QC Development
PO Box 916
Storrs, CT 06268
860-670-9068
Mark.Roberts@QCDevelopment.net

May 30, 2018

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T) – CT2157
48 Newtown Road, Danbury, CT 06810
N 41-24-12.00
W 73-25-29.53

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 100-foot level of the existing 110-foot Monopole at 48 Newtown Road, Danbury, CT. The tower is managed by Crown Castle (successor in interest to Wireless Capital Partners) and the tower and property are owned by 48 Newtown Road Corporation. AT&T now intends to add three (3) Kathrein antennas, three (3) Ericsson RRUS-32 B66 and three (3) Ericsson 4478-B14 remote radio units (RRU). All of AT&T's existing and proposed antennas and RRUs will be relocated onto a new Sabre V-Boom Antenna Mount, which will replace the existing Platform Mount. The new mount and antenna equipment will remain at the 100-foot level.

This facility was approved by the Connecticut Siting Council, Docket No. 917 on October 22, 2009. This approval included no condition(s) that could feasibly be violated by this modification, including total facility height or mounting restrictions. This modification therefore complies with the aforementioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to The

Honorable Mark D. Boughton, Mayor of the City of Danbury and the Danbury Planning & Zoning Department, as well as the tower and property owner.

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

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

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

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

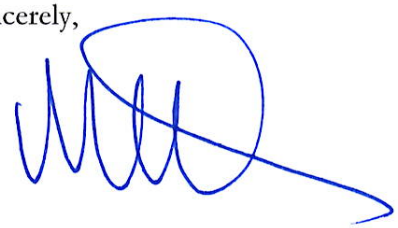
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, 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).

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,



Mark Roberts
QC Development
Consultant for AT&T

Attachments

cc: Mark D. Boughton - as Elected Official
Sharon Calitro – Director of Planning & Zoning
48 Newtown Road Corporation - as tower and property owner

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm^2)	Freq. Band (MHz**)	Limit S (mW /cm^2)	%MPE
Other Carriers*							8.47%
AT&T GSM	2	817	100	0.0400	880	0.5867	1.13%
AT&T UMTS	2	492	100	0.0665	880	0.5867	0.68%
AT&T UMTS	2	419	100	0.0341	1900	1.0000	0.34%
AT&T LTE	2	1791	100	0.1458	700	0.4667	3.12%
AT&T LTE	2	1104	100	0.0899	1900	1.0000	0.90%
AT&T LTE	2	2203	100	0.1793	2300	1.0000	1.79%
Site Total							16.44%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm^2)	Freq. Band (MHz**)	Limit S (mW /cm^2)	%MPE
Other Carriers*							8.47%
AT&T UMTS	1	275	100	0.0112	850	0.5667	0.20%
AT&T LTE	3	1476	100	0.0581	700	0.4667	1.25%
AT&T LTE	1	659	100	0.0268	850	0.5667	0.47%
AT&T LTE	2	3664	100	0.2982	1900	1.0000	2.98%
AT&T LTE	1	3837	100	0.1562	2100	1.0000	1.56%
AT&T LTE	1	1045	100	0.0425	2300	1.0000	0.43%
Site Total							15.36%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

PROJECT INFORMATION

SCOPE OF WORK:	ITEMS TO BE MOUNTED ON MONOPOLE TOWER: • NEW AT&T RRUS: (3) RRUS-32 B66 & (3) 4478-700. • NEW ANTENNA: (1) 800-10965 FOR ALPHA, 800-10964 FOR BETA AND GAMMA SECTOR (TOTAL OF 3). • NEW SURGE ARRESTOR: (1) SURGE ARRESTOR, (2) DC POWER CABLES, & (1) FIBER RUN. • NEW JUMPER CABLES: COAX JUMPER (3) PER SECTOR FROM EACH RRU (TOTAL OF 9). • NEW FIBER JUMPERS: FIBER JUMPERS (3) FROM THE SQUID TO EACH RRU (TOTAL OF 9). ITEMS TO REMAIN: • (9) ANTENNAS, (9) RRU'S, (2) SURGE ARRESTORS, (2) DC POWER CABLES, (1) FIBER RUN & (12) 1-5/8" COAX CABLES.
SITE ADDRESS:	48 NEWTOWN ROAD DANBURY, CT 06810
LATITUDE:	41.403300° N 41° 24' 11.88" N
LONGITUDE:	73.424400° W 73° 25' 27.84" W
TYPE OF SITE:	MONOPOLE / INDOOR EQUIPMENT
TOWER HEIGHT:	110'-0"±
RAD CENTER:	100'-0"±
JURISDICTION:	NATIONAL, STATE & LOCAL CODES OR ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

SITE NUMBER: CT2157

SITE NAME: DANBURY EAST

PROJECT: LTE 6C 7C 2018 UPGRADE

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLAN	1
A-2	ANTENNA LAYOUTS	1
A-3	ELEVATION	1
A-4	DETAILS	1
RF-1	RF-PLUMBING DIAGRAM	1
G-1	GROUNDING DETAILS	1

CCI SITE #: 852850
CCI SITE NAME: DANBURY EAST

VICINITY MAP

DIRECTIONS TO SITE:
TAKE ROUTE 17 NORTH TO RIDGEWOOD AVE. FOLLOW RIDGEWOOD AVENUE TO THE GARDEN STATE PARKWAY GET ON GOING NORTH. STAY ON THE GARDEN STATE PARKWAY NORTH UNTIL YOU GET TO THE NEW YORK STATE THRUWAY (RT. 87 SOUTH) TOWARDS THE TAPPAN ZEE BRIDGE. TAKE EXIT 8 (CROSS WESTCHESTER PARKWAY /RT. 287). TAKE RT. 287 EAST TO 684 NORTH. GET OFF EXIT FOR 84-EAST DANBURY FOLLOW TO EXIT 8. MAKE RIGHT AT RAMP. FOLLOW ON STONY HILL RD. SITE ON RIGHT. DRIVEWAY AROUND BACK OF BUILDING. DEMARC IS IN GRAY BOX ON THE OUTSIDE OF BUILDING LEFT OF STAIRS (NEXTEL BOX) .

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

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

12 INDUSTRIAL WAY
SALEM, NH 03079

550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST
CCI SITE NUMBER: 852850
48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT — DEREK J. CREASER — 16,235 — LICENSED PROFESSIONAL ENGINEER

AT&T

TITLE SHEET
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	T-1	1

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) 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 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 AWS 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 – SAI
   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. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH LTE 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 2012 WITH 2016 CT BUILDING CODE AMENDMENTS
    ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
    LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS

    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-G, STRUCTURAL STANDARDS FOR STEEL

    EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

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		

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

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

at&t
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT
DEREK J. CREASEY
No. 28581
LICENSED PROFESSIONAL ENGINEER

AT&T

GENERAL NOTES
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	GN-1	1

NOTE:

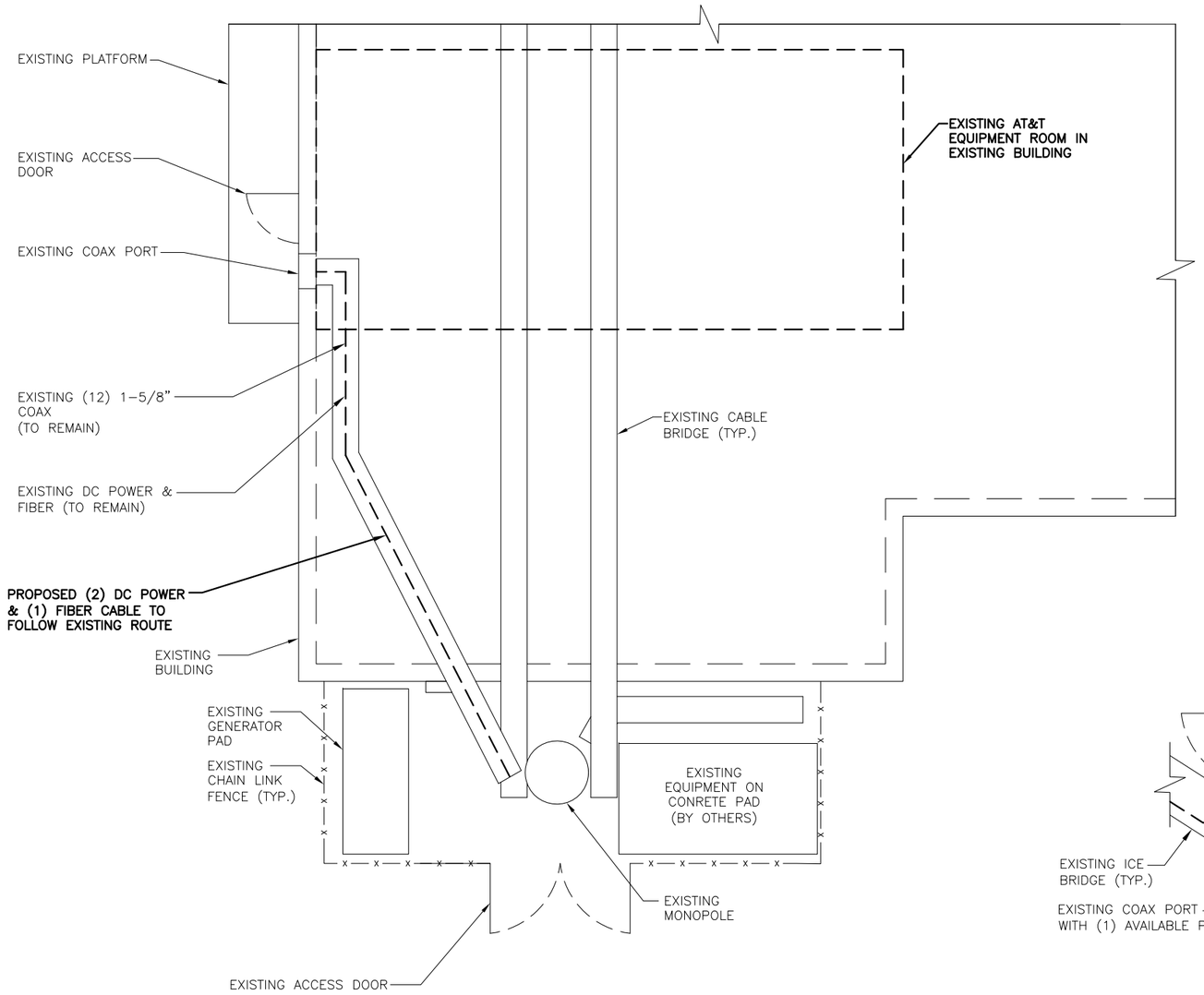
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 17, 2018, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

