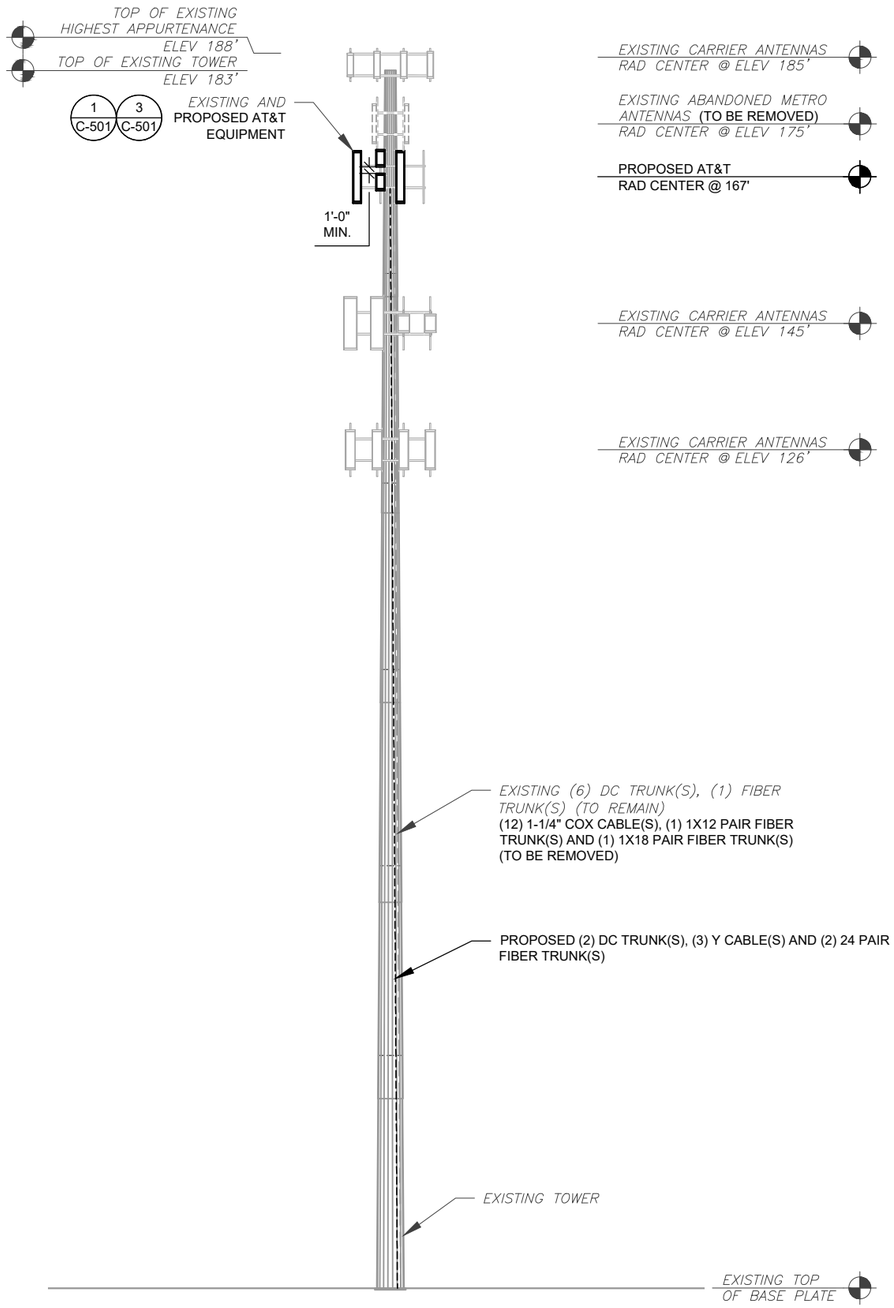
CUSTOMER #:	10035075

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, INC., DATED 03/07/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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