



Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

June 2, 2022

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Exempt Modification Application
49 Brainerd Road, East Lyme, CT 06357
Latitude: 41.307583
Longitude: -72.223916
Site #: CT11794-S_CTNL805B_SBA/T-Mobile

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing tower located at 49 Brainerd Road, East Lyme, CT 06357. T-Mobile currently maintains nine (9) antennas at the 160-foot level of the existing 169-foot monopole tower. The property is owned by Christopher Samuelson, and the tower is owned by SBA. T-Mobile now intends to replace six (6) antennas. The new antennas would be installed at the 160-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

T-Mobile Planned Modifications:

Remove:

- (2) Coax – 1-5/8"

Remove and Replace:

- (3) ERICSSON AIR21 B2A/B4P Antennas (REMOVE) - (3) ERICSSON AIR6419 B41 Antennas (REPLACE)
- (3) ERICSSON AIR21 B4A/B2P Antennas (REMOVE) - (3) COMMSCOPE VV-65A-R1 Antennas (REPLACE)
- (3) ERICSSON 4440 B71+ B12 RRU (REMOVE) - (3) ERICSSON 4449 B71+B85 RRU (REPLACE)

Install New:

- (3) ERICSSON 4460 B25+B66 RRU
- (2) HCS Fiber Cable 1.9"

Existing to Remain:

- (3) RFS APXVAALL24-43-U-NA20 Antennas
- (3) HCS Fiber Cable 1-5/8"
- (7) Coax – 1-5/8"
- (3) Twin TMAs – KRY 112 144/1 *

*Equipment listed for entitlement purposed only



The facility was approved by the Connecticut Siting Council, Docket No. 396 on March 3, 2011. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to Kevin A. Seery, First Selectman and Gary A. Goeschel II, Director of Planning for the Town of East Lyme, as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the 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.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com



Attachments

Cc: Kevin A. Seery, First Selectman
Town of East Lyme
108 Pennsylvania Avenue
Niantic, CT 06357

Gary A. Goeschel II, Director of Planning
Town of East Lyme
108 Pennsylvania Avenue
Niantic, CT 06357

Christopher Samuelson – Property Owner
49 Brainerd Road
Niantic, CT 06357

SBA - Tower Owner

Exhibit A

Original Facility Approval

DOCKET NO. 396 – SBA Towers II, LLC application for a }
Certificate of Environmental Compatibility and Public Need for }
the construction, maintenance and management of a }
telecommunications facility located at 49 Brainerd Road, Niantic }
(East Lyme), Connecticut. }
Connecticut
Siting
Council

March 3, 2011

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and management of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to SBA Towers II, LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at the SBA Hybrid Site (i.e. approximately 310 feet to the south of the proposed location) at 49 Brainerd Road, East Lyme, Connecticut.

Unless otherwise approved by the Council, the facility shall be constructed, managed, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of New Cingular Wireless PCS, LLC (AT&T), Cellco Partnership d/b/a Verizon Wireless (Cellco), and other entities, both public and private, but such tower shall not exceed a height of 170 feet above ground level. All commercial wireless telecommunications antennas shall be attached to the tower via T-arms.
2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of East Lyme for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
3. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of East Lyme public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.
8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of East Lyme. Any proposed modifications to this Decision and Order shall likewise be so served.
9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
10. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.
11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.
12. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.
13. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

14. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.
15. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Day.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant

SBA Towers II LLC

Its Representative

Carrie L. Larson, Esq.
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702

Intervenor

Cellco Partnership d/b/a Verizon Wireless

Its Representative

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

Intervenor

Russell L. Brown

Its Representative

Russell L. Brown
41 Brainerd Road
Niantic, CT 06357

Party

Town of East Lyme

Its Representative

Edward B. O'Connell, Esq.
Waller, Smith & Palmer, P.C.
52 Eugene O'Neill Drive
P.O. Box 88
New London, CT 06320

Intervenor

New Cingular Wireless PCS, LLC

Its Representative

Daniel M. Laub, Esq.
Christopher B. Fisher, Esq.
Cuddy & Feder LLP
445 Hamilton Avenue, 14th floor
White Plain, NY 10601

Party

Friends of the Pattagansett Trust

Its Representative

Keith R. Ainsworth, Esq.
Evans Feldman & Ainsworth, LLC
261 Bradley Street
P.O. Box 1694
New Haven, CT 06507-1694

Intervenor

Joseph Raia

Its Representative

Joseph Raia
97 West Main Street, Unit 9
Niantic, CT 06357

Exhibit B

Property Card

49 BRAINERD RD

Location 49 BRAINERD RD

Mblu 07.4/ 21//

Acct# 005680

Owner SAMUELSEN CHRISTOPHER

Assessment \$359,810

Appraisal \$667,600

PID 5939

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$231,700	\$435,900	\$667,600
Assessment			
Valuation Year	Improvements	Land	Total
2016	\$162,190	\$197,620	\$359,810

Owner of Record

Owner SAMUELSEN CHRISTOPHER

Sale Price \$0

Co-Owner

Certificate

Address 49 BRAINERD RD
NIANTIC, CT 06357

Book & Page 0831/0222

Sale Date 07/10/2009

Instrument 04

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
SAMUELSEN CHRISTOPHER &	\$0		0788/0266	04	10/24/2007
SAMUELSEN CHRISTOPHER	\$560,000		0748/0207	07	07/13/2006
BOUTIN WYNN R	\$0		0737/0532	01	04/03/2006
BOUTIN ZACHARY H OR WYNN R	\$0		0542/0147	08	10/01/2001

Building Information

Building 1 : Section 1

Year Built: 1890

Living Area: 2,485

Replacement Cost: \$284,098

Building Percent Good: 67

Replacement Cost

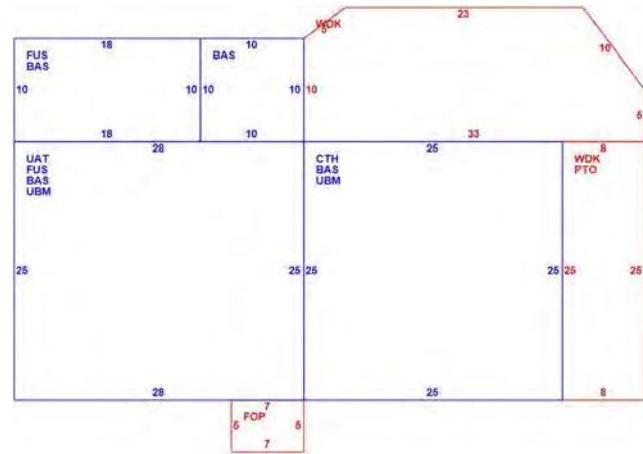
Less Depreciation: \$190,300

Building Photo



(http://images.vgsi.com/photos2/EastLymeCTPhotos//01/00/60/94.jpg)

Building Layout



(ParcelSketch.ashx?pid=5939&bid=6060)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	1,605	1,605
FUS	Upper Story, Finished	880	880
CTH	Cathedral Ceiling	625	0
FOP	Porch, Open, Finished	35	0
PTO	Patio	200	0
UAT	Attic, Unfinished	700	0
UBM	Basement, Unfinished	1,325	0
WDK	Deck, Wood	599	0
		5,969	2,485

Extra Features

Extra Features

Legend

No Data for Extra Features

Land

Land Use

Use Code 1010
Description Single Fam M-01
Zone R40
Neighborhood 0060
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 51.31
Frontage 0
Depth 0
Assessed Value \$197,620
Appraised Value \$435,900

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
BRN4	1 STY LFT&BSMT			378.00 S.F.	\$3,400	1
SHP1	WORK SHOP AVE			841.00 S.F.	\$21,000	1
FGR2	GARAGE-GOOD			841.00 S.F.	\$16,800	1
SHD1	SHED FRAME			45.00 S.F.	\$200	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$231,700	\$435,900	\$667,600
2019	\$231,700	\$435,900	\$667,600
2018	\$231,700	\$435,900	\$667,600

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$162,190	\$197,620	\$359,810
2019	\$162,190	\$197,620	\$359,810
2018	\$162,190	\$197,620	\$359,810

49 Brainerd

About

Layers

Identify

Summary

49 BRAINERD RD

SAMUELSEN CHRISTOPHER

Parcel ID: 07.4 21 [View Details](#)[Email Map Link](#)

Copy and paste the following string into an email to link to the current map view:

Close 0.2km
1000ft

[Print Map](#)

lat:41.3026, long:-72.2134

Tighe&Bond

Exhibit C

Construction Drawings

SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

AMTRAK_EASTLYME

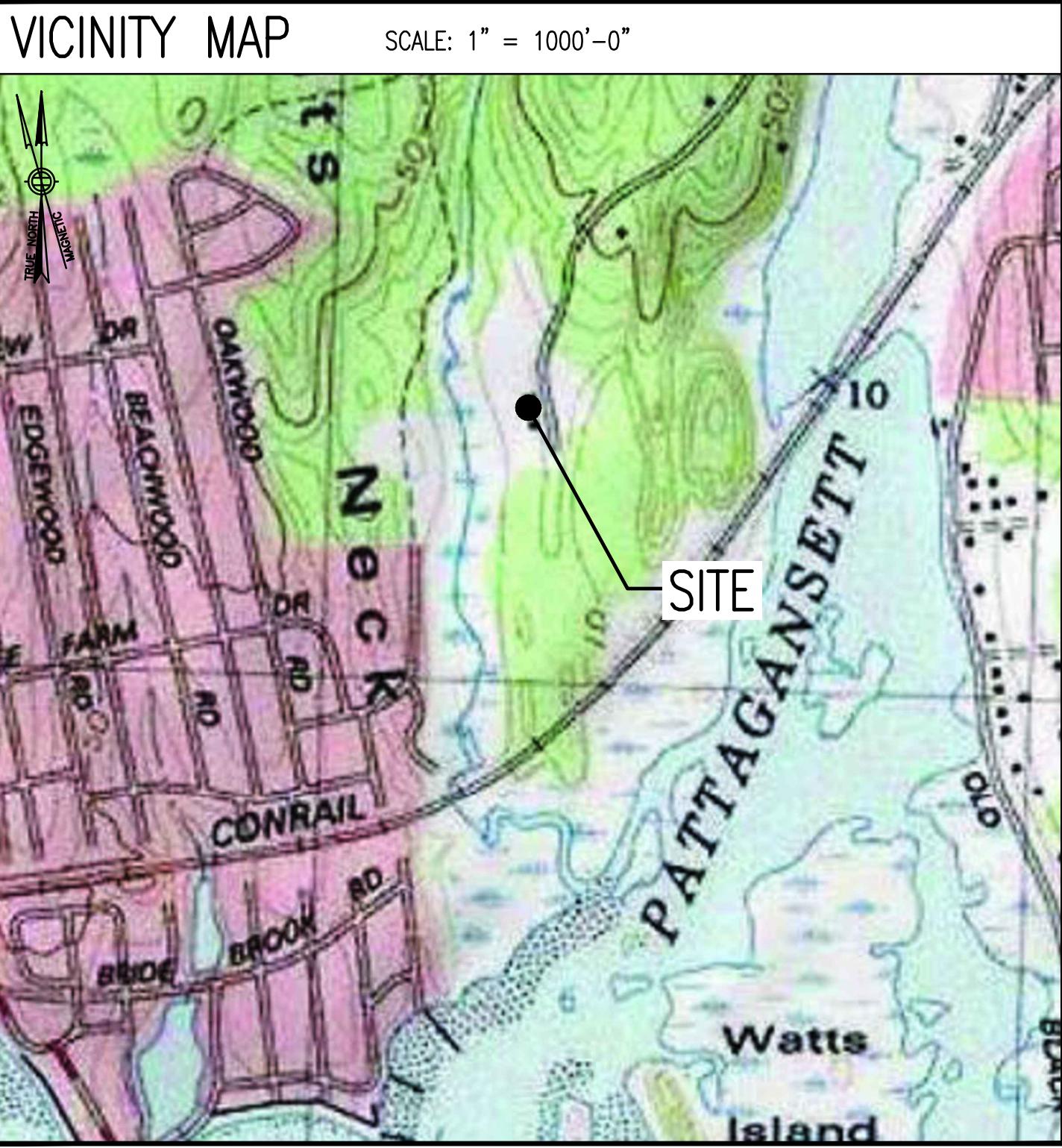
APPROVALS		
PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:
CONSTRUCTION:	DATE:	OPERATIONS:
RF ENGINEERING:	DATE:	TOWER OWNER:

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

GENERAL NOTES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPONT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.



AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811



DIRECTIONS

MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. TAKE EXIT 33B FOR I-95 SOUTH TOWARD PROVIDENCE RI. TAKE EXIT 6 FOR I-295 S TOWARD WOONSOCKET/WARWICK. USE THE RIGHT LANE TO EXIT 9C-A FOR US 6 W TOWARD HARTFORD CT. KEEP RIGHT AT THE, FOLLOW SIGNS FOR JOHNSTON/SCITUATE/FOSTER. MERGE ONTO US 6 W. SLIGHT LEFT ONTO DANIELSON PIKE. MERGE ONTO US 6 W. SLIGHT LEFT ONTO CONNECTICUT TURNPIKE/GOVERNOR JOHN DAVIS LODGE TURNPIKE (SIGNS FOR I-395 S). TAKE EXIT 72 TOWARD ROCKY NECK/STATE PK. CONTINUE ONTO ROCKY NECK CON. USE ANY LANE TO TURN LEFT ONTO CT-156 E. TURN RIGHT ONTO FAIRHAVEN RD. TURN RIGHT ONTO BRAINERD ROAD. DESTINATION WILL BE ON THE LEFT.

SHEET INDEX

SHT. NO.	DESCRIPTION	VER.
T-1	TITLE SHEET	0
GN-1	GENERAL NOTES	0
A-1	COMPOUND & EQUIPMENT PLAN	0
A-2	TOWER ELEVATIONS & ANTENNA PLAN	0
A-3	SITE DETAILS	0
A-4	ANTENNA & FEEDLINE CHARTS	0
E-1	ELECTRIC & GROUNDING DETAILS	0

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SCOPE OF WORK

- REMOVE:
 - 6 ANTENNAS
 - 1 HYBRID CABLE
 - ALL COAX CABLES
INSTALL:
 - 6 ANTENNAS
 - 3 RADIOS
 - 1 B160 BATTERY CABINET
 - 1 6160 CABINET
 - 1 SLACKBOX
 - 2 HYBRID CABLES

SITE NOTES

- THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
ADA COMPLIANCE NOT REQUIRED.
POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTEACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
 - BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

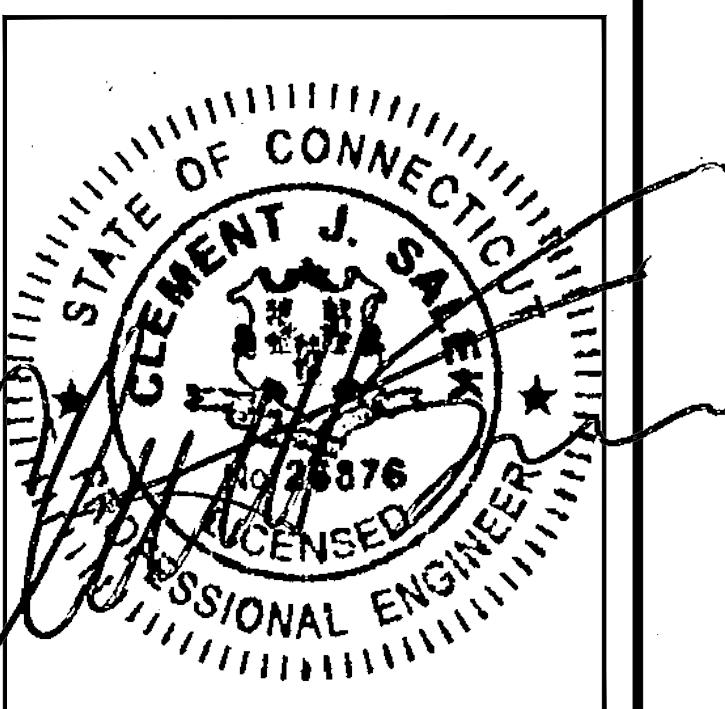
T-MOBILE
NORTHEAST LLC

15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

C CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil Structural-Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappelleengineering.com



PROJECT SUMMARY

SITE NUMBER: CTNL805B
SITE NAME: AMTRAK_EASTLYME
SBA SITE NUMBER: CT11794-S
SBA SITE NAME: EAST LYME 1
SITE ADDRESS: 49 BRAINERD ROAD
PROPERTY OWNER: CHRISTOPHER SAMUELSEN
TOWER OWNER: SBA TOWERS V, LLC
COUNTY: NEW LONDON
ZONING DISTRICT: R40
STRUCTURE TYPE: MONPOLE
STRUCTURE HEIGHT: 169'
APPLICANT: T-MOBILE NORTHEAST LLC
ARCHITECT: CHAPPELL ENGINEERING ASSOCIATES, LLC.
STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC.
SITE CONTROL POINT: LATITUDE: N.41°30'600" N.41°18'27.30"
LONGITUDE: W.72°22'3900" W.72°13'26.10"

SITE NUMBER: CTNL805B
SITE ADDRESS: 49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE: TITLE SHEET
TITLE SHEET

SHEET NUMBER: T-1
T-1

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR - T-MOBILE
 SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER - T-MOBILE
 OEM - ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
15. CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
7. THE SUB GRADE SHALL BE COMPAKTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 CONCRETE CAST AGAINST EARTH.....3 IN.
 CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER2 IN.
 #5 AND SMALLER & WWF1½ IN.
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLAB AND WALL¾ IN.
 BEAMS AND COLUMNS½ IN.
5. A CHAMFER $\frac{3}{4}$ " SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
 (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
 (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED. FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
8. AS AN ALTERNATIVE TO ITEM 7, TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS ($\frac{3}{8}$ "") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE $\frac{5}{16}$ " DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPAKTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
4. COMPAKTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPAKTED IN 3" LIFTS ABOVE COMPAKTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPAKTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

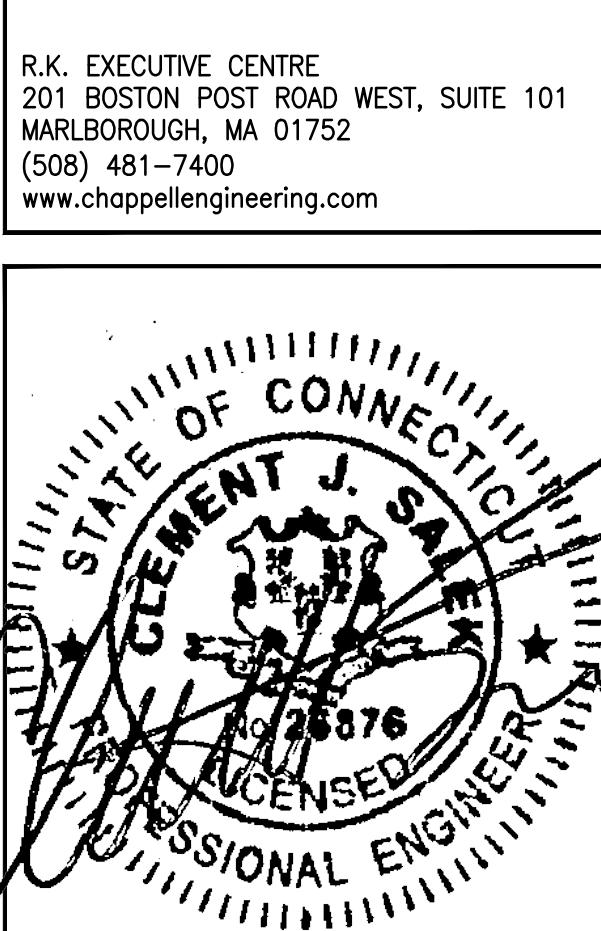
1. FIELD VERIFICATION:
 SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
2. COORDINATION OF WORK:
 SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. CABLE LADDER RACK:
 SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.
4. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
5. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
6. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
7. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
6. POWER PHASE CONDUCTORS (I.E., HOTs) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, $\frac{1}{2}$ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOL TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

**T-MOBILE
NORTHEAST LLC**

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CHECKED BY: JMT
APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	03/22/22	ISSUED FOR REVIEW	NWC

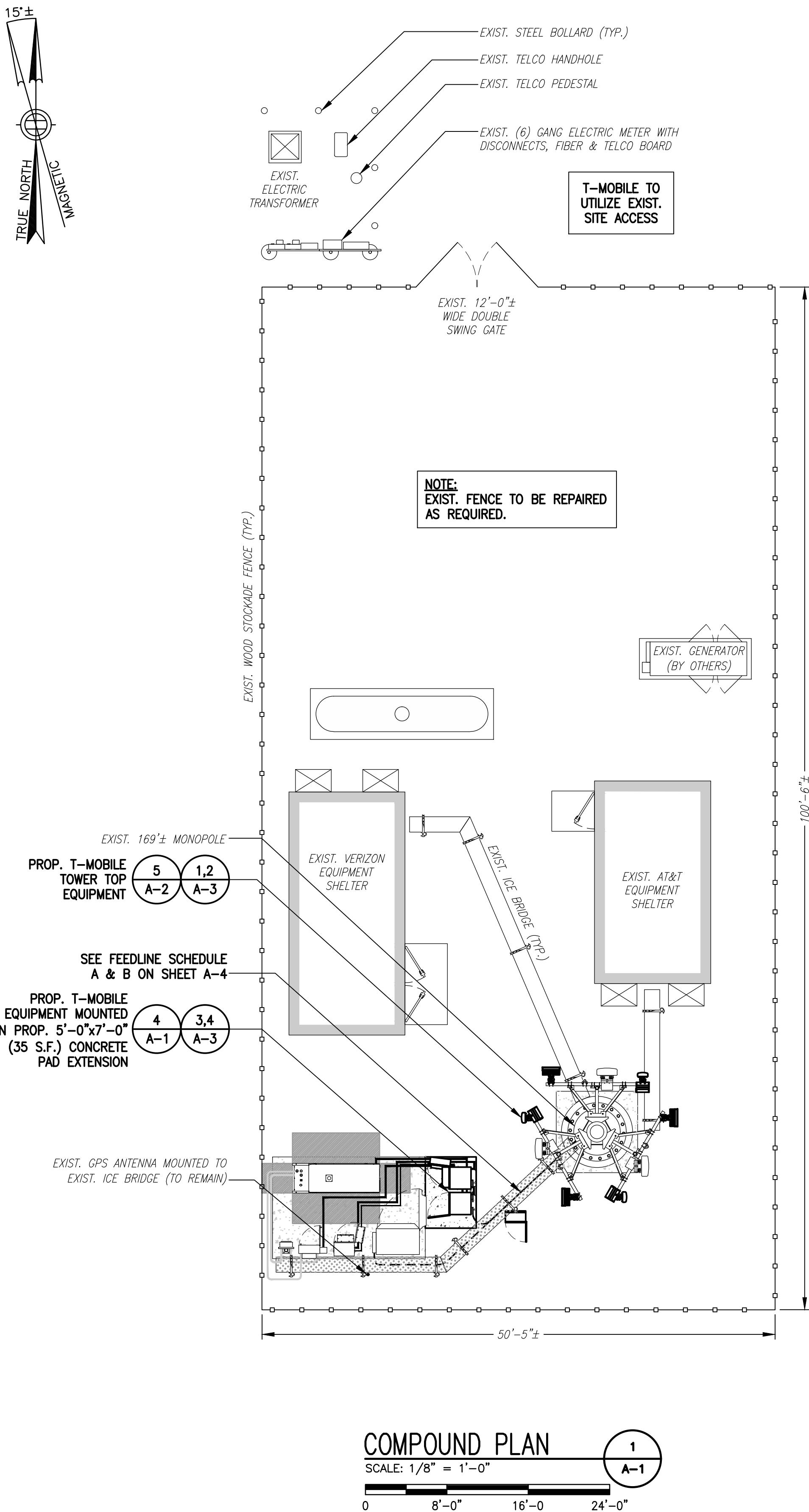
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SITE ADDRESS: 49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS, SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

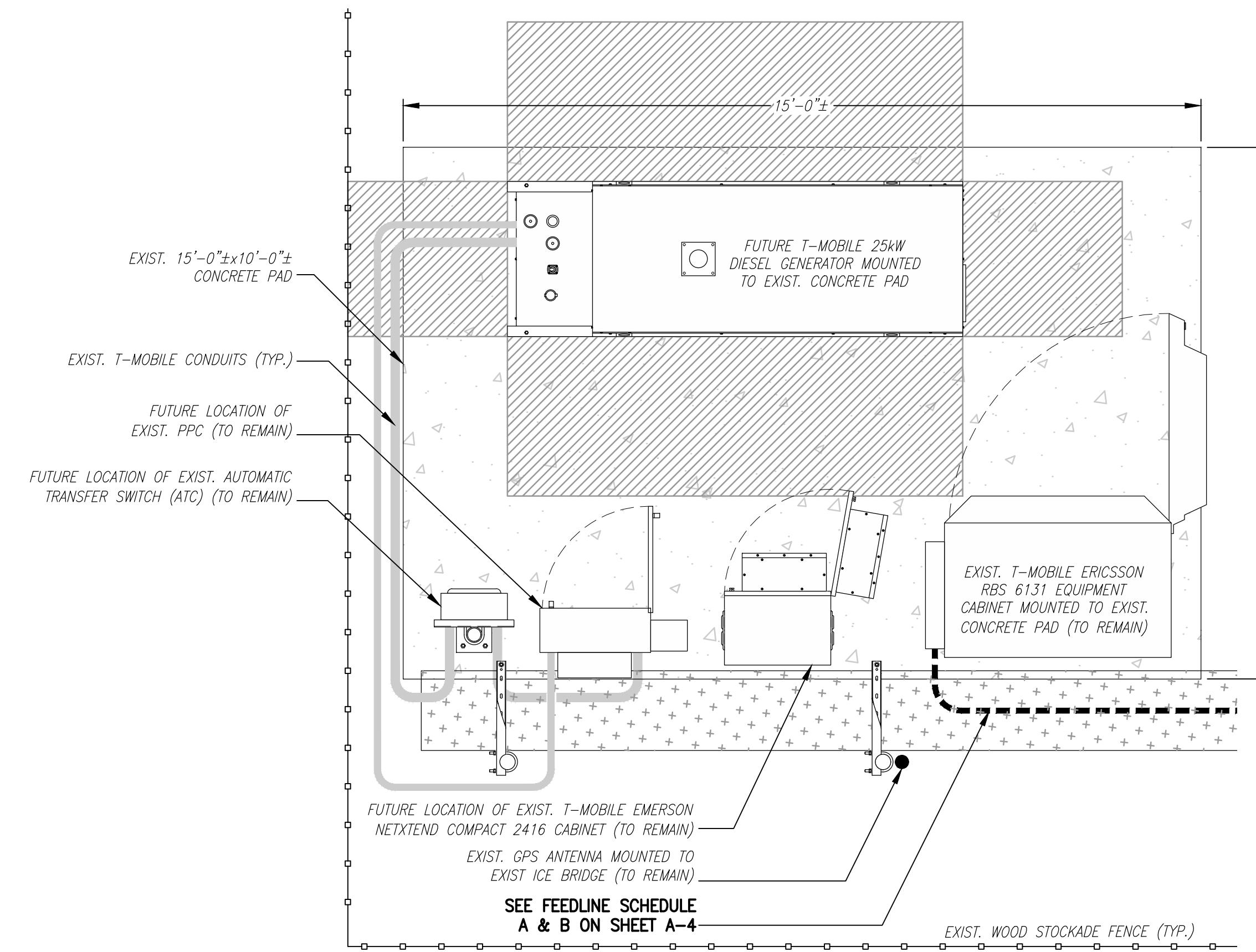
SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



EXISTING EQUIPMENT PHOTO

SCALE: N.T.S.

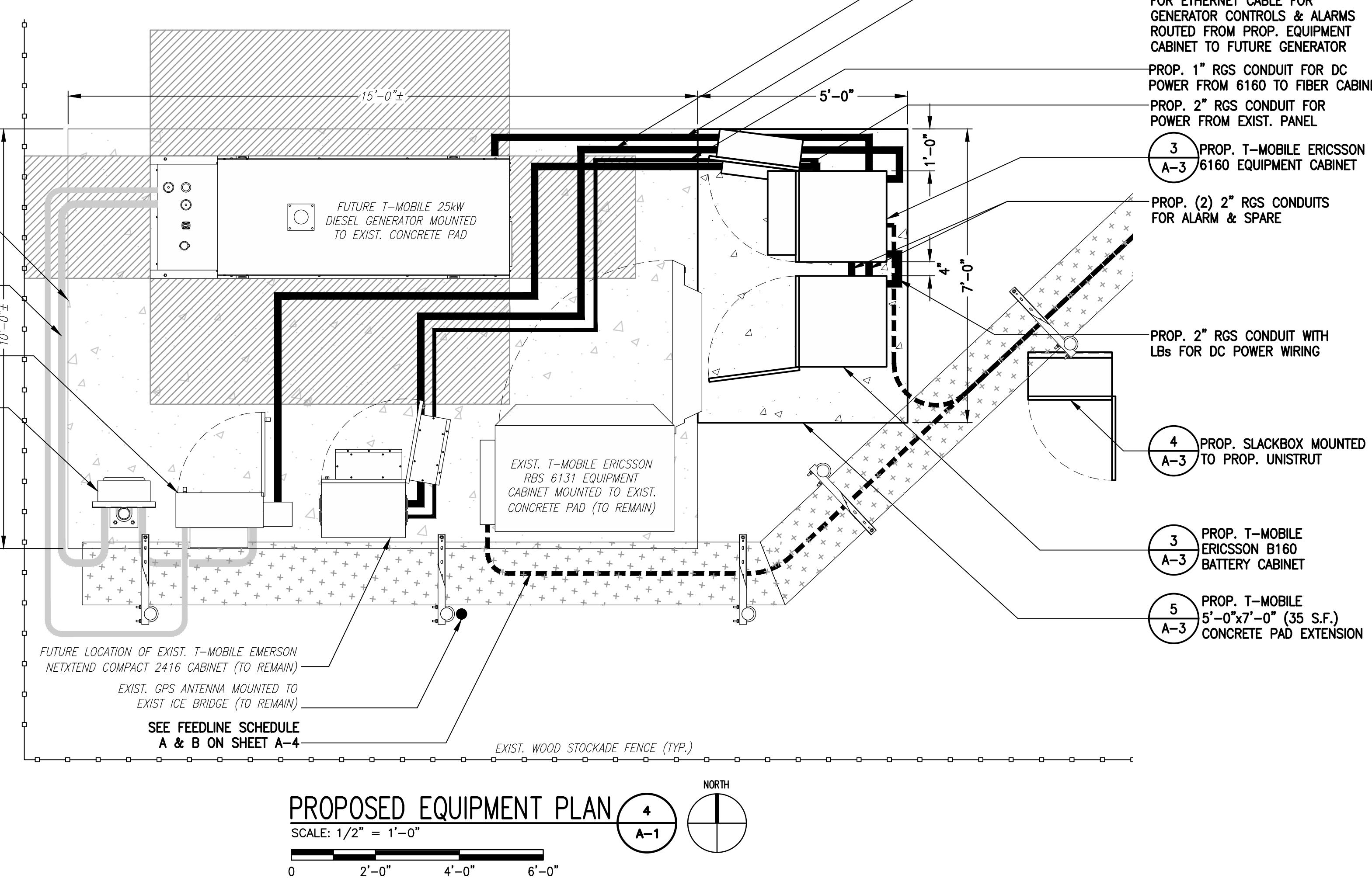
2 A-1



EXISTING EQUIPMENT PLAN

SCALE: 1/2" = 1'-0"

3 A-1



PROPOSED EQUIPMENT PLAN

SCALE: 1/2" = 1'-0"

4 A-1

T-MOBILE
NORTHEAST LLC

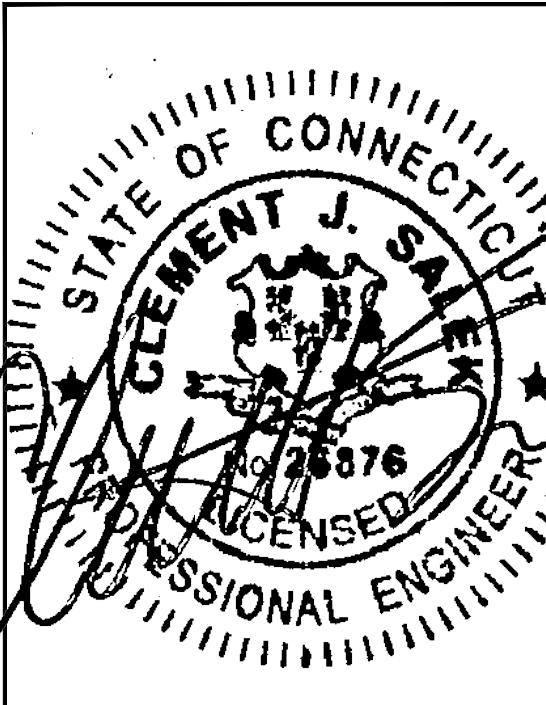
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SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
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SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	03/22/22	ISSUED FOR REVIEW	NWC

SITE NUMBER:
CTNL805B

SITE ADDRESS:
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE:
COMPOUND &
EQUIPMENT PLANS

SHEET NUMBER:
A-1

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
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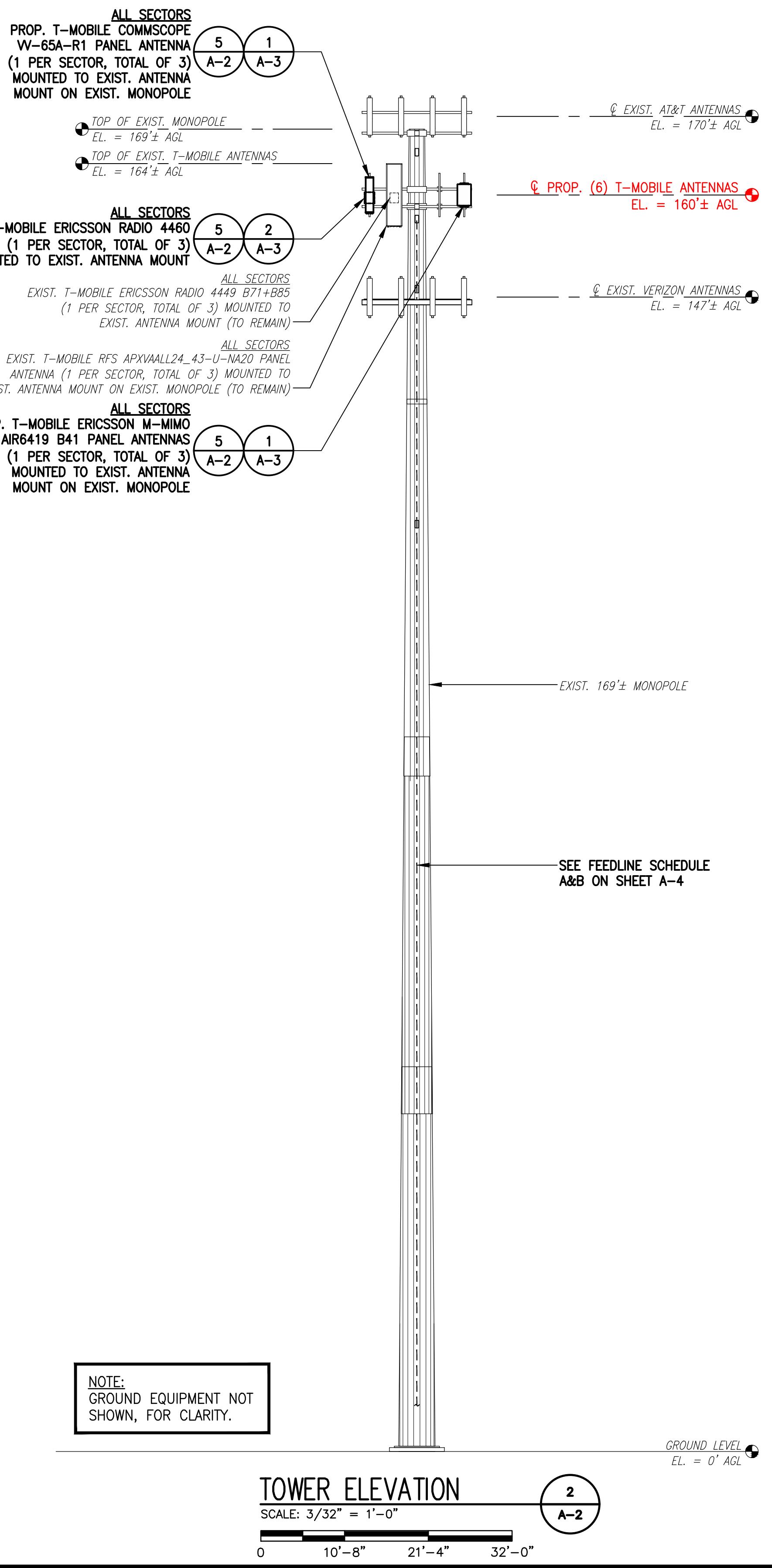
SPECIAL CONSTRUCTION NOTE:
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RAD CENTER NOTE:
T-MOBILE RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED CO-LOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE T-MOBILE RFDS.



EXISTING TOWER PHOTO

TOWER ELEVATION



EXISTING ANTENNA PHOTO

SCALE:

ANTENNA STATUS LEGEND:

EMPTY – EMPTY PIPE

(E) – EXISTING
(P) – INSTALL
(F) – FUTURE

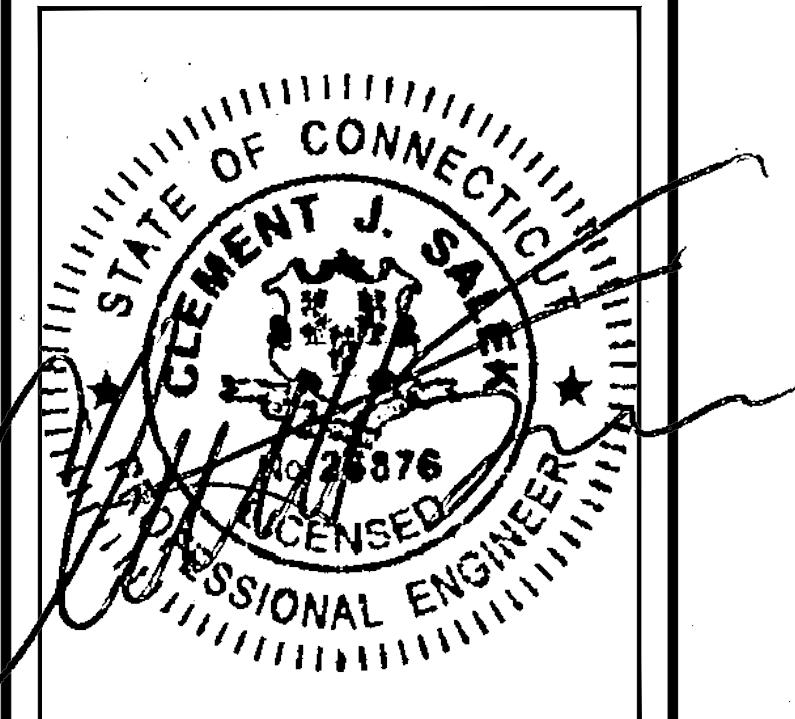
NOTE:
VERIFY PROPOSED AZIMUTHS
WITH RF ENGINEER PRIOR
TO INSTALLATION.



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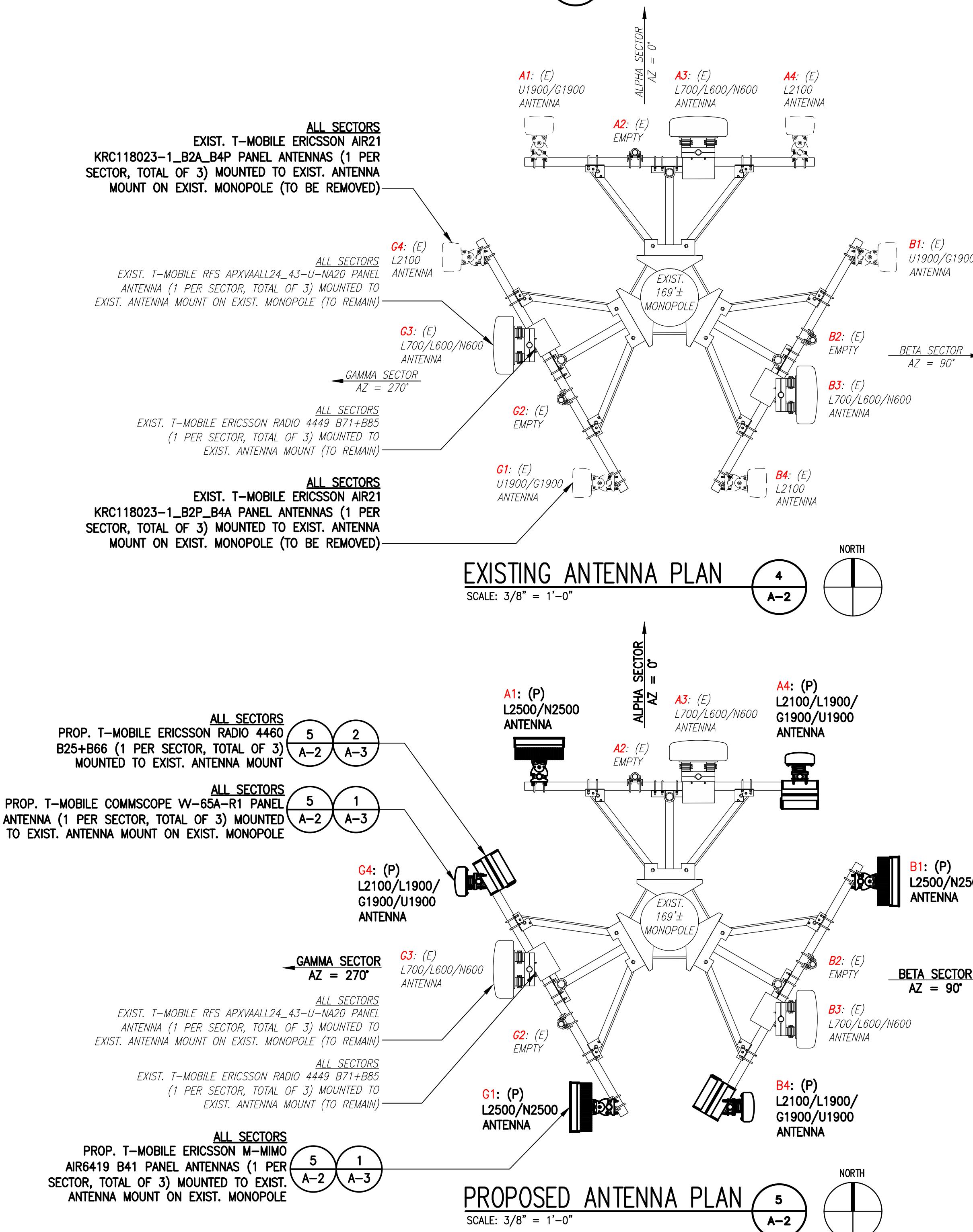


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CHECKED BY: JMT

APPROVED BY: JMT



SITE NUMBER:
GTNI 805B

**SITE ADDRESS:
49 BRAINERD ROAD
NANTIC, CT 06357**

SITE ADDRESS:
49 BRAINERD ROAD
NANTIC, CT 06357

SHEET TITLE

APPENDIX B

SHEET NUMBER

A-2

T-MOBILE
NORTHEAST LLC

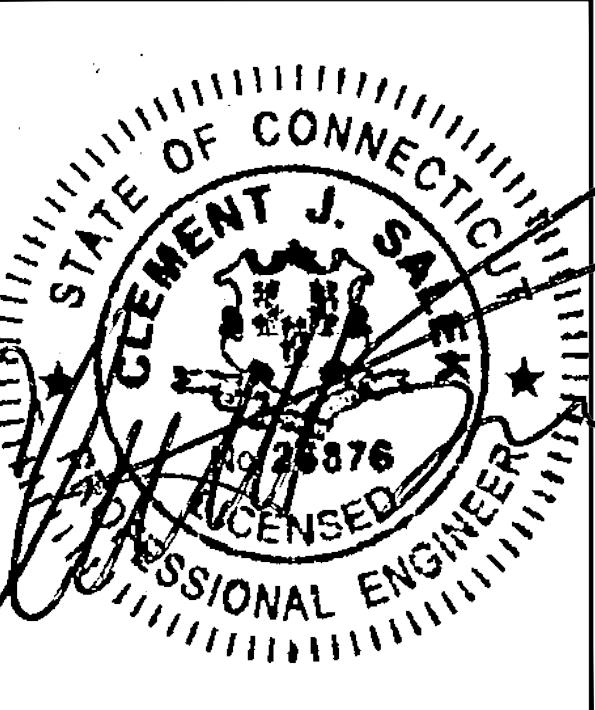
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720



R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappelleengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

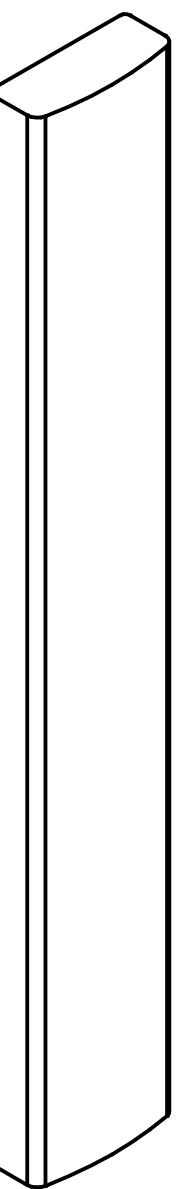
SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	03/22/22	ISSUED FOR REVIEW	NWC

SITE NUMBER:
CTNL805B

SITE ADDRESS:
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
SITE DETAILS

SHEET NUMBER
A-3

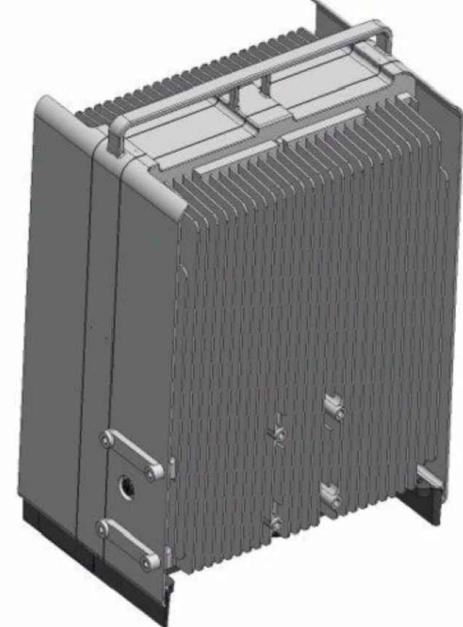


ERICSSON M-MIMO AIR6419 B41 ANTENNA

DIMENSIONS: 36.3" H x 20.9" W x 9.0" D
WEIGHT: 83.3 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS

SCALE: N.T.S.

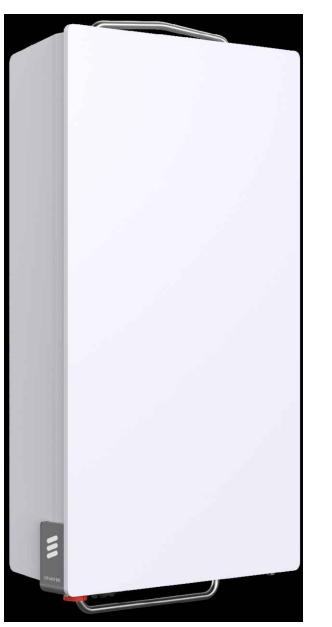


ERICSSON RADIO 4460 B25+B66

DIMENSIONS: 17.0" H x 15.1" W x 11.9" D
WEIGHT: 104.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

RADIO DETAILS

SCALE: N.T.S.



COMMSCOPE W-65A-R1 ANTENNA

DIMENSIONS: 54.7" H x 12.1" W x 4.6" D
WEIGHT: 23.8 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

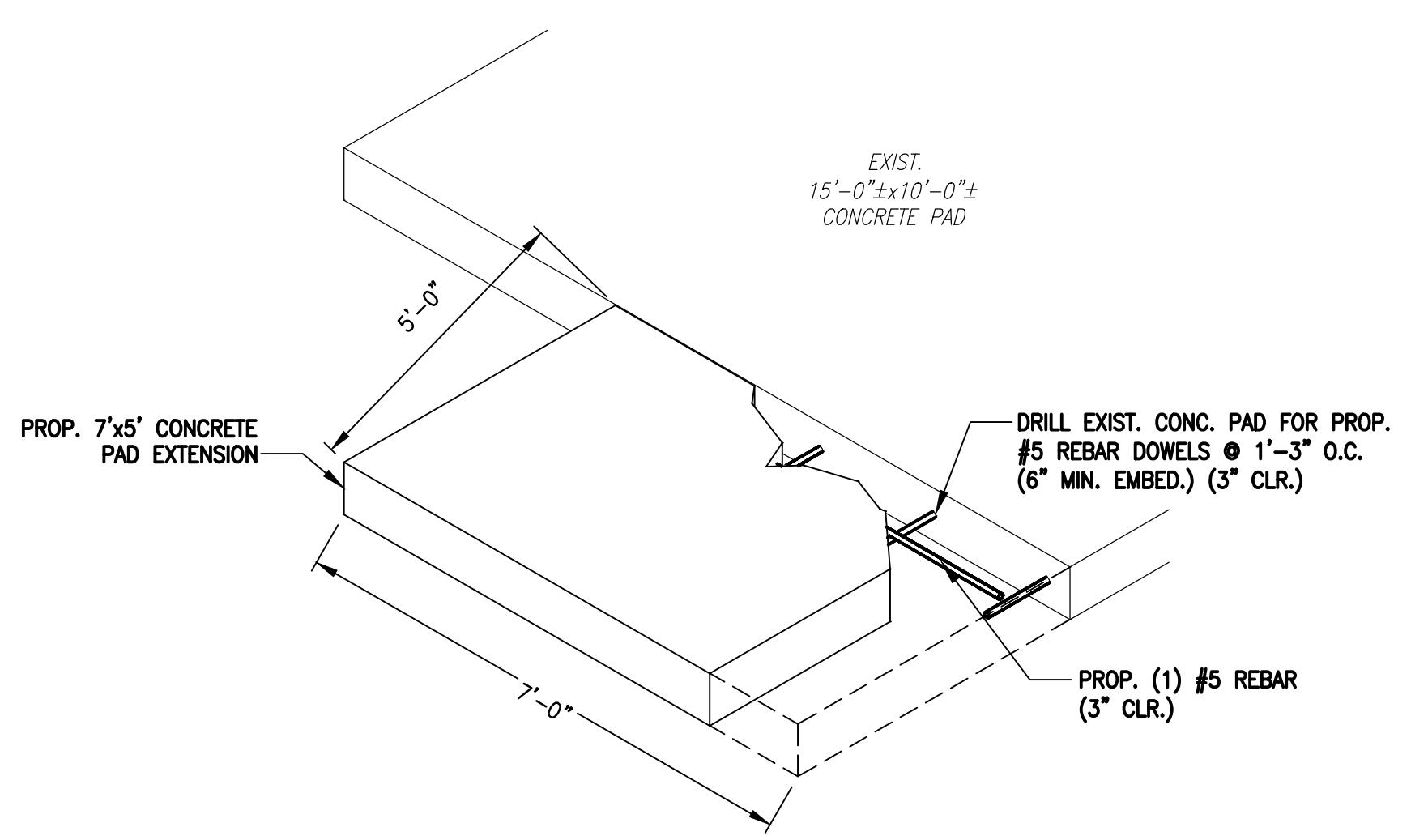


SLACKBOX - HOFFMAN 32FH91
NEMA 3R ENCLOSURE

DIMENSIONS: 24.0" H x 24.0" W x 12.0" D
WEIGHT: 177.0 lbs
QUANTITY: TOTAL OF 1

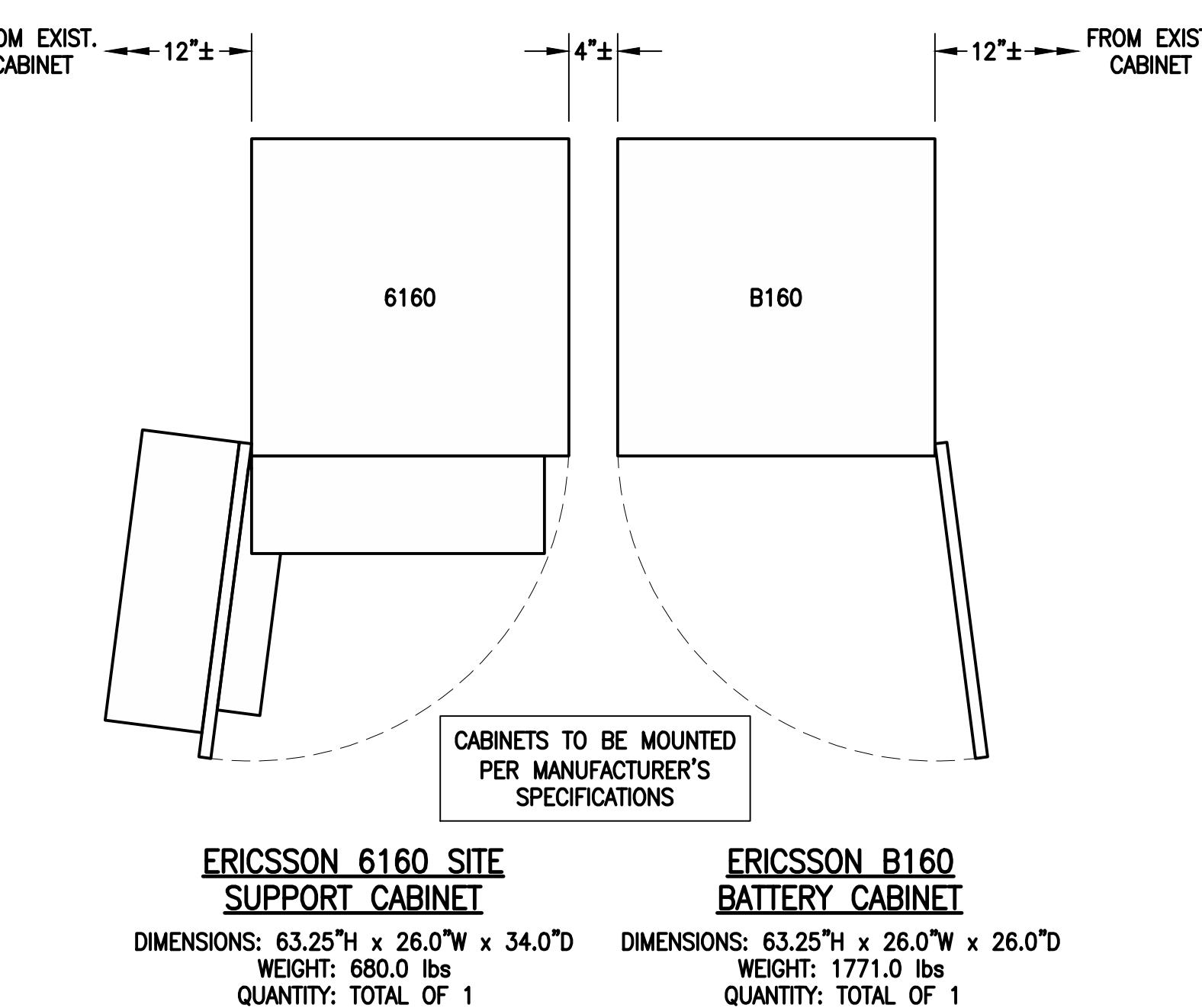
SSC DETAILS

SCALE: N.T.S.