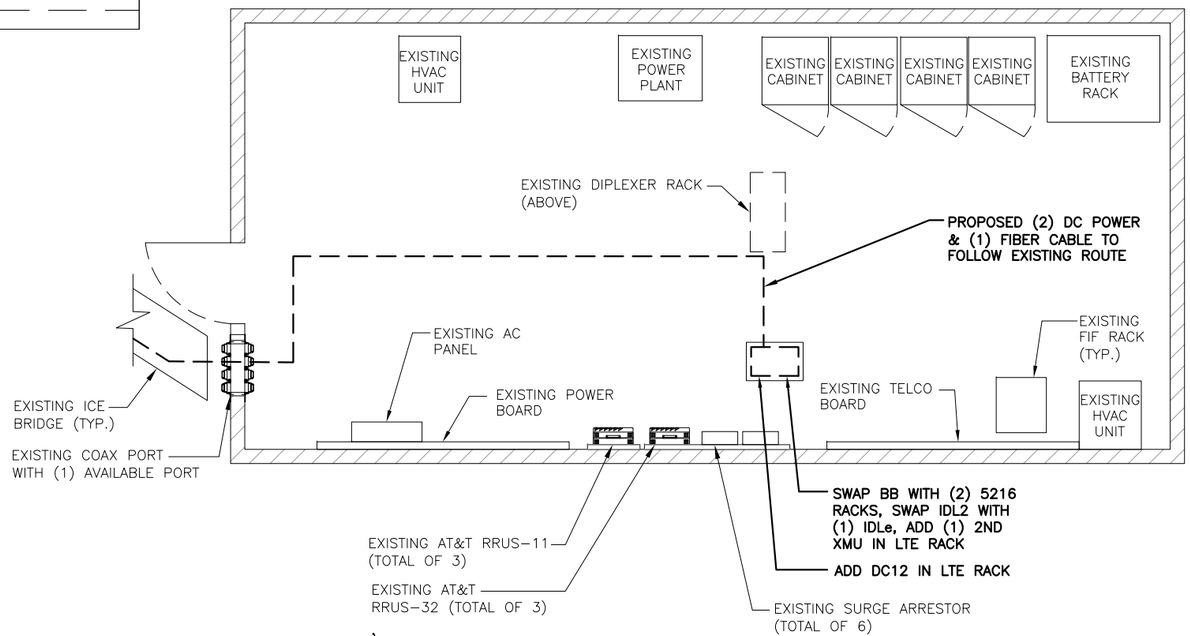
NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: MAY 15, 2018 (REV 2).



COMPOUND PLAN (1 / A-1)
22x34 SCALE: 1/4"=1'-0"
11x17 SCALE: 1/8"=1'-0"

0 2'-0" 4'-0" 8'-0" 12'-0"



EQUIPMENT PLAN (2 / A-1)
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"

0 1'-4" 2'-8" 5'-4" 8'-0"

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

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

at&t
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT — DEREK J. CREASEY — No. 23551 — LICENSED PROFESSIONAL ENGINEER

AT&T

COMPOUND & EQUIPMENT PLAN
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	A-1	1

NOTE:

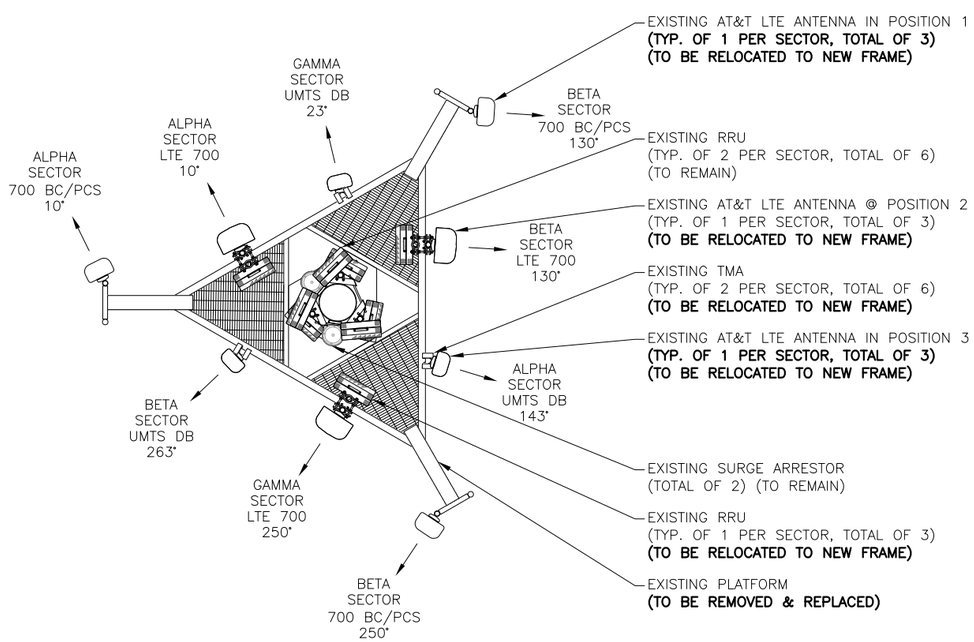
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

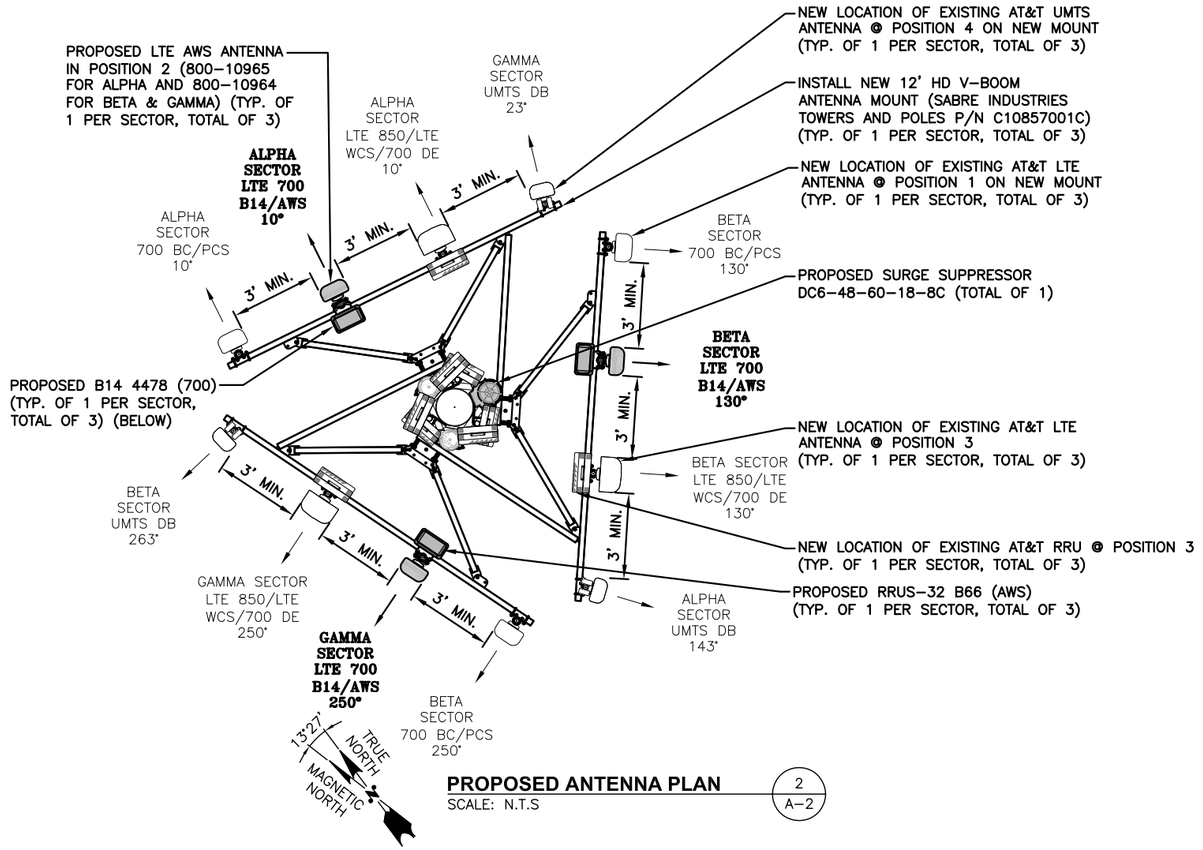
REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 17, 2018, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: MAY 15, 2018 (REV 2).



