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WEST BRIDGEWATER ,MA 02379

FOLD HERE

<p>1 LBS 1 OF 1</p> <p>DWT: 11.8,2</p> <p>SHIP TO: GARRETT CONROY 4017419740 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 023791545</p> <p>MELANIE A. BACHMAN 8608272935 CONNECTICUT SITING COUNCIL 10 FRANKLIN SQUARE NEW BRITAIN CT 06051-2655</p>	<p>CT 067 9-06</p> 	<p>UPS 2ND DAY AIR</p> <p>2</p> <p>TRACKING #: 1Z 9Y4 503 02 3302 4393</p>		<p>BILLING: P/P</p>  <p style="font-size: small;">CS 22.0.11. WNTNVS0 03.04.12/2019</p>
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Garrett Conroy, Site Acquisition
c/o New Cingular Wireless, PCS LLC (AT&T)
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (401)-741-9740
gconroy@clinellc.com

January 28, 2020

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

**RE: Notice of Exempt Modification // Site Number: CT1090
170 Southeast Road/47 Garrett Ridge Court, New Hartford, CT 06057 (Site Name:
New Hartford-Southeast Rd.)
N 41.817250// W -72.970944**

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC ("AT&T") currently maintains nine (9) antennas at the 129 foot level of the existing 160 foot monopole tower at 170 Southeast Rd. New Hartford, CT 06057 the address is also known as 47 Garrett Ridge Court. New Hartford, CT 06057. The tower is owned by SBA Towers II, LLC. The property is owned by the Paul M Milano Estate c/o SBA Towers. AT&T now intends to swap six (6) of its existing antennas for six (6) new models. These antennas would be installed at the 129 foot level of the tower. AT&T will also be removing three (3) Diplexer units. AT&T intends to install nine (9) new RRUs (radios), these will all be installed at the 129 foot level of the tower.

The current proposal involves an antenna swap only (six for six); zero antennas will be added. AT&T received prior modification request approval by the Council on May 7, 2008 under file number EM-CING-092-080403. The proposed modifications comply with the conditions set forth by the Council.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Daniel V. Jerram, First Selectman for the town of New Hartford, Jerry Monroe, Building Inspector Town of New Hartford, Michael Lucas, Inland Wetlands & Zoning Enforcement Officer Town of New Hartford, as well as the tower owner, SBA Towers II, LLC and the ground owner, The Estate of Paul M. Miano.

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

Attached to accommodate this filing are construction drawings dated 1/21/2020 by Hudson Design Group, a structural analysis dated 1/16/2020 by Tower Engineering Solutions and an Emissions Analysis Report dated 1/15/2020 by Centerline Communications, LLC.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading as shown in the attached structural analysis by Tower Engineering Solutions, dated 1/16/2020.

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,

Garrett Conroy, Site Acquisition
c/o New Cingular Wireless, PCS LLC (AT&T)
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Mobile: (401)-741-9740
gconroy@clinellc.com

Attachments: Exhibit 1 – Construction Drawings
Exhibit 2 – Prior CSC Approvals
Exhibit 3- Property Card
Exhibit 4 – RF Safety Survey Report
Exhibit 5 – Structural Analysis
Exhibit 6 – Mount Analysis

cc: Daniel V. Jerram , First Selectman, Town of New Hartford - as elected official
Jerry Monroe, Building Inspector Town of New Hartford
Michael Lucas, Inland Wetlands & Zoning Enforcement Officer Town of New Hartford
SBA Towers II, LLC - as tower owner
The Estate of Paul M. Miano - as property owner

PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:

- NEW AT&T ANTENNAS: DMP65R-BU8DA (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- NEW AT&T RRUS: 4478 B14 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 8843 B2/B66A (PCS/AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4449 B5/B12 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T DC & FIBER SURGE ARRESTOR DC6-48-60-18-8C-EV (TOTAL OF 1) AND DC ONLY SURGE ARRESTOR DC6-48-60-0-8C-EV (TOTAL OF 1) WITH (4) DC POWER & (1) FIBER RUN.
- PROPOSED MOUNT MODS (SEE S-1 SHEET).
- EXISTING MOUNT FACE TO BE ROTATED PERPENDICULAR TO MOUNT STANDOFF.

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:

- ADD (1) 6630 TO REPLACE BB
- ADD (1) 6630.
- ADD (1) XMU.
- ADD (1) iDLE.
- ADD (1) ARGUS SHELF.

ITEMS TO BE REMOVED:

- EXISTING AT&T ANTENNAS: ANTENNAS (TYP. OF 2 PER SECTOR, TOTAL OF 6).
- EXISTING AT&T DIPLEXER: DIPLEXER (TYP. OF 2 PER SECTOR, TOTAL OF 6).

ITEMS TO REMAIN:

- (3) ANTENNAS, (3) RRU'S, (3) TMA'S (1) SURGE ARRESTOR, (12) COAX CABLES, (2) DC POWER & (1) FIBER.

SITE ADDRESS: 170 SOUTHEAST RD
NEW HARTFORD, CT 06057

LATITUDE: 41.817250° N, 41° 49' 2.08 N
LONGITUDE: 72.970944° W, 72° 58' 15.41" W

TYPE OF SITE: MONOPOLE / INDOOR EQUIPMENT

STRUCTURE HEIGHT: 160'-0"±
RAD CENTER: 129'-0"±

CURRENT USE: TELECOMMUNICATIONS FACILITY
PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT1090

SITE NAME: NEW HARTFORD-SOUTHEAST RD.

FA CODE: 10091787

PACE ID: MRCTB041646, MRCTB041355, MRCTB041467, MCTB041681 & MRCTB041518

PROJECT: LTE 2C_3C_4C_5C 2020 UPGRADE

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUTS & ELEVATION	1
A-3	DETAILS	1
SN-1	STRUCTURAL NOTES	1
S-1	MOUNT MODIFICATION DETAILS	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1

SBA SITE #: CT12219

VICINITY MAP

DIRECTIONS TO SITE:

HEAD SOUTH TOWARD ENTERPRISE DR. TURN LEFT ONTO ENTERPRISE DR. TURN LEFT ONTO CAPITAL BLVD. TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I-91 S. TAKE EXIT 22N TO MERGE ONTO CT-9 N TOWARD NEW BRITAIN. TAKE EXIT 32 ON THE LEFT FOR I-84 W TOWARD WATERBURY. MERGE ONTO I-84. TAKE EXIT 39 TOWARD FARMINGTON/CT-4 CONTINUE ONTO STATE HWY 508. STATE HWY 508 TURN SLIGHTLY TO STAY ON CT-4 W. SLIGHT TURN ONTO CT-4. TURN RIGHT ONTO COVEY RD. SLIGHT RIGHT TO STAY ON COVEY RD. CONTINUE ONTO S EAST RD. TURN RIGHT ONTO BAKER RD/GARRET RD.



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS

CALL BEFORE YOU DIG
CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT

 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586	 750 WEST CENTER STREET, SUITE #301 WEST BRIDGEWATER, MA 02379	SITE NUMBER: CT1090 SITE NAME: NEW HARTFORD-SOUTHEAST RD. SBA SITE # ID: CT12219 170 SOUTHEAST RD NEW HARTFORD, CT 06057 LITCHFIELD COUNTY	 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067	1 01/21/20 ISSUED FOR CONSTRUCTION TR AT OPH			AT&T TITLE SHEET LTE 2C_3C_4C_5C 2020 UPGRADE
				A 10/03/19 ISSUED FOR REVIEW MR AT DPH			

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – CENTERLINE
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. **APPLICABLE BUILDING CODES:**
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE: IBC 2015 WITH 2018 CT STATE BUILDING CODE AMENDMENTS
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

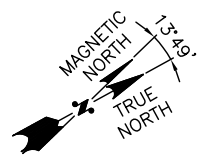
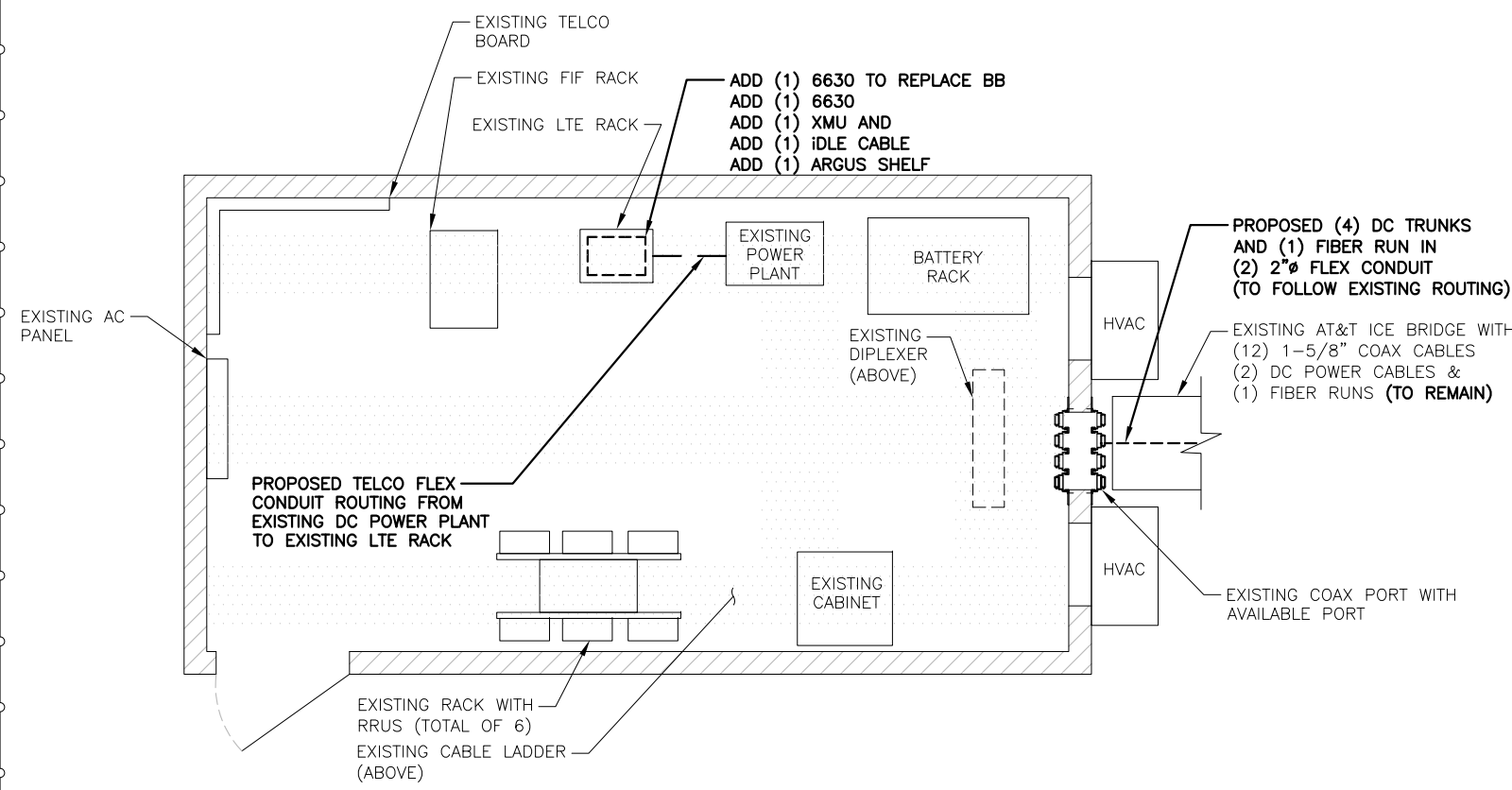
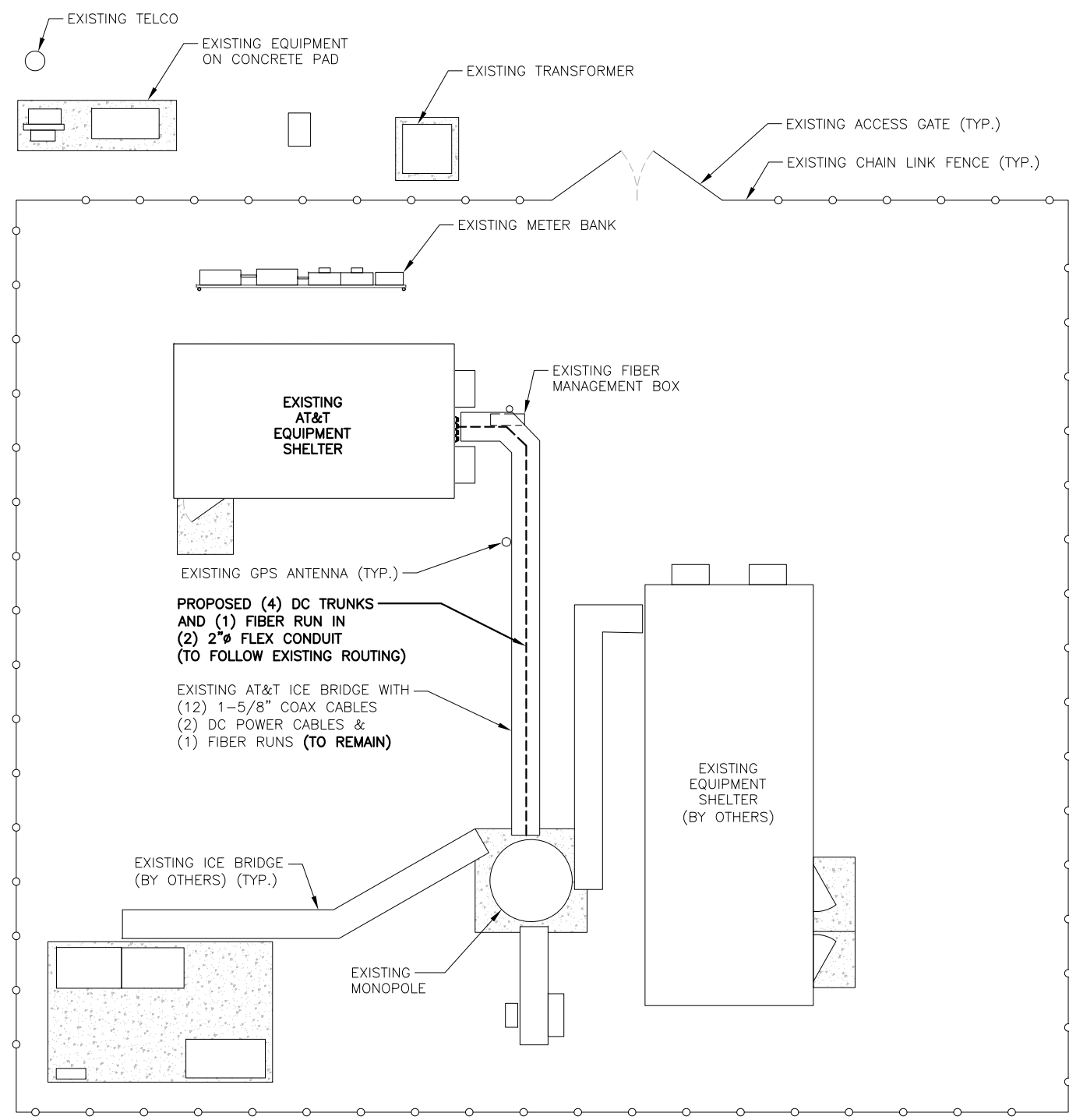
ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586	 750 WEST CENTER STREET, SUITE #301 WEST BRIDGEWATER, MA 02379	SITE NUMBER: CT1090 SITE NAME: NEW HARTFORD-SOUTHEAST RD. SBA SITE # ID: CT12219 170 SOUTHEAST RD NEW HARTFORD, CT 06057 LITCHFIELD COUNTY	 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067	SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: MR		 Daniel P. Hamm No. 24178 LICENSED PROFESSIONAL ENGINEER	AT&T
				GENERAL NOTES LTE 2C_3C_4C_5C 2020 UPGRADE			SITE NUMBER: CT1090

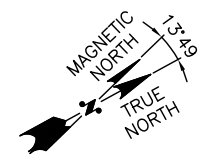
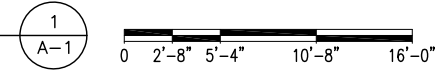
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

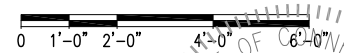
NOTE:
AN ASSESSMENT FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: OCTOBER 18, 2019



COMPOUND PLAN
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"



EQUIPMENT PLAN
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"



HGD HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

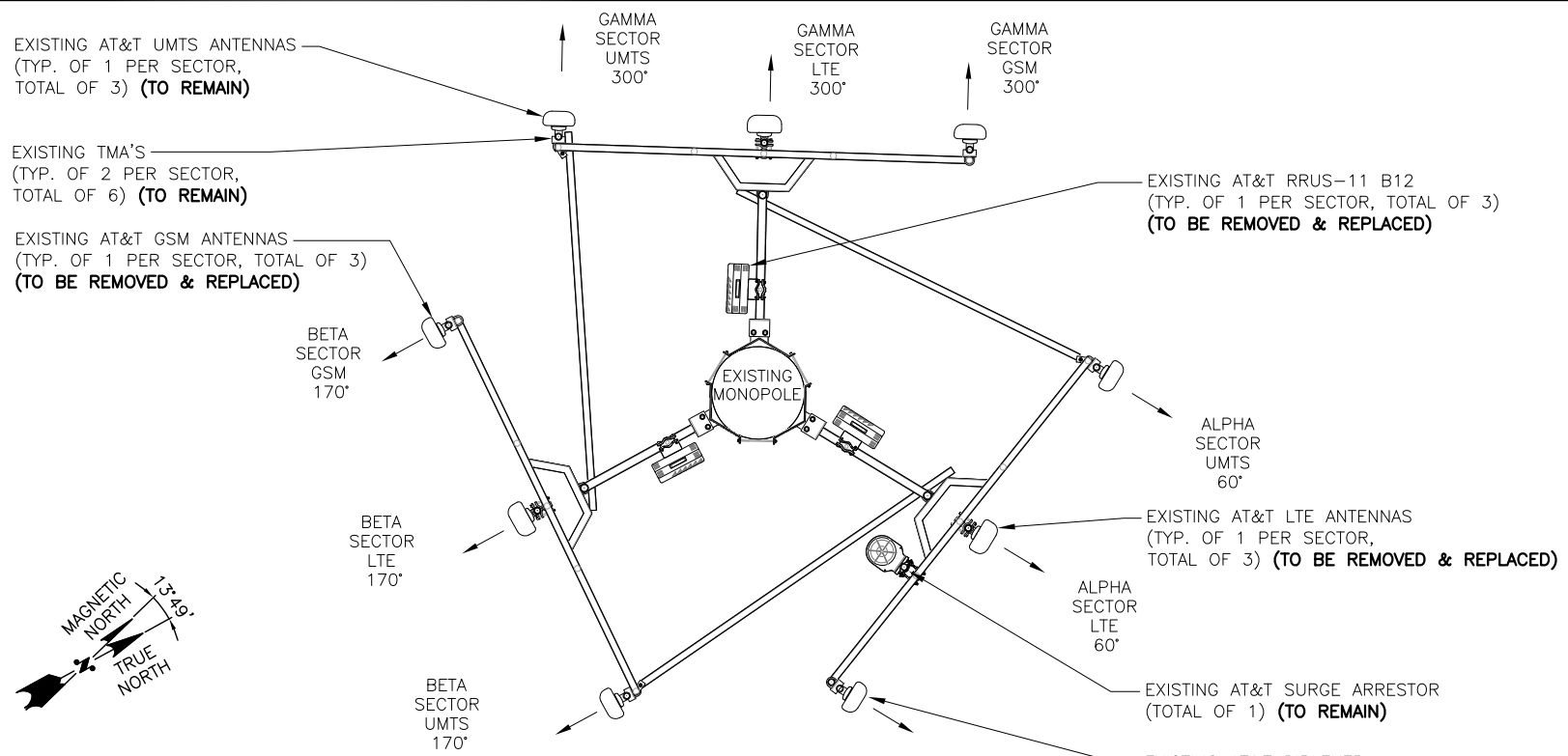
SITE NUMBER: CT1090
SITE NAME: NEW HARTFORD-SOUTHEAST RD.
SBA SITE # ID: CT12219
170 SOUTHEAST RD
NEW HARTFORD, CT 06057
LITCHFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

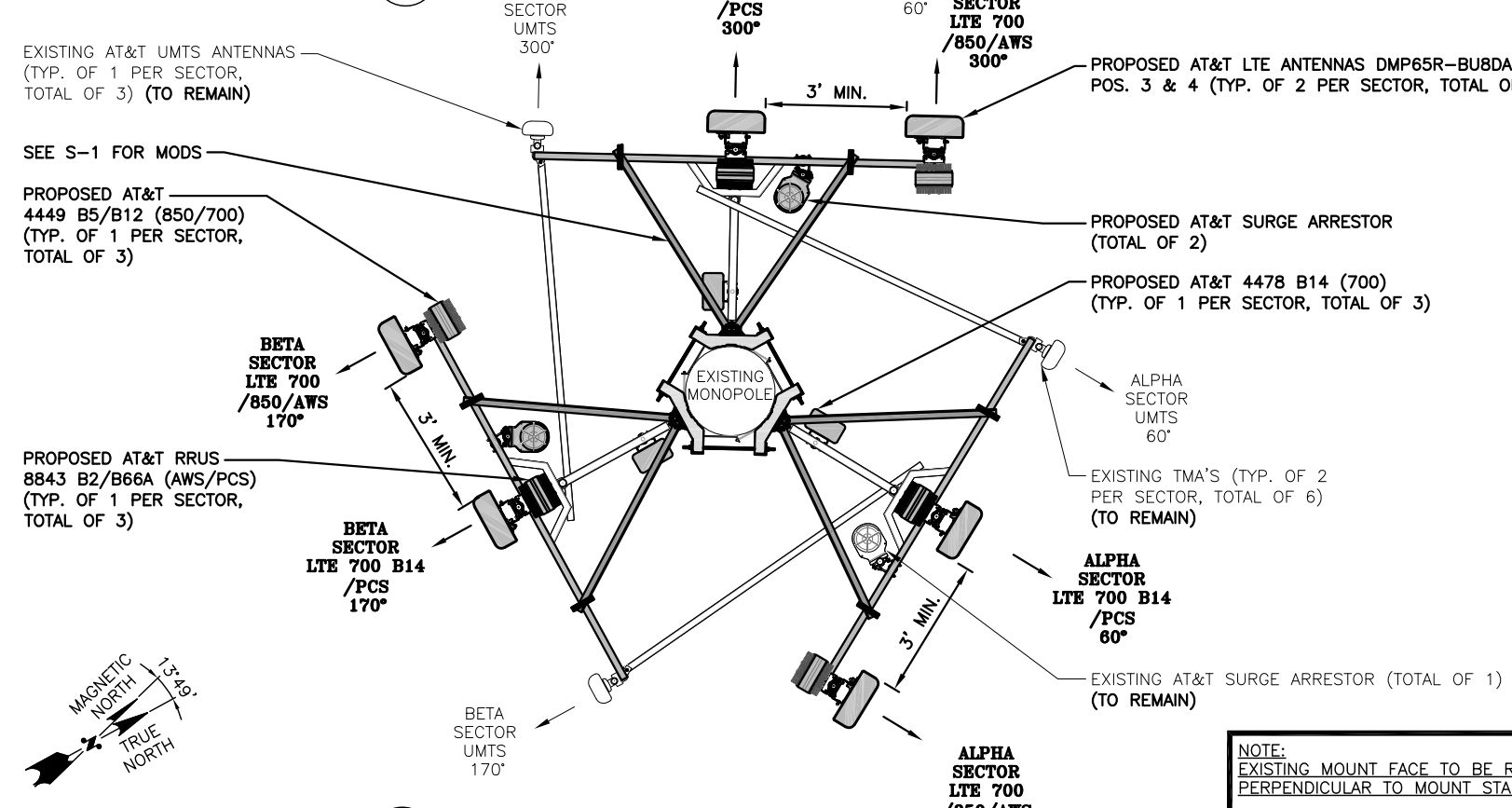
1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: MR		

Daniel P. Hamm
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T
COMPOUND & EQUIPMENT PLANS
LTE 2C_3C_4C_5C 2020 UPGRADE
SITE NUMBER: CT1090
DRAWING NUMBER: A-1
REV: 1



EXISTING ANTENNA LAYOUT
SCALE: N.T.S.



PROPOSED ANTENNA LAYOUT
SCALE: N.T.S.

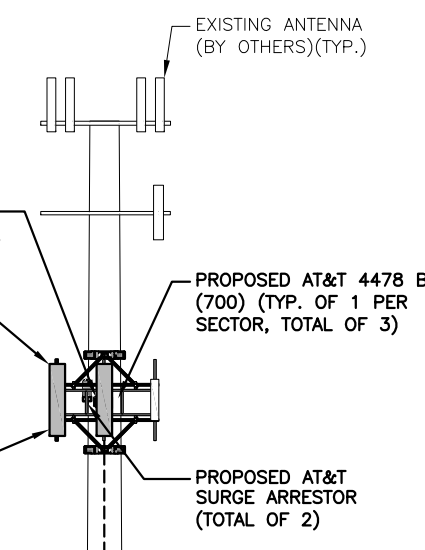
TOP OF MONOPOLE
ELEV. 160'-0"± (AGL)

PROPOSED AT&T 8843 B2/B66A (AWS/PCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T 4449 B5/B12 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3)

CL OF PROPOSED & EXISTING AT&T ANTENNAS
ELEV. 129'-0"± (AGL)

PROPOSED AT&T LTE ANTENNAS DMP65R-BU8DA (TYP. 2 PER SECTOR, TOTAL OF 6)



PROPOSED AT&T SURGE ARRESTOR (TOTAL OF 2)

EXISTING MONOPOLE

PROPOSED (4) DC TRUNKS AND (1) FIBER RUN IN (2) 2"Ø FLEX CONDUIT (TO FOLLOW EXISTING ROUTING)

EXISTING (12) 1-5/8" COAX CABLES (2) DC POWER CABLES & (1) FIBER RUNS (TO REMAIN)

NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY

GROUND LEVEL
ELEV. 0'-0"± (AGL)

ELEVATION
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

NOTE:
AN ASSESSMENT FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: OCTOBER 18, 2019

NOTE:
EXISTING MOUNT FACE TO BE ROTATED PERPENDICULAR TO MOUNT STANDOFF

HDG HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT1090
SITE NAME: NEW HARTFORD-SOUTHEAST RD.
SBA SITE # ID: CT12219
170 SOUTHEAST RD
NEW HARTFORD, CT 06057
LITCHFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: MR		

Daniel P. Hamm
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T	
ANTENNA LAYOUTS & ELEVATION	
LTE 2C_3C_4C_5C 2020 UPGRADE	
SITE NUMBER	DRAWING NUMBER
CT1090	A-2
	1

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA CL. HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	EXISTING	UMTS 850	7770	55X11X5	129'-0"±	60°	(2)(E) LPG-21401 (2)(E) LGP21901	-	-	(2) 1-5/8 COAX (2) 1-5/8 COAX FOR FUTURE	(E) (1) RAYCAP DC6-48-60-18-8F
A2	-	-	-	-	-	-	-	-	-	-	
A3	PROPOSED	LTE 700 B14 /PCS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	60°	-	(P) 4478 B14 (700) (P) 8843 B2/B66A (AWS/PCS)	18.1"x13.4"x8.3" 14.9"x13.2"x10.9"	-	
A4	PROPOSED	LTE 700 /850/AWS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	60°	-	(P) 4449 B5/B12 (850/700)	14.9"x13.2"x10.4"	-	
B1	EXISTING	UMTS 850	7770	55X11X5	129'-0"±	170°	(2)(E) LPG-21401 (2)(E) LGP21901	-	-	(2) 1-5/8 COAX (2) 1-5/8 COAX FOR FUTURE	(P) (1) RAYCAP DC6-48-60-18-8C-EV
B2	-	-	-	-	-	-	-	-	-	-	
B3	PROPOSED	LTE 700 B14 /PCS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	170°	-	(P) 4478 B14 (700) (P) 8843 B2/B66A (AWS/PCS)	18.1"x13.4"x8.3" 14.9"x13.2"x10.9"	-	
B4	PROPOSED	LTE 700 /850/AWS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	170°	-	(P) 4449 B5/B12 (850/700)	14.9"x13.2"x10.4"	-	
C1	EXISTING	UMTS 850	7770	55X11X5	129'-0"±	300°	(2)(E) LPG-21401 (2)(E) LGP21901	-	-	(2) 1-5/8 COAX (2) 1-5/8 COAX FOR FUTURE	(P) (1) RAYCAP DC6-48-60-0-EV (DC ONLY)
C2	-	-	-	-	-	-	-	-	-	-	
C3	PROPOSED	LTE 700 B14 /PCS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	300°	-	(P) 4478 B14 (700) (P) 8843 B2/B66A (AWS/PCS)	18.1"x13.4"x8.3" 14.9"x13.2"x10.9"	-	
C4	PROPOSED	LTE 700 /850/AWS	DMP65R-BU8DA	96.0x20.7x7.7	129'-0"±	300°	-	(P) 4449 B5/B12 (850/700)	14.9"x13.2"x10.4"	-	

NOTE:
REFER TO THE FINAL RF DATA SHEET
FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY
OF THE EXISTING STRUCTURES
TO SUPPORT THE PROPOSED
EQUIPMENT SHALL BE DETERMINED
PRIOR TO CONSTRUCTION.

NOTE:
AN ASSESSMENT FOR THE CAPACITY
OF THE EXISTING ANTENNA MOUNT
TO SUPPORT THE PROPOSED LOADING
HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
DATED: OCTOBER 18, 2019

FINAL ANTENNA SCHEDULE
SCALE: N.T.S.

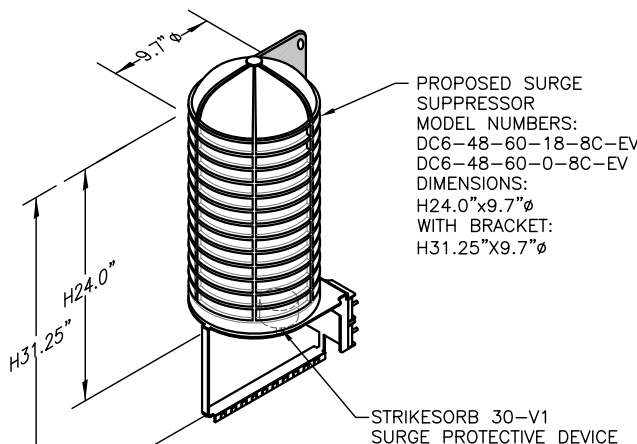
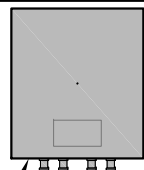
RRU CHART		
QUANTITY	MODEL	SIZE (L x W x D)
3(P)	8843 (AWS/PCS)	14.9"x13.2"x10.9"
3(P)	4478 B14 (700)	18.1"x13.4"x8.3"
3(P)	4449 B5/B12 (850/700)	14.9"x13.2"x10.4"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

NOTE:
SEE RFDS FOR RRH
FREQUENCY AND
MODEL NUMBER

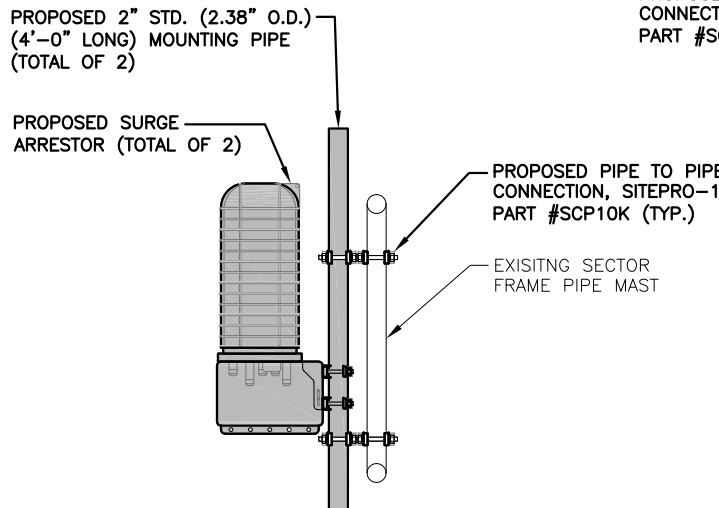
PROPOSED RRU REFER TO THE
FINAL RFDS AND CHART FOR
QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S
SPECIFICATIONS.
PROPOSED RRUS DETAIL
SCALE: N.T.S.

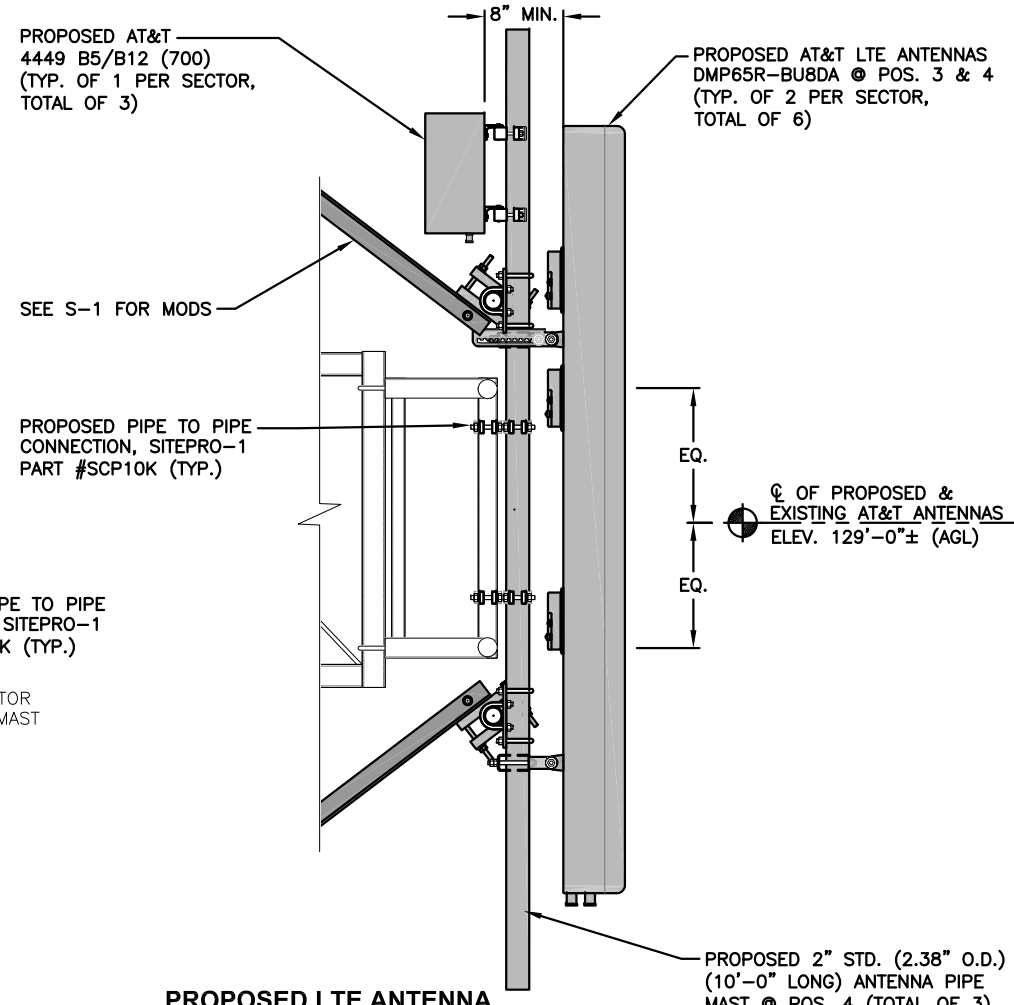


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE SUPPRESSOR DETAIL
SCALE: N.T.S.