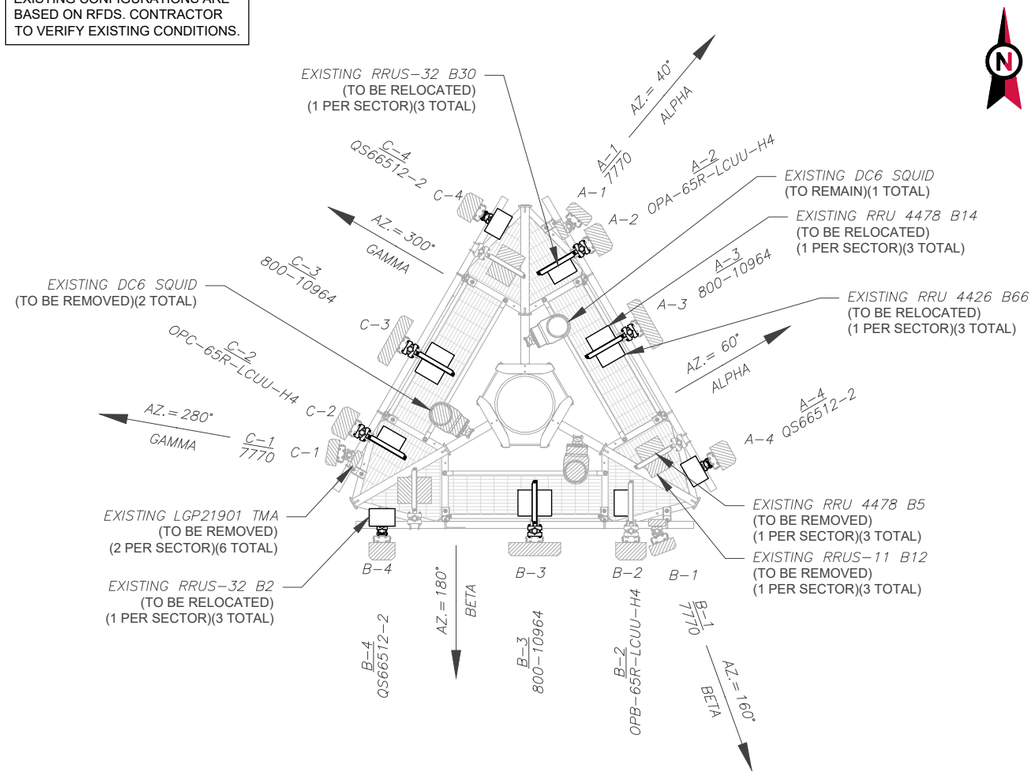
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

EXISTING CONFIGURATIONS ARE BASED ON RFDS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.