EXISTING ANTENNA LAYOUT (1 / A–2)
SCALE: N.T.S



PROPOSED ANTENNA PLAN (2 / A–2)
SCALE: N.T.S

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

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

at&t
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

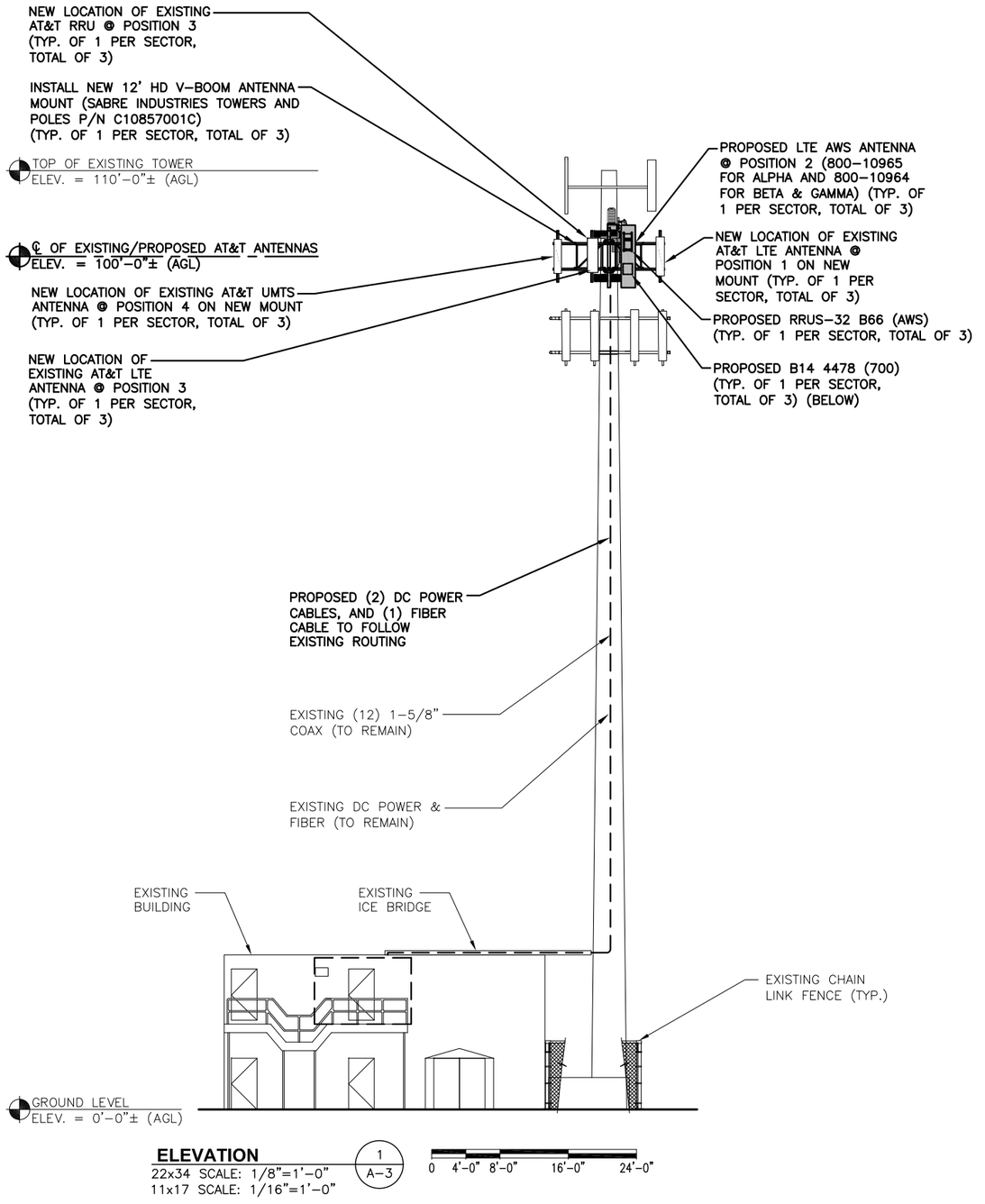
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT · DEREK J. CREASEY · No. 23536 · LICENSED PROFESSIONAL ENGINEER

AT&T

ANTENNA LAYOUTS
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	A–2	1



ELEVATION 1 / A-3
22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"

0 4'-0" 8'-0" 16'-0" 24'-0"

NOTE:

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

NOTE:

REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 17, 2018, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: MAY 15, 2018 (REV 2).

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

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT
DEREK J. CREASEY
No. 23538
LICENSED PROFESSIONAL ENGINEER

AT&T

ELEVATION
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	A-3	1

NOTE:

REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 17, 2018, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: MAY 15, 2018 (REV 2).

NOTE:

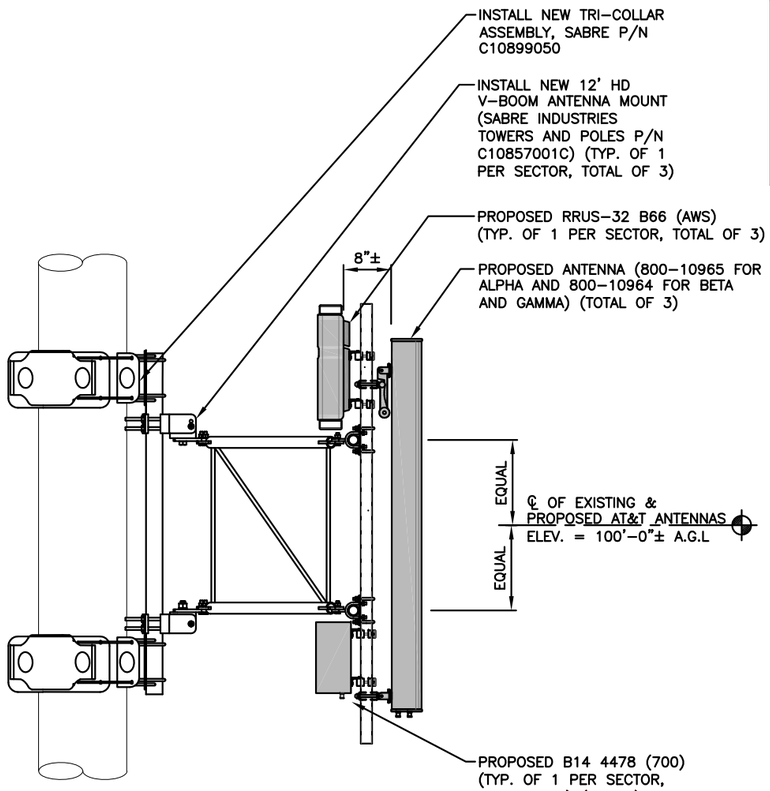
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L X W X D)	RAD CENTER	AZIMUTH	TMAS	RRUS	SIZE (INCHES) (L X W X D)	FEEDER	RAYCAP
A1	EXISTING	LTE 700 BC / PCS	HPA-65R-BUU-H8	92.4X14.8X7.4	100'±	10°	–	(E) RRUS-11 (PCS) (E) RRUS-32B2 (PCS)	– –	–	--
A2	**PROPOSED**	**LTE 700 B14/AWS**	**800-10965**	**96X21X6.3**	**100'±**	**10°**	–	**(P) RRUS 32B66 (AWS) (P) B14 4478 (700)**	**27.2X12.1X7.0 15.0X13.2X7.4**	–	(E) (1) RAYCAP DC6-48-60-18-8C
A3	EXISTING	LTE 850/LTE WCS/ 700DE	OPA-65R-LCUU-H6	72X14.8X7.4	100'±	10°	–	(E) RRUS-32 (WCS)	–	(2) 1-5/8 COAX	
A4	EXISTING	UMTS DB	7770	55X11.9X7.1	100'±	143°	(E) (2) LGP21401	–	–	(2) 1-5/8 COAX	
B1	EXISTING	LTE 700 BC / PCS	HPA-65R-BUU-H8	92.4X14.8X7.4	100'±	130°	–	(E) RRUS-11 (PCS) (E) RRUS-32B2 (PCS)	– –	–	--
B2	**PROPOSED**	**LTE 700 B14/AWS**	**800-10965**	**96X21X6.3**	**100'±**	**130°**	–	**(P) RRUS 32B66 (AWS) (P) B14 4478 (700)**	**27.2X12.1X7.0 15.0X13.2X7.4**	–	(E) (1) RAYCAP DC6-48-60-18-8C
B3	EXISTING	LTE 850/LTE WCS/ 700DE	OPA-65R-LCUU-H6	72X14.8X7.4	100'±	130°	–	(E) RRUS-32 (WCS)	–	(2) 1-5/8 COAX	
B4	EXISTING	UMTS DB	7770	55X11.9X7.1	100'±	263°	(E) (2) LGP21401	–	–	(2) 1-5/8 COAX	
C1	EXISTING	LTE 700 BC / PCS	HPA-65R-BUU-H8	92.4X14.8X7.4	100'±	250°	–	(E) RRUS-11 (PCS) (E) RRUS-32B2 (PCS)	– –	–	--
C2	**PROPOSED**	**LTE 700 B14/AWS**	**800-10965**	**96X21X6.3**	**100'±**	**250°**	–	**(P) RRUS 32B66 (AWS) (P) B14 4478 (700)**	**27.2X12.1X7.0 15.0X13.2X7.4**	–	**(P) (1) RAYCAP DC6-48-60-0-8C**
C3	EXISTING	LTE 850/LTE WCS/ 700DE	OPA-65R-LCUU-H6	72X14.8X7.4	100'±	250°	–	(E) RRUS-32 (WCS)	–	(2) 1-5/8 COAX	
C4	EXISTING	UMTS DB	7770	55X11.9X7.1	100'±	23°	(E) (2) LGP21401	–	–	(2) 1-5/8 COAX	

