December 19, 2020

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

Regarding: Notice of Exempt Modification – AT&T Site CT5063
Address: 922 Danbury Road (aka 920 Danbury Road), Wilton, CT 06516

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC ("AT&T") currently maintains a wireless telecommunications facility on an existing 89.1-foot concealment tower at the above-referenced address, latitude 41.2568919, longitude -73.4338989. Said concealment tower is operated by Crown Castle.

AT&T desires to modify its existing telecommunications facility by swapping three (3) antennas, adding six (6) coax, swapping three (3) TMA and adding three (3) TMA within a new expanded 36" concealment canister. The centerline height of the existing antennas is and will remain at 76 feet. *Please note, approval for this project was received on July 29, 2019 (EM-CING-161-190709) per the letter enclosed herewith. Due to delays with the start of the project, the original CSC letter expired prior to commencement of construction. Accordingly, we are resubmitting this request. No changes have been made to the previously approved scope of work.*

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Lynne Vanderslice, First Selectwoman of the Town of Wilton, Michael Wrinn, Director, Planning & Land Use Management for the Town of Wilton, Remo-Wilton Associates LLC as ground owner and Crown Castle as tower operator/owner. Please note, the original tower approval was requested from the Town and I've included the documentation they have on file with this submittal.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require an extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*

5. The proposed modifications will not cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. *Please see the structural analysis dated June 18, 2019 by Centek Engineering enclosed herewith.*

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

Sincerely,

Jennifer Iliades
Site Acquisition Consultant
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
jiliades@clinellc.com

Enclosures:
Exhibit 1 – Letter from Connecticut Siting Council dated July 29, 2019
Exhibit 2 – Field Card and GIS Map
Exhibit 3 – Construction Drawings
Exhibit 4 – Structural Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Original Tower Approval Documentation

cc: Lynne Vanderslice, First Selectwoman of the Town of Wilton
Michael Wrinn, Director, Planning & Land Use Management for the Town of Wilton
Remo-Wilton Associates LLC, Ground Owner
Crown Castle, Tower Operator/Owner

EXHIBIT 1

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

July 29, 2019

Jennifer Iliades
Site Acquisition Consultant
Centerline Communications, LLC
750 West Center Street #301
West Bridgewater, MA 02379

RE: **EM-CING-161-190709** – New Cingular Wireless PCS, LLC (AT&T) notice of intent to modify an existing telecommunications facility located at 922 (a/k/a 920) Danbury Road, Wilton, Connecticut

Dear Ms. Iliades:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

1. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

2. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by AT&T shall be removed within 60 days of the date the antenna ceased to function;

5. The validity of this action shall expire one year from the date of this letter; and

6. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated June 21, 2019. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. 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 of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/IN/emr

c: The Honorable Lynne Vanderslice, First Selectwoman, Town of Wilton
Robert Nerney, AICP, Director of Planning and Land Use Management, Town of Wilton
Timothy Bunting, CAZEO, Zoning Enforcement Officer, Town of Wilton
Crown Castle, Tower Operator
Remo-Wilton Associates, LLC, Property Owner

EXHIBIT 2

920 DANBURY RD

Location	920 DANBURY RD	**Mblu**	12/ / 98/ /
Acct#	005980	**Owner**	REMO-WILTON ASSOCIATES LLC
Assessment	$5,139,610	**Appraisal**	$7,342,300
PID	539	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$3,681,300	$3,661,000	$7,342,300
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$2,576,910	$2,562,700	$5,139,610

Owner of Record

Owner	REMO-WILTON ASSOCIATES LLC
Co-Owner	C/O REMO TARTAGLIA
Address	477 MAIN ST MONROE, CT 06468

Sale Price	$0
Certificate	
Book & Page	2222/0165
Sale Date	12/19/2011
Instrument	QC

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
REMO-WILTON ASSOCIATES LLC	$0		2222/0165	QC	12/19/2011
TARTAGLIA SEBASTIANA, LORRAINE,	$0		2221/0331	QC	12/16/2011
TARTAGLIA REMO	$0		1020/0140	00	12/13/1996
REMO WILTON ASSOCIATES INC, % REMO TARTA	$1,360,000		0703/0176	00	11/29/1989

Building Information

Building 1 : Section 1

Year Built:	1972
Living Area:	36,260
Replacement Cost:	$4,456,775
Building Percent Good:	78

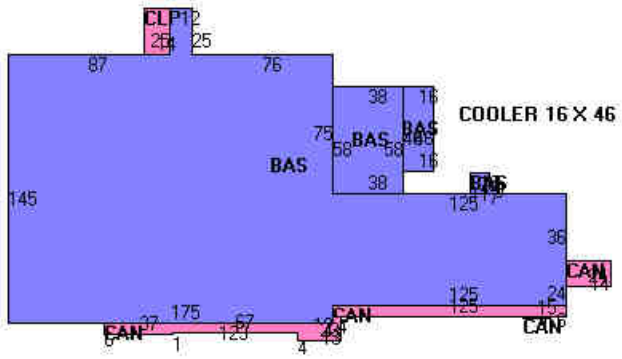
Replacement Cost
Less Depreciation: $3,476,300

Building Attributes	
Field	**Description**
STYLE	Shop Center LO
MODEL	Commercial
Grade	Average +20
Occupancy	3
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Brick
Roof Structure	Flat
Roof Cover	Rolled Compos
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Vinyl
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Forced Air
AC Type	Central
Bldg Use	Commercial
Fireplace	
Elevator	
Cath Ceil	
Sauna	
1st Floor Use:	2-1
Heat/AC	Heat A/C Pkg
Frame Type	Masonary
Baths/Plumbing	Average
Ceiling/Wall	Sus Ceil and W
Rooms/Prtns	Average
Wall Height	16
% Comn Wall	0

Building Photo

(http://images.vgsi.com/photos/WiltonCTPhotos//\00\00\40/57.j

Building Layout



(http://images.vgsi.com/photos/WiltonCTPhotos//Sketches/539_

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	36,260	36,260
CAN	Canopy	1,881	0
CLP	Loading Platform	350	0
		38,491	36,260

Extra Features

Extra Features				Legend
Code	**Description**	**Size**	**Value**	**Bldg #**
DUW4	Drve Up w Scre	1 UNITS	$32,800	1
MEZ2	Mezzanine Fin	448 S.F.	$4,500	1
MEZ1	Mezzanine Unf	560 S.F.	$3,900	1
NDP	Night Deposit	1 UNITS	$7,800	1

MEZ2	Mezzanine Fin	480 S.F.	$4,900	1
SPR1	Sprinklers Wet	34673 S.F.	$40,600	1
SPR3	Sprinklers Dry	3075 S.F.	$3,600	1
VLT2	Vault Good	128 S.F.	$2,000	1
ATM1	Auto Teller	1 UNITS	$27,300	1

Land

Land Use

Use Code	2-1
Description	Commercial
Zone	GB
Neighborhood	4500
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	3.77
Frontage	
Depth	
Assessed Value	$2,562,700
Appraised Value	$3,661,000

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
PAV1	Paving Asphaul			75500 S.F.	$75,500	1
LT4	Lights (4)			2 UNITS	$1,500	1
LT2	Lights (2)			1 UNITS	$600	1

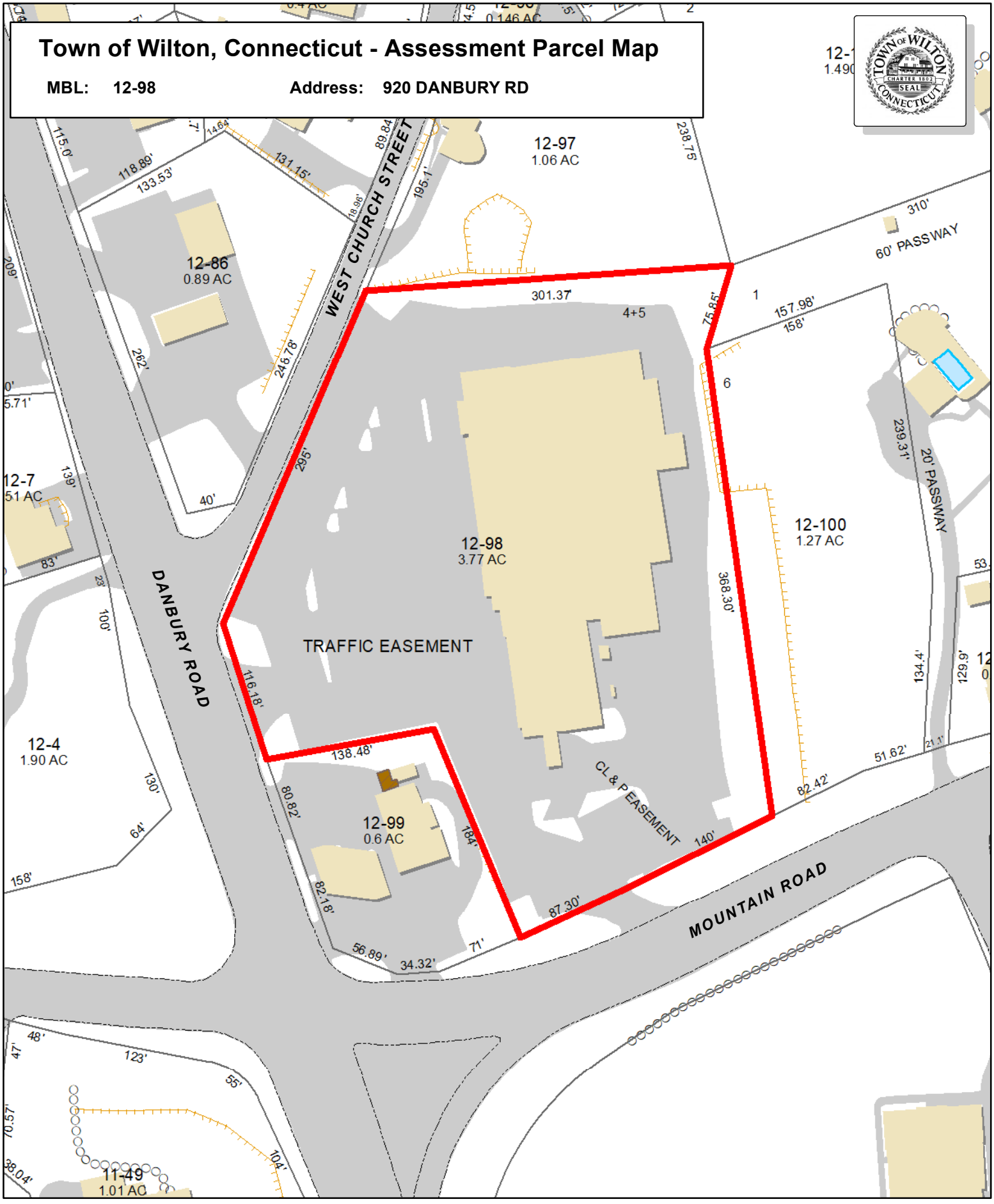
Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$3,681,300	$3,661,000	$7,342,300
2017	$2,462,200	$2,913,600	$5,375,800
2016	$2,462,200	$2,913,600	$5,375,800

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$2,576,910	$2,562,700	$5,139,610
2017	$1,723,540	$2,039,520	$3,763,060
2016	$1,723,540	$2,039,520	$3,763,060

Town of Wilton, Connecticut - Assessment Parcel Map

MBL: 12-98 **Address:** 920 DANBURY RD



Approximate Scale:

1 inch = 100 feet

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

Map Grand List Date: Oct 2017

0 50 100 150 Feet

EXHIBIT 3

WIRELESS COMMUNICATIONS FACILITY
CT5063 LTE 2C 1900 / LTE 3C 850
NORTH WILTON GEORGETOWN
922 DANBURY ROAD
WILTON, CT 06897

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE, INCLUDING THE TIA-222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2018 CONNECTICUT FIRE SAFETY CODE AND, 2017 NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. THE COMPOUND, TOWER, PRIMARY GROUND RING, ELECTRICAL SERVICE TO THE METER BANK AND TELEPHONE SERVICE TO THE DEMARCATION POINT ARE PROVIDED BY SITE OWNER. AS BUILT FIELD CONDITIONS REGARDING THESE ITEMS SHALL BE CONFIRMED BY THE CONTRACTOR. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED" ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE AT&T CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
21. CONTRACTOR SHALL COMPLY WITH OWNERS ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

SITE DIRECTIONS

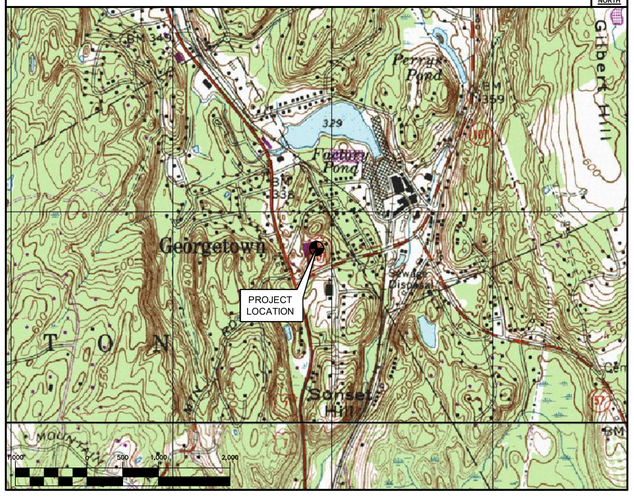
FROM: 500 ENTERPRISE DRIVE, ROCKY HILL, CONNECTICUT
TO: 922 DANBURY ROAD, WILTON, CONNECTICUT

1.	HEAD NORTHEAST ON ENTERPRISE DR TOWARD CAPITAL BLVD	0.37 MI
2.	TURN LEFT ONTO CAPITAL BLVD	0.27 MI
3.	TURN LEFT ONTO WEST ST	0.30 MI
4.	TURN LEFT TO MERGE ONTO I-91 S TOWARD NEW HAVEN	9.59 MI
5.	MERGE ONTO CT-15 S VIA EXIT 17 TOWARD E MAIN ST.	43.26 MI
6.	TAKE THE CT-57 EXIT, EXIT 42, TOWARD WESTON/WESTPORT	0.17 MI
7.	TURN LEFT ONTO WESTON RD/CT-57	3.64 MI
8.	TURN LEFT ONTO GEORGETOWN RD/CR-57	4.01 MI
9.	TURN LEFT ONTO REDDING RD/CT-107. CONTINUE TO FOLLOW CT-107	0.36 MI
10.	TURN RIGHT ONTO DANBURY RD/US-7 N	0.04 MI
11.	DESTINATION IS ON THE RIGHT	

VICINITY MAP

SCALE: 1" = 1000'

NORTH



PROJECT SUMMARY

1. THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:

A. WORK AT THE EXISTING RF TRANSPARENT FLAGPOLE TOWER:

- MODIFICATIONS TO THE EXISTING POLE ARE REQUIRED TO INCREASE THE RADOME DIAMETER TO ACCOMMODATE THE PROPOSED REPLACEMENT ANTENNAS. THE POLE MODIFICATION DESIGN WILL BE PERFORMED BY TOWER OWNER AND IS NOT PART OF THIS SITE UPGRADE SCOPE.

B. WORK AT ALPHA/BETA/GAMMA SECTORS:

- REMOVE AND REPLACE THE (3) EXISTING ANTENNAS AT WITH (3) KATHRIEN 800-10798 ANTENNAS
- REMOVE AND REPLACE THE (3) EXISTING TMA'S WITH (6) NEW TMA'S (COMMSCOPE TMAT192123B68-31)

C. WORK AT EXISTING EQUIPMENT PAD AT GRADE:

- ADD NEW RRU SUPPORT FRAME;
- ADD (6) NEW COAX ANTENNA CABLES;
- ADD (3) 4478 B5 RRUs;
- ADD (3) 4415 B25 RRUs;
- ADD (24) TSXDC-4310FM ARRESTORS AT PROPOSED RRUs;
- ADD (12) KAELUS QBC0007F1V51-1 QUADRUPLEXERS;
- ADD (1) 850 RXAIT;
- SWAP DUS WITH (1) 5216;
- ADD (1) 6630;
- ADD XMU;
- REMOVE EXISTING POWER PLANT CABINET AND STANDALONE CONVERTER SHELVES. INSTALL NEW "NETSURE 7100" POWER PLANT AND RE-CABLE EXISTING EQUIPMENT TO NEW POWER PLANT.

PROJECT INFORMATION

AT&T SITE NUMBER:	CT5063
AT&T SITE NAME:	NORTH WILTON GEORGETOWN
SITE ADDRESS:	922 DANBURY ROAD WILTON, CT 06897
LESSEE/APPLICANT:	AT&T MOBILITY 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067
AT&T PACE JOB	PACE JOB 1 - MRCTB030819 PACE JOB 2 - MRCTB031812
AT&T FA LOCATION CODE	10071179
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405
PROJECT COORDINATES:	LATITUDE: 41°-15'-24.8112" N LONGITUDE: 73°-26'-2.0358" W GROUND ELEVATION: ±358' AMSL SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
N-1	NOTES, SPECIFICATIONS AND DETAILS	0
C-1	PLANS AND ELEVATION	0
C-2	ANTENNA CONFIGURATION DETAILS	0
C-3	EQUIPMENT DETAILS	0
E-1	SCHEMATIC DIAGRAM AND NOTES	0
E-2	WIRING DIAGRAM	0
E-3	TYPICAL ELECTRICAL DETAILS	0

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	06/18/19	DMD	CAG	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER SEAL

STATE OF CONNECTICUT — CRAIG A. GAUDET — 27017 — REGISTERED PROFESSIONAL ENGINEER

CENTEK engineering
Centered on Solutions℠
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

AT&T MOBILITY
WIRELESS COMMUNICATIONS FACILITY
NORTH WILTON GEORGETOWN
CT5063 - LTE 2C 1900/3C 850
922 DANBURY ROAD
WILTON, CT 06897

DATE: 10/01/18
SCALE: AS NOTED
JOB NO. 18000.69

TITLE SHEET

T-1

Sheet No. 1 of 8

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CT STATE BUILDING CODE.