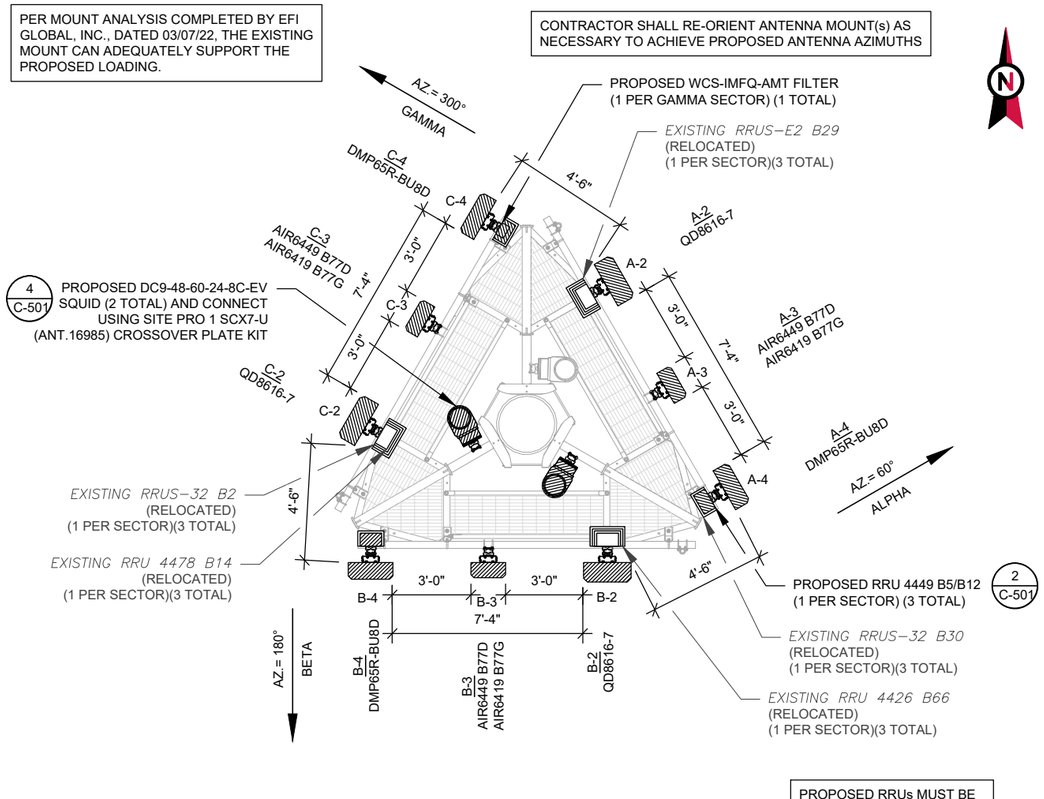


1 CURRENT ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY EFI GLOBAL, INC., DATED 03/07/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS



PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 8" AWAY FROM ALL ANTENNAS

2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	40°	A1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		60°	A2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			A3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			A4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL
BETA	167'	160°	B1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		180°	B2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			B3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			B4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL
GAMMA	167'	280°	C1	7770	UMTS 850	RMV	(2) LGP21401 TMA	RMV
		300°	C2	OPA-65R-LCUU-H4	LTE WCS, 700	RMV	RRUS-32 B30	REL
			C3	800-10964	LTE 850, 700, AWS, 5G 850	RMV	RRU 4478 B14	REL
							RRU 4426 B66	REL
							RRU 4478 B5	RMV
			C4	QS66512-2	LTE 700, 1900, 5G 850	RMV	RRUS-11 B12	RMV
							RRUS-32 B2	REL

EXISTING FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC6-48-60-18-8F	RMV
(1) DC6-48-60-18-8F	RMN

EXISTING CABLING SUMMARY

COAX	DC	FIBER	STATUS
(12)	–	(2)	RMV
–	(6)	(1)	RMN

NOTES

1. CONFIRM WITH AT&T REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	167'	60°	A2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			A3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			A4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL
BETA	167'	180°	B2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			B3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			B4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL
GAMMA	167'	300°	C2	QD8616-7	LTE 700, AWS, 1900, 5G AWS, 1900	ADD	RRU 4478 B14	REL
							RRUS-32 B2	REL
							RRU 4426 B66	REL
							RRUS-E2 B29	REL
			C3	AIR6449 B77D	LSUB6	ADD	-	-
				AIR6419 B77G	C-BAND	ADD		
			C4	DMP65R-BU8D	LTE 700, WCS, 5G 850	ADD	RRU 4449 B5/B12	ADD
							RRUS-32 B30	REL

FINAL FIBER DISTRIBUTION/SQUID

MODEL NUMBER	STATUS
(2) DC9-48-60-24-8C-EV	ADD
(1) DC6-48-60-18-8F	RMN

FINAL CABLING SUMMARY

COAX	DC	FIBER	STATUS
-	(2)	(2)	ADD
–	(6)	(1)	RMN

3 EQUIPMENT SCHEDULES

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Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BR	03/07/22
0	FINAL	VL	06/06/22

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

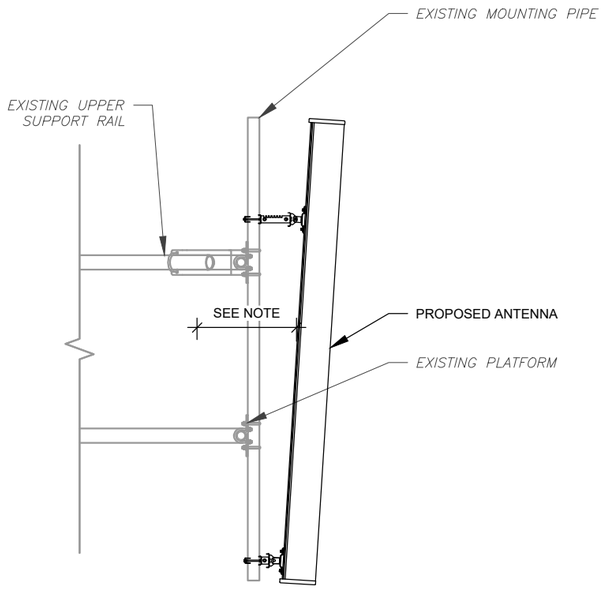
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