CONCRETE PAD EXTENSION

SCALE: N.T.S.



ERICSSON 6160 SITE
SUPPORT CABINET

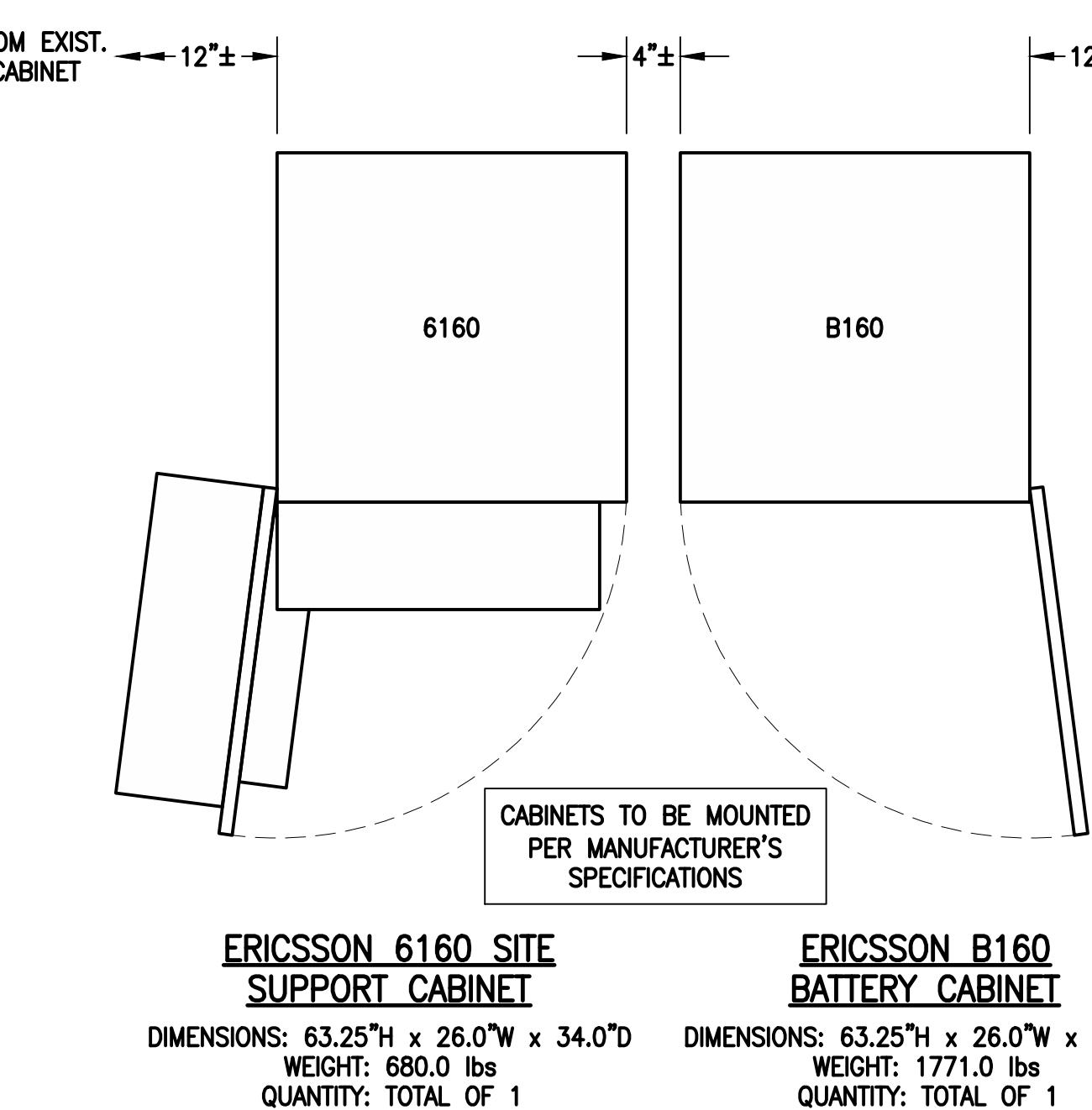
DIMENSIONS: 63.25" H x 26.0" W x 34.0" D
WEIGHT: 680.0 lbs
QUANTITY: TOTAL OF 1

ERICSSON B160
BATTERY CABINET

DIMENSIONS: 63.25" H x 26.0" W x 26.0" D
WEIGHT: 1771.0 lbs
QUANTITY: TOTAL OF 1

EQUIPMENT DETAIL

SCALE: N.T.S.



SSC DETAILS

SCALE: N.T.S.

T-MOBILE
NORTHEAST LLC

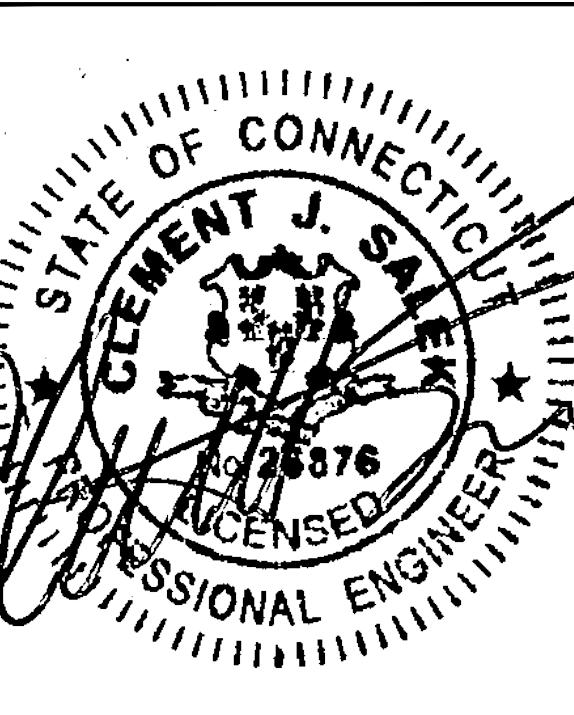
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CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	03/22/22	ISSUED FOR REVIEW	NWC

SITE NUMBER:
CTNL805B

SITE ADDRESS:
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
ANTENNA &
FEEDLINE CHARTS

SHEET NUMBER
A-4

1815.449

FINAL ANTENNA CONFIGURATION

SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADOS	SIGNAL CABLES
ALPHA	A1 ERICSSON M-MIMO AIR6419 B41	160'± AGL	0°	0°	2°	L2500/N2500	-	(3) 1-5/8" (6x12) HCS FIBER CABLES (2) 2" (6x24) HCS FIBER CABLES
	A2 EMPTY PIPE	-	-	-	-	-	-	
	A3 RFS APXVAALL24_43-U-NA20	160'± AGL	0°	0°	2°	L700/L600/N600	RADIO 4449 B71+B85	
	A4 COMMSCOPE WV-65A-R1	160'± AGL	0°	0°	2°	L2100/L1900/G1900/U1900	RADIO 4460 B25+B66	
BETA	B1 ERICSSON M-MIMO AIR6419 B41	160'± AGL	90°	0°	2°	L2500/N2500	-	(3) 1-5/8" (6x12) HCS FIBER CABLES (2) 2" (6x24) HCS FIBER CABLES
	B2 EMPTY PIPE	-	-	-	-	-	-	
	B3 RFS APXVAALL24_43-U-NA20	160'± AGL	90°	0°	2°	L700/L600/N600	RADIO 4449 B71+B85	
	B4 COMMSCOPE WV-65A-R1	160'± AGL	90°	0°	2°	L2100/L1900/G1900/U1900	RADIO 4460 B25+B66	
GAMMA	G1 ERICSSON M-MIMO AIR6419 B41	160'± AGL	270°	0°	2°	L2500/N2500	-	(3) 1-5/8" (6x12) HCS FIBER CABLES (2) 2" (6x24) HCS FIBER CABLES
	G2 EMPTY PIPE	-	-	-	-	-	-	
	G3 RFS APXVAALL24_43-U-NA20	160'± AGL	270°	0°	2°	L700/L600/N600	RADIO 4449 B71+B85	
	G4 COMMSCOPE WV-65A-R1	160'± AGL	270°	0°	2°	L2100/L1900/G1900/U1900	RADIO 4460 B25+B66	

CABLE NOTE: ALL COAX CABLES & (1) 1-1/4" (9x18) HCS FIBER CABLE TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV5 - 02/25/22

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (1) 1/2" COAX CABLE FOR GPS ANTENNA (3) 1-5/8" (6x12) HCS FIBER CABLES	ROUTED PER STRUCTURAL ANALYSIS
	EXISTING TO BE REMOVED: ALL COAX CABLES (1) 1-1/4" (9x18) HCS FIBER CABLE	
B	PROPOSED: (2) 2" (6x24) HCS FIBER CABLES	

NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

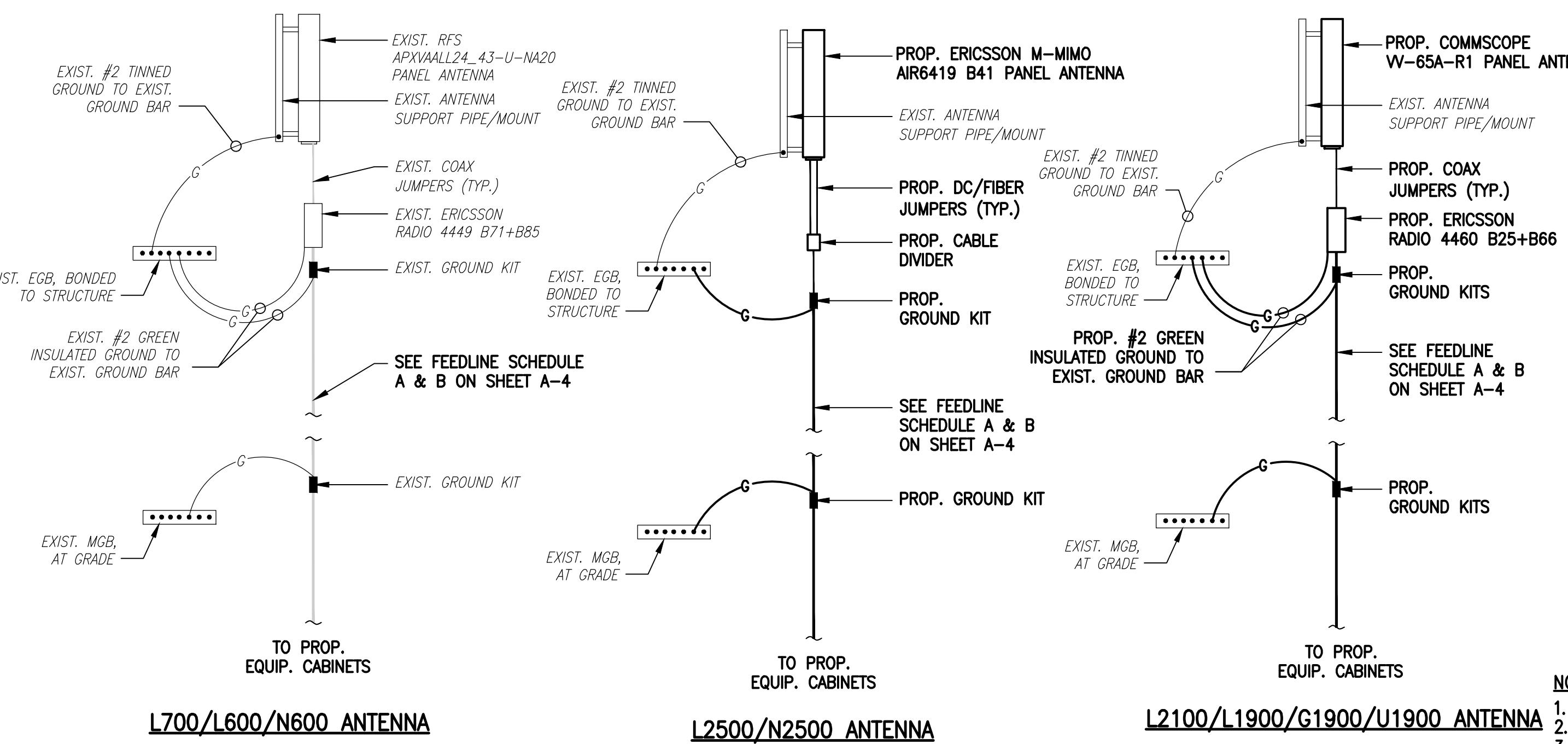
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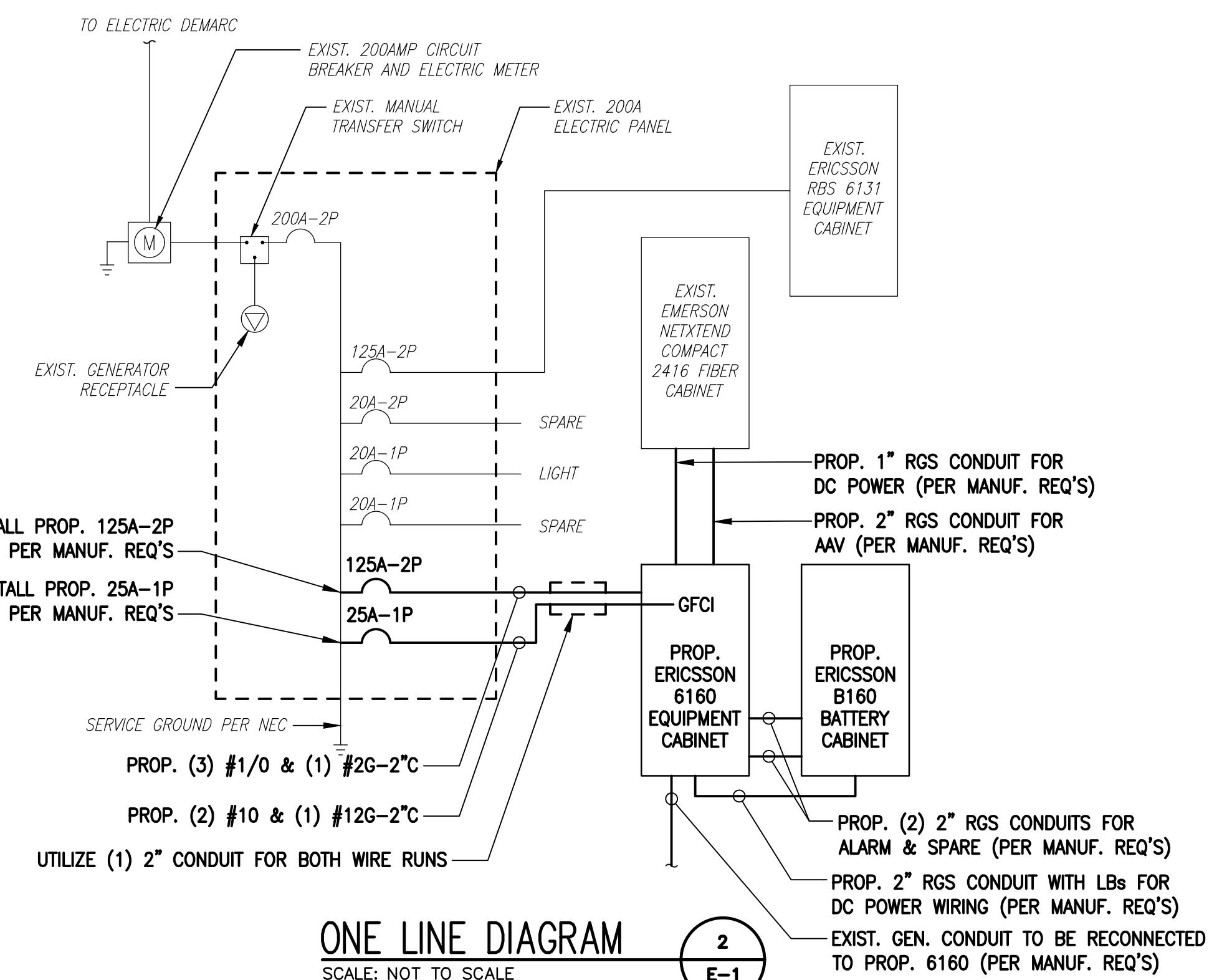
EXISTING POWER PANEL PHOTOS

SCALE: NOT TO SCALE

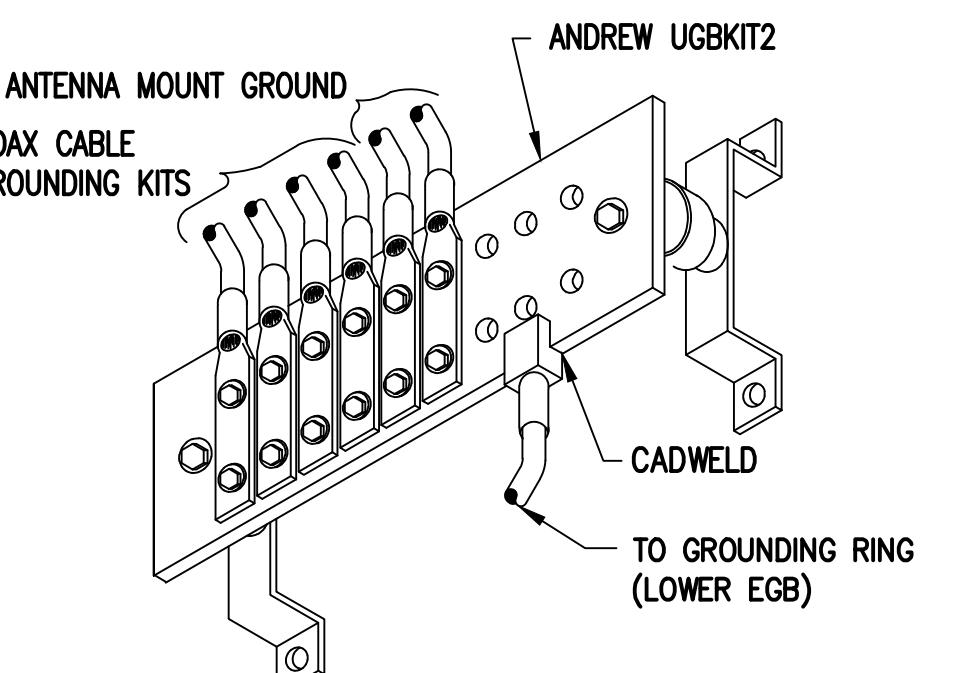
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E-1



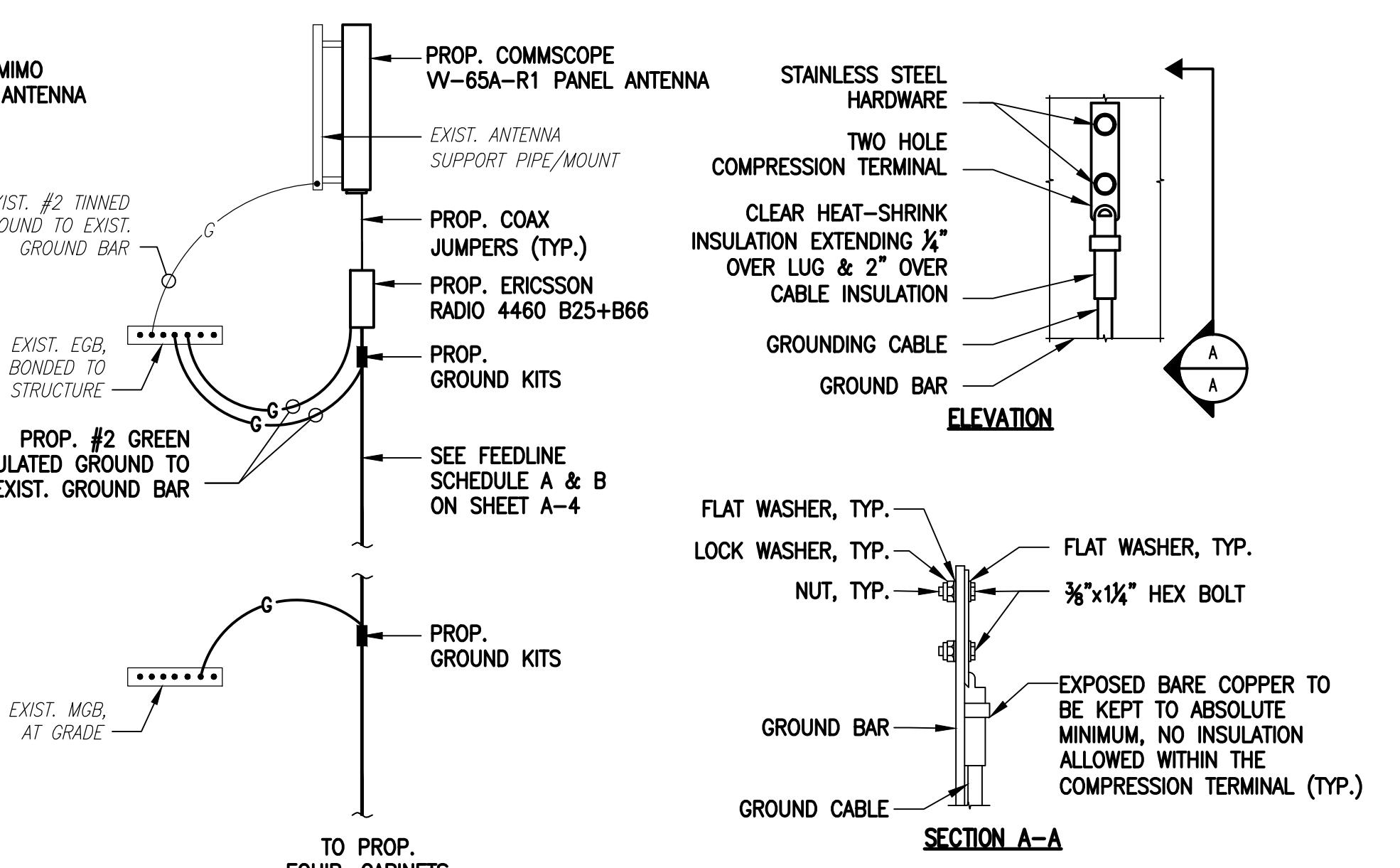
COAX CABLE CONNECTION AND GROUNDING DETAIL



ONE LINE DIAGRAM



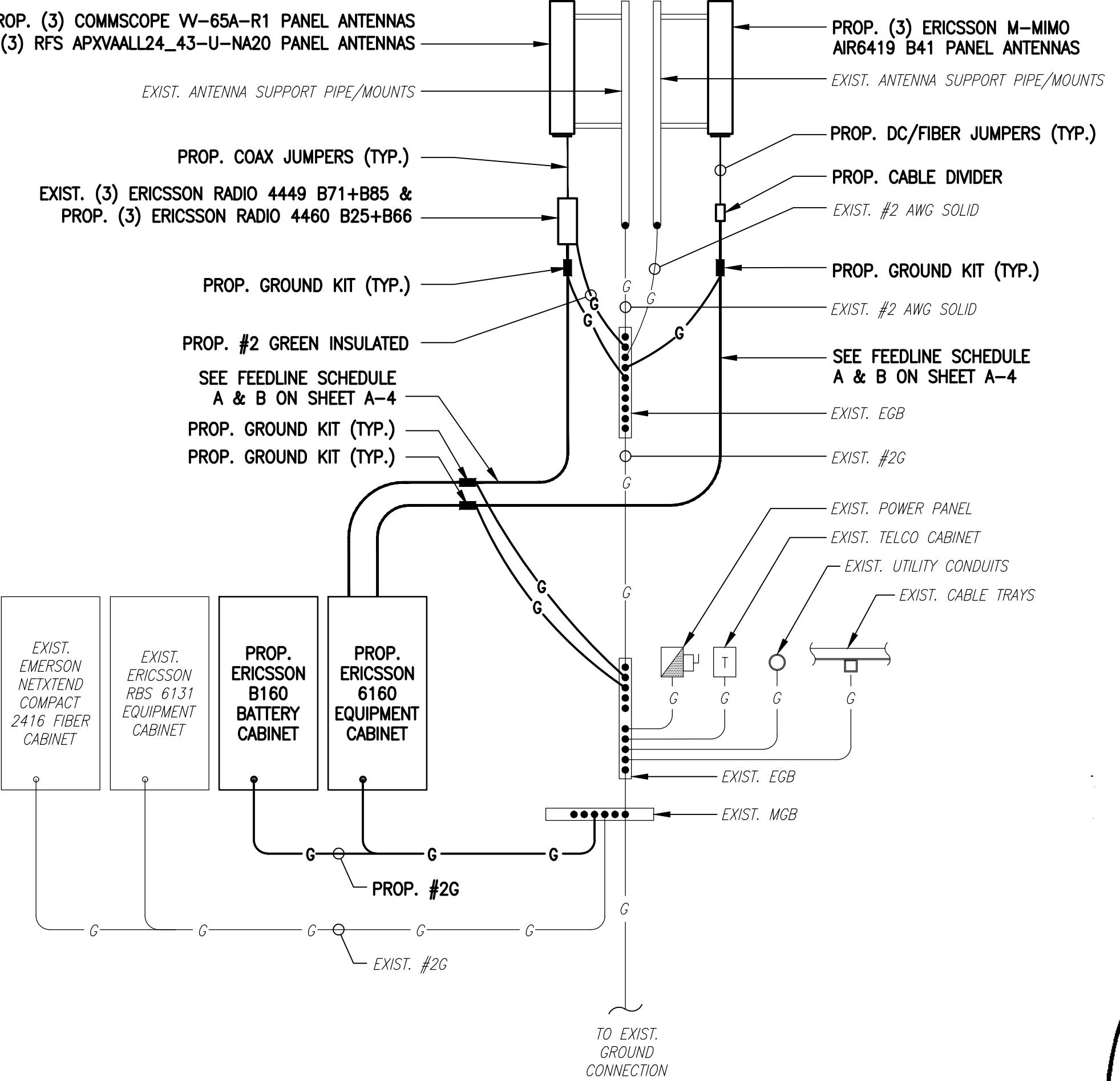
GROUND BAR (EGB)



L2100/L1900/G1900/U1900 ANTENNA

NOTES:

1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELL DOWNLOADS FROM UPPER EGB, LOWER EGB AND MGB.



GROUNDING RISER DIAGRAM



ELECTRICAL AND GROUNDING NOTES

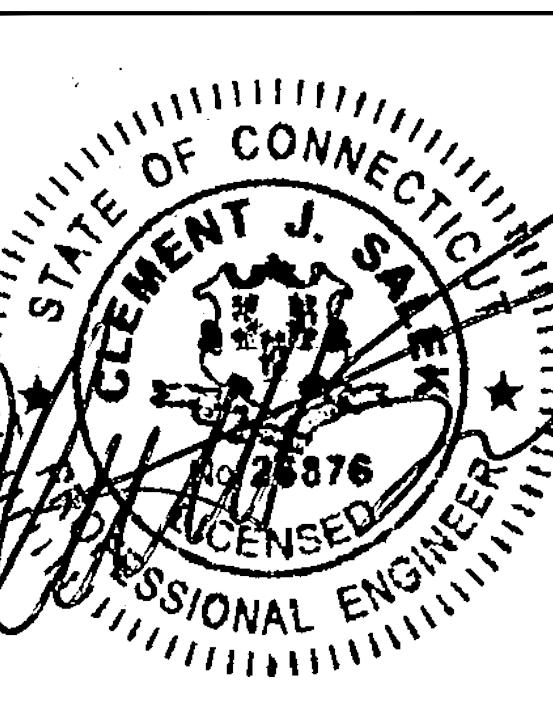
1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
 2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
 3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
 4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
 5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
 6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
 7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
 8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATON POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
 9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATON POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
 10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
 11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
 12. PPC SUPPLIED BY PROJECT OWNER.
 13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
 14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
 15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
 16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
 17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
 18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
 19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
 20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
 21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMNS MINIMUM RESISTANCE REQUIRED.
 22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.



BBA COMMUNICATIONS CORP.
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(508) 251-0720



R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SITE NUMBER:
CTNI 805B

SITE ADDRESS:
49 BRAINERD ROAD
NANTIC, CT 06357

SHEET TITLE

ELECTRIC & GROUNDING
DETAILS

SHEET NUMBER

E-1

Exhibit D

Structural Analysis Report



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 169 ft SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT11794-S

Customer Site Name: East Lyme 1

Carrier Name: T-Mobile (App#: 193377, V1)

Carrier Site ID / Name: CTNL805B / East Lyme

Site Location: 49 Brainerd Road

Niantic, Connecticut

New Haven County

Latitude: 41.307583

Longitude: -72.223916



Analysis Result:

Max Structural Usage: 79.9% [Pass]

Max Foundation Usage: 58.0% [Pass]

Additional Usage Caused by New Mount: N/A

Report Prepared By: Praveen Shrestha



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

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Customer Name: SBA Communications Corp

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Analysis Result:

Max Structural Usage: 79.9% [Pass]

Max Foundation Usage: 58.0% [Pass]

Additional Usage Caused by New Mount: N/A

Report Prepared By: Praveen Shrestha

Introduction

The purpose of this report is to summarize the analysis results on the 169 ft SABRE Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Sabre Towers & Poles, Job# 42498. Dated 04/06/2011
Foundation Drawing	Sabre Towers & Poles, Job# 42498. Dated 04/06/2011
Geotechnical Report	Tower Engineering Professionals, Project #: 103196.01. Dated 03/18/2011.
Modification Drawings	N/A
Mount Analysis	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESPoles**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 125 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 97.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	D
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.186, S_1 = 0.062$

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	170.0	1	KMW AM-X-CD-14-65-00T-RET - Panel	(3) Reinforced T-Arms	(6) 1-5/8" (4) 0.64" DC Power (1) 1.5" Fiber (1) 2" Conduit	AT&T
2		1	Andrew SBNH-1D6565C - Panel			
3		3	CCI DTMABP7819VG12A TMA			
4		1	KMW AM-X-CD-16-65-00T-RET - Panel			
5		1	Cci DMP65R-BU4DA - Panel			
6		1	Cci DMP65R-BU6DA - Panel			
7		1	CciDMP65R-BU8DA - Panel			
8		3	Ericsson RRUS 4478 B14			
9		3	Ericsson 4449 B5/B12			
10		3	Raycap DC6-48-60-18-8F			
11		2	Cci HPA-65R-BBU-H8 - Panel			
12		2	Cci HPA-65R-BUU-H6 - Panel			
13		2	Commscope SBNHH-1D65A - Panel			
14		6	Ericsson RRUS-12 RRUs			
15		3	Ericsson RRUS 32 RRUs			
16		3	Ericsson RRUS-E2 RRUs			
17		6	Ericsson RRUS A2			
-	160.0	3	Ericsson - Air 21 B2A/B4P - Panel	(3) Modified T-Arm with PRK-1245L and PRK-SFS-L	(9) 1 5/8" (4) 1 5/8" Fiber	T-Mobile
-		3	Ericsson - Air 21 B4A/B2P - Panel			
-		3	RFS - APXVAARR24_43-U-NA20 - Panel			
-		3	Ericsson KRY 112 144/1 TMA			
-		3	Ericsson Radio 4449 B71+B12			
24	147.0	4	Swedcom SC-E 6014 rev2 - Panel	Low Profile Platform	(10) 1 5/8" (2) 1 5/8" Fiber	Verizon
25		6	Andrew SBNHH-1D65B - Panel			
26		2	Antel LPA-80080/4CF - Panel			
27		6	RFS FD9R6004/2C-3L - DP			
28		2	RFS DB-T1-6Z-8AB-0Z - RET			
29		3	Alcatel 2X60-770 U - RRH			
30		3	Alcatel 2x60-1900 - RRH			
31		3	Alcatel RRH 2x90 AWS - RRH			

1 - (4)0.64" (Rounded Outside conduit)

2 – (Housing (1) 3/8" Fiber & (2) 0.64" DC Cables)

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
18	160.0	3	Ericsson AIR 6419 B41 - Panel	(3) Modified T-Arm with PRK-1245L and PRK-SFS-L	(7) 1 5/8" (3) 1-5/8" Fiber (2) 1.9" Fiber	T-Mobile
19		3	Commscope VV-65A-R1 - Panel			
20		3	RFS APXVAALL24_43-U-NA20 - Panel			
21		3	Ericsson KRY 112 144/1 TMA			
22		3	Ericsson 4449 B71 + B85 RRU			
23		3	Ericsson 4460 B25/B66 RRU			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	79.9%	75.4%	46.0%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	5224.38	40.9	81.35

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 2.3411 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 79.90% at 148.5ft

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: D
G_h: 1.1

4/18/2022



Page: 1

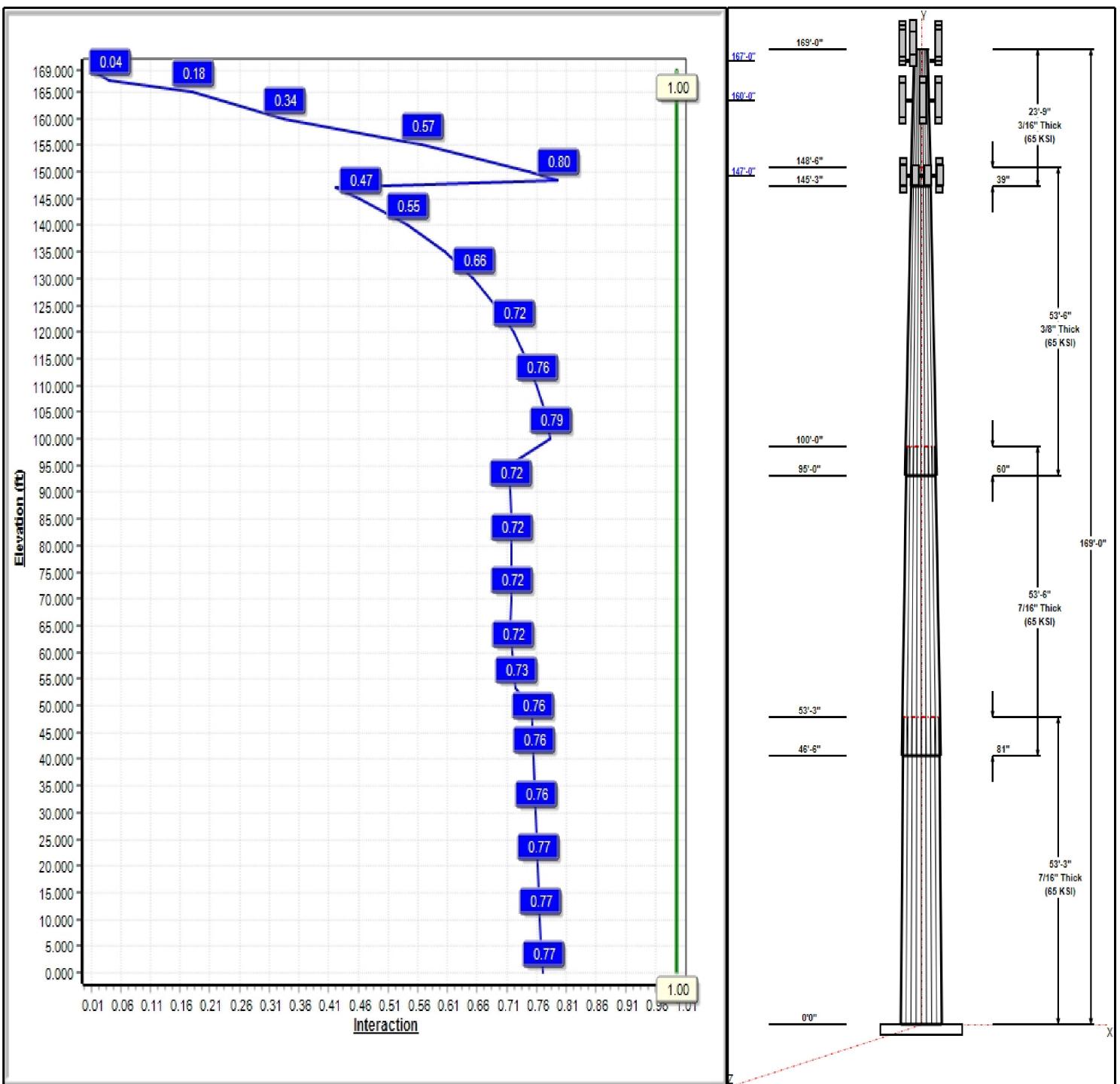
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 97 mph Wind



Iterations: 25

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Structure: CT11794-S-SBA

Type: Tapered
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.27302

4/18/2022

Page: 2



Shaft Properties

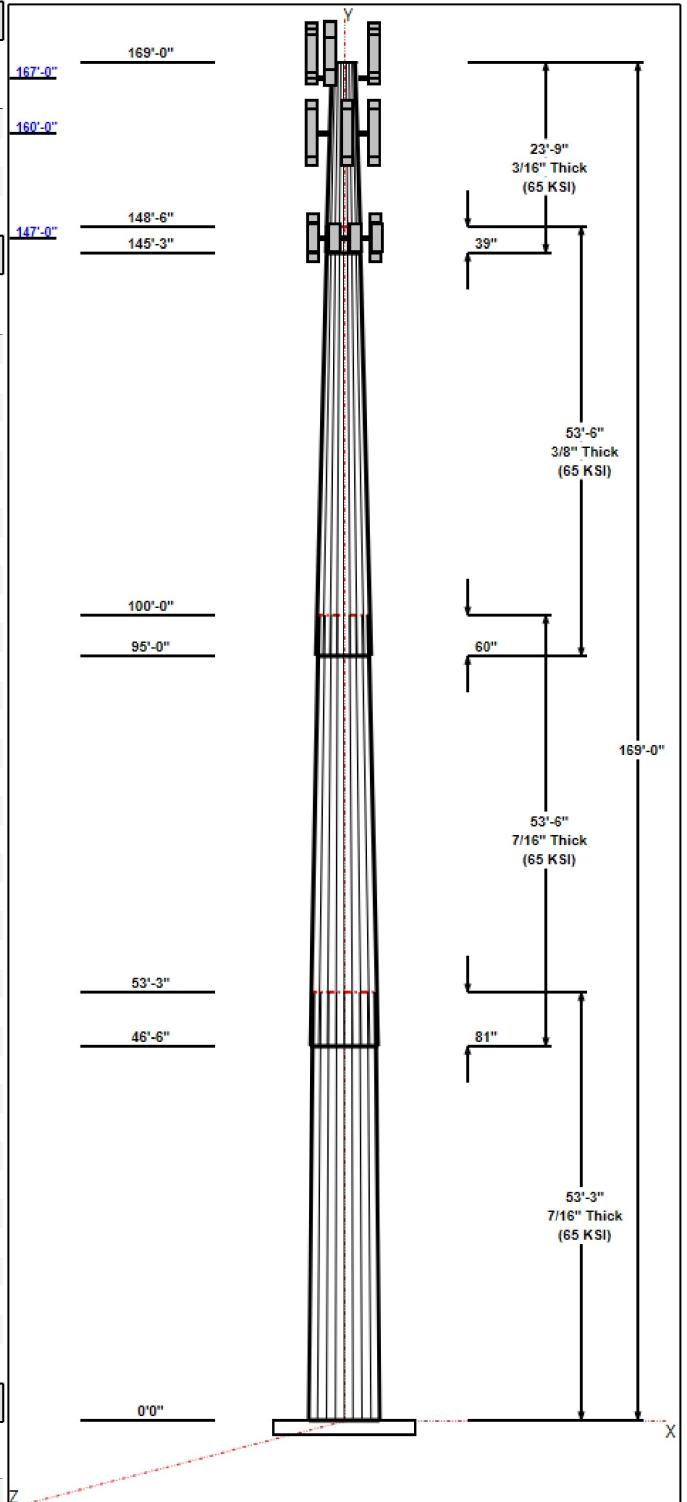
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	45.60	60.14	0.438		0.27302	65
2	53.50	33.71	48.32	0.438	Slip	0.27302	65
3	53.50	21.22	35.83	0.375	Slip	0.27302	65
4	23.75	16.00	22.48	0.188	Slip	0.27302	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
169.00	170.00	1	AM-X-CD-16-65-00T-RET	AT&T
169.00	170.00	1	DMP65R-BU4DA	AT&T
169.00	170.00	1	DMP65R-BU6DA	AT&T
169.00	170.00	1	DMP65R-BU8DA	AT&T
169.00	170.00	3	RRUS 4478 B14	AT&T
169.00	170.00	3	4449 B5/B12	AT&T
169.00	170.00	1	KMW	AT&T
169.00	170.00	1	Andrew SBNH-1D6565C	AT&T
169.00	170.00	3	CCI DTMABP7819VG12A	AT&T
167.00	170.00	3	Raycap DC6-48-60-18-8F	AT&T
167.00	167.00	3	Reinforced T-Arms	AT&T
167.00	170.00	2	HPA-65R-BBU-H8	AT&T
167.00	170.00	2	HPA-65R-BUU-H6	AT&T
167.00	170.00	2	SBNHH-1D65A	AT&T
167.00	170.00	6	Ericsson RRUS-12 RRUs	AT&T
167.00	170.00	3	Ericsson RRUS 32 RRUs	AT&T
167.00	170.00	3	Ericsson RRUS-E2 RRUs	AT&T
167.00	170.00	6	Ericsson RRUS A2	AT&T
160.00	160.00	3	Ericsson KRY 112 144/1	T-Mobile
160.00	160.00	1	PRK-1245L	T-Mobile
160.00	160.00	1	PRK-SFS-L	T-Mobile
160.00	160.00	3	T-Arm	T-Mobile
160.00	160.00	3	AIR 6419 B41	T-Mobile
160.00	160.00	3	VV-65A-R1	T-Mobile
160.00	160.00	3	APXVAALL24_43-U-NA20	T-Mobile
160.00	160.00	3	4449 B71 + B85	T-Mobile
160.00	160.00	3	4460 B25/B66A	T-Mobile
147.00	147.00	4	Swedcom SC-E 6014 rev2	Verizon
147.00	147.00	2	Antel LPA-80080/4CF	Verizon
147.00	147.00	6	Andrew SBNHH-1D65B	Verizon
147.00	147.00	3	ALU 2X60-770 U RRH	Verizon
147.00	147.00	6	FD9R6004/2C-3L	Verizon
147.00	147.00	2	RFS DB-T1-6Z-8AB-0Z	Verizon
147.00	147.00	1	Low Profile Platform	Verizon
147.00	147.00	3	Alcatel 2x60-1900 RRH	Verizon
147.00	147.00	3	RRH 2X90 AWS	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	170.00	Inside	0.64" DC Power	AT&T
0.00	170.00	Inside	1 5/8" Coax	AT&T
0.00	170.00	Inside	1.5" Fiber	AT&T
0.00	170.00	Inside	2" Innerduct	AT&T
0.00	169.00	Outside	Safety Cable	
0.00	169.00	Outside	Step bolts (ladder)	



Structure: CT11794-S-SBA

Type: Tapered
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.27302

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0.00	160.00	Inside	1 5/8" Coax	T-Mobile
0.00	160.00	Inside	1 5/8" Fiber	T-Mobile
0.00	160.00	Inside	1.9" Fiber	T-Mobile
0.00	147.00	Inside	1 5/8" Coax	Verizon
0.00	147.00	Inside	1 5/8" Fiber	Verizon

Anchor Bolts

Qty	Specifications	Grade	
		(ksi)	Arrangement
20	2.25" 18J	75.0	Radial

Base Plate

Thickness	Specifications	Grade	Geometry
(in)	(in)	(ksi)	
2.7500	72.8	50.0	Round

Reactions

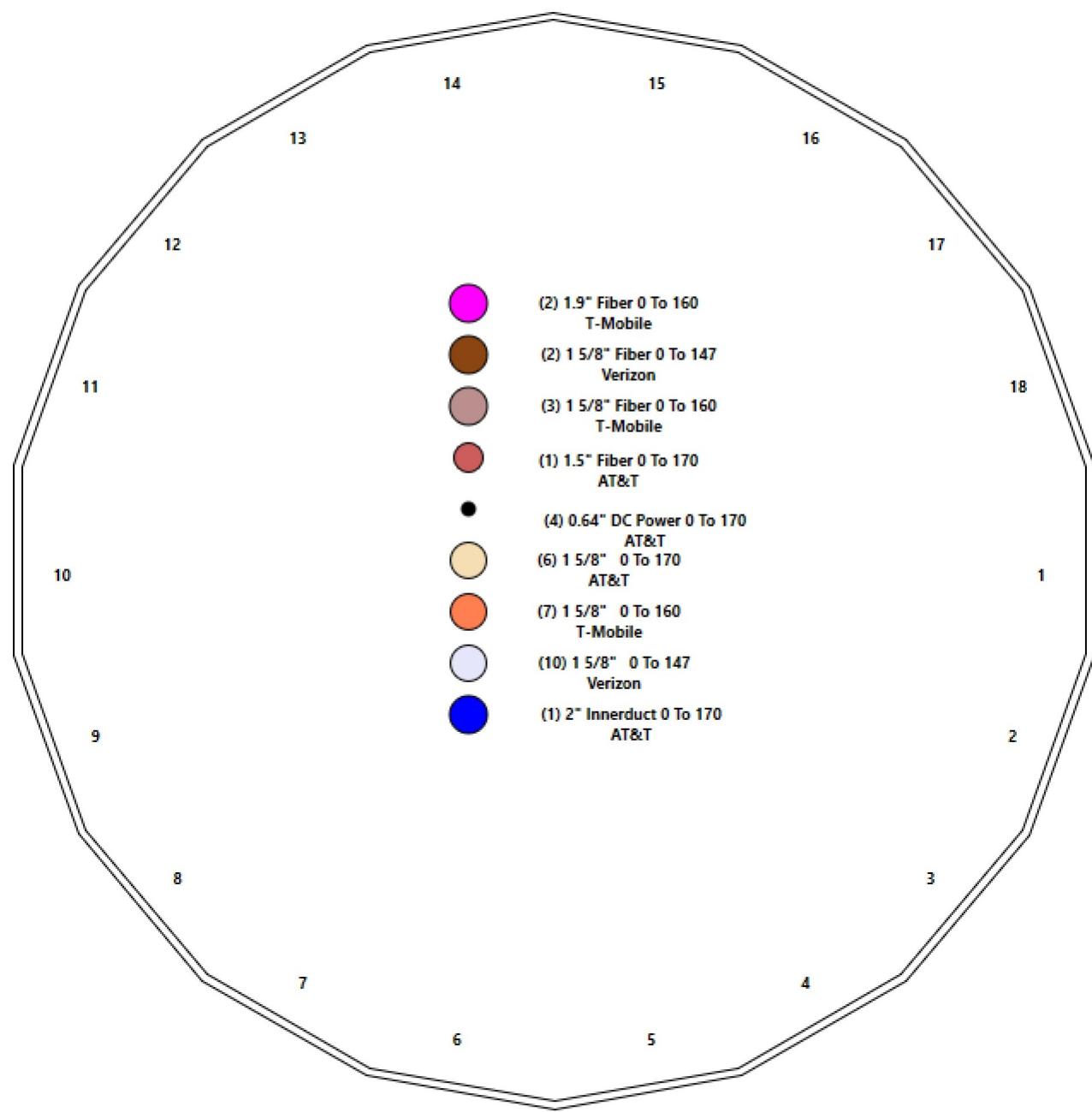
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 97 mph Wind	5224.4	40.9	54.3
0.9D + 1.6W 97 mph Wind	5159.5	40.9	40.7
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1416.0	11.3	81.3
1.2D + 1.0E	327.0	2.4	54.3
0.9D + 1.0E	322.7	2.4	40.8
1.0D + 1.0W 60 mph Wind	1242.9	9.8	45.3

Structure: CT11794-S-SBA - Coax Line Placement

Type: Monopole
Site Name: East Lyme 1
Height: 169.00 (ft)

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Shaft Properties

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D

Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	53.250	0.4375	65		0.00	13,193
2	18	53.500	0.4375	65	Slip	81.00	10,258
3	18	53.500	0.3750	65	Slip	60.00	6,099
4	18	23.750	0.1875	65	Slip	39.00	916
Total Shaft Weight:							30,466

Bottom

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	60.14	0.00	82.90	37333.61	22.83	137.46	45.60	53.25	62.71	16162.5	16.97	104.2	0.273018
2	48.32	46.50	66.49	19259.46	18.06	110.44	33.71	100.00	46.21	6464.05	12.18	77.06	0.273018
3	35.83	95.00	42.20	6701.10	15.44	95.54	21.22	148.50	24.81	1362.38	8.57	56.59	0.273018
4	22.48	145.2	13.27	833.42	19.73	119.92	16.00	169.00	9.41	297.27	13.64	85.33	0.273018

Top

Load Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	169.00	AM-X-CD-16-65-00T-RET	1	48.50	8.02	0.75	212.72	10.847	0.75	0.00	1.00
2	169.00	DMP65R-BU4DA	1	67.90	8.28	0.71	395.72	9.573	0.73	0.00	1.00
3	169.00	DMP65R-BU6DA	1	79.40	12.71	0.72	370.82	14.217	0.74	0.00	1.00
4	169.00	DMP65R-BU8DA	1	95.70	17.87	0.73	477.77	19.716	0.75	0.00	1.00
5	169.00	RRUS 4478 B14	3	59.40	1.65	0.67	101.36	2.175	0.67	0.00	1.00
6	169.00	4449 B5/B12	3	71.00	1.97	0.67	125.02	2.524	0.67	0.00	1.00
7	169.00	KMW AM-X-CD-14-65-00T-RET	1	36.40	5.00	0.75	149.26	6.897	0.75	0.00	1.00
8	169.00	Andrew SBNH-1D6565C	1	60.80	11.47	0.80	274.79	14.760	0.80	0.00	1.00
9	169.00	CCI DTMABP7819VG12A TMAs	3	19.18	1.14	0.67	44.98	1.919	0.67	0.00	1.00
10	167.00	Raycap DC6-48-60-18-8F	3	32.80	1.47	1.00	95.29	2.177	1.00	0.00	3.00
11	167.00	Reinforced T-Arms	3	450.00	14.00	0.75	767.53	26.348	0.75	0.00	0.00
12	167.00	HPA-65R-BBU-H8	2	68.00	12.98	0.79	362.71	14.614	0.79	0.00	3.00
13	167.00	HPA-65R-BUU-H6	2	51.00	9.66	0.85	302.23	11.042	0.85	0.00	3.00
14	167.00	SBNHH-1D65A	2	33.50	5.88	0.83	193.92	6.973	0.83	0.00	3.00
15	167.00	Ericsson RRUS-12 RRUs	6	58.00	3.15	0.67	154.65	3.873	0.67	0.00	3.00
16	167.00	Ericsson RRUS 32 RRUs	3	77.00	3.87	0.67	192.07	4.115	0.67	0.00	3.00
17	167.00	Ericsson RRUS-E2 RRUs	3	60.00	3.87	0.67	156.65	3.873	0.67	0.00	3.00
18	167.00	Ericsson RRUS A2	6	22.00	1.86	0.67	59.88	2.844	0.67	0.00	3.00
19	160.00	Ericsson KRY 112 144/1 TMAs	3	11.00	0.41	0.70	21.85	0.888	0.70	0.00	0.00
20	160.00	PRK-1245L	1	464.91	9.50	1.00	791.56	19.512	1.00	0.00	0.00
21	160.00	PRK-SFS-L	1	394.00	16.60	1.00	1122.61	28.846	1.00	0.00	0.00
22	160.00	T-Arm	3	400.00	10.00	0.75	681.04	18.783	0.75	0.00	0.00
23	160.00	AIR 6419 B41	3	133.20	6.53	0.70	298.59	7.607	0.70	0.00	0.00
24	160.00	VV-65A-R1	3	29.50	7.90	0.74	204.80	9.188	0.74	0.00	0.00
25	160.00	APXVAALL24_43-U-NA20	3	122.80	20.24	0.73	553.62	22.153	0.73	0.00	0.00
26	160.00	4449 B71 + B85	3	73.20	1.97	0.67	131.32	2.543	0.67	0.00	0.00
27	160.00	4460 B25/B66A	3	72.00	1.64	0.67	119.15	2.140	0.67	0.00	0.00
28	147.00	Swedcom SC-E 6014 rev2	4	15.00	3.33	0.97	109.59	4.996	0.97	0.00	0.00
29	147.00	Antel LPA-80080/4CF	2	12.00	2.61	1.70	147.12	3.461	1.70	0.00	0.00
30	147.00	Andrew SBNHH-1D65B	6	40.00	8.08	0.83	242.64	9.457	0.83	0.00	0.00
31	147.00	ALU 2X60-770 U RRH	3	55.60	3.50	0.67	136.32	4.288	0.67	0.00	0.00
32	147.00	FD9R6004/2C-3L	6	3.10	0.36	1.00	11.11	0.802	1.00	0.00	0.00
33	147.00	RFS DB-T1-6Z-8AB-0Z	2	44.00	4.80	0.71	187.39	5.672	0.71	0.00	0.00
34	147.00	Low Profile Platform	1	1200.00	26.00	1.00	2245.02	47.736	1.00	0.00	0.00
35	147.00	Alcatel 2x60-1900 RRH	3	40.00	1.51	0.67	106.97	2.465	0.67	0.00	0.00
36	147.00	RRH 2X90 AWS	3	64.00	3.50	0.67	156.92	4.288	0.67	0.00	0.00
Totals:				98	8,975.25			23,355.53			