1. DESIGN CRITERIA:

   FLAGPOLE TOWER

   - WIND LOAD: PER NESC C2-2012 SECTION 25 RULE 250C (TOWER & FOUNDATION) 110 MPH (3 SECOND GUST)
   - SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE GOVERNING BUILDING CODE.
2. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
3. BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
4. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST EXISTING FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
6. ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS, ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
7. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE SHORING, BRACING, AND BARRICADES AS MAY BE REQUIRED FOR THE PROTECTION OF EXISTING PROPERTY, CONSTRUCTION WORKERS, AND FOR PUBLIC SAFETY.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING SITE OPERATIONS, COORDINATE WORK WITH NORTHEAST UTILITIES
10. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER FOUNDATION REMEDIATION WORK IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, TEMPORARY BRACING, GUYS OR TIEDOWNS, WHICH MIGHT BE NECESSARY.
11. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
12. SHOP DRAWINGS, CONCRETE MIX DESIGNS, TEST REPORTS, AND OTHER SUBMITTALS PERTAINING TO STRUCTURAL WORK SHALL BE FORWARDED TO THE OWNER FOR REVIEW BEFORE FABRICATION AND/OR INSTALLATION IS MADE. SHOP DRAWINGS SHALL INCLUDE ERECTION DRAWINGS AND COMPLETE DETAILS OF CONNECTIONS AS WELL AS MANUFACTURER'S SPECIFICATION DATA WHERE APPROPRIATE. SHOP DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR AND BEAR THE CHECKER'S INITIALS BEFORE BEING SUBMITTED FOR REVIEW.
13. NO DRILLING WELDING OR TAPING ON EVERSOURCE OWNED EQUIPMENT.
14. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	(E/P) TMA/DIPLEXER/TRIPLEXER (QTY) (LOCATION)	(E/P) RRU (QTY) (LOCATION)	(E/P) FEEDER TYPE / LENGTH (QTY)	(E/P) RAYCAP (QTY) (LOCATION)
A1	PROPOSED	LTE 700 BC/PCS/850/UMTS 850	KATHREIN (80010798)	78.5 x 14.8 x 6.7	76'	30°	(P) TMA: COMMSCOPE TMAT192123B68-31 (2) (AT ANTENNAS), (P) DIPLEXER: KAELUS QBC007F1V51-1 (4) (AT EQUIPMENT LOCATION)	(E) RRUS-11 (REUSE ONLY) (1) (AT EQUIPMENT), (P) 4478 B5 (1)(AT EQUIPMENT), (P) 4415 B25 (1) (AT EQUIPMENT)	(E) 7/8"ø COAX, / ±120FT (2) (P) 7/8"ø COAX, / ±120FT (2)	(E) RAYCAP DC6-48-60-18-8C (1) (AT EQUIPMENT) (P) DC6 BOX (AT EQUIPMENT)
B1	PROPOSED	LTE 700 BC/PCS/850/UMTS 850	KATHREIN (80010798)	78.5 x 14.8 x 6.7	76'	150°	(P) TMA: COMMSCOPE TMAT192123B68-31 (2) (AT ANTENNAS) (P) DIPLEXER: KAELUS QBC007F1V51-1 (4) (AT EQUIPMENT LOCATION)	(E) RRUS-11 (REUSE ONLY) (1) (AT EQUIPMENT), (P) 4478 B5 (1)(AT EQUIPMENT), (P) 4415 B25 (1) (AT EQUIPMENT)	(E) 7/8"ø COAX, / ±120FT (2) (P) 7/8"ø COAX, / ±120FT (2)	
C1	PROPOSED	LTE 700 BC/PCS/850/UMTS 850	KATHREIN (80010798)	78.5 x 14.8 x 6.7	76'	270°	(P) TMA: COMMSCOPE TMAT192123B68-31 (2) (AT ANTENNAS), (P) DIPLEXER: KAELUS QBC007F1V51-1 (4) (AT EQUIPMENT LOCATION)	(E) RRUS-11 (REUSE ONLY) (1) (AT EQUIPMENT), (P) 4478 B5 (1)(AT EQUIPMENT), (P) 4415 B25 (1) (AT EQUIPMENT)	(E) 7/8"ø COAX, / ±120FT (2) (P) 7/8"ø COAX, / ±120FT (2)	

RRU	SIZE (INCHES) (L x W x D)
4478 B5	16.5 x 13.4 x 7.7
4415 B25	16.5 x 13.4 x 5.9

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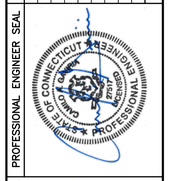

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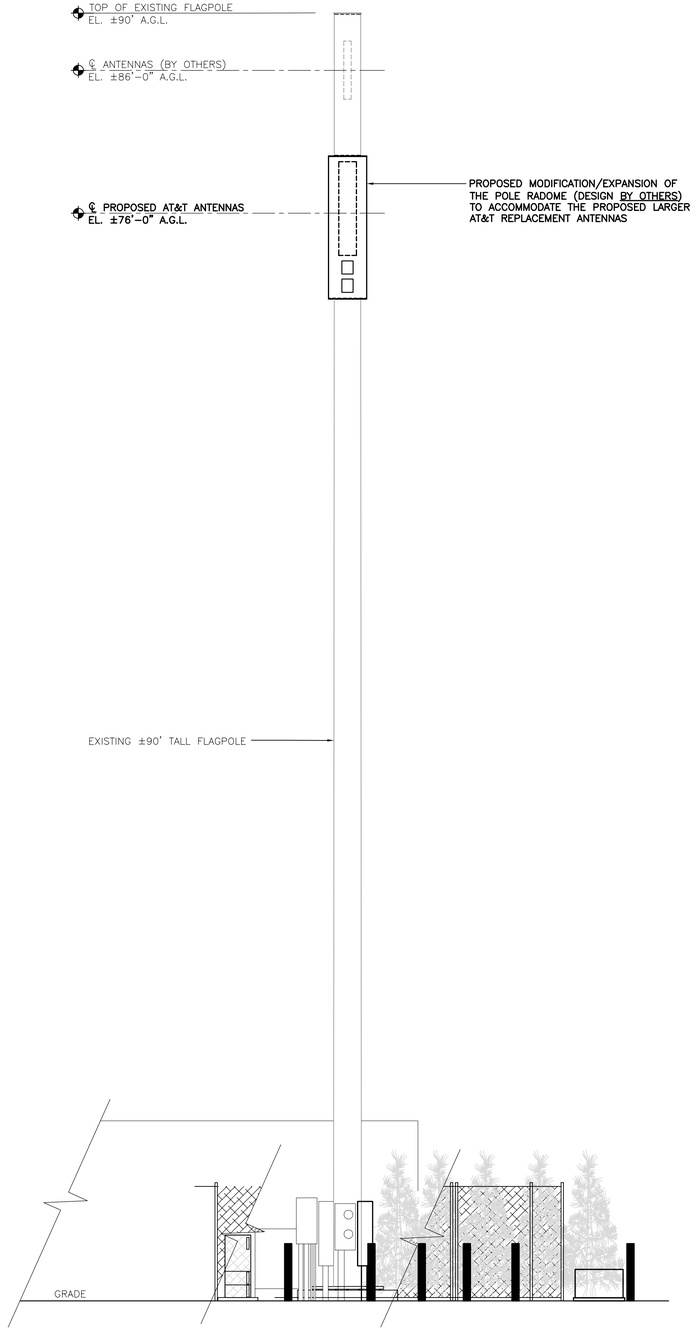
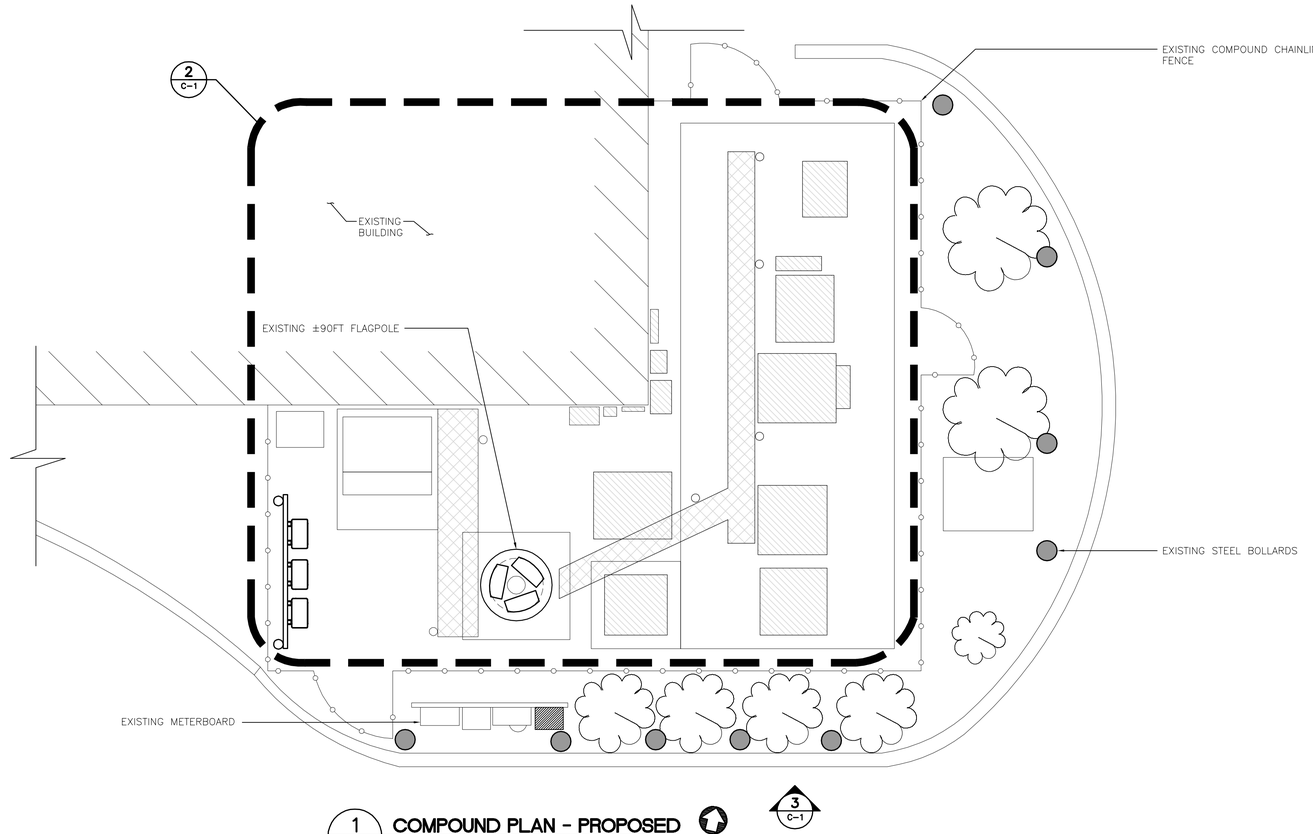
NOTES, SPECIFICATIONS AND DETAILS

N-1

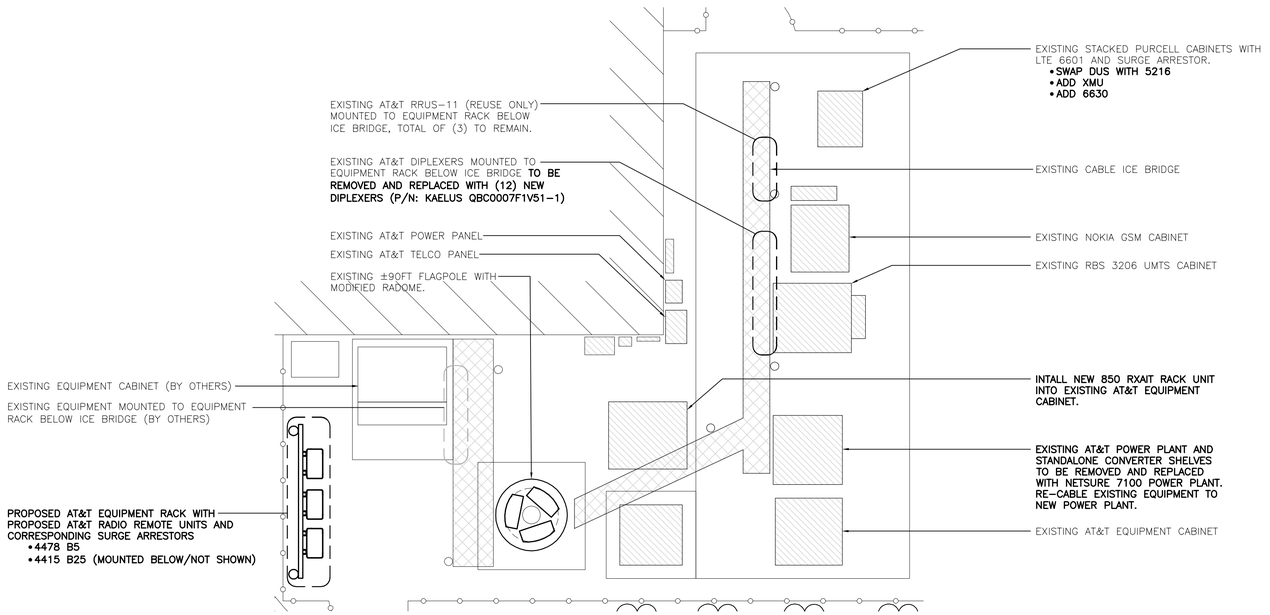


3 C-1 **TOWER ELEVATION - PROPOSED**
SCALE: 1" = 5'-0"

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.



1 C-1 **COMPOUND PLAN - PROPOSED**
SCALE: 3/8" = 1'-0"
TRUE NORTH
3 C-1



2 C-1 **EQUIPMENT LAYOUT PLAN - PROPOSED**
SCALE: 3/8" = 1'-0"
TRUE NORTH

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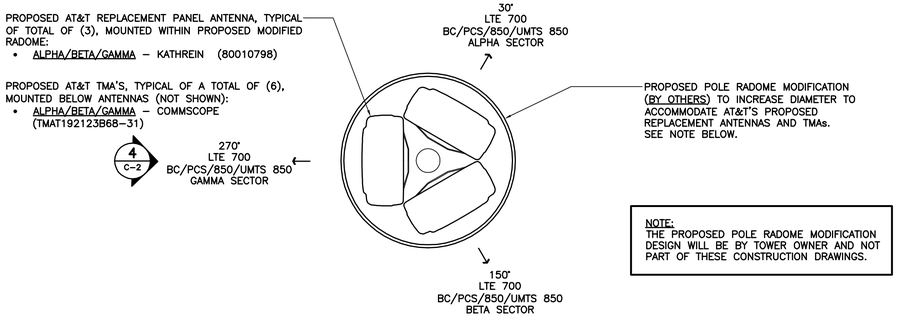
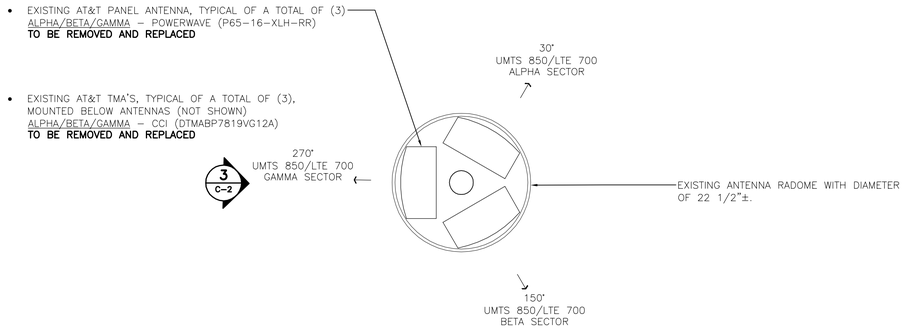
PLANS AND ELEVATION

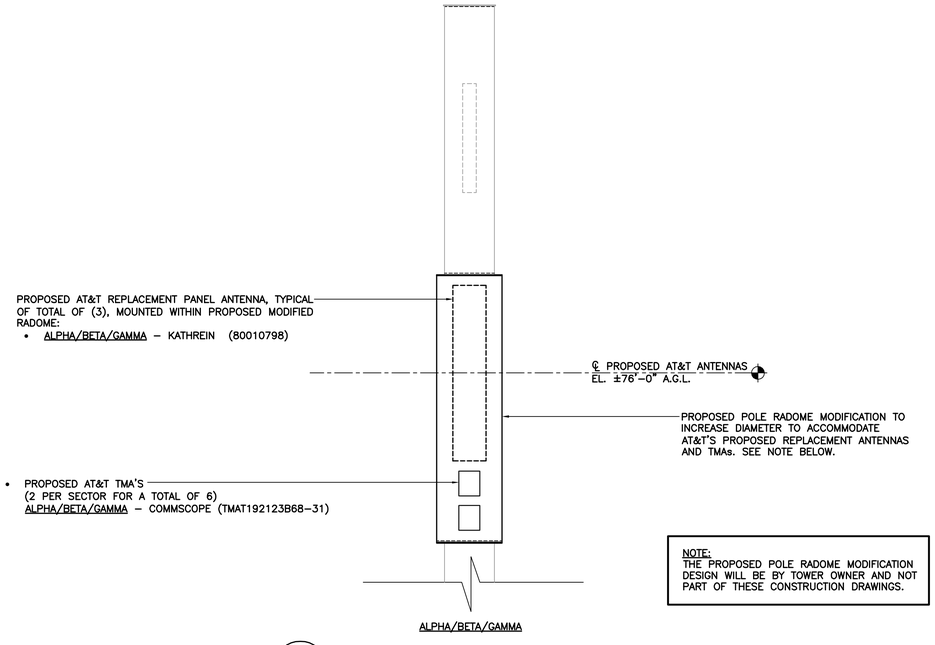
C-1
Sheet No. 3 of 8



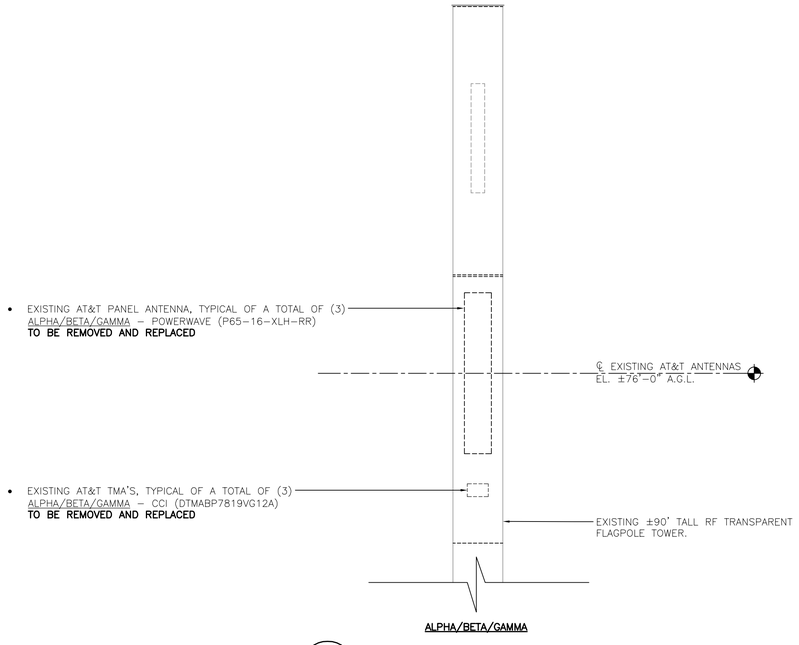
2 C-2 **POLE SECTION (PROPOSED)**
SCALE: 1" = 1'-0" NORTH



1 C-2 **POLE SECTION (EXISTING)**
SCALE: 1" = 1'-0" NORTH



4 C-2 **PARTIAL POLE ELEVATION (PROPOSED)**
SCALE: 3/8" = 1'-0"



3 C-2 **PARTIAL POLE ELEVATION (EXISTING)**
SCALE: 3/8" = 1'-0"

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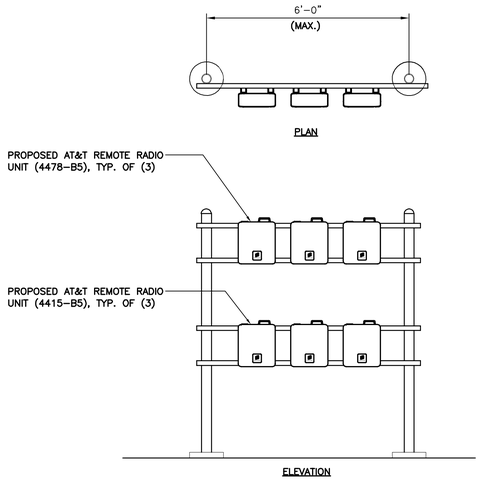
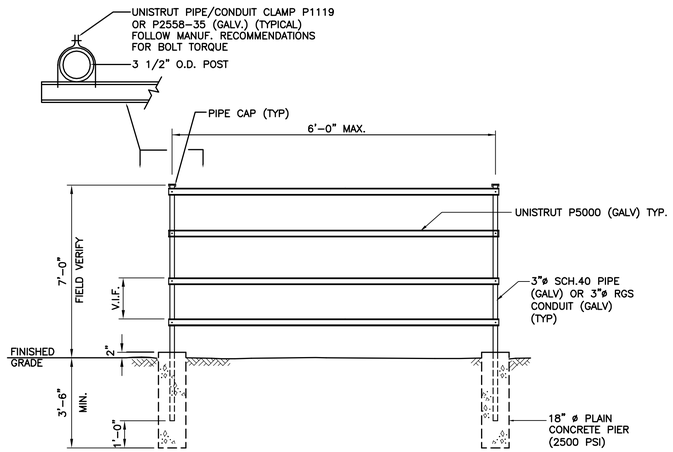
ANTENNA CONFIGURATION DETAILS

C-2

Sheet No. 4 of 8



1 C-3 **PROPOSED RRH MOUNTING DETAIL**
SCALE: NOT TO SCALE



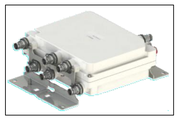
2 C-3 **RRU SUPPORT FRAME CONSTRUCTION DETAIL (TYP)**
NOT TO SCALE

RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: 4478 B5	16.5"L x 13.4"W x 7.7"D	59.9 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.			

3 C-3 **ERICSSON 4478 B5 DETAIL**
NOT TO SCALE

RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: 4415 B25	16.5"L x 13.4"W x 5.9"D	46 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.			

4 C-3 **ERICSSON 4415 B25 DETAIL**
NOT TO SCALE



SURGE ARESSTOR		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: TMAT192123B68-31	11.1"H x 3.8"D x 9.4"W	20.7 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.		

