



Filed by:

G. Scott Shepherd, Site Development Specialist II - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - gshepherd@sbsite.com

December 8, 2020

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

RE: Notice of Exempt Modification
811 Stonington Road, Stonington, CT 06378
Latitude: 41.353417
Longitude: --71.887000
T-Mobile Site #: CT11310A_L600

Dear Ms. Bachman:

T-Mobile currently maintains three (3) antennas at the 135-foot level of the existing 150-foot Monopole Tower at 811 Stonington Rd., Stonington, CT. The 150-foot tower is owned by SBA Towers, LLC. The property is owned by Phillip McClellan. T-Mobile now intends to install three (3) new L600/ L700/1900/2100 MHz antennas.

- **The new antennas support 5G services and would be installed at the 135-foot level of the tower.**

Please note: Per the Connecticut Siting Council Website: CSC COVID 19 Guidelines.
In order to prevent the spread of Coronavirus and protect the health and safety of our members and staff, as of March 18, 2020, the Connecticut Siting Council shall convert to full remote operations until March 30, 2020. Please be advised that during this time period, all hard copy filing requirements will be waived in lieu of an electronic filing. Please also be advised that the March 26, 2020 regular meeting shall be held via teleconference. The Council's website is not equipped with an on-line filing fee receipt service. Therefore, filing fees and/or direct cost charges associated with matters received electronically during the above-mentioned time period will be directly invoiced at a later date.

Planned Modifications:

TOWER

Remove:

- N/A

Remove and Replace:

- N/A

Install New:

- (3) RFS APXVAR18_43-C-NA20 L600/L700/L1900/L2100 MHz antennas

Existing Equipment to Remain:

- (3) RFS APXV18-206516 antenna
- Mounts: Concealed inside 40" Canister from 130 ft. to 140 ft.
- (6) 1-5/8" coax

Entitlements:

- (6) 1-5/8" coax

GROUND

Install New:

- (3) Ericsson Radio 4449 B71+B85 RRU
- Equipment inside existing cabinet

Entitlements:

- (1) ½" Coax for GPS antenna

This facility was approved by the Town of Stonington's Planning and Zoning Commission on September 2, 1999 under application PZ9937SPA. Approval was given for a 150' monopole. There were no post-construction stipulations set. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Stonington's First Selectman, Rob Simmons, and Zoning Enforcement Officer, Candace Palmer, as well as to the property owner. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

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 modification 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 modification 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 telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

G. Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
gshepherd@sbsite.com

Attachments

- cc: Daniel Chesebrough, First Selectman / with attachments
152 Elm Street, Stonington, CT 06378
- Candace Palmer, Zoning Enforcement Officer / with attachments
152 Elm Street, Stonington, CT 06378
- Philip McClellan / with attachments
11 Velvet Lane Mystic CT 06355-1917 (SBA address on file)
(Town records show address for SBA corporate office in Boca Raton)

EXHIBIT LIST

Exhibit 1	Check Copy	X To be invoiced at a later date
Exhibit 2	Notification Receipts	X
Exhibit 3	Property Card	X
Exhibit 4	Property Map	X
Exhibit 5	Original Zoning Approval	Town of Stonington P&Z Commission 9/2/99
Exhibit 6	Construction Drawings	Chappell Engineering 12/3/20
Exhibit 7	Structural Analysis	TES 10/30/20
Exhibit 8	Mount Analysis	TES 7/29/19
Exhibit 8	EME Report	Transcom 5/28/19

EXHIBIT 1

Normally, Exhibit 1 would contain a copy of the check for the filing fee.

EXHIBIT 2

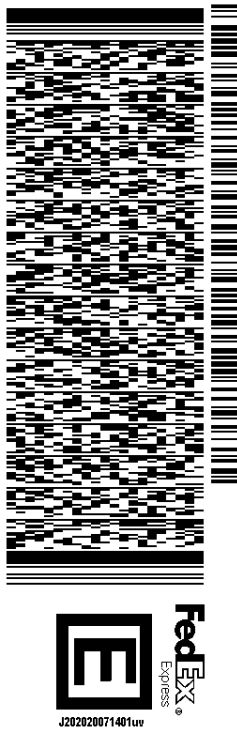
ORIGIN ID:BFBA (508) 614-0389
 RICK WOODS
 SBA COMMUNICATIONS CORPORATION
 134 FLANDERS RD
 SUITE 125
 WESTBOROUGH, MA 01581
 UNITED STATES US

SHIP DATE: 09DEC20
 ACTWGT: 1.00 LB
 CAD: 105843304/NET4280

BILL SENDER

TO **MELANIE A. BACHMAN EXEC. DIR**
CONNECTICUT SITING COUNCIL
TEN FRANKLIN SQUARE

NEW BRITAIN CT 06051
 (508) 251-0720 X.3807 REF: 105692009-6089
 INV. DEPT:
 PO:



TRK# 7723 0209 1450
 0201
 WED - 09 DEC 10:30A
 PRIORITY OVERNIGHT

EBBDLA
 CT-US BDL
 06051

A large vertical barcode is positioned to the right of the EBBDLA text.

56B.J2/9196/B766

After printing this label:

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

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

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

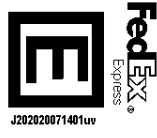
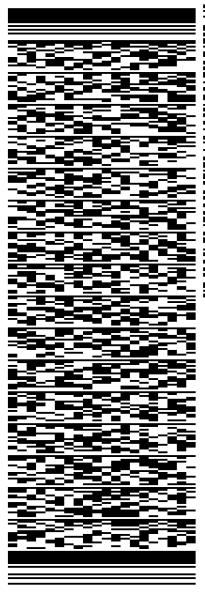
ORIGIN ID:BFBA (508) 614-0389
RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 08DEC20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280
BILL SENDER

TO DANIEL CHEESEBOROUGH, 1ST SELECTMAN
TOWN OF STONINGTON
152 ELM ST

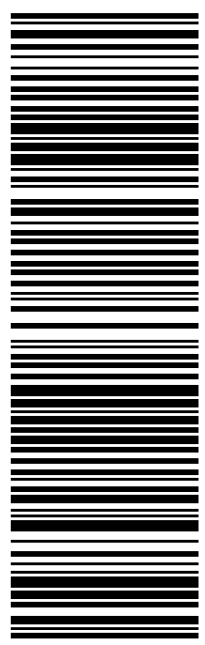
STONINGTON CT 06378
(508) 251-0720 X 3807
REF: 10-56-92009-6089
PO: DEPT:

56B.J2/9196/B766



TRK# 7723 0213 9208
0201
WED - 09 DEC 12:00P
PRIORITY OVERNIGHT

EB GONA
06378
CT:US BDL



After printing this label:

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

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

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

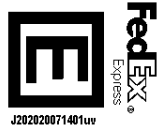
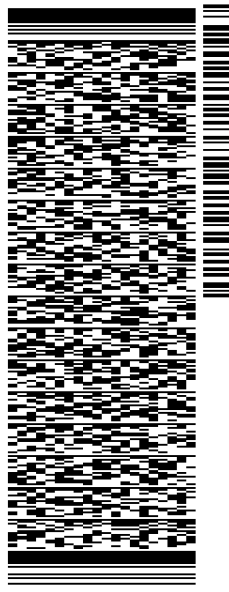
ORIGIN ID:BFBA (508) 614-0389
RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 08DEC20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280
BILL SENDER

TO
CANDACE PALMER, ZONE ENF. OFFICER
TOWN OF STONINGTON
152 ELM ST

STONINGTON CT 06378
(508) 251-0720 X 3807 REF: 10-56-92009-6089
INV. PO. DEPT.

56B.J2/9196/B766



TRK# 7723 0216 2857
0201
WED - 09 DEC 12:00P
PRIORITY OVERNIGHT

EB GONA
06378
CT-US BDL

After printing this label:

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

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

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

ORIGIN ID:BFBA (508) 614-0389
RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

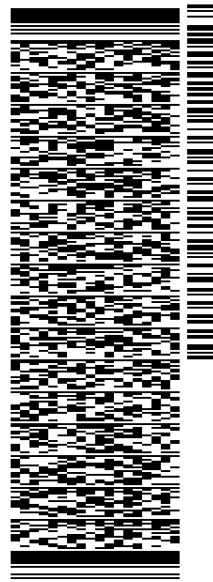
SHIP DATE: 09DEC20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280
BILL SENDER

TO PHILIP MCCCELLAN

11 VEVET LANE

MYSTIC CT 06355

(508) 251-0720 X 3807 REF: 105692009-6089
INV. DEPT:
PO:



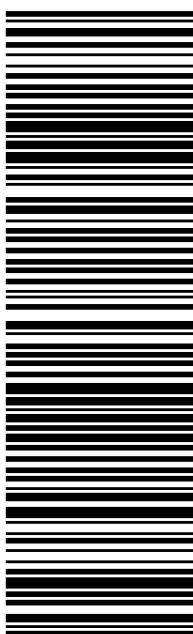
56B.I2/9196/B766

TRK# 7723 0219 9810
0201

WED - 09 DEC 10:30A
PRIORITY OVERNIGHT

EB GONA

06355
CT-US BDL



After printing this label:

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

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

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

EXHIBIT 3



Town of Stonington, CT

Property Listing Report

Map Block Lot

75-1-2A

Building # 1

Section # 1

Account

00490300

Property Information

Property Location	811 STONINGTON RD
Owner	MCCLELLAN PHILLIP C
Co-Owner	C/O SBA TOWERS INC
Mailing Address	8051 CONGRESS AVE BOCA RATON FL 33487-1307
Land Use	430V TEL X STA M-00
Land Class	I
Zoning Code	RR-80
Census Tract	7052

Street Index	0035
Acreage	3.3
Utilities	
Lot Setting/Desc	
Survey Map #	NA
School District	
Fire District	Wequetequock
Trash Day	W
Polling Place (District)	1

Photo



Sketch

No Photo Available

Primary Construction Details

Year Built	0
Stories	
Building Style	UNKNOWN
Building Use	Vacant
Building Condition	
Occupancy	
Extra Fixtures	
Bath Style	NA
Kitchen Style	NA
AC Type	
Heating Type	
Heating Fuel	

Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Total Rooms	0
Roof Style	
Roof Cover	
Interior Floors 1	
Interior Floors 2	
Exterior Walls	
Exterior Walls 2	NA
Interior Walls	
Interior Walls 2	NA

(*Industrial / Commercial Details)

Building Desc.	TEL X STA M-00
Building Grade	
Heat / AC	
Frame Type	
Baths / Plumbing	
Ceiling / Wall	
Rooms / Prtns	
Wall Height	
First Floor Use	



Valuation Summary (Assessed value = 70% of Appraised Value)

Sub Areas

Item	Appraised	Assessed	Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Buildings	0	0			
Extras	0	0			
Improvements					
Outbuildings	193000	135100			
Land	109500	76700			
Total	302500	211800			

Outbuilding and Extra Features

Type	Description
CELL TOWER	1.00 UNIT
SHELTER	1.00 UNIT
FENCE-6' CHAIN	192.00 L.F.
LIGHTS-IN W/PL	1.00 UNITS

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area	0	0

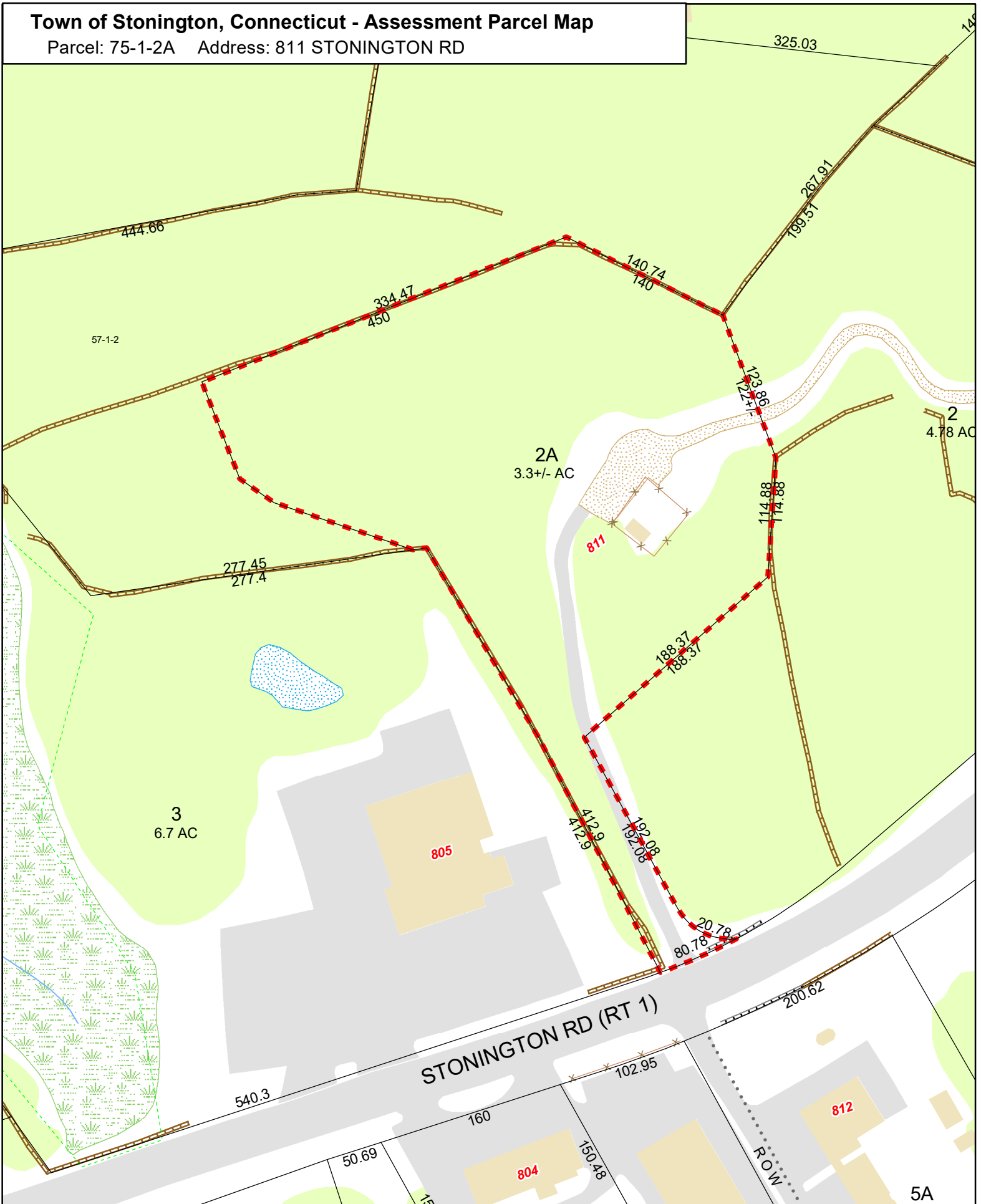
Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
MCCLELLAN PHILLIP C	0589/1129	10/24/2005	365500
MCCLELLAN PHILLIP C	0589/1125	10/24/2005	0
MCCLELLAN PHILLIP C	0449/0686	4/27/2000	0
MCCLELLAN PHILLIP C	0406/0135	7/8/1997	30000
LOPRESTO PHILIP JR & GARDNER	0406/0129	7/8/1997	0
LOPRESTO PHILIP EST OF	0384/0781	10/10/1995	0
LOPRESTO PHILIP EST OF	0355/1003	6/1/1993	0
LOPRESTO PHILIP	0221/0662	12/28/1978	0

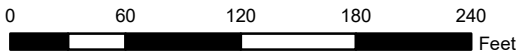
EXHIBIT 4

Town of Stonington, Connecticut - Assessment Parcel Map

Parcel: 75-1-2A Address: 811 STONINGTON RD



Approximate Scale:
1 inch = 100 feet



Revised To: October 2018

Map Produced: April 2019

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Stonington and its mapping contractors assume no legal responsibility for the information contained herein.

EXHIBIT 5

TOWN OF STONINGTON
The Planning and Zoning Commission
152 Elm Street, P.O. Box 352
Stonington, Connecticut 06378
(860) 535-5095

September 7, 1999

Sprint Spectrum LP
9 Barnes Industrial Rd.
Wallingford, CT 06492

Dear Sir:

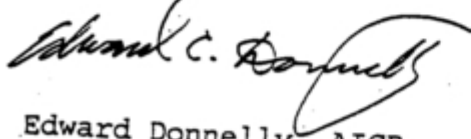
The Planning and Zoning Commission at their meeting of September 2, 1999 voted to APPROVE your application - #PZ9937SPA SPRINT SPECTRUM LP - Application for the construction of a 150 ft. monopole telecommunications tower. Property located at 49 Stonington Rd. Assessor's Map 75 Block 1 Lot 2A Zone GC-60. Your application was approved with the following stipulations:

- 1) General cleanup of debris and removal of any fuel tanks of any type from the site prior to any construction beginning on the property.
- 2) The corrections shall be made on the final site plan as noted in the Planning Director's memo dated 9/1/99
- 3) The illegal storage of vehicles and heavy equipment shall cease until site plan approval for the property is obtained from the Commission.

Please schedule an appointment with the Planning Office to review the final plans which have incorporated all the above stipulations and/or changes and have been listed on the site plan. Please bring to the Planning and Zoning Office for the Chairman's signature one (1) set of blueines. If you require a signed copy of the site plan for your files, please provide the Planning office with the additional copy.

If you have any questions, please feel free to contact the Planning Office.

Sincerely,



Edward Donnelly, AICP
Planning Director

EXHIBIT 6

SBA STONINGTON

811 STONINGTON ROAD
STONINGTON, CT 06378
NEW LONDON COUNTY

SITE NO.: CT11310A

SITE TYPE: 150'± FLAGPOLE

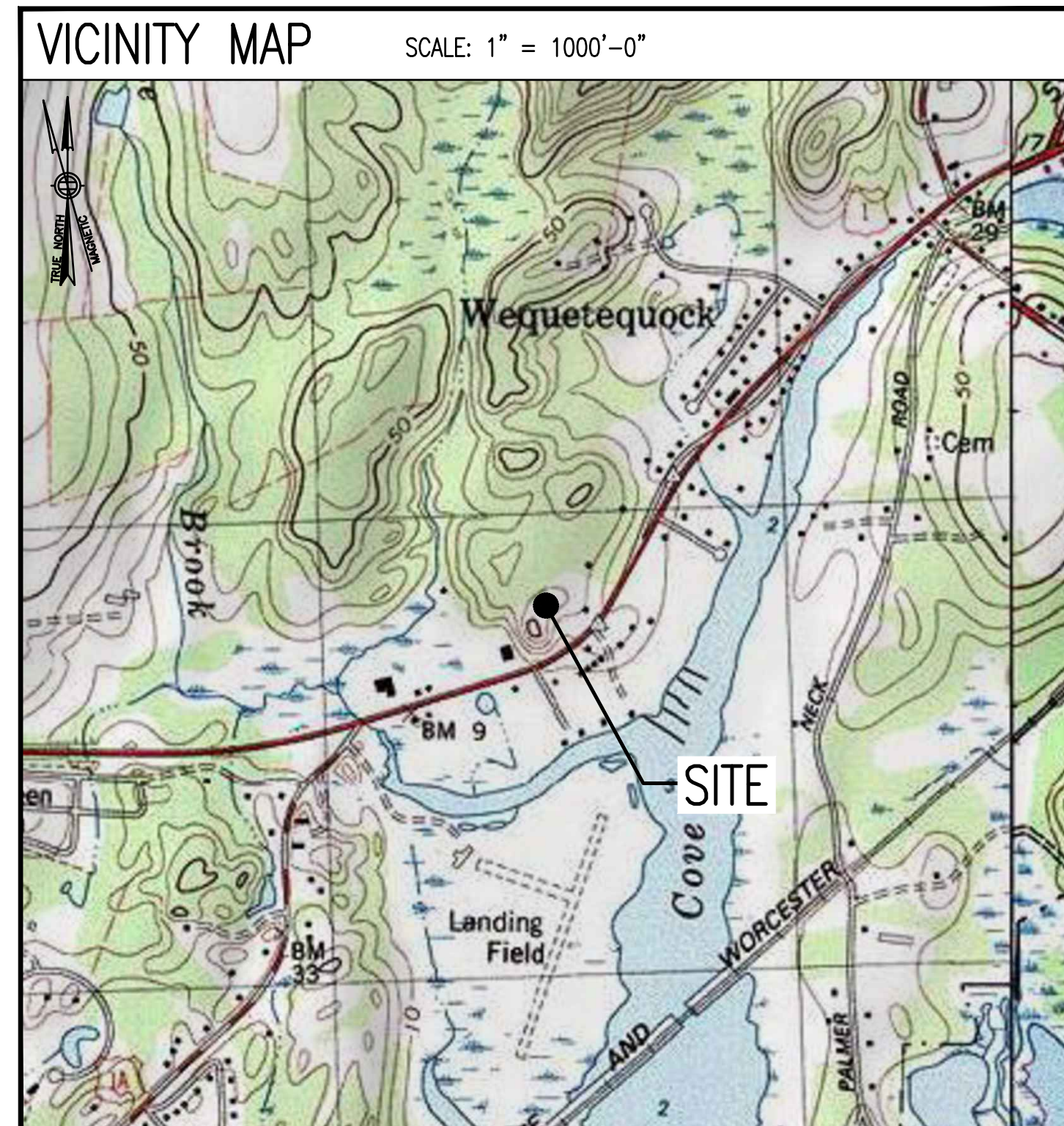
RF DESIGN GUIDELINE: 2X2 67D94BRL2_FLAGPOLE (MSSM)
OUTDOOR

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

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	
1. 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.	11. 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.
2. 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.	12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPOTENT 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.	13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
4. 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.	14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
5. 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.	15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
6. 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.	16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
7. 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.	17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.
8. 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.	
9. 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.	
10. 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.	

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



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.

SHEET INDEX		
SHEET NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	TOWER ELEVATION & ANTENNA PLANS	1
A-3	SITE DETAILS	1
A-4	ANTENNA & FEEDLINE CHARTS	1
E-1	ELECTRIC & GROUNDING DETAILS	1

SPECIAL ZONING NOTE:
BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

SITE NOTES	
1.	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. <ul style="list-style-type: none"> • ADA COMPLIANCE NOT REQUIRED. • POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. • NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
2.	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.
3.	NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. <ul style="list-style-type: none"> • 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.

PROJECT SUMMARY	
SITE NUMBER:	CT11310A
SBA SITE NUMBER:	CT01493-S
SBA SITE NAME:	NORTH STONINGTON 2 CT
SITE ADDRESS:	811 STONINGTON ROAD STONINGTON, CT 06378
PROPERTY OWNER:	PHILLIP C. MCCLELLAN 11 VELVET LANE MYSTIC, CT 06355
TOWER OWNER:	SBA TOWERS, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	NEW LONDON COUNTY
ZONING DISTRICT:	COMMERCIAL
STRUCTURE TYPE:	FLAGPOLE
STRUCTURE HEIGHT:	150'
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
SBA RSM:	STEPHEN ROTH PHONE: 860-539-4920 EMAIL: SROth@sbsite.com
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
SITE CONTROL POINT:	LATITUDE: N.41.353459' LONGITUDE W.71.886843'

T-MOBILE NORTHEAST LLC

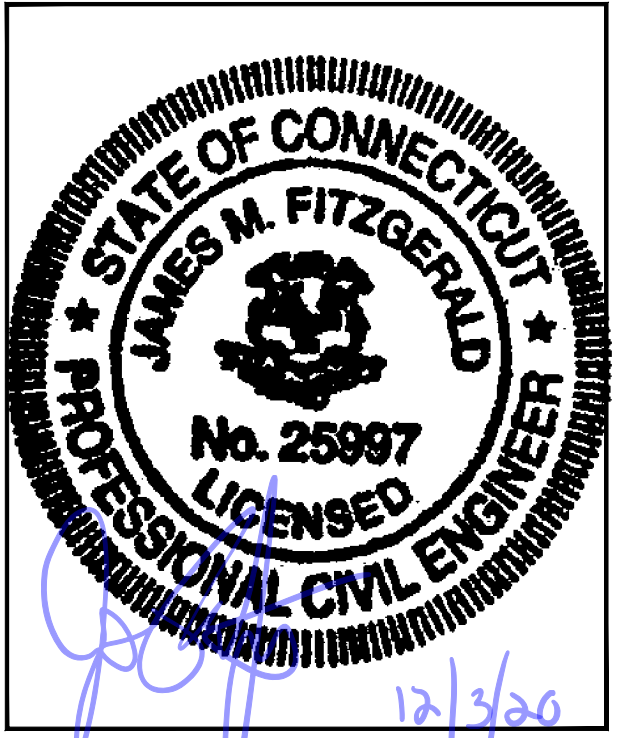
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700

SBA

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

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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

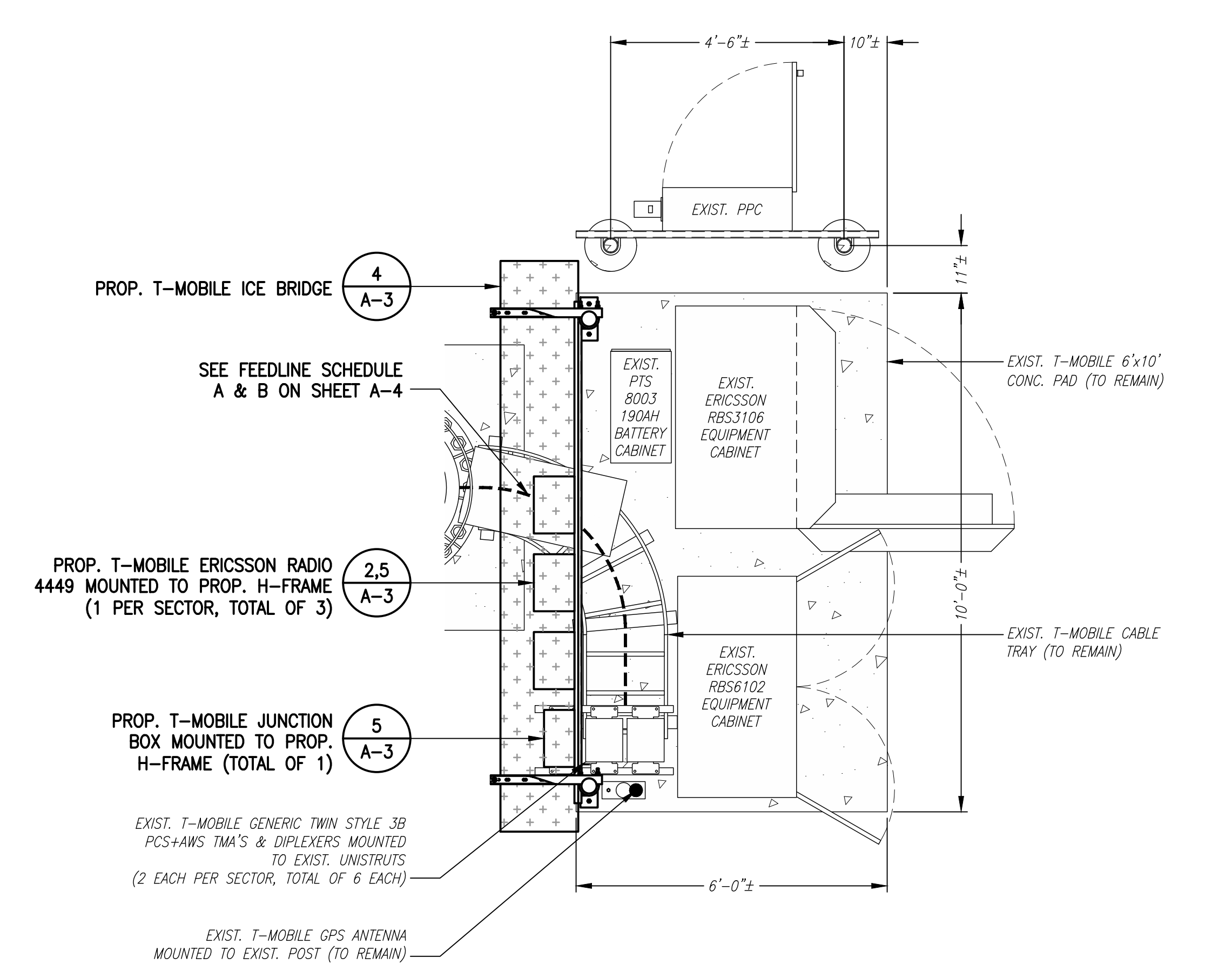
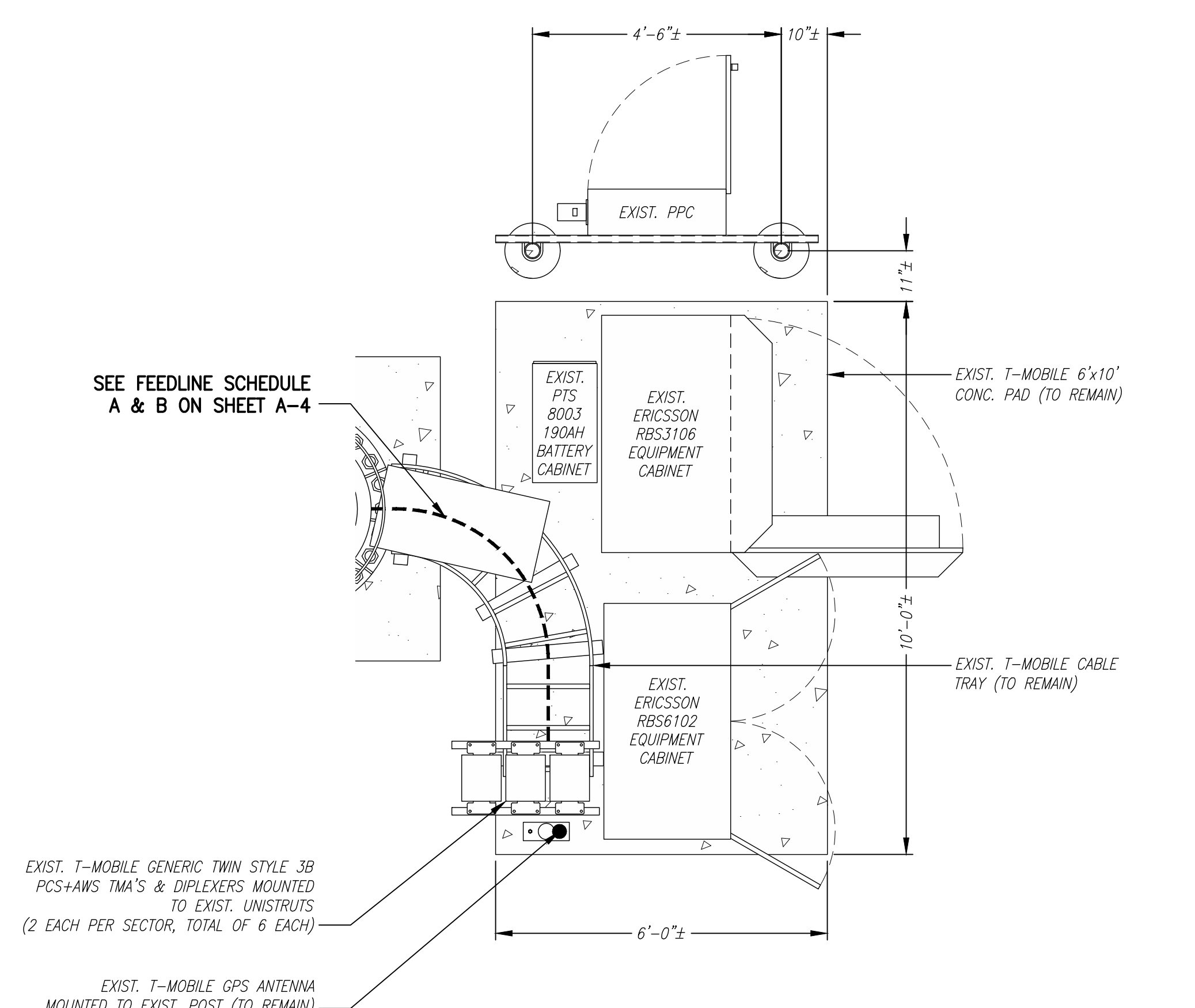
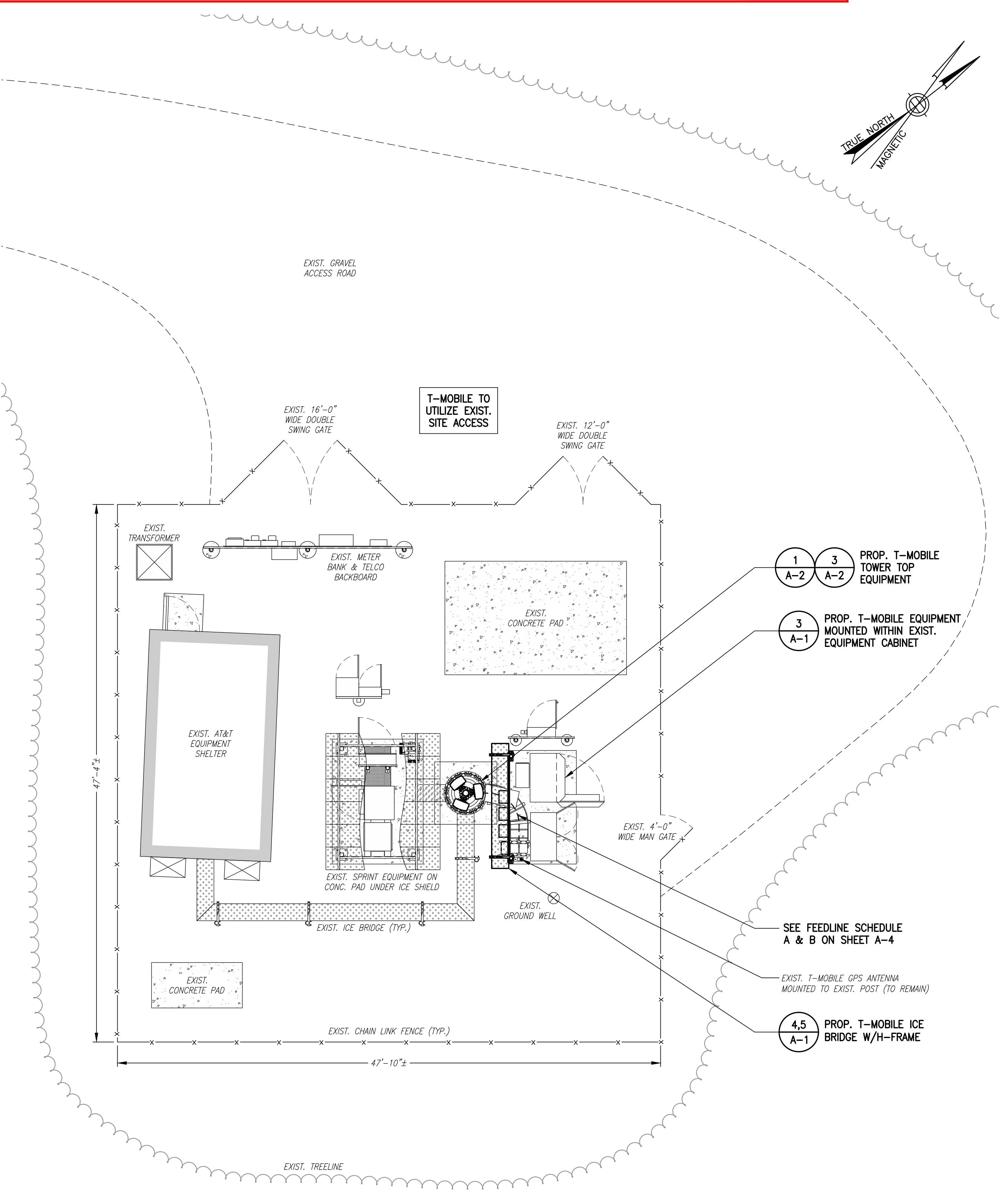
SITE NUMBER:
CT11310A

SITE ADDRESS:
811 STONINGTON ROAD
STONINGTON, CT 06378

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-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.