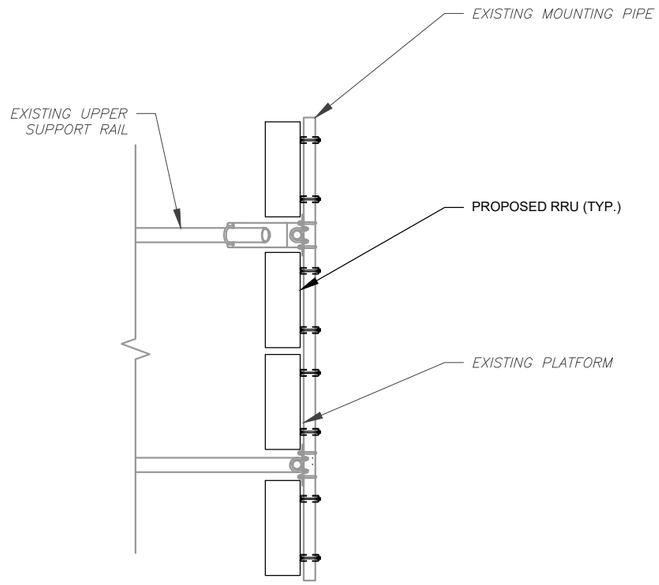
RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-401	0

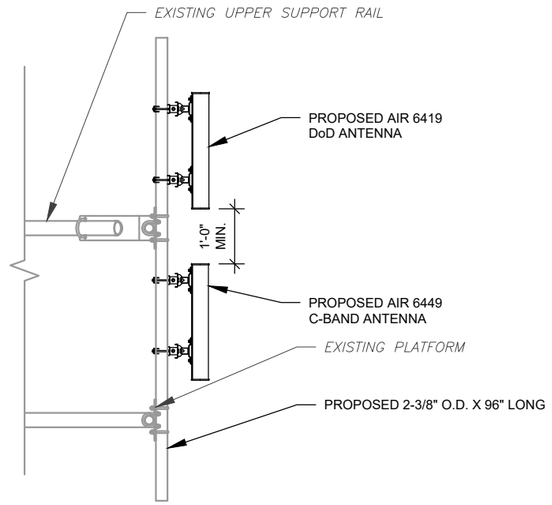


NOTE: 8" MINIMUM SEPARATION FROM BACK OF ANTENNA TO RRU

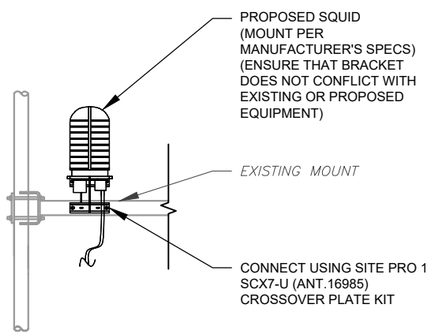
1 ANTENNA DETAIL
SCALE: N.T.S.