5 C-3 **COMMSCOPE TMA DETAIL**
SCALE: NOT TO SCALE

SURGE ARESSTOR		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: POLYPHASER MODEL: TSX-4310FM-P	3.07"H x ø1.18"D	1.0 LBS.
NOTES: 1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.		

6 C-3 **POLYPHASER TSX-4310FM-P DETAIL**
SCALE: NOT TO SCALE

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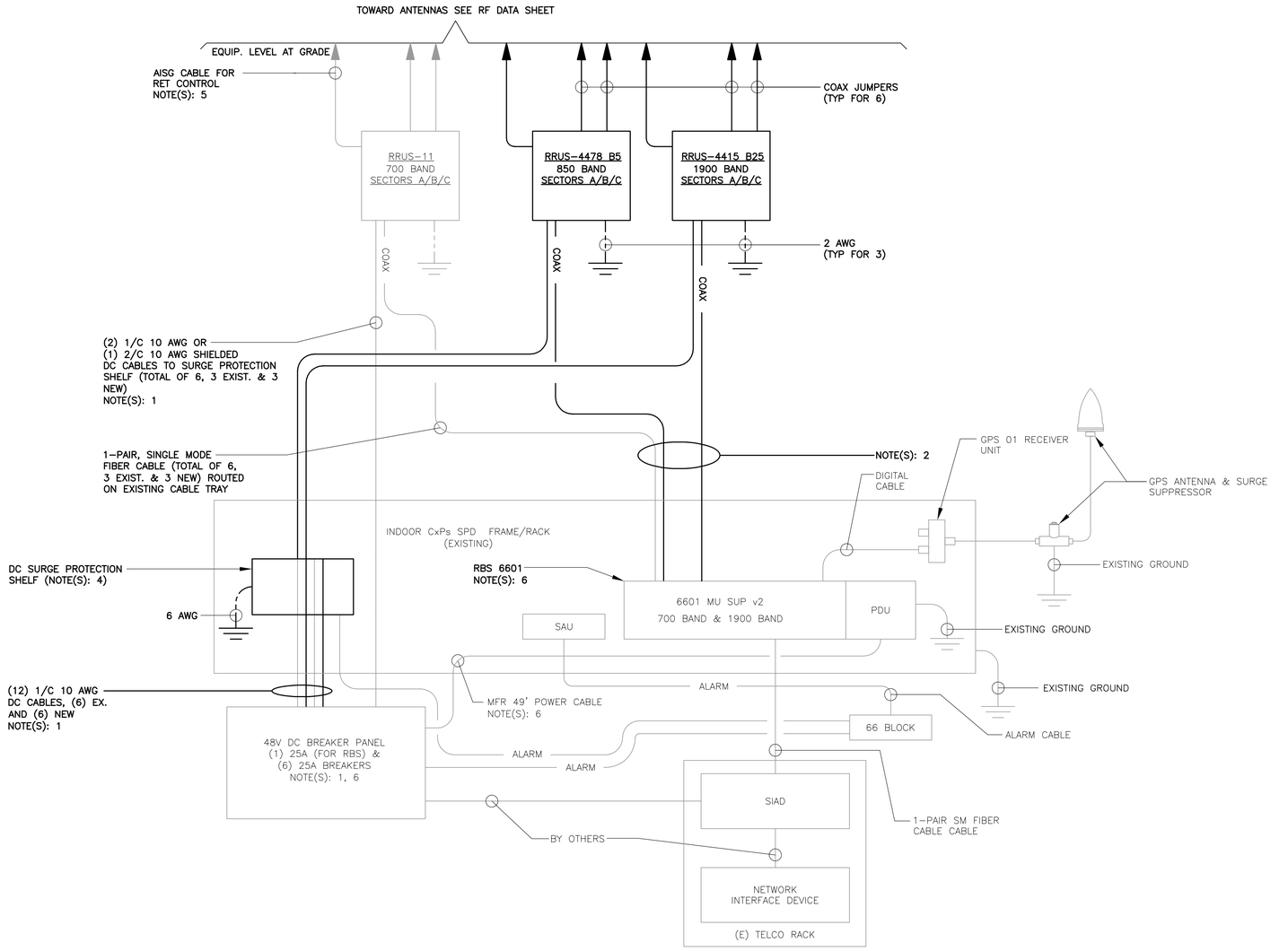
EQUIPMENT DETAILS

C-3
Sheet No. 5 of 8



LTE SCHEMATIC DIAGRAM NOTES:

1. BREAKERS TO BE TAGGED AND LOCKED OUT. A 20A (MIN.) OR 30A (MAX.) BREAKER FOR RRUs MAY BE SUBSTITUTED FOR THE RECOMMENDED 25A BREAKER. SIZE 12 CONDUCTORS MAY BE USED ONLY WITH 20A BREAKERS.
2. LEAVE COILED AND PROTECTED UNTIL TERMINATED.
3. DC AND FIBER CABLE SHALL BE ROUTED WITH THE EXISTING COAX CABLE.
4. DC SURGE PROTECTION SHELF SHALL BE RAYCAP DCx-48-60-RM.
5. FIBER & DC DISTRIBUTION BOX W/DC SURGE PROTECTION SHALL BE RAYCAP DC6-48-60-18-8F.
6. SUPPORT FIBER & DC POWER CABLES WITH SNAP-IN HANGERS SPACED NO GREATER THAN 3 FEET APART ON TOWER. SUPPORT FIBER AND DC POWER CABLES INSIDE MONOPOLE WITH CABLE HOISTING GRIPS AT 250 FT MAXIMUM INTERVALS. DRESS CABLES TO PREVENT CONTACT WITH ENTRANCE AND EXIT OPENINGS.
7. CONDUIT TO BE USED ON A TOWER IF THE RRU IS MORE THAN 10' FROM THE DISTRIBUTION UNITS. MAX CABLE LENGTH IS 16 FEET.
8. SINGLE-CONDUCTOR DC POWER CABLES SHALL BE TELCOFLEX® OR KS24194™, COPPER, UL LISTED RHH NON-HALOGEN, LOW SMOKE WITH BRAIDED COVER, TYPE TC (1/0 AND LARGER). UNLESS OTHERWISE NOTED, STRANDING SHALL BE CLASS B (TYPE III) FOR CABLES SIZES 14, 12 & 10 AWG AND CLASS I (TYPE IV) FOR SIZES 8 AWG AND LARGER. CABLES SHALL BE COLOR CODED RED FOR +24V, BLUE FOR -48V AND GRAY FOR 24V AND 48V RETURN CONDUCTORS. MULTI-CONDUCTOR DC POWER CABLES SHALL BE COPPER, CLASS B STRANDING WITH FLAME RETARDANT PVC JACKET, TYPE TC, UL LISTED FOR 90°C DRY/ 75°C WET INSTALLATION.
9. GROUNDING WIRES SHALL BE COPPER, GREEN THHN/THWN UL LISTED FOR 90°C DRY/75°C WET INSTALLATION. MINIMUM SIZE IS 6 AWG UNLESS NOTED OTHERWISE.
10. FIBER OPTIC CABLES SHALL BE INSTALLED IN FLEXIBLE CONDUIT AS SCOPED BY MARKET.
11. RET CONTROL FROM THE RRU IS AN OPTIONAL METHOD OF CONNECTION. REFER TO RF DATA SHEET FOR APPLICABILITY.
12. RBS 6601 VARIANT 2 REQUIRES A 25A BREAKER AND 10 AWG (MIN.) CONDUCTORS. REPLACE EXISTING 15A OR 20A BREAKERS AND 12 AWG CONDUCTORS WHEN UPGRADING AN EXISTING RBS 6601 VARIANT 1.

1 / E-1 **LTE SCHEMATIC DIAGRAM**

NOT TO SCALE

ELECTRICAL NOTES

1. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND ALL MANUFACTURER DOCUMENTATION FOR ALL EQUIPMENT TO BE INSTALLED.
2. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH LOCAL BUILDING CODE, NATIONAL ELECTRIC CODE, OWNER AND MANUFACTURER'S SPECIFICATIONS.
3. CONNECT ALL NEW EQUIPMENT TO EXISTING TELCO AS REQUIRED BY MANUFACTURER.
4. MAINTAIN ALL CLEARANCES REQUIRED BY NEC AND EQUIPMENT MANUFACTURER.
5. PRIOR TO INSTALLATION CONTRACTOR SHALL MEASURE EXISTING ELECTRICAL LOAD AND VERIFY EXISTING AVAILABLE CAPACITY FOR PROPOSED INSTALLATION. IF INADEQUATE CAPACITY IS AVAILABLE, CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRIC UTILITY COMPANY TO UPGRADE EXISTING ELECTRIC SERVICE.
6. CONTRACTOR SHALL INSPECT EXISTING GROUNDING AND LIGHTNING PROTECTION SYSTEM AND ENSURE THAT IT IS IN COMPLIANCE WITH NEC, AND SITE OWNER'S SPECIFICATIONS. THE RESULTS OF THIS INSPECTION SHALL BE PRESENTED TO OWNERS REPRESENTATIVE, AND ANY DEFICIENCIES SHALL BE CORRECTED.
7. ALL TRANSMISSION TOWER SITES CONTAIN AN EXTENSIVE BURIED GROUNDING SYSTEM. ALL GROUNDING WORK MUST BE COORDINATED WITH, AND APPROVED BY, THE TOWER OWNER'S SITE REPRESENTATIVE. ALL OF THE TOWER OWNER'S SPECIFICATIONS MUST BE STRICTLY FOLLOWED.
8. PROVIDE AND INSTALL GROUND KITS FOR ALL NEW COAXIAL CABLES AND BOND TO EXISTING OWNERS GROUNDING SYSTEM PER OWNERS SPECIFICATIONS AND NEC.
9. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:
10. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.
11. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
12. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNER'S REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS MAY BE REQUIRED BY THE LOCAL AUTHORITY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE SITE AND/OR BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
15. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
16. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
17. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
18. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
19. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122. (MIN. #12 AWG).
20. CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 5 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).

TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:

   TEST 1: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

   THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

   1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
   2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
   3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.

B. TESTING SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNERS CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.

C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.

D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

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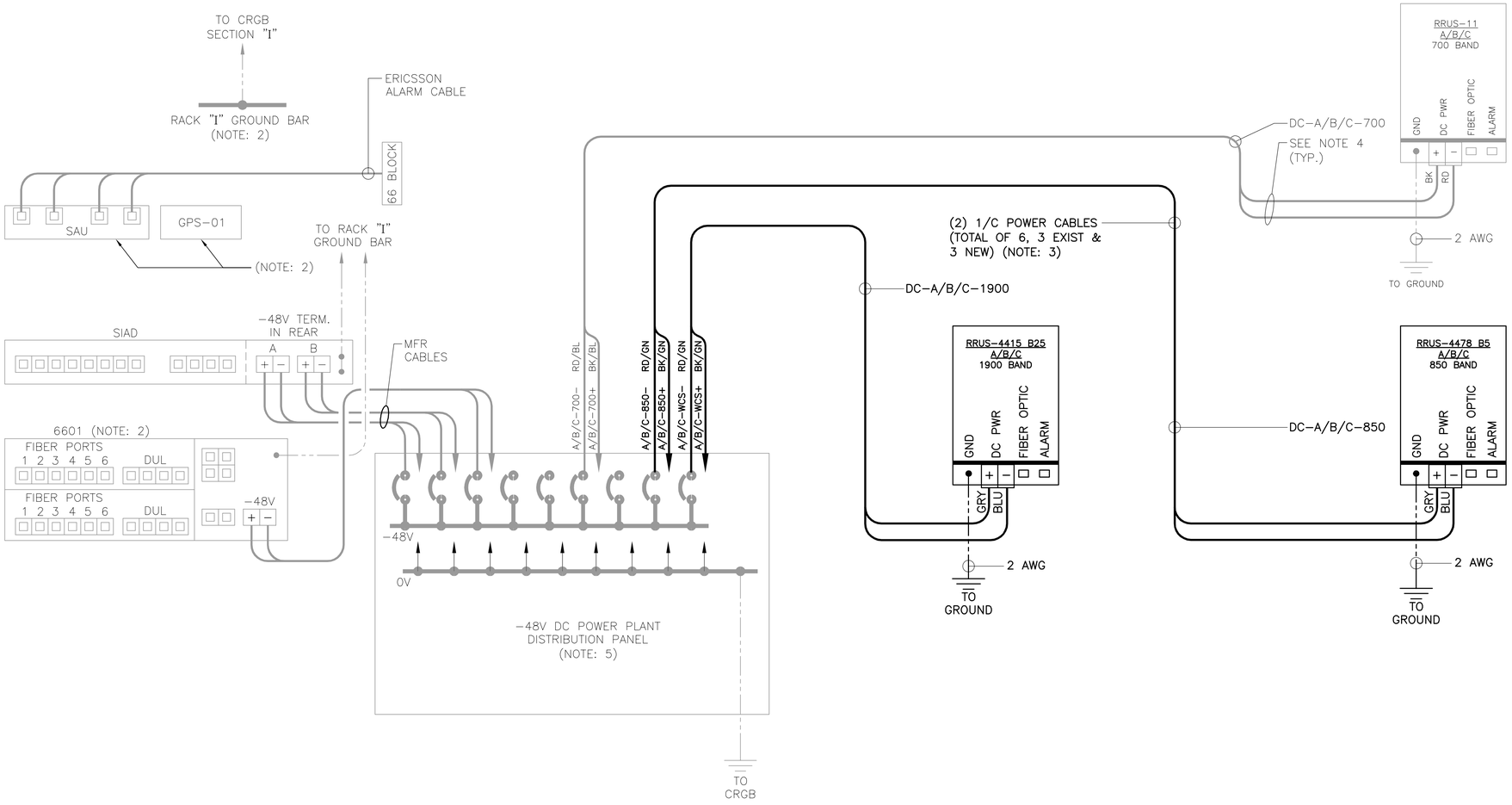
SCHEMATIC DIAGRAM AND NOTES

E-1

Sheet No. 6 of 8



LTE WIRING DIAGRAM NOTES:

1. LABEL THE DC POWER CABLES AT BOTH ENDS OF EVERY WIRE AND IN ANY PULL BOX IF USED. LABEL SHALL BE DURABLE, SELF ADHESIVE, WRAPPED LONGITUDINALLY ALONG THE CABLE AND STATE THE SECTOR, FREQUENCY BAND AND POLARITY; I.E. "A-1900+". CABLE AND WIRE LABELS SHOWN ARE REPRESENTATIVE AND MAY BE MODIFIED AS DIRECTED BY AT&T.
2. INSTALL ON BASEBAND EQUIPMENT RACK.
3. THE BARE GROUND WIRE OF EACH MULTI-CONDUCTOR CABLE SHALL BE CONNECTED TO THE "P" GROUND BAR ON THE RACK. WHEN A SHIELDED CABLE IS USED, THE DRAIN WIRE ALSO SHALL BE CONNECTED TO THE "P" GROUND BAR.
4. CABLE GROUND WIRE AND SHIELD DRAIN WIRE TO BE LEFT UN-TERMINATED AT RRU AND DC POWER PLANT.
5. SEE LTE SCHEMATIC DIAGRAM DETAIL 1/E-1 FOR BREAKER RATING.

1 / E-2 **LTE WIRING DIAGRAM**
NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	06/18/19	DMD	CAG	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER SEAL

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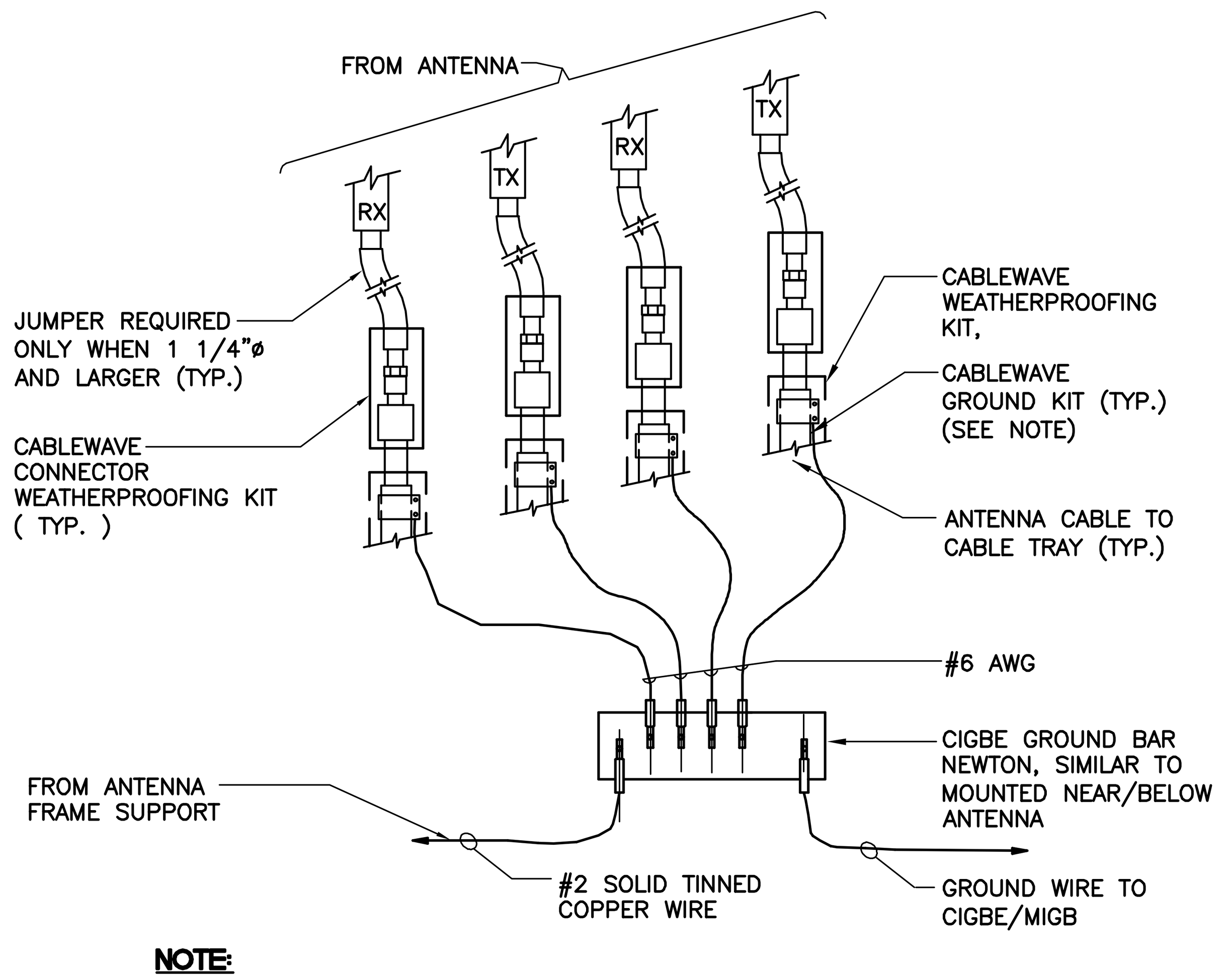
AT&T MOBILITY
WIRELESS COMMUNICATIONS FACILITY
NORTH WILTON GEORGETOWN
CT5063 - LTE 2C 1900/3C 850
922 DANBURY ROAD
WILTON, CT 06897

DATE: 10/01/18
SCALE: AS NOTED
JOB NO. 18000.69

WIRING DIAGRAM

E-2
Sheet No. 7 of 8



NOTE:

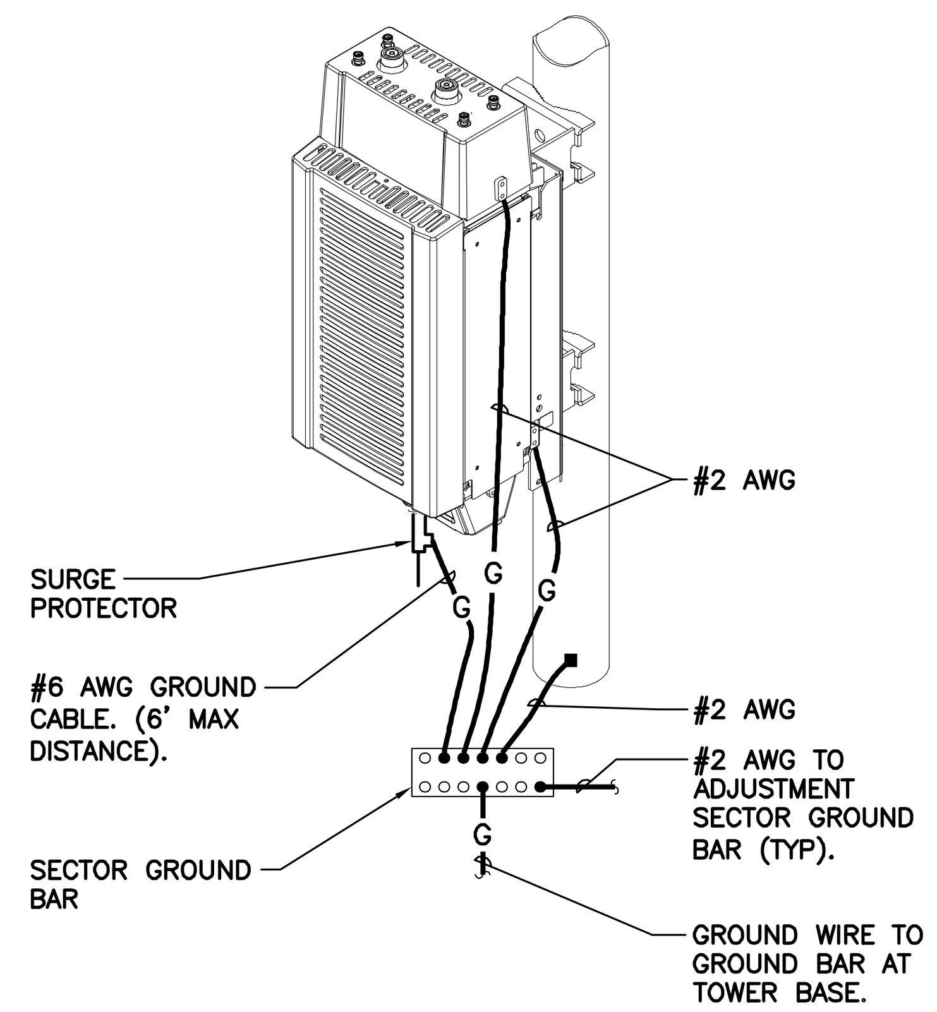
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

1 (E-3) CONNECTION OF GROUND WIRES TO GROUND BAR

NOT TO SCALE

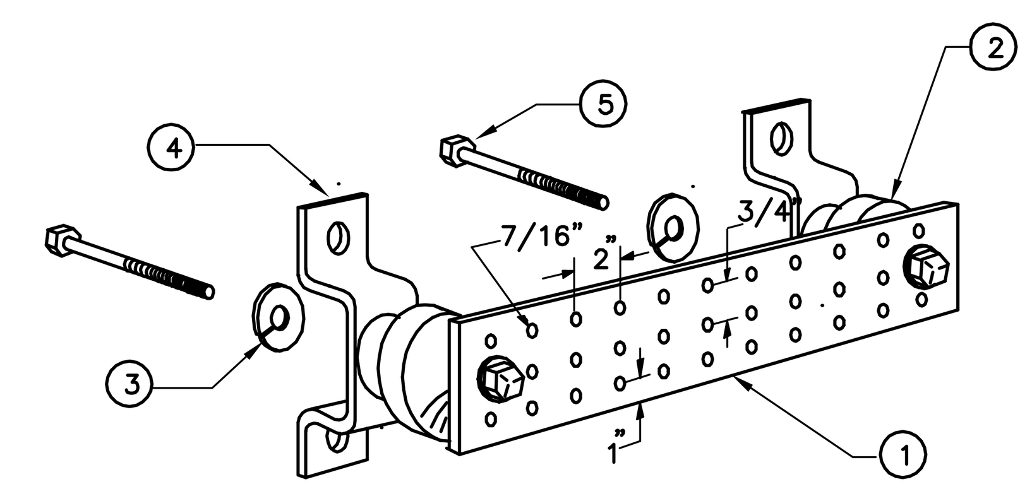
EACH RRH CABINET SHALL BE GROUNDED IN THE FOLLOWING MANNER:

1. AT TOP OF THE CABINET
2. AT RIGHT SIDE OF THE CABINET.



2 (E-3) RRU POLE MOUNT GROUNDING

NOT TO SCALE

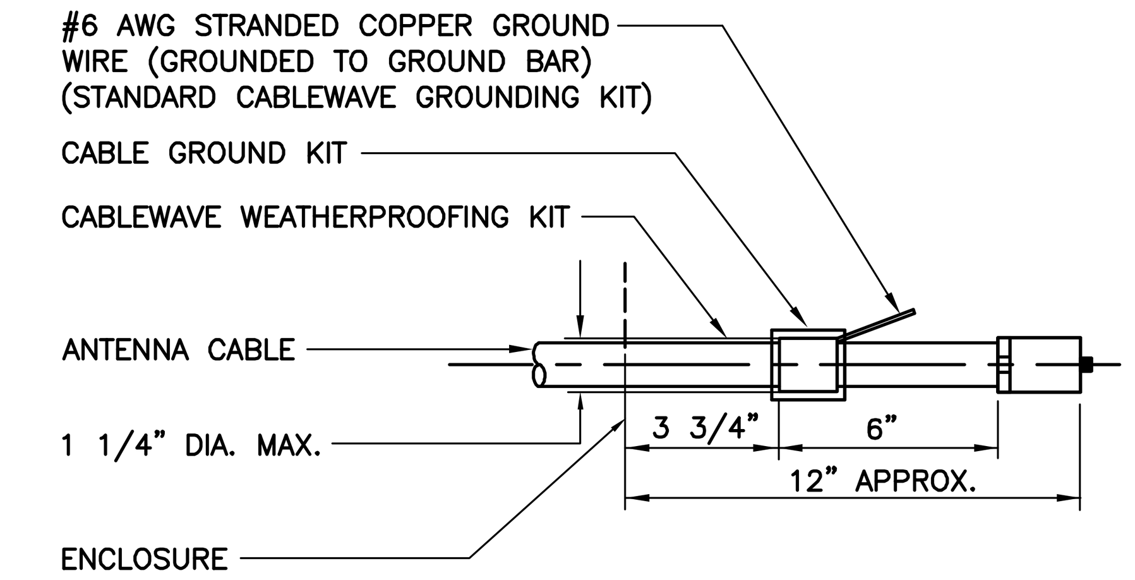


LEGEND

1. TINNED COPPER GROUND BAR, 1/4"x 4"x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG .
2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 2. 3061–4.
3. 3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015–8.
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. 4. CAT NO. A–6056.
5. STAINLESS STEEL SECURITY SCREWS.

3 (E-3) GROUND BAR DETAIL

NOT TO SCALE

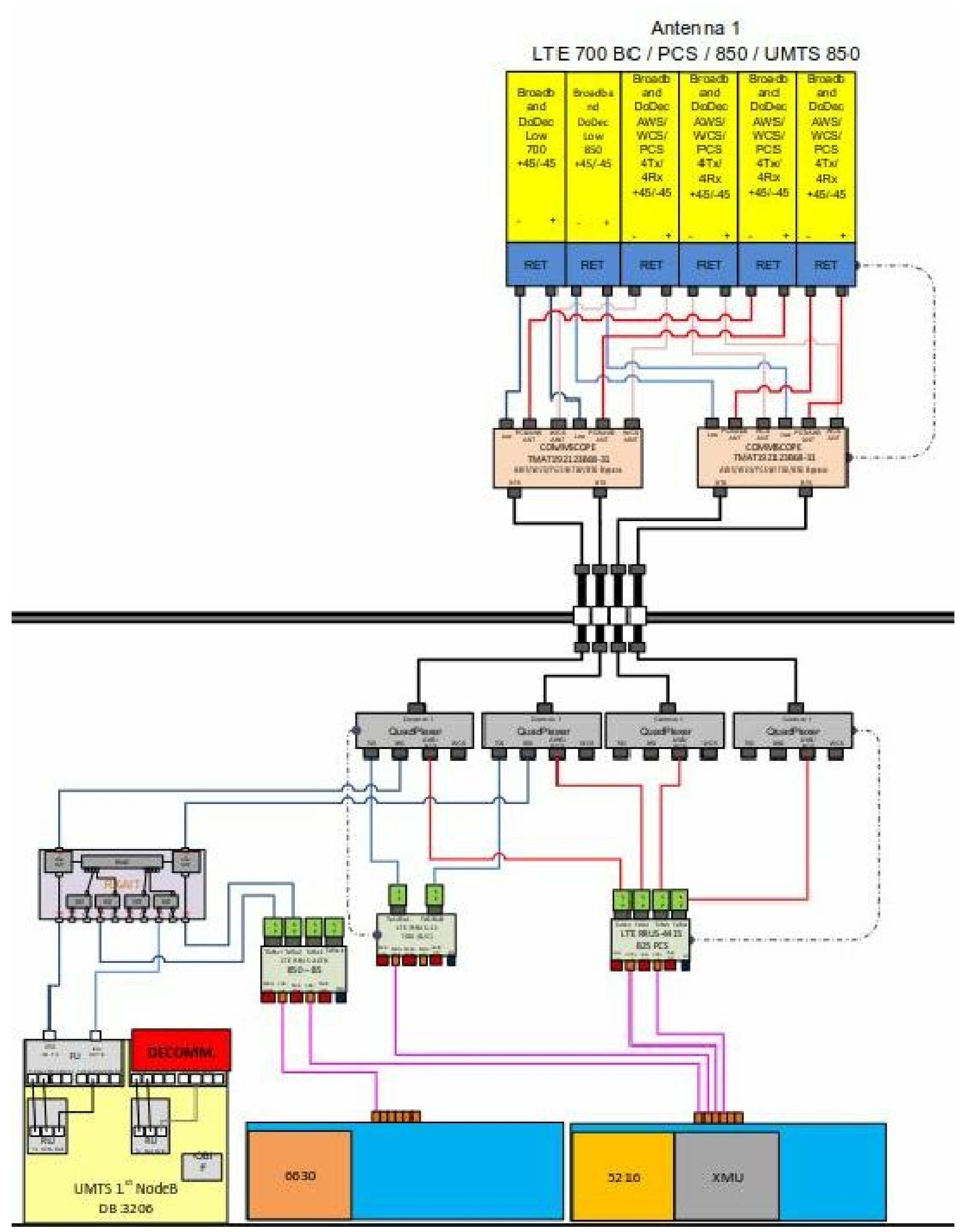


NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

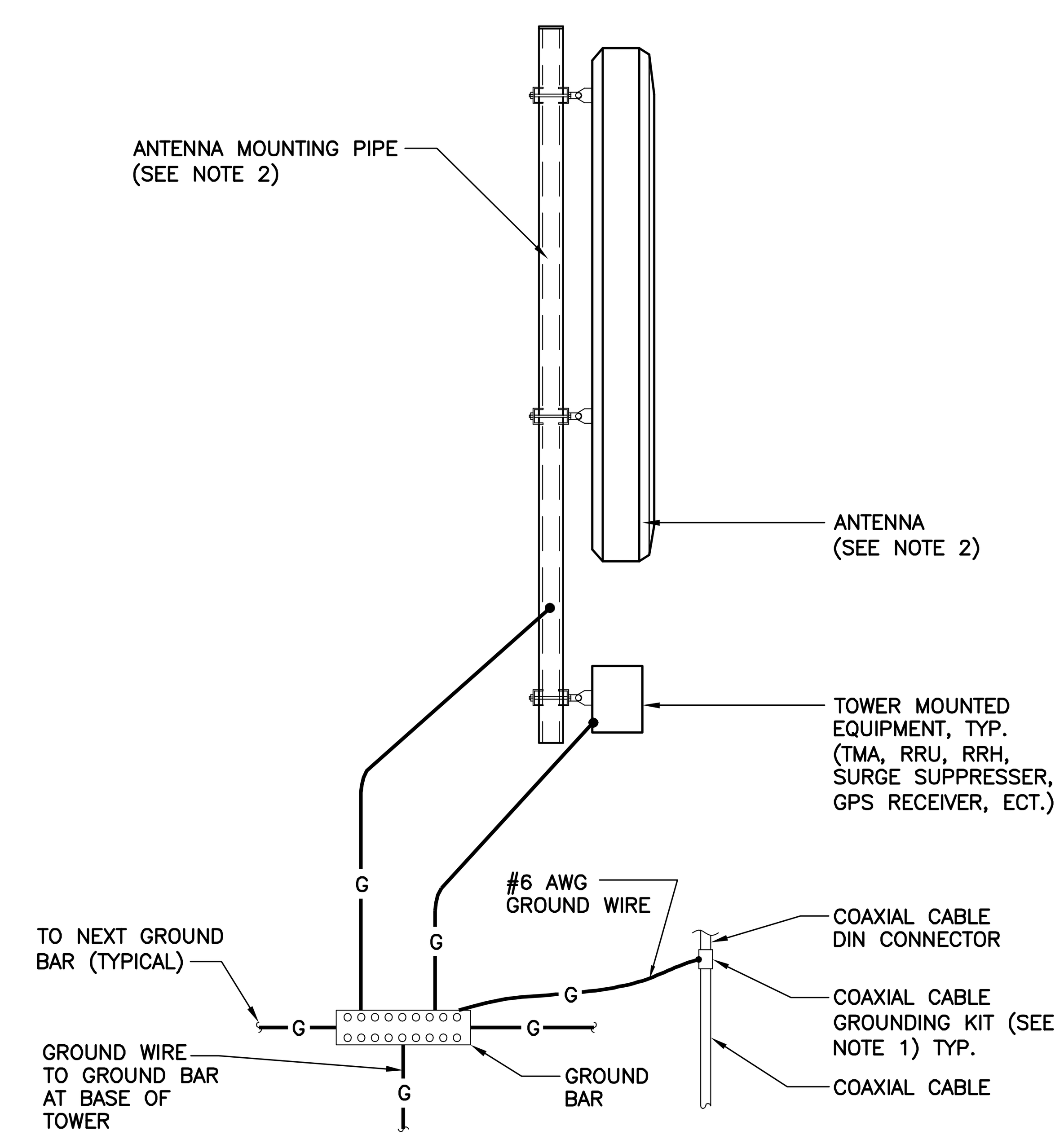
4 (E-3) ANTENNA CABLE GROUNDING DETAIL

NOT TO SCALE



6 (E-3) RF PLUMBING DIAGRAM (ALPHA/BETA/GAMMA SECTOR)

NOT TO SCALE



NOTES:

1. BOND COAXIAL CABLE GROUND KITS TO EACH OWNER'S GROUND BAR ALONG ENTIRE COAX RUN FROM ANTENNA TO SHELTER.
2. BOND ALL EQUIPMENT TO GROUND PER NEC AND MANUFACTURERS SPECIFICATIONS.
3. DETAIL IS TYPICAL FOR ALL ANTENNA SECTORS, INCLUDING GPS ANTENNA.

5 (E-3) TYPICAL ANTENNA GROUNDING DETAIL

NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	06/18/19	DMD	CAG	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION

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WILTON, CT 06897

DATE: 10/01/18
SCALE: AS NOTED
JOB NO. 18000.69

TYPICAL ELECTRICAL DETAILS

E-3

Sheet No. 8 of 8

EXHIBIT 4

Date: **June 7, 2019**

Rebecca Klein
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Carrier Site Number:	CT5063
	Carrier Site Name:	North Wilton Georgetown
Crown Castle Designation:	**Crown Castle BU Number:**	829115
	Crown Castle Site Name:	Wilton/Georgetown/Rt7
	Crown Castle JDE Job Number:	564764
	Crown Castle Work Order Number:	1743971
	Crown Castle Order Number:	485500 Rev. 1
Engineering Firm Designation:	**TEP Project Number:**	154669.259200
Site Data:	**922 Danbury Road, Wilton, Fairfield County, CT 06897** **Latitude *41° 15' 22.96"*, Longitude *-73° 26' 2.21"*** **89.1 Foot - Concealment Tower**	

Dear Rebecca Klein,

Tower Engineering Professionals is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Proposed Equipment Configuration **Sufficient Capacity - 66.1%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Travis L. Infante, E.I. / JCR

Respectfully submitted by:

Aaron T. Rucker, P.E.

Electronic Copy

06/07/2019

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tnxTower Output

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Base Level Drawing

7) APPENDIX C
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1) INTRODUCTION

This tower is a 69.1-ft concealment tower designed by Paul J. Ford and Company. The base of the tower is 69.1-ft and the concealment spine extends from 69.1-ft to 89.1-ft. The canister sections were designed by Stealth Concealment Solutions, Inc. The tower and the concealment sections were designed for a wind speed of 105 mph per TIA-222-G. A proposed canister expansion was considered in this analysis, enlarging the canister sections to 36-in diameter. All information provided to TEP was assumed to be accurate and complete.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	120 mph
Exposure Category:	C
Topographic Factor:	1.0
Ice Thickness:	1.50 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
84.1	84.1	1	Generic	36” OD x 10’ Tall Concealment Canister	-	-
76.0	76.0	3	Kathrein	80010798	12	7/8
	71.0	6	Commscope	TMAT192123B68-31		
74.1	74.1	1	Generic	36” OD x 10’ Tall Concealment Canister	-	-

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
85.0	85.0	3	RFS Celwave	APX16DWV-16DWVS-C	12	7/8
	82.0	3	Andrew	ETW190VS12UB		
	81.0	3	Andrew	ETW190VS12UB		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Geotechnical Report	Dr. Clarence Welti, P.E., P.C.	3594542	CCISites
Tower Foundation Drawings	Paul J. Ford and Company	3886758	CCISites
Tower Manufacturer Drawings	Paul J. Ford and Company / Stealth Concealment Solutions, Inc.	3777970	CCISites

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

SolidWorks, a commercially available analysis software package, was used to create a finite element model of the canister spine flange connection at the 69.1-ft level. Selected output from the analysis is included in Appendix C - Additional Calculations.