PROPOSED SURGE ARRESTOR MOUNTING DETAIL
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"



PROPOSED LTE ANTENNA MOUNTING DETAIL
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

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1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE:	AS SHOWN	DESIGNED BY:	AT	DRAWN BY:	MR

AT&T

DETAILS
LTE 2C_3C_4C_5C 2020 UPGRADE

SITE NUMBER: CT1090
DRAWING NUMBER: A-3
REV: 1

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (F_y=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER.
- REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
REQUIRED	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
REQUIRED	PACKING SLIPS ³

ADDITIONAL TESTING AND INSPECTIONS:

DURING CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT

ADDITIONAL TESTING AND INSPECTIONS:

AFTER CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT1090
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SBA SITE # ID: CT12219

170 SOUTHEAST RD
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500 ENTERPRISE DRIVE, SUITE 3A
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NO.	DATE	REVISIONS	BY	CHK	APP'D
1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: MR

Daniel P. Hamm
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T

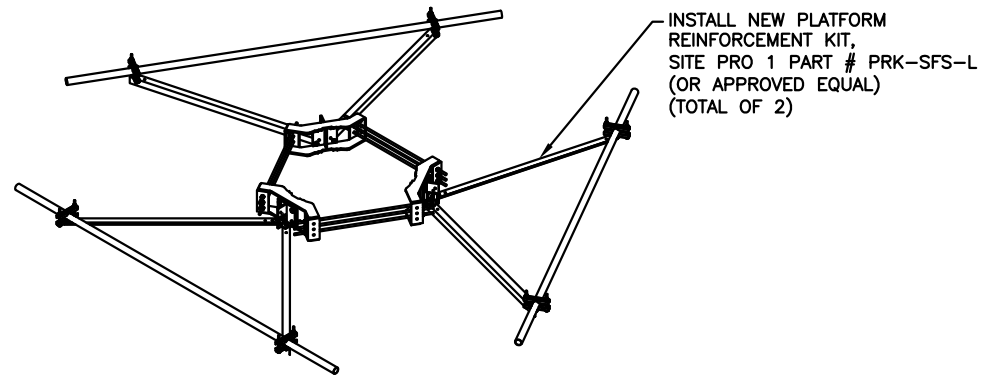
STRUCTURAL NOTES
LTE 2C_3C_4C_5C 2020 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT1090	SN-1	1

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

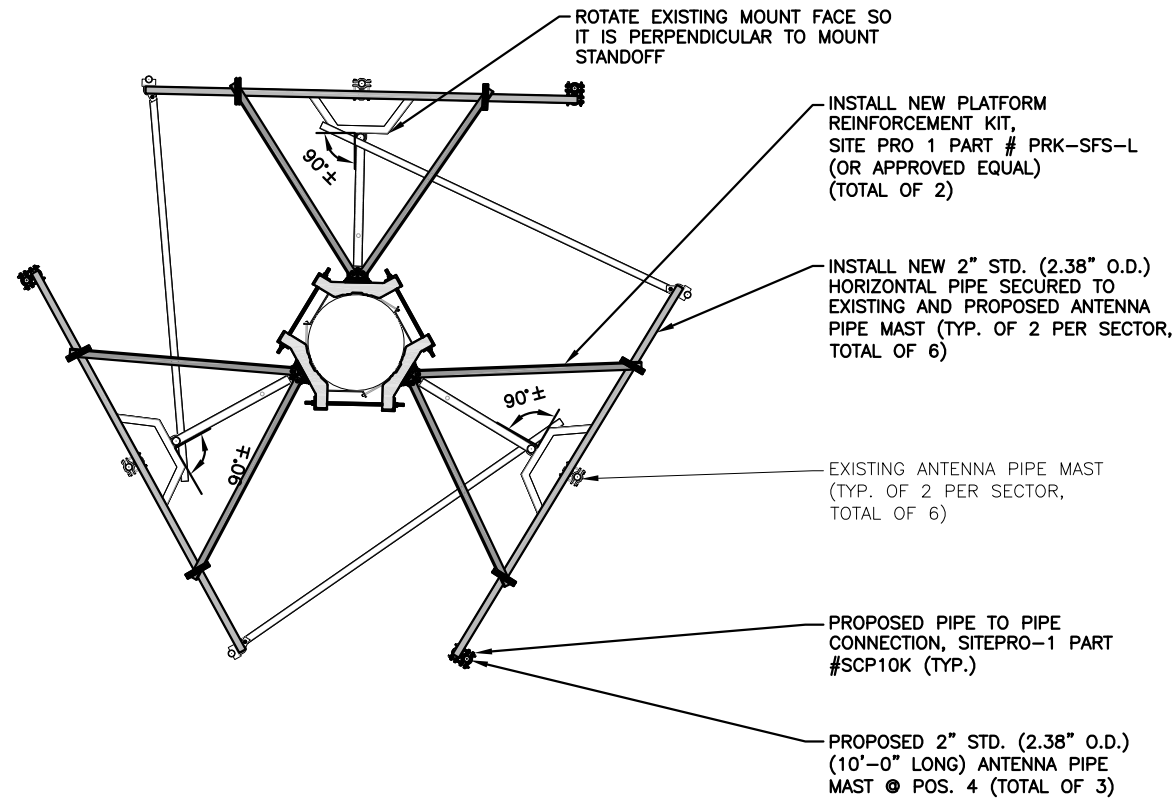
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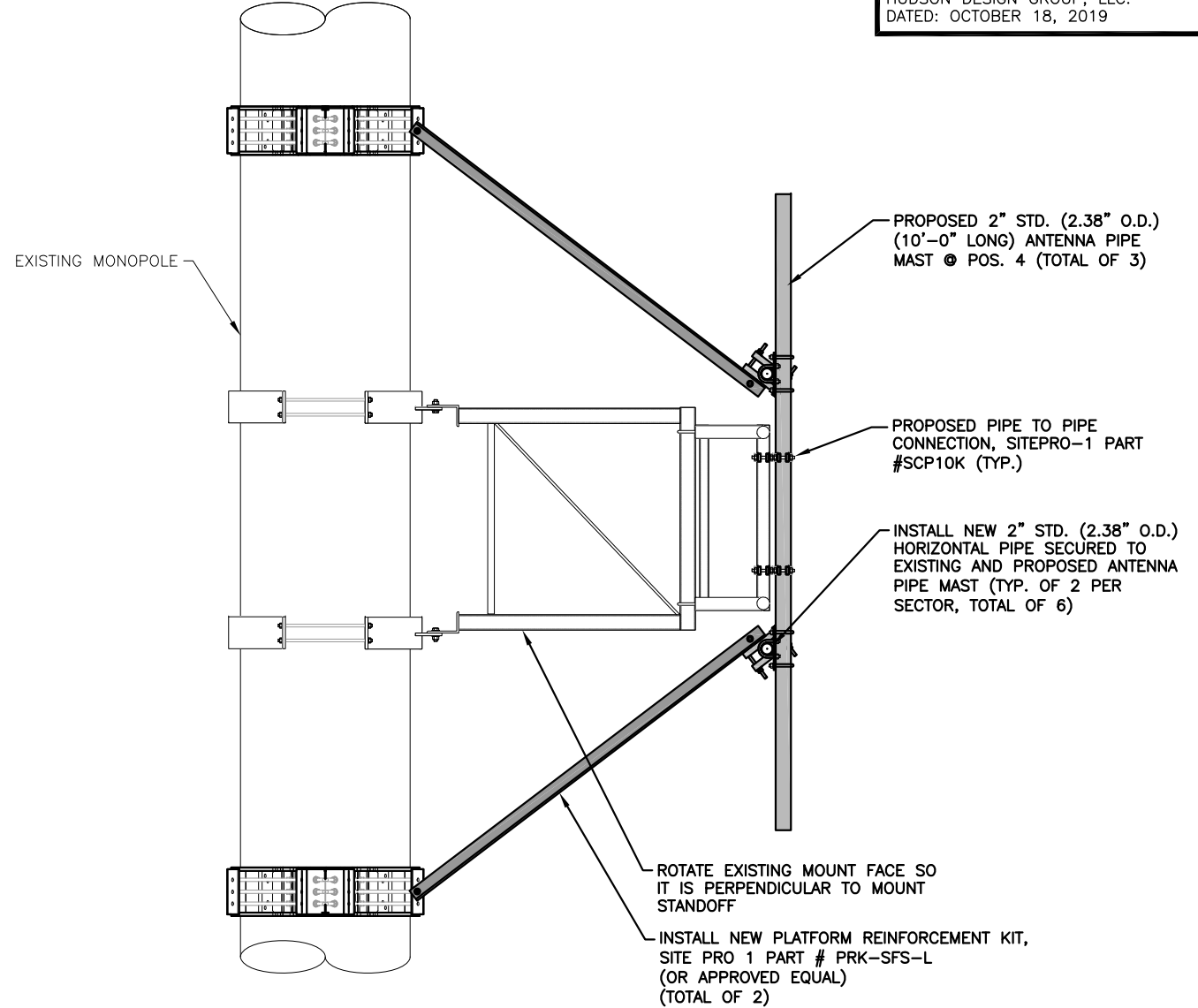
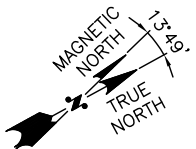


INSTALL NEW PLATFORM REINFORCEMENT KIT, SITE PRO 1 PART # PRK-SFS-L (OR APPROVED EQUAL) (TOTAL OF 2)

PROPOSED REINFORCEMENT HANDRAIL KIT 2
SCALE: N.T.S. S-1



PROPOSED MOUNT MODIFICATIONS PLAN 1
22x34 SCALE: 3/4"=1'-0" S-1
11x17 SCALE: 3/8"=1'-0"
0 8" 1'-4" 2'-8" 4'-0"



PROPOSED MOUNT MODIFICATIONS DETAIL 3
22x34 SCALE: 3/4"=1'-0" S-1
11x17 SCALE: 3/8"=1'-0"
0 8" 1'-4" 2'-8" 4'-0"

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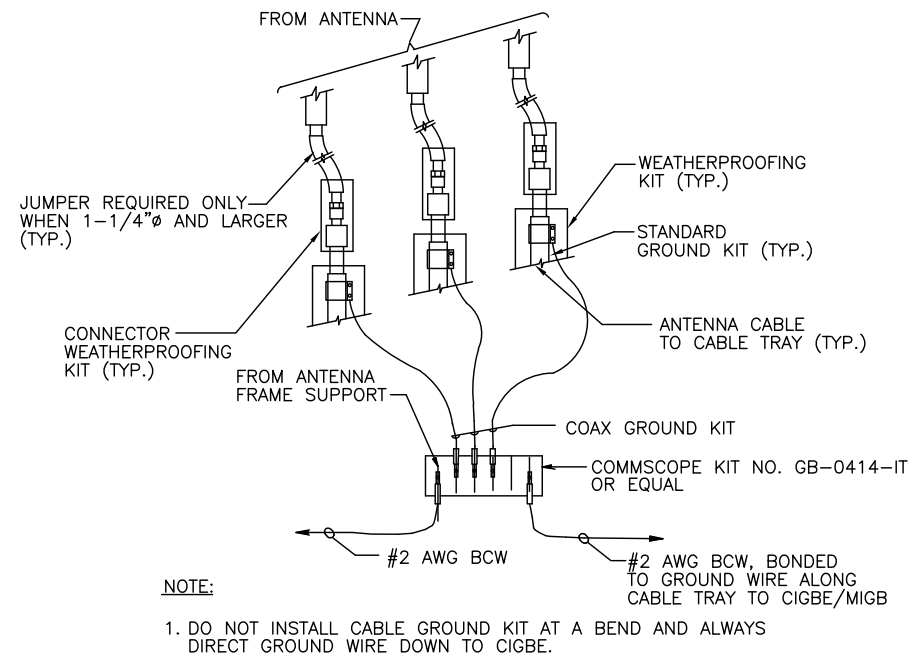
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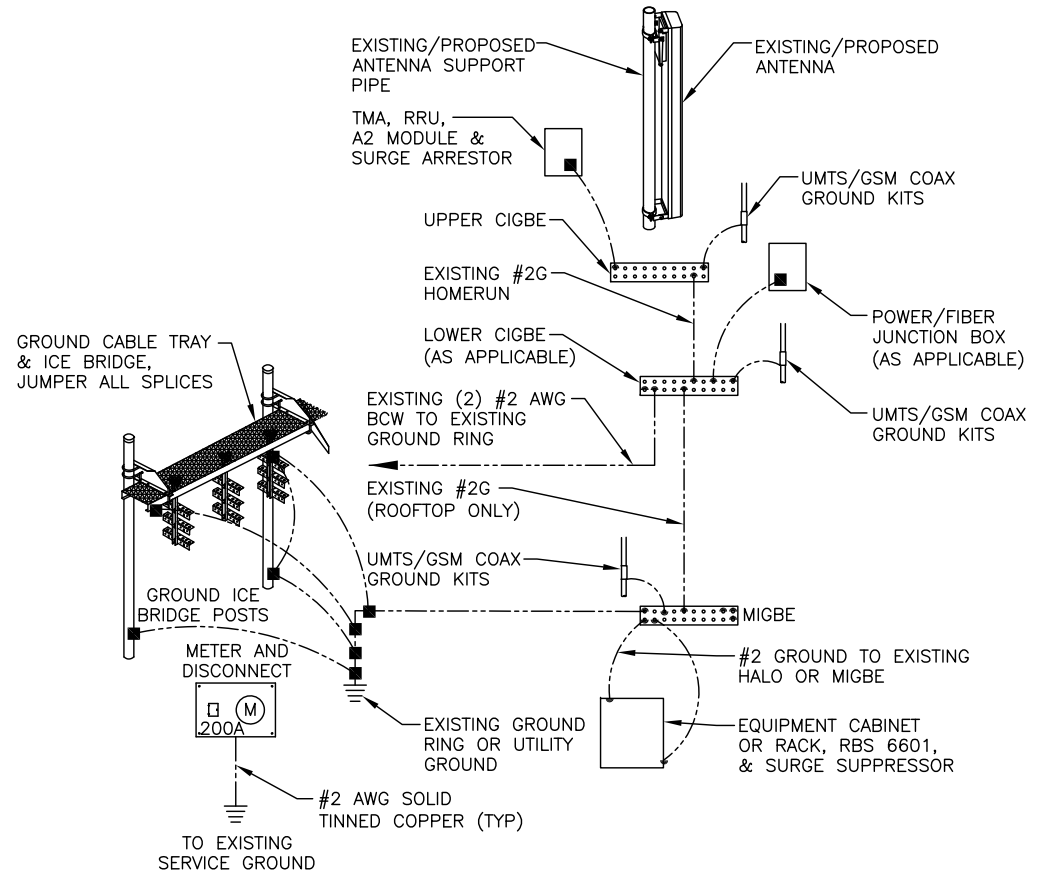
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A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: MR		

DANIEL P. HAMM
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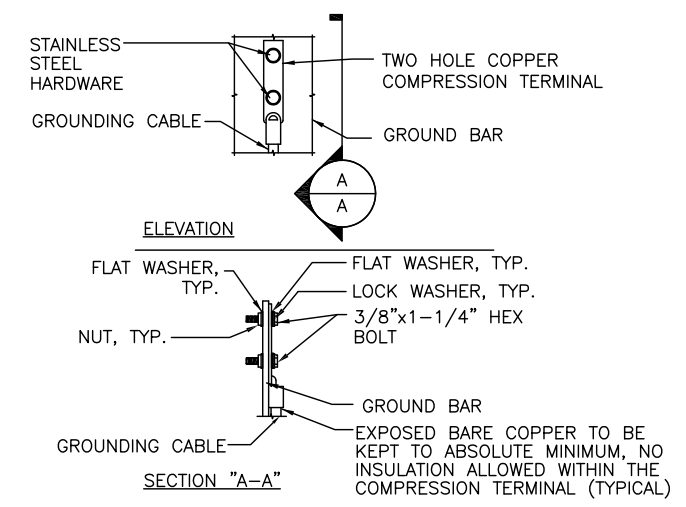
AT&T
MOUNT MODIFICATION DESIGN
LTE 2C_3C_4C_5C 2020 UPGRADE
SITE NUMBER: CT1090
DRAWING NUMBER: S-1
REV: 1



GROUND WIRE TO GROUND BAR CONNECTION DETAIL 1
SCALE: N.T.S. G-1



GROUNDING RISER DIAGRAM 2
SCALE: N.T.S. G-1



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

TYPICAL GROUND BAR CONNECTION DETAIL 3
SCALE: N.T.S. G-1

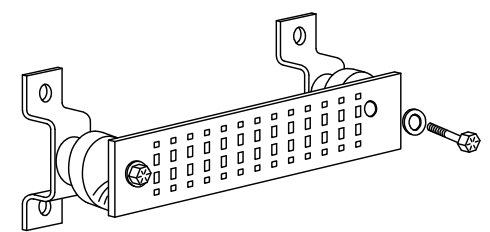
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

- CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
- +24V POWER SUPPLY RETURN BAR (#2 AWG)
- 48V POWER SUPPLY RETURN BAR (#2 AWG)
- RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING (#2 AWG)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
- BUILDING STEEL (IF AVAILABLE) (#2 AWG)

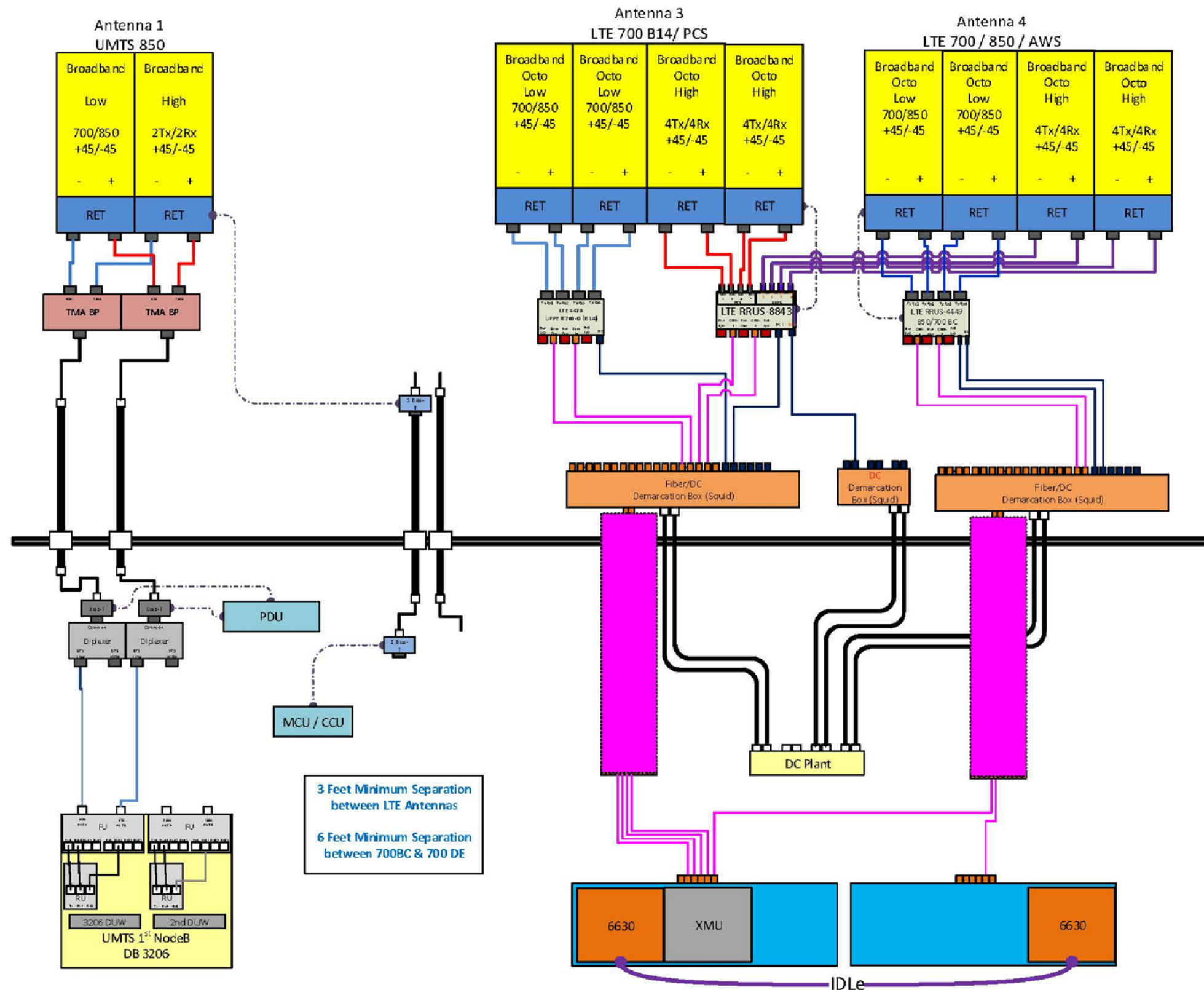


GROUND BAR - DETAIL (AS REQUIRED) 4
SCALE: N.T.S. G-1

1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: MR		

Daniel P. Hamm
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T	
GROUNDING DETAILS	
LTE 2C_3C_4C_5C 2020 UPGRADE	
SITE NUMBER	DRAWING NUMBER
CT1090	G-1
REV	1



3 Feet Minimum Separation
between LTE Antennas

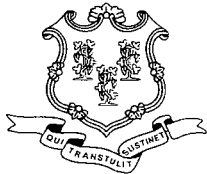
6 Feet Minimum Separation
between 700BC & 700 DE

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO
MANUFACTURER'S RECOMMENDATIONS

NOTE:
REFER TO THE FINAL RF DATA SHEET
FOR FINAL ANTENNA SETTINGS.

RF PLUMBING DIAGRAM 1
SCALE: N.T.S. RF-1

1	01/21/20	ISSUED FOR CONSTRUCTION	TR	AT	DPH
A	10/03/19	ISSUED FOR REVIEW	MR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: MR		



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

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

May 7, 2008

Steven L. Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-092-080403** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunication facility located at 170 Southeast Road, New Hartford, Connecticut.

Dear Mr. Levine:

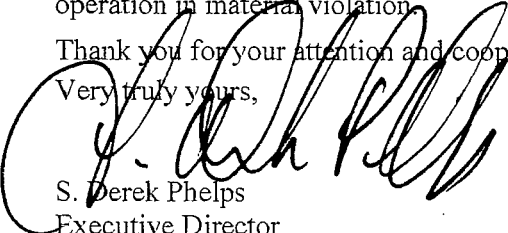
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated April 3, 2008, including the placement of all necessary equipment and shelters within the tower compound. 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, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to 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. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/MP

c: Honorable Earl Russell Macinnes, First Selectman, Town of New Hartford
Karl Nilsen, Zoning Enforcement Officer, Town of New Hartford
Bay Communications, LLC





TOWN OF NEW HARTFORD
530 MAIN STREET - TOWN HALL
NEW HARTFORD, CT 06057

Land Use Office
530 Main Street
New Hartford, CT 06057

Phone: (860) 379-7677
Fax: (860) 379-0940
www.newhartfordct.gov

February 4, 2020

Memorandum RE: 170 Southeast Rd / 47 Garrett Ridge Court

Dear Garrett,

This letter confirms there is no other Zoning Decisions that have not gone through the CSC for the above property.

Regards,

Michael Lucas
Land Use Administrator / ZEO
Town of New Hartford

47 GARRETT RIDGE COURT

Location 47 GARRETT RIDGE COURT

Mblu 034/ 012/ 06A/ /

Acct# 06007431

Owner MIANO PAUL M ESTATE OF

PBN

Assessment \$242,760

Appraisal \$346,800

PID 184846

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$22,800	\$324,000	\$346,800

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$15,960	\$226,800	\$242,760

Owner of Record

Owner MIANO PAUL M ESTATE OF
Co-Owner CO SBA TOWERS II LLC
Address CT12219A
8051 CONGRESS AVENUE
BOCA RATON, FL 33487 1307

Sale Price \$0
Certificate
Book & Page 290/ 588
Sale Date 06/15/2016
Instrument 10

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
MIANO PAUL M ESTATE OF	\$0		290/ 588	10	06/15/2016
MIANO PAUL M	\$0		142/ 708	06	02/24/1992

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: \$0
Building Percent
Good:

**Replacement Cost
Less Depreciation:** \$0

Building Photo

Building Attributes	
Field	Description
Style	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Full Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Fireplaces	
Extra Openings	
Basement Garage	
Whirlpool	



(<http://images.vgsi.com/photos/NewHartfordCTPhotos//default.jp>)

Building Layout

(<http://images.vgsi.com/photos/NewHartfordCTPhotos//Sketches>)

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	



Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code 3900
Description COM VACANT
Zone R2
Neighborhood 80
Alt Land Appr Category No

Size (Acres) 0.4
Frontage
Depth
Assessed Value \$226,800
Appraised Value \$324,000

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD2	Shed - Masonry			330 S.F.	\$7,400	1
SHD7	PreCast Conc			228 S.F.	\$15,400	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$22,800	\$540,000	\$562,800
2016	\$22,800	\$540,000	\$562,800
2015	\$22,800	\$540,000	\$562,800

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$15,960	\$378,000	\$393,960
2016	\$15,960	\$378,000	\$393,960
2015	\$15,960	\$378,000	\$393,960

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Radio Frequency Emissions Analysis Report

AT&T

Site Name: **CT1090**

170 Southeast Road
New Hartford, Connecticut 06057

January 15, 2020

Centerline Communications Project Number: 950012-334

Site Compliance Summary	
Compliance Status:	Compliant
Site total MPE% of FCC general population allowable limit:	11.66%



January 15, 2020

AT&T Mobility – New England
Attn: John Benedetto, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 01701

Emissions Analysis for Site: **CT1090**

Centerline Communications, LLC (“Centerline”) was directed to analyze the proposed AT&T facility to be located on a **Monopole near 170 Southeast Road, New Hartford Connecticut 06057** for the purpose of determining whether the emissions from the proposed facility are within specified federal limits.

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

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 1900 MHz (PCS) and 5 GHz (B46) bands is $1000 \mu\text{W}/\text{cm}^2$.



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

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed facility using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing focused omnidirectional 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. This is a very conservative estimate since the gain reduction in actual applications is typically greater than 10 dB in the direction of ground immediately surrounding the facility. Real world emissions values from this facility are expected to be lower than values listed in this report at ground level. 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.

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

Antenna #	Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
1	UMTS	850 MHz	1	40
2	LTE	700 MHz	4	40
2	LTE	1900 MHz (PCS Band)	2	40
2	LTE	1900 MHz (PCS Band)	2	40
3	LTE	700 MHz	2	40
3	LTE	850 MHz	1	40
3	LTE	2100 MHz (AWS Band)	4	40
3	LTE	850 MHz (5G)	1	40
4	UMTS	850 MHz	1	40
5	LTE	700 MHz	4	40
5	LTE	1900 MHz (PCS Band)	2	40
5	LTE	1900 MHz (PCS Band)	2	40
6	LTE	700 MHz	2	40
6	LTE	850 MHz	1	40
6	LTE	2100 MHz (AWS Band)	4	40
6	LTE	850 MHz (5G)	1	40
7	UMTS	850 MHz	1	40
8	LTE	700 MHz	4	40
8	LTE	1900 MHz (PCS Band)	2	40
8	LTE	1900 MHz (PCS Band)	2	40
9	LTE	700 MHz	2	40
9	LTE	850 MHz	1	40
9	LTE	2100 MHz (AWS Band)	4	40
9	LTE	850 MHz (5G)	1	40

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz (Band 46) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection. Maximum gain values for all antennas are listed in the AT&T Antenna Inventory & Power Levels table (Table 3) below in the Results section. 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	Powerwave 7770	129
A	2	CCI DMP65R-BU8DA	129
A	3	CCI DMP65R-BU8DA	129
B	4	Powerwave 7770	129
B	5	CCI DMP65R-BU8DA	129
B	6	CCI DMP65R-BU8DA	129
C	7	Powerwave 7770	129
C	8	CCI DMP65R-BU8DA	129
C	9	CCI DMP65R-BU8DA	129

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)	Antenna Height (ft)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Powerwave 7770	850 MHz	11.50 dBd	129	1	40	565.02	0.22%
Antenna A2	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	4	40	2037.60	0.94%
Antenna A2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	2443.94	0.94%
Antenna A2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	2443.94	0.53%
Antenna A3	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	2	40	1018.80	0.53%
Antenna A3	CCI DMP65R-BU8DA	850 MHz	11.55 dBd	129	1	40	571.56	0.47%
Antenna A3	CCI DMP65R-BU8DA	2100 MHz (AWS Band)	14.95 dBd	129	4	40	5001.73	0.22%
Antenna A3	CCI DMP65R-BU8DA	850 MHz (5G)	11.55 dBd	129	1	40	571.56	0.47%
Antenna B1	Powerwave 7770	850 MHz	11.50 dBd	129	1	40	565.02	0.22%
Antenna B2	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	4	40	1018.80	0.94%
Antenna B2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	2443.94	0.94%
Antenna B2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	2443.94	0.53%
Antenna B3	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	2	40	1018.80	0.53%
Antenna B3	CCI DMP65R-BU8DA	850 MHz	11.55 dBd	129	1	40	571.56	0.47%
Antenna B3	CCI DMP65R-BU8DA	2100 MHz (AWS Band)	14.95 dBd	129	4	40	5001.73	0.22%
Antenna B3	CCI DMP65R-BU8DA	850 MHz (5G)	11.55 dBd	129	1	40	571.56	0.47%
Antenna C1	Powerwave 7770	850 MHz	11.50 dBd	129	1	40	565.02	0.22%
Antenna C2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	1018.80	0.94%
Antenna C2	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	4	40	2443.94	0.94%
Antenna C2	CCI DMP65R-BU8DA	1900 MHz (PCS Band)	14.85 dBd	129	2	40	2443.94	0.53%
Antenna C3	CCI DMP65R-BU8DA	700 MHz	11.05 dBd	129	2	40	1018.80	0.53%
Antenna C3	CCI DMP65R-BU8DA	850 MHz	11.55 dBd	129	1	40	571.56	0.47%
Antenna C3	CCI DMP65R-BU8DA	2100 MHz (AWS Band)	14.95 dBd	129	4	40	5001.73	0.22%
Antenna C3	CCI DMP65R-BU8DA	850 MHz (5G)	11.55 dBd	129	1	40	571.56	0.47%
Sectors A, B & C Composite MPE%								11.66 %

Table 3: AT&T Antenna Inventory & Power Levels

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). Since this proposed facility is utilizing an omnidirectional antenna there is only one sector for this site (Sector A).

AT&T_ Frequency Band / Technology Max Power Levels	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μ W/cm ²)	Frequency (MHz)	Allowable MPE (μ W/cm ²)	Calculated % MPE
AT&T 850 MHz	1	565.02	129	1.2207	850 MHz	1000	0.22%
AT&T 700 MHz	4	2037.60	129	4.4021	700 MHz	1000	0.94%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 700 MHz	2	1018.80	129	2.2010	700 MHz	1000	0.47%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
AT&T 2100 MHz	4	5001.73	129	10.8058	2100 MHz	1000	1.08%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
AT&T 850 MHz	1	565.02	129	1.2207	850 MHz	1000	0.22%
AT&T 700 MHz	2	1018.80	129	2.2010	700 MHz	1000	0.94%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 700 MHz	2	1018.80	129	2.2010	700 MHz	1000	0.47%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
AT&T 2100 MHz	4	5001.73	129	10.8058	2100 MHz	1000	1.08%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
AT&T 850 MHz	1	565.02	129	1.2207	850 MHz	1000	0.22%
AT&T 700 MHz	2	1018.80	129	2.2010	700 MHz	1000	0.94%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 1900 MHz	2	2443.94	129	5.2799	1900 MHz	1000	0.53%
AT&T 700 MHz	2	1018.80	129	2.2010	700 MHz	1000	0.47%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
AT&T 2100 MHz	4	5001.73	129	10.8058	2100 MHz	1000	1.08%
AT&T 850 MHz	1	571.56	129	1.2348	850 MHz	1000	0.22%
						Sectors Total:	11.66%

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:	4.20%
Sector B:	4.20%
Sector C:	4.20%
AT&T Maximum Site Total:	11.66%
Site Total:	11.66%
Site Compliance Status:	Compliant

The anticipated composite MPE value for this site assuming all carriers present is **11.66%** of the allowable FCC established general population limit sampled at the ground level.

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.

A handwritten signature in black ink that reads 'Michelle L. Stone'.