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	170.00	(4) 0.64" DC Power	0.00	Inside
0.00	170.00	(6) 1 5/8" Coax	0.00	Inside
0.00	170.00	(1) 1.5" Fiber	0.00	Inside
0.00	170.00	(1) 2" Innerduct	0.00	Inside
0.00	169.00	(1) Safety Cable	0.38	Outside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
0.00	169.00	(1) Step bolts (ladder)		0.00	Outside						
0.00	160.00	(7) 1 5/8" Coax		0.00	Inside						
0.00	160.00	(3) 1 5/8" Fiber		0.00	Inside						
0.00	160.00	(2) 1.9" Fiber		0.00	Inside						
0.00	147.00	(10) 1 5/8" Coax		0.00	Inside						
0.00	147.00	(2) 1 5/8" Fiber		0.00	Inside						

Shaft Section Properties

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	60.140	82.901	37333.6	22.83	137.46	74.6	1222.	0.0
5.00		0.4375	58.775	81.006	34830.8	22.28	134.34	75.2	1167.	1394.4
10.00		0.4375	57.410	79.110	32442.5	21.73	131.22	75.8	1113.	1362.1
15.00		0.4375	56.045	77.215	30165.9	21.18	128.10	76.5	1060.	1329.8
20.00		0.4375	54.680	75.319	27998.4	20.63	124.98	77.1	1008.	1297.6
25.00		0.4375	53.315	73.424	25937.3	20.08	121.86	77.8	958.2	1265.3
30.00		0.4375	51.949	71.528	23979.9	19.53	118.74	78.4	909.2	1233.1
35.00		0.4375	50.584	69.633	22123.5	18.98	115.62	79.1	861.4	1200.8
40.00		0.4375	49.219	67.737	20365.5	18.43	112.50	79.7	815.0	1168.6
45.00		0.4375	47.854	65.842	18703.2	17.88	109.38	80.4	769.8	1136.3
46.50	Bot - Section 2	0.4375	47.445	65.273	18222.8	17.71	108.44	80.6	756.5	334.6
50.00		0.4375	46.489	63.946	17133.9	17.33	106.26	81.0	725.9	1553.4
53.25	Top - Section 1	0.4375	46.477	63.929	17120.2	17.32	106.23	0.0	0.0	1414.2
55.00		0.4375	45.999	63.266	16592.7	17.13	105.14	81.3	710.5	378.7
60.00		0.4375	44.634	61.370	15145.5	16.58	102.02	81.9	668.3	1060.3
65.00		0.4375	43.269	59.475	13785.0	16.03	98.90	82.5	627.5	1028.0
70.00		0.4375	41.904	57.579	12508.5	15.48	95.78	82.5	587.9	995.8
75.00		0.4375	40.539	55.683	11313.4	14.93	92.66	82.5	549.7	963.5
80.00		0.4375	39.174	53.788	10196.9	14.38	89.54	82.5	512.7	931.3
85.00		0.4375	37.808	51.892	9156.4	13.83	86.42	82.5	477.0	899.0
90.00		0.4375	36.443	49.997	8189.2	13.28	83.30	82.5	442.6	866.8
95.00	Bot - Section 3	0.4375	35.078	48.101	7292.7	12.73	80.18	82.5	409.5	834.5
100.00	Top - Section 2	0.3750	34.463	40.572	5956.5	14.79	91.90	0.0	0.0	1506.4
105.00		0.3750	33.098	38.947	5269.1	14.15	88.26	82.5	313.6	676.5
110.00		0.3750	31.733	37.323	4636.8	13.51	84.62	82.5	287.8	648.8
115.00		0.3750	30.368	35.698	4057.3	12.87	80.98	82.5	263.1	621.2
120.00		0.3750	29.003	34.073	3528.1	12.23	77.34	82.5	239.6	593.5
125.00		0.3750	27.638	32.448	3047.1	11.58	73.70	82.5	217.2	565.9
130.00		0.3750	26.273	30.824	2611.9	10.94	70.06	82.5	195.8	538.3
135.00		0.3750	24.908	29.199	2220.3	10.30	66.42	82.5	175.6	510.6
140.00		0.3750	23.543	27.574	1869.9	9.66	62.78	82.5	156.4	483.0
145.00		0.3750	22.177	25.949	1558.4	9.02	59.14	82.5	138.4	455.3
145.25	Bot - Section 4	0.3750	22.109	25.868	1543.8	8.99	58.96	82.5	137.5	22.0
147.00		0.3750	21.631	25.300	1444.3	8.76	57.68	82.5	131.5	230.5
148.50	Top - Section 3	0.1875	21.597	12.741	737.8	18.90	115.18	0.0	0.0	193.5
150.00		0.1875	21.187	12.497	696.3	18.51	113.00	79.6	64.7	64.4
155.00		0.1875	19.822	11.685	569.1	17.23	105.72	81.1	56.6	205.7
160.00		0.1875	18.457	10.872	458.5	15.95	98.44	82.5	48.9	191.9
165.00		0.1875	17.092	10.060	363.2	14.66	91.16	82.5	41.9	178.1
167.00		0.1875	16.546	9.735	329.1	14.15	88.25	82.5	39.2	67.4
169.00		0.1875	16.000	9.410	297.3	13.64	85.33	82.5	36.6	65.1
										30466.3

Wind Loading - Shaft

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-G **Exposure:** D
Crest Height: 0.00 **Site Class:** D - Stiff Soil
Struct Class: II

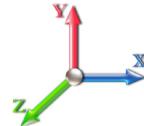
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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	1.03	23.569	25.93	500.98	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	1.03	23.569	25.93	489.61	0.650	0.000	5.00	25.156	16.35	678.3	0.0	1673.2
10.00		1.00	1.03	23.569	25.93	478.24	0.650	0.000	5.00	24.579	15.98	662.7	0.0	1634.5
15.00		1.00	1.03	23.574	25.93	466.92	0.650	0.000	5.00	24.001	15.60	647.3	0.0	1595.8
20.00		1.00	1.08	24.784	27.26	467.09	0.650	0.000	5.00	23.423	15.23	664.1	0.0	1557.1
25.00		1.00	1.13	25.765	28.34	464.35	0.650	0.000	5.00	22.846	14.85	673.4	0.0	1518.4
30.00		1.00	1.16	26.595	29.25	459.69	0.650	0.000	5.00	22.268	14.47	677.5	0.0	1479.7
35.00		1.00	1.19	27.317	30.05	453.65	0.650	0.000	5.00	21.691	14.10	677.9	0.0	1441.0
40.00		1.00	1.22	27.959	30.75	446.56	0.650	0.000	5.00	21.113	13.72	675.3	0.0	1402.3
45.00		1.00	1.25	28.538	31.39	438.65	0.650	0.000	5.00	20.536	13.35	670.4	0.0	1363.6
46.50 Bot - Section 2		1.00	1.25	28.701	31.57	436.13	0.650	0.000	1.50	6.048	3.93	198.6	0.0	401.5
50.00		1.00	1.27	29.065	31.97	430.06	0.650	0.000	3.50	14.169	9.21	471.1	0.0	1864.1
53.25 Top - Section 1		1.00	1.28	29.385	32.32	424.16	0.650	0.000	3.25	12.904	8.39	433.8	0.0	1697.0
55.00		1.00	1.29	29.551	32.51	429.06	0.650	0.000	1.75	6.847	4.45	231.5	0.0	454.5
60.00		1.00	1.31	30.002	33.00	419.49	0.650	0.000	5.00	19.173	12.46	658.1	0.0	1272.3
65.00		1.00	1.33	30.422	33.46	409.50	0.650	0.000	5.00	18.596	12.09	647.2	0.0	1233.6
70.00		1.00	1.35	30.817	33.90	399.15	0.650	0.000	5.00	18.018	11.71	635.2	0.0	1194.9
75.00		1.00	1.36	31.189	34.31	388.47	0.650	0.000	5.00	17.440	11.34	622.3	0.0	1156.2
80.00		1.00	1.38	31.541	34.70	377.50	0.650	0.000	5.00	16.863	10.96	608.5	0.0	1117.5
85.00		1.00	1.39	31.875	35.06	366.27	0.650	0.000	5.00	16.285	10.59	593.9	0.0	1078.8
90.00		1.00	1.41	32.194	35.41	354.81	0.650	0.000	5.00	15.708	10.21	578.5	0.0	1040.1
95.00 Bot - Section 3		1.00	1.42	32.498	35.75	343.12	0.650	0.000	5.00	15.130	9.83	562.5	0.0	1001.4
100.00 Top - Section 2		1.00	1.43	32.789	36.07	331.25	0.650	0.000	5.00	14.870	9.67	557.8	0.0	1807.7
105.00		1.00	1.45	33.069	36.38	326.59	0.650	0.000	5.00	14.292	9.29	540.7	0.0	811.8
110.00		1.00	1.46	33.337	36.67	314.38	0.650	0.000	5.00	13.715	8.91	523.1	0.0	778.6
115.00		1.00	1.47	33.596	36.96	302.03	0.650	0.000	5.00	13.137	8.54	504.9	0.0	745.4
120.00		1.00	1.48	33.845	37.23	289.52	0.650	0.000	5.00	12.560	8.16	486.3	0.0	712.2
125.00		1.00	1.49	34.087	37.50	276.87	0.650	0.000	5.00	11.982	7.79	467.2	0.0	679.1
130.00		1.00	1.50	34.320	37.75	264.10	0.650	0.000	5.00	11.405	7.41	447.8	0.0	645.9
135.00		1.00	1.51	34.546	38.00	251.20	0.650	0.000	5.00	10.827	7.04	427.9	0.0	612.7
140.00		1.00	1.52	34.765	38.24	238.18	0.650	0.000	5.00	10.249	6.66	407.6	0.0	579.6
145.00		1.00	1.53	34.978	38.48	225.06	0.650	0.000	5.00	9.672	6.29	387.0	0.0	546.4
145.25 Bot - Section 4		1.00	1.53	34.988	38.49	224.40	0.650	0.000	0.25	0.468	0.30	18.7	0.0	26.4
147.00 Appurtenance(s)		1.00	1.53	35.061	38.57	219.78	0.650	0.000	1.75	3.294	2.14	132.1	0.0	276.6
148.50 Top - Section 3		1.00	1.53	35.123	38.64	215.81	0.650	0.000	1.50	2.767	1.80	111.2	0.0	232.3
150.00		1.00	1.54	35.185	38.70	215.64	0.650	0.000	1.50	2.715	1.76	109.3	0.0	77.3
155.00		1.00	1.55	35.386	38.92	202.33	0.650	0.000	5.00	8.675	5.64	351.2	0.0	246.9
160.00 Appurtenance(s)		1.00	1.55	35.582	39.14	188.91	0.650	0.000	5.00	8.098	5.26	329.6	0.0	230.3
165.00		1.00	1.56	35.773	39.35	175.41	0.650	0.000	5.00	7.520	4.89	307.8	0.0	213.7
167.00 Appurtenance(s)		1.00	1.57	35.848	39.43	169.99	0.650	0.000	2.00	2.846	1.85	116.7	0.0	80.8
169.00 Appurtenance(s)		1.00	1.57	35.922	39.51	164.55	0.650	0.000	2.00	2.754	1.79	113.2	0.0	78.2

Totals: 169.00 18,608.1 36,559.6

Discrete Appurtenance Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

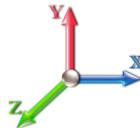
4/18/2022



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	169.00	DMP65R-BU8DA	1	35.959	39.555	0.65	0.90	11.69	114.84	0.000	1.000	739.98	0.00	739.98
2	169.00	AM-X-CD-16-65-00T-RET	1	35.959	39.555	0.75	1.00	6.01	58.20	0.000	1.000	380.68	0.00	380.68
3	169.00	DMP65R-BU4DA	1	35.959	39.555	0.64	0.90	5.31	81.48	0.000	1.000	335.79	0.00	335.79
4	169.00	DMP65R-BU6DA	1	35.959	39.555	0.65	0.90	8.25	95.28	0.000	1.000	521.97	0.00	521.97
5	169.00	CCI DTMABP7819VG12A	3	35.959	39.555	0.60	0.90	2.06	69.05	0.000	1.000	130.52	0.00	130.52
6	169.00	4449 B5/B12	3	35.959	39.555	0.60	0.90	3.56	255.60	0.000	1.000	225.54	0.00	225.54
7	169.00	KMW	1	35.959	39.555	0.75	1.00	3.75	43.68	0.000	1.000	237.33	0.00	237.33
8	169.00	Andrew SBNH-1D6565C	1	35.959	39.555	0.80	1.00	9.18	72.96	0.000	1.000	580.73	0.00	580.73
9	169.00	RRUS 4478 B14	3	35.959	39.555	0.60	0.90	2.98	213.84	0.000	1.000	188.90	0.00	188.90
10	167.00	HPA-65R-BUU-H6	2	35.959	39.555	0.77	0.90	14.78	122.40	0.000	3.000	935.38	0.00	2806.14
11	167.00	Raycap DC6-48-60-18-8F	3	35.959	39.555	0.90	0.90	3.97	118.08	0.000	3.000	251.19	0.00	753.57
12	167.00	Reinforced T-Arms	3	35.848	39.433	0.56	0.75	23.63	1620.00	0.000	0.000	1490.55	0.00	0.00
13	167.00	HPA-65R-BBU-H8	2	35.959	39.555	0.71	0.90	18.46	163.20	0.000	3.000	1168.14	0.00	3504.42
14	167.00	Ericsson RRUS 32 RRUs	3	35.959	39.555	0.60	0.90	7.00	277.20	0.000	3.000	443.07	0.00	1329.20
15	167.00	SBNHH-1D65A	2	35.959	39.555	0.75	0.90	8.78	80.40	0.000	3.000	555.97	0.00	1667.90
16	167.00	Ericsson RRUS-12 RRUs	6	35.959	39.555	0.60	0.90	11.40	417.60	0.000	3.000	721.27	0.00	2163.82
17	167.00	Ericsson RRUS-E2 RRUs	3	35.959	39.555	0.60	0.90	7.00	216.00	0.000	3.000	443.07	0.00	1329.20
18	167.00	Ericsson RRUS A2	6	35.959	39.555	0.60	0.90	6.73	158.40	0.000	3.000	425.89	0.00	1277.68
19	160.00	4460 B25/B66A	3	35.582	39.140	0.54	0.80	2.64	259.20	0.000	0.000	165.15	0.00	0.00
20	160.00	APXVAALL24_43-U-NA20	3	35.582	39.140	0.58	0.80	35.46	442.08	0.000	0.000	2220.68	0.00	0.00
21	160.00	VV-65A-R1	3	35.582	39.140	0.59	0.80	14.03	106.20	0.000	0.000	878.64	0.00	0.00
22	160.00	AIR 6419 B41	3	35.582	39.140	0.56	0.80	10.97	479.52	0.000	0.000	687.01	0.00	0.00
23	160.00	T-Arm	3	35.582	39.140	0.56	0.75	16.88	1440.00	0.000	0.000	1056.78	0.00	0.00
24	160.00	PRK-SFS-L	1	35.582	39.140	0.75	0.75	12.45	472.80	0.000	0.000	779.67	0.00	0.00
25	160.00	PRK-1245L	1	35.582	39.140	0.75	0.75	7.13	557.89	0.000	0.000	446.20	0.00	0.00
26	160.00	Ericsson KRY 112 144/1	3	35.582	39.140	0.56	0.80	0.69	39.60	0.000	0.000	43.14	0.00	0.00
27	160.00	4449 B71 + B85	3	35.582	39.140	0.54	0.80	3.17	263.52	0.000	0.000	198.38	0.00	0.00
28	147.00	Antel LPA-80080/4CF	2	35.061	38.567	1.36	0.80	7.10	28.80	0.000	0.000	438.08	0.00	0.00
29	147.00	Andrew SBNHH-1D65B	6	35.061	38.567	0.66	0.80	32.19	288.00	0.000	0.000	1986.42	0.00	0.00
30	147.00	ALU 2X60-770 U RRH	3	35.061	38.567	0.54	0.80	5.63	200.16	0.000	0.000	347.29	0.00	0.00
31	147.00	Swedcom SC-E 6014 rev2	4	35.061	38.567	0.78	0.80	10.34	72.00	0.000	0.000	637.83	0.00	0.00
32	147.00	RRH 2X90 AWS	3	35.061	38.567	0.54	0.80	5.63	230.40	0.000	0.000	347.29	0.00	0.00
33	147.00	FD9R6004/2C-3L	6	35.061	38.567	0.80	0.80	1.73	22.32	0.000	0.000	106.63	0.00	0.00
34	147.00	RFS DB-T1-6Z-8AB-0Z	2	35.061	38.567	0.57	0.80	5.45	105.60	0.000	0.000	336.48	0.00	0.00
35	147.00	Low Profile Platform	1	35.061	38.567	1.00	1.00	26.00	1440.00	0.000	0.000	1604.41	0.00	0.00
36	147.00	Alcatel 2x60-1900 RRH	3	35.061	38.567	0.54	0.80	2.43	144.00	0.000	0.000	149.83	0.00	0.00

Totals: 10,770.30

22,205.88

Total Applied Force Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

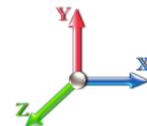
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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		678.29	1894.94	0.00	0.00
10.00		662.71	1856.24	0.00	0.00
15.00		647.29	1817.54	0.00	0.00
20.00		664.12	1778.84	0.00	0.00
25.00		673.38	1740.14	0.00	0.00
30.00		677.50	1701.44	0.00	0.00
35.00		677.86	1662.74	0.00	0.00
40.00		675.31	1624.04	0.00	0.00
45.00		670.43	1585.34	0.00	0.00
46.50		198.58	468.05	0.00	0.00
50.00		471.14	2019.32	0.00	0.00
53.25		433.78	1841.13	0.00	0.00
55.00		231.48	532.06	0.00	0.00
60.00		658.06	1494.04	0.00	0.00
65.00		647.19	1455.34	0.00	0.00
70.00		635.22	1416.64	0.00	0.00
75.00		622.28	1377.94	0.00	0.00
80.00		608.46	1339.24	0.00	0.00
85.00		593.85	1300.54	0.00	0.00
90.00		578.51	1261.84	0.00	0.00
95.00		562.51	1223.14	0.00	0.00
100.00		557.78	2029.37	0.00	0.00
105.00		540.69	1033.48	0.00	0.00
110.00		523.05	1000.31	0.00	0.00
115.00		504.91	967.13	0.00	0.00
120.00		486.30	933.96	0.00	0.00
125.00		467.25	900.79	0.00	0.00
130.00		447.77	867.62	0.00	0.00
135.00		427.89	834.45	0.00	0.00
140.00		407.63	801.28	0.00	0.00
145.00		387.02	768.10	0.00	0.00
145.25		18.75	37.53	0.00	0.00
147.00	(30) attachments	6086.39	2885.50	0.00	0.00
148.50		111.19	276.09	0.00	0.00
150.00		109.29	121.13	0.00	0.00
155.00		351.20	392.97	0.00	0.00
160.00	(23) attachments	6805.27	4437.20	0.00	0.00
165.00		307.76	277.00	0.00	0.00
167.00	(30) attachments	6551.26	3279.44	0.00	14831.93
169.00	(15) attachments	3454.62	1108.43	0.00	3341.44
Totals:		40,813.96	54,342.28	0.00	18,173.37

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

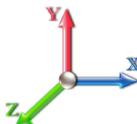
Struct Class: II

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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations

25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	23.569	0.00	1.64
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	23.569	0.00	6.24
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	23.569	0.00	1.64
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	23.569	0.00	6.24
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	23.574	0.00	1.64
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	23.574	0.00	6.24
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	24.784	0.00	1.64
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	24.784	0.00	6.24
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	25.765	0.00	1.64
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	25.765	0.00	6.24
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	26.595	0.00	1.64
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	26.595	0.00	6.24
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	27.317	0.00	1.64
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	27.317	0.00	6.24
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	27.959	0.00	1.64
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	27.959	0.00	6.24
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	28.538	0.00	1.64
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	28.538	0.00	6.24
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.008	0.000	28.701	0.00	0.49
46.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.008	0.000	28.701	0.00	1.87
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.008	0.000	29.065	0.00	1.15
50.00	Step bolts (ladder)	Yes	3.50	0.000	0.00	0.00	0.00	0.008	0.000	29.065	0.00	4.37
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.008	0.000	29.385	0.00	1.06
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.00	0.00	0.00	0.008	0.000	29.385	0.00	4.06
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.008	0.000	29.551	0.00	0.57
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.008	0.000	29.551	0.00	2.18
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	30.002	0.00	1.64
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	30.002	0.00	6.24
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	30.422	0.00	1.64
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	30.422	0.00	6.24
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	30.817	0.00	1.64
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	30.817	0.00	6.24
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	31.189	0.00	1.64
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	31.189	0.00	6.24
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	31.541	0.00	1.64
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	31.541	0.00	6.24
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	31.875	0.00	1.64
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	31.875	0.00	6.24
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	32.194	0.00	1.64
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	32.194	0.00	6.24
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	32.498	0.00	1.64
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	32.498	0.00	6.24
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	32.789	0.00	1.64
100.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	32.789	0.00	6.24
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	33.069	0.00	1.64
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	33.069	0.00	6.24
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	33.337	0.00	1.64

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20



Iterations

25

Wind Load Factor 1.60

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	33.337	0.00	6.24
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	33.596	0.00	1.64
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	33.596	0.00	6.24
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	33.845	0.00	1.64
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	33.845	0.00	6.24
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	34.087	0.00	1.64
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	34.087	0.00	6.24
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.014	0.000	34.320	0.00	1.64
130.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.014	0.000	34.320	0.00	6.24
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	34.546	0.00	1.64
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	34.546	0.00	6.24
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	34.765	0.00	1.64
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	34.765	0.00	6.24
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.016	0.000	34.978	0.00	1.64
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.016	0.000	34.978	0.00	6.24
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.017	0.000	34.988	0.00	0.08
145.25	Step bolts (ladder)	Yes	0.25	0.000	0.00	0.00	0.00	0.017	0.000	34.988	0.00	0.31
147.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.017	0.000	35.061	0.00	0.57
147.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.017	0.000	35.061	0.00	2.18
148.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	35.123	0.00	0.49
148.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	35.123	0.00	1.87
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	35.185	0.00	0.49
150.00	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	35.185	0.00	1.87
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.386	0.00	1.64
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.018	0.000	35.386	0.00	6.24
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	35.582	0.00	1.64
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.020	0.000	35.582	0.00	6.24
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	35.773	0.00	1.64
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.021	0.000	35.773	0.00	6.24
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.022	0.000	35.848	0.00	0.66
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	35.848	0.00	2.50
169.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.023	0.000	35.922	0.00	0.66
169.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	35.922	0.00	2.50
Totals:										0.0	0.0	266.3

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

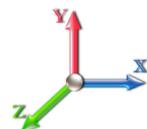
4/18/2022



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Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

25

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.27	-40.91	0.00	-5224.3	0.00	5224.38	5562.36	2781.18	13652.7	6836.50	0.00	0.000	0.000	0.774
5.00	-52.24	-40.41	0.00	-5019.8	0.00	5019.85	5482.35	2741.17	13146.4	6582.98	0.10	-0.195	0.000	0.772
10.00	-50.24	-39.91	0.00	-4817.8	0.00	4817.82	5400.13	2700.07	12644.0	6331.40	0.42	-0.396	0.000	0.770
15.00	-48.29	-39.43	0.00	-4618.2	0.00	4618.25	5315.71	2657.86	12145.8	6081.95	0.94	-0.603	0.000	0.769
20.00	-46.37	-38.92	0.00	-4421.1	0.00	4421.12	5229.08	2614.54	11652.3	5834.81	1.69	-0.816	0.000	0.767
25.00	-44.49	-38.39	0.00	-4226.5	0.00	4226.53	5140.25	2570.12	11163.7	5590.18	2.66	-1.036	0.000	0.765
30.00	-42.65	-37.85	0.00	-4034.5	0.00	4034.59	5049.20	2524.60	10680.6	5348.24	3.87	-1.262	0.000	0.763
35.00	-40.85	-37.30	0.00	-3845.3	0.00	3845.35	4955.95	2477.97	10203.2	5109.18	5.32	-1.496	0.000	0.761
40.00	-39.09	-36.75	0.00	-3658.8	0.00	3658.85	4860.49	2430.24	9731.91	4873.19	7.01	-1.737	0.000	0.759
45.00	-37.43	-36.13	0.00	-3475.1	0.00	3475.11	4762.82	2381.41	9267.12	4640.45	8.96	-1.986	0.000	0.757
46.50	-36.88	-36.00	0.00	-3420.9	0.00	3420.91	4733.09	2366.54	9129.00	4571.29	9.60	-2.065	0.000	0.756
50.00	-34.77	-35.56	0.00	-3294.9	0.00	3294.90	4662.94	2331.47	8809.20	4411.15	11.18	-2.249	0.000	0.755
53.25	-32.87	-35.13	0.00	-3179.3	0.00	3179.32	4662.03	2331.01	8805.10	4409.10	12.77	-2.423	0.000	0.728
55.00	-32.24	-34.98	0.00	-3117.8	0.00	3117.83	4626.54	2313.27	8646.55	4329.70	13.68	-2.520	0.000	0.727
60.00	-30.62	-34.40	0.00	-2942.9	0.00	2942.93	4523.67	2261.83	8198.57	4105.38	16.46	-2.780	0.000	0.724
65.00	-29.03	-33.81	0.00	-2770.9	0.00	2770.96	4418.66	2209.33	7758.49	3885.01	19.51	-3.048	0.000	0.720
70.00	-27.49	-33.24	0.00	-2601.8	0.00	2601.89	4277.83	2138.92	7269.40	3640.10	22.85	-3.326	0.000	0.721
75.00	-25.99	-32.66	0.00	-2435.7	0.00	2435.70	4137.00	2068.50	6796.24	3403.17	26.49	-3.612	0.000	0.722
80.00	-24.52	-32.10	0.00	-2272.3	0.00	2272.38	3996.18	1998.09	6339.00	3174.21	30.43	-3.908	0.000	0.722
85.00	-23.10	-31.54	0.00	-2111.8	0.00	2111.89	3855.35	1927.67	5897.69	2953.23	34.68	-4.214	0.000	0.721
90.00	-21.71	-30.99	0.00	-1954.1	0.00	1954.19	3714.52	1857.26	5472.29	2740.21	39.26	-4.530	0.000	0.719
95.00	-20.36	-30.45	0.00	-1799.2	0.00	1799.24	3573.69	1786.85	5062.82	2535.17	44.17	-4.856	0.000	0.716
100.00	-18.21	-29.82	0.00	-1647.0	0.00	1647.01	3014.30	1507.15	4208.99	2107.62	49.43	-5.192	0.000	0.788
105.00	-17.05	-29.30	0.00	-1497.9	0.00	1497.90	2893.59	1446.80	3876.87	1941.32	55.05	-5.538	0.000	0.778
110.00	-15.91	-28.79	0.00	-1351.4	0.00	1351.42	2772.88	1386.44	3558.41	1781.85	61.04	-5.922	0.000	0.765
115.00	-14.81	-28.28	0.00	-1207.4	0.00	1207.49	2652.17	1326.09	3253.59	1629.21	67.44	-6.315	0.000	0.747
120.00	-13.74	-27.79	0.00	-1066.0	0.00	1066.08	2531.46	1265.73	2962.42	1483.41	74.26	-6.714	0.000	0.725
125.00	-12.71	-27.31	0.00	-927.12	0.00	927.12	2410.75	1205.38	2684.90	1344.44	81.49	-7.115	0.000	0.695
130.00	-11.72	-26.84	0.00	-790.58	0.00	790.58	2290.04	1145.02	2421.02	1212.31	89.14	-7.516	0.000	0.658
135.00	-10.77	-26.37	0.00	-656.41	0.00	656.41	2169.33	1084.67	2170.80	1087.01	97.20	-7.910	0.000	0.609
140.00	-9.87	-25.92	0.00	-524.54	0.00	524.54	2048.62	1024.31	1934.22	968.55	105.67	-8.289	0.000	0.547
145.00	-9.09	-25.45	0.00	-394.94	0.00	394.94	1927.91	963.96	1711.29	856.92	114.51	-8.638	0.000	0.466
145.25	-9.03	-25.44	0.00	-388.58	0.00	388.58	1921.88	960.94	1700.50	851.51	114.96	-8.656	0.000	0.462
147.00	-7.06	-19.00	0.00	-344.06	0.00	344.06	1879.63	939.81	1625.94	814.18	118.15	-8.774	0.000	0.427
148.50	-6.77	-18.86	0.00	-315.57	0.00	315.57	907.84	453.92	797.93	399.56	120.91	-8.872	0.000	0.799
150.00	-6.57	-18.77	0.00	-287.28	0.00	287.28	895.57	447.78	771.95	386.55	123.70	-8.966	0.000	0.752
155.00	-6.10	-18.40	0.00	-193.45	0.00	193.45	853.23	426.61	687.23	344.13	133.33	-9.457	0.000	0.571
160.00	-2.81	-10.96	0.00	-101.43	0.00	101.43	807.76	403.88	604.95	302.92	143.40	-9.826	0.000	0.339
165.00	-2.57	-10.62	0.00	-46.60	0.00	46.60	747.41	373.70	517.50	259.13	153.78	-10.056	0.000	0.184
167.00	-0.48	-3.60	0.00	-10.53	0.00	10.53	723.26	361.63	484.43	242.57	157.98	-10.112	0.000	0.044
169.00	0.00	-3.45	0.00	-3.34	0.00	3.34	699.12	349.56	452.45	226.56	162.20	-10.124	0.000	0.015

Wind Loading - Shaft

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

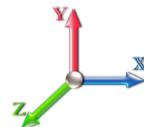
4/18/2022



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	1.03	23.569	25.93	500.98	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	1.03	23.569	25.93	489.61	0.650	0.000	5.00	25.156	16.35	678.3	0.0	1254.9
10.00		1.00	1.03	23.569	25.93	478.24	0.650	0.000	5.00	24.579	15.98	662.7	0.0	1225.9
15.00		1.00	1.03	23.574	25.93	466.92	0.650	0.000	5.00	24.001	15.60	647.3	0.0	1196.9
20.00		1.00	1.08	24.784	27.26	467.09	0.650	0.000	5.00	23.423	15.23	664.1	0.0	1167.8
25.00		1.00	1.13	25.765	28.34	464.35	0.650	0.000	5.00	22.846	14.85	673.4	0.0	1138.8
30.00		1.00	1.16	26.595	29.25	459.69	0.650	0.000	5.00	22.268	14.47	677.5	0.0	1109.8
35.00		1.00	1.19	27.317	30.05	453.65	0.650	0.000	5.00	21.691	14.10	677.9	0.0	1080.8
40.00		1.00	1.22	27.959	30.75	446.56	0.650	0.000	5.00	21.113	13.72	675.3	0.0	1051.7
45.00		1.00	1.25	28.538	31.39	438.65	0.650	0.000	5.00	20.536	13.35	670.4	0.0	1022.7
46.50 Bot - Section 2		1.00	1.25	28.701	31.57	436.13	0.650	0.000	1.50	6.048	3.93	198.6	0.0	301.2
50.00		1.00	1.27	29.065	31.97	430.06	0.650	0.000	3.50	14.169	9.21	471.1	0.0	1398.1
53.25 Top - Section 1		1.00	1.28	29.385	32.32	424.16	0.650	0.000	3.25	12.904	8.39	433.8	0.0	1272.8
55.00		1.00	1.29	29.551	32.51	429.06	0.650	0.000	1.75	6.847	4.45	231.5	0.0	340.8
60.00		1.00	1.31	30.002	33.00	419.49	0.650	0.000	5.00	19.173	12.46	658.1	0.0	954.2
65.00		1.00	1.33	30.422	33.46	409.50	0.650	0.000	5.00	18.596	12.09	647.2	0.0	925.2
70.00		1.00	1.35	30.817	33.90	399.15	0.650	0.000	5.00	18.018	11.71	635.2	0.0	896.2
75.00		1.00	1.36	31.189	34.31	388.47	0.650	0.000	5.00	17.440	11.34	622.3	0.0	867.2
80.00		1.00	1.38	31.541	34.70	377.50	0.650	0.000	5.00	16.863	10.96	608.5	0.0	838.1
85.00		1.00	1.39	31.875	35.06	366.27	0.650	0.000	5.00	16.285	10.59	593.9	0.0	809.1
90.00		1.00	1.41	32.194	35.41	354.81	0.650	0.000	5.00	15.708	10.21	578.5	0.0	780.1
95.00 Bot - Section 3		1.00	1.42	32.498	35.75	343.12	0.650	0.000	5.00	15.130	9.83	562.5	0.0	751.1
100.00 Top - Section 2		1.00	1.43	32.789	36.07	331.25	0.650	0.000	5.00	14.870	9.67	557.8	0.0	1355.7
105.00		1.00	1.45	33.069	36.38	326.59	0.650	0.000	5.00	14.292	9.29	540.7	0.0	608.8
110.00		1.00	1.46	33.337	36.67	314.38	0.650	0.000	5.00	13.715	8.91	523.1	0.0	583.9
115.00		1.00	1.47	33.596	36.96	302.03	0.650	0.000	5.00	13.137	8.54	504.9	0.0	559.1
120.00		1.00	1.48	33.845	37.23	289.52	0.650	0.000	5.00	12.560	8.16	486.3	0.0	534.2
125.00		1.00	1.49	34.087	37.50	276.87	0.650	0.000	5.00	11.982	7.79	467.2	0.0	509.3
130.00		1.00	1.50	34.320	37.75	264.10	0.650	0.000	5.00	11.405	7.41	447.8	0.0	484.4
135.00		1.00	1.51	34.546	38.00	251.20	0.650	0.000	5.00	10.827	7.04	427.9	0.0	459.5
140.00		1.00	1.52	34.765	38.24	238.18	0.650	0.000	5.00	10.249	6.66	407.6	0.0	434.7
145.00		1.00	1.53	34.978	38.48	225.06	0.650	0.000	5.00	9.672	6.29	387.0	0.0	409.8
145.25 Bot - Section 4		1.00	1.53	34.988	38.49	224.40	0.650	0.000	0.25	0.468	0.30	18.7	0.0	19.8
147.00 Appurtenance(s)		1.00	1.53	35.061	38.57	219.78	0.650	0.000	1.75	3.294	2.14	132.1	0.0	207.5
148.50 Top - Section 3		1.00	1.53	35.123	38.64	215.81	0.650	0.000	1.50	2.767	1.80	111.2	0.0	174.2
150.00		1.00	1.54	35.185	38.70	215.64	0.650	0.000	1.50	2.715	1.76	109.3	0.0	58.0
155.00		1.00	1.55	35.386	38.92	202.33	0.650	0.000	5.00	8.675	5.64	351.2	0.0	185.1
160.00 Appurtenance(s)		1.00	1.55	35.582	39.14	188.91	0.650	0.000	5.00	8.098	5.26	329.6	0.0	172.7
165.00		1.00	1.56	35.773	39.35	175.41	0.650	0.000	5.00	7.520	4.89	307.8	0.0	160.3
167.00 Appurtenance(s)		1.00	1.57	35.848	39.43	169.99	0.650	0.000	2.00	2.846	1.85	116.7	0.0	60.6
169.00 Appurtenance(s)		1.00	1.57	35.922	39.51	164.55	0.650	0.000	2.00	2.754	1.79	113.2	0.0	58.6

Totals: 169.00 18,608.1 27,419.7

Discrete Appurtenance Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

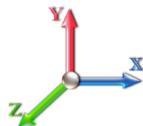
4/18/2022



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations

25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	169.00	DMP65R-BU8DA	1	35.959	39.555	0.65	0.90	11.69	86.13	0.000	1.000	739.98	0.00	739.98
2	169.00	AM-X-CD-16-65-00T-RET	1	35.959	39.555	0.75	1.00	6.01	43.65	0.000	1.000	380.68	0.00	380.68
3	169.00	DMP65R-BU4DA	1	35.959	39.555	0.64	0.90	5.31	61.11	0.000	1.000	335.79	0.00	335.79
4	169.00	DMP65R-BU6DA	1	35.959	39.555	0.65	0.90	8.25	71.46	0.000	1.000	521.97	0.00	521.97
5	169.00	CCI DTMABP7819VG12A	3	35.959	39.555	0.60	0.90	2.06	51.79	0.000	1.000	130.52	0.00	130.52
6	169.00	4449 B5/B12	3	35.959	39.555	0.60	0.90	3.56	191.70	0.000	1.000	225.54	0.00	225.54
7	169.00	KMW	1	35.959	39.555	0.75	1.00	3.75	32.76	0.000	1.000	237.33	0.00	237.33
8	169.00	Andrew SBNH-1D6565C	1	35.959	39.555	0.80	1.00	9.18	54.72	0.000	1.000	580.73	0.00	580.73
9	169.00	RRUS 4478 B14	3	35.959	39.555	0.60	0.90	2.98	160.38	0.000	1.000	188.90	0.00	188.90
10	167.00	HPA-65R-BUU-H6	2	35.959	39.555	0.77	0.90	14.78	91.80	0.000	3.000	935.38	0.00	2806.14
11	167.00	Raycap DC6-48-60-18-8F	3	35.959	39.555	0.90	0.90	3.97	88.56	0.000	3.000	251.19	0.00	753.57
12	167.00	Reinforced T-Arms	3	35.848	39.433	0.56	0.75	23.63	1215.00	0.000	0.000	1490.55	0.00	0.00
13	167.00	HPA-65R-BBU-H8	2	35.959	39.555	0.71	0.90	18.46	122.40	0.000	3.000	1168.14	0.00	3504.42
14	167.00	Ericsson RRUS 32 RRUs	3	35.959	39.555	0.60	0.90	7.00	207.90	0.000	3.000	443.07	0.00	1329.20
15	167.00	SBNHH-1D65A	2	35.959	39.555	0.75	0.90	8.78	60.30	0.000	3.000	555.97	0.00	1667.90
16	167.00	Ericsson RRUS-12 RRUs	6	35.959	39.555	0.60	0.90	11.40	313.20	0.000	3.000	721.27	0.00	2163.82
17	167.00	Ericsson RRUS-E2 RRUs	3	35.959	39.555	0.60	0.90	7.00	162.00	0.000	3.000	443.07	0.00	1329.20
18	167.00	Ericsson RRUS A2	6	35.959	39.555	0.60	0.90	6.73	118.80	0.000	3.000	425.89	0.00	1277.68
19	160.00	4460 B25/B66A	3	35.582	39.140	0.54	0.80	2.64	194.40	0.000	0.000	165.15	0.00	0.00
20	160.00	APXVAALL24_43-U-NA20	3	35.582	39.140	0.58	0.80	35.46	331.56	0.000	0.000	2220.68	0.00	0.00
21	160.00	VV-65A-R1	3	35.582	39.140	0.59	0.80	14.03	79.65	0.000	0.000	878.64	0.00	0.00
22	160.00	AIR 6419 B41	3	35.582	39.140	0.56	0.80	10.97	359.64	0.000	0.000	687.01	0.00	0.00
23	160.00	T-Arm	3	35.582	39.140	0.56	0.75	16.88	1080.00	0.000	0.000	1056.78	0.00	0.00
24	160.00	PRK-SFS-L	1	35.582	39.140	0.75	0.75	12.45	354.60	0.000	0.000	779.67	0.00	0.00
25	160.00	PRK-1245L	1	35.582	39.140	0.75	0.75	7.13	418.42	0.000	0.000	446.20	0.00	0.00
26	160.00	Ericsson KRY 112 144/1	3	35.582	39.140	0.56	0.80	0.69	29.70	0.000	0.000	43.14	0.00	0.00
27	160.00	4449 B71 + B85	3	35.582	39.140	0.54	0.80	3.17	197.64	0.000	0.000	198.38	0.00	0.00
28	147.00	Antel LPA-80080/4CF	2	35.061	38.567	1.36	0.80	7.10	21.60	0.000	0.000	438.08	0.00	0.00
29	147.00	Andrew SBNHH-1D65B	6	35.061	38.567	0.66	0.80	32.19	216.00	0.000	0.000	1986.42	0.00	0.00
30	147.00	ALU 2X60-770 U RRH	3	35.061	38.567	0.54	0.80	5.63	150.12	0.000	0.000	347.29	0.00	0.00
31	147.00	Swedcom SC-E 6014 rev2	4	35.061	38.567	0.78	0.80	10.34	54.00	0.000	0.000	637.83	0.00	0.00
32	147.00	RRH 2X90 AWS	3	35.061	38.567	0.54	0.80	5.63	172.80	0.000	0.000	347.29	0.00	0.00
33	147.00	FD9R6004/2C-3L	6	35.061	38.567	0.80	0.80	1.73	16.74	0.000	0.000	106.63	0.00	0.00
34	147.00	RFS DB-T1-6Z-8AB-0Z	2	35.061	38.567	0.57	0.80	5.45	79.20	0.000	0.000	336.48	0.00	0.00
35	147.00	Low Profile Platform	1	35.061	38.567	1.00	1.00	26.00	1080.00	0.000	0.000	1604.41	0.00	0.00
36	147.00	Alcatel 2x60-1900 RRH	3	35.061	38.567	0.54	0.80	2.43	108.00	0.000	0.000	149.83	0.00	0.00

Totals: 8,077.73

22,205.88

Total Applied Force Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

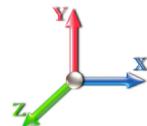
4/18/2022



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		678.29	1421.20	0.00	0.00
10.00		662.71	1392.18	0.00	0.00
15.00		647.29	1363.15	0.00	0.00
20.00		664.12	1334.13	0.00	0.00
25.00		673.38	1305.10	0.00	0.00
30.00		677.50	1276.08	0.00	0.00
35.00		677.86	1247.05	0.00	0.00
40.00		675.31	1218.03	0.00	0.00
45.00		670.43	1189.00	0.00	0.00
46.50		198.58	351.04	0.00	0.00
50.00		471.14	1514.49	0.00	0.00
53.25		433.78	1380.84	0.00	0.00
55.00		231.48	399.04	0.00	0.00
60.00		658.06	1120.53	0.00	0.00
65.00		647.19	1091.50	0.00	0.00
70.00		635.22	1062.48	0.00	0.00
75.00		622.28	1033.45	0.00	0.00
80.00		608.46	1004.43	0.00	0.00
85.00		593.85	975.40	0.00	0.00
90.00		578.51	946.38	0.00	0.00
95.00		562.51	917.35	0.00	0.00
100.00		557.78	1522.03	0.00	0.00
105.00		540.69	775.11	0.00	0.00
110.00		523.05	750.23	0.00	0.00
115.00		504.91	725.35	0.00	0.00
120.00		486.30	700.47	0.00	0.00
125.00		467.25	675.59	0.00	0.00
130.00		447.77	650.71	0.00	0.00
135.00		427.89	625.84	0.00	0.00
140.00		407.63	600.96	0.00	0.00
145.00		387.02	576.08	0.00	0.00
145.25		18.75	28.15	0.00	0.00
147.00	(30) attachments	6086.39	2164.13	0.00	0.00
148.50		111.19	207.06	0.00	0.00
150.00		109.29	90.84	0.00	0.00
155.00		351.20	294.73	0.00	0.00
160.00	(23) attachments	6805.27	3327.90	0.00	0.00
165.00		307.76	207.75	0.00	0.00
167.00	(30) attachments	6551.26	2459.58	0.00	14831.93
169.00	(15) attachments	3454.62	831.32	0.00	3341.44
Totals:		40,813.96	40,756.71	0.00	18,173.37

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

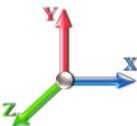
Struct Class: II

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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations

25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	23.569	0.00	1.23
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	23.569	0.00	4.68
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	23.569	0.00	1.23
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	23.569	0.00	4.68
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	23.574	0.00	1.23
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	23.574	0.00	4.68
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	24.784	0.00	1.23
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	24.784	0.00	4.68
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	25.765	0.00	1.23
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	25.765	0.00	4.68
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	26.595	0.00	1.23
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	26.595	0.00	4.68
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	27.317	0.00	1.23
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	27.317	0.00	4.68
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	27.959	0.00	1.23
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	27.959	0.00	4.68
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	28.538	0.00	1.23
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	28.538	0.00	4.68
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.008	0.000	28.701	0.00	0.37
46.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.008	0.000	28.701	0.00	1.40
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.008	0.000	29.065	0.00	0.86
50.00	Step bolts (ladder)	Yes	3.50	0.000	0.00	0.00	0.00	0.008	0.000	29.065	0.00	3.28
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.008	0.000	29.385	0.00	0.80
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.00	0.00	0.00	0.008	0.000	29.385	0.00	3.04
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.008	0.000	29.551	0.00	0.43
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.008	0.000	29.551	0.00	1.64
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	30.002	0.00	1.23
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	30.002	0.00	4.68
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	30.422	0.00	1.23
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	30.422	0.00	4.68
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	30.817	0.00	1.23
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	30.817	0.00	4.68
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	31.189	0.00	1.23
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	31.189	0.00	4.68
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	31.541	0.00	1.23
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	31.541	0.00	4.68
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	31.875	0.00	1.23
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	31.875	0.00	4.68
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	32.194	0.00	1.23
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	32.194	0.00	4.68
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	32.498	0.00	1.23
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	32.498	0.00	4.68
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	32.789	0.00	1.23
100.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	32.789	0.00	4.68
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	33.069	0.00	1.23
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	33.069	0.00	4.68
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	33.337	0.00	1.23

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90



Iterations

25

Wind Load Factor 1.60

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	33.337	0.00	4.68
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	33.596	0.00	1.23
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	33.596	0.00	4.68
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	33.845	0.00	1.23
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	33.845	0.00	4.68
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	34.087	0.00	1.23
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	34.087	0.00	4.68
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.014	0.000	34.320	0.00	1.23
130.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.014	0.000	34.320	0.00	4.68
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	34.546	0.00	1.23
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	34.546	0.00	4.68
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	34.765	0.00	1.23
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	34.765	0.00	4.68
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.016	0.000	34.978	0.00	1.23
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.016	0.000	34.978	0.00	4.68
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.017	0.000	34.988	0.00	0.06
145.25	Step bolts (ladder)	Yes	0.25	0.000	0.00	0.00	0.00	0.017	0.000	34.988	0.00	0.23
147.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.017	0.000	35.061	0.00	0.43
147.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.017	0.000	35.061	0.00	1.64
148.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	35.123	0.00	0.37
148.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	35.123	0.00	1.40
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	35.185	0.00	0.37
150.00	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	35.185	0.00	1.40
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.386	0.00	1.23
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.018	0.000	35.386	0.00	4.68
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	35.582	0.00	1.23
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.020	0.000	35.582	0.00	4.68
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	35.773	0.00	1.23
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.021	0.000	35.773	0.00	4.68
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.022	0.000	35.848	0.00	0.49
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	35.848	0.00	1.87
169.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.023	0.000	35.922	0.00	0.49
169.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	35.922	0.00	1.87
Totals:										0.0	0.0	199.7

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

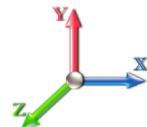
4/18/2022



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Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations

25

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.69	-40.88	0.00	-5159.4	0.00	5159.46	5562.36	2781.18	13652.7	6836.50	0.00	0.000	0.000	0.762
5.00	-39.13	-40.34	0.00	-4955.0	0.00	4955.04	5482.35	2741.17	13146.4	6582.98	0.10	-0.193	0.000	0.760
10.00	-37.60	-39.80	0.00	-4753.3	0.00	4753.36	5400.13	2700.07	12644.0	6331.40	0.41	-0.391	0.000	0.758
15.00	-36.10	-39.27	0.00	-4554.3	0.00	4554.37	5315.71	2657.86	12145.8	6081.95	0.93	-0.595	0.000	0.756
20.00	-34.63	-38.72	0.00	-4358.0	0.00	4358.02	5229.08	2614.54	11652.3	5834.81	1.67	-0.805	0.000	0.754
25.00	-33.19	-38.15	0.00	-4164.4	0.00	4164.43	5140.25	2570.12	11163.7	5590.18	2.63	-1.022	0.000	0.752
30.00	-31.78	-37.58	0.00	-3973.6	0.00	3973.67	5049.20	2524.60	10680.6	5348.24	3.82	-1.245	0.000	0.750
35.00	-30.40	-36.99	0.00	-3785.7	0.00	3785.79	4955.95	2477.97	10203.2	5109.18	5.24	-1.475	0.000	0.747
40.00	-29.05	-36.41	0.00	-3600.8	0.00	3600.83	4860.49	2430.24	9731.91	4873.19	6.92	-1.712	0.000	0.745
45.00	-27.78	-35.78	0.00	-3418.7	0.00	3418.79	4762.82	2381.41	9267.12	4640.45	8.84	-1.958	0.000	0.743
46.50	-27.36	-35.63	0.00	-3365.1	0.00	3365.13	4733.09	2366.54	9129.00	4571.29	9.47	-2.035	0.000	0.742
50.00	-25.75	-35.18	0.00	-3240.4	0.00	3240.43	4662.94	2331.47	8809.20	4411.15	11.03	-2.215	0.000	0.740
53.25	-24.31	-34.75	0.00	-3126.1	0.00	3126.10	4662.03	2331.01	8805.10	4409.10	12.59	-2.387	0.000	0.714
55.00	-23.81	-34.57	0.00	-3065.2	0.00	3065.29	4626.54	2313.27	8646.55	4329.70	13.49	-2.483	0.000	0.713
60.00	-22.57	-33.97	0.00	-2892.4	0.00	2892.43	4523.67	2261.83	8198.57	4105.38	16.22	-2.738	0.000	0.710
65.00	-21.36	-33.37	0.00	-2722.5	0.00	2722.59	4418.66	2209.33	7758.49	3885.01	19.23	-3.002	0.000	0.706
70.00	-20.17	-32.77	0.00	-2555.7	0.00	2555.76	4277.83	2138.92	7269.40	3640.10	22.52	-3.274	0.000	0.707
75.00	-19.02	-32.18	0.00	-2391.9	0.00	2391.91	4137.00	2068.50	6796.24	3403.17	26.10	-3.555	0.000	0.708
80.00	-17.89	-31.61	0.00	-2230.9	0.00	2230.99	3996.18	1998.09	6339.00	3174.21	29.97	-3.846	0.000	0.708
85.00	-16.80	-31.03	0.00	-2072.9	0.00	2072.96	3855.35	1927.67	5897.69	2953.23	34.16	-4.146	0.000	0.707
90.00	-15.73	-30.47	0.00	-1917.7	0.00	1917.79	3714.52	1857.26	5472.29	2740.21	38.66	-4.456	0.000	0.704
95.00	-14.69	-29.92	0.00	-1765.4	0.00	1765.42	3573.69	1786.85	5062.82	2535.17	43.50	-4.776	0.000	0.701
100.00	-13.05	-29.31	0.00	-1615.8	0.00	1615.81	3014.30	1507.15	4208.99	2107.62	48.67	-5.106	0.000	0.771
105.00	-12.15	-28.78	0.00	-1469.2	0.00	1469.25	2893.59	1446.80	3876.87	1941.32	54.19	-5.445	0.000	0.761
110.00	-11.26	-28.26	0.00	-1325.3	0.00	1325.35	2772.88	1386.44	3558.41	1781.85	60.09	-5.823	0.000	0.748
115.00	-10.41	-27.75	0.00	-1184.0	0.00	1184.04	2652.17	1326.09	3253.59	1629.21	66.38	-6.207	0.000	0.731
120.00	-9.58	-27.26	0.00	-1045.2	0.00	1045.27	2531.46	1265.73	2962.42	1483.41	73.08	-6.598	0.000	0.709
125.00	-8.78	-26.78	0.00	-908.98	0.00	908.98	2410.75	1205.38	2684.90	1344.44	80.19	-6.992	0.000	0.680
130.00	-8.01	-26.31	0.00	-775.10	0.00	775.10	2290.04	1145.02	2421.02	1212.31	87.71	-7.385	0.000	0.643
135.00	-7.28	-25.85	0.00	-643.57	0.00	643.57	2169.33	1084.67	2170.80	1087.01	95.63	-7.772	0.000	0.596
140.00	-6.58	-25.40	0.00	-514.33	0.00	514.33	2048.62	1024.31	1934.22	968.55	103.95	-8.143	0.000	0.535
145.00	-5.99	-24.95	0.00	-387.32	0.00	387.32	1927.91	963.96	1711.29	856.92	112.63	-8.486	0.000	0.456
145.25	-5.94	-24.94	0.00	-381.08	0.00	381.08	1921.88	960.94	1700.50	851.51	113.08	-8.503	0.000	0.451
147.00	-4.67	-18.61	0.00	-337.44	0.00	337.44	1879.63	939.81	1625.94	814.18	116.21	-8.619	0.000	0.417
148.50	-4.45	-18.47	0.00	-309.53	0.00	309.53	907.84	453.92	797.93	399.56	118.92	-8.715	0.000	0.781
150.00	-4.28	-18.37	0.00	-281.82	0.00	281.82	895.57	447.78	771.95	386.55	121.66	-8.807	0.000	0.736
155.00	-3.91	-18.01	0.00	-189.95	0.00	189.95	853.23	426.61	687.23	344.13	131.12	-9.289	0.000	0.558
160.00	-1.70	-10.76	0.00	-99.90	0.00	99.90	807.76	403.88	604.95	302.92	141.02	-9.651	0.000	0.333
165.00	-1.52	-10.42	0.00	-46.11	0.00	46.11	747.41	373.70	517.50	259.13	151.21	-9.878	0.000	0.181
167.00	-0.22	-3.55	0.00	-10.43	0.00	10.43	723.26	361.63	484.43	242.57	155.34	-9.934	0.000	0.043
169.00	0.00	-3.45	0.00	-3.34	0.00	3.34	699.12	349.56	452.45	226.56	159.49	-9.946	0.000	0.015