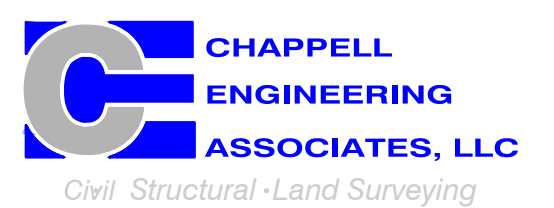


**T-MOBILE
NORTHEAST LLC**

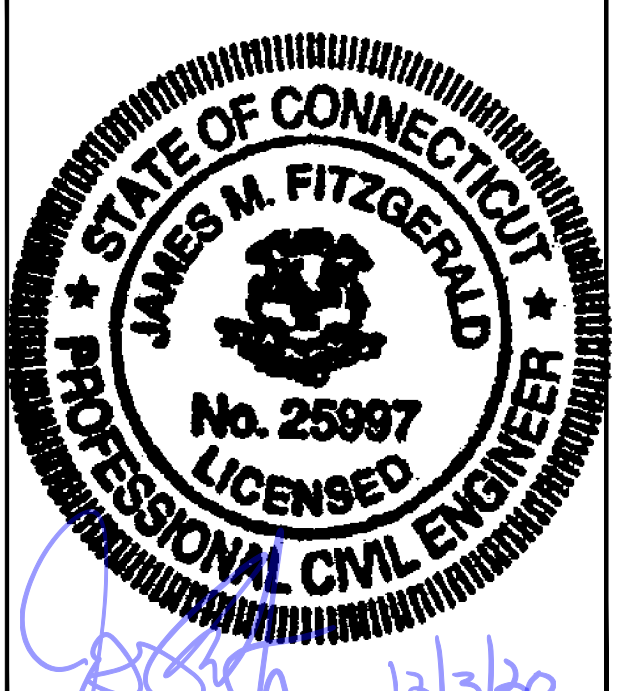
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700



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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11310A

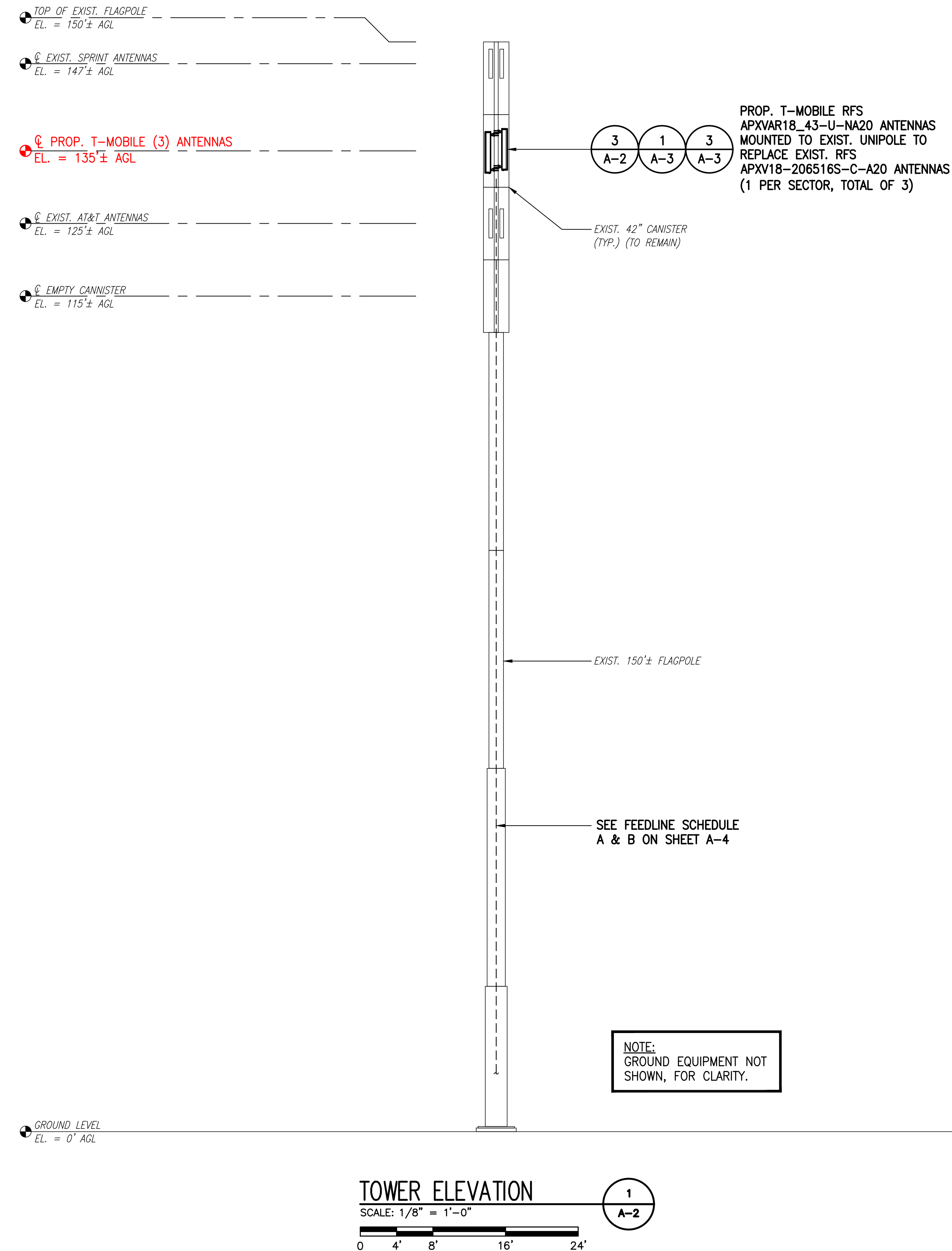
SITE ADDRESS:
811 STONINGTON ROAD
STONINGTON, CT 06378

SHEET TITLE
COMPOUND & EQUIPMENT PLANS

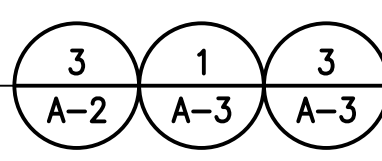
SHEET NUMBER
A-1

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.

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.



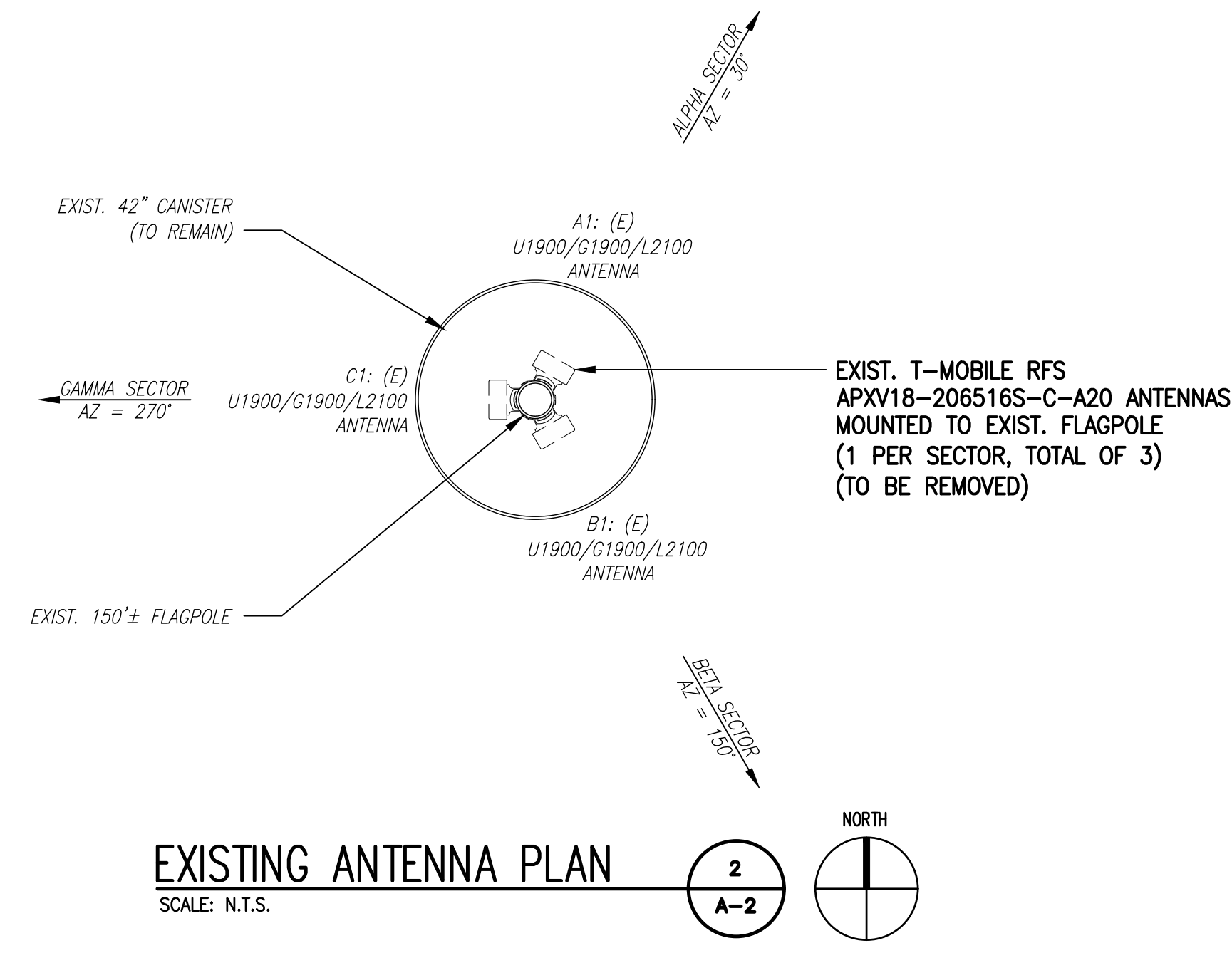
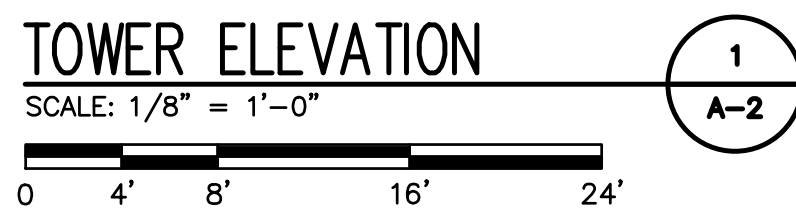
PROP. T-MOBILE RFS
 APXVAR18_43-U-NA20 ANTENNAS
 MOUNTED TO EXIST. UNIPOLE TO
 REPLACE EXIST. RFS
 APXV18-206516S-C-A20 ANTENNAS
 (1 PER SECTOR, TOTAL OF 3)



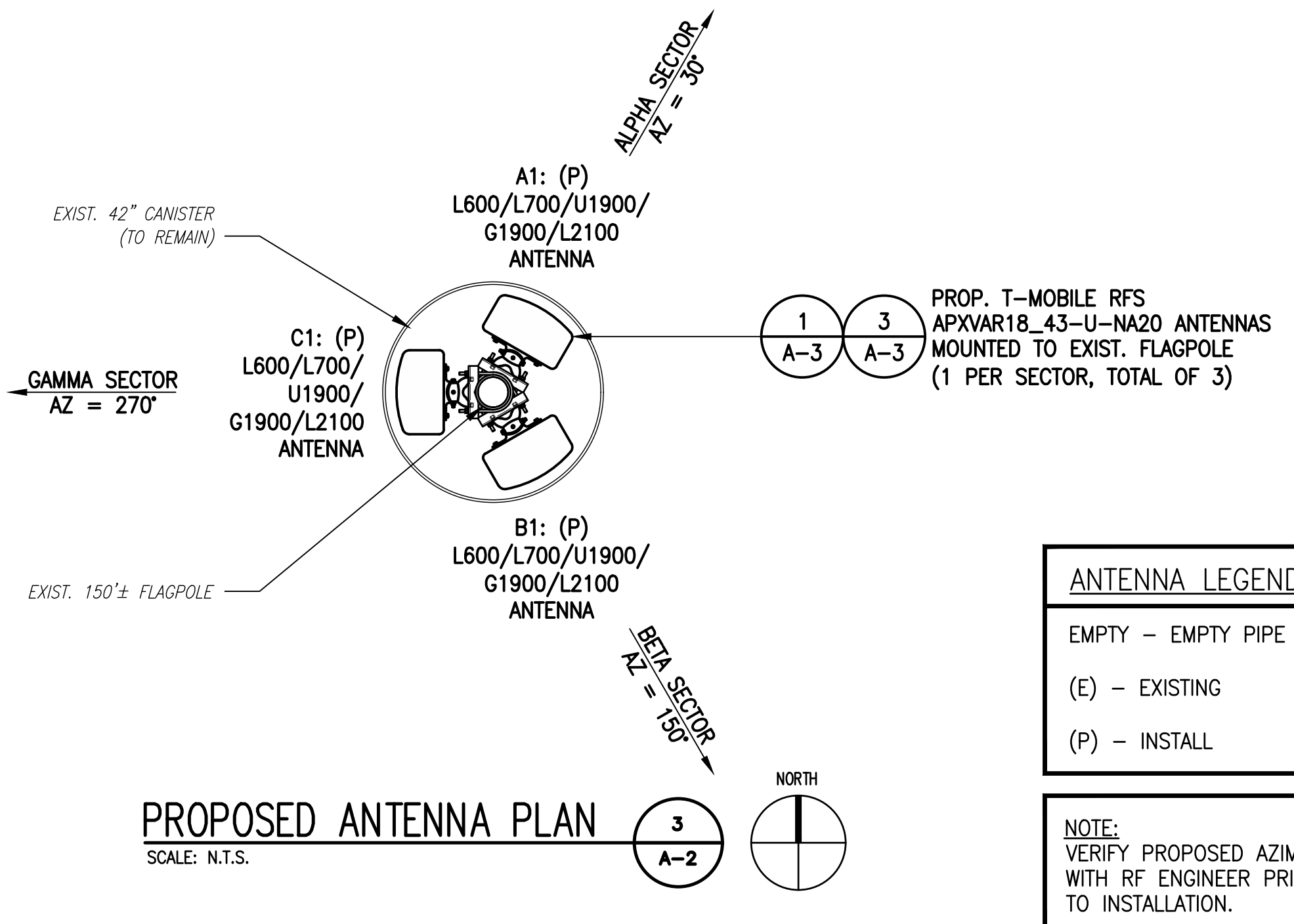
EXIST. 42" CANNISTER
 (TYP.) (TO REMAIN)

EXIST. 150' ± FLAGPOLE

SEE FEEDLINE SCHEDULE
 A & B ON SHEET A-4



EXISTING ANTENNA PLAN
 SCALE: N.T.S.



PROPOSED ANTENNA PLAN
 SCALE: N.T.S.

ANTENNA LEGEND:
 EMPTY - EMPTY PIPE
 (E) - EXISTING
 (P) - INSTALL

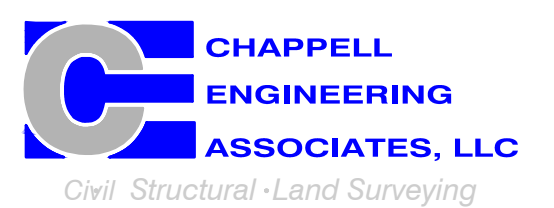
NOTE:
 VERIFY PROPOSED AZIMUTHS
 WITH RF ENGINEER PRIOR
 TO INSTALLATION.

**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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

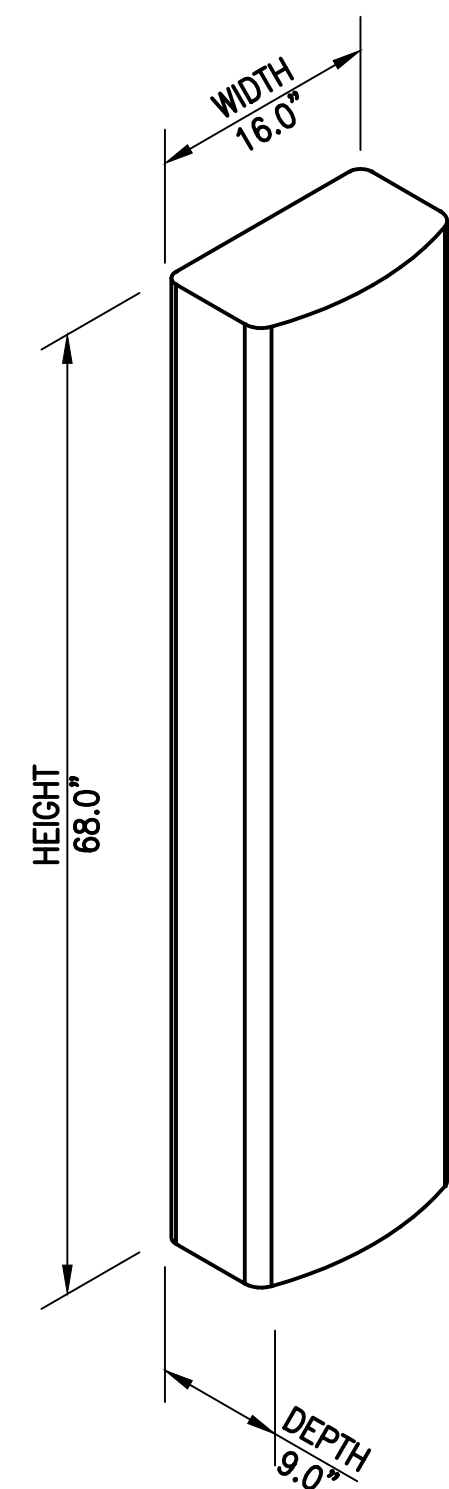
SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11310A

SITE ADDRESS:
 811 STONINGTON ROAD
 STONINGTON, CT 06378

SHEET TITLE
**TOWER ELEVATION &
 ANTENNA PLANS**

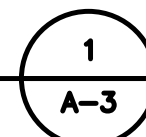
SHEET NUMBER
A-2



RFS APXVAR18 43-C-NA20 PANEL ANTENNA
 DIMENSIONS: 68.0"H x 16.0"W x 9.0"D
 WEIGHT: 48.4 LBS
 1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS

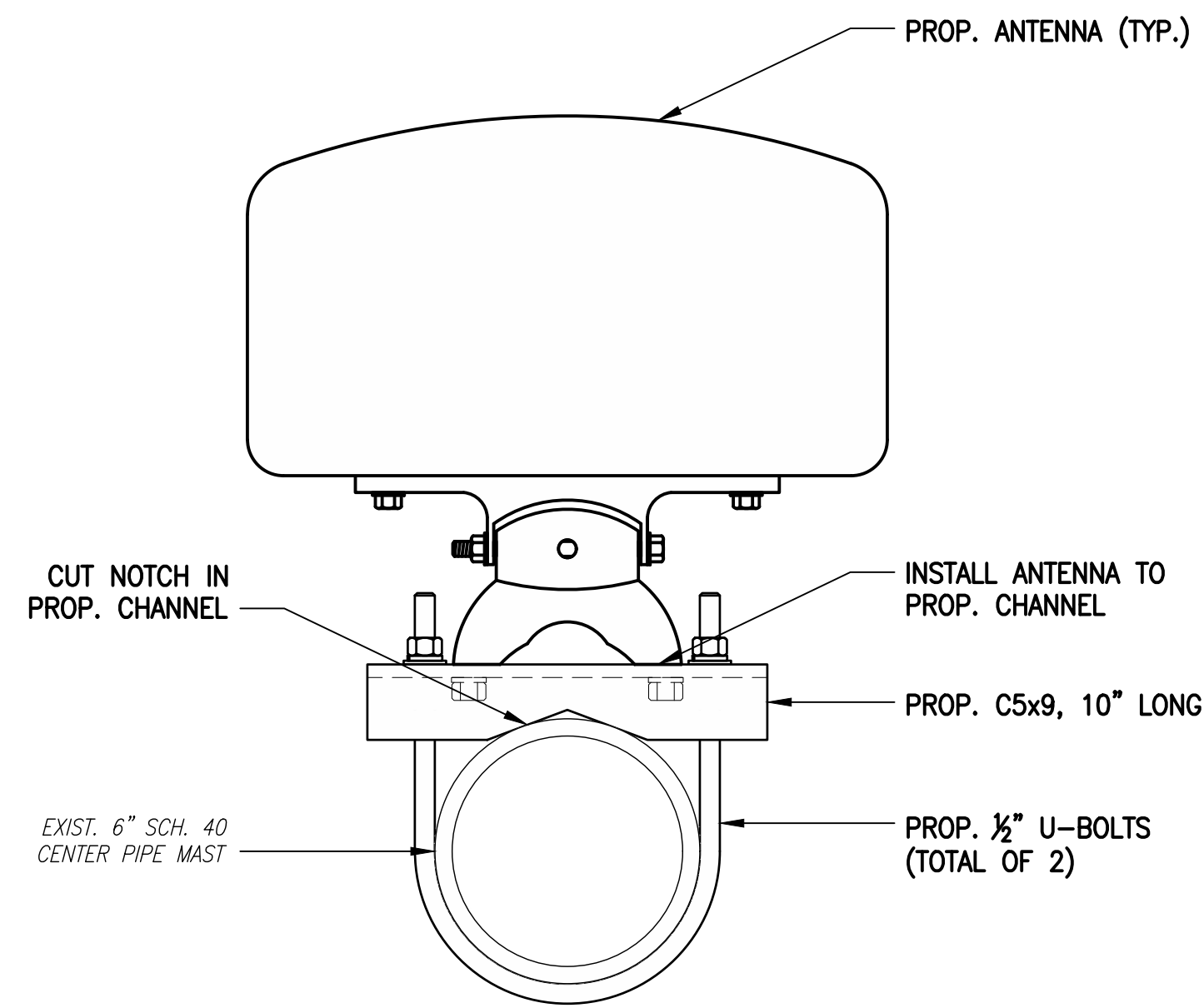
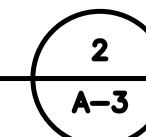
SCALE: N.T.S.



ERICSSON RADIO 4449 B71+B85
 DIMENSIONS: 14.9"H x 13.2"W x 9.3"D
 WEIGHT: 74.0 LBS
 1 PER SECTOR, TOTAL OF 3

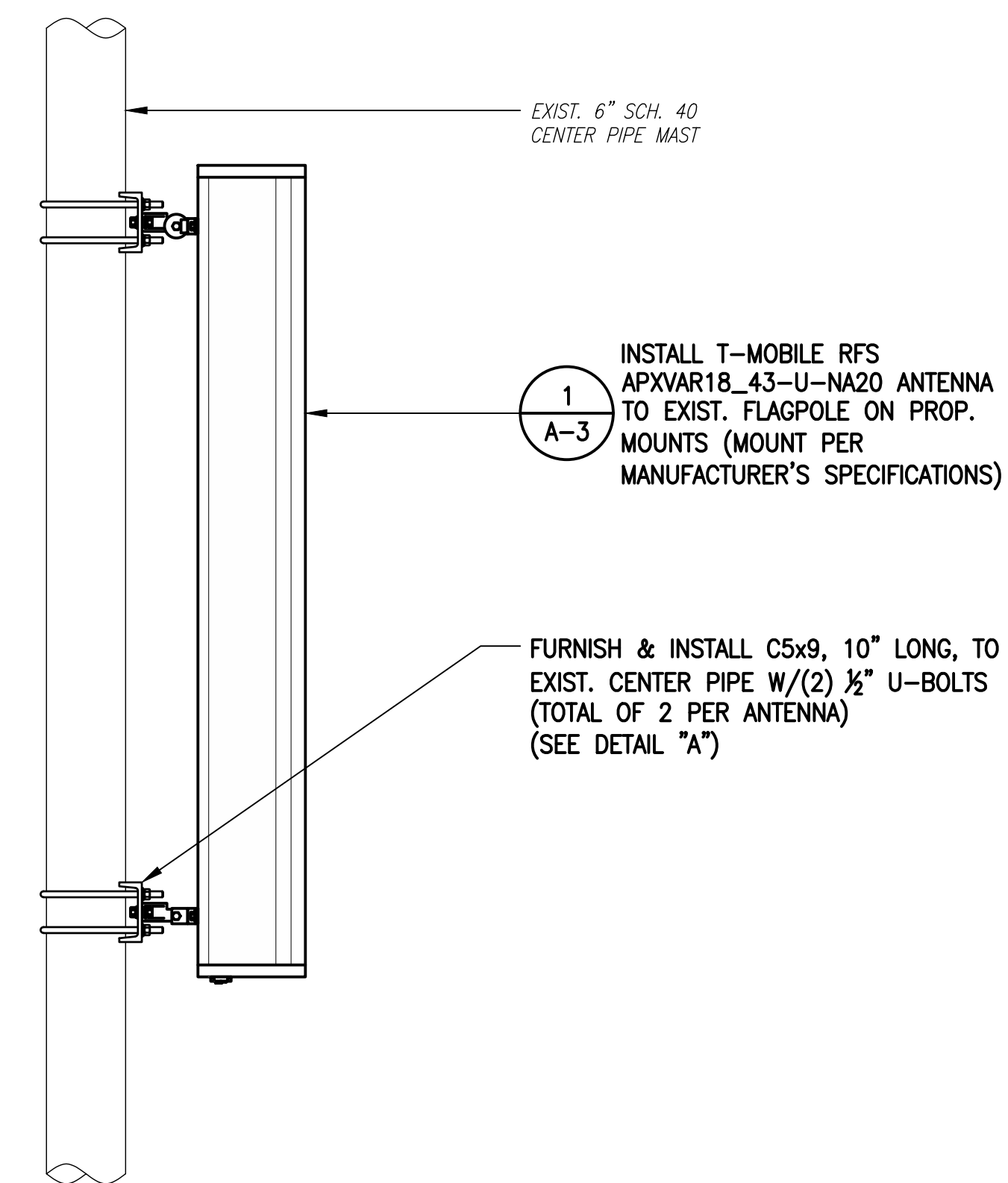
RADIO DETAIL

SCALE: N.T.S.



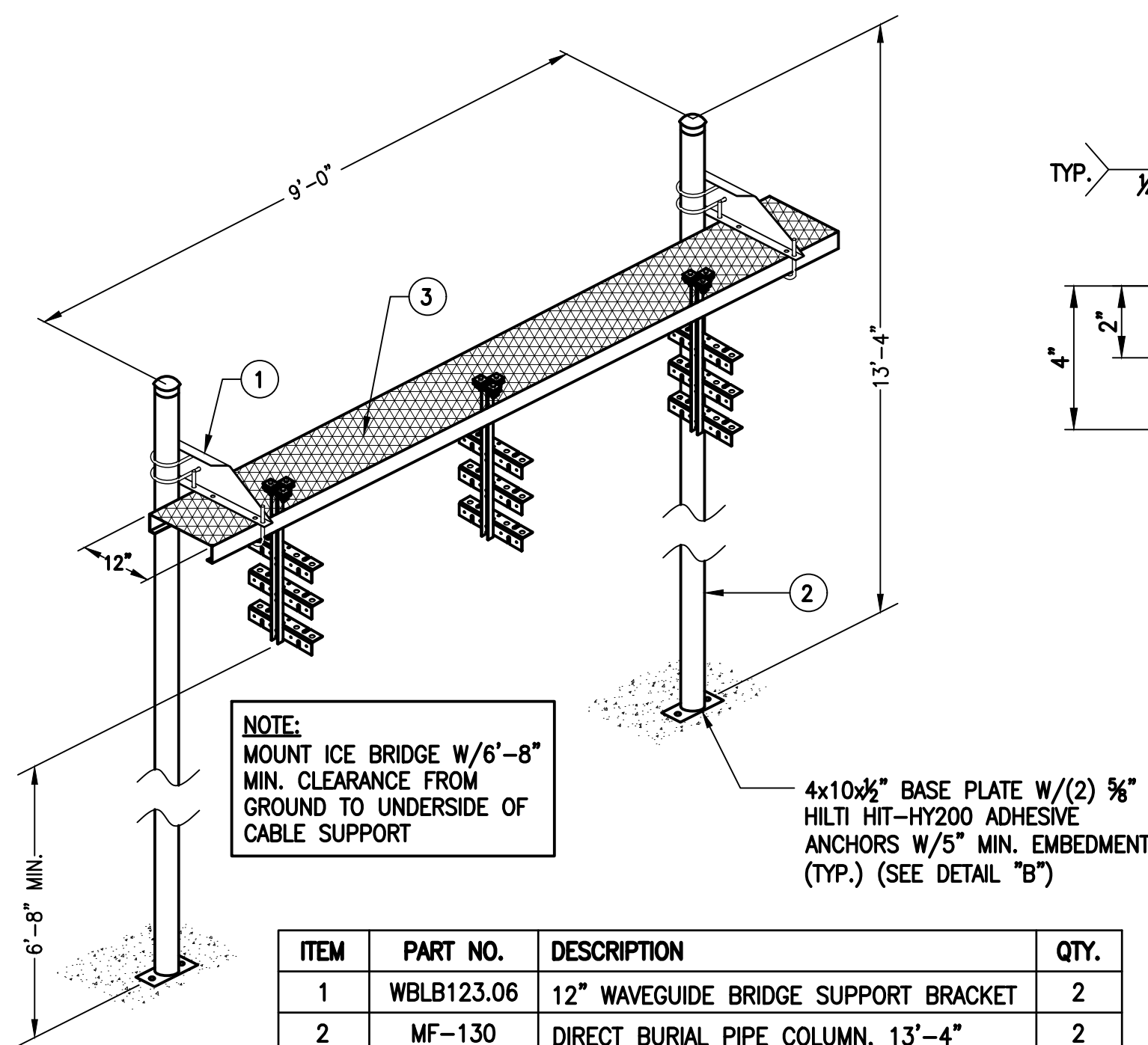
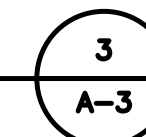
DETAIL "A"

SCALE: 3" = 1'-0"



ANTENNA MOUNTING DETAIL

SCALE: N.T.S.