Michelle L. Stone
RF Compliance Consultant
Centerline Communications, LLC

750 West Center St. Suite 301
West Bridgewater, MA 02379



Tower Engineering Solutions

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

Structural Analysis Report

Existing 159 ft EEI Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT12219-A

Customer Site Name: New Hartford 2, CT

Carrier Name: AT&T (App#: 126050, V2)

Carrier Site ID / Name: CT1090 / AWE-New Hartford SE

Site Location: 170 S. East Road

New Hartford, Connecticut

Litchfield County

Latitude: 41.817258

Longitude: -72.970947

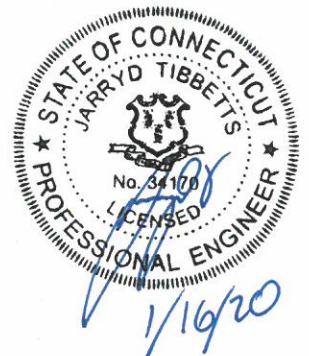
Analysis Result:

Max Structural Usage: 45.2% [Pass]

Max Foundation Usage: 49.0% [Pass]

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

Report Prepared By: Younus Alkarawi





Tower Engineering Solutions

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

Structural Analysis Report

Existing 159 ft EEI Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT12219-A

Customer Site Name: New Hartford 2, CT

Carrier Name: AT&T (App#: 126050, V2)

Carrier Site ID / Name: CT1090 / AWE-New Hartford SE

Site Location: 170 S. East Road

New Hartford, Connecticut

Litchfield County

Latitude: 41.817258

Longitude: -72.970947

Analysis Result:

Max Structural Usage: 45.2% [Pass]

Max Foundation Usage: 49.0% [Pass]

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

Report Prepared By: Younus Alkarawi

Introduction

The purpose of this report is to summarize the analysis results on the 159 ft EEI Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	EEI Project #15635-P01, dated 10/07/08
Foundation Drawing	EEI Project #15635-P01, dated 10/16/08
Geotechnical Report	Clarence Welti Associates Geotechnical Report for Proposed Sprint Site CT33XC271, dated 01/08/04
Modification Drawings	N/A

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 120.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 93.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	40 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.18, S_1 = 0.065$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	162.0	6	Swedcom - SCE-6014 - Panel	Low Profile Platform	(12) 1 5/8"	Verizon
2		6	Antel - BXA-70063/6CF - Panel			
3		3	Antel - BXA-185060/12CF - Panel			
4	150.0	3	Ericsson - AIR21 B2A/B4P - Panel	(3) T-Arm	(12) 1 5/8" (1) 1 5/8" Fiber	T-Mobile
5		3	Ericsson - AIR21 B4A/B2P - Panel			
6		3	Ericsson - KRY 112 144 - TMA			
-	130.0	9	Powerwave - 7770.00A - Panel	(3) T-Frame	(24) 1 5/8" (1) 3/4" DC (1) 7/16" Fiber	AT&T
-		3	Powerwave - P65-17-XLH-RR - Panel			
-		24	Powerwave - LGP21401 - TMA			
-		6	Ericsson - RRUS 11 - RRU			
-		1	Raycap - DC6-48-60-18-8F - SP			
-		1	Commscope - ABT-DF-DMADBH - Bias-T			

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
7	130.0	6	Powerwave 7770.00A- Panel	(3) T-Frame	(24) 1 5/8" (3) 3" Conduit*	AT&T
8		24	Powerwave LGP21401 TMA			
9		3	Ericsson 4478 B71			
10		3	Ericsson 4449 B5/B12			
11		3	Ericsson 8843 B2/B66A			
12		3	Raycap DC6-48-60-18-8F 32.8#			
13		3	Commscope ABT-DF-DMADBH- Bias-T			
14	129.0	6	Cci DMP65R-BU8DA- Panel			

* (Housing (6) 3/4" DC power & (2) 7/16" Fiber cables)

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	45.2%	35.1%	23.9%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	2906.8	25.3	87.6

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.7602 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

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

Usage Diagram - Max Ratio 45.19% at 97.9ft

Structure: CT12219-A-SBA
Site Name: New Hartford 2, CT
Height: 159.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: B
Gh: 1.1

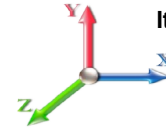
1/16/2020



Page: 1

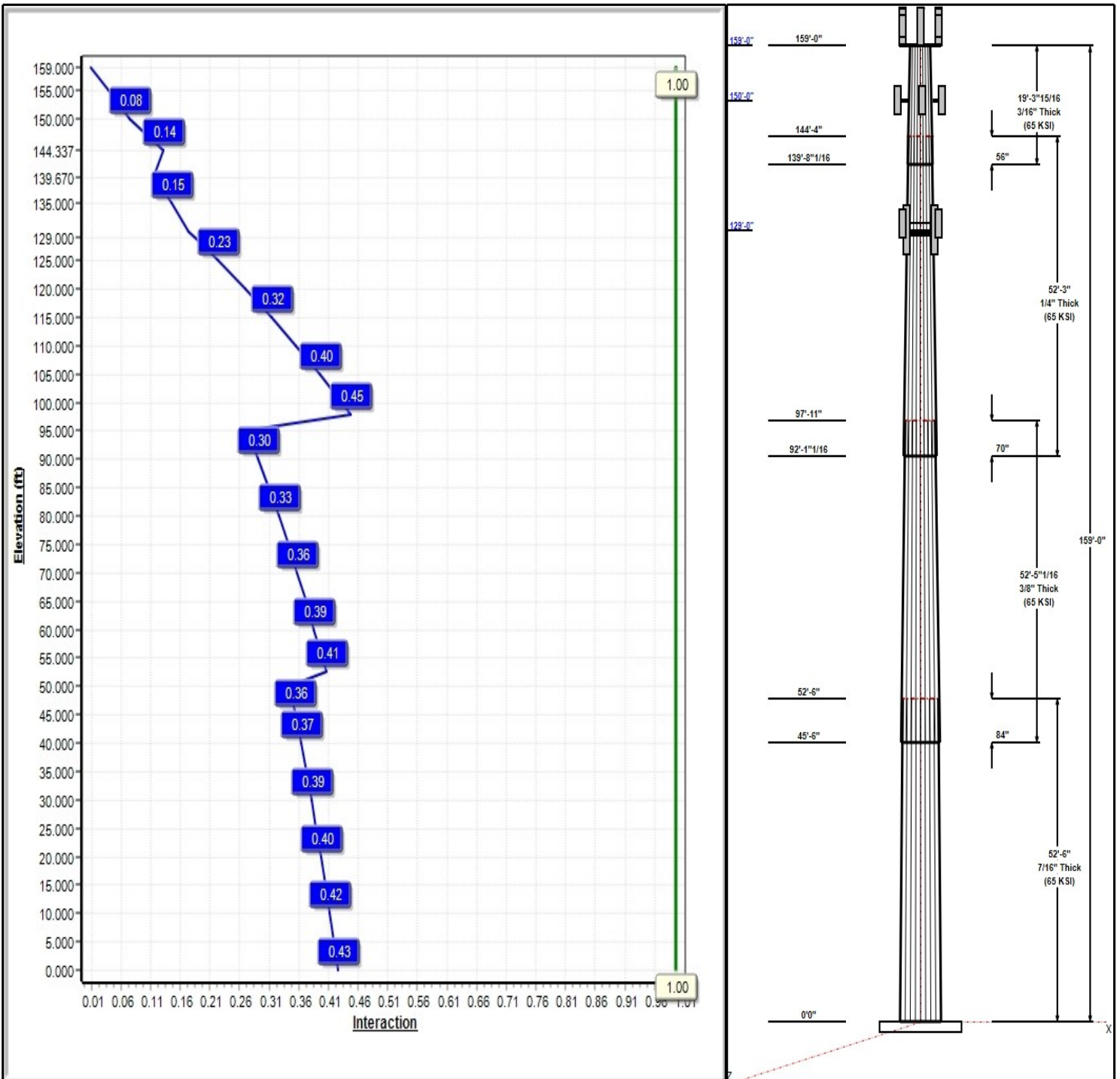
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 93 mph Wind



Iterations: 22

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Structure: CT12219-A-SBA

Type: Tapered
Site Name: New Hartford 2, CT
Height: 159.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.20833

1/16/2020

Page: 2



Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	52.50	49.56	60.50	0.438		0.20833	65
2	52.42	40.85	51.77	0.375	Slip	0.20833	65
3	52.25	31.68	42.57	0.250	Slip	0.20833	65
4	19.33	29.00	33.03	0.188	Slip	0.20833	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
159.00	159.00	1	Low Profile Platform	Verizon
159.00	162.00	6	Swedcom - SCE-6014	Verizon
159.00	162.00	6	Antel - BXA-70063/6CF	Verizon
159.00	162.00	3	Antel - BXA-185060/12CF	Verizon
150.00	150.00	3	T-Arm	T-Mobile
150.00	150.00	3	Ericsson - AIR21 B2A/B4P	T-Mobile
150.00	150.00	3	Ericsson - AIR21 B4A/B2P	T-Mobile
150.00	150.00	3	Ericsson - KRY 112 144 -	T-Mobile
130.00	130.00	3	T-Frame	AT&T
130.00	130.00	6	Powerwave - 7770.00A	AT&T
130.00	130.00	24	Powerwave - LGP21401	AT&T
130.00	130.00	3	Raycap - DC6-48-60-18-8F	AT&T
130.00	130.00	3	Commscope -	AT&T
130.00	130.00	3	4478 B71	AT&T
130.00	130.00	3	4449 B5/B12	AT&T
130.00	130.00	3	8843 B2/B66A	AT&T
129.00	129.00	6	DMP65R-BU8DA	AT&T

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	159.00	Inside	1 5/8" Coax	Verizon
0.00	150.00	Inside	1 5/8" Coax	T-Mobile
0.00	150.00	Inside	1 5/8" Fiber	T-Mobile
0.00	130.00	Inside	1 5/8" Coax	AT&T
0.00	130.00	Inside	3" Conduit	AT&T
0.00	130.00	Inside	3/4" DC	AT&T
0.00	130.00	Inside	7/16" Fiber	AT&T

Anchor Bolts

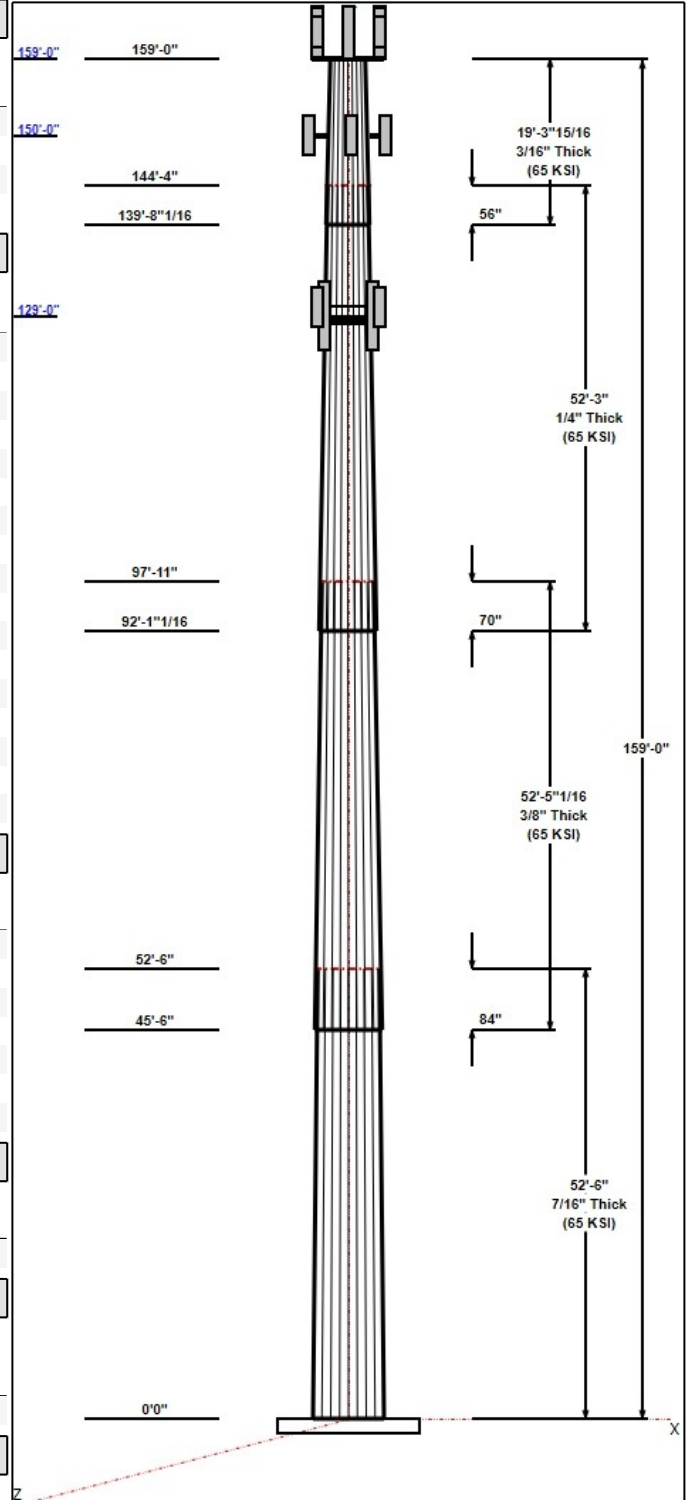
Qty	Specifications	Grade (ksi)	Arrangement
24	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.2500	74.0	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 93 mph Wind	2906.8	25.3	54.3
0.9D + 1.6W 93 mph Wind	2884.1	25.3	40.7
1.2D + 1.0Di + 1.0Wi 40 mph Wind	629.1	5.4	87.6
1.2D + 1.0E	211.3	1.8	54.3



Structure: CT12219-A-SBA

Type: Tapered
Site Name: New Hartford 2, CT
Height: 159.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.20833

1/16/2020

Page: 3



0.9D + 1.0E	209.5	1.8	40.7
1.0D + 1.0W 60 mph Wind	752.5	6.6	45.3

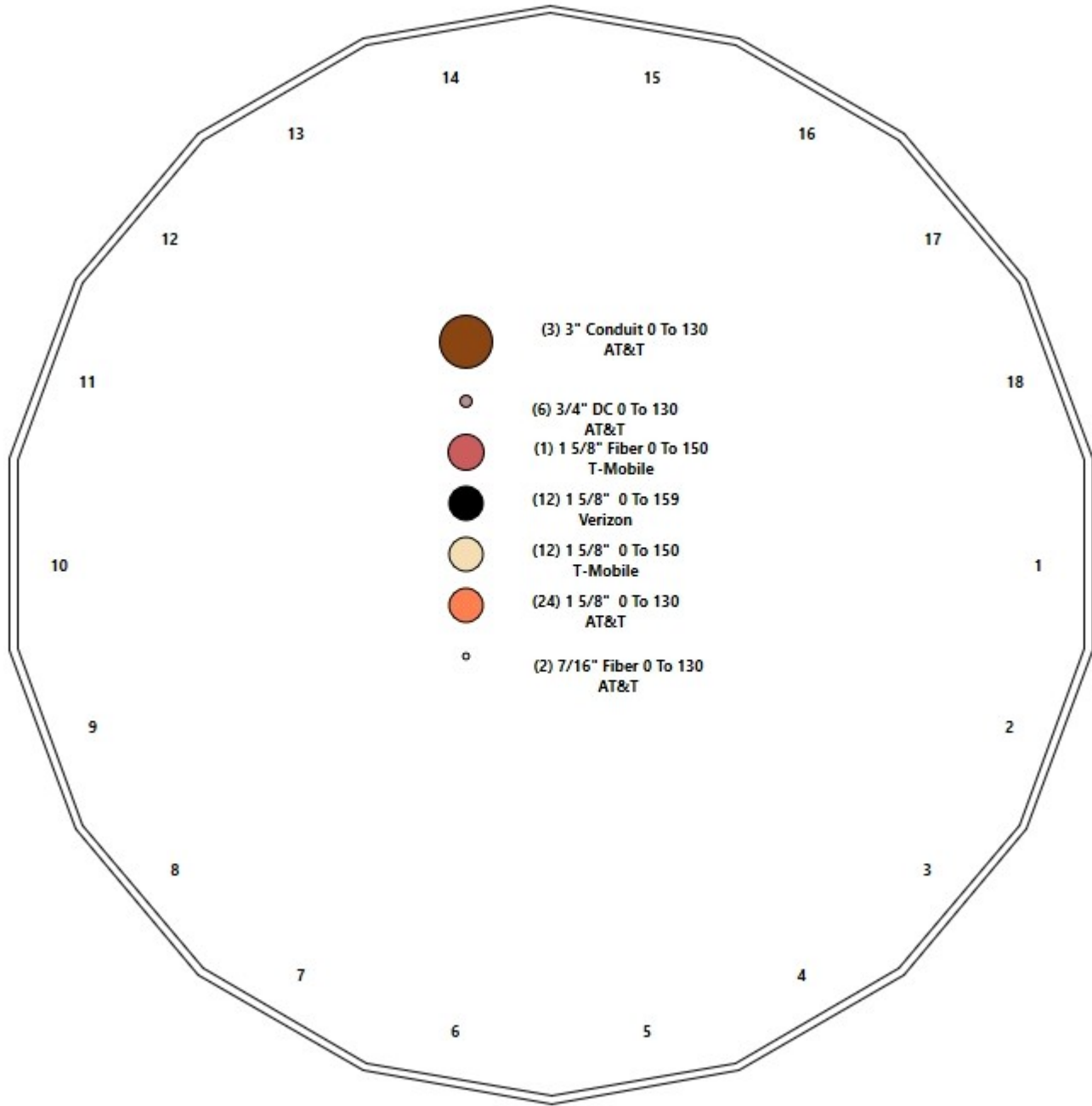
Structure: CT12219-A-SBA - Coax Line Placement

Type: Monopole
Site Name: New Hartford 2, CT
Height: 159.00 (ft)

1/16/2020



Page: 4



Shaft Properties

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	52.500	0.4375	65		0.00	13,543
2	18	52.420	0.3750	65	Slip	84.00	9,752
3	18	52.250	0.2500	65	Slip	70.00	5,202
4	18	19.330	0.1875	65	Slip	56.00	1,207
Total Shaft Weight:							29,703

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	60.50	0.00	83.40	38013.04	22.97	138.29	49.56	52.50	68.21	20798.4	18.56	113.2	0.208333
2	51.77	45.50	61.17	20415.47	22.93	138.06	40.85	97.92	48.17	9970.94	17.80	108.9	0.208333
3	42.57	92.09	33.58	7595.84	28.61	170.26	31.68	144.34	24.94	3112.52	20.93	126.7	0.208333
4	33.03	139.6	19.54	2662.80	29.65	176.14	29.00	159.00	17.15	1798.41	25.86	154.6	0.208333

Load Summary

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 6

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	159.00	Low Profile Platform	1	1600.00	40.20	1.00	3472.44	85.363	1.00	0.00	0.00
2	159.00	Swedcom - SCE-6014	6	15.00	3.33	0.98	142.12	5.568	0.98	0.00	3.00
3	159.00	Antel - BXA-70063/6CF	6	14.90	7.58	0.77	211.52	11.291	0.81	0.00	3.00
4	159.00	Antel - BXA-185060/12CF	3	15.00	4.78	0.88	182.26	6.467	0.90	0.00	3.00
5	150.00	T-Arm	3	500.00	15.60	0.75	965.39	33.750	0.75	0.00	0.00
6	150.00	Ericsson - AIR21 B2A/B4P	3	91.50	6.09	0.85	314.13	7.581	0.87	0.00	0.00
7	150.00	Ericsson - AIR21 B4A/B2P	3	90.40	6.09	0.85	312.96	7.581	0.87	0.00	0.00
8	150.00	Ericsson - KRY 112 144 - TMA	3	11.00	0.41	0.70	25.38	1.044	0.70	0.00	0.00
9	130.00	T-Frame	3	550.00	17.60	0.75	1054.66	37.786	0.75	0.00	0.00
10	130.00	Powerwave - 7770.00A	6	27.00	5.54	0.76	177.23	8.346	0.80	0.00	0.00
11	130.00	Powerwave - LGP21401	24	14.10	1.29	1.00	46.96	2.388	1.00	0.00	0.00
12	130.00	Raycap - DC6-48-60-18-8F - SP	3	31.80	0.92	1.00	113.06	1.496	1.00	0.00	0.00
13	130.00	Commscope - ABT-DF-DMADBH -	3	1.10	0.05	1.00	4.03	0.303	1.00	0.00	0.00
14	130.00	4478 B71	3	59.40	1.65	0.67	113.90	2.331	0.67	0.00	0.00
15	130.00	4449 B5/B12	3	71.00	1.97	0.67	141.16	2.689	0.67	0.00	0.00
16	130.00	8843 B2/B66A	3	75.00	1.65	0.67	180.91	2.381	0.67	0.00	0.00
17	129.00	DMP65R-BU8DA	6	95.70	17.87	0.73	612.27	20.296	0.75	0.00	0.00
Totals:			82	7,342.60			21,681.84				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	159.00	(12) 1 5/8" Coax	0.00	Inside
0.00	150.00	(12) 1 5/8" Coax	0.00	Inside
0.00	150.00	(1) 1 5/8" Fiber	0.00	Inside
0.00	130.00	(24) 1 5/8" Coax	0.00	Inside
0.00	130.00	(3) 3" Conduit	0.00	Inside
0.00	130.00	(6) 3/4" DC	0.00	Inside
0.00	130.00	(2) 7/16" Fiber	0.00	Inside

Shaft Section Properties

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 7

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
0.00		0.4375	60.500	83.401	38013.0	22.97	138.29	74.4	1237.	0.0
5.00		0.4375	59.458	81.955	36069.4	22.55	135.90	74.9	1194.	1406.7
10.00		0.4375	58.417	80.508	34193.1	22.13	133.52	75.4	1152.	1382.1
15.00		0.4375	57.375	79.062	32383.0	21.71	131.14	75.9	1111.	1357.5
20.00		0.4375	56.333	77.616	30638.0	21.29	128.76	76.4	1071.	1332.8
25.00		0.4375	55.292	76.169	28956.8	20.87	126.38	76.8	1031.	1308.2
30.00		0.4375	54.250	74.723	27338.3	20.45	124.00	77.3	992.6	1283.6
35.00		0.4375	53.208	73.276	25781.3	20.03	121.62	77.8	954.3	1259.0
40.00		0.4375	52.167	71.830	24284.5	19.61	119.24	78.3	916.9	1234.4
45.00		0.4375	51.125	70.383	22846.8	19.19	116.86	78.8	880.2	1209.8
45.50	Bot - Section 2	0.4375	51.021	70.239	22706.2	19.15	116.62	78.9	876.6	119.6
50.00		0.4375	50.083	68.937	21467.0	18.77	114.48	79.3	844.2	1993.7
52.50	Top - Section 1	0.3750	50.313	59.436	18726.5	22.25	134.17	0.0	0.0	1091.6
55.00		0.3750	49.792	58.816	18146.6	22.00	132.78	75.5	717.8	503.0
60.00		0.3750	48.750	57.576	17023.1	21.51	130.00	76.1	687.8	990.1
65.00		0.3750	47.708	56.336	15946.9	21.02	127.22	76.7	658.4	969.0
70.00		0.3750	46.667	55.097	14917.1	20.53	124.44	77.3	629.6	948.0
75.00		0.3750	45.625	53.857	13932.6	20.04	121.67	77.8	601.5	926.9
80.00		0.3750	44.583	52.617	12992.4	19.55	118.89	78.4	574.0	905.8
85.00		0.3750	43.542	51.377	12095.4	19.06	116.11	79.0	547.1	884.7
90.00		0.3750	42.500	50.137	11240.8	18.57	113.33	79.6	520.9	863.6
92.09	Bot - Section 3	0.3750	42.065	49.620	10896.3	18.37	112.17	79.8	510.2	354.2
95.00		0.3750	41.458	48.898	10427.3	18.08	110.56	80.1	495.4	818.8
97.92	Top - Section 2	0.2500	41.350	32.612	6960.0	27.75	165.40	0.0	0.0	808.7
100.00		0.2500	40.917	32.268	6742.2	27.45	163.67	69.1	324.5	229.6
105.00		0.2500	39.875	31.441	6237.2	26.71	159.50	70.0	308.1	542.0
110.00		0.2500	38.833	30.615	5758.2	25.98	155.33	70.8	292.1	527.9
115.00		0.2500	37.792	29.788	5304.3	25.24	151.17	71.7	276.4	513.8
120.00		0.2500	36.750	28.962	4874.9	24.51	147.00	72.6	261.3	499.8
125.00		0.2500	35.708	28.135	4469.3	23.77	142.83	73.4	246.5	485.7
129.00		0.2500	34.875	27.474	4161.5	23.19	139.50	74.1	235.0	378.5
130.00		0.2500	34.667	27.309	4086.9	23.04	138.67	74.3	232.2	93.2
135.00		0.2500	33.625	26.482	3726.9	22.31	134.50	75.2	218.3	457.6
139.67	Bot - Section 4	0.2500	32.652	25.710	3410.4	21.62	130.61	76.0	205.7	414.7
140.00		0.2500	32.583	25.656	3388.7	21.57	130.33	76.0	204.8	50.8
144.34	Top - Section 3	0.1875	32.055	18.964	2433.2	28.73	170.96	0.0	0.0	657.1
145.00		0.1875	31.917	18.882	2401.7	28.60	170.22	67.8	148.2	42.7
150.00		0.1875	30.875	18.262	2172.9	27.62	164.67	68.9	138.6	316.0
155.00		0.1875	29.833	17.642	1959.0	26.64	159.11	70.1	129.3	305.4
159.00		0.1875	29.000	17.146	1798.4	25.86	154.67	71.0	122.1	236.8

29703.3

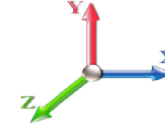
Wind Loading - Shaft

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	14.724	16.20	398.34	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	14.724	16.20	391.48	0.650	0.000	5.00	25.377	16.49	427.5	0.0	1688.0
10.00		1.00	0.70	14.724	16.20	384.62	0.650	0.000	5.00	24.936	16.21	420.0	0.0	1658.5
15.00		1.00	0.70	14.724	16.20	377.77	0.650	0.000	5.00	24.495	15.92	412.6	0.0	1628.9
20.00		1.00	0.70	14.724	16.20	370.91	0.650	0.000	5.00	24.055	15.64	405.2	0.0	1599.4
25.00		1.00	0.70	14.724	16.20	364.05	0.650	0.000	5.00	23.614	15.35	397.8	0.0	1569.9
30.00		1.00	0.70	14.736	16.21	357.34	0.650	0.000	5.00	23.173	15.06	390.7	0.0	1540.4
35.00		1.00	0.73	15.400	16.94	350.63	0.650	0.000	5.00	22.733	14.78	383.6	0.0	1510.9
40.00		1.00	0.76	15.999	17.60	344.03	0.650	0.000	5.00	22.292	14.49	376.5	0.0	1481.3
45.00		1.00	0.79	16.546	18.20	337.54	0.650	0.000	5.00	21.851	14.20	369.4	0.0	1451.8
45.50 Bot - Section 2		1.00	0.79	16.599	18.26	336.67	0.650	0.000	0.50	2.161	1.40	41.0	0.0	143.6
50.00		1.00	0.81	17.052	18.76	330.87	0.650	0.000	4.50	19.535	12.70	381.1	0.0	2392.5
52.50 Top - Section 1		1.00	0.82	17.292	19.02	329.64	0.650	0.000	2.50	10.699	6.95	211.6	0.0	1309.9
55.00		1.00	0.83	17.523	19.28	328.54	0.650	0.000	2.50	10.588	6.88	212.3	0.0	603.6
60.00		1.00	0.85	17.964	19.76	323.54	0.650	0.000	5.00	20.846	13.55	428.4	0.0	1188.2
65.00		1.00	0.87	18.380	20.22	318.95	0.650	0.000	5.00	20.405	13.26	429.0	0.0	1162.9
70.00		1.00	0.89	18.773	20.65	314.84	0.650	0.000	5.00	19.965	12.98	428.8	0.0	1137.5
75.00		1.00	0.91	19.147	21.06	311.19	0.650	0.000	5.00	19.524	12.69	427.6	0.0	1112.2
80.00		1.00	0.93	19.503	21.45	308.00	0.650	0.000	5.00	19.083	12.40	425.8	0.0	1086.9
85.00		1.00	0.94	19.844	21.83	305.24	0.650	0.000	5.00	18.643	12.12	423.2	0.0	1061.6
90.00		1.00	0.96	20.170	22.19	302.91	0.650	0.000	5.00	18.202	11.83	420.0	0.0	1036.3
92.09 Bot - Section 3		1.00	0.97	20.303	22.33	302.23	0.650	0.000	2.09	7.466	4.85	173.4	0.0	425.0
95.00		1.00	0.97	20.484	22.53	301.97	0.650	0.000	2.91	10.419	6.77	244.1	0.0	982.5
97.92 Top - Section 2		1.00	0.98	20.662	22.73	302.00	0.650	0.000	2.92	10.292	6.69	243.3	0.0	970.4
100.00		1.00	0.99	20.787	22.87	302.10	0.650	0.000	2.08	7.240	4.71	172.2	0.0	275.5
105.00		1.00	1.00	21.079	23.19	314.13	0.650	0.000	5.00	17.091	11.11	412.1	0.0	650.4
110.00		1.00	1.02	21.361	23.50	307.96	0.650	0.000	5.00	16.651	10.82	406.9	0.0	633.5
115.00		1.00	1.03	21.634	23.80	301.61	0.650	0.000	5.00	16.210	10.54	401.2	0.0	616.6
120.00		1.00	1.04	21.898	24.09	295.09	0.650	0.000	5.00	15.769	10.25	395.0	0.0	599.7
125.00		1.00	1.05	22.155	24.37	288.40	0.650	0.000	5.00	15.328	9.96	388.5	0.0	582.9
129.00 Appurtenance(s)		1.00	1.06	22.356	24.59	282.94	0.650	0.000	4.00	11.945	7.76	305.5	0.0	454.1
130.00 Appurtenance(s)		1.00	1.07	22.405	24.65	281.56	0.650	0.000	1.00	2.942	1.91	75.4	0.0	111.8
135.00		1.00	1.08	22.648	24.91	274.57	0.650	0.000	5.00	14.447	9.39	374.3	0.0	549.1
139.67 Bot - Section 4		1.00	1.09	22.869	25.16	267.93	0.650	0.000	4.67	13.095	8.51	342.6	0.0	497.6
140.00		1.00	1.09	22.884	25.17	267.45	0.650	0.000	0.33	0.921	0.60	24.1	0.0	60.9
144.34 Top - Section 3		1.00	1.10	23.085	25.39	261.17	0.650	0.000	4.34	11.929	7.75	315.0	0.0	788.5
145.00		1.00	1.10	23.115	25.43	263.30	0.650	0.000	0.66	1.795	1.17	47.5	0.0	51.3
150.00 Appurtenance(s)		1.00	1.11	23.340	25.67	255.94	0.650	0.000	5.00	13.283	8.63	354.7	0.0	379.2
155.00		1.00	1.12	23.560	25.92	248.47	0.650	0.000	5.00	12.843	8.35	346.1	0.0	366.5
159.00 Appurtenance(s)		1.00	1.13	23.732	26.10	242.41	0.650	0.000	4.00	9.957	6.47	270.3	0.0	284.1
Totals:									159.00			12,797.0		35,644.0

Discrete Appurtenance Forces

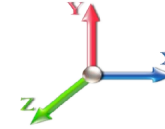
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 9

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	159.00	Antel - BXA-185060/12CF	3	23.859	26.245	0.88	1.00	12.59	54.00	0.000	3.000	528.70	0.00	1586.09
2	159.00	Antel - BXA-70063/6CF	6	23.859	26.245	0.77	1.00	34.88	107.28	0.000	3.000	1464.80	0.00	4394.40
3	159.00	Swedcom - SCE-6014	6	23.859	26.245	0.98	1.00	19.50	108.00	0.000	3.000	818.86	0.00	2456.57
4	159.00	Low Profile Platform	1	23.732	26.105	1.00	1.00	40.20	1920.00	0.000	0.000	1679.07	0.00	0.00
5	150.00	Ericsson - KRY 112 144 -	3	23.340	25.674	0.56	0.80	0.69	39.60	0.000	0.000	28.29	0.00	0.00
6	150.00	Ericsson - AIR21 B4A/B2P	3	23.340	25.674	0.68	0.80	12.48	325.44	0.000	0.000	512.74	0.00	0.00
7	150.00	Ericsson - AIR21 B2A/B4P	3	23.340	25.674	0.68	0.80	12.48	329.40	0.000	0.000	512.74	0.00	0.00
8	150.00	T-Arm	3	23.340	25.674	0.56	0.75	26.32	1800.00	0.000	0.000	1081.39	0.00	0.00
9	130.00	8843 B2/B66A	3	22.405	24.645	0.54	0.80	2.65	270.00	0.000	0.000	104.62	0.00	0.00
10	130.00	4449 B5/B12	3	22.405	24.645	0.54	0.80	3.17	255.60	0.000	0.000	124.91	0.00	0.00
11	130.00	4478 B71	3	22.405	24.645	0.54	0.80	2.65	213.84	0.000	0.000	104.62	0.00	0.00
12	130.00	Commscope -	3	22.405	24.645	0.80	0.80	0.12	3.96	0.000	0.000	4.73	0.00	0.00
13	130.00	Raycap -	3	22.405	24.645	0.80	0.80	2.21	114.48	0.000	0.000	87.07	0.00	0.00
14	130.00	Powerwave - LGP21401	24	22.405	24.645	0.80	0.80	24.77	406.08	0.000	0.000	976.67	0.00	0.00
15	130.00	Powerwave - 7770.00A	6	22.405	24.645	0.61	0.80	20.26	194.40	0.000	0.000	799.03	0.00	0.00
16	130.00	T-Frame	3	22.405	24.645	0.56	0.75	29.70	1980.00	0.000	0.000	1171.15	0.00	0.00
17	129.00	DMP65R-BU8DA	6	22.356	24.591	0.58	0.80	62.36	689.04	0.000	0.000	2453.57	0.00	0.00

Totals: 8,811.12 12,452.96

Total Applied Force Summary

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

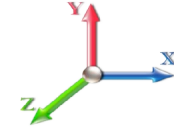


Page: 10

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		427.46	2038.47	0.00	0.00
10.00		420.03	2008.94	0.00	0.00
15.00		412.61	1979.41	0.00	0.00
20.00		405.18	1949.88	0.00	0.00
25.00		397.76	1920.35	0.00	0.00
30.00		390.67	1890.81	0.00	0.00
35.00		400.49	1861.28	0.00	0.00
40.00		408.00	1831.75	0.00	0.00
45.00		413.62	1802.22	0.00	0.00
45.50		41.03	178.60	0.00	0.00
50.00		381.08	2707.87	0.00	0.00
52.50		211.63	1485.18	0.00	0.00
55.00		212.26	778.81	0.00	0.00
60.00		428.41	1538.63	0.00	0.00
65.00		429.05	1513.32	0.00	0.00
70.00		428.77	1488.01	0.00	0.00
75.00		427.65	1462.69	0.00	0.00
80.00		425.77	1437.38	0.00	0.00
85.00		423.21	1412.07	0.00	0.00
90.00		420.01	1386.76	0.00	0.00
92.09		173.41	571.25	0.00	0.00
95.00		244.15	1186.75	0.00	0.00
97.92		243.28	1175.09	0.00	0.00
100.00		172.16	421.31	0.00	0.00
105.00		412.14	1000.82	0.00	0.00
110.00		406.88	983.95	0.00	0.00
115.00		401.18	967.07	0.00	0.00
120.00		395.04	950.20	0.00	0.00
125.00		388.51	933.32	0.00	0.00
129.00	(6) attachments	2759.07	1423.55	0.00	0.00
130.00	(48) attachments	3448.22	3620.30	0.00	0.00
135.00		374.31	705.47	0.00	0.00
139.67		342.60	643.67	0.00	0.00
140.00		24.12	71.23	0.00	0.00
144.34		315.03	924.16	0.00	0.00
145.00		47.48	72.00	0.00	0.00
150.00	(12) attachments	2489.84	3029.98	0.00	0.00
155.00		346.14	441.41	0.00	0.00
159.00	(16) attachments	4761.74	2533.29	0.00	8437.05
	Totals:	25,249.98	54,327.27	0.00	8,437.05