3.2) Assumptions

1) The tower and foundation were built and maintained in accordance with the manufacturer's specification.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2, and the referenced drawings.
3) All tower components are in sufficient condition to carry their full design capacity.
4) Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.
5) All antenna mounts and mounting hardware are structurally sufficient to carry the full design capacity requirements of appurtenance wind area and weight as provided by the original manufacturer specifications. It is the carrier's responsibility to ensure compliance to the structural limitations of the existing and/or proposed antenna mounts. TEP did not perform a site visit to verify the size, condition or capacity of the antenna mounts and did not analyze antennas supporting mounts as part of this structural analysis report.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (lb)	ϕP_{allow} (lb)	% Capacity	Pass / Fail
L1	89.06 - 72.06	Pole	P4x0.5	1	-1485.16	389656.03	53.5	Pass
L2	72.06 - 69.06	Pole	P4x0.5	2	-1637.43	389656.03	66.1	Pass
L3	69.06 - 35	Pole	P24x0.375	3	-6118.86	920561.21	20.2	Pass
L4	35 - 1	Pole	P24x0.375	4	-10369.70	920561.21	43.6	Pass
L5	1 - 0	Pole	P20x0.5	5	-10508.80	1013105.05	47.7	Pass
							Summary	
						Pole (L2)	66.1	Pass
						RATING =	**66.1**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Connection (Stiffeners)	69.1	Sufficient	Pass
1,2	Flange Bolts	69.1	34.7	Pass
1,2	Flange Connection	35.0	28.8	Pass
1,2	Anchor Rods	-	43.4	Pass
1,2	Base Plate	-	40.4	Pass
1,2	Base Foundation Soil Interaction	-	55.3	Pass
1,2	Base Foundation Structural	-	24.6	Pass

Structure Rating (max from all components) =	**66.1%**

Notes:
1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
2) Rating per TIA-222-H Section 15.5

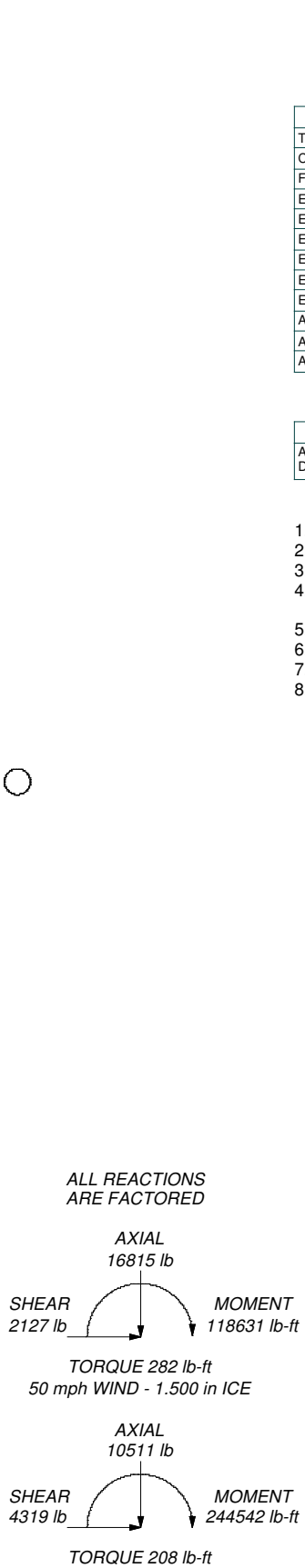
4.1) Recommendations

1) If the load differs from that described in Tables 1 and 2 of this report, the referenced drawings, or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
2) The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	Size	Length (ft)	Grade	Weight (lb)
1	P4x0.5	17.00	ASTM A513 D.O.M.	318.0
2	P4x0.5	3.00		56.1
3	P24x0.375	34.06	A53-B-35	3225.8
4	P24x0.375	34.00		3220.1
5	P20x0.5	1.00		204.2
				6924.2



ALL REACTIONS ARE FACTORED

AXIAL 16815 lb

SHEAR 2127 lb

MOMENT 118631 lb-ft

TORQUE 282 lb-ft
50 mph WIND - 1.500 in ICE

AXIAL 10511 lb

SHEAR 4319 lb

MOMENT 244542 lb-ft

TORQUE 208 lb-ft
REACTIONS - 120 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Truck Ball	89.81	36" OD x 10' Tall Concealment Canister	84.1
Canister Load1	89.06	Canister Load2	79.06
Flag	89.06	(2) TMAT192123B68-31	76
ETW190VS12UB	85	(2) TMAT192123B68-31	76
ETW190VS12UB	85	80010798	76
ETW190VS12UB	85	(2) TMAT192123B68-31	76
ETW190VS12UB	85	80010798	76
ETW190VS12UB	85	80010798	76
ETW190VS12UB	85	36" OD x 10' Tall Concealment Canister	74.1
APX16DWV-16DWVS-C	85	Canister Load3	69.06
APX16DWV-16DWVS-C	85		
APX16DWV-16DWVS-C	85		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
ASTM A513 D.O.M.	75 ksi	85 ksi	A53-B-35	35 ksi	60 ksi

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 66.1%

Tower Engineering Professional

Tower Engineering Professionals, Inc.
326 Tryon Road
Raleigh, NC 27603-5263
Phone: (919) 661-6351
FAX: (919) 661-6350

Job:	***Wilton/Georgetown/Rt7 (BU 829115)***		
Project:	***TEP No. 154669.259200***		
Client: Crown Castle	Drawn by: TLI	App'd:	
Code: TIA-222-H	Date: 06/07/19	Scale: NTS	
Path: C:\Users\tlinfante\Desktop\154669.259200 WiltonGeorgetownRt7\tnxTower\829115_1743971_LC5.er		Dwg No. E-1	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Fairfield County, Connecticut.
Tower base elevation above sea level: 355.00 ft.
Basic wind speed of 120 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.05.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist. Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	√ Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	√ Pole Without Linear Attachments
		√ Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known

Pole Section Geometry

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	89.06-72.06	17.00	P4x0.5	ASTM A513 D.O.M. (75 ksi)	
L2	72.06-69.06	3.00	P4x0.5	ASTM A513 D.O.M. (75 ksi)	
L3	69.06-35.00	34.06	P24x0.375	A53-B-35 (35 ksi)	
L4	35.00-1.00	34.00	P24x0.375	A53-B-35 (35 ksi)	
L5	1.00-0.00	1.00	P20x0.5	A53-B-35 (35 ksi)	

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 89.06-72.06				1	0	1			
L2 72.06-69.06				1	0	1			
L3 69.06-35.00				1	1	1			
L4 35.00-1.00				1	1	1			
L5 1.00-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
LDF5-50A(7/8")	C	No	No	Inside Pole	85.00 - 0.00	12	No Ice	0.00	0.330
							1/2" Ice	0.00	0.330
							1" Ice	0.00	0.330
							2" Ice	0.00	0.330
LDF5-50A(7/8")	C	No	No	Inside Pole	76.00 - 0.00	12	No Ice	0.00	0.330
							1/2" Ice	0.00	0.330
							1" Ice	0.00	0.330
							2" Ice	0.00	0.330
Halyard Line 3/8"	C	No	No	CaAa (Out Of Face)	89.06 - 0.00	2	No Ice	0.04	0.220
							1/2" Ice	0.14	0.750
							1" Ice	0.24	1.278
							2" Ice	0.44	2.340

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	89.06-72.06	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.275	74.32
L2	72.06-69.06	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.225	25.08
L3	69.06-35.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	2.555	284.74
L4	35.00-1.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	2.550	284.24
L5	1.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.075	8.36

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	89.06-72.06	A	1.394	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	10.754	124.52
L2	72.06-69.06	A	1.376	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.876	33.82
L3	69.06-35.00	A	1.335	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	20.745	381.06
L4	35.00-1.00	A	1.203	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	18.915	370.87
L5	1.00-0.00	A	0.839	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.410	10.14

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	89.06-72.06	-1.732	1.000	-1.732	1.000
L2	72.06-69.06	-1.732	1.000	-1.732	1.000
L3	69.06-35.00	-0.799	0.462	-2.073	1.197
L4	35.00-1.00	-0.799	0.462	-1.942	1.121
L5	1.00-0.00	-0.787	0.455	-1.483	0.856

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice

User Defined Loads

Description	Elevation	Offset From Centroid	Azimuth Angle		Weight	F_x	F_z	Wind Force	C_AA_C
	ft	ft	°		lb	lb	lb	lb	ft^2
Flag	89.06	0.000	0.000	No Ice	22.68	0.00	0.00	417.19	**8.88**
				Ice	690.61	0.00	0.00	75.20	**9.22**
				Service	22.68	0.00	0.00	104.30	**9.93**

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement		C_AA_A Front	C_AA_A Side	Weight
			ft ft	°	ft		ft^2	ft^2	lb
***									
**									
APX16DWV-16DWVS-C	A	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	40.00
			0.000			1/2" Ice	0.00	0.00	74.23
						1" Ice	0.00	0.00	112.65
						2" Ice	0.00	0.00	204.92
APX16DWV-16DWVS-C	B	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	40.00
			0.000			1/2" Ice	0.00	0.00	74.23
						1" Ice	0.00	0.00	112.65
						2" Ice	0.00	0.00	204.92
APX16DWV-16DWVS-C	C	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	40.00
			0.000			1/2" Ice	0.00	0.00	74.23
						1" Ice	0.00	0.00	112.65
						2" Ice	0.00	0.00	204.92
ETW190VS12UB	A	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	10.00
			-3.000			1/2" Ice	0.00	0.00	19.54
						1" Ice	0.00	0.00	26.01
						2" Ice	0.00	0.00	44.32
ETW190VS12UB	B	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	10.00
			-3.000			1/2" Ice	0.00	0.00	19.54
						1" Ice	0.00	0.00	26.01
						2" Ice	0.00	0.00	44.32
ETW190VS12UB	C	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	10.00
			-3.000			1/2" Ice	0.00	0.00	19.54
						1" Ice	0.00	0.00	26.01
						2" Ice	0.00	0.00	44.32
ETW190VS12UB	A	From Leg	0.50 0.000	0.000	85.00	No Ice	0.00	0.00	10.00
			-4.000			1/2" Ice	0.00	0.00	19.54
						1" Ice	0.00	0.00	26.01
						2" Ice	0.00	0.00	44.32

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
ETW190VS12UB	B	From Leg	0.50 0.000 -4.000	0.000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	10.00 19.54 26.01 44.32
ETW190VS12UB	C	From Leg	0.50 0.000 -4.000	0.000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	10.00 19.54 26.01 44.32
***									
80010798	A	From Leg	0.50 0.000 0.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	80.00 142.58 210.44 366.96
80010798	B	From Leg	0.50 0.000 0.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	80.00 142.58 210.44 366.96
80010798	C	From Leg	0.50 0.000 0.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	80.00 142.58 210.44 366.96
(2) TMAT192123B68-31	A	From Leg	0.50 0.000 -5.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	20.00 27.43 35.92 59.00
(2) TMAT192123B68-31	B	From Leg	0.50 0.000 -5.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	20.00 27.43 35.92 59.00
(2) TMAT192123B68-31	C	From Leg	0.50 0.000 -5.000	0.000	76.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	20.00 27.43 35.92 59.00
*									
36" OD x 10' Tall Concealment Canister	C	None		0.000	84.10	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
36" OD x 10' Tall Concealment Canister	C	None		0.000	74.10	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Canister Load1	C	None		0.000	89.06	No Ice 1/2" Ice 1" Ice 2" Ice	6.75 16.96 17.42 18.33	6.75 16.96 17.42 18.33	94.25 205.73 320.27 558.51
Canister Load2	C	None		0.000	79.06	No Ice 1/2" Ice 1" Ice 2" Ice	13.50 33.92 34.83 36.67	13.50 33.92 34.83 36.67	218.82 441.78 670.86 1147.33
Canister Load3	C	None		0.000	69.06	No Ice 1/2" Ice 1" Ice 2" Ice	6.75 16.96 17.42 18.33	6.75 16.96 17.42 18.33	232.08 343.57 458.10 696.34
Truck Ball	C	None		0.000	89.81	No Ice 1/2" Ice 1" Ice	0.88 1.38 1.53	0.88 1.38 1.53	50.00 67.43 86.79

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
						2" Ice	1.85	1.85	131.72

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service

Comb. No.	Description
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	89.06 - 72.06	8.406	48	1.858	0.001
L2	72.06 - 69.06	2.983	47	0.777	0.001
L3	69.06 - 35	2.646	47	0.278	0.000
L4	35 - 1	0.860	47	0.206	0.000
L5	1 - 0	0.001	47	0.011	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
89.81	Truck Ball	48	8.406	1.858	0.001	1330
89.06	Canister Load1	48	8.406	1.858	0.001	1330
85.00	APX16DWV-16DWVS-C	47	6.778	1.780	0.001	1330
84.10	36" OD x 10' Tall Concealment Canister	47	6.429	1.756	0.001	1330
79.06	Canister Load2	47	4.647	1.530	0.001	665
76.00	80010798	47	3.774	1.279	0.001	511
74.10	36" OD x 10' Tall Concealment Canister	47	3.340	1.066	0.001	477
69.06	Canister Load3	47	2.646	0.278	0.000	1137

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	89.06 - 72.06	36.389	20	7.974	0.009
L2	72.06 - 69.06	13.094	20	3.370	0.004
L3	69.06 - 35	11.629	20	1.221	0.002
L4	35 - 1	3.783	18	0.906	0.002
L5	1 - 0	0.005	18	0.047	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
89.81	Truck Ball	20	36.389	7.974	0.009	320
89.06	Canister Load1	20	36.389	7.974	0.009	320
85.00	APX16DWV-16DWVS-C	20	29.404	7.656	0.008	320
84.10	36" OD x 10' Tall Concealment Canister	20	27.908	7.557	0.008	320
79.06	Canister Load2	20	20.258	6.600	0.007	159
76.00	80010798	20	16.506	5.529	0.006	121
74.10	36" OD x 10' Tall Concealment Canister	20	14.636	4.611	0.005	113
69.06	Canister Load3	20	11.629	1.221	0.002	266

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
L1	89.06 - 72.06 (1)	P4x0.5	17.00	0.00	0.0	5.498	-1485.16	371101.00	0.004
L2	72.06 - 69.06 (2)	P4x0.5	3.00	0.00	0.0	5.498	-1637.43	371101.00	0.004
L3	69.06 - 35 (3)	P24x0.375	34.06	0.00	0.0	27.833	-6118.86	876725.00	0.007
L4	35 - 1 (4)	P24x0.375	34.00	0.00	0.0	27.833	-10369.70	876725.00	0.012
L5	1 - 0 (5)	P20x0.5	1.00	0.00	0.0	30.631	-10508.80	964862.00	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} lb-ft	ϕM_{nx} lb-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} lb-ft	ϕM_{ny} lb-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	89.06 - 72.06 (1)	P4x0.5	19332.17	34687.50	0.557	0.00	34687.50	0.000
L2	72.06 - 69.06 (2)	P4x0.5	23900.75	34687.50	0.689	0.00	34687.50	0.000
L3	69.06 - 35 (3)	P24x0.375	110641.67	538741.67	0.205	0.00	538741.67	0.000
L4	35 - 1 (4)	P24x0.375	240231.67	538741.67	0.446	0.00	538741.67	0.000
L5	1 - 0 (5)	P20x0.5	244542.50	499187.50	0.490	0.00	499187.50	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u lb	ϕV_n lb	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u lb-ft	ϕT_n lb-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	89.06 - 72.06 (1)	P4x0.5	1551.48	111330.00	0.014	0.00	34257.92	0.000

Section No.	Elevation ft	Size	Actual V_u lb	ϕV_n lb	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u lb-ft	ϕT_n lb-ft	Ratio $\frac{T_u}{\phi T_n}$
L2	72.06 - 69.06 (2)	P4x0.5	1509.53	111330.00	0.014	0.00	34257.92	0.000
L3	69.06 - 35 (3)	P24x0.375	3252.02	263018.00	0.012	0.00	546306.67	0.000
L4	35 - 1 (4)	P24x0.375	4306.33	263018.00	0.016	0.00	546306.67	0.000
L5	1 - 0 (5)	P20x0.5	4323.42	289459.00	0.015	0.00	496250.00	0.000

Pole Interaction Design Data

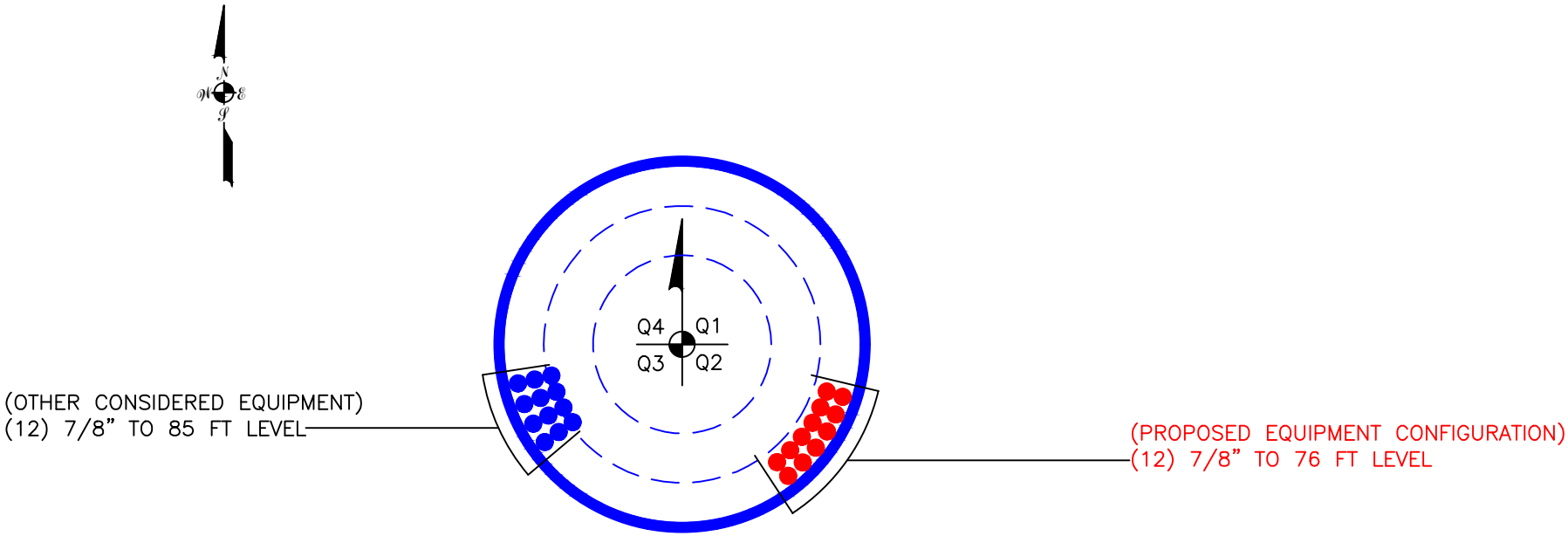
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	89.06 - 72.06 (1)	0.004	0.557	0.000	0.014	0.000	0.562	1.050	4.8.2
L2	72.06 - 69.06 (2)	0.004	0.689	0.000	0.014	0.000	0.694	1.050	4.8.2
L3	69.06 - 35 (3)	0.007	0.205	0.000	0.012	0.000	0.213	1.050	4.8.2
L4	35 - 1 (4)	0.012	0.446	0.000	0.016	0.000	0.458	1.050	4.8.2
L5	1 - 0 (5)	0.011	0.490	0.000	0.015	0.000	0.501	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	89.06 - 72.06	Pole	P4x0.5	1	-1485.16	389656.03	53.5	Pass
L2	72.06 - 69.06	Pole	P4x0.5	2	-1637.43	389656.03	66.1	Pass
L3	69.06 - 35	Pole	P24x0.375	3	-6118.86	920561.21	20.2	Pass
L4	35 - 1	Pole	P24x0.375	4	-10369.70	920561.21	43.6	Pass
L5	1 - 0	Pole	P20x0.5	5	-10508.80	1013105.05	47.7	Pass
							Summary	
						Pole (L2)	66.1	Pass
						RATING =	**66.1**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 829115 TOWER ID: C_BASELEVEL

APPENDIX C

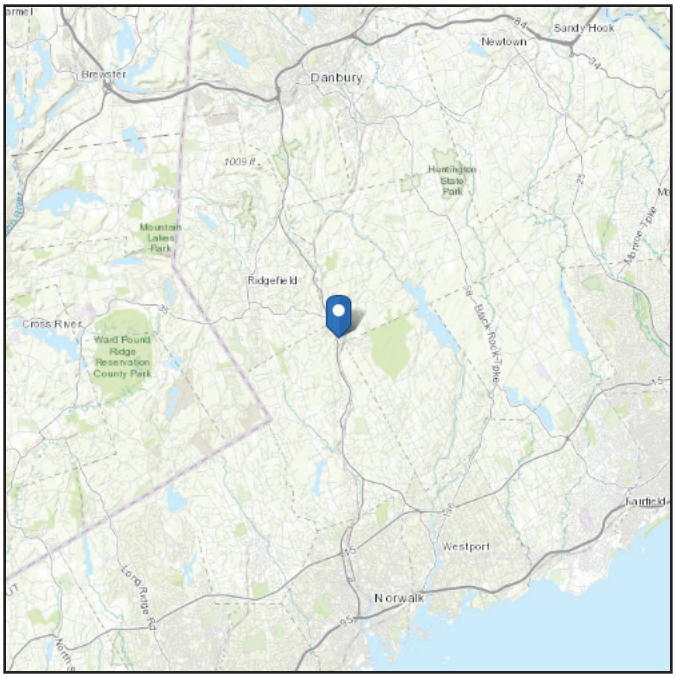
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 355.26 ft (NAVD 88)
Latitude: 41.256378
Longitude: -73.433947



Wind

Results:

Wind Speed:	118 Vmph	*120 Vmph required per jurisdiction
10-year MRI	76 Vmph	
25-year MRI	85 Vmph	
50-year MRI	91 Vmph	
100-year MRI	97 Vmph	