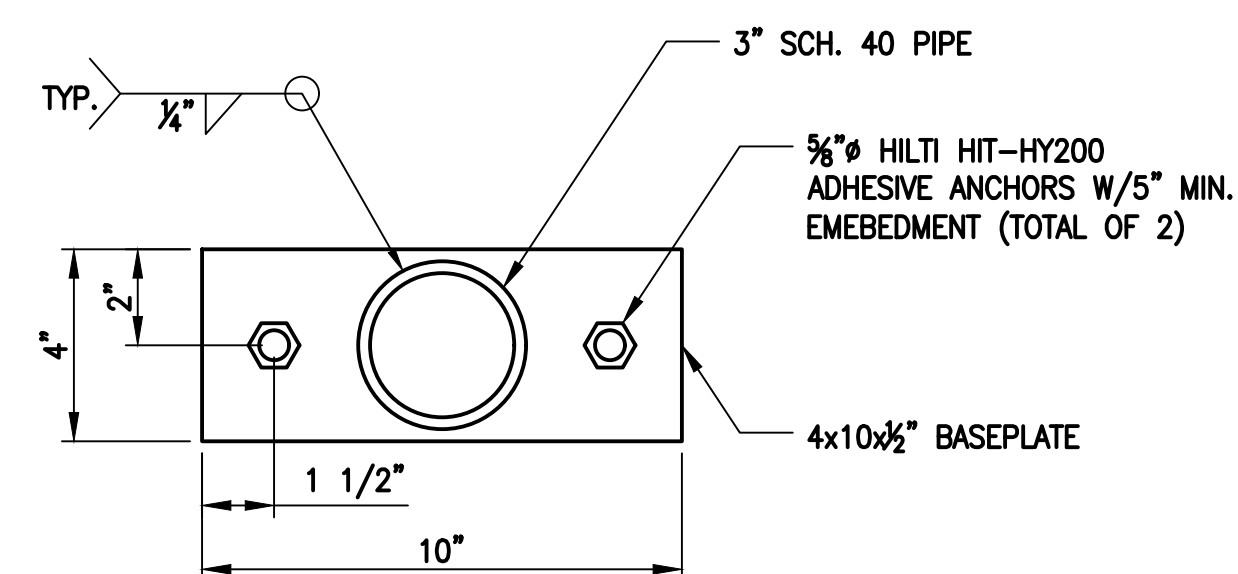
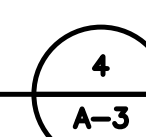


NOTE:
 MOUNT ICE BRIDGE W/6'-8" MIN. CLEARANCE FROM GROUND TO UNDERSIDE OF CABLE SUPPORT

ITEM	PART NO.	DESCRIPTION	QTY.
1	WBLB123.06	12" WAVEGUIDE BRIDGE SUPPORT BRACKET	2
2	MF-130	DIRECT BURIAL PIPE COLUMN, 13'-4"	2
3	WB-CY110	12" SAFETY GRATING	1
4	WB-K110BH	HARDWARE KIT ITEM #5-16	1

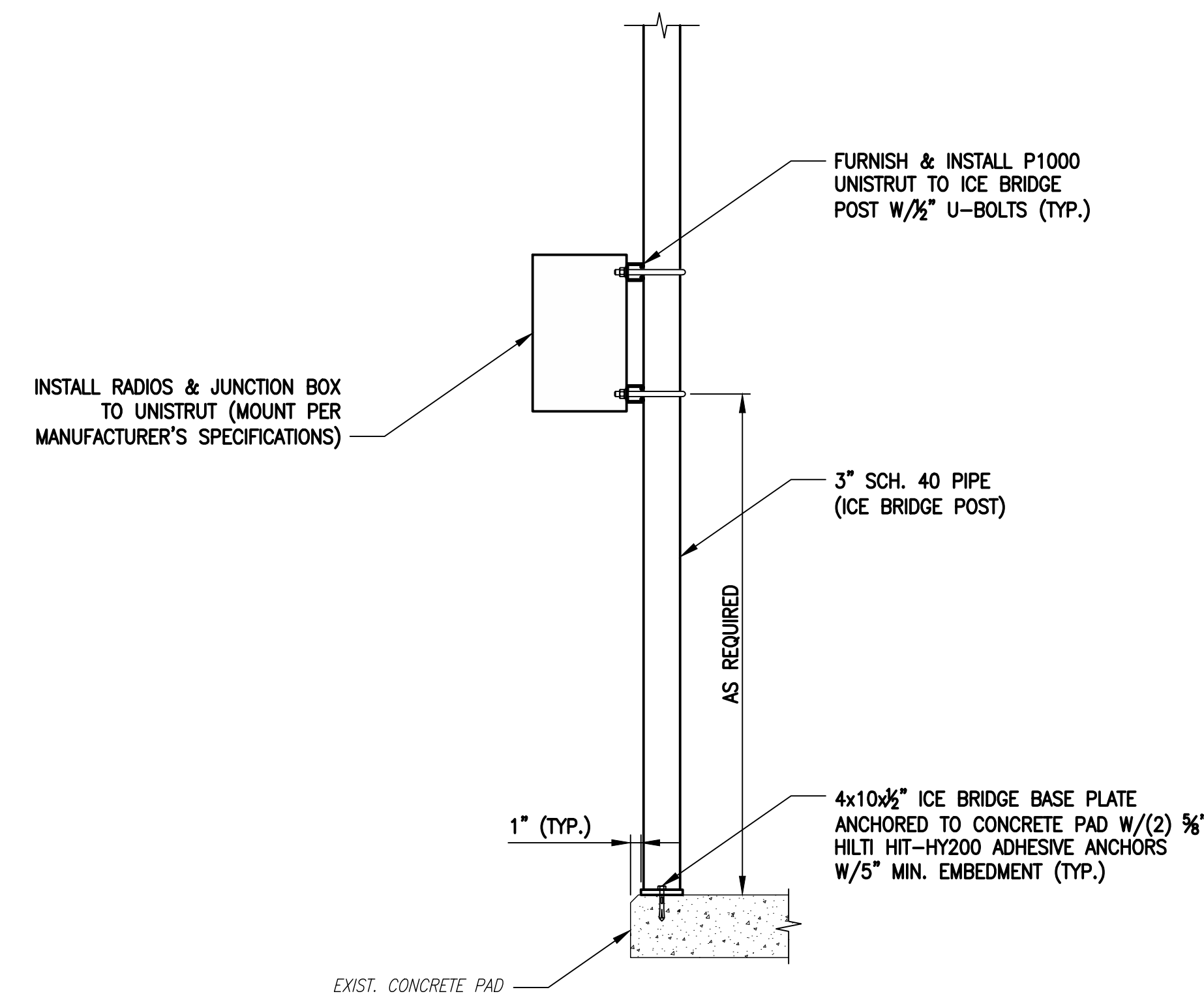
CABLE BRIDGE DETAIL

SCALE: N.T.S.



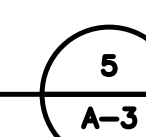
DETAIL "B"

SCALE: 3" = 1'-0"



H-FRAME DETAIL

SCALE: N.T.S.

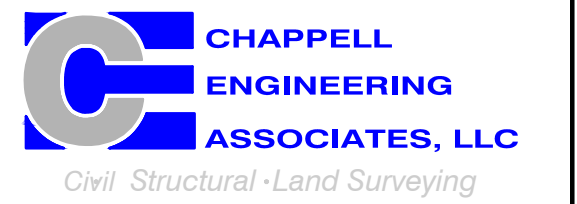


**T-MOBILE
 NORTHEAST LLC**

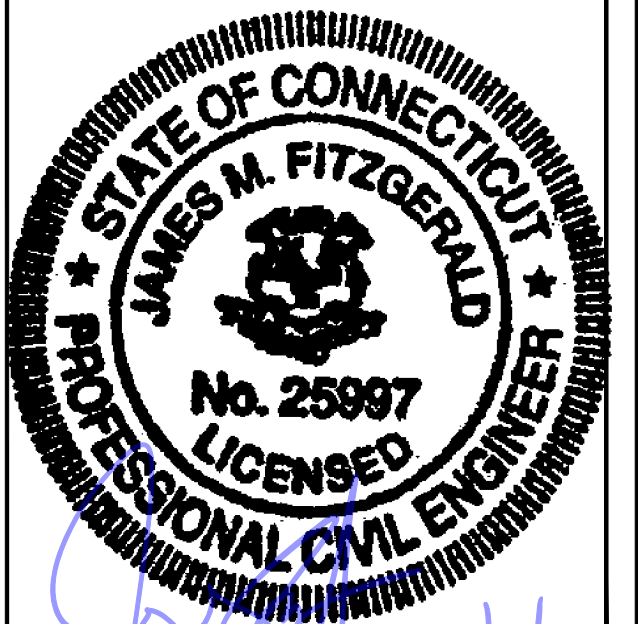
15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 (508) 286-2700



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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11310A

SITE ADDRESS:
 811 STONINGTON ROAD
 STONINGTON, CT 06378

SHEET TITLE

SITE DETAILS

SHEET NUMBER

A-3

FINAL ANTENNA CONFIGURATION								
SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	CABLES
ALPHA	A1 RFS APXVAR18_43-U-NA20	135'± AGL	30°	0°	2'	L700/L600/N600	PROP. (1) ERICSSON RADIO 4449 B71+B85 (AT CABINET)	EXIST. (6) 1-5/8" COAX CABLES PROP. (6) 1-3/8" COAX CABLES
					2'	U1900/L2100/G1900	EXIST. (2) GENERIC TWIN STYLE 3B PCS+AWS TMAS (AT CABINET) EXIST. (2) DIPLEXERS (AT CABINET)	
BETA	B1 RFS APXVAR18_43-U-NA20	135'± AGL	150°	0°	2'	L700/L600/N600	PROP. (1) ERICSSON RADIO 4449 B71+B85 (AT CABINET)	
					2'	U1900/L2100/G1900	EXIST. (2) GENERIC TWIN STYLE 3B PCS+AWS TMAS (AT CABINET) EXIST. (2) DIPLEXERS (AT CABINET)	
GAMMA	C1 RFS APXVAR18_43-U-NA20	135'± AGL	270°	0°	2'	L700/L600/N600	PROP. (1) ERICSSON RADIO 4449 B71+B85 (AT CABINET)	
					2'	U1900/L2100/G1900	EXIST. (2) GENERIC TWIN STYLE 3B PCS+AWS TMAS (AT CABINET) EXIST. (2) DIPLEXERS (AT CABINET)	

CABLE NOTE: SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV3 - 09/10/20

FEEDLINE SCHEDULE		
SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (6) 1-5/8" COAX CABLES (1) 1/2" COAX FOR GPS ANTENNA EXISTING TO BE REMOVED: NONE	ROUTED PER TOWER STRUCTURAL ANALYSIS
B	PROPOSED: (6) 1-3/8" COAX CABLES	

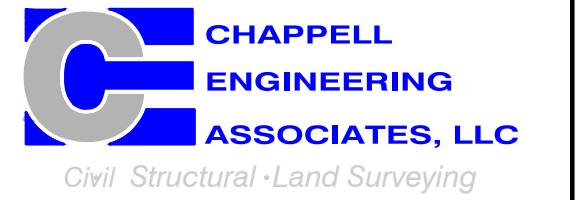
NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11310A

SITE ADDRESS:
811 STONINGTON ROAD
STONINGTON, CT 06378

SHEET TITLE
**ANTENNA &
FEEDLINE CHARTS**

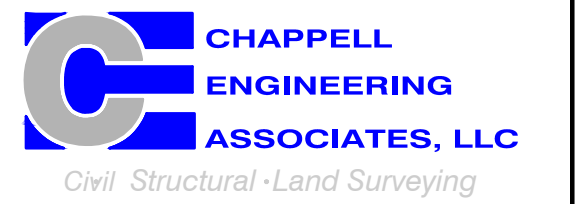
SHEET NUMBER
A-4

T-MOBILE
NORTHEAST LLC

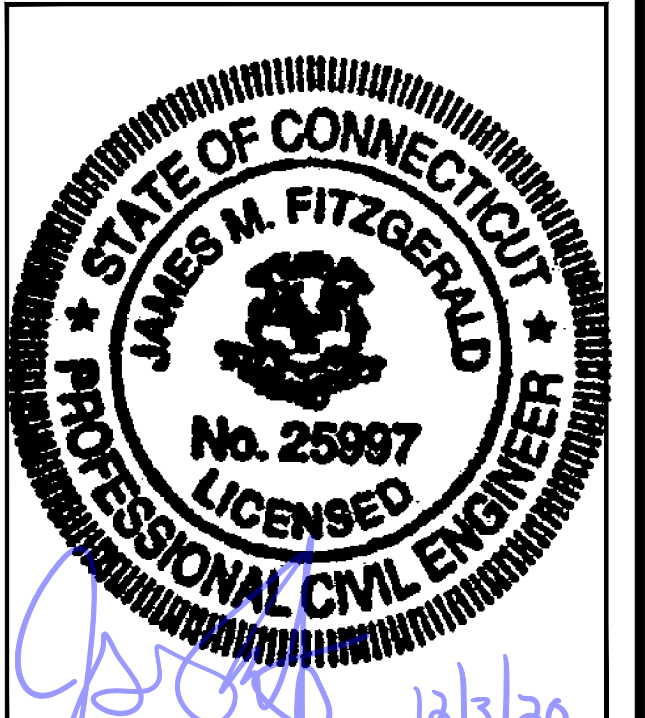
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700



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.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

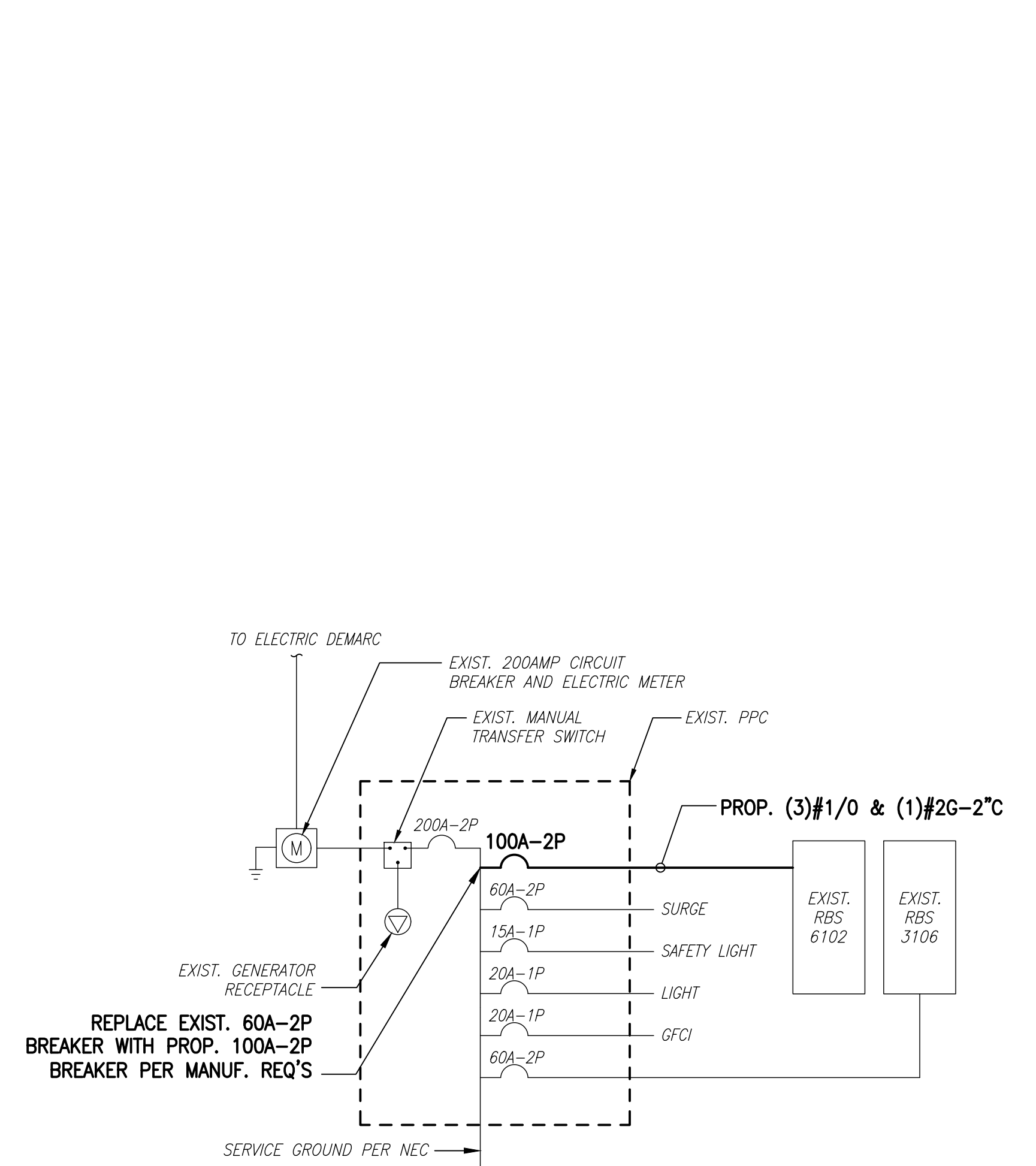
SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	12/02/20	ISSUED FOR CONSTRUCTION	CMC
0	10/14/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11310A

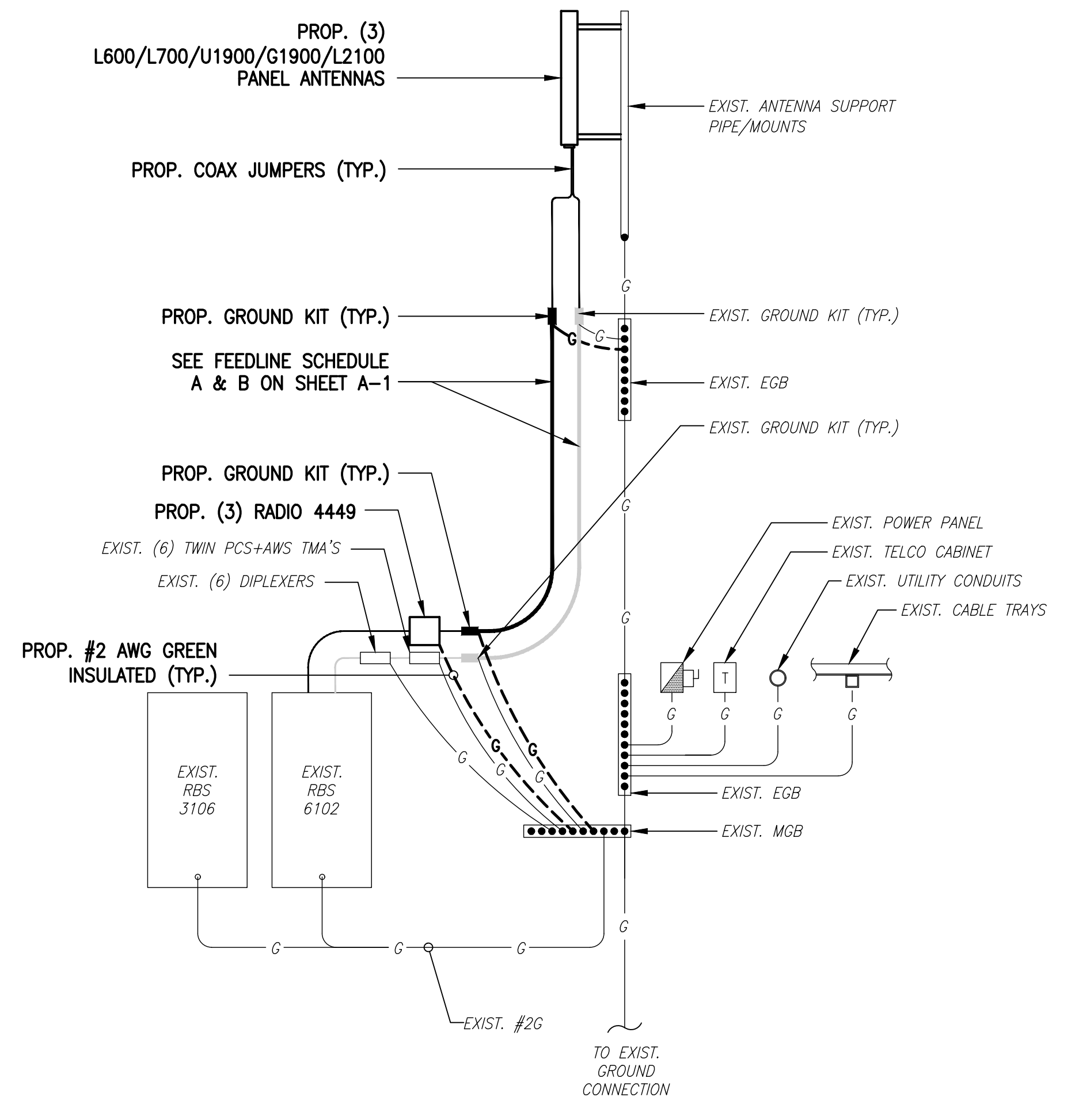
SITE ADDRESS:
811 STONINGTON ROAD
STONINGTON, CT 06378

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

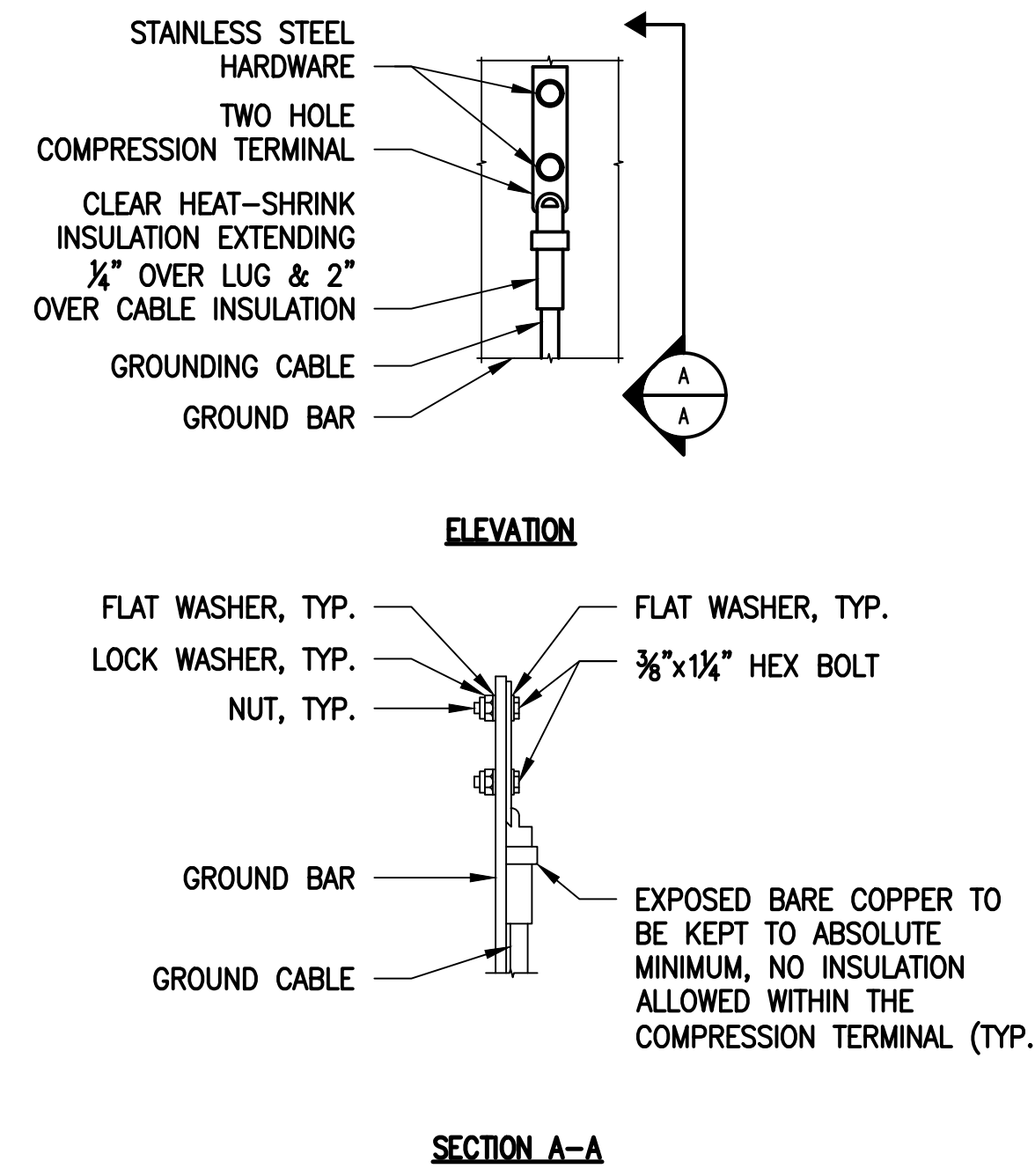
SHEET NUMBER
E-1



ONE LINE DIAGRAM
SCALE: NOT TO SCALE

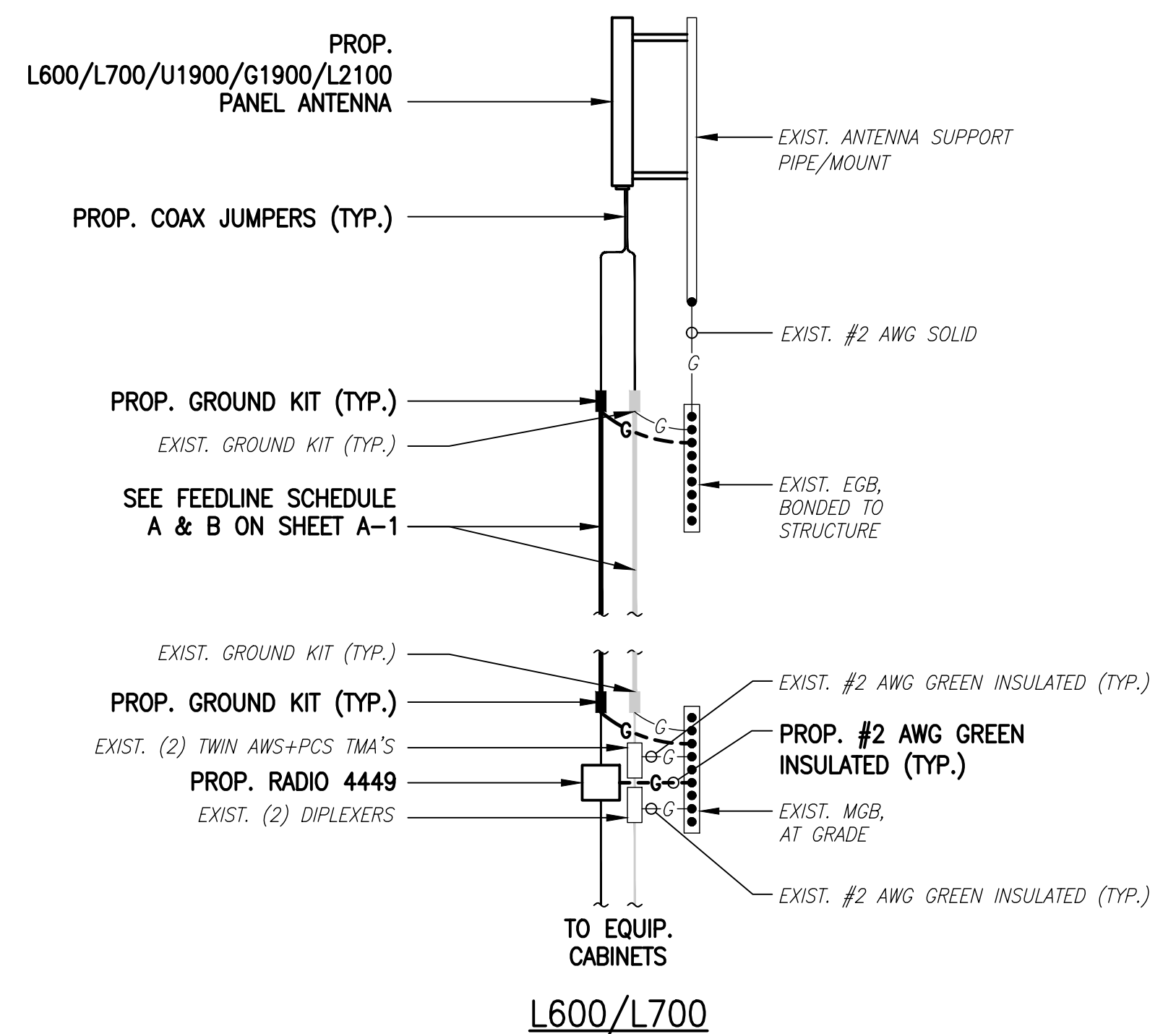


GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

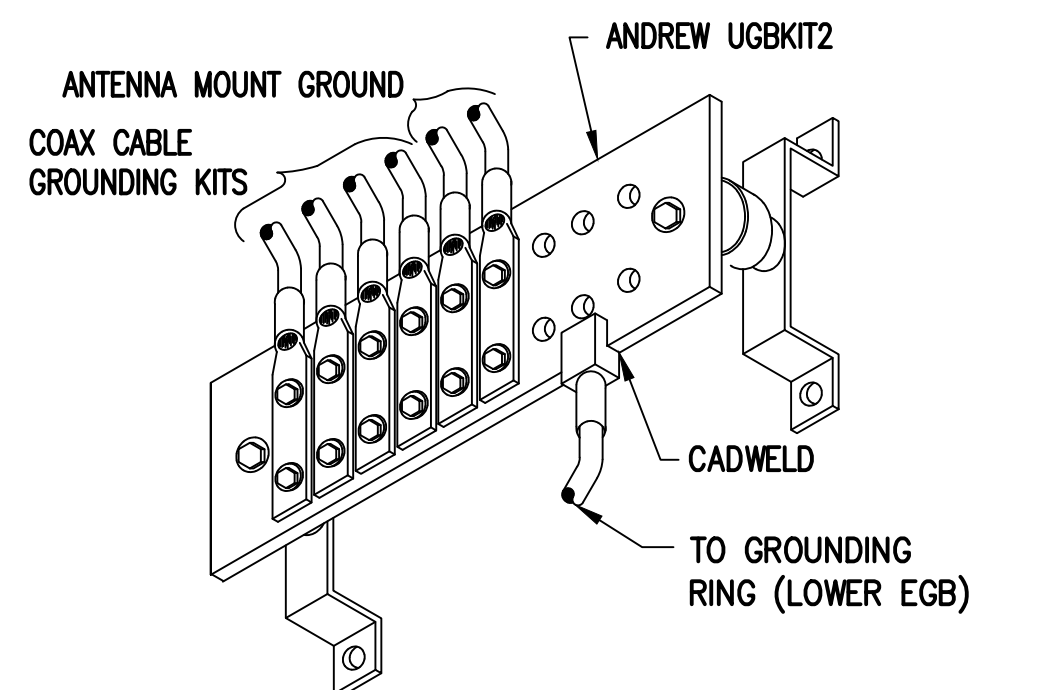


- NOTES:
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 - CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

TYPICAL GROUND BAR CONNECTIONS DETAIL
SCALE: NOT TO SCALE



COAX CABLE CONNECTION AND GROUNDING DETAIL
SCALE: NOT TO SCALE



GROUND BAR (EGB)
SCALE: NOT TO SCALE

ELECTRICAL AND GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- 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.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION 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.
- 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.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE SITE GROUNDING STANDARDS".
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- 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.
- 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.
- 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.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

EXHIBIT 7



Tower Engineering Solutions

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

Structural Analysis Report

Existing 150 ft PIROD Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT01493-S
Customer Site Name: North Stonington 2 CT
Carrier Name: T-Mobile (App#: 116559, V2)
Carrier Site ID / Name: CT11310A / Stonington II
Site Location: 811 Stonington Road
Stonington, Connecticut
New London County
Latitude: 41.353417
Longitude: -71.887000

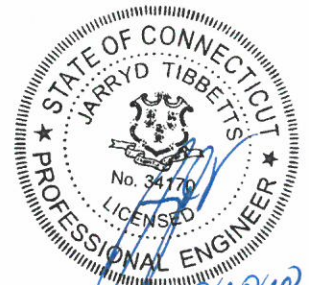
Analysis Result:

Max Structural Usage: 88.8% [Pass]

Max Foundation Usage: 84% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Stacey Hesselbein, PE



Introduction

The purpose of this report is to summarize the analysis results on the 150 ft PIROD Monopole to support the proposed antennas and transmission lines in addition to those currently installed.