Calculated Forces

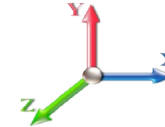
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 11

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.30	-25.30	0.00	-2906.7	0.00	2906.76	5583.09	2791.54	13786.8	6903.66	0.00	0.000	0.000	0.431
5.00	-52.22	-24.97	0.00	-2780.2	0.00	2780.26	5522.68	2761.34	13399.4	6709.67	0.06	-0.106	0.000	0.424
10.00	-50.16	-24.64	0.00	-2655.4	0.00	2655.42	5460.99	2730.49	13014.1	6516.76	0.23	-0.214	0.000	0.417
15.00	-48.14	-24.31	0.00	-2532.2	0.00	2532.23	5398.01	2699.00	12631.2	6325.01	0.51	-0.322	0.000	0.409
20.00	-46.15	-23.98	0.00	-2410.7	0.00	2410.70	5333.74	2666.87	12250.7	6134.50	0.90	-0.430	0.000	0.402
25.00	-44.19	-23.65	0.00	-2290.8	0.00	2290.82	5268.20	2634.10	11872.9	5945.31	1.41	-0.539	0.000	0.394
30.00	-42.26	-23.32	0.00	-2172.5	0.00	2172.59	5201.36	2600.68	11497.9	5757.54	2.04	-0.649	0.000	0.386
35.00	-40.36	-22.97	0.00	-2056.0	0.00	2056.00	5133.24	2566.62	11125.9	5571.26	2.78	-0.759	0.000	0.377
40.00	-38.49	-22.61	0.00	-1941.1	0.00	1941.15	5063.83	2531.92	10757.1	5386.55	3.63	-0.869	0.000	0.368
45.00	-36.67	-22.21	0.00	-1828.0	0.00	1828.09	4993.14	2496.57	10391.5	5203.50	4.60	-0.980	0.000	0.359
45.50	-36.47	-22.20	0.00	-1816.9	0.00	1816.98	4986.00	2493.00	10355.1	5185.29	4.70	-0.991	0.000	0.358
50.00	-33.74	-21.81	0.00	-1717.0	0.00	1717.09	4921.16	2460.58	10029.4	5022.20	5.69	-1.091	0.000	0.349
52.50	-32.24	-21.61	0.00	-1662.5	0.00	1662.55	4024.48	2012.24	8260.88	4136.58	6.27	-1.147	0.000	0.410
55.00	-31.43	-21.43	0.00	-1608.5	0.00	1608.54	3997.76	1998.88	8119.79	4065.93	6.89	-1.202	0.000	0.404
60.00	-29.85	-21.03	0.00	-1501.4	0.00	1501.41	3943.34	1971.67	7839.16	3925.41	8.21	-1.324	0.000	0.390
65.00	-28.31	-20.62	0.00	-1396.2	0.00	1396.27	3887.63	1943.82	7560.73	3785.98	9.66	-1.445	0.000	0.376
70.00	-26.79	-20.21	0.00	-1293.1	0.00	1293.16	3830.65	1915.32	7284.66	3647.74	11.24	-1.565	0.000	0.362
75.00	-25.30	-19.79	0.00	-1192.1	0.00	1192.11	3772.37	1886.19	7011.11	3510.77	12.95	-1.684	0.000	0.346
80.00	-23.84	-19.37	0.00	-1093.1	0.00	1093.15	3712.81	1856.40	6740.26	3375.14	14.77	-1.801	0.000	0.330
85.00	-22.40	-18.95	0.00	-996.29	0.00	996.29	3651.96	1825.98	6472.27	3240.95	16.72	-1.915	0.000	0.314
90.00	-21.01	-18.51	0.00	-901.56	0.00	901.56	3589.83	1794.92	6207.31	3108.27	18.79	-2.027	0.000	0.296
92.09	-20.42	-18.33	0.00	-862.94	0.00	862.94	3563.52	1781.76	6097.66	3053.36	19.68	-2.073	0.000	0.288
95.00	-19.23	-18.07	0.00	-809.53	0.00	809.53	3526.41	1763.21	5945.54	2977.19	20.97	-2.137	0.000	0.277
97.92	-18.05	-17.80	0.00	-756.77	0.00	756.77	2018.06	1009.03	3414.14	1709.61	22.29	-2.199	0.000	0.452
100.00	-17.60	-17.64	0.00	-719.75	0.00	719.75	2007.23	1003.61	3359.78	1682.39	23.26	-2.243	0.000	0.437
105.00	-16.58	-17.23	0.00	-631.56	0.00	631.56	1980.26	990.13	3229.23	1617.01	25.69	-2.385	0.000	0.399
110.00	-15.57	-16.81	0.00	-545.43	0.00	545.43	1952.01	976.01	3098.96	1551.78	28.26	-2.520	0.000	0.360
115.00	-14.59	-16.40	0.00	-461.37	0.00	461.37	1922.48	961.24	2969.14	1486.78	30.97	-2.644	0.000	0.318
120.00	-13.63	-15.98	0.00	-379.38	0.00	379.38	1891.66	945.83	2839.95	1422.08	33.80	-2.757	0.000	0.274
125.00	-12.70	-15.57	0.00	-299.46	0.00	299.46	1859.56	929.78	2711.53	1357.78	36.74	-2.856	0.000	0.228
129.00	-11.40	-12.75	0.00	-237.19	0.00	237.19	1832.95	916.47	2609.48	1306.68	39.16	-2.924	0.000	0.188
130.00	-7.96	-9.13	0.00	-224.44	0.00	224.44	1826.17	913.08	2584.07	1293.95	39.78	-2.940	0.000	0.178
135.00	-7.26	-8.72	0.00	-178.81	0.00	178.81	1791.49	895.74	2457.72	1230.69	42.89	-3.010	0.000	0.149
139.67	-6.63	-8.35	0.00	-138.07	0.00	138.07	1757.94	878.97	2340.87	1172.18	45.87	-3.067	0.000	0.122
140.00	-6.56	-8.33	0.00	-135.31	0.00	135.31	1755.53	877.76	2332.66	1168.06	46.08	-3.070	0.000	0.120
144.34	-5.65	-7.96	0.00	-99.20	0.00	99.20	1153.87	576.93	1513.89	758.07	48.89	-3.113	0.000	0.136
145.00	-5.58	-7.92	0.00	-93.92	0.00	93.92	1151.46	575.73	1504.14	753.19	49.32	-3.119	0.000	0.130
150.00	-2.69	-5.26	0.00	-54.34	0.00	54.34	1132.60	566.30	1430.64	716.38	52.61	-3.163	0.000	0.078
155.00	-2.26	-4.90	0.00	-28.02	0.00	28.02	1112.45	556.22	1357.20	679.61	55.94	-3.190	0.000	0.043
159.00	0.00	-4.76	0.00	-8.44	0.00	8.44	1095.40	547.70	1298.60	650.26	58.62	-3.200	0.000	0.013

Wind Loading - Shaft

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 12

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	14.724	16.20	398.34	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	14.724	16.20	391.48	0.650	0.000	5.00	25.377	16.49	427.5	0.0	1266.0
10.00		1.00	0.70	14.724	16.20	384.62	0.650	0.000	5.00	24.936	16.21	420.0	0.0	1243.9
15.00		1.00	0.70	14.724	16.20	377.77	0.650	0.000	5.00	24.495	15.92	412.6	0.0	1221.7
20.00		1.00	0.70	14.724	16.20	370.91	0.650	0.000	5.00	24.055	15.64	405.2	0.0	1199.6
25.00		1.00	0.70	14.724	16.20	364.05	0.650	0.000	5.00	23.614	15.35	397.8	0.0	1177.4
30.00		1.00	0.70	14.736	16.21	357.34	0.650	0.000	5.00	23.173	15.06	390.7	0.0	1155.3
35.00		1.00	0.73	15.400	16.94	350.62	0.650	0.000	5.00	22.733	14.78	400.5	0.0	1133.1
40.00		1.00	0.76	15.999	17.60	344.00	0.650	0.000	5.00	22.292	14.49	408.0	0.0	1111.0
45.00		1.00	0.79	16.546	18.20	337.48	0.650	0.000	5.00	21.851	14.20	413.6	0.0	1088.8
45.50 Bot - Section 2		1.00	0.79	16.599	18.26	331.06	0.650	0.000	0.50	2.161	1.40	41.0	0.0	107.7
50.00		1.00	0.81	17.052	18.76	324.74	0.650	0.000	4.50	19.535	12.70	381.1	0.0	1794.3
52.50 Top - Section 1		1.00	0.82	17.292	19.02	318.52	0.650	0.000	2.50	10.699	6.95	211.6	0.0	982.5
55.00		1.00	0.83	17.523	19.28	312.40	0.650	0.000	2.50	10.588	6.88	212.3	0.0	452.7
60.00		1.00	0.85	17.964	19.76	306.38	0.650	0.000	5.00	20.846	13.55	428.4	0.0	891.1
65.00		1.00	0.87	18.380	20.22	300.46	0.650	0.000	5.00	20.405	13.26	429.0	0.0	872.1
70.00		1.00	0.89	18.773	20.65	294.64	0.650	0.000	5.00	19.965	12.98	428.8	0.0	853.2
75.00		1.00	0.91	19.147	21.06	288.92	0.650	0.000	5.00	19.524	12.69	427.6	0.0	834.2
80.00		1.00	0.93	19.503	21.45	283.30	0.650	0.000	5.00	19.083	12.40	425.8	0.0	815.2
85.00		1.00	0.94	19.844	21.83	277.78	0.650	0.000	5.00	18.643	12.12	423.2	0.0	796.2
90.00		1.00	0.96	20.170	22.19	272.36	0.650	0.000	5.00	18.202	11.83	420.0	0.0	777.2
92.09 Bot - Section 3		1.00	0.97	20.303	22.33	267.04	0.650	0.000	2.09	7.466	4.85	173.4	0.0	318.7
95.00		1.00	0.97	20.484	22.53	261.82	0.650	0.000	2.91	10.419	6.77	244.1	0.0	736.9
97.92 Top - Section 2		1.00	0.98	20.662	22.73	256.70	0.650	0.000	2.92	10.292	6.69	243.3	0.0	727.8
100.00		1.00	0.99	20.787	22.87	251.68	0.650	0.000	2.08	7.240	4.71	172.2	0.0	206.6
105.00		1.00	1.00	21.079	23.19	246.76	0.650	0.000	5.00	17.091	11.11	412.1	0.0	487.8
110.00		1.00	1.02	21.361	23.50	241.94	0.650	0.000	5.00	16.651	10.82	406.9	0.0	475.1
115.00		1.00	1.03	21.634	23.80	237.22	0.650	0.000	5.00	16.210	10.54	401.2	0.0	462.5
120.00		1.00	1.04	21.898	24.09	232.60	0.650	0.000	5.00	15.769	10.25	395.0	0.0	449.8
125.00		1.00	1.05	22.155	24.37	228.08	0.650	0.000	5.00	15.328	9.96	388.5	0.0	437.1
129.00 Appurtenance(s)		1.00	1.06	22.356	24.59	223.66	0.650	0.000	4.00	11.945	7.76	305.5	0.0	340.6
130.00 Appurtenance(s)		1.00	1.07	22.405	24.65	220.34	0.650	0.000	1.00	2.942	1.91	75.4	0.0	83.9
135.00		1.00	1.08	22.648	24.91	216.12	0.650	0.000	5.00	14.447	9.39	374.3	0.0	411.8
139.67 Bot - Section 4		1.00	1.09	22.869	25.16	212.00	0.650	0.000	4.67	13.095	8.51	342.6	0.0	373.2
140.00		1.00	1.09	22.884	25.17	212.00	0.650	0.000	0.33	0.921	0.60	24.1	0.0	45.7
144.34 Top - Section 3		1.00	1.10	23.085	25.39	208.00	0.650	0.000	4.34	11.929	7.75	315.0	0.0	591.4
145.00		1.00	1.10	23.115	25.43	208.00	0.650	0.000	0.66	1.795	1.17	47.5	0.0	38.4
150.00 Appurtenance(s)		1.00	1.11	23.340	25.67	204.12	0.650	0.000	5.00	13.283	8.63	354.7	0.0	284.4
155.00		1.00	1.12	23.560	25.92	200.38	0.650	0.000	5.00	12.843	8.35	346.1	0.0	274.9
159.00 Appurtenance(s)		1.00	1.13	23.732	26.10	196.76	0.650	0.000	4.00	9.957	6.47	270.3	0.0	213.1
Totals:									159.00			12,797.0		26,733.0

Discrete Appurtenance Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

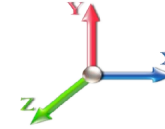


Page: 13

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	159.00	Antel - BXA-185060/12CF	3	23.859	26.245	0.88	1.00	12.59	40.50	0.000	3.000	528.70	0.00	1586.09
2	159.00	Antel - BXA-70063/6CF	6	23.859	26.245	0.77	1.00	34.88	80.46	0.000	3.000	1464.80	0.00	4394.40
3	159.00	Swedcom - SCE-6014	6	23.859	26.245	0.98	1.00	19.50	81.00	0.000	3.000	818.86	0.00	2456.57
4	159.00	Low Profile Platform	1	23.732	26.105	1.00	1.00	40.20	1440.00	0.000	0.000	1679.07	0.00	0.00
5	150.00	Ericsson - KRY 112 144 -	3	23.340	25.674	0.56	0.80	0.69	29.70	0.000	0.000	28.29	0.00	0.00
6	150.00	Ericsson - AIR21 B4A/B2P	3	23.340	25.674	0.68	0.80	12.48	244.08	0.000	0.000	512.74	0.00	0.00
7	150.00	Ericsson - AIR21 B2A/B4P	3	23.340	25.674	0.68	0.80	12.48	247.05	0.000	0.000	512.74	0.00	0.00
8	150.00	T-Arm	3	23.340	25.674	0.56	0.75	26.32	1350.00	0.000	0.000	1081.39	0.00	0.00
9	130.00	8843 B2/B66A	3	22.405	24.645	0.54	0.80	2.65	202.50	0.000	0.000	104.62	0.00	0.00
10	130.00	4449 B5/B12	3	22.405	24.645	0.54	0.80	3.17	191.70	0.000	0.000	124.91	0.00	0.00
11	130.00	4478 B71	3	22.405	24.645	0.54	0.80	2.65	160.38	0.000	0.000	104.62	0.00	0.00
12	130.00	Commscope -	3	22.405	24.645	0.80	0.80	0.12	2.97	0.000	0.000	4.73	0.00	0.00
13	130.00	Raycap -	3	22.405	24.645	0.80	0.80	2.21	85.86	0.000	0.000	87.07	0.00	0.00
14	130.00	Powerwave - LGP21401	24	22.405	24.645	0.80	0.80	24.77	304.56	0.000	0.000	976.67	0.00	0.00
15	130.00	Powerwave - 7770.00A	6	22.405	24.645	0.61	0.80	20.26	145.80	0.000	0.000	799.03	0.00	0.00
16	130.00	T-Frame	3	22.405	24.645	0.56	0.75	29.70	1485.00	0.000	0.000	1171.15	0.00	0.00
17	129.00	DMP65R-BU8DA	6	22.356	24.591	0.58	0.80	62.36	516.78	0.000	0.000	2453.57	0.00	0.00

Totals: 6,608.34

12,452.96

Total Applied Force Summary

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

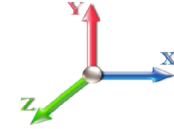


Page: 14

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		427.46	1528.85	0.00	0.00
10.00		420.03	1506.70	0.00	0.00
15.00		412.61	1484.56	0.00	0.00
20.00		405.18	1462.41	0.00	0.00
25.00		397.76	1440.26	0.00	0.00
30.00		390.67	1418.11	0.00	0.00
35.00		400.49	1395.96	0.00	0.00
40.00		408.00	1373.81	0.00	0.00
45.00		413.62	1351.66	0.00	0.00
45.50		41.03	133.95	0.00	0.00
50.00		381.08	2030.90	0.00	0.00
52.50		211.63	1113.88	0.00	0.00
55.00		212.26	584.11	0.00	0.00
60.00		428.41	1153.97	0.00	0.00
65.00		429.05	1134.99	0.00	0.00
70.00		428.77	1116.00	0.00	0.00
75.00		427.65	1097.02	0.00	0.00
80.00		425.77	1078.04	0.00	0.00
85.00		423.21	1059.05	0.00	0.00
90.00		420.01	1040.07	0.00	0.00
92.09		173.41	428.44	0.00	0.00
95.00		244.15	890.06	0.00	0.00
97.92		243.28	881.32	0.00	0.00
100.00		172.16	315.98	0.00	0.00
105.00		412.14	750.62	0.00	0.00
110.00		406.88	737.96	0.00	0.00
115.00		401.18	725.31	0.00	0.00
120.00		395.04	712.65	0.00	0.00
125.00		388.51	699.99	0.00	0.00
129.00	(6) attachments	2759.07	1067.66	0.00	0.00
130.00	(48) attachments	3448.22	2715.22	0.00	0.00
135.00		374.31	529.11	0.00	0.00
139.67		342.60	482.75	0.00	0.00
140.00		24.12	53.43	0.00	0.00
144.34		315.03	693.12	0.00	0.00
145.00		47.48	54.00	0.00	0.00
150.00	(12) attachments	2489.84	2272.49	0.00	0.00
155.00		346.14	331.05	0.00	0.00
159.00	(16) attachments	4761.74	1899.97	0.00	8437.05
	Totals:	25,249.98	40,745.45	0.00	8,437.05

Calculated Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

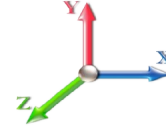


Page: 15

Load Case: 0.9D + 1.6W 93 mph Wind

Iterations 22

Dead Load Factor 0.90
Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.72	-25.29	0.00	-2884.0	0.00	2884.07	5583.09	2791.54	13786.8	6903.66	0.00	0.000	0.000	0.425
5.00	-39.15	-24.93	0.00	-2757.6	0.00	2757.63	5522.68	2761.34	13399.4	6709.67	0.06	-0.106	0.000	0.418
10.00	-37.60	-24.58	0.00	-2632.9	0.00	2632.98	5460.99	2730.49	13014.1	6516.76	0.22	-0.212	0.000	0.411
15.00	-36.07	-24.23	0.00	-2510.0	0.00	2510.09	5398.01	2699.00	12631.2	6325.01	0.50	-0.319	0.000	0.404
20.00	-34.56	-23.88	0.00	-2388.9	0.00	2388.97	5333.74	2666.87	12250.7	6134.50	0.90	-0.426	0.000	0.396
25.00	-33.08	-23.53	0.00	-2269.5	0.00	2269.59	5268.20	2634.10	11872.9	5945.31	1.40	-0.535	0.000	0.388
30.00	-31.62	-23.18	0.00	-2151.9	0.00	2151.95	5201.36	2600.68	11497.9	5757.54	2.02	-0.643	0.000	0.380
35.00	-30.19	-22.82	0.00	-2036.0	0.00	2036.04	5133.24	2566.62	11125.9	5571.26	2.75	-0.752	0.000	0.371
40.00	-28.78	-22.45	0.00	-1921.9	0.00	1921.92	5063.83	2531.92	10757.1	5386.55	3.60	-0.861	0.000	0.363
45.00	-27.41	-22.04	0.00	-1809.6	0.00	1809.67	4993.14	2496.57	10391.5	5203.50	4.56	-0.971	0.000	0.353
45.50	-27.26	-22.03	0.00	-1798.6	0.00	1798.65	4986.00	2493.00	10355.1	5185.29	4.66	-0.982	0.000	0.352
50.00	-25.20	-21.64	0.00	-1699.5	0.00	1699.53	4921.16	2460.58	10029.4	5022.20	5.64	-1.080	0.000	0.344
52.50	-24.07	-21.43	0.00	-1645.4	0.00	1645.42	4024.48	2012.24	8260.88	4136.58	6.22	-1.136	0.000	0.404
55.00	-23.46	-21.25	0.00	-1591.8	0.00	1591.83	3997.76	1998.88	8119.79	4065.93	6.83	-1.191	0.000	0.397
60.00	-22.27	-20.84	0.00	-1485.6	0.00	1485.61	3943.34	1971.67	7839.16	3925.41	8.14	-1.312	0.000	0.384
65.00	-21.11	-20.43	0.00	-1381.4	0.00	1381.41	3887.63	1943.82	7560.73	3785.98	9.58	-1.432	0.000	0.370
70.00	-19.96	-20.01	0.00	-1279.2	0.00	1279.28	3830.65	1915.32	7284.66	3647.74	11.14	-1.550	0.000	0.356
75.00	-18.84	-19.59	0.00	-1179.2	0.00	1179.23	3772.37	1886.19	7011.11	3510.77	12.83	-1.668	0.000	0.341
80.00	-17.73	-19.17	0.00	-1081.2	0.00	1081.28	3712.81	1856.40	6740.26	3375.14	14.64	-1.783	0.000	0.325
85.00	-16.65	-18.74	0.00	-985.44	0.00	985.44	3651.96	1825.98	6472.27	3240.95	16.57	-1.896	0.000	0.309
90.00	-15.60	-18.31	0.00	-891.72	0.00	891.72	3589.83	1794.92	6207.31	3108.27	18.61	-2.006	0.000	0.291
92.09	-15.16	-18.14	0.00	-853.52	0.00	853.52	3563.52	1781.76	6097.66	3053.36	19.50	-2.053	0.000	0.284
95.00	-14.26	-17.87	0.00	-800.69	0.00	800.69	3526.41	1763.21	5945.54	2977.19	20.77	-2.115	0.000	0.273
97.92	-13.38	-17.61	0.00	-748.49	0.00	748.49	2018.06	1009.03	3414.14	1709.61	22.08	-2.177	0.000	0.445
100.00	-13.04	-17.45	0.00	-711.87	0.00	711.87	2007.23	1003.61	3359.78	1682.39	23.04	-2.221	0.000	0.430
105.00	-12.26	-17.04	0.00	-624.63	0.00	624.63	1980.26	990.13	3229.23	1617.01	25.44	-2.362	0.000	0.393
110.00	-11.51	-16.62	0.00	-539.45	0.00	539.45	1952.01	976.01	3098.96	1551.78	27.99	-2.494	0.000	0.354
115.00	-10.77	-16.21	0.00	-456.34	0.00	456.34	1922.48	961.24	2969.14	1486.78	30.67	-2.617	0.000	0.313
120.00	-10.04	-15.80	0.00	-375.28	0.00	375.28	1891.66	945.83	2839.95	1422.08	33.47	-2.729	0.000	0.269
125.00	-9.34	-15.39	0.00	-296.27	0.00	296.27	1859.56	929.78	2711.53	1357.78	36.38	-2.827	0.000	0.223
129.00	-8.40	-12.59	0.00	-234.69	0.00	234.69	1832.95	916.47	2609.48	1306.68	38.78	-2.894	0.000	0.184
130.00	-5.86	-9.01	0.00	-222.10	0.00	222.10	1826.17	913.08	2584.07	1293.95	39.39	-2.910	0.000	0.175
135.00	-5.34	-8.62	0.00	-177.03	0.00	177.03	1791.49	895.74	2457.72	1230.69	42.48	-2.979	0.000	0.147
139.67	-4.87	-8.25	0.00	-136.78	0.00	136.78	1757.94	878.97	2340.87	1172.18	45.42	-3.035	0.000	0.120
140.00	-4.82	-8.23	0.00	-134.05	0.00	134.05	1755.53	877.76	2332.66	1168.06	45.63	-3.039	0.000	0.118
144.34	-4.14	-7.88	0.00	-98.37	0.00	98.37	1153.87	576.93	1513.89	758.07	48.41	-3.081	0.000	0.134
145.00	-4.08	-7.83	0.00	-93.14	0.00	93.14	1151.46	575.73	1504.14	753.19	48.84	-3.087	0.000	0.127
150.00	-1.95	-5.22	0.00	-53.99	0.00	53.99	1132.60	566.30	1430.64	716.38	52.09	-3.131	0.000	0.077
155.00	-1.63	-4.86	0.00	-27.87	0.00	27.87	1112.45	556.22	1357.20	679.61	55.39	-3.158	0.000	0.043
159.00	0.00	-4.76	0.00	-8.44	0.00	8.44	1095.40	547.70	1298.60	650.26	58.04	-3.168	0.000	0.013

Wind Loading - Shaft

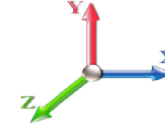
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 16

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	3.00	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	2.724	3.00	0.00	1.200	1.656	5.00	26.757	32.11	96.2	634.0	2322.0
10.00		1.00	0.70	2.724	3.00	0.00	1.200	1.775	5.00	26.415	31.70	95.0	669.2	2327.7
15.00		1.00	0.70	2.724	3.00	0.00	1.200	1.848	5.00	26.036	31.24	93.6	685.7	2314.6
20.00		1.00	0.70	2.724	3.00	0.00	1.200	1.902	5.00	25.640	30.77	92.2	693.9	2293.3
25.00		1.00	0.70	2.724	3.00	0.00	1.200	1.945	5.00	25.235	30.28	90.7	697.4	2267.2
30.00		1.00	0.70	2.726	3.00	0.00	1.200	1.981	5.00	24.824	29.79	89.3	697.7	2238.1
35.00		1.00	0.73	2.849	3.13	0.00	1.200	2.012	5.00	24.409	29.29	91.8	695.8	2206.6
40.00		1.00	0.76	2.960	3.26	0.00	1.200	2.039	5.00	23.991	28.79	93.7	692.2	2173.5
45.00		1.00	0.79	3.061	3.37	0.00	1.200	2.063	5.00	23.570	28.28	95.2	687.2	2139.0
45.50 Bot - Section 2		1.00	0.79	3.071	3.38	0.00	1.200	2.065	0.50	2.333	2.80	9.5	68.7	212.2
50.00		1.00	0.81	3.155	3.47	0.00	1.200	2.085	4.50	21.099	25.32	87.9	621.9	3014.3
52.50 Top - Section 1		1.00	0.82	3.199	3.52	0.00	1.200	2.095	2.50	11.571	13.89	48.9	343.8	1653.8
55.00		1.00	0.83	3.242	3.57	0.00	1.200	2.105	2.50	11.465	13.76	49.1	342.1	945.6
60.00		1.00	0.85	3.323	3.66	0.00	1.200	2.123	5.00	22.616	27.14	99.2	676.5	1864.6
65.00		1.00	0.87	3.400	3.74	0.00	1.200	2.140	5.00	22.189	26.63	99.6	668.2	1831.0
70.00		1.00	0.89	3.473	3.82	0.00	1.200	2.156	5.00	21.762	26.11	99.8	659.3	1796.8
75.00		1.00	0.91	3.542	3.90	0.00	1.200	2.171	5.00	21.333	25.60	99.7	649.8	1762.1
80.00		1.00	0.93	3.608	3.97	0.00	1.200	2.185	5.00	20.904	25.09	99.6	640.0	1726.9
85.00		1.00	0.94	3.671	4.04	0.00	1.200	2.198	5.00	20.475	24.57	99.2	629.7	1691.3
90.00		1.00	0.96	3.731	4.10	0.00	1.200	2.211	5.00	20.044	24.05	98.7	619.1	1655.3
92.09 Bot - Section 3		1.00	0.97	3.756	4.13	0.00	1.200	2.216	2.09	8.237	9.88	40.8	256.5	681.4
95.00		1.00	0.97	3.789	4.17	0.00	1.200	2.223	2.91	11.498	13.80	57.5	358.4	1340.9
97.92 Top - Section 2		1.00	0.98	3.822	4.20	0.00	1.200	2.230	2.92	11.377	13.65	57.4	355.4	1325.8
100.00		1.00	0.99	3.845	4.23	0.00	1.200	2.234	2.08	8.014	9.62	40.7	251.2	526.7
105.00		1.00	1.00	3.899	4.29	0.00	1.200	2.245	5.00	18.962	22.75	97.6	592.2	1242.6
110.00		1.00	1.02	3.952	4.35	0.00	1.200	2.256	5.00	18.530	22.24	96.7	580.4	1213.9
115.00		1.00	1.03	4.002	4.40	0.00	1.200	2.266	5.00	18.098	21.72	95.6	568.3	1184.9
120.00		1.00	1.04	4.051	4.46	0.00	1.200	2.276	5.00	17.665	21.20	94.5	556.0	1155.8
125.00		1.00	1.05	4.099	4.51	0.00	1.200	2.285	5.00	17.232	20.68	93.2	543.5	1126.4
129.00 Appurtenance(s)		1.00	1.06	4.136	4.55	0.00	1.200	2.292	4.00	13.473	16.17	73.6	426.7	880.8
130.00 Appurtenance(s)		1.00	1.07	4.145	4.56	0.00	1.200	2.294	1.00	3.325	3.99	18.2	106.2	218.0
135.00		1.00	1.08	4.190	4.61	0.00	1.200	2.303	5.00	16.366	19.64	90.5	517.9	1067.0
139.67 Bot - Section 4		1.00	1.09	4.231	4.65	0.00	1.200	2.310	4.67	14.894	17.87	83.2	472.3	970.0
140.00		1.00	1.09	4.233	4.66	0.00	1.200	2.311	0.33	1.048	1.26	5.9	33.7	94.6
144.34 Top - Section 3		1.00	1.10	4.270	4.70	0.00	1.200	2.318	4.34	13.604	16.32	76.7	432.6	1221.2
145.00		1.00	1.10	4.276	4.70	0.00	1.200	2.319	0.66	2.052	2.46	11.6	65.9	117.2
150.00 Appurtenance(s)		1.00	1.11	4.318	4.75	0.00	1.200	2.327	5.00	15.223	18.27	86.8	483.6	862.8
155.00		1.00	1.12	4.358	4.79	0.00	1.200	2.335	5.00	14.788	17.75	85.1	470.1	836.6
159.00 Appurtenance(s)		1.00	1.13	4.390	4.83	0.00	1.200	2.341	4.00	11.517	13.82	66.7	367.3	651.4
Totals:									159.00			3,000.9		55,154.0

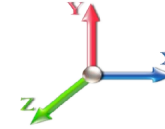
Discrete Appurtenance Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 17
	Struct Class: II	



Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	159.00	Antel - BXA-185060/12CF	3	4.414	4.855	0.90	1.00	17.52	600.77	0.000	3.000	85.06	0.00	255.17
2	159.00	Antel - BXA-70063/6CF	6	4.414	4.855	0.81	1.00	54.54	1035.01	0.000	3.000	264.79	0.00	794.36
3	159.00	Swedcom - SCE-6014	6	4.414	4.855	0.98	1.00	32.74	708.12	0.000	3.000	158.97	0.00	476.90
4	159.00	Low Profile Platform	1	4.390	4.829	1.00	1.00	85.36	3892.44	0.000	0.000	412.24	0.00	0.00
5	150.00	Ericsson - KRY 112 144 -	3	4.318	4.749	0.56	0.80	1.75	73.42	0.000	0.000	8.33	0.00	0.00
6	150.00	Ericsson - AIR21 B4A/B2P	3	4.318	4.749	0.70	0.80	15.90	880.01	0.000	0.000	75.52	0.00	0.00
7	150.00	Ericsson - AIR21 B2A/B4P	3	4.318	4.749	0.70	0.80	15.90	884.18	0.000	0.000	75.52	0.00	0.00
8	150.00	T-Arm	3	4.318	4.749	0.56	0.75	56.95	3436.17	0.000	0.000	270.50	0.00	0.00
9	130.00	8843 B2/B66A	3	4.145	4.559	0.54	0.80	3.83	587.74	0.000	0.000	17.46	0.00	0.00
10	130.00	4449 B5/B12	3	4.145	4.559	0.54	0.80	4.32	425.29	0.000	0.000	19.72	0.00	0.00
11	130.00	4478 B71	3	4.145	4.559	0.54	0.80	3.75	349.15	0.000	0.000	17.09	0.00	0.00
12	130.00	Commscope -	3	4.145	4.559	0.80	0.80	0.73	10.66	0.000	0.000	3.32	0.00	0.00
13	130.00	Raycap -	3	4.145	4.559	0.80	0.80	3.59	305.16	0.000	0.000	16.37	0.00	0.00
14	130.00	Powerwave - LGP21401	24	4.145	4.559	0.80	0.80	45.86	1024.35	0.000	0.000	209.08	0.00	0.00
15	130.00	Powerwave - 7770.00A	6	4.145	4.559	0.64	0.80	32.09	899.58	0.000	0.000	146.30	0.00	0.00
16	130.00	T-Frame	3	4.145	4.559	0.56	0.75	63.76	3703.97	0.000	0.000	290.72	0.00	0.00
17	129.00	DMP65R-BU8DA	6	4.136	4.549	0.60	0.80	72.68	3788.45	0.000	0.000	330.62	0.00	0.00
Totals:									22,604.46			2,401.58		

Total Applied Force Summary

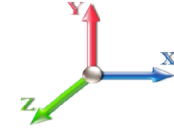
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 18