FINAL ANTENNA CONFIGURATION

SCALE: N.T.S

4 / A-4



PROPOSED ANTENNA & RRU MOUNTING DETAIL

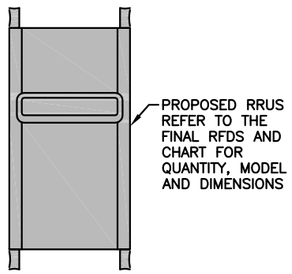
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

1 / A-4

0 0'-6" 1'-0" 2'-0" 3'-0"

RRU CHART				
QUANTITY	MODEL	L	W	D
6(E)	RRUS-11	19.7"	17.0"	7.2"
6(E)	RRUS-32	26.2"	11.1"	6.0"
3(P)	RRUS-32	27.2"	12.1"	7.0"
3(P)	B14 4478	15.0"	13.2"	7.4"
3(E)	RRUS-E2	20.4"	18.5"	7.5"
–	LTE-A2	16.4"	15.2"	3.4"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

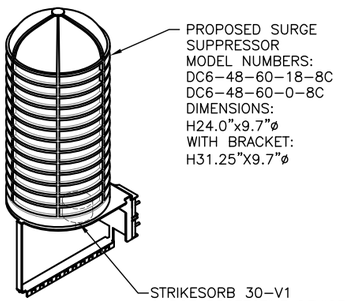


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

RRUS DETAIL

SCALE: N.T.S

2 / A-4



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE SUPPRESSOR DETAIL

SCALE: N.T.S

3 / A-3

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

12 INDUSTRIAL WAY
SALEM, NH 03079

550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

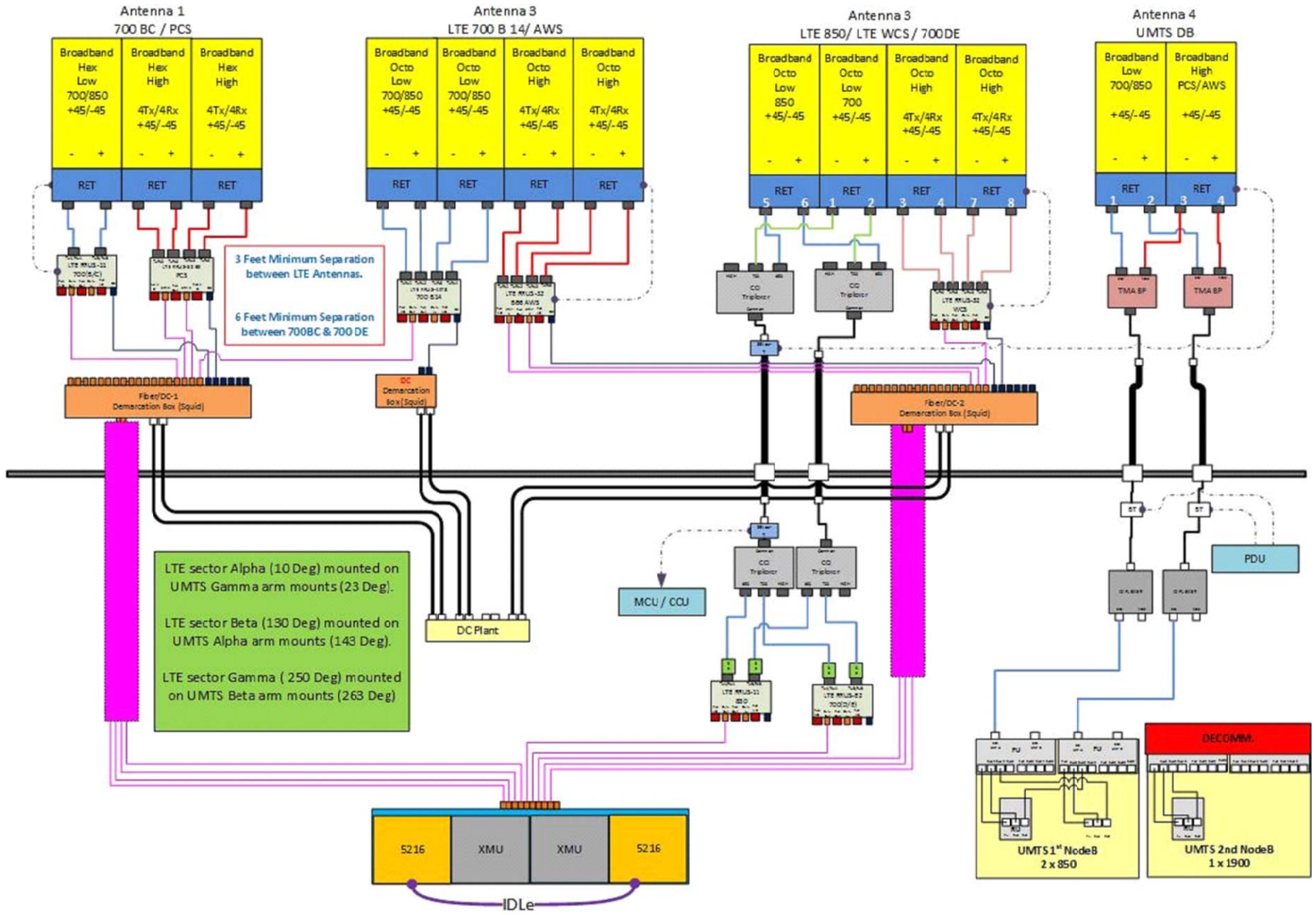
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT · DEREK J. CREASEY · No. 25857 · LICENSED PROFESSIONAL ENGINEER

AT&T

DETAILS
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	A-4	1



RF PLUMBING DIAGRAM (1 / RF–1)
SCALE: N.T.S

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

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

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

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST
CCI SITE NUMBER: 852850
48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

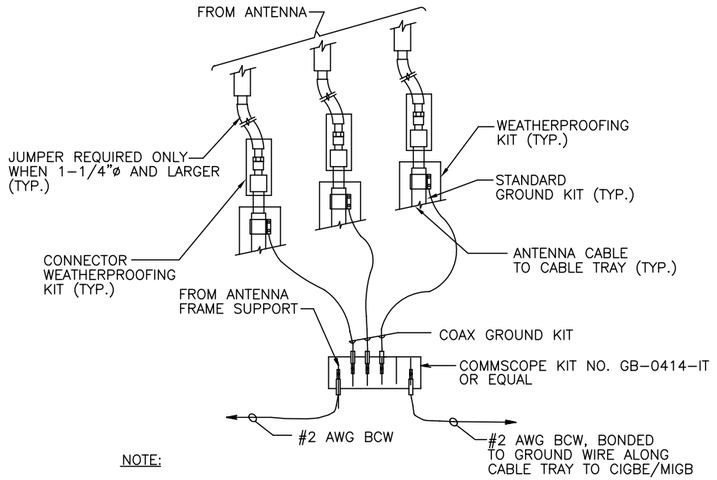
SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