Wind Loading - Shaft

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

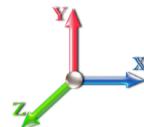
4/18/2022



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load (lb)	Tot Dead Load (lb)
0.00		1.00	1.03	6.262	6.89	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	1.03	6.262	6.89	0.00	1.200	1.242	5.00	26.191	31.43	216.5	467.0	2140.2
10.00		1.00	1.03	6.262	6.89	0.00	1.200	1.331	5.00	25.688	30.83	212.3	489.9	2124.4
15.00		1.00	1.03	6.264	6.89	0.00	1.200	1.386	5.00	25.156	30.19	208.0	498.7	2094.6
20.00		1.00	1.08	6.585	7.24	0.00	1.200	1.427	5.00	24.612	29.53	213.9	501.4	2058.6
25.00		1.00	1.13	6.846	7.53	0.00	1.200	1.459	5.00	24.062	28.87	217.4	500.6	2019.0
30.00		1.00	1.16	7.066	7.77	0.00	1.200	1.486	5.00	23.506	28.21	219.3	497.3	1977.0
35.00		1.00	1.19	7.258	7.98	0.00	1.200	1.509	5.00	22.948	27.54	219.9	492.3	1933.4
40.00		1.00	1.22	7.429	8.17	0.00	1.200	1.529	5.00	22.387	26.86	219.5	486.1	1888.4
45.00		1.00	1.25	7.583	8.34	0.00	1.200	1.547	5.00	21.825	26.19	218.4	478.8	1842.4
46.50 Bot - Section 2		1.00	1.25	7.626	8.39	0.00	1.200	1.552	1.50	6.436	7.72	64.8	142.9	544.5
50.00		1.00	1.27	7.723	8.50	0.00	1.200	1.564	3.50	15.081	18.10	153.7	335.4	2199.6
53.25 Top - Section 1		1.00	1.28	7.808	8.59	0.00	1.200	1.574	3.25	13.756	16.51	141.8	307.8	2004.8
55.00		1.00	1.29	7.852	8.64	0.00	1.200	1.579	1.75	7.307	8.77	75.7	164.7	619.1
60.00		1.00	1.31	7.972	8.77	0.00	1.200	1.592	5.00	20.500	24.60	215.7	461.1	1733.4
65.00		1.00	1.33	8.083	8.89	0.00	1.200	1.605	5.00	19.933	23.92	212.7	451.2	1684.8
70.00		1.00	1.35	8.188	9.01	0.00	1.200	1.617	5.00	19.366	23.24	209.3	440.8	1635.7
75.00		1.00	1.36	8.287	9.12	0.00	1.200	1.628	5.00	18.797	22.56	205.6	430.0	1586.3
80.00		1.00	1.38	8.381	9.22	0.00	1.200	1.639	5.00	18.229	21.87	201.7	418.9	1536.4
85.00		1.00	1.39	8.469	9.32	0.00	1.200	1.649	5.00	17.659	21.19	197.4	407.4	1486.3
90.00		1.00	1.41	8.554	9.41	0.00	1.200	1.658	5.00	17.090	20.51	193.0	395.7	1435.8
95.00 Bot - Section 3		1.00	1.42	8.635	9.50	0.00	1.200	1.667	5.00	16.520	19.82	188.3	383.7	1385.1
100.00 Top - Section 2		1.00	1.43	8.712	9.58	0.00	1.200	1.676	5.00	16.267	19.52	187.1	379.3	2186.9
105.00		1.00	1.45	8.786	9.67	0.00	1.200	1.684	5.00	15.696	18.83	182.0	366.8	1178.6
110.00		1.00	1.46	8.858	9.74	0.00	1.200	1.692	5.00	15.125	18.15	176.8	354.1	1132.7
115.00		1.00	1.47	8.927	9.82	0.00	1.200	1.699	5.00	14.554	17.46	171.5	341.2	1086.7
120.00		1.00	1.48	8.993	9.89	0.00	1.200	1.707	5.00	13.982	16.78	166.0	328.2	1040.4
125.00		1.00	1.49	9.057	9.96	0.00	1.200	1.714	5.00	13.410	16.09	160.3	314.9	994.0
130.00		1.00	1.50	9.119	10.03	0.00	1.200	1.720	5.00	12.838	15.41	154.5	301.5	947.4
135.00		1.00	1.51	9.179	10.10	0.00	1.200	1.727	5.00	12.266	14.72	148.6	288.0	900.7
140.00		1.00	1.52	9.237	10.16	0.00	1.200	1.733	5.00	11.694	14.03	142.6	274.2	853.8
145.00		1.00	1.53	9.294	10.22	0.00	1.200	1.739	5.00	11.121	13.35	136.4	260.4	806.8
145.25 Bot - Section 4		1.00	1.53	9.297	10.23	0.00	1.200	1.740	0.25	0.541	0.65	6.6	13.0	39.4
147.00 Appurtenance(s)		1.00	1.53	9.316	10.25	0.00	1.200	1.742	1.75	3.802	4.56	46.8	90.6	367.2
148.50 Top - Section 3		1.00	1.53	9.332	10.27	0.00	1.200	1.743	1.50	3.203	3.84	39.5	76.4	308.7
150.00		1.00	1.54	9.349	10.28	0.00	1.200	1.745	1.50	3.152	3.78	38.9	75.2	152.4
155.00		1.00	1.55	9.402	10.34	0.00	1.200	1.751	5.00	10.135	12.16	125.8	236.4	483.3
160.00 Appurtenance(s)		1.00	1.55	9.454	10.40	0.00	1.200	1.757	5.00	9.562	11.47	119.3	222.2	452.5
165.00		1.00	1.56	9.505	10.46	0.00	1.200	1.762	5.00	8.989	10.79	112.8	207.9	421.6
167.00 Appurtenance(s)		1.00	1.57	9.525	10.48	0.00	1.200	1.764	2.00	3.434	4.12	43.2	80.8	161.7
169.00 Appurtenance(s)		1.00	1.57	9.545	10.50	0.00	1.200	1.766	2.00	3.343	4.01	42.1	78.5	156.7

Totals: 169.00 6,205.8 49,601.0

Discrete Appurtenance Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

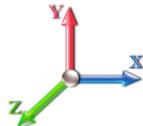
4/18/2022



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations

25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	169.00	DMP65R-BU8DA	1	9.554	10.510	0.67	0.90	13.24	496.91	0.000	1.000	139.12	0.00	139.12
2	169.00	AM-X-CD-16-65-00T-RET	1	9.554	10.510	0.75	1.00	8.14	175.92	0.000	1.000	85.50	0.00	85.50
3	169.00	DMP65R-BU4DA	1	9.554	10.510	0.66	0.90	6.30	397.20	0.000	1.000	66.19	0.00	66.19
4	169.00	DMP65R-BU6DA	1	9.554	10.510	0.67	0.90	9.49	386.70	0.000	1.000	99.78	0.00	99.78
5	169.00	CCI DTMABP7819VG12A	3	9.554	10.510	0.60	0.90	3.47	124.49	0.000	1.000	36.48	0.00	36.48
6	169.00	4449 B5/B12	3	9.554	10.510	0.60	0.90	4.57	376.86	0.000	1.000	47.99	0.00	47.99
7	169.00	KMW	1	9.554	10.510	0.75	1.00	5.17	124.64	0.000	1.000	54.36	0.00	54.36
8	169.00	Andrew SBNH-1D6565C	1	9.554	10.510	0.80	1.00	11.81	215.75	0.000	1.000	124.10	0.00	124.10
9	169.00	RRUS 4478 B14	3	9.554	10.510	0.60	0.90	3.93	311.53	0.000	1.000	41.34	0.00	41.34
10	167.00	HPA-65R-BUU-H6	2	9.554	10.510	0.77	0.90	16.89	624.85	0.000	3.000	177.56	0.00	532.67
11	167.00	Raycap DC6-48-60-18-8F	3	9.554	10.510	0.90	0.90	5.88	252.45	0.000	3.000	61.79	0.00	185.36
12	167.00	Reinforced T-Arms	3	9.525	10.477	0.56	0.75	44.46	2482.59	0.000	0.000	465.85	0.00	0.00
13	167.00	HPA-65R-BBU-H8	2	9.554	10.510	0.71	0.90	20.78	752.62	0.000	3.000	218.40	0.00	655.21
14	167.00	Ericsson RRUS 32 RRUs	3	9.554	10.510	0.60	0.90	7.44	622.42	0.000	3.000	78.24	0.00	234.73
15	167.00	SBNHH-1D65A	2	9.554	10.510	0.75	0.90	10.42	401.23	0.000	3.000	109.49	0.00	328.46
16	167.00	Ericsson RRUS-12 RRUs	6	9.554	10.510	0.60	0.90	14.01	997.49	0.000	3.000	147.26	0.00	441.77
17	167.00	Ericsson RRUS-E2 RRUs	3	9.554	10.510	0.60	0.90	7.01	505.95	0.000	3.000	73.63	0.00	220.89
18	167.00	Ericsson RRUS A2	6	9.554	10.510	0.60	0.90	10.29	329.27	0.000	3.000	108.16	0.00	324.47
19	160.00	4460 B25/B66A	3	9.454	10.400	0.54	0.80	3.44	364.64	0.000	0.000	35.79	0.00	0.00
20	160.00	APXVAALL24_43-U-NA20	3	9.454	10.400	0.58	0.80	38.81	1734.54	0.000	0.000	403.63	0.00	0.00
21	160.00	VV-65A-R1	3	9.454	10.400	0.59	0.80	16.32	632.11	0.000	0.000	169.71	0.00	0.00
22	160.00	AIR 6419 B41	3	9.454	10.400	0.56	0.80	12.78	975.69	0.000	0.000	132.91	0.00	0.00
23	160.00	T-Arm	3	9.454	10.400	0.56	0.75	31.70	2043.13	0.000	0.000	329.62	0.00	0.00
24	160.00	PRK-SFS-L	1	9.454	10.400	0.75	0.75	21.63	1021.41	0.000	0.000	224.99	0.00	0.00
25	160.00	PRK-1245L	1	9.454	10.400	0.75	0.75	14.63	789.45	0.000	0.000	152.19	0.00	0.00
26	160.00	Ericsson KRY 112 144/1	3	9.454	10.400	0.56	0.80	1.49	62.85	0.000	0.000	15.52	0.00	0.00
27	160.00	4449 B71 + B85	3	9.454	10.400	0.54	0.80	4.09	262.67	0.000	0.000	42.53	0.00	0.00
28	147.00	Antel LPA-80080/4CF	2	9.316	10.247	1.36	0.80	9.41	299.04	0.000	0.000	96.48	0.00	0.00
29	147.00	Andrew SBNHH-1D65B	6	9.316	10.247	0.66	0.80	37.68	1503.87	0.000	0.000	386.10	0.00	0.00
30	147.00	ALU 2X60-770 U RRH	3	9.316	10.247	0.54	0.80	6.89	368.83	0.000	0.000	70.65	0.00	0.00
31	147.00	Swedcom SC-E 6014 rev2	4	9.316	10.247	0.78	0.80	15.51	341.98	0.000	0.000	158.90	0.00	0.00
32	147.00	RRH 2X90 AWS	3	9.316	10.247	0.54	0.80	6.89	475.86	0.000	0.000	70.65	0.00	0.00
33	147.00	FD9R6004/2C-3L	6	9.316	10.247	0.80	0.80	3.85	56.58	0.000	0.000	39.47	0.00	0.00
34	147.00	RFS DB-T1-6Z-8AB-0Z	2	9.316	10.247	0.57	0.80	6.44	392.37	0.000	0.000	66.03	0.00	0.00
35	147.00	Low Profile Platform	1	9.316	10.247	1.00	1.00	47.74	2185.02	0.000	0.000	489.18	0.00	0.00
36	147.00	Alcatel 2x60-1900 RRH	3	9.316	10.247	0.54	0.80	3.96	344.91	0.000	0.000	40.62	0.00	0.00

Totals: 23,433.83

5,060.19

Total Applied Force Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

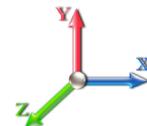
4/18/2022



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		216.51	2385.83	0.00	0.00
10.00		212.35	2373.14	0.00	0.00
15.00		208.00	2345.37	0.00	0.00
20.00		213.94	2310.92	0.00	0.00
25.00		217.43	2272.60	0.00	0.00
30.00		219.26	2231.72	0.00	0.00
35.00		219.86	2188.99	0.00	0.00
40.00		219.53	2144.85	0.00	0.00
45.00		218.45	2099.59	0.00	0.00
46.50		64.79	621.69	0.00	0.00
50.00		153.74	2380.08	0.00	0.00
53.25		141.77	2172.73	0.00	0.00
55.00		75.74	709.59	0.00	0.00
60.00		215.71	1992.49	0.00	0.00
65.00		212.69	1944.44	0.00	0.00
70.00		209.31	1895.90	0.00	0.00
75.00		205.62	1846.92	0.00	0.00
80.00		201.65	1797.55	0.00	0.00
85.00		197.42	1747.83	0.00	0.00
90.00		192.96	1697.80	0.00	0.00
95.00		188.29	1647.47	0.00	0.00
100.00		187.07	2449.69	0.00	0.00
105.00		182.04	1441.70	0.00	0.00
110.00		176.84	1396.20	0.00	0.00
115.00		171.48	1350.49	0.00	0.00
120.00		165.97	1304.58	0.00	0.00
125.00		160.32	1258.48	0.00	0.00
130.00		154.53	1212.21	0.00	0.00
135.00		148.62	1165.78	0.00	0.00
140.00		142.58	1119.18	0.00	0.00
145.00		136.43	1072.45	0.00	0.00
145.25		6.64	52.72	0.00	0.00
147.00	(30) attachments	1464.83	6428.72	0.00	0.00
148.50		39.46	365.74	0.00	0.00
150.00		38.89	209.55	0.00	0.00
155.00		125.78	673.88	0.00	0.00
160.00	(23) attachments	1626.21	8529.83	0.00	0.00
165.00		112.78	529.88	0.00	0.00
167.00	(30) attachments	1483.55	7173.92	0.00	2923.55
169.00	(15) attachments	736.98	2810.13	0.00	694.86
Totals:		11,266.02	81,352.63	0.00	3,618.41

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 24

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations

25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	1.19	0.00	0.006	0.000	6.262	0.00	12.93
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	6.262	0.00	18.85
10.00	Safety Cable	Yes	5.00	0.000	0.38	1.27	0.00	0.006	0.000	6.262	0.00	14.46
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	6.262	0.00	20.46
15.00	Safety Cable	Yes	5.00	0.000	0.38	1.31	0.00	0.007	0.000	6.264	0.00	15.46
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	6.264	0.00	21.51
20.00	Safety Cable	Yes	5.00	0.000	0.38	1.35	0.00	0.007	0.000	6.585	0.00	16.21
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	6.585	0.00	22.31
25.00	Safety Cable	Yes	5.00	0.000	0.38	1.37	0.00	0.007	0.000	6.846	0.00	16.83
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	6.846	0.00	22.95
30.00	Safety Cable	Yes	5.00	0.000	0.38	1.40	0.00	0.007	0.000	7.066	0.00	17.35
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	7.066	0.00	23.50
35.00	Safety Cable	Yes	5.00	0.000	0.38	1.42	0.00	0.007	0.000	7.258	0.00	17.80
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	7.258	0.00	23.98
40.00	Safety Cable	Yes	5.00	0.000	0.38	1.43	0.00	0.007	0.000	7.429	0.00	18.21
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	7.429	0.00	24.40
45.00	Safety Cable	Yes	5.00	0.000	0.38	1.45	0.00	0.008	0.000	7.583	0.00	18.58
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	7.583	0.00	24.79
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.44	0.00	0.008	0.000	7.626	0.00	5.60
46.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.008	0.000	7.626	0.00	7.47
50.00	Safety Cable	Yes	3.50	0.000	0.38	1.02	0.00	0.008	0.000	7.723	0.00	13.24
50.00	Step bolts (ladder)	Yes	3.50	0.000	0.00	0.00	0.00	0.008	0.000	7.723	0.00	17.60
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.96	0.00	0.008	0.000	7.808	0.00	12.43
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.00	0.00	0.00	0.008	0.000	7.808	0.00	16.48
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.52	0.00	0.008	0.000	7.852	0.00	6.73
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.008	0.000	7.852	0.00	8.91
60.00	Safety Cable	Yes	5.00	0.000	0.38	1.49	0.00	0.008	0.000	7.972	0.00	19.51
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	7.972	0.00	25.76
65.00	Safety Cable	Yes	5.00	0.000	0.38	1.50	0.00	0.009	0.000	8.083	0.00	19.78
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	8.083	0.00	26.04
70.00	Safety Cable	Yes	5.00	0.000	0.38	1.51	0.00	0.009	0.000	8.188	0.00	20.03
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	8.188	0.00	26.31
75.00	Safety Cable	Yes	5.00	0.000	0.38	1.52	0.00	0.009	0.000	8.287	0.00	20.27
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	8.287	0.00	26.56
80.00	Safety Cable	Yes	5.00	0.000	0.38	1.52	0.00	0.009	0.000	8.381	0.00	20.49
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	8.381	0.00	26.79
85.00	Safety Cable	Yes	5.00	0.000	0.38	1.53	0.00	0.010	0.000	8.469	0.00	20.71
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	8.469	0.00	27.02
90.00	Safety Cable	Yes	5.00	0.000	0.38	1.54	0.00	0.010	0.000	8.554	0.00	20.91
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	8.554	0.00	27.23
95.00	Safety Cable	Yes	5.00	0.000	0.38	1.55	0.00	0.010	0.000	8.635	0.00	21.11
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	8.635	0.00	27.44
100.00	Safety Cable	Yes	5.00	0.000	0.38	1.55	0.00	0.011	0.000	8.712	0.00	21.30
100.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	8.712	0.00	27.63
105.00	Safety Cable	Yes	5.00	0.000	0.38	1.56	0.00	0.011	0.000	8.786	0.00	21.48
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	8.786	0.00	27.82
110.00	Safety Cable	Yes	5.00	0.000	0.38	1.57	0.00	0.012	0.000	8.858	0.00	21.65

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

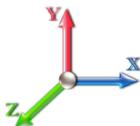
Struct Class: II

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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations

25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	8.858	0.00	28.00
115.00	Safety Cable	Yes	5.00	0.000	0.38	1.57	0.00	0.012	0.000	8.927	0.00	21.82
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	8.927	0.00	28.18
120.00	Safety Cable	Yes	5.00	0.000	0.38	1.58	0.00	0.013	0.000	8.993	0.00	21.98
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	8.993	0.00	28.34
125.00	Safety Cable	Yes	5.00	0.000	0.38	1.59	0.00	0.013	0.000	9.057	0.00	22.14
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	9.057	0.00	28.51
130.00	Safety Cable	Yes	5.00	0.000	0.38	1.59	0.00	0.014	0.000	9.119	0.00	22.29
130.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.014	0.000	9.119	0.00	28.67
135.00	Safety Cable	Yes	5.00	0.000	0.38	1.60	0.00	0.015	0.000	9.179	0.00	22.43
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	9.179	0.00	28.82
140.00	Safety Cable	Yes	5.00	0.000	0.38	1.60	0.00	0.015	0.000	9.237	0.00	22.57
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	9.237	0.00	28.97
145.00	Safety Cable	Yes	5.00	0.000	0.38	1.61	0.00	0.016	0.000	9.294	0.00	22.71
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.016	0.000	9.294	0.00	29.11
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.08	0.00	0.017	0.000	9.297	0.00	1.14
145.25	Step bolts (ladder)	Yes	0.25	0.000	0.00	0.00	0.00	0.017	0.000	9.297	0.00	1.46
147.00	Safety Cable	Yes	1.75	0.000	0.38	0.56	0.00	0.017	0.000	9.316	0.00	7.97
147.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.017	0.000	9.316	0.00	10.21
148.50	Safety Cable	Yes	1.50	0.000	0.38	0.48	0.00	0.017	0.000	9.332	0.00	6.84
148.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	9.332	0.00	8.76
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.48	0.00	0.017	0.000	9.349	0.00	6.85
150.00	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	9.349	0.00	8.78
155.00	Safety Cable	Yes	5.00	0.000	0.38	1.62	0.00	0.018	0.000	9.402	0.00	22.98
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.018	0.000	9.402	0.00	29.39
160.00	Safety Cable	Yes	5.00	0.000	0.38	1.62	0.00	0.020	0.000	9.454	0.00	23.11
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.020	0.000	9.454	0.00	29.52
165.00	Safety Cable	Yes	5.00	0.000	0.38	1.63	0.00	0.021	0.000	9.505	0.00	23.23
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.021	0.000	9.505	0.00	29.65
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.022	0.000	9.525	0.00	9.31
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	9.525	0.00	11.88
169.00	Safety Cable	Yes	2.00	0.000	0.38	0.65	0.00	0.023	0.000	9.545	0.00	9.33
169.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	9.545	0.00	11.90
Totals:										0.0	1,571.7	

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

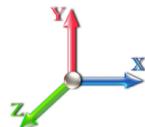
4/18/2022



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 25

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-81.35	-11.30	0.00	-1415.9	0.00	1415.99	5562.36	2781.18	13652.7	6836.50	0.00	0.000	0.000	0.222
5.00	-78.95	-11.16	0.00	-1359.4	0.00	1359.47	5482.35	2741.17	13146.4	6582.98	0.03	-0.053	0.000	0.221
10.00	-76.57	-11.02	0.00	-1303.6	0.00	1303.67	5400.13	2700.07	12644.0	6331.40	0.11	-0.107	0.000	0.220
15.00	-74.21	-10.88	0.00	-1248.5	0.00	1248.58	5315.71	2657.86	12145.8	6081.95	0.26	-0.163	0.000	0.219
20.00	-71.89	-10.73	0.00	-1194.1	0.00	1194.19	5229.08	2614.54	11652.3	5834.81	0.46	-0.221	0.000	0.218
25.00	-69.61	-10.58	0.00	-1140.5	0.00	1140.54	5140.25	2570.12	11163.7	5590.18	0.72	-0.280	0.000	0.218
30.00	-67.37	-10.42	0.00	-1087.6	0.00	1087.66	5049.20	2524.60	10680.6	5348.24	1.05	-0.341	0.000	0.217
35.00	-65.17	-10.26	0.00	-1035.5	0.00	1035.57	4955.95	2477.97	10203.2	5109.18	1.44	-0.404	0.000	0.216
40.00	-63.01	-10.09	0.00	-984.29	0.00	984.29	4860.49	2430.24	9731.91	4873.19	1.90	-0.469	0.000	0.215
45.00	-60.91	-9.90	0.00	-933.83	0.00	933.83	4762.82	2381.41	9267.12	4640.45	2.42	-0.536	0.000	0.214
46.50	-60.28	-9.87	0.00	-918.98	0.00	918.98	4733.09	2366.54	9129.00	4571.29	2.60	-0.557	0.000	0.214
50.00	-57.89	-9.74	0.00	-884.44	0.00	884.44	4662.94	2331.47	8809.20	4411.15	3.02	-0.607	0.000	0.213
53.25	-55.72	-9.61	0.00	-852.78	0.00	852.78	4662.03	2331.01	8805.10	4409.10	3.45	-0.653	0.000	0.205
55.00	-55.00	-9.57	0.00	-835.97	0.00	835.97	4626.54	2313.27	8646.55	4329.70	3.70	-0.679	0.000	0.205
60.00	-53.00	-9.40	0.00	-788.11	0.00	788.11	4523.67	2261.83	8198.57	4105.38	4.44	-0.749	0.000	0.204
65.00	-51.05	-9.22	0.00	-741.13	0.00	741.13	4418.66	2209.33	7758.49	3885.01	5.27	-0.821	0.000	0.202
70.00	-49.14	-9.05	0.00	-695.02	0.00	695.02	4277.83	2138.92	7269.40	3640.10	6.17	-0.895	0.000	0.202
75.00	-47.29	-8.88	0.00	-649.78	0.00	649.78	4137.00	2068.50	6796.24	3403.17	7.15	-0.971	0.000	0.202
80.00	-45.48	-8.71	0.00	-605.39	0.00	605.39	3996.18	1998.09	6339.00	3174.21	8.21	-1.050	0.000	0.202
85.00	-43.72	-8.54	0.00	-561.85	0.00	561.85	3855.35	1927.67	5897.69	2953.23	9.35	-1.132	0.000	0.202
90.00	-42.02	-8.38	0.00	-519.15	0.00	519.15	3714.52	1857.26	5472.29	2740.21	10.58	-1.216	0.000	0.201
95.00	-40.36	-8.21	0.00	-477.28	0.00	477.28	3573.69	1786.85	5062.82	2535.17	11.90	-1.302	0.000	0.200
100.00	-37.91	-8.03	0.00	-436.22	0.00	436.22	3014.30	1507.15	4208.99	2107.62	13.31	-1.391	0.000	0.220
105.00	-36.46	-7.87	0.00	-396.08	0.00	396.08	2893.59	1446.80	3876.87	1941.32	14.82	-1.483	0.000	0.217
110.00	-35.05	-7.72	0.00	-356.72	0.00	356.72	2772.88	1386.44	3558.41	1781.85	16.42	-1.585	0.000	0.213
115.00	-33.69	-7.57	0.00	-318.12	0.00	318.12	2652.17	1326.09	3253.59	1629.21	18.14	-1.688	0.000	0.208
120.00	-32.38	-7.43	0.00	-280.27	0.00	280.27	2531.46	1265.73	2962.42	1483.41	19.96	-1.793	0.000	0.202
125.00	-31.11	-7.28	0.00	-243.14	0.00	243.14	2410.75	1205.38	2684.90	1344.44	21.90	-1.898	0.000	0.194
130.00	-29.89	-7.14	0.00	-206.74	0.00	206.74	2290.04	1145.02	2421.02	1212.31	23.94	-2.003	0.000	0.184
135.00	-28.72	-7.00	0.00	-171.03	0.00	171.03	2169.33	1084.67	2170.80	1087.01	26.10	-2.106	0.000	0.171
140.00	-27.60	-6.86	0.00	-136.03	0.00	136.03	2048.62	1024.31	1934.22	968.55	28.36	-2.205	0.000	0.154
145.00	-26.53	-6.70	0.00	-101.73	0.00	101.73	1927.91	963.96	1711.29	856.92	30.72	-2.295	0.000	0.133
145.25	-26.47	-6.70	0.00	-100.05	0.00	100.05	1921.88	960.94	1700.50	851.51	30.84	-2.300	0.000	0.131
147.00	-20.11	-4.99	0.00	-88.32	0.00	88.32	1879.63	939.81	1625.94	814.18	31.68	-2.330	0.000	0.119
148.50	-19.74	-4.94	0.00	-80.83	0.00	80.83	907.84	453.92	797.93	399.56	32.42	-2.355	0.000	0.224
150.00	-19.53	-4.92	0.00	-73.42	0.00	73.42	895.57	447.78	771.95	386.55	33.16	-2.379	0.000	0.212
155.00	-18.85	-4.81	0.00	-48.80	0.00	48.80	853.23	426.61	687.23	344.13	35.73	-2.504	0.000	0.164
160.00	-10.40	-2.81	0.00	-24.78	0.00	24.78	807.76	403.88	604.95	302.92	38.40	-2.596	0.000	0.095
165.00	-9.87	-2.68	0.00	-10.71	0.00	10.71	747.41	373.70	517.50	259.13	41.15	-2.651	0.000	0.055
167.00	-2.77	-0.87	0.00	-2.43	0.00	2.43	723.26	361.63	484.43	242.57	42.27	-2.664	0.000	0.014
169.00	0.00	-0.74	0.00	-0.69	0.00	0.69	699.12	349.56	452.45	226.56	43.38	-2.666	0.000	0.003

Seismic Segment Forces (Factored)

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.2D + 1.0E



Gust Response Factor	1.10	Sds	0.20	Iterations	23
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA	0.03

Ss 0.19

S1 0.06

Seismic Importance Factor 1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1394.3	0.00	0.03	0.02	25.58	
10.00		1362.1	0.01	0.05	0.03	36.83	
15.00		1329.8	0.01	0.06	0.04	42.01	
20.00		1297.6	0.03	0.07	0.04	44.18	
25.00		1265.3	0.04	0.07	0.04	44.88	
30.00		1233.1	0.06	0.07	0.04	44.92	
35.00		1200.8	0.08	0.07	0.04	44.72	
40.00		1168.6	0.11	0.07	0.04	44.45	
45.00		1136.3	0.13	0.07	0.03	44.11	
46.50	Bot - Section 2	334.62	0.14	0.07	0.03	13.06	
50.00		1553.4	0.17	0.07	0.03	61.24	
53.25	Top - Section 1	1414.1	0.19	0.06	0.02	55.99	
55.00		378.71	0.20	0.06	0.02	14.98	
60.00		1060.2	0.24	0.06	0.02	41.18	
65.00		1028.0	0.28	0.05	0.01	37.73	
70.00		995.77	0.32	0.04	0.01	32.39	
75.00		963.52	0.37	0.03	0.01	24.83	
80.00		931.27	0.42	0.01	0.01	15.04	
85.00		899.02	0.48	-0.01	0.01	3.68	
90.00		866.77	0.54	-0.03	0.01	-7.92	
95.00	Bot - Section 3	834.52	0.60	-0.05	0.01	-18.10	
100.00	Top - Section 2	1506.3	0.66	-0.07	0.02	-47.88	
105.00		676.47	0.73	-0.10	0.04	-25.85	
110.00		648.82	0.80	-0.11	0.05	-26.25	
115.00		621.18	0.88	-0.12	0.08	-23.86	
120.00		593.54	0.95	-0.12	0.11	-19.06	
125.00		565.89	1.03	-0.10	0.15	-12.28	
130.00		538.25	1.12	-0.06	0.20	-3.88	
135.00		510.61	1.21	0.01	0.26	5.79	
140.00		482.96	1.30	0.12	0.33	16.40	
145.00		455.32	1.39	0.27	0.42	27.64	
145.25	Bot - Section 4	22.04	1.40	0.28	0.43	1.37	
147.00	Appurtenance(s)	2339.9	1.43	0.34	0.46	169.81	
148.50	Top - Section 3	193.54	1.46	0.41	0.50	15.85	
150.00		64.41	1.49	0.47	0.53	5.90	
155.00		205.71	1.59	0.75	0.66	26.10	
160.00	Appurtenance(s)	3575.9	1.69	1.10	0.81	595.17	
165.00		178.07	1.80	1.55	0.98	37.48	
167.00	Appurtenance(s)	2711.7	1.85	1.75	1.06	621.99	
169.00	Appurtenance(s)	902.59	1.89	1.98	1.14	224.73	
Totals:		39,441.6			2,235.0		Total Wind: 40,814.0

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

4/18/2022



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Load Case: 1.2D + 1.0E



Gust Response Factor	1.10	Sds	0.20	Iterations	23
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA	0.03

Ss 0.19
S1 0.06

Seismic Importance Factor 1.00

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.34	-2.43	0.00	-327.04	0.00	327.04	5562.36	2781.18	13652.7	6836.50	0.00	0.00	0.058	
5.00	-52.45	-2.41	0.00	-314.92	0.00	314.92	5482.35	2741.17	13146.4	6582.98	0.01	-0.01	0.057	
10.00	-50.59	-2.38	0.00	-302.86	0.00	302.86	5400.13	2700.07	12644.0	6331.40	0.03	-0.02	0.057	
15.00	-48.77	-2.35	0.00	-290.94	0.00	290.94	5315.71	2657.86	12145.8	6081.95	0.06	-0.04	0.057	
20.00	-46.99	-2.32	0.00	-279.17	0.00	279.17	5229.08	2614.54	11652.3	5834.81	0.11	-0.05	0.057	
25.00	-45.25	-2.28	0.00	-267.58	0.00	267.58	5140.25	2570.12	11163.7	5590.18	0.17	-0.07	0.057	
30.00	-43.55	-2.25	0.00	-256.17	0.00	256.17	5049.20	2524.60	10680.6	5348.24	0.24	-0.08	0.057	
35.00	-41.89	-2.21	0.00	-244.93	0.00	244.93	4955.95	2477.97	10203.2	5109.18	0.33	-0.09	0.056	
40.00	-40.26	-2.17	0.00	-233.88	0.00	233.88	4860.49	2430.24	9731.91	4873.19	0.44	-0.11	0.056	
45.00	-38.68	-2.13	0.00	-223.00	0.00	223.00	4762.82	2381.41	9267.12	4640.45	0.57	-0.13	0.056	
46.50	-38.21	-2.13	0.00	-219.80	0.00	219.80	4733.09	2366.54	9129.00	4571.29	0.61	-0.13	0.056	
50.00	-36.19	-2.07	0.00	-212.36	0.00	212.36	4662.94	2331.47	8809.20	4411.15	0.71	-0.14	0.056	
53.25	-34.35	-2.01	0.00	-205.64	0.00	205.64	4662.03	2331.01	8805.10	4409.10	0.81	-0.15	0.054	
55.00	-33.81	-2.00	0.00	-202.12	0.00	202.12	4626.54	2313.27	8646.55	4329.70	0.86	-0.16	0.054	
60.00	-32.32	-1.97	0.00	-192.11	0.00	192.11	4523.67	2261.83	8198.57	4105.38	1.04	-0.18	0.054	
65.00	-30.86	-1.93	0.00	-182.28	0.00	182.28	4418.66	2209.33	7758.49	3885.01	1.24	-0.19	0.054	
70.00	-29.45	-1.91	0.00	-172.61	0.00	172.61	4277.83	2138.92	7269.40	3640.10	1.45	-0.21	0.054	
75.00	-28.07	-1.89	0.00	-163.09	0.00	163.09	4137.00	2068.50	6796.24	3403.17	1.68	-0.23	0.055	
80.00	-26.73	-1.87	0.00	-153.66	0.00	153.66	3996.18	1998.09	6339.00	3174.21	1.94	-0.25	0.055	
85.00	-25.43	-1.87	0.00	-144.29	0.00	144.29	3855.35	1927.67	5897.69	2953.23	2.21	-0.27	0.055	
90.00	-24.17	-1.88	0.00	-134.92	0.00	134.92	3714.52	1857.26	5472.29	2740.21	2.51	-0.29	0.056	
95.00	-22.94	-1.88	0.00	-125.54	0.00	125.54	3573.69	1786.85	5062.82	2535.17	2.83	-0.32	0.056	
100.00	-20.91	-1.88	0.00	-116.14	0.00	116.14	3014.30	1507.15	4208.99	2107.62	3.17	-0.34	0.062	
105.00	-19.88	-1.88	0.00	-106.76	0.00	106.76	2893.59	1446.80	3876.87	1941.32	3.54	-0.37	0.062	
110.00	-18.88	-1.88	0.00	-97.36	0.00	97.36	2772.88	1386.44	3558.41	1781.85	3.94	-0.39	0.061	
115.00	-17.91	-1.88	0.00	-87.95	0.00	87.95	2652.17	1326.09	3253.59	1629.21	4.37	-0.42	0.061	
120.00	-16.97	-1.89	0.00	-78.53	0.00	78.53	2531.46	1265.73	2962.42	1483.41	4.82	-0.45	0.060	
125.00	-16.07	-1.89	0.00	-69.11	0.00	69.11	2410.75	1205.38	2684.90	1344.44	5.31	-0.48	0.058	
130.00	-15.20	-1.89	0.00	-59.67	0.00	59.67	2290.04	1145.02	2421.02	1212.31	5.83	-0.51	0.056	
135.00	-14.37	-1.88	0.00	-50.23	0.00	50.23	2169.33	1084.67	2170.80	1087.01	6.38	-0.54	0.053	
140.00	-13.57	-1.86	0.00	-40.83	0.00	40.83	2048.62	1024.31	1934.22	968.55	6.96	-0.57	0.049	
145.00	-12.80	-1.83	0.00	-31.51	0.00	31.51	1927.91	963.96	1711.29	856.92	7.58	-0.60	0.043	
145.25	-12.76	-1.83	0.00	-31.05	0.00	31.05	1921.88	960.94	1700.50	851.51	7.61	-0.60	0.043	
147.00	-9.88	-1.63	0.00	-27.85	0.00	27.85	1879.63	939.81	1625.94	814.18	7.83	-0.61	0.039	
148.50	-9.60	-1.62	0.00	-25.40	0.00	25.40	907.84	453.92	797.93	399.56	8.02	-0.62	0.074	
150.00	-9.48	-1.61	0.00	-22.97	0.00	22.97	895.57	447.78	771.95	386.55	8.21	-0.62	0.070	
155.00	-9.08	-1.59	0.00	-14.92	0.00	14.92	853.23	426.61	687.23	344.13	8.89	-0.66	0.054	
160.00	-4.65	-0.94	0.00	-6.98	0.00	6.98	807.76	403.88	604.95	302.92	9.60	-0.69	0.029	
165.00	-4.38	-0.90	0.00	-2.28	0.00	2.28	747.41	373.70	517.50	259.13	10.33	-0.70	0.015	
167.00	-1.11	-0.24	0.00	-0.48	0.00	0.48	723.26	361.63	484.43	242.57	10.63	-0.71	0.003	
169.00	0.00	-0.22	0.00	0.00	0.00	0.00	699.12	349.56	452.45	226.56	10.92	-0.71	0.000	

Seismic Segment Forces (Factored)

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

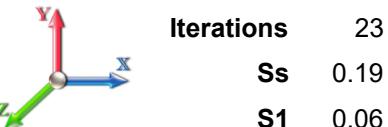
Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

4/18/2022



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Load Case: 0.9D + 1.0E



Gust Response Factor	1.10	Sds	0.20	Iterations	23
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA	0.03

Ss 0.19

S1 0.06

Seismic Importance Factor 1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1394.3	0.00	0.03	0.02	25.58	
10.00		1362.1	0.01	0.05	0.03	36.83	
15.00		1329.8	0.01	0.06	0.04	42.01	
20.00		1297.6	0.03	0.07	0.04	44.18	
25.00		1265.3	0.04	0.07	0.04	44.88	
30.00		1233.1	0.06	0.07	0.04	44.92	
35.00		1200.8	0.08	0.07	0.04	44.72	
40.00		1168.6	0.11	0.07	0.04	44.45	
45.00		1136.3	0.13	0.07	0.03	44.11	
46.50	Bot - Section 2	334.62	0.14	0.07	0.03	13.06	
50.00		1553.4	0.17	0.07	0.03	61.24	
53.25	Top - Section 1	1414.1	0.19	0.06	0.02	55.99	
55.00		378.71	0.20	0.06	0.02	14.98	
60.00		1060.2	0.24	0.06	0.02	41.18	
65.00		1028.0	0.28	0.05	0.01	37.73	
70.00		995.77	0.32	0.04	0.01	32.39	
75.00		963.52	0.37	0.03	0.01	24.83	
80.00		931.27	0.42	0.01	0.01	15.04	
85.00		899.02	0.48	-0.01	0.01	3.68	
90.00		866.77	0.54	-0.03	0.01	-7.92	
95.00	Bot - Section 3	834.52	0.60	-0.05	0.01	-18.10	
100.00	Top - Section 2	1506.3	0.66	-0.07	0.02	-47.88	
105.00		676.47	0.73	-0.10	0.04	-25.85	
110.00		648.82	0.80	-0.11	0.05	-26.25	
115.00		621.18	0.88	-0.12	0.08	-23.86	
120.00		593.54	0.95	-0.12	0.11	-19.06	
125.00		565.89	1.03	-0.10	0.15	-12.28	
130.00		538.25	1.12	-0.06	0.20	-3.88	
135.00		510.61	1.21	0.01	0.26	5.79	
140.00		482.96	1.30	0.12	0.33	16.40	
145.00		455.32	1.39	0.27	0.42	27.64	
145.25	Bot - Section 4	22.04	1.40	0.28	0.43	1.37	
147.00	Appurtenance(s)	2339.9	1.43	0.34	0.46	169.81	
148.50	Top - Section 3	193.54	1.46	0.41	0.50	15.85	
150.00		64.41	1.49	0.47	0.53	5.90	
155.00		205.71	1.59	0.75	0.66	26.10	
160.00	Appurtenance(s)	3575.9	1.69	1.10	0.81	595.17	
165.00		178.07	1.80	1.55	0.98	37.48	
167.00	Appurtenance(s)	2711.7	1.85	1.75	1.06	621.99	
169.00	Appurtenance(s)	902.59	1.89	1.98	1.14	224.73	
	Totals:	39,441.6			2,235.0		Total Wind: 40,814.0

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

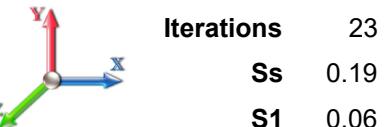
Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

4/18/2022



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Load Case: 0.9D + 1.0E



Gust Response Factor	1.10	Sds	0.20	Iterations	23
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA	0.03



Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA	0.03	Seismic Importance Factor	1.00
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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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.76	-2.42	0.00	-322.72	0.00	322.72	5562.36	2781.18	13652.7	6836.50	0.00	0.00	0.055	
5.00	-39.33	-2.41	0.00	-310.60	0.00	310.60	5482.35	2741.17	13146.4	6582.98	0.01	-0.01	0.054	
10.00	-37.94	-2.38	0.00	-298.57	0.00	298.57	5400.13	2700.07	12644.0	6331.40	0.03	-0.02	0.054	
15.00	-36.58	-2.34	0.00	-286.68	0.00	286.68	5315.71	2657.86	12145.8	6081.95	0.06	-0.04	0.054	
20.00	-35.24	-2.31	0.00	-274.97	0.00	274.97	5229.08	2614.54	11652.3	5834.81	0.10	-0.05	0.054	
25.00	-33.94	-2.27	0.00	-263.44	0.00	263.44	5140.25	2570.12	11163.7	5590.18	0.16	-0.06	0.054	
30.00	-32.66	-2.23	0.00	-252.09	0.00	252.09	5049.20	2524.60	10680.6	5348.24	0.24	-0.08	0.054	
35.00	-31.41	-2.19	0.00	-240.95	0.00	240.95	4955.95	2477.97	10203.2	5109.18	0.33	-0.09	0.053	
40.00	-30.20	-2.15	0.00	-229.99	0.00	229.99	4860.49	2430.24	9731.91	4873.19	0.44	-0.11	0.053	
45.00	-29.01	-2.11	0.00	-219.22	0.00	219.22	4762.82	2381.41	9267.12	4640.45	0.56	-0.12	0.053	
46.50	-28.65	-2.10	0.00	-216.05	0.00	216.05	4733.09	2366.54	9129.00	4571.29	0.60	-0.13	0.053	
50.00	-27.14	-2.04	0.00	-208.70	0.00	208.70	4662.94	2331.47	8809.20	4411.15	0.70	-0.14	0.053	
53.25	-25.76	-1.99	0.00	-202.06	0.00	202.06	4662.03	2331.01	8805.10	4409.10	0.79	-0.15	0.051	
55.00	-25.36	-1.98	0.00	-198.58	0.00	198.58	4626.54	2313.27	8646.55	4329.70	0.85	-0.16	0.051	
60.00	-24.24	-1.94	0.00	-188.70	0.00	188.70	4523.67	2261.83	8198.57	4105.38	1.03	-0.17	0.051	
65.00	-23.15	-1.90	0.00	-179.01	0.00	179.01	4418.66	2209.33	7758.49	3885.01	1.22	-0.19	0.051	
70.00	-22.08	-1.88	0.00	-169.48	0.00	169.48	4277.83	2138.92	7269.40	3640.10	1.43	-0.21	0.052	
75.00	-21.05	-1.85	0.00	-160.11	0.00	160.11	4137.00	2068.50	6796.24	3403.17	1.66	-0.23	0.052	
80.00	-20.04	-1.84	0.00	-150.84	0.00	150.84	3996.18	1998.09	6339.00	3174.21	1.91	-0.25	0.053	
85.00	-19.07	-1.84	0.00	-141.63	0.00	141.63	3855.35	1927.67	5897.69	2953.23	2.18	-0.27	0.053	
90.00	-18.12	-1.84	0.00	-132.43	0.00	132.43	3714.52	1857.26	5472.29	2740.21	2.47	-0.29	0.053	
95.00	-17.20	-1.84	0.00	-123.21	0.00	123.21	3573.69	1786.85	5062.82	2535.17	2.78	-0.31	0.053	
100.00	-15.68	-1.84	0.00	-113.99	0.00	113.99	3014.30	1507.15	4208.99	2107.62	3.12	-0.33	0.059	
105.00	-14.90	-1.84	0.00	-104.77	0.00	104.77	2893.59	1446.80	3876.87	1941.32	3.49	-0.36	0.059	
110.00	-14.15	-1.85	0.00	-95.55	0.00	95.55	2772.88	1386.44	3558.41	1781.85	3.88	-0.39	0.059	
115.00	-13.43	-1.85	0.00	-86.32	0.00	86.32	2652.17	1326.09	3253.59	1629.21	4.30	-0.41	0.058	
120.00	-12.73	-1.85	0.00	-77.08	0.00	77.08	2531.46	1265.73	2962.42	1483.41	4.75	-0.44	0.057	
125.00	-12.05	-1.85	0.00	-67.83	0.00	67.83	2410.75	1205.38	2684.90	1344.44	5.22	-0.47	0.055	
130.00	-11.40	-1.85	0.00	-58.58	0.00	58.58	2290.04	1145.02	2421.02	1212.31	5.73	-0.50	0.053	
135.00	-10.77	-1.84	0.00	-49.32	0.00	49.32	2169.33	1084.67	2170.80	1087.01	6.28	-0.53	0.050	
140.00	-10.17	-1.83	0.00	-40.10	0.00	40.10	2048.62	1024.31	1934.22	968.55	6.85	-0.56	0.046	
145.00	-9.59	-1.80	0.00	-30.96	0.00	30.96	1927.91	963.96	1711.29	856.92	7.45	-0.59	0.041	
145.25	-9.57	-1.80	0.00	-30.51	0.00	30.51	1921.88	960.94	1700.50	851.51	7.48	-0.59	0.041	
147.00	-7.40	-1.60	0.00	-27.37	0.00	27.37	1879.63	939.81	1625.94	814.18	7.70	-0.60	0.038	
148.50	-7.20	-1.59	0.00	-24.96	0.00	24.96	907.84	453.92	797.93	399.56	7.88	-0.60	0.070	
150.00	-7.10	-1.58	0.00	-22.58	0.00	22.58	895.57	447.78	771.95	386.55	8.08	-0.61	0.066	
155.00	-6.81	-1.56	0.00	-14.66	0.00	14.66	853.23	426.61	687.23	344.13	8.74	-0.65	0.051	
160.00	-3.49	-0.93	0.00	-6.87	0.00	6.87	807.76	403.88	604.95	302.92	9.44	-0.68	0.027	
165.00	-3.28	-0.89	0.00	-2.24	0.00	2.24	747.41	373.70	517.50	259.13	10.15	-0.69	0.013	
167.00	-0.83	-0.23	0.00	-0.47	0.00	0.47	723.26	361.63	484.43	242.57	10.44	-0.69	0.003	
169.00	0.00	-0.22	0.00	0.00	0.00	0.00	699.12	349.56	452.45	226.56	10.73	-0.69	0.000	

Wind Loading - Shaft

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

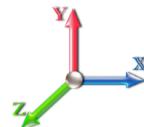
4/18/2022



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	1.03	9.018	9.92	309.89	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	1.03	9.018	9.92	302.85	0.650	0.000	5.00	25.156	16.35	162.2	0.0	1394.4
10.00		1.00	1.03	9.018	9.92	295.82	0.650	0.000	5.00	24.579	15.98	158.5	0.0	1362.1
15.00		1.00	1.03	9.020	9.92	288.82	0.650	0.000	5.00	24.001	15.60	154.8	0.0	1329.8
20.00		1.00	1.08	9.483	10.43	288.92	0.650	0.000	5.00	23.423	15.23	158.8	0.0	1297.6
25.00		1.00	1.13	9.858	10.84	287.23	0.650	0.000	5.00	22.846	14.85	161.0	0.0	1265.3
30.00		1.00	1.16	10.175	11.19	284.34	0.650	0.000	5.00	22.268	14.47	162.0	0.0	1233.1
35.00		1.00	1.19	10.452	11.50	280.61	0.650	0.000	5.00	21.691	14.10	162.1	0.0	1200.8
40.00		1.00	1.22	10.697	11.77	276.22	0.650	0.000	5.00	21.113	13.72	161.5	0.0	1168.6
45.00		1.00	1.25	10.919	12.01	271.33	0.650	0.000	5.00	20.536	13.35	160.3	0.0	1136.3
46.50 Bot - Section 2		1.00	1.25	10.981	12.08	269.77	0.650	0.000	1.50	6.048	3.93	47.5	0.0	334.6
50.00		1.00	1.27	11.121	12.23	266.01	0.650	0.000	3.50	14.169	9.21	112.7	0.0	1553.4
53.25 Top - Section 1		1.00	1.28	11.243	12.37	262.37	0.650	0.000	3.25	12.904	8.39	103.7	0.0	1414.2
55.00		1.00	1.29	11.307	12.44	265.40	0.650	0.000	1.75	6.847	4.45	55.4	0.0	378.7
60.00		1.00	1.31	11.479	12.63	259.48	0.650	0.000	5.00	19.173	12.46	157.4	0.0	1060.3
65.00		1.00	1.33	11.640	12.80	253.30	0.650	0.000	5.00	18.596	12.09	154.8	0.0	1028.0
70.00		1.00	1.35	11.791	12.97	246.90	0.650	0.000	5.00	18.018	11.71	151.9	0.0	995.8
75.00		1.00	1.36	11.933	13.13	240.29	0.650	0.000	5.00	17.440	11.34	148.8	0.0	963.5
80.00		1.00	1.38	12.068	13.27	233.50	0.650	0.000	5.00	16.863	10.96	145.5	0.0	931.3
85.00		1.00	1.39	12.196	13.42	226.56	0.650	0.000	5.00	16.285	10.59	142.0	0.0	899.0
90.00		1.00	1.41	12.318	13.55	219.47	0.650	0.000	5.00	15.708	10.21	138.3	0.0	866.8
95.00 Bot - Section 3		1.00	1.42	12.434	13.68	212.24	0.650	0.000	5.00	15.130	9.83	134.5	0.0	834.5
100.00 Top - Section 2		1.00	1.43	12.546	13.80	204.89	0.650	0.000	5.00	14.870	9.67	133.4	0.0	1506.4
105.00		1.00	1.45	12.652	13.92	202.01	0.650	0.000	5.00	14.292	9.29	129.3	0.0	676.5
110.00		1.00	1.46	12.755	14.03	194.46	0.650	0.000	5.00	13.715	8.91	125.1	0.0	648.8
115.00		1.00	1.47	12.854	14.14	186.82	0.650	0.000	5.00	13.137	8.54	120.7	0.0	621.2
120.00		1.00	1.48	12.950	14.24	179.08	0.650	0.000	5.00	12.560	8.16	116.3	0.0	593.5
125.00		1.00	1.49	13.042	14.35	171.26	0.650	0.000	5.00	11.982	7.79	111.7	0.0	565.9
130.00		1.00	1.50	13.131	14.44	163.36	0.650	0.000	5.00	11.405	7.41	107.1	0.0	538.3
135.00		1.00	1.51	13.218	14.54	155.38	0.650	0.000	5.00	10.827	7.04	102.3	0.0	510.6
140.00		1.00	1.52	13.302	14.63	147.33	0.650	0.000	5.00	10.249	6.66	97.5	0.0	483.0
145.00		1.00	1.53	13.383	14.72	139.21	0.650	0.000	5.00	9.672	6.29	92.5	0.0	455.3
145.25 Bot - Section 4		1.00	1.53	13.387	14.73	138.80	0.650	0.000	0.25	0.468	0.30	4.5	0.0	22.0
147.00 Appurtenance(s)		1.00	1.53	13.415	14.76	135.95	0.650	0.000	1.75	3.294	2.14	31.6	0.0	230.5
148.50 Top - Section 3		1.00	1.53	13.439	14.78	133.49	0.650	0.000	1.50	2.767	1.80	26.6	0.0	193.5
150.00		1.00	1.54	13.462	14.81	133.39	0.650	0.000	1.50	2.715	1.76	26.1	0.0	64.4
155.00		1.00	1.55	13.539	14.89	125.15	0.650	0.000	5.00	8.675	5.64	84.0	0.0	205.7
160.00 Appurtenance(s)		1.00	1.55	13.614	14.98	116.85	0.650	0.000	5.00	8.098	5.26	78.8	0.0	191.9
165.00		1.00	1.56	13.687	15.06	108.50	0.650	0.000	5.00	7.520	4.89	73.6	0.0	178.1
167.00 Appurtenance(s)		1.00	1.57	13.716	15.09	105.15	0.650	0.000	2.00	2.846	1.85	27.9	0.0	67.4
169.00 Appurtenance(s)		1.00	1.57	13.744	15.12	101.78	0.650	0.000	2.00	2.754	1.79	27.1	0.0	65.1