The pending modification by **TES** listed under Sources of Information was also considered completed and was included in this analysis.

Sources of Information

Tower Drawings	Tower Drawing prepared by PiROD, drawing #20550-B dated 10/20/99
Foundation Drawing	Foundation Drawing prepared by PiROD, drawing #20550-B dated 10/20/99
Geotechnical Report	Geotechnical Report prepared by FDH, Project #1207125EG1 dated 8/10/12
Mount Analysis	N/A
Modification Drawings	Modification Drawing prepared by FDH, Project #11-04387E S2 dated 8/19/11 TES, Project # 57603R1 Dated 03/01/2019
Pending Modification	TES Pending Job # 94195

Analysis Criteria

The comprehensive analysis was performed in accordance with the requirements and stipulations of the TIA-222-H. 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:	129.0 mph (3-Sec. Gust) (Ultimate wind speed)
Basic 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-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	SS = 0.183, S1 = 0.052

This structural analysis is based upon the tower being classified as 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	147.0	3	Commscope - DHHTT65B-3XR - Panel	Concealed inside 40" Canister from 140ft. to 150ft.	(12) 7/8" (3) 3/8" RET	Sprint Nextel
2		3	RFS - KIT-FD9R6004/1C-DL - Diplexers			
3		3	CCI - DPO-7126Y-0-T1 - Diplexer			
-	135.0	3	RFS - APXV18-206516L - Panel	Concealed inside 40" Canister from 130ft. to 140ft.	(6) 1 5/8"	T-Mobile
6	128.0	3	Cci OPA65R-BU4BA Panel	Concealed inside 40" Canister from 120ft. to 130ft.	(12) 7/8"	AT&T
7		6	Cci TMABPD7823VG12A TMA			
8		6	Powerwave CM1007-DBPXBC-xxx Diplexer			

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
4	134.0	3	RFS APXVAR18_43-C-NA20 Panel	Concealed inside 40" Canister from 130ft. to 140ft.	(12) 1 5/8"	T-Mobile
5		3	RFS ATMAA1412D-A1A20 TMA			

All transmission lines are considered running inside of the pole shafts.

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	Flanges
Max. Usage:	88.8%	54.6%	72.0%	87.5%
Pass/Fail	Pass	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	868.3	9.5	29.9

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 1.5473 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the design TIA-222-H Standard after the following pending modification is successfully completed.

- Pending modification design drawing by **TES** Job # 94195

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 EIA/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 88.82% at 122.0ft

Structure: CT01493-S-SBA
Site Name: North Stonington 2 CT
Height: 150.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-H
Exposure: C
Gh: 1.1

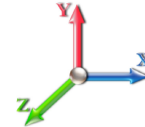
10/30/2020



Page: 1

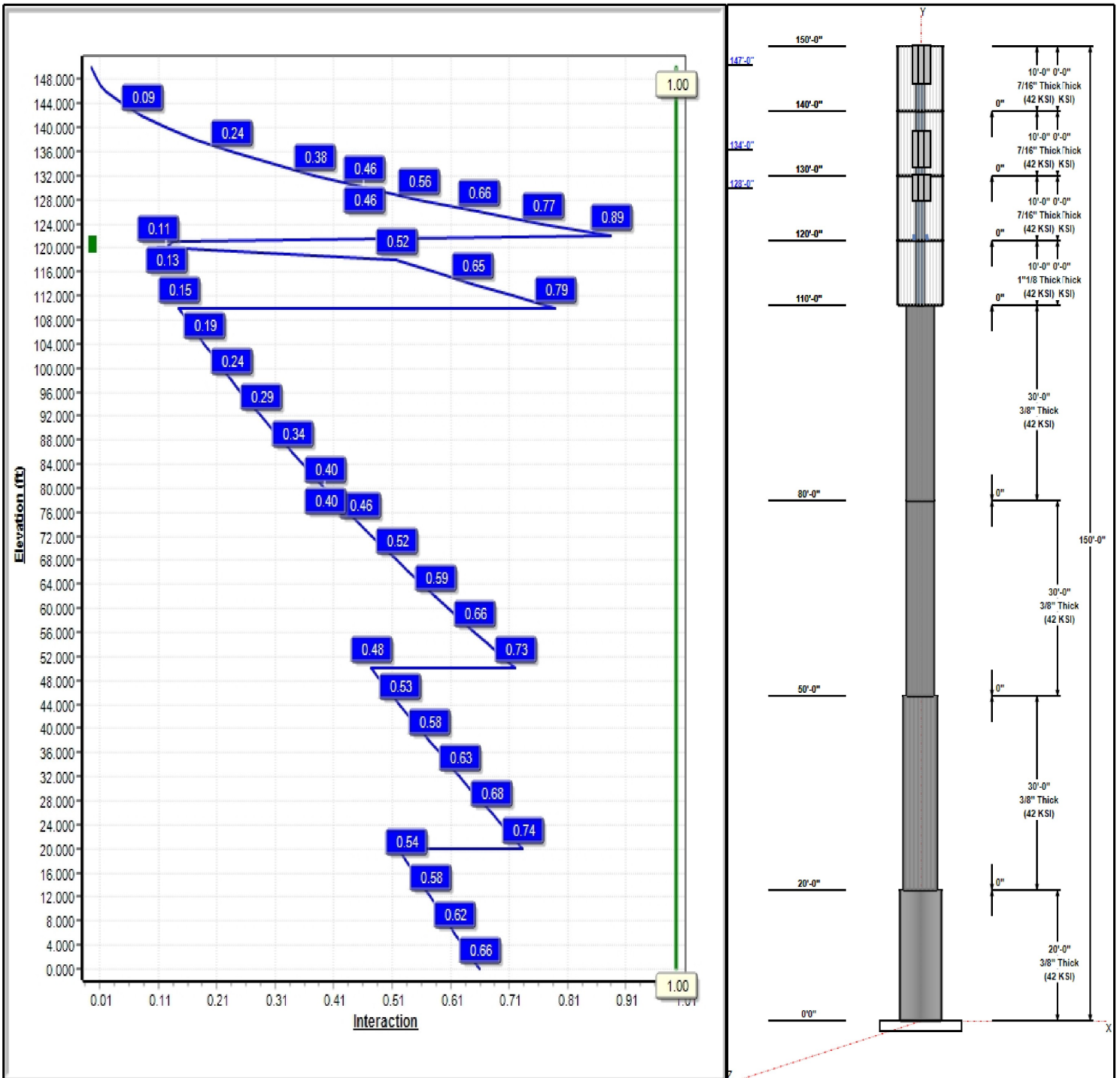
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Load Case : 1.2D + 1.0W 129 mph Wind



Iterations: 38

Copyright © 2020 by Tower Engineering Solutions, LLC. All rights reserved.



Structure: CT01493-S-SBA

Type: Stepped
Site Name: North Stonington 2 CT
Height: 150.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: Round
Taper: 0.00000

10/30/2020



Page: 2

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	20.00	36.00	36.00	0.375		0.00000	42
2	30.00	30.00	30.00	0.375		0.00000	42
3	30.00	24.00	24.00	0.375		0.00000	42
4	30.00	24.00	24.00	0.375		0.00000	42
5	10.00	6.75	6.75	1.140		0.00000	42
6	10.00	6.63	6.63	0.432		0.00000	42
7	10.00	6.63	6.63	0.432		0.00000	42
8	10.00	6.63	6.63	0.432		0.00000	42

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
150.00	150.00	1	40" Canister Weight	
147.00	147.00	3	DHHTT65B-3XR	Sprint Nextel
147.00	147.00	3	KIT-FD9R6004/1C-DL	Sprint Nextel
147.00	147.00	3	DPO-7126Y-0-T1	Sprint Nextel
140.00	140.00	1	40" Canister Weight	
134.00	134.00	3	APXVAR18_43-C-NA20	T-Mobile
134.00	134.00	3	ATMAA1412D-A1A20	T-Mobile
130.00	130.00	1	40" Canister Weight	
128.00	128.00	3	OPA65R-BU4BA	AT&T
128.00	128.00	6	TMABPD7823VG12A	AT&T
128.00	128.00	6	CM1007-DBPXBC-xxx	AT&T
120.00	120.00	1	40" Canister Weight	
110.00	110.00	1	40" Canister Weight	

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	147.00	Inside	3/8" RET	Sprint Nextel
0.00	147.00	Inside	7/8" Coax	Sprint Nextel
0.00	134.00	Inside	1 5/8" Coax	T-Mobile
110.00	130.00	Inside	Grout	
0.00	128.00	Inside	7/8" Coax	AT&T

Anchor Bolts

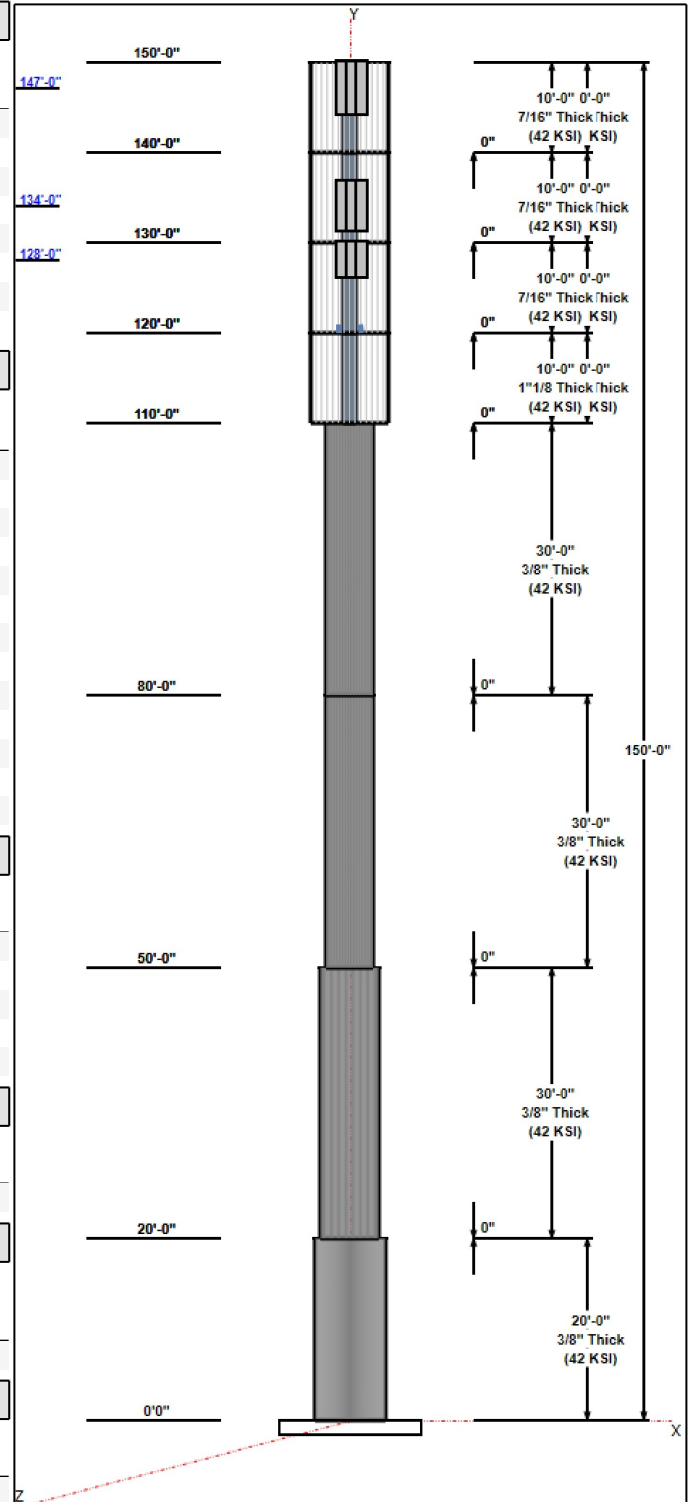
Qty	Specifications	Grade (ksi)	Arrangement
0	2.25" 18J	75.0	0

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
0.0000		60.0	0

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 129 mph Wind	868.3	9.5	23.5
0.9D + 1.0W 129 mph Wind	853.2	9.5	17.6
1.2D + 1.0Di + 1.0Wi 50 mph Wind	413.0	4.2	29.9
1.2D + 1.0Ev + 1.0Eh	31.4	0.3	24.3
0.9D + 1.0Ev + 1.0Eh	30.8	0.3	18.3
1.0D + 1.0W 60 mph Wind	157.9	1.7	19.6



Structure: CT01493-S-SBA - Coax Line Placement

Type: Monopole
Site Name: North Stonington 2 CT
Height: 150.00 (ft)

10/30/2020



Page: 3



Shaft Properties

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 4

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	R	20.000	0.3750	42		0.00	2,856
2	R	30.000	0.3750	42		0.00	3,563
3	R	30.000	0.3750	42		0.00	2,841
4	R	30.000	0.3750	42		0.00	2,841
5	R	10.000	1.1400	42		0.00	684
6	R	10.000	0.4320	42		0.00	286
7	R	10.000	0.4320	42		0.00	286
8	R	10.000	0.4320	42		0.00	286
Total Shaft Weight:							13,643

Bottom

Top

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	Canister Diam (in)
1	36.00	0.00	41.97	6663.29	0.00	96.00	36.00	20.00	41.97	6663.29	0.00	96.00	0.000000	0.00
2	30.00	20.00	34.90	3831.77	0.00	80.00	30.00	50.00	34.90	3831.77	0.00	80.00	0.000000	0.00
3	24.00	50.00	27.83	1943.30	0.00	64.00	24.00	80.00	27.83	1943.30	0.00	64.00	0.000000	0.00
4	24.00	80.00	27.83	1943.30	0.00	64.00	24.00	110.00	27.83	1943.30	0.00	64.00	0.000000	0.00
5	6.75	110.0	20.09	79.10	0.00	5.92	6.75	120.00	20.09	79.10	0.00	5.92	0.000000	40.00
6	6.63	120.0	8.40	40.33	0.00	15.34	6.63	130.00	8.40	40.33	0.00	15.34	0.000000	40.00
7	6.63	130.0	8.40	40.33	0.00	15.34	6.63	140.00	8.40	40.33	0.00	15.34	0.000000	40.00
8	6.63	140.0	8.40	40.33	0.00	15.34	6.63	150.00	8.40	40.33	0.00	15.34	0.000000	40.00

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors Description	Spacing (in)	Termination Connectors Description	Spacing (in)	Lower Qty	Upper Qty
120.0	121.0	3	PLT 5/8"x6"STFNR	36	48	0.00	5/8" Hollo Bolt	3.00	5/8" Hollo Bolt	3.00	2	2

Load Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

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	150.00	40" Canister Weight	1	107.49	0.00	1.00	111.24	0.000	1.00	0.00	0.00
2	147.00	DHHTT65B-3XR	3	45.40	0.00	0.00	136.62	8.714	0.00	0.00	0.00
3	147.00	KIT-FD9R6004/1C-DL	3	3.10	0.00	0.00	7.11	0.000	0.00	0.00	0.00
4	147.00	DPO-7126Y-0-T1	3	12.60	0.00	0.00	21.62	0.000	0.00	0.00	0.00
5	140.00	40" Canister Weight	1	214.97	0.00	1.00	222.42	0.000	1.00	0.00	0.00
6	134.00	APXVAR18_43-C-NA20	3	45.40	0.00	0.00	162.37	0.000	0.00	0.00	0.00
7	134.00	ATMAA1412D-A1A20	3	13.00	0.00	0.00	26.14	0.000	0.00	0.00	0.00
8	130.00	40" Canister Weight	1	214.97	0.00	1.00	222.37	0.000	1.00	0.00	0.00
9	128.00	OPA65R-BU4BA	3	43.00	0.00	0.00	112.90	0.000	0.00	0.00	0.00
10	128.00	TMABPD7823VG12A	6	26.00	0.00	0.00	49.71	0.000	0.00	0.00	0.00
11	128.00	CM1007-DBPXBC-xxx	6	6.50	0.00	0.00	12.49	0.000	0.00	0.00	0.00
12	120.00	40" Canister Weight	1	214.97	0.00	1.00	222.31	0.000	1.00	0.00	0.00
13	110.00	40" Canister Weight	1	107.49	0.00	1.00	111.13	0.000	1.00	0.00	0.00
Totals:			35	1,542.39			2,662.92				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	147.00	(3) 3/8" RET	0.00	Inside
0.00	147.00	(12) 7/8" Coax	0.00	Inside
0.00	134.00	(12) 1 5/8" Coax	0.00	Inside
110.0	130.00	(1) Grout	0.00	Inside
0.00	128.00	(12) 7/8" Coax	0.00	Inside

Shaft Section Properties

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 6

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	0.0				
2.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
4.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
6.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
8.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
10.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
12.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
14.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
16.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
18.00		0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
20.00	Top - Section 1	0.3750	36.000	41.970	6663.3	0.00	96.00	42	39	285.6				
20.00	Bot - Section 2	0.3750	30.000	34.901	3831.8	0.00	96.00	42	42					
22.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
24.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
26.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
28.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
30.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
32.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
34.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
36.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
38.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
40.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
42.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
44.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
46.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
48.00		0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
50.00	Top - Section 2	0.3750	30.000	34.901	3831.8	0.00	80.00	42	42	237.5				
50.00	Bot - Section 3	0.3750	24.000	27.833	1943.3	0.00	80.00	42	42					
52.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
54.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
56.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
58.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
60.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
62.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
64.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
66.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
68.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
70.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
72.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
74.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
76.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
78.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
80.00	Top - Section 3	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
80.00	Bot - Section 4	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42					
82.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
84.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
86.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
88.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
90.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
92.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
											Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
94.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
96.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
98.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
100.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
102.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
104.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
106.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
108.00		0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
110.00	Top - Section 4	0.3750	24.000	27.833	1943.3	0.00	64.00	42	42	189.4				
110.00	Bot - Section 5	1.1400	6.750	20.092	79.1	0.00	21.05	42	42					
112.00		1.1400	6.750	20.092	79.1	0.00	5.92	42	42	136.7				
114.00		1.1400	6.750	20.092	79.1	0.00	5.92	42	42	136.7				
116.00		1.1400	6.750	20.092	79.1	0.00	5.92	42	42	136.7				
118.00		1.1400	6.750	20.092	79.1	0.00	5.92	42	42	136.7				
120.00	Top - Section 5 RB1	1.1400	6.750	20.092	79.1	0.00	5.92	42	42	136.7	11.25	245.7	245.7	76.6
120.00	Bot - Section 6	0.4320	6.625	8.405	40.3	0.00	15.63	42	42					
121.00	RT1	0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6	11.25	241.2	241.2	38.3
122.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
124.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
126.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
128.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
130.00	Top - Section 6	0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
130.00	Bot - Section 7	0.4320	6.625	8.405	40.3	0.00	15.34	42	42					
132.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
134.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
136.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
138.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
140.00	Top - Section 7	0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
140.00	Bot - Section 8	0.4320	6.625	8.405	40.3	0.00	15.34	42	42					
142.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
144.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
146.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
147.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
148.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	28.6				
150.00		0.4320	6.625	8.405	40.3	0.00	15.34	42	42	57.2				
Total Weight										13643.3				
											114.8			

Wind Loading - Shaft

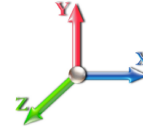
Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 129 mph Wind

Iterations 38

Dead Load Factor 1.20
Wind Load Factor 1.00



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	0.85	36.157	39.77	356.53	0.450	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
4.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
6.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
8.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
10.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
12.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
14.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	342.8
16.00		1.00	0.86	36.603	40.26	358.72	0.450	0.000	2.00	6.000	2.70	108.7	0.0	342.8
18.00		1.00	0.88	37.522	41.27	363.20	0.450	0.000	2.00	6.000	2.70	111.4	0.0	342.8
20.00	Top - Section 1	1.00	0.90	38.364	42.20	367.25	0.450	0.000	2.00	6.000	2.70	113.9	0.0	342.8
22.00		1.00	0.92	39.141	43.06	309.13	0.450	0.000	2.00	5.000	2.25	96.9	0.0	285.0
24.00		1.00	0.94	39.865	43.85	311.97	0.450	0.000	2.00	5.000	2.25	98.7	0.0	285.0
26.00		1.00	0.95	40.542	44.60	314.61	0.450	0.000	2.00	5.000	2.25	100.3	0.0	285.0
28.00		1.00	0.97	41.180	45.30	317.08	0.450	0.000	2.00	5.000	2.25	101.9	0.0	285.0
30.00		1.00	0.98	41.782	45.96	319.39	0.450	0.000	2.00	5.000	2.25	103.4	0.0	285.0
32.00		1.00	1.00	42.354	46.59	321.56	0.450	0.000	2.00	5.000	2.25	104.8	0.0	285.0
34.00		1.00	1.01	42.898	47.19	323.62	0.450	0.000	2.00	5.000	2.25	106.2	0.0	285.0
36.00		1.00	1.02	43.417	47.76	325.57	0.450	0.000	2.00	5.000	2.25	107.5	0.0	285.0
38.00		1.00	1.03	43.914	48.31	327.43	0.450	0.000	2.00	5.000	2.25	108.7	0.0	285.0
40.00		1.00	1.04	44.391	48.83	329.21	0.450	0.000	2.00	5.000	2.25	109.9	0.0	285.0
42.00		1.00	1.05	44.849	49.33	330.90	0.450	0.000	2.00	5.000	2.25	111.0	0.0	285.0
44.00		1.00	1.06	45.291	49.82	332.53	0.450	0.000	2.00	5.000	2.25	112.1	0.0	285.0
46.00		1.00	1.07	45.717	50.29	334.08	0.450	0.000	2.00	5.000	2.25	113.1	0.0	285.0
48.00		1.00	1.08	46.128	50.74	335.58	0.450	0.000	2.00	5.000	2.25	114.2	0.0	285.0
50.00	Top - Section 2	1.00	1.09	46.526	51.18	337.03	0.450	0.000	2.00	5.000	2.25	115.2	0.0	285.0
52.00		1.00	1.10	46.912	51.60	270.74	0.450	0.000	2.00	4.000	1.80	92.9	0.0	227.3
54.00		1.00	1.11	47.286	52.01	271.82	0.450	0.000	2.00	4.000	1.80	93.6	0.0	227.3
56.00		1.00	1.12	47.650	52.41	272.86	0.450	0.000	2.00	4.000	1.80	94.3	0.0	227.3
58.00		1.00	1.13	48.003	52.80	273.87	0.450	0.000	2.00	4.000	1.80	95.0	0.0	227.3
60.00		1.00	1.14	48.347	53.18	274.85	0.450	0.000	2.00	4.000	1.80	95.7	0.0	227.3
62.00		1.00	1.14	48.682	53.55	275.80	0.450	0.000	2.00	4.000	1.80	96.4	0.0	227.3
64.00		1.00	1.15	49.008	53.91	276.72	0.450	0.000	2.00	4.000	1.80	97.0	0.0	227.3
66.00		1.00	1.16	49.327	54.26	277.62	0.450	0.000	2.00	4.000	1.80	97.7	0.0	227.3
68.00		1.00	1.17	49.638	54.60	278.49	0.450	0.000	2.00	4.000	1.80	98.3	0.0	227.3
70.00		1.00	1.17	49.941	54.94	279.34	0.450	0.000	2.00	4.000	1.80	98.9	0.0	227.3
72.00		1.00	1.18	50.238	55.26	280.17	0.450	0.000	2.00	4.000	1.80	99.5	0.0	227.3
74.00		1.00	1.19	50.529	55.58	280.98	0.450	0.000	2.00	4.000	1.80	100.0	0.0	227.3
76.00		1.00	1.19	50.814	55.89	281.77	0.450	0.000	2.00	4.000	1.80	100.6	0.0	227.3
78.00		1.00	1.20	51.092	56.20	282.54	0.450	0.000	2.00	4.000	1.80	101.2	0.0	227.3
80.00	Top - Section 3	1.00	1.21	51.365	56.50	283.30	0.450	0.000	2.00	4.000	1.80	101.7	0.0	227.3
82.00		1.00	1.21	51.633	56.80	284.04	0.450	0.000	2.00	4.000	1.80	102.2	0.0	227.3
84.00		1.00	1.22	51.896	57.09	284.76	0.450	0.000	2.00	4.000	1.80	102.8	0.0	227.3
86.00		1.00	1.23	52.153	57.37	285.46	0.450	0.000	2.00	4.000	1.80	103.3	0.0	227.3
88.00		1.00	1.23	52.406	57.65	286.16	0.450	0.000	2.00	4.000	1.80	103.8	0.0	227.3
90.00		1.00	1.24	52.655	57.92	286.83	0.450	0.000	2.00	4.000	1.80	104.3	0.0	227.3
92.00		1.00	1.24	52.899	58.19	287.50	0.450	0.000	2.00	4.000	1.80	104.7	0.0	227.3

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 9

94.00	1.00	1.25	53.139	58.45	288.15	0.450	0.000	2.00	4.000	1.80	105.2	0.0	227.3
96.00	1.00	1.25	53.375	58.71	288.79	0.450	0.000	2.00	4.000	1.80	105.7	0.0	227.3
98.00	1.00	1.26	53.607	58.97	289.42	0.450	0.000	2.00	4.000	1.80	106.1	0.0	227.3
100.00	1.00	1.27	53.836	59.22	290.03	0.450	0.000	2.00	4.000	1.80	106.6	0.0	227.3
102.00	1.00	1.27	54.061	59.47	290.64	0.450	0.000	2.00	4.000	1.80	107.0	0.0	227.3
104.00	1.00	1.28	54.282	59.71	291.23	0.450	0.000	2.00	4.000	1.80	107.5	0.0	227.3
106.00	1.00	1.28	54.500	59.95	291.82	0.450	0.000	2.00	4.000	1.80	107.9	0.0	227.3
108.00	1.00	1.29	54.715	60.19	292.39	0.450	0.000	2.00	4.000	1.80	108.3	0.0	227.3
110.00 Top - Section 4	1.00	1.29	54.927	60.42	292.96	0.450	0.000	2.00	4.000	1.80	108.8	0.0	227.3
112.00	1.00	1.30	55.136	60.65	489.19	0.450	0.000	2.00	6.667	3.00	181.9	0.0	189.7
114.00	1.00	1.30	55.342	60.88	490.10	0.450	0.000	2.00	6.667	3.00	182.6	0.0	189.7
116.00	1.00	1.31	55.545	61.10	491.00	0.450	0.000	2.00	6.667	3.00	183.3	0.0	189.7
118.00	1.00	1.31	55.745	61.32	491.88	0.450	0.000	2.00	6.667	3.00	184.0	0.0	189.7
120.00 Top - Section 5 RB1	1.00	1.32	55.942	61.54	492.75	0.450	0.000	2.00	6.667	3.00	184.6	0.0	189.7
121.00 RT1	1.00	1.32	56.040	61.64	493.18	0.450	0.000	1.00	3.333	1.50	92.5	0.0	47.1
122.00	1.00	1.32	56.137	61.75	493.61	0.450	0.000	1.00	3.333	1.50	92.6	0.0	47.1
124.00	1.00	1.32	56.330	61.96	494.46	0.450	0.000	2.00	6.667	3.00	185.9	0.0	94.2
126.00	1.00	1.33	56.520	62.17	495.29	0.450	0.000	2.00	6.667	3.00	186.5	0.0	94.2
128.00 Appurtenance(s)	1.00	1.33	56.708	62.38	496.11	0.450	0.000	2.00	6.667	3.00	187.1	0.0	94.2
130.00 Top - Section 6	1.00	1.34	56.893	62.58	496.92	0.450	0.000	2.00	6.667	3.00	187.7	0.0	94.2
132.00	1.00	1.34	57.076	62.78	497.72	0.450	0.000	2.00	6.667	3.00	188.4	0.0	94.2
134.00 Appurtenance(s)	1.00	1.35	57.257	62.98	498.51	0.450	0.000	2.00	6.667	3.00	188.9	0.0	94.2
136.00	1.00	1.35	57.436	63.18	499.29	0.450	0.000	2.00	6.667	3.00	189.5	0.0	94.2
138.00	1.00	1.35	57.613	63.37	500.06	0.450	0.000	2.00	6.667	3.00	190.1	0.0	94.2
140.00 Top - Section 7	1.00	1.36	57.788	63.57	500.81	0.450	0.000	2.00	6.667	3.00	190.7	0.0	94.2
142.00	1.00	1.36	57.961	63.76	501.56	0.450	0.000	2.00	6.667	3.00	191.3	0.0	94.2
144.00	1.00	1.37	58.131	63.94	502.30	0.450	0.000	2.00	6.667	3.00	191.8	0.0	94.2
146.00	1.00	1.37	58.301	64.13	503.03	0.450	0.000	2.00	6.667	3.00	192.4	0.0	94.2
147.00 Appurtenance(s)	1.00	1.37	58.384	64.22	503.39	0.450	0.000	1.00	3.333	1.50	96.3	0.0	47.1
148.00	1.00	1.37	58.468	64.31	503.75	0.450	0.000	1.00	3.333	1.50	96.5	0.0	47.1
150.00 Appurtenance(s)	1.00	1.38	58.633	64.50	504.46	0.450	0.000	2.00	6.667	3.00	193.5	0.0	94.2
Totals:								150.00			9,494.9		16,883.9

Discrete Appurtenance Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

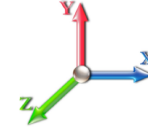


Page: 10

Load Case: 1.2D + 1.0W 129 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 38

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	150.00	40" Canister Weight	1	58.633	64.497	1.00	1.00	0.00	128.99	0.000	0.000	0.00	0.00	0.00	
2	147.00	DPO-7126Y-0-T1	3	58.384	64.223	0.00	1.00	0.00	45.36	0.000	0.000	0.00	0.00	0.00	
3	147.00	KIT-FD9R6004/1C-DL	3	58.384	64.223	0.00	1.00	0.00	11.16	0.000	0.000	0.00	0.00	0.00	
4	147.00	DHHTT65B-3XR	3	58.384	64.223	0.00	1.00	0.00	163.44	0.000	0.000	0.00	0.00	0.00	
5	140.00	40" Canister Weight	1	57.788	63.566	1.00	1.00	0.00	257.96	0.000	0.000	0.00	0.00	0.00	
6	134.00	ATMAA1412D-A1A20	3	57.257	62.983	0.00	1.00	0.00	46.80	0.000	0.000	0.00	0.00	0.00	
7	134.00	APXVAR18_43-C-NA20	3	57.257	62.983	0.00	1.00	0.00	163.44	0.000	0.000	0.00	0.00	0.00	
8	130.00	40" Canister Weight	1	56.893	62.582	1.00	1.00	0.00	257.96	0.000	0.000	0.00	0.00	0.00	
9	128.00	CM1007-DBPXBC-xxx	6	56.708	62.379	0.00	1.00	0.00	46.80	0.000	0.000	0.00	0.00	0.00	
10	128.00	TMABPD7823VG12A	6	56.708	62.379	0.00	1.00	0.00	187.20	0.000	0.000	0.00	0.00	0.00	
11	128.00	OPA65R-BU4BA	3	56.708	62.379	0.00	1.00	0.00	154.80	0.000	0.000	0.00	0.00	0.00	
12	120.00	40" Canister Weight	1	55.942	61.537	1.00	1.00	0.00	257.96	0.000	0.000	0.00	0.00	0.00	
13	110.00	40" Canister Weight	1	54.927	60.420	1.00	1.00	0.00	128.99	0.000	0.000	0.00	0.00	0.00	
Totals:									1,850.87						0.00

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 11

Load Case: 1.2D + 1.0W 129 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 38

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
2.00		107.39	403.09	0.00	0.00
4.00		107.39	403.09	0.00	0.00
6.00		107.39	403.09	0.00	0.00
8.00		107.39	403.09	0.00	0.00
10.00		107.39	403.09	0.00	0.00
12.00		107.39	403.09	0.00	0.00
14.00		107.39	403.09	0.00	0.00
16.00		108.71	403.09	0.00	0.00
18.00		111.44	403.09	0.00	0.00
20.00		113.94	403.09	0.00	0.00
22.00		96.87	345.36	0.00	0.00
24.00		98.67	345.36	0.00	0.00
26.00		100.34	345.36	0.00	0.00
28.00		101.92	345.36	0.00	0.00
30.00		103.41	345.36	0.00	0.00
32.00		104.83	345.36	0.00	0.00
34.00		106.17	345.36	0.00	0.00
36.00		107.46	345.36	0.00	0.00
38.00		108.69	345.36	0.00	0.00
40.00		109.87	345.36	0.00	0.00
42.00		111.00	345.36	0.00	0.00
44.00		112.09	345.36	0.00	0.00
46.00		113.15	345.36	0.00	0.00
48.00		114.17	345.36	0.00	0.00
50.00		115.15	345.36	0.00	0.00
52.00		92.89	287.64	0.00	0.00
54.00		93.63	287.64	0.00	0.00
56.00		94.35	287.64	0.00	0.00
58.00		95.05	287.64	0.00	0.00
60.00		95.73	287.64	0.00	0.00
62.00		96.39	287.64	0.00	0.00
64.00		97.04	287.64	0.00	0.00
66.00		97.67	287.64	0.00	0.00
68.00		98.28	287.64	0.00	0.00
70.00		98.88	287.64	0.00	0.00
72.00		99.47	287.64	0.00	0.00
74.00		100.05	287.64	0.00	0.00
76.00		100.61	287.64	0.00	0.00
78.00		101.16	287.64	0.00	0.00
80.00		101.70	287.64	0.00	0.00
82.00		102.23	287.64	0.00	0.00
84.00		102.75	287.64	0.00	0.00
86.00		103.26	287.64	0.00	0.00
88.00		103.76	287.64	0.00	0.00
90.00		104.26	287.64	0.00	0.00
92.00		104.74	287.64	0.00	0.00