STATE OF CONNECTICUT · DEREK J. CREASEY · No. 23575 · LICENSED PROFESSIONAL ENGINEER

AT&T

RF PLUMBING DIAGRAM
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	RF–1	1



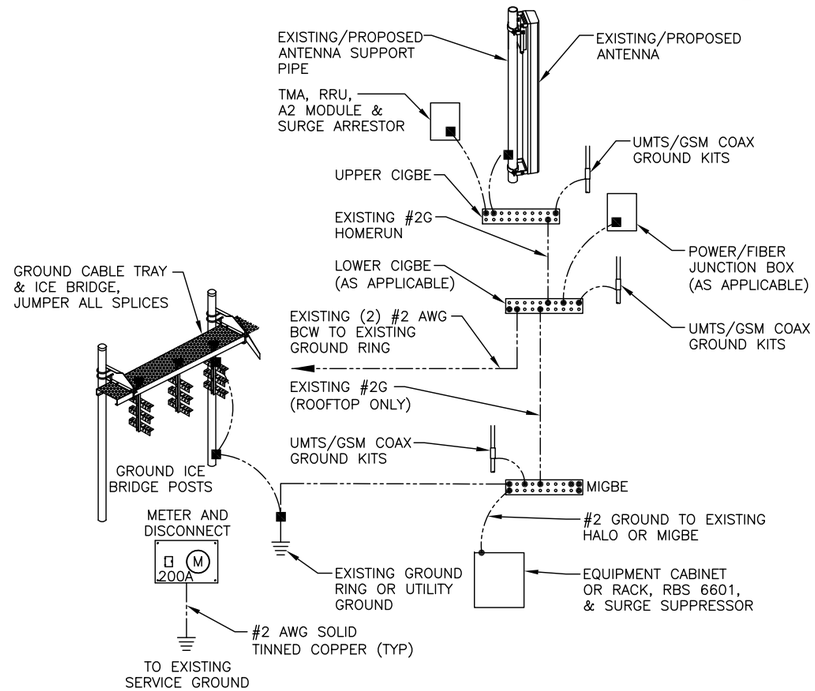
NOTE:

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

GROUND WIRE TO GROUND BAR CONNECTION DETAIL

SCALE: N.T.S

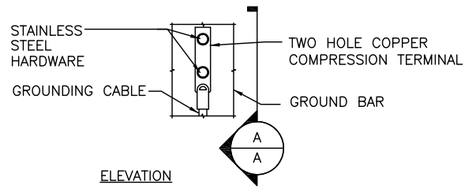
1 / G–1



GROUNDING RISER DIAGRAM

SCALE: N.T.S

2 / G–1



NOTE:

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

TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S

3 / G–1

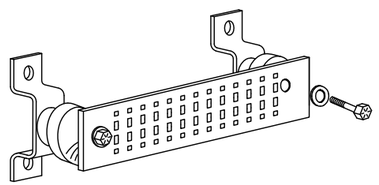
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

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

SECTION "A" – SURGE ABSORBERS

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



GROUND BAR - DETAIL

SCALE: N.T.S

4 / G–1

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

12 INDUSTRIAL WAY
SALEM, NH 03079

550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

SITE NUMBER: CT2157
SITE NAME: DANBURY EAST

CCI SITE NUMBER: 852850

48 NEWTOWN ROAD
DANBURY, CT 06810
FAIRFIELD COUNTY

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	05/11/18	ISSUED FOR CONSTRUCTION	SF	AT	DPH
A	02/13/18	ISSUED FOR REVIEW	TB	AT	DPH

SCALE: AS SHOWN | DESIGNED BY: AT | DRAWN BY: LL

DEREK J. CREASEY — STATE OF CONNECTICUT — NO. 25351 — LICENSED PROFESSIONAL ENGINEER

AT&T

GROUNDING DETAILS
LTE 6C 7C 2018 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT2157	G–1	1

STRUCTURAL ANALYSIS REPORT

For

CT2157
DANBURY EAST

48 NEWTOWN ROAD
DANBURY, CT 06810

Antennas Mounted to the Monopole

Prepared for:

SAI

at&t

Dated: May 17, 2018

Prepared by:

HDG | HUDSON Design Group LLC

45 Beechwood Drive
North Andover, MA 01845
(P) 978.557.5553 (F) 978.336.5586
www.hudsondesigngroupllc.com

STATE OF CONNECTICUT
G. KU WANG
No. 22220
LICENSED PROFESSIONAL ENGINEER

5/17/2018

SCOPE OF WORK:

Hudson Design Group LLC (HDG) has been authorized by AT&T to conduct a structural evaluation of the 110' monopole supporting the existing and proposed AT&T's antennas located at elevation 100' above the ground level.

This report represents this office's findings, conclusions and recommendations pertaining to the support of AT&T's existing and proposed antennas listed below.

Record drawings of the existing monopole were not available for our use. The previous structural analysis report prepared by Centek Engineering, dated December 18, 2014, was available and obtained for our use.

The previous structural analysis report and modifications prepared by this office, dated July 22, 2016, was used for analysis.

Tower mapping report prepared by ProVertic LLC, dated September 19, 2017, was provided to this office.

CONCLUSION SUMMARY:

Based on our evaluation, we have determined that the existing monopole and foundation **are in conformance** with the ANSI/TIA-222-G Standard for the loading considered under the criteria listed in this report. The monopole structure is rated at **77.8%** - (Pole Section L4 from El.47' to El.72' Controlling).

HUDSON Design Group LLC

APPURTENANCES CONFIGURATION: (AT&T RFDS 10/27/2017)

Tenant	Appurtenances	Elev.	Mount
AT&T	(3) Powerwave 7770 Antennas	100'	Sabre C10857001C
AT&T	(1) OPA-65R-LCUU-H6 Antenna	100'	Sabre C10857001C
AT&T	(2) OPA-65R-LCUU-H4 Antennas	100'	Sabre C10857001C
AT&T	(1) HPA-65R-BUU-H6 Antenna	100'	Sabre C10857001C
AT&T	(2) SBNHH-1D65A Antennas	100'	Sabre C10857001C
AT&T	(6) LGP21401	100'	Sabre C10857001C
AT&T	(6) TPX-070821	100'	Sabre C10857001C
AT&T	(3) RRUS-11	100'	Sabre C10857001C
AT&T	(6) RRUS-32	100'	Sabre C10857001C
AT&T	(2) DC6-48-60-18-8F	100'	Sabre C10857001C
AT&T	***(1) 800 10965 Antenna***	100'	Sabre C10857001C
AT&T	***(2) 800 10964 Antennas***	100'	Sabre C10857001C
AT&T	***(3) RRUS-32***	100'	Sabre C10857001C
AT&T	***(3) B14 4478***	100'	Sabre C10857001C
AT&T	***(1) DC6-48-60-18-8C***	100'	Sabre C10857001C
VERIZON	(1) BXA-80063-6BF Antenna	90'	Low Profile Platform
VERIZON	(2) BXA-80080-6CF Antennas	90'	Low Profile Platform
VERIZON	(3) B25 RRH4X30-4R	90'	Low Profile Platform
VERIZON	(2) DB-T1-6Z-8AB-0Z	90'	Low Profile Platform
VERIZON	(6) JAHH-65B-R3B Antennas	90'	Low Profile Platform
VERIZON	(3) RRH4X45 AWS	90'	Low Profile Platform
VERIZON	(3) B13 RRH4X30-4R	90'	Low Profile Platform
VERIZON	(3) B5 RRH4X30-4R	90'	Low Profile Platform

Proposed AT&T Appurtenances shown in Bold.

AT&T EXISTING/PROPOSED COAX CABLES:

Tenant	Coax Cables	Elev.	Mount
AT&T	(12) 1 5/8" Cables	100'	Outside Monopole
AT&T	(4) DC Power Cables	100'	Inside Monopole
AT&T	(2) Fiber Cables	100'	Inside Monopole
AT&T	***(2) DC Power Cables***	100'	Inside Monopole

Proposed AT&T Coax Cables shown in Bold.

HUDSON Design Group LLC

ANALYSIS RESULTS SUMMARY:

Component	Max. Stress Ratio	Elev. of Component (ft)	Pass/Fail	Comments
Pole Section-L1	10.9 %	97.5 – 111	PASS	
Pole Section-L2	10.9 %	97 – 97.5	PASS	
Pole Section-L3	68.1 %	72 – 97	PASS	
Pole Section-L4	**77.8 %**	47 – 72	PASS	**Controlling**
Pole Section-L5	74.1 %	21 – 47	PASS	
Pole Section-L6	73.8 %	1 – 21	PASS	

HUDSON Design Group LLC

DESIGN CRITERIA:

1. EIA/TIA-222-G Structural Standards for Steel Antenna Towers and Antenna Supporting Structures

   County: Fairfield
   Wind Load: 110 mph (3 second gust)
   Structural Class: II
   Exposure Category: B
   Topographic Category: 1
   Nominal Ice Thickness: 0.75 inch

2. Approximate height above grade to proposed antennas: 100'

***Calculations and referenced documents are attached.**

ASSUMPTIONS:

1. The appurtenances configuration is as stated in this report. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.

2. The monopole and foundation are properly constructed and maintained. 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. The support mounts and platforms are not analyzed and are considered adequate to support the loading. The analysis is limited to the primary support structure itself.