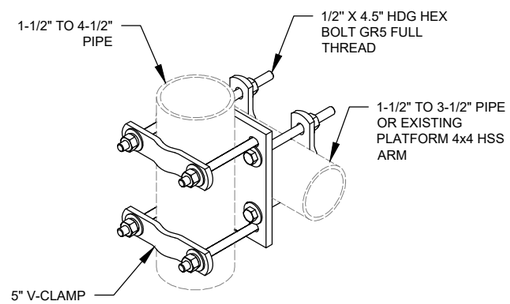
2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



4 PROPOSED SQUID MOUNTING
SCALE: N.T.S.



5 SITE PRO SCX7-U DETAIL
SCALE: N.T.S.

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MILFORD,CT 06460-7733

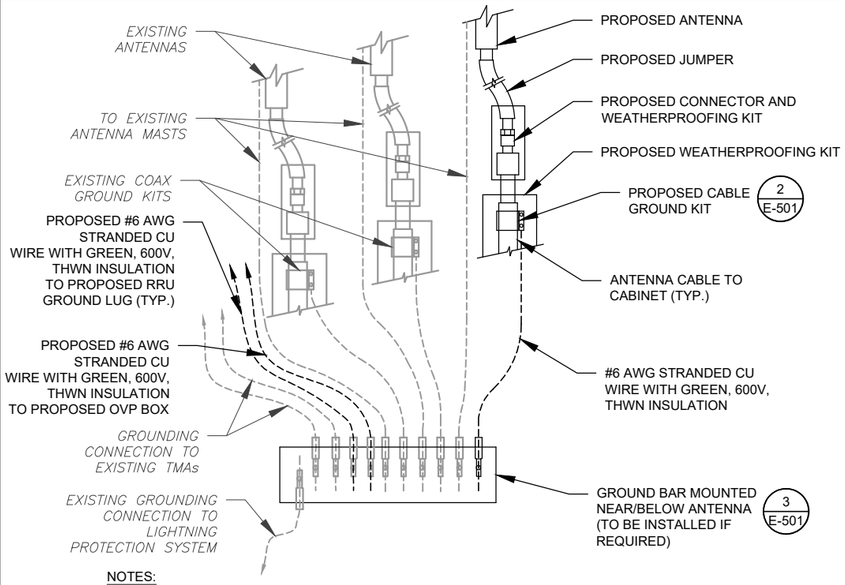
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

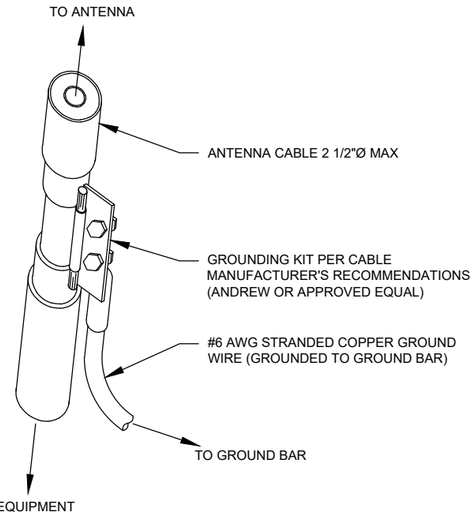


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH AT&T GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