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 12

94.00		105.22	287.64	0.00	0.00
96.00		105.68	287.64	0.00	0.00
98.00		106.14	287.64	0.00	0.00
100.00		106.60	287.64	0.00	0.00
102.00		107.04	287.64	0.00	0.00
104.00		107.48	287.64	0.00	0.00
106.00		107.91	287.64	0.00	0.00
108.00		108.34	287.64	0.00	0.00
110.00	(1) attachments	108.76	416.62	0.00	0.00
112.00		181.95	315.18	0.00	0.00
114.00		182.63	315.18	0.00	0.00
116.00		183.30	315.18	0.00	0.00
118.00		183.96	315.18	0.00	0.00
120.00	(1) attachments	184.61	573.14	0.00	0.00
121.00		92.47	109.87	0.00	0.00
122.00		92.63	109.87	0.00	0.00
124.00		185.89	219.74	0.00	0.00
126.00		186.52	219.74	0.00	0.00
128.00	(15) attachments	187.14	608.54	0.00	0.00
130.00	(1) attachments	187.75	462.72	0.00	0.00
132.00		188.35	139.60	0.00	0.00
134.00	(6) attachments	188.95	349.84	0.00	0.00
136.00		189.54	109.65	0.00	0.00
138.00		190.12	109.65	0.00	0.00
140.00	(1) attachments	190.70	367.61	0.00	0.00
142.00		191.27	109.65	0.00	0.00
144.00		191.83	109.65	0.00	0.00
146.00		192.39	109.65	0.00	0.00
147.00	(9) attachments	96.33	274.78	0.00	0.00
148.00		96.47	47.12	0.00	0.00
150.00	(1) attachments	193.49	223.23	0.00	0.00
	Totals:	9,494.91	23,484.11	0.00	0.00

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 14

90.00	-8.20	-5.36	0.00	-186.50	0.00	186.50	1052.07	315.62	43955.0	624.04	33.34	-3.616	0.000	0.307
92.00	-7.91	-5.24	0.00	-175.79	0.00	175.79	1052.07	315.62	43955.0	624.04	34.87	-3.669	0.000	0.289
94.00	-7.63	-5.12	0.00	-165.30	0.00	165.30	1052.07	315.62	43955.0	624.04	36.41	-3.719	0.000	0.272
96.00	-7.34	-5.01	0.00	-155.05	0.00	155.05	1052.07	315.62	43955.0	624.04	37.98	-3.766	0.000	0.256
98.00	-7.06	-4.89	0.00	-145.04	0.00	145.04	1052.07	315.62	43955.0	624.04	39.56	-3.809	0.000	0.239
100.00	-6.78	-4.77	0.00	-135.27	0.00	135.27	1052.07	315.62	43955.0	624.04	41.17	-3.851	0.000	0.223
102.00	-6.49	-4.64	0.00	-125.74	0.00	125.74	1052.07	315.62	43955.0	624.04	42.79	-3.889	0.000	0.208
104.00	-6.21	-4.52	0.00	-116.45	0.00	116.45	1052.07	315.62	43955.0	624.04	44.42	-3.924	0.000	0.193
106.00	-5.93	-4.40	0.00	-107.41	0.00	107.41	1052.07	315.62	43955.0	624.04	46.07	-3.957	0.000	0.178
108.00	-5.65	-4.27	0.00	-98.62	0.00	98.62	1052.07	315.62	43955.0	624.04	47.74	-3.987	0.000	0.164
110.00	-5.24	-4.14	0.00	-90.07	0.00	90.07	1052.07	315.62	43955.0	624.04	49.41	-4.015	0.000	0.149
110.00	-5.24	-4.14	0.00	-90.07	0.00	90.07	759.47	227.84	14937.6	114.57	49.41	-4.015	0.000	0.793
112.00	-4.92	-3.96	0.00	-81.80	0.00	81.80	759.47	227.84	14937.6	114.57	51.10	-4.040	0.000	0.721
114.00	-4.58	-3.79	0.00	-73.89	0.00	73.89	759.47	227.84	14937.6	114.57	52.91	-4.600	0.000	0.651
116.00	-4.25	-3.62	0.00	-66.30	0.00	66.30	759.47	227.84	14937.6	114.57	54.94	-5.104	0.000	0.584
118.00	-3.93	-3.44	0.00	-59.05	0.00	59.05	759.47	227.84	14937.6	114.57	57.17	-5.555	0.000	0.521
120.00	-3.36	-3.21	0.00	-52.18	0.00	52.18	759.47	227.84	14937.6	114.57	59.58	-5.955	0.000	0.114
120.00	-3.36	-3.21	0.00	-52.18	0.00	52.18	317.71	95.31	3734.62	52.28	59.58	-5.955	0.000	0.128
121.00	-3.26	-3.11	0.00	-48.97	0.00	48.97	317.71	95.31	3734.62	52.28	60.83	-5.999	0.000	0.140
121.00	-3.26	-3.11	0.00	-48.97	0.00	48.97	317.71	95.31	3734.62	52.28	60.83	-5.999	0.000	0.140
122.00	-3.15	-3.02	0.00	-45.86	0.00	45.86	317.71	95.31	3734.62	52.28	62.09	-6.047	0.000	0.888
124.00	-2.92	-2.84	0.00	-39.81	0.00	39.81	317.71	95.31	3734.62	52.28	64.75	-6.652	0.000	0.772
126.00	-2.70	-2.65	0.00	-34.13	0.00	34.13	317.71	95.31	3734.62	52.28	67.64	-7.173	0.000	0.662
128.00	-2.11	-2.41	0.00	-28.82	0.00	28.82	317.71	95.31	3734.62	52.28	70.73	-7.617	0.000	0.559
130.00	-1.66	-2.17	0.00	-24.01	0.00	24.01	317.71	95.31	3734.62	52.28	73.99	-7.990	0.000	0.465
130.00	-1.66	-2.17	0.00	-24.01	0.00	24.01	317.71	95.31	3734.62	52.28	73.99	-7.990	0.000	0.465
132.00	-1.54	-1.97	0.00	-19.67	0.00	19.67	317.71	95.31	3734.62	52.28	77.39	-8.298	0.000	0.382
134.00	-1.21	-1.73	0.00	-15.74	0.00	15.74	317.71	95.31	3734.62	52.28	80.91	-8.548	0.000	0.305
136.00	-1.13	-1.53	0.00	-12.27	0.00	12.27	317.71	95.31	3734.62	52.28	84.52	-8.746	0.000	0.239
138.00	-1.05	-1.33	0.00	-9.20	0.00	9.20	317.71	95.31	3734.62	52.28	88.20	-8.897	0.000	0.180
140.00	-0.71	-1.09	0.00	-6.54	0.00	6.54	317.71	95.31	3734.62	52.28	91.94	-9.008	0.000	0.127
140.00	-0.71	-1.09	0.00	-6.54	0.00	6.54	317.71	95.31	3734.62	52.28	91.94	-9.008	0.000	0.127
142.00	-0.63	-0.88	0.00	-4.36	0.00	4.36	317.71	95.31	3734.62	52.28	95.72	-9.085	0.000	0.086
144.00	-0.55	-0.68	0.00	-2.60	0.00	2.60	317.71	95.31	3734.62	52.28	99.52	-9.134	0.000	0.052
146.00	-0.48	-0.47	0.00	-1.25	0.00	1.25	317.71	95.31	3734.62	52.28	103.33	-9.161	0.000	0.025
147.00	-0.22	-0.33	0.00	-0.78	0.00	0.78	317.71	95.31	3734.62	52.28	105.24	-9.169	0.000	0.016
148.00	-0.19	-0.23	0.00	-0.45	0.00	0.45	317.71	95.31	3734.62	52.28	107.16	-9.173	0.000	0.009
150.00	0.00	-0.19	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	110.98	-9.176	0.000	0.000

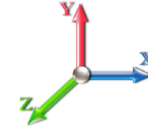
Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 129 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 38

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	0.85	36.157	39.77	356.53	0.450	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
4.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
6.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
8.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
10.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
12.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
14.00		1.00	0.85	36.157	39.77	356.53	0.450	0.000	2.00	6.000	2.70	107.4	0.0	257.1
16.00		1.00	0.86	36.603	40.26	358.72	0.450	0.000	2.00	6.000	2.70	108.7	0.0	257.1
18.00		1.00	0.88	37.522	41.27	363.20	0.450	0.000	2.00	6.000	2.70	111.4	0.0	257.1
20.00	Top - Section 1	1.00	0.90	38.364	42.20	367.25	0.450	0.000	2.00	6.000	2.70	113.9	0.0	257.1
22.00		1.00	0.92	39.141	43.06	309.13	0.450	0.000	2.00	5.000	2.25	96.9	0.0	213.8
24.00		1.00	0.94	39.865	43.85	311.97	0.450	0.000	2.00	5.000	2.25	98.7	0.0	213.8
26.00		1.00	0.95	40.542	44.60	314.61	0.450	0.000	2.00	5.000	2.25	100.3	0.0	213.8
28.00		1.00	0.97	41.180	45.30	317.08	0.450	0.000	2.00	5.000	2.25	101.9	0.0	213.8
30.00		1.00	0.98	41.782	45.96	319.39	0.450	0.000	2.00	5.000	2.25	103.4	0.0	213.8
32.00		1.00	1.00	42.354	46.59	321.56	0.450	0.000	2.00	5.000	2.25	104.8	0.0	213.8
34.00		1.00	1.01	42.898	47.19	323.62	0.450	0.000	2.00	5.000	2.25	106.2	0.0	213.8
36.00		1.00	1.02	43.417	47.76	325.57	0.450	0.000	2.00	5.000	2.25	107.5	0.0	213.8
38.00		1.00	1.03	43.914	48.31	327.43	0.450	0.000	2.00	5.000	2.25	108.7	0.0	213.8
40.00		1.00	1.04	44.391	48.83	329.21	0.450	0.000	2.00	5.000	2.25	109.9	0.0	213.8
42.00		1.00	1.05	44.849	49.33	330.90	0.450	0.000	2.00	5.000	2.25	111.0	0.0	213.8
44.00		1.00	1.06	45.291	49.82	332.53	0.450	0.000	2.00	5.000	2.25	112.1	0.0	213.8
46.00		1.00	1.07	45.717	50.29	334.08	0.450	0.000	2.00	5.000	2.25	113.1	0.0	213.8
48.00		1.00	1.08	46.128	50.74	335.58	0.450	0.000	2.00	5.000	2.25	114.2	0.0	213.8
50.00	Top - Section 2	1.00	1.09	46.526	51.18	337.03	0.450	0.000	2.00	5.000	2.25	115.2	0.0	213.8
52.00		1.00	1.10	46.912	51.60	270.74	0.450	0.000	2.00	4.000	1.80	92.9	0.0	170.5
54.00		1.00	1.11	47.286	52.01	271.82	0.450	0.000	2.00	4.000	1.80	93.6	0.0	170.5
56.00		1.00	1.12	47.650	52.41	272.86	0.450	0.000	2.00	4.000	1.80	94.3	0.0	170.5
58.00		1.00	1.13	48.003	52.80	273.87	0.450	0.000	2.00	4.000	1.80	95.0	0.0	170.5
60.00		1.00	1.14	48.347	53.18	274.85	0.450	0.000	2.00	4.000	1.80	95.7	0.0	170.5
62.00		1.00	1.14	48.682	53.55	275.80	0.450	0.000	2.00	4.000	1.80	96.4	0.0	170.5
64.00		1.00	1.15	49.008	53.91	276.72	0.450	0.000	2.00	4.000	1.80	97.0	0.0	170.5
66.00		1.00	1.16	49.327	54.26	277.62	0.450	0.000	2.00	4.000	1.80	97.7	0.0	170.5
68.00		1.00	1.17	49.638	54.60	278.49	0.450	0.000	2.00	4.000	1.80	98.3	0.0	170.5
70.00		1.00	1.17	49.941	54.94	279.34	0.450	0.000	2.00	4.000	1.80	98.9	0.0	170.5
72.00		1.00	1.18	50.238	55.26	280.17	0.450	0.000	2.00	4.000	1.80	99.5	0.0	170.5
74.00		1.00	1.19	50.529	55.58	280.98	0.450	0.000	2.00	4.000	1.80	100.0	0.0	170.5
76.00		1.00	1.19	50.814	55.89	281.77	0.450	0.000	2.00	4.000	1.80	100.6	0.0	170.5
78.00		1.00	1.20	51.092	56.20	282.54	0.450	0.000	2.00	4.000	1.80	101.2	0.0	170.5
80.00	Top - Section 3	1.00	1.21	51.365	56.50	283.30	0.450	0.000	2.00	4.000	1.80	101.7	0.0	170.5
82.00		1.00	1.21	51.633	56.80	284.04	0.450	0.000	2.00	4.000	1.80	102.2	0.0	170.5
84.00		1.00	1.22	51.896	57.09	284.76	0.450	0.000	2.00	4.000	1.80	102.8	0.0	170.5
86.00		1.00	1.23	52.153	57.37	285.46	0.450	0.000	2.00	4.000	1.80	103.3	0.0	170.5
88.00		1.00	1.23	52.406	57.65	286.16	0.450	0.000	2.00	4.000	1.80	103.8	0.0	170.5
90.00		1.00	1.24	52.655	57.92	286.83	0.450	0.000	2.00	4.000	1.80	104.3	0.0	170.5
92.00		1.00	1.24	52.899	58.19	287.50	0.450	0.000	2.00	4.000	1.80	104.7	0.0	170.5

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 16

94.00	1.00	1.25	53.139	58.45	288.15	0.450	0.000	2.00	4.000	1.80	105.2	0.0	170.5
96.00	1.00	1.25	53.375	58.71	288.79	0.450	0.000	2.00	4.000	1.80	105.7	0.0	170.5
98.00	1.00	1.26	53.607	58.97	289.42	0.450	0.000	2.00	4.000	1.80	106.1	0.0	170.5
100.00	1.00	1.27	53.836	59.22	290.03	0.450	0.000	2.00	4.000	1.80	106.6	0.0	170.5
102.00	1.00	1.27	54.061	59.47	290.64	0.450	0.000	2.00	4.000	1.80	107.0	0.0	170.5
104.00	1.00	1.28	54.282	59.71	291.23	0.450	0.000	2.00	4.000	1.80	107.5	0.0	170.5
106.00	1.00	1.28	54.500	59.95	291.82	0.450	0.000	2.00	4.000	1.80	107.9	0.0	170.5
108.00	1.00	1.29	54.715	60.19	292.39	0.450	0.000	2.00	4.000	1.80	108.3	0.0	170.5
110.00 Top - Section 4	1.00	1.29	54.927	60.42	292.96	0.450	0.000	2.00	4.000	1.80	108.8	0.0	170.5
112.00	1.00	1.30	55.136	60.65	489.19	0.450	0.000	2.00	6.667	3.00	181.9	0.0	142.3
114.00	1.00	1.30	55.342	60.88	490.10	0.450	0.000	2.00	6.667	3.00	182.6	0.0	142.3
116.00	1.00	1.31	55.545	61.10	491.00	0.450	0.000	2.00	6.667	3.00	183.3	0.0	142.3
118.00	1.00	1.31	55.745	61.32	491.88	0.450	0.000	2.00	6.667	3.00	184.0	0.0	142.3
120.00 Top - Section 5 RB1	1.00	1.32	55.942	61.54	492.75	0.450	0.000	2.00	6.667	3.00	184.6	0.0	142.3
121.00 RT1	1.00	1.32	56.040	61.64	493.18	0.450	0.000	1.00	3.333	1.50	92.5	0.0	35.3
122.00	1.00	1.32	56.137	61.75	493.61	0.450	0.000	1.00	3.333	1.50	92.6	0.0	35.3
124.00	1.00	1.32	56.330	61.96	494.46	0.450	0.000	2.00	6.667	3.00	185.9	0.0	70.7
126.00	1.00	1.33	56.520	62.17	495.29	0.450	0.000	2.00	6.667	3.00	186.5	0.0	70.7
128.00 Appurtenance(s)	1.00	1.33	56.708	62.38	496.11	0.450	0.000	2.00	6.667	3.00	187.1	0.0	70.7
130.00 Top - Section 6	1.00	1.34	56.893	62.58	496.92	0.450	0.000	2.00	6.667	3.00	187.7	0.0	70.7
132.00	1.00	1.34	57.076	62.78	497.72	0.450	0.000	2.00	6.667	3.00	188.4	0.0	70.7
134.00 Appurtenance(s)	1.00	1.35	57.257	62.98	498.51	0.450	0.000	2.00	6.667	3.00	188.9	0.0	70.7
136.00	1.00	1.35	57.436	63.18	499.29	0.450	0.000	2.00	6.667	3.00	189.5	0.0	70.7
138.00	1.00	1.35	57.613	63.37	500.06	0.450	0.000	2.00	6.667	3.00	190.1	0.0	70.7
140.00 Top - Section 7	1.00	1.36	57.788	63.57	500.81	0.450	0.000	2.00	6.667	3.00	190.7	0.0	70.7
142.00	1.00	1.36	57.961	63.76	501.56	0.450	0.000	2.00	6.667	3.00	191.3	0.0	70.7
144.00	1.00	1.37	58.131	63.94	502.30	0.450	0.000	2.00	6.667	3.00	191.8	0.0	70.7
146.00	1.00	1.37	58.301	64.13	503.03	0.450	0.000	2.00	6.667	3.00	192.4	0.0	70.7
147.00 Appurtenance(s)	1.00	1.37	58.384	64.22	503.39	0.450	0.000	1.00	3.333	1.50	96.3	0.0	35.3
148.00	1.00	1.37	58.468	64.31	503.75	0.450	0.000	1.00	3.333	1.50	96.5	0.0	35.3
150.00 Appurtenance(s)	1.00	1.38	58.633	64.50	504.46	0.450	0.000	2.00	6.667	3.00	193.5	0.0	70.7
Totals:								150.00			9,494.9		12,662.9

Discrete Appurtenance Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 17

Load Case: 0.9D + 1.0W 129 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 38

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	150.00	40" Canister Weight	1	58.633	64.497	1.00	1.00	1.00	0.00	96.74	0.000	0.000	0.00	0.00	0.00
2	147.00	DPO-7126Y-0-T1	3	58.384	64.223	0.00	1.00	1.00	0.00	34.02	0.000	0.000	0.00	0.00	0.00
3	147.00	KIT-FD9R6004/1C-DL	3	58.384	64.223	0.00	1.00	1.00	0.00	8.37	0.000	0.000	0.00	0.00	0.00
4	147.00	DHHTT65B-3XR	3	58.384	64.223	0.00	1.00	1.00	0.00	122.58	0.000	0.000	0.00	0.00	0.00
5	140.00	40" Canister Weight	1	57.788	63.566	1.00	1.00	1.00	0.00	193.47	0.000	0.000	0.00	0.00	0.00
6	134.00	ATMAA1412D-A1A20	3	57.257	62.983	0.00	1.00	1.00	0.00	35.10	0.000	0.000	0.00	0.00	0.00
7	134.00	APXVAR18_43-C-NA20	3	57.257	62.983	0.00	1.00	1.00	0.00	122.58	0.000	0.000	0.00	0.00	0.00
8	130.00	40" Canister Weight	1	56.893	62.582	1.00	1.00	1.00	0.00	193.47	0.000	0.000	0.00	0.00	0.00
9	128.00	CM1007-DBPXC-xxx	6	56.708	62.379	0.00	1.00	1.00	0.00	35.10	0.000	0.000	0.00	0.00	0.00
10	128.00	TMABPD7823VG12A	6	56.708	62.379	0.00	1.00	1.00	0.00	140.40	0.000	0.000	0.00	0.00	0.00
11	128.00	OPA65R-BU4BA	3	56.708	62.379	0.00	1.00	1.00	0.00	116.10	0.000	0.000	0.00	0.00	0.00
12	120.00	40" Canister Weight	1	55.942	61.537	1.00	1.00	1.00	0.00	193.47	0.000	0.000	0.00	0.00	0.00
13	110.00	40" Canister Weight	1	54.927	60.420	1.00	1.00	1.00	0.00	96.74	0.000	0.000	0.00	0.00	0.00
Totals:									1,388.15	0.00					

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 18

Load Case: 0.9D + 1.0W 129 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 38

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
2.00		107.39	302.32	0.00	0.00
4.00		107.39	302.32	0.00	0.00
6.00		107.39	302.32	0.00	0.00
8.00		107.39	302.32	0.00	0.00
10.00		107.39	302.32	0.00	0.00
12.00		107.39	302.32	0.00	0.00
14.00		107.39	302.32	0.00	0.00
16.00		108.71	302.32	0.00	0.00
18.00		111.44	302.32	0.00	0.00
20.00		113.94	302.32	0.00	0.00
22.00		96.87	259.02	0.00	0.00
24.00		98.67	259.02	0.00	0.00
26.00		100.34	259.02	0.00	0.00
28.00		101.92	259.02	0.00	0.00
30.00		103.41	259.02	0.00	0.00
32.00		104.83	259.02	0.00	0.00
34.00		106.17	259.02	0.00	0.00
36.00		107.46	259.02	0.00	0.00
38.00		108.69	259.02	0.00	0.00
40.00		109.87	259.02	0.00	0.00
42.00		111.00	259.02	0.00	0.00
44.00		112.09	259.02	0.00	0.00
46.00		113.15	259.02	0.00	0.00
48.00		114.17	259.02	0.00	0.00
50.00		115.15	259.02	0.00	0.00
52.00		92.89	215.73	0.00	0.00
54.00		93.63	215.73	0.00	0.00
56.00		94.35	215.73	0.00	0.00
58.00		95.05	215.73	0.00	0.00
60.00		95.73	215.73	0.00	0.00
62.00		96.39	215.73	0.00	0.00
64.00		97.04	215.73	0.00	0.00
66.00		97.67	215.73	0.00	0.00
68.00		98.28	215.73	0.00	0.00
70.00		98.88	215.73	0.00	0.00
72.00		99.47	215.73	0.00	0.00
74.00		100.05	215.73	0.00	0.00
76.00		100.61	215.73	0.00	0.00
78.00		101.16	215.73	0.00	0.00
80.00		101.70	215.73	0.00	0.00
82.00		102.23	215.73	0.00	0.00
84.00		102.75	215.73	0.00	0.00
86.00		103.26	215.73	0.00	0.00
88.00		103.76	215.73	0.00	0.00
90.00		104.26	215.73	0.00	0.00
92.00		104.74	215.73	0.00	0.00

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 19

94.00		105.22	215.73	0.00	0.00
96.00		105.68	215.73	0.00	0.00
98.00		106.14	215.73	0.00	0.00
100.00		106.60	215.73	0.00	0.00
102.00		107.04	215.73	0.00	0.00
104.00		107.48	215.73	0.00	0.00
106.00		107.91	215.73	0.00	0.00
108.00		108.34	215.73	0.00	0.00
110.00	(1) attachments	108.76	312.47	0.00	0.00
112.00		181.95	236.38	0.00	0.00
114.00		182.63	236.38	0.00	0.00
116.00		183.30	236.38	0.00	0.00
118.00		183.96	236.38	0.00	0.00
120.00	(1) attachments	184.61	429.86	0.00	0.00
121.00		92.47	82.40	0.00	0.00
122.00		92.63	82.40	0.00	0.00
124.00		185.89	164.80	0.00	0.00
126.00		186.52	164.80	0.00	0.00
128.00	(15) attachments	187.14	456.40	0.00	0.00
130.00	(1) attachments	187.75	347.04	0.00	0.00
132.00		188.35	104.70	0.00	0.00
134.00	(6) attachments	188.95	262.38	0.00	0.00
136.00		189.54	82.24	0.00	0.00
138.00		190.12	82.24	0.00	0.00
140.00	(1) attachments	190.70	275.71	0.00	0.00
142.00		191.27	82.24	0.00	0.00
144.00		191.83	82.24	0.00	0.00
146.00		192.39	82.24	0.00	0.00
147.00	(9) attachments	96.33	206.09	0.00	0.00
148.00		96.47	35.34	0.00	0.00
150.00	(1) attachments	193.49	167.42	0.00	0.00
	Totals:	9,494.91	17,613.08	0.00	0.00

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 21

90.00	-6.08	-5.21	0.00	-180.94	0.00	180.94	1052.07	315.62	43955.0	624.04	32.58	-3.526	0.000	0.296
92.00	-5.87	-5.10	0.00	-170.52	0.00	170.52	1052.07	315.62	43955.0	624.04	34.06	-3.577	0.000	0.279
94.00	-5.65	-4.99	0.00	-160.32	0.00	160.32	1052.07	315.62	43955.0	624.04	35.57	-3.626	0.000	0.263
96.00	-5.44	-4.87	0.00	-150.35	0.00	150.35	1052.07	315.62	43955.0	624.04	37.10	-3.671	0.000	0.246
98.00	-5.23	-4.75	0.00	-140.60	0.00	140.60	1052.07	315.62	43955.0	624.04	38.65	-3.714	0.000	0.231
100.00	-5.02	-4.64	0.00	-131.09	0.00	131.09	1052.07	315.62	43955.0	624.04	40.21	-3.754	0.000	0.215
102.00	-4.81	-4.52	0.00	-121.82	0.00	121.82	1052.07	315.62	43955.0	624.04	41.79	-3.791	0.000	0.200
104.00	-4.60	-4.40	0.00	-112.78	0.00	112.78	1052.07	315.62	43955.0	624.04	43.38	-3.825	0.000	0.185
106.00	-4.39	-4.28	0.00	-103.98	0.00	103.98	1052.07	315.62	43955.0	624.04	44.99	-3.857	0.000	0.171
108.00	-4.18	-4.16	0.00	-95.42	0.00	95.42	1052.07	315.62	43955.0	624.04	46.61	-3.886	0.000	0.157
110.00	-3.87	-4.03	0.00	-87.10	0.00	87.10	1052.07	315.62	43955.0	624.04	48.24	-3.913	0.000	0.143
110.00	-3.87	-4.03	0.00	-87.10	0.00	87.10	759.47	227.84	14937.6	114.57	48.24	-3.913	0.000	0.766
112.00	-3.63	-3.85	0.00	-79.03	0.00	79.03	759.47	227.84	14937.6	114.57	49.89	-3.937	0.000	0.695
114.00	-3.37	-3.68	0.00	-71.33	0.00	71.33	759.47	227.84	14937.6	114.57	51.65	-4.478	0.000	0.627
116.00	-3.12	-3.51	0.00	-63.96	0.00	63.96	759.47	227.84	14937.6	114.57	53.63	-4.964	0.000	0.563
118.00	-2.88	-3.32	0.00	-56.94	0.00	56.94	759.47	227.84	14937.6	114.57	55.80	-5.399	0.000	0.501
120.00	-2.46	-3.11	0.00	-50.30	0.00	50.30	759.47	227.84	14937.6	114.57	58.14	-5.785	0.000	0.109
120.00	-2.46	-3.11	0.00	-50.30	0.00	50.30	317.71	95.31	3734.62	52.28	58.14	-5.785	0.000	0.123
121.00	-2.38	-3.01	0.00	-47.19	0.00	47.19	317.71	95.31	3734.62	52.28	59.35	-5.827	0.000	0.134
121.00	-2.38	-3.01	0.00	-47.19	0.00	47.19	317.71	95.31	3734.62	52.28	59.35	-5.827	0.000	0.134
122.00	-2.30	-2.92	0.00	-44.18	0.00	44.18	317.71	95.31	3734.62	52.28	60.57	-5.874	0.000	0.853
124.00	-2.13	-2.74	0.00	-38.34	0.00	38.34	317.71	95.31	3734.62	52.28	63.15	-6.456	0.000	0.741
126.00	-1.96	-2.55	0.00	-32.87	0.00	32.87	317.71	95.31	3734.62	52.28	65.96	-6.958	0.000	0.636
128.00	-1.52	-2.32	0.00	-27.77	0.00	27.77	317.71	95.31	3734.62	52.28	68.96	-7.386	0.000	0.537
130.00	-1.19	-2.09	0.00	-23.13	0.00	23.13	317.71	95.31	3734.62	52.28	72.12	-7.745	0.000	0.447
130.00	-1.19	-2.09	0.00	-23.13	0.00	23.13	317.71	95.31	3734.62	52.28	72.12	-7.745	0.000	0.447
132.00	-1.10	-1.90	0.00	-18.95	0.00	18.95	317.71	95.31	3734.62	52.28	75.42	-8.042	0.000	0.366
134.00	-0.86	-1.68	0.00	-15.16	0.00	15.16	317.71	95.31	3734.62	52.28	78.83	-8.283	0.000	0.293
136.00	-0.80	-1.48	0.00	-11.81	0.00	11.81	317.71	95.31	3734.62	52.28	82.33	-8.473	0.000	0.229
138.00	-0.75	-1.28	0.00	-8.85	0.00	8.85	317.71	95.31	3734.62	52.28	85.90	-8.619	0.000	0.172
140.00	-0.50	-1.05	0.00	-6.29	0.00	6.29	317.71	95.31	3734.62	52.28	89.52	-8.726	0.000	0.122
140.00	-0.50	-1.05	0.00	-6.29	0.00	6.29	317.71	95.31	3734.62	52.28	89.52	-8.726	0.000	0.122
142.00	-0.45	-0.85	0.00	-4.19	0.00	4.19	317.71	95.31	3734.62	52.28	93.18	-8.799	0.000	0.082
144.00	-0.40	-0.65	0.00	-2.49	0.00	2.49	317.71	95.31	3734.62	52.28	96.86	-8.847	0.000	0.049
146.00	-0.34	-0.44	0.00	-1.20	0.00	1.20	317.71	95.31	3734.62	52.28	100.55	-8.873	0.000	0.024
147.00	-0.16	-0.32	0.00	-0.75	0.00	0.75	317.71	95.31	3734.62	52.28	102.41	-8.879	0.000	0.015
148.00	-0.14	-0.22	0.00	-0.43	0.00	0.43	317.71	95.31	3734.62	52.28	104.26	-8.884	0.000	0.009
150.00	0.00	-0.19	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	107.97	-8.887	0.000	0.000