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		96.20	2672.45	0.00	0.00
10.00		94.98	2678.14	0.00	0.00
15.00		93.61	2665.07	0.00	0.00
20.00		92.19	2643.77	0.00	0.00
25.00		90.73	2617.71	0.00	0.00
30.00		89.33	2588.52	0.00	0.00
35.00		91.79	2557.07	0.00	0.00
40.00		93.73	2523.93	0.00	0.00
45.00		95.24	2489.44	0.00	0.00
45.50		9.46	247.26	0.00	0.00
50.00		87.85	3329.74	0.00	0.00
52.50		48.86	1829.00	0.00	0.00
55.00		49.06	1120.86	0.00	0.00
60.00		99.21	2215.09	0.00	0.00
65.00		99.59	2181.47	0.00	0.00
70.00		99.76	2147.26	0.00	0.00
75.00		99.74	2112.54	0.00	0.00
80.00		99.56	2077.36	0.00	0.00
85.00		99.21	2041.77	0.00	0.00
90.00		98.73	2005.81	0.00	0.00
92.09		40.84	827.71	0.00	0.00
95.00		57.51	1545.10	0.00	0.00
97.92		57.41	1530.45	0.00	0.00
100.00		40.68	672.48	0.00	0.00
105.00		97.60	1593.03	0.00	0.00
110.00		96.66	1564.34	0.00	0.00
115.00		95.61	1535.40	0.00	0.00
120.00		94.46	1506.23	0.00	0.00
125.00		93.23	1476.84	0.00	0.00
129.00	(6) attachments	404.17	4949.65	0.00	0.00
130.00	(48) attachments	738.23	7594.00	0.00	0.00
135.00		90.51	1223.38	0.00	0.00
139.67		83.17	1115.99	0.00	0.00
140.00		5.86	104.91	0.00	0.00
144.34		76.69	1356.78	0.00	0.00
145.00		11.58	137.94	0.00	0.00
150.00	(12) attachments	516.63	6292.97	0.00	0.00
155.00		85.08	911.51	0.00	0.00
159.00	(16) attachments	987.79	6947.68	0.00	1526.43
	Totals:	5,402.51	87,630.63	0.00	1,526.43

Calculated Forces

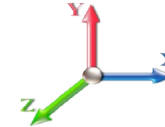
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 19

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-87.63	-5.42	0.00	-629.13	0.00	629.13	5583.09	2791.54	13786.8	6903.66	0.00	0.000	0.000	0.107
5.00	-84.95	-5.36	0.00	-602.03	0.00	602.03	5522.68	2761.34	13399.4	6709.67	0.01	-0.023	0.000	0.105
10.00	-82.27	-5.29	0.00	-575.25	0.00	575.25	5460.99	2730.49	13014.1	6516.76	0.05	-0.046	0.000	0.103
15.00	-79.61	-5.23	0.00	-548.78	0.00	548.78	5398.01	2699.00	12631.2	6325.01	0.11	-0.070	0.000	0.102
20.00	-76.96	-5.17	0.00	-522.62	0.00	522.62	5333.74	2666.87	12250.7	6134.50	0.20	-0.093	0.000	0.100
25.00	-74.34	-5.10	0.00	-496.79	0.00	496.79	5268.20	2634.10	11872.9	5945.31	0.31	-0.117	0.000	0.098
30.00	-71.75	-5.04	0.00	-471.29	0.00	471.29	5201.36	2600.68	11497.9	5757.54	0.44	-0.141	0.000	0.096
35.00	-69.19	-4.97	0.00	-446.11	0.00	446.11	5133.24	2566.62	11125.9	5571.26	0.60	-0.164	0.000	0.094
40.00	-66.67	-4.89	0.00	-421.28	0.00	421.28	5063.83	2531.92	10757.1	5386.55	0.79	-0.188	0.000	0.091
45.00	-64.18	-4.80	0.00	-396.81	0.00	396.81	4993.14	2496.57	10391.5	5203.50	1.00	-0.212	0.000	0.089
45.50	-63.93	-4.81	0.00	-394.41	0.00	394.41	4986.00	2493.00	10355.1	5185.29	1.02	-0.215	0.000	0.089
50.00	-60.60	-4.72	0.00	-372.78	0.00	372.78	4921.16	2460.58	10029.4	5022.20	1.23	-0.236	0.000	0.087
52.50	-58.77	-4.68	0.00	-360.97	0.00	360.97	4024.48	2012.24	8260.88	4136.58	1.36	-0.249	0.000	0.102
55.00	-57.65	-4.64	0.00	-349.27	0.00	349.27	3997.76	1998.88	8119.79	4065.93	1.49	-0.261	0.000	0.100
60.00	-55.43	-4.56	0.00	-326.05	0.00	326.05	3943.34	1971.67	7839.16	3925.41	1.78	-0.287	0.000	0.097
65.00	-53.25	-4.47	0.00	-303.25	0.00	303.25	3887.63	1943.82	7560.73	3785.98	2.10	-0.314	0.000	0.094
70.00	-51.10	-4.39	0.00	-280.88	0.00	280.88	3830.65	1915.32	7284.66	3647.74	2.44	-0.340	0.000	0.090
75.00	-48.98	-4.29	0.00	-258.96	0.00	258.96	3772.37	1886.19	7011.11	3510.77	2.81	-0.365	0.000	0.087
80.00	-46.91	-4.20	0.00	-237.49	0.00	237.49	3712.81	1856.40	6740.26	3375.14	3.20	-0.391	0.000	0.083
85.00	-44.86	-4.11	0.00	-216.48	0.00	216.48	3651.96	1825.98	6472.27	3240.95	3.63	-0.416	0.000	0.079
90.00	-42.86	-4.01	0.00	-195.94	0.00	195.94	3589.83	1794.92	6207.31	3108.27	4.07	-0.440	0.000	0.075
92.09	-42.03	-3.97	0.00	-187.59	0.00	187.59	3563.52	1781.76	6097.66	3053.36	4.27	-0.450	0.000	0.073
95.00	-40.48	-3.91	0.00	-176.03	0.00	176.03	3526.41	1763.21	5945.54	2977.19	4.55	-0.464	0.000	0.071
97.92	-38.95	-3.85	0.00	-164.62	0.00	164.62	2018.06	1009.03	3414.14	1709.61	4.84	-0.477	0.000	0.116
100.00	-38.28	-3.81	0.00	-156.62	0.00	156.62	2007.23	1003.61	3359.78	1682.39	5.05	-0.487	0.000	0.112
105.00	-36.68	-3.72	0.00	-137.55	0.00	137.55	1980.26	990.13	3229.23	1617.01	5.57	-0.518	0.000	0.104
110.00	-35.12	-3.63	0.00	-118.95	0.00	118.95	1952.01	976.01	3098.96	1551.78	6.13	-0.547	0.000	0.095
115.00	-33.58	-3.53	0.00	-100.82	0.00	100.82	1922.48	961.24	2969.14	1486.78	6.72	-0.574	0.000	0.085
120.00	-32.08	-3.43	0.00	-83.16	0.00	83.16	1891.66	945.83	2839.95	1422.08	7.33	-0.599	0.000	0.075
125.00	-30.60	-3.34	0.00	-65.99	0.00	65.99	1859.56	929.78	2711.53	1357.78	7.97	-0.621	0.000	0.065
129.00	-25.65	-2.88	0.00	-52.65	0.00	52.65	1832.95	916.47	2609.48	1306.68	8.50	-0.636	0.000	0.054
130.00	-18.07	-2.06	0.00	-49.77	0.00	49.77	1826.17	913.08	2584.07	1293.95	8.63	-0.639	0.000	0.048
135.00	-16.85	-1.96	0.00	-39.46	0.00	39.46	1791.49	895.74	2457.72	1230.69	9.31	-0.655	0.000	0.041
139.67	-15.73	-1.87	0.00	-30.30	0.00	30.30	1757.94	878.97	2340.87	1172.18	9.96	-0.667	0.000	0.035
140.00	-15.63	-1.86	0.00	-29.69	0.00	29.69	1755.53	877.76	2332.66	1168.06	10.01	-0.668	0.000	0.034
144.34	-14.27	-1.77	0.00	-21.62	0.00	21.62	1153.87	576.93	1513.89	758.07	10.62	-0.677	0.000	0.041
145.00	-14.13	-1.76	0.00	-20.44	0.00	20.44	1151.46	575.73	1504.14	753.19	10.71	-0.679	0.000	0.039
150.00	-7.85	-1.17	0.00	-11.65	0.00	11.65	1132.60	566.30	1430.64	716.38	11.43	-0.688	0.000	0.023
155.00	-6.94	-1.07	0.00	-5.81	0.00	5.81	1112.45	556.22	1357.20	679.61	12.15	-0.694	0.000	0.015
159.00	0.00	-0.99	0.00	-1.53	0.00	1.53	1095.40	547.70	1298.60	650.26	12.74	-0.696	0.000	0.002

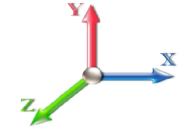
Seismic Segment Forces (Factored)

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 20

Load Case: 1.2D + 1.0E		Iterations 20
Gust Response Factor 1.10	Sds 0.19	Ss 0.18
Dead Load Factor 1.20	Seismic Load Factor 1.00	S1 0.07
Wind Load Factor 0.00	Structure Frequency (f1) 0.41	SA 0.04
		Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1406.6	0.00	0.03	0.02	21.76	
10.00		1382.0	0.01	0.05	0.03	32.16	
15.00		1357.4	0.02	0.06	0.04	37.21	
20.00		1332.8	0.03	0.07	0.04	39.55	
25.00		1308.2	0.05	0.07	0.04	40.56	
30.00		1283.6	0.07	0.07	0.04	40.99	
35.00		1259.0	0.09	0.07	0.04	41.23	
40.00		1234.4	0.12	0.07	0.03	41.38	
45.00		1209.8	0.15	0.07	0.03	41.35	
45.50	Bot - Section 2	119.63	0.15	0.07	0.03	4.10	
50.00		1993.7	0.19	0.06	0.02	68.81	
52.50	Top - Section 1	1091.6	0.21	0.06	0.02	37.61	
55.00		502.98	0.23	0.06	0.02	17.20	
60.00		990.14	0.27	0.05	0.02	32.45	
65.00		969.05	0.32	0.04	0.01	28.86	
70.00		947.96	0.37	0.03	0.01	23.49	
75.00		926.86	0.42	0.01	0.01	16.27	
80.00		905.77	0.48	-0.01	0.01	7.52	
85.00		884.67	0.54	-0.03	0.01	-1.92	
90.00		863.58	0.61	-0.05	0.02	-10.83	
92.09	Bot - Section 3	354.16	0.63	-0.07	0.02	-5.83	
95.00		818.79	0.67	-0.08	0.03	-17.42	
97.92	Top - Section 2	808.69	0.72	-0.09	0.03	-20.27	
100.00		229.60	0.75	-0.10	0.04	-6.20	
105.00		541.97	0.82	-0.12	0.06	-15.66	
110.00		527.91	0.90	-0.12	0.09	-13.95	
115.00		513.85	0.99	-0.11	0.13	-9.98	
120.00		499.78	1.08	-0.08	0.17	-3.91	
125.00		485.72	1.17	-0.02	0.23	4.07	
129.00	Appurtenance(s)	952.65	1.24	0.05	0.29	23.47	
130.00	Appurtenance(s)	2958.5	1.26	0.07	0.30	86.29	
135.00		457.59	1.36	0.22	0.39	24.99	
139.67	Bot - Section 4	414.69	1.46	0.40	0.49	34.25	
140.00		50.76	1.47	0.42	0.50	4.30	
144.34	Top - Section 3	657.12	1.56	0.65	0.61	75.38	
145.00		42.71	1.57	0.69	0.63	5.11	
150.00	Appurtenance(s)	2394.6	1.68	1.06	0.79	381.60	
155.00		305.44	1.80	1.52	0.97	62.31	
159.00	Appurtenance(s)	2061.1	1.89	1.98	1.14	501.61	
Totals:		37,045.9				1,669.9	Total Wind: 25,250.0

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

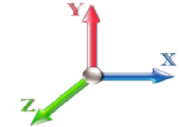
Calculated Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 21

Load Case: 1.2D + 1.0E		Iterations 20
Gust Response Factor 1.10	Sds 0.19	Ss 0.18
Dead Load Factor 1.20	Seismic Load Factor 1.00	S1 0.07
Wind Load Factor 0.00	Structure Frequency (f1) 0.41	SA 0.04
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.33	-1.78	0.00	-211.27	0.00	211.27	5583.09	2791.54	13786.8	6903.66	0.00	0.00	0.00	0.040
5.00	-52.29	-1.76	0.00	-202.37	0.00	202.37	5522.68	2761.34	13399.4	6709.67	0.00	-0.01	0.040	
10.00	-50.28	-1.74	0.00	-193.55	0.00	193.55	5460.99	2730.49	13014.1	6516.76	0.02	-0.02	0.039	
15.00	-48.30	-1.71	0.00	-184.86	0.00	184.86	5398.01	2699.00	12631.2	6325.01	0.04	-0.02	0.038	
20.00	-46.35	-1.67	0.00	-176.33	0.00	176.33	5333.74	2666.87	12250.7	6134.50	0.07	-0.03	0.037	
25.00	-44.43	-1.64	0.00	-167.96	0.00	167.96	5268.20	2634.10	11872.9	5945.31	0.10	-0.04	0.037	
30.00	-42.54	-1.60	0.00	-159.77	0.00	159.77	5201.36	2600.68	11497.9	5757.54	0.15	-0.05	0.036	
35.00	-40.68	-1.56	0.00	-151.77	0.00	151.77	5133.24	2566.62	11125.9	5571.26	0.20	-0.06	0.035	
40.00	-38.84	-1.53	0.00	-143.95	0.00	143.95	5063.83	2531.92	10757.1	5386.55	0.26	-0.06	0.034	
45.00	-37.04	-1.49	0.00	-136.32	0.00	136.32	4993.14	2496.57	10391.5	5203.50	0.34	-0.07	0.034	
45.50	-36.86	-1.48	0.00	-135.57	0.00	135.57	4986.00	2493.00	10355.1	5185.29	0.34	-0.07	0.034	
50.00	-34.16	-1.42	0.00	-128.90	0.00	128.90	4921.16	2460.58	10029.4	5022.20	0.42	-0.08	0.033	
52.50	-32.67	-1.38	0.00	-125.36	0.00	125.36	4024.48	2012.24	8260.88	4136.58	0.46	-0.08	0.038	
55.00	-31.89	-1.36	0.00	-121.92	0.00	121.92	3997.76	1998.88	8119.79	4065.93	0.50	-0.09	0.038	
60.00	-30.35	-1.33	0.00	-115.10	0.00	115.10	3943.34	1971.67	7839.16	3925.41	0.60	-0.10	0.037	
65.00	-28.84	-1.31	0.00	-108.43	0.00	108.43	3887.63	1943.82	7560.73	3785.98	0.71	-0.11	0.036	
70.00	-27.35	-1.28	0.00	-101.90	0.00	101.90	3830.65	1915.32	7284.66	3647.74	0.83	-0.12	0.035	
75.00	-25.89	-1.27	0.00	-95.48	0.00	95.48	3772.37	1886.19	7011.11	3510.77	0.95	-0.13	0.034	
80.00	-24.45	-1.26	0.00	-89.14	0.00	89.14	3712.81	1856.40	6740.26	3375.14	1.09	-0.14	0.033	
85.00	-23.04	-1.26	0.00	-82.82	0.00	82.82	3651.96	1825.98	6472.27	3240.95	1.24	-0.14	0.032	
90.00	-21.65	-1.26	0.00	-76.51	0.00	76.51	3589.83	1794.92	6207.31	3108.27	1.39	-0.15	0.031	
92.09	-21.08	-1.26	0.00	-73.88	0.00	73.88	3563.52	1781.76	6097.66	3053.36	1.46	-0.16	0.030	
95.00	-19.89	-1.26	0.00	-70.20	0.00	70.20	3526.41	1763.21	5945.54	2977.19	1.56	-0.16	0.029	
97.92	-18.72	-1.26	0.00	-66.52	0.00	66.52	2018.06	1009.03	3414.14	1709.61	1.66	-0.17	0.048	
100.00	-18.30	-1.26	0.00	-63.90	0.00	63.90	2007.23	1003.61	3359.78	1682.39	1.74	-0.17	0.047	
105.00	-17.30	-1.26	0.00	-57.60	0.00	57.60	1980.26	990.13	3229.23	1617.01	1.93	-0.19	0.044	
110.00	-16.31	-1.26	0.00	-51.30	0.00	51.30	1952.01	976.01	3098.96	1551.78	2.13	-0.20	0.041	
115.00	-15.34	-1.26	0.00	-44.99	0.00	44.99	1922.48	961.24	2969.14	1486.78	2.34	-0.21	0.038	
120.00	-14.39	-1.26	0.00	-38.69	0.00	38.69	1891.66	945.83	2839.95	1422.08	2.57	-0.22	0.035	
125.00	-13.46	-1.25	0.00	-32.39	0.00	32.39	1859.56	929.78	2711.53	1357.78	2.81	-0.23	0.031	
129.00	-12.04	-1.23	0.00	-27.37	0.00	27.37	1832.95	916.47	2609.48	1306.68	3.00	-0.24	0.028	
130.00	-8.42	-1.13	0.00	-26.15	0.00	26.15	1826.17	913.08	2584.07	1293.95	3.05	-0.24	0.025	
135.00	-7.71	-1.10	0.00	-20.52	0.00	20.52	1791.49	895.74	2457.72	1230.69	3.31	-0.25	0.021	
139.67	-7.07	-1.06	0.00	-15.39	0.00	15.39	1757.94	878.97	2340.87	1172.18	3.56	-0.26	0.017	
140.00	-7.00	-1.06	0.00	-15.04	0.00	15.04	1755.53	877.76	2332.66	1168.06	3.58	-0.26	0.017	
144.34	-6.07	-0.98	0.00	-10.46	0.00	10.46	1153.87	576.93	1513.89	758.07	3.81	-0.26	0.019	
145.00	-6.00	-0.97	0.00	-9.81	0.00	9.81	1151.46	575.73	1504.14	753.19	3.85	-0.26	0.018	
150.00	-2.97	-0.58	0.00	-4.94	0.00	4.94	1132.60	566.30	1430.64	716.38	4.12	-0.27	0.010	
155.00	-2.53	-0.51	0.00	-2.05	0.00	2.05	1112.45	556.22	1357.20	679.61	4.40	-0.27	0.005	
159.00	0.00	-0.50	0.00	0.00	0.00	0.00	1095.40	547.70	1298.60	650.26	4.63	-0.27	0.000	

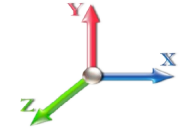
Seismic Segment Forces (Factored)

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 22

Load Case: 0.9D + 1.0E				Iterations 20
Gust Response Factor	1.10	Sds	0.19	Ss 0.18
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.07
Wind Load Factor	0.00	Structure Frequency (f1)	0.41	SA 0.04
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1406.6	0.00	0.03	0.02	21.76	
10.00		1382.0	0.01	0.05	0.03	32.16	
15.00		1357.4	0.02	0.06	0.04	37.21	
20.00		1332.8	0.03	0.07	0.04	39.55	
25.00		1308.2	0.05	0.07	0.04	40.56	
30.00		1283.6	0.07	0.07	0.04	40.99	
35.00		1259.0	0.09	0.07	0.04	41.23	
40.00		1234.4	0.12	0.07	0.03	41.38	
45.00		1209.8	0.15	0.07	0.03	41.35	
45.50	Bot - Section 2	119.63	0.15	0.07	0.03	4.10	
50.00		1993.7	0.19	0.06	0.02	68.81	
52.50	Top - Section 1	1091.6	0.21	0.06	0.02	37.61	
55.00		502.98	0.23	0.06	0.02	17.20	
60.00		990.14	0.27	0.05	0.02	32.45	
65.00		969.05	0.32	0.04	0.01	28.86	
70.00		947.96	0.37	0.03	0.01	23.49	
75.00		926.86	0.42	0.01	0.01	16.27	
80.00		905.77	0.48	-0.01	0.01	7.52	
85.00		884.67	0.54	-0.03	0.01	-1.92	
90.00		863.58	0.61	-0.05	0.02	-10.83	
92.09	Bot - Section 3	354.16	0.63	-0.07	0.02	-5.83	
95.00		818.79	0.67	-0.08	0.03	-17.42	
97.92	Top - Section 2	808.69	0.72	-0.09	0.03	-20.27	
100.00		229.60	0.75	-0.10	0.04	-6.20	
105.00		541.97	0.82	-0.12	0.06	-15.66	
110.00		527.91	0.90	-0.12	0.09	-13.95	
115.00		513.85	0.99	-0.11	0.13	-9.98	
120.00		499.78	1.08	-0.08	0.17	-3.91	
125.00		485.72	1.17	-0.02	0.23	4.07	
129.00	Appurtenance(s)	952.65	1.24	0.05	0.29	23.47	
130.00	Appurtenance(s)	2958.5	1.26	0.07	0.30	86.29	
135.00		457.59	1.36	0.22	0.39	24.99	
139.67	Bot - Section 4	414.69	1.46	0.40	0.49	34.25	
140.00		50.76	1.47	0.42	0.50	4.30	
144.34	Top - Section 3	657.12	1.56	0.65	0.61	75.38	
145.00		42.71	1.57	0.69	0.63	5.11	
150.00	Appurtenance(s)	2394.6	1.68	1.06	0.79	381.60	
155.00		305.44	1.80	1.52	0.97	62.31	
159.00	Appurtenance(s)	2061.1	1.89	1.98	1.14	501.61	
Totals:		37,045.9				1,669.9	Total Wind: 25,250.0

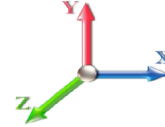
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0E		Iterations 20
Gust Response Factor 1.10	Sds 0.19	Ss 0.18
Dead Load Factor 0.90	Seismic Load Factor 1.00	S1 0.07
Wind Load Factor 0.00	Structure Frequency (f1) 0.41	SA 0.04
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.75	-1.78	0.00	-209.53	0.00	209.53	5583.09	2791.54	13786.8	6903.66	0.00	0.00	0.00	0.038
5.00	-39.22	-1.76	0.00	-200.64	0.00	200.64	5522.68	2761.34	13399.4	6709.67	0.00	0.00	-0.01	0.037
10.00	-37.71	-1.73	0.00	-191.84	0.00	191.84	5460.99	2730.49	13014.1	6516.76	0.02	0.02	-0.02	0.036
15.00	-36.22	-1.70	0.00	-183.17	0.00	183.17	5398.01	2699.00	12631.2	6325.01	0.04	0.04	-0.02	0.036
20.00	-34.76	-1.67	0.00	-174.66	0.00	174.66	5333.74	2666.87	12250.7	6134.50	0.07	0.07	-0.03	0.035
25.00	-33.32	-1.63	0.00	-166.33	0.00	166.33	5268.20	2634.10	11872.9	5945.31	0.10	0.10	-0.04	0.034
30.00	-31.90	-1.59	0.00	-158.19	0.00	158.19	5201.36	2600.68	11497.9	5757.54	0.15	0.15	-0.05	0.034
35.00	-30.51	-1.55	0.00	-150.23	0.00	150.23	5133.24	2566.62	11125.9	5571.26	0.20	0.20	-0.05	0.033
40.00	-29.13	-1.51	0.00	-142.47	0.00	142.47	5063.83	2531.92	10757.1	5386.55	0.26	0.26	-0.06	0.032
45.00	-27.78	-1.47	0.00	-134.89	0.00	134.89	4993.14	2496.57	10391.5	5203.50	0.33	0.33	-0.07	0.031
45.50	-27.65	-1.47	0.00	-134.16	0.00	134.16	4986.00	2493.00	10355.1	5185.29	0.34	0.34	-0.07	0.031
50.00	-25.62	-1.40	0.00	-127.54	0.00	127.54	4921.16	2460.58	10029.4	5022.20	0.41	0.41	-0.08	0.031
52.50	-24.50	-1.37	0.00	-124.03	0.00	124.03	4024.48	2012.24	8260.88	4136.58	0.45	0.45	-0.08	0.036
55.00	-23.92	-1.35	0.00	-120.62	0.00	120.62	3997.76	1998.88	8119.79	4065.93	0.50	0.50	-0.09	0.036
60.00	-22.76	-1.32	0.00	-113.87	0.00	113.87	3943.34	1971.67	7839.16	3925.41	0.60	0.60	-0.10	0.035
65.00	-21.63	-1.29	0.00	-107.27	0.00	107.27	3887.63	1943.82	7560.73	3785.98	0.70	0.70	-0.11	0.034
70.00	-20.51	-1.27	0.00	-100.81	0.00	100.81	3830.65	1915.32	7284.66	3647.74	0.82	0.82	-0.12	0.033
75.00	-19.42	-1.25	0.00	-94.47	0.00	94.47	3772.37	1886.19	7011.11	3510.77	0.95	0.95	-0.12	0.032
80.00	-18.34	-1.25	0.00	-88.20	0.00	88.20	3712.81	1856.40	6740.26	3375.14	1.08	1.08	-0.13	0.031
85.00	-17.28	-1.25	0.00	-81.96	0.00	81.96	3651.96	1825.98	6472.27	3240.95	1.23	1.23	-0.14	0.030
90.00	-16.24	-1.25	0.00	-75.72	0.00	75.72	3589.83	1794.92	6207.31	3108.27	1.38	1.38	-0.15	0.029
92.09	-15.81	-1.25	0.00	-73.12	0.00	73.12	3563.52	1781.76	6097.66	3053.36	1.45	1.45	-0.16	0.028
95.00	-14.92	-1.25	0.00	-69.49	0.00	69.49	3526.41	1763.21	5945.54	2977.19	1.55	1.55	-0.16	0.028
97.92	-14.04	-1.24	0.00	-65.85	0.00	65.85	2018.06	1009.03	3414.14	1709.61	1.65	1.65	-0.17	0.045
100.00	-13.72	-1.25	0.00	-63.27	0.00	63.27	2007.23	1003.61	3359.78	1682.39	1.72	1.72	-0.17	0.044
105.00	-12.97	-1.25	0.00	-57.04	0.00	57.04	1980.26	990.13	3229.23	1617.01	1.91	1.91	-0.18	0.042
110.00	-12.23	-1.25	0.00	-50.81	0.00	50.81	1952.01	976.01	3098.96	1551.78	2.11	2.11	-0.20	0.039
115.00	-11.51	-1.25	0.00	-44.58	0.00	44.58	1922.48	961.24	2969.14	1486.78	2.32	2.32	-0.21	0.036
120.00	-10.79	-1.25	0.00	-38.35	0.00	38.35	1891.66	945.83	2839.95	1422.08	2.54	2.54	-0.22	0.033
125.00	-10.09	-1.24	0.00	-32.12	0.00	32.12	1859.56	929.78	2711.53	1357.78	2.78	2.78	-0.23	0.029
129.00	-9.03	-1.21	0.00	-27.16	0.00	27.16	1832.95	916.47	2609.48	1306.68	2.97	2.97	-0.24	0.026
130.00	-6.31	-1.12	0.00	-25.95	0.00	25.95	1826.17	913.08	2584.07	1293.95	3.02	3.02	-0.24	0.024
135.00	-5.78	-1.09	0.00	-20.37	0.00	20.37	1791.49	895.74	2457.72	1230.69	3.28	3.28	-0.25	0.020
139.67	-5.30	-1.05	0.00	-15.28	0.00	15.28	1757.94	878.97	2340.87	1172.18	3.52	3.52	-0.25	0.016
140.00	-5.25	-1.05	0.00	-14.94	0.00	14.94	1755.53	877.76	2332.66	1168.06	3.54	3.54	-0.25	0.016
144.34	-4.55	-0.97	0.00	-10.39	0.00	10.39	1153.87	576.93	1513.89	758.07	3.77	3.77	-0.26	0.018
145.00	-4.50	-0.97	0.00	-9.74	0.00	9.74	1151.46	575.73	1504.14	753.19	3.81	3.81	-0.26	0.017
150.00	-2.23	-0.57	0.00	-4.91	0.00	4.91	1132.60	566.30	1430.64	716.38	4.08	4.08	-0.26	0.009
155.00	-1.90	-0.51	0.00	-2.04	0.00	2.04	1112.45	556.22	1357.20	679.61	4.36	4.36	-0.27	0.005
159.00	0.00	-0.50	0.00	0.00	0.00	0.00	1095.40	547.70	1298.60	650.26	4.58	4.58	-0.27	0.000

Wind Loading - Shaft

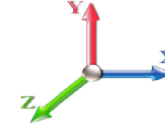
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 24

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	256.99	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	252.57	0.650	0.000	5.00	25.377	16.49	111.2	0.0	1406.7
10.00		1.00	0.70	6.129	6.74	248.14	0.650	0.000	5.00	24.936	16.21	109.3	0.0	1382.1
15.00		1.00	0.70	6.129	6.74	243.72	0.650	0.000	5.00	24.495	15.92	107.3	0.0	1357.5
20.00		1.00	0.70	6.129	6.74	239.29	0.650	0.000	5.00	24.055	15.64	105.4	0.0	1332.8
25.00		1.00	0.70	6.129	6.74	234.87	0.650	0.000	5.00	23.614	15.35	103.5	0.0	1308.2
30.00		1.00	0.70	6.134	6.75	230.54	0.650	0.000	5.00	23.173	15.06	101.6	0.0	1283.6
35.00		1.00	0.73	6.410	7.05	231.15	0.650	0.000	5.00	22.733	14.78	104.2	0.0	1259.0
40.00		1.00	0.76	6.659	7.33	230.99	0.650	0.000	5.00	22.292	14.49	106.1	0.0	1234.4
45.00		1.00	0.79	6.887	7.58	230.22	0.650	0.000	5.00	21.851	14.20	107.6	0.0	1209.8
45.50 Bot - Section 2		1.00	0.79	6.909	7.60	230.11	0.650	0.000	0.50	2.161	1.40	10.7	0.0	119.6
50.00		1.00	0.81	7.098	7.81	228.95	0.650	0.000	4.50	19.535	12.70	99.1	0.0	1993.7
52.50 Top - Section 1		1.00	0.82	7.197	7.92	228.15	0.650	0.000	2.50	10.699	6.95	55.1	0.0	1091.6
55.00		1.00	0.83	7.294	8.02	230.73	0.650	0.000	2.50	10.588	6.88	55.2	0.0	503.0
60.00		1.00	0.85	7.477	8.22	228.73	0.650	0.000	5.00	20.846	13.55	111.4	0.0	990.1
65.00		1.00	0.87	7.650	8.42	226.42	0.650	0.000	5.00	20.405	13.26	111.6	0.0	969.0
70.00		1.00	0.89	7.814	8.60	223.83	0.650	0.000	5.00	19.965	12.98	111.5	0.0	948.0
75.00		1.00	0.91	7.969	8.77	221.01	0.650	0.000	5.00	19.524	12.69	111.3	0.0	926.9
80.00		1.00	0.93	8.118	8.93	217.96	0.650	0.000	5.00	19.083	12.40	110.8	0.0	905.8
85.00		1.00	0.94	8.260	9.09	214.72	0.650	0.000	5.00	18.643	12.12	110.1	0.0	884.7
90.00		1.00	0.96	8.396	9.24	211.30	0.650	0.000	5.00	18.202	11.83	109.3	0.0	863.6
92.09 Bot - Section 3		1.00	0.97	8.451	9.30	209.82	0.650	0.000	2.09	7.466	4.85	45.1	0.0	354.2
95.00		1.00	0.97	8.526	9.38	207.72	0.650	0.000	2.91	10.419	6.77	63.5	0.0	818.8
97.92 Top - Section 2		1.00	0.98	8.600	9.46	205.56	0.650	0.000	2.92	10.292	6.69	63.3	0.0	808.7
100.00		1.00	0.99	8.652	9.52	206.51	0.650	0.000	2.08	7.240	4.71	44.8	0.0	229.6
105.00		1.00	1.00	8.774	9.65	202.66	0.650	0.000	5.00	17.091	11.11	107.2	0.0	542.0
110.00		1.00	1.02	8.891	9.78	198.69	0.650	0.000	5.00	16.651	10.82	105.8	0.0	527.9
115.00		1.00	1.03	9.005	9.91	194.59	0.650	0.000	5.00	16.210	10.54	104.4	0.0	513.8
120.00		1.00	1.04	9.115	10.03	190.38	0.650	0.000	5.00	15.769	10.25	102.8	0.0	499.8
125.00		1.00	1.05	9.222	10.14	186.06	0.650	0.000	5.00	15.328	9.96	101.1	0.0	485.7
129.00 Appurtenance(s)		1.00	1.06	9.305	10.24	182.54	0.650	0.000	4.00	11.945	7.76	79.5	0.0	378.5
130.00 Appurtenance(s)		1.00	1.07	9.326	10.26	181.65	0.650	0.000	1.00	2.942	1.91	19.6	0.0	93.2
135.00		1.00	1.08	9.427	10.37	177.15	0.650	0.000	5.00	14.447	9.39	97.4	0.0	457.6
139.67 Bot - Section 4		1.00	1.09	9.519	10.47	172.86	0.650	0.000	4.67	13.095	8.51	89.1	0.0	414.7
140.00		1.00	1.09	9.525	10.48	172.55	0.650	0.000	0.33	0.921	0.60	6.3	0.0	50.8
144.34 Top - Section 3		1.00	1.10	9.609	10.57	168.50	0.650	0.000	4.34	11.929	7.75	82.0	0.0	657.1
145.00		1.00	1.10	9.621	10.58	169.87	0.650	0.000	0.66	1.795	1.17	12.4	0.0	42.7
150.00 Appurtenance(s)		1.00	1.11	9.715	10.69	165.12	0.650	0.000	5.00	13.283	8.63	92.3	0.0	316.0
155.00		1.00	1.12	9.806	10.79	160.30	0.650	0.000	5.00	12.843	8.35	90.0	0.0	305.4
159.00 Appurtenance(s)		1.00	1.13	9.878	10.87	156.39	0.650	0.000	4.00	9.957	6.47	70.3	0.0	236.8
Totals:								159.00			3,329.1	29,703.3		

Discrete Appurtenance Forces

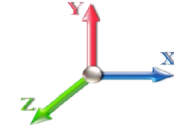
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 25