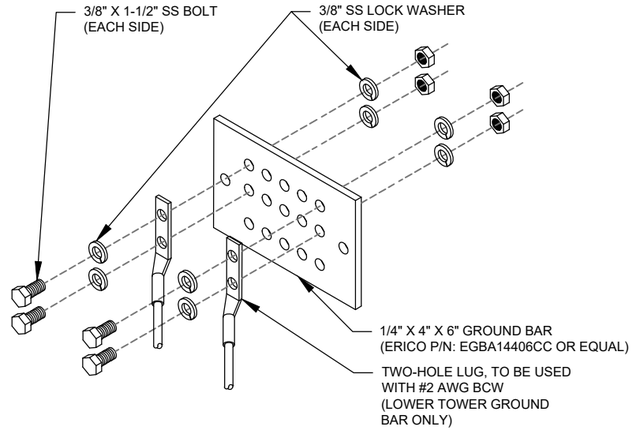


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

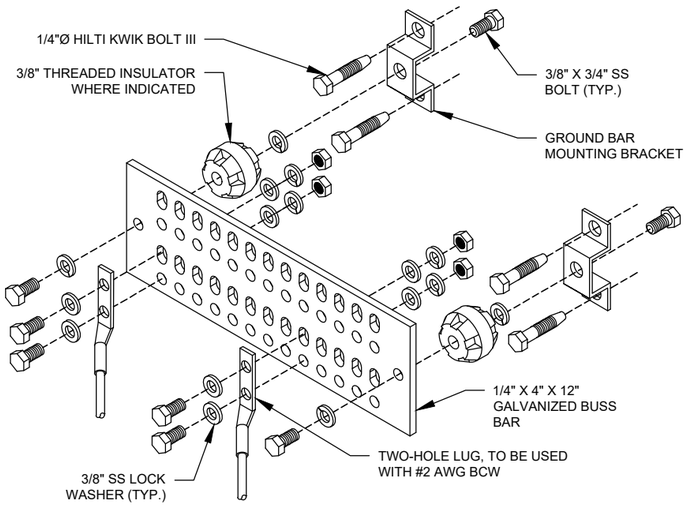


GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

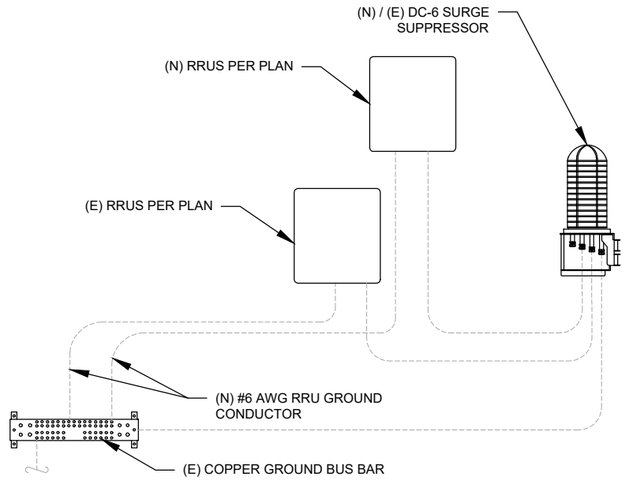


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

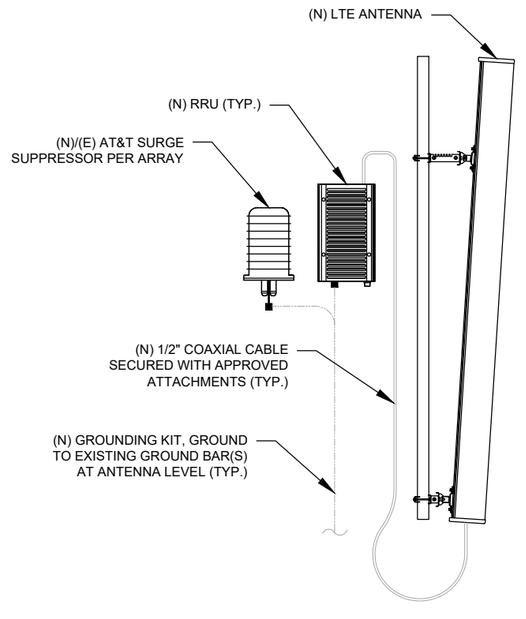
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

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SEAL:

AT&T

DATE DRAWN:	03/07/22
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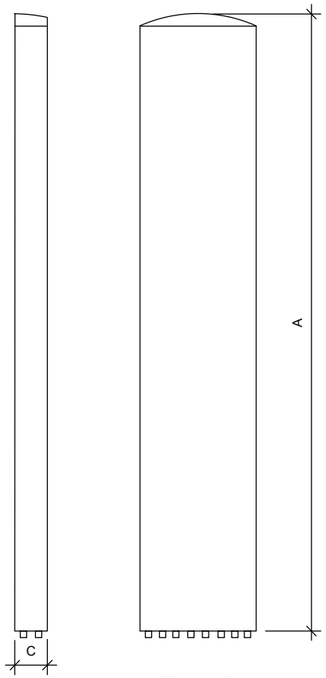
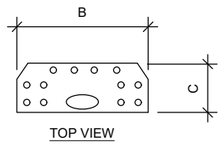
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