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

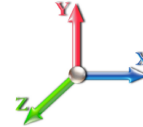


Page: 22

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

Iterations 37

Dead Load Factor 1.20
Wind Load Factor 1.00



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	0.85	5.432	5.98	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	5.432	5.98	0.00	1.200	0.567	2.00	6.189	7.43	44.4	50.6	393.4
4.00		1.00	0.85	5.432	5.98	0.00	1.200	0.607	2.00	6.202	7.44	44.5	54.3	397.1
6.00		1.00	0.85	5.432	5.98	0.00	1.200	0.632	2.00	6.211	7.45	44.5	56.6	399.4
8.00		1.00	0.85	5.432	5.98	0.00	1.200	0.651	2.00	6.217	7.46	44.6	58.3	401.0
10.00		1.00	0.85	5.432	5.98	0.00	1.200	0.666	2.00	6.222	7.47	44.6	59.6	402.4
12.00		1.00	0.85	5.432	5.98	0.00	1.200	0.678	2.00	6.226	7.47	44.6	60.7	403.5
14.00		1.00	0.85	5.432	5.98	0.00	1.200	0.688	2.00	6.229	7.48	44.7	61.7	404.5
16.00		1.00	0.86	5.499	6.05	0.00	1.200	0.698	2.00	6.233	7.48	45.2	62.6	405.3
18.00		1.00	0.88	5.637	6.20	0.00	1.200	0.706	2.00	6.235	7.48	46.4	63.3	406.1
20.00	Top - Section 1	1.00	0.90	5.763	6.34	0.00	1.200	0.713	2.00	6.238	7.49	47.5	64.0	406.7
22.00		1.00	0.92	5.880	6.47	0.00	1.200	0.720	2.00	5.240	6.29	40.7	54.1	339.1
24.00		1.00	0.94	5.989	6.59	0.00	1.200	0.726	2.00	5.242	6.29	41.4	54.5	339.6
26.00		1.00	0.95	6.091	6.70	0.00	1.200	0.732	2.00	5.244	6.29	42.2	55.0	340.0
28.00		1.00	0.97	6.186	6.81	0.00	1.200	0.738	2.00	5.246	6.30	42.8	55.4	340.4
30.00		1.00	0.98	6.277	6.90	0.00	1.200	0.743	2.00	5.248	6.30	43.5	55.8	340.8
32.00		1.00	1.00	6.363	7.00	0.00	1.200	0.748	2.00	5.249	6.30	44.1	56.2	341.2
34.00		1.00	1.01	6.445	7.09	0.00	1.200	0.752	2.00	5.251	6.30	44.7	56.5	341.6
36.00		1.00	1.02	6.523	7.17	0.00	1.200	0.757	2.00	5.252	6.30	45.2	56.9	341.9
38.00		1.00	1.03	6.597	7.26	0.00	1.200	0.761	2.00	5.254	6.30	45.8	57.2	342.2
40.00		1.00	1.04	6.669	7.34	0.00	1.200	0.765	2.00	5.255	6.31	46.3	57.5	342.5
42.00		1.00	1.05	6.738	7.41	0.00	1.200	0.768	2.00	5.256	6.31	46.7	57.8	342.8
44.00		1.00	1.06	6.804	7.48	0.00	1.200	0.772	2.00	5.257	6.31	47.2	58.0	343.1
46.00		1.00	1.07	6.868	7.55	0.00	1.200	0.775	2.00	5.258	6.31	47.7	58.3	343.3
48.00		1.00	1.08	6.930	7.62	0.00	1.200	0.779	2.00	5.260	6.31	48.1	58.6	343.6
50.00	Top - Section 2	1.00	1.09	6.990	7.69	0.00	1.200	0.782	2.00	5.261	6.31	48.5	58.8	343.8
52.00		1.00	1.10	7.048	7.75	0.00	1.200	0.785	2.00	4.262	5.11	39.6	47.5	274.8
54.00		1.00	1.11	7.104	7.81	0.00	1.200	0.788	2.00	4.263	5.12	40.0	47.7	275.0
56.00		1.00	1.12	7.158	7.87	0.00	1.200	0.791	2.00	4.264	5.12	40.3	47.9	275.2
58.00		1.00	1.13	7.212	7.93	0.00	1.200	0.794	2.00	4.265	5.12	40.6	48.1	275.4
60.00		1.00	1.14	7.263	7.99	0.00	1.200	0.796	2.00	4.265	5.12	40.9	48.2	275.5
62.00		1.00	1.14	7.314	8.04	0.00	1.200	0.799	2.00	4.266	5.12	41.2	48.4	275.7
64.00		1.00	1.15	7.363	8.10	0.00	1.200	0.801	2.00	4.267	5.12	41.5	48.6	275.9
66.00		1.00	1.16	7.410	8.15	0.00	1.200	0.804	2.00	4.268	5.12	41.7	48.7	276.0
68.00		1.00	1.17	7.457	8.20	0.00	1.200	0.806	2.00	4.269	5.12	42.0	48.9	276.2
70.00		1.00	1.17	7.503	8.25	0.00	1.200	0.809	2.00	4.270	5.12	42.3	49.0	276.3
72.00		1.00	1.18	7.547	8.30	0.00	1.200	0.811	2.00	4.270	5.12	42.5	49.2	276.5
74.00		1.00	1.19	7.591	8.35	0.00	1.200	0.813	2.00	4.271	5.13	42.8	49.3	276.6
76.00		1.00	1.19	7.634	8.40	0.00	1.200	0.815	2.00	4.272	5.13	43.0	49.4	276.7
78.00		1.00	1.20	7.676	8.44	0.00	1.200	0.817	2.00	4.272	5.13	43.3	49.6	276.9
80.00	Top - Section 3	1.00	1.21	7.717	8.49	0.00	1.200	0.819	2.00	4.273	5.13	43.5	49.7	277.0
82.00		1.00	1.21	7.757	8.53	0.00	1.200	0.821	2.00	4.274	5.13	43.8	49.8	277.1
84.00		1.00	1.22	7.796	8.58	0.00	1.200	0.823	2.00	4.274	5.13	44.0	49.9	277.2
86.00		1.00	1.23	7.835	8.62	0.00	1.200	0.825	2.00	4.275	5.13	44.2	50.1	277.4
88.00		1.00	1.23	7.873	8.66	0.00	1.200	0.827	2.00	4.276	5.13	44.4	50.2	277.5
90.00		1.00	1.24	7.910	8.70	0.00	1.200	0.829	2.00	4.276	5.13	44.7	50.3	277.6
92.00		1.00	1.24	7.947	8.74	0.00	1.200	0.831	2.00	4.277	5.13	44.9	50.4	277.7

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 23

94.00	1.00	1.25	7.983	8.78	0.00	1.200	0.833	2.00	4.278	5.13	45.1	50.5	277.8		
96.00	1.00	1.25	8.019	8.82	0.00	1.200	0.835	2.00	4.278	5.13	45.3	50.6	277.9		
98.00	1.00	1.26	8.054	8.86	0.00	1.200	0.836	2.00	4.279	5.13	45.5	50.7	278.0		
100.00	1.00	1.27	8.088	8.90	0.00	1.200	0.838	2.00	4.279	5.14	45.7	50.9	278.2		
102.00	1.00	1.27	8.122	8.93	0.00	1.200	0.840	2.00	4.280	5.14	45.9	51.0	278.3		
104.00	1.00	1.28	8.155	8.97	0.00	1.200	0.841	2.00	4.280	5.14	46.1	51.1	278.4		
106.00	1.00	1.28	8.188	9.01	0.00	1.200	0.843	2.00	4.281	5.14	46.3	51.2	278.5		
108.00	1.00	1.29	8.220	9.04	0.00	1.200	0.844	2.00	4.281	5.14	46.5	51.3	278.6		
110.00 Top - Section 4	1.00	1.29	8.252	9.08	0.00	1.200	0.846	2.00	4.282	5.14	46.6	51.4	278.7		
112.00	1.00	1.30	8.283	9.11	0.00	1.200	0.847	2.00	6.667	8.00	72.9	98.2	287.9		
114.00	1.00	1.30	8.314	9.15	0.00	1.200	0.849	2.00	6.667	8.00	73.2	98.2	287.9		
116.00	1.00	1.31	8.345	9.18	0.00	1.200	0.850	2.00	6.667	8.00	73.4	98.2	287.9		
118.00	1.00	1.31	8.375	9.21	0.00	1.200	0.852	2.00	6.667	8.00	73.7	98.3	288.0		
120.00 Top - Section 5 RB1	1.00	1.32	8.404	9.24	0.00	1.200	0.853	2.00	6.667	8.00	74.0	98.3	288.0		
121.00 RT1	1.00	1.32	8.419	9.26	0.00	1.200	0.854	1.00	3.333	4.00	37.0	49.0	96.1		
122.00	1.00	1.32	8.434	9.28	0.00	1.200	0.855	1.00	3.333	4.00	37.1	49.0	96.2		
124.00	1.00	1.32	8.463	9.31	0.00	1.200	0.856	2.00	6.667	8.00	74.5	98.1	192.3		
126.00	1.00	1.33	8.491	9.34	0.00	1.200	0.858	2.00	6.667	8.00	74.7	98.1	192.4		
128.00 Appurtenance(s)	1.00	1.33	8.519	9.37	0.00	1.200	0.859	2.00	6.667	8.00	75.0	98.2	192.4		
130.00 Top - Section 6	1.00	1.34	8.547	9.40	0.00	1.200	0.860	2.00	6.667	8.00	75.2	98.2	192.4		
132.00	1.00	1.34	8.575	9.43	0.00	1.200	0.862	2.00	6.667	8.00	75.5	98.2	192.4		
134.00 Appurtenance(s)	1.00	1.35	8.602	9.46	0.00	1.200	0.863	2.00	6.667	8.00	75.7	98.2	192.5		
136.00	1.00	1.35	8.629	9.49	0.00	1.200	0.864	2.00	6.667	8.00	75.9	98.3	192.5		
138.00	1.00	1.35	8.655	9.52	0.00	1.200	0.865	2.00	6.667	8.00	76.2	98.3	192.5		
140.00 Top - Section 7	1.00	1.36	8.682	9.55	0.00	1.200	0.867	2.00	6.667	8.00	76.4	98.3	192.6		
142.00	1.00	1.36	8.707	9.58	0.00	1.200	0.868	2.00	6.667	8.00	76.6	98.3	192.6		
144.00	1.00	1.37	8.733	9.61	0.00	1.200	0.869	2.00	6.667	8.00	76.9	98.4	192.6		
146.00	1.00	1.37	8.759	9.63	0.00	1.200	0.870	2.00	6.667	8.00	77.1	98.4	192.6		
147.00 Appurtenance(s)	1.00	1.37	8.771	9.65	0.00	1.200	0.871	1.00	3.333	4.00	38.6	49.2	96.3		
148.00	1.00	1.37	8.784	9.66	0.00	1.200	0.871	1.00	3.333	4.00	38.6	49.2	96.3		
150.00 Appurtenance(s)	1.00	1.38	8.809	9.69	0.00	1.200	0.873	2.00	6.667	8.00	77.5	98.4	192.7		
Totals:								150.00				3,935.5	21,780.7		

Discrete Appurtenance Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

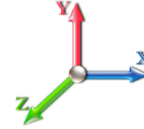


Page: 24

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

Iterations 37

Dead Load Factor 1.20
Wind Load Factor 1.00



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	150.00	40" Canister Weight	1	8.809	9.689	1.00	1.00	0.00	186.85	0.000	0.000	0.00	0.00	0.00
2	147.00	DPO-7126Y-0-T1	3	8.771	9.648	0.00	1.00	0.00	57.12	0.000	0.000	0.00	0.00	0.00
3	147.00	KIT-FD9R6004/1C-DL	3	8.771	9.648	0.00	1.00	0.00	16.28	0.000	0.000	0.00	0.00	0.00
4	147.00	DHHTT65B-3XR	3	8.771	9.648	0.00	1.00	26.14	437.09	0.000	0.000	252.24	0.00	0.00
5	140.00	40" Canister Weight	1	8.682	9.550	1.00	1.00	0.00	427.00	0.000	0.000	0.00	0.00	0.00
6	134.00	ATMAA1412D-A1A20	3	8.602	9.462	0.00	1.00	0.00	63.42	0.000	0.000	0.00	0.00	0.00
7	134.00	APXVAR18_43-C-NA20	3	8.602	9.462	0.00	1.00	0.00	343.94	0.000	0.000	0.00	0.00	0.00
8	130.00	40" Canister Weight	1	8.547	9.402	1.00	1.00	0.00	426.95	0.000	0.000	0.00	0.00	0.00
9	128.00	CM1007-DBPXBC-xxx	6	8.519	9.371	0.00	1.00	0.00	62.35	0.000	0.000	0.00	0.00	0.00
10	128.00	TMABPD7823VG12A	6	8.519	9.371	0.00	1.00	0.00	363.64	0.000	0.000	0.00	0.00	0.00
11	128.00	OPA65R-BU4BA	3	8.519	9.371	0.00	1.00	0.00	358.21	0.000	0.000	0.00	0.00	0.00
12	120.00	40" Canister Weight	1	8.404	9.245	1.00	1.00	0.00	426.89	0.000	0.000	0.00	0.00	0.00
13	110.00	40" Canister Weight	1	8.252	9.077	1.00	1.00	0.00	240.12	0.000	0.000	0.00	0.00	0.00
Totals:									3,409.85			252.24		

Total Applied Force Summary

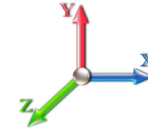
Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 25

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 37

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
2.00		44.37	453.72	0.00	0.00
4.00		44.47	457.41	0.00	0.00
6.00		44.53	459.70	0.00	0.00
8.00		44.58	461.38	0.00	0.00
10.00		44.61	462.72	0.00	0.00
12.00		44.64	463.84	0.00	0.00
14.00		44.67	464.80	0.00	0.00
16.00		45.24	465.64	0.00	0.00
18.00		46.40	466.40	0.00	0.00
20.00		47.46	467.08	0.00	0.00
22.00		40.67	399.42	0.00	0.00
24.00		41.44	399.91	0.00	0.00
26.00		42.16	400.35	0.00	0.00
28.00		42.84	400.77	0.00	0.00
30.00		43.48	401.17	0.00	0.00
32.00		44.09	401.54	0.00	0.00
34.00		44.67	401.89	0.00	0.00
36.00		45.22	402.22	0.00	0.00
38.00		45.75	402.53	0.00	0.00
40.00		46.26	402.84	0.00	0.00
42.00		46.75	403.12	0.00	0.00
44.00		47.22	403.40	0.00	0.00
46.00		47.67	403.67	0.00	0.00
48.00		48.11	403.92	0.00	0.00
50.00		48.54	404.17	0.00	0.00
52.00		39.65	335.17	0.00	0.00
54.00		39.97	335.35	0.00	0.00
56.00		40.29	335.53	0.00	0.00
58.00		40.59	335.71	0.00	0.00
60.00		40.89	335.88	0.00	0.00
62.00		41.19	336.04	0.00	0.00
64.00		41.47	336.20	0.00	0.00
66.00		41.75	336.35	0.00	0.00
68.00		42.02	336.50	0.00	0.00
70.00		42.28	336.65	0.00	0.00
72.00		42.54	336.79	0.00	0.00
74.00		42.80	336.93	0.00	0.00
76.00		43.04	337.07	0.00	0.00
78.00		43.29	337.20	0.00	0.00
80.00		43.53	337.33	0.00	0.00
82.00		43.76	337.46	0.00	0.00
84.00		43.99	337.58	0.00	0.00
86.00		44.21	337.70	0.00	0.00
88.00		44.44	337.82	0.00	0.00
90.00		44.65	337.94	0.00	0.00
92.00		44.87	338.05	0.00	0.00

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 26

94.00	45.08	338.17	0.00	0.00
96.00	45.28	338.28	0.00	0.00
98.00	45.49	338.38	0.00	0.00
100.00	45.69	338.49	0.00	0.00
102.00	45.88	338.59	0.00	0.00
104.00	46.08	338.70	0.00	0.00
106.00	46.27	338.80	0.00	0.00
108.00	46.46	338.90	0.00	0.00
110.00	(1) attachments 46.64	579.11	0.00	0.00
112.00	72.89	413.36	0.00	0.00
114.00	73.16	413.39	0.00	0.00
116.00	73.43	413.42	0.00	0.00
118.00	73.70	413.45	0.00	0.00
120.00	(1) attachments 73.96	840.37	0.00	0.00
121.00	37.04	158.90	0.00	0.00
122.00	37.11	158.90	0.00	0.00
124.00	74.47	317.83	0.00	0.00
126.00	74.72	317.86	0.00	0.00
128.00	(15) attachments 74.97	1102.09	0.00	0.00
130.00	(1) attachments 75.21	729.89	0.00	0.00
132.00	75.46	237.81	0.00	0.00
134.00	(6) attachments 75.70	645.20	0.00	0.00
136.00	75.93	207.91	0.00	0.00
138.00	76.17	207.93	0.00	0.00
140.00	(1) attachments 76.40	634.96	0.00	0.00
142.00	76.63	207.98	0.00	0.00
144.00	76.85	208.01	0.00	0.00
146.00	77.08	208.03	0.00	0.00
147.00	(9) attachments 290.83	614.51	0.00	0.00
148.00	38.65	96.32	0.00	0.00
150.00	(1) attachments 77.52	379.52	0.00	0.00
Totals:		4,187.76	29,939.93	0.00

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 28

90.00	-12.48	-2.61	0.00	-99.44	0.00	99.44	1052.07	315.62	43955.0	624.04	16.36	-1.804	0.000	0.171
92.00	-12.14	-2.56	0.00	-94.21	0.00	94.21	1052.07	315.62	43955.0	624.04	17.13	-1.832	0.000	0.163
94.00	-11.80	-2.51	0.00	-89.09	0.00	89.09	1052.07	315.62	43955.0	624.04	17.90	-1.859	0.000	0.154
96.00	-11.46	-2.46	0.00	-84.06	0.00	84.06	1052.07	315.62	43955.0	624.04	18.68	-1.884	0.000	0.146
98.00	-11.13	-2.41	0.00	-79.14	0.00	79.14	1052.07	315.62	43955.0	624.04	19.48	-1.908	0.000	0.137
100.00	-10.79	-2.36	0.00	-74.32	0.00	74.32	1052.07	315.62	43955.0	624.04	20.28	-1.931	0.000	0.129
102.00	-10.45	-2.30	0.00	-69.61	0.00	69.61	1052.07	315.62	43955.0	624.04	21.09	-1.952	0.000	0.122
104.00	-10.11	-2.25	0.00	-65.01	0.00	65.01	1052.07	315.62	43955.0	624.04	21.92	-1.972	0.000	0.114
106.00	-9.78	-2.19	0.00	-60.51	0.00	60.51	1052.07	315.62	43955.0	624.04	22.75	-1.990	0.000	0.106
108.00	-9.44	-2.14	0.00	-56.13	0.00	56.13	1052.07	315.62	43955.0	624.04	23.58	-2.007	0.000	0.099
110.00	-8.86	-2.07	0.00	-51.85	0.00	51.85	1052.07	315.62	43955.0	624.04	24.43	-2.023	0.000	0.092
110.00	-8.86	-2.07	0.00	-51.85	0.00	51.85	759.47	227.84	14937.6	114.57	24.43	-2.023	0.000	0.464
112.00	-8.44	-2.01	0.00	-47.71	0.00	47.71	759.47	227.84	14937.6	114.57	25.28	-2.037	0.000	0.428
114.00	-8.02	-1.97	0.00	-43.69	0.00	43.69	759.47	227.84	14937.6	114.57	26.20	-2.366	0.000	0.392
116.00	-7.60	-1.91	0.00	-39.76	0.00	39.76	759.47	227.84	14937.6	114.57	27.25	-2.666	0.000	0.357
118.00	-7.19	-1.85	0.00	-35.93	0.00	35.93	759.47	227.84	14937.6	114.57	28.43	-2.938	0.000	0.323
120.00	-6.35	-1.75	0.00	-32.23	0.00	32.23	759.47	227.84	14937.6	114.57	29.71	-3.184	0.000	0.074
120.00	-6.35	-1.75	0.00	-32.23	0.00	32.23	317.71	95.31	3734.62	52.28	29.71	-3.184	0.000	0.082
121.00	-6.19	-1.70	0.00	-30.48	0.00	30.48	317.71	95.31	3734.62	52.28	30.38	-3.211	0.000	0.092
121.00	-6.19	-1.70	0.00	-30.48	0.00	30.48	317.71	95.31	3734.62	52.28	30.38	-3.211	0.000	0.092
122.00	-6.03	-1.68	0.00	-28.78	0.00	28.78	317.71	95.31	3734.62	52.28	31.06	-3.241	0.000	0.570
124.00	-5.70	-1.62	0.00	-25.42	0.00	25.42	317.71	95.31	3734.62	52.28	32.50	-3.623	0.000	0.504
126.00	-5.38	-1.56	0.00	-22.17	0.00	22.17	317.71	95.31	3734.62	52.28	34.08	-3.959	0.000	0.441
128.00	-4.28	-1.42	0.00	-19.06	0.00	19.06	317.71	95.31	3734.62	52.28	35.80	-4.250	0.000	0.378
130.00	-3.55	-1.31	0.00	-16.21	0.00	16.21	317.71	95.31	3734.62	52.28	37.64	-4.499	0.000	0.322
130.00	-3.55	-1.31	0.00	-16.21	0.00	16.21	317.71	95.31	3734.62	52.28	37.64	-4.499	0.000	0.322
132.00	-3.32	-1.22	0.00	-13.60	0.00	13.60	317.71	95.31	3734.62	52.28	39.56	-4.709	0.000	0.271
134.00	-2.68	-1.10	0.00	-11.15	0.00	11.15	317.71	95.31	3734.62	52.28	41.57	-4.884	0.000	0.222
136.00	-2.48	-1.01	0.00	-8.95	0.00	8.95	317.71	95.31	3734.62	52.28	43.65	-5.026	0.000	0.179
138.00	-2.28	-0.92	0.00	-6.92	0.00	6.92	317.71	95.31	3734.62	52.28	45.77	-5.138	0.000	0.140
140.00	-1.65	-0.79	0.00	-5.08	0.00	5.08	317.71	95.31	3734.62	52.28	47.94	-5.222	0.000	0.102
140.00	-1.65	-0.79	0.00	-5.08	0.00	5.08	317.71	95.31	3734.62	52.28	47.94	-5.222	0.000	0.102
142.00	-1.45	-0.70	0.00	-3.49	0.00	3.49	317.71	95.31	3734.62	52.28	50.14	-5.283	0.000	0.071
144.00	-1.25	-0.60	0.00	-2.10	0.00	2.10	317.71	95.31	3734.62	52.28	52.36	-5.322	0.000	0.044
146.00	-1.05	-0.51	0.00	-0.89	0.00	0.89	317.71	95.31	3734.62	52.28	54.59	-5.343	0.000	0.020
147.00	-0.46	-0.16	0.00	-0.39	0.00	0.39	317.71	95.31	3734.62	52.28	55.71	-5.348	0.000	0.009
148.00	-0.37	-0.11	0.00	-0.23	0.00	0.23	317.71	95.31	3734.62	52.28	56.83	-5.350	0.000	0.005
150.00	0.00	-0.08	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	59.06	-5.351	0.000	0.000

Seismic Segment Forces (Factored)

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 29

Load Case: 1.2D + 1.0Ev + 1.0Eh						Iterations 32
Gust Response Factor	1.10			Sds	0.20	Ss 0.18
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.08	S1 0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.32	SA	0.03	Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		345.96	1.00	13.51	0.00	
4.00		345.96	3.00	13.51	0.01	
6.00		345.96	5.00	13.51	0.02	
8.00		345.96	7.00	13.51	0.05	
10.00		345.96	9.00	13.51	0.07	
12.00		345.96	11.00	13.51	0.11	
14.00		345.96	13.00	13.51	0.16	
16.00		345.96	15.00	13.51	0.21	
18.00		345.96	17.00	13.51	0.27	
20.00	Top - Section 1	345.96	19.00	13.51	0.33	
22.00		297.86	21.00	11.63	0.30	
24.00		297.86	23.00	11.63	0.36	
26.00		297.86	25.00	11.63	0.43	
28.00		297.86	27.00	11.63	0.50	
30.00		297.86	29.00	11.63	0.57	
32.00		297.86	31.00	11.63	0.65	
34.00		297.86	33.00	11.63	0.74	
36.00		297.86	35.00	11.63	0.83	
38.00		297.86	37.00	11.63	0.93	
40.00		297.86	39.00	11.63	1.04	
42.00		297.86	41.00	11.63	1.14	
44.00		297.86	43.00	11.63	1.26	
46.00		297.86	45.00	11.63	1.38	
48.00		297.86	47.00	11.63	1.50	
50.00	Top - Section 2	297.86	49.00	11.63	1.63	
52.00		249.75	51.00	9.75	1.25	
54.00		249.75	53.00	9.75	1.34	
56.00		249.75	55.00	9.75	1.45	
58.00		249.75	57.00	9.75	1.56	
60.00		249.75	59.00	9.75	1.67	
62.00		249.75	61.00	9.75	1.78	
64.00		249.75	63.00	9.75	1.90	
66.00		249.75	65.00	9.75	2.02	
68.00		249.75	67.00	9.75	2.15	
70.00		249.75	69.00	9.75	2.28	
72.00		249.75	71.00	9.75	2.41	
74.00		249.75	73.00	9.75	2.55	
76.00		249.75	75.00	9.75	2.69	
78.00		249.75	77.00	9.75	2.84	
80.00	Top - Section 3	249.75	79.00	9.75	2.99	
82.00		249.75	81.00	9.75	3.14	
84.00		249.75	83.00	9.75	3.30	
86.00		249.75	85.00	9.75	3.46	
88.00		249.75	87.00	9.75	3.62	
90.00		249.75	89.00	9.75	3.79	

Seismic Segment Forces (Factored)

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 30

92.00		249.75	91.00	9.75	3.96
94.00		249.75	93.00	9.75	4.14
96.00		249.75	95.00	9.75	4.32
98.00		249.75	97.00	9.75	4.50
100.00		249.75	99.00	9.75	4.69
102.00		249.75	101.00	9.75	4.88
104.00		249.75	103.00	9.75	5.08
106.00		249.75	105.00	9.75	5.28
108.00		249.75	107.00	9.75	5.48
110.00	Top - Section 4	357.24	109.00	13.95	11.64
112.00		262.23	111.00	10.24	6.50
114.00		262.23	113.00	10.24	6.74
116.00		262.23	115.00	10.24	6.98
118.00		262.23	117.00	10.24	7.22
120.00	Top - Section 5 RB1	477.20	119.00	18.63	24.75
121.00	RT1	91.35	120.50	3.57	0.93
122.00		91.35	121.50	3.57	0.95
124.00		182.70	123.00	7.13	3.88
126.00		182.70	125.00	7.13	4.00
128.00	Appurtenance(s)	506.70	127.00	19.78	31.78
130.00	Top - Section 6	382.69	129.00	14.94	18.70
132.00		102.56	131.00	4.00	1.39
134.00	Appurtenance(s)	277.76	133.00	10.84	10.47
136.00		72.61	135.00	2.83	0.74
138.00		72.61	137.00	2.83	0.76
140.00	Top - Section 7	287.58	139.00	11.23	12.26
142.00		72.61	141.00	2.83	0.80
144.00		72.61	143.00	2.83	0.83
146.00		72.61	145.00	2.83	0.85
147.00	Appurtenance(s)	219.60	146.50	8.57	7.94
148.00		28.60	147.50	1.12	0.14
150.00	Appurtenance(s)	164.69	149.00	6.43	4.62
Totals:		19,935.0		778.3	269.9

Total Wind: 9,494.9

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 32

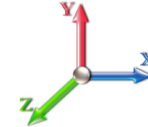
88.00	-9.09	-0.23	0.00	-7.70	0.00	7.70	1052.07	315.62	43955.0	624.04	1.22	-0.14	0.021
90.00	-8.79	-0.23	0.00	-7.24	0.00	7.24	1052.07	315.62	43955.0	624.04	1.28	-0.14	0.020
92.00	-8.50	-0.22	0.00	-6.78	0.00	6.78	1052.07	315.62	43955.0	624.04	1.34	-0.14	0.019
94.00	-8.20	-0.22	0.00	-6.33	0.00	6.33	1052.07	315.62	43955.0	624.04	1.40	-0.14	0.018
96.00	-7.90	-0.21	0.00	-5.90	0.00	5.90	1052.07	315.62	43955.0	624.04	1.46	-0.15	0.017
98.00	-7.60	-0.21	0.00	-5.47	0.00	5.47	1052.07	315.62	43955.0	624.04	1.52	-0.15	0.016
100.00	-7.31	-0.20	0.00	-5.05	0.00	5.05	1052.07	315.62	43955.0	624.04	1.58	-0.15	0.015
102.00	-7.01	-0.20	0.00	-4.64	0.00	4.64	1052.07	315.62	43955.0	624.04	1.65	-0.15	0.014
104.00	-6.71	-0.19	0.00	-4.24	0.00	4.24	1052.07	315.62	43955.0	624.04	1.71	-0.15	0.013
106.00	-6.41	-0.19	0.00	-3.86	0.00	3.86	1052.07	315.62	43955.0	624.04	1.77	-0.15	0.012
108.00	-6.12	-0.18	0.00	-3.48	0.00	3.48	1052.07	315.62	43955.0	624.04	1.84	-0.15	0.011
110.00	-5.69	-0.17	0.00	-3.12	0.00	3.12	1052.07	315.62	43955.0	624.04	1.90	-0.16	0.010
110.00	-5.69	-0.17	0.00	-3.12	0.00	3.12	759.47	227.84	14937.6	114.57	1.90	-0.16	0.035
112.00	-5.36	-0.16	0.00	-2.79	0.00	2.79	759.47	227.84	14937.6	114.57	1.97	-0.16	0.031
114.00	-5.04	-0.16	0.00	-2.46	0.00	2.46	759.47	227.84	14937.6	114.57	2.04	-0.18	0.028
116.00	-4.71	-0.15	0.00	-2.15	0.00	2.15	759.47	227.84	14937.6	114.57	2.11	-0.19	0.025
118.00	-4.38	-0.14	0.00	-1.86	0.00	1.86	759.47	227.84	14937.6	114.57	2.20	-0.21	0.022
120.00	-3.79	-0.11	0.00	-1.57	0.00	1.57	759.47	227.84	14937.6	114.57	2.29	-0.22	0.007
120.00	-3.79	-0.11	0.00	-1.57	0.00	1.57	317.71	95.31	3734.62	52.28	2.29	-0.22	0.007
121.00	-3.68	-0.11	0.00	-1.46	0.00	1.46	317.71	95.31	3734.62	52.28	2.33	-0.22	0.009
121.00	-3.68	-0.11	0.00	-1.46	0.00	1.46	317.71	95.31	3734.62	52.28	2.33	-0.22	0.009
122.00	-3.57	-0.11	0.00	-1.34	0.00	1.34	317.71	95.31	3734.62	52.28	2.38	-0.22	0.037
124.00	-3.34	-0.11	0.00	-1.12	0.00	1.12	317.71	95.31	3734.62	52.28	2.48	-0.24	0.032
126.00	-3.11	-0.10	0.00	-0.90	0.00	0.90	317.71	95.31	3734.62	52.28	2.58	-0.25	0.027
128.00	-2.48	-0.07	0.00	-0.69	0.00	0.69	317.71	95.31	3734.62	52.28	2.69	-0.26	0.021
130.00	-2.01	-0.05	0.00	-0.55	0.00	0.55	317.71	95.31	3734.62	52.28	2.80	-0.27	0.017
130.00	-2.01	-0.05	0.00	-0.55	0.00	0.55	317.71	95.31	3734.62	52.28	2.80	-0.27	0.017
132.00	-1.86	-0.05	0.00	-0.45	0.00	0.45	317.71	95.31	3734.62	52.28	2.92	-0.28	0.014
134.00	-1.50	-0.04	0.00	-0.35	0.00	0.35	317.71	95.31	3734.62	52.28	3.03	-0.29	0.011
136.00	-1.39	-0.03	0.00	-0.28	0.00	0.28	317.71	95.31	3734.62	52.28	3.15	-0.29	0.010
138.00	-1.28	-0.03	0.00	-0.21	0.00	0.21	317.71	95.31	3734.62	52.28	3.28	-0.29	0.008
140.00	-0.90	-0.02	0.00	-0.14	0.00	0.14	317.71	95.31	3734.62	52.28	3.40	-0.30	0.006
140.00	-0.90	-0.02	0.00	-0.14	0.00	0.14	317.71	95.31	3734.62	52.28	3.40	-0.30	0.006
142.00	-0.79	-0.02	0.00	-0.10	0.00	0.10	317.71	95.31	3734.62	52.28	3.52	-0.30	0.004
144.00	-0.67	-0.02	0.00	-0.07	0.00	0.07	317.71	95.31	3734.62	52.28	3.65	-0.30	0.003
146.00	-0.56	-0.02	0.00	-0.03	0.00	0.03	317.71	95.31	3734.62	52.28	3.78	-0.30	0.002
147.00	-0.28	-0.01	0.00	-0.02	0.00	0.02	317.71	95.31	3734.62	52.28	3.84	-0.30	0.001
148.00	-0.23	-0.01	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	3.90	-0.30	0.001
150.00	0.00	0.00	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	4.03	-0.30	0.000

Seismic Segment Forces (Factored)