4. All prior structural modification, if any, are assumed to be as per the data supplied (if available), and installed properly.

SUPPORT RECOMMENDATIONS:

HDG recommends that the proposed antennas, RRHs and surge arrestor be mounted on the existing steel platform supported by the monopole.

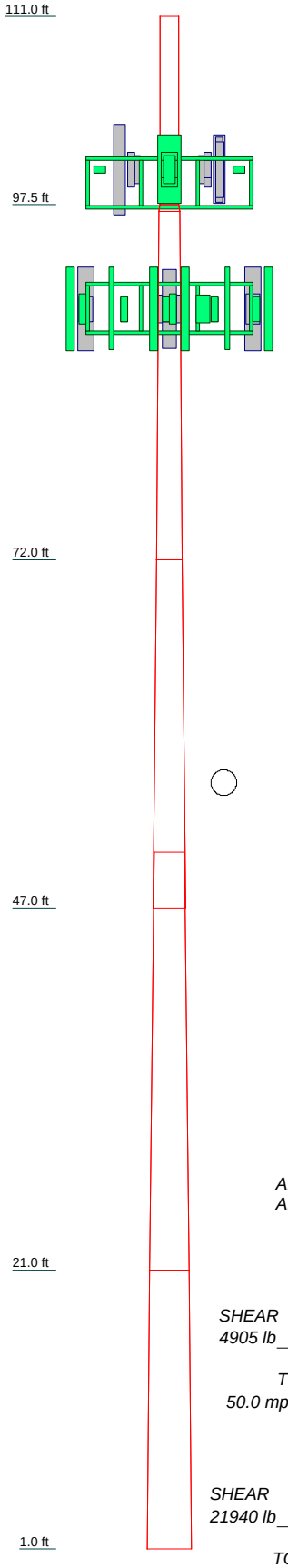
Photo 1: Photo illustrating the monopole with Appurtenances shown.

HUDSON
Design Group LLC

CALCULATIONS

Section	1	2	3	4	5	6
Length (ft)	13.50	0.50	25.00	25.00	30.00	20.00
Number of Sides	1	1	18	18	18	18
Thickness (in)	0.3750	0.3750	0.2500	0.3000	0.3650	0.3890
Socket Length (ft)				4.00		
Top Dia (in)	16.0000	16.0000	17.4900	22.7350	26.5408	33.3920
Bot Dia (in)	16.0000	17.4900	22.7350	27.9800	33.3920	37.0000
Grade	A36			A572-65		
Weight (lb)	845.6	32.8	1340.8	2029.7	3500.8	2924.7

Total Weight (lb): 10674.5



ALL REACTIONS ARE FACTORED

AXIAL 46379 lb

SHEAR 4905 lb *MOMENT 417678 lb-ft*

TORQUE 190 lb-ft
50.0 mph WIND - 0.7500 in ICE

AXIAL 24279 lb

SHEAR 21940 lb *MOMENT 1842234 lb-ft*

TORQUE 1148 lb-ft
REACTIONS - 110.0 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Powerwave 7770 w/mount pipe	100	B14 4478	100
Powerwave 7770 w/mount pipe	100	B14 4478	100
Powerwave 7770 w/mount pipe	100	DC6-48-60-18-8C	100
OPA-65R-LCUU-H6 w/mount pipe	100	Sabre 12' V-Boom C10857001C (ATT)	99
OPA-65R-LCUU-H4 w/mount pipe	100	PiROD 13' Platform w/handrail (Verizon - existing)	90
OPA-65R-LCUU-H4 w/mount pipe	100	BXA-80063-6BF-EDIN w/mount pipe	90
HPA-65R-BUU-H6 w/mount pipe	100	BXA-80080-6CF-EDIN w/mount pipe	90
SBNHH-1D65A w/ Mount Pipe	100	BXA-80080-6CF-EDIN w/mount pipe	90
SBNHH-1D65A w/ Mount Pipe	100	B25 RRH4X30-4R	90
(2) Powerwave TMA LGP21401	100	B25 RRH4X30-4R	90
(2) Powerwave TMA LGP21401	100	B25 RRH4X30-4R	90
(2) Powerwave TMA LGP21401	100	RFS DB-T1-6Z-8AB-0Z	90
(2) TPX-070821 Triplexer	100	RFS DB-T1-6Z-8AB-0Z	90
(2) TPX-070821 Triplexer	100	JAHH-65B-R3B w/ Mount Pipe (Verizon - proposed)	90
(2) TPX-070821 Triplexer	100	JAHH-65B-R3B w/ Mount Pipe	90
Ericsson RRUS-11	100	JAHH-65B-R3B w/ Mount Pipe	90
Ericsson RRUS-11	100	JAHH-65B-R3B w/ Mount Pipe	90
Ericsson RRUS-11	100	JAHH-65B-R3B w/ Mount Pipe	90
(2) Ericsson RRUS-32	100	JAHH-65B-R3B w/ Mount Pipe	90
(2) Ericsson RRUS-32	100	RRH 4X45 AWS	90
(2) Ericsson RRUS-32	100	RRH 4X45 AWS	90
DC6-48-60-18-8F	100	RRH 4X45 AWS	90
DC6-48-60-18-8F	100	B13 RRH4X30-4R	90
800 10965 w/ Mount Pipe (ATI - proposed)	100	B13 RRH4X30-4R	90
800 10964 w/ Mount Pipe	100	B13 RRH4X30-4R	90
800 10964 w/ Mount Pipe	100	B5 RRH4X30-4R	90
Ericsson RRUS-32	100	B5 RRH4X30-4R	90
Ericsson RRUS-32	100	B5 RRH4X30-4R	90
B14 4478	100		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A36	36 ksi	58 ksi	A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 110.0 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50.0 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.0 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 77.8%

Hudson Design Group LLC
45 Beechwood Drive
North Andover, MA 01845
Phone: (978) 557-5553
FAX: (978) 336-5586

Job: ***CT2157***			
Project: ***110 ft Monopole***			
Client: AT&T	Drawn by: kw		App'd:
Code: TIA-222-G	Date: 05/17/18		Scale: NTS
Path: C:\Users\kwang\Documents\HUDSON DESIGN GROUP\AAA\CT2157 - MP (AT&T SAI)\CT2157\CT2157.eri			Dwg No. E-1

Tower Input Data

There is a pole section.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Fairfield County, Connecticut.
Basic wind speed of 110.0 mph.
Structure Class II.
Exposure Category B.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56.0 pcf.
A wind speed of 50.0 mph is used in combination with ice.
Temperature drop of 50.0 °F.
Deflections calculated using a wind speed of 60.0 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Tapered Pole Section Geometry

Section	*Elevation* *ft*	*Section Length* *ft*	*Splice Length* *ft*	*Number of Sides*	*Top Diameter* *in*	*Bottom Diameter* *in*	*Wall Thickness* *in*	*Bend Radius* *in*	*Pole Grade*
L1	111.00-97.50	13.50	0.00	Round	16.0000	16.0000	0.3750		A36 (36 ksi)
L2	97.50-97.00	0.50	0.00	Round	16.0000	17.4900	0.3750		A36 (36 ksi)
L3	97.00-72.00	25.00	0.00	18	17.4900	22.7350	0.2500	1.0000	A572-65 (65 ksi)
L4	72.00-47.00	25.00	4.00	18	22.7350	27.9800	0.3000	1.2000	A572-65 (65 ksi)
L5	47.00-21.00	30.00	0.00	18	26.5408	33.3920	0.3650	1.4600	A572-65 (65 ksi)
L6	21.00-1.00	20.00		18	33.3920	37.0000	0.3890	1.5560	A572-65 (65 ksi)

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	*Sector*	*Component Type*	*Placement* *ft*	*Total Number*	*Number Per Row*	*Start/End Position*	*Width or Diameter* *in*	*Perimeter* *in*	*Weight* *plf*
1 5/8 (AT&T - existing)	B	Surface Ar (CaAa)	100.00 - 16.00	6	6	0.000 0.000	1.9800		1.04
1 5/8	B	Surface Ar (CaAa)	100.00 - 16.00	6	6	0.000 0.000	1.9800		1.04

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
WR-VG122ST-BRDA	B	No	Inside Pole	100.00 - 16.00	4	No Ice	0.00	0.25
						1/2" Ice	0.00	0.25
						1" Ice	0.00	0.25
FB-L98B-002	B	No	Inside Pole	100.00 - 16.00	2	No Ice	0.00	0.25
						1/2" Ice	0.00	0.25
						1" Ice	0.00	0.25
**********								
WR-VG122ST-BRDA (AT&T - proposed)	B	No	Inside Pole	100.00 - 16.00	2	No Ice	0.00	0.25
						1/2" Ice	0.00	0.25
						1" Ice	0.00	0.25
**********								
1 5/8 (Verizon - existing)	C	No	Inside Pole	90.00 - 16.00	12	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
						1" Ice	0.00	1.04
1 5/8 Fiber Cable	C	No	Inside Pole	90.00 - 16.00	2	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
						1" Ice	0.00	1.04