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	159.00	Antel - BXA-185060/12CF	3	9.931	10.924	0.88	1.00	12.59	45.00	0.000	3.000	137.54	0.00	412.61
2	159.00	Antel - BXA-70063/6CF	6	9.931	10.924	0.77	1.00	34.88	89.40	0.000	3.000	381.06	0.00	1143.18
3	159.00	Swedcom - SCE-6014	6	9.931	10.924	0.98	1.00	19.50	90.00	0.000	3.000	213.02	0.00	639.07
4	159.00	Low Profile Platform	1	9.878	10.866	1.00	1.00	40.20	1600.00	0.000	0.000	436.80	0.00	0.00
5	150.00	Ericsson - KRY 112 144 -	3	9.715	10.686	0.56	0.80	0.69	33.00	0.000	0.000	7.36	0.00	0.00
6	150.00	Ericsson - AIR21 B4A/B2P	3	9.715	10.686	0.68	0.80	12.48	271.20	0.000	0.000	133.39	0.00	0.00
7	150.00	Ericsson - AIR21 B2A/B4P	3	9.715	10.686	0.68	0.80	12.48	274.50	0.000	0.000	133.39	0.00	0.00
8	150.00	T-Arm	3	9.715	10.686	0.56	0.75	26.32	1500.00	0.000	0.000	281.32	0.00	0.00
9	130.00	8843 B2/B66A	3	9.326	10.258	0.54	0.80	2.65	225.00	0.000	0.000	27.22	0.00	0.00
10	130.00	4449 B5/B12	3	9.326	10.258	0.54	0.80	3.17	213.00	0.000	0.000	32.50	0.00	0.00
11	130.00	4478 B71	3	9.326	10.258	0.54	0.80	2.65	178.20	0.000	0.000	27.22	0.00	0.00
12	130.00	Commscope -	3	9.326	10.258	0.80	0.80	0.12	3.30	0.000	0.000	1.23	0.00	0.00
13	130.00	Raycap -	3	9.326	10.258	0.80	0.80	2.21	95.40	0.000	0.000	22.65	0.00	0.00
14	130.00	Powerwave - LGP21401	24	9.326	10.258	0.80	0.80	24.77	338.40	0.000	0.000	254.08	0.00	0.00
15	130.00	Powerwave - 7770.00A	6	9.326	10.258	0.61	0.80	20.26	162.00	0.000	0.000	207.86	0.00	0.00
16	130.00	T-Frame	3	9.326	10.258	0.56	0.75	29.70	1650.00	0.000	0.000	304.67	0.00	0.00
17	129.00	DMP65R-BU8DA	6	9.305	10.236	0.58	0.80	62.36	574.20	0.000	0.000	638.28	0.00	0.00

Totals: 7,342.60

3,239.58

Total Applied Force Summary

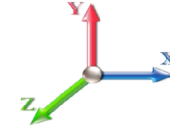
Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 26

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		111.20	1698.73	0.00	0.00
10.00		109.27	1674.12	0.00	0.00
15.00		107.34	1649.51	0.00	0.00
20.00		105.41	1624.90	0.00	0.00
25.00		103.48	1600.29	0.00	0.00
30.00		101.63	1575.68	0.00	0.00
35.00		104.19	1551.07	0.00	0.00
40.00		106.14	1526.46	0.00	0.00
45.00		107.60	1501.85	0.00	0.00
45.50		10.67	148.83	0.00	0.00
50.00		99.14	2256.56	0.00	0.00
52.50		55.06	1237.65	0.00	0.00
55.00		55.22	649.01	0.00	0.00
60.00		111.45	1282.19	0.00	0.00
65.00		111.62	1261.10	0.00	0.00
70.00		111.54	1240.01	0.00	0.00
75.00		111.25	1218.91	0.00	0.00
80.00		110.76	1197.82	0.00	0.00
85.00		110.10	1176.72	0.00	0.00
90.00		109.26	1155.63	0.00	0.00
92.09		45.11	476.04	0.00	0.00
95.00		63.51	988.96	0.00	0.00
97.92		63.29	979.24	0.00	0.00
100.00		44.79	351.09	0.00	0.00
105.00		107.22	834.02	0.00	0.00
110.00		105.85	819.96	0.00	0.00
115.00		104.36	805.90	0.00	0.00
120.00		102.77	791.83	0.00	0.00
125.00		101.07	777.77	0.00	0.00
129.00	(6) attachments	717.76	1186.29	0.00	0.00
130.00	(48) attachments	897.04	3016.92	0.00	0.00
135.00		97.37	587.89	0.00	0.00
139.67		89.13	536.39	0.00	0.00
140.00		6.27	59.36	0.00	0.00
144.34		81.95	770.14	0.00	0.00
145.00		12.35	60.00	0.00	0.00
150.00	(12) attachments	647.72	2524.99	0.00	0.00
155.00		90.05	367.84	0.00	0.00
159.00	(16) attachments	1238.75	2111.08	0.00	2194.86
	Totals:	6,568.67	45,272.72	0.00	2,194.86

Calculated Forces

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

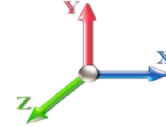


Page: 27

Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 21

Dead Load Factor 1.00
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.27	-6.58	0.00	-752.48	0.00	752.48	5583.09	2791.54	13786.8	6903.66	0.00	0.000	0.000	0.117
5.00	-43.57	-6.49	0.00	-719.59	0.00	719.59	5522.68	2761.34	13399.4	6709.67	0.01	-0.028	0.000	0.115
10.00	-41.89	-6.40	0.00	-687.15	0.00	687.15	5460.99	2730.49	13014.1	6516.76	0.06	-0.055	0.000	0.113
15.00	-40.24	-6.31	0.00	-655.16	0.00	655.16	5398.01	2699.00	12631.2	6325.01	0.13	-0.083	0.000	0.111
20.00	-38.61	-6.22	0.00	-623.61	0.00	623.61	5333.74	2666.87	12250.7	6134.50	0.23	-0.111	0.000	0.109
25.00	-37.01	-6.13	0.00	-592.52	0.00	592.52	5268.20	2634.10	11872.9	5945.31	0.37	-0.140	0.000	0.107
30.00	-35.43	-6.04	0.00	-561.86	0.00	561.86	5201.36	2600.68	11497.9	5757.54	0.53	-0.168	0.000	0.104
35.00	-33.88	-5.95	0.00	-531.65	0.00	531.65	5133.24	2566.62	11125.9	5571.26	0.72	-0.196	0.000	0.102
40.00	-32.35	-5.85	0.00	-501.90	0.00	501.90	5063.83	2531.92	10757.1	5386.55	0.94	-0.225	0.000	0.100
45.00	-30.84	-5.75	0.00	-472.63	0.00	472.63	4993.14	2496.57	10391.5	5203.50	1.19	-0.253	0.000	0.097
45.50	-30.69	-5.75	0.00	-469.75	0.00	469.75	4986.00	2493.00	10355.1	5185.29	1.22	-0.256	0.000	0.097
50.00	-28.44	-5.65	0.00	-443.90	0.00	443.90	4921.16	2460.58	10029.4	5022.20	1.47	-0.282	0.000	0.094
52.50	-27.20	-5.59	0.00	-429.78	0.00	429.78	4024.48	2012.24	8260.88	4136.58	1.62	-0.297	0.000	0.111
55.00	-26.55	-5.54	0.00	-415.81	0.00	415.81	3997.76	1998.88	8119.79	4065.93	1.78	-0.311	0.000	0.109
60.00	-25.26	-5.44	0.00	-388.09	0.00	388.09	3943.34	1971.67	7839.16	3925.41	2.12	-0.343	0.000	0.105
65.00	-24.00	-5.33	0.00	-360.90	0.00	360.90	3887.63	1943.82	7560.73	3785.98	2.50	-0.374	0.000	0.102
70.00	-22.76	-5.22	0.00	-334.24	0.00	334.24	3830.65	1915.32	7284.66	3647.74	2.91	-0.405	0.000	0.098
75.00	-21.54	-5.12	0.00	-308.12	0.00	308.12	3772.37	1886.19	7011.11	3510.77	3.35	-0.435	0.000	0.093
80.00	-20.34	-5.01	0.00	-282.54	0.00	282.54	3712.81	1856.40	6740.26	3375.14	3.82	-0.466	0.000	0.089
85.00	-19.16	-4.90	0.00	-257.51	0.00	257.51	3651.96	1825.98	6472.27	3240.95	4.33	-0.495	0.000	0.085
90.00	-18.00	-4.78	0.00	-233.03	0.00	233.03	3589.83	1794.92	6207.31	3108.27	4.86	-0.524	0.000	0.080
92.09	-17.53	-4.74	0.00	-223.05	0.00	223.05	3563.52	1781.76	6097.66	3053.36	5.09	-0.536	0.000	0.078
95.00	-16.54	-4.67	0.00	-209.25	0.00	209.25	3526.41	1763.21	5945.54	2977.19	5.42	-0.552	0.000	0.075
97.92	-15.56	-4.60	0.00	-195.62	0.00	195.62	2018.06	1009.03	3414.14	1709.61	5.77	-0.569	0.000	0.122
100.00	-15.20	-4.56	0.00	-186.05	0.00	186.05	2007.23	1003.61	3359.78	1682.39	6.02	-0.580	0.000	0.118
105.00	-14.37	-4.45	0.00	-163.26	0.00	163.26	1980.26	990.13	3229.23	1617.01	6.64	-0.617	0.000	0.108
110.00	-13.55	-4.34	0.00	-141.00	0.00	141.00	1952.01	976.01	3098.96	1551.78	7.31	-0.651	0.000	0.098
115.00	-12.74	-4.24	0.00	-119.28	0.00	119.28	1922.48	961.24	2969.14	1486.78	8.01	-0.684	0.000	0.087
120.00	-11.95	-4.13	0.00	-98.09	0.00	98.09	1891.66	945.83	2839.95	1422.08	8.74	-0.713	0.000	0.075
125.00	-11.17	-4.02	0.00	-77.44	0.00	77.44	1859.56	929.78	2711.53	1357.78	9.50	-0.738	0.000	0.063
129.00	-9.99	-3.29	0.00	-61.34	0.00	61.34	1832.95	916.47	2609.48	1306.68	10.13	-0.756	0.000	0.052
130.00	-6.99	-2.36	0.00	-58.05	0.00	58.05	1826.17	913.08	2584.07	1293.95	10.29	-0.760	0.000	0.049
135.00	-6.40	-2.25	0.00	-46.26	0.00	46.26	1791.49	895.74	2457.72	1230.69	11.09	-0.778	0.000	0.041
139.67	-5.86	-2.16	0.00	-35.74	0.00	35.74	1757.94	878.97	2340.87	1172.18	11.86	-0.793	0.000	0.034
140.00	-5.80	-2.15	0.00	-35.03	0.00	35.03	1755.53	877.76	2332.66	1168.06	11.92	-0.794	0.000	0.033
144.34	-5.04	-2.06	0.00	-25.69	0.00	25.69	1153.87	576.93	1513.89	758.07	12.65	-0.805	0.000	0.038
145.00	-4.98	-2.05	0.00	-24.33	0.00	24.33	1151.46	575.73	1504.14	753.19	12.76	-0.806	0.000	0.037
150.00	-2.46	-1.36	0.00	-14.09	0.00	14.09	1132.60	566.30	1430.64	716.38	13.61	-0.818	0.000	0.022
155.00	-2.09	-1.27	0.00	-7.27	0.00	7.27	1112.45	556.22	1357.20	679.61	14.47	-0.825	0.000	0.013
159.00	0.00	-1.24	0.00	-2.19	0.00	2.19	1095.40	547.70	1298.60	650.26	15.16	-0.828	0.000	0.003

Final Analysis Summary

Structure: CT12219-A-SBA	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 28



Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 93 mph Wind	25.3	0.00	54.30	0.00	0.00	2906.76
0.9D + 1.6W 93 mph Wind	25.3	0.00	40.72	0.00	0.00	2884.07
1.2D + 1.0Di + 1.0Wi 40 mph Wind	5.4	0.00	87.63	0.00	0.00	629.13
1.2D + 1.0E	1.8	0.00	54.33	0.00	0.00	211.27
0.9D + 1.0E	1.8	0.00	40.75	0.00	0.00	209.53
1.0D + 1.0W 60 mph Wind	6.6	0.00	45.27	0.00	0.00	752.48

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 93 mph Wind	-18.05	-17.80	0.00	-756.77	0.00	-756.77	2018.06	1009.0	3414.14	1709.61	97.92	0.452
0.9D + 1.6W 93 mph Wind	-13.38	-17.61	0.00	-748.49	0.00	-748.49	2018.06	1009.0	3414.14	1709.61	97.92	0.445
1.2D + 1.0Di + 1.0Wi 40 mph Wind	-38.95	-3.85	0.00	-164.62	0.00	-164.62	2018.06	1009.0	3414.14	1709.61	97.92	0.116
1.2D + 1.0E	-18.72	-1.26	0.00	-66.52	0.00	-66.52	2018.06	1009.0	3414.14	1709.61	97.92	0.048
0.9D + 1.0E	-14.04	-1.24	0.00	-65.85	0.00	-65.85	2018.06	1009.0	3414.14	1709.61	97.92	0.045
1.0D + 1.0W 60 mph Wind	-15.56	-4.60	0.00	-195.62	0.00	-195.62	2018.06	1009.0	3414.14	1709.61	97.92	0.122

Base Plate Summary

Structure: CT12219-A-SB	Code: EIA/TIA-222-G	1/16/2020
Site Name: New Hartford 2, CT	Exposure: B	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 29

Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 50.00	Bolt Circle: 68.00
Moment (kip-ft): 5847.05	Width (in): 74.00	Number Bolts: 24.00
Axial (kip): 49.10	Style: Round	Bolt Type: 2.25" 18J
Shear (kip): 51.35	Polygon Sides: 0.00	Bolt Diameter (in): 2.25
Analysis	Clip Length (in): 0.00	Yield (ksi): 75.00
Moment (kip-ft): 2906.76	Effective Len (in): 11.75	Ultimate (ksi): 100.00
Axial (kip): 87.63	Moment (kip-in): 334.29	Arrangement: Radial
Shear (kip): 25.30	Allow Stress (ksi): 67.50	Cluster Dist (in): 0.00
	Applied Stress (ksi): 0.00	Start Angle (deg): 0.00
Moment Design %: 49.71	Stress Ratio: 0.24	Compression
		Force (kip): 89.14
		Allowable (kip): 260.00
		Ratio: 0.35
		Tension
		Force (kip): 81.84
		Allowable (kip): 260.00
		Ratio: 0.32



Monopole Mat Foundation Design

Date

1/16/2020

Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	159
Site Number:	CT12219-A-SBA	Engineer Name:	T. Alajaj
Engr. Number:	91142	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):	87.6	Shear Force (Kips):	25.3
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2906.8

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.5	Depth of Base BG (ft.):	5.0
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	3.00
Length of Pad (ft.):	29.5	Width of Pad (ft.):	29.2
Final Length of pad (ft)	29.5	Final width of pad (ft):	29.2
Control Value for Cell D18:	0	Control Value for Cell F18:	0

Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	42	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	32	Qty. of Rebar in Pad (W):	32	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	13	Qty. of Rebar in Pad (W):	13	

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

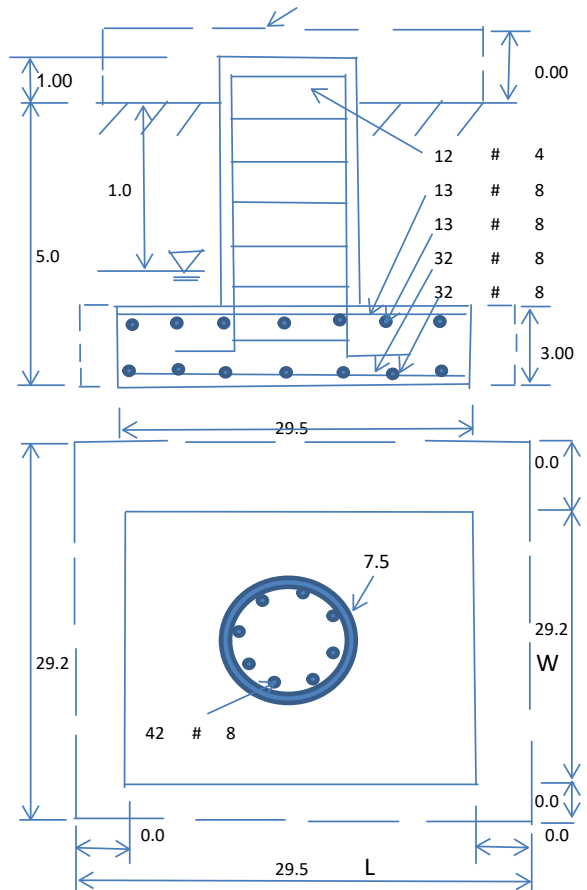
Soil Unit Weight (pcf):	125.0	Soil Buoyant Weight:	37.6	Pcf
Water Table B.G.S. (ft):	1.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No	
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:	1.00	
		Angle from Top of Pad:	30	
		Angle from Bottm of Pad:	25	
		Angle from Bottm of Pad:	25	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	817.22	Total Dry Soil Weight (Kips):	102.15
Total Buoyant Soil Volume (cu. Ft.):	851.33	Total Buoyant Soil Weight (Kips):	32.01
Total Effective Soil Weight (Kips):	134.16	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	88.36	Total Dry Concrete Weight (Kips):	13.25
Total Buoyant Concrete Volume (cu. Ft.):	2628.38	Total Buoyant Concrete Weight (Kips):	230.25
Total Effective Concrete Weight (Kips):	243.50	Total Vertical Load on Base (Kips):	465.26

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	1215	<	Allowable Factored Soil Bearing (psf):	6000	0.20	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	6224.6	>	Design Factored Momont (kips-ft):	2991	0.48	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.08					OK!



Check the capacities of Reinforcing Concrete:

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

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6074.2	>	Design Factored Moment (Mu, Kips-Ft)	2982.7	0.49 OK!
Calculated Shear Capacity (Kips):	891.5	>	Design Factored Shear (Kips):	25.3	0.03 OK!
Calculated Tension Capacity (Tn, Kips):	1791.7	>	Design Factored Tension (Tu Kips):	0.0	0.00 OK!
Calculated Compression Capacity (Pn, Kips):	11188.9	>	Design Factored Axial Load (Pu Kips):	87.6	0.01 OK!
Moment & Axial Strength Combination:	0.49	OK!	Check Tie Spacing (Design/Required):		0.5 OK!
Pier Reinforcement Ratio:	0.005		Reinforcement Ratio is satisfied per ACI		

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	1091.5	>	One-Way Factored Shear (L-D. Kips):	151.3	0.14 OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1080.4	>	One-Way Factored Shear (W-D., Kips)	148.5	0.14 OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	1057.8	>	One-Way Factored Shear (C-C, Kips):	151.1	0.14 OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0022	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0022	
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3624.8	>	Moment at Bottom (L-Dir. K-Ft):	923.5	0.25 OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3625.5	>	Moment at Bottom (W-Dir. K-Ft):	923.5	0.25 OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	5104.3	>	Moment at Bottom (C-C Dir. K-Ft):	1306.0	0.26 OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0009	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0009	
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1490.0	>	Moment at the top (L-Dir K-Ft):	275.8	0.19 OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1490.2	>	Moment at the top (W-Dir K-Ft):	275.8	0.19 OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	2103.6	>	Moment at the top (C-C Dir. K-Ft):	260.3	0.12 OK!

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

Moment transferred by punching shear:	1162.7	k-ft.	Max. factored shear stress $v_{u,CD}$:	0.7	Psi
Max. factored shear stress $v_{u,AB}$:	10.4	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	10.4	Psi	Check Usage of Punching Shear Capacity:	0.05	OK!

October 18, 2019



Centerline Communications
750 West Center Street, Suite #301
West Bridgewater, MA 02379

RE: Site Number: CT1090 (LTE 2C/3C/4C/5C)
 FA Number: 10091787
 PACE Number: MRCTB041646
 PT Number: 2051AOQAAJ
 Site Name: NEW HARTFORD – SOUTHEAST RD
 Site Address: 170 Southeast Road
 New Hartford, CT 06057

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (3) 7770 Antennas (55.0"x11.0"x5.0" - Wt. = 35 lbs. /each)
- (6) LGP 21901 Diplexers (6.3"x4.4"x3.0" – Wt. = 6 lbs. /each) (Ground)
- (1) Squid Surge Arrestor (24.0"x9.7" Φ – Wt. = 33 lbs. /each)
- **(3) DMP65R-BU8DA Antennas (96.0"x20.7"x7.7" – Wt. = 96 lbs. /each)**
- **(3) B14 4478 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each)**
- **(3) B2/B66A 8843 RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each)**
- **(3) B5/B12 4449 RRH's (14.9"x13.2"x10.4" – Wt. = 73 lbs. /each)**
- **(2) Squid Surge Arrestor (24.0"x9.7" Φ – Wt. = 33 lbs. /each)**

**Proposed equipment shown in bold*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing AT&T antenna mounts on May 14, 2019.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R13.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 120 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.5 in. An escalated ice thickness of 1.90 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 2; tower is located at the top or crest of an escarpment.
- The mount has been analyzed with load combinations consisting of 250 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 3.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing monopole with a ring mount. The connection is considered OK by visual inspection.

Based on our evaluation, we have determined that the existing mounts **ARE NOT CAPABLE** of supporting the proposed installation. HDG recommends the following modifications:

- **Install new platform reinforcement kit, SitePro1 P/N PRK-SFS-L (or approved equal) (typ. of 2 per sector, total of 6).**
- **Install new 2" std. (2.38" O.D.) horizontal pipe secured to existing antenna pipes (typ. of 1 per sector, total of 3).**
- **Rotate existing mount face so it is perpendicular to mount standoff.**

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing (LTE 2C/3C/4C/5C) Mount Rating	1	LC3	234%	FAIL
Modified (LTE 2C/3C/4C/5C) Mount Rating	1	LC3	88%	PASS

Reference Documents:

- Mount mapping report prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

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

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

Respectfully Submitted,
Hudson Design Group LLC

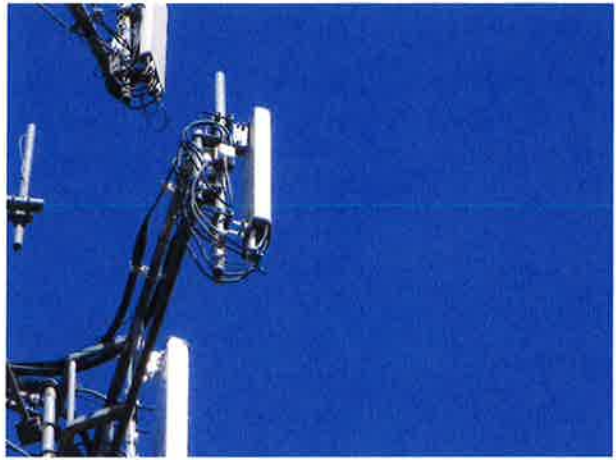


Michael Cabral
Vice President



Daniel P. Hamm, PE
Principal

FIELD PHOTOS:







HUDSON
Design Group LLC

**Wind & Ice
Calculations**

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



2.6.5.2 Velocity Pressure Coeff:

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

$K_z =$ **1.063** $z =$ 129 (ft)
 $z_g =$ 1200 (ft)
 $\alpha =$ 7.0

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

Table 2-4

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

2.6.6.2 Topographic Factor:

Table 2-5

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

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

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

$K_{zt} =$ **1.340962656**

$K_h =$ 2.4493761

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

$K_c =$ 0.9 (from Table 2-4)

$K_t =$ 0.43 (from Table 2-5)

f = 1.25 (from Table 2-5)

z = 129

$z_s =$ 720 (Mean elevation of base of structure above sea level)

H = 180 (Ht. of the crest above surrounding terrain)

$K_{zt} =$ 1.34 (from 2.6.6.2.1)

$K_e =$ 0.97 (from 2.6.8)

Category = **3**

2.6.10 Design Ice Thickness

Max Ice Thickness =

$t_i =$ 1.50 in

Importance Factor =

I = 1.0 (from Table 2-3)

$K_{iz} =$ 1.15 (from Sec. 2.6.10)

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

$t_{iz} =$ 1.90 in

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

$G_h = 1.0$ Latticed Structures > 600 ft

$G_h = 0.85$ Latticed Structures 450 ft or less

$G_h = 0.85 + 0.15 [h/150 - 3.0]$ $h =$ ht. of structure

$h = 160$ $G_h = 0.85$

2.6.9.2 Guyed Masts

$G_h = 0.85$

2.6.9.3 Pole Structures

$G_h = 1.1$

2.6.9 Appurtenances

$G_h = 1.0$

2.6.9.4 Structures Supported on Other Structures

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

$G_h = 1.35$ $G_h = 1.00$

2.6.11.2 Design Wind Force on Appurtenances

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

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

$q_z = 48.63$
 $q_z(ice) = 8.44$
 $q_z(30) = 3.04$

$K_z = 1.063$ (from 2.6.5.2)
 $K_{zt} = 1.3$ (from 2.6.6.2.1)
 $K_s = 1.0$ (from 2.6.7)
 $K_e = 0.97$ (from 2.6.8)
 $K_d = 0.95$ (from Table 2-2)
 $V_{max} = 120$ mph (Ultimate Wind Speed)
 $V_{max(ice)} = 50$ mph
 $V_{30} = 30$ mph

Table 2-2

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

Determine Ca:

Table 2-9

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

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance.)

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness =

1.90 in

Angle = 0 (deg)

Equivalent Angle = 180 (deg)

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
7770 Antenna	55.0	11.0	5.0	4.20	5.00	1.31	268	67	17
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	4.64	1.30	869	186	54
B14 4478 RRH	18.1	13.4	8.3	1.68	1.35	1.20	98	27	6
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	2.18	1.20	61	19	4
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.20	80	22	5
B2/B66A 8843 RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.20	66	19	4
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.13	1.20	80	22	5
B5/B12 4449 RRH (Shielded)	14.9	0.0	10.4	0.00	0.00	1.20	0	5	0
LGP21401 TMA	14.4	2.7	9.0	0.27	5.33	1.33	17	9	1
Surge Arrestor	24.0	9.7	9.7	1.62	2.47	0.70	55	15	3
1" Pipe	1.4	12.0		0.12	0.12	1.20	7	6	0
1-1/2" Pipe	1.9	12.0		0.16	0.16	1.20	9	6	1
2" Pipe	2.4	12.0		0.20	0.20	1.20	12	7	1
2-1/2" Pipe	2.9	12.0		0.24	0.24	1.20	14	7	1
3/4" Round Bar	0.8	12.0		0.06	0.06	1.20	4	5	0
2-1/2x2-1/2 Angle	2.0	12.0		0.17	0.17	2.00	16	11	1

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



WIND LOADS

Angle = 30 (deg)

Ice Thickness = 1.90 in.

Equivalent Angle = 210 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	268	142	236
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	869	395	751
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	98	61	89
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	50	98	62
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	80	66	76
B2/B66A 8843 RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	40	80	50
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	80	63	75
B5/B12 4449 RRH (Shielded)	14.9	6.6	10.4	0.68	1.08	2.26	1.43	1.20	1.20	40	63	46
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	17	53	26

WIND LOADS WITH ICE:

7770 Antenna	58.8	14.8	8.8	6.05	3.60	3.97	6.68	1.27	1.39	65	42	59
DMP65R-BU8DA Antenna	99.8	24.5	11.5	16.99	7.98	4.07	8.67	1.27	1.46	182	98	161
B14 4478 RRH	21.9	17.2	12.1	2.62	1.84	1.27	1.81	1.20	1.20	27	19	25
B14 4478 RRH (Side)	21.9	8.6	17.2	1.31	2.62	2.55	1.27	1.20	1.20	13	27	17
B2/B66A 8843 RRH	18.7	17.0	14.7	2.21	1.91	1.10	1.27	1.20	1.20	22	19	22
B2/B66A 8843 RRH (Side)	18.7	8.5	17.0	1.11	2.21	2.20	1.10	1.20	1.20	11	22	14
B5/B12 4449 RRH	18.7	17.0	14.2	2.21	1.85	1.10	1.32	1.20	1.20	22	19	21
B5/B12 4449 RRH (Shielded)	18.7	8.5	14.2	1.11	1.85	2.20	1.32	1.20	1.20	11	19	13
LGP21401 TMA	18.2	6.5	12.8	0.82	1.62	2.80	1.42	1.21	1.20	8	16	10

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	17	9	15
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	54	25	47
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	6	4	6
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	3	6	4
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	5
B2/B66A 8843 RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	2	5	3
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	5	4	5
B5/B12 4449 RRH (Shielded)	14.9	6.6	10.4	0.68	1.08	2.26	1.43	1.20	1.20	2	4	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



WIND LOADS

Angle = 60 (deg) Ice Thickness = 1.90 in. Equivalent Angle = 240 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	268	142	174
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	869	395	513
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	98	61	70
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	74	98	92
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	80	66	69
B2/B66A 8843 RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	60	80	75
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	80	63	67
B5/B12 4449 RRH (Shielded)	14.9	9.9	10.4	1.02	1.08	1.51	1.43	1.20	1.20	60	63	62
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	17	53	44

WIND LOADS WITH ICE:

7770 Antenna	58.8	14.8	8.8	6.05	3.60	3.97	6.68	1.27	1.39	65	42	48
DMP65R-BU8DA Antenna	99.8	24.5	11.5	16.99	7.98	4.07	8.67	1.27	1.46	182	98	119
B14 4478 RRH	21.9	17.2	12.1	2.62	1.84	1.27	1.81	1.20	1.20	27	19	21
B14 4478 RRH (Side)	21.9	12.9	17.2	1.96	2.62	1.70	1.27	1.20	1.20	20	27	25
B2/B66A 8843 RRH	18.7	17.0	14.7	2.21	1.91	1.10	1.27	1.20	1.20	22	19	20
B2/B66A 8843 RRH (Side)	18.7	12.8	17.0	1.66	2.21	1.47	1.10	1.20	1.20	17	22	21
B5/B12 4449 RRH	18.7	17.0	14.2	2.21	1.85	1.10	1.32	1.20	1.20	22	19	20
B5/B12 4449 RRH (Shielded)	18.7	12.8	14.2	1.66	1.85	1.47	1.32	1.20	1.20	17	19	18
LGP21401 TMA	18.2	6.5	12.8	0.82	1.62	2.80	1.42	1.21	1.20	8	16	14

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	17	9	11
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	54	25	32
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	6	4	4
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	5	6	6
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	4	5	5
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	5	4	4
B5/B12 4449 RRH (Shielded)	14.9	9.9	10.4	1.02	1.08	1.51	1.43	1.20	1.20	4	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



WIND LOADS

Angle = 90 (deg) Ice Thickness = 1.90 in. Equivalent Angle = 270 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	268	142	142
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	869	395	395
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	98	61	61
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	61	98	98
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	80	66	66
B2/B66A 8843 RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	66	80	80
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	80	63	63
B5/B12 4449 RRH (Shielded)	14.9	0.0	10.4	0.00	1.08	0.00	1.43	1.20	1.20	0	63	63
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	17	53	53

WIND LOADS WITH ICE:

7770 Antenna	58.8	14.8	8.8	6.05	3.60	3.97	6.68	1.27	1.39	65	42	42
DMP65R-BU8DA Antenna	99.8	24.5	11.5	16.99	7.98	4.07	8.67	1.27	1.46	182	98	98
B14 4478 RRH	21.9	17.2	12.1	2.62	1.84	1.27	1.81	1.20	1.20	27	19	19
B14 4478 RRH (Side)	21.9	12.1	17.2	1.84	2.62	1.81	1.27	1.20	1.20	19	27	27
B2/B66A 8843 RRH	18.7	17.0	14.7	2.21	1.91	1.10	1.27	1.20	1.20	22	19	19
B2/B66A 8843 RRH (Side)	18.7	14.7	17.0	1.91	2.21	1.27	1.10	1.20	1.20	19	22	22
B5/B12 4449 RRH	18.7	17.0	14.2	2.21	1.85	1.10	1.32	1.20	1.20	22	19	19
B5/B12 4449 RRH (Shielded)	18.7	3.8	14.2	0.50	1.85	4.91	1.32	1.31	1.20	5	19	19
LGP21401 TMA	18.2	6.5	12.8	0.82	1.62	2.80	1.42	1.21	1.20	8	16	16

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	17	9	9
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	54	25	25
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	6	4	4
B14 4478 RRH (Side)	18.1	8.3	13.4	1.04	1.68	2.18	1.35	1.20	1.20	4	6	6
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Side)	14.9	10.9	13.2	1.13	1.37	1.37	1.13	1.20	1.20	4	5	5
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	5	4	4
B5/B12 4449 RRH (Shielded)	14.9	0.0	10.4	0.00	1.08	0.00	1.43	1.20	1.20	0	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



WIND LOADS

Angle = 120 (deg) Ice Thickness = 1.90 in. Equivalent Angle = 300 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	268	142	174
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	869	395	513
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	98	61	70
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	74	98	92
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	80	66	69
B2/B66A 8843 RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	60	80	75
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	80	63	67
B5/B12 4449 RRH (Shielded)	14.9	9.9	10.4	1.02	1.08	1.51	1.43	1.20	1.20	60	63	62
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	17	53	44

WIND LOADS WITH ICE:

7770 Antenna	58.8	14.8	8.8	6.05	3.60	3.97	6.68	1.27	1.39	65	42	48
DMP65R-BU8DA Antenna	99.8	24.5	11.5	16.99	7.98	4.07	8.67	1.27	1.46	182	98	119
B14 4478 RRH	21.9	17.2	12.1	2.62	1.84	1.27	1.81	1.20	1.20	27	19	21
B14 4478 RRH (Side)	21.9	12.9	17.2	1.96	2.62	1.70	1.27	1.20	1.20	20	27	25
B2/B66A 8843 RRH	18.7	17.0	14.7	2.21	1.91	1.10	1.27	1.20	1.20	22	19	20
B2/B66A 8843 RRH (Side)	18.7	12.8	17.0	1.66	2.21	1.47	1.10	1.20	1.20	17	22	21
B5/B12 4449 RRH	18.7	17.0	14.2	2.21	1.85	1.10	1.32	1.20	1.20	22	19	20
B5/B12 4449 RRH (Shielded)	18.7	12.8	14.2	1.66	1.85	1.47	1.32	1.20	1.20	17	19	18
LGP21401 TMA	18.2	6.5	12.8	0.82	1.62	2.80	1.42	1.21	1.20	8	16	14

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	17	9	11
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	54	25	32
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	6	4	4
B14 4478 RRH (Side)	18.1	10.1	13.4	1.26	1.68	1.80	1.35	1.20	1.20	5	6	6
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	4
B2/B66A 8843 RRH (Side)	14.9	9.9	13.2	1.02	1.37	1.51	1.13	1.20	1.20	4	5	5
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	5	4	4
B5/B12 4449 RRH (Shielded)	14.9	9.9	10.4	1.02	1.08	1.51	1.43	1.20	1.20	4	4	4
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

Date: 10/18/2019
 Project Name: NEW HARTFORD-SOUTHEAST RD.
 Project No.: CT1090
 Designed By: LBW Checked By: MSC



WIND LOADS

Angle = 150 (deg)

Ice Thickness = 1.90 in.