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0Ev + 1.0Eh				Iterations 32
Gust Response Factor	1.10	Sds	0.20	Ss 0.18
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.32	SA 0.03
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		330.88	1.00	12.92	0.00	
4.00		330.88	3.00	12.92	0.01	
6.00		330.88	5.00	12.92	0.02	
8.00		330.88	7.00	12.92	0.05	
10.00		330.88	9.00	12.92	0.08	
12.00		330.88	11.00	12.92	0.12	
14.00		330.88	13.00	12.92	0.16	
16.00		330.88	15.00	12.92	0.22	
18.00		330.88	17.00	12.92	0.28	
20.00	Top - Section 1	330.88	19.00	12.92	0.35	
22.00		282.77	21.00	11.04	0.31	
24.00		282.77	23.00	11.04	0.37	
26.00		282.77	25.00	11.04	0.44	
28.00		282.77	27.00	11.04	0.51	
30.00		282.77	29.00	11.04	0.59	
32.00		282.77	31.00	11.04	0.67	
34.00		282.77	33.00	11.04	0.76	
36.00		282.77	35.00	11.04	0.86	
38.00		282.77	37.00	11.04	0.96	
40.00		282.77	39.00	11.04	1.07	
42.00		282.77	41.00	11.04	1.18	
44.00		282.77	43.00	11.04	1.30	
46.00		282.77	45.00	11.04	1.42	
48.00		282.77	47.00	11.04	1.55	
50.00	Top - Section 2	282.77	49.00	11.04	1.68	
52.00		234.67	51.00	9.16	1.26	
54.00		234.67	53.00	9.16	1.36	
56.00		234.67	55.00	9.16	1.46	
58.00		234.67	57.00	9.16	1.57	
60.00		234.67	59.00	9.16	1.68	
62.00		234.67	61.00	9.16	1.80	
64.00		234.67	63.00	9.16	1.92	
66.00		234.67	65.00	9.16	2.04	
68.00		234.67	67.00	9.16	2.17	
70.00		234.67	69.00	9.16	2.30	
72.00		234.67	71.00	9.16	2.44	
74.00		234.67	73.00	9.16	2.57	
76.00		234.67	75.00	9.16	2.72	
78.00		234.67	77.00	9.16	2.86	
80.00	Top - Section 3	234.67	79.00	9.16	3.02	
82.00		234.67	81.00	9.16	3.17	
84.00		234.67	83.00	9.16	3.33	
86.00		234.67	85.00	9.16	3.49	
88.00		234.67	87.00	9.16	3.66	
90.00		234.67	89.00	9.16	3.83	

Seismic Segment Forces (Factored)

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (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

92.00		234.67	91.00	9.16	4.00
94.00		234.67	93.00	9.16	4.18
96.00		234.67	95.00	9.16	4.36
98.00		234.67	97.00	9.16	4.55
100.00		234.67	99.00	9.16	4.74
102.00		234.67	101.00	9.16	4.93
104.00		234.67	103.00	9.16	5.13
106.00		234.67	105.00	9.16	5.33
108.00		234.67	107.00	9.16	5.53
110.00	Top - Section 4	342.16	109.00	13.36	12.20
112.00		230.86	111.00	9.01	5.76
114.00		230.86	113.00	9.01	5.97
116.00		230.86	115.00	9.01	6.18
118.00		230.86	117.00	9.01	6.40
120.00	Top - Section 5 RB1	445.83	119.00	17.41	24.69
121.00	RT1	75.66	120.50	2.95	0.73
122.00		75.66	121.50	2.95	0.74
124.00		151.32	123.00	5.91	3.04
126.00		151.32	125.00	5.91	3.14
128.00	Appurtenance(s)	475.32	127.00	18.56	31.97
130.00	Top - Section 6	355.06	129.00	13.86	18.41
132.00		91.22	131.00	3.56	1.25
134.00	Appurtenance(s)	266.42	133.00	10.40	11.02
136.00		68.76	135.00	2.68	0.76
138.00		68.76	137.00	2.68	0.78
140.00	Top - Section 7	283.73	139.00	11.08	13.65
142.00		68.76	141.00	2.68	0.82
144.00		68.76	143.00	2.68	0.85
146.00		68.76	145.00	2.68	0.87
147.00	Appurtenance(s)	217.68	146.50	8.50	8.92
148.00		28.60	147.50	1.12	0.16
150.00	Appurtenance(s)	164.69	149.00	6.43	5.28
Totals:		18,747.6	731.9	269.9	

Total Wind: 9,494.9

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 36

88.00	-6.87	-0.23	0.00	-7.54	0.00	7.54	1052.07	315.62	43955.0	624.04	1.19	-0.14	0.019
90.00	-6.64	-0.22	0.00	-7.08	0.00	7.08	1052.07	315.62	43955.0	624.04	1.25	-0.14	0.018
92.00	-6.42	-0.22	0.00	-6.64	0.00	6.64	1052.07	315.62	43955.0	624.04	1.31	-0.14	0.017
94.00	-6.19	-0.21	0.00	-6.21	0.00	6.21	1052.07	315.62	43955.0	624.04	1.37	-0.14	0.016
96.00	-5.97	-0.21	0.00	-5.78	0.00	5.78	1052.07	315.62	43955.0	624.04	1.43	-0.14	0.015
98.00	-5.74	-0.20	0.00	-5.36	0.00	5.36	1052.07	315.62	43955.0	624.04	1.49	-0.14	0.014
100.00	-5.52	-0.20	0.00	-4.96	0.00	4.96	1052.07	315.62	43955.0	624.04	1.55	-0.15	0.013
102.00	-5.29	-0.19	0.00	-4.56	0.00	4.56	1052.07	315.62	43955.0	624.04	1.61	-0.15	0.012
104.00	-5.07	-0.19	0.00	-4.18	0.00	4.18	1052.07	315.62	43955.0	624.04	1.67	-0.15	0.012
106.00	-4.84	-0.18	0.00	-3.80	0.00	3.80	1052.07	315.62	43955.0	624.04	1.74	-0.15	0.011
108.00	-4.62	-0.18	0.00	-3.44	0.00	3.44	1052.07	315.62	43955.0	624.04	1.80	-0.15	0.010
110.00	-4.29	-0.16	0.00	-3.09	0.00	3.09	1052.07	315.62	43955.0	624.04	1.86	-0.15	0.009
110.00	-4.29	-0.16	0.00	-3.09	0.00	3.09	759.47	227.84	14937.6	114.57	1.86	-0.15	0.033
112.00	-4.05	-0.16	0.00	-2.77	0.00	2.77	759.47	227.84	14937.6	114.57	1.93	-0.15	0.029
114.00	-3.80	-0.15	0.00	-2.45	0.00	2.45	759.47	227.84	14937.6	114.57	1.99	-0.17	0.026
116.00	-3.56	-0.15	0.00	-2.15	0.00	2.15	759.47	227.84	14937.6	114.57	2.07	-0.19	0.023
118.00	-3.31	-0.14	0.00	-1.86	0.00	1.86	759.47	227.84	14937.6	114.57	2.15	-0.20	0.021
120.00	-2.86	-0.11	0.00	-1.58	0.00	1.58	759.47	227.84	14937.6	114.57	2.24	-0.22	0.006
120.00	-2.86	-0.11	0.00	-1.58	0.00	1.58	317.71	95.31	3734.62	52.28	2.24	-0.22	0.006
121.00	-2.78	-0.11	0.00	-1.47	0.00	1.47	317.71	95.31	3734.62	52.28	2.28	-0.22	0.008
121.00	-2.78	-0.11	0.00	-1.47	0.00	1.47	317.71	95.31	3734.62	52.28	2.28	-0.22	0.008
122.00	-2.69	-0.11	0.00	-1.36	0.00	1.36	317.71	95.31	3734.62	52.28	2.33	-0.22	0.034
124.00	-2.52	-0.11	0.00	-1.14	0.00	1.14	317.71	95.31	3734.62	52.28	2.43	-0.24	0.030
126.00	-2.35	-0.10	0.00	-0.92	0.00	0.92	317.71	95.31	3734.62	52.28	2.53	-0.25	0.025
128.00	-1.88	-0.07	0.00	-0.71	0.00	0.71	317.71	95.31	3734.62	52.28	2.63	-0.26	0.020
130.00	-1.52	-0.05	0.00	-0.57	0.00	0.57	317.71	95.31	3734.62	52.28	2.75	-0.27	0.016
130.00	-1.52	-0.05	0.00	-0.57	0.00	0.57	317.71	95.31	3734.62	52.28	2.75	-0.27	0.016
132.00	-1.41	-0.05	0.00	-0.47	0.00	0.47	317.71	95.31	3734.62	52.28	2.86	-0.28	0.013
134.00	-1.14	-0.04	0.00	-0.37	0.00	0.37	317.71	95.31	3734.62	52.28	2.98	-0.28	0.011
136.00	-1.05	-0.04	0.00	-0.29	0.00	0.29	317.71	95.31	3734.62	52.28	3.10	-0.29	0.009
138.00	-0.97	-0.04	0.00	-0.22	0.00	0.22	317.71	95.31	3734.62	52.28	3.22	-0.29	0.007
140.00	-0.68	-0.02	0.00	-0.15	0.00	0.15	317.71	95.31	3734.62	52.28	3.34	-0.29	0.005
140.00	-0.68	-0.02	0.00	-0.15	0.00	0.15	317.71	95.31	3734.62	52.28	3.34	-0.29	0.005
142.00	-0.59	-0.02	0.00	-0.11	0.00	0.11	317.71	95.31	3734.62	52.28	3.47	-0.30	0.004
144.00	-0.51	-0.02	0.00	-0.07	0.00	0.07	317.71	95.31	3734.62	52.28	3.59	-0.30	0.003
146.00	-0.42	-0.02	0.00	-0.04	0.00	0.04	317.71	95.31	3734.62	52.28	3.72	-0.30	0.002
147.00	-0.21	-0.01	0.00	-0.02	0.00	0.02	317.71	95.31	3734.62	52.28	3.78	-0.30	0.001
148.00	-0.17	-0.01	0.00	-0.01	0.00	0.01	317.71	95.31	3734.62	52.28	3.84	-0.30	0.001
150.00	0.00	-0.01	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	3.97	-0.30	0.000

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

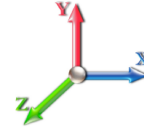


Page: 37

Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 35

Dead Load Factor 1.00
Wind Load Factor 1.00



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	0.85	6.649	7.31	165.83	0.450	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
4.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
6.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
8.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
10.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
12.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
14.00		1.00	0.85	6.649	7.31	165.83	0.450	0.000	2.00	6.000	2.70	19.7	0.0	285.6
16.00		1.00	0.86	6.731	7.40	166.85	0.450	0.000	2.00	6.000	2.70	20.0	0.0	285.6
18.00		1.00	0.88	6.900	7.59	168.93	0.450	0.000	2.00	6.000	2.70	20.5	0.0	285.6
20.00	Top - Section 1	1.00	0.90	7.054	7.76	170.81	0.450	0.000	2.00	6.000	2.70	21.0	0.0	285.6
22.00		1.00	0.92	7.197	7.92	143.78	0.450	0.000	2.00	5.000	2.25	17.8	0.0	237.5
24.00		1.00	0.94	7.330	8.06	145.10	0.450	0.000	2.00	5.000	2.25	18.1	0.0	237.5
26.00		1.00	0.95	7.455	8.20	146.33	0.450	0.000	2.00	5.000	2.25	18.5	0.0	237.5
28.00		1.00	0.97	7.572	8.33	147.48	0.450	0.000	2.00	5.000	2.25	18.7	0.0	237.5
30.00		1.00	0.98	7.683	8.45	148.55	0.450	0.000	2.00	5.000	2.25	19.0	0.0	237.5
32.00		1.00	1.00	7.788	8.57	149.56	0.450	0.000	2.00	5.000	2.25	19.3	0.0	237.5
34.00		1.00	1.01	7.888	8.68	150.52	0.450	0.000	2.00	5.000	2.25	19.5	0.0	237.5
36.00		1.00	1.02	7.984	8.78	151.43	0.450	0.000	2.00	5.000	2.25	19.8	0.0	237.5
38.00		1.00	1.03	8.075	8.88	152.29	0.450	0.000	2.00	5.000	2.25	20.0	0.0	237.5
40.00		1.00	1.04	8.163	8.98	153.12	0.450	0.000	2.00	5.000	2.25	20.2	0.0	237.5
42.00		1.00	1.05	8.247	9.07	153.91	0.450	0.000	2.00	5.000	2.25	20.4	0.0	237.5
44.00		1.00	1.06	8.328	9.16	154.66	0.450	0.000	2.00	5.000	2.25	20.6	0.0	237.5
46.00		1.00	1.07	8.407	9.25	155.39	0.450	0.000	2.00	5.000	2.25	20.8	0.0	237.5
48.00		1.00	1.08	8.482	9.33	156.09	0.450	0.000	2.00	5.000	2.25	21.0	0.0	237.5
50.00	Top - Section 2	1.00	1.09	8.555	9.41	156.76	0.450	0.000	2.00	5.000	2.25	21.2	0.0	237.5
52.00		1.00	1.10	8.626	9.49	125.93	0.450	0.000	2.00	4.000	1.80	17.1	0.0	189.4
54.00		1.00	1.11	8.695	9.56	126.43	0.450	0.000	2.00	4.000	1.80	17.2	0.0	189.4
56.00		1.00	1.12	8.762	9.64	126.91	0.450	0.000	2.00	4.000	1.80	17.3	0.0	189.4
58.00		1.00	1.13	8.827	9.71	127.38	0.450	0.000	2.00	4.000	1.80	17.5	0.0	189.4
60.00		1.00	1.14	8.890	9.78	127.84	0.450	0.000	2.00	4.000	1.80	17.6	0.0	189.4
62.00		1.00	1.14	8.952	9.85	128.28	0.450	0.000	2.00	4.000	1.80	17.7	0.0	189.4
64.00		1.00	1.15	9.012	9.91	128.71	0.450	0.000	2.00	4.000	1.80	17.8	0.0	189.4
66.00		1.00	1.16	9.070	9.98	129.13	0.450	0.000	2.00	4.000	1.80	18.0	0.0	189.4
68.00		1.00	1.17	9.128	10.04	129.53	0.450	0.000	2.00	4.000	1.80	18.1	0.0	189.4
70.00		1.00	1.17	9.183	10.10	129.93	0.450	0.000	2.00	4.000	1.80	18.2	0.0	189.4
72.00		1.00	1.18	9.238	10.16	130.31	0.450	0.000	2.00	4.000	1.80	18.3	0.0	189.4
74.00		1.00	1.19	9.291	10.22	130.69	0.450	0.000	2.00	4.000	1.80	18.4	0.0	189.4
76.00		1.00	1.19	9.344	10.28	131.06	0.450	0.000	2.00	4.000	1.80	18.5	0.0	189.4
78.00		1.00	1.20	9.395	10.33	131.42	0.450	0.000	2.00	4.000	1.80	18.6	0.0	189.4
80.00	Top - Section 3	1.00	1.21	9.445	10.39	131.77	0.450	0.000	2.00	4.000	1.80	18.7	0.0	189.4
82.00		1.00	1.21	9.494	10.44	132.11	0.450	0.000	2.00	4.000	1.80	18.8	0.0	189.4
84.00		1.00	1.22	9.543	10.50	132.45	0.450	0.000	2.00	4.000	1.80	18.9	0.0	189.4
86.00		1.00	1.23	9.590	10.55	132.77	0.450	0.000	2.00	4.000	1.80	19.0	0.0	189.4
88.00		1.00	1.23	9.637	10.60	133.10	0.450	0.000	2.00	4.000	1.80	19.1	0.0	189.4
90.00		1.00	1.24	9.682	10.65	133.41	0.450	0.000	2.00	4.000	1.80	19.2	0.0	189.4
92.00		1.00	1.24	9.727	10.70	133.72	0.450	0.000	2.00	4.000	1.80	19.3	0.0	189.4

Wind Loading - Shaft

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 38

94.00	1.00	1.25	9.771	10.75	134.02	0.450	0.000	2.00	4.000	1.80	19.3	0.0	189.4			
96.00	1.00	1.25	9.815	10.80	134.32	0.450	0.000	2.00	4.000	1.80	19.4	0.0	189.4			
98.00	1.00	1.26	9.857	10.84	134.61	0.450	0.000	2.00	4.000	1.80	19.5	0.0	189.4			
100.00	1.00	1.27	9.900	10.89	134.90	0.450	0.000	2.00	4.000	1.80	19.6	0.0	189.4			
102.00	1.00	1.27	9.941	10.93	135.18	0.450	0.000	2.00	4.000	1.80	19.7	0.0	189.4			
104.00	1.00	1.28	9.982	10.98	135.46	0.450	0.000	2.00	4.000	1.80	19.8	0.0	189.4			
106.00	1.00	1.28	10.022	11.02	135.73	0.450	0.000	2.00	4.000	1.80	19.8	0.0	189.4			
108.00	1.00	1.29	10.061	11.07	136.00	0.450	0.000	2.00	4.000	1.80	19.9	0.0	189.4			
110.00 Top - Section 4	1.00	1.29	10.100	11.11	136.26	0.450	0.000	2.00	4.000	1.80	20.0	0.0	189.4			
112.00	1.00	1.30	10.139	11.15	227.53	0.450	0.000	2.00	6.667	3.00	33.5	0.0	158.1			
114.00	1.00	1.30	10.176	11.19	227.95	0.450	0.000	2.00	6.667	3.00	33.6	0.0	158.1			
116.00	1.00	1.31	10.214	11.24	228.37	0.450	0.000	2.00	6.667	3.00	33.7	0.0	158.1			
118.00	1.00	1.31	10.251	11.28	228.78	0.450	0.000	2.00	6.667	3.00	33.8	0.0	158.1			
120.00 Top - Section 5 RB1	1.00	1.32	10.287	11.32	229.19	0.450	0.000	2.00	6.667	3.00	33.9	0.0	158.1			
121.00 RT1	1.00	1.32	10.305	11.34	229.39	0.450	0.000	1.00	3.333	1.50	17.0	0.0	39.3			
122.00	1.00	1.32	10.323	11.36	229.59	0.450	0.000	1.00	3.333	1.50	17.0	0.0	39.3			
124.00	1.00	1.32	10.358	11.39	229.98	0.450	0.000	2.00	6.667	3.00	34.2	0.0	78.5			
126.00	1.00	1.33	10.393	11.43	230.37	0.450	0.000	2.00	6.667	3.00	34.3	0.0	78.5			
128.00 Appurtenance(s)	1.00	1.33	10.428	11.47	230.75	0.450	0.000	2.00	6.667	3.00	34.4	0.0	78.5			
130.00 Top - Section 6	1.00	1.34	10.462	11.51	231.13	0.450	0.000	2.00	6.667	3.00	34.5	0.0	78.5			
132.00	1.00	1.34	10.495	11.54	231.50	0.450	0.000	2.00	6.667	3.00	34.6	0.0	78.5			
134.00 Appurtenance(s)	1.00	1.35	10.529	11.58	231.87	0.450	0.000	2.00	6.667	3.00	34.7	0.0	78.5			
136.00	1.00	1.35	10.562	11.62	232.23	0.450	0.000	2.00	6.667	3.00	34.9	0.0	78.5			
138.00	1.00	1.35	10.594	11.65	232.58	0.450	0.000	2.00	6.667	3.00	35.0	0.0	78.5			
140.00 Top - Section 7	1.00	1.36	10.626	11.69	232.94	0.450	0.000	2.00	6.667	3.00	35.1	0.0	78.5			
142.00	1.00	1.36	10.658	11.72	233.28	0.450	0.000	2.00	6.667	3.00	35.2	0.0	78.5			
144.00	1.00	1.37	10.689	11.76	233.63	0.450	0.000	2.00	6.667	3.00	35.3	0.0	78.5			
146.00	1.00	1.37	10.720	11.79	233.97	0.450	0.000	2.00	6.667	3.00	35.4	0.0	78.5			
147.00 Appurtenance(s)	1.00	1.37	10.736	11.81	234.14	0.450	0.000	1.00	3.333	1.50	17.7	0.0	39.3			
148.00	1.00	1.37	10.751	11.83	234.30	0.450	0.000	1.00	3.333	1.50	17.7	0.0	39.3			
150.00 Appurtenance(s)	1.00	1.38	10.782	11.86	234.63	0.450	0.000	2.00	6.667	3.00	35.6	0.0	78.5			
Totals:								150.00				1,746.0				14,069.9

Discrete Appurtenance Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 39

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 35

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	150.00	40" Canister Weight	1	10.782	11.860	1.00	1.00	0.00	107.49	0.000	0.000	0.00	0.00	0.00
2	147.00	DPO-7126Y-0-T1	3	10.736	11.809	0.00	1.00	0.00	37.80	0.000	0.000	0.00	0.00	0.00
3	147.00	KIT-FD9R6004/1C-DL	3	10.736	11.809	0.00	1.00	0.00	9.30	0.000	0.000	0.00	0.00	0.00
4	147.00	DHHTT65B-3XR	3	10.736	11.809	0.00	1.00	0.00	136.20	0.000	0.000	0.00	0.00	0.00
5	140.00	40" Canister Weight	1	10.626	11.689	1.00	1.00	0.00	214.97	0.000	0.000	0.00	0.00	0.00
6	134.00	ATMAA1412D-A1A20	3	10.529	11.582	0.00	1.00	0.00	39.00	0.000	0.000	0.00	0.00	0.00
7	134.00	APXVAR18_43-C-NA20	3	10.529	11.582	0.00	1.00	0.00	136.20	0.000	0.000	0.00	0.00	0.00
8	130.00	40" Canister Weight	1	10.462	11.508	1.00	1.00	0.00	214.97	0.000	0.000	0.00	0.00	0.00
9	128.00	CM1007-DBPXBC-xxx	6	10.428	11.470	0.00	1.00	0.00	39.00	0.000	0.000	0.00	0.00	0.00
10	128.00	TMABPD7823VG12A	6	10.428	11.470	0.00	1.00	0.00	156.00	0.000	0.000	0.00	0.00	0.00
11	128.00	OPA65R-BU4BA	3	10.428	11.470	0.00	1.00	0.00	129.00	0.000	0.000	0.00	0.00	0.00
12	120.00	40" Canister Weight	1	10.287	11.316	1.00	1.00	0.00	214.97	0.000	0.000	0.00	0.00	0.00
13	110.00	40" Canister Weight	1	10.100	11.110	1.00	1.00	0.00	107.49	0.000	0.000	0.00	0.00	0.00
Totals:									1,542.39			0.00		

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 40

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 35

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
2.00		19.75	335.91	0.00	0.00
4.00		19.75	335.91	0.00	0.00
6.00		19.75	335.91	0.00	0.00
8.00		19.75	335.91	0.00	0.00
10.00		19.75	335.91	0.00	0.00
12.00		19.75	335.91	0.00	0.00
14.00		19.75	335.91	0.00	0.00
16.00		19.99	335.91	0.00	0.00
18.00		20.49	335.91	0.00	0.00
20.00		20.95	335.91	0.00	0.00
22.00		17.81	287.80	0.00	0.00
24.00		18.14	287.80	0.00	0.00
26.00		18.45	287.80	0.00	0.00
28.00		18.74	287.80	0.00	0.00
30.00		19.02	287.80	0.00	0.00
32.00		19.28	287.80	0.00	0.00
34.00		19.52	287.80	0.00	0.00
36.00		19.76	287.80	0.00	0.00
38.00		19.99	287.80	0.00	0.00
40.00		20.20	287.80	0.00	0.00
42.00		20.41	287.80	0.00	0.00
44.00		20.61	287.80	0.00	0.00
46.00		20.81	287.80	0.00	0.00
48.00		20.99	287.80	0.00	0.00
50.00		21.17	287.80	0.00	0.00
52.00		17.08	239.70	0.00	0.00
54.00		17.22	239.70	0.00	0.00
56.00		17.35	239.70	0.00	0.00
58.00		17.48	239.70	0.00	0.00
60.00		17.60	239.70	0.00	0.00
62.00		17.72	239.70	0.00	0.00
64.00		17.84	239.70	0.00	0.00
66.00		17.96	239.70	0.00	0.00
68.00		18.07	239.70	0.00	0.00
70.00		18.18	239.70	0.00	0.00
72.00		18.29	239.70	0.00	0.00
74.00		18.40	239.70	0.00	0.00
76.00		18.50	239.70	0.00	0.00
78.00		18.60	239.70	0.00	0.00
80.00		18.70	239.70	0.00	0.00
82.00		18.80	239.70	0.00	0.00
84.00		18.89	239.70	0.00	0.00
86.00		18.99	239.70	0.00	0.00
88.00		19.08	239.70	0.00	0.00
90.00		19.17	239.70	0.00	0.00
92.00		19.26	239.70	0.00	0.00

Total Applied Force Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 41

94.00		19.35	239.70	0.00	0.00
96.00		19.43	239.70	0.00	0.00
98.00		19.52	239.70	0.00	0.00
100.00		19.60	239.70	0.00	0.00
102.00		19.68	239.70	0.00	0.00
104.00		19.76	239.70	0.00	0.00
106.00		19.84	239.70	0.00	0.00
108.00		19.92	239.70	0.00	0.00
110.00	(1) attachments	20.00	347.19	0.00	0.00
112.00		33.46	262.65	0.00	0.00
114.00		33.58	262.65	0.00	0.00
116.00		33.71	262.65	0.00	0.00
118.00		33.83	262.65	0.00	0.00
120.00	(1) attachments	33.95	477.62	0.00	0.00
121.00		17.00	91.56	0.00	0.00
122.00		17.03	91.56	0.00	0.00
124.00		34.18	183.11	0.00	0.00
126.00		34.30	183.11	0.00	0.00
128.00	(15) attachments	34.41	507.11	0.00	0.00
130.00	(1) attachments	34.52	385.60	0.00	0.00
132.00		34.63	116.33	0.00	0.00
134.00	(6) attachments	34.74	291.53	0.00	0.00
136.00		34.85	91.37	0.00	0.00
138.00		34.96	91.37	0.00	0.00
140.00	(1) attachments	35.07	306.34	0.00	0.00
142.00		35.17	91.37	0.00	0.00
144.00		35.28	91.37	0.00	0.00
146.00		35.38	91.37	0.00	0.00
147.00	(9) attachments	17.71	228.99	0.00	0.00
148.00		17.74	39.27	0.00	0.00
150.00	(1) attachments	35.58	186.02	0.00	0.00
	Totals:	1,745.95	19,570.09	0.00	0.00

Calculated Forces

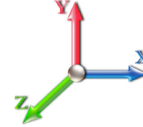
Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 35

Dead Load Factor 1.00
Wind Load 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	-19.57	-1.75	0.00	-157.94	0.00	157.94	1490.10	475.94	99948.2	1339.68	0.00	0.000	0.000	0.131
2.00	-19.23	-1.73	0.00	-154.44	0.00	154.44	1490.10	475.94	99948.2	1339.68	0.00	-0.013	0.000	0.128
4.00	-18.90	-1.72	0.00	-150.98	0.00	150.98	1490.10	475.94	99948.2	1339.68	0.01	-0.026	0.000	0.125
6.00	-18.56	-1.70	0.00	-147.54	0.00	147.54	1490.10	475.94	99948.2	1339.68	0.03	-0.039	0.000	0.123
8.00	-18.22	-1.68	0.00	-144.14	0.00	144.14	1490.10	475.94	99948.2	1339.68	0.04	-0.052	0.000	0.120
10.00	-17.89	-1.67	0.00	-140.77	0.00	140.77	1490.10	475.94	99948.2	1339.68	0.07	-0.064	0.000	0.117
12.00	-17.55	-1.65	0.00	-137.43	0.00	137.43	1490.10	475.94	99948.2	1339.68	0.10	-0.076	0.000	0.114
14.00	-17.22	-1.64	0.00	-134.13	0.00	134.13	1490.10	475.94	99948.2	1339.68	0.13	-0.087	0.000	0.112
16.00	-16.88	-1.62	0.00	-130.86	0.00	130.86	1490.10	475.94	99948.2	1339.68	0.17	-0.099	0.000	0.109
18.00	-16.54	-1.60	0.00	-127.63	0.00	127.63	1490.10	475.94	99948.2	1339.68	0.21	-0.110	0.000	0.106
20.00	-16.21	-1.58	0.00	-124.43	0.00	124.43	1490.10	475.94	99948.2	1339.68	0.26	-0.120	0.000	0.104
20.00	-16.21	-1.58	0.00	-124.43	0.00	124.43	1311.06	395.78	69116.5	948.43	0.26	-0.120	0.000	0.144
22.00	-15.92	-1.57	0.00	-121.26	0.00	121.26	1311.06	395.78	69116.5	948.43	0.32	-0.131	0.000	0.140
24.00	-15.63	-1.55	0.00	-118.13	0.00	118.13	1311.06	395.78	69116.5	948.43	0.37	-0.149	0.000	0.136
26.00	-15.34	-1.54	0.00	-115.03	0.00	115.03	1311.06	395.78	69116.5	948.43	0.44	-0.166	0.000	0.133
28.00	-15.05	-1.52	0.00	-111.95	0.00	111.95	1311.06	395.78	69116.5	948.43	0.51	-0.183	0.000	0.130
30.00	-14.77	-1.51	0.00	-108.90	0.00	108.90	1311.06	395.78	69116.5	948.43	0.59	-0.199	0.000	0.126
32.00	-14.48	-1.49	0.00	-105.89	0.00	105.89	1311.06	395.78	69116.5	948.43	0.68	-0.215	0.000	0.123
34.00	-14.19	-1.47	0.00	-102.91	0.00	102.91	1311.06	395.78	69116.5	948.43	0.77	-0.231	0.000	0.119
36.00	-13.90	-1.46	0.00	-99.96	0.00	99.96	1311.06	395.78	69116.5	948.43	0.87	-0.246	0.000	0.116
38.00	-13.61	-1.44	0.00	-97.05	0.00	97.05	1311.06	395.78	69116.5	948.43	0.98	-0.260	0.000	0.113
40.00	-13.33	-1.42	0.00	-94.17	0.00	94.17	1311.06	395.78	69116.5	948.43	1.09	-0.274	0.000	0.109
42.00	-13.04	-1.40	0.00	-91.33	0.00	91.33	1311.06	395.78	69116.5	948.43	1.21	-0.288	0.000	0.106
44.00	-12.75	-1.38	0.00	-88.53	0.00	88.53	1311.06	395.78	69116.5	948.43	1.33	-0.302	0.000	0.103
46.00	-12.46	-1.36	0.00	-85.76	0.00	85.76	1311.06	395.78	69116.5	948.43	1.46	-0.315	0.000	0.100
48.00	-12.17	-1.34	0.00	-83.04	0.00	83.04	1311.06	395.78	69116.5	948.43	1.60	-0.327	0.000	0.097
50.00	-11.89	-1.32	0.00	-80.35	0.00	80.35	1311.06	395.78	69116.5	948.43	1.74	-0.339	0.000	0.094
50.00	-11.89	-1.32	0.00	-80.35	0.00	80.35	1052.07	315.62	43955.0	624.04	1.74	-0.339	0.000	0.140
52.00	-11.65	-1.31	0.00	-77.71	0.00	77.71	1052.07	315.62	43955.0	624.04	1.88	-0.351	0.000	0.136
54.00	-11.41	-1.29	0.00	-75.09	0.00	75.09	1052.07	315.62	43955.0	624.04	2.03	-0.373	0.000	0.131
56.00	-11.17	-1.28	0.00	-72.51	0.00	72.51	1052.07	315.62	43955.0	624.04	2.19	-0.395	0.000	0.127
58.00	-10.93	-1.26	0.00	-69.95	0.00	69.95	1052.07	315.62	43955.0	624.04	2.36	-0.416	0.000	0.122
60.00	-10.69	-1.25	0.00	-67.43	0.00	67.43	1052.07	315.62	43955.0	624.04	2.54	-0.436	0.000	0.118
62.00	-10.45	-1.23	0.00	-64.93	0.00	64.93	1052.07	315.62	43955.0	624.04	2.73	-0.455	0.000	0.114
64.00	-10.21	-1.21	0.00	-62.47	0.00	62.47	1052.07	315.62	43955.0	624.04	2.92	-0.474	0.000	0.110
66.00	-9.97	-1.20	0.00	-60.04	0.00	60.04	1052.07	315.62	43955.0	624.04	3.13	-0.492	0.000	0.106
68.00	-9.73	-1.18	0.00	-57.64	0.00	57.64	1052.07	315.62	43955.0	624.04	3.34	-0.509	0.000	0.102
70.00	-9.49	-1.16	0.00	-55.28	0.00	55.28	1052.07	315.62	43955.0	624.04	3.55	-0.526	0.000	0.098
72.00	-9.25	-1.14	0.00	-52.96	0.00	52.96	1052.07	315.62	43955.0	624.04	3.78	-0.541	0.000	0.094
74.00	-9.01	-1.13	0.00	-50.67	0.00	50.67	1052.07	315.62	43955.0	624.04	4.01	-0.557	0.000	0.090
76.00	-8.77	-1.11	0.00	-48.42	0.00	48.42	1052.07	315.62	43955.0	624.04	4.24	-0.571	0.000	0.086
78.00	-8.53	-1.09	0.00	-46.20	0.00	46.20	1052.07	315.62	43955.0	624.04	4.48	-0.585	0.000	0.082
80.00	-8.29	-1.07	0.00	-44.02	0.00	44.02	1052.07	315.62	43955.0	624.04	4.73	-0.598	0.000	0.078
80.00	-8.29	-1.07	0.00	-44.02	0.00	44.02	1052.07	315.62	43955.0	624.04	4.73	-0.598	0.000	0.078
82.00	-8.05	-1.05	0.00	-41.89	0.00	41.89	1052.07	315.62	43955.0	624.04	4.99	-0.611	0.000	0.075
84.00	-7.81	-1.03	0.00	-39.79	0.00	39.79	1052.07	315.62	43955.0	624.04	5.24	-0.623	0.000	0.071
86.00	-7.57	-1.01	0.00	-37.73	0.00	37.73	1052.07	315.62	43955.0	624.04	5.51	-0.634	0.000	0.068
88.00	-7.33	-0.99	0.00	-35.71	0.00	35.71	1052.07	315.62	43955.0	624.04	5.78	-0.645	0.000	0.064

