



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

March 12, 2021

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

**Notice of Exempt Modification**  
**2577 Main St., Glastonbury, CT 06033**  
**Latitude: 41.714389**  
**Longitude: -72.613028**  
**T-Mobile #: CT11786D\_Anchor**

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 93-foot level of the existing 130-foot Self Support Tower at 2577 Main St., Glastonbury, CT. The tower is owned by SBA 2012 TC Assets, LLC. The property is owned by Saints Isidore and Maria Parish Corp. T-Mobile intends to remove three (3) 2100 MHz antennas and replace with three (3) new 2500 MHz antennas. The total amount of antennas will remain at nine (9).

The new antennas would support 5G services and would be installed at the 93-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:

- (3) Ericsson AIR21 B2A/B4P 2100 MHz antenna (remove) - (3) Ericsson AIR6449 B41 2500 MHz antennas (replace)

Install New:

- (3) Commscope SDX1926-Q-43 diplexers
- (3) Ericsson 4415 B25 RRUs

Existing Equipment to Remain:

- (3) Ericsson APXVAARR24\_43-U-NA20 600/700/1900/2100 MHz antenna
- (3) Ericsson AIR32 KRD901146-1\_B66A L1900 MHz antenna
- (3) Ericsson KRY 112 144/2 TMAs
- (3) Ericsson 4449 B71+B12 RRUs
- (3) T-Frames w/(3) 2" x-strong pie & SitePro1 SFS-V- Stabilizer Kit
- (6) 1-5/8" Coax
- (1) 1-5/8" Fiber

Entitlements:

- (4) 1-5/8" coax
- (1) 1-5/8" Fiber
- (2) 1-1/4" hybrid

GROUND

Install New:

- (1) 6160 Equipment cabinet
- (1) B160 Battery cabinet
- (4) 2" conduit

Existing Equipment to Remain:

- (1) 1/2" coax for GPS antenna
- (1) 6131 Equipment cabinet
- 25w DC Deisel generator
- 10' x 20' concrete pad

Remove:

- (1) Nortel Cabinet

Entitlements:

- N/A

At A public meeting held August 31, 1999, the Connecticut Siting Council (CSC) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore in compliance with General Statutes 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of the Tower. On July 18, 2000, the Tower was further approved by the Town of Glastonbury for Wetlands Regulated Activity for the replacement of a 130-foot tower located at 2577 Main St., Glastonbury, CT. 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 Glastonbury's Town Manager, Richard J. Johnson, the Town of Glastonbury's Building Official/Zoning Enforcement Officer, Peter R. Carey and property owner Saints Isidore and Maria Parish Corp. (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 with certain modifications.

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 x3804 + T  
508.366.2610 + F  
508.868.6000 + C  
[GShepherd@sbsite.com](mailto:GShepherd@sbsite.com)

Attachments



cc: Richard J. Johnson, Town Manager /with attachments  
*Town of Glastonbury, 2155 Main St., Glastonbury, CT., 06033*  
Peter R. Carey, Building Official/Zoning Enf. Officer /with attachments  
*Town of Glastonbury, 2155 Main St., Glastonbury, CT., 06033*  
Saints Isidore and Maria Parish Corp. /with attachments  
*2577 Main St., Glastonbury, CT 06033*

**EXHIBIT LIST**

Exhibit 1	Check Copy	To be invoiced at a later date per Covid 19 guidelines.
Exhibit 2	Notification Receipts	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Original Zoning Approval	CSC TS-NEXTEL-054-990805 9/3/99; Town of Glastonbury 7/18/00
Exhibit 6	Construction Drawings	Chappell Engineering 3/12/21
Exhibit 7	Structural Analysis	TES 2/10/21
Exhibit 8	Mount Analysis	Hudson Design Group, LL 2/1/21
Exhibit 9	EME Report	EBI Consulting 2/25/21

## 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

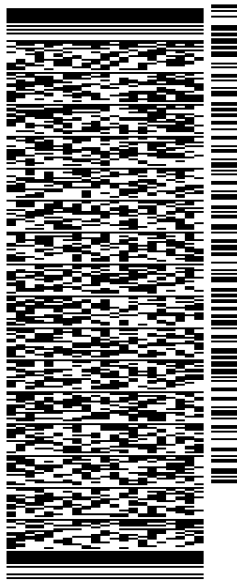
SHIP DATE: 12MAR21  
ACTWGT: 1.00 LB  
CAD: 105843304/NET14340

BILL SENDER

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

**NEW BRITAIN CT 06051**

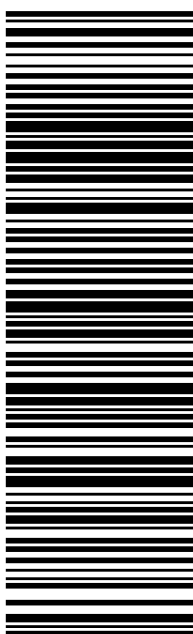
(508) 251-0720 X.3807 REF: 105692009-6089  
INV# DEPT:



J211121011901uv

TRK# 7731 4788 5100  
0201  
MON - 15 MAR 10:30A  
PRIORITY OVERNIGHT

**SEBDLA**  
CT:US **BDL**  
06051



56DJ3/AC39/FE4A

**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.

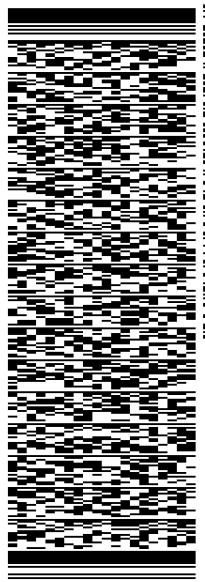
ORIGIN ID:BFBA (508) 614-0389  
RICK WOODS  
SBA COMMUNICATIONS CORPORATION  
134 FLANDERS RD  
SUITE 125  
WESTBOROUGH, MA 01581  
UNITED STATES US

SHIP DATE: 12MAR21  
ACTWGT: 1.00 LB  
CAD: 105843304/NET14340  
BILL SENDER

TO  
**RICHARD J. JOHNSON**  
**TOWN OF GLASTONBURY**  
**TOWN MANAGER**  
**2155 MAIN ST**  
**GLASTONBURY CT 06033**

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

56DJ3/AC39/FE4A



TRK# 7731 4791 4511  
0201  
MON - 15 MAR 10:30A  
PRIORITY OVERNIGHT

**SEBDLA**  
06033  
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.

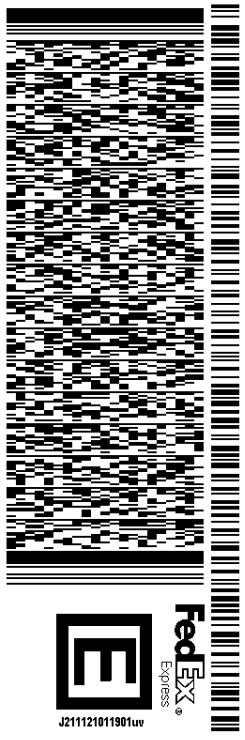


ORIGIN ID:BFBA (508) 614-0389  
RICK WOODS  
SBA COMMUNICATIONS CORPORATION  
134 FLANDERS RD  
SUITE 125  
WESTBOROUGH, MA 01581  
UNITED STATES US

SHIP DATE: 12MAR21  
ACTWGT: 1.00 LB  
CAD: 105843304/NET14340  
BILL SENDER

TO  
**PETER R. CAREY**  
**TOWN OF GLASTONBURY**  
**BUILDING OFFICIAL/ZONE ENF. OFFICER**  
**2155 MAIN ST**  
**GLASTONBURY CT 06033**  
(508) 251-0720 X.3807 REF: 10-56-92009-6089  
INV. PO. DEPT:

56DJ3/AC39/FE4A



TRK# 7731 4793 5108  
0201  
MON - 15 MAR 10:30A  
PRIORITY OVERNIGHT

**SEBDLA**  
06033  
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: 12MAR21  
ACTWGT: 1.00 LB  
CAD: 105843304/NET14340  
BILL SENDER

TO

**SAINT ISIDORE AND MARIA PARISH CORP**  
**2577 MAIN ST.**

**GLASTONBURY CT 06033**

(508) 251-0720 X 3807 REF: 1056-92009-6089  
INV. PO. DEPT.



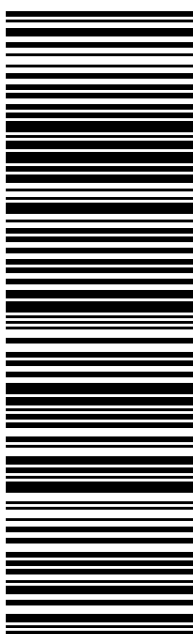
56DJ3/AC39/FE4A

TRK# 7731 4796 0532  
0201

MON - 15 MAR 10:30A  
PRIORITY OVERNIGHT

**SEBDLA**

06033  
BDL  
CT-US



**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

# 2577 MAIN ST

**Location** 2577 MAIN ST

**Mblu** D5/ 4140/ W00038A/ TWR/

**Acct#** 41402579

**Owner** SAINTS ISIDORE AND MARIA PARISH CORP

**Assessment** \$722,400

**Appraisal** \$1,032,000

**PID** 106188

**Building Count** 1

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$132,000	\$900,000	\$1,032,000

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$92,400	\$630,000	\$722,400

## Owner of Record

**Owner** SAINTS ISIDORE AND MARIA PARISH CORP  
**Co-Owner**  
**Address** 2577 MAIN ST  
GLASTONBURY, CT 06033-2023

**Sale Price** \$0  
**Certificate**  
**Book & Page** 3570/0272  
**Sale Date** 07/18/2019  
**Instrument** 63

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
ST PAULS ROMAN CATHOLIC CHURCH	\$0		2610/0239		08/01/2009

## Building Information

### Building 1 : Section 1

**Year Built:** 2014  
**Living Area:** 288  
**Replacement Cost:** \$7,618  
**Replacement Cost Less Depreciation:** \$72,000

**Building Attributes**

### Building Photo

 Building Photo  
(<http://images.vgsi.com/photos/GlastonburyCTPhotos/\A02\02\05\14.jpg>)

### Building Layout

Field	Description
STYLE	Support Shed
MODEL	Ind/Comm
Stories:	1
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Asphalt Shingl
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Solar Assisted
Heating Type	Hot Water
AC Type	None
Bldg Use	Cell Tower
Total Rooms	
Total Bedrms	
Total Baths	
1st Floor Use:	
Heat/AC	HEAT ONLY
Frame Type	MASONRY
Baths/Plumbing	NONE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	9
% Comn Wall	



([http://images.vgsi.com/photos/GlastonburyCTPhotos//Sketches/106188\\_1](http://images.vgsi.com/photos/GlastonburyCTPhotos//Sketches/106188_1))

Building Sub-Areas (sq ft)			
Code	Description	Gross Area	Living Area
BAS	First Floor	288	288
		288	288

### Extra Features

Extra Features	Legend
No Data for Extra Features	

### Land

#### Land Use

**Use Code** 350  
**Description** Cell Tower  
**Zone**  
**Category**

#### Land Line Valuation

**Size (Acres)** 0  
**Assessed Value** \$630,000  
**Appraised Value** \$900,000

## Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD4	Cell Shed			240 S.F.	\$60,000	1
FNC	FENCE	M	Metal	600 L.F.	\$0	1

## Valuation History

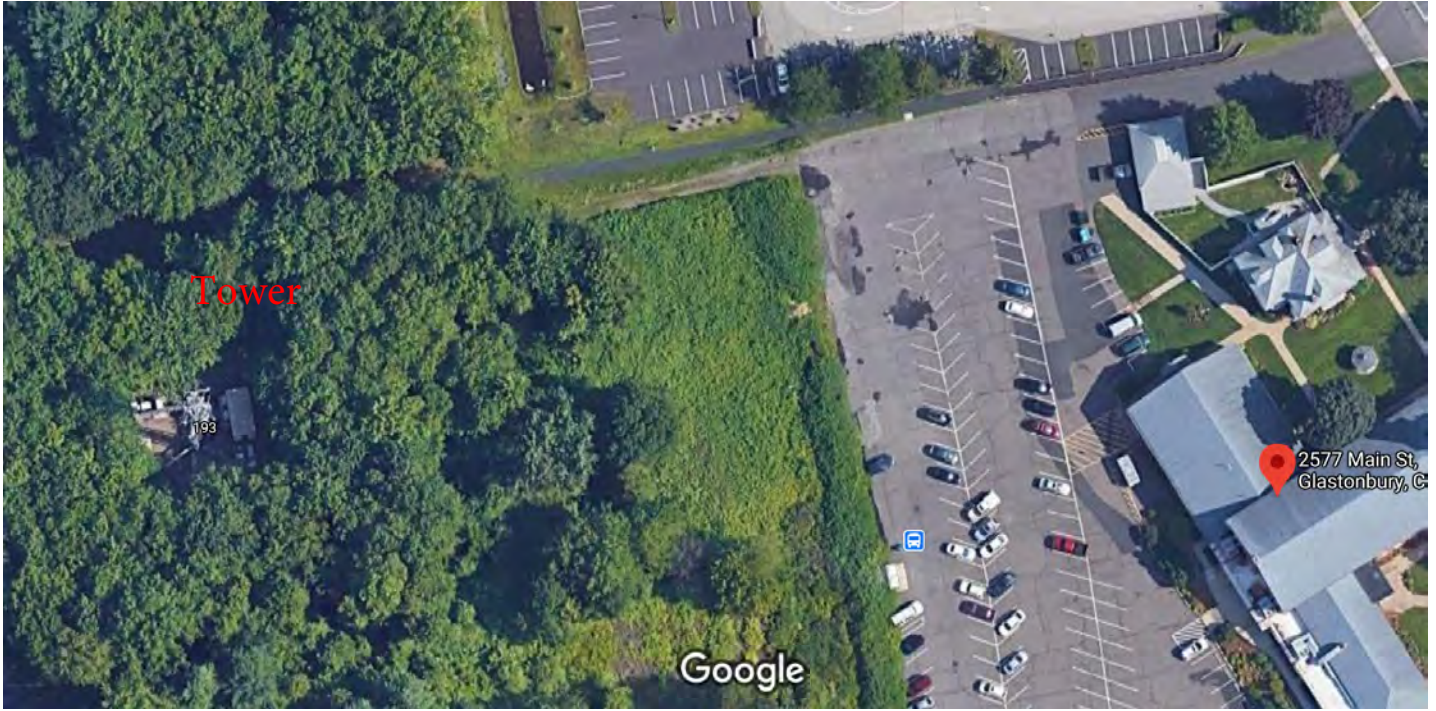
Appraisal			
Valuation Year	Improvements	Land	Total
4000	\$132,000	\$900,000	\$1,032,000

Assessment			
Valuation Year	Improvements	Land	Total
4000	\$92,400	\$630,000	\$722,400

(c) 2021 Vision Government Solutions, Inc. All rights reserved.

# EXHIBIT 4

Google Maps 2577 Main St



Imagery ©2021 Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2021 50 ft



# EXHIBIT 5



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square  
New Britain, Connecticut 06051  
Phone: (860) 827-2935  
Fax: (860) 827-2950

*Glastonbury -  
St Paul's R.C.C.*

September 3, 1999

Ronald C. Clark  
Manager Real Estate Operations  
Nextel Communications  
100 Corporate Park  
Rocky Hill, CT 06067

RE: TS-NEXTEL-054-990805 - Nextel Communications request for an order to approve tower sharing at a telecommunications tower to be replaced at the St. Paul's Roman Catholic Church on 2577 Main Street in Glastonbury, Connecticut.

Dear Mr. Clark:

At a public meeting held August 31, 1999, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures.

This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated August 4, 1999 and received by the Council on August 5, 1999. Please notify the Council when all work is complete.

Very truly yours,



Mortimer A. Gelston  
Chairman

MAG/RKE/sll

cc: Richard J. Johnson, Town Manager, Town of Glastonbury



# Town of Glastonbury

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CONNECTICUT 06033-6523

July 18, 2000

Attorney Anthony B. Gioffre III  
Cuddy & Feder & Worby LLP  
90 Maple Avenue  
White Plains, New York 10601-5196

RE: Approved Wetlands Regulated Activity at 2577 Main Street, Glastonbury, Connecticut

Dear Mr. Gioffre:

Pursuant to Section 4.(C).(2) of Public Act 96-157 you are hereby approved to conduct your activities of constructing a wireless telecommunications facility (including a 130' tower) within the wetlands' conservation buffer area at 2577 Main Street, as represented by the plans, reports and correspondence submitted to our office. This approval is contingent upon your responsibility:

1. to arrange and hold a preconstruction meeting at the site, with the site contractor, a Nextel representative and myself in attendance, in order to discuss the environmental safeguards to be taken during construction;
2. to stabilize the disturbed land areas with vegetation (e.g. grasses, legumes, herbaceous plants and shrubs) that provides conservation benefits regarding the adjacent wetlands;
3. to publish this approval (one time) in a newspaper that circulates in Glastonbury within 10 days of the date of this approval letter to you; and
4. to await a 15-day appeal period (15 days from the date of newspaper publication) before beginning the work within the buffer.

Failure to comply with these four requirements will automatically nullify this approval and conducting your activity would constitute a wetlands violation.

Attached for your consideration and potential use is a draft public notice advertisement that needs to be published once by you in a newspaper which circulates in Glastonbury.

Please call me at 652-7514 to advise me when the notice is to appear and in what newspaper, or if you have any questions.

Sincerely,

Tom Moeko, Environmental Planner

Enclosure

wctajap.wpd

**PUBLIC NOTICE  
TOWN OF GLASTONBURY, CT**

On July 18, 2000, the duly authorized agent of the Glastonbury Inland Wetlands and Watercourses Agency approved a wireless telecommunications facility, including a 130-foot replacement tower, within the wetlands' conservation buffer area at 2577 Main Street, west of St. Paul's Church.

Anthony B. Gioffre III, Legal Counsel

# EXHIBIT 6

..T-Mobile..

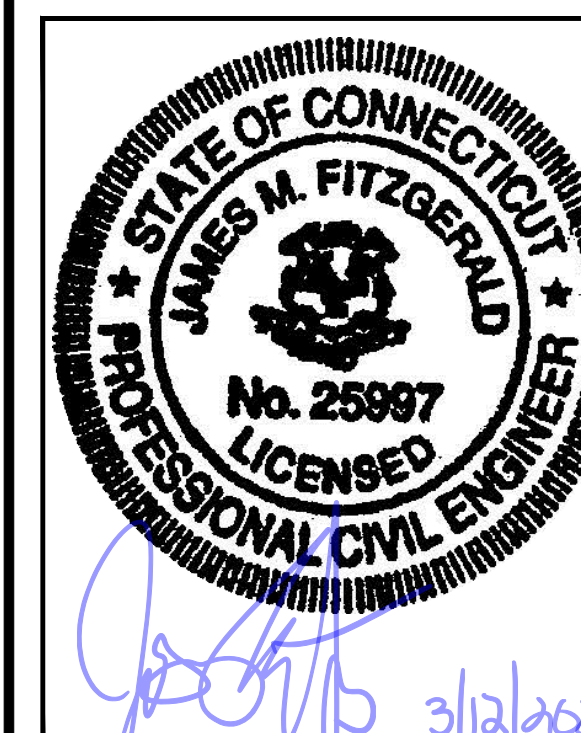
T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700



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	02/19/21	ISSUED FOR CONSTRUCTION	BJJ
0	11/21/20	ISSUED FOR REVIEW	BJJ

SITE NUMBER:  
**CT11786D**

SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**

# NEXTEL GLASTONBURY

2577 MAIN STREET  
GLASTONBURY, CT 06033

## SITE NO.: CT11786D

RF DESIGN GUIDELINE: 67D5A997DB OUTDOOR

### SITE NOTES

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

### 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

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

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



### VICINITY MAP: 1"=1000'



### DIRECTIONS

FROM COMMERCE WAY TRAVELING NE TOWARDS N BOUNDARY RD/S WASHINGTON ST, CONTINUE ONTO S. WASHINGTON ST TO TAKE A RIGHT ONTO MA-123 E, TURN LEFT TO MERGE ONTO I-495 N TOWARD MANSFIELD, MARLBORO, FOLLOW I-495 N, I-90 W AND I-84, TAKE EXIT 9 FOR I-84 TOWARD HARTFORD CT/NEW YORK CITY, STAY LEFT ON I-84, FOLLOW SIGNS FOR I-91N/HARTFORD, USE LEFT LANE TO TAKE EXIT 55 FOR CT-2 E TOWARD NORWICH, TAKE EXIT 6 FOR GRISWOLD ST, TURN RIGHT ONTO GRISWOLD ST, TURN LEFT ONTO MAIN ST 2577 MAIN ST WILL BE ON THE RIGHT

### SHEET INDEX

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

### 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.

### PROJECT SUMMARY

SITE NUMBER:	CT11786D
SITE NAME:	NEXTEL GLASTONBURY
SBA SITE NUMBER:	CT46126-A-02
SBA SITE NAME:	GLASTONBURY-MAIN STREET
SITE ADDRESS:	2577 MAIN STREET GLASTONBURY, CT 06033
ASSESSOR'S PARCEL NO.:	MAP 05 STREET 4140 LOT W0038A
ZONING DISTRICT:	PLANNED, BUSINESS AND DEVELOPMENT (PBD)
CONSTRUCTION TYPE:	ANCHOR UPGRADE
LAND OWNER:	SAINTS ISIDORE AND MARIA PARISH CORP. 2577 MAIN STREET GLASTONBURY, CT 06033-2023
TOWER OWNER:	SBA TOWERS, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
SBA RSM:	STEPHEN ROTH PHONE: 860-539-4920 EMAIL: SRoth@sbasite.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: 41.71442400° N41'42'51.93" LONGITUDE: -72.61314100° W72'36'47.31"

**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).

**GENERAL NOTES:**

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

**SITE WORK GENERAL NOTES:**

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

**CONCRETE AND REINFORCING STEEL NOTES:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST EARTH.....3 IN.  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 AND LARGER .....2 IN.  
#5 AND SMALLER & WWF .....1½ IN.  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
SLAB AND WALL .....¾ IN.  
BEAMS AND COLUMNS .....½ IN.
- A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (BC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:  
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.  
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.  
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

**STRUCTURAL STEEL NOTES:**

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

**SOIL COMPACTION NOTES FOR SLAB ON GRADE:**

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

**COMPACTION EQUIPMENT:**

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

**CONSTRUCTION NOTES:**

- FIELD VERIFICATION: SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- CABLE LADDER RACK: SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

**ELECTRICAL INSTALLATION NOTES:**

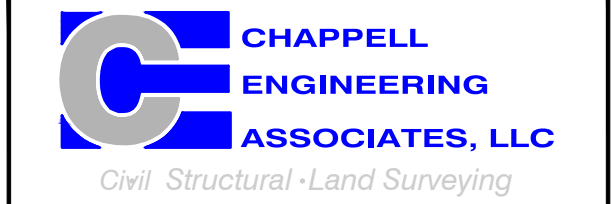
- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#8 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE AND NEC.
- CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PAINDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.



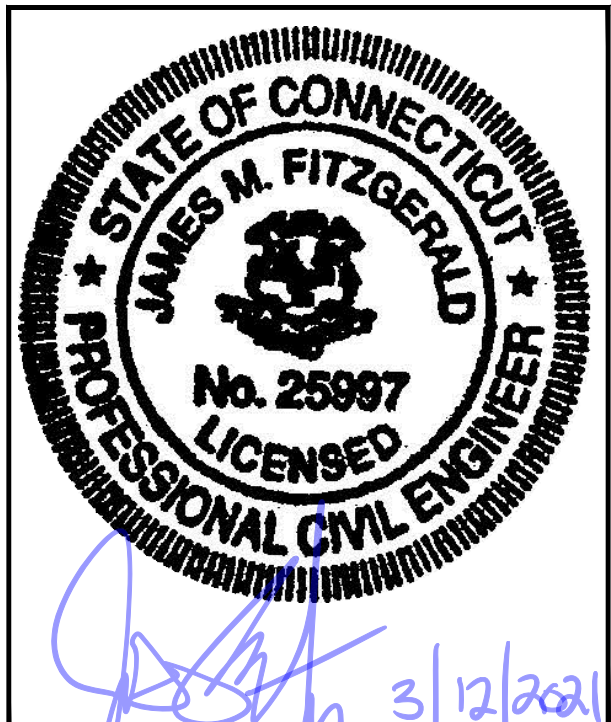
T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700



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	02/19/21	ISSUED FOR CONSTRUCTION	BJJ
0	11/21/20	ISSUED FOR REVIEW	BJJ

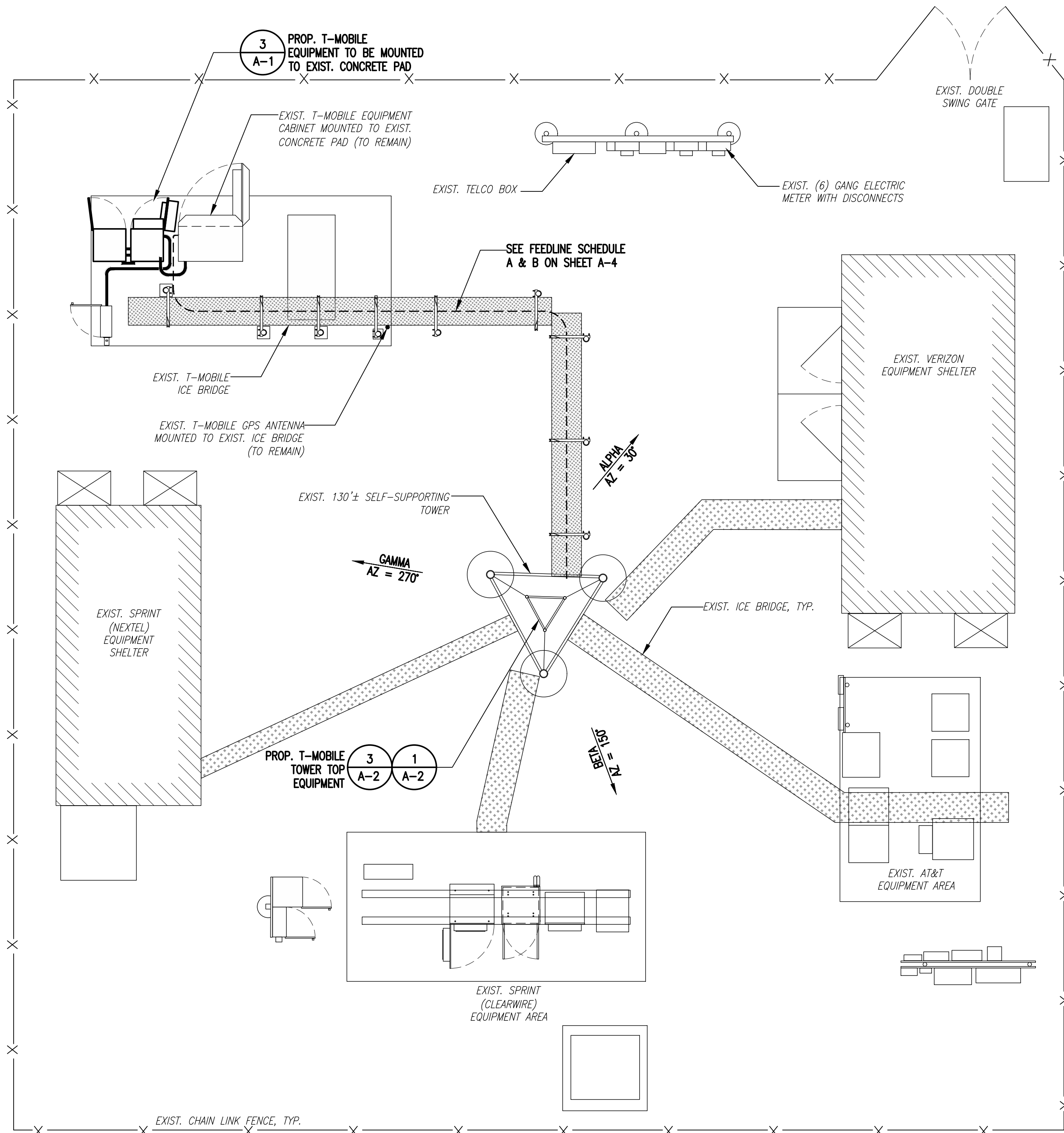
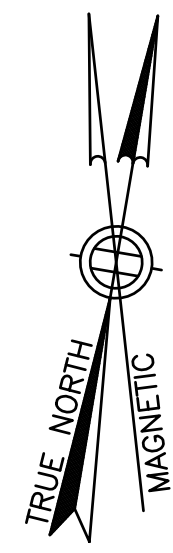
SITE NUMBER:  
**CT11786D**

SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

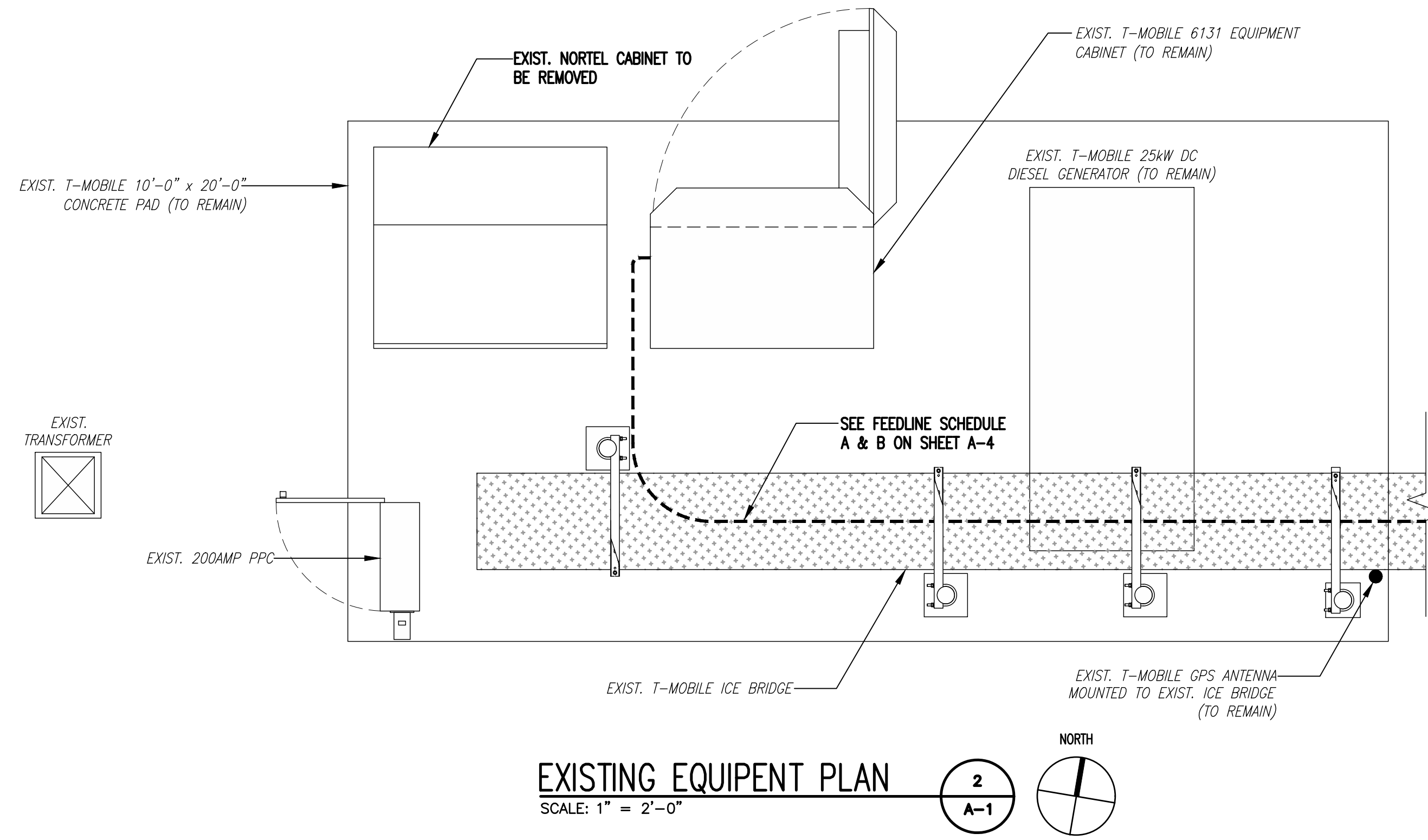
SHEET TITLE  
**GENERAL NOTES**

SHEET NUMBER  
**GN-1**

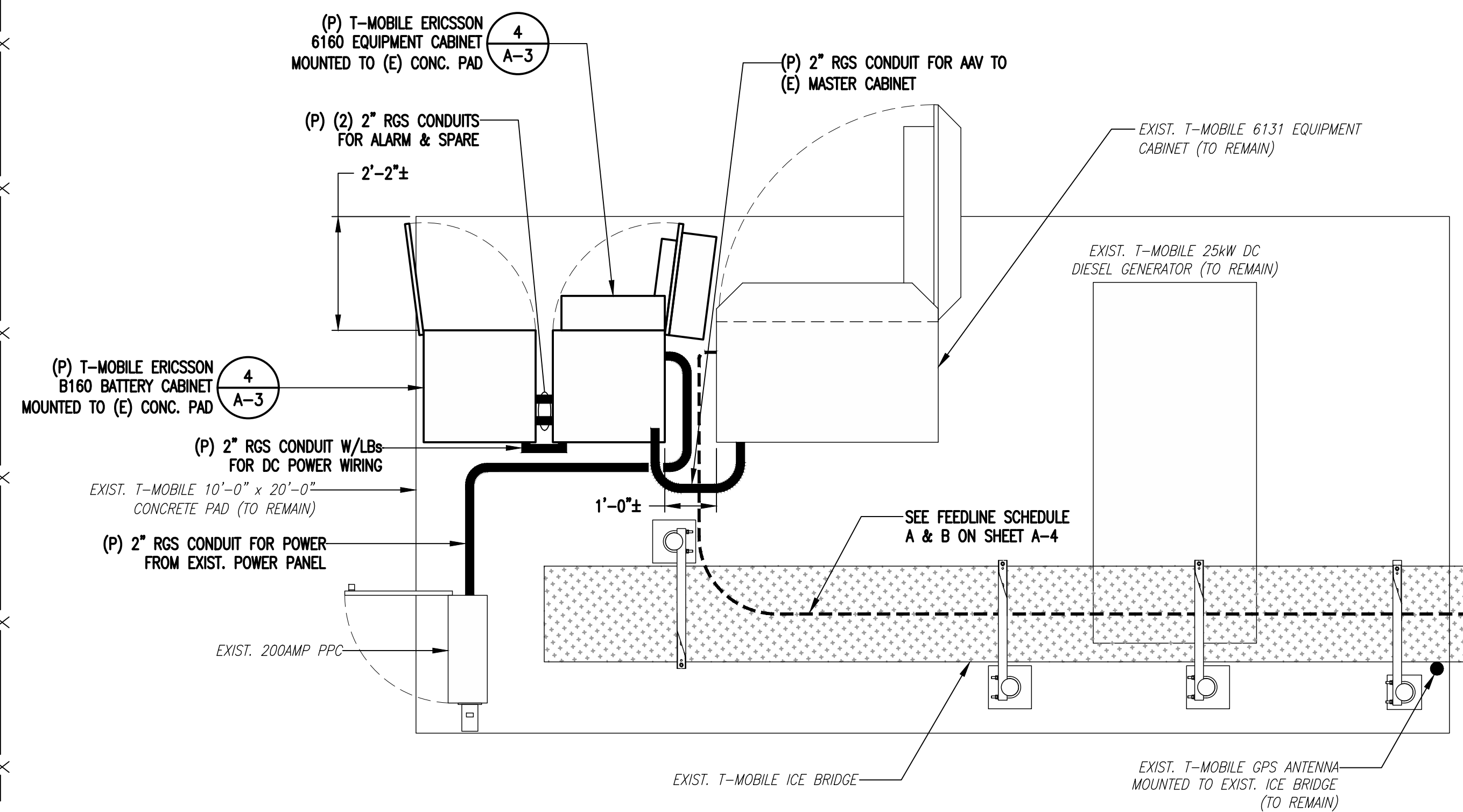
**SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):**  
 GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR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



**COMPOUND PLAN**  
 SCALE: 1" = 4'-0"  
 1  
 A-1



**EXISTING EQUIPMENT PLAN**  
 SCALE: 1" = 2'-0"  
 2  
 A-1



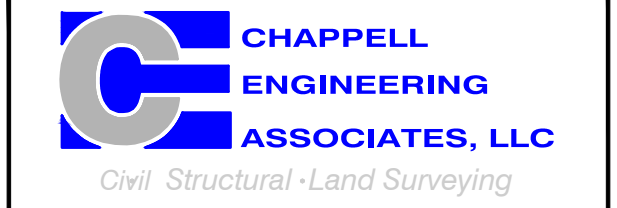
**PROPOSED EQUIPMENT PLAN**  
 SCALE: 1" = 2'-0"  
 3  
 A-1

..T..Mobile..

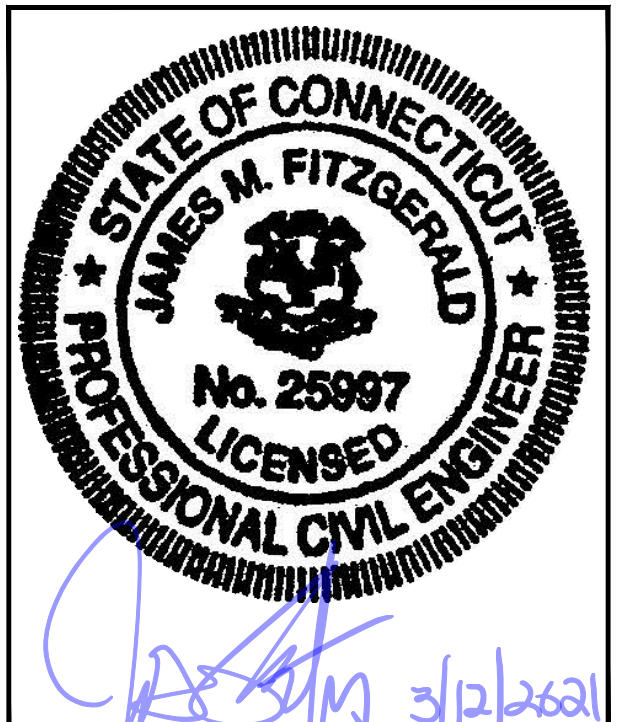
T-MOBILE NORTHEAST LLC  
 15 COMMERCE WAY, SUITE B  
 NORTON, MA 02766  
 OFFICE: (508) 286-2700



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	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:  
**CT11786D**  
 SITE ADDRESS:  
 2577 MAIN STREET  
 GLASTONBURY, CT 06033

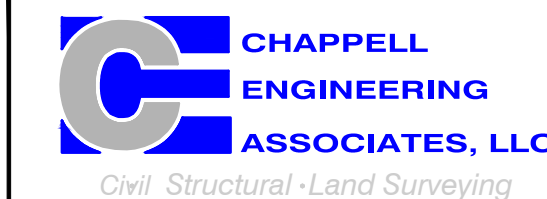
SHEET TITLE  
**COMPOUND PLAN & EQUIPMENT PLANS**

SHEET NUMBER  
**A-1**

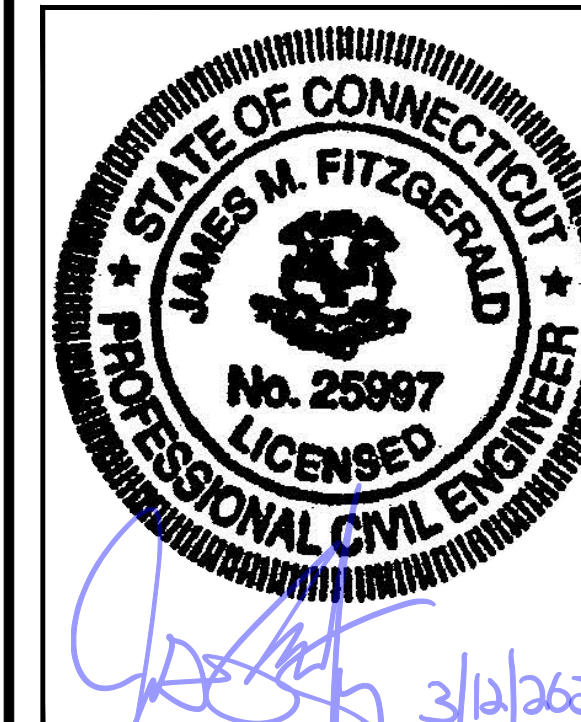




SBA COMMUNICATIONS CORP.  
134 FLANDERS ROAD, SUITE 125  
WESTBOROUGH, MA 01581  
(508) 251-0720



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	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:  
**CT11786D**

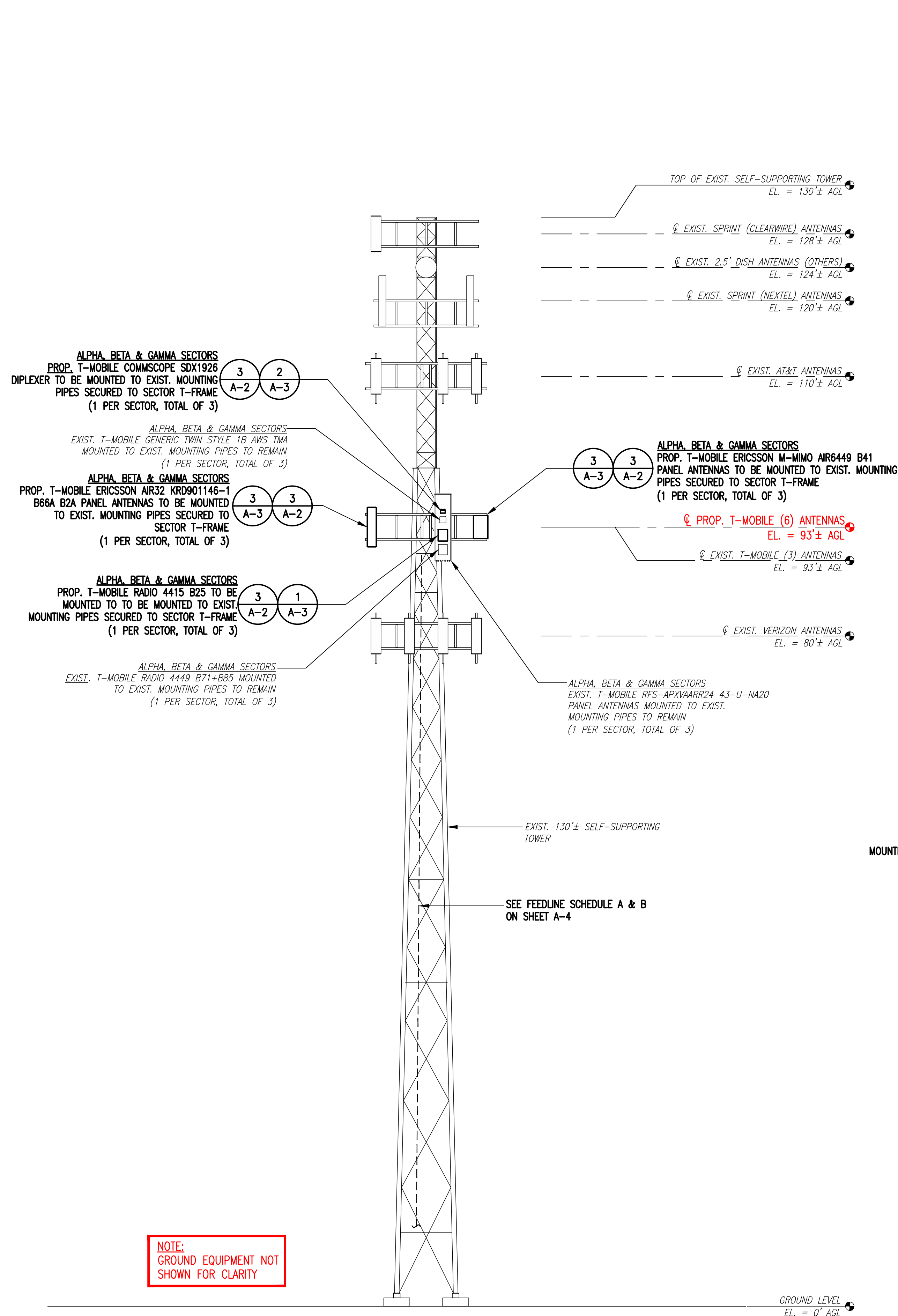
SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

SHEET TITLE

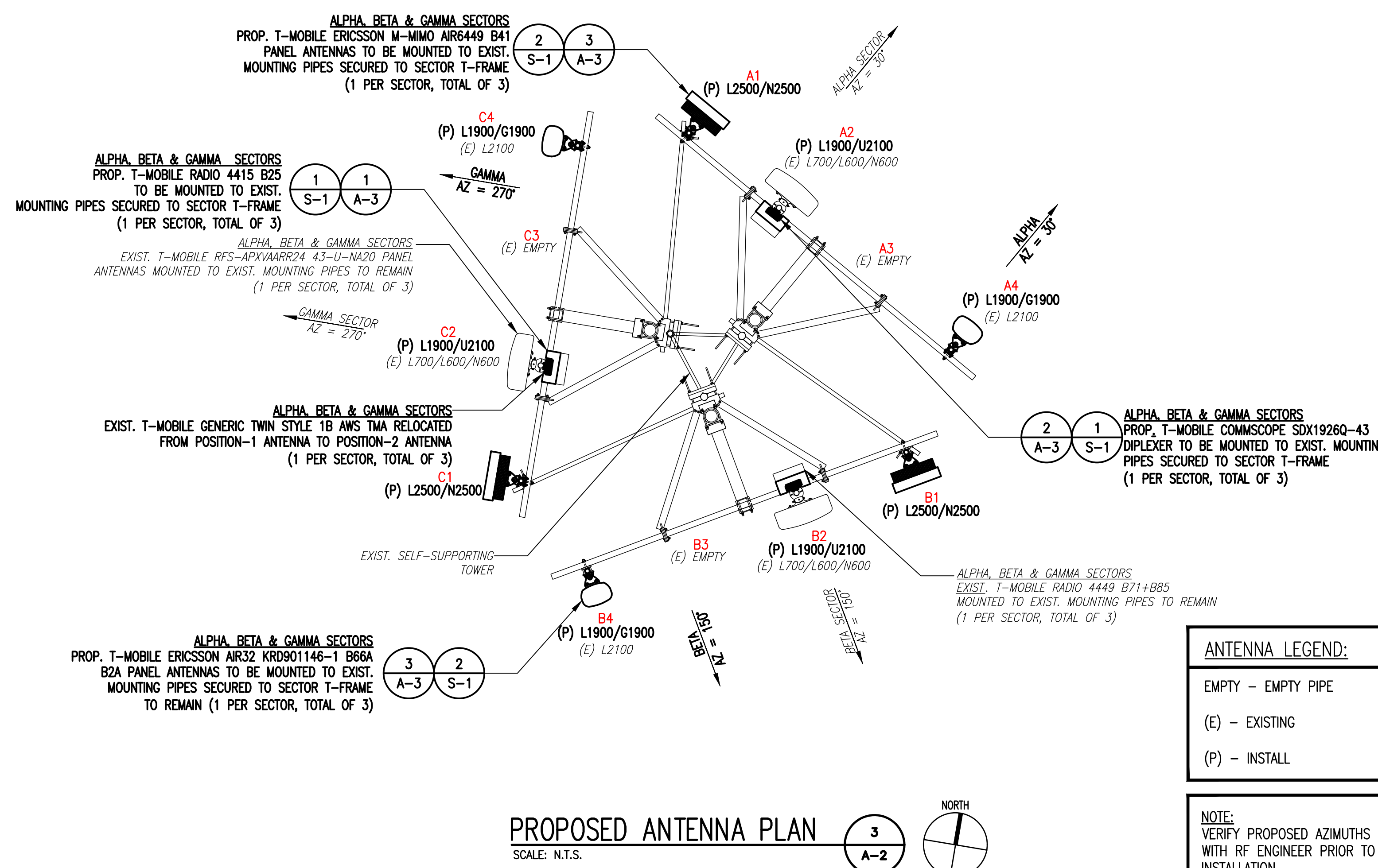
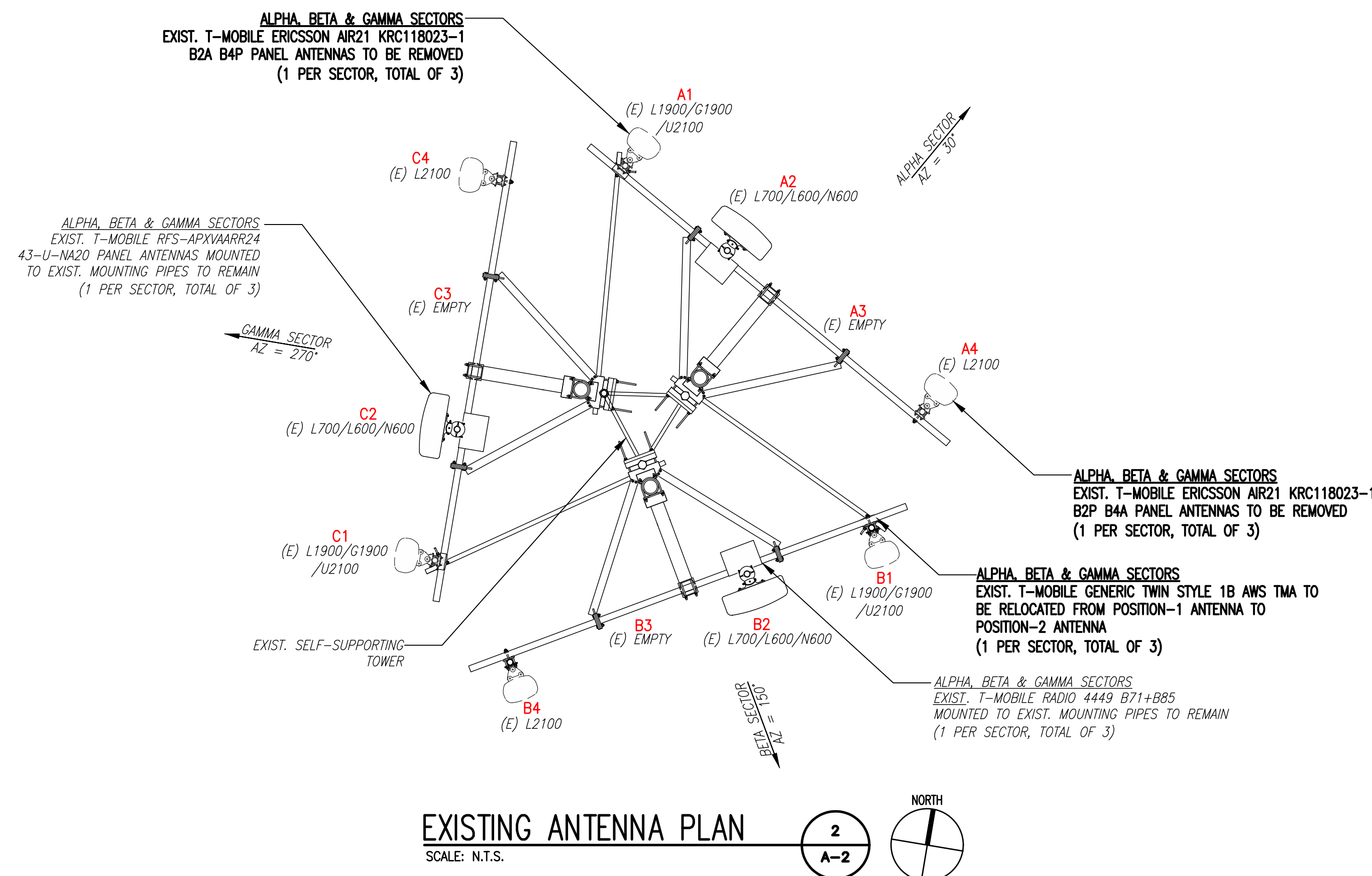
ELEVATION & ANTENNA PLANS

SHEET NUMBER

**A-2**



NOTE:  
GROUND EQUIPMENT NOT  
SHOWN FOR CLARITY



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

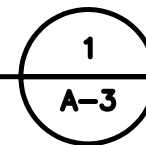
NOTE:  
VERIFY PROPOSED AZIMUTHS  
WITH RF ENGINEER PRIOR TO  
INSTALLATION.



**ERICSSON RRUS 4415 B25**  
 DIMENSIONS: 16.5"H x 13.4"W x 5.9"D  
 WEIGHT: 46 LBS  
 1 PER SECTOR, TOTAL OF 3

**RADIO DETAILS**

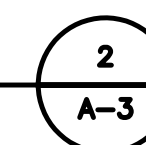
SCALE: N.T.S.



**COMMSCOPE DIPLEXER SDX19260 / E14F05P86**  
 DIMENSIONS: 4.173"H x 6.929"W x 2.913"D  
 WEIGHT: 6.173 LBS  
 1 PER SECTOR, TOTAL OF 3

**DIPLEXER DETAILS**

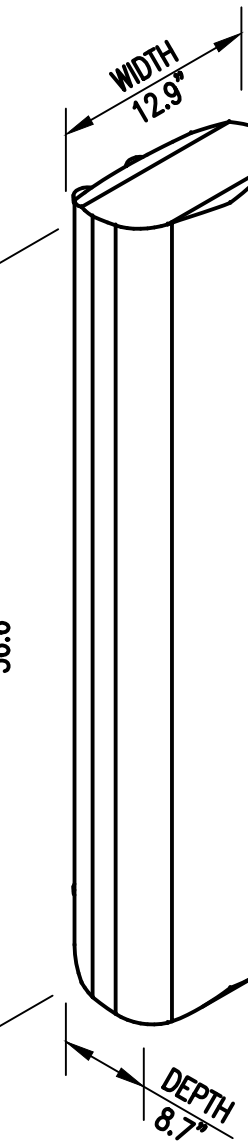
SCALE: N.T.S.



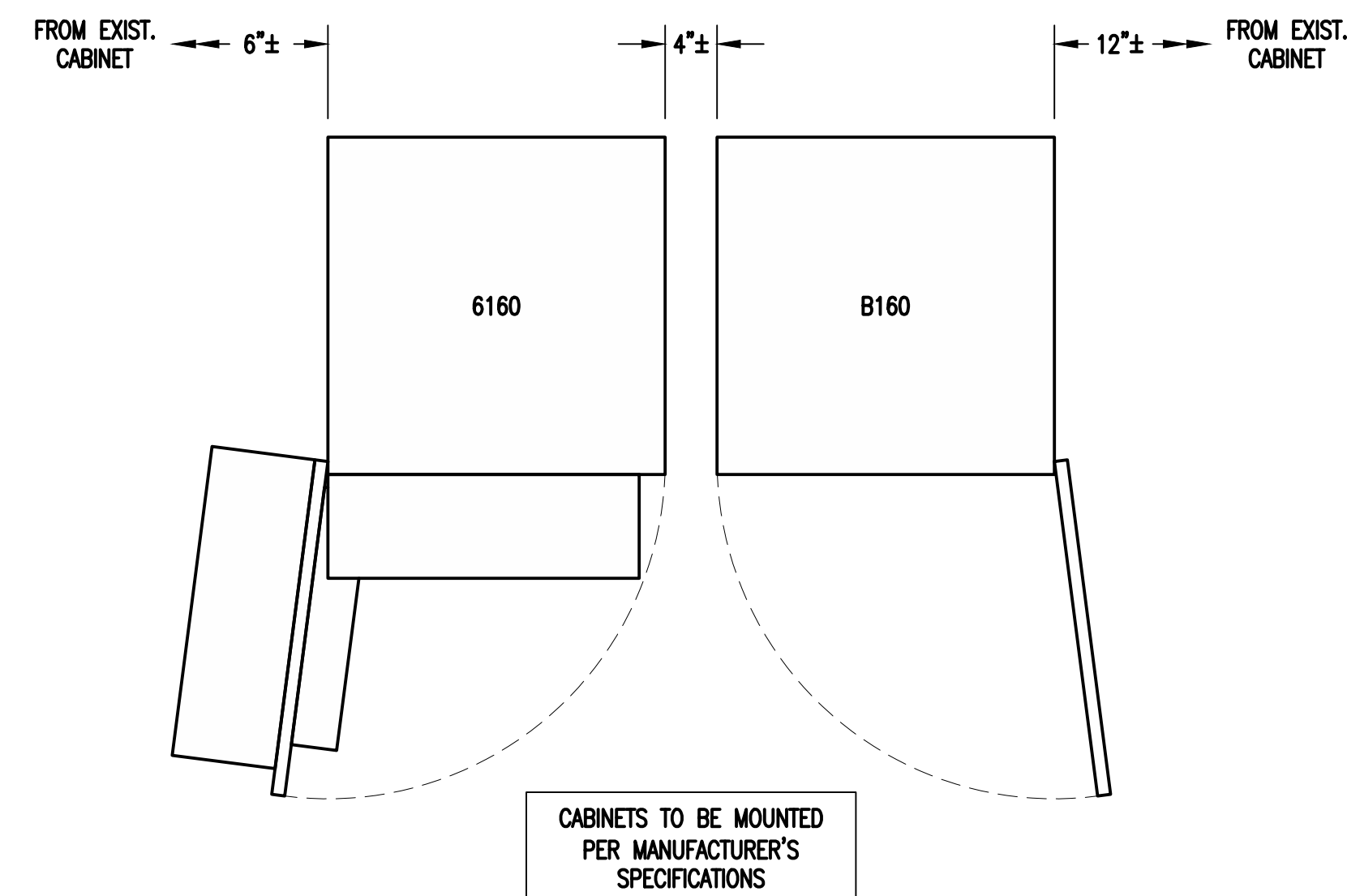
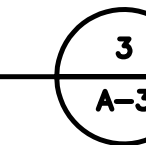
**ERICSSON M-MIMO AIR6449 B41 PANEL ANTENNA**  
 DIMENSIONS: 33.1"H x 20.5"W x 8.3"D  
 WEIGHT: 103.0 LBS  
 1 PER SECTOR, TOTAL OF 3

**ANTENNA DETAILS**

SCALE: N.T.S.



**ERICSSON AIR32 KR901146-1 B66A/B2A ANTENNA**  
 DIMENSIONS: 56.6"H x 12.9"W x 8.7"D  
 WEIGHT: 132.2 LBS  
 1 PER SECTOR, TOTAL OF 3

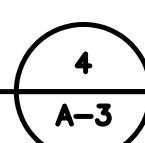


**ERICSSON 6161 SITE SUPPORT CABINET**  
 DIMENSIONS: 63.25"H x 26.0"W x 34.0"D  
 QUANTITY: TOTAL OF 1

**ERICSSON B160 BATTERY CABINET**  
 DIMENSIONS: 63.25"H x 26.0"W x 26.0"D  
 QUANTITY: TOTAL OF 1

**EQUIPMENT DETAIL**

SCALE: N.T.S.