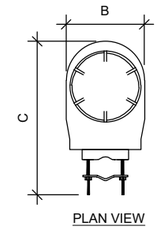
SIDE VIEW



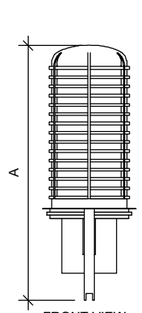
TOP VIEW

FRONT VIEW

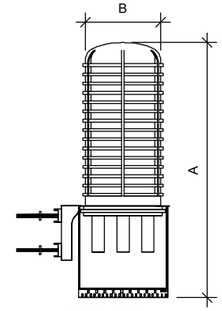
ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
QD8616-7	96.0"	22.0"	9.6"	150.0
AIR6449 B77D	28.3"	16.1"	7.9"	66.1
AIR6419 B77G	30.4"	15.9"	8.1"	81.6
DMP65R-BU8D	96"	20.7"	7.7"	95.7"



PLAN VIEW

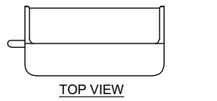


FRONT VIEW

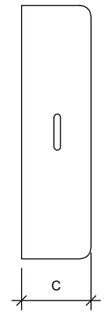


SIDW VIEW

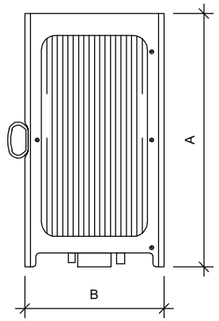
RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC9-48-60-24-8C-EV	31.4"	18.3"	10.2"	16.0



TOP VIEW



SIDW VIEW



FRONT VIEW

RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4449 B5\ B12	17.9"	13.2"	9.4"	71.0

1 EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

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ATC SITE NUMBER:
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SEAL:

AT&T

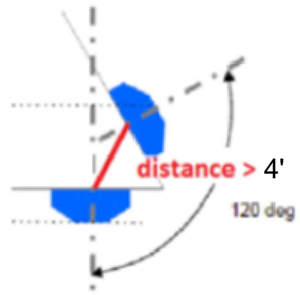
DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-601

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): >= 3’
- ❑ Vertical separation (between the tips of the antennas): > 3’
- ❑ Inter-sector separation: > 4' between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6°.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

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DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-602

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

efi global

Antenna Mount Analysis Report

ATC Site Name	:	**Milford CT 2**
ATC Site Number	:	**302535**
Engineering Number	:	**13748383_C8_01**
Mount Elevation	:	**163.5 ft**
Carrier	:	**AT&T Mobility**
Carrier Site Name	:	**MRCTB050847**
Carrier Site Number	:	**CTCN002169**
Site Location	:	**185 Research Drive** **Milford, CT 06460-7733** **41.24041944, -73.01190000**
County	:	**New Haven**
Date	:	**March 7, 2022**
Max Usage	:	**84%**
Result	:	**Pass**

Prepared By:
Akhil Jayaraj, E.I.T.
EFI Global, Inc.

Reviewed By:
Richard L. Peterman, P.E.
EFI Global, Inc.

STATE OF CONNECTICUT · RICHARD L. PETERMAN · 30017 · LICENSED PROFESSIONAL ENGINEER
3/7/2022

COA#: PEC.0001245

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for AT&T Mobility at 163.5 ft.

Supporting Documents

RFDS	RFDS dated January 21, 2022
Photos	Site photos from 2019
Mount Mapping	B+T Proj#: G0160723.001.01, dated February 6, 2022

Analysis

This antenna mount was analyzed using RISA-3D v19 analysis software

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Risk Category:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Feature:	Flat
Spectral Response:	$S_s = 0.2$, $S_1 = 0.053$
Seismic Design Category	B
Site Class:	D – Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

EFI Global, Inc. – 1117 Perimeter Center West, Suite E500, Atlanta, GA 30338 – (470) 990-6593 – telecom@efiglobal.com