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

Date Accessed: Tue May 21 2019

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

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

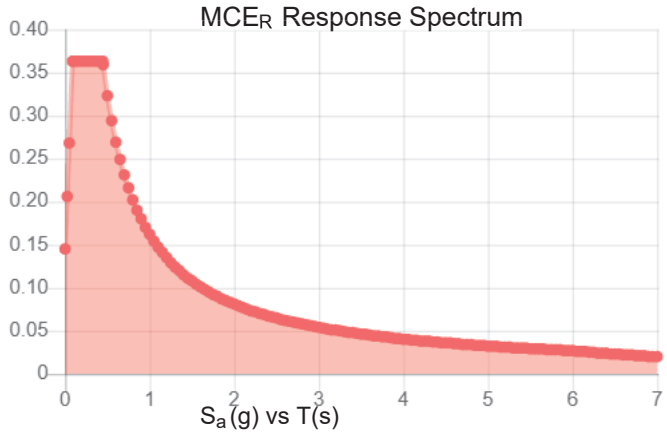
Seismic

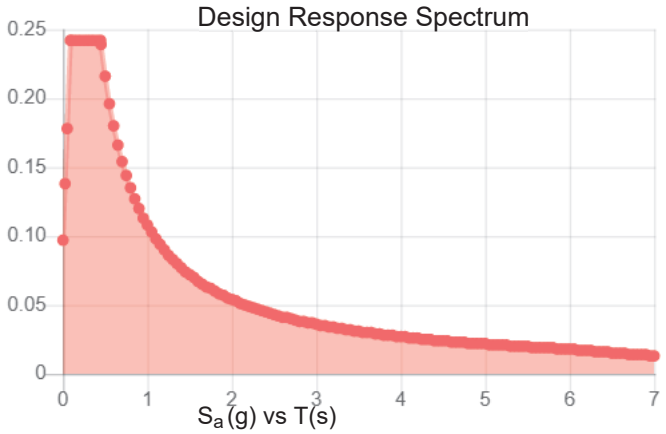
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.227	S_{DS} :	0.242
S_1 :	0.067	S_{D1} :	0.108
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.127
S_{MS} :	0.363	PGA_M :	0.196
S_{M1} :	0.162	F_{PGA} :	1.546
		I_e :	1

Seismic Design Category B





Data Accessed: Tue May 21 2019

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

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue May 21 2019

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

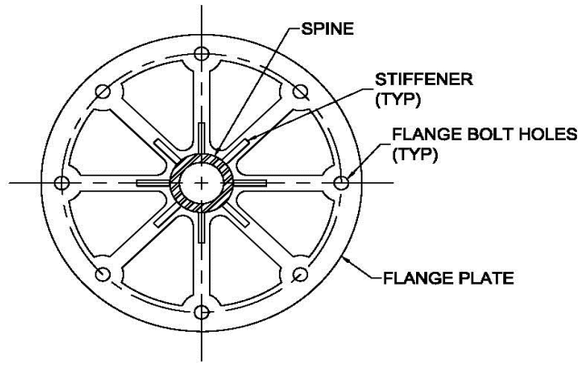
Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from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

CCI Flagpole Tool

Site Data	
BU#:	829115
Site Name:	Wilton/Georgetown/Rt7
Order #:	485500 Rev. 1

Code		
Code:	TIA-222-H	
Ice Thickness:	1.5	in
Windspeed (V):	120	mph
Ice Wind Speed (V):	50	mph
Exposure Category:	C	
Topographic Feature:	N/A	
Risk Category:	II	

Tower Information		
Total Tower Height:	89.06	ft
Base Tower Height:	69.06	ft
Total Canister Length:	20	ft
Number of Canister Assembly Sections:	2	



FLANGE PLATE
(TYPE 4: SOLIDITY RATIO 0.55)

Canister Section Number *:	Canister Assembly Length (ft):	Canister Assembly Diameter (in):	Number of Sides Canister Section	Plate Type:	Mating Flange Plate Thickness (in)**:	Mating Flange Plate Diameter (in):	Solidity Ratio	Plate Weight (Kip):	Canister Weight (Kip)	Vent Length (ft):
1	10	36	Round	4	0.25	22.25	0.55	0.030	0.188	0-0
2	10	36	Round	3	1.50	20.3125	0.5	0.138	0.188	0-0

* Sections are numbered from the top of the tower down

** Mating Flange Plate Thickness at the bottom of canister section

Flag on Tower:	Yes	
Flag Width:	18	ft
Flag Height:	12	ft
Flag Elevation(z):	89.06	ft

Truck Ball on Tower:	Yes	
Diameter of Ball:	18	in

Geometry : Base Tower + Spine

829115_1743971_LC5 OG.eri *(last saved 06/06 9:46 pm)*

Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material	Delete
89.06	17		0	4	4	0.5	n/a	A36	[x]
72.06	3		0	4	4	0.5	n/a	A36	[x]
69.06	34.06		0	24	24	0.375	n/a	A53-B-35	[x]
35	34		0	24	24	0.375	n/a	A53-B-35	[x]
1	1		0	20	20	0.5	n/a	A53-B-35	[x]

Discrete Loads: Truck Ball	Apply C_aA_A at Elevation(z) (ft)	C_aA_A No Ice (ft^2)	C_aA_A 1/2" Ice (ft^2)	C_aA_A 1" Ice (ft^2)	C_aA_A 2" Ice (ft^2)	C_aA_A 4" Ice (ft^2)	Weight No Ice (Kip)	Weight 1/2" Ice (Kip)
	89.81	0.884	1.378	1.527	1.848	2.581	0.05	0.067

Discrete Loads : C_FA_F for Canister Assembly								
Canister Loading	Apply C_FA_F at Elevation(z) (ft)	C_FA_F No Ice (ft^2)	C_FA_F 1/2" Ice (ft^2)	C_FA_F 1" Ice (ft^2)	C_FA_F 2" Ice (ft^2)	C_FA_F 4" Ice (ft^2)	Canister Assembly Weight No Ice (Kip)	Canister Assembly Weight 1/2" Ice (Kip)
Canister Load 1	89.06	6.750	16.958	17.417	18.333	20.167	0.094	0.206
Canister Load 2	79.06	13.500	33.917	34.833	36.667	40.333	0.219	0.442
Canister Load 3	69.06	6.750	16.958	17.417	18.333	20.167	0.232	0.344

User Forces: Flag Force Calculation Per ANSI/NAAMM FP 1001-07	
$Wind_{FORCE}$=	0.417 Kip
Weight=	0.023 Kip
$Wind_{FORCE, ICE}$=	0.075 Kip
Weight $_{ICE}$=	0.691 Kip
$W_{FORCE, SERVICE WIND}$=	0.104 Kip
Weight=	0.023 Kip

←Flag force should be included at the top of the flag attachment elevation. If the attachment of the flag to the halyard distributes forces equally to the pole, apply flag forces accordingly in tnx file.

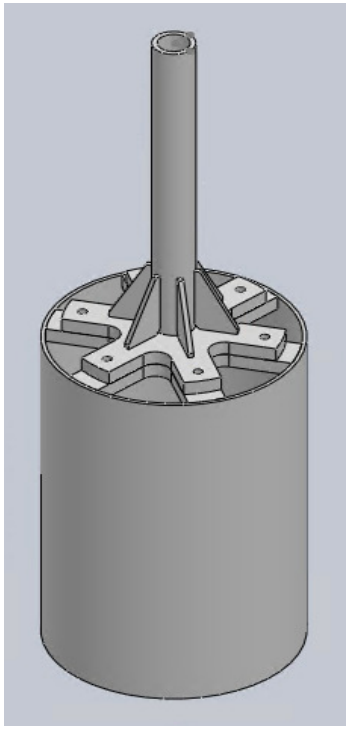
Deflection Check Required:	Yes	Import Deflection Results

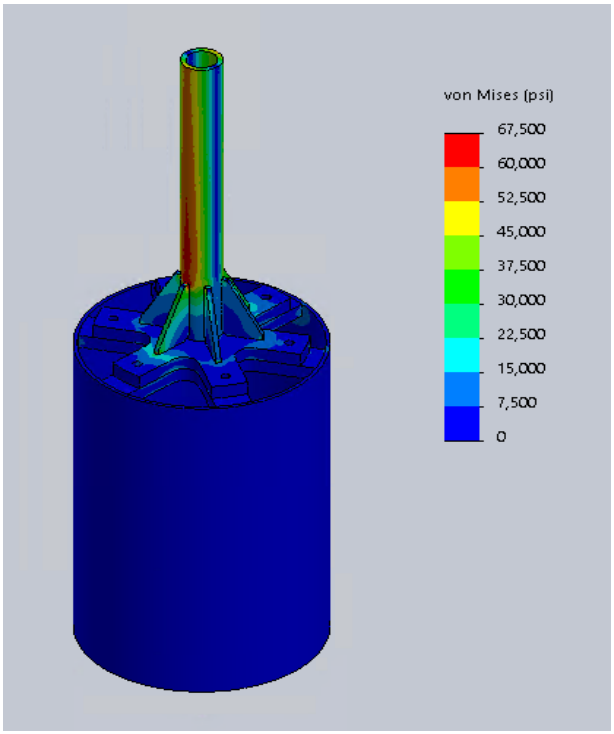
3% Spine Deflection Check		
Allowable (3%) Horizontal Spine Deflection (inches)	Actual Deflection ***(inches)	Sufficient/ Insufficient
7.200	5.649	Sufficient

*** Relative deflection under service level wind speed

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.259200	Tower Engineering Professionals	**Page:**	1

Simulation of Concealment Flange - 69.1-ft Elevation





Model Loads

Axial	1,445	lb
Shear	1,283	lb
Moment	17,006	lb-ft
Self-Weight Factor	1.2	

Overall Results

Sufficient

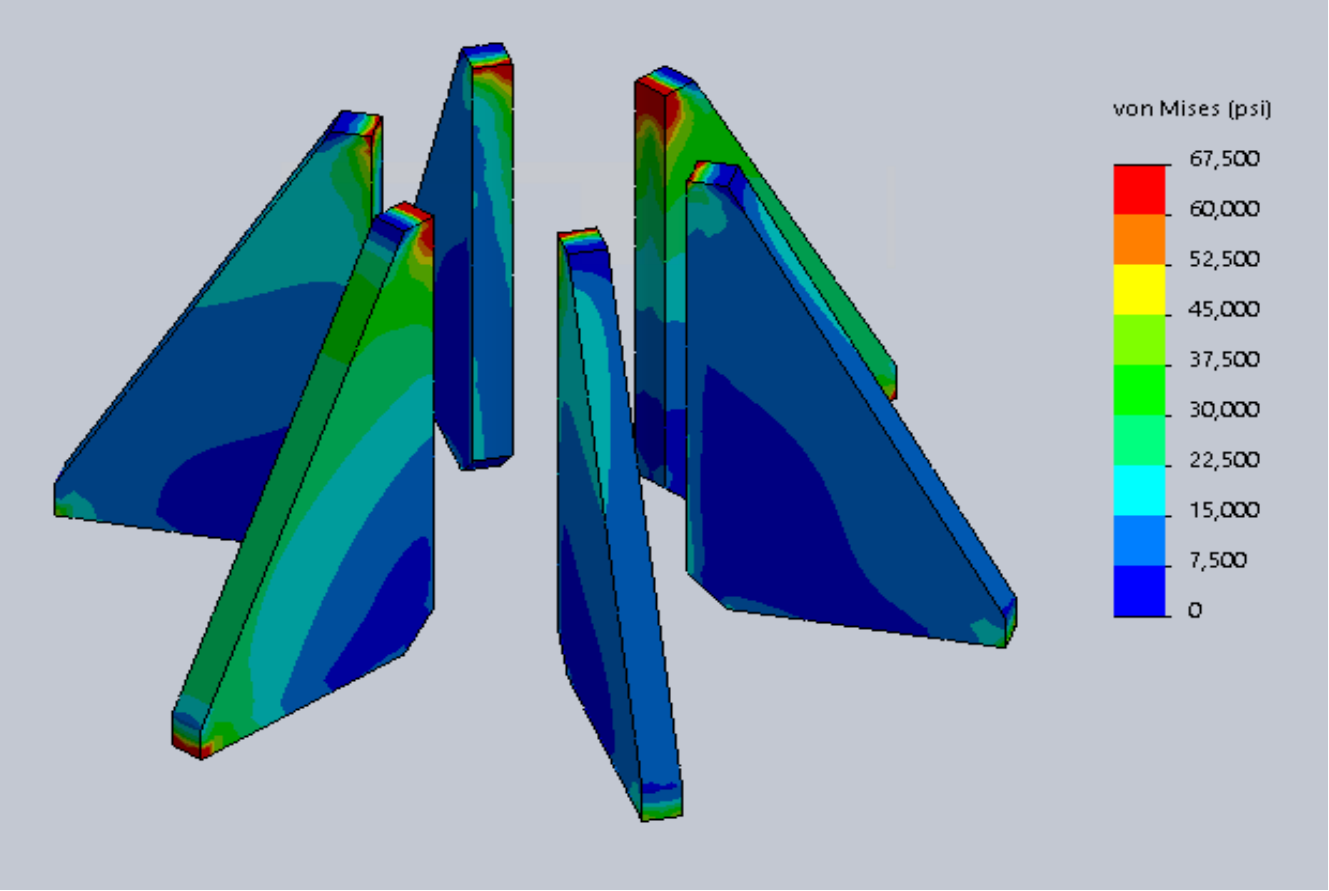
Model Part Information

Part	Part Grade
Spine Stub Section	A513 Gr. 75
Stiffeners	A572-50
Top Flange	A572-50
Bottom Flange	A572-50
Tower Stub Section	A53-B-35