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
PiROD 13' Platform w/handrail (AT&T)	A	None		0.0000	99.00	No Ice	31.30	31.30	1822.00
						1/2" Ice	40.20	40.20	2452.00
						1" Ice	49.10	49.10	3082.00
Powerwave 7770 w/mount pipe	A	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	5.65	4.10	57.25
						1/2" Ice	6.03	4.75	103.17
						1" Ice	6.42	5.42	155.38
Powerwave 7770 w/mount pipe	B	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	5.65	4.10	57.25
						1/2" Ice	6.03	4.75	103.17
						1" Ice	6.42	5.42	155.38
Powerwave 7770 w/mount pipe	C	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	5.65	4.10	57.25
						1/2" Ice	6.03	4.75	103.17
						1" Ice	6.42	5.42	155.38
OPA-65R-LCUU-H6 w/mount pipe	A	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	9.95	7.53	112.53
						1/2" Ice	10.50	8.56	192.76
						1" Ice	11.04	9.45	282.09
OPA-65R-LCUU-H4 w/mount pipe	B	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	6.18	4.55	68.25
						1/2" Ice	6.57	5.16	120.98
						1" Ice	6.98	5.78	179.91
OPA-65R-LCUU-H4 w/mount pipe	C	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	6.18	4.55	68.25
						1/2" Ice	6.57	5.16	120.98
						1" Ice	6.98	5.78	179.91
HPA-65R-BUU-H6 w/mount pipe	A	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	9.72	7.15	68.55
						1/2" Ice	10.29	8.33	144.37
						1" Ice	10.83	9.23	228.36
SBNHH-1D65A w/ Mount Pipe	B	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice	6.28	5.34	55.90
						1/2" Ice	6.76	6.20	111.21
						1" Ice	7.22	6.93	173.23

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
SBNHH-1D65A w/ Mount Pipe	C	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	6.28 6.76 7.22	5.34 6.20 6.93	55.90 111.21 173.23
(2) Powerwave TMA LGP21401	A	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	1.05 1.18 1.32	0.38 0.47 0.57	14.10 21.29 30.37
(2) Powerwave TMA LGP21401	B	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	1.05 1.18 1.32	0.38 0.47 0.57	14.10 21.29 30.37
(2) Powerwave TMA LGP21401	C	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	1.05 1.18 1.32	0.38 0.47 0.57	14.10 21.29 30.37
(2) TPX-070821 Triplexer	A	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	0.47 0.56 0.66	0.10 0.15 0.20	7.50 10.96 15.74
(2) TPX-070821 Triplexer	B	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	0.47 0.56 0.66	0.10 0.15 0.20	7.50 10.96 15.74
(2) TPX-070821 Triplexer	C	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	0.47 0.56 0.66	0.10 0.15 0.20	7.50 10.96 15.74
Ericsson RRUS-11	A	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	2.79 3.00 3.21	1.19 1.34 1.50	50.70 71.57 95.48
Ericsson RRUS-11	B	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	2.79 3.00 3.21	1.19 1.34 1.50	50.70 71.57 95.48
Ericsson RRUS-11	C	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	2.79 3.00 3.21	1.19 1.34 1.50	50.70 71.57 95.48
(2) Ericsson RRUS-32	A	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	77.00 104.93 136.47
(2) Ericsson RRUS-32	B	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	77.00 104.93 136.47
(2) Ericsson RRUS-32	C	From Face	2.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	3.31 3.56 3.81	2.42 2.64 2.86	77.00 104.93 136.47
DC6-48-60-18-8F	A	From Face	2.00 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	0.79 1.27 1.45	0.79 1.27 1.45	20.00 35.12 52.57
DC6-48-60-18-8F	B	From Face	2.00 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	0.79 1.27 1.45	0.79 1.27 1.45	20.00 35.12 52.57
**********									
800 10965 w/ Mount Pipe (AT&T - proposed)	A	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	13.92 14.50 15.07	7.50 8.71 9.65	134.55 229.58 333.52
800 10964 w/ Mount Pipe	B	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	10.25 10.77 11.27	5.53 6.41 7.16	112.90 187.51 269.56
800 10964 w/ Mount Pipe	C	From Face	3.50 0.00 0.00	0.0000	100.00	No Ice 1/2" Ice 1" Ice	10.25 10.77 11.27	5.53 6.41 7.16	112.90 187.51 269.56
Ericsson RRUS-32	A	From Face	2.50 0.00	0.0000	100.00	No Ice 1/2" Ice	3.31 3.56	2.42 2.64	77.00 104.93

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00			1" Ice	3.81	2.86	136.47
Ericsson RRUS-32	B	From Face	2.50	0.0000	100.00	No Ice	3.31	2.42	77.00
			0.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
Ericsson RRUS-32	C	From Face	2.50	0.0000	100.00	No Ice	3.31	2.42	77.00
			0.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
B14 4478	A	From Face	2.50	0.0000	100.00	No Ice	1.65	0.93	60.00
			0.00			1/2" Ice	1.81	1.05	74.37
			0.00			1" Ice	1.98	1.19	91.23
B14 4478	B	From Face	2.50	0.0000	100.00	No Ice	1.65	0.93	60.00
			0.00			1/2" Ice	1.81	1.05	74.37
			0.00			1" Ice	1.98	1.19	91.23
B14 4478	C	From Face	2.50	0.0000	100.00	No Ice	1.65	0.93	60.00
			0.00			1/2" Ice	1.81	1.05	74.37
			0.00			1" Ice	1.98	1.19	91.23
DC6-48-60-18-8C	C	From Face	2.00	0.0000	100.00	No Ice	0.79	0.79	20.00
			0.00			1/2" Ice	1.27	1.27	35.12
			0.00			1" Ice	1.45	1.45	52.57
**********									
PiROD 13' Platform w/handrail (Verizon - existing)	A	None		0.0000	90.00	No Ice	31.30	31.30	1822.00
						1/2" Ice	40.20	40.20	2452.00
						1" Ice	49.10	49.10	3082.00
BXA-80063-6BF-EDIN w/mount pipe	A	From Leg	4.00	0.0000	90.00	No Ice	7.33	5.46	41.10
			0.00			1/2" Ice	7.79	6.38	98.38
			0.00			1" Ice	8.25	7.18	163.05
BXA-80080-6CF-EDIN w/mount pipe	B	From Leg	4.00	0.0000	90.00	No Ice	6.26	6.46	47.20
			0.00			1/2" Ice	6.93	7.73	104.60
			0.00			1" Ice	7.57	8.85	169.77
BXA-80080-6CF-EDIN w/mount pipe	C	From Leg	4.00	0.0000	90.00	No Ice	6.26	6.46	47.20
			0.00			1/2" Ice	6.93	7.73	104.60
			0.00			1" Ice	7.57	8.85	169.77
B25 RRH4X30-4R	A	From Leg	3.00	0.0000	90.00	No Ice	2.20	1.74	55.00
			0.00			1/2" Ice	2.39	1.92	75.47
			0.00			1" Ice	2.59	2.11	98.94
B25 RRH4X30-4R	B	From Leg	3.00	0.0000	90.00	No Ice	2.20	1.74	55.00
			0.00			1/2" Ice	2.39	1.92	75.47
			0.00			1" Ice	2.59	2.11	98.94
B25 RRH4X30-4R	C	From Leg	3.00	0.0000	90.00	No Ice	2.20	1.74	55.00
			0.00			1/2" Ice	2.39	1.92	75.47
			0.00			1" Ice	2.59	2.11	98.94
RFS DB-T1-6Z-8AB-0Z	A	From Leg	2.00	0.0000	90.00	No Ice	4.80	2.00	44.00
			0.00			1/2" Ice	5.07	2.19	80.13
			0.00			1" Ice	5.35	2.39	120.22
RFS DB-T1-6Z-8AB-0Z	B	From Leg	2.00	0.0000	90.00	No Ice	4.80	2.00	44.00
			0.00			1/2" Ice	5.07	2.19	80.13
			0.00			1" Ice	5.35	2.39	120.22
**********									
JAHH-65B-R3B w/ Mount Pipe (Verizon - proposed)	A	From Leg	4.00	0.0000	90.00	No Ice	9.35	7.65	88.85
			6.00			1/2" Ice	9.92	8.83	165.42
			0.00			1" Ice	10.46	9.73	250.16
JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00	0.0000	90.00	No Ice	9.35	7.65	88.85
			-6.00			1/2" Ice	9.92	8.83	165.42
			0.00			1" Ice	10.46	9.73	250.16
JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00	0.0000	90.00	No Ice	9.35	7.65	88.85
			6.00			1/2" Ice	9.92	8.83	165.42
			0.00			1" Ice	10.46	9.73	250.16