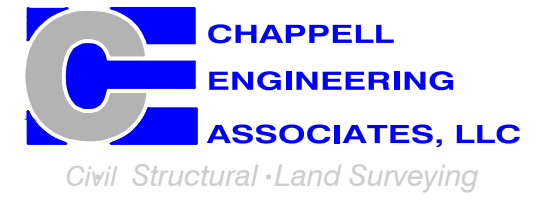


**T-Mobile**

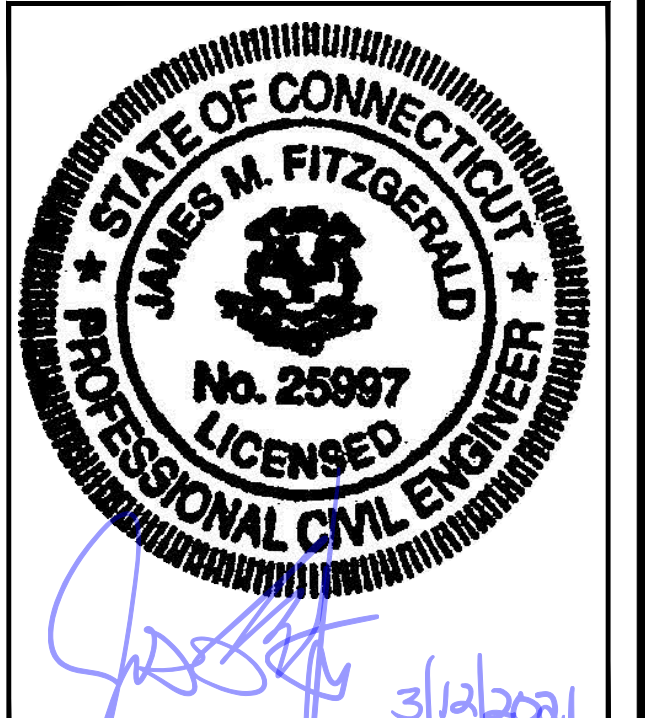
T-MOBILE NORTHEAST LLC  
 15 COMMERCE WAY, SUITE B  
 NORTON, MA 02766  
 OFFICE: (508) 286-2700



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	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

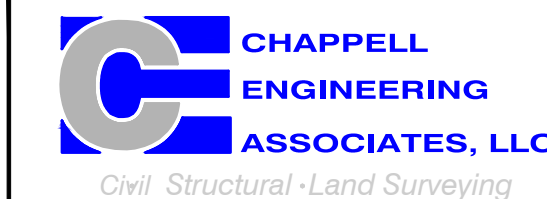
SITE NUMBER:  
**CT11786D**  
 SITE ADDRESS:  
 2577 MAIN STREET  
 GLASTONBURY, CT 06033

SHEET TITLE:  
**SITE DETAILS**

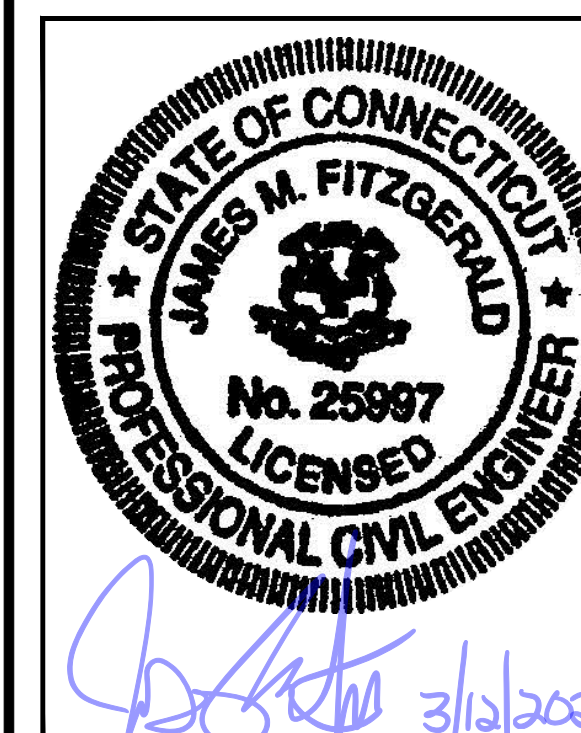
SHEET NUMBER:  
**A-3**



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	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:  
**CT11786D**

SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

SHEET TITLE:  
**ANTENNA & FEEDLINE CHARTS**

SHEET NUMBER:  
**A-4**

FINAL ANTENNA CONFIGURATION								
SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	SIGNAL CABLES
ALPHA	A1	ERICSSON M-MIMO AIR6449 B41	93°-0'± AGL	30°	0°	2'	L2500/N2500	-
	A2	RFS APXVAARR24_43-U-NA20	93°-0'± AGL	30°	0°	2'	L700/L600/N600 L1900/U2100	ERICSSON RADIO 4449 B71+BB5 ERICSSON RADIO 4415 B25 COMMSCOPE DIPLEXER SDX1926Q-43 GENERIC TWIN STYLE 1B AWS TMA
	A3	EMPTY	-	-	-	-	-	-
	A4	ERICSSON AIR32 KRD901146-1 B66A/B2A	93°-0'± AGL	30°	0°	2'	L2100 L1900/G1900	-
BETA	B1	ERICSSON M-MIMO AIR6449 B41	93°-0'± AGL	150°	0°	2'	L2500/N2500	-
	B2	RFS APXVAARR24_43-U-NA20	93°-0'± AGL	150°	0°	2'	L700/L600/N600 L1900/U2100	ERICSSON RADIO 4449 B71+BB5 ERICSSON RADIO 4415 B25 COMMSCOPE DIPLEXER SDX1926Q-43 GENERIC TWIN STYLE 1B AWS TMA
	B3	EMPTY	-	-	-	-	-	-
	B4	ERICSSON AIR32 KRD901146-1 B66A/B2A	93°-0'± AGL	150°	0°	2'	L2100 L1900/G1900	-
GAMMA	C1	ERICSSON M-MIMO AIR6449 B41	93°-0'± AGL	270°	0°	2'	L2500/N2500	-
	C2	RFS APXVAARR24_43-U-NA20	93°-0'± AGL	270°	0°	2'	L700/L600/N600 L1900/U2100	ERICSSON RADIO 4449 B71+BB5 ERICSSON RADIO 4415 B25 COMMSCOPE DIPLEXER SDX1926Q-43 GENERIC TWIN STYLE 1B AWS TMA
	C3	EMPTY	-	-	-	-	-	-
	C4	ERICSSON AIR32 KRD901146-1 B66A/B2A	93°-0'± AGL	270°	0°	2'	L2100 L1900/G1900	-

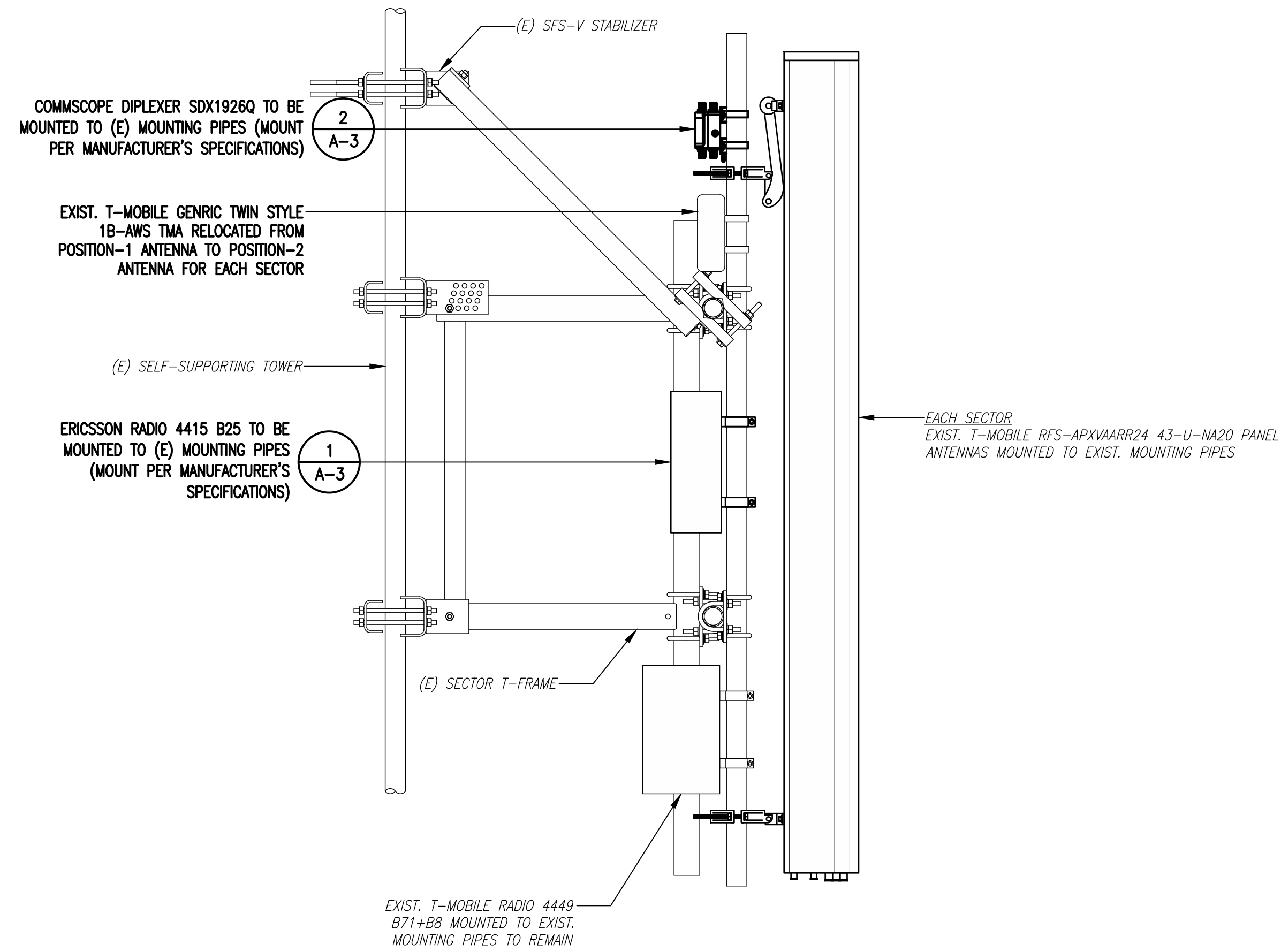
(E) (6) 1-3/8" COAX CABLES  
(E) (2) 1-3/8" (6x12) HCS FIBER CABLES  
(P) (1) 1-3/8" (6x12) HCS FIBER CABLE

CABLE NOTE: EXISTING (4) 1-3/8" COAX CABLES (CAPPED & WRAPPED) TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV5 - 09/26/20

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

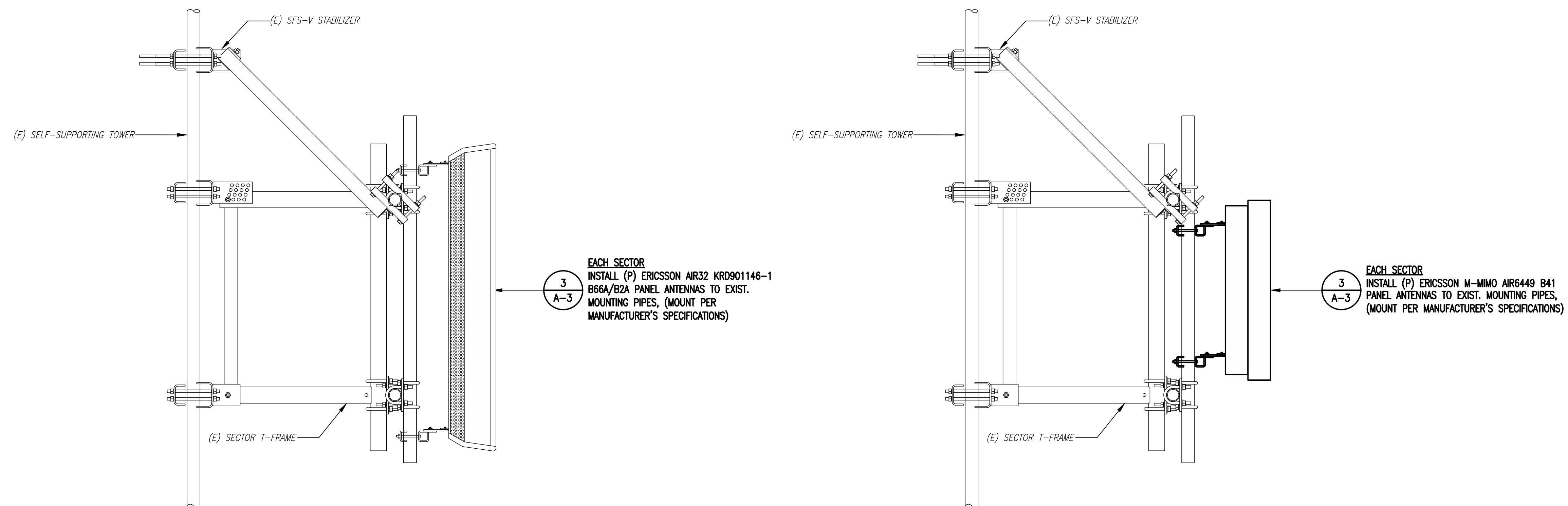
NOTE: EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.



ANTENNA, TMA & RADIO MOUNT DETAIL

SCALE: N.T.S.

1  
S-1



ANTENNA MOUNT DETAIL

SCALE: N.T.S.

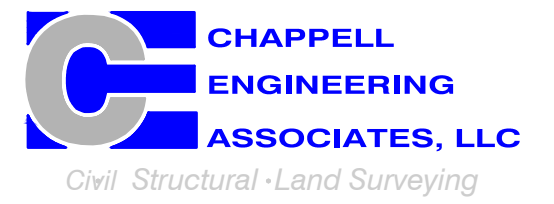
2  
S-1

..T..Mobile..

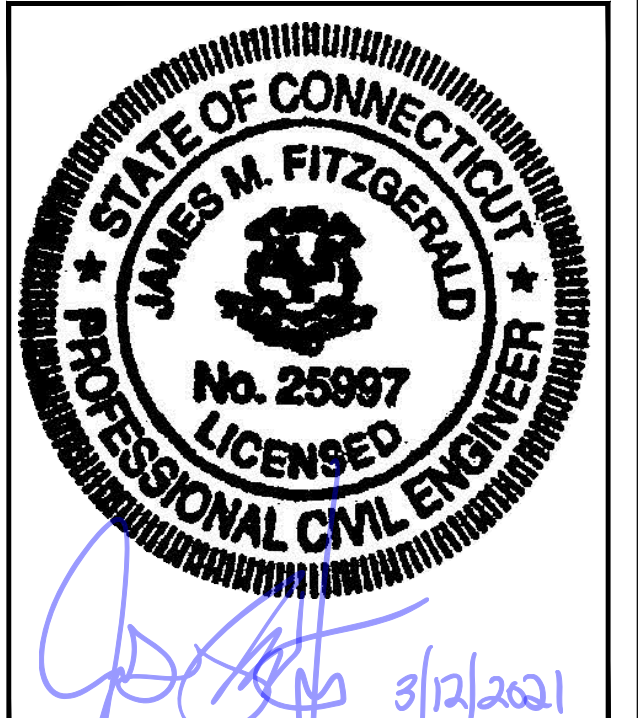
T-MOBILE NORTHEAST LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700



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	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:  
**CT11786D**

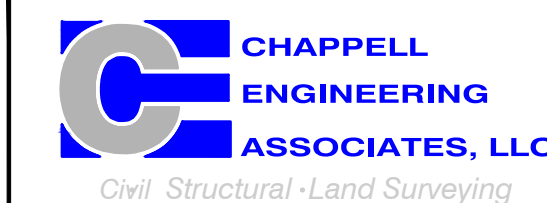
SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

SHEET TITLE  
**ANTENNA MOUNTING  
DETAILS**

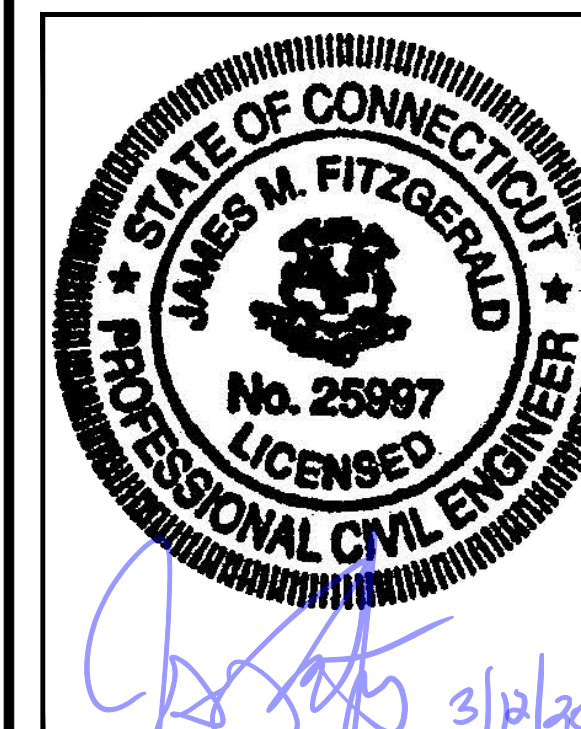
SHEET NUMBER  
**S-1**



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

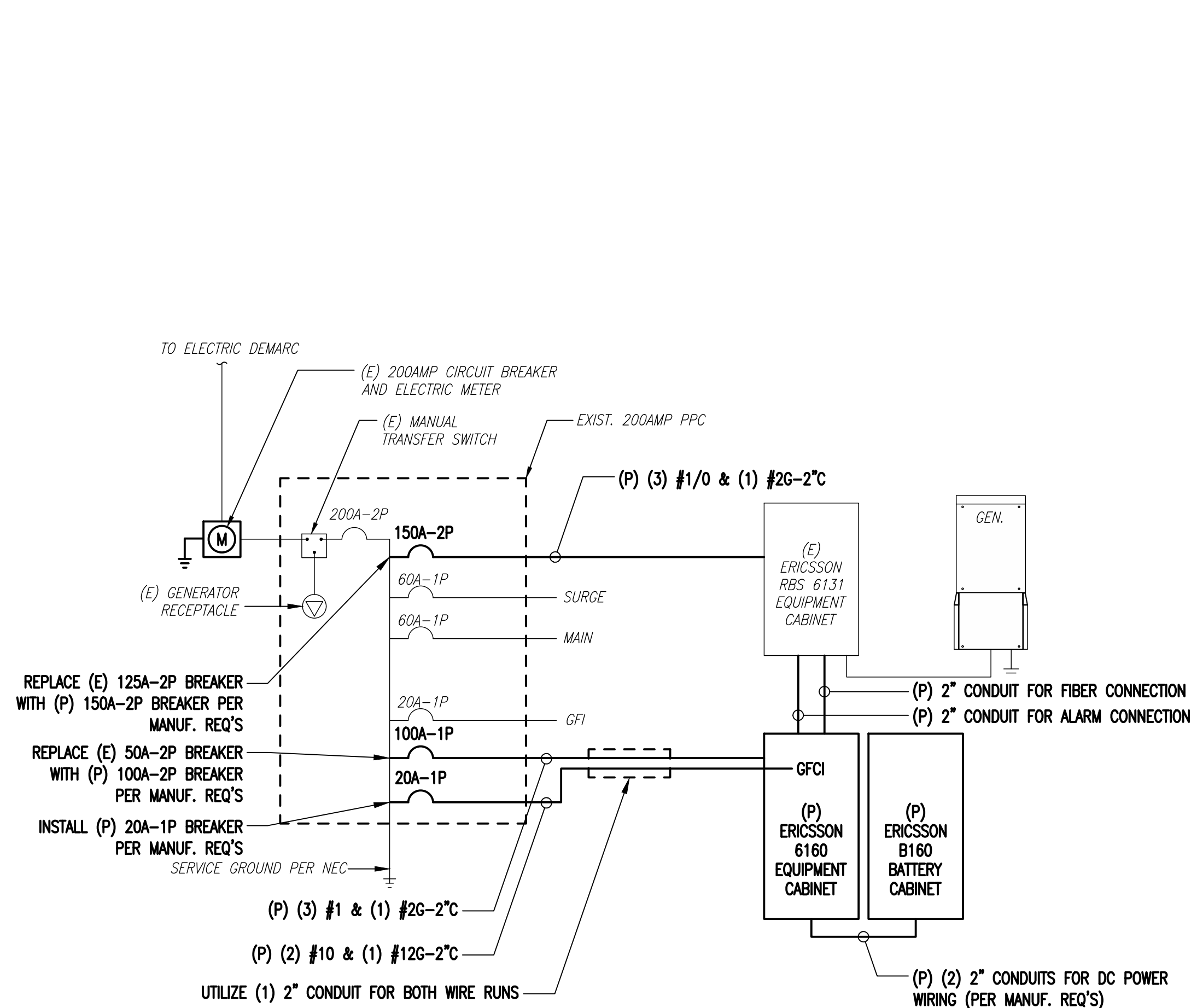
SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	02/19/21	ISSUED FOR CONSTRUCTION	BDJ
0	11/21/20	ISSUED FOR REVIEW	BDJ

SITE NUMBER:  
**CT11786D**

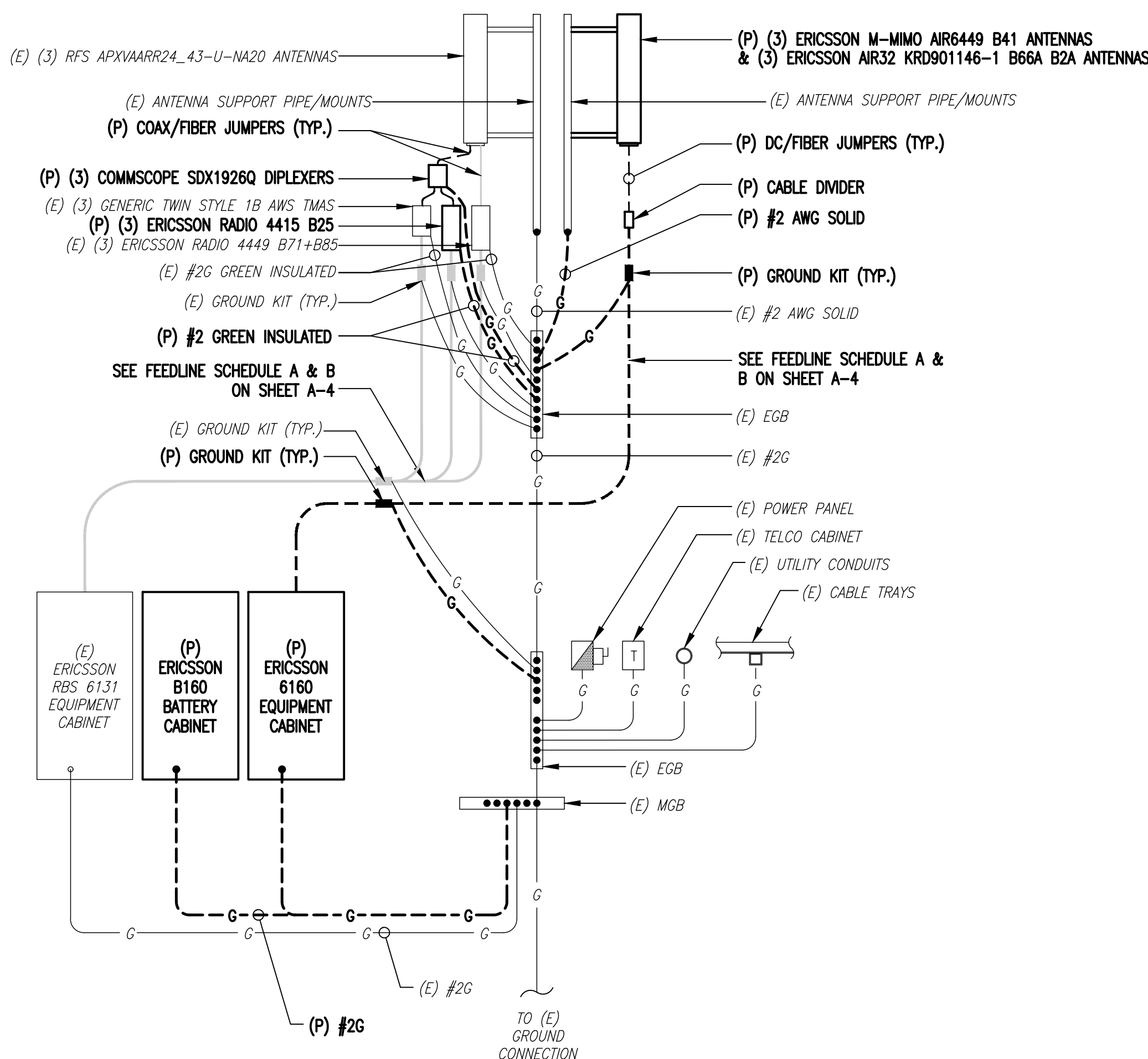
SITE ADDRESS:  
2577 MAIN STREET  
GLASTONBURY, CT 06033

SHEET TITLE  
**ELECTRICAL & GROUNDING DETAILS**

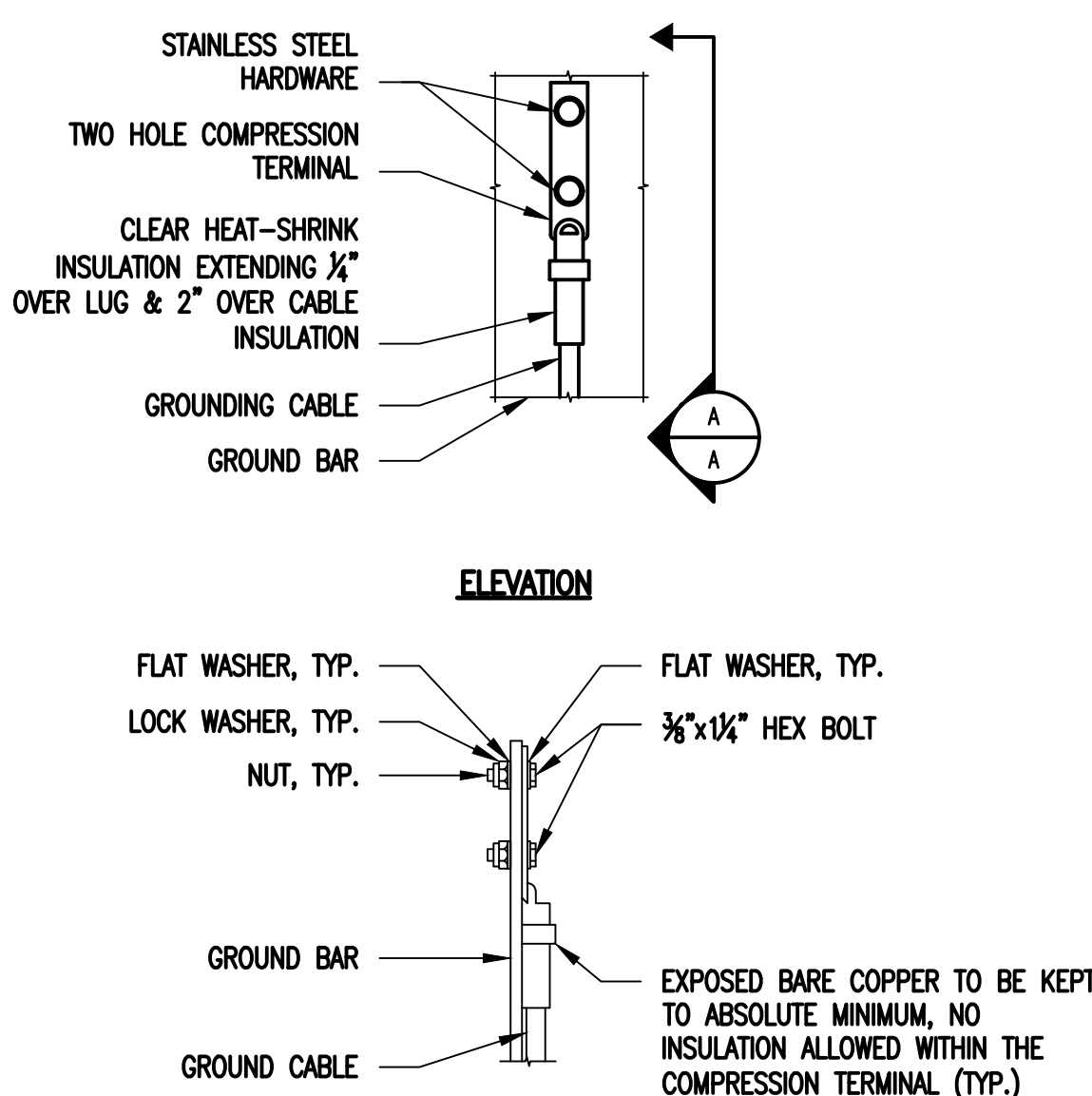
SHEET NUMBER  
**E-1**



**ONE LINE DIAGRAM**  
SCALE: NOT TO SCALE

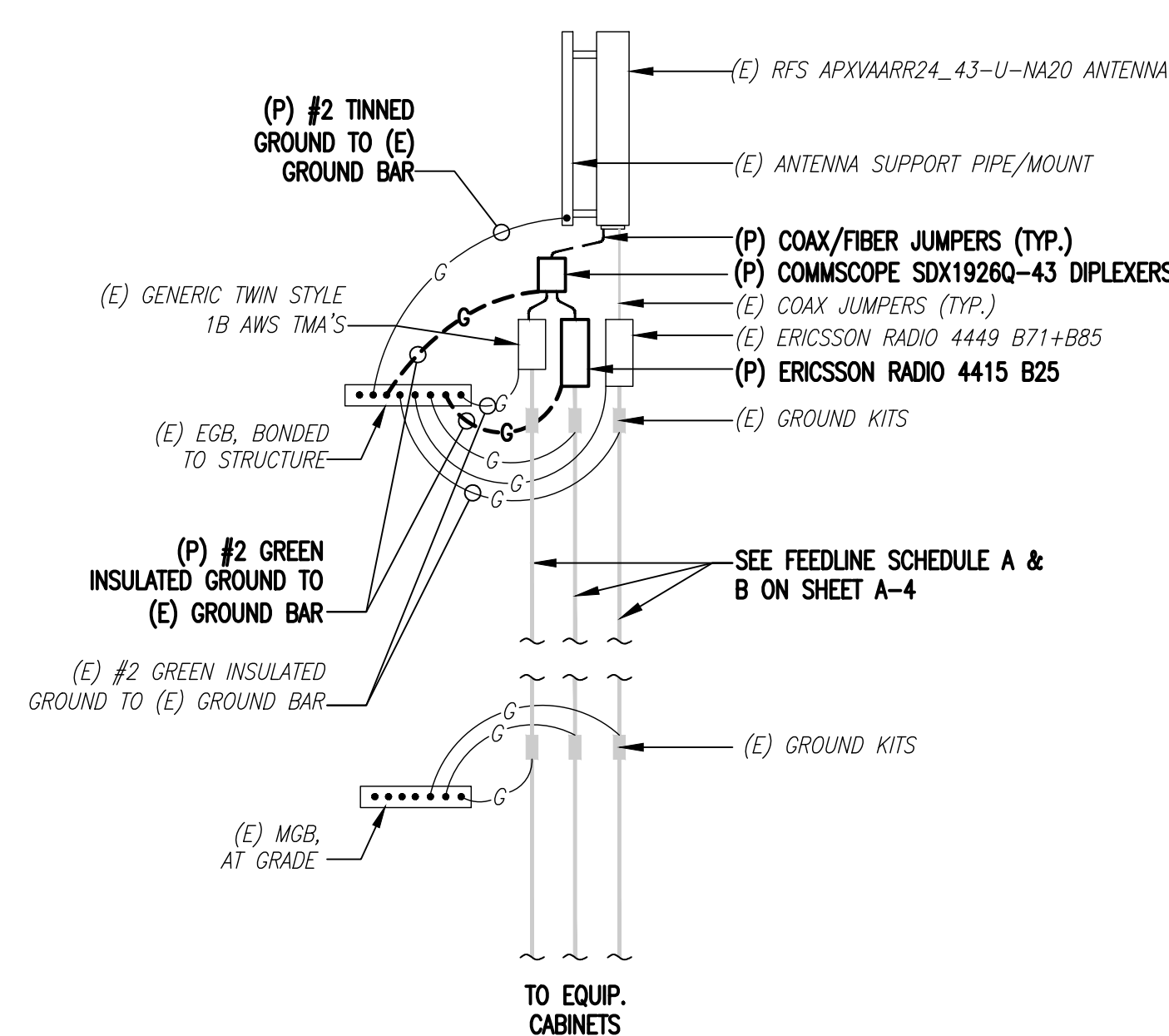


**GROUNDING RISER DIAGRAM**  
SCALE: NOT TO SCALE



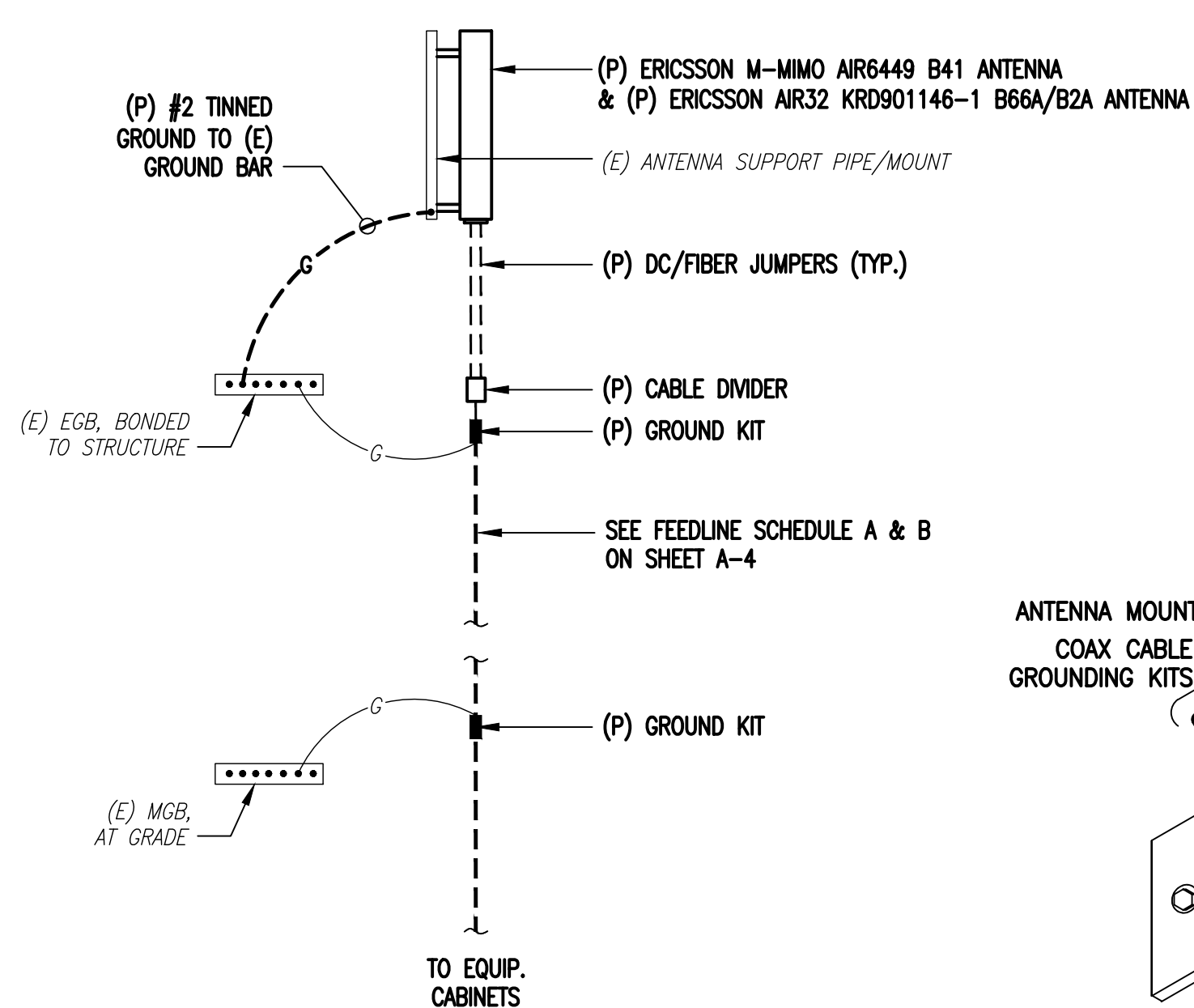
- NOTES:
- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
  - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
  - CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