Totals: 169.00 4,449.8 30,466.3

Discrete Appurtenance Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

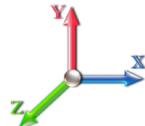
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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations

24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	169.00	DMP65R-BU8DA	1	13.758	15.134	0.65	0.90	11.69	95.70	0.000	1.000	176.95	0.00	176.95
2	169.00	AM-X-CD-16-65-00T-RET	1	13.758	15.134	0.75	1.00	6.01	48.50	0.000	1.000	91.03	0.00	91.03
3	169.00	DMP65R-BU4DA	1	13.758	15.134	0.64	0.90	5.31	67.90	0.000	1.000	80.30	0.00	80.30
4	169.00	DMP65R-BU6DA	1	13.758	15.134	0.65	0.90	8.25	79.40	0.000	1.000	124.82	0.00	124.82
5	169.00	CCI DTMABP7819VG12A	3	13.758	15.134	0.60	0.90	2.06	57.54	0.000	1.000	31.21	0.00	31.21
6	169.00	4449 B5/B12	3	13.758	15.134	0.60	0.90	3.56	213.00	0.000	1.000	53.93	0.00	53.93
7	169.00	KMW	1	13.758	15.134	0.75	1.00	3.75	36.40	0.000	1.000	56.75	0.00	56.75
8	169.00	Andrew SBNH-1D6565C	1	13.758	15.134	0.80	1.00	9.18	60.80	0.000	1.000	138.87	0.00	138.87
9	169.00	RRUS 4478 B14	3	13.758	15.134	0.60	0.90	2.98	178.20	0.000	1.000	45.17	0.00	45.17
10	167.00	HPA-65R-BUU-H6	2	13.758	15.134	0.77	0.90	14.78	102.00	0.000	3.000	223.68	0.00	671.04
11	167.00	Raycap DC6-48-60-18-8F	3	13.758	15.134	0.90	0.90	3.97	98.40	0.000	3.000	60.07	0.00	180.20
12	167.00	Reinforced T-Arms	3	13.716	15.087	0.56	0.75	23.63	1350.00	0.000	0.000	356.44	0.00	0.00
13	167.00	HPA-65R-BBU-H8	2	13.758	15.134	0.71	0.90	18.46	136.00	0.000	3.000	279.34	0.00	838.02
14	167.00	Ericsson RRUS 32 RRUs	3	13.758	15.134	0.60	0.90	7.00	231.00	0.000	3.000	105.95	0.00	317.86
15	167.00	SBNHH-1D65A	2	13.758	15.134	0.75	0.90	8.78	67.00	0.000	3.000	132.95	0.00	398.85
16	167.00	Ericsson RRUS-12 RRUs	6	13.758	15.134	0.60	0.90	11.40	348.00	0.000	3.000	172.48	0.00	517.44
17	167.00	Ericsson RRUS-E2 RRUs	3	13.758	15.134	0.60	0.90	7.00	180.00	0.000	3.000	105.95	0.00	317.86
18	167.00	Ericsson RRUS A2	6	13.758	15.134	0.60	0.90	6.73	132.00	0.000	3.000	101.85	0.00	305.54
19	160.00	4460 B25/B66A	3	13.614	14.975	0.54	0.80	2.64	216.00	0.000	0.000	39.49	0.00	0.00
20	160.00	APXVAALL24_43-U-NA20	3	13.614	14.975	0.58	0.80	35.46	368.40	0.000	0.000	531.04	0.00	0.00
21	160.00	VV-65A-R1	3	13.614	14.975	0.59	0.80	14.03	88.50	0.000	0.000	210.11	0.00	0.00
22	160.00	AIR 6419 B41	3	13.614	14.975	0.56	0.80	10.97	399.60	0.000	0.000	164.29	0.00	0.00
23	160.00	T-Arm	3	13.614	14.975	0.56	0.75	16.88	1200.00	0.000	0.000	252.71	0.00	0.00
24	160.00	PRK-SFS-L	1	13.614	14.975	0.75	0.75	12.45	394.00	0.000	0.000	186.44	0.00	0.00
25	160.00	PRK-1245L	1	13.614	14.975	0.75	0.75	7.13	464.91	0.000	0.000	106.70	0.00	0.00
26	160.00	Ericsson KRY 112 144/1	3	13.614	14.975	0.56	0.80	0.69	33.00	0.000	0.000	10.32	0.00	0.00
27	160.00	4449 B71 + B85	3	13.614	14.975	0.54	0.80	3.17	219.60	0.000	0.000	47.44	0.00	0.00
28	147.00	Antel LPA-80080/4CF	2	13.415	14.756	1.36	0.80	7.10	24.00	0.000	0.000	104.76	0.00	0.00
29	147.00	Andrew SBNHH-1D65B	6	13.415	14.756	0.66	0.80	32.19	240.00	0.000	0.000	475.02	0.00	0.00
30	147.00	ALU 2X60-770 U RRH	3	13.415	14.756	0.54	0.80	5.63	166.80	0.000	0.000	83.05	0.00	0.00
31	147.00	Swedcom SC-E 6014 rev2	4	13.415	14.756	0.78	0.80	10.34	60.00	0.000	0.000	152.53	0.00	0.00
32	147.00	RRH 2X90 AWS	3	13.415	14.756	0.54	0.80	5.63	192.00	0.000	0.000	83.05	0.00	0.00
33	147.00	FD9R6004/2C-3L	6	13.415	14.756	0.80	0.80	1.73	18.60	0.000	0.000	25.50	0.00	0.00
34	147.00	RFS DB-T1-6Z-8AB-0Z	2	13.415	14.756	0.57	0.80	5.45	88.00	0.000	0.000	80.46	0.00	0.00
35	147.00	Low Profile Platform	1	13.415	14.756	1.00	1.00	26.00	1200.00	0.000	0.000	383.67	0.00	0.00
36	147.00	Alcatel 2x60-1900 RRH	3	13.415	14.756	0.54	0.80	2.43	120.00	0.000	0.000	35.83	0.00	0.00

Totals: 8,975.25

5,310.15

Total Applied Force Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

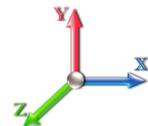
4/18/2022



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations

24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		162.20	1579.12	0.00	0.00
10.00		158.48	1546.86	0.00	0.00
15.00		154.79	1514.61	0.00	0.00
20.00		158.81	1482.36	0.00	0.00
25.00		161.03	1450.11	0.00	0.00
30.00		162.01	1417.86	0.00	0.00
35.00		162.10	1385.61	0.00	0.00
40.00		161.49	1353.36	0.00	0.00
45.00		160.32	1321.11	0.00	0.00
46.50		47.49	390.04	0.00	0.00
50.00		112.66	1682.77	0.00	0.00
53.25		103.73	1534.27	0.00	0.00
55.00		55.35	443.38	0.00	0.00
60.00		157.36	1245.03	0.00	0.00
65.00		154.76	1212.78	0.00	0.00
70.00		151.90	1180.53	0.00	0.00
75.00		148.81	1148.28	0.00	0.00
80.00		145.50	1116.03	0.00	0.00
85.00		142.01	1083.78	0.00	0.00
90.00		138.34	1051.53	0.00	0.00
95.00		134.51	1019.28	0.00	0.00
100.00		133.38	1691.14	0.00	0.00
105.00		129.30	861.23	0.00	0.00
110.00		125.08	833.59	0.00	0.00
115.00		120.74	805.95	0.00	0.00
120.00		116.29	778.30	0.00	0.00
125.00		111.73	750.66	0.00	0.00
130.00		107.08	723.02	0.00	0.00
135.00		102.32	695.37	0.00	0.00
140.00		97.48	667.73	0.00	0.00
145.00		92.55	640.09	0.00	0.00
145.25		4.48	31.28	0.00	0.00
147.00	(30) attachments	1455.46	2404.58	0.00	0.00
148.50		26.59	230.07	0.00	0.00
150.00		26.14	100.94	0.00	0.00
155.00		83.98	327.48	0.00	0.00
160.00	(23) attachments	1627.36	3697.67	0.00	0.00
165.00		73.60	230.83	0.00	0.00
167.00	(30) attachments	1566.62	2732.86	0.00	3546.80
169.00	(15) attachments	826.11	923.69	0.00	799.05
Totals:		9,759.95	45,285.23	0.00	4,345.85

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

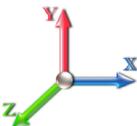
Struct Class: II

Page: 34

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations

24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	9.018	0.00	1.37
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	9.018	0.00	5.20
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.006	0.000	9.018	0.00	1.37
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.006	0.000	9.018	0.00	5.20
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	9.020	0.00	1.37
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	9.020	0.00	5.20
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	9.483	0.00	1.37
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	9.483	0.00	5.20
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	9.858	0.00	1.37
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	9.858	0.00	5.20
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	10.175	0.00	1.37
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	10.175	0.00	5.20
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	10.452	0.00	1.37
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	10.452	0.00	5.20
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.007	0.000	10.697	0.00	1.37
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.007	0.000	10.697	0.00	5.20
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	10.919	0.00	1.37
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	10.919	0.00	5.20
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.008	0.000	10.981	0.00	0.41
46.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.008	0.000	10.981	0.00	1.56
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.008	0.000	11.121	0.00	0.96
50.00	Step bolts (ladder)	Yes	3.50	0.000	0.00	0.00	0.00	0.008	0.000	11.121	0.00	3.64
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.008	0.000	11.243	0.00	0.89
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.00	0.00	0.00	0.008	0.000	11.243	0.00	3.38
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.008	0.000	11.307	0.00	0.48
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.008	0.000	11.307	0.00	1.82
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.008	0.000	11.479	0.00	1.37
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.008	0.000	11.479	0.00	5.20
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	11.640	0.00	1.37
65.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	11.640	0.00	5.20
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	11.791	0.00	1.37
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	11.791	0.00	5.20
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	11.933	0.00	1.37
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	11.933	0.00	5.20
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.009	0.000	12.068	0.00	1.37
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.009	0.000	12.068	0.00	5.20
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	12.196	0.00	1.37
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	12.196	0.00	5.20
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	12.318	0.00	1.37
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	12.318	0.00	5.20
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.010	0.000	12.434	0.00	1.37
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.010	0.000	12.434	0.00	5.20
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	12.546	0.00	1.37
100.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	12.546	0.00	5.20
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.011	0.000	12.652	0.00	1.37
105.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.011	0.000	12.652	0.00	5.20
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	12.755	0.00	1.37

Linear Appurtenance Segment Forces (Factored)

Structure: CT11794-S-SBA

Code: TIA-222-G

4/18/2022

Site Name: East Lyme 1

Exposure: D



Height: 169.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

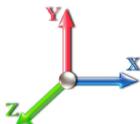
Struct Class: II

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations

24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	12.755	0.00	5.20
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.012	0.000	12.854	0.00	1.37
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.012	0.000	12.854	0.00	5.20
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	12.950	0.00	1.37
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	12.950	0.00	5.20
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.013	0.000	13.042	0.00	1.37
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.013	0.000	13.042	0.00	5.20
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.014	0.000	13.131	0.00	1.37
130.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.014	0.000	13.131	0.00	5.20
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	13.218	0.00	1.37
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	13.218	0.00	5.20
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.015	0.000	13.302	0.00	1.37
140.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.015	0.000	13.302	0.00	5.20
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.016	0.000	13.383	0.00	1.37
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.016	0.000	13.383	0.00	5.20
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.017	0.000	13.387	0.00	0.07
145.25	Step bolts (ladder)	Yes	0.25	0.000	0.00	0.00	0.00	0.017	0.000	13.387	0.00	0.26
147.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.017	0.000	13.415	0.00	0.48
147.00	Step bolts (ladder)	Yes	1.75	0.000	0.00	0.00	0.00	0.017	0.000	13.415	0.00	1.82
148.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	13.439	0.00	0.41
148.50	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	13.439	0.00	1.56
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.017	0.000	13.462	0.00	0.41
150.00	Step bolts (ladder)	Yes	1.50	0.000	0.00	0.00	0.00	0.017	0.000	13.462	0.00	1.56
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	13.539	0.00	1.37
155.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.018	0.000	13.539	0.00	5.20
160.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	13.614	0.00	1.37
160.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.020	0.000	13.614	0.00	5.20
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.021	0.000	13.687	0.00	1.37
165.00	Step bolts (ladder)	Yes	5.00	0.000	0.00	0.00	0.00	0.021	0.000	13.687	0.00	5.20
167.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.022	0.000	13.716	0.00	0.55
167.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.022	0.000	13.716	0.00	2.08
169.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.023	0.000	13.744	0.00	0.55
169.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.023	0.000	13.744	0.00	2.08
Totals:										0.0	221.9	

Calculated Forces

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

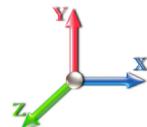
4/18/2022



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 24

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 Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.28	-9.78	0.00	-1242.9	0.00	1242.94	5562.36	2781.18	13652.7	6836.50	0.00	0.000	0.000	0.190
5.00	-43.69	-9.65	0.00	-1194.0	0.00	1194.05	5482.35	2741.17	13146.4	6582.98	0.02	-0.046	0.000	0.189
10.00	-42.14	-9.53	0.00	-1145.8	0.00	1145.80	5400.13	2700.07	12644.0	6331.40	0.10	-0.094	0.000	0.189
15.00	-40.62	-9.40	0.00	-1098.1	0.00	1098.16	5315.71	2657.86	12145.8	6081.95	0.22	-0.143	0.000	0.188
20.00	-39.13	-9.28	0.00	-1051.1	0.00	1051.15	5229.08	2614.54	11652.3	5834.81	0.40	-0.194	0.000	0.188
25.00	-37.67	-9.14	0.00	-1004.7	0.00	1004.77	5140.25	2570.12	11163.7	5590.18	0.63	-0.246	0.000	0.187
30.00	-36.24	-9.01	0.00	-959.05	0.00	959.05	5049.20	2524.60	10680.6	5348.24	0.92	-0.300	0.000	0.187
35.00	-34.85	-8.87	0.00	-914.00	0.00	914.00	4955.95	2477.97	10203.2	5109.18	1.26	-0.356	0.000	0.186
40.00	-33.49	-8.74	0.00	-869.63	0.00	869.63	4860.49	2430.24	9731.91	4873.19	1.67	-0.413	0.000	0.185
45.00	-32.16	-8.59	0.00	-825.94	0.00	825.94	4762.82	2381.41	9267.12	4640.45	2.13	-0.472	0.000	0.185
46.50	-31.77	-8.56	0.00	-813.06	0.00	813.06	4733.09	2366.54	9129.00	4571.29	2.28	-0.491	0.000	0.185
50.00	-30.08	-8.45	0.00	-783.11	0.00	783.11	4662.94	2331.47	8809.20	4411.15	2.66	-0.535	0.000	0.184
53.25	-28.54	-8.35	0.00	-755.65	0.00	755.65	4662.03	2331.01	8805.10	4409.10	3.04	-0.576	0.000	0.178
55.00	-28.09	-8.31	0.00	-741.04	0.00	741.04	4626.54	2313.27	8646.55	4329.70	3.25	-0.599	0.000	0.177
60.00	-26.84	-8.17	0.00	-699.50	0.00	699.50	4523.67	2261.83	8198.57	4105.38	3.91	-0.661	0.000	0.176
65.00	-25.62	-8.03	0.00	-658.67	0.00	658.67	4418.66	2209.33	7758.49	3885.01	4.64	-0.725	0.000	0.175
70.00	-24.43	-7.89	0.00	-618.53	0.00	618.53	4277.83	2138.92	7269.40	3640.10	5.43	-0.791	0.000	0.176
75.00	-23.28	-7.75	0.00	-579.10	0.00	579.10	4137.00	2068.50	6796.24	3403.17	6.30	-0.859	0.000	0.176
80.00	-22.16	-7.62	0.00	-540.34	0.00	540.34	3996.18	1998.09	6339.00	3174.21	7.24	-0.929	0.000	0.176
85.00	-21.06	-7.48	0.00	-502.27	0.00	502.27	3855.35	1927.67	5897.69	2953.23	8.25	-1.002	0.000	0.176
90.00	-20.01	-7.35	0.00	-464.86	0.00	464.86	3714.52	1857.26	5472.29	2740.21	9.34	-1.077	0.000	0.175
95.00	-18.98	-7.22	0.00	-428.10	0.00	428.10	3573.69	1786.85	5062.82	2535.17	10.51	-1.154	0.000	0.174
100.00	-17.28	-7.08	0.00	-391.98	0.00	391.98	3014.30	1507.15	4208.99	2107.62	11.76	-1.234	0.000	0.192
105.00	-16.41	-6.96	0.00	-356.59	0.00	356.59	2893.59	1446.80	3876.87	1941.32	13.10	-1.317	0.000	0.189
110.00	-15.57	-6.84	0.00	-321.81	0.00	321.81	2772.88	1386.44	3558.41	1781.85	14.52	-1.408	0.000	0.186
115.00	-14.76	-6.72	0.00	-287.63	0.00	287.63	2652.17	1326.09	3253.59	1629.21	16.05	-1.502	0.000	0.182
120.00	-13.97	-6.61	0.00	-254.04	0.00	254.04	2531.46	1265.73	2962.42	1483.41	17.67	-1.597	0.000	0.177
125.00	-13.21	-6.49	0.00	-221.01	0.00	221.01	2410.75	1205.38	2684.90	1344.44	19.40	-1.693	0.000	0.170
130.00	-12.48	-6.39	0.00	-188.54	0.00	188.54	2290.04	1145.02	2421.02	1212.31	21.22	-1.788	0.000	0.161
135.00	-11.78	-6.28	0.00	-156.61	0.00	156.61	2169.33	1084.67	2170.80	1087.01	23.15	-1.882	0.000	0.150
140.00	-11.11	-6.18	0.00	-125.21	0.00	125.21	2048.62	1024.31	1934.22	968.55	25.17	-1.972	0.000	0.135
145.00	-10.47	-6.07	0.00	-94.32	0.00	94.32	1927.91	963.96	1711.29	856.92	27.28	-2.056	0.000	0.116
145.25	-10.44	-6.07	0.00	-92.81	0.00	92.81	1921.88	960.94	1700.50	851.51	27.39	-2.060	0.000	0.114
147.00	-8.08	-4.53	0.00	-82.19	0.00	82.19	1879.63	939.81	1625.94	814.18	28.15	-2.088	0.000	0.105
148.50	-7.85	-4.50	0.00	-75.40	0.00	75.40	907.84	453.92	797.93	399.56	28.81	-2.112	0.000	0.197
150.00	-7.75	-4.48	0.00	-68.65	0.00	68.65	895.57	447.78	771.95	386.55	29.47	-2.134	0.000	0.186
155.00	-7.41	-4.39	0.00	-46.26	0.00	46.26	853.23	426.61	687.23	344.13	31.78	-2.252	0.000	0.143
160.00	-3.78	-2.62	0.00	-24.29	0.00	24.29	807.76	403.88	604.95	302.92	34.18	-2.340	0.000	0.085
165.00	-3.55	-2.54	0.00	-11.16	0.00	11.16	747.41	373.70	517.50	259.13	36.67	-2.395	0.000	0.048
167.00	-0.89	-0.86	0.00	-2.53	0.00	2.53	723.26	361.63	484.43	242.57	37.67	-2.408	0.000	0.012
169.00	0.00	-0.83	0.00	-0.80	0.00	0.80	699.12	349.56	452.45	226.56	38.68	-2.411	0.000	0.004

Final Analysis Summary

Structure: CT11794-S-SBA
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 97 mph Wind	40.9	0.00	54.27	0.00	0.00	5224.38
0.9D + 1.6W 97 mph Wind	40.9	0.00	40.69	0.00	0.00	5159.46
1.2D + 1.0Di + 1.0Wi 50 mph Wind	11.3	0.00	81.35	0.00	0.00	1415.99
1.2D + 1.0E	2.4	0.00	54.34	0.00	0.00	327.04
0.9D + 1.0E	2.4	0.00	40.76	0.00	0.00	322.72
1.0D + 1.0W 60 mph Wind	9.8	0.00	45.28	0.00	0.00	1242.94

Max Stresses

Load Case	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)	Elev (ft)	Stress Ratio
1.2D + 1.6W 97 mph Wind	-6.77	-18.86	0.00	-315.57	0.00	-315.57	907.84	453.92	797.93	399.56	148.50	0.799
0.9D + 1.6W 97 mph Wind	-4.45	-18.47	0.00	-309.53	0.00	-309.53	907.84	453.92	797.93	399.56	148.50	0.781
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-19.74	-4.94	0.00	-80.83	0.00	-80.83	907.84	453.92	797.93	399.56	148.50	0.224
1.2D + 1.0E	-9.60	-1.62	0.00	-25.40	0.00	-25.40	907.84	453.92	797.93	399.56	148.50	0.074
0.9D + 1.0E	-7.20	-1.59	0.00	-24.96	0.00	-24.96	907.84	453.92	797.93	399.56	148.50	0.070
1.0D + 1.0W 60 mph Wind	-7.85	-4.50	0.00	-75.40	0.00	-75.40	907.84	453.92	797.93	399.56	148.50	0.197

Base Plate Summary

Structure: CT11794-S-SB
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-G
Exposure: D
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Reactions		Base Plate		Anchor Bolts	
Original Design		Yield (ksi):	50.00	Bolt Circle:	66.75
Moment (kip-ft):	6776.67	Width (in):	72.75	Number Bolts:	20.00
Axial (kip):	62.81	Style:	Round	Bolt Type:	2.25" 18J
Shear (kip):	55.54	Polygon Sides:	0.00	Bolt Diameter (in):	2.25
Analysis (1.2D + 1.6W)		Clip Length (in):	0.00	Yield (ksi):	75.00
Moment (kip-ft):	5224.38	Effective Len (in):	16.23	Ultimate (ksi):	100.00
Axial (kip):	54.27	Moment (kip-in):	634.26	Arrangement:	Radial
Shear (kip):	40.91	Allow Stress (ksi):	67.50	Cluster Dist (in):	0.00
		Applied Stress (ksi):	31.05	Start Angle (deg):	0.00
		Stress Ratio:	0.46	Compression	
				Force (kip):	191.91
				Allowable (kip):	260.00
				Ratio:	0.75
				Tension	
				Force (kip):	183.78
				Allowable (kip):	260.00
				Ratio:	0.72

 Tower Engineering Solutions	<h2 style="margin: 0;">Monopole Mat Foundation Design</h2>		
	Date 4/14/2022	TIA Standard: TIA-222-G	
Customer Name:	T-Mobile	Site Height (Ft.):	169
Site Name:		Engineer Name:	S. Hesselbeir
Site Number:	CT11794-S-SBA	Engineer Login ID:	
Engr. Number:	127669		

Foundation Info Obtained from:
Structure Type:

Drawings/Calculations

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):

81.4

Shear Force (Kips):

40.9

Uplift Force (Kips):

0.0

Moment (Kips-ft):

5224.4

Allowable overstress %: 5.0%

Foundation Geometries:

Diameter of Pier (ft.):

8.0

Mods required -Yes/No ?: No

Depth of Base BG (ft.):

5.5

Pier Height A. G. (ft.):

1.00

Thickness of Pad (ft.):

2.00

Length of Pad (ft.):

30

Width of Pad (ft.):

30

Final Length of pad (ft)

30.0

Final width of pad (ft):

30.0

Material Properties and Rebar Info:

Concrete Strength (psi):

4000

Steel Elastic Modulus:

29000

ksi

Vertical bar yield (ksi):

60

Tie steel yield (ksi):

60

Vertical Rebar Size #:

9

Tie / Stirrup Size #:

4

Qty. of Vertical Rebars:

48

Tie Spacing (in):

12.0

Pad Rebar Yield (Ksi):

60

Pad Steel Rebar Size (#):

8

Concrete Cover (in.):

3

Unit Weight of Concrete:

150.0

pcf

Rebar at the bottom of the concrete pad:

54

Qty. of Rebar in Pad (L):

54

Rebar at the top of the concrete pad:

54

Qty. of Rebar in Pad (W):

54

Apply 1.35 factor for e/w Per G:

1.35

Soil Design Parameters:

Soil Unit Weight (pcf):

120.0

Soil Buoyant Weight:

50.0

Pcf

Water Table B.G.S. (ft.):

99.0

Unit Weight of Water:

62.4

pcf

Ultimate Bearing Pressure (psf):

20000

Ultimate Skin Friction:

0

Psf

Consider Friction for O.T.M. (Y/N):

No

Consider Friction for bearing (Y/N):

No

Angle from Top of Pad:

30

Consider soil hor. resist. for OTM.:

Yes

Reduction factor on the maximum soil bearing pressure:

1.00

Angle from Bottm of Pad:

25

Angle from Bottm of Pad:

25

Foundation Analysis and Design:

Uplift Strength Reduction Factor:

0.75

Compression Strength Reduction Factor:

0.75

2974.07

Total Dry Soil Weight (Kips):

356.89

Total Dry Soil Volume (cu. Ft.):

0.00

Total Buoyant Soil Weight (Kips):

0.00

Total Effective Soil Weight (Kips):

356.89

Weight from the Concrete Block at Top (K):

0.00

Total Dry Concrete Volume (cu. Ft.):

2026.19

Total Dry Concrete Weight (Kips):

303.93

Total Buoyant Concrete Volume (cu. Ft.):

0.00

Total Buoyant Concrete Weight (Kips):

0.00

Total Effective Concrete Weight (Kips):

303.93

Total Vertical Load on Base (Kips):

742.17

Check Soil Capacities:

Calculated Maximum Net Soil Pressure under the base (psf):

2184

<

Allowable Factored Soil Bearing (psf):

15000

Allowable Foundation Overturning Resistance (kips-ft.):

10141.3

>

Design Factored Moment (kips-ft.):

5383

Factor of Safety Against Overturning (O. R. Moment/Design Moment):

1.88

OK!

Load/
Capacity
Ratio

OK!

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75	
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00	

Load/
Capacity
Ratio

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	1.00	Tie / Stirrup Area (sq. in./each):	0.20	
Calculated Moment Capacity (Mn, Kips-Ft):	9280.8	> Design Factored Moment (Mu, Kips-F)	5408.4	0.58 OK!
Calculated Shear Capacity (Kips):	840.3	> Design Factored Shear (Kips):	40.9	0.05 OK!
Calculated Tension Capacity (Tn, Kips):	2592.0	> Design Factored Tension (Tu Kips):	0.0	0.00 OK!
Calculated Compression Capacity (Pn, Kips):	12712.3	> Design Factored Axial Load (Pu Kips):	81.4	0.01 OK!
Moment & Axial Strength Combination:	0.58	OK! Check Tie Spacing (Design/Required):		1 OK!
Pier Reinforcement Ratio:	0.007	Reinforcement Ratio is satisfied per ACI		

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	700.1	> One-Way Factored Shear (L-D. Kips):	316.0	0.45 OK!
One-Way Design Shear Capacity (W-Direction, Kips):	700.1	> One-Way Factored Shear (W-D., Kips)	316.0	0.45 OK!
One-Way Design Shear Capacity (Corner-Corner, Kips):	723.7	> One-Way Factored Shear (C-C, Kips):	320.5	0.44 OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0058	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0058	
Lower Steel Pad Moment Capacity (L-Direction, Kips-ft):	3734.7	> Moment at Bottom (L-Dir. K-Ft):	1894.4	0.51 OK!
Lower Steel Pad Moment Capacity (W-Direction, Kips-ft):	3734.7	> Moment at Bottom (W-Dir. K-Ft):	1894.4	0.51 OK!
Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):	5215.6	> Moment at Bottom (C-C Dir. K-Ft):	2679.1	0.51 OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0058	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0058	
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3734.7	> Moment at the top (L-Dir K-Ft):	832.3	0.22 OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3734.7	> Moment at the top (W-Dir K-Ft):	832.3	0.22 OK!
Upper Steel Pad Moment Capacity (Corner-Corner, K-ft):	5215.6	> Moment at the top (C-C Dir. K-Ft):	779.6	0.15 OK!

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	2089.8	k-ft.	Max. factored shear stress v_{u_CD} :	1.2	Psi
Max. factored shear stress v_{u_AB} :	19.6	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	19.6	Psi	Check Usage of Punching Shear Capacity:	0.10	OK!

Exhibit E

Mount Analysis

Mount Structural Analysis

SBA Site: CT11794-S East Lyme 1

T-Mobile Site Number: CTNL805B

Project: Anchor

Prepared For: T-Mobile

Mount Description: T-Arms
and augments

Site Location: 49 Brainard Rd
East Lyme, CT 06357
New Haven County
41.307615°, -72.223839°

Design Codes: ANSI/TIA-222-G
2015 IBC w/ 2018 Connecticut
State Building Code

Analysis Load Case: T-Mobile Final Configuration

Analysis Result: adequate @ 62%
**See Conclusion & Recommendations
for installation requirements.**

Date Signed:
5/11/2022



Revision 0
May 11, 2022

1.0 Introduction

GeoStructural LLC has completed a structural analysis for the existing T-Mobile mount assembly with augments located at the CTNL805B **communications site** in New Haven County, CT considering the final appurtenance loading configurations listed in Section 3.0.

2.0 Analysis Procedure & Design Criteria

An elastic three-dimensional model of the structure has been analyzed pursuant to the following criteria:

- 2018 Connecticut State Building Code
- 2015 IBC – International Building Code
- ANSI/TIA-222 – Structural Standard for Antenna Supporting Structures and Antennas.
- ASCE 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- AISC – Steel Construction Manual.
- ANSI/AWS D1.1 – Structural Welding Code.

Wind w/o ice = 135 mph (3-sec gust Ultimate Wind Speed)
Wind w/ ice = 50 mph (3-sec gust Basic) with 0.75" Design Ice (Escalated with Height) ¹
Topographic Category 1; Exposure Category B
Structure Class (Risk Category) II; Ground Elevation = 12 ft (NAVD 88)
Gust Effect Factor = 1.0; Directionality Factor = 0.95;
Seismic Design Parameters: Site Class D "Stiff Soil"; $S_s = 0.161$, $S_1 = 0.058$, $S_{DS} = 0.172$
Maintenance Loads ² : $L_m = 500$ lb @ Worst Case Mount Pipe (Concurrent with 30 mph Wind Speed) $L_v = 250$ lb @ Worst Case Member Location (Center Span or Cantilever)
1. <i>Ice loading has been ignored with Design Ice Thickness ≤ 0.5".</i> 2. <i>The face horizontal boom rails of T-Arm mount assemblies are not rated for rigging, hoisting or maintenance loading unless noted otherwise.</i>

GeoStructural has not conducted a site visit or independent study to verify existing structural conditions and the results of this analysis are based solely on the information provided. The following documents were obtained and/or provided:

- Previous CDs Site #: CTNL805B, GeoStructural Mod Drawings, Dated 06/21/19
- Previous MMA Site #: CTNL805B, GeoStructural, Dated 06/20/19
- RFDS Site #: CTNL805B, Rev.5, Dated 02/25/22

The results of the analysis are illustrated in Section 4.0. If any of the existing or proposed conditions reported in this analysis are not accurately represented, please contact our office immediately to request an amended report.

3.0 Appurtenance Information

Table 3.1 - Final T-Mobile Appurtenance Configuration^{1,2}

COR	(Quantity) Appurtenance Make/Model	Mount Description
160'±	(3) ERICSSON AIR 6419 B41	T-Arms with Augments
	(3) RFS APXVAALL24_43-U-NA20	
	(3) ANDREW/COMMSCOPE VV-65A-R1	
	(3) RRH Ericsson 4449 B71 + B85	
	(3) RRH 4460 B25+B66	

1. Refer to antenna installation Construction Drawings (when applicable) for additional information regarding final antenna and equipment orientations.
2. All RRH units must be installed on the back-to-back pipe mount assemblies installed on the pipe at location 3 and 4 in order for this analysis to be valid.

4.0 Structural Analysis Results

Table 4.1 – Mount Capacity

Load Case	Governing Mount Component ¹	% Capacity ²	Result
Final T-Mobile Configuration	Standoff	61%	Adequate
	Main Horizontal	43%	
	Mount Pipe	31%	
	Modification	36%	
	Connection	46%	

1. Refer to the Calculations & Software Output portion of this report for mount component and structural information.
2. Listed results are expressed as a percentage of available mount member capacity based upon the assumed material strengths listed in Table 4.2. 105% is an acceptable allowable stress percentage for mount components. Refer to Section 7.0 for additional member usage capacities.

Table 4.2 – Structural Component Material Strengths

Structural Component	Nominal Strength/Material ¹
Pipe	$F_y = 35$ ksi (A53, Gr. B)
Tube	$F_y = 46$ ksi (A500, Gr. B)
Structural Shapes (L, C, W, etc.), Plate & Bar	$F_y = 36$ ksi (A36)
Uni-Strut (P1000, etc.)	$F_y = 33$ ksi (A570, Gr. 33)
Connection Bolts	A325
U-Bolts / Threaded Rod	SAE J429 Grade 2 (Substitution: ASTM A449) $F_y = 57$ ksi (Yield) & $F_u = 74$ ksi (Tension)
	SAE J429 Grade 5 ($\frac{1}{4}$ " to 1" Nominal ϕ) $F_y = 92$ ksi (Yield) & $F_u = 120$ ksi (Tension)
Welds	E70XX Electrodes

1. Strengths listed were assumed for this analysis and are based upon ASTM, AISC, RCSC, AWS and ACI preferred specification values. Values and materials are consistent with industry standards. Material strengths were taken from original design documents when available.

5.0 Conclusion & Recommendations

Based on T-Mobile's final equipment loading configuration, the mount assembly will have sufficient capacity to support the loading considered with **the modification already successfully installed per GeoStructurals Mount Modification design, dated 06/21/2019**

Antennas shall be installed centered vertically on the mount main front boom rial (limit vertical installation eccentricity). All RRH units must be installed on the back-to-back pipe mount assemblies installed on the platform standoff members for this analysis to be valid. If this assumption is incorrect, the results of this analysis will be inaccurate and may result in a failing mount condition.

This analysis only encompasses the antenna mount assembly. The tower, overall mount support structure, foundation, etc. are beyond the scope of this analysis. If any of the existing or proposed conditions (appurtenance loading, member sizes, etc.) reported in this analysis are not properly represented, please contact our office immediately to request an amended report.

Prepared by:



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6.0 Standard Conditions

- All data required to complete our structural analysis was furnished by our client. GeoStructural has not conducted a site visit or independent study to verify existing conditions and the results of this analysis are based solely on the information provided. It has been assumed that the tower, antenna support structure and foundation have been constructed according to the provided existing drawings, previous structural analysis reports, mapping documents, etc.
- The default Structure Classification is Class II in accordance with ANSI/TIA-222 §A.2.2 & §A.15.4 and has been assumed for this analysis. The owner shall verify this classification conforms with original or desired reliability criteria.
- This analysis assumes that the structure has been properly installed and maintained in accordance with ANSI/TIA-222 §15.6 and that no physical deterioration has occurred in any of the components of the structure. Damaged, missing, or rusted members were not considered.
- This analysis verifies the adequacy of the main components of the structure. Not all connections, welds, bolts, plates, etc. were individually detailed and analyzed. Where not specifically analyzed, the existing connection plates, welds, bolts, etc. were assumed adequate to develop the full capacity of the main structural members.
- No consideration has been made for unusual or extreme wind events, rime/in-cloud ice loadings, harmonic or nodal vibration, vortex shedding or other similar conditions.
- It is the owner's responsibility to determine the appropriate design wind speed and amount of ice accumulation beyond code minimum values that should be considered in the analysis.
- This analysis report does not constitute a maintenance and condition assessment. No certifications regarding maintenance and condition are expressed or implied. If desired, GeoStructural can provide these services under a subsequent contract.
- This analysis only encompasses the antenna mount assembly. The tower, overall mount support structure, foundation, etc. are beyond the scope of this analysis. If desired, GeoStructural can provide these services under a subsequent contract.

7.0 Attachments, Calculations & Software Output

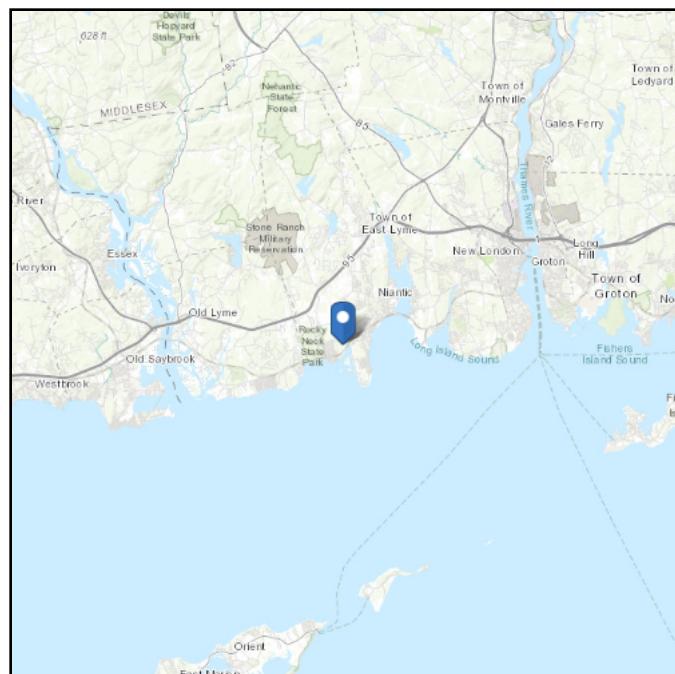
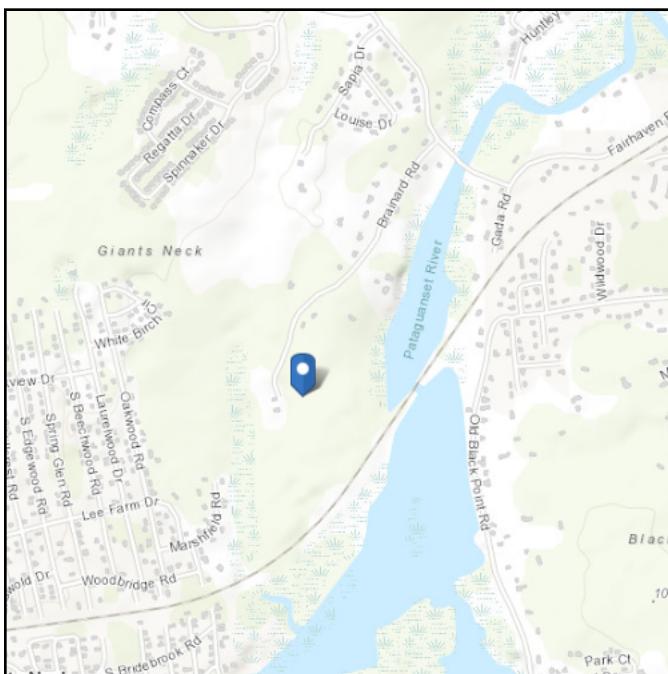
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ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 12.04 ft (NAVD 88)
Latitude: 41.307615
Longitude: -72.223839



Wind

Results:

Wind Speed	134 Vmph
10-year MRI	79 Vmph
25-year MRI	89 Vmph
50-year MRI	99 Vmph
100-year MRI	109 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Date Accessed: Wed May 11 2022

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

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings shall be protected against wind-borne debris as specified in Section 26.10.3.

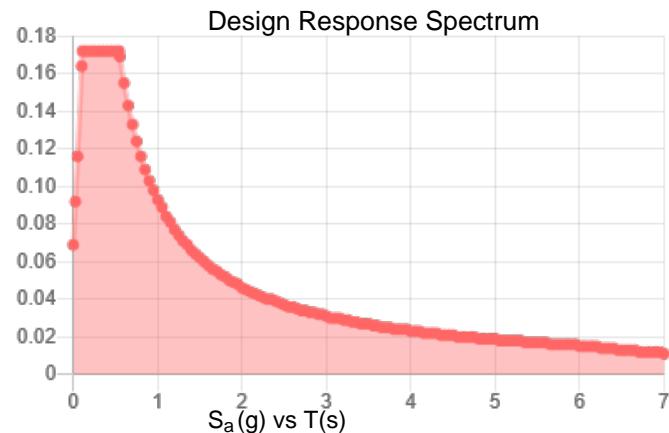
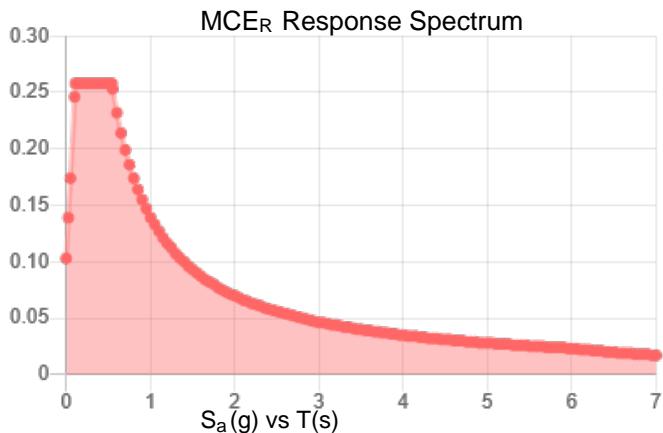
Seismic

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.161	S_{DS} :	0.172
S_1 :	0.058	S_{D1} :	0.093
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.08
S_{MS} :	0.258	PGA _M :	0.128
S_{M1} :	0.139	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Wed May 11 2022

Date Source:

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

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed 50 mph

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

Date Accessed: Wed May 11 2022

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

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

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

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

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

**Design Wind Force on Appurtenances****ASCE 7-10 & IBC 2015****Wind Design Parameters:**

V_{basic} =	135	mph	<i>Basic Ult Wind (§2.6.4)</i>	C	<i>Exposure Category (§2.6.5.1.2)</i>
V_{ice} =	50	mph	<i>Basic Wind w/ ice (§2.6.4)</i>	1	<i>Topographic Category (§2.6.6.2.1)</i>
t_{ice} =	0.75	inch	<i>Ice Thickness (§2.6.10)</i>	II	<i>Risk Category (§2, Table 2-1)</i>
K_a =	0.9			30	<i>mph Service Wind Speed</i>
K_d =	0.95				
G_h =	1				

q_z =	62	psf	<i>Wind Load without Ice</i>	t_{ice} =	0	inch
q_z =	8	psf	<i>Wind Load with Ice</i>	t_{ice} =	0.88	inch

 z = **160.0** ft *COR (Height above ground level at the base of structure)* H = **0** ft *Height of crest above surrounding terrain (Topo Categories 2, 3 & 4)* z_s = **12** ft *Mean elevation of base of structure above sea level***Seismic Design Parameters:**

Site Class:	D	Occupancy Cat:	II	Seismic Design Cat:	B	$z =$	160
						$h =$	160

Amp. Factor, ap: **1** Response Factor, Rp: **2.5**

$$S_{DS} = \text{0.1717} \quad S_{D1} = \text{0.093}$$

$$(ASCE 7-10 13.3-3) \quad F_{p,min} = 0.3S_{DS}I_pW_p = 0.05152 \quad w_p$$

$$(ASCE 7-10 13.3-1) \quad F_p = \frac{0.4a_pS_{DS}W_p}{\left(\frac{R_p}{I_p}\right)} \left(1 + 2\frac{z}{h}\right) = 0.082432 \quad w_p$$

Use $F_p = \text{0.082 Wp}$

$$(ASCE 7-10 13.3-2) \quad F_{p,max} = 1.6S_{DS}I_pW_p = 0.274773 \quad w_p$$

Importance Factor (§2, Table 2-3): $I = 1.00$ *Wind Load without Ice* $I = 1.00$ *Wind Load with Ice* $I = 1.00$ *Ice Thickness* $I = 1.00$ *Earthquake*

**Appurtenances**

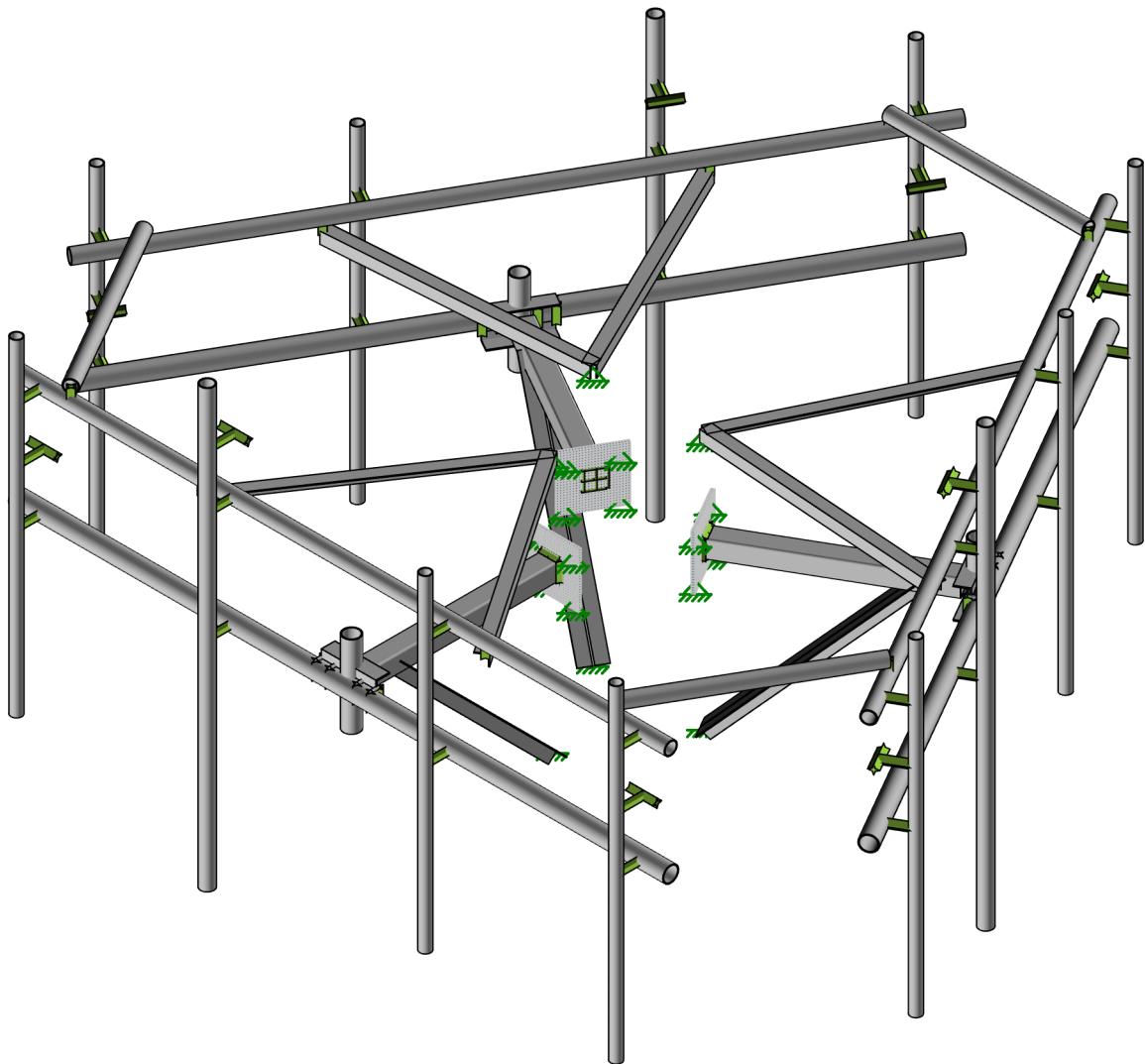
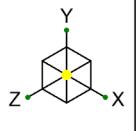
ERICSSON		AIR 6419 B41		
	FFRONT	FSIDE	WT	E
No Ice	360.4	149.5	45.0	3.7
0.88 inch Ice	56.2	26.5	69.1	

RFS		APXVAALL24_43-U-NA20		
	FFRONT	FSIDE	WT	E
No Ice	1127.8	495.2	128.0	10.5
0.88 inch Ice	169.1	83.1	190.4	

ANDREW/COMMSCOPE		VV-65A-R1		
	FFRONT	FSIDE	WT	E
No Ice	330.3	152.2	27.0	2.2
0.88 inch Ice	53.6	29.8	55.2	

RRH		ERICSSON 4449 B71 B85		
	FFRONT	FSIDE	WT	E
No Ice	109.8	78.6	75.0	6.2
0.88 inch Ice	18.7	14.0	30.2	

RRH		Ericsson 4460 B25+B66		
	FFRONT	FSIDE	WT	E
No Ice	142.9	110.1	110.0	9.0
0.88 inch Ice	23.7	18.8	41.8	



Envelope Only Solution

GeoStructural, LLC

Fathullah Zamani

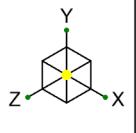
CTNL805B

CT11794-S East Lyme 1

SK-1

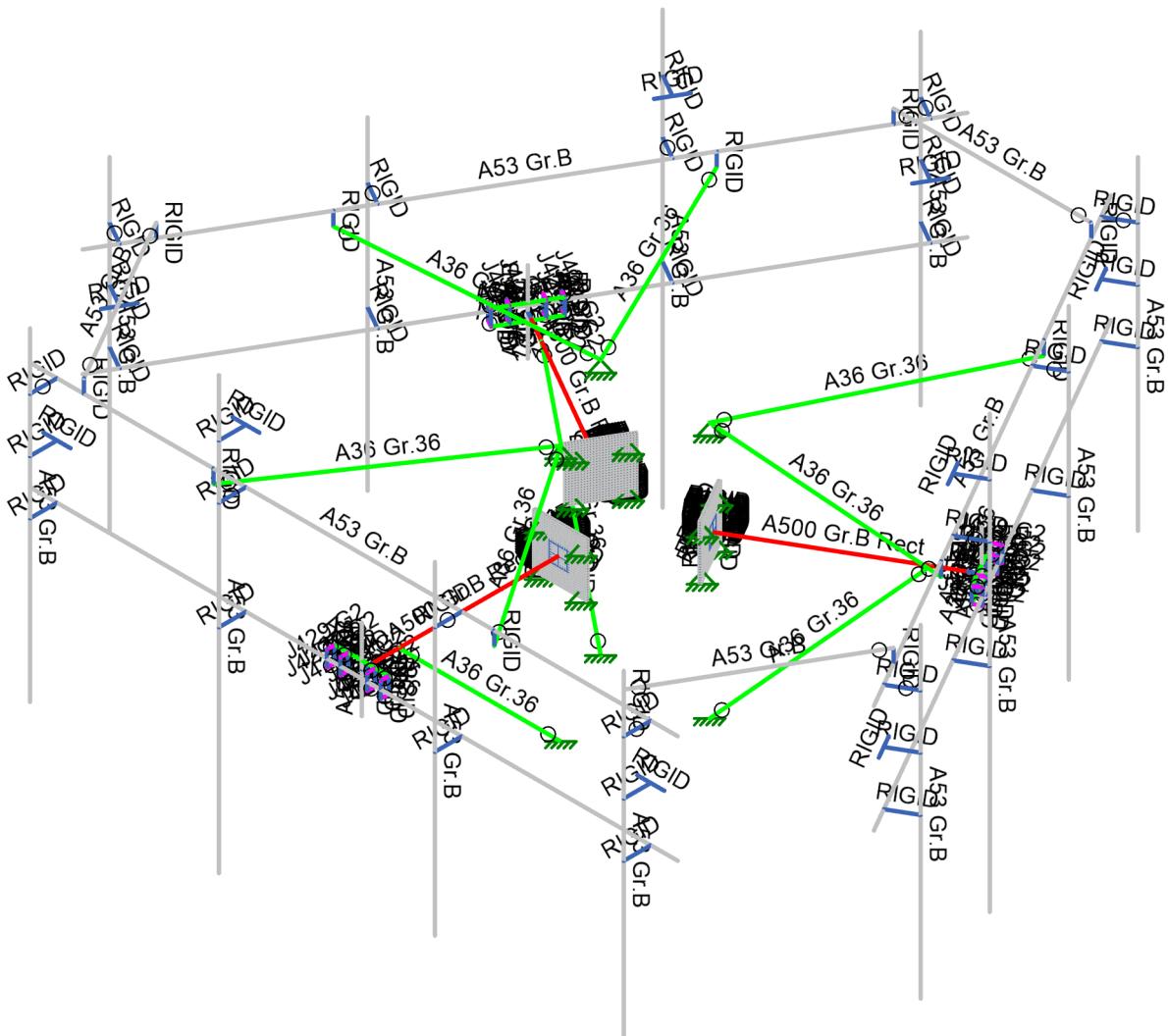
May 11, 2022

CTNL805B_Mount Analysis_R0 2...