Equivalent Angle = 330 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	268	142	236
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	869	395	751
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	98	61	89
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	50	98	62
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	80	66	76
B2/B66A 8843 RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	40	80	50
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	80	63	75
B5/B12 4449 RRH (Shielded)	14.9	6.6	10.4	0.68	1.08	2.26	1.43	1.20	1.20	40	63	46
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	17	53	26

WIND LOADS WITH ICE:

7770 Antenna	58.8	14.8	8.8	6.05	3.60	3.97	6.68	1.27	1.39	65	42	59
DMP65R-BU8DA Antenna	99.8	24.5	11.5	16.99	7.98	4.07	8.67	1.27	1.46	182	98	161
B14 4478 RRH	21.9	17.2	12.1	2.62	1.84	1.27	1.81	1.20	1.20	27	19	25
B14 4478 RRH (Side)	21.9	8.6	17.2	1.31	2.62	2.55	1.27	1.20	1.20	13	27	17
B2/B66A 8843 RRH	18.7	17.0	14.7	2.21	1.91	1.10	1.27	1.20	1.20	22	19	22
B2/B66A 8843 RRH (Side)	18.7	8.5	17.0	1.11	2.21	2.20	1.10	1.20	1.20	11	22	14
B5/B12 4449 RRH	18.7	17.0	14.2	2.21	1.85	1.10	1.32	1.20	1.20	22	19	21
B5/B12 4449 RRH (Shielded)	18.7	8.5	14.2	1.11	1.85	2.20	1.32	1.20	1.20	11	19	13
LGP21401 TMA	18.2	6.5	12.8	0.82	1.62	2.80	1.42	1.21	1.20	8	16	10

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	17	9	15
DMP65R-BU8DA Antenna	96.0	20.7	7.7	13.80	5.13	4.64	12.47	1.30	1.58	54	25	47
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	6	4	6
B14 4478 RRH (Side)	18.1	6.7	13.4	0.84	1.68	2.70	1.35	1.21	1.20	3	6	4
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	5	4	5
B2/B66A 8843 RRH (Side)	14.9	6.6	13.2	0.68	1.37	2.26	1.13	1.20	1.20	2	5	3
B5/B12 4449 RRH	14.9	13.2	10.4	1.37	1.08	1.13	1.43	1.20	1.20	5	4	5
B5/B12 4449 RRH (Shielded)	14.9	6.6	10.4	0.68	1.08	2.26	1.43	1.20	1.20	2	4	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

Date: 10/18/2019

Project Name: NEW HARTFORD-SOUTHEAST RD.

Project No.: CT1090

Designed By: LBW Checked By: MSC



HUDSON
Design Group LLC

ICE WEIGHT CALCULATIONS

Thickness of ice: 1.90 in.
Density of ice: 56 pcf

7770 Antenna

Weight of ice based on total radial SF area:
Height (in): 55.0
Width (in): 11.0
Depth (in): 5.0
Total weight of ice on object: 149 lbs
Weight of object: 35.0 lbs
Combined weight of ice and object: 184 lbs

DMP65R-BU8DA Antenna

Weight of ice based on total radial SF area:
Height (in): 96.0
Width (in): 20.7
Depth (in): 7.7
Total weight of ice on object: 445 lbs
Weight of object: 96.0 lbs
Combined weight of ice and object: 541 lbs

B14 4478 RRH

Weight of ice based on total radial SF area:
Height (in): 18.1
Width (in): 13.4
Depth (in): 8.3
Total weight of ice on object: 62 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 122 lbs

B2/B66A 8843 RRH

Weight of ice based on total radial SF area:
Height (in): 14.9
Width (in): 13.2
Depth (in): 10.9
Total weight of ice on object: 55 lbs
Weight of object: 72.0 lbs
Combined weight of ice and object: 127 lbs

B5/B12 4449 RRH

Weight of ice based on total radial SF area:
Height (in): 14.9
Width (in): 13.2
Depth (in): 10.4
Total weight of ice on object: 54 lbs
Weight of object: 73.0 lbs
Combined weight of ice and object: 127 lbs

LGP21401 TMA

Weight of ice based on total radial SF area:
Height (in): 14.4
Width (in): 2.7
Depth (in): 9.0
Total weight of ice on object: 31 lbs
Weight of object: 19.0 lbs
Combined weight of ice and object: 50 lbs

Squid Surge Arrestor

Weight of ice based on total radial SF area:
Depth (in): 24.0
Diameter (in): 9.7
Total weight of ice on object: 54 lbs
Weight of object: 33 lbs
Combined weight of ice and object: 87 lbs

1" pipe

Per foot weight of ice:
diameter (in): 1.32
Per foot weight of ice on object: 7 plf

2" pipe

Per foot weight of ice:
diameter (in): 2.38
Per foot weight of ice on object: 10 plf

1-1/4" Pipe

Per foot weight of ice:
diameter (in): 1.66
Per foot weight of ice on object: 8 plf

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

Weight of ice based on total radial SF area:
Height (in): 2.5
Width (in): 2.5
Per foot weight of ice on object: 13 plf

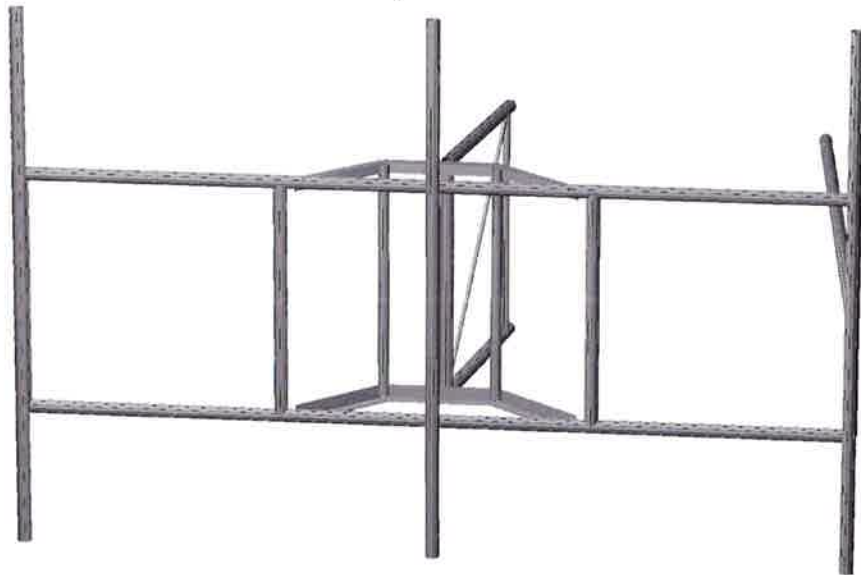
3/4" Round Bar

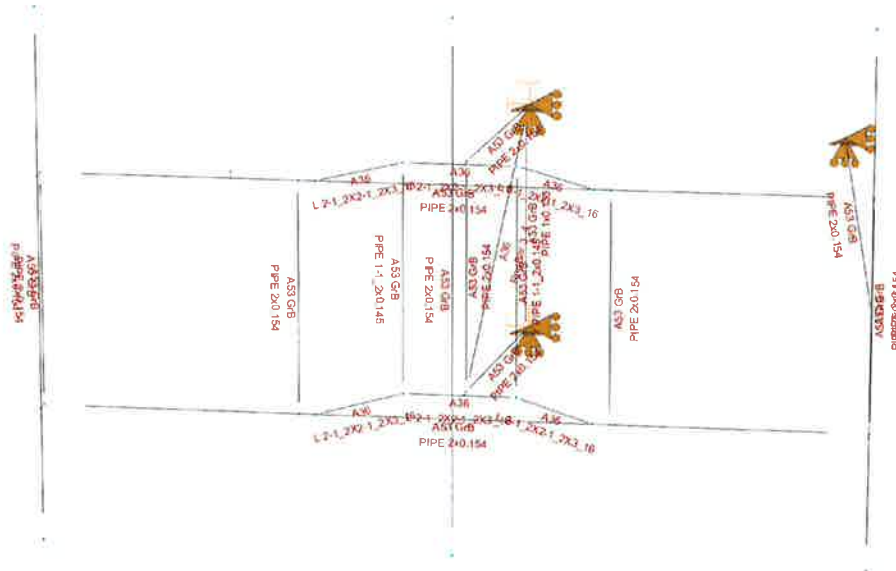
Per foot weight of ice:
diameter (in): 0.75
Per foot weight of ice on object: 6 plf







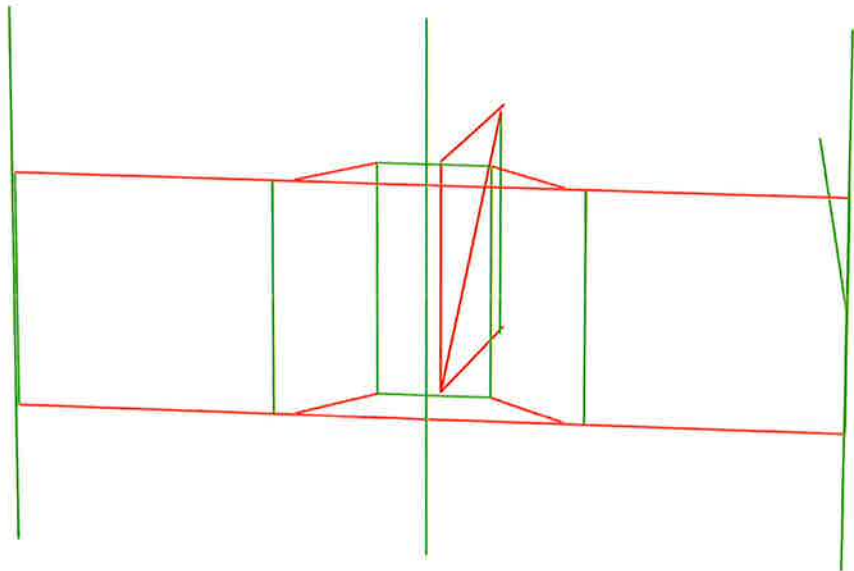
HUDSON
Design Group LLC

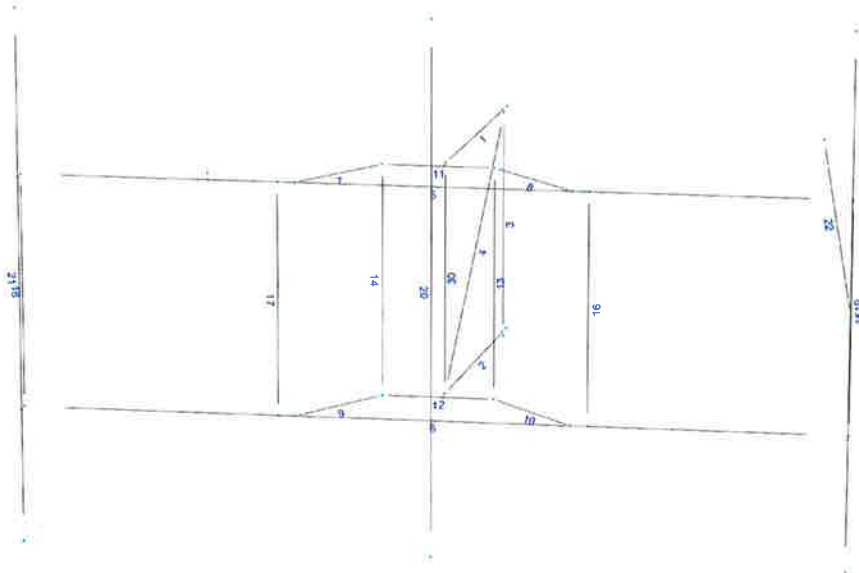
**Mount Calculations
(Existing Conditions)**





-  Not designed
-  Error on design
-  Design O.K.
-  With warnings





Current Date: 10/18/2019 8:57 AM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\AT&T\CT\CT1090\LTE 2C-3C-4C-5C\CT1090 (LT 2C-3C-4C-5C).retx\

Load data

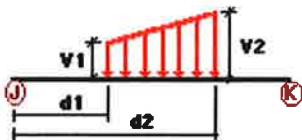
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

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

Distributed force on members

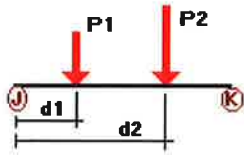


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%	
Wo	1	z	-0.012	0.00	0.00	No	0.00	No	
	2	z	-0.012	0.00	0.00	No	0.00	No	
	5	z	-0.012	0.00	0.00	No	0.00	No	
	6	z	-0.012	0.00	0.00	No	0.00	No	
	7	z	-0.016	0.00	0.00	No	0.00	No	
	8	z	-0.016	0.00	0.00	No	0.00	No	
	9	z	-0.016	0.00	0.00	No	0.00	No	
	10	z	-0.016	0.00	0.00	No	0.00	No	
	11	z	-0.016	0.00	0.00	No	0.00	No	
	12	z	-0.016	0.00	0.00	No	0.00	No	
	13	z	-0.009	0.00	0.00	No	0.00	No	
	14	z	-0.009	0.00	0.00	No	0.00	No	
	16	z	-0.012	0.00	0.00	No	0.00	No	
	17	z	-0.012	0.00	0.00	No	0.00	No	
	22	z	-0.012	0.00	0.00	No	0.00	No	
	W30	1	z	-0.012	0.00	0.00	No	0.00	No
		2	z	-0.012	0.00	0.00	No	0.00	No
5		z	-0.012	0.00	0.00	No	0.00	No	
6		z	-0.012	0.00	0.00	No	0.00	No	
7		z	-0.016	0.00	0.00	No	0.00	No	
8		z	-0.016	0.00	0.00	No	0.00	No	
9		z	-0.016	0.00	0.00	No	0.00	No	
10		z	-0.016	0.00	0.00	No	0.00	No	
11		z	-0.016	0.00	0.00	No	0.00	No	
12		z	-0.016	0.00	0.00	No	0.00	No	
13		z	-0.009	0.00	0.00	No	0.00	No	
14		z	-0.009	0.00	0.00	No	0.00	No	
16		z	-0.012	0.00	0.00	No	0.00	No	
17		z	-0.012	0.00	0.00	No	0.00	No	
22		z	-0.012	0.00	0.00	No	0.00	No	
W60		1	x	-0.012	0.00	0.00	No	0.00	No
		2	x	-0.012	0.00	0.00	No	0.00	No
	3	x	-0.007	0.00	0.00	No	0.00	No	
	4	x	-0.004	0.00	0.00	No	0.00	No	
	5	x	-0.012	0.00	0.00	No	0.00	No	
	6	x	-0.012	0.00	0.00	No	0.00	No	
	7	x	-0.016	0.00	0.00	No	0.00	No	
	8	x	-0.016	0.00	0.00	No	0.00	No	
	9	x	-0.016	0.00	0.00	No	0.00	No	
	10	x	-0.016	0.00	0.00	No	0.00	No	
	11	x	-0.016	0.00	0.00	No	0.00	No	
	12	x	-0.016	0.00	0.00	No	0.00	No	
	13	x	-0.009	0.00	0.00	No	0.00	No	
	14	x	-0.009	0.00	0.00	No	0.00	No	
	15	x	-0.012	0.00	0.00	No	0.00	No	
	16	x	-0.012	0.00	0.00	No	0.00	No	
	17	x	-0.012	0.00	0.00	No	0.00	No	
	18	x	-0.012	0.00	0.00	No	0.00	No	
	19	x	-0.012	0.00	0.00	No	0.00	No	
	20	x	-0.012	0.00	0.00	No	0.00	No	
	21	x	-0.012	0.00	0.00	No	0.00	No	
	22	x	-0.012	0.00	0.00	No	0.00	No	
W90	30	x	-0.012	0.00	0.00	No	0.00	No	
	1	x	-0.012	0.00	0.00	No	0.00	No	
	2	x	-0.012	0.00	0.00	No	0.00	No	
	3	x	-0.007	0.00	0.00	No	0.00	No	
	4	x	-0.004	0.00	0.00	No	0.00	No	
	7	x	-0.016	0.00	0.00	No	0.00	No	
	8	x	-0.016	0.00	0.00	No	0.00	No	
	9	x	-0.016	0.00	0.00	No	0.00	No	

	10	x	-0.016	0.00	0.00	No	0.00	No
	11	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.009	0.00	0.00	No	0.00	No
	14	x	-0.009	0.00	0.00	No	0.00	No
	15	x	-0.012	0.00	0.00	No	0.00	No
	16	x	-0.012	0.00	0.00	No	0.00	No
	17	x	-0.012	0.00	0.00	No	0.00	No
	18	x	-0.012	0.00	0.00	No	0.00	No
	19	x	-0.012	0.00	0.00	No	0.00	No
	20	x	-0.012	0.00	0.00	No	0.00	No
	21	x	-0.012	0.00	0.00	No	0.00	No
	22	x	-0.012	0.00	0.00	No	0.00	No
	30	x	-0.012	0.00	0.00	No	0.00	No
W120	1	x	-0.012	0.00	0.00	No	0.00	No
	2	x	-0.012	0.00	0.00	No	0.00	No
	3	x	-0.007	0.00	0.00	No	0.00	No
	4	x	-0.004	0.00	0.00	No	0.00	No
	5	x	-0.012	0.00	0.00	No	0.00	No
	6	x	-0.012	0.00	0.00	No	0.00	No
	7	x	-0.016	0.00	0.00	No	0.00	No
	8	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.009	0.00	0.00	No	0.00	No
	14	x	-0.009	0.00	0.00	No	0.00	No
	15	x	-0.012	0.00	0.00	No	0.00	No
	16	x	-0.012	0.00	0.00	No	0.00	No
	17	x	-0.012	0.00	0.00	No	0.00	No
	18	x	-0.012	0.00	0.00	No	0.00	No
	19	x	-0.012	0.00	0.00	No	0.00	No
	20	x	-0.012	0.00	0.00	No	0.00	No
	21	x	-0.012	0.00	0.00	No	0.00	No
	22	x	-0.012	0.00	0.00	No	0.00	No
	30	x	-0.012	0.00	0.00	No	0.00	No
W150	1	z	0.012	0.00	0.00	No	0.00	No
	2	z	0.012	0.00	0.00	No	0.00	No
	5	z	0.012	0.00	0.00	No	0.00	No
	6	z	0.012	0.00	0.00	No	0.00	No
	7	z	0.016	0.00	0.00	No	0.00	No
	8	z	0.016	0.00	0.00	No	0.00	No
	9	z	0.016	0.00	0.00	No	0.00	No
	10	z	0.016	0.00	0.00	No	0.00	No
	11	z	0.016	0.00	0.00	No	0.00	No
	12	z	0.016	0.00	0.00	No	0.00	No
	13	z	0.009	0.00	0.00	No	0.00	No
	14	z	0.009	0.00	0.00	No	0.00	No
	16	z	0.012	0.00	0.00	No	0.00	No
	17	z	0.012	0.00	0.00	No	0.00	No
	22	z	0.012	0.00	0.00	No	0.00	No
Di	1	y	-0.01	0.00	0.00	No	0.00	No
	2	y	-0.01	0.00	0.00	No	0.00	No
	3	y	-0.007	0.00	0.00	No	0.00	No
	4	y	-0.006	0.00	0.00	No	0.00	No
	5	y	-0.01	0.00	0.00	No	0.00	No
	6	y	-0.01	0.00	0.00	No	0.00	No
	7	y	-0.013	0.00	0.00	No	0.00	No
	8	y	-0.013	0.00	0.00	No	0.00	No

9	y	-0.013	0.00	0.00	No	0.00	No
10	y	-0.013	0.00	0.00	No	0.00	No
11	y	-0.013	0.00	0.00	No	0.00	No
12	y	-0.013	0.00	0.00	No	0.00	No
13	y	-0.009	0.00	0.00	No	0.00	No
14	y	-0.009	0.00	0.00	No	0.00	No
15	y	-0.01	0.00	0.00	No	0.00	No
16	y	-0.01	0.00	0.00	No	0.00	No
17	y	-0.01	0.00	0.00	No	0.00	No
18	y	-0.01	0.00	0.00	No	0.00	No
19	y	-0.01	0.00	0.00	No	0.00	No
20	y	-0.01	0.00	0.00	No	0.00	No
21	y	-0.01	0.00	0.00	No	0.00	No
22	y	-0.01	0.00	0.00	No	0.00	No
30	y	-0.01	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%	
D	3	y	-0.142	1.50	No	
		19	y	-0.018	2.00	No
	20	y	-0.018	5.50	No	
		y	-0.038	3.50	No	
		y	-0.048	0.50	No	
		y	-0.048	7.50	No	
		y	-0.048	0.50	No	
		y	-0.048	7.50	No	
	Wo	3	y	-0.073	1.50	No
			19	z	-0.127	1.50
19		z	-0.134	2.00	No	
		z	-0.134	5.50	No	
		z	-0.035	3.50	No	
20		z	-0.435	0.50	No	
		z	-0.435	7.50	No	
		z	-0.435	0.50	No	
W30	3	z	-0.435	7.50	No	
		3	-0.062	1.50	No	
	19	3	-0.119	2.00	No	
		3	-0.119	5.50	No	
		3	-0.052	3.50	No	
	20	3	-0.376	0.50	No	
		3	-0.376	7.50	No	
		3	-0.376	0.50	No	
	W60	3	3	-0.376	7.50	No
			3	-0.046	1.50	No
19		3	-0.092	1.50	No	
		3	-0.087	2.00	No	
	3	3	-0.087	5.50	No	
		3	-0.087	3.50	No	

	20	3	-0.257	0.50	No
		3	-0.257	7.50	No
	21	3	-0.257	0.50	No
		3	-0.257	7.50	No
		3	-0.062	1.50	No
W90	3	x	-0.098	1.50	No
	19	x	-0.072	2.00	No
		x	-0.072	5.50	No
		x	-0.105	3.50	No
	20	x	-0.198	0.50	No
		x	-0.198	7.50	No
	21	x	-0.198	0.50	No
		x	-0.198	7.50	No
		x	-0.063	1.50	No
W120	3	2	-0.092	1.50	No
	19	2	-0.087	2.00	No
		2	-0.087	5.50	No
		2	-0.087	3.50	No
	20	2	-0.257	0.50	No
		2	-0.257	7.50	No
	21	2	-0.257	0.50	No
		2	-0.257	7.50	No
		2	-0.062	1.50	No
W150	3	2	-0.062	1.50	No
	19	2	-0.119	2.00	No
		2	-0.119	5.50	No
		2	-0.052	3.50	No
	20	2	-0.376	0.50	No
		2	-0.376	7.50	No
	21	2	-0.376	0.50	No
		2	-0.376	7.50	No
		2	-0.046	1.50	No
Di	3	y	-0.117	1.50	No
	19	y	-0.075	2.00	No
		y	-0.075	5.50	No
		y	-0.062	3.50	No
	20	y	-0.223	0.50	No
		y	-0.223	7.50	No
	21	y	-0.223	0.50	No
		y	-0.223	7.50	No
		y	-0.054	1.50	No
WI0	3	z	-0.038	1.50	No
	19	z	-0.034	2.00	No
		z	-0.034	5.50	No
		z	-0.018	3.50	No
	20	z	-0.093	0.50	No
		z	-0.093	7.50	No
	21	z	-0.093	0.50	No
		z	-0.093	7.50	No
		z	-0.005	1.50	No
WI30	3	3	-0.017	1.50	No
	19	3	-0.03	2.00	No
		3	-0.03	5.50	No
		3	-0.021	3.50	No
	20	3	-0.081	0.50	No
		3	-0.081	7.50	No
	21	3	-0.081	0.50	No
		3	-0.081	7.50	No
		3	-0.013	1.50	No
WI60	3	3	-0.025	1.50	No

	19	3	-0.024	2.00	No
		3	-0.024	5.50	No
		3	-0.029	3.50	No
	20	3	-0.06	0.50	No
		3	-0.06	7.50	No
	21	3	-0.06	0.50	No
		3	-0.06	7.50	No
		3	-0.018	1.50	No
WI90	3	x	-0.027	1.50	No
	19	x	-0.022	2.00	No
		x	-0.022	5.50	No
		x	-0.033	3.50	No
	20	x	-0.05	0.50	No
		x	-0.05	7.50	No
	21	x	-0.05	0.50	No
		x	-0.05	7.50	No
		x	-0.019	1.50	No
WI120	3	2	-0.025	1.50	No
	19	2	-0.024	2.00	No
		2	-0.024	5.50	No
		2	-0.029	3.50	No
	20	2	-0.06	0.50	No
		2	-0.06	7.50	No
	21	2	-0.06	0.50	No
		2	-0.06	7.50	No
		2	-0.018	1.50	No
WI150	3	2	-0.017	1.50	No
	19	2	-0.03	2.00	No
		2	-0.03	5.50	No
		2	-0.021	3.50	No
	20	2	-0.081	0.50	No
		2	-0.081	7.50	No
	21	2	-0.081	0.50	No
		2	-0.081	7.50	No
		2	-0.013	1.50	No
WL0	3	z	-0.008	1.50	No
	19	z	-0.009	2.00	No
		z	-0.009	5.50	No
		z	-0.002	3.50	No
	20	z	-0.028	0.50	No
		z	-0.028	7.50	No
	21	z	-0.028	0.50	No
		z	-0.028	7.50	No
WL30	3	3	-0.004	1.50	No
	19	3	-0.008	2.00	No
		3	-0.008	5.50	No
		3	-0.003	3.50	No
	20	3	-0.024	0.50	No
		3	-0.024	7.50	No
	21	3	-0.024	0.50	No
		3	-0.024	7.50	No
		3	-0.003	1.50	No
WL60	3	3	-0.006	1.50	No
	19	3	-0.006	2.00	No
		3	-0.006	5.50	No
		3	-0.005	3.50	No
	20	3	-0.017	0.50	No
		3	-0.017	7.50	No
	21	3	-0.017	0.50	No
		3	-0.017	7.50	No

		3	-0.004	1.50	No
WL90	3	x	-0.006	1.50	No
	19	x	-0.005	2.00	No
		x	-0.005	5.50	No
		x	-0.007	3.50	No
	20	x	-0.013	0.50	No
21	x	-0.013	7.50	No	
	x	-0.013	0.50	No	
	x	-0.013	7.50	No	
	x	-0.004	1.50	No	
WL120	3	2	-0.006	1.50	No
	19	2	-0.006	2.00	No
		2	-0.006	5.50	No
		2	-0.005	3.50	No
	20	2	-0.017	0.50	No
	21	2	-0.017	7.50	No
		2	-0.017	0.50	No
		2	-0.017	7.50	No
WL150	3	2	-0.004	1.50	No
	19	2	-0.008	2.00	No
		2	-0.008	5.50	No
		2	-0.003	3.50	No
	20	2	-0.024	0.50	No
	21	2	-0.024	7.50	No
		2	-0.024	0.50	No
		2	-0.024	7.50	No
			2	-0.003	1.50
LL1	6	y	-0.25	6.00	No
LL2	6	y	-0.25	12.00	No
LL3	6	y	-0.25	0.00	No
LLa1	19	y	-0.25	4.00	No
LLa2	20	y	-0.25	4.00	No
LLa3	21	y	-0.25	4.00	No

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00

WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	250 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	250 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	250 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

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

Current Date: 10/18/2019 4:40 PM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\AT&T\CT\CT1090\LTE 2C-3C-4C-5C\CT1090 (LT 2C-3C-4C-5C).retx\

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+W₀
LC2=1.2D+W₃₀
LC3=1.2D+W₆₀
LC4=1.2D+W₉₀
LC5=1.2D+W₁₂₀
LC6=1.2D+W₁₅₀
LC7=1.2D-W₀
LC8=1.2D-W₃₀
LC9=1.2D-W₆₀
LC10=1.2D-W₉₀
LC11=1.2D-W₁₂₀
LC12=1.2D-W₁₅₀
LC13=0.9D+W₀
LC14=0.9D+W₃₀
LC15=0.9D+W₆₀
LC16=0.9D+W₉₀
LC17=0.9D+W₁₂₀
LC18=0.9D+W₁₅₀
LC19=0.9D-W₀
LC20=0.9D-W₃₀
LC21=0.9D-W₆₀
LC22=0.9D-W₉₀
LC23=0.9D-W₁₂₀
LC24=0.9D-W₁₅₀
LC25=1.2D+D_i+W₀
LC26=1.2D+D_i+W₃₀
LC27=1.2D+D_i+W₆₀
LC28=1.2D+D_i+W₉₀
LC29=1.2D+D_i+W₁₂₀
LC30=1.2D+D_i+W₁₅₀
LC31=1.2D+D_i-W₀
LC32=1.2D+D_i-W₃₀
LC33=1.2D+D_i-W₆₀
LC34=1.2D+D_i-W₉₀
LC35=1.2D+D_i-W₁₂₀
LC36=1.2D+D_i-W₁₅₀
LC38=1.2D+1.5LL₁
LC39=1.2D+1.5LL₂
LC40=1.2D+1.5LL₃
LC41=1.2D+W_{L0}+1.5LLa₁
LC42=1.2D+W_{L30}+1.5LLa₁
LC43=1.2D+W_{L60}+1.5LLa₁
LC44=1.2D+W_{L90}+1.5LLa₁
LC45=1.2D+W_{L120}+1.5LLa₁
LC46=1.2D+W_{L150}+1.5LLa₁
LC47=1.2D-W_{L0}+1.5LLa₁
LC48=1.2D-W_{L30}+1.5LLa₁
LC49=1.2D-W_{L60}+1.5LLa₁
LC50=1.2D-W_{L90}+1.5LLa₁
LC51=1.2D-W_{L120}+1.5LLa₁
LC52=1.2D-W_{L150}+1.5LLa₁
LC53=1.2D+W_{L0}+1.5LLa₂

LC54=1.2D+WL30+1.5LLa2
 LC55=1.2D+WL60+1.5LLa2
 LC56=1.2D+WL90+1.5LLa2
 LC57=1.2D+WL120+1.5LLa2
 LC58=1.2D+WL150+1.5LLa2
 LC59=1.2D-WL0+1.5LLa2
 LC60=1.2D-WL30+1.5LLa2
 LC61=1.2D-WL60+1.5LLa2
 LC62=1.2D-WL90+1.5LLa2
 LC63=1.2D-WL120+1.5LLa2
 LC64=1.2D-WL150+1.5LLa2
 LC65=1.2D+WL0+1.5LLa3
 LC66=1.2D+WL30+1.5LLa3
 LC67=1.2D+WL60+1.5LLa3
 LC68=1.2D+WL90+1.5LLa3
 LC69=1.2D+WL120+1.5LLa3
 LC70=1.2D+WL150+1.5LLa3
 LC71=1.2D-WL0+1.5LLa3
 LC72=1.2D-WL30+1.5LLa3
 LC73=1.2D-WL60+1.5LLa3
 LC74=1.2D-WL90+1.5LLa3
 LC75=1.2D-WL120+1.5LLa3
 LC76=1.2D-WL150+1.5LLa3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
<i>L 2-1_2X2-1_2X3_16</i>		7	LC7 at 0.00%	1.34	N.G.	
		8	LC8 at 100.00%	1.40	N.G.	
		9	LC1 at 0.00%	1.26	N.G.	
		10	LC2 at 100.00%	1.30	N.G.	
		11	LC6 at 53.13%	0.91	OK	
		12	LC25 at 53.13%	0.95	OK	
<i>PIPE 1-1_2x0.145</i>		13	LC32 at 100.00%	0.42	OK	
		14	LC28 at 100.00%	0.76	OK	
<i>PIPE 1x0.133</i>		3	LC1 at 0.00%	0.59	OK	
<i>PIPE 2x0.154</i>		1	LC3 at 0.00%	2.34	N.G.	
		2	LC32 at 0.00%	2.29	N.G.	
		5	LC8 at 66.96%	1.26	N.G.	
		6	LC2 at 66.67%	1.18	N.G.	
		15	LC3 at 46.88%	0.32	OK	
		16	LC48 at 0.00%	0.42	OK	
		17	LC31 at 0.00%	0.70	OK	
		18	LC30 at 0.00%	0.34	OK	
		19	LC50 at 31.25%	0.14	OK	
		20	LC1 at 29.17%	0.60	OK	
		21	LC1 at 29.17%	0.61	OK	
		22	LC20 at 0.00%	0.43	OK	
		30	LC31 at 0.00%	1.17	N.G.	
<i>RndBar 3_4</i>		4	LC10 at 100.00%	6.23	N.G.	