**TYPICAL GROUND BAR CONNECTIONS DETAIL**  
SCALE: NOT TO SCALE

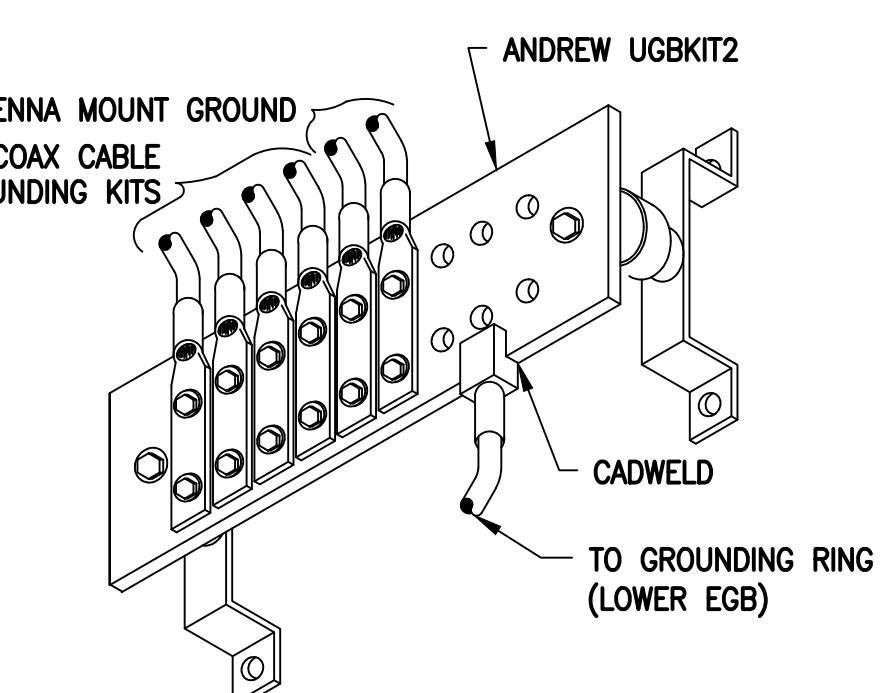


**L700/L600/N600/L1900/U2100 ANTENNA**

**COAX CABLE CONNECTION AND GROUNDING DETAIL**  
SCALE: NOT TO SCALE



**L2500/N2500 & L2100/L1900/G1900 ANTENNA**



**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, THHN, OR THHN/INSULATION.
- 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 BURIED 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 (E) 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 130 ft Nudd Corporation Self Supporting Tower**

**Customer Name: SBA Communications Corp**

**Customer Site Number: CT46126-A**

**Customer Site Name: Glastonbury-main St.**

**Carrier Name: T-Mobile (App#: 141503, v1)**

**Carrier Site ID / Name: CT11786D / Nextel Glastonbury**

**Site Location: 2577 Main Street**

**Glastonbury, Connecticut**

**Hartford County**

**Latitude: 41.714389**

**Longitude: -72.613028**

**Analysis Result:**

**Max Structural Usage: 97.2% [Pass]**

**Max Foundation Usage: 72% [Pass]**

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



**Report Prepared By: Ram Kodali**

## Introduction

The purpose of this report is to summarize the analysis results on the 130 ft Nudd Corporation Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

## Sources of Information

<b>Tower Drawings</b>	Fred A Nudd Corp., Project # 6893B, dated 7/30/02
<b>Foundation Drawing</b>	Fred A Nudd Corp., Dwg # 99-6893-2, dated 9/16/99
<b>Geotechnical Report</b>	Tectonic Engineering Consultants P.C, Project # 1170.C057, dated 8/26/99
<b>Modification Drawings</b>	TowerCo, Job # 090403.05, dated 8/12/09; FDH, Project # 1338401400, dated 6/17/13; FDH, Project # 13SB5C1400, dated 9/10/13
<b>Mount Analysis</b>	Hudson Design Group LLC, Project # CT11786D, dated 2/1/21

## Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESTowers**, 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.

<b>Wind Speed Used in the Analysis:</b>	Ultimate Design Wind Speed $V_{ult} = 124$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 97$ mph (3-Sec. Gust)
<b>Wind Speed with Ice:</b>	50 mph (3-Sec. Gust) with 1" radial ice concurrent
<b>Operational Wind Speed:</b>	60 mph + 0" Radial ice
<b>Standard/Codes:</b>	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	C
<b>Structure Class:</b>	II
<b>Topographic Category:</b>	1
<b>Crest Height:</b>	0 ft
<b>Seismic Parameters:</b>	$S_5 = 0.18, S_1 = 0.063$

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



## Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
-	128.0	2	LLPX310R - Panel	(3) T-Frames	(6) 5/16" in (2) 2" Conduit (4) 1/2" in (2) 1/2" Conduit	Sprint-Clearwire
-		1	840 10054 - Panel			
-		3	24" X 14" x 9" TMA			
-		1	Timing2000 -			
-	124.0	3	VHLP-2.5 - Dish			
1	120.0	3	APXVSPP18-C-A20 - Panel	(3) Sector Frame	(4) 1-1/4" Fiber	Sprint Nextel
2		3	APXVTM14-C-120 - Panel			
3		4	ACU-A20-N RET			
4		3	1900 4X45 65 MHz RRU			
5		3	800 MHz 2X50W RRU			
6		3	TD-RRH8x20-25			
7		3	800 MHz filter			
8	118.5	3	800 MHz filter			
9	110.0	3	Kathrein 800 10121 - Panel	(3) T-Frames	(18) 1 1/4" (2) 1/2" Fiber (4) 3/4" DC (18) 3/8" in (1) 3" Conduit	AT&T
10		2	CCI HPA-65R-BUU-H6 - Panel			
11		1	CCI HPA-65R-BUU-H8 - Panel			
12		2	CCI HPA65R-BU6A - Panel			
13		1	CCI HPA65R-BU8A - Panel			
14		2	Kathrein 800 10965 - Panel			
15		1	Kathrein 800 10966 - Panel			
16		6	Powerwave LGP21401			
17		6	Powerwave LGP21901			
18		12	Kathrein 860 10025			
19		3	Ericsson RRUS-32			
20		3	Ericsson 4449 B5/B12			
21		3	Ericsson RRUS 8843 B2 B66A			
22		2	Raycap DC6-48-60-18-8F			
23	3	Andrew ATSBT-TOP-MF				
-	93.0	3	AIR 21 B2A B4P - Panel	(3) T-Frames w/ (3)2" x-strong pipe & SitePro1 SFS-V Stabilizer kit	(11) 1 5/8" (2) 1-1/4" Hybrid	T-Mobile
-		3	AIR 32 KRD9011461-B66A - Panel			
-		3	APXVAARR24_43-U-NA20 - Panel			
-		3	KRY 112 144/2			
-		3	4449 B71+B12			
31	80.0	6	BXA-70063/6CF - Panel	(3) T-Frames	(2) 1 5/8"	Verizon
32		6	BXA-171063/12CF - Panel			
33		6	RRH2x40-700U			
34		3	RRH2x40-AWS			
35		1	DB-T1-6Z-8AB-OZ			

**Important note:** T-Mobile must remove all the existing antennas, coax lines, and mounts at 128' & 124' elevations prior to the addition of proposed antennas. These loads were not considered in the current analysis.

## 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
24	93.0	3	Ericsson APXVAARR24_43-U-NA20 - Panel	(3) T-Frames w/ (3)2" x-strong pipe & SitePro1 SFS-V Stabilizer kit	(10) 1 5/8" (1) 1 5/8" Hybrid (2) 1-1/4" Hybrid	T-Mobile
25		3	Ericsson AIR6449 B41 - Panel			
26		3	Ericsson AIR 32 KRD9011461-B66A - Panel			
27		3	Ericsson KRY 112 144/2			
28		3	Commscope SDX1926Q-43			
29		3	Ericsson 4449 B71+B85			
30		3	Ericsson 4415 B25			

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

## Analysis Results

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

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:	<b>97.2%</b>	<b>92.9%</b>	<b>34.0%</b>
Pass/Fail	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

## Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions	397.4	370.0	20.8

The foundation has been investigated using the supplied documents and soils report and was found to be 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 0.5036 degrees under the operational wind speed as specified in the Analysis Criteria.

## **Conclusions**

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

## Standard Conditions

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

## Structure: CT46126-A-SBA

**Site Name:** Glastonbury-main St.

**Code:** EIA/TIA-222-G

2/10/2021

**Type:** Self Support

**Base Shape:** Triangle

**Basic WS:** 97.00

**Height:** 130.00 (ft)

**Base Width:** 7.50

**Basic Ice WS:** 50.00

**Base Elev:** 0.00 (ft)

**Top Width:** 2.50

**Operational WS:** 60.00

Page: 1

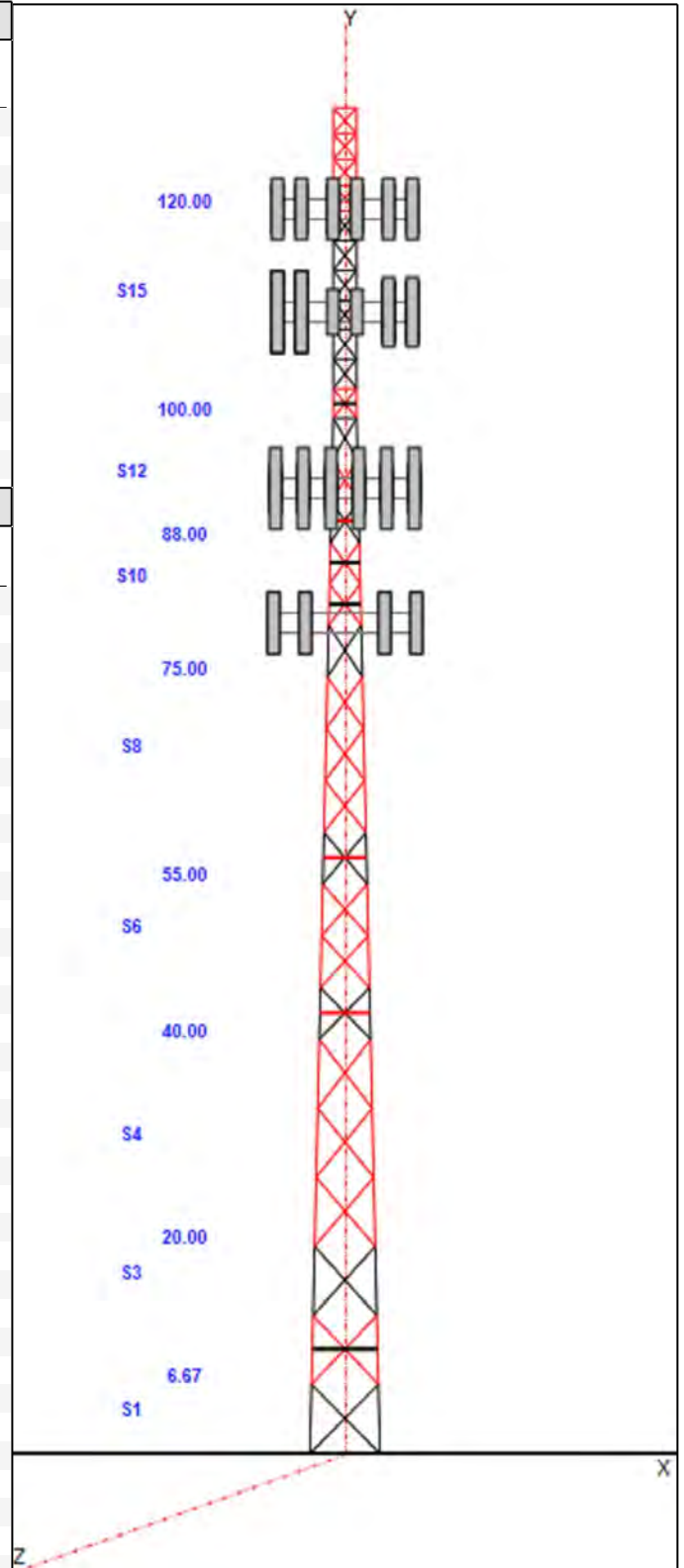


### Section Properties

Sect	Leg Members	Diagonal Members	Horizontal Members
1	MOD 6PX+7.625x.301_1	DAE 2X2X0.1875	
2-3	PX 6" DIA PIPE	SAE 2X2X0.1875	
4	PX 6" DIA PIPE	DAE 1.75X1.75X.1875	
5	MOD 6PST+7.625x.301_	SAE 2X2X0.25	
6	MOD 6PST+7.625x.301_	DAE 1.5x1.5x.1875	
7-8	PST 6" DIA PIPE	DAE 1.5x1.5x.1875	
9	PST 6" DIA PIPE	SAE 2X2X0.25	
10	MOD 4"PST+5"PX1/2P	DAE 1.5x1.5x.1875	
11	PST 4" DIA PIPE	DAE 1.5x1.5x.1875	
12	PST 4" DIA PIPE	SAE 2X2X0.25	
13	PST 4" DIA PIPE	SAE 1.5X1.5X0.1875	SAE 1.25x1.25x0.1875
14-15	SOL 2" SOLID	SOL 3/4" SOLID	SAE 1.25x1.25x0.1875
16	SOL 1 1/2" SOLID	SOL 3/4" SOLID	SAE 1.25x1.25x0.1875

### Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
130.00	130.00	1	Beacon
120.00	118.50	3	Sector Frame
120.00	120.00	3	APXVSP18-C-A20
120.00	120.00	3	APXVTM14-C-120
120.00	120.00	4	ACU-A20-N RET
120.00	120.00	3	1900 4X45 65 MHz RRU
120.00	120.00	3	800 MHz 2X50W RRU
120.00	120.00	3	TD-RRH8x20-25
120.00	120.00	3	800 MHz filter
118.50	118.50	3	800 MHz filter
110.00	108.50	3	T-Frames
110.00	110.00	3	800 10121
110.00	110.00	2	HPA-65R-BUU-H6
110.00	110.00	1	HPA-65R-BUU-H8
110.00	110.00	2	HPA65R-BU6A
110.00	110.00	1	HPA65R-BU8A
110.00	110.00	2	800 10965
110.00	110.00	1	800 10966
110.00	110.00	6	LGP21401
110.00	110.00	6	LGP21901
110.00	110.00	12	860 10025
110.00	110.00	3	RRUS-32
110.00	110.00	3	4449 B5/B12
110.00	110.00	3	8843 B2 B66A
110.00	110.00	2	DC6-48-60-18-8F
110.00	110.00	3	ATSBT-TOP-MF
93.00	93.00	3	SDX1926Q-43
93.00	93.00	3	4415 B25
93.00	91.50	3	T-Frames
93.00	93.00	3	AIR6449 B41
93.00	93.00	3	AIR 32 KRD9011461-B66A
93.00	93.00	3	APXVAARR24_43-U-NA20
93.00	93.00	3	KRY 112 144/2
93.00	93.00	3	4449 B71+B85
93.00	93.00	1	(3) SitePro1 SFS-V
93.00	93.00	1	(3) 2" X-Strong Pipe



**Structure: CT46126-A-SBA**

<b>Site Name:</b> Glastonbury-main St.	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Type:</b> Self Support	<b>Base Shape:</b> Triangle	<b>Basic WS:</b> 97.00
<b>Height:</b> 130.00 (ft)	<b>Base Width:</b> 7.50	<b>Basic Ice WS:</b> 50.00
<b>Base Elev:</b> 0.00 (ft)	<b>Top Width:</b> 2.50	<b>Operational WS:</b> 60.00



Page: 2

80.00	80.00	3	T-Frames
80.00	80.00	6	BXA-70063/6CF
80.00	80.00	6	BXA-171063/12CF
80.00	80.00	6	RRH2x40-700U
80.00	80.00	3	RRH2x40-AWS
80.00	80.00	1	DB-T1-6Z-8AB-OZ

**Linear Appurtenances**

Elev From (ft)	Elev To (ft)	Qty	Description
0.00	130.00	1	Climbing Ladder
0.00	130.00	1	Safety Cable
0.00	130.00	2	W/G Ladder
0.00	130.00	1	W/G Ladder
0.00	120.00	4	1-1/4" Fiber
0.00	110.00	18	1 1/4" Coax
0.00	110.00	2	1/2" Fiber
0.00	110.00	1	3" Conduit
0.00	110.00	4	3/4" DC
0.00	93.00	10	1 5/8" Coax
0.00	93.00	1	1 5/8" Hybrid
0.00	93.00	2	1-1/4" Hybrid
0.00	80.00	2	1 5/8" Coax

**Base Reactions**

Leg	Overturning
Max Uplift: -370.02 (kips)	Moment: 2503.14 (ft-kips)
Max Down: 397.36 (kips)	Total Down: 35.93 (kips)
Max Shear: 20.77 (kips)	Total Shear: 30.80 (kips)

# Structure: CT46126-A-SBA

**Site Name:** Glastonbury-main St.

**Code:** EIA/TIA-222-G

2/10/2021

**Type:** Self Support

**Base Shape:** Triangle

**Basic WS:** 97.00

**Height:** 130.00 (ft)

**Base Width:** 7.50

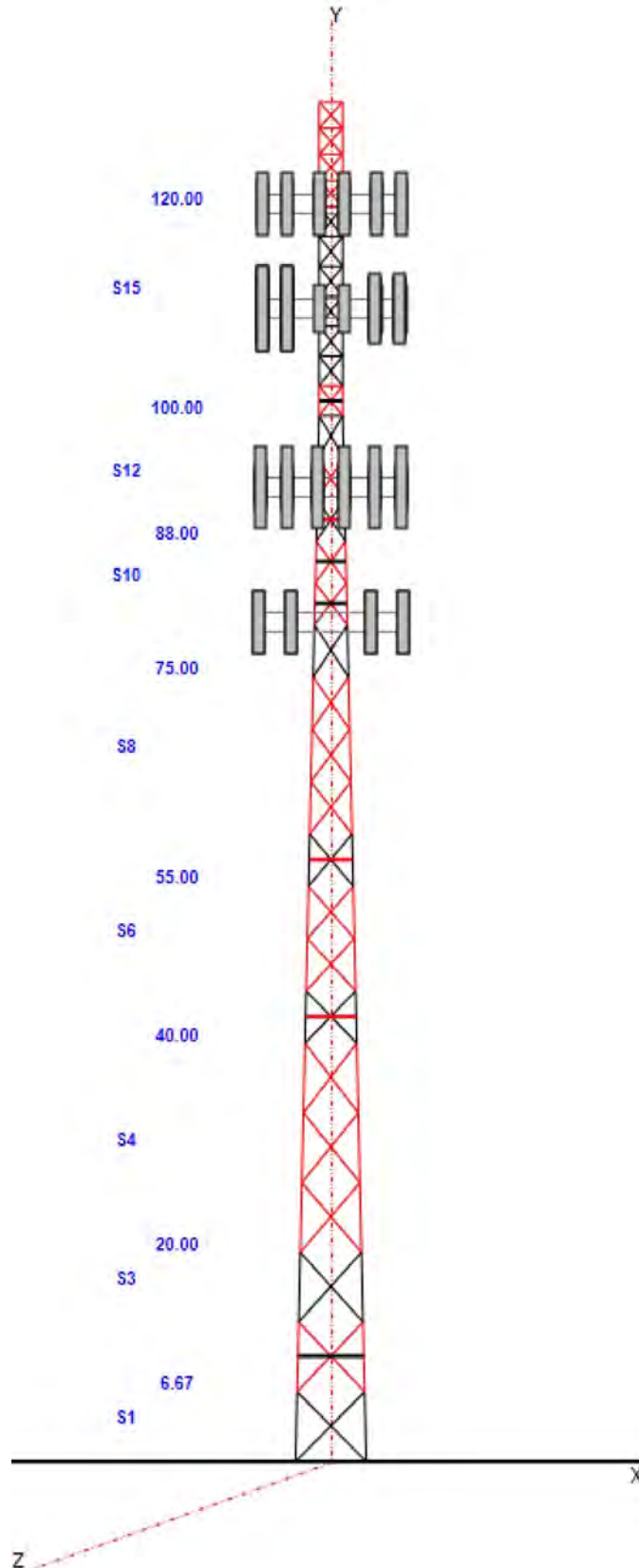
**Basic Ice WS:** 50.00

**Base Elev:** 0.00 (ft)

**Top Width:** 2.50

**Operational WS:** 60.00

Page: 3

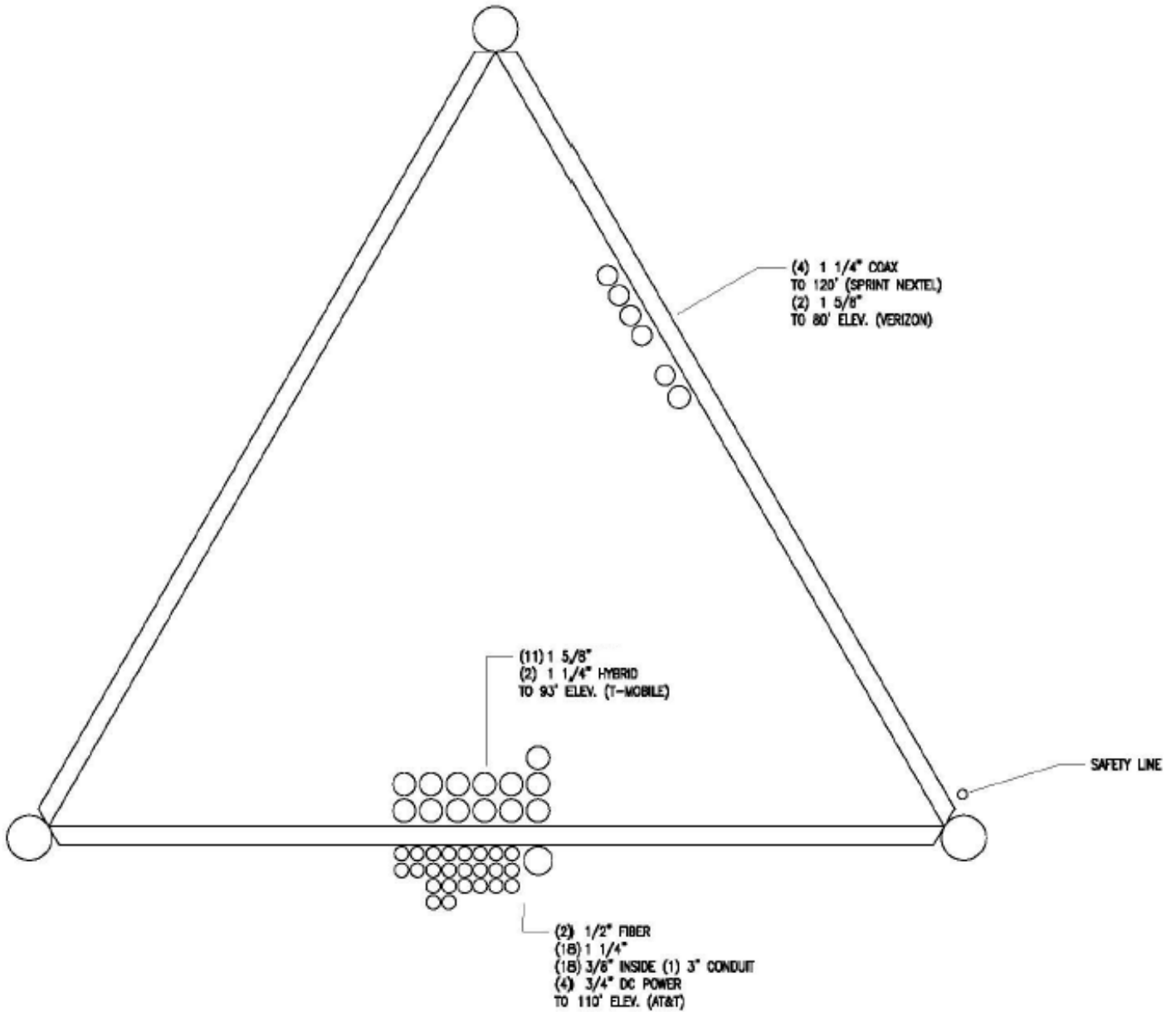


# Structure: CT46126-A-SBA - Coax Line Placement

**Type:** Self Support  
**Site Name:** Glastonbury-main St.  
**Height:** 130.00 (ft)

2/10/2021

Page: 4





## Loading Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 5

### Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
130.00	Beacon	1	36.00	2.720	210.38	3.963	28.000	17.500	17.500	1.00	1.00	0.000
120.00	Sector Frame	3	450.00	14.000	905.37	23.108	0.000	0.000	0.000	0.75	0.75	-1.500
120.00	APXVSP18-C-A20	3	57.00	8.020	330.31	9.728	72.000	11.800	7.000	0.80	0.83	0.000
120.00	APXVTM14-C-120	3	56.00	6.340	276.13	7.808	56.300	12.600	6.300	0.80	0.79	0.000
120.00	ACU-A20-N RET	4	1.00	0.140	6.56	0.524	4.000	2.000	3.500	0.80	0.67	0.000
120.00	1900 4X45 65 MHz RRU	3	60.00	2.710	164.52	4.346	25.100	11.100	10.700	0.80	0.67	0.000
120.00	800 MHz 2X50W RRU	3	64.00	2.400	163.92	3.849	19.000	13.000	12.200	0.80	0.67	0.000
120.00	TD-RRH8x20-25	3	70.00	4.050	221.90	5.126	26.100	18.600	6.700	0.80	0.67	0.000
120.00	800 MHz filter	3	68.30	3.460	185.36	5.161	19.200	18.500	10.400	0.80	0.67	0.000
118.50	800 MHz filter	3	68.30	3.460	185.36	5.161	19.200	18.500	10.400	0.80	0.67	0.000
110.00	T-Frames	3	450.00	14.000	905.37	23.108	0.000	0.000	0.000	0.75	0.75	-1.500
110.00	800 10121	3	46.30	5.150	234.21	6.529	54.500	10.300	5.900	0.80	0.79	0.000
110.00	HPA-65R-BUU-H6	2	51.00	9.660	387.73	11.459	72.000	14.800	9.000	0.80	0.85	0.000
110.00	HPA-65R-BUU-H8	1	68.00	12.980	463.13	15.108	92.400	14.800	7.400	0.80	0.79	0.000
110.00	HPA65R-BU6A	2	43.00	7.860	330.28	9.552	71.200	11.700	8.400	0.80	0.88	0.000
110.00	HPA65R-BU8A	1	54.00	11.230	417.52	13.396	96.000	11.700	7.600	0.80	0.86	0.000
110.00	800 10965	2	108.60	13.810	511.58	15.882	78.700	20.000	6.900	0.80	0.71	0.000
110.00	800 10966	1	125.70	17.360	608.25	19.729	96.000	20.000	6.900	0.80	0.72	0.000
110.00	LGP21401	6	14.10	1.290	46.46	2.372	14.400	9.200	2.600	0.80	0.67	0.000
110.00	LGP21901	6	5.50	0.230	15.45	0.706	4.000	6.000	3.000	0.80	0.67	0.000
110.00	860 10025	12	1.20	0.180	8.96	0.670	7.600	2.400	2.000	0.80	0.67	0.000
110.00	RRUS-32	3	77.00	3.870	233.15	4.362	29.900	13.300	9.500	0.80	0.75	0.000
110.00	4449 B5/B12	3	71.00	1.970	140.09	2.678	17.900	13.200	9.400	0.80	0.67	0.000
110.00	8843 B2 B66A	3	72.00	1.640	132.63	2.283	14.900	13.200	10.900	0.80	0.67	0.000
110.00	DC6-48-60-18-8F	2	31.80	0.920	111.82	1.487	24.000	11.000	11.000	0.90	0.90	0.000
110.00	ATSBT-TOP-MF	3	1.80	0.200	9.36	0.649	5.600	3.700	2.000	0.80	0.67	0.000
93.00	SDX1926Q-43	3	6.10	0.300	26.34	0.567	6.900	4.100	2.900	0.80	0.67	0.000
93.00	4415 B25	3	46.00	1.640	98.08	2.293	15.000	13.200	5.400	0.80	0.67	0.000
93.00	T-Frames	3	450.00	14.000	895.75	22.915	0.000	0.000	0.000	0.75	0.75	-1.500
93.00	AIR6449 B41	3	103.00	5.650	276.72	6.854	33.100	20.500	8.300	0.80	0.71	0.000
93.00	AIR 32 KRD9011461-B66A	3	132.20	6.510	375.85	7.956	56.600	12.900	8.700	0.80	0.87	0.000
93.00	APXVAARR24_43-U-NA20	3	128.00	20.240	675.60	22.671	95.900	24.000	7.800	0.80	0.70	0.000
93.00	KRY 112 144/2	3	11.00	0.410	24.66	1.012	6.900	6.100	2.700	0.80	0.67	0.000
93.00	4449 B71+B85	3	74.00	1.650	166.53	2.351	15.000	13.200	9.300	0.80	0.67	0.000
93.00	(3) SitePro1 SFS-V	1	140.00	3.700	362.88	8.609	0.000	0.000	0.000	0.75	1.00	0.000
93.00	(3) 2" X-Strong Pipe	1	650.00	15.500	1684.78	36.063	0.000	0.000	0.000	0.75	1.00	0.000
80.00	T-Frames	3	500.00	17.500	1371.30	34.883	0.000	0.000	0.000	0.75	0.75	0.000
80.00	BXA-70063/6CF	6	17.00	7.570	246.05	9.171	71.000	11.200	5.200	0.80	0.73	0.000
80.00	BXA-171063/12CF	6	15.00	4.780	176.28	6.353	72.400	6.100	4.100	0.80	0.84	0.000
80.00	RRH2x40-700U	6	50.00	2.120	141.84	3.356	20.900	12.200	10.600	0.80	0.67	0.000
80.00	RRH2x40-AWS	3	44.00	2.160	119.79	3.468	24.400	10.600	6.700	0.80	0.67	0.000
80.00	DB-T1-6Z-8AB-OZ	1	18.90	4.800	206.34	5.909	24.000	24.000	10.000	1.00	1.00	0.000
<b>Totals:</b>		<b>133</b>	<b>11,507.40</b>		<b>34,881.26</b>						<b>Number of Appurtenances :</b>	<b>42</b>