Member Material Sets

- RIGID
- A36 Gr.36
- A500 Gr.B Rect
- A53 Gr.B
- J429 G2



Envelope Only Solution

GeoStructural, LLC

Fathullah Zamani

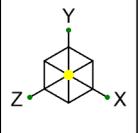
CTNL805B

CT11794-S East Lyme 1

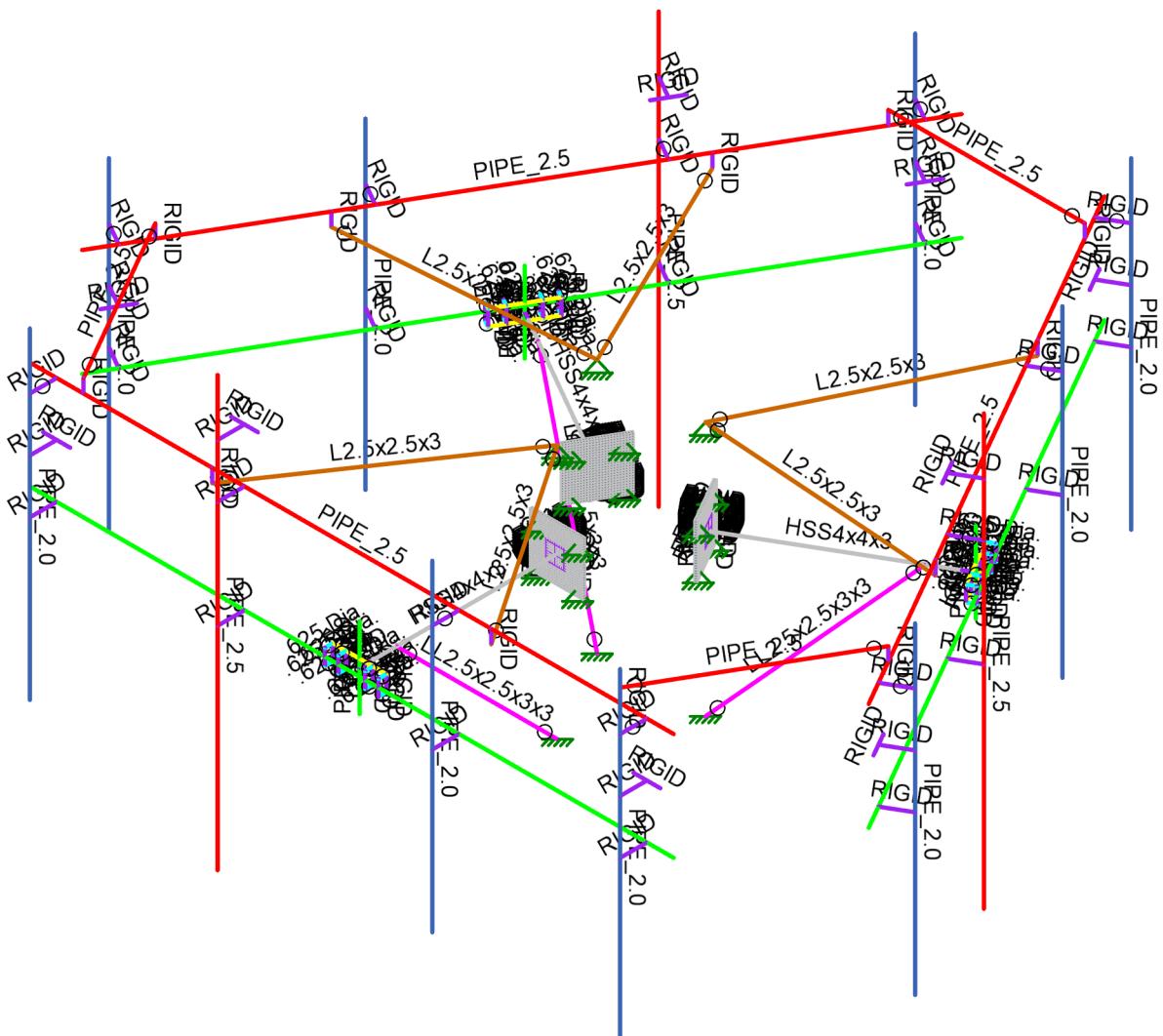
SK-2

May 11, 2022

CTNL805B_Mount Analysis_R0 2...



Section Sets
PIPE_2.0
PIPE_3.0
PIPE_2.5
HSS4x4x3
LL2.5x2.5x3x3
.625 Dia.
L2.5x2.5x3
L5x3x4
RIGID



Envelope Only Solution

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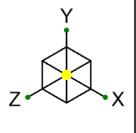
CTNL805B

CT11794-S East Lyme 1

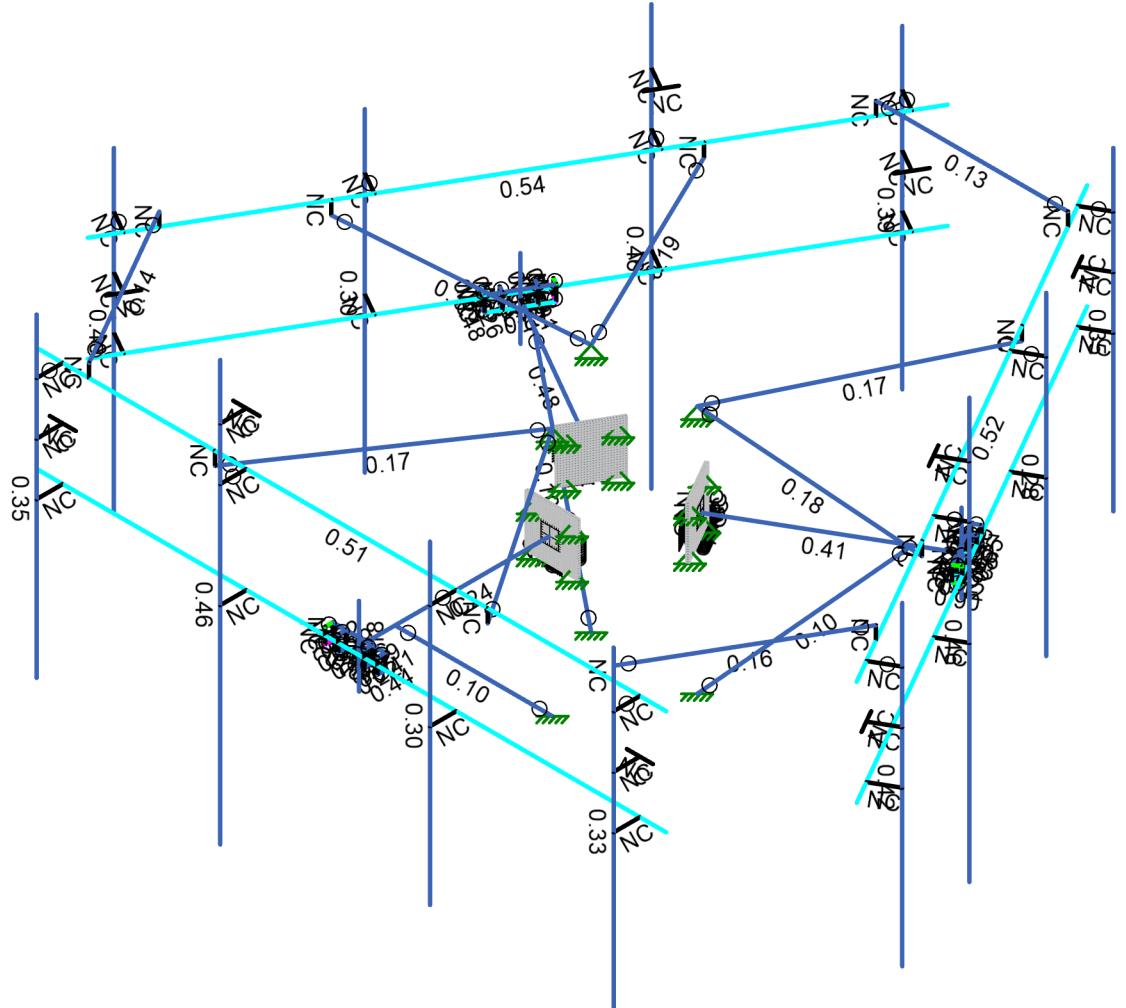
SK-3

May 11, 2022

CTNL805B_Mount Analysis_R0 2...



Code Check
(Env)
No Calc
> 1.0
.90-1.0
.75-.90
.50-.75
0.-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

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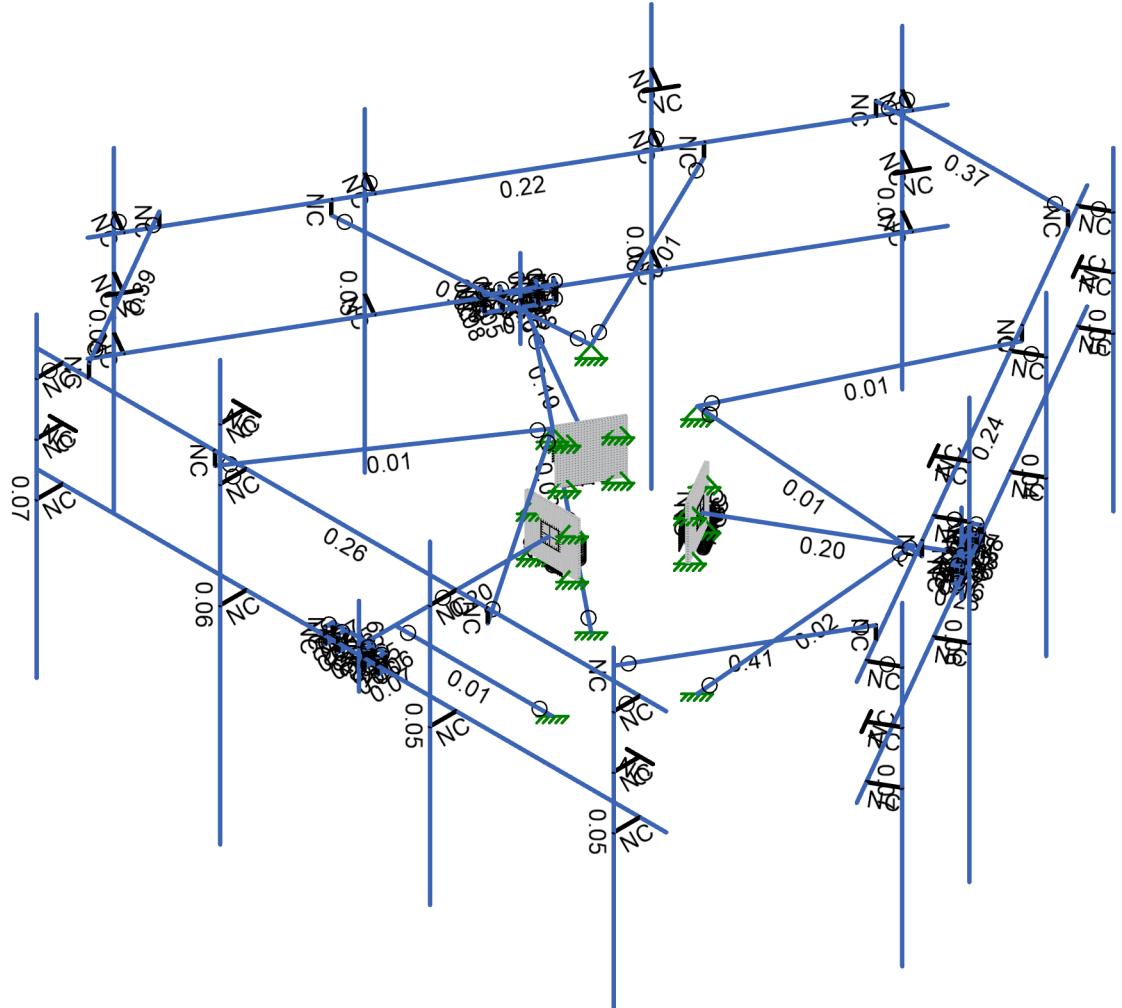
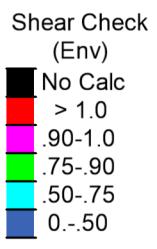
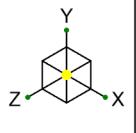
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SK-1

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CTNL805B_Mount Analysis_R0 ...



Member Shear Checks Displayed (Enveloped)
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CT11794-S East Lyme 1

SK-2

May 11, 2022

CTNL805B_Mount Analysis_R0 ...



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Distributed
1	Self Weight	DL		-1.1		24	
2	Wind Load AZI 000	WLZ				24	267
3	Wind Load AZI 090	WLX				24	267
4	Ice Weight	OL1				24	267
5	Wind + Ice Load AZI 000	OL2				24	267
6	Wind + Ice Load AZI 090	OL3				24	267
7	Seismic Load AZI 000	ELZ			-0.08	24	
8	Seismic Load AZI 090	ELX	-0.08			24	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.0D	Yes	Y	DL	1						
2	0.6W AZI 000	Yes	Y	WLZ	0.6						
3	0.6W AZI 030	Yes	Y	WLZ	0.52	WLX	0.3				
4	0.6W AZI 060	Yes	Y	WLZ	0.3	WLX	0.52				
5	0.6W AZI 090	Yes	Y			WLX	0.6				
6	0.6W AZI 120	Yes	Y	WLZ	-0.3	WLX	0.52				
7	0.6W AZI 150	Yes	Y	WLZ	-0.52	WLX	0.3				
8	0.6W AZI 180	Yes	Y	WLZ	-0.6						
9	0.6W AZI 210	Yes	Y	WLZ	-0.52	WLX	-0.3				
10	0.6W AZI 240	Yes	Y	WLZ	-0.3	WLX	-0.52				
11	0.6W AZI 270	Yes	Y			WLX	-0.6				
12	0.6W AZI 300	Yes	Y	WLZ	0.3	WLX	-0.52				
13	0.6W AZI 330	Yes	Y	WLZ	0.52	WLX	-0.3				
14	0.7E AZI 000	Yes	Y	ELZ	0.7						
15	0.7E AZI 030	Yes	Y	ELZ	0.606	ELX	0.35				
16	0.7E AZI 060	Yes	Y	ELZ	0.35	ELX	0.606				
17	0.7E AZI 090	Yes	Y			ELX	0.7				
18	0.7E AZI 120	Yes	Y	ELZ	-0.35	ELX	0.606				
19	0.7E AZI 150	Yes	Y	ELZ	-0.606	ELX	0.35				
20	0.7E AZI 180	Yes	Y	ELZ	-0.7						
21	0.7E AZI 210	Yes	Y	ELZ	-0.606	ELX	-0.35				
22	0.7E AZI 240	Yes	Y	ELZ	-0.35	ELX	-0.606				
23	0.7E AZI 270	Yes	Y			ELX	-0.7				
24	0.7E AZI 300	Yes	Y	ELZ	0.35	ELX	-0.606				
25	0.7E AZI 330	Yes	Y	ELZ	0.606	ELX	-0.35				
26	1D + 0.6W AZI 000	Yes	Y	DL	1	WLZ	0.6				
27	1D + 0.6W AZI 030	Yes	Y	DL	1	WLZ	0.52	WLX	0.3		
28	1D + 0.6W AZI 060	Yes	Y	DL	1	WLZ	0.3	WLX	0.52		
29	1D + 0.6W AZI 090	Yes	Y	DL	1			WLX	0.6		
30	1D + 0.6W AZI 120	Yes	Y	DL	1	WLZ	-0.3	WLX	0.52		
31	1D + 0.6W AZI 150	Yes	Y	DL	1	WLZ	-0.52	WLX	0.3		
32	1D + 0.6W AZI 180	Yes	Y	DL	1	WLZ	-0.6				
33	1D + 0.6W AZI 210	Yes	Y	DL	1	WLZ	-0.52	WLX	-0.3		
34	1D + 0.6W AZI 240	Yes	Y	DL	1	WLZ	-0.3	WLX	-0.52		
35	1D + 0.6W AZI 270	Yes	Y	DL	1			WLX	-0.6		
36	1D + 0.6W AZI 300	Yes	Y	DL	1	WLZ	0.3	WLX	-0.52		
37	1D + 0.6W AZI 330	Yes	Y	DL	1	WLZ	0.52	WLX	-0.3		
38	0.6D + 0.6W AZI 000	Yes	Y	DL	0.6	WLZ	0.6				
39	0.6D + 0.6W AZI 030	Yes	Y	DL	0.6	WLZ	0.52	WLX	0.3		
40	0.6D + 0.6W AZI 060	Yes	Y	DL	0.6	WLZ	0.3	WLX	0.52		
41	0.6D + 0.6W AZI 090	Yes	Y	DL	0.6			WLX	0.6		
42	0.6D + 0.6W AZI 120	Yes	Y	DL	0.6	WLZ	-0.3	WLX	0.52		
43	0.6D + 0.6W AZI 150	Yes	Y	DL	0.6	WLZ	-0.52	WLX	0.3		



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
44	0.6D + 0.6W AZI 180	Yes	Y	DL	0.6	WLZ	-0.6				
45	0.6D + 0.6W AZI 210	Yes	Y	DL	0.6	WLZ	-0.52	WLX	-0.3		
46	0.6D + 0.6W AZI 240	Yes	Y	DL	0.6	WLZ	-0.3	WLX	-0.52		
47	0.6D + 0.6W AZI 270	Yes	Y	DL	0.6			WLX	-0.6		
48	0.6D + 0.6W AZI 300	Yes	Y	DL	0.6	WLZ	0.3	WLX	-0.52		
49	0.6D + 0.6W AZI 330	Yes	Y	DL	0.6	WLZ	0.52	WLX	-0.3		
50	1D + 1Di	Yes	Y	DL	1	OL1	1				
51	1D + 1Di + 1Wi AZI 000	Yes	Y	DL	1	OL1	1	OL2	1		
52	1D + 1Di + 1Wi AZI 030	Yes	Y	DL	1	OL1	1	OL2	0.866	OL3	0.5
53	1D + 1Di + 1Wi AZI 060	Yes	Y	DL	1	OL1	1	OL2	0.5	OL3	0.866
54	1D + 1Di + 1Wi AZI 090	Yes	Y	DL	1	OL1	1			OL3	1
55	1D + 1Di + 1Wi AZI 120	Yes	Y	DL	1	OL1	1	OL2	-0.5	OL3	0.866
56	1D + 1Di + 1Wi AZI 150	Yes	Y	DL	1	OL1	1	OL2	-0.866	OL3	0.5
57	1D + 1Di + 1Wi AZI 180	Yes	Y	DL	1	OL1	1	OL2	-1		
58	1D + 1Di + 1Wi AZI 210	Yes	Y	DL	1	OL1	1	OL2	-0.866	OL3	-0.5
59	1D + 1Di + 1Wi AZI 240	Yes	Y	DL	1	OL1	1	OL2	-0.5	OL3	-0.866
60	1D + 1Di + 1Wi AZI 270	Yes	Y	DL	1	OL1	1			OL3	-1
61	1D + 1Di + 1Wi AZI 300	Yes	Y	DL	1	OL1	1	OL2	0.5	OL3	-0.866
62	1D + 1Di + 1Wi AZI 330	Yes	Y	DL	1	OL1	1	OL2	0.866	OL3	-0.5
63	(1.0+0.14Sds)D + 0.7E AZI 000	Yes	Y	DL	1.024	ELZ	0.7				
64	(1.0+0.14Sds)D + 0.7E AZI 030	Yes	Y	DL	1.024	ELZ	0.606	ELX	0.35		
65	(1.0+0.14Sds)D + 0.7E AZI 060	Yes	Y	DL	1.024	ELZ	0.35	ELX	0.606		
66	(1.0+0.14Sds)D + 0.7E AZI 090	Yes	Y	DL	1.024			ELX	0.7		
67	(1.0+0.14Sds)D + 0.7E AZI 120	Yes	Y	DL	1.024	ELZ	-0.35	ELX	0.606		
68	(1.0+0.14Sds)D + 0.7E AZI 150	Yes	Y	DL	1.024	ELZ	-0.606	ELX	0.35		
69	(1.0+0.14Sds)D + 0.7E AZI 180	Yes	Y	DL	1.024	ELZ	-0.7				
70	(1.0+0.14Sds)D + 0.7E AZI 210	Yes	Y	DL	1.024	ELZ	-0.606	ELX	-0.35		
71	(1.0+0.14Sds)D + 0.7E AZI 240	Yes	Y	DL	1.024	ELZ	-0.35	ELX	-0.606		
72	(1.0+0.14Sds)D + 0.7E AZI 270	Yes	Y	DL	1.024			ELX	-0.7		
73	(1.0+0.14Sds)D + 0.7E AZI 300	Yes	Y	DL	1.024	ELZ	0.35	ELX	-0.606		
74	(1.0+0.14Sds)D + 0.7E AZI 330	Yes	Y	DL	1.024	ELZ	0.606	ELX	-0.35		
75	(0.6-0.2Sds)D + 0.7E AZI 000	Yes	Y	DL	0.576	ELZ	0.7				
76	(0.6-0.2Sds)D + 0.7E AZI 030	Yes	Y	DL	0.576	ELZ	0.606	ELX	0.35		
77	(0.6-0.2Sds)D + 0.7E AZI 060	Yes	Y	DL	0.576	ELZ	0.35	ELX	0.606		
78	(0.6-0.2Sds)D + 0.7E AZI 090	Yes	Y	DL	0.576			ELX	0.7		
79	(0.6-0.2Sds)D + 0.7E AZI 120	Yes	Y	DL	0.576	ELZ	-0.35	ELX	0.606		
80	(0.6-0.2Sds)D + 0.7E AZI 150	Yes	Y	DL	0.576	ELZ	-0.606	ELX	0.35		
81	(0.6-0.2Sds)D + 0.7E AZI 180	Yes	Y	DL	0.576	ELZ	-0.7				
82	(0.6-0.2Sds)D + 0.7E AZI 210	Yes	Y	DL	0.576	ELZ	-0.606	ELX	-0.35		
83	(0.6-0.2Sds)D + 0.7E AZI 240	Yes	Y	DL	0.576	ELZ	-0.35	ELX	-0.606		
84	(0.6-0.2Sds)D + 0.7E AZI 270	Yes	Y	DL	0.576			ELX	-0.7		
85	(0.6-0.2Sds)D + 0.7E AZI 300	Yes	Y	DL	0.576	ELZ	0.35	ELX	-0.606		
86	(0.6-0.2Sds)D + 0.7E AZI 330	Yes	Y	DL	0.576	ELZ	0.606	ELX	-0.35		

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N18						
2	N40						
3	N41						
4	N42						
5	N43						
6	N138	Reaction	Reaction	Reaction			
7	N120	Reaction	Reaction	Reaction			
8	N569	Reaction	Reaction	Reaction			
9	N586						



Company : GeoStructural, LLC
 Designer : Fathullah Zamani
 Job Number : CTNL805B
GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

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Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
10	N587	Reaction	Reaction	Reaction			
11	N696						
12	N734						
13	N756						
14	N757						
15	N758						
16	N759						
17	N836	Reaction	Reaction	Reaction			
18	N854	Reaction	Reaction	Reaction			
19	N1285	Reaction	Reaction	Reaction			
20	N1302						
21	N1303	Reaction	Reaction	Reaction			
22	N1412						
23	N1440						
24	N1462						
25	N1463						
26	N1464						
27	N1465						
28	N1542	Reaction	Reaction	Reaction			
29	N1560	Reaction	Reaction	Reaction			
30	N1991	Reaction	Reaction	Reaction			
31	N2008						
32	N2009	Reaction	Reaction	Reaction			
33	N2118						
34	N2129	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
35	N2130						
36	N2131	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
37	N2132						
38	N2133	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
39	N2134						
40	N2167	Reaction	Reaction	Reaction			
41	N2172	Reaction	Reaction	Reaction			
42	N2177	Reaction	Reaction	Reaction			

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	0.49	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.49	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	A500 Gr.B RND_1	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
8	A500 Gr.B Rect_1	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	J429 G2	29000	11154	0.3	0.65	0.49	57	1.5	75	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	PIPE_2.0	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
2	PIPE_3.0	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	PIPE_2.5	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
4	HSS4x4x3	HSS4X4X3	Beam	None	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10



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Designer : Fathullah Zamani

Job Number : CTNL805B

Model Name : CT11794-S East Lyme 1

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Hot Rolled Steel Section Sets (Continued)

Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]	
5	3/8"x2.5"	3/8"X2.5"	Beam	None	A36 Gr.36	Typical	0.938	0.011	0.488	0.04
6	LL2.5x2.5x3x3	LL2.5X2.5X3X3	Beam	None	A36 Gr.36	Typical	1.8	2.46	1.07	0.023
7	.625 Dia.	.625DIA.	Beam	None	J429 G2	Typical	0.307	0.007	0.007	0.015
8	3/8"x8"	3/8"X8"	Beam	None	A36 Gr.36	Typical	3	0.035	16	0.136
9	L2.5x2.5x3	L2.5X2.5X3	Beam	None	A36 Gr.36	Typical	0.901	0.535	0.535	0.011
10	L5x3x4	L5X3X4	Beam	None	A36 Gr.36	Typical	1.94	1.41	5.09	0.044

Member Primary Data

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
1	M1	N3	N1		L5x3x4	Beam	None	A36 Gr.36	Typical
2	M2	N7	N1		RIGID	None	None	RIGID	Typical
3	M3	N8	N3		RIGID	None	None	RIGID	Typical
4	M4	N5	N2		RIGID	None	None	RIGID	Typical
5	M5	N6	N4		RIGID	None	None	RIGID	Typical
6	M6	N1	N2	.625 Dia.	Beam	None	J429 G2	Typical	
7	M7	N3	N4	.625 Dia.	Beam	None	J429 G2	Typical	
8	M8	N7	N5	.625 Dia.	Beam	None	J429 G2	Typical	
9	M9	N8	N6	.625 Dia.	Beam	None	J429 G2	Typical	
10	M10	N7	N8	180	L5x3x4	Beam	None	A36 Gr.36	Typical
11	M11	N9	N19		RIGID	None	None	RIGID	Typical
12	M12	N10	N11		PIPE_3.0	Beam	None	A53 Gr.B	Typical
13	M13	N12	N13		PIPE_2.0	Beam	None	A53 Gr.B	Typical
14	M14	N14	N15		RIGID	None	None	RIGID	Typical
15	M15	N16	N17		PIPE_3.0	Beam	None	A53 Gr.B	Typical
16	M16	N18	N19		HSS4x4x3	Beam	None	A500 Gr.B Rect	Typical
17	M17	N26	N27		RIGID	None	None	RIGID	Typical
18	M18	N29	N28		RIGID	None	None	RIGID	Typical
19	M19	N32	N31		RIGID	None	None	RIGID	Typical
20	M20	N30	N31		.625 Dia.	Beam	None	J429 G2	Typical
21	M21	N33	N32		.625 Dia.	Beam	None	J429 G2	Typical
22	M22	N37	N36		RIGID	None	None	RIGID	Typical
23	M23	N35	N36		.625 Dia.	Beam	None	J429 G2	Typical
24	M24	N38	N37		.625 Dia.	Beam	None	J429 G2	Typical
25	M25	N33	N30		RIGID	None	None	RIGID	Typical
26	M26	N38	N35		RIGID	None	None	RIGID	Typical
27	M27	N664	N250		RIGID	None	None	RIGID	Typical
28	M28	N665	N251		RIGID	None	None	RIGID	Typical
29	M29	N666	N252		RIGID	None	None	RIGID	Typical
30	M30	N667	N253		RIGID	None	None	RIGID	Typical
31	M31	N668	N254		RIGID	None	None	RIGID	Typical
32	M32	N669	N255		RIGID	None	None	RIGID	Typical
33	M33	N670	N256		RIGID	None	None	RIGID	Typical
34	M34	N671	N257		RIGID	None	None	RIGID	Typical
35	M35	N672	N258		RIGID	None	None	RIGID	Typical
36	M36	N674	N283		RIGID	None	None	RIGID	Typical
37	M37	N676	N308		RIGID	None	None	RIGID	Typical
38	M38	N678	N333		RIGID	None	None	RIGID	Typical
39	M39	N680	N357		RIGID	None	None	RIGID	Typical
40	M40	N682	N382		RIGID	None	None	RIGID	Typical
41	M41	N684	N407		RIGID	None	None	RIGID	Typical
42	M42	N686	N432		RIGID	None	None	RIGID	Typical
43	M43	N695	N457		RIGID	None	None	RIGID	Typical
44	M44	N694	N456		RIGID	None	None	RIGID	Typical
45	M45	N693	N455		RIGID	None	None	RIGID	Typical
46	M46	N692	N454		RIGID	None	None	RIGID	Typical



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Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
47	M47	N691	N453		RIGID	None	None	RIGID Typical
48	M48	N690	N452		RIGID	None	None	RIGID Typical
49	M49	N689	N451		RIGID	None	None	RIGID Typical
50	M50	N688	N450		RIGID	None	None	RIGID Typical
51	M51	N687	N449		RIGID	None	None	RIGID Typical
52	M52	N685	N424		RIGID	None	None	RIGID Typical
53	M53	N683	N399		RIGID	None	None	RIGID Typical
54	M54	N681	N374		RIGID	None	None	RIGID Typical
55	M55	N679	N350		RIGID	None	None	RIGID Typical
56	M56	N677	N325		RIGID	None	None	RIGID Typical
57	M57	N675	N300		RIGID	None	None	RIGID Typical
58	M58	N673	N275		RIGID	None	None	RIGID Typical
59	M59	N664	N672		RIGID	None	None	RIGID Typical
60	M60	N672	N695		RIGID	None	None	RIGID Typical
61	M61	N695	N687		RIGID	None	None	RIGID Typical
62	M62	N687	N664		RIGID	None	None	RIGID Typical
63	M63	N696	N680		RIGID	None	None	RIGID Typical
64	M64	N696	N668		RIGID	None	None	RIGID Typical
65	M65	N696	N679		RIGID	None	None	RIGID Typical
66	M66	N696	N691		RIGID	None	None	RIGID Typical
67	M67	N697	N698		PIPE_2.0	Beam	None	A53 Gr.B Typical
68	M68	N699	N700		RIGID	None	None	RIGID Typical
69	M69	N703	N704		RIGID	None	None	RIGID Typical
70	M70	N706	N705		RIGID	None	None	RIGID Typical
71	M71	N707	N708		PIPE_2.5	Beam	None	A53 Gr.B Typical
72	M72	N709	N710		RIGID	None	None	RIGID Typical
73	M73	N713	N714		RIGID	None	None	RIGID Typical
74	M74	N716	N715		RIGID	None	None	RIGID Typical
75	M75	N719	N717		L5x3x4	Beam	None	A36 Gr.36 Typical
76	M76	N723	N717		RIGID	None	None	RIGID Typical
77	M77	N724	N719		RIGID	None	None	RIGID Typical
78	M78	N721	N718		RIGID	None	None	RIGID Typical
79	M79	N722	N720		RIGID	None	None	RIGID Typical
80	M80	N717	N718	.625 Dia.	Beam	None	J429 G2	Typical
81	M81	N719	N720	.625 Dia.	Beam	None	J429 G2	Typical
82	M82	N723	N721	.625 Dia.	Beam	None	J429 G2	Typical
83	M83	N724	N722	.625 Dia.	Beam	None	J429 G2	Typical
84	M84	N723	N724	180	L5x3x4	Beam	None	A36 Gr.36 Typical
85	M85	N725	N735		RIGID	None	None	RIGID Typical
86	M86	N726	N727		PIPE_3.0	Beam	None	A53 Gr.B Typical
87	M87	N728	N729		PIPE_2.0	Beam	None	A53 Gr.B Typical
88	M88	N730	N731		RIGID	None	None	RIGID Typical
89	M89	N732	N733		PIPE_3.0	Beam	None	A53 Gr.B Typical
90	M90	N734	N735		HSS4x4x3	Beam	None	A500 Gr.B Rect Typical
91	M91	N742	N743		RIGID	None	None	RIGID Typical
92	M92	N745	N744		RIGID	None	None	RIGID Typical
93	M93	N748	N747		RIGID	None	None	RIGID Typical
94	M94	N746	N747	.625 Dia.	Beam	None	J429 G2	Typical
95	M95	N749	N748	.625 Dia.	Beam	None	J429 G2	Typical
96	M96	N753	N752		RIGID	None	None	RIGID Typical
97	M97	N751	N752	.625 Dia.	Beam	None	J429 G2	Typical
98	M98	N754	N753	.625 Dia.	Beam	None	J429 G2	Typical
99	M99	N749	N746		RIGID	None	None	RIGID Typical
100	M100	N754	N751		RIGID	None	None	RIGID Typical
101	M101	N1380	N966		RIGID	None	None	RIGID Typical



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Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
102	M102	N1381	N967	RIGID	None	None	RIGID	Typical	
103	M103	N1382	N968	RIGID	None	None	RIGID	Typical	
104	M104	N1383	N969	RIGID	None	None	RIGID	Typical	
105	M105	N1384	N970	RIGID	None	None	RIGID	Typical	
106	M106	N1385	N971	RIGID	None	None	RIGID	Typical	
107	M107	N1386	N972	RIGID	None	None	RIGID	Typical	
108	M108	N1387	N973	RIGID	None	None	RIGID	Typical	
109	M109	N1388	N974	RIGID	None	None	RIGID	Typical	
110	M110	N1390	N999	RIGID	None	None	RIGID	Typical	
111	M111	N1392	N1024	RIGID	None	None	RIGID	Typical	
112	M112	N1394	N1049	RIGID	None	None	RIGID	Typical	
113	M113	N1396	N1073	RIGID	None	None	RIGID	Typical	
114	M114	N1398	N1098	RIGID	None	None	RIGID	Typical	
115	M115	N1400	N1123	RIGID	None	None	RIGID	Typical	
116	M116	N1402	N1148	RIGID	None	None	RIGID	Typical	
117	M117	N1411	N1173	RIGID	None	None	RIGID	Typical	
118	M118	N1410	N1172	RIGID	None	None	RIGID	Typical	
119	M119	N1409	N1171	RIGID	None	None	RIGID	Typical	
120	M120	N1408	N1170	RIGID	None	None	RIGID	Typical	
121	M121	N1407	N1169	RIGID	None	None	RIGID	Typical	
122	M122	N1406	N1168	RIGID	None	None	RIGID	Typical	
123	M123	N1405	N1167	RIGID	None	None	RIGID	Typical	
124	M124	N1404	N1166	RIGID	None	None	RIGID	Typical	
125	M125	N1403	N1165	RIGID	None	None	RIGID	Typical	
126	M126	N1401	N1140	RIGID	None	None	RIGID	Typical	
127	M127	N1399	N1115	RIGID	None	None	RIGID	Typical	
128	M128	N1397	N1090	RIGID	None	None	RIGID	Typical	
129	M129	N1395	N1066	RIGID	None	None	RIGID	Typical	
130	M130	N1393	N1041	RIGID	None	None	RIGID	Typical	
131	M131	N1391	N1016	RIGID	None	None	RIGID	Typical	
132	M132	N1389	N991	RIGID	None	None	RIGID	Typical	
133	M133	N1380	N1388	RIGID	None	None	RIGID	Typical	
134	M134	N1388	N1411	RIGID	None	None	RIGID	Typical	
135	M135	N1411	N1403	RIGID	None	None	RIGID	Typical	
136	M136	N1403	N1380	RIGID	None	None	RIGID	Typical	
137	M137	N1412	N1396	RIGID	None	None	RIGID	Typical	
138	M138	N1412	N1384	RIGID	None	None	RIGID	Typical	
139	M139	N1412	N1395	RIGID	None	None	RIGID	Typical	
140	M140	N1412	N1407	RIGID	None	None	RIGID	Typical	
141	M141	N1413	N1414	PIPE 2.0	Beam	None	A53 Gr.B	Typical	
142	M142	N1415	N1416	RIGID	None	None	RIGID	Typical	
143	M143	N1419	N1420	RIGID	None	None	RIGID	Typical	
144	M144	N1422	N1421	RIGID	None	None	RIGID	Typical	
145	M145	N1425	N1423	L5x3x4	Beam	None	A36 Gr.36	Typical	
146	M146	N1429	N1423	RIGID	None	None	RIGID	Typical	
147	M147	N1430	N1425	RIGID	None	None	RIGID	Typical	
148	M148	N1427	N1424	RIGID	None	None	RIGID	Typical	
149	M149	N1428	N1426	RIGID	None	None	RIGID	Typical	
150	M150	N1423	N1424	.625 Dia.	Beam	None	J429 G2	Typical	
151	M151	N1425	N1426	.625 Dia.	Beam	None	J429 G2	Typical	
152	M152	N1429	N1427	.625 Dia.	Beam	None	J429 G2	Typical	
153	M153	N1430	N1428	.625 Dia.	Beam	None	J429 G2	Typical	
154	M154	N1429	N1430	180	L5x3x4	Beam	None	A36 Gr.36	Typical
155	M155	N1431	N1441	RIGID	None	None	RIGID	Typical	
156	M156	N1432	N1433		PIPE_3.0	Beam	None	A53 Gr.B	Typical



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Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
157	M157	N1434	N1435		PIPE_2.0	Beam	None	A53 Gr.B
158	M158	N1436	N1437		RIGID	None	None	RIGID
159	M159	N1438	N1439		PIPE_3.0	Beam	None	A53 Gr.B
160	M160	N1440	N1441		HSS4x4x3	Beam	None	A500 Gr.B Rect
161	M161	N1448	N1449		RIGID	None	None	RIGID
162	M162	N1451	N1450		RIGID	None	None	RIGID
163	M163	N1454	N1453		RIGID	None	None	RIGID
164	M164	N1452	N1453	.625 Dia.	Beam	None	J429 G2	Typical
165	M165	N1455	N1454	.625 Dia.	Beam	None	J429 G2	Typical
166	M166	N1459	N1458		RIGID	None	None	RIGID
167	M167	N1457	N1458	.625 Dia.	Beam	None	J429 G2	Typical
168	M168	N1460	N1459	.625 Dia.	Beam	None	J429 G2	Typical
169	M169	N1455	N1452		RIGID	None	None	RIGID
170	M170	N1460	N1457		RIGID	None	None	RIGID
171	M171	N2086	N1672		RIGID	None	None	RIGID
172	M172	N2087	N1673		RIGID	None	None	RIGID
173	M173	N2088	N1674		RIGID	None	None	RIGID
174	M174	N2089	N1675		RIGID	None	None	RIGID
175	M175	N2090	N1676		RIGID	None	None	RIGID
176	M176	N2091	N1677		RIGID	None	None	RIGID
177	M177	N2092	N1678		RIGID	None	None	RIGID
178	M178	N2093	N1679		RIGID	None	None	RIGID
179	M179	N2094	N1680		RIGID	None	None	RIGID
180	M180	N2096	N1705		RIGID	None	None	RIGID
181	M181	N2098	N1730		RIGID	None	None	RIGID
182	M182	N2100	N1755		RIGID	None	None	RIGID
183	M183	N2102	N1779		RIGID	None	None	RIGID
184	M184	N2104	N1804		RIGID	None	None	RIGID
185	M185	N2106	N1829		RIGID	None	None	RIGID
186	M186	N2108	N1854		RIGID	None	None	RIGID
187	M187	N2117	N1879		RIGID	None	None	RIGID
188	M188	N2116	N1878		RIGID	None	None	RIGID
189	M189	N2115	N1877		RIGID	None	None	RIGID
190	M190	N2114	N1876		RIGID	None	None	RIGID
191	M191	N2113	N1875		RIGID	None	None	RIGID
192	M192	N2112	N1874		RIGID	None	None	RIGID
193	M193	N2111	N1873		RIGID	None	None	RIGID
194	M194	N2110	N1872		RIGID	None	None	RIGID
195	M195	N2109	N1871		RIGID	None	None	RIGID
196	M196	N2107	N1846		RIGID	None	None	RIGID
197	M197	N2105	N1821		RIGID	None	None	RIGID
198	M198	N2103	N1796		RIGID	None	None	RIGID
199	M199	N2101	N1772		RIGID	None	None	RIGID
200	M200	N2099	N1747		RIGID	None	None	RIGID
201	M201	N2097	N1722		RIGID	None	None	RIGID
202	M202	N2095	N1697		RIGID	None	None	RIGID
203	M203	N2086	N2094		RIGID	None	None	RIGID
204	M204	N2094	N2117		RIGID	None	None	RIGID
205	M205	N2117	N2109		RIGID	None	None	RIGID
206	M206	N2109	N2086		RIGID	None	None	RIGID
207	M207	N2118	N2102		RIGID	None	None	RIGID
208	M208	N2118	N2090		RIGID	None	None	RIGID
209	M209	N2118	N2101		RIGID	None	None	RIGID
210	M210	N2118	N2113		RIGID	None	None	RIGID
211	M211	N2119	N2120		PIPE_2.0	Beam	None	A53 Gr.B



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Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
212	M212	N2121	N2122		RIGID	None	None	RIGID Typical
213	M213	N2125	N2126		RIGID	None	None	RIGID Typical
214	M214	N2128	N2127		RIGID	None	None	RIGID Typical
215	M215	N2130	N2129	LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
216	M216	N2132	N2131	LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
217	M217	N2134	N2133	LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
218	M218	N2135	N2136		RIGID	None	None	RIGID Typical
219	M219	N2137	N2138		PIPE 2.5	Beam	None	A53 Gr.B Typical
220	M220	N2139	N2140		RIGID	None	None	RIGID Typical
221	M221	N2141	N2142		RIGID	None	None	RIGID Typical
222	M222	N2143	N2144		RIGID	None	None	RIGID Typical
223	M223	N2145	N2146		PIPE 2.5	Beam	None	A53 Gr.B Typical
224	M224	N2147	N2148		RIGID	None	None	RIGID Typical
225	M225	N2149	N2150		RIGID	None	None	RIGID Typical
226	M226	N2151	N2152		PIPE 2.5	Beam	None	A53 Gr.B Typical
227	M227	N2153	N2154		RIGID	None	None	RIGID Typical
228	M228	N2161	N2155		RIGID	None	None	RIGID Typical
229	M229	N2162	N2160		RIGID	None	None	RIGID Typical
230	M230	N2162	N2161		PIPE 2.5	Beam	None	A53 Gr.B Typical
231	M231	N2163	N2156		RIGID	None	None	RIGID Typical
232	M232	N2164	N2158		RIGID	None	None	RIGID Typical
233	M233	N2164	N2163		PIPE 2.5	Beam	None	A53 Gr.B Typical
234	M234	N2165	N2157		RIGID	None	None	RIGID Typical
235	M235	N2166	N2159		RIGID	None	None	RIGID Typical
236	M236	N2166	N2165		PIPE 2.5	Beam	None	A53 Gr.B Typical
237	M237	N2168	N2169		RIGID	None	None	RIGID Typical
238	M238	N2169	N2167	90	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
239	M239	N2170	N2171		RIGID	None	None	RIGID Typical
240	M240	N2171	N2167	180	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
241	M241	N2173	N2174		RIGID	None	None	RIGID Typical
242	M242	N2174	N2172	90	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
243	M243	N2175	N2176		RIGID	None	None	RIGID Typical
244	M244	N2176	N2172	180	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
245	M245	N2178	N2179		RIGID	None	None	RIGID Typical
246	M246	N2179	N2177	90	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
247	M247	N2180	N2181		RIGID	None	None	RIGID Typical
248	M248	N2181	N2177	180	L2.5x2.5x3	Beam	None	A36 Gr.36 Typical
249	M249	N2182	N2183		PIPE 2.0	Beam	None	A53 Gr.B Typical
250	M250	N2184	N2185		RIGID	None	None	RIGID Typical
251	M251	N2187	N2188		RIGID	None	None	RIGID Typical
252	M252	N2189	N2190		PIPE 2.5	Beam	None	A53 Gr.B Typical
253	M253	N2191	N2192		RIGID	None	None	RIGID Typical
254	M254	N2195	N2196		RIGID	None	None	RIGID Typical
255	M255	N2198	N2197		RIGID	None	None	RIGID Typical
256	M256	N2199	N2200		RIGID	None	None	RIGID Typical
257	M257	N2201	N2202		PIPE 2.0	Beam	None	A53 Gr.B Typical
258	M258	N2203	N2204		RIGID	None	None	RIGID Typical
259	M259	N2205	N2206		PIPE 2.5	Beam	None	A53 Gr.B Typical
260	M260	N2207	N2208		RIGID	None	None	RIGID Typical
261	M261	N2211	N2212		RIGID	None	None	RIGID Typical
262	M262	N2214	N2213		RIGID	None	None	RIGID Typical
263	M263	N2215	N2216		RIGID	None	None	RIGID Typical
264	M264	N2217	N2218		PIPE 2.0	Beam	None	A53 Gr.B Typical
265	M265	N2219	N2220		RIGID	None	None	RIGID Typical
266	M266	N2222	N2223		RIGID	None	None	RIGID Typical



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

Model Name : CT11794-S East Lyme 1

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Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
267	M267	N2224	N2225	RIGID	None	None	RIGID	Typical

Node Loads and Enforced Displacements (BLC 1 : Self Weight)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1 N24	L	Y	-0.023
2 N25	L	Y	-0.023
3 N711	L	Y	-0.064
4 N712	L	Y	-0.064
5 N701	L	Y	-0.014
6 N702	L	Y	-0.014
7 N715	L	Y	-0.075
8 N705	L	Y	-0.11
9 N1446	L	Y	-0.023
10 N1447	L	Y	-0.023
11 N2209	L	Y	-0.064
12 N2210	L	Y	-0.064
13 N2123	L	Y	-0.014
14 N2124	L	Y	-0.014
15 N2213	L	Y	-0.075
16 N2127	L	Y	-0.11
17 N740	L	Y	-0.023
18 N741	L	Y	-0.023
19 N2193	L	Y	-0.064
20 N2194	L	Y	-0.064
21 N1417	L	Y	-0.014
22 N1418	L	Y	-0.014
23 N2197	L	Y	-0.075
24 N1421	L	Y	-0.11

Node Loads and Enforced Displacements (BLC 2 : Wind Load AZI 000)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1 N24	L	Z	-0.18
2 N25	L	Z	-0.18
3 N711	L	Z	-0.564
4 N712	L	Z	-0.564
5 N701	L	Z	-0.165
6 N702	L	Z	-0.165
7 N715	L	Z	-0.11
8 N705	L	Z	-0.143
9 N1446	L	Z	-0.075
10 N1447	L	Z	-0.075
11 N2209	L	Z	-0.248
12 N2210	L	Z	-0.248
13 N2123	L	Z	-0.076
14 N2124	L	Z	-0.076
15 N2213	L	Z	-0.079
16 N2127	L	Z	-0.11
17 N740	L	Z	-0.075
18 N741	L	Z	-0.075
19 N2193	L	Z	-0.248
20 N2194	L	Z	-0.248
21 N1417	L	Z	-0.076
22 N1418	L	Z	-0.076



Node Loads and Enforced Displacements (BLC 2 : Wind Load AZI 000) (Continued)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
23 N2197	L	Z	-0.079
24 N1421	L	Z	-0.11

Node Loads and Enforced Displacements (BLC 3 : Wind Load AZI 090)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1 N24	L	X	-0.075
2 N25	L	X	-0.075
3 N711	L	X	-0.248
4 N712	L	X	-0.248
5 N701	L	X	-0.076
6 N702	L	X	-0.076
7 N715	L	X	-0.079
8 N705	L	X	-0.11
9 N1446	L	X	-0.18
10 N1447	L	X	-0.18
11 N2209	L	X	-0.564
12 N2210	L	X	-0.564
13 N2123	L	X	-0.165
14 N2124	L	X	-0.165
15 N2213	L	X	-0.11
16 N2127	L	X	-0.143
17 N740	L	X	-0.18
18 N741	L	X	-0.18
19 N2193	L	X	-0.564
20 N2194	L	X	-0.564
21 N1417	L	X	-0.165
22 N1418	L	X	-0.165
23 N2197	L	X	-0.11
24 N1421	L	X	-0.143

Node Loads and Enforced Displacements (BLC 4 : Ice Weight)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1 N24	L	Y	-0.035
2 N25	L	Y	-0.035
3 N711	L	Y	-0.095
4 N712	L	Y	-0.095
5 N701	L	Y	-0.028
6 N702	L	Y	-0.028
7 N715	L	Y	-0.03
8 N705	L	Y	-0.042
9 N1446	L	Y	-0.035
10 N1447	L	Y	-0.035
11 N2209	L	Y	-0.095
12 N2210	L	Y	-0.095
13 N2123	L	Y	-0.028
14 N2124	L	Y	-0.028
15 N2213	L	Y	-0.03
16 N2127	L	Y	-0.042
17 N740	L	Y	-0.035
18 N741	L	Y	-0.035
19 N2193	L	Y	-0.095
20 N2194	L	Y	-0.095
21 N1417	L	Y	-0.028



Node Loads and Enforced Displacements (BLC 4 : Ice Weight) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
22	N1418	L	Y	-0.028
23	N2197	L	Y	-0.03
24	N1421	L	Y	-0.042

Node Loads and Enforced Displacements (BLC 5 : Wind + Ice Load AZI 000)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1	N24	L	Z	-0.028
2	N25	L	Z	-0.028
3	N711	L	Z	-0.085
4	N712	L	Z	-0.085
5	N701	L	Z	-0.027
6	N702	L	Z	-0.027
7	N715	L	Z	-0.019
8	N705	L	Z	-0.024
9	N1446	L	Z	-0.013
10	N1447	L	Z	-0.013
11	N2209	L	Z	-0.042
12	N2210	L	Z	-0.042
13	N2123	L	Z	-0.015
14	N2124	L	Z	-0.015
15	N2213	L	Z	-0.014
16	N2127	L	Z	-0.019
17	N740	L	Z	-0.013
18	N741	L	Z	-0.013
19	N2193	L	Z	-0.042
20	N2194	L	Z	-0.042
21	N1417	L	Z	-0.015
22	N1418	L	Z	-0.015
23	N2197	L	Z	-0.014
24	N1421	L	Z	-0.019

Node Loads and Enforced Displacements (BLC 6 : Wind + Ice Load AZI 090)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1	N24	L	X	-0.013
2	N25	L	X	-0.013
3	N711	L	X	-0.042
4	N712	L	X	-0.042
5	N701	L	X	-0.015
6	N702	L	X	-0.015
7	N715	L	X	-0.014
8	N705	L	X	-0.019
9	N1446	L	X	-0.028
10	N1447	L	X	-0.028
11	N2209	L	X	-0.085
12	N2210	L	X	-0.085
13	N2123	L	X	-0.027
14	N2124	L	X	-0.027
15	N2213	L	X	-0.019
16	N2127	L	X	-0.024
17	N740	L	X	-0.028
18	N741	L	X	-0.028
19	N2193	L	X	-0.085
20	N2194	L	X	-0.085



Node Loads and Enforced Displacements (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
21	N1417	L	X	-0.027
22	N1418	L	X	-0.027
23	N2197	L	X	-0.019
24	N1421	L	X	-0.024

Node Loads and Enforced Displacements (BLC 7 : Seismic Load AZI 000)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1	N24	L	Z	-0.002
2	N25	L	Z	-0.002
3	N711	L	Z	-0.005
4	N712	L	Z	-0.005
5	N701	L	Z	-0.001
6	N702	L	Z	-0.001
7	N715	L	Z	-0.006
8	N705	L	Z	-0.009
9	N1446	L	Z	-0.002
10	N1447	L	Z	-0.002
11	N2209	L	Z	-0.005
12	N2210	L	Z	-0.005
13	N2123	L	Z	-0.001
14	N2124	L	Z	-0.001
15	N2213	L	Z	-0.006
16	N2127	L	Z	-0.009
17	N740	L	Z	-0.002
18	N741	L	Z	-0.002
19	N2193	L	Z	-0.005
20	N2194	L	Z	-0.005
21	N1417	L	Z	-0.001
22	N1418	L	Z	-0.001
23	N2197	L	Z	-0.006
24	N1421	L	Z	-0.009

Node Loads and Enforced Displacements (BLC 8 : Seismic Load AZI 090)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
1	N24	L	X	-0.002
2	N25	L	X	-0.002
3	N711	L	X	-0.005
4	N712	L	X	-0.005
5	N701	L	X	-0.001
6	N702	L	X	-0.001
7	N715	L	X	-0.006
8	N705	L	X	-0.009
9	N1446	L	X	-0.002
10	N1447	L	X	-0.002
11	N2209	L	X	-0.005
12	N2210	L	X	-0.005
13	N2123	L	X	-0.001
14	N2124	L	X	-0.001
15	N2213	L	X	-0.006
16	N2127	L	X	-0.009
17	N740	L	X	-0.002
18	N741	L	X	-0.002
19	N2193	L	X	-0.005



Node Loads and Enforced Displacements (BLC 8 : Seismic Load AZI 090) (Continued)

Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s^2/ft, k*s^2*ft)]
20	N2194	L	X
21	N1417	L	X
22	N1418	L	X
23	N2197	L	X
24	N1421	L	X

Member Distributed Loads (BLC 2 : Wind Load AZI 000)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M4	PZ	-0.039	-0.039	0 %100
2	M64	PZ	-0.039	-0.039	0 %100
3	M202	PZ	-0.039	-0.039	0 %100
4	M30	PZ	-0.039	-0.039	0 %100
5	M27	PZ	-0.039	-0.039	0 %100
6	M29	PZ	-0.039	-0.039	0 %100
7	M24	PZ	-0.039	-0.039	0 %100
8	M26	PZ	-0.039	-0.039	0 %100
9	M33	PZ	-0.039	-0.039	0 %100
10	M44	PZ	-0.039	-0.039	0 %100
11	M16	PZ	-0.039	-0.039	0 %100
12	M35	PZ	-0.039	-0.039	0 %100
13	M247	PZ	-0.039	-0.039	0 %100
14	M252	PZ	-0.039	-0.039	0 %100
15	M34	PZ	-0.039	-0.039	0 %100
16	M36	PZ	-0.039	-0.039	0 %100
17	M5	PZ	-0.039	-0.039	0 %100
18	M60	PZ	-0.039	-0.039	0 %100
19	M79	PZ	-0.039	-0.039	0 %100
20	M125	PZ	-0.039	-0.039	0 %100
21	M242	PZ	-0.039	-0.039	0 %100
22	M45	PZ	-0.039	-0.039	0 %100
23	M2	PZ	-0.039	-0.039	0 %100
24	M51	PZ	-0.039	-0.039	0 %100
25	M31	PZ	-0.039	-0.039	0 %100
26	M23	PZ	-0.039	-0.039	0 %100
27	M206	PZ	-0.039	-0.039	0 %100
28	M128	PZ	-0.039	-0.039	0 %100
29	M18	PZ	-0.039	-0.039	0 %100
30	M69	PZ	-0.039	-0.039	0 %100
31	M86	PZ	-0.039	-0.039	0 %100
32	M15	PZ	-0.039	-0.039	0 %100
33	M53	PZ	-0.039	-0.039	0 %100
34	M1	PZ	-0.039	-0.039	0 %100
35	M28	PZ	-0.039	-0.039	0 %100
36	M12	PZ	-0.039	-0.039	0 %100
37	M8	PZ	-0.039	-0.039	0 %100
38	M43	PZ	-0.039	-0.039	0 %100
39	M7	PZ	-0.039	-0.039	0 %100
40	M22	PZ	-0.039	-0.039	0 %100
41	M65	PZ	-0.039	-0.039	0 %100
42	M6	PZ	-0.039	-0.039	0 %100
43	M10	PZ	-0.039	-0.039	0 %100
44	M189	PZ	-0.039	-0.039	0 %100
45	M263	PZ	-0.039	-0.039	0 %100
46	M9	PZ	-0.039	-0.039	0 %100
47	M19	PZ	-0.039	-0.039	0 %100



Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
48 M20	PZ	-0.039	-0.039	0	%100
49 M134	PZ	-0.039	-0.039	0	%100
50 M169	PZ	-0.039	-0.039	0	%100
51 M91	PZ	-0.039	-0.039	0	%100
52 M46	PZ	-0.039	-0.039	0	%100
53 M38	PZ	-0.039	-0.039	0	%100
54 M47	PZ	-0.039	-0.039	0	%100
55 M210	PZ	-0.039	-0.039	0	%100
56 M11	PZ	-0.039	-0.039	0	%100
57 M93	PZ	-0.039	-0.039	0	%100
58 M3	PZ	-0.039	-0.039	0	%100
59 M198	PZ	-0.039	-0.039	0	%100
60 M152	PZ	-0.039	-0.039	0	%100
61 M94	PZ	-0.039	-0.039	0	%100
62 M21	PZ	-0.039	-0.039	0	%100
63 M55	PZ	-0.039	-0.039	0	%100
64 M17	PZ	-0.039	-0.039	0	%100
65 M101	PZ	-0.039	-0.039	0	%100
66 M14	PZ	-0.039	-0.039	0	%100
67 M25	PZ	-0.039	-0.039	0	%100
68 M56	PZ	-0.039	-0.039	0	%100
69 M32	PZ	-0.039	-0.039	0	%100
70 M103	PZ	-0.039	-0.039	0	%100
71 M54	PZ	-0.039	-0.039	0	%100
72 M70	PZ	-0.039	-0.039	0	%100
73 M78	PZ	-0.039	-0.039	0	%100
74 M77	PZ	-0.039	-0.039	0	%100
75 M67	PZ	-0.039	-0.039	0	%100
76 M100	PZ	-0.039	-0.039	0	%100
77 M222	PZ	-0.039	-0.039	0	%100
78 M37	PZ	-0.039	-0.039	0	%100
79 M111	PZ	-0.039	-0.039	0	%100
80 M193	PZ	-0.039	-0.039	0	%100
81 M99	PZ	-0.039	-0.039	0	%100
82 M72	PZ	-0.039	-0.039	0	%100
83 M92	PZ	-0.039	-0.039	0	%100
84 M106	PZ	-0.039	-0.039	0	%100
85 M50	PZ	-0.039	-0.039	0	%100
86 M105	PZ	-0.039	-0.039	0	%100
87 M88	PZ	-0.039	-0.039	0	%100
88 M97	PZ	-0.039	-0.039	0	%100
89 M132	PZ	-0.039	-0.039	0	%100
90 M95	PZ	-0.039	-0.039	0	%100
91 M112	PZ	-0.039	-0.039	0	%100
92 M59	PZ	-0.039	-0.039	0	%100
93 M221	PZ	-0.039	-0.039	0	%100
94 M81	PZ	-0.039	-0.039	0	%100
95 M104	PZ	-0.039	-0.039	0	%100
96 M68	PZ	-0.039	-0.039	0	%100
97 M102	PZ	-0.039	-0.039	0	%100
98 M75	PZ	-0.039	-0.039	0	%100
99 M52	PZ	-0.039	-0.039	0	%100
100 M98	PZ	-0.039	-0.039	0	%100
101 M90	PZ	-0.039	-0.039	0	%100
102 M74	PZ	-0.039	-0.039	0	%100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

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Checked By : DWG

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
103	M80	PZ	-0.039	-0.039	0 %100
104	M66	PZ	-0.039	-0.039	0 %100
105	M226	PZ	-0.039	-0.039	0 %100
106	M194	PZ	-0.039	-0.039	0 %100
107	M61	PZ	-0.039	-0.039	0 %100
108	M260	PZ	-0.039	-0.039	0 %100
109	M156	PZ	-0.039	-0.039	0 %100
110	M225	PZ	-0.039	-0.039	0 %100
111	M39	PZ	-0.039	-0.039	0 %100
112	M82	PZ	-0.039	-0.039	0 %100
113	M85	PZ	-0.039	-0.039	0 %100
114	M76	PZ	-0.039	-0.039	0 %100
115	M48	PZ	-0.039	-0.039	0 %100
116	M63	PZ	-0.039	-0.039	0 %100
117	M96	PZ	-0.039	-0.039	0 %100
118	M40	PZ	-0.039	-0.039	0 %100
119	M84	PZ	-0.039	-0.039	0 %100
120	M205	PZ	-0.039	-0.039	0 %100
121	M110	PZ	-0.039	-0.039	0 %100
122	M154	PZ	-0.039	-0.039	0 %100
123	M49	PZ	-0.039	-0.039	0 %100
124	M254	PZ	-0.039	-0.039	0 %100
125	M42	PZ	-0.039	-0.039	0 %100
126	M58	PZ	-0.039	-0.039	0 %100
127	M108	PZ	-0.039	-0.039	0 %100
128	M150	PZ	-0.039	-0.039	0 %100
129	M57	PZ	-0.039	-0.039	0 %100
130	M83	PZ	-0.039	-0.039	0 %100
131	M62	PZ	-0.039	-0.039	0 %100
132	M109	PZ	-0.039	-0.039	0 %100
133	M73	PZ	-0.039	-0.039	0 %100
134	M107	PZ	-0.039	-0.039	0 %100
135	M41	PZ	-0.039	-0.039	0 %100
136	M142	PZ	-0.039	-0.039	0 %100
137	M123	PZ	-0.039	-0.039	0 %100
138	M119	PZ	-0.039	-0.039	0 %100
139	M200	PZ	-0.039	-0.039	0 %100
140	M138	PZ	-0.039	-0.039	0 %100
141	M162	PZ	-0.039	-0.039	0 %100
142	M151	PZ	-0.039	-0.039	0 %100
143	M180	PZ	-0.039	-0.039	0 %100
144	M144	PZ	-0.039	-0.039	0 %100
145	M256	PZ	-0.039	-0.039	0 %100
146	M218	PZ	-0.039	-0.039	0 %100
147	M115	PZ	-0.039	-0.039	0 %100
148	M114	PZ	-0.039	-0.039	0 %100
149	M126	PZ	-0.039	-0.039	0 %100
150	M153	PZ	-0.039	-0.039	0 %100
151	M122	PZ	-0.039	-0.039	0 %100
152	M130	PZ	-0.039	-0.039	0 %100
153	M196	PZ	-0.039	-0.039	0 %100
154	M166	PZ	-0.039	-0.039	0 %100
155	M147	PZ	-0.039	-0.039	0 %100
156	M170	PZ	-0.039	-0.039	0 %100
157	M176	PZ	-0.039	-0.039	0 %100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
158	M148	PZ	-0.039	-0.039	0 %100
159	M158	PZ	-0.039	-0.039	0 %100
160	M131	PZ	-0.039	-0.039	0 %100
161	M116	PZ	-0.039	-0.039	0 %100
162	M231	PZ	-0.039	-0.039	0 %100
163	M136	PZ	-0.039	-0.039	0 %100
164	M168	PZ	-0.039	-0.039	0 %100
165	M143	PZ	-0.039	-0.039	0 %100
166	M182	PZ	-0.039	-0.039	0 %100
167	M155	PZ	-0.039	-0.039	0 %100
168	M113	PZ	-0.039	-0.039	0 %100
169	M139	PZ	-0.039	-0.039	0 %100
170	M120	PZ	-0.039	-0.039	0 %100
171	M160	PZ	-0.039	-0.039	0 %100
172	M124	PZ	-0.039	-0.039	0 %100
173	M127	PZ	-0.039	-0.039	0 %100
174	M167	PZ	-0.039	-0.039	0 %100
175	M145	PZ	-0.039	-0.039	0 %100
176	M133	PZ	-0.039	-0.039	0 %100
177	M117	PZ	-0.039	-0.039	0 %100
178	M135	PZ	-0.039	-0.039	0 %100
179	M146	PZ	-0.039	-0.039	0 %100
180	M137	PZ	-0.039	-0.039	0 %100
181	M163	PZ	-0.039	-0.039	0 %100
182	M164	PZ	-0.039	-0.039	0 %100
183	M178	PZ	-0.039	-0.039	0 %100
184	M173	PZ	-0.039	-0.039	0 %100
185	M140	PZ	-0.039	-0.039	0 %100
186	M177	PZ	-0.039	-0.039	0 %100
187	M179	PZ	-0.039	-0.039	0 %100
188	M161	PZ	-0.039	-0.039	0 %100
189	M255	PZ	-0.039	-0.039	0 %100
190	M175	PZ	-0.039	-0.039	0 %100
191	M207	PZ	-0.039	-0.039	0 %100
192	M181	PZ	-0.039	-0.039	0 %100
193	M118	PZ	-0.039	-0.039	0 %100
194	M121	PZ	-0.039	-0.039	0 %100
195	M171	PZ	-0.039	-0.039	0 %100
196	M172	PZ	-0.039	-0.039	0 %100
197	M165	PZ	-0.039	-0.039	0 %100
198	M174	PZ	-0.039	-0.039	0 %100
199	M149	PZ	-0.039	-0.039	0 %100
200	M129	PZ	-0.039	-0.039	0 %100
201	M237	PZ	-0.039	-0.039	0 %100
202	M204	PZ	-0.039	-0.039	0 %100
203	M253	PZ	-0.039	-0.039	0 %100
204	M219	PZ	-0.039	-0.039	0 %100
205	M257	PZ	-0.039	-0.039	0 %100
206	M183	PZ	-0.039	-0.039	0 %100
207	M89	PZ	-0.039	-0.039	0 %100
208	M184	PZ	-0.039	-0.039	0 %100
209	M87	PZ	-0.039	-0.039	0 %100
210	M201	PZ	-0.039	-0.039	0 %100
211	M230	PZ	-0.039	-0.039	0 %100
212	M212	PZ	-0.039	-0.039	0 %100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
213	M246	PZ	-0.039	-0.039	0 %100
214	M220	PZ	-0.039	-0.039	0 %100
215	M209	PZ	-0.039	-0.039	0 %100
216	M258	PZ	-0.039	-0.039	0 %100
217	M261	PZ	-0.039	-0.039	0 %100
218	M264	PZ	-0.039	-0.039	0 %100
219	M71	PZ	-0.039	-0.039	0 %100
220	M187	PZ	-0.039	-0.039	0 %100
221	M243	PZ	-0.039	-0.039	0 %100
222	M235	PZ	-0.039	-0.039	0 %100
223	M195	PZ	-0.039	-0.039	0 %100
224	M259	PZ	-0.039	-0.039	0 %100
225	M232	PZ	-0.039	-0.039	0 %100
226	M141	PZ	-0.039	-0.039	0 %100
227	M244	PZ	-0.039	-0.039	0 %100
228	M262	PZ	-0.039	-0.039	0 %100
229	M188	PZ	-0.039	-0.039	0 %100
230	M214	PZ	-0.039	-0.039	0 %100
231	M208	PZ	-0.039	-0.039	0 %100
232	M249	PZ	-0.039	-0.039	0 %100
233	M265	PZ	-0.039	-0.039	0 %100
234	M234	PZ	-0.039	-0.039	0 %100
235	M159	PZ	-0.039	-0.039	0 %100
236	M13	PZ	-0.039	-0.039	0 %100
237	M190	PZ	-0.039	-0.039	0 %100
238	M248	PZ	-0.039	-0.039	0 %100
239	M157	PZ	-0.039	-0.039	0 %100
240	M211	PZ	-0.039	-0.039	0 %100
241	M216	PZ	-0.039	-0.039	0 %100
242	M192	PZ	-0.039	-0.039	0 %100
243	M233	PZ	-0.039	-0.039	0 %100
244	M229	PZ	-0.039	-0.039	0 %100
245	M266	PZ	-0.039	-0.039	0 %100
246	M227	PZ	-0.039	-0.039	0 %100
247	M240	PZ	-0.039	-0.039	0 %100
248	M236	PZ	-0.039	-0.039	0 %100
249	M238	PZ	-0.039	-0.039	0 %100
250	M213	PZ	-0.039	-0.039	0 %100
251	M185	PZ	-0.039	-0.039	0 %100
252	M191	PZ	-0.039	-0.039	0 %100
253	M241	PZ	-0.039	-0.039	0 %100
254	M197	PZ	-0.039	-0.039	0 %100
255	M228	PZ	-0.039	-0.039	0 %100
256	M267	PZ	-0.039	-0.039	0 %100
257	M203	PZ	-0.039	-0.039	0 %100
258	M239	PZ	-0.039	-0.039	0 %100
259	M217	PZ	-0.039	-0.039	0 %100
260	M224	PZ	-0.039	-0.039	0 %100
261	M245	PZ	-0.039	-0.039	0 %100
262	M223	PZ	-0.039	-0.039	0 %100
263	M250	PZ	-0.039	-0.039	0 %100
264	M215	PZ	-0.039	-0.039	0 %100
265	M199	PZ	-0.039	-0.039	0 %100
266	M186	PZ	-0.039	-0.039	0 %100
267	M251	PZ	-0.039	-0.039	0 %100



Company : GeoStructural, LLC
Designer : Fathullah Zamani
Job Number : CTNL805B
GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022
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Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

Member Label Direction Start Magnitude [k/ft, F, ksf, k-ft/ft] End Magnitude [k/ft, F, ksf, k-ft/ft] Start Location [(ft, %)] End Location [(ft, %)]



Member Distributed Loads (BLC 3 : Wind Load AZI 090)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M93	PX	-0.039	-0.039	0	%100
2	M60	PX	-0.039	-0.039	0	%100
3	M19	PX	-0.039	-0.039	0	%100
4	M7	PX	-0.039	-0.039	0	%100
5	M2	PX	-0.039	-0.039	0	%100
6	M24	PX	-0.039	-0.039	0	%100
7	M64	PX	-0.039	-0.039	0	%100
8	M4	PX	-0.039	-0.039	0	%100
9	M34	PX	-0.039	-0.039	0	%100
10	M125	PX	-0.039	-0.039	0	%100
11	M44	PX	-0.039	-0.039	0	%100
12	M210	PX	-0.039	-0.039	0	%100
13	M101	PX	-0.039	-0.039	0	%100
14	M9	PX	-0.039	-0.039	0	%100
15	M43	PX	-0.039	-0.039	0	%100
16	M3	PX	-0.039	-0.039	0	%100
17	M79	PX	-0.039	-0.039	0	%100
18	M86	PX	-0.039	-0.039	0	%100
19	M6	PX	-0.039	-0.039	0	%100
20	M11	PX	-0.039	-0.039	0	%100
21	M247	PX	-0.039	-0.039	0	%100
22	M53	PX	-0.039	-0.039	0	%100
23	M10	PX	-0.039	-0.039	0	%100
24	M1	PX	-0.039	-0.039	0	%100
25	M69	PX	-0.039	-0.039	0	%100
26	M12	PX	-0.039	-0.039	0	%100
27	M263	PX	-0.039	-0.039	0	%100
28	M25	PX	-0.039	-0.039	0	%100
29	M8	PX	-0.039	-0.039	0	%100
30	M242	PX	-0.039	-0.039	0	%100
31	M35	PX	-0.039	-0.039	0	%100
32	M5	PX	-0.039	-0.039	0	%100
33	M14	PX	-0.039	-0.039	0	%100
34	M29	PX	-0.039	-0.039	0	%100
35	M27	PX	-0.039	-0.039	0	%100
36	M152	PX	-0.039	-0.039	0	%100
37	M51	PX	-0.039	-0.039	0	%100
38	M91	PX	-0.039	-0.039	0	%100
39	M202	PX	-0.039	-0.039	0	%100
40	M20	PX	-0.039	-0.039	0	%100
41	M15	PX	-0.039	-0.039	0	%100
42	M206	PX	-0.039	-0.039	0	%100
43	M46	PX	-0.039	-0.039	0	%100
44	M16	PX	-0.039	-0.039	0	%100
45	M189	PX	-0.039	-0.039	0	%100
46	M17	PX	-0.039	-0.039	0	%100
47	M56	PX	-0.039	-0.039	0	%100
48	M134	PX	-0.039	-0.039	0	%100
49	M18	PX	-0.039	-0.039	0	%100
50	M38	PX	-0.039	-0.039	0	%100
51	M21	PX	-0.039	-0.039	0	%100
52	M45	PX	-0.039	-0.039	0	%100
53	M22	PX	-0.039	-0.039	0	%100
54	M23	PX	-0.039	-0.039	0	%100
55	M47	PX	-0.039	-0.039	0	%100



Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
56	M32	PX	-0.039	-0.039	0	%100
57	M169	PX	-0.039	-0.039	0	%100
58	M26	PX	-0.039	-0.039	0	%100
59	M28	PX	-0.039	-0.039	0	%100
60	M30	PX	-0.039	-0.039	0	%100
61	M65	PX	-0.039	-0.039	0	%100
62	M31	PX	-0.039	-0.039	0	%100
63	M33	PX	-0.039	-0.039	0	%100
64	M252	PX	-0.039	-0.039	0	%100
65	M36	PX	-0.039	-0.039	0	%100
66	M198	PX	-0.039	-0.039	0	%100
67	M55	PX	-0.039	-0.039	0	%100
68	M128	PX	-0.039	-0.039	0	%100
69	M94	PX	-0.039	-0.039	0	%100
70	M54	PX	-0.039	-0.039	0	%100
71	M40	PX	-0.039	-0.039	0	%100
72	M37	PX	-0.039	-0.039	0	%100
73	M58	PX	-0.039	-0.039	0	%100
74	M39	PX	-0.039	-0.039	0	%100
75	M62	PX	-0.039	-0.039	0	%100
76	M41	PX	-0.039	-0.039	0	%100
77	M42	PX	-0.039	-0.039	0	%100
78	M48	PX	-0.039	-0.039	0	%100
79	M49	PX	-0.039	-0.039	0	%100
80	M50	PX	-0.039	-0.039	0	%100
81	M52	PX	-0.039	-0.039	0	%100
82	M57	PX	-0.039	-0.039	0	%100
83	M193	PX	-0.039	-0.039	0	%100
84	M59	PX	-0.039	-0.039	0	%100
85	M67	PX	-0.039	-0.039	0	%100
86	M225	PX	-0.039	-0.039	0	%100
87	M61	PX	-0.039	-0.039	0	%100
88	M63	PX	-0.039	-0.039	0	%100
89	M254	PX	-0.039	-0.039	0	%100
90	M66	PX	-0.039	-0.039	0	%100
91	M150	PX	-0.039	-0.039	0	%100
92	M68	PX	-0.039	-0.039	0	%100
93	M70	PX	-0.039	-0.039	0	%100
94	M72	PX	-0.039	-0.039	0	%100
95	M73	PX	-0.039	-0.039	0	%100
96	M222	PX	-0.039	-0.039	0	%100
97	M74	PX	-0.039	-0.039	0	%100
98	M75	PX	-0.039	-0.039	0	%100
99	M156	PX	-0.039	-0.039	0	%100
100	M132	PX	-0.039	-0.039	0	%100
101	M76	PX	-0.039	-0.039	0	%100
102	M77	PX	-0.039	-0.039	0	%100
103	M205	PX	-0.039	-0.039	0	%100
104	M78	PX	-0.039	-0.039	0	%100
105	M154	PX	-0.039	-0.039	0	%100
106	M80	PX	-0.039	-0.039	0	%100
107	M226	PX	-0.039	-0.039	0	%100
108	M81	PX	-0.039	-0.039	0	%100
109	M82	PX	-0.039	-0.039	0	%100
110	M83	PX	-0.039	-0.039	0	%100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
111	M84	PX	-0.039	-0.039	0	%100
112	M85	PX	-0.039	-0.039	0	%100
113	M88	PX	-0.039	-0.039	0	%100
114	M194	PX	-0.039	-0.039	0	%100
115	M90	PX	-0.039	-0.039	0	%100
116	M92	PX	-0.039	-0.039	0	%100
117	M95	PX	-0.039	-0.039	0	%100
118	M96	PX	-0.039	-0.039	0	%100
119	M97	PX	-0.039	-0.039	0	%100
120	M221	PX	-0.039	-0.039	0	%100
121	M98	PX	-0.039	-0.039	0	%100
122	M99	PX	-0.039	-0.039	0	%100
123	M100	PX	-0.039	-0.039	0	%100
124	M102	PX	-0.039	-0.039	0	%100
125	M103	PX	-0.039	-0.039	0	%100
126	M104	PX	-0.039	-0.039	0	%100
127	M105	PX	-0.039	-0.039	0	%100
128	M106	PX	-0.039	-0.039	0	%100
129	M107	PX	-0.039	-0.039	0	%100
130	M108	PX	-0.039	-0.039	0	%100
131	M109	PX	-0.039	-0.039	0	%100
132	M110	PX	-0.039	-0.039	0	%100
133	M111	PX	-0.039	-0.039	0	%100
134	M112	PX	-0.039	-0.039	0	%100
135	M260	PX	-0.039	-0.039	0	%100
136	M113	PX	-0.039	-0.039	0	%100
137	M114	PX	-0.039	-0.039	0	%100
138	M115	PX	-0.039	-0.039	0	%100
139	M120	PX	-0.039	-0.039	0	%100
140	M116	PX	-0.039	-0.039	0	%100
141	M117	PX	-0.039	-0.039	0	%100
142	M118	PX	-0.039	-0.039	0	%100
143	M119	PX	-0.039	-0.039	0	%100
144	M121	PX	-0.039	-0.039	0	%100
145	M207	PX	-0.039	-0.039	0	%100
146	M122	PX	-0.039	-0.039	0	%100
147	M123	PX	-0.039	-0.039	0	%100
148	M124	PX	-0.039	-0.039	0	%100
149	M126	PX	-0.039	-0.039	0	%100
150	M127	PX	-0.039	-0.039	0	%100
151	M129	PX	-0.039	-0.039	0	%100
152	M130	PX	-0.039	-0.039	0	%100
153	M131	PX	-0.039	-0.039	0	%100
154	M133	PX	-0.039	-0.039	0	%100
155	M135	PX	-0.039	-0.039	0	%100
156	M136	PX	-0.039	-0.039	0	%100
157	M137	PX	-0.039	-0.039	0	%100
158	M138	PX	-0.039	-0.039	0	%100
159	M218	PX	-0.039	-0.039	0	%100
160	M139	PX	-0.039	-0.039	0	%100
161	M140	PX	-0.039	-0.039	0	%100
162	M142	PX	-0.039	-0.039	0	%100
163	M172	PX	-0.039	-0.039	0	%100
164	M143	PX	-0.039	-0.039	0	%100
165	M144	PX	-0.039	-0.039	0	%100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
166	M145	PX	-0.039	-0.039	0	%100
167	M146	PX	-0.039	-0.039	0	%100
168	M147	PX	-0.039	-0.039	0	%100
169	M148	PX	-0.039	-0.039	0	%100
170	M255	PX	-0.039	-0.039	0	%100
171	M149	PX	-0.039	-0.039	0	%100
172	M151	PX	-0.039	-0.039	0	%100
173	M256	PX	-0.039	-0.039	0	%100
174	M153	PX	-0.039	-0.039	0	%100
175	M155	PX	-0.039	-0.039	0	%100
176	M158	PX	-0.039	-0.039	0	%100
177	M200	PX	-0.039	-0.039	0	%100
178	M160	PX	-0.039	-0.039	0	%100
179	M161	PX	-0.039	-0.039	0	%100
180	M162	PX	-0.039	-0.039	0	%100
181	M163	PX	-0.039	-0.039	0	%100
182	M164	PX	-0.039	-0.039	0	%100
183	M165	PX	-0.039	-0.039	0	%100
184	M166	PX	-0.039	-0.039	0	%100
185	M231	PX	-0.039	-0.039	0	%100
186	M167	PX	-0.039	-0.039	0	%100
187	M168	PX	-0.039	-0.039	0	%100
188	M170	PX	-0.039	-0.039	0	%100
189	M171	PX	-0.039	-0.039	0	%100
190	M173	PX	-0.039	-0.039	0	%100
191	M174	PX	-0.039	-0.039	0	%100
192	M175	PX	-0.039	-0.039	0	%100
193	M237	PX	-0.039	-0.039	0	%100
194	M176	PX	-0.039	-0.039	0	%100
195	M177	PX	-0.039	-0.039	0	%100
196	M196	PX	-0.039	-0.039	0	%100
197	M178	PX	-0.039	-0.039	0	%100
198	M179	PX	-0.039	-0.039	0	%100
199	M180	PX	-0.039	-0.039	0	%100
200	M181	PX	-0.039	-0.039	0	%100
201	M182	PX	-0.039	-0.039	0	%100
202	M183	PX	-0.039	-0.039	0	%100
203	M184	PX	-0.039	-0.039	0	%100
204	M185	PX	-0.039	-0.039	0	%100
205	M186	PX	-0.039	-0.039	0	%100
206	M187	PX	-0.039	-0.039	0	%100
207	M201	PX	-0.039	-0.039	0	%100
208	M188	PX	-0.039	-0.039	0	%100
209	M190	PX	-0.039	-0.039	0	%100
210	M204	PX	-0.039	-0.039	0	%100
211	M191	PX	-0.039	-0.039	0	%100
212	M192	PX	-0.039	-0.039	0	%100
213	M195	PX	-0.039	-0.039	0	%100
214	M197	PX	-0.039	-0.039	0	%100
215	M199	PX	-0.039	-0.039	0	%100
216	M203	PX	-0.039	-0.039	0	%100
217	M240	PX	-0.039	-0.039	0	%100
218	M228	PX	-0.039	-0.039	0	%100
219	M208	PX	-0.039	-0.039	0	%100
220	M251	PX	-0.039	-0.039	0	%100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

10:09:01 PM

Checked By : DWG

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
221	M209	PX	-0.039	-0.039	0 %100
222	M212	PX	-0.039	-0.039	0 %100
223	M213	PX	-0.039	-0.039	0 %100
224	M214	PX	-0.039	-0.039	0 %100
225	M215	PX	-0.039	-0.039	0 %100
226	M216	PX	-0.039	-0.039	0 %100
227	M217	PX	-0.039	-0.039	0 %100
228	M219	PX	-0.039	-0.039	0 %100
229	M234	PX	-0.039	-0.039	0 %100
230	M220	PX	-0.039	-0.039	0 %100
231	M224	PX	-0.039	-0.039	0 %100
232	M239	PX	-0.039	-0.039	0 %100
233	M227	PX	-0.039	-0.039	0 %100
234	M229	PX	-0.039	-0.039	0 %100
235	M230	PX	-0.039	-0.039	0 %100
236	M232	PX	-0.039	-0.039	0 %100
237	M233	PX	-0.039	-0.039	0 %100
238	M235	PX	-0.039	-0.039	0 %100
239	M236	PX	-0.039	-0.039	0 %100
240	M238	PX	-0.039	-0.039	0 %100
241	M241	PX	-0.039	-0.039	0 %100
242	M243	PX	-0.039	-0.039	0 %100
243	M244	PX	-0.039	-0.039	0 %100
244	M245	PX	-0.039	-0.039	0 %100
245	M246	PX	-0.039	-0.039	0 %100
246	M248	PX	-0.039	-0.039	0 %100
247	M250	PX	-0.039	-0.039	0 %100
248	M253	PX	-0.039	-0.039	0 %100
249	M258	PX	-0.039	-0.039	0 %100
250	M261	PX	-0.039	-0.039	0 %100
251	M262	PX	-0.039	-0.039	0 %100
252	M265	PX	-0.039	-0.039	0 %100
253	M266	PX	-0.039	-0.039	0 %100
254	M267	PX	-0.039	-0.039	0 %100
255	M13	PX	-0.039	-0.039	0 %100
256	M71	PX	-0.039	-0.039	0 %100
257	M87	PX	-0.039	-0.039	0 %100
258	M141	PX	-0.039	-0.039	0 %100
259	M157	PX	-0.039	-0.039	0 %100
260	M211	PX	-0.039	-0.039	0 %100
261	M249	PX	-0.039	-0.039	0 %100
262	M257	PX	-0.039	-0.039	0 %100
263	M259	PX	-0.039	-0.039	0 %100
264	M264	PX	-0.039	-0.039	0 %100
265	M159	PX	-0.039	-0.039	0 %100
266	M89	PX	-0.039	-0.039	0 %100
267	M223	PX	-0.039	-0.039	0 %100

Member Distributed Loads (BLC 4 : Ice Weight)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M223	PY	-0.008	-0.008	0 %100
2	M89	PY	-0.008	-0.008	0 %100
3	M159	PY	-0.008	-0.008	0 %100
4	M264	PY	-0.008	-0.008	0 %100
5	M259	PY	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
6	M257	PY	-0.008	-0.008	0	%100
7	M249	PY	-0.008	-0.008	0	%100
8	M211	PY	-0.008	-0.008	0	%100
9	M157	PY	-0.008	-0.008	0	%100
10	M141	PY	-0.008	-0.008	0	%100
11	M87	PY	-0.008	-0.008	0	%100
12	M71	PY	-0.008	-0.008	0	%100
13	M13	PY	-0.008	-0.008	0	%100
14	M267	PY	-0.008	-0.008	0	%100
15	M266	PY	-0.008	-0.008	0	%100
16	M265	PY	-0.008	-0.008	0	%100
17	M262	PY	-0.008	-0.008	0	%100
18	M261	PY	-0.008	-0.008	0	%100
19	M258	PY	-0.008	-0.008	0	%100
20	M253	PY	-0.008	-0.008	0	%100
21	M250	PY	-0.008	-0.008	0	%100
22	M248	PY	-0.008	-0.008	0	%100
23	M246	PY	-0.008	-0.008	0	%100
24	M245	PY	-0.008	-0.008	0	%100
25	M244	PY	-0.008	-0.008	0	%100
26	M243	PY	-0.008	-0.008	0	%100
27	M241	PY	-0.008	-0.008	0	%100
28	M238	PY	-0.008	-0.008	0	%100
29	M236	PY	-0.008	-0.008	0	%100
30	M235	PY	-0.008	-0.008	0	%100
31	M233	PY	-0.008	-0.008	0	%100
32	M232	PY	-0.008	-0.008	0	%100
33	M230	PY	-0.008	-0.008	0	%100
34	M229	PY	-0.008	-0.008	0	%100
35	M227	PY	-0.008	-0.008	0	%100
36	M239	PY	-0.008	-0.008	0	%100
37	M224	PY	-0.008	-0.008	0	%100
38	M220	PY	-0.008	-0.008	0	%100
39	M234	PY	-0.008	-0.008	0	%100
40	M219	PY	-0.008	-0.008	0	%100
41	M217	PY	-0.008	-0.008	0	%100
42	M216	PY	-0.008	-0.008	0	%100
43	M215	PY	-0.008	-0.008	0	%100
44	M214	PY	-0.008	-0.008	0	%100
45	M213	PY	-0.008	-0.008	0	%100
46	M212	PY	-0.008	-0.008	0	%100
47	M209	PY	-0.008	-0.008	0	%100
48	M251	PY	-0.008	-0.008	0	%100
49	M208	PY	-0.008	-0.008	0	%100
50	M228	PY	-0.008	-0.008	0	%100
51	M240	PY	-0.008	-0.008	0	%100
52	M203	PY	-0.008	-0.008	0	%100
53	M199	PY	-0.008	-0.008	0	%100
54	M197	PY	-0.008	-0.008	0	%100
55	M195	PY	-0.008	-0.008	0	%100
56	M192	PY	-0.008	-0.008	0	%100
57	M191	PY	-0.008	-0.008	0	%100
58	M204	PY	-0.008	-0.008	0	%100
59	M190	PY	-0.008	-0.008	0	%100
60	M188	PY	-0.008	-0.008	0	%100



Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
61	M201	PY	-0.008	-0.008	0 %100
62	M187	PY	-0.008	-0.008	0 %100
63	M186	PY	-0.008	-0.008	0 %100
64	M185	PY	-0.008	-0.008	0 %100
65	M184	PY	-0.008	-0.008	0 %100
66	M183	PY	-0.008	-0.008	0 %100
67	M182	PY	-0.008	-0.008	0 %100
68	M181	PY	-0.008	-0.008	0 %100
69	M180	PY	-0.008	-0.008	0 %100
70	M179	PY	-0.008	-0.008	0 %100
71	M178	PY	-0.008	-0.008	0 %100
72	M196	PY	-0.008	-0.008	0 %100
73	M177	PY	-0.008	-0.008	0 %100
74	M176	PY	-0.008	-0.008	0 %100
75	M237	PY	-0.008	-0.008	0 %100
76	M175	PY	-0.008	-0.008	0 %100
77	M174	PY	-0.008	-0.008	0 %100
78	M173	PY	-0.008	-0.008	0 %100
79	M171	PY	-0.008	-0.008	0 %100
80	M170	PY	-0.008	-0.008	0 %100
81	M168	PY	-0.008	-0.008	0 %100
82	M167	PY	-0.008	-0.008	0 %100
83	M231	PY	-0.008	-0.008	0 %100
84	M166	PY	-0.008	-0.008	0 %100
85	M165	PY	-0.008	-0.008	0 %100
86	M164	PY	-0.008	-0.008	0 %100
87	M163	PY	-0.008	-0.008	0 %100
88	M162	PY	-0.008	-0.008	0 %100
89	M161	PY	-0.008	-0.008	0 %100
90	M160	PY	-0.008	-0.008	0 %100
91	M200	PY	-0.008	-0.008	0 %100
92	M158	PY	-0.008	-0.008	0 %100
93	M155	PY	-0.008	-0.008	0 %100
94	M153	PY	-0.008	-0.008	0 %100
95	M256	PY	-0.008	-0.008	0 %100
96	M151	PY	-0.008	-0.008	0 %100
97	M149	PY	-0.008	-0.008	0 %100
98	M255	PY	-0.008	-0.008	0 %100
99	M148	PY	-0.008	-0.008	0 %100
100	M147	PY	-0.008	-0.008	0 %100
101	M146	PY	-0.008	-0.008	0 %100
102	M145	PY	-0.008	-0.008	0 %100
103	M144	PY	-0.008	-0.008	0 %100
104	M143	PY	-0.008	-0.008	0 %100
105	M172	PY	-0.008	-0.008	0 %100
106	M142	PY	-0.008	-0.008	0 %100
107	M140	PY	-0.008	-0.008	0 %100
108	M139	PY	-0.008	-0.008	0 %100
109	M218	PY	-0.008	-0.008	0 %100
110	M138	PY	-0.008	-0.008	0 %100
111	M137	PY	-0.008	-0.008	0 %100
112	M136	PY	-0.008	-0.008	0 %100
113	M135	PY	-0.008	-0.008	0 %100
114	M133	PY	-0.008	-0.008	0 %100
115	M131	PY	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
116	M130	PY	-0.008	-0.008	0 %100
117	M129	PY	-0.008	-0.008	0 %100
118	M127	PY	-0.008	-0.008	0 %100
119	M126	PY	-0.008	-0.008	0 %100
120	M124	PY	-0.008	-0.008	0 %100
121	M123	PY	-0.008	-0.008	0 %100
122	M122	PY	-0.008	-0.008	0 %100
123	M207	PY	-0.008	-0.008	0 %100
124	M121	PY	-0.008	-0.008	0 %100
125	M119	PY	-0.008	-0.008	0 %100
126	M118	PY	-0.008	-0.008	0 %100
127	M117	PY	-0.008	-0.008	0 %100
128	M116	PY	-0.008	-0.008	0 %100
129	M120	PY	-0.008	-0.008	0 %100
130	M115	PY	-0.008	-0.008	0 %100
131	M114	PY	-0.008	-0.008	0 %100
132	M113	PY	-0.008	-0.008	0 %100
133	M260	PY	-0.008	-0.008	0 %100
134	M112	PY	-0.008	-0.008	0 %100
135	M111	PY	-0.008	-0.008	0 %100
136	M110	PY	-0.008	-0.008	0 %100
137	M109	PY	-0.008	-0.008	0 %100
138	M108	PY	-0.008	-0.008	0 %100
139	M107	PY	-0.008	-0.008	0 %100
140	M106	PY	-0.008	-0.008	0 %100
141	M105	PY	-0.008	-0.008	0 %100
142	M104	PY	-0.008	-0.008	0 %100
143	M103	PY	-0.008	-0.008	0 %100
144	M102	PY	-0.008	-0.008	0 %100
145	M100	PY	-0.008	-0.008	0 %100
146	M99	PY	-0.008	-0.008	0 %100
147	M98	PY	-0.008	-0.008	0 %100
148	M221	PY	-0.008	-0.008	0 %100
149	M97	PY	-0.008	-0.008	0 %100
150	M96	PY	-0.008	-0.008	0 %100
151	M95	PY	-0.008	-0.008	0 %100
152	M92	PY	-0.008	-0.008	0 %100
153	M90	PY	-0.008	-0.008	0 %100
154	M194	PY	-0.008	-0.008	0 %100
155	M88	PY	-0.008	-0.008	0 %100
156	M85	PY	-0.008	-0.008	0 %100
157	M84	PY	-0.008	-0.008	0 %100
158	M83	PY	-0.008	-0.008	0 %100
159	M82	PY	-0.008	-0.008	0 %100
160	M81	PY	-0.008	-0.008	0 %100
161	M226	PY	-0.008	-0.008	0 %100
162	M80	PY	-0.008	-0.008	0 %100
163	M154	PY	-0.008	-0.008	0 %100
164	M78	PY	-0.008	-0.008	0 %100
165	M205	PY	-0.008	-0.008	0 %100
166	M77	PY	-0.008	-0.008	0 %100
167	M76	PY	-0.008	-0.008	0 %100
168	M132	PY	-0.008	-0.008	0 %100
169	M156	PY	-0.008	-0.008	0 %100
170	M75	PY	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
171	M74	PY	-0.008	-0.008	0 %100
172	M222	PY	-0.008	-0.008	0 %100
173	M73	PY	-0.008	-0.008	0 %100
174	M72	PY	-0.008	-0.008	0 %100
175	M70	PY	-0.008	-0.008	0 %100
176	M68	PY	-0.008	-0.008	0 %100
177	M150	PY	-0.008	-0.008	0 %100
178	M66	PY	-0.008	-0.008	0 %100
179	M254	PY	-0.008	-0.008	0 %100
180	M63	PY	-0.008	-0.008	0 %100
181	M61	PY	-0.008	-0.008	0 %100
182	M225	PY	-0.008	-0.008	0 %100
183	M67	PY	-0.008	-0.008	0 %100
184	M59	PY	-0.008	-0.008	0 %100
185	M193	PY	-0.008	-0.008	0 %100
186	M57	PY	-0.008	-0.008	0 %100
187	M52	PY	-0.008	-0.008	0 %100
188	M50	PY	-0.008	-0.008	0 %100
189	M49	PY	-0.008	-0.008	0 %100
190	M48	PY	-0.008	-0.008	0 %100
191	M42	PY	-0.008	-0.008	0 %100
192	M41	PY	-0.008	-0.008	0 %100
193	M62	PY	-0.008	-0.008	0 %100
194	M39	PY	-0.008	-0.008	0 %100
195	M58	PY	-0.008	-0.008	0 %100
196	M37	PY	-0.008	-0.008	0 %100
197	M40	PY	-0.008	-0.008	0 %100
198	M54	PY	-0.008	-0.008	0 %100
199	M94	PY	-0.008	-0.008	0 %100
200	M128	PY	-0.008	-0.008	0 %100
201	M55	PY	-0.008	-0.008	0 %100
202	M198	PY	-0.008	-0.008	0 %100
203	M36	PY	-0.008	-0.008	0 %100
204	M252	PY	-0.008	-0.008	0 %100
205	M33	PY	-0.008	-0.008	0 %100
206	M31	PY	-0.008	-0.008	0 %100
207	M65	PY	-0.008	-0.008	0 %100
208	M30	PY	-0.008	-0.008	0 %100
209	M28	PY	-0.008	-0.008	0 %100
210	M26	PY	-0.008	-0.008	0 %100
211	M169	PY	-0.008	-0.008	0 %100
212	M32	PY	-0.008	-0.008	0 %100
213	M47	PY	-0.008	-0.008	0 %100
214	M23	PY	-0.008	-0.008	0 %100
215	M22	PY	-0.008	-0.008	0 %100
216	M45	PY	-0.008	-0.008	0 %100
217	M21	PY	-0.008	-0.008	0 %100
218	M38	PY	-0.008	-0.008	0 %100
219	M18	PY	-0.008	-0.008	0 %100
220	M134	PY	-0.008	-0.008	0 %100
221	M56	PY	-0.008	-0.008	0 %100
222	M17	PY	-0.008	-0.008	0 %100
223	M189	PY	-0.008	-0.008	0 %100
224	M16	PY	-0.008	-0.008	0 %100
225	M46	PY	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
226	M91	PY	-0.008	-0.008	0 %100
227	M210	PY	-0.008	-0.008	0 %100
228	M15	PY	-0.008	-0.008	0 %100
229	M35	PY	-0.008	-0.008	0 %100
230	M14	PY	-0.008	-0.008	0 %100
231	M93	PY	-0.008	-0.008	0 %100
232	M206	PY	-0.008	-0.008	0 %100
233	M242	PY	-0.008	-0.008	0 %100
234	M27	PY	-0.008	-0.008	0 %100
235	M43	PY	-0.008	-0.008	0 %100
236	M19	PY	-0.008	-0.008	0 %100
237	M12	PY	-0.008	-0.008	0 %100
238	M69	PY	-0.008	-0.008	0 %100
239	M11	PY	-0.008	-0.008	0 %100
240	M86	PY	-0.008	-0.008	0 %100
241	M25	PY	-0.008	-0.008	0 %100
242	M10	PY	-0.008	-0.008	0 %100
243	M20	PY	-0.008	-0.008	0 %100
244	M247	PY	-0.008	-0.008	0 %100
245	M5	PY	-0.008	-0.008	0 %100
246	M29	PY	-0.008	-0.008	0 %100
247	M3	PY	-0.008	-0.008	0 %100
248	M101	PY	-0.008	-0.008	0 %100
249	M24	PY	-0.008	-0.008	0 %100
250	M79	PY	-0.008	-0.008	0 %100
251	M60	PY	-0.008	-0.008	0 %100
252	M6	PY	-0.008	-0.008	0 %100
253	M2	PY	-0.008	-0.008	0 %100
254	M51	PY	-0.008	-0.008	0 %100
255	M125	PY	-0.008	-0.008	0 %100
256	M53	PY	-0.008	-0.008	0 %100
257	M1	PY	-0.008	-0.008	0 %100
258	M7	PY	-0.008	-0.008	0 %100
259	M152	PY	-0.008	-0.008	0 %100
260	M9	PY	-0.008	-0.008	0 %100
261	M263	PY	-0.008	-0.008	0 %100
262	M44	PY	-0.008	-0.008	0 %100
263	M8	PY	-0.008	-0.008	0 %100
264	M34	PY	-0.008	-0.008	0 %100
265	M64	PY	-0.008	-0.008	0 %100
266	M4	PY	-0.008	-0.008	0 %100
267	M202	PY	-0.008	-0.008	0 %100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M202	PZ	-0.008	-0.008	0 %100
2	M4	PZ	-0.008	-0.008	0 %100
3	M64	PZ	-0.008	-0.008	0 %100
4	M34	PZ	-0.008	-0.008	0 %100
5	M8	PZ	-0.008	-0.008	0 %100
6	M44	PZ	-0.008	-0.008	0 %100
7	M263	PZ	-0.008	-0.008	0 %100
8	M9	PZ	-0.008	-0.008	0 %100
9	M152	PZ	-0.008	-0.008	0 %100
10	M7	PZ	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
11	M1	PZ	-0.008	-0.008	0 %100
12	M53	PZ	-0.008	-0.008	0 %100
13	M125	PZ	-0.008	-0.008	0 %100
14	M51	PZ	-0.008	-0.008	0 %100
15	M2	PZ	-0.008	-0.008	0 %100
16	M6	PZ	-0.008	-0.008	0 %100
17	M60	PZ	-0.008	-0.008	0 %100
18	M79	PZ	-0.008	-0.008	0 %100
19	M24	PZ	-0.008	-0.008	0 %100
20	M101	PZ	-0.008	-0.008	0 %100
21	M3	PZ	-0.008	-0.008	0 %100
22	M29	PZ	-0.008	-0.008	0 %100
23	M5	PZ	-0.008	-0.008	0 %100
24	M247	PZ	-0.008	-0.008	0 %100
25	M20	PZ	-0.008	-0.008	0 %100
26	M10	PZ	-0.008	-0.008	0 %100
27	M25	PZ	-0.008	-0.008	0 %100
28	M86	PZ	-0.008	-0.008	0 %100
29	M11	PZ	-0.008	-0.008	0 %100
30	M69	PZ	-0.008	-0.008	0 %100
31	M12	PZ	-0.008	-0.008	0 %100
32	M19	PZ	-0.008	-0.008	0 %100
33	M43	PZ	-0.008	-0.008	0 %100
34	M27	PZ	-0.008	-0.008	0 %100
35	M242	PZ	-0.008	-0.008	0 %100
36	M206	PZ	-0.008	-0.008	0 %100
37	M93	PZ	-0.008	-0.008	0 %100
38	M14	PZ	-0.008	-0.008	0 %100
39	M35	PZ	-0.008	-0.008	0 %100
40	M15	PZ	-0.008	-0.008	0 %100
41	M210	PZ	-0.008	-0.008	0 %100
42	M91	PZ	-0.008	-0.008	0 %100
43	M46	PZ	-0.008	-0.008	0 %100
44	M16	PZ	-0.008	-0.008	0 %100
45	M189	PZ	-0.008	-0.008	0 %100
46	M17	PZ	-0.008	-0.008	0 %100
47	M56	PZ	-0.008	-0.008	0 %100
48	M134	PZ	-0.008	-0.008	0 %100
49	M18	PZ	-0.008	-0.008	0 %100
50	M38	PZ	-0.008	-0.008	0 %100
51	M21	PZ	-0.008	-0.008	0 %100
52	M45	PZ	-0.008	-0.008	0 %100
53	M22	PZ	-0.008	-0.008	0 %100
54	M23	PZ	-0.008	-0.008	0 %100
55	M47	PZ	-0.008	-0.008	0 %100
56	M32	PZ	-0.008	-0.008	0 %100
57	M169	PZ	-0.008	-0.008	0 %100
58	M26	PZ	-0.008	-0.008	0 %100
59	M28	PZ	-0.008	-0.008	0 %100
60	M30	PZ	-0.008	-0.008	0 %100
61	M65	PZ	-0.008	-0.008	0 %100
62	M31	PZ	-0.008	-0.008	0 %100
63	M33	PZ	-0.008	-0.008	0 %100
64	M252	PZ	-0.008	-0.008	0 %100
65	M36	PZ	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
66	M198	PZ	-0.008	-0.008	0 %100
67	M55	PZ	-0.008	-0.008	0 %100
68	M128	PZ	-0.008	-0.008	0 %100
69	M94	PZ	-0.008	-0.008	0 %100
70	M54	PZ	-0.008	-0.008	0 %100
71	M40	PZ	-0.008	-0.008	0 %100
72	M37	PZ	-0.008	-0.008	0 %100
73	M58	PZ	-0.008	-0.008	0 %100
74	M39	PZ	-0.008	-0.008	0 %100
75	M62	PZ	-0.008	-0.008	0 %100
76	M41	PZ	-0.008	-0.008	0 %100
77	M42	PZ	-0.008	-0.008	0 %100
78	M48	PZ	-0.008	-0.008	0 %100
79	M49	PZ	-0.008	-0.008	0 %100
80	M50	PZ	-0.008	-0.008	0 %100
81	M52	PZ	-0.008	-0.008	0 %100
82	M57	PZ	-0.008	-0.008	0 %100
83	M193	PZ	-0.008	-0.008	0 %100
84	M59	PZ	-0.008	-0.008	0 %100
85	M67	PZ	-0.008	-0.008	0 %100
86	M225	PZ	-0.008	-0.008	0 %100
87	M61	PZ	-0.008	-0.008	0 %100
88	M63	PZ	-0.008	-0.008	0 %100
89	M254	PZ	-0.008	-0.008	0 %100
90	M66	PZ	-0.008	-0.008	0 %100
91	M150	PZ	-0.008	-0.008	0 %100
92	M68	PZ	-0.008	-0.008	0 %100
93	M70	PZ	-0.008	-0.008	0 %100
94	M72	PZ	-0.008	-0.008	0 %100
95	M73	PZ	-0.008	-0.008	0 %100
96	M222	PZ	-0.008	-0.008	0 %100
97	M74	PZ	-0.008	-0.008	0 %100
98	M75	PZ	-0.008	-0.008	0 %100
99	M156	PZ	-0.008	-0.008	0 %100
100	M132	PZ	-0.008	-0.008	0 %100
101	M76	PZ	-0.008	-0.008	0 %100
102	M77	PZ	-0.008	-0.008	0 %100
103	M205	PZ	-0.008	-0.008	0 %100
104	M78	PZ	-0.008	-0.008	0 %100
105	M154	PZ	-0.008	-0.008	0 %100
106	M80	PZ	-0.008	-0.008	0 %100
107	M226	PZ	-0.008	-0.008	0 %100
108	M81	PZ	-0.008	-0.008	0 %100
109	M82	PZ	-0.008	-0.008	0 %100
110	M83	PZ	-0.008	-0.008	0 %100
111	M84	PZ	-0.008	-0.008	0 %100
112	M85	PZ	-0.008	-0.008	0 %100
113	M88	PZ	-0.008	-0.008	0 %100
114	M194	PZ	-0.008	-0.008	0 %100
115	M90	PZ	-0.008	-0.008	0 %100
116	M92	PZ	-0.008	-0.008	0 %100
117	M95	PZ	-0.008	-0.008	0 %100
118	M96	PZ	-0.008	-0.008	0 %100
119	M97	PZ	-0.008	-0.008	0 %100
120	M221	PZ	-0.008	-0.008	0 %100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