Geometry data

GLOSSARY

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

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
3	0.00	0.00	0.42	0
4	0.00	3.50	0.00	0
6	0.00	3.50	0.42	0
7	0.75	0.00	3.70	0
8	0.75	3.50	3.70	0
9	-0.90	0.00	3.70	0
10	-0.90	3.50	3.70	0
17	2.00	3.50	4.87	0
18	2.00	0.00	4.87	0
19	-2.00	3.50	4.87	0
20	-2.00	0.00	4.87	0
27	2.25	3.50	4.87	0
28	2.25	0.00	4.87	0
29	-2.25	3.50	4.87	0
30	-2.25	0.00	4.87	0
31	6.00	-2.00	5.07	0
32	0.00	-2.00	5.07	0
33	-6.00	-2.00	5.07	0
34	6.00	6.00	5.07	0
35	0.00	6.00	5.07	0

36	-6.00	6.00	5.07	0
37	6.00	1.75	4.87	0
38	5.00	1.75	-5.33	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	1	1	1
4	1	1	1	1	1	1
38	1	1	1	0	0	0

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	4	5		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
2	1	2		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
3	6	3		PIPE 1x0.133	A53 GrB	0.00	0.00	0.00
4	6	2		RndBar 3_4	A36	0.00	0.00	0.00
5	16	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
6	15	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
7	19	10		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
8	8	17		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
9	20	9		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
10	7	18		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
11	10	8		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
12	9	7		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
13	8	7		PIPE 1-1_2x0.145	A53 GrB	0.00	0.00	0.00
14	10	9		PIPE 1-1_2x0.145	A53 GrB	0.00	0.00	0.00
15	14	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
16	27	28		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
17	29	30		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
18	16	15		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
19	34	31		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
20	35	32		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
21	36	33		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
22	37	38		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
30	5	2		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
3	315.00	0	0.00	0.00	0.00
7	90.00	0	0.00	0.00	0.00
8	90.00	0	0.00	0.00	0.00
11	90.00	0	0.00	0.00	0.00
19	315.00	0	0.00	0.00	0.00
20	315.00	0	0.00	0.00	0.00
21	315.00	0	0.00	0.00	0.00

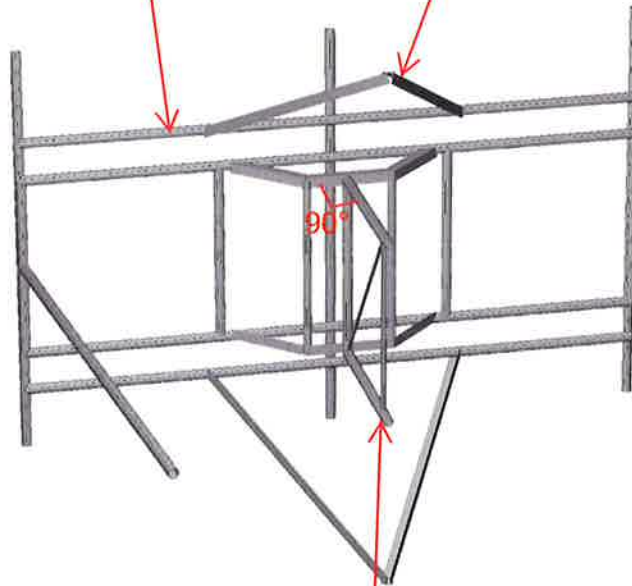


HUDSON
Design Group LLC

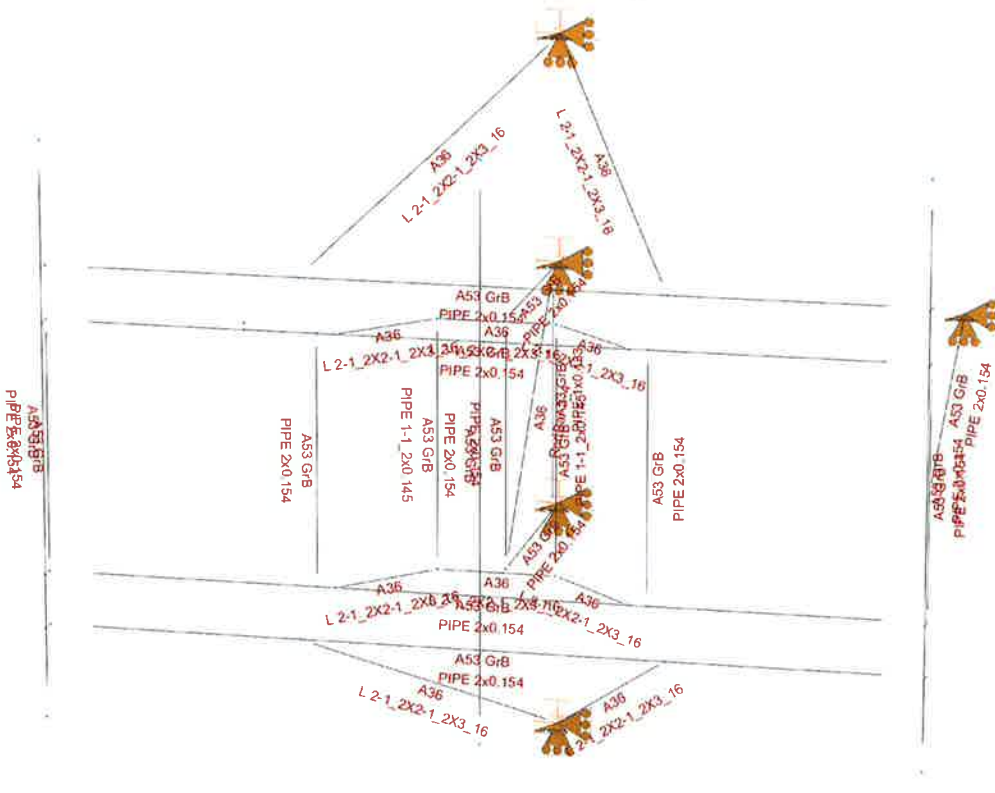
**Mount Calculations
(Modified Conditions)**

Install new 2" std. (2.38" O.D.) horizontal pipe secured to existing antenna pipes (typ. of 2 per sector, total of 6).

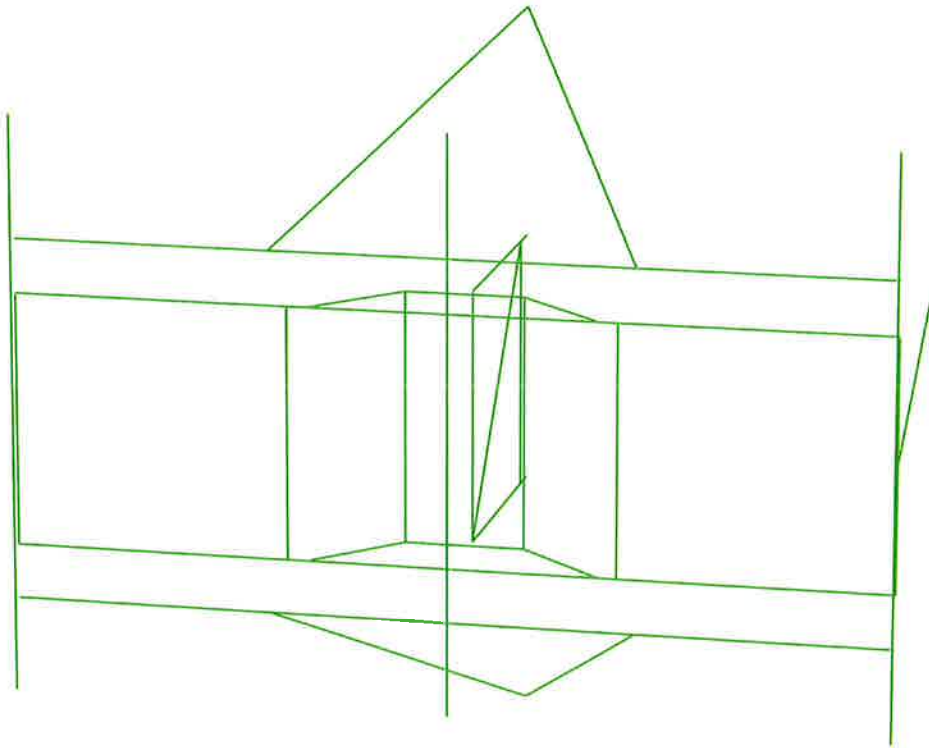
Install new platform reinforcement kit, SitePro1 P/N PRK-SFS-L (or approved equal) (typ. of 2 per sector, total of 6).

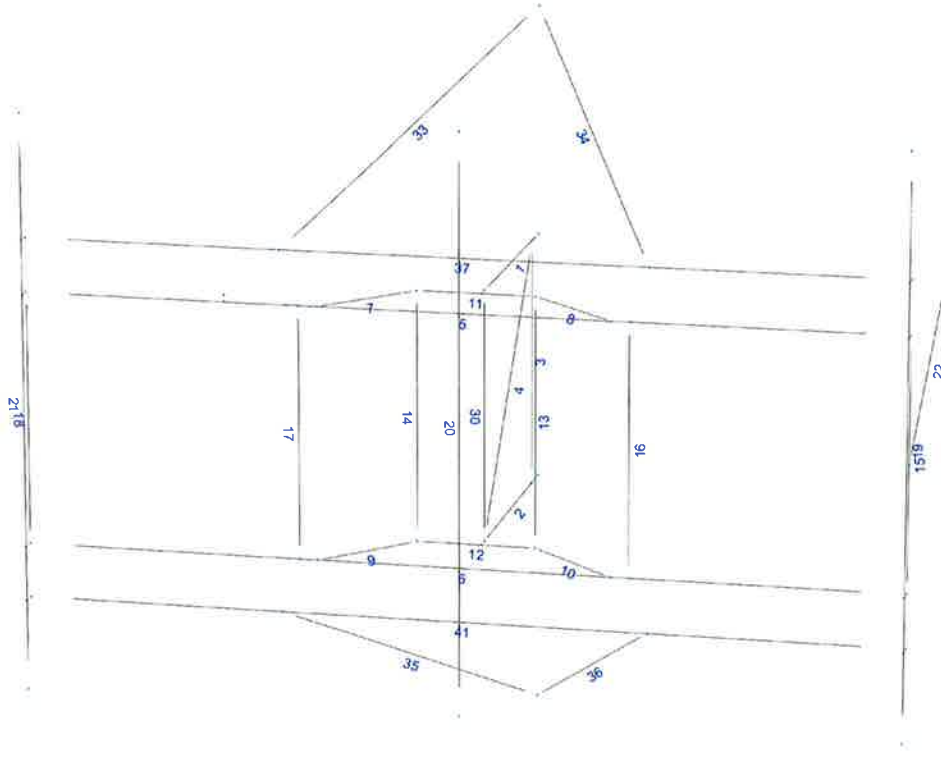


Rotate existing mount face so it is perpendicular to mount standoff.



-  Not designed
-  Error on design
-  Design O.K.
-  With warnings





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File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\AT&T\CT\CT1090\LTE 2C-3C-4C-5C\CT1090 (LT 2C-3C-4C-5C)(MODS).retxl

Load data

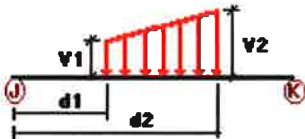
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

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

Distributed force on members

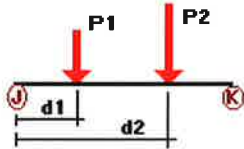


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	1	z	-0.012	0.00	0.00	No	0.00	No
	2	z	-0.012	0.00	0.00	No	0.00	No
	5	z	-0.012	0.00	0.00	No	0.00	No
	6	z	-0.012	0.00	0.00	No	0.00	No
	7	z	-0.016	0.00	0.00	No	0.00	No
	8	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	10	z	-0.016	0.00	0.00	No	0.00	No
	11	z	-0.016	0.00	0.00	No	0.00	No
	12	z	-0.016	0.00	0.00	No	0.00	No
	13	z	-0.009	0.00	0.00	No	0.00	No
	14	z	-0.009	0.00	0.00	No	0.00	No
	16	z	-0.012	0.00	0.00	No	0.00	No
	17	z	-0.012	0.00	0.00	No	0.00	No
	22	z	-0.012	0.00	0.00	No	0.00	No
	37	z	-0.012	0.00	0.00	No	0.00	No
	W30	41	z	-0.012	0.00	0.00	No	0.00
1		z	-0.012	0.00	0.00	No	0.00	No
2		z	-0.012	0.00	0.00	No	0.00	No
5		z	-0.012	0.00	0.00	No	0.00	No
6		z	-0.012	0.00	0.00	No	0.00	No
7		z	-0.016	0.00	0.00	No	0.00	No
8		z	-0.016	0.00	0.00	No	0.00	No
9		z	-0.016	0.00	0.00	No	0.00	No
10		z	-0.016	0.00	0.00	No	0.00	No
11		z	-0.016	0.00	0.00	No	0.00	No
12		z	-0.016	0.00	0.00	No	0.00	No
13		z	-0.009	0.00	0.00	No	0.00	No
14		z	-0.009	0.00	0.00	No	0.00	No
16		z	-0.012	0.00	0.00	No	0.00	No
17		z	-0.012	0.00	0.00	No	0.00	No
22		z	-0.012	0.00	0.00	No	0.00	No
37		z	-0.012	0.00	0.00	No	0.00	No
41	z	-0.012	0.00	0.00	No	0.00	No	
W60	1	x	-0.012	0.00	0.00	No	0.00	No
	2	x	-0.012	0.00	0.00	No	0.00	No
	3	x	-0.007	0.00	0.00	No	0.00	No
	4	x	-0.004	0.00	0.00	No	0.00	No
	5	x	-0.012	0.00	0.00	No	0.00	No
	6	x	-0.012	0.00	0.00	No	0.00	No
	7	x	-0.016	0.00	0.00	No	0.00	No
	8	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.009	0.00	0.00	No	0.00	No
	14	x	-0.009	0.00	0.00	No	0.00	No
	15	x	-0.012	0.00	0.00	No	0.00	No
	16	x	-0.012	0.00	0.00	No	0.00	No
	17	x	-0.012	0.00	0.00	No	0.00	No
	18	x	-0.012	0.00	0.00	No	0.00	No
	19	x	-0.012	0.00	0.00	No	0.00	No
	20	x	-0.012	0.00	0.00	No	0.00	No
	21	x	-0.012	0.00	0.00	No	0.00	No
	22	x	-0.012	0.00	0.00	No	0.00	No
30	x	-0.012	0.00	0.00	No	0.00	No	
37	x	-0.012	0.00	0.00	No	0.00	No	
41	x	-0.012	0.00	0.00	No	0.00	No	
W90	1	x	-0.012	0.00	0.00	No	0.00	No

	2	x	-0.012	0.00	0.00	No	0.00	No
	3	x	-0.007	0.00	0.00	No	0.00	No
	4	x	-0.004	0.00	0.00	No	0.00	No
	7	x	-0.016	0.00	0.00	No	0.00	No
	8	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.009	0.00	0.00	No	0.00	No
	14	x	-0.009	0.00	0.00	No	0.00	No
	15	x	-0.012	0.00	0.00	No	0.00	No
	16	x	-0.012	0.00	0.00	No	0.00	No
	17	x	-0.012	0.00	0.00	No	0.00	No
	18	x	-0.012	0.00	0.00	No	0.00	No
	19	x	-0.012	0.00	0.00	No	0.00	No
	20	x	-0.012	0.00	0.00	No	0.00	No
	21	x	-0.012	0.00	0.00	No	0.00	No
	22	x	-0.012	0.00	0.00	No	0.00	No
	30	x	-0.012	0.00	0.00	No	0.00	No
W120	1	x	-0.012	0.00	0.00	No	0.00	No
	2	x	-0.012	0.00	0.00	No	0.00	No
	3	x	-0.007	0.00	0.00	No	0.00	No
	4	x	-0.004	0.00	0.00	No	0.00	No
	5	x	-0.012	0.00	0.00	No	0.00	No
	6	x	-0.012	0.00	0.00	No	0.00	No
	7	x	-0.016	0.00	0.00	No	0.00	No
	8	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.009	0.00	0.00	No	0.00	No
	14	x	-0.009	0.00	0.00	No	0.00	No
	15	x	-0.012	0.00	0.00	No	0.00	No
	16	x	-0.012	0.00	0.00	No	0.00	No
	17	x	-0.012	0.00	0.00	No	0.00	No
	18	x	-0.012	0.00	0.00	No	0.00	No
	19	x	-0.012	0.00	0.00	No	0.00	No
	20	x	-0.012	0.00	0.00	No	0.00	No
	21	x	-0.012	0.00	0.00	No	0.00	No
	22	x	-0.012	0.00	0.00	No	0.00	No
	30	x	-0.012	0.00	0.00	No	0.00	No
	37	x	-0.012	0.00	0.00	No	0.00	No
	41	x	-0.012	0.00	0.00	No	0.00	No
W150	1	z	0.012	0.00	0.00	No	0.00	No
	2	z	0.012	0.00	0.00	No	0.00	No
	5	z	0.012	0.00	0.00	No	0.00	No
	6	z	0.012	0.00	0.00	No	0.00	No
	7	z	0.016	0.00	0.00	No	0.00	No
	8	z	0.016	0.00	0.00	No	0.00	No
	9	z	0.016	0.00	0.00	No	0.00	No
	10	z	0.016	0.00	0.00	No	0.00	No
	11	z	0.016	0.00	0.00	No	0.00	No
	12	z	0.016	0.00	0.00	No	0.00	No
	13	z	0.009	0.00	0.00	No	0.00	No
	14	z	0.009	0.00	0.00	No	0.00	No
	16	z	0.012	0.00	0.00	No	0.00	No
	17	z	0.012	0.00	0.00	No	0.00	No
	22	z	0.012	0.00	0.00	No	0.00	No

	37	z	0.012	0.00	0.00	No	0.00	No
	41	z	0.012	0.00	0.00	No	0.00	No
Di	1	y	-0.01	0.00	0.00	No	0.00	No
	2	y	-0.01	0.00	0.00	No	0.00	No
	3	y	-0.007	0.00	0.00	No	0.00	No
	4	y	-0.006	0.00	0.00	No	0.00	No
	5	y	-0.01	0.00	0.00	No	0.00	No
	6	y	-0.01	0.00	0.00	No	0.00	No
	7	y	-0.013	0.00	0.00	No	0.00	No
	8	y	-0.013	0.00	0.00	No	0.00	No
	9	y	-0.013	0.00	0.00	No	0.00	No
	10	y	-0.013	0.00	0.00	No	0.00	No
	11	y	-0.013	0.00	0.00	No	0.00	No
	12	y	-0.013	0.00	0.00	No	0.00	No
	13	y	-0.009	0.00	0.00	No	0.00	No
	14	y	-0.009	0.00	0.00	No	0.00	No
	15	y	-0.01	0.00	0.00	No	0.00	No
	16	y	-0.01	0.00	0.00	No	0.00	No
	17	y	-0.01	0.00	0.00	No	0.00	No
	18	y	-0.01	0.00	0.00	No	0.00	No
	19	y	-0.01	0.00	0.00	No	0.00	No
	20	y	-0.01	0.00	0.00	No	0.00	No
	21	y	-0.01	0.00	0.00	No	0.00	No
	22	y	-0.01	0.00	0.00	No	0.00	No
	30	y	-0.01	0.00	0.00	No	0.00	No
	37	y	-0.01	0.00	0.00	No	0.00	No
	41	y	-0.01	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%	
D	3	y	-0.142	1.50	No	
	19	y	-0.018	2.00	No	
		y	-0.018	5.50	No	
		y	-0.038	3.50	No	
		y	-0.048	0.50	No	
	20	y	-0.048	7.50	No	
		21	y	-0.048	0.50	No
			y	-0.048	7.50	No
		y	-0.073	1.50	No	
		Wo	3	z	-0.127	1.50
19			z	-0.134	2.00	No
	z		-0.134	5.50	No	
	z		-0.035	3.50	No	
20	z		-0.435	0.50	No	
	z		-0.435	7.50	No	
	z		-0.435	0.50	No	
W30	3	z	-0.435	7.50	No	
		3	-0.062	1.50	No	

	19	3	-0.119	2.00	No
		3	-0.119	5.50	No
		3	-0.052	3.50	No
	20	3	-0.376	0.50	No
		3	-0.376	7.50	No
	21	3	-0.376	0.50	No
		3	-0.376	7.50	No
		3	-0.046	1.50	No
W60	3	3	-0.092	1.50	No
	19	3	-0.087	2.00	No
		3	-0.087	5.50	No
		3	-0.087	3.50	No
	20	3	-0.257	0.50	No
		3	-0.257	7.50	No
	21	3	-0.257	0.50	No
		3	-0.257	7.50	No
		3	-0.062	1.50	No
W90	3	x	-0.098	1.50	No
	19	x	-0.072	2.00	No
		x	-0.072	5.50	No
		x	-0.105	3.50	No
	20	x	-0.198	0.50	No
		x	-0.198	7.50	No
	21	x	-0.198	0.50	No
		x	-0.198	7.50	No
		x	-0.063	1.50	No
W120	3	2	-0.092	1.50	No
	19	2	-0.087	2.00	No
		2	-0.087	5.50	No
		2	-0.087	3.50	No
	20	2	-0.257	0.50	No
		2	-0.257	7.50	No
	21	2	-0.257	0.50	No
		2	-0.257	7.50	No
		2	-0.062	1.50	No
W150	3	2	-0.062	1.50	No
	19	2	-0.119	2.00	No
		2	-0.119	5.50	No
		2	-0.052	3.50	No
	20	2	-0.376	0.50	No
		2	-0.376	7.50	No
	21	2	-0.376	0.50	No
		2	-0.376	7.50	No
		2	-0.046	1.50	No
Di	3	y	-0.117	1.50	No
	19	y	-0.075	2.00	No
		y	-0.075	5.50	No
		y	-0.062	3.50	No
	20	y	-0.223	0.50	No
		y	-0.223	7.50	No
	21	y	-0.223	0.50	No
		y	-0.223	7.50	No
		y	-0.054	1.50	No
W10	3	z	-0.038	1.50	No
	19	z	-0.034	2.00	No
		z	-0.034	5.50	No
		z	-0.018	3.50	No
	20	z	-0.093	0.50	No
		z	-0.093	7.50	No
	21	z	-0.093	0.50	No

		z	-0.093	7.50	No
		z	-0.005	1.50	No
WI30	3	3	-0.017	1.50	No
	19	3	-0.03	2.00	No
		3	-0.03	5.50	No
		3	-0.021	3.50	No
	20	3	-0.081	0.50	No
		3	-0.081	7.50	No
	21	3	-0.081	0.50	No
		3	-0.081	7.50	No
		3	-0.013	1.50	No
WI60	3	3	-0.025	1.50	No
	19	3	-0.024	2.00	No
		3	-0.024	5.50	No
		3	-0.029	3.50	No
	20	3	-0.06	0.50	No
		3	-0.06	7.50	No
	21	3	-0.06	0.50	No
		3	-0.06	7.50	No
		3	-0.018	1.50	No
WI90	3	x	-0.027	1.50	No
	19	x	-0.022	2.00	No
		x	-0.022	5.50	No
		x	-0.033	3.50	No
	20	x	-0.05	0.50	No
		x	-0.05	7.50	No
	21	x	-0.05	0.50	No
		x	-0.05	7.50	No
		x	-0.019	1.50	No
WI120	3	2	-0.025	1.50	No
	19	2	-0.024	2.00	No
		2	-0.024	5.50	No
		2	-0.029	3.50	No
	20	2	-0.06	0.50	No
		2	-0.06	7.50	No
	21	2	-0.06	0.50	No
		2	-0.06	7.50	No
		2	-0.018	1.50	No
WI150	3	2	-0.017	1.50	No
	19	2	-0.03	2.00	No
		2	-0.03	5.50	No
		2	-0.021	3.50	No
	20	2	-0.081	0.50	No
		2	-0.081	7.50	No
	21	2	-0.081	0.50	No
		2	-0.081	7.50	No
		2	-0.013	1.50	No
WLO	3	z	-0.008	1.50	No
	19	z	-0.009	2.00	No
		z	-0.009	5.50	No
		z	-0.002	3.50	No
	20	z	-0.028	0.50	No
		z	-0.028	7.50	No
	21	z	-0.028	0.50	No
		z	-0.028	7.50	No
WL30	3	3	-0.004	1.50	No
	19	3	-0.008	2.00	No
		3	-0.008	5.50	No
		3	-0.003	3.50	No
	20	3	-0.024	0.50	No

		3	-0.024	7.50	No
	21	3	-0.024	0.50	No
		3	-0.024	7.50	No
		3	-0.003	1.50	No
WL60	3	3	-0.006	1.50	No
	19	3	-0.006	2.00	No
		3	-0.006	5.50	No
		3	-0.005	3.50	No
	20	3	-0.017	0.50	No
		3	-0.017	7.50	No
	21	3	-0.017	0.50	No
		3	-0.017	7.50	No
		3	-0.004	1.50	No
WL90	3	x	-0.006	1.50	No
	19	x	-0.005	2.00	No
		x	-0.005	5.50	No
		x	-0.007	3.50	No
	20	x	-0.013	0.50	No
		x	-0.013	7.50	No
	21	x	-0.013	0.50	No
		x	-0.013	7.50	No
		x	-0.004	1.50	No
WL120	3	2	-0.006	1.50	No
	19	2	-0.006	2.00	No
		2	-0.006	5.50	No
		2	-0.005	3.50	No
	20	2	-0.017	0.50	No
		2	-0.017	7.50	No
	21	2	-0.017	0.50	No
		2	-0.017	7.50	No
		2	-0.004	1.50	No
WL150	3	2	-0.004	1.50	No
	19	2	-0.008	2.00	No
		2	-0.008	5.50	No
		2	-0.003	3.50	No
	20	2	-0.024	0.50	No
		2	-0.024	7.50	No
	21	2	-0.024	0.50	No
		2	-0.024	7.50	No
		2	-0.003	1.50	No
LL1	6	y	-0.25	6.00	No
	41	y	-0.25	6.00	No
LL2	6	y	-0.25	12.00	No
	41	y	-0.25	12.00	No
LL3	6	y	-0.25	0.00	No
	41	y	-0.25	0.00	No
LLa1	19	y	-0.25	4.00	No
LLa2	20	y	-0.25	4.00	No
LLa3	21	y	-0.25	4.00	No

Self weight multipliers for load conditions

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

Earthquake (Dynamic analysis only)

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

LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

Current Date: 10/18/2019 8:58 AM

Units system: English

File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\AT&T\CT\CT1090\LTE 2C-3C-4C-5C\CT1090 (LT 2C-3C-4C-5C)(MODS).retx\

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+W10
LC26=1.2D+Di+W130
LC27=1.2D+Di+W160
LC28=1.2D+Di+W190
LC29=1.2D+Di+W120
LC30=1.2D+Di+W150
LC31=1.2D+Di-W10
LC32=1.2D+Di-W130
LC33=1.2D+Di-W160
LC34=1.2D+Di-W190
LC35=1.2D+Di-W120
LC36=1.2D+Di-W150
LC38=1.2D+1.5LL1
LC39=1.2D+1.5LL2
LC40=1.2D+1.5LL3
LC41=1.2D+W10+1.5LLa1
LC42=1.2D+W130+1.5LLa1
LC43=1.2D+W160+1.5LLa1
LC44=1.2D+W190+1.5LLa1
LC45=1.2D+W120+1.5LLa1
LC46=1.2D+W150+1.5LLa1
LC47=1.2D-W10+1.5LLa1
LC48=1.2D-W130+1.5LLa1
LC49=1.2D-W160+1.5LLa1
LC50=1.2D-W190+1.5LLa1
LC51=1.2D-W120+1.5LLa1
LC52=1.2D-W150+1.5LLa1
LC53=1.2D+W10+1.5LLa2

LC54=1.2D+WL30+1.5LLa2
 LC55=1.2D+WL60+1.5LLa2
 LC56=1.2D+WL90+1.5LLa2
 LC57=1.2D+WL120+1.5LLa2
 LC58=1.2D+WL150+1.5LLa2
 LC59=1.2D-WL0+1.5LLa2
 LC60=1.2D-WL30+1.5LLa2
 LC61=1.2D-WL60+1.5LLa2
 LC62=1.2D-WL90+1.5LLa2
 LC63=1.2D-WL120+1.5LLa2
 LC64=1.2D-WL150+1.5LLa2
 LC65=1.2D+WL0+1.5LLa3
 LC66=1.2D+WL30+1.5LLa3
 LC67=1.2D+WL60+1.5LLa3
 LC68=1.2D+WL90+1.5LLa3
 LC69=1.2D+WL120+1.5LLa3
 LC70=1.2D+WL150+1.5LLa3
 LC71=1.2D-WL0+1.5LLa3
 LC72=1.2D-WL30+1.5LLa3
 LC73=1.2D-WL60+1.5LLa3
 LC74=1.2D-WL90+1.5LLa3
 LC75=1.2D-WL120+1.5LLa3
 LC76=1.2D-WL150+1.5LLa3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	<i>L 2-1_2X2-1_2X3_16</i>	7	LC8 at 0.00%	0.70	OK	
		8	LC8 at 100.00%	0.83	OK	
		9	LC2 at 0.00%	0.67	OK	
		10	LC2 at 100.00%	0.77	OK	
		11	LC32 at 53.13%	0.49	OK	
		12	LC26 at 53.13%	0.53	OK	
		33	LC3 at 100.00%	0.73	OK	
		34	LC9 at 0.00%	0.80	OK	
		35	LC9 at 100.00%	0.64	OK	
		36	LC3 at 0.00%	0.74	OK	
	<i>PIPE 1-1_2x0.145</i>	13	LC39 at 100.00%	0.34	OK	
		14	LC26 at 0.00%	0.47	OK	
	<i>PIPE 1x0.133</i>	3	LC7 at 0.00%	0.21	OK	
	<i>PIPE 2x0.154</i>	1	LC3 at 0.00%	0.88	OK	
		2	LC9 at 0.00%	0.78	OK	
		5	LC2 at 68.75%	0.64	OK	
		6	LC8 at 68.75%	0.59	OK	
		15	LC9 at 50.00%	0.33	OK	
		16	LC39 at 0.00%	0.35	OK	
		17	LC31 at 0.00%	0.41	OK	
		18	LC40 at 0.00%	0.24	OK	
		19	LC39 at 83.75%	0.26	OK	
		20	LC1 at 21.25%	0.40	OK	
		21	LC7 at 30.00%	0.43	OK	
		22	LC9 at 37.50%	0.23	OK	
		30	LC26 at 100.00%	0.11	OK	
		37	LC7 at 28.13%	0.84	OK	
		41	LC1 at 28.13%	0.83	OK	
	<i>RndBar 3_4</i>	4	LC25 at 0.00%	0.19	OK	

Geometry data

GLOSSARY

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

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
3	0.00	0.00	0.42	0
4	0.00	3.50	0.00	0
6	0.00	3.50	0.42	0
7	0.75	0.00	3.70	0
8	0.75	3.50	3.70	0
9	-0.90	0.00	3.70	0
10	-0.90	3.50	3.70	0
17	2.00	3.50	4.87	0
18	2.00	0.00	4.87	0
19	-2.00	3.50	4.87	0
20	-2.00	0.00	4.87	0
27	2.25	3.50	4.87	0
28	2.25	0.00	4.87	0
29	-2.25	3.50	4.87	0
30	-2.25	0.00	4.87	0
31	6.00	-2.00	5.07	0
32	0.00	-2.00	5.07	0
33	-6.00	-2.00	5.07	0
34	6.00	6.00	5.07	0
35	0.00	6.00	5.07	0

36	-6.00	6.00	5.07	0
37	6.00	1.75	4.87	0
38	5.00	1.75	-5.33	0
43	2.50	4.25	4.87	0
44	-2.50	4.25	4.87	0
45	0.00	6.75	0.00	0
46	0.00	-3.25	0.00	0
47	2.50	-0.75	4.87	0
48	-2.50	-0.75	4.87	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
1	1	1	1	1	1	1
4	1	1	1	1	1	1
38	1	1	1	0	0	0
45	1	1	1	1	1	1
46	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	4	5		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
2	1	2		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
3	6	3		PIPE 1x0.133	A53 GrB	0.00	0.00	0.00
4	6	2		RndBar 3_4	A36	0.00	0.00	0.00
5	16	14		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
6	15	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
7	19	10		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
8	8	17		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
9	20	9		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
10	7	18		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
11	10	8		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
12	9	7		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
13	8	7		PIPE 1-1_2x0.145	A53 GrB	0.00	0.00	0.00
14	10	9		PIPE 1-1_2x0.145	A53 GrB	0.00	0.00	0.00
15	14	13		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
16	27	28		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
17	29	30		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
18	16	15		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
19	34	31		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
20	35	32		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
21	36	33		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
22	37	38		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
30	5	2		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
33	44	45		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
34	45	43		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
35	48	46		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
36	46	47		L 2-1_2X2-1_2X3_16	A36	0.00	0.00	0.00
37	49	53		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
3	315.00	0	0.00	0.00	0.00
7	90.00	0	0.00	0.00	0.00
8	90.00	0	0.00	0.00	0.00
11	90.00	0	0.00	0.00	0.00
19	315.00	0	0.00	0.00	0.00
20	315.00	0	0.00	0.00	0.00
21	315.00	0	0.00	0.00	0.00
33	90.00	0	0.00	0.00	0.00
34	90.00	0	0.00	0.00	0.00

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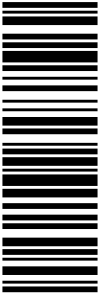
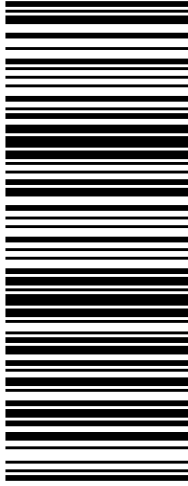

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<p>1 LBS 1 OF 1</p> <p>DWT: 11.8,2</p> <p>ANDREA HOGARTH 5082821475 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 023791545</p> <p>SHIP TO: ATTN: DANIEL V. JERRAM 8603793389 TOWN OF NEW HARTFORD P.O. BOX 316 530 MAIN ST NEW HARTFORD CT 06057-2108</p>	<p>CT 067 9-02</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 2799 2811</p> 	<p>BILLING: P/P</p> <p>Reference # 1: CSC-New Hartford 1st Selectman</p> <p style="font-size: small;">CS 22.0.11. WNTNVS0 83.04.12/2019</p> 
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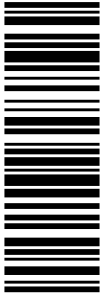


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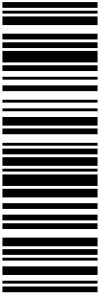
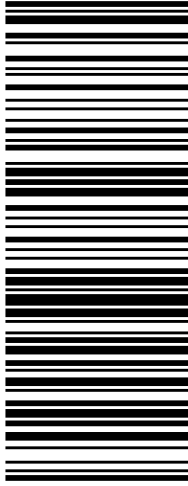

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 Your driver will pickup your shipment(s) as usual.

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.


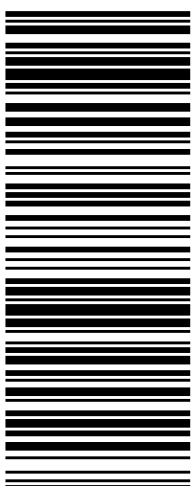

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
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

FOLD HERE

<p>1 LBS</p> <p>ANDREA HOGARTH 5082821475 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 023791545</p> <p>SHIP TO: C/O SBA TOWERS II LLC THE ESTATE OF PAUL M MIANO 8051 CONGRESS AVE BOCA RATON FL 33487-1307</p>	<p>1 OF 1</p> <p>DWT: 11,8,2</p>	<p>FL 332 6-07</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3064 1256</p> 
<p>BILLING: P/P</p>		<p>Reference # 1: CSC-New Hartford Land Owner</p> <p>CS 22.0.11. WNTNVS0 83.0A.12/2019</p> 	

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 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.

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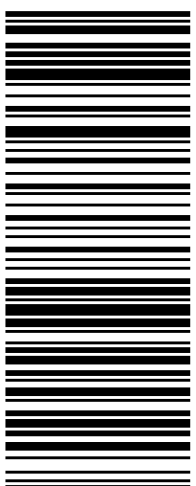
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FOLD HERE

<p>1 LBS</p> <p>DWT: 11.8,2</p> <p>SHIP TO: SBA TOWERS 8004877483 8051 CONGRESS AVE BOCA RATON FL 33487-1307</p>	<p>1 OF 1</p> <p>FL 332 6-07</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3408 9641</p> 	<p>BILLING: P/P</p> <p>Reference # 1: CSC-New Hartford-SBA</p> <p>CS 22.0.11. WNTNVS0 83.0A.12/2019</p> 
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