## Loading Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



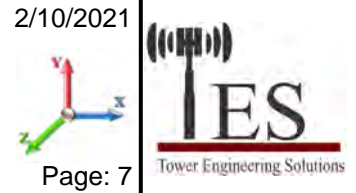
Page: 6

### Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	130.00	Climbing Ladder	1	1.50	6.90	100.00	2	Individual NR		N	1.00	1.00	
0.00	130.00	Safety Cable	1	0.38	0.27	100.00	2	Individual NR		N	1.00	1.00	
0.00	130.00	W/G Ladder	2	2.00	6.00	100.00	2,3	Individual NR		N	1.00	1.00	
0.00	130.00	W/G Ladder	1	2.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	120.00	1-1/4" Fiber	4	1.25	0.95	100.00	2	Individual IR		N	1.00	1.00	
0.00	110.00	1 1/4" Coax	18	1.55	0.66	33.30	1	Block		N	0.50	1.00	
0.00	110.00	1/2" Fiber	2	0.50	0.16	50.00	1	Block		N	1.00	1.00	0
0.00	110.00	3" Conduit	1	3.00	1.78	100.00	1	Individual NR		N	1.00	1.00	
0.00	110.00	3/4" DC	4	0.75	0.40	50.00	1	Block		N	0.50	1.00	
0.00	93.00	1 5/8" Coax	10	1.98	1.04	100.00	1	Block		N	0.50	1.00	0
0.00	93.00	1 5/8" Hybrid	1	2.00	1.10	100.00	1	Individual NR		N	1.00	1.00	
0.00	93.00	1-1/4" Hybrid	2	1.25	0.95	50.00	1	Block		N	0.50	1.00	0
0.00	80.00	1 5/8" Coax	2	1.98	1.04	100.00	2	Individual IR		N	1.00	1.00	

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II

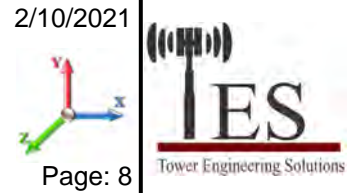


<b>Load Case:</b> 1.2D + 1.6W Normal Wind	1.2D + 1.6W 97 mph Wind at Normal To Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Wind qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)					
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.19	31.77	0.00	1,786.6	0.0	431.82	420.85	852.67
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	7.99	31.77	0.00	1,401.3	0.0	473.13	420.79	893.92
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	6.70	31.77	0.00	1,316.9	0.0	412.81	429.72	842.53
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	18.43	95.31	0.00	4,275.3	0.0	1268.12	1458.92	2,727.04
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	6.97	23.83	0.00	1,192.5	0.0	454.61	392.48	847.09
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	9.53	47.65	0.00	2,178.4	0.0	680.35	812.28	1,492.64
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.25	23.83	0.00	894.5	0.0	377.01	418.27	795.28
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	13.16	71.48	0.00	2,575.8	0.0	980.55	1297.89	2,278.44
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	4.96	23.83	0.00	832.4	0.0	357.80	445.40	803.20
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.26	35.48	0.00	1,457.2	0.0	543.66	660.25	1,203.91
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.44	17.74	0.00	572.0	0.0	258.59	334.95	593.55
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.30	11.98	0.00	488.5	0.0	247.94	323.28	571.22
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.13	10.06	0.00	435.4	0.0	235.02	321.17	556.19
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	325.5	0.0	126.35	231.06	357.41
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,677.0	0.0	586.82	975.91	1,562.73
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	715.4	0.0	350.61	285.33	635.94
													<b>22,124.7</b>	<b>0.0</b>			<b>17,013.76</b>	

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 1.2D + 1.6W 60° Wind	1.2D + 1.6W 97 mph Wind at 60° From Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Area (sqft)	Linear Area (sqft)						
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	6.57	31.77	0.00	1,786.6	0.0	394.68	420.85	815.53
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.16	31.77	0.00	1,401.3	0.0	423.54	420.79	844.32
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.11	31.77	0.00	1,316.9	0.0	376.36	429.72	806.09
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	16.96	95.31	0.00	4,275.3	0.0	1166.76	1458.92	2,625.68
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.25	23.83	0.00	1,192.5	0.0	407.74	392.48	800.22
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	8.89	47.65	0.00	2,178.4	0.0	634.42	812.28	1,446.71
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	4.79	23.83	0.00	894.5	0.0	343.65	418.27	761.92
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	12.27	71.48	0.00	2,575.8	0.0	914.24	1297.89	2,212.13
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.58	23.83	0.00	832.4	0.0	330.73	445.40	776.13
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.57	35.48	0.00	1,457.2	0.0	491.70	660.25	1,151.95
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.10	17.74	0.00	572.0	0.0	233.72	334.95	568.68
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.00	11.98	0.00	488.5	0.0	225.35	323.28	548.63
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.86	10.06	0.00	435.4	0.0	215.17	321.17	536.34
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	325.5	0.0	115.24	231.06	346.31
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,677.0	0.0	560.09	975.91	1,536.00
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	715.4	0.0	327.18	285.33	612.51
														<b>22,124.7</b>	<b>0.0</b>			<b>16,389.14</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



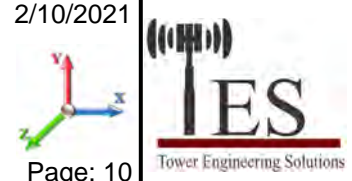
Page: 9

<b>Load Case:</b> 1.2D + 1.6W 90° Wind	1.2D + 1.6W 97 mph Wind at 90° From Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Wind qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)					
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	6.73	31.77	0.00	1,786.6	0.0	403.96	420.85	824.81
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.37	31.77	0.00	1,401.3	0.0	435.94	420.79	856.72
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.26	31.77	0.00	1,316.9	0.0	385.47	429.72	815.20
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	17.33	95.31	0.00	4,275.3	0.0	1192.10	1458.92	2,651.02
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.43	23.83	0.00	1,192.5	0.0	419.46	392.48	811.94
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.05	47.65	0.00	2,178.4	0.0	645.91	812.28	1,458.19
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	4.91	23.83	0.00	894.5	0.0	351.99	418.27	770.26
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	12.49	71.48	0.00	2,575.8	0.0	930.82	1297.89	2,228.70
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.67	23.83	0.00	832.4	0.0	337.50	445.40	782.90
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.74	35.48	0.00	1,457.2	0.0	504.69	660.25	1,164.94
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.19	17.74	0.00	572.0	0.0	239.94	334.95	574.90
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.07	11.98	0.00	488.5	0.0	230.99	323.28	554.28
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.93	10.06	0.00	435.4	0.0	220.13	321.17	541.30
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	325.5	0.0	118.02	231.06	349.08
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,677.0	0.0	566.77	975.91	1,542.69
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	715.4	0.0	333.04	285.33	618.37
														<b>22,124.7</b>	<b>0.0</b>	<b>16,545.29</b>		

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II
		Page: 10



<b>Load Case:</b> 0.9D + 1.6W Normal Wind	0.9D + 1.6W 97 mph Wind at Normal To Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 0.90	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Wind qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)					
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.19	31.77	0.00	1,340.0	0.0	431.82	420.85	852.67
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	7.99	31.77	0.00	1,051.0	0.0	473.13	420.79	893.92
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	6.70	31.77	0.00	987.7	0.0	412.81	429.72	842.53
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	18.43	95.31	0.00	3,206.5	0.0	1268.12	1458.92	2,727.04
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	6.97	23.83	0.00	894.3	0.0	454.61	392.48	847.09
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	9.53	47.65	0.00	1,633.8	0.0	680.35	812.28	1,492.64
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.25	23.83	0.00	670.9	0.0	377.01	418.27	795.28
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	13.16	71.48	0.00	1,931.9	0.0	980.55	1297.89	2,278.44
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	4.96	23.83	0.00	624.3	0.0	357.80	445.40	803.20
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.26	35.48	0.00	1,092.9	0.0	543.66	660.25	1,203.91
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.44	17.74	0.00	429.0	0.0	258.59	334.95	593.55
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.30	11.98	0.00	366.4	0.0	247.94	323.28	571.22
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.13	10.06	0.00	326.6	0.0	235.02	321.17	556.19
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	244.1	0.0	126.35	231.06	357.41
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,257.7	0.0	586.82	975.91	1,562.73
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	536.5	0.0	350.61	285.33	635.94
														<b>16,593.5</b>	<b>0.0</b>			<b>17,013.76</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 0.9D + 1.6W 60° Wind	0.9D + 1.6W 97 mph Wind at 60° From Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 0.90	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Area (sqft)	Linear Area (sqft)						
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	6.57	31.77	0.00	1,340.0	0.0	394.68	420.85	815.53
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.16	31.77	0.00	1,051.0	0.0	423.54	420.79	844.32
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.11	31.77	0.00	987.7	0.0	376.36	429.72	806.09
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	16.96	95.31	0.00	3,206.5	0.0	1166.76	1458.92	2,625.68
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.25	23.83	0.00	894.3	0.0	407.74	392.48	800.22
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	8.89	47.65	0.00	1,633.8	0.0	634.42	812.28	1,446.71
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	4.79	23.83	0.00	670.9	0.0	343.65	418.27	761.92
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	12.27	71.48	0.00	1,931.9	0.0	914.24	1297.89	2,212.13
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.58	23.83	0.00	624.3	0.0	330.73	445.40	776.13
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.57	35.48	0.00	1,092.9	0.0	491.70	660.25	1,151.95
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.10	17.74	0.00	429.0	0.0	233.72	334.95	568.68
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.00	11.98	0.00	366.4	0.0	225.35	323.28	548.63
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.86	10.06	0.00	326.6	0.0	215.17	321.17	536.34
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	244.1	0.0	115.24	231.06	346.31
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,257.7	0.0	560.09	975.91	1,536.00
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	536.5	0.0	327.18	285.33	612.51
														<b>16,593.5</b>	<b>0.0</b>			<b>16,389.14</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II
		Page: 12



<b>Load Case:</b> 0.9D + 1.6W 90° Wind	0.9D + 1.6W 97 mph Wind at 90° From Face
<b>Wind Load Factor:</b> 1.60	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 0.90	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Wind qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
												Linear Area (sqft)	Linear Area (sqft)						
1	3.3	17.40	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	6.73	31.77	0.00	1,340.0	0.0	403.96	420.85	824.81	
2	10.0	17.40	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.37	31.77	0.00	1,051.0	0.0	435.94	420.79	856.72	
3	16.7	17.77	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.26	31.77	0.00	987.7	0.0	385.47	429.72	815.20	
4	30.0	20.11	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	17.33	95.31	0.00	3,206.5	0.0	1192.10	1458.92	2,651.02	
5	42.5	21.64	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.43	23.83	0.00	894.3	0.0	419.46	392.48	811.94	
6	50.0	22.39	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.05	47.65	0.00	1,633.8	0.0	645.91	812.28	1,458.19	
7	57.5	23.06	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	4.91	23.83	0.00	670.9	0.0	351.99	418.27	770.26	
8	67.5	23.85	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	12.49	71.48	0.00	1,931.9	0.0	930.82	1297.89	2,228.70	
9	77.5	24.56	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.67	23.83	0.00	624.3	0.0	337.50	445.40	782.90	
10	84.0	24.98	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.74	35.48	0.00	1,092.9	0.0	504.69	660.25	1,164.94	
11	90.0	25.34	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.19	17.74	0.00	429.0	0.0	239.94	334.95	574.90	
12	94.0	25.58	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.07	11.98	0.00	366.4	0.0	230.99	323.28	554.28	
13	98.0	25.80	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.93	10.06	0.00	326.6	0.0	220.13	321.17	541.30	
14	101.4	25.99	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	244.1	0.0	118.02	231.06	349.08	
15	111.4	26.51	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,257.7	0.0	566.77	975.91	1,542.69	
16	125.0	27.16	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	536.5	0.0	333.04	285.33	618.37	
															<b>16,593.5</b>	<b>0.0</b>	<b>16,545.29</b>		



## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi Normal Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 1.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (psf) (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Linear Area (sqft)	Linear Area (sqft)						
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	1.00	1.00	1.59	13.87	54.16	5.30	3,999.8	2213.1	115.80	148.01	263.81
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	1.00	1.00	1.77	15.07	56.21	5.92	3,739.5	2338.2	121.57	153.00	274.57
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	1.00	1.00	1.87	14.06	57.25	6.23	3,617.7	2300.7	115.90	160.19	276.09
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	1.00	1.00	1.98	42.08	175.51	19.81	12,433.	8158.0	380.69	528.21	908.90
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	1.00	1.00	2.05	14.40	44.46	5.13	3,394.0	2201.6	128.02	108.85	236.87
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	1.00	1.00	2.08	24.20	89.49	10.42	6,574.5	4396.1	226.01	244.33	470.34
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	1.00	1.00	2.11	12.49	44.99	5.29	3,211.7	2317.1	118.06	116.15	234.21
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	1.00	1.00	2.15	35.26	135.82	16.11	9,162.9	6587.0	342.10	346.05	688.15
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	1.00	1.00	2.18	12.78	45.52	5.45	2,872.9	2040.5	125.87	96.14	222.00
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	1.00	1.00	2.20	19.93	66.83	8.78	5,004.1	3547.0	199.91	124.87	324.79
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	1.00	1.00	2.21	9.85	33.51	4.42	2,323.2	1751.1	100.83	55.85	156.67
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	1.00	1.00	2.22	9.85	24.46	3.33	1,747.8	1259.3	102.58	47.10	149.68
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	1.00	1.00	2.23	11.24	21.46	2.97	1,620.3	1184.9	124.15	25.75	149.90
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	1.00	1.00	2.24	7.82	15.36	2.13	1,215.9	890.4	89.37	13.08	102.44
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	1.00	1.00	2.26	43.27	66.86	9.14	5,752.6	4075.7	489.45	91.56	581.01
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	1.00	1.00	2.28	28.87	17.99	3.81	2,608.9	1893.5	355.09	12.13	367.22
														<b>69,279.1</b>	<b>47154.4</b>			<b>5,406.66</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 14

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi 60° Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 1.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total	Total	Ice	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear	Linear	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
			Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)							Area (sqft)	Area (sqft)						
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	0.80	1.00	1.59	13.25	54.16	5.30	3,999.8	2213.1	110.64	148.01	258.65	
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	0.80	1.00	1.77	14.23	56.21	5.92	3,739.5	2338.2	114.81	153.00	267.81	
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	0.80	1.00	1.87	13.47	57.25	6.23	3,617.7	2300.7	111.02	160.19	271.21	
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	0.80	1.00	1.98	40.61	175.51	19.81	12,433.	8158.0	367.36	528.21	895.57	
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	0.80	1.00	2.05	13.68	44.46	5.13	3,394.0	2201.6	121.63	108.85	230.49	
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	0.80	1.00	2.08	23.56	89.49	10.42	6,574.5	4396.1	220.00	244.33	464.33	
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	0.80	1.00	2.11	12.03	44.99	5.29	3,211.7	2317.1	113.67	116.15	229.81	
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	0.80	1.00	2.15	34.37	135.82	16.11	9,162.9	6587.0	333.46	346.05	679.51	
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	0.80	1.00	2.18	12.40	45.52	5.45	2,872.9	2040.5	122.17	96.14	218.31	
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	0.80	1.00	2.20	19.23	66.83	8.78	5,004.1	3547.0	192.95	124.87	317.82	
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	0.80	1.00	2.21	9.52	33.51	4.42	2,323.2	1751.1	97.44	55.85	153.29	
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	0.80	1.00	2.22	9.55	24.46	3.33	1,747.8	1259.3	99.45	47.10	146.55	
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	0.80	1.00	2.23	10.97	21.46	2.97	1,620.3	1184.9	121.23	25.75	146.99	
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	0.80	1.00	2.24	7.69	15.36	2.13	1,215.9	890.4	87.86	13.08	100.94	
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	0.80	1.00	2.26	42.97	66.86	9.14	5,752.6	4075.7	486.15	91.56	577.71	
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	0.80	1.00	2.28	28.63	17.99	3.81	2,608.9	1893.5	352.06	12.13	364.19	
															<b>69,279.1</b>	<b>47154.4</b>			<b>5,323.18</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 15

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi 90° Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.20	
<b>Ice Dead Load Factor:</b> 1.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total	Total	Ice	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear	Linear	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
			Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)							Area (sqft)	Area (sqft)						
1	3.3	4.62	3.092	17.27	8.79	0.37	2.12	0.85	1.00	1.59	13.40	54.16	5.30	3,999.8	2213.1	111.93	148.01	259.94	
2	10.0	4.62	4.190	17.03	9.66	0.41	2.05	0.85	1.00	1.77	14.44	56.21	5.92	3,739.5	2338.2	116.50	153.00	269.50	
3	16.7	4.72	2.959	17.39	10.02	0.41	2.05	0.85	1.00	1.87	13.62	57.25	6.23	3,617.7	2300.7	112.24	160.19	272.43	
4	30.0	5.34	7.367	53.08	30.99	0.44	1.99	0.85	1.00	1.98	40.98	175.51	19.81	12,433.	8158.0	370.69	528.21	898.90	
5	42.5	5.75	3.592	14.80	8.44	0.58	1.82	0.85	1.00	2.05	13.86	44.46	5.13	3,394.0	2201.6	123.23	108.85	232.08	
6	50.0	5.95	3.218	29.50	16.78	0.55	1.85	0.85	1.00	2.08	23.72	89.49	10.42	6,574.5	4396.1	221.50	244.33	465.84	
7	57.5	6.13	2.325	13.85	8.33	0.58	1.81	0.85	1.00	2.11	12.15	44.99	5.29	3,211.7	2317.1	114.76	116.15	230.91	
8	67.5	6.34	4.449	41.25	24.68	0.61	1.80	0.85	1.00	2.15	34.59	135.82	16.11	9,162.9	6587.0	335.62	346.05	681.67	
9	77.5	6.53	1.875	13.64	8.12	0.68	1.78	0.85	1.00	2.18	12.50	45.52	5.45	2,872.9	2040.5	123.10	96.14	219.23	
10	84.0	6.64	3.471	19.95	13.45	0.72	1.78	0.85	1.00	2.20	19.41	66.83	8.78	5,004.1	3547.0	194.69	124.87	319.56	
11	90.0	6.73	1.652	9.64	6.63	0.75	1.79	0.85	1.00	2.21	9.60	33.51	4.42	2,323.2	1751.1	98.29	55.85	154.13	
12	94.0	6.80	1.503	9.58	6.58	0.78	1.80	0.85	1.00	2.22	9.62	24.46	3.33	1,747.8	1259.3	100.23	47.10	147.33	
13	98.0	6.86	1.320	10.45	7.45	0.88	1.90	0.85	1.00	2.23	11.04	21.46	2.97	1,620.3	1184.9	121.96	25.75	147.71	
14	101.4	6.91	0.660	7.29	5.90	0.92	1.95	0.85	1.00	2.24	7.72	15.36	2.13	1,215.9	890.4	88.24	13.08	101.31	
15	111.4	7.04	1.458	44.14	35.71	0.87	1.89	0.85	1.00	2.26	43.05	66.86	9.14	5,752.6	4075.7	486.97	91.56	578.54	
16	125.0	7.22	1.233	27.35	23.15	0.95	2.01	0.85	1.00	2.28	28.69	17.99	3.81	2,608.9	1893.5	352.82	12.13	364.95	
															<b>69,279.1</b>	<b>47154.4</b>			<b>5,344.05</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 16

<b>Load Case:</b> 1.0D + 1.0W Normal Wind	1.0D + 1.0W 60 mph Wind at Normal To Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.00	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (psf) (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Area (sqft)	Linear Area (sqft)						
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	1.00	1.00	0.00	7.89	31.77	0.00	1,488.9	0.0	113.30	100.64	213.94
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	1.00	1.00	0.00	8.46	31.77	0.00	1,167.7	0.0	119.77	100.62	220.39
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	1.00	1.00	0.00	7.21	31.77	0.00	1,097.4	0.0	106.17	102.76	208.93
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	1.00	1.00	0.00	20.10	95.31	0.00	3,562.8	0.0	330.60	348.88	679.47
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	1.00	1.00	0.00	7.35	23.83	0.00	993.7	0.0	114.68	93.85	208.54
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	1.00	1.00	0.00	10.46	47.65	0.00	1,815.3	0.0	178.55	194.24	372.79
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	1.00	1.00	0.00	5.59	23.83	0.00	745.5	0.0	95.90	100.02	195.92
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	1.00	1.00	0.00	14.19	71.48	0.00	2,146.5	0.0	252.95	310.37	563.32
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	1.00	1.00	0.00	5.23	23.83	0.00	693.7	0.0	90.35	106.51	196.86
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	1.00	1.00	0.00	7.44	35.48	0.00	1,214.3	0.0	133.27	157.89	291.16
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	1.00	1.00	0.00	3.49	17.74	0.00	476.7	0.0	62.91	80.10	143.01
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	1.00	1.00	0.00	3.36	11.98	0.00	407.1	0.0	60.34	77.31	137.64
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	1.00	1.00	0.00	3.18	10.06	0.00	362.8	0.0	57.23	76.80	134.03
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	1.00	1.00	0.00	1.50	7.18	0.00	271.2	0.0	30.21	55.25	85.47
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	1.00	1.00	0.00	6.40	28.69	0.00	1,397.5	0.0	140.33	233.37	373.70
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	1.00	1.00	0.00	3.69	6.56	0.00	596.2	0.0	83.84	68.23	152.07
													<b>18,437.3</b>	<b>0.0</b>			<b>4,177.25</b>	

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



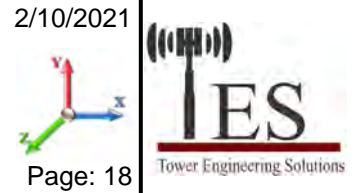
Page: 17

<b>Load Case:</b> 1.0D + 1.0W 60° Wind	1.0D + 1.0W 60 mph Wind at 60° From Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.00	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Linear Area (sqft)	Linear Area (sqft)						
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	0.80	1.00	0.00	7.27	31.77	0.00	1,488.9	0.0	104.42	100.64	205.06
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	0.80	1.00	0.00	7.62	31.77	0.00	1,167.7	0.0	107.91	100.62	208.53
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	0.80	1.00	0.00	6.62	31.77	0.00	1,097.4	0.0	97.46	102.76	200.22
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	0.80	1.00	0.00	18.62	95.31	0.00	3,562.8	0.0	306.36	348.88	655.24
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	0.80	1.00	0.00	6.63	23.83	0.00	993.7	0.0	103.47	93.85	197.33
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	0.80	1.00	0.00	9.82	47.65	0.00	1,815.3	0.0	167.57	194.24	361.81
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	0.80	1.00	0.00	5.12	23.83	0.00	745.5	0.0	87.92	100.02	187.95
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	0.80	1.00	0.00	13.30	71.48	0.00	2,146.5	0.0	237.09	310.37	547.46
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	0.80	1.00	0.00	4.86	23.83	0.00	693.7	0.0	83.88	106.51	190.39
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	0.80	1.00	0.00	6.75	35.48	0.00	1,214.3	0.0	120.84	157.89	278.73
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	0.80	1.00	0.00	3.16	17.74	0.00	476.7	0.0	56.96	80.10	137.06
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	0.80	1.00	0.00	3.06	11.98	0.00	407.1	0.0	54.93	77.31	132.24
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	0.80	1.00	0.00	2.92	10.06	0.00	362.8	0.0	52.48	76.80	129.28
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	0.80	1.00	0.00	1.37	7.18	0.00	271.2	0.0	27.56	55.25	82.81
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	0.80	1.00	0.00	6.11	28.69	0.00	1,397.5	0.0	133.94	233.37	367.31
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	0.80	1.00	0.00	3.44	6.56	0.00	596.2	0.0	78.24	68.23	146.47
														<b>18,437.3</b>	<b>0.0</b>			<b>4,027.89</b>

## Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II

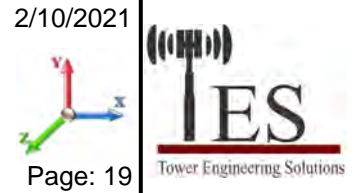


<b>Load Case:</b> 1.0D + 1.0W 90° Wind	1.0D + 1.0W 60 mph Wind at 90° From Face
<b>Wind Load Factor:</b> 1.00	<b>Wind Importance Factor:</b> 1.00
<b>Dead Load Factor:</b> 1.00	
<b>Ice Dead Load Factor:</b> 0.00	<b>Ice Importance Factor:</b> 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Area (sqft)	Linear Area (sqft)						
1	3.3	6.66	3.092	8.48	0.00	0.22	2.54	0.85	1.00	0.00	7.42	31.77	0.00	1,488.9	0.0	106.64	100.64	207.28
2	10.0	6.66	4.190	7.36	0.00	0.23	2.50	0.85	1.00	0.00	7.83	31.77	0.00	1,167.7	0.0	110.87	100.62	211.50
3	16.7	6.80	2.959	7.36	0.00	0.21	2.55	0.85	1.00	0.00	6.77	31.77	0.00	1,097.4	0.0	99.64	102.76	202.40
4	30.0	7.69	7.367	22.09	0.00	0.22	2.52	0.85	1.00	0.00	18.99	95.31	0.00	3,562.8	0.0	312.42	348.88	661.30
5	42.5	8.28	3.592	6.36	0.00	0.33	2.22	0.85	1.00	0.00	6.81	23.83	0.00	993.7	0.0	106.27	93.85	200.13
6	50.0	8.57	3.218	12.71	0.00	0.28	2.34	0.85	1.00	0.00	9.98	47.65	0.00	1,815.3	0.0	170.31	194.24	364.56
7	57.5	8.82	2.325	5.52	0.00	0.30	2.29	0.85	1.00	0.00	5.24	23.83	0.00	745.5	0.0	89.92	100.02	189.94
8	67.5	9.13	4.449	16.57	0.00	0.30	2.30	0.85	1.00	0.00	13.53	71.48	0.00	2,146.5	0.0	241.06	310.37	551.42
9	77.5	9.40	1.875	5.52	0.00	0.35	2.16	0.85	1.00	0.00	4.95	23.83	0.00	693.7	0.0	85.50	106.51	192.01
10	84.0	9.56	3.471	6.50	0.00	0.34	2.20	0.85	1.00	0.00	6.92	35.48	0.00	1,214.3	0.0	123.95	157.89	281.84
11	90.0	9.70	1.652	3.00	0.00	0.34	2.18	0.85	1.00	0.00	3.25	17.74	0.00	476.7	0.0	58.45	80.10	138.55
12	94.0	9.79	1.503	3.00	0.00	0.35	2.16	0.85	1.00	0.00	3.13	11.98	0.00	407.1	0.0	56.28	77.31	133.59
13	98.0	9.87	1.320	3.00	0.00	0.36	2.14	0.85	1.00	0.00	2.99	10.06	0.00	362.8	0.0	53.67	76.80	130.47
14	101.4	9.94	0.660	1.39	0.00	0.27	2.38	0.85	1.00	0.00	1.40	7.18	0.00	271.2	0.0	28.22	55.25	83.48
15	111.4	10.14	1.458	8.44	0.00	0.22	2.54	0.85	1.00	0.00	6.18	28.69	0.00	1,397.5	0.0	135.53	233.37	368.91
16	125.0	10.39	1.233	4.20	0.00	0.21	2.57	0.85	1.00	0.00	3.50	6.56	0.00	596.2	0.0	79.64	68.23	147.87
													<b>18,437.3</b>	<b>0.0</b>			<b>4,065.23</b>	

## Force/Stress Compression Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



### LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
						X	Y	Z				
1	6.667	MOD - 6PX+7.625x.301_1/2P	-387.36	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.87	54.00	519.92	74.5 Member X
2	13.33	PX - 6" DIA PIPE	-373.46	1.2D + 1.6W Normal Wind	6.67	50	50	50	18.27	54.00	397.62	93.9 Member X
3	20	PX - 6" DIA PIPE	-357.04	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.55	54.00	367.37	97.2 Member X
4	40	PX - 6" DIA PIPE	-339.29	1.2D + 1.6W Normal Wind	6.67	100	100	100	36.54	54.00	367.38	92.4 Member X
5	45	MOD - 6PST+7.625x.301_5P	-285.74	1.2D + 1.6W Normal Wind	5.00	50	50	50	13.90	54.00	435.04	65.7 Member X
6	55	MOD - 6PST+7.625x.301_5P	-269.00	1.2D + 1.6W Normal Wind	5.00	100	100	100	27.80	54.00	415.57	64.7 Member X
7	60	PST - 6" DIA PIPE	-235.25	1.2D + 1.6W Normal Wind	5.00	50	50	50	13.34	54.00	267.40	88.0 Member X
8	75	PST - 6" DIA PIPE	-218.10	1.2D + 1.6W Normal Wind	5.00	100	100	100	26.68	54.00	256.37	85.1 Member X
9	80	PST - 6" DIA PIPE	-156.57	1.2D + 1.6W Normal Wind	5.00	100	100	100	26.68	54.00	256.37	61.1 Member X
10	88	MOD - 4"PST+5"PX1/2P	-138.69	1.2D + 1.6W Normal Wind	4.00	50	50	50	15.25	54.00	297.27	46.7 Member X
11	92	PST - 4" DIA PIPE	-105.36	1.2D + 1.6W Normal Wind	4.00	50	50	50	15.90	54.00	151.02	69.8 Member X
12	96	PST - 4" DIA PIPE	-90.94	1.2D + 1.6W Normal Wind	4.00	100	100	100	31.80	54.00	142.24	63.9 Member X
13	100	PST - 4" DIA PIPE	-76.52	1.2D + 1.6W Normal Wind	4.00	100	100	100	31.80	54.00	142.24	53.8 Member X
14	102.8	SOL - 2" SOLID	-63.83	1.2D + 1.6W Normal Wind	2.86	50	50	50	34.28	45.00	117.76	54.2 Member X
15	120	SOL - 2" SOLID	-50.99	1.2D + 1.6W Normal Wind	2.86	100	100	100	68.57	45.00	93.37	54.6 Member X
16	130	SOL - 1 1/2" SOLID	-2.02	1.2D + 1.6W Normal Wind	2.50	100	100	100	80.00	45.00	46.97	4.3 Member X

### Splices

Sect	Top Elev	Load Case	Top Splice				Bottom Splice					
			Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type
1	6.667	1.2D + 1.6W Normal Wind	381.46	0.00	0.0			1.2D + 1.6W Normal Wind	397.49	0.00		
2	13.33	1.2D + 1.6W Normal Wind	365.87	0.00	0.0			1.2D + 1.6W Normal Wind	381.46	0.00		
3	20	1.2D + 1.6W Normal Wind	349.13	0.00	0.0			1.2D + 1.6W Normal Wind	365.87	0.00		
4	40	1.2D + 1.6W Normal Wind	293.00	0.00	0.0			1.2D + 1.6W Normal Wind	349.13	0.00	1 A325	8
5	45	1.2D + 1.6W Normal Wind	277.91	0.00	0.0			1.2D + 1.6W Normal Wind	293.00	0.00	1 A325	8
6	55	1.2D + 1.6W Normal Wind	245.13	0.00	0.0			1.2D + 1.6W Normal Wind	277.91	0.00		
7	60	1.2D + 1.6W Normal Wind	227.37	0.00	0.0			1.2D + 1.6W Normal Wind	245.13	0.00		
8	75	1.2D + 1.6W Normal Wind	168.22	0.00	0.0			1.2D + 1.6W Normal Wind	227.37	0.00	1 A325	8
9	80	1.2D + 1.6W Normal Wind	147.11	0.00	0.0			1.2D + 1.6W Normal Wind	168.22	0.00		
10	88	1.2D + 1.6W Normal Wind	115.11	0.00	0.0			1.2D + 1.6W Normal Wind	147.11	0.00	1 A325	8
11	92	1.2D + 1.6W Normal Wind	98.40	0.00	0.0			1.2D + 1.6W Normal Wind	115.11	0.00		
12	96	1.2D + 1.6W Normal Wind	84.12	0.00	0.0			1.2D + 1.6W Normal Wind	98.40	0.00		
13	100	1.2D + 1.6W Normal Wind	72.05	0.00	0.0			1.2D + 1.6W Normal Wind	84.12	0.00		
14	102.8	1.2D + 1.6W Normal Wind	58.72	0.00	0.0			1.2D + 1.6W Normal Wind	72.05	0.00	3/4 A325	6
15	120	1.2D + 1.0Di + 1.0Wi Normal Wi	4.71	0.00	0.0			1.2D + 1.6W Normal Wind	58.72	0.00		
16	130	1.2D + 1.0Di + 1.0Wi 90° Wind	0.28	0.00	0.0			1.2D + 1.0Di + 1.0Wi Normal Wi	4.71	0.00	3/4 A325	4

### HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %	Fy (ksi)	Mem		Shear Bear		Use %	Controls
								Cap (kips)	Num Bolts	Num Holes	Cap (kips)		
1	6.66							0.00	0	0			
2	13.3							0.00	0	0			
3	20							0.00	0	0			
4	40							0.00	0	0			
5	45							0.00	0	0			
6	55							0.00	0	0			
7	60							0.00	0	0			
8	75							0.00	0	0			
9	80							0.00	0	0			

## Force/Stress Compression Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	<b>2/10/2021</b>
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 20

### HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Bear		Use %	Controls
						X	Y	Z						Cap (kips)	Cap (kips)		
10	88									0.00	0	0					
11	92									0.00	0	0					
12	96									0.00	0	0					
13	100	SAE - 1.25x1.25x0.1875	-1.44	0.9D + 1.6W Normal Wind	2.50	100	100	100	122.95	36.00	6.34	1	1	7.95	7.50	23	Member Z
14	102	SAE - 1.25x1.25x0.1875	-1.64	0.9D + 1.6W Normal Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			17	Member Z
15	120	SAE - 1.25x1.25x0.1875	-1.22	0.9D + 1.6W Normal Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			13	Member Z
16	130	SAE - 1.25x1.25x0.1875	-0.16	0.9D + 1.6W 60° Wind	2.50	100	100	100	86.07	36.00	9.52	0	0			2	Member Z

### DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Bear		Use %	Controls
						X	Y	Z						Cap (kips)	Cap (kips)		
1	6.66	DAE - 2X2X0.1875	-7.33	1.2D + 1.6W Normal Wind	9.91	50	50	25	96.96	36.00	28.25	2	2	15.90	37.1	46	Bolt Shear
2	13.3	SAE - 2X2X0.1875	-6.77	0.9D + 1.6W 90° Wind	9.67	50	50	50	147.21	36.00	7.40	1	1	9.72	7.50	91	Member Z
3	20	SAE - 2X2X0.1875	-6.97	0.9D + 1.6W 90° Wind	9.43	50	50	50	143.59	36.00	7.78	1	1	9.72	7.50	93	Bolt Bear
4	40	DAE - 1.75X1.75X.1875-7.59		1.2D + 1.6W 90° Wind	8.75	50	50	25	97.77	36.00	24.29	2	2	15.90	37.1	48	Bolt Shear
5	45	SAE - 2X2X0.25	-6.32	1.2D + 1.6W 90° Wind	7.34	50	50	50	114.49	36.00	15.27	1	1	7.95	10.0	79	Bolt Shear
6	55	DAE - 1.5x1.5x.1875	-6.69	1.2D + 1.6W 90° Wind	6.98	50	50	25	92.77	36.00	21.83	2	2	15.90	37.1	42	Bolt Shear
7	60	DAE - 1.5x1.5x.1875	-7.12	1.2D + 1.6W 90° Wind	6.81	50	50	25	90.48	36.00	22.32	2	2	15.90	37.1	45	Bolt Shear
8	75	DAE - 1.5x1.5x.1875	-7.90	1.2D + 1.6W 90° Wind	6.33	50	50	25	84.03	36.00	23.68	2	2	15.90	37.1	50	Bolt Shear
9	80	SAE - 2X2X0.25	-7.59	1.2D + 1.6W 90° Wind	6.18	50	50	25	60.85	36.00	25.06	2	2	15.90	24.8	48	Bolt Shear
10	88	DAE - 1.5x1.5x.1875	-5.90	1.2D + 1.6W 90° Wind	5.12	50	50	25	80.44	36.00	24.43	2	2	15.90	37.1	37	Bolt Shear
11	92	DAE - 1.5x1.5x.1875	-6.34	1.2D + 1.6W 90° Wind	5.00	50	50	25	66.42	36.00	27.23	2	2	15.90	37.1	40	Bolt Shear
12	96	SAE - 2X2X0.25	-4.72	1.2D + 1.6W 90° Wind	4.88	50	50	50	86.20	36.00	20.60	1	1	7.95	10.0	59	Bolt Shear
13	100	SAE - 1.5X1.5X0.1875	-4.50	1.2D + 1.6W Normal Wind	4.77	50	50	50	103.28	36.00	9.79	1	1	7.95	7.50	60	Bolt Bear
14	102	SOL - 3/4" SOLID	-5.42	1.2D + 1.6W Normal Wind	3.80	50	50	50	109.34	36.00	7.63	0	0				T-Only
15	120	SOL - 3/4" SOLID	-5.05	1.2D + 1.6W Normal Wind	3.80	50	50	50	109.34	36.00	7.63	0	0				T-Only
16	130	SOL - 3/4" SOLID	-0.33	1.2D + 1.6W Normal Wind	3.54	50	50	50	101.82	36.00	8.29	0	0				T-Only



## Force/Stress Tension Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 21

### LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	6.667	MOD - 6PX+7.625x.301_1/2P	361.98	0.9D + 1.6W 60° Wind	54	578.83	62.5	Member
2	13.333	PX - 6" DIA PIPE	349.14	0.9D + 1.6W 60° Wind	54	408.24	85.5	Member
3	20	PX - 6" DIA PIPE	333.90	0.9D + 1.6W 60° Wind	54	408.24	81.8	Member
4	40	PX - 6" DIA PIPE	317.45	0.9D + 1.6W 60° Wind	54	408.24	77.8	Member
5	45	MOD - 6PST+7.625x.301_5P	267.06	0.9D + 1.6W 60° Wind	54	441.73	60.5	Member
6	55	MOD - 6PST+7.625x.301_5P	251.46	0.9D + 1.6W 60° Wind	54	441.73	56.9	Member
7	60	PST - 6" DIA PIPE	220.16	0.9D + 1.6W 60° Wind	54	271.19	81.2	Member
8	75	PST - 6" DIA PIPE	203.84	0.9D + 1.6W 60° Wind	54	271.19	75.2	Member
9	80	PST - 6" DIA PIPE	145.02	0.9D + 1.6W 60° Wind	54	271.19	53.5	Member
10	88	MOD - 4"PST+5"PX1/2P	129.11	0.9D + 1.6W 60° Wind	54	302.78	42.6	Member
11	92	PST - 4" DIA PIPE	97.78	0.9D + 1.6W 60° Wind	54	154.06	63.5	Member
12	96	PST - 4" DIA PIPE	85.59	1.2D + 1.6W 60° Wind	54	154.06	55.6	Member
13	100	PST - 4" DIA PIPE	71.95	1.2D + 1.6W 60° Wind	54	154.06	46.7	Member
14	102.85	SOL - 2" SOLID	59.65	0.9D + 1.6W 60° Wind	45	127.23	46.9	Member
15	120	SOL - 2" SOLID	47.12	0.9D + 1.6W 60° Wind	45	127.23	37.0	Member
16	130	SOL - 1 1/2" SOLID	1.63	0.9D + 1.6W 60° Wind	45	71.57	2.3	Member

### Splices

Sect	Top Elev	Top Splice					Bottom Splice						
		Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	6.667	0.9D + 1.6W 60° Wind	355.39	0.00	0.0		0.9D + 1.6W 60° Wind	370.6	0.00				
2	13.333	0.9D + 1.6W 60° Wind	340.76	0.00	0.0		0.9D + 1.6W 60° Wind	355.3	0.00				
3	20	0.9D + 1.6W 60° Wind	325.27	0.00	0.0		0.9D + 1.6W 60° Wind	340.7	0.00				
4	40	0.9D + 1.6W 60° Wind	272.89	0.00	0.0		0.9D + 1.6W 60° Wind	325.2	424.08	76.7	1 A325	8	
5	45	0.9D + 1.6W 60° Wind	258.92	0.00	0.0		0.9D + 1.6W 60° Wind	272.8	424.08	64.3	1 A325	8	
6	55	0.9D + 1.6W 60° Wind	228.31	0.00	0.0		0.9D + 1.6W 60° Wind	258.9	0.00				
7	60	0.9D + 1.6W 60° Wind	211.67	0.00	0.0		0.9D + 1.6W 60° Wind	228.3	0.00				
8	75	0.9D + 1.6W 60° Wind	155.36	0.00	0.0		0.9D + 1.6W 60° Wind	211.6	424.08	49.9	1 A325	8	
9	80	0.9D + 1.6W 60° Wind	135.16	0.00	0.0		0.9D + 1.6W 60° Wind	155.3	0.00				
10	88	0.9D + 1.6W 60° Wind	106.43	0.00	0.0		0.9D + 1.6W 60° Wind	135.1	424.08	31.9	1 A325	8	
11	92	0.9D + 1.6W 60° Wind	90.13	0.00	0.0		0.9D + 1.6W 60° Wind	106.4	0.00				
12	96	0.9D + 1.6W 60° Wind	78.54	0.00	0.0		0.9D + 1.6W 60° Wind	90.13	0.00				
13	100	0.9D + 1.6W 60° Wind	67.08	0.00	0.0		0.9D + 1.6W 60° Wind	78.54	0.00				
14	102.85	0.9D + 1.6W 60° Wind	54.21	0.00	0.0		0.9D + 1.6W 60° Wind	67.08	180.60	37.1	3/4 A325	6	
15	120	0.9D + 1.6W 60° Wind	1.45	0.00	0.0		0.9D + 1.6W 60° Wind	54.21	0.00				
16	130		0.00	0.00	0.0		0.9D + 1.6W 60° Wind	1.45	120.40	1.2	3/4 A325	4	

### HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	6.667	-			36	0.00	0	0					
2	13.333	-			36	0.00	0	0					
3	20	-			36	0.00	0	0					
4	40	-			36	0.00	0	0					
5	45	-			36	0.00	0	0					
6	55	-			36	0.00	0	0					
7	60	-			36	0.00	0	0					
8	75	-			36	0.00	0	0					
9	80	-			36	0.00	0	0					
10	88	-			36	0.00	0	0					

## Force/Stress Tension Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 22

### HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
11	92	-			36	0.00	0	0					
12	96	-			36	0.00	0	0					
13	100	SAE - 1.25x1.25x0.1875	1.77	1.2D + 1.6W 60° Wind	36	13.78	1	1	7.95	7.50	5.21	34.0	Blck Shear
14	102.85	SAE - 1.25x1.25x0.1875	2.05	1.2D + 1.6W 60° Wind	36	14.06	0	0				14.6	Member
15	120	SAE - 1.25x1.25x0.1875	1.60	1.2D + 1.6W 60° Wind	36	14.06	0	0				11.4	Member
16	130	SAE - 1.25x1.25x0.1875	0.20	1.2D + 1.6W 90° Wind	36	14.06	0	0				1.4	Member

### DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	6.667	DAE - 2X2X0.1875	6.28	0.9D + 1.6W 60° Wind	36	46.33	2	2	15.90	37.19	23.25	39.5	Bolt Shear
2	13.333	SAE - 2X2X0.1875	5.69	0.9D + 1.6W 90° Wind	36	23.00	1	1	9.72	7.50	7.25	78.5	Blck Shear
3	20	SAE - 2X2X0.1875	6.04	0.9D + 1.6W 90° Wind	36	23.00	1	1	9.72	7.50	7.25	83.4	Blck Shear
4	40	DAE - 1.75X1.75X.1875	6.56	0.9D + 1.6W 90° Wind	36	40.18	2	2	15.90	37.19	21.21	41.2	Bolt Shear
5	45	SAE - 2X2X0.25	5.83	1.2D + 1.6W 90° Wind	36	30.46	1	1	7.95	10.01	9.66	73.3	Bolt Shear
6	55	DAE - 1.5x1.5x.1875	6.22	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	39.1	Bolt Shear
7	60	DAE - 1.5x1.5x.1875	6.30	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	39.6	Bolt Shear
8	75	DAE - 1.5x1.5x.1875	7.30	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	45.9	Bolt Shear
9	80	SAE - 2X2X0.25	7.07	1.2D + 1.6W 90° Wind	36	27.30	2	2	15.90	24.80	15.50	45.7	Blck Shear
10	88	DAE - 1.5x1.5x.1875	5.73	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	36.1	Bolt Shear
11	92	DAE - 1.5x1.5x.1875	5.80	1.2D + 1.6W 90° Wind	36	34.34	2	2	15.90	37.19	19.17	36.5	Bolt Shear
12	96	SAE - 2X2X0.25	4.48	1.2D + 1.6W 90° Wind	36	30.46	1	1	7.95	10.01	9.66	56.3	Bolt Shear
13	100	SAE - 1.5X1.5X0.1875	4.12	1.2D + 1.6W 60° Wind	36	17.17	1	1	7.95	7.50	5.21	79.1	Blck Shear
14	102.85	SOL - 3/4" SOLID	5.09	1.2D + 1.6W 60° Wind	36	14.31	0	0				35.5	Member
15	120	SOL - 3/4" SOLID	4.81	1.2D + 1.6W 90° Wind	36	14.31	0	0				33.6	Member
16	130	SOL - 3/4" SOLID	0.42	1.2D + 1.6W 60° Wind	36	14.31	0	0				2.9	Member

## Seismic Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 23

**Load Case: 1.2D + 1.0E**

<b>Dead Load Factor</b>	1.20	<b>Sds</b>	0.192	<b>Ss</b>	0.1800	<b>Fa</b>	1.6000	<b>Ke</b>	0.0000
<b>Seismic Load Factor</b>	1.00	<b>Sd1</b>	0.100	<b>S1</b>	0.0630	<b>Fv</b>	2.4000	<b>Kg</b>	0.0000
<b>Seismic Importance Factor</b>	1.00	<b>SA</b>	0.118	<b>R</b>	3.0000	<b>Vs</b>	1.4181	<b>f1</b>	1.1740

Sect #	Elev (ft)	Wz (lb)	Lateral			Fsz (lb)
			a	b	c	
1	3.33	1488.8	0.00	0.03	0.01	4.08
2	10.00	1167.7	0.01	0.06	0.03	7.07
3	16.67	1097.4	0.03	0.07	0.04	8.69
4	30.00	3562.7	0.10	0.07	0.04	38.57
5	42.50	993.72	0.20	0.06	0.02	13.96
6	50.00	1815.3	0.28	0.05	0.01	28.87
7	57.50	745.46	0.37	0.03	0.01	12.86
8	67.50	2146.5	0.51	-0.02	0.01	38.42
9	77.50	2836.5	0.67	-0.08	0.02	50.62
10	84.00	1214.3	0.79	-0.11	0.05	22.51
11	90.00	476.68	0.91	-0.12	0.09	9.91
12	94.00	4047.9	0.99	-0.11	0.13	95.79
13	98.00	362.84	1.07	-0.08	0.17	10.16
14	101.43	271.24	1.15	-0.04	0.22	8.98
15	111.43	7085.0	1.39	0.26	0.42	400.74
16	125.00	632.15	1.75	1.31	0.89	70.92

## Seismic Section Forces

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 24

**Load Case:** 0.9D + 1.0E

<b>Dead Load Factor</b>	0.90	<b>Sds</b>	0.192	<b>Ss</b>	0.1800	<b>Fa</b>	1.6000	<b>Ke</b>	0.0000
<b>Seismic Load Factor</b>	1.00	<b>Sd1</b>	0.100	<b>S1</b>	0.0630	<b>Fv</b>	2.4000	<b>Kg</b>	0.0000
<b>Seismic Importance Factor</b>	1.00	<b>SA</b>	0.118	<b>R</b>	3.0000	<b>Vs</b>	1.4181	<b>f1</b>	1.1740

Sect #	Elev (ft)	Wz (lb)	Lateral			Fsz (lb)
			a	b	c	
1	3.33	1488.8	0.00	0.03	0.01	4.08
2	10.00	1167.7	0.01	0.06	0.03	7.07
3	16.67	1097.4	0.03	0.07	0.04	8.69
4	30.00	3562.7	0.10	0.07	0.04	38.57
5	42.50	993.72	0.20	0.06	0.02	13.96
6	50.00	1815.3	0.28	0.05	0.01	28.87
7	57.50	745.46	0.37	0.03	0.01	12.86
8	67.50	2146.5	0.51	-0.02	0.01	38.42
9	77.50	2836.5	0.67	-0.08	0.02	50.62
10	84.00	1214.3	0.79	-0.11	0.05	22.51
11	90.00	476.68	0.91	-0.12	0.09	9.91
12	94.00	4047.9	0.99	-0.11	0.13	95.79
13	98.00	362.84	1.07	-0.08	0.17	10.16
14	101.43	271.24	1.15	-0.04	0.22	8.98
15	111.43	7085.0	1.39	0.26	0.42	400.74
16	125.00	632.15	1.75	1.31	0.89	70.92

## Support Forces Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 25

Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.6W Normal Wind	1	0.00	397.36	-20.77	
	1a	8.40	-180.71	-5.02	
	1b	-8.40	-180.71	-5.02	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.6W 60° Wind	1	-0.17	201.90	-10.34	
	1a	-9.07	202.81	5.01	
	1b	-16.89	-368.77	-9.75	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.6W 90° Wind	1	-0.17	12.03	-0.35	
	1a	-15.48	343.38	8.80	
	1b	-14.70	-319.47	-8.45	
<hr style="border-top: 1px dashed black;"/>					
0.9D + 1.6W Normal Wind	1	0.00	392.61	-20.62	
	1a	8.49	-182.83	-5.09	
	1b	-8.49	-182.83	-5.09	
<hr style="border-top: 1px dashed black;"/>					
0.9D + 1.6W 60° Wind	1	-0.19	198.03	-10.21	
	1a	-8.96	198.93	4.93	
	1b	-16.98	-370.02	-9.81	
<hr style="border-top: 1px dashed black;"/>					
0.9D + 1.6W 90° Wind	1	-0.19	9.03	-0.23	
	1a	-15.36	338.86	8.72	
	1b	-14.79	-320.93	-8.49	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	144.72	-5.84	
	1a	2.41	-20.41	-1.43	
	1b	-2.41	-20.41	-1.43	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.0Di + 1.0Wi 60° Wind	1	-0.03	89.30	-2.93	
	1a	-2.56	89.57	1.44	
	1b	-4.87	-74.96	-2.81	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.0Di + 1.0Wi 90° Wind	1	-0.03	34.64	-0.08	
	1a	-4.37	129.79	2.50	
	1b	-4.23	-60.52	-2.43	
<hr style="border-top: 1px dashed black;"/>					
1.2D + 1.0E	1	0.00	23.89	1.87	
	1a	2.34	6.02	-1.33	
	1b	-2.34	6.02	-1.33	
<hr style="border-top: 1px dashed black;"/>					
0.9D + 1.0E	1	0.00	20.84	1.99	
	1a	2.45	3.05	-1.39	
	1b	-2.45	3.05	-1.39	
<hr style="border-top: 1px dashed black;"/>					
1.0D + 1.0W Normal Wind	1	0.00	102.32	-5.32	
	1a	1.75	-36.19	-1.07	
	1b	-1.75	-36.19	-1.07	
<hr style="border-top: 1px dashed black;"/>					
1.0D + 1.0W 60° Wind	1	-0.05	55.48	-2.82	
	1a	-2.47	55.69	1.37	
	1b	-3.82	-81.23	-2.20	
<hr style="border-top: 1px dashed black;"/>					
1.0D + 1.0W 90° Wind	1	-0.05	9.98	-0.41	
	1a	-4.00	89.32	2.28	
	1b	-3.29	-69.36	-1.87	

### Max Reactions

Leg

Overturing

---

Max Uplift: -370.02 (kips)

Max Down: 397.36 (kips)

Max Shear: 20.77 (kips)

Moment: 2503.14 (ft-kips)

Total Down: 35.93 (kips)

Total Shear: 30.80 (kips)

## Analysis Summary

<b>Structure:</b> CT46126-A-SBA	<b>Code:</b> EIA/TIA-222-G	2/10/2021
<b>Site Name:</b> Glastonbury-main St.	<b>Exposure:</b> C	
<b>Height:</b> 130.00 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 0.85	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 27



### Max Reactions

	Leg	Overturning
Max Uplift:	-370.02 (kips)	Moment: 2503.14 (ft-kips)
Max Down:	397.36 (kips)	Total Down: 35.93 (kips)
Max Shear:	20.77 (kips)	Total Shear: 30.80 (kips)

### Anchor Bolts

Bolt Size (in.): 1.50	Number Bolts: 8
Yield Strength (Ksi): 55.00	Tensile Strength (Ksi): 75.00
Detail Type: C	

**Interaction Ratio: 0.60**

### Max Usages


Max Leg: 97.2% (1.2D + 1.6W Normal Wind - Sect 3)  
 Max Diag: 92.9% (0.9D + 1.6W 90° Wind - Sect 3)  
 Max Horiz: 34.0% (1.2D + 1.6W 60° Wind - Sect 13)

### Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.0E - Normal To Face	80.00	0.0391	0.0010	0.0637
	92.00	0.0535	0.0010	0.0774
	111.43	0.0843	0.0002	0.0989
	117.14	0.0942	-0.0001	0.0999
	120.00	0.0992	0.0000	0.0998
	130.00	0.1166	0.0000	0.0999
0.9D + 1.6W 97 mph Wind at 60° From Face	80.00	1.1623	-0.0254	1.7861
	92.00	1.5638	-0.0236	2.0919
	111.43	2.3719	-0.0398	2.6040
	117.14	2.6291	-0.0413	2.5851
	120.00	2.7584	-0.0424	2.6401
	130.00	3.2096	-0.0401	2.5873
0.9D + 1.6W 97 mph Wind at 90° From Face	80.00	1.1653	-0.0272	1.7978
	92.00	1.5681	-0.0237	2.1035
	111.43	2.3807	0.0264	2.6490
	117.14	2.6392	0.0264	2.5898
	120.00	2.7693	0.0263	2.6977
	130.00	3.2232	0.0263	2.6030
0.9D + 1.6W 97 mph Wind at Normal To Face	80.00	1.1661	0.0394	1.7880
	92.00	1.5675	0.0430	2.0747
	111.43	2.3740	0.0260	2.4952
	117.14	2.6295	0.0251	2.5955
	120.00	2.7578	0.0243	2.4897
	130.00	3.2059	0.0246	2.5693

1.0D + 1.0W 60 mph Wind at 60° From Face	80.00	0.2784	0.0059	0.4269
	92.00	0.3745	0.0053	0.5005
	111.43	0.5677	-0.0018	0.6224
	117.14	0.6292	-0.0022	0.6178
	120.00	0.6601	-0.0024	0.6309
	130.00	0.7679	-0.0023	0.6182
1.0D + 1.0W 60 mph Wind at 90° From Face	80.00	0.2795	-0.0066	0.4306
	92.00	0.3759	-0.0058	0.5036
	111.43	0.5703	0.0017	0.6334
	117.14	0.6321	0.0015	0.6192
	120.00	0.6632	0.0014	0.6450
	130.00	0.7717	0.0014	0.6222
1.0D + 1.0W 60 mph Wind at Normal To Face	80.00	0.2807	0.0082	0.4299
	92.00	0.3771	0.0086	0.4977
	111.43	0.5701	-0.0020	0.5982
	117.14	0.6314	-0.0016	0.6222
	120.00	0.6622	-0.0014	0.5968
	130.00	0.7696	-0.0014	0.6158
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face	80.00	0.3373	-0.0070	0.5208
	92.00	0.4549	-0.0064	0.6164
	111.43	0.6953	-0.0027	0.7787
	117.14	0.7724	-0.0033	0.7766
	120.00	0.8113	-0.0036	0.7924
	130.00	0.9471	-0.0035	0.7791
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face	80.00	0.3379	-0.0080	0.5251
	92.00	0.4558	-0.0072	0.6190
	111.43	0.6972	0.0027	0.7906
	117.14	0.7747	0.0025	0.7775
	120.00	0.8137	0.0023	0.8078
	130.00	0.9502	0.0023	0.7828
1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face	80.00	0.3374	0.0099	0.5231
	92.00	0.4550	0.0105	0.6093
	111.43	0.6937	0.0030	0.7471
	117.14	0.7702	0.0025	0.7776
	120.00	0.8087	0.0023	0.7490
	130.00	0.9434	0.0022	0.7721
1.2D + 1.0E - Normal To Face	80.00	0.0393	0.0010	0.0643
	92.00	0.0537	0.0010	0.0780
	111.43	0.0848	-0.0002	0.0996
	117.14	0.0948	-0.0001	0.1005
	120.00	0.0998	0.0000	0.1005
	130.00	0.1173	0.0000	0.1006
1.2D + 1.6W 97 mph Wind at 60° From Face	80.00	1.1695	-0.0256	1.7989
	92.00	1.5740	-0.0238	2.1080
	111.43	2.3886	-0.0403	2.6254
	117.14	2.6479	-0.0419	2.6067
	120.00	2.7783	-0.0430	2.6617
	130.00	3.2332	-0.0406	2.6088
1.2D + 1.6W 97 mph Wind at 90° From Face	80.00	1.1725	-0.0274	1.8109
	92.00	1.5783	-0.0240	2.1196
	111.43	2.3975	0.0268	2.6705
	117.14	2.6582	0.0269	2.6115
	120.00	2.7893	0.0268	2.7195
	130.00	3.2469	0.0268	2.6247
1.2D + 1.6W 97 mph Wind at Normal To Face	80.00	1.1732	0.0396	1.8010
	92.00	1.5776	-0.0434	2.0905
	111.43	2.3905	-0.0264	2.5163
	117.14	2.6481	-0.0255	2.6170
	120.00	2.7776	0.0247	2.5110
	130.00	3.2294	0.0250	2.5906



	<b>Mat Foundation Design for Self Supporting Tower</b>			<i>Date</i>
				2/10/2021
	<b>Customer Name:</b>	SBA Communications Corp	<b>EIA/TIA Standard:</b>	EIA-222-G
	<b>Site Name:</b>		<b>Structure Height (Ft.):</b>	130
	<b>Site Number:</b>	CT46126-A-SBA	<b>Engineer Name:</b>	Rama K.
<b>Engr. Number:</b>	102481	<b>Manager Login Req'd:</b>		

**Foundation Info Obtained from:**

Drawings/Calculations
Analysis
3 Legs

**Analysis or Design?**

**Number of Tower Legs:**

**Base Reactions (Factored):**

(1). Individual Leg:

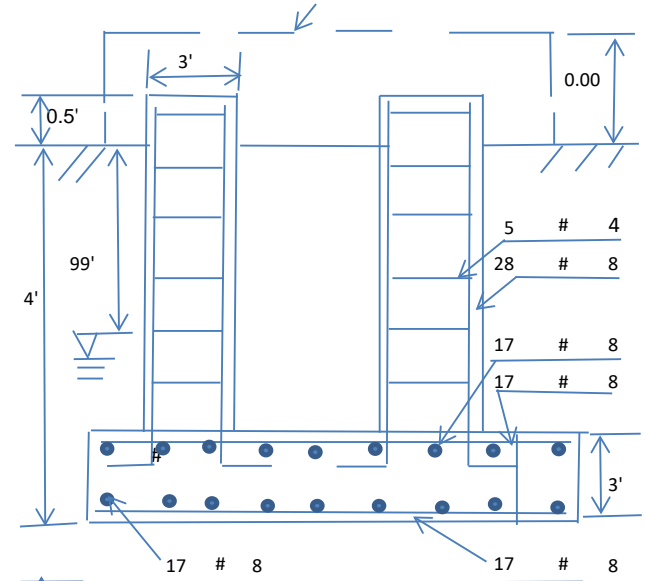
Axial Load (Kips):	397.4	Uplift Force (Kips):	370.0
Shear Force (Kips):	20.8		

(2). Tower Base:

Total Vertical Load (Kips):	35.9	Total Shear Force (Kips):	30.8
Moment (Kips-ft):	2503.1		

**Foundation Geometries:**

Leg distance (Center-to-Center ft.):	7.5	Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	Round 3.0	Pier Height A. G. (ft.):	0.50
Tower center to mat center (ft):		Depth of Base BG (ft.):	4.0
Length of Pad (ft.):	26	Width of Pad (ft.):	26
Thickness of Pad (ft):	3.00		

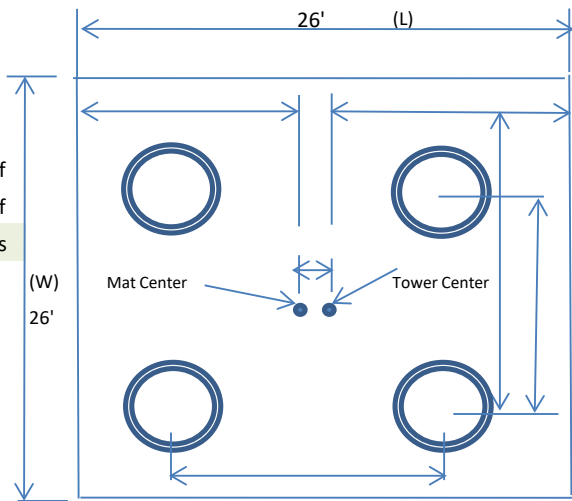
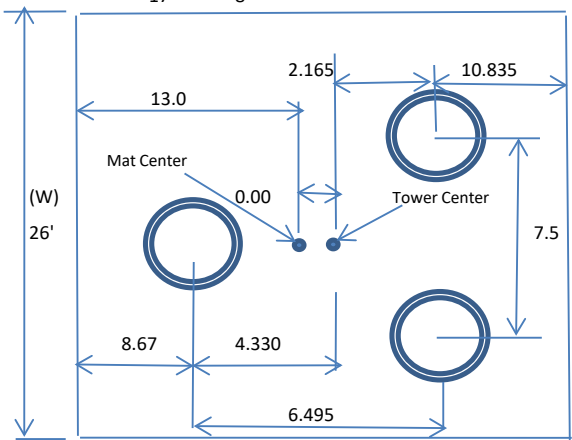


**Material Properties and Rebar Info:**

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi):	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	28	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
<b>Rebar at the bottom of the concrete pad:</b>				
Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17	
<b>Rebar at the top of the concrete pad:</b>				
Qty. of Rebar in Pad (L):	17	Qty. of Rebar in Pad (W):	17	

**Soil Design Parameters:**

Soil Unit Weight (pcf):	100.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	6000	Consider ties in concrete shear strength:	Yes	



Allowable overstress %: 5.00%  
 Apply 1.35 for e/w per G/H: 1

TES Engr. Number: 102481

Page 2/2 Date: 2/10/2021

<b>Foundation Analysis and Design:</b>	Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	654.79	Total Dry Soil Weight (Kips):	65.48	
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00	
Total Effective Soil Weight (Kips):	65.48	Weight from the Concrete Block at Top (K):	0.00	
Total Dry Concrete Volume (cu. Ft.):	2059.81	Total Dry Concrete Weight (Kips):	308.97	
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00	
Total Effective Concrete Weight (Kips):	308.97	Total Vertical Load on Base (Kips):	410.38	

**Check Soil Capacities:**

Calculated Maxium Net Soil Pressure under the base (psf):	1645.85	<	Allowable Factored Soil Bearing (psf):	4500	0.37	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	4848.2	>	Design Factored Momont (kips-ft):	2624	0.54	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.85					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		
<b>(1) Concrete Pier:</b>						
Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20			
Calculated Moment Capacity (Mn,Kips-Ft):	934.3	>	Design Factored Moment (Mu, Kips-Ft)	31.1	0.03	OK!
Calculated Shear Capacity (Kips):	62.9	>	Design Factored Shear (Kips):	20.8	0.33	OK!
Calculated Tension Capacity (Tn, Kips):	1194.5	>	Design Factored Tension (Tu Kips):	370.0	0.31	OK!
Calculated Compression Capacity (Pn, Kips):	1320.4	>	Design Factored Axial Load (Pu Kips):	397.4	0.30	OK!
Moment & Tension Strength Combination:	0.03	OK!	Check Tie Spacing (Design/Req'd):	1		OK!
Pier Reinforcement Ratio:	0.022		Reinforcement Ratio is satisfied per ACI			

**(2).Concrete Pad:**

One-Way Design Shear Capacity (L or W Direction, Kips):	833.1	>	One-Way Factored Shear (L/W-Dir Kips	206.3	0.25	OK!
One-Way Design Shear Capacity (Diagonal Dir., Kips):	650.6	>	One-Way Factored Shear (Dia. Dir, Kips	184.4	0.28	OK!
Lower Steel Pad Reinforcement Ratio (L or W-Direct. ):	0.0013		Lower Steel Reinf. Ratio (Dia. Dir.):	0.0011		
Lower Steel Pad Moment Capacity (L or W-Dir. Kips-ft):	1933.5	>	Moment at Bottom ( L-Direct. K-Ft):	1397.0	0.72	OK!
Lower Steel Pad Moment Capacity (Dia. Direction,K-ft):	1937.6	>	Moment at Bottom ( Dia. Dir. K-Ft):	1102.5	0.57	OK!
Upper Steel Pad Reinforcement Ratio (L or W -Direction):	0.0013		Upper Steel Reinf. Ratio (Dia. Dir.):	0.0011		
Upper Steel Pad Moment Capacity (L or W-Dir., Kips-ft):	1933.5	>	Moment at the top (L-Dir Kips-Ft):	683.3	0.35	OK!
Upper Steel Pad Moment Capacity (Dia. Direction, K-ft):	1937.6	>	Moment at the top (Dia. Dir., K-Ft):	416.5	0.21	OK!
Punching Failure Capacity (Kips):	1149.2	>	Punch. Failure Factored Shear (K):	397.4	0.35	OK!