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

ATC SITE NUMBER:
302535

ATC SITE NAME:
MILFORD CT 2

AT&T SITE NAME:
NEW HAVEN-WOODMONT

SITE ADDRESS:
203 RESEARCH DRIVE
MILFORD,CT 06460-7733

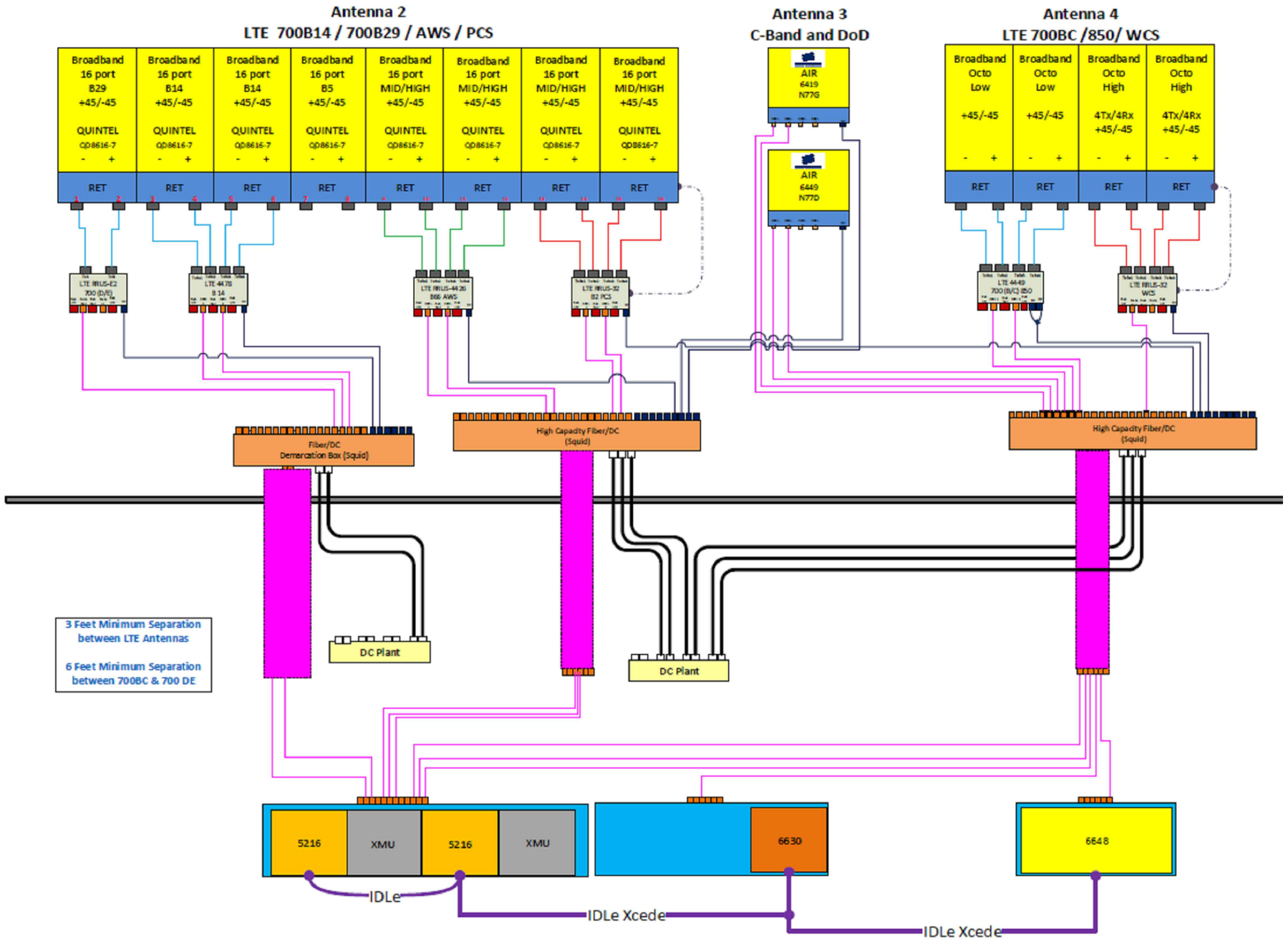
SEAL:

AT&T

DATE DRAWN:	03/07/22
ATC JOB NO:	13748383_D1
CUSTOMER ID:	CTL02169
CUSTOMER #:	10035075

SUPPLEMENTAL

SHEET NUMBER:
R-603



1 RFDS PLUMBING DIAGRAM

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