Calculated Forces

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020
Site Name: North Stonington 2 CT	Exposure: C	
Height: 150.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 43

90.00	-7.09	-0.97	0.00	-33.73	0.00	33.73	1052.07	315.62	43955.0	624.04	6.05	-0.655	0.000	0.061
92.00	-6.85	-0.95	0.00	-31.79	0.00	31.79	1052.07	315.62	43955.0	624.04	6.32	-0.665	0.000	0.057
94.00	-6.61	-0.93	0.00	-29.90	0.00	29.90	1052.07	315.62	43955.0	624.04	6.60	-0.674	0.000	0.054
96.00	-6.37	-0.91	0.00	-28.04	0.00	28.04	1052.07	315.62	43955.0	624.04	6.89	-0.682	0.000	0.051
98.00	-6.13	-0.88	0.00	-26.23	0.00	26.23	1052.07	315.62	43955.0	624.04	7.18	-0.690	0.000	0.048
100.00	-5.89	-0.86	0.00	-24.46	0.00	24.46	1052.07	315.62	43955.0	624.04	7.47	-0.698	0.000	0.045
102.00	-5.65	-0.84	0.00	-22.74	0.00	22.74	1052.07	315.62	43955.0	624.04	7.76	-0.704	0.000	0.042
104.00	-5.41	-0.82	0.00	-21.06	0.00	21.06	1052.07	315.62	43955.0	624.04	8.06	-0.711	0.000	0.039
106.00	-5.17	-0.80	0.00	-19.43	0.00	19.43	1052.07	315.62	43955.0	624.04	8.36	-0.717	0.000	0.036
108.00	-4.93	-0.77	0.00	-17.83	0.00	17.83	1052.07	315.62	43955.0	624.04	8.66	-0.722	0.000	0.033
110.00	-4.59	-0.75	0.00	-16.29	0.00	16.29	1052.07	315.62	43955.0	624.04	8.96	-0.727	0.000	0.030
110.00	-4.59	-0.75	0.00	-16.29	0.00	16.29	759.47	227.84	14937.6	114.57	8.96	-0.727	0.000	0.148
112.00	-4.32	-0.72	0.00	-14.79	0.00	14.79	759.47	227.84	14937.6	114.57	9.27	-0.732	0.000	0.135
114.00	-4.06	-0.69	0.00	-13.36	0.00	13.36	759.47	227.84	14937.6	114.57	9.59	-0.833	0.000	0.122
116.00	-3.80	-0.65	0.00	-11.98	0.00	11.98	759.47	227.84	14937.6	114.57	9.96	-0.924	0.000	0.110
118.00	-3.53	-0.62	0.00	-10.68	0.00	10.68	759.47	227.84	14937.6	114.57	10.37	-1.006	0.000	0.098
120.00	-3.06	-0.58	0.00	-9.44	0.00	9.44	759.47	227.84	14937.6	114.57	10.80	-1.078	0.000	0.023
120.00	-3.06	-0.58	0.00	-9.44	0.00	9.44	317.71	95.31	3734.62	52.28	10.80	-1.078	0.000	0.025
121.00	-2.97	-0.56	0.00	-8.86	0.00	8.86	317.71	95.31	3734.62	52.28	11.03	-1.086	0.000	0.028
121.00	-2.97	-0.56	0.00	-8.86	0.00	8.86	317.71	95.31	3734.62	52.28	11.03	-1.086	0.000	0.028
122.00	-2.87	-0.55	0.00	-8.29	0.00	8.29	317.71	95.31	3734.62	52.28	11.26	-1.095	0.000	0.168
124.00	-2.69	-0.51	0.00	-7.20	0.00	7.20	317.71	95.31	3734.62	52.28	11.74	-1.204	0.000	0.146
126.00	-2.51	-0.48	0.00	-6.18	0.00	6.18	317.71	95.31	3734.62	52.28	12.27	-1.298	0.000	0.126
128.00	-2.00	-0.43	0.00	-5.22	0.00	5.22	317.71	95.31	3734.62	52.28	12.83	-1.379	0.000	0.106
130.00	-1.62	-0.39	0.00	-4.35	0.00	4.35	317.71	95.31	3734.62	52.28	13.42	-1.446	0.000	0.088
130.00	-1.62	-0.39	0.00	-4.35	0.00	4.35	317.71	95.31	3734.62	52.28	13.42	-1.446	0.000	0.088
132.00	-1.50	-0.36	0.00	-3.56	0.00	3.56	317.71	95.31	3734.62	52.28	14.04	-1.502	0.000	0.073
134.00	-1.21	-0.31	0.00	-2.85	0.00	2.85	317.71	95.31	3734.62	52.28	14.68	-1.547	0.000	0.058
136.00	-1.12	-0.28	0.00	-2.22	0.00	2.22	317.71	95.31	3734.62	52.28	15.33	-1.583	0.000	0.046
138.00	-1.03	-0.24	0.00	-1.67	0.00	1.67	317.71	95.31	3734.62	52.28	16.00	-1.611	0.000	0.035
140.00	-0.72	-0.20	0.00	-1.18	0.00	1.18	317.71	95.31	3734.62	52.28	16.68	-1.631	0.000	0.025
140.00	-0.72	-0.20	0.00	-1.18	0.00	1.18	317.71	95.31	3734.62	52.28	16.68	-1.631	0.000	0.025
142.00	-0.63	-0.16	0.00	-0.79	0.00	0.79	317.71	95.31	3734.62	52.28	17.37	-1.645	0.000	0.017
144.00	-0.54	-0.12	0.00	-0.47	0.00	0.47	317.71	95.31	3734.62	52.28	18.06	-1.653	0.000	0.011
146.00	-0.45	-0.08	0.00	-0.23	0.00	0.23	317.71	95.31	3734.62	52.28	18.75	-1.658	0.000	0.006
147.00	-0.22	-0.06	0.00	-0.14	0.00	0.14	317.71	95.31	3734.62	52.28	19.10	-1.660	0.000	0.003
148.00	-0.18	-0.04	0.00	-0.08	0.00	0.08	317.71	95.31	3734.62	52.28	19.45	-1.660	0.000	0.002
150.00	0.00	-0.04	0.00	0.00	0.00	0.00	317.71	95.31	3734.62	52.28	20.14	-1.661	0.000	0.000

Final Analysis Summary

Structure: CT01493-S-SBA	Code: EIA/TIA-222-H	10/30/2020	
Site Name: North Stonington 2 CT	Exposure: C		
Height: 150.00 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 44



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 + 1.0W 129 mph Wind	9.5	0.00	23.48	0.00	0.00	868.31
0.9D + 1.0W 129 mph Wind	9.5	0.00	17.61	0.00	0.00	853.16
1.2D + 1.0Di + 1.0Wi 50 mph Wind	4.2	0.00	29.94	0.00	0.00	412.95
1.2D + 1.0Ev + 1.0Eh	0.3	0.00	24.26	0.00	0.00	31.37
0.9D + 1.0Ev + 1.0Eh	0.3	0.00	18.34	0.00	0.00	30.83
1.0D + 1.0W 60 mph Wind	1.7	0.00	19.57	0.00	0.00	157.94

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 + 1.0W 129 mph Wind	-3.15	-3.02	0.00	-45.86	0.00	-45.86	317.71	95.31	3734.62	52.28	122.00	0.888
0.9D + 1.0W 129 mph Wind	-2.30	-2.92	0.00	-44.18	0.00	-44.18	317.71	95.31	3734.62	52.28	122.00	0.853
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-6.03	-1.68	0.00	-28.78	0.00	-28.78	317.71	95.31	3734.62	52.28	122.00	0.570
1.2D + 1.0Ev + 1.0Eh	-20.10	-0.28	0.00	-25.90	0.00	-25.90	1490.10	475.94	99948.2	1339.68	20.00	0.043
0.9D + 1.0Ev + 1.0Eh	-15.19	-0.27	0.00	-25.38	0.00	-25.38	1490.10	475.94	99948.2	1339.68	20.00	0.038
1.0D + 1.0W 60 mph Wind	-2.87	-0.55	0.00	-8.29	0.00	-8.29	317.71	95.31	3734.62	52.28	122.00	0.168

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
120.0	121.0	(3) PLT-5/8"x6"STFNR	261.4	0.78	25.3	46.1	25.3	2	2	49.4	25.3	2	2	49.41	121.1	121.50	0.408



Monopole Mat Foundation Design

Date
10/30/2020

Customer Name:	T-Mobile	EIA/TIA Standard:	EIA-222-H
Site Name:	North Stonington 2 CT	Structure Height (Ft.):	150
Site Number:	CT01493-S-SBA	Engineer Name:	S. Hesselbeir
Engr. Number:	99154	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	23.5	Shear Force (Kips):	9.5
Uplift Force (Kips):	0.0	Moment (Kips-ft):	868.3

Allowable overstress %: 5.0%

Foundation Geometries:

Diameter of Pier (ft.):	4.5	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	0.50	Depth of Base BG (ft.):	5.0
Length of Pad (ft.):	13.5	Thickness of Pad (ft.):	2.50
Final Length of pad (ft)	13.5	Width of Pad (ft.):	13.5
Final Length of pad (ft)	13.5	Final width of pad (ft):	13.5

Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	7	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	24	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:

Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17
---------------------------	----	---------------------------	----

Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17
---------------------------	----	---------------------------	----

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

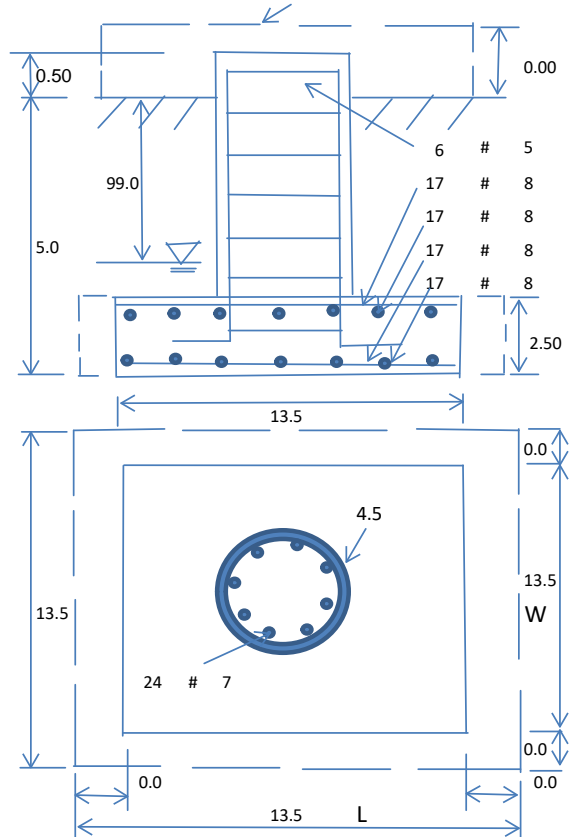
Soil Unit Weight (pcf):	135.0	Soil Buoyant Weight:	50.0	Pcf	Angle from Top of Pad:	30
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Bottm of Pad:	25
Ultimate Bearing Pressure (psf):	30000	Ultimate Skin Friction:	225	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	Yes	Consider Friction for bearing (Y/N):	No		Reduction factor on the maximum soil bearing pressure:	1.00
Consider soil hor. resist. for OTM.:	Yes					

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	415.86	Total Dry Soil Weight (Kips):	56.14
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	56.14	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	503.34	Total Dry Concrete Weight (Kips):	75.50
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	75.50	Total Vertical Load on Base (Kips):	155.14

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	4617	< Allowable Factored Soil Bearing (psf):	22500	0.21	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	1035.2	> Design Factored Momont (kips-ft):	866	0.84	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.20				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):	0.60	Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	1475.8	> Design Factored Moment (Mu, Kips-F	896.8	0.61	OK!
Calculated Shear Capacity (Kips):	322.1	> Design Factored Shear (Kips):	9.5	0.03	OK!
Calculated Tension Capacity (Tn, Kips):	777.6	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	3017.7	> Design Factored Axial Load (Pu Kips):	23.5	0.01	OK!
Moment & Axial Strength Combination:	0.61	OK! Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.006	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	352.7	> One-Way Factored Shear (L-D. Kips):	71.3	0.20	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	352.7	> One-Way Factored Shear (W-D., Kips)	71.3	0.20	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	265.8	> One-Way Factored Shear (C-C, Kips):	71.2	0.27	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0031	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0031		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	1542.6	> Moment at Bottom (L-Dir. K-Ft):	220.8	0.14	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	1542.6	> Moment at Bottom (W-Dir. K-Ft):	220.8	0.14	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	2155.8	> Moment at Bottom (C-C Dir. K-Ft):	312.3	0.14	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0031	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0031		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1542.6	> Moment at the top (L-Dir K-Ft):	90.4	0.06	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1542.6	> Moment at the top (W-Dir K-Ft):	90.4	0.06	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	2155.8	> Moment at the top (C-C Dir. K-Ft):	92.5	0.04	OK!

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

Moment transferred by punching shear:	347.3	k-ft.	Max. factored shear stress $v_{u,CD}$:	2.4	Psi
Max. factored shear stress $v_{u,AB}$:	7.7	Psi	Factored shear Strength ϕv_n :	164.3	Psi
Max. factored shear stress v_u :	7.7	Psi	Check Usage of Punching Shear Capacity:	0.05	OK!

EXHIBIT 8



Tower Engineering Solutions

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

Antenna Mount Analysis Report

Existing 150-ft Flagpole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT01493-S-SBA

Customer Site Name: North Stonington 2 CT

Carrier Name: T-Mobile (App#: 116559, V1)

Carrier Site ID / Name: CT11310A / Stonington II

Site Location: 811 Stonington Road

Stonington, Connecticut

New London County

Latitude: 41.353417

Longitude: -71.887000

Exp.
01/31/2020



Analysis Result:

Max Structural Usage: 3.5% [Pass]

07/29/2019

Report Prepared By: Khaibar Noorzad

Introduction

The purpose of this report is to summarize the analysis results on the Flush Mount Inside Canister at 137.00' elevation to support the proposed antenna configuration. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Mount Drawings	Mount info in the Construction Drawing; Provided by Chappell Engineering Associates, LLC
Antenna Loading	Provided by SBA; Application #: 116559, v1
Modification Drawings	N/A

Analysis Criteria

Wind Speed Used in the Analysis: $V_{ULT} = 140$ mph (3-Sec. Gust) / Equivalent to
 $V_{ASD} = 108$ mph (3-Sec. Gust)

Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent

Operational Wind Speed: 60 mph +0" Radial ice

Standard/Codes: ANSI/TIA 222-G/2015 IBC/2018 CSBC

Exposure Category: C

Structure Class: II

Topographic Category: 1

Crest Height (Ft): 0

The site is a Risk Category II structure per table 1604.5 of the IBC. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

Flush Mount Inside Canister at 137.00' elevation

Final Antenna Configuration

3 RFS APXVAR18_43-C-NA20

3 RFS ATMAA1412D-A1A20

Any proposed antennas not currently installed should be mounted such that the centers of the antennas do not exceed 0.5 ft vertically from the center of the Flush Mount Inside Canister.

Analysis Results

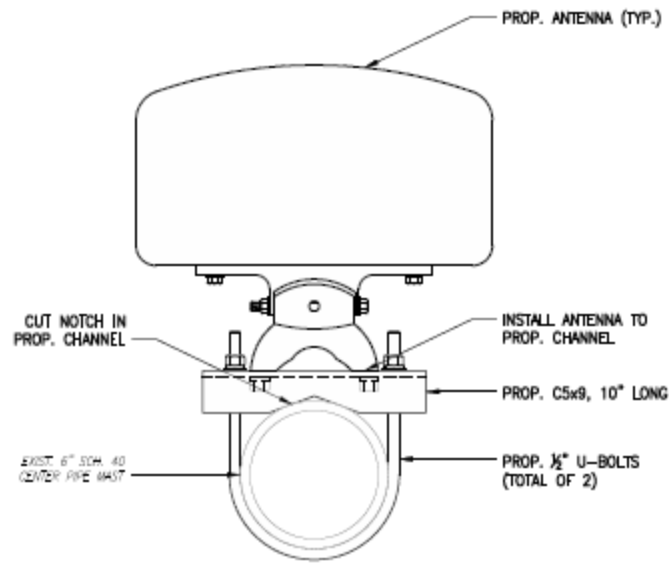
Our calculations have determined that under design wind load the connection to the mast pipes will be structurally adequate to support the proposed antenna configuration. The maximum structural usage is 3.5%, which occurs in the connection between antenna bracket and mast pipe. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report. **All the proposed equipment was considered to be flush mounted to the mast pipe inside the canister. Therefore, no ice or wind loads were considered in this analysis. The analysis results in the report are solely based on the properties and capacity of the U-bolts clamped around the mast pipe.**

Attachments

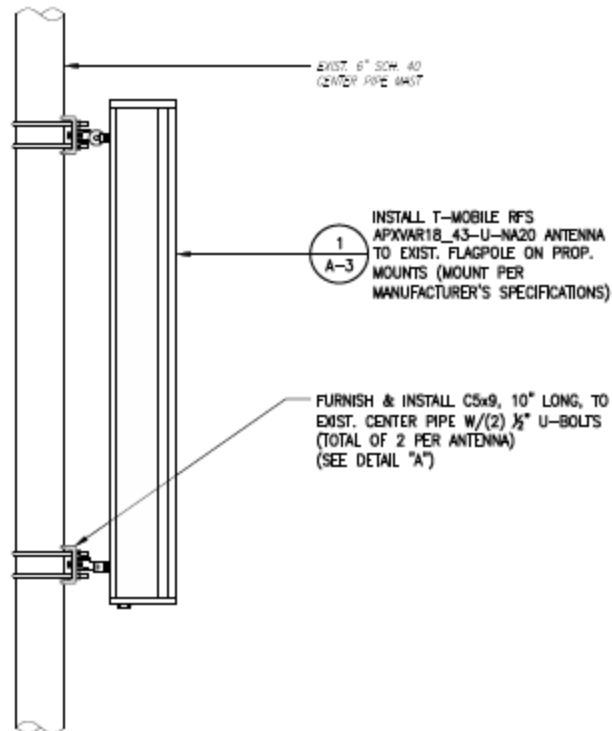
1. Mount Assembly Drawing
2. Antenna Placement Diagram

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.
2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.
3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.
4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.
5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.
6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.
7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.
8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.
9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.



DETAIL "A"
 SCALE: 3" = 1'-0"



Structure: CT01493-S-SBA - North Stonington 2 CT

Sector: A

7/3/2019

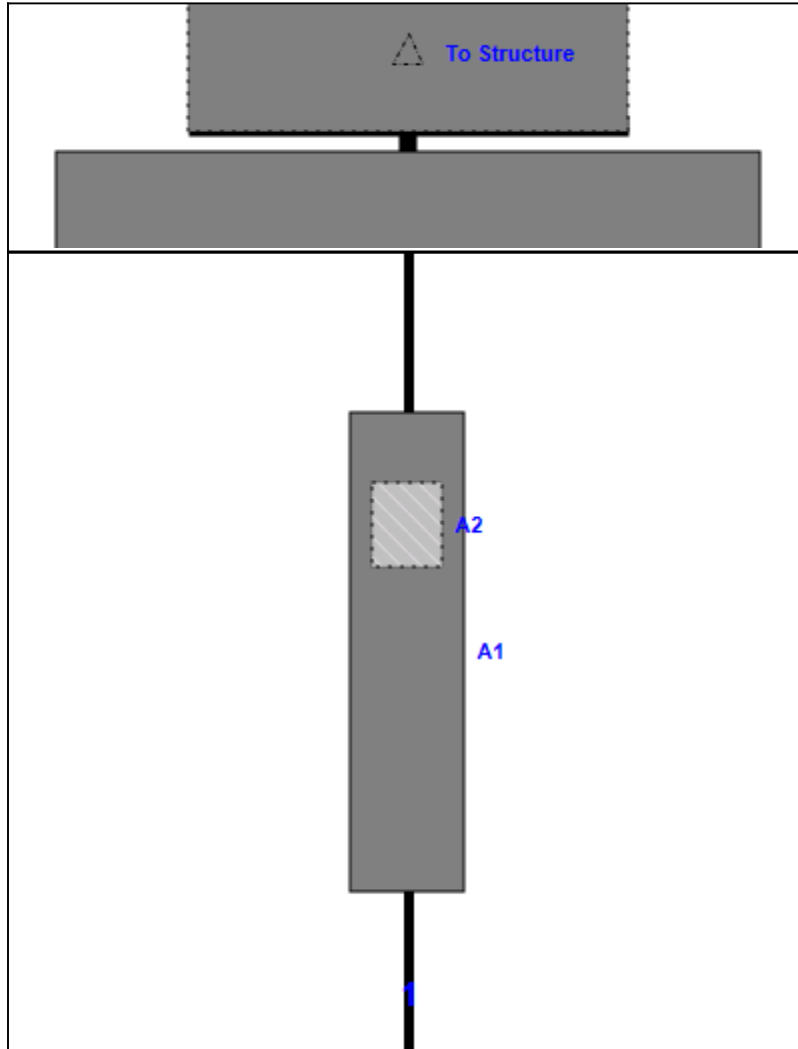
Structure Type: Monopole

Mount Elev: 137.00

Page: 1



Plan View



Front View

Looking Toward Structure

Ref #	Model	Height (in)	Width (in)	H Dist From Left	Pipe #	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
A1	APXVAR18_43-C-NA20	68.00	16.00	5.00	1	a	Front	60.00	0.00
A2	ATMAA1412D-A1A20	12.00	10.00	5.00	1	a	Behind	42.00	0.00

Structure: CT01493-S-SBA - North Stonington 2 CT

Sector: B

7/3/2019

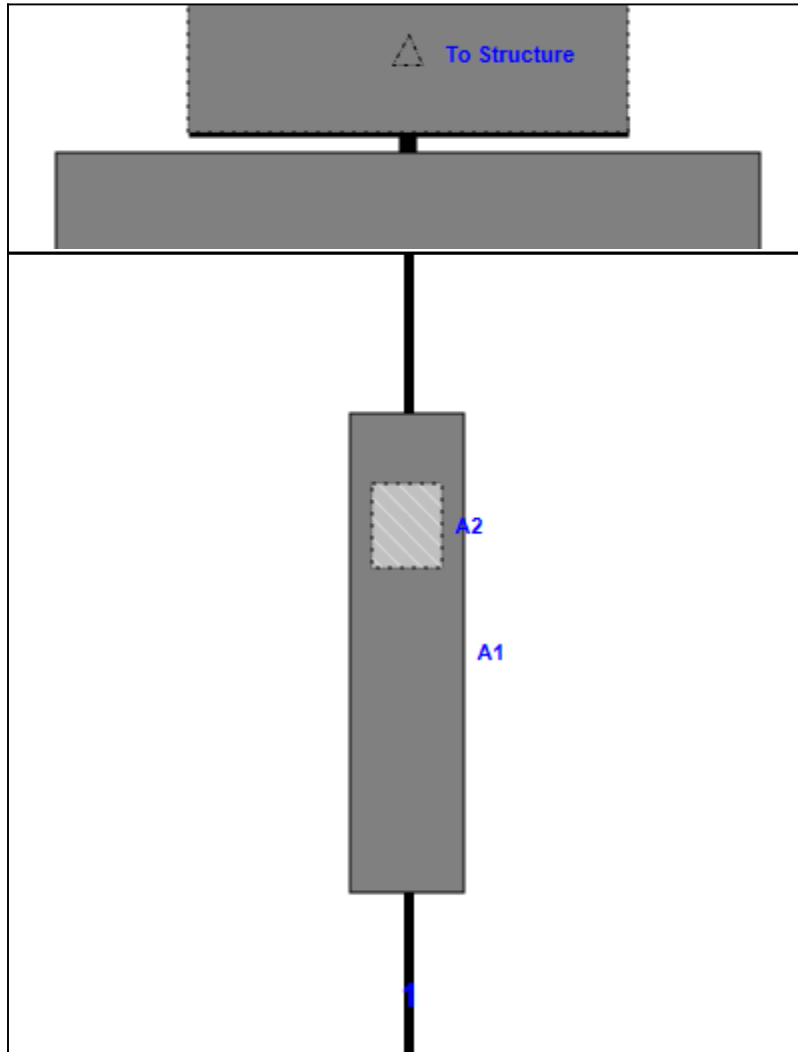
Structure Type: Monopole

Mount Elev: 137.00

Page: 2



Plan View



Front View

Looking Toward Structure

Ref #	Model	Height (in)	Width (in)	H Dist From Left	Pipe #	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
A1	APXVAR18_43-C-NA20	68.00	16.00	5.00	1	a	Front	60.00	0.00
A2	ATMAA1412D-A1A20	12.00	10.00	5.00	1	a	Behind	42.00	0.00

Structure: CT01493-S-SBA - North Stonington 2 CT

Sector: C

7/3/2019

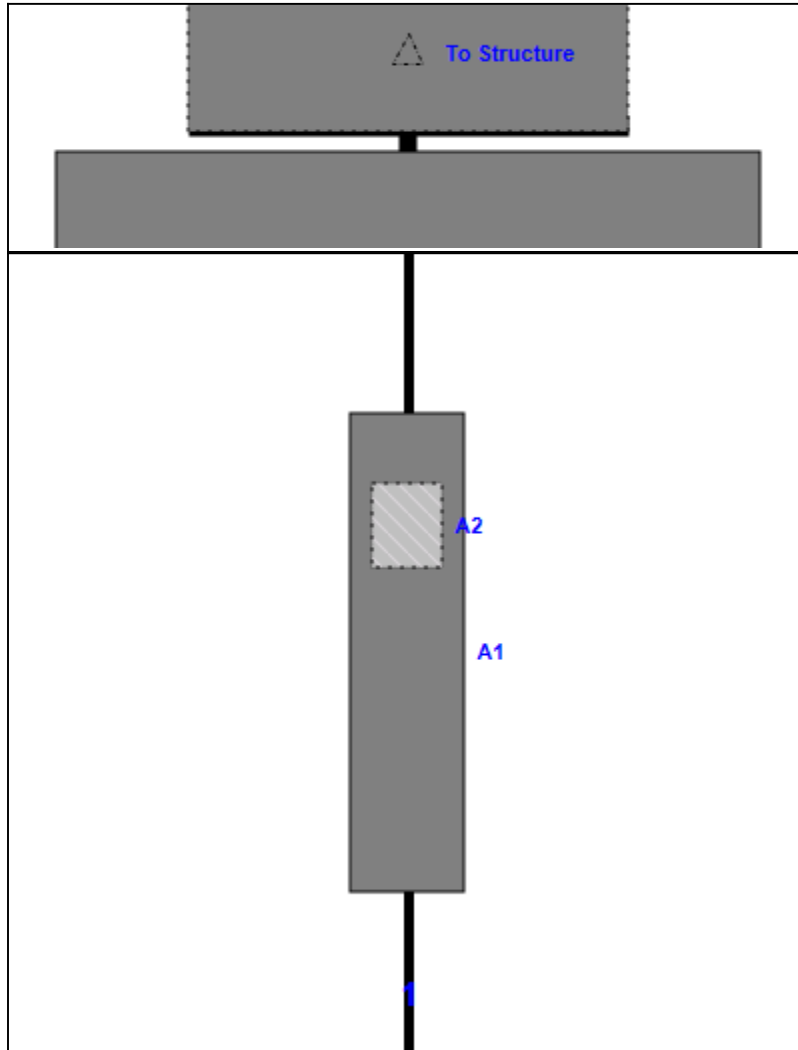
Structure Type: Monopole

Mount Elev: 137.00

Page: 3



Plan View



Front View
Looking Toward Structure

Ref #	Model	Height (in)	Width (in)	H Dist From Left	Pipe #	Pipe Pos V	Antenna Pos	Center Ant From Top	Antenna H Offset
A1	APXVAR18_43-C-NA20	68.00	16.00	5.00	1	a	Front	60.00	0.00
A2	ATMAA1412D-A1A20	12.00	10.00	5.00	1	a	Behind	42.00	0.00

EXHIBIT 9

Transcom Engineering, Inc.

Wireless Network Design and Deployment

Radio Frequency Emissions Analysis Report

T-MOBILE Existing Facility

Site ID: CT11310A

SBA Stonington
811 Stonington Road
Stonington, CT 06379

May 28, 2019

Transcom Engineering Project Number: 737001-0064

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	7.43 %

Transcom Engineering, Inc.

Wireless Network Design and Deployment

May 28, 2019

T-MOBILE

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

Emissions Analysis for Site: **CT11310A – SBA Stonington**

Transcom Engineering, Inc (“Transcom”) was directed to analyze the proposed upgrades to the T-MOBILE facility located at **811 Stonington Road, Stonington, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

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

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

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

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

Transcom Engineering, Inc.

Wireless Network Design and Deployment

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.

Transcom Engineering, Inc.

Wireless Network Design and Deployment

CALCULATIONS

Calculations were performed for the proposed upgrades to the T-MOBILE antenna facility located at **811 Stonington Road, Stonington, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-MOBILE is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

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

Table 1: Channel Data Table

Transcom Engineering, Inc.

Wireless Network Design and Deployment

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

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXVAR18_43-C-NA20	134
B	1	RFS APXVAR18_43-C-NA20	134
C	1	RFS APXVAR18_43-C-NA20	134

Table 2: Antenna Data

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

Cable losses were factored in the calculations for this site. Since all radios are ground mounted the following cable loss values were used. For each ground mounted **600 MHz** radio there was **0.82 dB** of cable loss calculated into the system gains / losses for this site. For each ground mounted **700 MHz** radio there was **0.90 dB** of cable loss calculated into the system gains / losses for this site. For each ground mounted **1900 MHz (PCS)** radio there was **1.65 dB** of cable loss calculated into the system gains / losses for this site. For each ground mounted **2100 MHz (AWS)** radio there was **1.70 dB** of cable loss calculated into the system gains / losses for this site. These values were calculated based upon the manufacturers specifications for **160 feet of 1-5/8"** coax.

Transcom Engineering, Inc.

Wireless Network Design and Deployment

RESULTS

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

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXVAR18_43-C-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.85 / 17.15 / 12.85 / 13.55	8	295	7,668.68	2.29
Sector A Composite MPE%							2.29
Antenna B1	RFS APXVAR18_43-C-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.85 / 17.15 / 12.85 / 13.55	8	295	7,668.68	2.29
Sector B Composite MPE%							2.29
Antenna C1	RFS APXVAR18_43-C-NA20	1900 MHz (PCS) / 2100 MHz (AWS) / 600 MHz / 700 MHz	15.85 / 17.15 / 12.85 / 13.55	8	295	7,668.68	2.29
Sector C Composite MPE%							2.29

Table 3: T-MOBILE Emissions Levels

Transcom Engineering, Inc.

Wireless Network Design and Deployment

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

Site Composite MPE%	
Carrier	MPE%
T-MOBILE – Max Per Sector Value	2.29 %
Sprint	2.72 %
MetroPCS	0.40 %
AT&T	2.02 %
Site Total MPE %:	7.43 %

Table 4: All Carrier MPE Contributions

T-MOBILE Sector A Total:	2.29 %
T-MOBILE Sector B Total:	2.29 %
T-MOBILE Sector C Total:	2.29 %
Site Total:	7.43 %

Table 5: Site MPE Summary

Transcom Engineering, Inc.

Wireless Network Design and Deployment

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

T-MOBILE _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile 1900 MHz (PCS) UMTS	1	1,052.11	134	2.31	1900 MHz (PCS)	1000	0.23%
T-Mobile 1900 MHz (PCS) GSM	1	394.54	134	0.87	1900 MHz (PCS)	1000	0.09%
T-Mobile 2100 MHz (AWS) LTE	2	2,104.51	134	9.24	2100 MHz (AWS)	1000	0.92%
T-Mobile 600 MHz LTE / 5G NR	2	638.35	134	2.80	600 MHz	400	0.70%
T-Mobile 700 MHz LTE	2	368.15	134	1.62	700 MHz	467	0.35%
						Total:	2.29%

Table 6: T-MOBILE Maximum Sector MPE Power Values

Transcom Engineering, Inc.

Wireless Network Design and Deployment

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:	2.29 %
Sector B:	2.29 %
Sector C:	2.29 %
T-MOBILE Maximum Total (per sector):	2.29 %
Site Total:	7.43 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **7.43 %** 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.



Scott Heffernan
RF Engineering Director
Transcom Engineering, Inc
PO Box 1048
Sterling, MA 01564