# EXHIBIT 8

February 1, 2021



SBA Communications Corporation  
134 Flanders Rd., Suite 125  
Westborough, MA 01581

RE: SBA Site ID: CT46126-A  
Site Number: CT11786D (SBA T-Mobile – ANCHOR)  
Site Name: NEXTEL GLASTONBURY  
Site Address: 2557 Main Street  
Glastonbury, CT 06033

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by T-Mobile to perform a mount analysis on the existing T-Mobile antenna mounts to determine their capabilities of supporting the following equipment loading:

- (3) APXVAARR24\_43-U-NA20 Antennas (95.9"x24.0"x8.7" – Wt. = 128 lbs. /each)
- (3) 4449 B71+B85 RRH's (17.9"x13.2"x9.4" – Wt. = 71 lbs. /each)
- **(3) AIR6449 B41 Antennas (33.1"x20.6"x8.6" – Wt. = 104 lbs. /each)**
- **(3) AIR 32 B66A B2A Antennas (56.6"x12.9"x8.7" – Wt. = 133 lbs. /each)**
- (3) 4415 B25 RRH's (16.5"x13.4"x5.9" – Wt. = 46 lbs. /each)
- (3) Twin Style 1B - AWS TMA's (11.2"x8.0"x4.9" – Wt. = 16 lbs. /each)
- **(6) SDX1926Q-43 (E14F05P86) Diplexers (6.3"x4.4"x3.0" – Wt. = 6 lbs. /each)**

*\*Proposed equipment shown in bold.*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's sub-consultant, ProVertic LLC, conducted a survey climbing of the existing T-Mobile antenna mounts on July 16, 2018. HDG was provided photos from a tower top audit conducted on September 26, 2020.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 125 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.5 in. An escalated ice thickness of 1.66 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- HDG considers this site to have a spectral response acceleration parameter at short periods,  $S_s$ , of 0.180 and a spectral response acceleration parameter at a period of 1 second,  $S_1$ , of 0.063.
- The mount has been analyzed with load combinations consisting of 250 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 2.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing tower with bent plates. The connection is considered OK by visual inspection.

Based on our analysis, we have determined that the existing antenna mount **IS CAPABLE** of supporting the proposed antenna installations.

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
<b>Existing Mount Rating</b>	6	LC38	90%	<b>PASS</b>

This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to T-Mobile's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,  
Hudson Design Group LLC



Michael Cabral  
Vice President



Daniel P. Hamm, PE  
Principal

FIELD PHOTOS:





**HUDSON**  
Design Group LLC

Wind & Ice  
Calculations



Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**2.6.5.2 Velocity Pressure Coeff:**

$$K_z = 2.01 (z/z_g)^{2/\alpha}$$

$K_z =$  **1.246**

$z =$  93 (ft)  
 $z_g =$  900 (ft)  
 $\alpha =$  9.5

$K_{zmin} \leq K_z \leq 2.01$

**Table 2-4**

Exposure	$Z_g$	$\alpha$	$K_{zmin}$	$K_c$
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

**2.6.6.2 Topographic Factor:**

**Table 2-5**

Topo. Category	$K_t$	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_c K_t / K_h)]^2$$

$K_{zt} =$  **1**

*(If Category 1 then  $K_{zt} = 1.0$ )*

Category = **1**

$$K_h = e^{(fz/H)}$$

$K_h =$  1  
 $K_c =$  0.9 (from Table 2-4)  
 $K_t =$  (from Table 2-5)  
 $f =$  (from Table 2-5)  
 $z =$  93  
 $z_s =$  22 (Mean elevation of base of structure above sea level)  
 $H =$  (Ht. of the crest above surrounding terrain)  
 $K_{zt} =$  1.00 (from 2.6.6.2.1)  
 $K_e =$  1.00 (from 2.6.8)

**2.6.10 Design Ice Thickness**

Max Ice Thickness =  $t_i =$  **1.50** in  
 Importance Factor =  $I =$  **1.0** (from Table 2-3)  
 $K_{iz} =$  **1.11** (from Sec. 2.6.10)

$$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$$

$t_{iz} =$  **1.66** in

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**2.6.9 Gust Effect Factor**

2.6.9.1 Self Supporting Lattice Structures

$G_h = 1.0$  Latticed Structures > 600 ft

$G_h = 0.85$  Latticed Structures 450 ft or less

$G_h = 0.85 + 0.15 [h/150 - 3.0]$

$h =$  ht. of structure

$h =$  130

$G_h =$  0.85

2.6.9.2 Guyed Masts

$G_h =$  0.85

2.6.9.3 Pole Structures

$G_h =$  1.1

2.6.9 Appurtenances

$G_h =$  1.0

2.6.9.4 Structures Supported on Other Structures

(Cantilevered tubular or latticed spines, pole, structures on buildings ( $ht. : width$  ratio > 5))

$G_h =$  1.35

$G_h =$  1.00

**2.6.11.2 Design Wind Force on Appurtenances**

$F = q_z * G_h * (EPA)_A$

$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$

$q_z =$	<b>42.34</b>
$q_z (ice) =$	<b>6.78</b>
$q_z (30) =$	<b>2.44</b>

$K_z =$	1.246 (from 2.6.5.2)
$K_{zt} =$	1.0 (from 2.6.6.2.1)
$K_s =$	1.0 (from 2.6.7)
$K_e =$	1.00 (from 2.6.8)
$K_d =$	<b>0.85</b> (from Table 2-2)
$V_{max} =$	125 mph (Ultimate Wind Speed)
$V_{max (ice)} =$	50 mph
$V_{30} =$	30 mph

**Table 2-2**

Structure Type	Wind Direction Probability Factor, $K_d$
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



Determine Ca:

**Table 2-9**

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Square/Rectangular HSS		1.2 - 2.8(r <sub>s</sub> ) ≥ 0.85	1.4 - 4.0(r <sub>s</sub> ) ≥ 0.90	2.0 - 6.0(r <sub>s</sub> ) ≥ 1.25
Round	<b>C &lt; 39</b> (Subcritical)	0.7	0.8	1.2
	<b>39 ≤ C ≤ 78</b> (Transitional)	4.14/(C <sup>0.485</sup> )	3.66/(C <sup>0.415</sup> )	46.8/(C <sup>1.0</sup> )
	<b>C &gt; 78</b> (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.  
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance,  
 Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = **1.66 in**      **Angle = 0 (deg)**      **Equivalent Angle = 180 (deg)**

<u>Appurtenances</u>	<u>Height</u>	<u>Width</u>	<u>Depth</u>	<u>Flat Area</u>	<u>Aspect Ratio</u>	<u>Ca</u>	<u>Force (lbs)</u>	<u>Force (lbs) (w/ Ice)</u>	<u>Force (lbs) (30 mph)</u>
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.61	1.20	241	49	14
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	4.00	1.27	857	162	49
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	4.39	1.28	276	59	16
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.90	1.20	59	15	3
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	3.81	1.26	31	10	2
4415 B25 RRH	16.5	5.9	13.4	0.68	2.80	1.21	35	10	2
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	5.59	1.34	19	8	1
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	1.40	1.20	32	9	2
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	1.43	1.20	10	4	1
2" Pipe	2.4	12.0		0.20	0.20	1.20	10	5	1
4" Pipe	4.5	12.0		0.38	0.38	1.20	19	7	1
2-1/2x2-1/2 Angle	2.0	12.0		0.17	0.17	2.00	14	8	1
9x8 Angle	2.0	12.0		0.17	0.17	2.00	14	8	1
PL 6x3/8	2.4	12.0		0.20	0.20	1.20	10	5	1
PL 2-1/2x3/8	2.4	12.0		0.20	0.20	1.20	10	5	1

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



WIND LOADS

Angle = 30 (deg)

Ice Thickness = 1.66 in.

Equivalent Angle = 210 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	241	105	207
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	857	376	737
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	276	200	257
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	59	83	65
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	31	83	44
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	35	78	46
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	19	78	34
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	32	19	29
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	10	7	9

WIND LOADS WITH ICE:

AIR6449 B41 Antenna	36.4	23.9	11.9	6.05	3.02	1.52	3.05	1.20	1.22	49	25	43
APXVAARR24_43-U-NA20 Antenna	99.2	27.3	12.0	18.83	8.29	3.63	8.25	1.25	1.44	160	81	140
AIR 32 B66A B2A Antenna	59.9	16.2	12.0	6.75	5.01	3.69	4.98	1.25	1.31	57	44	54
4449 B71+B85 RRH	21.2	12.7	16.5	1.88	2.44	1.67	1.28	1.20	1.20	15	20	16
4449 B71+B85 RRH (Shielded)	21.2	6.4	16.5	0.94	2.44	3.34	1.28	1.24	1.20	8	20	11
4415 B25 RRH	19.8	9.2	16.7	1.27	2.30	2.15	1.19	1.20	1.20	10	19	12
4415 B25 RRH (Shielded)	19.8	4.6	16.7	0.64	2.30	4.30	1.19	1.28	1.20	6	19	9
Twin Style 1B - AWS TMA	14.5	11.3	8.2	1.14	0.83	1.28	1.77	1.20	1.20	9	7	9
SDX1926Q-43 (E14F05P86) Diplexer	9.6	7.7	6.3	0.52	0.42	1.25	1.52	1.20	1.20	4	3	4

WIND LOADS AT 30 MPH:

AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	14	6	12
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	49	22	42
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	16	11	15
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	3	5	4
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	3
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	2	4	3
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	1	4	2
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	2	1	2
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	1	0	1

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**WIND LOADS**

Angle = **60** (deg)

Ice Thickness = **1.66** in.

Equivalent Angle = **240** (deg)

**WIND LOADS WITH NO ICE:**

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	241	105	139
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	857	376	497
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	276	200	219
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	59	83	77
4449 B71+B85 RRH (Shielded)	17.9	7.1	13.2	0.88	1.64	2.54	1.36	1.20	1.20	45	83	74
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	35	78	67
4415 B25 RRH (Shielded)	16.5	4.4	13.4	0.51	1.54	3.73	1.23	1.25	1.20	27	78	65
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	32	19	22
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	10	7	7

**WIND LOADS WITH ICE:**

AIR6449 B41 Antenna	36.4	23.9	11.9	6.05	3.02	1.52	3.05	1.20	1.22	49	25	31
APXVAARR24_43-U-NA20 Antenna	99.2	27.3	12.0	18.83	8.29	3.63	8.25	1.25	1.44	160	81	101
AIR 32 B66A B2A Antenna	59.9	16.2	12.0	6.75	5.01	3.69	4.98	1.25	1.31	57	44	48
4449 B71+B85 RRH	21.2	12.7	16.5	1.88	2.44	1.67	1.28	1.20	1.20	15	20	19
4449 B71+B85 RRH (Shielded)	21.2	9.5	16.5	1.41	2.44	2.22	1.28	1.20	1.20	11	20	18
4415 B25 RRH	19.8	9.2	16.7	1.27	2.30	2.15	1.19	1.20	1.20	10	19	17
4415 B25 RRH (Shielded)	19.8	6.9	16.7	0.95	2.30	2.86	1.19	1.22	1.20	8	19	16
Twin Style 1B - AWS TMA	14.5	11.3	8.2	1.14	0.83	1.28	1.77	1.20	1.20	9	7	7
SDX1926Q-43 (E14F05P86) Diplexer	9.6	7.7	6.3	0.52	0.42	1.25	1.52	1.20	1.20	4	3	4

**WIND LOADS AT 30 MPH:**

AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	14	6	8
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	49	22	29
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	16	11	13
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	3	5	4
4449 B71+B85 RRH (Shielded)	17.9	7.1	13.2	0.88	1.64	2.54	1.36	1.20	1.20	3	5	4
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	2	4	4
4415 B25 RRH (Shielded)	16.5	4.4	13.4	0.51	1.54	3.73	1.23	1.25	1.20	2	4	4
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	2	1	1
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	1	0	0

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**WIND LOADS**

Angle = **90** (deg)      Ice Thickness = **1.66** in.      Equivalent Angle = **270** (deg)

**WIND LOADS WITH NO ICE:**

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	241	105	105
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	857	376	376
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	276	200	200
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	59	83	83
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	31	83	83
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	35	78	78
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	19	78	78
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	32	19	19
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	10	7	7

**WIND LOADS WITH ICE:**

AIR6449 B41 Antenna	36.4	23.9	11.9	6.05	3.02	1.52	3.05	1.20	1.22	49	25	25
APXVAARR24_43-U-NA20 Antenna	99.2	27.3	12.0	18.83	8.29	3.63	8.25	1.25	1.44	160	81	81
AIR 32 B66A B2A Antenna	59.9	16.2	12.0	6.75	5.01	3.69	4.98	1.25	1.31	57	44	44
4449 B71+B85 RRH	21.2	12.7	16.5	1.88	2.44	1.67	1.28	1.20	1.20	15	20	20
4449 B71+B85 RRH (Shielded)	21.2	8.0	16.5	1.18	2.44	2.64	1.28	1.21	1.20	10	20	20
4415 B25 RRH	19.8	9.2	16.7	1.27	2.30	2.15	1.19	1.20	1.20	10	19	19
4415 B25 RRH (Shielded)	19.8	6.3	16.7	0.86	2.30	3.16	1.19	1.23	1.20	7	19	19
Twin Style 1B - AWS TMA	14.5	11.3	8.2	1.14	0.83	1.28	1.77	1.20	1.20	9	7	7
SDX1926Q-43 (E14F05P86) Diplexer	9.6	7.7	6.3	0.52	0.42	1.25	1.52	1.20	1.20	4	3	3

**WIND LOADS AT 30 MPH:**

AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	14	6	6
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	49	22	22
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	16	11	11
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	3	5	5
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	5
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	2	4	4
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	1	4	4
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	2	1	1
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	1	0	0

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**WIND LOADS**

Angle = **120** (deg)      Ice Thickness = **1.66** in.      Equivalent Angle = **300** (deg)

**WIND LOADS WITH NO ICE:**

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	241	105	139
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	857	376	497
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	276	200	219
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	59	83	77
4449 B71+B85 RRH (Shielded)	17.9	7.1	13.2	0.88	1.64	2.54	1.36	1.20	1.20	45	83	74
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	35	78	67
4415 B25 RRH (Shielded)	16.5	4.4	13.4	0.51	1.54	3.73	1.23	1.25	1.20	27	78	65
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	32	19	22
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	10	7	7

**WIND LOADS WITH ICE:**

AIR6449 B41 Antenna	36.4	23.9	11.9	6.05	3.02	1.52	3.05	1.20	1.22	49	25	31
APXVAARR24_43-U-NA20 Antenna	99.2	27.3	12.0	18.83	8.29	3.63	8.25	1.25	1.44	160	81	101
AIR 32 B66A B2A Antenna	59.9	16.2	12.0	6.75	5.01	3.69	4.98	1.25	1.31	57	44	48
4449 B71+B85 RRH	21.2	12.7	16.5	1.88	2.44	1.67	1.28	1.20	1.20	15	20	19
4449 B71+B85 RRH (Shielded)	21.2	9.5	16.5	1.41	2.44	2.22	1.28	1.20	1.20	11	20	18
4415 B25 RRH	19.8	9.2	16.7	1.27	2.30	2.15	1.19	1.20	1.20	10	19	17
4415 B25 RRH (Shielded)	19.8	6.9	16.7	0.95	2.30	2.86	1.19	1.22	1.20	8	19	16
Twin Style 1B - AWS TMA	14.5	11.3	8.2	1.14	0.83	1.28	1.77	1.20	1.20	9	7	7
SDX1926Q-43 (E14F05P86) Diplexer	9.6	7.7	6.3	0.52	0.42	1.25	1.52	1.20	1.20	4	3	4

**WIND LOADS AT 30 MPH:**

AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	14	6	8
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	49	22	29
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	16	11	13
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	3	5	4
4449 B71+B85 RRH (Shielded)	17.9	7.1	13.2	0.88	1.64	2.54	1.36	1.20	1.20	3	5	4
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	2	4	4
4415 B25 RRH (Shielded)	16.5	4.4	13.4	0.51	1.54	3.73	1.23	1.25	1.20	2	4	4
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	2	1	1
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	1	0	0

Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**WIND LOADS**

Angle = **150** (deg)      Ice Thickness = **1.66** in.      Equivalent Angle = **330** (deg)

**WIND LOADS WITH NO ICE:**

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	241	105	207
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	857	376	737
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	276	200	257
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	59	83	65
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	31	83	44
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	35	78	46
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	19	78	34
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	32	19	29
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	10	7	9

**WIND LOADS WITH ICE:**

AIR6449 B41 Antenna	36.4	23.9	11.9	6.05	3.02	1.52	3.05	1.20	1.22	49	25	43
APXVAARR24_43-U-NA20 Antenna	99.2	27.3	12.0	18.83	8.29	3.63	8.25	1.25	1.44	160	81	140
AIR 32 B66A B2A Antenna	59.9	16.2	12.0	6.75	5.01	3.69	4.98	1.25	1.31	57	44	54
4449 B71+B85 RRH	21.2	12.7	16.5	1.88	2.44	1.67	1.28	1.20	1.20	15	20	16
4449 B71+B85 RRH (Shielded)	21.2	6.4	16.5	0.94	2.44	3.34	1.28	1.24	1.20	8	20	11
4415 B25 RRH	19.8	9.2	16.7	1.27	2.30	2.15	1.19	1.20	1.20	10	19	12
4415 B25 RRH (Shielded)	19.8	4.6	16.7	0.64	2.30	4.30	1.19	1.28	1.20	6	19	9
Twin Style 1B - AWS TMA	14.5	11.3	8.2	1.14	0.83	1.28	1.77	1.20	1.20	9	7	9
SDX1926Q-43 (E14F05P86) Diplexer	9.6	7.7	6.3	0.52	0.42	1.25	1.52	1.20	1.20	4	3	4

**WIND LOADS AT 30 MPH:**

AIR6449 B41 Antenna	33.1	20.6	8.6	4.74	1.98	1.61	3.85	1.20	1.26	14	6	12
APXVAARR24_43-U-NA20 Antenna	95.9	24.0	8.7	15.98	5.79	4.00	11.02	1.27	1.53	49	22	42
AIR 32 B66A B2A Antenna	56.6	12.9	8.7	5.07	3.42	4.39	6.51	1.28	1.38	16	11	15
4449 B71+B85 RRH	17.9	9.4	13.2	1.17	1.64	1.90	1.36	1.20	1.20	3	5	4
4449 B71+B85 RRH (Shielded)	17.9	4.7	13.2	0.58	1.64	3.81	1.36	1.26	1.20	2	5	3
4415 B25 RRH	16.5	5.9	13.4	0.68	1.54	2.80	1.23	1.21	1.20	2	4	3
4415 B25 RRH (Shielded)	16.5	3.0	13.4	0.34	1.54	5.59	1.23	1.34	1.20	1	4	2
Twin Style 1B - AWS TMA	11.2	8.0	4.9	0.62	0.38	1.40	2.29	1.20	1.20	2	1	2
SDX1926Q-43 (E14F05P86) Diplexer	6.3	4.4	3.0	0.19	0.13	1.43	2.10	1.20	1.20	1	0	1



Date: 2/1/2021  
 Project Name: NEXTEL GLASTONBURY  
 Project Number: CT11786D  
 Designed By: ID Checked By: MSC



**ICE WEIGHT CALCULATIONS**

Thickness of ice: 1.66 in.  
 Density of ice: 56 pcf

**AIR6449 B41 Antenna**

Weight of ice based on total radial SF area:  
 Height (in): 33.1  
 Width (in): 20.6  
 Depth (in): 8.6  
 Total weight of ice on object: 134 lbs  
 Weight of object: 104.0 lbs  
 Combined weight of ice and object: 238 lbs

**APXVAARR24\_43-U-NA20 Antenna**

Weight of ice based on total radial SF area:  
 Height (in): 95.9  
 Width (in): 24.0  
 Depth (in): 8.7  
 Total weight of ice on object: 441 lbs  
 Weight of object: 128.0 lbs  
 Combined weight of ice and object: 569 lbs

**AIR 32 B66A B2A Antenna**

Weight of ice based on total radial SF area:  
 Height (in): 56.6  
 Width (in): 12.9  
 Depth (in): 8.7  
 Total weight of ice on object: 165 lbs  
 Weight of object: 133.0 lbs  
 Combined weight of ice and object: 298 lbs

**4449 B71+B85 RRH**

Weight of ice based on total radial SF area:  
 Height (in): 17.9  
 Width (in): 13.2  
 Depth (in): 9.4  
 Total weight of ice on object: 54 lbs  
 Weight of object: 71.0 lbs  
 Combined weight of ice and object: 125 lbs

**4415 B25 RRH**

Weight of ice based on total radial SF area:  
 Height (in): 16.5  
 Width (in): 13.4  
 Depth (in): 5.9  
 Total weight of ice on object: 45 lbs  
 Weight of object: 46.0 lbs  
 Combined weight of ice and object: 91 lbs

**Twin Style 1B - AWS TMA**

Weight of ice based on total radial SF area:  
 Height (in): 11.2  
 Width (in): 8.0  
 Depth (in): 4.9  
 Total weight of ice on object: 21 lbs  
 Weight of object: 16.0 lbs  
 Combined weight of ice and object: 37 lbs

**SDX1926Q-43 (E14F05P86) Diplexer**

Weight of ice based on total radial SF area:  
 Height (in): 6.3  
 Width (in): 4.4  
 Depth (in): 3.0  
 Total weight of ice on object: 7 lbs  
 Weight of object: 6.0 lbs  
 Combined weight of ice and object: 13 lbs

**B2/B66A 8843 RRH**

Weight of ice based on total radial SF area:  
 Height (in): 14.9  
 Width (in): 13.2  
 Depth (in): 10.9  
 Total weight of ice on object: 47 lbs  
 Weight of object: 72.0 lbs  
 Combined weight of ice and object: 119 lbs

**2" Pipe**

Per foot weight of ice:  
 diameter (in): 2.38  
 Per foot weight of ice on object: 8 plf

**4" Pipe**

Per foot weight of ice:  
 diameter (in): 4.5  
 Per foot weight of ice on object: 12 plf

**L 2-1/2x2-1/2 Angles**

Weight of ice based on total radial SF area:  
 Height (in): 2.5  
 Width (in): 2.5  
 Per foot weight of ice on object: 11 plf

**LU 9x8 Angles**

Weight of ice based on total radial SF area:  
 Height (in): 9  
 Width (in): 8  
 Per foot weight of ice on object: 28 plf

**PL 6x3/8**

Weight of ice based on total radial SF area:  
 Height (in): 6  
 Width (in): 0.375  
 Per foot weight of ice on object: 16 plf

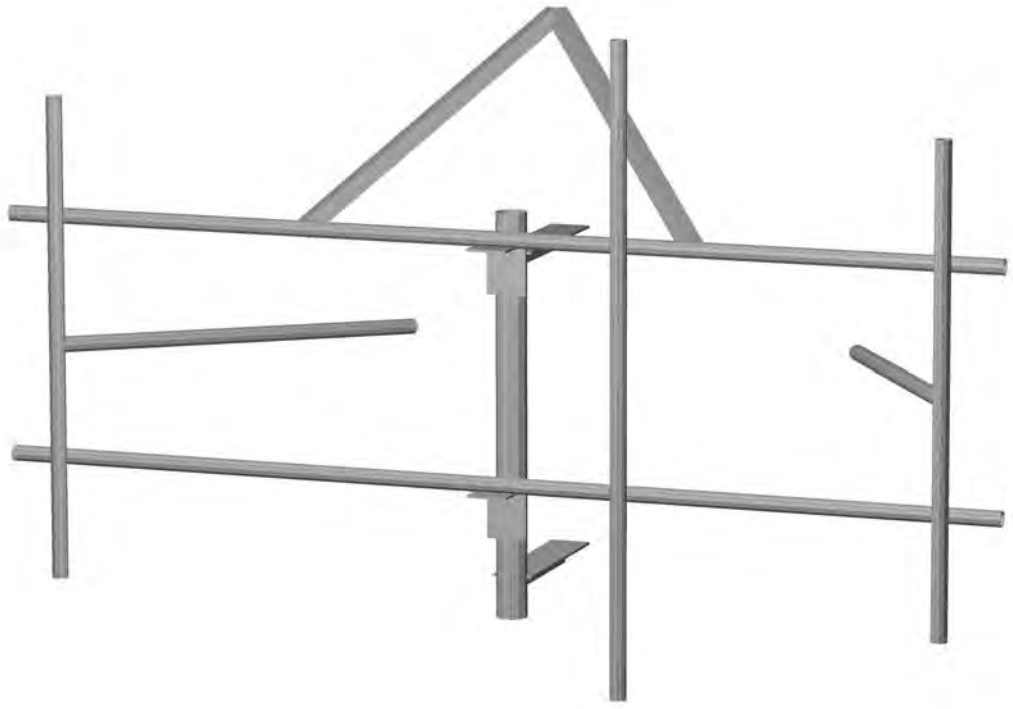
**PL 2-1/2x3/8**

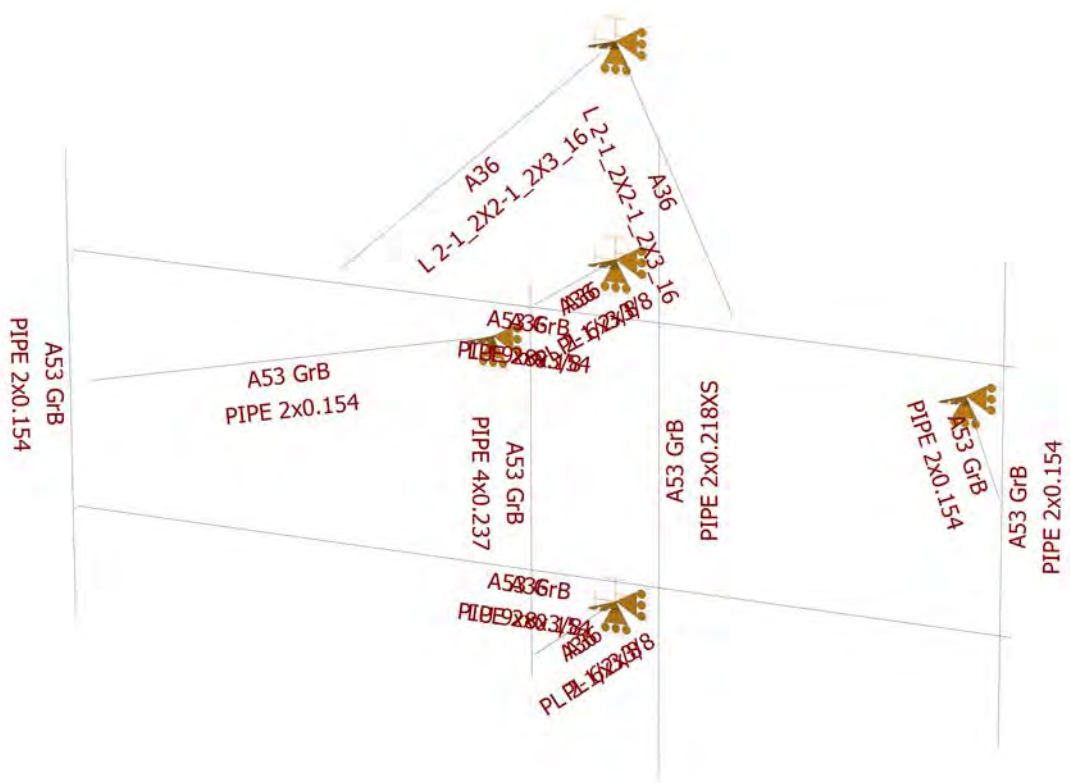
Weight of ice based on total radial SF area:  
 Height (in): 2.5  
 Width (in): 0.375  
 Per foot weight of ice on object: 8 plf