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	2

Study: 0 Degree

Stiffeners

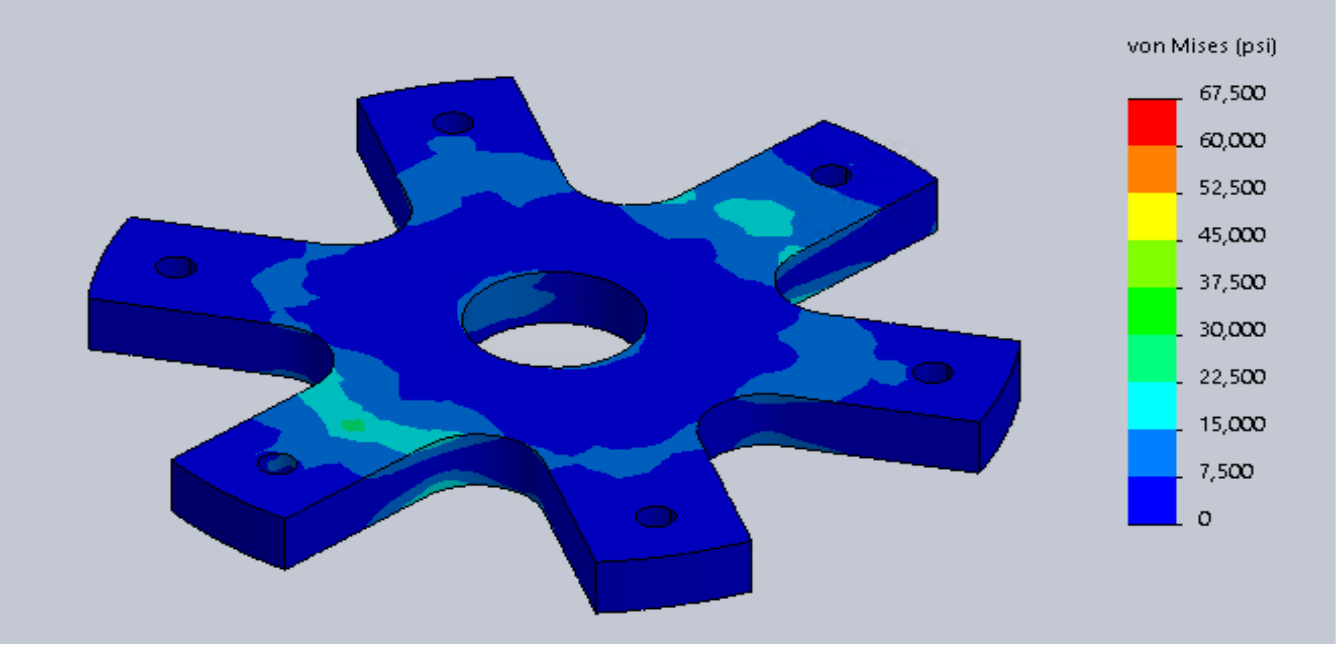


Assumptions	Results
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	3

Study: 0 Degree

Top Flange

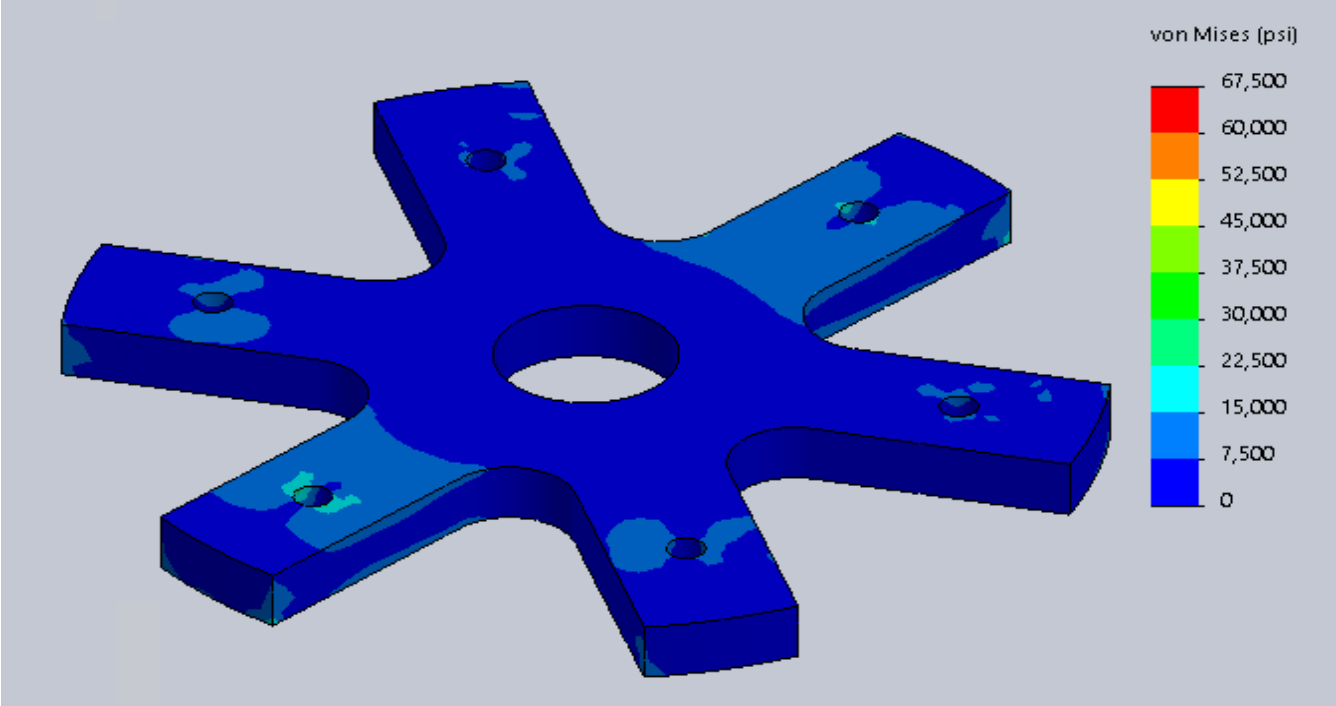


Assumptions	**Results**
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	4

Study: 0 Degree

Bottom Flange

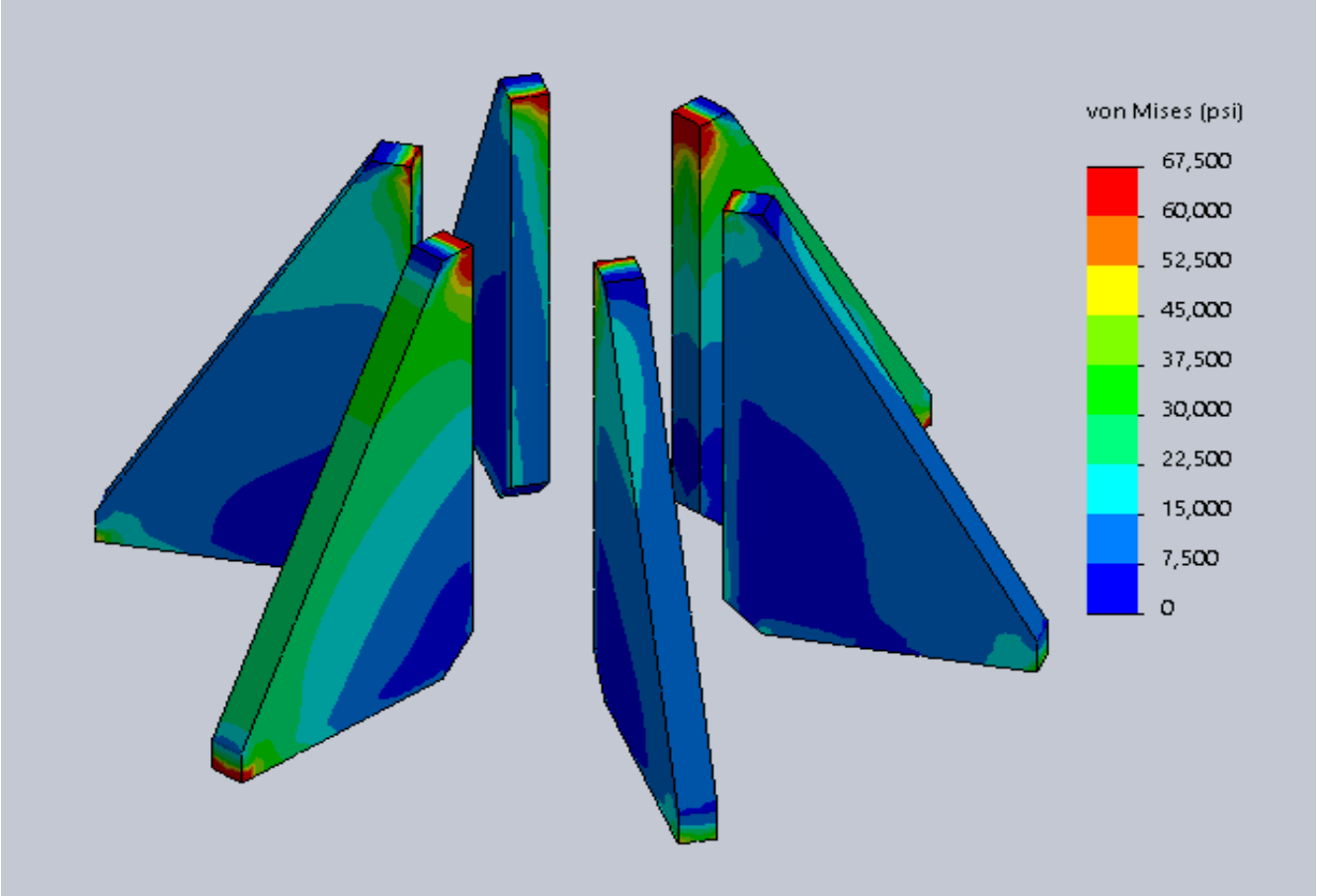


Assumptions	**Results**
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	5

Study: 30 Degree

Stiffeners

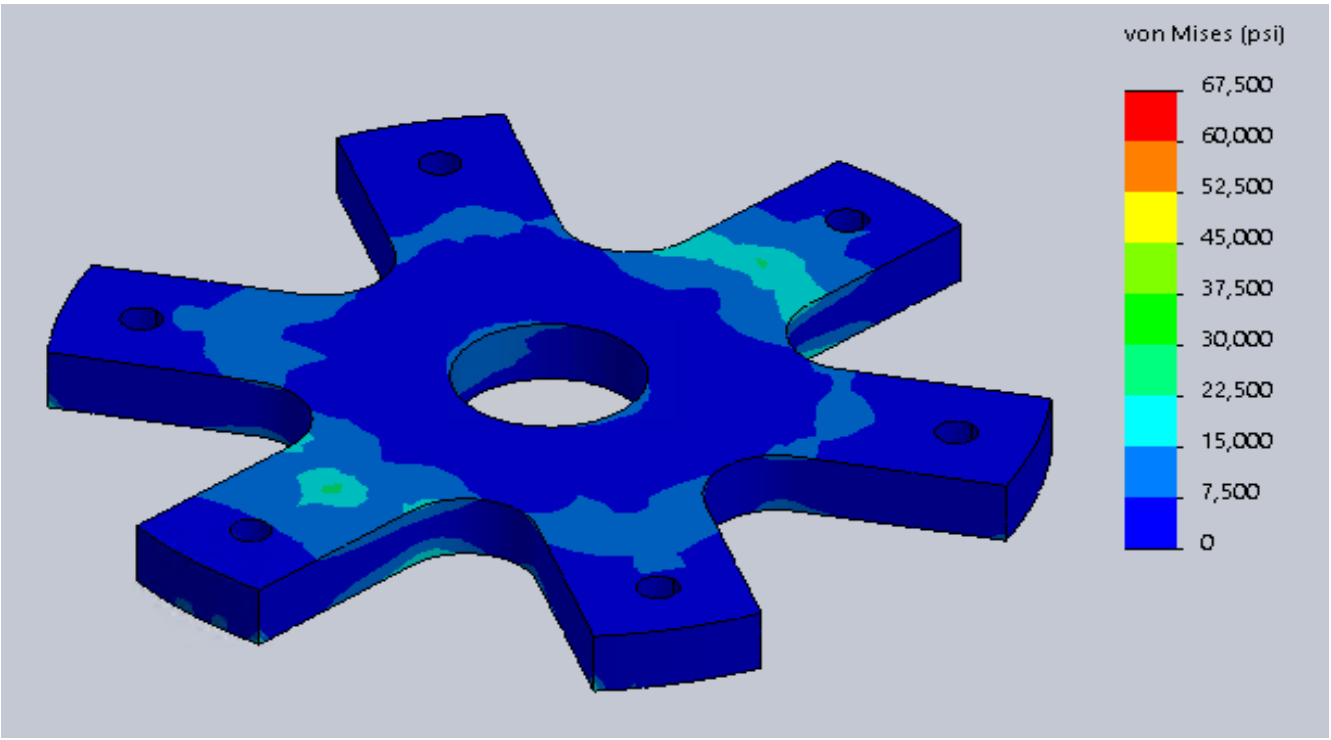


Assumptions	Results
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	6

Study: 30 Degree

Top Flange

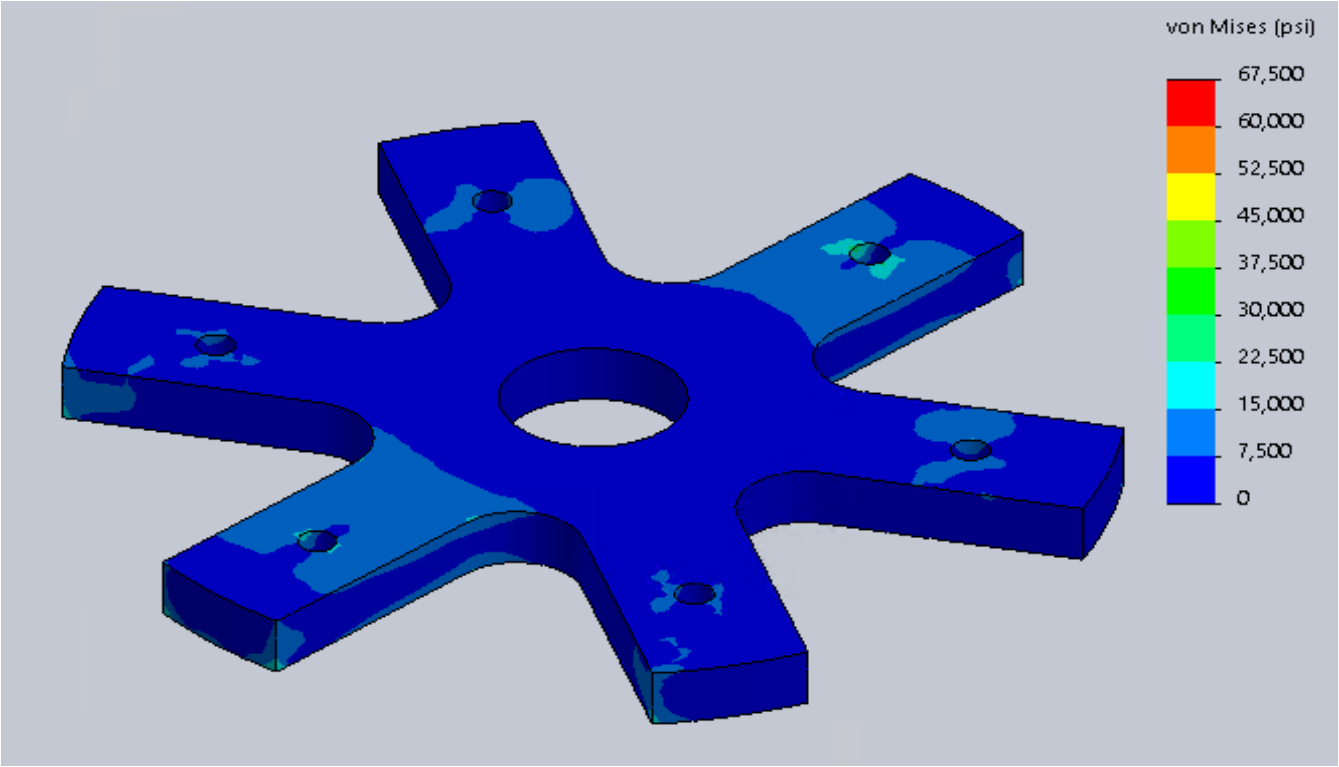


Assumptions	**Results**
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7		**Engineer:**	TLI
Client Site Number:	BU 829115		**Check:**	JCR
Client Order Number:	485500 Rev. 1		**Date:**	6/7/2019
TEP Project Number:	154669.2592	Tower Engineering Professionals	**Page:**	7

Study: 30 Degree

Bottom Flange



Assumptions	**Results**
N/A	Sufficient

Client Site Name:	Wilton/Georgetown/Rt7	**Engineer:**	TLI
Client Site Number:	BU 829115	**Check:**	JCR
Client Order Number:	485500 Rev. 1	**Date:**	6/7/2019
TEP Project Number:	154669.259200	**Page:**	1

Tower Engineering Professionals

Spine Fillet Weld Check - 69.1ft

Model Loads

Axial	1,497	lb
Shear	1,203	lb
Moment	23,329	lb-ft

Pole Properties

Spine Diameter	4	in
Spine grade	A513 Gr. 75	
Weld Type	Butt	
Upper Weld Size	3/8	in

Weld Properties

Total Area	11.8174	in^2
Total Inertia	77.5076	in^4
Extreme Fiber	6.0000	in
Elastic Section Modulus	12.9179	in^3

Flange & Stiffener Properties

Flange Thickness	1.50	in
Flange Grade	A572-50	
Weld Grade	E70XX	
Sitffener Quanitity	6	
Stiffener Width	4.00	in
Stiffener Notch Size	0.50	in
Horizontal Weld Size	1/4	in

Weld Check

r_{mu}	21.671	ksi
r_{vu}	0.102	ksi
r_{pu}	0.127	ksi
Total Weld Stress	21.798	ksi
Weld Capacity	31.500	ksi
***RATING**	**65.9% Pass**	

Fusion Zone Check

Shear Fusion Zone	10.969	k/in
Tensile Fusion Zone	18.281	k/in
Weld Capacity	8.353	k/in
Check Fusion Zone	**OK**	

Flange Shear Plane Check

Base Metal Capacity	43.875	k/in
Weld Capacity	8.353	k/in
Min Flange Thickness	0.286	in
Check Thickness	**OK**	
***RATING**	**11.9% Pass**	

Overall Results

SUFFICIENT

*Ratings per TIA-222-H Section 15.5

Monopole Flange Plate Connection

Elevation = 69.06 ft.

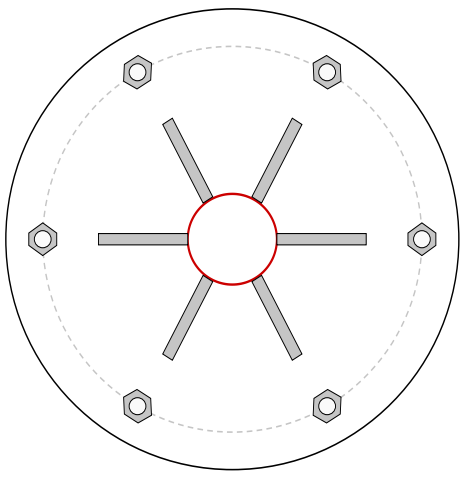
BU #	829115
Site Name	Vilton/Georgetown/Rt
Order #	485500 Rev. 1

TIA-222 Revision	H

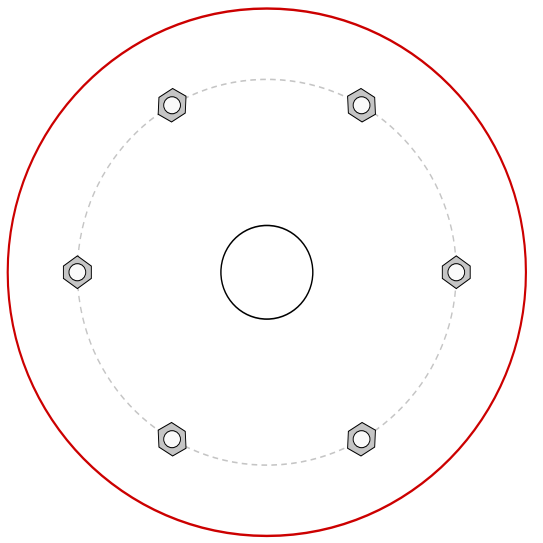
Applied Loads	
Moment (kip-ft)	23.90
Axial Force (kips)	1.64
Shear Force (kips)	1.51

**TIA-222-H Section 15.5 Applied*

Top Plate - External



Bottom Plate - Internal



Connection Properties

Bolt Data

(6) 3/4" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 17" BC

Top Plate Data

20.3125" OD x 1.5" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Bottom Plate Data

4.125" ID x 1.5" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Top Stiffener Data

(6) 7"H x 4"W x 0.5"T, Notch: 0.5"
plate: Fy= 50 ksi ; weld: Fy= 70 ksi
horiz. weld: 0.25" fillet
vert. weld: 0.25" fillet

Bottom Stiffener Data

N/A

Top Pole Data

4" x 0.5" round pole (ASTM A513 D.O.M.; Fy=75 ksi, Fu=85 ksi)

Bottom Pole Data

24" x 0.375" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	10.97	
Allowable (kips)	30.06	
Stress Rating:	**34.7%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**N/A**
Tension Side Stress Rating:	**N/A**

Bottom Plate Capacity

Max Stress (ksi):	-
Allowable Stress (ksi):	-
Stress Rating:	**N/A**
Tension Side Stress Rating:	**N/A**

Top Stiffener Capacity

Horizontal Weld:	**N/A**
Vertical Weld:	**N/A**
Plate Flexure+Shear:	**N/A**
Plate Tension+Shear:	**N/A**
Plate Compression:	**N/A**

Bottom Stiffener Capacity

Horizontal Weld:	**N/A**
Vertical Weld:	**N/A**
Plate Flexure+Shear:	**N/A**
Plate Tension+Shear:	**N/A**
Plate Compression:	**N/A**

Top Pole Capacity

Punching Shear:	**N/A**

Bottom Pole Capacity

Punching Shear:	**N/A**

Monopole Flange Plate Connection

Elevation = 35 ft.

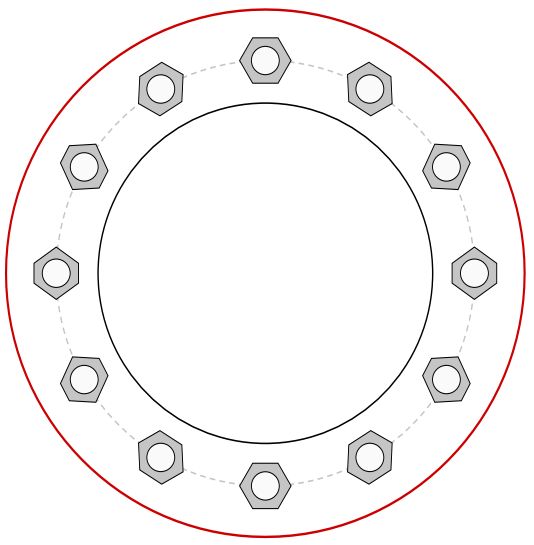
BU #	829115
Site Name	Vilton/Georgetown/Rt
Order #	485500 Rev. 1

TIA-222 Revision	H

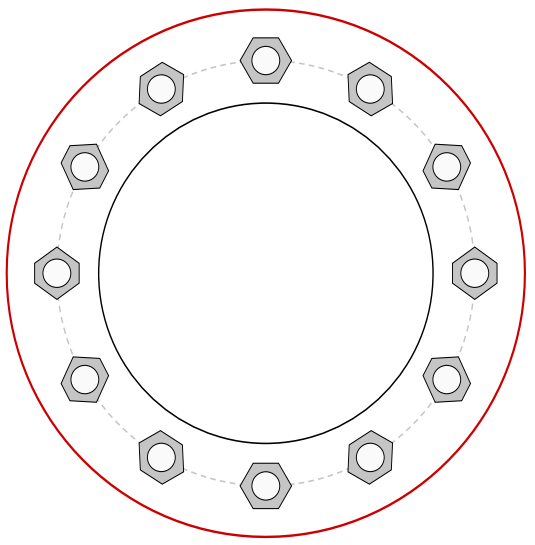
Applied Loads	
Moment (kip-ft)	110.64
Axial Force (kips)	6.12
Shear Force (kips)	3.25

**TIA-222-H Section 15.5 Applied*

Top Plate - Internal



Bottom Plate - Internal



Connection Properties

Bolt Data

(12) 1-1/4" ø bolts (A325 N; Fy=81 ksi, Fu=105 ksi) on 18.75" BC

Top Plate Data

15" ID x 2.25" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Bottom Plate Data

15" ID x 2.25" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Top Stiffener Data

N/A

Bottom Stiffener Data

N/A

Top Pole Data

24" x 0.375" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Bottom Pole Data

24" x 0.375" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	23.05	
Allowable (kips)	76.31	
Stress Rating:	**28.8%**	**Pass**

Top Plate Capacity

Max Stress (ksi):	7.03	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	**14.9%**	**Pass**
Tension Side Stress Rating:	**4.4%**	**Pass**

Bottom Plate Capacity

Max Stress (ksi):	7.03	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	**14.9%**	**Pass**
Tension Side Stress Rating:	**4.4%**	**Pass**

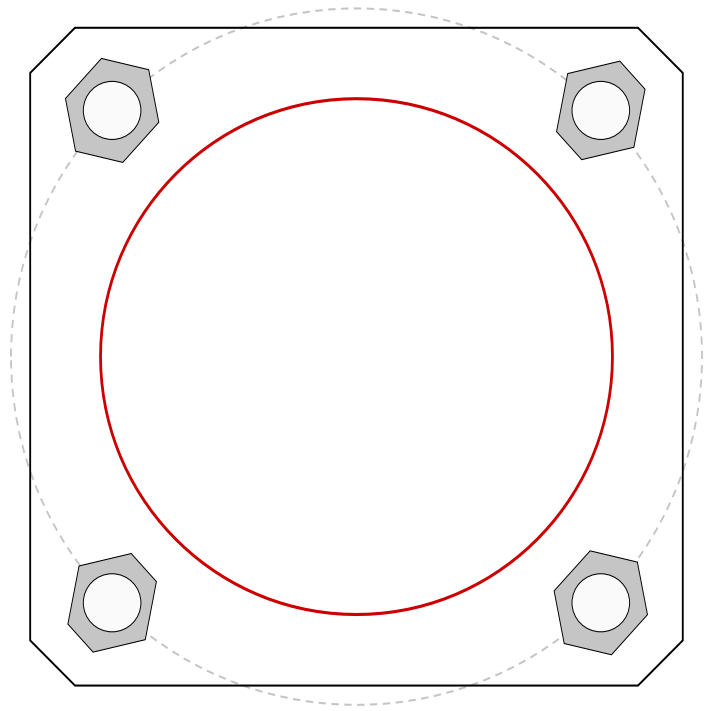
Monopole Base Plate Connection

Site Info	
BU #	829115
Site Name	Vilton/Georgetown/Rt
Order #	485500 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	244.54
Axial Force (kips)	10.51
Shear Force (kips)	4.32

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(4) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 27" BC

Base Plate Data

25.5" OD x 2.25" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Stiffener Data

N/A

Pole Data

20" x 0.5" round pole (A53-B-35; Fy=35 ksi, Fu=60 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_c = 111.01	ϕPn_c = 243.75	**Stress Rating**
Vu = 1.08	ϕVn = 73.13	**43.4%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	19.11	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**40.4%**	**Pass**

Pier and Pad Foundation

BU # :	829115
Site Name:	Wilton/Georgetown
App. Number:	485500 Rev. 1

TIA-222 Revision:	H
Tower Type:	Monopole

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐

Superstructure Analysis Reactions

Compression, P_{comp}:	10.511	kips
Base Shear, Vu_comp:	4.319	kips
Moment, M_u:	244.542	ft-kips
Tower Height, **H**:	89.06	ft
BP Dist. Above Fdn, bp_{dist}:	3.75	in