10:09:01 PM

Checked By : DWG

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
121	M98	PZ	-0.008	-0.008	0 %100
122	M99	PZ	-0.008	-0.008	0 %100
123	M100	PZ	-0.008	-0.008	0 %100
124	M102	PZ	-0.008	-0.008	0 %100
125	M103	PZ	-0.008	-0.008	0 %100
126	M104	PZ	-0.008	-0.008	0 %100
127	M105	PZ	-0.008	-0.008	0 %100
128	M106	PZ	-0.008	-0.008	0 %100
129	M107	PZ	-0.008	-0.008	0 %100
130	M108	PZ	-0.008	-0.008	0 %100
131	M109	PZ	-0.008	-0.008	0 %100
132	M110	PZ	-0.008	-0.008	0 %100
133	M111	PZ	-0.008	-0.008	0 %100
134	M112	PZ	-0.008	-0.008	0 %100
135	M260	PZ	-0.008	-0.008	0 %100
136	M113	PZ	-0.008	-0.008	0 %100
137	M114	PZ	-0.008	-0.008	0 %100
138	M115	PZ	-0.008	-0.008	0 %100
139	M120	PZ	-0.008	-0.008	0 %100
140	M116	PZ	-0.008	-0.008	0 %100
141	M117	PZ	-0.008	-0.008	0 %100
142	M118	PZ	-0.008	-0.008	0 %100
143	M119	PZ	-0.008	-0.008	0 %100
144	M121	PZ	-0.008	-0.008	0 %100
145	M207	PZ	-0.008	-0.008	0 %100
146	M122	PZ	-0.008	-0.008	0 %100
147	M123	PZ	-0.008	-0.008	0 %100
148	M124	PZ	-0.008	-0.008	0 %100
149	M126	PZ	-0.008	-0.008	0 %100
150	M127	PZ	-0.008	-0.008	0 %100
151	M129	PZ	-0.008	-0.008	0 %100
152	M130	PZ	-0.008	-0.008	0 %100
153	M131	PZ	-0.008	-0.008	0 %100
154	M133	PZ	-0.008	-0.008	0 %100
155	M135	PZ	-0.008	-0.008	0 %100
156	M136	PZ	-0.008	-0.008	0 %100
157	M137	PZ	-0.008	-0.008	0 %100
158	M138	PZ	-0.008	-0.008	0 %100
159	M218	PZ	-0.008	-0.008	0 %100
160	M139	PZ	-0.008	-0.008	0 %100
161	M140	PZ	-0.008	-0.008	0 %100
162	M142	PZ	-0.008	-0.008	0 %100
163	M172	PZ	-0.008	-0.008	0 %100
164	M143	PZ	-0.008	-0.008	0 %100
165	M144	PZ	-0.008	-0.008	0 %100
166	M145	PZ	-0.008	-0.008	0 %100
167	M146	PZ	-0.008	-0.008	0 %100
168	M147	PZ	-0.008	-0.008	0 %100
169	M148	PZ	-0.008	-0.008	0 %100
170	M255	PZ	-0.008	-0.008	0 %100
171	M149	PZ	-0.008	-0.008	0 %100
172	M151	PZ	-0.008	-0.008	0 %100
173	M256	PZ	-0.008	-0.008	0 %100
174	M153	PZ	-0.008	-0.008	0 %100
175	M155	PZ	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
176	M158	PZ	-0.008	-0.008	0 %100
177	M200	PZ	-0.008	-0.008	0 %100
178	M160	PZ	-0.008	-0.008	0 %100
179	M161	PZ	-0.008	-0.008	0 %100
180	M162	PZ	-0.008	-0.008	0 %100
181	M163	PZ	-0.008	-0.008	0 %100
182	M164	PZ	-0.008	-0.008	0 %100
183	M165	PZ	-0.008	-0.008	0 %100
184	M166	PZ	-0.008	-0.008	0 %100
185	M231	PZ	-0.008	-0.008	0 %100
186	M167	PZ	-0.008	-0.008	0 %100
187	M168	PZ	-0.008	-0.008	0 %100
188	M170	PZ	-0.008	-0.008	0 %100
189	M171	PZ	-0.008	-0.008	0 %100
190	M173	PZ	-0.008	-0.008	0 %100
191	M174	PZ	-0.008	-0.008	0 %100
192	M175	PZ	-0.008	-0.008	0 %100
193	M237	PZ	-0.008	-0.008	0 %100
194	M176	PZ	-0.008	-0.008	0 %100
195	M177	PZ	-0.008	-0.008	0 %100
196	M196	PZ	-0.008	-0.008	0 %100
197	M178	PZ	-0.008	-0.008	0 %100
198	M179	PZ	-0.008	-0.008	0 %100
199	M180	PZ	-0.008	-0.008	0 %100
200	M181	PZ	-0.008	-0.008	0 %100
201	M182	PZ	-0.008	-0.008	0 %100
202	M183	PZ	-0.008	-0.008	0 %100
203	M184	PZ	-0.008	-0.008	0 %100
204	M185	PZ	-0.008	-0.008	0 %100
205	M186	PZ	-0.008	-0.008	0 %100
206	M187	PZ	-0.008	-0.008	0 %100
207	M201	PZ	-0.008	-0.008	0 %100
208	M188	PZ	-0.008	-0.008	0 %100
209	M190	PZ	-0.008	-0.008	0 %100
210	M204	PZ	-0.008	-0.008	0 %100
211	M191	PZ	-0.008	-0.008	0 %100
212	M192	PZ	-0.008	-0.008	0 %100
213	M195	PZ	-0.008	-0.008	0 %100
214	M197	PZ	-0.008	-0.008	0 %100
215	M199	PZ	-0.008	-0.008	0 %100
216	M203	PZ	-0.008	-0.008	0 %100
217	M240	PZ	-0.008	-0.008	0 %100
218	M228	PZ	-0.008	-0.008	0 %100
219	M208	PZ	-0.008	-0.008	0 %100
220	M251	PZ	-0.008	-0.008	0 %100
221	M209	PZ	-0.008	-0.008	0 %100
222	M212	PZ	-0.008	-0.008	0 %100
223	M213	PZ	-0.008	-0.008	0 %100
224	M214	PZ	-0.008	-0.008	0 %100
225	M215	PZ	-0.008	-0.008	0 %100
226	M216	PZ	-0.008	-0.008	0 %100
227	M217	PZ	-0.008	-0.008	0 %100
228	M219	PZ	-0.008	-0.008	0 %100
229	M234	PZ	-0.008	-0.008	0 %100
230	M220	PZ	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
231	M224	PZ	-0.008	-0.008	0 %100
232	M239	PZ	-0.008	-0.008	0 %100
233	M227	PZ	-0.008	-0.008	0 %100
234	M229	PZ	-0.008	-0.008	0 %100
235	M230	PZ	-0.008	-0.008	0 %100
236	M232	PZ	-0.008	-0.008	0 %100
237	M233	PZ	-0.008	-0.008	0 %100
238	M235	PZ	-0.008	-0.008	0 %100
239	M236	PZ	-0.008	-0.008	0 %100
240	M238	PZ	-0.008	-0.008	0 %100
241	M241	PZ	-0.008	-0.008	0 %100
242	M243	PZ	-0.008	-0.008	0 %100
243	M244	PZ	-0.008	-0.008	0 %100
244	M245	PZ	-0.008	-0.008	0 %100
245	M246	PZ	-0.008	-0.008	0 %100
246	M248	PZ	-0.008	-0.008	0 %100
247	M250	PZ	-0.008	-0.008	0 %100
248	M253	PZ	-0.008	-0.008	0 %100
249	M258	PZ	-0.008	-0.008	0 %100
250	M261	PZ	-0.008	-0.008	0 %100
251	M262	PZ	-0.008	-0.008	0 %100
252	M265	PZ	-0.008	-0.008	0 %100
253	M266	PZ	-0.008	-0.008	0 %100
254	M267	PZ	-0.008	-0.008	0 %100
255	M13	PZ	-0.008	-0.008	0 %100
256	M71	PZ	-0.008	-0.008	0 %100
257	M87	PZ	-0.008	-0.008	0 %100
258	M141	PZ	-0.008	-0.008	0 %100
259	M157	PZ	-0.008	-0.008	0 %100
260	M211	PZ	-0.008	-0.008	0 %100
261	M249	PZ	-0.008	-0.008	0 %100
262	M257	PZ	-0.008	-0.008	0 %100
263	M259	PZ	-0.008	-0.008	0 %100
264	M264	PZ	-0.008	-0.008	0 %100
265	M159	PZ	-0.008	-0.008	0 %100
266	M89	PZ	-0.008	-0.008	0 %100
267	M223	PZ	-0.008	-0.008	0 %100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M202	PX	-0.008	-0.008	0 %100
2	M4	PX	-0.008	-0.008	0 %100
3	M64	PX	-0.008	-0.008	0 %100
4	M34	PX	-0.008	-0.008	0 %100
5	M8	PX	-0.008	-0.008	0 %100
6	M44	PX	-0.008	-0.008	0 %100
7	M263	PX	-0.008	-0.008	0 %100
8	M9	PX	-0.008	-0.008	0 %100
9	M152	PX	-0.008	-0.008	0 %100
10	M7	PX	-0.008	-0.008	0 %100
11	M1	PX	-0.008	-0.008	0 %100
12	M53	PX	-0.008	-0.008	0 %100
13	M125	PX	-0.008	-0.008	0 %100
14	M51	PX	-0.008	-0.008	0 %100
15	M2	PX	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
16	M6	PX	-0.008	-0.008	0 %100
17	M60	PX	-0.008	-0.008	0 %100
18	M79	PX	-0.008	-0.008	0 %100
19	M24	PX	-0.008	-0.008	0 %100
20	M101	PX	-0.008	-0.008	0 %100
21	M3	PX	-0.008	-0.008	0 %100
22	M29	PX	-0.008	-0.008	0 %100
23	M5	PX	-0.008	-0.008	0 %100
24	M247	PX	-0.008	-0.008	0 %100
25	M20	PX	-0.008	-0.008	0 %100
26	M10	PX	-0.008	-0.008	0 %100
27	M25	PX	-0.008	-0.008	0 %100
28	M86	PX	-0.008	-0.008	0 %100
29	M11	PX	-0.008	-0.008	0 %100
30	M69	PX	-0.008	-0.008	0 %100
31	M12	PX	-0.008	-0.008	0 %100
32	M19	PX	-0.008	-0.008	0 %100
33	M43	PX	-0.008	-0.008	0 %100
34	M27	PX	-0.008	-0.008	0 %100
35	M242	PX	-0.008	-0.008	0 %100
36	M206	PX	-0.008	-0.008	0 %100
37	M93	PX	-0.008	-0.008	0 %100
38	M14	PX	-0.008	-0.008	0 %100
39	M35	PX	-0.008	-0.008	0 %100
40	M15	PX	-0.008	-0.008	0 %100
41	M210	PX	-0.008	-0.008	0 %100
42	M91	PX	-0.008	-0.008	0 %100
43	M46	PX	-0.008	-0.008	0 %100
44	M16	PX	-0.008	-0.008	0 %100
45	M189	PX	-0.008	-0.008	0 %100
46	M17	PX	-0.008	-0.008	0 %100
47	M56	PX	-0.008	-0.008	0 %100
48	M134	PX	-0.008	-0.008	0 %100
49	M18	PX	-0.008	-0.008	0 %100
50	M38	PX	-0.008	-0.008	0 %100
51	M21	PX	-0.008	-0.008	0 %100
52	M45	PX	-0.008	-0.008	0 %100
53	M22	PX	-0.008	-0.008	0 %100
54	M23	PX	-0.008	-0.008	0 %100
55	M47	PX	-0.008	-0.008	0 %100
56	M32	PX	-0.008	-0.008	0 %100
57	M169	PX	-0.008	-0.008	0 %100
58	M26	PX	-0.008	-0.008	0 %100
59	M28	PX	-0.008	-0.008	0 %100
60	M30	PX	-0.008	-0.008	0 %100
61	M65	PX	-0.008	-0.008	0 %100
62	M31	PX	-0.008	-0.008	0 %100
63	M33	PX	-0.008	-0.008	0 %100
64	M252	PX	-0.008	-0.008	0 %100
65	M36	PX	-0.008	-0.008	0 %100
66	M198	PX	-0.008	-0.008	0 %100
67	M55	PX	-0.008	-0.008	0 %100
68	M128	PX	-0.008	-0.008	0 %100
69	M94	PX	-0.008	-0.008	0 %100
70	M54	PX	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
71	M40	PX	-0.008	-0.008	0 %100
72	M37	PX	-0.008	-0.008	0 %100
73	M58	PX	-0.008	-0.008	0 %100
74	M39	PX	-0.008	-0.008	0 %100
75	M62	PX	-0.008	-0.008	0 %100
76	M41	PX	-0.008	-0.008	0 %100
77	M42	PX	-0.008	-0.008	0 %100
78	M48	PX	-0.008	-0.008	0 %100
79	M49	PX	-0.008	-0.008	0 %100
80	M50	PX	-0.008	-0.008	0 %100
81	M52	PX	-0.008	-0.008	0 %100
82	M57	PX	-0.008	-0.008	0 %100
83	M193	PX	-0.008	-0.008	0 %100
84	M59	PX	-0.008	-0.008	0 %100
85	M67	PX	-0.008	-0.008	0 %100
86	M225	PX	-0.008	-0.008	0 %100
87	M61	PX	-0.008	-0.008	0 %100
88	M63	PX	-0.008	-0.008	0 %100
89	M254	PX	-0.008	-0.008	0 %100
90	M66	PX	-0.008	-0.008	0 %100
91	M150	PX	-0.008	-0.008	0 %100
92	M68	PX	-0.008	-0.008	0 %100
93	M70	PX	-0.008	-0.008	0 %100
94	M72	PX	-0.008	-0.008	0 %100
95	M73	PX	-0.008	-0.008	0 %100
96	M222	PX	-0.008	-0.008	0 %100
97	M74	PX	-0.008	-0.008	0 %100
98	M75	PX	-0.008	-0.008	0 %100
99	M156	PX	-0.008	-0.008	0 %100
100	M132	PX	-0.008	-0.008	0 %100
101	M76	PX	-0.008	-0.008	0 %100
102	M77	PX	-0.008	-0.008	0 %100
103	M205	PX	-0.008	-0.008	0 %100
104	M78	PX	-0.008	-0.008	0 %100
105	M154	PX	-0.008	-0.008	0 %100
106	M80	PX	-0.008	-0.008	0 %100
107	M226	PX	-0.008	-0.008	0 %100
108	M81	PX	-0.008	-0.008	0 %100
109	M82	PX	-0.008	-0.008	0 %100
110	M83	PX	-0.008	-0.008	0 %100
111	M84	PX	-0.008	-0.008	0 %100
112	M85	PX	-0.008	-0.008	0 %100
113	M88	PX	-0.008	-0.008	0 %100
114	M194	PX	-0.008	-0.008	0 %100
115	M90	PX	-0.008	-0.008	0 %100
116	M92	PX	-0.008	-0.008	0 %100
117	M95	PX	-0.008	-0.008	0 %100
118	M96	PX	-0.008	-0.008	0 %100
119	M97	PX	-0.008	-0.008	0 %100
120	M221	PX	-0.008	-0.008	0 %100
121	M98	PX	-0.008	-0.008	0 %100
122	M99	PX	-0.008	-0.008	0 %100
123	M100	PX	-0.008	-0.008	0 %100
124	M102	PX	-0.008	-0.008	0 %100
125	M103	PX	-0.008	-0.008	0 %100



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
126 M104	PX	-0.008	-0.008	0	%100
127 M105	PX	-0.008	-0.008	0	%100
128 M106	PX	-0.008	-0.008	0	%100
129 M107	PX	-0.008	-0.008	0	%100
130 M108	PX	-0.008	-0.008	0	%100
131 M109	PX	-0.008	-0.008	0	%100
132 M110	PX	-0.008	-0.008	0	%100
133 M111	PX	-0.008	-0.008	0	%100
134 M112	PX	-0.008	-0.008	0	%100
135 M260	PX	-0.008	-0.008	0	%100
136 M113	PX	-0.008	-0.008	0	%100
137 M114	PX	-0.008	-0.008	0	%100
138 M115	PX	-0.008	-0.008	0	%100
139 M120	PX	-0.008	-0.008	0	%100
140 M116	PX	-0.008	-0.008	0	%100
141 M117	PX	-0.008	-0.008	0	%100
142 M118	PX	-0.008	-0.008	0	%100
143 M119	PX	-0.008	-0.008	0	%100
144 M121	PX	-0.008	-0.008	0	%100
145 M207	PX	-0.008	-0.008	0	%100
146 M122	PX	-0.008	-0.008	0	%100
147 M123	PX	-0.008	-0.008	0	%100
148 M124	PX	-0.008	-0.008	0	%100
149 M126	PX	-0.008	-0.008	0	%100
150 M127	PX	-0.008	-0.008	0	%100
151 M129	PX	-0.008	-0.008	0	%100
152 M130	PX	-0.008	-0.008	0	%100
153 M131	PX	-0.008	-0.008	0	%100
154 M133	PX	-0.008	-0.008	0	%100
155 M135	PX	-0.008	-0.008	0	%100
156 M136	PX	-0.008	-0.008	0	%100
157 M137	PX	-0.008	-0.008	0	%100
158 M138	PX	-0.008	-0.008	0	%100
159 M218	PX	-0.008	-0.008	0	%100
160 M139	PX	-0.008	-0.008	0	%100
161 M140	PX	-0.008	-0.008	0	%100
162 M142	PX	-0.008	-0.008	0	%100
163 M172	PX	-0.008	-0.008	0	%100
164 M143	PX	-0.008	-0.008	0	%100
165 M144	PX	-0.008	-0.008	0	%100
166 M145	PX	-0.008	-0.008	0	%100
167 M146	PX	-0.008	-0.008	0	%100
168 M147	PX	-0.008	-0.008	0	%100
169 M148	PX	-0.008	-0.008	0	%100
170 M255	PX	-0.008	-0.008	0	%100
171 M149	PX	-0.008	-0.008	0	%100
172 M151	PX	-0.008	-0.008	0	%100
173 M256	PX	-0.008	-0.008	0	%100
174 M153	PX	-0.008	-0.008	0	%100
175 M155	PX	-0.008	-0.008	0	%100
176 M158	PX	-0.008	-0.008	0	%100
177 M200	PX	-0.008	-0.008	0	%100
178 M160	PX	-0.008	-0.008	0	%100
179 M161	PX	-0.008	-0.008	0	%100
180 M162	PX	-0.008	-0.008	0	%100



Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
181	M163	PX	-0.008	-0.008	0 %100
182	M164	PX	-0.008	-0.008	0 %100
183	M165	PX	-0.008	-0.008	0 %100
184	M166	PX	-0.008	-0.008	0 %100
185	M231	PX	-0.008	-0.008	0 %100
186	M167	PX	-0.008	-0.008	0 %100
187	M168	PX	-0.008	-0.008	0 %100
188	M170	PX	-0.008	-0.008	0 %100
189	M171	PX	-0.008	-0.008	0 %100
190	M173	PX	-0.008	-0.008	0 %100
191	M174	PX	-0.008	-0.008	0 %100
192	M175	PX	-0.008	-0.008	0 %100
193	M237	PX	-0.008	-0.008	0 %100
194	M176	PX	-0.008	-0.008	0 %100
195	M177	PX	-0.008	-0.008	0 %100
196	M196	PX	-0.008	-0.008	0 %100
197	M178	PX	-0.008	-0.008	0 %100
198	M179	PX	-0.008	-0.008	0 %100
199	M180	PX	-0.008	-0.008	0 %100
200	M181	PX	-0.008	-0.008	0 %100
201	M182	PX	-0.008	-0.008	0 %100
202	M183	PX	-0.008	-0.008	0 %100
203	M184	PX	-0.008	-0.008	0 %100
204	M185	PX	-0.008	-0.008	0 %100
205	M186	PX	-0.008	-0.008	0 %100
206	M187	PX	-0.008	-0.008	0 %100
207	M201	PX	-0.008	-0.008	0 %100
208	M188	PX	-0.008	-0.008	0 %100
209	M190	PX	-0.008	-0.008	0 %100
210	M204	PX	-0.008	-0.008	0 %100
211	M191	PX	-0.008	-0.008	0 %100
212	M192	PX	-0.008	-0.008	0 %100
213	M195	PX	-0.008	-0.008	0 %100
214	M197	PX	-0.008	-0.008	0 %100
215	M199	PX	-0.008	-0.008	0 %100
216	M203	PX	-0.008	-0.008	0 %100
217	M240	PX	-0.008	-0.008	0 %100
218	M228	PX	-0.008	-0.008	0 %100
219	M208	PX	-0.008	-0.008	0 %100
220	M251	PX	-0.008	-0.008	0 %100
221	M209	PX	-0.008	-0.008	0 %100
222	M212	PX	-0.008	-0.008	0 %100
223	M213	PX	-0.008	-0.008	0 %100
224	M214	PX	-0.008	-0.008	0 %100
225	M215	PX	-0.008	-0.008	0 %100
226	M216	PX	-0.008	-0.008	0 %100
227	M217	PX	-0.008	-0.008	0 %100
228	M219	PX	-0.008	-0.008	0 %100
229	M234	PX	-0.008	-0.008	0 %100
230	M220	PX	-0.008	-0.008	0 %100
231	M224	PX	-0.008	-0.008	0 %100
232	M239	PX	-0.008	-0.008	0 %100
233	M227	PX	-0.008	-0.008	0 %100
234	M229	PX	-0.008	-0.008	0 %100
235	M230	PX	-0.008	-0.008	0 %100



Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
236	M232	PX	-0.008	-0.008	0 %100
237	M233	PX	-0.008	-0.008	0 %100
238	M235	PX	-0.008	-0.008	0 %100
239	M236	PX	-0.008	-0.008	0 %100
240	M238	PX	-0.008	-0.008	0 %100
241	M241	PX	-0.008	-0.008	0 %100
242	M243	PX	-0.008	-0.008	0 %100
243	M244	PX	-0.008	-0.008	0 %100
244	M245	PX	-0.008	-0.008	0 %100
245	M246	PX	-0.008	-0.008	0 %100
246	M248	PX	-0.008	-0.008	0 %100
247	M250	PX	-0.008	-0.008	0 %100
248	M253	PX	-0.008	-0.008	0 %100
249	M258	PX	-0.008	-0.008	0 %100
250	M261	PX	-0.008	-0.008	0 %100
251	M262	PX	-0.008	-0.008	0 %100
252	M265	PX	-0.008	-0.008	0 %100
253	M266	PX	-0.008	-0.008	0 %100
254	M267	PX	-0.008	-0.008	0 %100
255	M13	PX	-0.008	-0.008	0 %100
256	M71	PX	-0.008	-0.008	0 %100
257	M87	PX	-0.008	-0.008	0 %100
258	M141	PX	-0.008	-0.008	0 %100
259	M157	PX	-0.008	-0.008	0 %100
260	M211	PX	-0.008	-0.008	0 %100
261	M249	PX	-0.008	-0.008	0 %100
262	M257	PX	-0.008	-0.008	0 %100
263	M259	PX	-0.008	-0.008	0 %100
264	M264	PX	-0.008	-0.008	0 %100
265	M159	PX	-0.008	-0.008	0 %100
266	M89	PX	-0.008	-0.008	0 %100
267	M223	PX	-0.008	-0.008	0 %100

Member Area Loads

No Data to Print...

Envelope Node Reactions

	Node Label	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N138	max	0.234	54	0.191	6	0.965	11	0	86	0	86	0
2		min	-0.062	11	-0.419	61	-1.131	29	0	1	0	1	0
3	N120	max	0.29	53	0.317	34	1.19	4	0	86	0	86	0
4		min	-0.085	10	-0.182	4	-1.345	34	0	1	0	1	0
5	N569	max	0.284	5	0.211	33	1.03	4	0	86	0	86	0
6		min	-0.478	35	-0.087	3	-1.277	34	0	1	0	1	0
7	N587	max	0.285	5	0.121	7	0.978	11	0	86	0	86	0
8		min	-0.453	35	-0.371	62	-1.236	29	0	1	0	1	0
9	N836	max	1.67	9	0.298	37	1.256	3	0	86	0	86	0
10		min	-1.884	27	-0.157	8	-1.31	33	0	1	0	1	0
11	N854	max	2.294	4	0.135	9	0.949	10	0	86	0	86	0
12		min	-2.46	34	-0.408	52	-0.997	28	0	1	0	1	0
13	N1285	max	1.701	10	0.306	35	1.641	28	0	86	0	86	0
14		min	-1.836	28	-0.17	5	-1.338	9	0	1	0	1	0
15	N1303	max	2.142	4	0.048	3	1.168	34	0	86	0	86	0
16		min	-2.226	34	-0.351	59	-0.911	4	0	1	0	1	0



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

GEOSTRUCTURAL Model Name : CT11794-S East Lyme 1

5/11/2022

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Checked By : DWG

Envelope Node Reactions (Continued)

	Node Label	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
17	N1542	max	2.622	30	0.267	30	1.302	30	0	86	0	86	0
18		min	-2.591	12	-0.133	12	-1.103	12	0	1	0	1	0
19	N1560	max	2.004	37	0.133	3	1.657	37	0	86	0	86	0
20		min	-1.925	7	-0.405	57	-1.454	7	0	1	0	1	0
21	N1991	max	2.682	30	0.197	51	1.048	6	0	86	0	86	0
22		min	-2.396	12	-0.07	7	-1.105	36	0	1	0	1	0
23	N2009	max	2.344	36	0.188	5	1.529	12	0	86	0	86	0
24		min	-2.006	6	-0.386	60	-1.54	30	0	1	0	1	0
25	N2129	max	0.05	5	2.049	51	2.036	51	0	86	0.001	4	0.001
26		min	-0.05	11	-0.348	8	-0.383	8	0	1	-0.001	34	-0.001
27	N2131	max	1.755	55	2.039	55	0.178	12	0.001	9	0.002	9	0.001
28		min	-0.304	12	-0.311	12	-1.016	55	-0.002	28	-0.002	28	-0.001
29	N2133	max	0.311	4	2.042	59	0.182	4	0.002	30	0.002	12	0.001
30		min	-1.757	59	-0.319	4	-1.019	59	-0.002	12	-0.002	30	-0.001
31	N2167	max	0.824	29	0.056	55	1.826	2	0	86	LOCKED		0
32		min	-0.749	11	-0.009	2	-2.062	32	0	1	LOCKED		0
33	N2172	max	1.684	5	0.056	59	1.014	37	0	86	LOCKED		0
34		min	-1.957	35	-0.009	6	-0.979	7	0	1	LOCKED		0
35	N2177	max	1.68	28	0.056	62	1.347	27	0	86	LOCKED		0
36		min	-1.504	10	-0.009	10	-1.152	9	0	1	LOCKED		0
37	Totals:	max	7.777	29	5.006	59	7.3	26					
38		min	-7.777	11	0	4	-7.3	8					

Envelope AISC 14TH (360-10): ASD Member Steel Code Checks

Member	Shape	Code CheckLoc[ft]	Shear CheckLoc[ft]	DirLC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1 M6	.625DIA.	0.924	0.146	62	0.289	0	61	10.363	10.471	0.109
2 M150	.625DIA.	0.911	0.146	58	0.282	0	58	10.363	10.471	0.109
3 M80	.625DIA.	0.902	0.146	54	0.28	0	53	10.363	10.471	0.109
4 M82	.625DIA.	0.822	0.146	61	0.268	0	62	10.363	10.471	0.109
5 M8	.625DIA.	0.819	0.146	59	0.274	0	60	10.363	10.471	0.109
6 M152	.625DIA.	0.776	0.146	56	0.262	0	57	10.363	10.471	0.109
7 M15	PIPE 3.0	0.714	5.5	32	0.429	5.5	32	20.07	43.383	3.825
8 M159	PIPE 3.0	0.704	5.5	28	0.42	5.5	28	20.07	43.383	3.825
9 M89	PIPE 3.0	0.652	5.5	36	0.381	5.5	36	20.07	43.383	3.825
10 M1	L5X3X4	0.647	0.5	37	0.307	0.75	z 26	33.163	41.82	1.29
11 M145	L5X3X4	0.609	0.5	34	0.296	0.75	z 34	33.163	41.82	1.29
12 M75	L5X3X4	0.609	0.5	29	0.272	0.75	z 30	33.163	41.82	1.29
13 M226	PIPE 2.5	0.542	8.5	29	0.224	8.5	30	10.511	33.743	2.393
14 M153	.625DIA.	0.529	0.146	29	0.09	0	29	10.363	10.471	0.109
15 M223	PIPE 2.5	0.518	3.5	35	0.24	8.5	26	10.511	33.743	2.393
16 M219	PIPE 2.5	0.507	8.5	33	0.257	4	35	10.511	33.743	2.393
17 M10	L5X3X4	0.501	0.25	8	0.206	0.25	z 33	33.163	41.82	1.29
18 M154	L5X3X4	0.482	0.25	4	0.217	0.25	z 29	33.163	41.82	1.29
19 M160	HSS4X4X3	0.48	0.036	36	0.193	3.026	y 57	67.647	71.066	8.424
20 M95	.625DIA.	0.479	0.146	35	0.151	0	61	10.363	10.471	0.109
21 M151	.625DIA.	0.476	0.146	35	0.079	0	29	10.363	10.471	0.109
22 M252	PIPE 2.5	0.46	4.083	35	0.057	2.083	58	19.986	33.743	2.393
23 M84	L5X3X4	0.46	0.25	12	0.174	0.25	z 36	33.163	41.82	1.29
24 M259	PIPE 2.5	0.459	4.083	35	0.063	2	35	19.986	33.743	2.393
25 M71	PIPE 2.5	0.459	4.083	2	0.058	2.083	54	19.986	33.743	2.393
26 M81	.625DIA.	0.457	0.146	37	0.084	0	36	10.363	10.471	0.109
27 M7	.625DIA.	0.439	0.146	33	0.068	0	27	10.363	10.471	0.109
28 M94	.625DIA.	0.421	0.146	53	0.158	0	53	10.363	10.471	0.109
29 M20	.625DIA.	0.42	0.146	61	0.163	0	61	10.363	10.471	0.109
30 M141	PIPE 2.0	0.418	3	29	0.071	2.063	31	13.883	21.377	1.245



Company : GeoStructural, LLC

Designer : Fathullah Zamani

Job Number : CTNL805B

Model Name : CT11794-S East Lyme 1

5/11/2022

10:09:01 PM

Checked By : DWG

Envelope AISC 14TH (360-10): ASD Member Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[ft]	LC Shear Check	Loc[ft]	Dir LC Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
31 M90	HSS4X4X3	0.415	0.036	28	0.199	3.026	y 62	67.647	71.066	8.424	8.424 1.684 H1-1b
32 M164	.625DIA.	0.413	0.146	57	0.158	0	58	10.363	10.471	0.109	0.109 1 H1-1b
33 M9	.625DIA.	0.408	0.146	32	0.061	0	33	10.363	10.471	0.109	0.109 1 H1-1b
34 M157	PIPE 2.0	0.399	3	35	0.053	1.063	58	13.883	21.377	1.245	1.245 1 H1-1b
35 M211	PIPE 2.0	0.394	3	32	0.074	3	31	13.883	21.377	1.245	1.245 1 H1-1b
36 M21	.625DIA.	0.387	0.146	57	0.152	0	60	10.363	10.471	0.109	0.109 1 H1-1b
37 M168	.625DIA.	0.384	0.146	35	0.07	0	35	10.363	10.471	0.109	0.109 1 H1-1b
38 M165	.625DIA.	0.377	0.146	52	0.146	0	59	10.363	10.471	0.109	0.109 1 H1-1b
39 M83	.625DIA.	0.367	0.146	37	0.069	0	37	10.363	10.471	0.109	0.109 1 H1-1b
40 M67	PIPE 2.0	0.351	3	36	0.069	2.063	28	13.883	21.377	1.245	1.245 1 H1-1b
41 M87	PIPE 2.0	0.347	3	31	0.052	1.063	53	13.883	21.377	1.245	1.245 1 H1-1b
42 M13	PIPE 2.0	0.33	3	27	0.054	1.063	61	13.883	21.377	1.245	1.245 1 H1-1b
43 M249	PIPE 2.0	0.298	3	62	0.047	1.063	62	13.883	21.377	1.245	1.245 1 H1-1b
44 M264	PIPE 2.0	0.297	3	59	0.048	3	60	13.883	21.377	1.245	1.245 1 H1-1b
45 M24	.625DIA.	0.29	0.146	26	0.051	0.146	37	10.363	10.471	0.109	0.109 1 H1-1b
46 M257	PIPE 2.0	0.282	3	54	0.044	3	57	13.883	21.377	1.245	1.245 1 H1-1b
47 M167	.625DIA.	0.263	0.146	29	0.055	0	35	10.363	10.471	0.109	0.109 1 H1-1b
48 M16	HSS4X4X3	0.236	3.026	37	0.203	3.026	y 60	67.647	71.066	8.424	8.424 1.694 H1-1b
49 M97	.625DIA.	0.228	0.146	37	0.061	0	37	10.363	10.471	0.109	0.109 1 H1-1b
50 M23	.625DIA.	0.224	0.146	33	0.056	0	34	10.363	10.471	0.109	0.109 1 H1-1b
51 M98	.625DIA.	0.2	0.146	31	0.045	0	37	10.363	10.471	0.109	0.109 1 H1-1b
52 M246	L2.5X2.5X3	0.191	2.364	10	0.007	4.632	y 5	9.596	19.423	0.581	1.127 1.136 H2-1
53 M242	L2.5X2.5X3	0.184	2.316	4	0.009	4.632	y 44	9.596	19.423	0.581	1.127 1.136 H2-1
54 M12	PIPE 3.0	0.182	0.75	37	0.394	0.75	37	42.864	43.383	3.825	3.825 1 H1-1b
55 M238	L2.5X2.5X3	0.173	2.413	12	0.007	4.632	y 34	9.596	19.423	0.581	1.127 1.136 H2-1
56 M244	L2.5X2.5X3	0.171	2.364	6	0.007	4.632	z 41	9.596	19.423	0.581	1.127 1.136 H2-1
57 M156	PIPE 3.0	0.164	0.75	34	0.348	0.75	34	42.864	43.383	3.825	3.825 1 H1-1b
58 M86	PIPE 3.0	0.16	0.75	37	0.355	0.75	29	42.864	43.383	3.825	3.825 1 H1-1b
59 M248	L2.5X2.5X3	0.159	2.316	9	0.009	4.632	z 32	9.596	19.423	0.581	1.127 1.136 H2-1
60 M233	PIPE 2.5	0.156	1.525	37	0.412	3.66	37	30.24	33.743	2.393	2.393 1 H3-6
61 M240	L2.5X2.5X3	0.145	2.413	28	0.007	4.632	z 36	9.596	19.423	0.581	1.127 1.136 H2-1
62 M230	PIPE 2.5	0.143	1.525	33	0.389	3.66	33	30.24	33.743	2.393	2.393 1 H3-6
63 M236	PIPE 2.5	0.125	1.982	29	0.365	3.66	29	30.24	33.743	2.393	2.393 1 H3-6
64 M215	LL2.5X2.5X3X3	0.099	4.243	51	0.014	4.243	z 35	29.291	38.802	2.631	1.696 1 H1-1b*
65 M217	LL2.5X2.5X3X3	0.098	4.243	59	0.023	4.243	z 30	29.291	38.802	2.631	1.696 1 H1-1b*
66 M216	LL2.5X2.5X3X3	0.098	4.243	55	0.021	4.243	z 27	29.291	38.802	2.631	1.696 1 H1-1b*

Bolt Calculator

Capacity Input:	N
Analysis/Design:	Analysis
ASD/LRFD:	ASD
Data	Auto Calc Capacity

4/3 Increase N

inches

Bolt Properties	
Nominal Diameter (d)	5/8
Steel Grade	SAE Grade 5
Threads Excluded?	N
Yield Strength (Fyb)	#N/A
Ultimate Strength (Fub)	120
Threads/in (n)	11
Gross Area (Agb)	0.307
Net Area (Anb)	0.226

ksi

ksi

in²

in²

Pu_x	2682.0	lbs
Pu_y	2049.0	lbs
Pu_z	2036.0	lbs

Bolt Group Properties	
No. of Column	1
No. of Rows	1
Bolt Spacing per Row	3
Bolt Spacing per Column	6
Edge Distance	1
Parallel along	X-Axis

inches

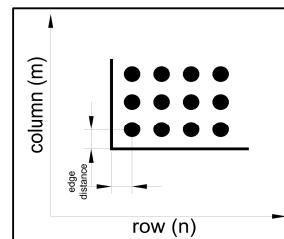
inches

inches

Mu_x	2.0	lbs-ft
Mu_y	2.0	lbs-ft
Mu_z	1.0	lbs-ft

Bolt Capacity (0.625 SAE Grade 5 Bolts)				
	Ult Load/ Bolt	Capacity	# of Bolts	Factor Joint Capacity
Shear	6258.6	6258.6	1	6258.6
Axial	12149.1	12149.1	1	12149.1

Interaction Check	
V /φVn	46%
T /φTn	22%
≤1.0	26%
	Pass



GEOSTRUCTURAL

GeoStructural, LLC | PO Box 2621 | Boise, ID 83701 | p:530.539.4787

Exhibit F

Power Density/RF Emissions Report



EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTNL805B

Amtrak_EastLyme
49 Brainard Road
East Lyme, Connecticut 06357

June 2, 2022

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	18.46%



June 2, 2022

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTNL805B - Amtrak_EastLyme

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **49 Brainard Road in East Lyme, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu\text{W}/\text{cm}^2$ and 467 $\mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 49 Brainard Road in East Lyme, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.
- 3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 5) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 6) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.



- 7) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 8) 1 LTE Traffic channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 60 Watts.
- 9) 1 LTE Broadcast channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 20 Watts.
- 10) 1 NR Traffic channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.
- 11) 1 NR Broadcast channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 40 Watts.
- 12) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 13) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 14) The antennas used in this modeling are the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U_NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-R1 for the 1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U_NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-R1 for the 1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U_NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-R1 for the 1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and



associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 15) The antenna mounting height centerline of the proposed antennas is 160 feet above ground level (AGL).
- 16) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 17) All calculations were done with respect to uncontrolled / general population threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	I	Antenna #:	I	Antenna #:	I
Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd
Height (AGL):	160 feet	Height (AGL):	160 feet	Height (AGL):	160 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts
ERP (W):	31,011.95	ERP (W):	31,011.95	ERP (W):	31,011.95
Antenna A1 MPE %:	4.70%	Antenna B1 MPE %:	4.70%	Antenna C1 MPE %:	4.70%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXVAALL24_43-U_NA20	Make / Model:	RFS APXVAALL24_43-U_NA20	Make / Model:	RFS APXVAALL24_43-U_NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd
Height (AGL):	160 feet	Height (AGL):	160 feet	Height (AGL):	160 feet
Channel Count:	5	Channel Count:	5	Channel Count:	5
Total TX Power (W):	200.00 Watts	Total TX Power (W):	200.00 Watts	Total TX Power (W):	200.00 Watts
ERP (W):	4,151.83	ERP (W):	4,151.83	ERP (W):	4,151.83
Antenna A2 MPE %:	1.50%	Antenna B2 MPE %:	1.50%	Antenna C2 MPE %:	1.50%
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope VV-65A-R1	Make / Model:	Commscope VV-65A-R1	Make / Model:	Commscope VV-65A-R1
Frequency Bands:	1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.55 dBd / 15.55 dBd / 15.55 dBd / 16.05 dBd	Gain:	15.55 dBd / 15.55 dBd / 15.55 dBd / 16.05 dBd	Gain:	15.55 dBd / 15.55 dBd / 15.55 dBd / 16.05 dBd
Height (AGL):	160 feet	Height (AGL):	160 feet	Height (AGL):	160 feet
Channel Count:	10	Channel Count:	10	Channel Count:	10
Total TX Power (W):	420.00 Watts	Total TX Power (W):	420.00 Watts	Total TX Power (W):	420.00 Watts
ERP (W):	15,600.26	ERP (W):	15,600.26	ERP (W):	15,600.26
Antenna A3 MPE %:	2.36%	Antenna B3 MPE %:	2.36%	Antenna C3 MPE %:	2.36%



Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	8.56%
AT&T	5.93%
Verizon	3.97%
Site Total MPE % :	18.46%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	8.56%
T-Mobile Sector B Total:	8.56%
T-Mobile Sector C Total:	8.56%
Site Total MPE % :	18.46%

T-Mobile Maximum MPE Power Values (Sector A)							
T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile 2500 MHz LTE IC & 2C Traffic	1	9619.47	160.0	14.58	2500 MHz LTE IC & 2C Traffic	1000	1.46%
T-Mobile 2500 MHz LTE IC & 2C Broadcast	1	717.84	160.0	1.09	2500 MHz LTE IC & 2C Broadcast	1000	0.11%
T-Mobile 2500 MHz NR Traffic	1	19238.94	160.0	29.16	2500 MHz NR Traffic	1000	2.92%
T-Mobile 2500 MHz NR Broadcast	1	1435.69	160.0	2.18	2500 MHz NR Broadcast	1000	0.22%
T-Mobile 600 MHz LTE	2	591.73	160.0	1.79	600 MHz LTE	400	0.45%
T-Mobile 600 MHz NR	1	1577.94	160.0	2.39	600 MHz NR	400	0.60%
T-Mobile 700 MHz LTE	2	695.22	160.0	2.11	700 MHz LTE	467	0.45%
T-Mobile 1900 MHz GSM	4	1076.77	160.0	6.53	1900 MHz GSM	1000	0.65%
T-Mobile 1900 MHz UMTS	2	1076.77	160.0	3.26	1900 MHz UMTS	1000	0.33%
T-Mobile 1900 MHz LTE	2	2153.53	160.0	6.53	1900 MHz LTE	1000	0.65%
T-Mobile 2100 MHz LTE	2	2416.30	160.0	7.33	2100 MHz LTE	1000	0.73%
						Total:	8.56%

- NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.



Summary

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

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

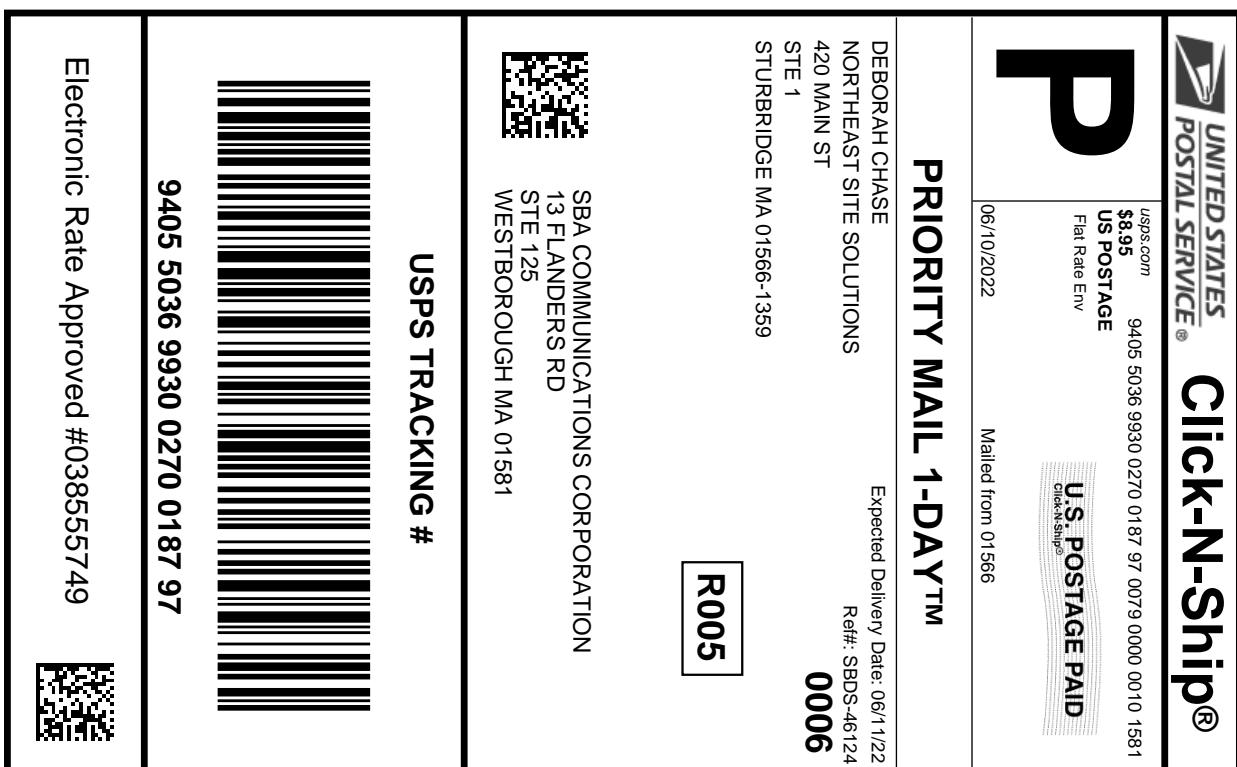
T-Mobile Sector	Power Density Value (%)
Sector A:	8.56%
Sector B:	8.56%
Sector C:	8.56%
T-Mobile Maximum MPE % (Sector A):	8.56%
Site Total:	18.46%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **18.46%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Exhibit G

Recipient Mailings



—X— *Cut on dotted line.*

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING #:
9405 5036 9930 0270 0187 97

Trans. #:	565318362	Priority Mail® Postage:	\$8.95
Print Date:	06/10/2022	Total:	\$8.95
Ship Date:	06/10/2022		
Expected			
Delivery Date:	06/11/2022		

From:	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	Ref#: SBDS-46124
To:	SBA COMMUNICATIONS CORPORATION 13 FLANDERS RD STE 125 WESTBOROUGH MA 01581	

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

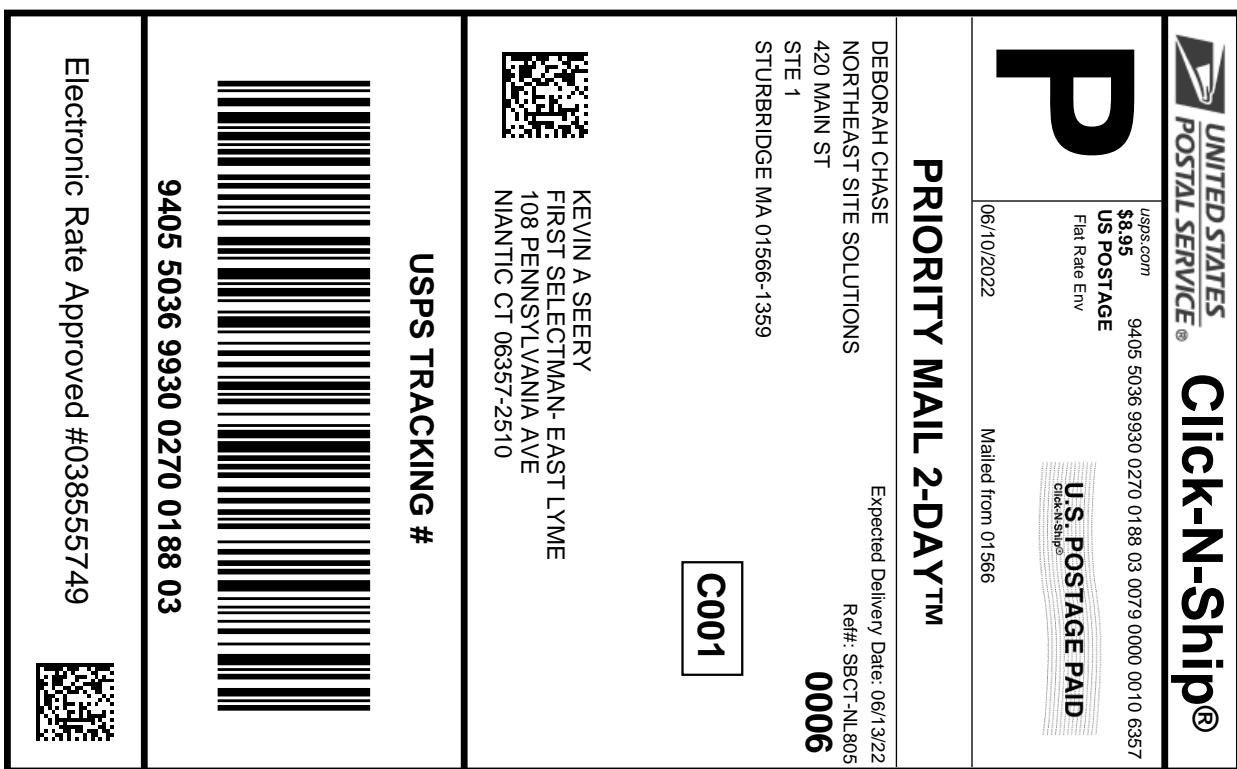


Thank you for shipping with the United States Postal Service!

Check the status of your shipment on the USPS Tracking® page at usps.com

Electronic Rate Approved #038555749

9405 5036 9930 0270 0187 97



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Instructions

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Check the status of your shipment on the USPS Tracking® page at usps.com

Click-N-Ship® Label Record

USPS TRACKING #:
9405 5036 9930 0270 0188 03

Trans. #: 565318362
Print Date: 06/10/2022
Ship Date: 06/10/2022
Expected Delivery Date: 06/13/2022

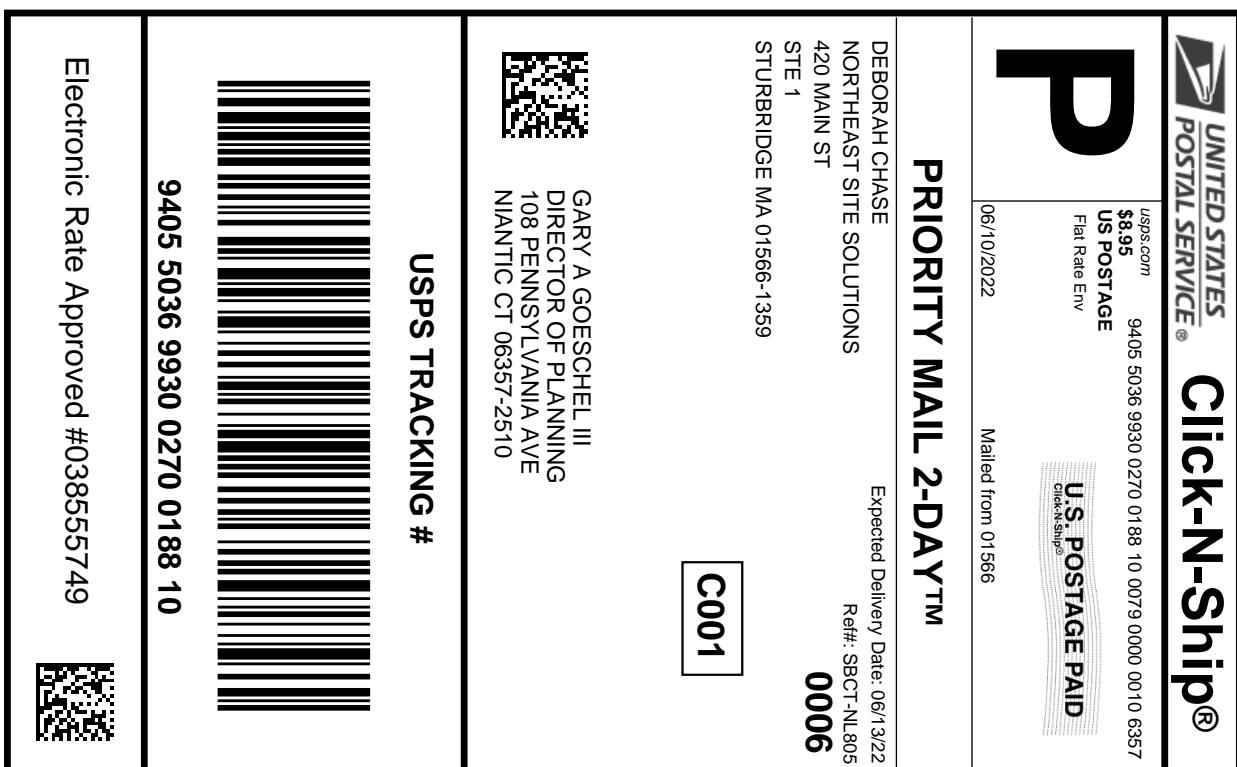
Priority Mail® Postage: **\$8.95**
Total: **\$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

To: KEVIN A SEERY
FIRST SELECTMAN- EAST LYME
108 PENNSYLVANIA AVE
NIANTIC CT 06357-2510

Ref#: SBCT-NL805

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



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Click-N-Ship® Label Record

USPS TRACKING #:
9405 5036 9930 0270 0188 10

Trans. #:	565318362	Priority Mail® Postage:	\$8.95
Print Date:	06/10/2022	Total:	\$8.95
Ship Date:	06/10/2022		
Expected Delivery Date:	06/13/2022		

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

To: GARY A GOESCHEL III
DIRECTOR OF PLANNING
108 PENNSYLVANIA AVE
NANTIC CT 06357-2510

Ref#: SBCT-NL805

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

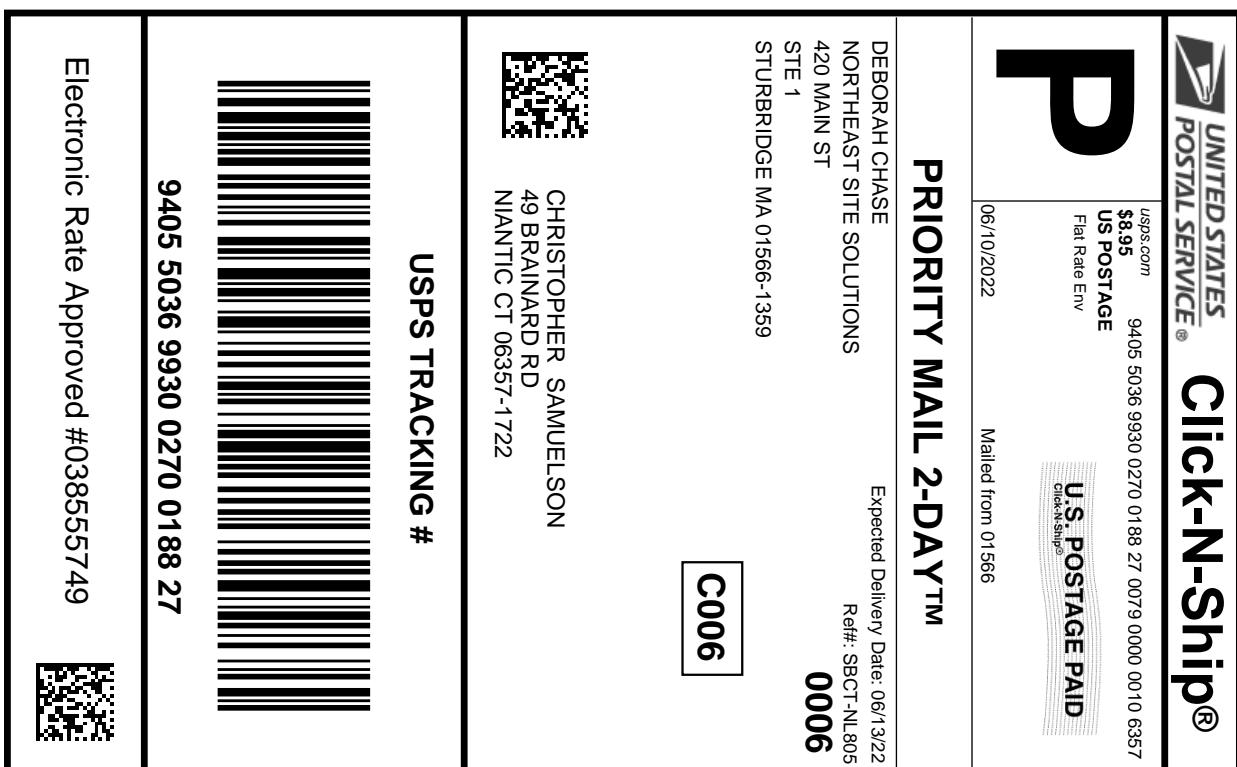


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Electronic Rate Approved #038555749

9405 5036 9930 0270 0188 10



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5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING #:
9405 5036 9930 0270 0188 27

Trans. #:	565318362	Priority Mail® Postage:	\$8.95
Print Date:	06/10/2022	Total:	\$8.95
Ship Date:	06/10/2022		
Expected			
Delivery Date:	06/13/2022		

From:	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	Ref#: SBCT-NL805
To:	CHRISTOPHER SAMUELSON 49 BRAINARD RD NIANTIC CT 06357-1722	

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CTRL805B SBA
TMO



FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

06/10/2022

11:57 AM

Product	Qty	Unit Price	Price
Prepaid Mail	1		\$0.00
Westborough, MA 01581			
Weight: 0 lb 2.00 oz			
Acceptance Date:			
Fri 06/10/2022			
Tracking #:			
9405 5036 9930 0270 0187 97			
Prepaid Mail	1		\$0.00
Niantic, CT 06357			
Weight: 0 lb 9.80 oz			
Acceptance Date:			
Fri 06/10/2022			
Tracking #:			
9405 5036 9930 0270 0188 10			
Prepaid Mail	1		\$0.00
Niantic, CT 06357			
Weight: 0 lb 9.80 oz			
Acceptance Date:			
Fri 06/10/2022			
Tracking #:			
9405 5036 9930 0270 0188 27			
Prepaid Mail	1		\$0.00
Niantic, CT 06357			
Weight: 0 lb 9.80 oz			
Acceptance Date:			
Fri 06/10/2022			
Tracking #:			
9405 5036 9930 0270 0188 03			

Grand Total: \$0.00

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eligible to receive a third set
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