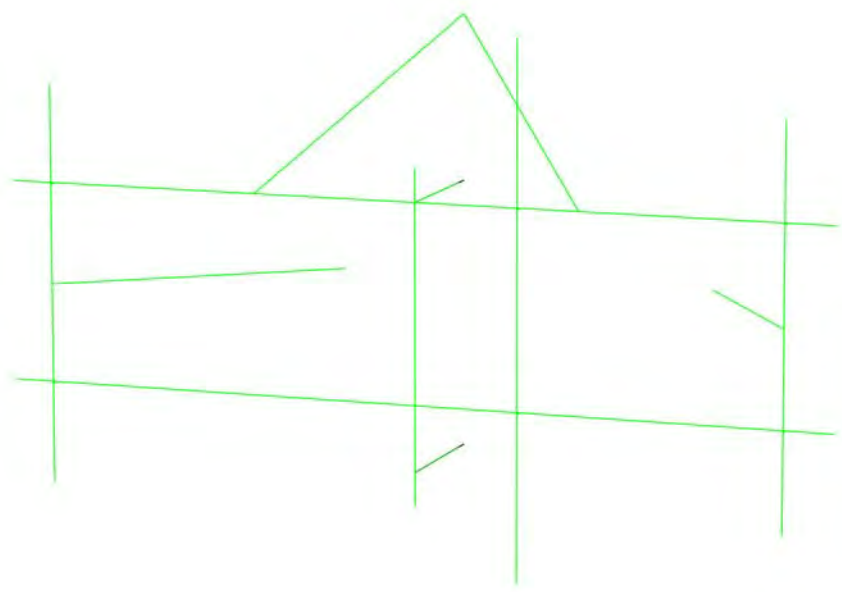


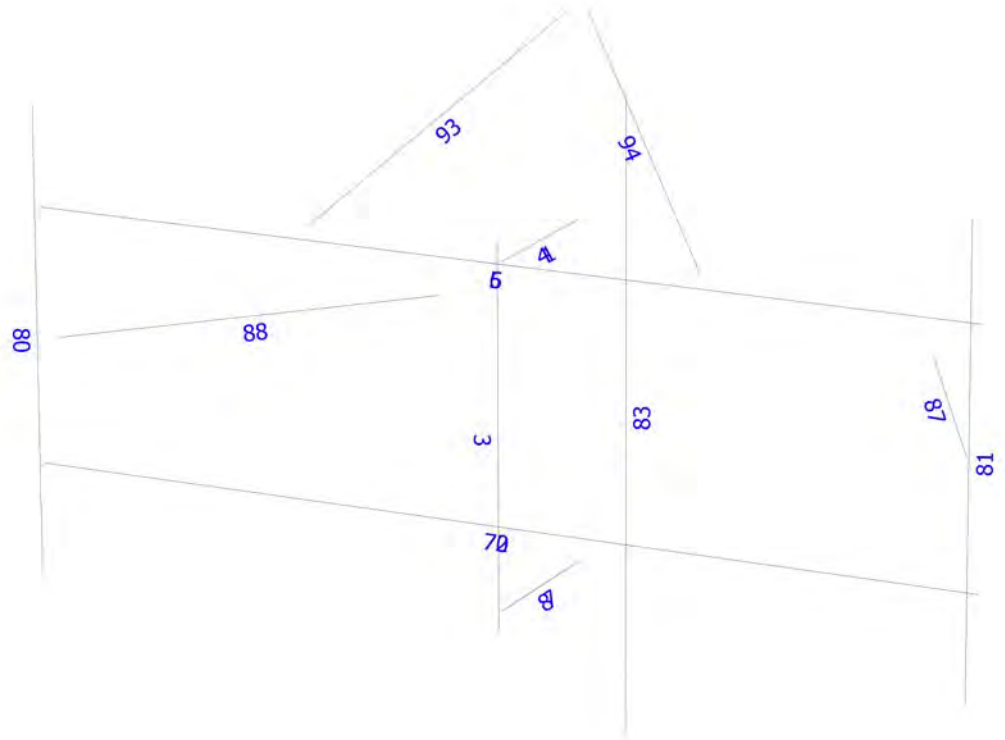
**HUDSON**  
Design Group LLC

**Mount Calculations  
(Existing Conditions)**









Current Date: 2/1/2021 11:26 AM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\T-MOBILE\CT\CT11786DIANCHOR (SBA)\CT11786D.retx

## Load data

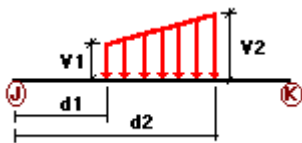
### GLOSSARY

Comb : Indicates if load condition is a load combination

### Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	250 lb Live Load Antenna 1	No	LL
LLa2	250 lb Live Load Antenna 2	No	LL
LLa3	250 lb Live Load Antenna 3	No	LL
LLa4	250 lb Live Load Antenna 4	No	LL

### Distributed force on members



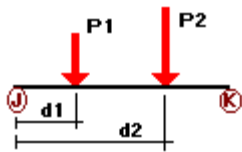
Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	1	z	-0.01	0.00	0.00	No	0.00	No
	3	z	-0.019	0.00	0.00	No	0.00	No
	4	z	-0.01	0.00	0.00	No	0.00	No
	5	z	-0.014	0.00	0.00	No	0.00	No
	6	z	-0.01	0.00	0.00	No	0.00	No
	7	z	-0.01	0.00	0.00	No	0.00	No
	8	z	-0.01	0.00	0.00	No	0.00	No
	70	z	-0.01	0.00	0.00	No	0.00	No
	72	z	-0.014	0.00	0.00	No	0.00	No
	80	z	-0.01	0.00	0.00	No	0.00	No
	81	z	-0.01	0.00	0.00	No	0.00	No
	83	z	-0.01	0.00	0.00	No	0.00	No
	87	z	-0.01	0.00	0.00	No	0.00	No
	88	z	-0.01	0.00	0.00	No	0.00	No
93	z	-0.014	0.00	0.00	No	0.00	No	
94	z	-0.014	0.00	0.00	No	0.00	No	
W30	1	z	-0.01	0.00	0.00	No	0.00	No
	3	z	-0.019	0.00	0.00	No	0.00	No
	4	z	-0.01	0.00	0.00	No	0.00	No
	5	z	-0.014	0.00	0.00	No	0.00	No
	6	z	-0.01	0.00	0.00	No	0.00	No
	7	z	-0.01	0.00	0.00	No	0.00	No
	8	z	-0.01	0.00	0.00	No	0.00	No
	70	z	-0.01	0.00	0.00	No	0.00	No
	72	z	-0.014	0.00	0.00	No	0.00	No
	80	z	-0.01	0.00	0.00	No	0.00	No
	81	z	-0.01	0.00	0.00	No	0.00	No
	83	z	-0.01	0.00	0.00	No	0.00	No
	87	z	-0.01	0.00	0.00	No	0.00	No
	88	z	-0.01	0.00	0.00	No	0.00	No
93	z	-0.014	0.00	0.00	No	0.00	No	
94	z	-0.014	0.00	0.00	No	0.00	No	
W60	1	x	-0.01	0.00	0.00	No	0.00	No
	3	x	-0.019	0.00	0.00	No	0.00	No
	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.014	0.00	0.00	No	0.00	No
	6	x	-0.01	0.00	0.00	No	0.00	No
	7	x	-0.01	0.00	0.00	No	0.00	No
	8	x	-0.01	0.00	0.00	No	0.00	No
	70	x	-0.01	0.00	0.00	No	0.00	No
	72	x	-0.014	0.00	0.00	No	0.00	No
	80	x	-0.01	0.00	0.00	No	0.00	No
	81	x	-0.01	0.00	0.00	No	0.00	No
	83	x	-0.01	0.00	0.00	No	0.00	No
	87	x	-0.01	0.00	0.00	No	0.00	No
	88	x	-0.01	0.00	0.00	No	0.00	No
93	x	-0.014	0.00	0.00	No	0.00	No	
94	x	-0.014	0.00	0.00	No	0.00	No	
W90	1	x	-0.01	0.00	0.00	No	0.00	No
	3	x	-0.019	0.00	0.00	No	0.00	No
	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.014	0.00	0.00	No	0.00	No
	6	x	-0.01	0.00	0.00	No	0.00	No
	7	x	-0.01	0.00	0.00	No	0.00	No
	8	x	-0.01	0.00	0.00	No	0.00	No
	70	x	-0.01	0.00	0.00	No	0.00	No
	72	x	-0.014	0.00	0.00	No	0.00	No
	80	x	-0.01	0.00	0.00	No	0.00	No
81	x	-0.01	0.00	0.00	No	0.00	No	
83	x	-0.01	0.00	0.00	No	0.00	No	



	87	x	-0.01	0.00	0.00	No	0.00	No
	88	x	-0.01	0.00	0.00	No	0.00	No
	93	x	-0.014	0.00	0.00	No	0.00	No
W120	94	x	-0.014	0.00	0.00	No	0.00	No
	1	x	-0.01	0.00	0.00	No	0.00	No
	3	x	-0.019	0.00	0.00	No	0.00	No
	4	x	-0.01	0.00	0.00	No	0.00	No
	5	x	-0.014	0.00	0.00	No	0.00	No
	6	x	-0.01	0.00	0.00	No	0.00	No
	7	x	-0.01	0.00	0.00	No	0.00	No
	8	x	-0.01	0.00	0.00	No	0.00	No
	70	x	-0.01	0.00	0.00	No	0.00	No
	72	x	-0.014	0.00	0.00	No	0.00	No
	80	x	-0.01	0.00	0.00	No	0.00	No
	81	x	-0.01	0.00	0.00	No	0.00	No
	83	x	-0.01	0.00	0.00	No	0.00	No
	87	x	-0.01	0.00	0.00	No	0.00	No
	88	x	-0.01	0.00	0.00	No	0.00	No
	93	x	-0.014	0.00	0.00	No	0.00	No
W150	94	x	-0.014	0.00	0.00	No	0.00	No
	1	z	0.01	0.00	0.00	No	0.00	No
	3	z	0.019	0.00	0.00	No	0.00	No
	4	z	0.01	0.00	0.00	No	0.00	No
	5	z	0.014	0.00	0.00	No	0.00	No
	6	z	0.01	0.00	0.00	No	0.00	No
	7	z	0.01	0.00	0.00	No	0.00	No
	8	z	0.01	0.00	0.00	No	0.00	No
	70	z	0.01	0.00	0.00	No	0.00	No
	72	z	0.014	0.00	0.00	No	0.00	No
	80	z	0.01	0.00	0.00	No	0.00	No
	81	z	0.01	0.00	0.00	No	0.00	No
	83	z	0.01	0.00	0.00	No	0.00	No
	87	z	0.01	0.00	0.00	No	0.00	No
	88	z	0.01	0.00	0.00	No	0.00	No
	93	z	0.014	0.00	0.00	No	0.00	No
Di	94	z	0.014	0.00	0.00	No	0.00	No
	1	y	-0.016	0.00	0.00	No	0.00	No
	3	y	-0.012	0.00	0.00	No	0.00	No
	4	y	-0.008	0.00	0.00	No	0.00	No
	5	y	-0.028	0.00	0.00	No	0.00	No
	6	y	-0.008	0.00	0.00	No	0.00	No
	7	y	-0.016	0.00	0.00	No	0.00	No
	8	y	-0.008	0.00	0.00	No	0.00	No
	70	y	-0.008	0.00	0.00	No	0.00	No
	72	y	-0.028	0.00	0.00	No	0.00	No
	80	y	-0.008	0.00	0.00	No	0.00	No
	81	y	-0.008	0.00	0.00	No	0.00	No
	83	y	-0.008	0.00	0.00	No	0.00	No
	87	y	-0.008	0.00	0.00	No	0.00	No
	88	y	-0.008	0.00	0.00	No	0.00	No
	93	y	-0.011	0.00	0.00	No	0.00	No
	94	y	-0.011	0.00	0.00	No	0.00	No

---

### Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	80	y	-0.052	1.00	No
		y	-0.052	4.00	No
	81	y	-0.067	1.50	No
		y	-0.067	5.50	No
	83	y	-0.064	0.50	No
		y	-0.064	7.50	No
		y	-0.071	2.00	No
		y	-0.046	2.00	No
Wo	80	y	-0.016	4.00	No
		y	-0.006	4.00	No
	81	z	-0.121	1.00	No
		z	-0.121	4.00	No
	83	z	-0.138	1.50	No
		z	-0.138	5.50	No
		z	-0.429	0.50	No
		z	-0.429	7.50	No
W30	80	z	-0.031	2.00	No
		z	-0.019	2.00	No
	81	z	-0.032	4.00	No
		z	-0.01	4.00	No
	83	3	-0.104	1.00	No
		3	-0.104	4.00	No
		3	-0.129	1.50	No
		3	-0.129	5.50	No
W60	80	3	-0.369	0.50	No
		3	-0.369	7.50	No
	81	3	-0.044	2.00	No
		3	-0.029	4.00	No
	83	3	-0.009	4.00	No
		3	-0.07	1.00	No
		3	-0.07	4.00	No
		3	-0.11	1.50	No
W90	80	3	-0.11	5.50	No
		3	-0.249	0.50	No
	81	3	-0.249	7.50	No
		3	-0.074	2.00	No
	83	3	-0.022	4.00	No
		3	-0.007	4.00	No
		x	-0.053	1.00	No
		x	-0.053	4.00	No
W120	80	x	-0.10	1.50	No
		x	-0.10	5.50	No
	81	x	-0.189	0.50	No
		x	-0.189	7.50	No
	83	x	-0.083	2.00	No
		x	-0.019	4.00	No
		x	-0.007	4.00	No
		2	-0.07	1.00	No
83	2	-0.07	4.00	No	
	2	-0.11	1.50	No	
	2	-0.11	5.50	No	
	2	-0.249	0.50	No	
	2	-0.249	7.50	No	
	2	-0.074	2.00	No	

		2	-0.022	4.00	No
		2	-0.007	4.00	No
W150	80	2	-0.104	1.00	No
		2	-0.104	4.00	No
	81	2	-0.129	1.50	No
		2	-0.129	5.50	No
	83	2	-0.369	0.50	No
		2	-0.369	7.50	No
Di	80	y	-0.067	1.00	No
		y	-0.067	4.00	No
	81	y	-0.083	1.50	No
		y	-0.083	5.50	No
	83	y	-0.221	0.50	No
		y	-0.221	7.50	No
		y	-0.054	2.00	No
		y	-0.045	2.00	No
		y	-0.021	4.00	No
		y	-0.007	4.00	No
W10	80	z	-0.025	1.00	No
		z	-0.025	4.00	No
	81	z	-0.03	1.50	No
		z	-0.03	5.50	No
	83	z	-0.081	0.50	No
		z	-0.081	7.50	No
		z	-0.01	2.00	No
		z	-0.008	2.00	No
		z	-0.009	4.00	No
		z	-0.004	4.00	No
W130	80	3	-0.022	1.00	No
		3	-0.022	4.00	No
	81	3	-0.028	1.50	No
		3	-0.028	5.50	No
	83	3	-0.07	0.50	No
		3	-0.07	7.50	No
		3	-0.011	2.00	No
		3	-0.009	4.00	No
		3	-0.004	4.00	No
W160	80	3	-0.016	1.00	No
		3	-0.016	4.00	No
	81	3	-0.024	1.50	No
		3	-0.024	5.50	No
	83	3	-0.051	0.50	No
		3	-0.051	7.50	No
		3	-0.018	2.00	No
		3	-0.007	4.00	No
		3	-0.004	4.00	No
W190	80	x	-0.013	1.00	No
		x	-0.013	4.00	No
	81	x	-0.023	1.50	No
		x	-0.023	5.50	No
	83	x	-0.041	0.50	No
		x	-0.041	7.50	No
		x	-0.02	2.00	No
		x	-0.007	4.00	No
		x	-0.003	4.00	No
W1120	80	2	-0.016	1.00	No
		2	-0.016	4.00	No
	81	2	-0.024	1.50	No
		2	-0.024	5.50	No
	83	2	-0.051	0.50	No

		2	-0.051	7.50	No
		2	-0.018	2.00	No
		2	-0.007	4.00	No
		2	-0.004	4.00	No
WI150	80	2	-0.022	1.00	No
		2	-0.022	4.00	No
	81	2	-0.028	1.50	No
		2	-0.028	5.50	No
	83	2	-0.07	0.50	No
		2	-0.07	7.50	No
		2	-0.011	2.00	No
		2	-0.009	4.00	No
		2	-0.004	4.00	No
WLO	80	z	-0.007	1.00	No
		z	-0.007	4.00	No
	81	z	-0.008	1.50	No
		z	-0.008	5.50	No
	83	z	-0.025	0.50	No
		z	-0.025	7.50	No
		z	-0.002	2.00	No
		z	-0.001	2.00	No
		z	-0.002	4.00	No
		z	-0.001	4.00	No
WL30	80	3	-0.006	1.00	No
		3	-0.006	4.00	No
	81	3	-0.008	1.50	No
		3	-0.008	5.50	No
	83	3	-0.022	0.50	No
		3	-0.022	7.50	No
		3	-0.003	2.00	No
		3	-0.002	4.00	No
		3	-0.001	4.00	No
WL60	80	3	-0.005	1.00	No
		3	-0.005	4.00	No
	81	3	-0.007	1.50	No
		3	-0.007	5.50	No
	83	3	-0.015	0.50	No
		3	-0.015	7.50	No
		3	-0.004	2.00	No
		3	-0.001	4.00	No
WL90	80	x	-0.004	1.00	No
		x	-0.004	4.00	No
	81	x	-0.006	1.50	No
		x	-0.006	5.50	No
	83	x	-0.011	0.50	No
		x	-0.011	7.50	No
		x	-0.005	2.00	No
		x	-0.001	4.00	No
WL120	80	2	-0.005	1.00	No
		2	-0.005	4.00	No
	81	2	-0.007	1.50	No
		2	-0.007	5.50	No
	83	2	-0.015	0.50	No
		2	-0.015	7.50	No
		2	-0.004	2.00	No
		2	-0.001	4.00	No
WL150	80	2	-0.006	1.00	No
		2	-0.006	4.00	No
	81	2	-0.008	1.50	No
		2	-0.008	5.50	No

	83	2	-0.022	0.50	No
		2	-0.022	7.50	No
		2	-0.003	2.00	No
		2	-0.002	4.00	No
		2	-0.001	4.00	No
LL1	6	y	-0.25	50.00	Yes
LL2	6	y	-0.25	100.00	Yes
LL3	6	y	-0.25	0.00	Yes
LLa1	81	y	-0.25	50.00	Yes
LLa2	83	y	-0.25	50.00	Yes
LLa3	80	y	-0.25	50.00	Yes

### Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	250 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	250 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	250 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	250 lb Live Load Antenna 4	No	0.00	0.00	0.00

### Earthquake (Dynamic analysis only)

<b>Condition</b>	<b>a/g</b>	<b>Ang.</b> [Deg]	<b>Damp.</b> [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00
LLa4	0.00	0.00	0.00



Current Date: 2/1/2021 11:26 AM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\T-MOBILE\CT\CT11786DIANCHOR (SBA)\CT11786D.retx

## Steel Code Check

Report: Summary - Group by member

### Load conditions to be included in design :

LC1=1.2D+Wo  
LC2=1.2D+W30  
LC3=1.2D+W60  
LC4=1.2D+W90  
LC5=1.2D+W120  
LC6=1.2D+W150  
LC7=1.2D-Wo  
LC8=1.2D-W30  
LC9=1.2D-W60  
LC10=1.2D-W90  
LC11=1.2D-W120  
LC12=1.2D-W150  
LC13=0.9D+Wo  
LC14=0.9D+W30  
LC15=0.9D+W60  
LC16=0.9D+W90  
LC17=0.9D+W120  
LC18=0.9D+W150  
LC19=0.9D-Wo  
LC20=0.9D-W30  
LC21=0.9D-W60  
LC22=0.9D-W90  
LC23=0.9D-W120  
LC24=0.9D-W150  
LC25=1.2D+Di+W10  
LC26=1.2D+Di+W130  
LC27=1.2D+Di+W160  
LC28=1.2D+Di+W190  
LC29=1.2D+Di+W120  
LC30=1.2D+Di+W150  
LC31=1.2D+Di-W10  
LC32=1.2D+Di-W130  
LC33=1.2D+Di-W160  
LC34=1.2D+Di-W190  
LC35=1.2D+Di-W120  
LC36=1.2D+Di-W150  
LC37=1.2D+1.6LL1  
LC38=1.2D+1.6LL2  
LC39=1.2D+1.6LL3  
LC40=1.2D+W10+1.6LLa1  
LC41=1.2D+W130+1.6LLa1  
LC42=1.2D+W160+1.6LLa1  
LC43=1.2D+W190+1.6LLa1  
LC44=1.2D+W120+1.6LLa1  
LC45=1.2D+W150+1.6LLa1  
LC46=1.2D-W10+1.6LLa1  
LC47=1.2D-W130+1.6LLa1  
LC48=1.2D-W160+1.6LLa1  
LC49=1.2D-W190+1.6LLa1  
LC50=1.2D-W120+1.6LLa1  
LC51=1.2D-W150+1.6LLa1  
LC52=1.2D+W10+1.6LLa2

LC53=1.2D+WL30+1.6LLa2  
 LC54=1.2D+WL60+1.6LLa2  
 LC55=1.2D+WL90+1.6LLa2  
 LC56=1.2D+WL120+1.6LLa2  
 LC57=1.2D+WL150+1.6LLa2  
 LC58=1.2D-WL0+1.6LLa2  
 LC59=1.2D-WL30+1.6LLa2  
 LC60=1.2D-WL60+1.6LLa2  
 LC61=1.2D-WL90+1.6LLa2  
 LC62=1.2D-WL120+1.6LLa2  
 LC63=1.2D-WL150+1.6LLa2  
 LC64=1.2D+WL0+1.6LLa3  
 LC65=1.2D+WL30+1.6LLa3  
 LC66=1.2D+WL60+1.6LLa3  
 LC67=1.2D+WL90+1.6LLa3  
 LC68=1.2D+WL120+1.6LLa3  
 LC69=1.2D+WL150+1.6LLa3  
 LC70=1.2D-WL0+1.6LLa3  
 LC71=1.2D-WL30+1.6LLa3  
 LC72=1.2D-WL60+1.6LLa3  
 LC73=1.2D-WL90+1.6LLa3  
 LC74=1.2D-WL120+1.6LLa3  
 LC75=1.2D-WL150+1.6LLa3  
 LC76=1.2D+WL0+1.6LLa4  
 LC77=1.2D+WL30+1.6LLa4  
 LC78=1.2D+WL60+1.6LLa4  
 LC79=1.2D+WL90+1.6LLa4  
 LC80=1.2D+WL120+1.6LLa4  
 LC81=1.2D+WL150+1.6LLa4  
 LC82=1.2D-WL0+1.6LLa4  
 LC83=1.2D-WL30+1.6LLa4  
 LC84=1.2D-WL60+1.6LLa4  
 LC85=1.2D-WL90+1.6LLa4  
 LC86=1.2D-WL120+1.6LLa4  
 LC87=1.2D-WL150+1.6LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	<b>L 2-1_2X2-1_2X3_16</b>	<b>93</b>	LC38 at 0.00%	<b>0.34</b>	<b>OK</b>	Sec. F1
		<b>94</b>	LC25 at 100.00%	0.33	OK	Eq. H2-1
	<b>LU 9x8x3/8</b>	<b>5</b>	LC1 at 50.00%	<b>0.22</b>	<b>OK</b>	Eq. H3-8
		<b>72</b>	LC7 at 50.00%	0.16	OK	Eq. H3-8
	<b>PIPE 2x0.154</b>	<b>6</b>	LC38 at 70.14%	<b>0.90</b>	<b>OK</b>	Eq. H1-1b
		<b>70</b>	LC7 at 47.32%	0.57	OK	Eq. H3-6
		<b>80</b>	LC38 at 25.00%	0.81	OK	Eq. H1-1b
		<b>81</b>	LC39 at 25.00%	0.75	OK	Eq. H1-1b
		<b>87</b>	LC39 at 0.00%	0.30	OK	Eq. H1-1b
		<b>88</b>	LC38 at 0.00%	0.29	OK	Eq. H1-1b
	<b>PIPE 2x0.218XS</b>	<b>83</b>	LC1 at 68.75%	<b>0.75</b>	<b>OK</b>	Eq. H1-1b
	<b>PIPE 4x0.237</b>	<b>3</b>	LC2 at 68.75%	<b>0.11</b>	<b>OK</b>	Eq. H1-1b
	<b>PL 2-1/2x3/8</b>	<b>4</b>	LC25 at 0.00%	<b>0.39</b>	<b>OK</b>	Eq. H1-1b
		<b>8</b>	LC26 at 0.00%	0.35	OK	Eq. H1-1b
	<b>PL 6x3/8</b>	<b>1</b>	LC26 at 12.50%	<b>0.51</b>	<b>With warnings</b>	Eq. H1-1a
		<b>7</b>	LC26 at 12.50%	0.43	With warnings	Eq. H1-1a





Current Date: 2/1/2021 4:24 PM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\T-MOBILE\CT\CT11786DIANCHOR (SBA)\CT11786D.ret

## Geometry data

### GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member    0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

### Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
2	0.00	-4.00	0.00	0
3	0.00	-4.00	2.1875	0
4	0.00	0.00	2.1875	0
5	0.00	-0.42	2.1875	0
7	0.00	0.50	2.1875	0
8	0.00	-4.50	2.1875	0
9	0.00	-4.00	0.25	0
10	0.00	0.00	0.25	0
11	-0.25	0.00	2.1875	0
12	0.25	0.00	2.1875	0
13	6.33	0.00	2.1875	0
14	-6.33	0.00	2.1875	0
19	5.62	0.00	2.1875	0
21	-5.66	0.00	2.1875	0
23	1.62	0.00	2.1875	0
25	5.62	0.00	2.3575	0
27	1.62	0.00	2.3575	0
30	-5.66	0.00	2.3575	0
77	-5.66	-1.50	2.3575	0
79	-6.33	-3.00	2.1875	0

80	-5.66	-3.00	2.1875	0
81	-5.66	-3.00	2.3575	0
88	1.62	-3.00	2.1875	0
89	1.62	-3.00	2.3575	0
90	-0.25	-3.00	2.1875	0
91	0.25	-3.00	2.1875	0
92	6.33	-3.00	2.1875	0
93	5.62	-3.00	2.1875	0
94	5.62	-3.00	2.3575	0
100	-5.66	1.50	2.3575	0
101	5.62	1.50	2.3575	0
102	-5.66	-4.50	2.3575	0
103	5.62	-4.50	2.3575	0
106	1.62	2.50	2.3575	0
107	1.62	-5.50	2.3575	0
115	5.62	-1.50	2.3575	0
116	3.00	-2.00	-3.00	0
117	-3.00	-2.00	-3.00	0
128	2.50	0.00	2.1875	0
129	-2.50	0.00	2.1875	0
130	0.00	2.50	0.00	0

## Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	1	1	1
2	1	1	1	1	1	1
116	1	1	1	0	0	0
117	1	1	1	0	0	0
130	1	1	1	1	1	1

## Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	1	4		PL 6x3/8	A36	0.00	0.00	0.00
3	7	8		PIPE 4x0.237	A53 GrB	0.00	0.00	0.00
4	4	10		PL 2-1/2x3/8	A36	0.00	0.00	0.00
5	11	12		LU 9x8x3/8	A36	0.00	0.00	0.00
6	13	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
7	2	3		PL 6x3/8	A36	0.00	0.00	0.00
8	3	9		PL 2-1/2x3/8	A36	0.00	0.00	0.00
70	92	79		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
72	90	91		LU 9x8x3/8	A36	0.00	0.00	0.00
80	100	102		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
81	101	103		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
83	106	107		PIPE 2x0.218XS	A53 GrB	0.00	0.00	0.00
87	115	116		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
88	77	117		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
93	129	130		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
94	128	130		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00

---

## Orientation of local axes

---

Member	Rotation [Deg]	Axes23	NX	NY	NZ
1	90.00	0	0.00	0.00	0.00
3	45.00	0	0.00	0.00	0.00
5	90.00	0	0.00	0.00	0.00
7	90.00	0	0.00	0.00	0.00
72	90.00	0	0.00	0.00	0.00
80	315.00	0	0.00	0.00	0.00
81	315.00	0	0.00	0.00	0.00
83	315.00	0	0.00	0.00	0.00
93	180.00	0	0.00	0.00	0.00
94	90.00	0	0.00	0.00	0.00

---

## Rigid end offsets

---

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
4	0.00	-1.25	0.00	0.00	-1.25	0.00
5	0.00	0.00	4.50	0.00	0.00	4.50
6	0.00	3.00	7.00	0.00	3.00	7.00
8	0.00	-1.25	0.00	0.00	-1.25	0.00
70	0.00	3.00	7.00	0.00	3.00	7.00
72	0.00	0.00	4.50	0.00	0.00	4.50
80	0.00	3.00	7.00	0.00	3.00	7.00
81	0.00	3.00	7.00	0.00	3.00	7.00
83	0.00	3.00	7.00	0.00	3.00	7.00
87	0.00	2.00	7.00	0.00	2.00	7.00
88	0.00	2.00	7.00	0.00	2.00	7.00
93	0.00	3.00	7.00	0.00	3.00	7.00
94	0.00	3.00	7.00	0.00	3.00	7.00

---

# EXHIBIT 9

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

T-Mobile Existing Facility

Site ID: CT11786D

Nextel Glastonbury  
2577 Main Street  
Glastonbury, Connecticut 06033

**February 25, 2021**

**EBI Project Number: 6221000678**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>47.77%</b>

February 25, 2021

T-Mobile

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

Emissions Analysis for Site: CT11786D - Nextel Glastonbury

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **2577 Main Street in Glastonbury, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

## **CALCULATIONS**

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 2577 Main Street in Glastonbury, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

- 1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.
- 3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 5) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 6) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

- 7) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 8) 1 LTE channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.
- 9) 1 NR channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.
- 10) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 11) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 12) The antennas used in this modeling are the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24\_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24\_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24\_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.





# EBI Consulting

environmental | engineering | due diligence

---

- 13) The antenna mounting height centerline of the proposed antennas is 93 feet above ground level (AGL).
- 14) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 15) All calculations were done with respect to uncontrolled / general population threshold limits.

## T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	17.3 dBd / 17.3 dBd	Gain:	17.3 dBd / 17.3 dBd	Gain:	17.3 dBd / 17.3 dBd
Height (AGL):	93 feet	Height (AGL):	93 feet	Height (AGL):	93 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	12,888.76	ERP (W):	12,888.76	ERP (W):	12,888.76
Antenna AI MPE %:	6.12%	Antenna BI MPE %:	6.12%	Antenna CI MPE %:	6.12%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd
Height (AGL):	93 feet	Height (AGL):	93 feet	Height (AGL):	93 feet
Channel Count:	9	Channel Count:	9	Channel Count:	9
Total TX Power (W):	380 Watts	Total TX Power (W):	380 Watts	Total TX Power (W):	380 Watts
ERP (W):	11,055.53	ERP (W):	11,055.53	ERP (W):	11,055.53
Antenna A2 MPE %:	7.92%	Antenna B2 MPE %:	7.92%	Antenna C2 MPE %:	7.92%
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd
Height (AGL):	93 feet	Height (AGL):	93 feet	Height (AGL):	93 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts
ERP (W):	12,841.53	ERP (W):	12,841.53	ERP (W):	12,841.53
Antenna A3 MPE %:	6.10%	Antenna B3 MPE %:	6.10%	Antenna C3 MPE %:	6.10%

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	20.14%
Metro PCS	1.38%
Sprint	3.87%
Clearwire	0.13%
Nextel	0.38%
AT&T	8.95%
Verizon	12.92%
<b>Site Total MPE % :</b>	<b>47.77%</b>

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	20.14%
T-Mobile Sector B Total:	20.14%
T-Mobile Sector C Total:	20.14%
Site Total MPE % :	47.77%

### T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile 2500 MHz LTE	1	6444.38	93.0	30.61	2500 MHz LTE	1000	3.06%
T-Mobile 2500 MHz NR	1	6444.38	93.0	30.61	2500 MHz NR	1000	3.06%
T-Mobile 600 MHz LTE	2	591.73	93.0	5.62	600 MHz LTE	400	1.41%
T-Mobile 600 MHz NR	1	1577.94	93.0	7.49	600 MHz NR	400	1.87%
T-Mobile 700 MHz LTE	2	648.82	93.0	6.16	700 MHz LTE	467	1.32%
T-Mobile 1900 MHz LTE	2	2203.69	93.0	20.93	1900 MHz LTE	1000	2.09%
T-Mobile 2100 MHz UMTS	2	1294.56	93.0	12.30	2100 MHz UMTS	1000	1.23%
T-Mobile 1900 MHz GSM	4	1028.30	93.0	19.54	1900 MHz GSM	1000	1.95%
T-Mobile 1900 MHz LTE	2	2056.61	93.0	19.54	1900 MHz LTE	1000	1.95%
T-Mobile 2100 MHz LTE	2	2307.55	93.0	21.92	2100 MHz LTE	1000	2.19%
						<b>Total:</b>	<b>20.14%</b>

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

## Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	20.14%
Sector B:	20.14%
Sector C:	20.14%
T-Mobile Maximum MPE % (Sector A):	20.14%
Site Total:	47.77%
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **47.77%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

# EXHIBIT 10