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	4	ft
Ext. Above Grade, **E**:	0.5	ft
Pier Rebar Size, **Sc**:	9	
Pier Rebar Quantity, **mc**:	12	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	14	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties

Bottom of Pad Depth, **D**:	7	ft
Pad Width, **W**:	10.5	ft
Pad Thickness, **T**:	2.5	ft
Pad Rebar Size (Bottom), **Sp**:	9	
Pad Rebar Quantity (Bottom), **mp**:	11	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties

Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties

Total Soil Unit Weight, γ:	125	pcf
Ultimate Gross Bearing, Qult:	8.000	ksf
Cohesion, **Cu**:		ksf
Friction Angle, φ:	34	degrees
SPT Blow Count, N_{blows}:	25	
Base Friction, μ:		
Neglected Depth, **N**:	3.50	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, **gw**:	6	ft

<--Toggle between Gross and Net

Foundation Analysis Checks

	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	85.00	4.32	**4.8%**	**Pass**
Bearing Pressure (ksf)	6.00	2.94	**46.6%**	**Pass**
*Overturning (kip*ft)*	503.45	278.28	**55.3%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	1032.04	266.14	**24.6%**	**Pass**
Pier Compression (kip)	7637.76	24.91	**0.3%**	**Pass**
*Pad Flexure (kip*ft)*	1201.91	78.01	**6.2%**	**Pass**
Pad Shear - 1-way (kips)	261.99	19.07	**6.9%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.010	**5.7%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	2403.81	159.68	**6.3%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Soil Rating*:	**55.3%**
Structural Rating*:	**24.6%**

Version 3.2.0

EXHIBIT 5

Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CT5063

North Wilton Georgetown
922 Danbury Road

Wilton, CT 06897

June 28, 2019

Centerline Communications Project Number: 950012-228

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**12.37 %**

June 28, 2019

AT&T Mobility – New England
Attn: John Benedetto, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT5063 – North Wilton Georgetown**

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed AT&T facility located at **922 Danbury Road in Wilton, Connecticut** for the purpose of determining whether the emissions from the Proposed AT&T 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 700 and 850 MHz Bands are approximately 467 $\mu W/cm^2$ and 567 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is 1000 $\mu W/cm^2$. 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 performed for the proposed AT&T Wireless antenna facility located at **922 Danbury Road in Wilton, Connecticut**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	2	30
5G	850 MHz	2	25
LTE	850 MHz	2	40
LTE	700 MHz	2	40
LTE	1900 MHz (PCS)	5	40

Table 1: Channel Data Table

The following antennas listed in Table 2 were used in the modeling for transmission in the 700 MHz, 850 MHz, and 1900 MHz (PCS frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Kathrein 80010798	76
B	1	Kathrein 80010798	76
C	1	Kathrein 80010798	76

Table 2: Antenna Data

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

RESULTS

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

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX	ERP (W)	MPE %
Antenna A1	Kathrein 80010798	850 MHz / 700 MHz / 1900 MHz / 1900 MHz / 850 MHz / 850 MHz	13.65 dBd / 12.05 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd	18	670	14,955.22	12.31
						Sector A Composite MPE%	**12.31**
Antenna B1	Kathrein 80010798	850 MHz / 700 MHz / 1900 MHz / 1900 MHz / 850 MHz / 850 MHz	13.65 dBd / 12.05 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd	18	670	14,955.22	12.31
						Sector B Composite MPE%	**12.31**
Antenna C1	Kathrein 80010798	850 MHz / 700 MHz / 1900 MHz / 1900 MHz / 850 MHz / 850 MHz	13.65 dBd / 12.05 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd / 13.65 dBd	18	670	14,955.22	12.31
						Sector C Composite MPE%	**12.31**

Table 3: AT&T Emissions Levels

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

Site Composite MPE%	
Carrier	**MPE%**
AT&T – Max Per Sector Value	**12.31 %**
T-Mobile	0.06%
Site Total MPE %:	**12.37 %**

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	12.31 %
AT&T Sector B Total:	12.31 %
AT&T Sector C Total:	12.31 %
Site Total:	12.37 %

Table 5: Site MPE Summary

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

AT&T _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($i.tW/cm^2$)	Frequency (MHz)	Allowable MPE ($i.tW/cm^2$)	Calculated % MPE
AT&T 850 MHz UMTS	2	695.22	76.0	8.65	850 MHz UMTS	567	1.53%
AT&T 700 MHz LTE	2	641.30	76.0	7.98	700 MHz LTE	467	1.71%
AT&T 1900 MHz LTE	5	926.96	76.0	28.85	1900 MHz LTE	1000	2.88%
AT&T 1900 MHz LTE	5	926.96	76.0	28.85	1900 MHz LTE	1000	2.88%
AT&T 850 MHz LTE	2	926.96	76.0	11.54	850 MHz LTE	567	2.04%
AT&T 850 MHz 5G	2	579.35	76.0	7.21	850 MHz 5G	567	1.27%
						Total:	**12.31 %**

Table 6: AT&T Maximum Sector MPE Power Values

Summary

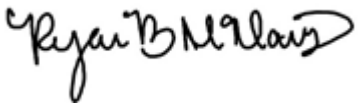
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T 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:

AT&T Sector	Power Density Value (%)
Sector A:	12.31 %
Sector B:	12.31 %
Sector C:	12.31 %
AT&T Maximum Total (per sector):	12.31 %
Site Total:	12.37 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **12.37 %** 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.



Ryan McManus
Senior RF EME Compliance Manager
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767

EXHIBIT 6

MUST BE POSTED IN PROMINENT PLACE ON PREMISES

TOWN OF WILTON
BUILDING PERMIT

DATE: 3/31/2010

PERMIT NO.: 20376A

PERMISSION IS HEREBY GRANTED TO:

Remo Tartaglia

IN ACCORDANCE WITH THE COMPLETED APPLICATION FILED ON:

3/31/2010 Builder: Site Acquisitions Inc.

FOR THE PURPOSE OF:

Remove existing telecommunications flagpole and replace with new flagpole (same height).

(Estimated cost, plumbing, heating, and electrical):

Estimated Cost:	$60,000.00
Plan Review:	$100.00
Cert. of Occup.:	$75.00
Building Fee:	$600.00
State Zoning:	$60.00
Local Zoning:	$50.00
Septic System:	$0.00
Misc. Fee:	$0.00
Education Fund:	$15.00
Records Maint	$40.00
Total Fee:	$940.00

Address: 920 Danbury Road As shown on Lot No.: Zone: GB

WLR Map No.: Assessors Map No.: 12 Assessors Card No.: 98

size ft.: long: ft. wide: stories high:

**RESTRICTIONS:

Building Inspector Robert E Root

INSPECTION LOG

	INSPECTED BY:	DATE:
Elec. Svc:		
Footing:		
Ftg Drain:		
Framing:		
Electrical:		
Plumbing:		
HVAC:		
Rough All:		
Insulation:		
C/O Inspection:		

PLANNING & ZONING
COMMISSION
ZONING ENFORCEMENT OFC
(203) 563-0186

TOWN HALL ANNEX
238 Danbury Road
Wilton, Connecticut 06897

ZONING PERMIT

Date MARCH 31, 2010

Owner(s) ROMO TARTAGLIA

Address of Property 920 DANBURY ROAD

Owner's Mailing Address (if different) 5 TALL OAKS ROAD, WILTON, CT

Telephone Number (Res) _____ (Bus) (203) 261-4811

Agent/Contractor (if applicable) MARK APPLEBY - AT&T AGENT Telephone Number _____

Assessor's Map No. 12 Lot No. 98 Lot Size 3.77 +/Ac Zone GB

Frontage of Lot — Size of Building or Addition 24" x 90" (TELECOMMUNICATIONS)

Proposed Activity REPLACE EXISTING FLAGPOLE WITH NEW, SAME HEIGHT AND LOCATION. ADD NEW CABINET INSIDE EXISTING FENCED AREA.

Front Yard Setback EXISTING CONFORMING Rear Yard Setback " " Right Yard Setback " " Left Yard Setback " "

Conditions or Commission Or Board Approval (if applicable): COMPLY WITH SP# 232A WITH CONDITIONS AS PREVIOUSLY APPROVED. COMPLY WITH STRMG COUNCIL APPROVAL.

Signature of Applicant — Date 3/31/10

With the issuance of this document the undersigned certifies that to the best of his knowledge and belief, the use or structure described above conforms with the Town of Wilton Zoning Regulations or is a valid non-conforming use under such Regulations.

Zoning Enforcement Officer — Date 3/31/10

Applicant is hereby informed that said applicant may provide notice of the above certification by either: (1) publication in a newspaper having substantial circulation in the Town of Wilton stating that the certification has been issued; or (2) any other method provided for by local ordinance. Any such notice shall contain: (A) a description of the building, use or structure; (B) the location of the building, use or structure; (C) the identity of the applicant; and (D) a statement that an aggrieved person may appeal to the Zoning Board of Appeals in accordance with the provisions of Section 8-7 as amended by Public Act No. 03-144.

PLANNING & ZONING
COMMISSION
Telephone (203) 563-0186
Fax (203) 563-0284

TOWN HALL ANNEX
238 Danbury Road
Wilton, Connecticut 06897

ZONING COMPLIANCE CERTIFICATE

Zoning Permit Issued: MARCH 31, 2010

Having satisfied the requirements of the Zoning Regulations of the Town of Wilton, a Zoning Compliance Certificate for the same is hereby issued to:

Owner: RENO TARTAGLIA

Address of property: 920 DANBURY ROAD

Owner's mailing address (if different): 5 TALL OAKS ROAD, WILTON, CT 06897

Map#: 12 **Lot#:** 98 **Size of Lot:** 3.77 **+/-acres Zone:** GB

Note: Issued for the construction of FLAGPOLE, (TELECOMMUNICATIONS) TO REPLACE EXISTING, SAME HEIGHT & LOCATION. NEW CABINET INSIDE EXISTING FENCED AREA.

With the issuance of this document the undersigned certifies that to the best of his/her knowledge and belief, the use or structure described above conforms with the Town of Wilton Zoning Regulations or is a valid non-conforming use under such Regulations.

Zoning Enforcement Officer

7/7/10
Date

Applicant is hereby informed that said applicant may provide notice of the above certification by either: (1) publication in a newspaper having substantial circulation in the Town of Wilton stating that the certification has been issued, or (2) any other method provided for by local ordinance. Any such notice shall contain (A) a description of the building, use or structure; (B) the location of the building, use or structure; (C) the identity of the applicant; and (D) a statement that an aggrieved person may appeal to the zoning board of appeals in accordance with the provisions of section 8-7, as amended by Public Act No. 03-144

WILTON BUILDING DEPARTMENT

Building Official
Demolition Officer

Tel: 203-563-0177

TOWN HALL ANNEX

238 Danbury Road
Wilton, Connecticut 06897

Fax: 203-563-0284

11563

CERTIFICATE OF OCCUPANCY

The building described in Building Permit No. 20376A **Issued:** 3/31/2010 **having satisfied the requirements of the Building Code and the Zoning Regulations of the Town of Wilton, a Certificate of Occupancy for same is hereby issued to:**

Owner: *Remo Tartaglia*

Address: *5 Tall Oaks Rd., Wilton, Ct. 06897*

Location of Premises: *920 Danbury Road* *Wilton, CT 06897*

Lot No.: 98 **W.L.R.:** **Size of Lot:** 3.77

Zone: GB **Use Group:** U **Const. Type:** Flag pole

Assessor's Map No.: 12 **Assessor's Card No.:** 98

This certificate may become null and void for good cause shown if secured through fraud, omission or by reason of latent violations not ascertainable at the time of inspection or when changes are made in the premises not conforming to the Building Code, Zoning regulations and Health Dept. regulations with respect to use, construction or building service equipment without the inspector's approval.

CERTIFICATE OF USE/OCUPANCY ISSUED: January 23, 2015

Remove existing telecommunications flagpole and replace with new flagpole (same height).

Robert E Root

ROBERT E. ROOT
CHIEF BUILDING OFFICIAL

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2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

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SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

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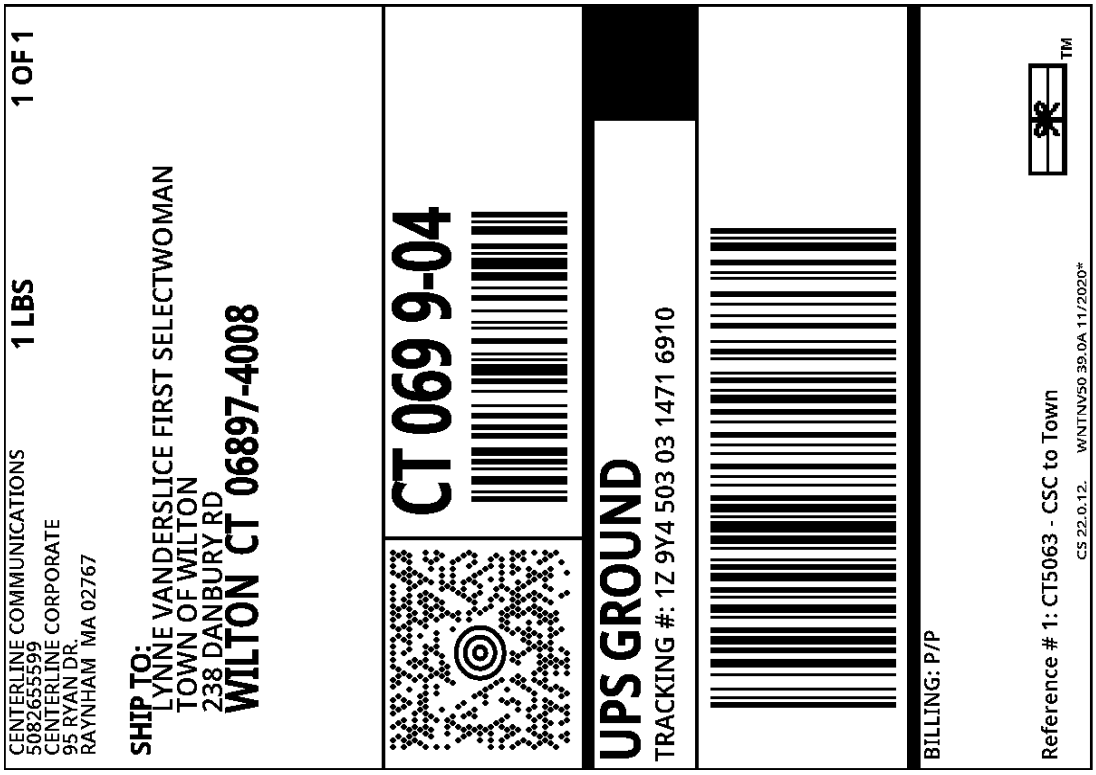

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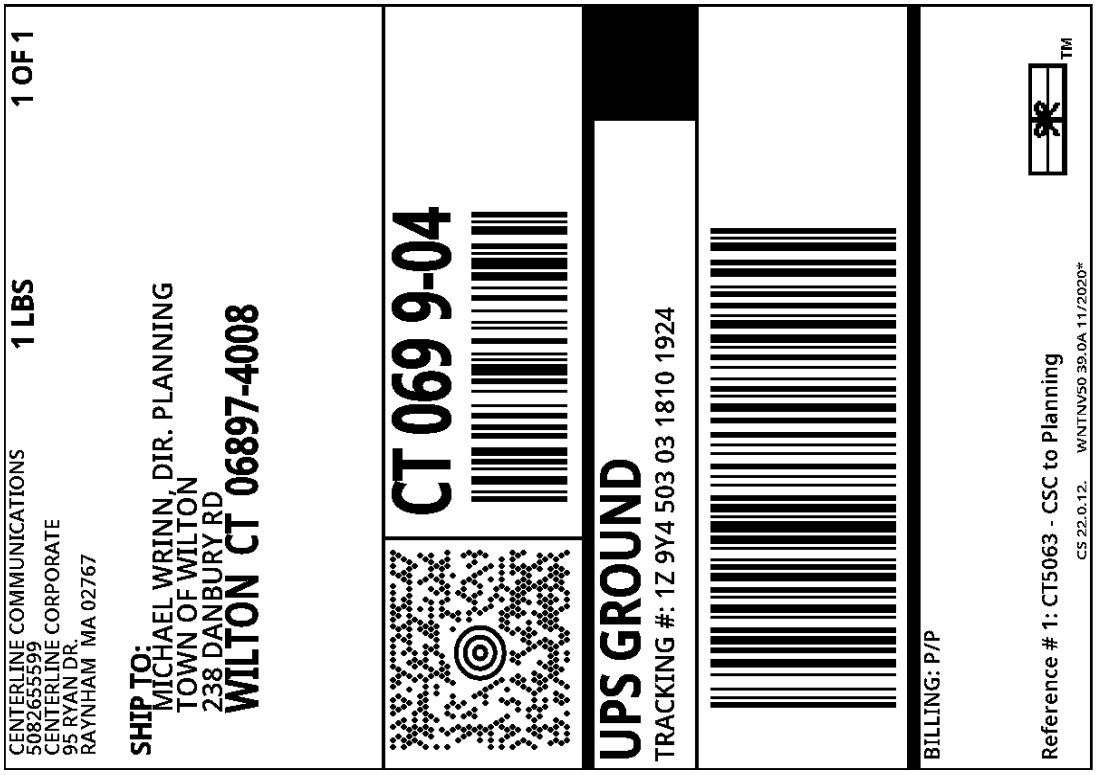

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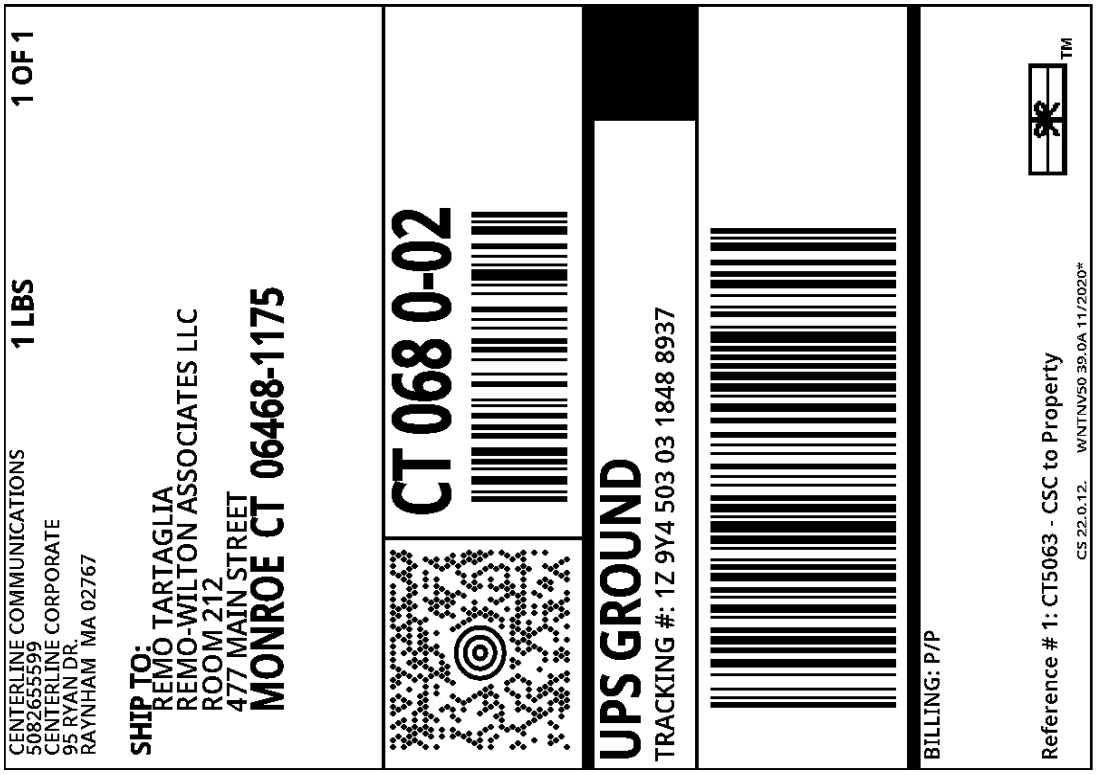

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