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00 -6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	9.35 9.92 10.46	7.65 8.83 9.73	88.85 165.42 250.16
JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00 6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	9.35 9.92 10.46	7.65 8.83 9.73	88.85 165.42 250.16
JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00 -6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	9.35 9.92 10.46	7.65 8.83 9.73	88.85 165.42 250.16
RRH 4X45 AWS	A	From Leg	3.00 6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.66 2.88 3.10	1.59 1.77 1.96	64.00 84.35 107.85
RRH 4X45 AWS	B	From Leg	3.00 6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.66 2.88 3.10	1.59 1.77 1.96	64.00 84.35 107.85
RRH 4X45 AWS	C	From Leg	3.00 6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.66 2.88 3.10	1.59 1.77 1.96	64.00 84.35 107.85
B13 RRH4X30-4R	A	From Leg	3.00 -6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.16 2.35 2.55	1.62 1.79 1.97	57.20 76.81 99.38
B13 RRH4X30-4R	B	From Leg	3.00 -6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.16 2.35 2.55	1.62 1.79 1.97	57.20 76.81 99.38
B13 RRH4X30-4R	C	From Leg	3.00 -6.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.16 2.35 2.55	1.62 1.79 1.97	57.20 76.81 99.38
B5 RRH4X30-4R	A	From Leg	3.00 0.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.12 2.31 2.50	1.29 1.45 1.61	53.00 70.33 90.48
B5 RRH4X30-4R	B	From Leg	3.00 0.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.12 2.31 2.50	1.29 1.45 1.61	53.00 70.33 90.48
B5 RRH4X30-4R	C	From Leg	3.00 0.00 0.00	0.0000	90.00	No Ice 1/2" Ice 1" Ice	2.12 2.31 2.50	1.29 1.45 1.61	53.00 70.33 90.48

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice

Comb. No.	Description
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Pole	Max. Vert	33	46379.47	-15.71	-4510.53
	Max. H_x	20	24279.17	20960.16	151.36
	Max. H_z	2	24279.17	151.36	21027.09
	Max. M_x	2	1775067.14	151.36	21027.09
	Max. M_z	8	1769524.93	-20960.16	-151.36
	Max. Torsion	5	1148.39	-10349.00	18134.31
	Min. Vert	23	18209.38	18227.71	10644.63
	Min. H_x	9	18209.38	-20960.16	-151.36
	Min. H_z	14	24279.17	-151.36	-21027.09
	Min. M_x	14	-1774563.13	-151.36	-21027.09
	Min. M_z	20	-1769981.45	20960.16	151.36
	Min. Torsion	17	-1148.06	10349.00	-18134.31

Tower Mast Reaction Summary

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
Dead Only	20232.64	0.00	0.00	-195.87	177.24	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	24279.17	-151.36	-21027.09	-1775067.14	15283.53	-975.81
0.9 Dead+1.6 Wind 0 deg - No Ice	18209.38	-151.36	-21027.09	-1754074.75	15037.76	-979.62
1.2 Dead+1.6 Wind 30 deg - No Ice	24279.17	10349.00	-18134.31	-1529811.95	-871639.96	-1143.22
0.9 Dead+1.6 Wind 30 deg - No Ice	18209.38	10349.00	-18134.31	-1511714.88	-861419.31	-1148.39
1.2 Dead+1.6 Wind 60 deg - No Ice	24279.17	18076.35	-10382.46	-874642.27	-1524952.79	-1003.89
0.9 Dead+1.6 Wind 60 deg - No Ice	18209.38	18076.35	-10382.46	-864275.56	-1507020.95	-1009.04
1.2 Dead+1.6 Wind 90 deg - No Ice	24279.17	20960.16	151.36	14822.34	-1769524.93	-595.44
0.9 Dead+1.6 Wind 90 deg - No Ice	18209.38	20960.16	151.36	14699.71	-1748703.83	-599.20
1.2 Dead+1.6 Wind 120 deg - No Ice	24279.17	18227.71	10644.63	900174.96	-1539892.24	-27.96
0.9 Dead+1.6 Wind 120 deg - No Ice	18209.38	18227.71	10644.63	889618.29	-1521780.45	-29.30
1.2 Dead+1.6 Wind 150 deg - No Ice	24279.17	11010.55	18977.44	1592205.41	-925345.06	546.07
0.9 Dead+1.6 Wind 150 deg - No Ice	18209.38	11010.55	18977.44	1573602.11	-914539.02	547.55
1.2 Dead+1.6 Wind 180 deg - No Ice	24279.17	151.36	21027.09	1774563.13	-14852.08	975.23
0.9 Dead+1.6 Wind 180 deg - No Ice	18209.38	151.36	21027.09	1753705.20	-14721.54	979.05
1.2 Dead+1.6 Wind 210 deg - No Ice	24279.17	-10349.00	18134.31	1529321.68	872072.49	1142.91
0.9 Dead+1.6 Wind 210 deg - No Ice	18209.38	-10349.00	18134.31	1511355.42	861736.27	1148.06
1.2 Dead+1.6 Wind 240 deg - No Ice	24279.17	-18076.35	10382.46	874158.39	1525397.86	1004.14
0.9 Dead+1.6 Wind 240 deg - No Ice	18209.38	-18076.35	10382.46	863920.82	1507347.09	1009.27
1.2 Dead+1.6 Wind 270 deg - No Ice	24279.17	-20960.16	-151.36	-15313.59	1769981.45	596.04
0.9 Dead+1.6 Wind 270 deg - No Ice	18209.38	-20960.16	-151.36	-15059.85	1749041.50	599.77
1.2 Dead+1.6 Wind 300 deg - No Ice	24279.17	-18227.71	-10644.63	-900679.94	1540347.66	28.31
0.9 Dead+1.6 Wind 300 deg - No Ice	18209.38	-18227.71	-10644.63	-889988.48	1522114.27	29.64
1.2 Dead+1.6 Wind 330 deg - No Ice	24279.17	-11010.55	-18977.44	-1592716.43	925787.21	-546.40
0.9 Dead+1.6 Wind 330 deg - No Ice	18209.38	-11010.55	-18977.44	-1573976.78	914863.14	-547.86
1.2 Dead+1.0 Ice+1.0 Temp	46379.47	-0.01	-0.01	-1091.90	923.16	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	46379.47	-15.71	-4510.37	-391208.79	2623.40	-170.37
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	46379.47	2233.31	-3898.24	-338129.87	-191853.72	-189.54
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	46379.47	3883.91	-2241.58	-194759.70	-334661.37	-157.91

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	46379.47	4493.98	15.71	485.57	-387522.67	-83.97
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	46379.47	3899.62	2268.79	195289.77	-336305.15	12.48
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	46379.47	2452.85	4247.08	359188.34	-207248.95	105.45
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	46379.47	15.71	4510.53	388879.48	-665.51	170.37
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	46379.47	-2233.31	3898.24	335812.75	193812.04	189.52
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	46379.47	-3883.91	2241.58	192442.58	336620.53	157.90
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	46379.47	-4493.82	-15.71	-2803.37	389493.69	83.97
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	46379.47	-3899.62	-2268.79	-197608.29	338264.28	-12.46
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	46379.47	-2452.85	-4247.08	-361506.67	209207.01	-105.43
Dead+Wind 0 deg - Service	20232.64	-25.18	-3498.42	-293873.26	2683.76	-165.95
Dead+Wind 30 deg - Service	20232.64	1721.83	-3017.13	-253283.90	-144060.83	-194.47
Dead+Wind 60 deg - Service	20232.64	3007.49	-1727.40	-144883.66	-252153.09	-170.87
Dead+Wind 90 deg - Service	20232.64	3487.28	25.18	2281.35	-292629.54	-101.49
Dead+Wind 120 deg - Service	20232.64	3032.67	1771.02	148778.11	-254644.93	-4.91
Dead+Wind 150 deg - Service	20232.64	1831.90	3157.41	263324.39	-152979.66	92.96
Dead+Wind 180 deg - Service	20232.64	25.18	3498.42	293450.64	-2301.26	165.94
Dead+Wind 210 deg - Service	20232.64	-1721.83	3017.13	252861.60	144443.35	194.45
Dead+Wind 240 deg - Service	20232.64	-3007.49	1727.40	144461.51	252535.90	170.86
Dead+Wind 270 deg - Service	20232.64	-3487.28	-25.18	-2703.68	293012.62	101.49
Dead+Wind 300 deg - Service	20232.64	-3032.67	-1771.02	-149200.74	255027.98	4.93
Dead+Wind 330 deg - Service	20232.64	-1831.90	-3157.41	-263747.17	153362.40	-92.95

Maximum Tower Deflections - Service Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	111 - 97.5	16.0016	50	1.2177	0.0045
L2	97.5 - 97	12.5607	50	1.2137	0.0041
L3	97 - 72	12.4336	50	1.2128	0.0041
L4	72 - 47	6.6265	50	0.9429	0.0016
L5	51 - 21	3.1875	50	0.6142	0.0008
L6	21 - 1	0.4832	50	0.2325	0.0002

Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
100.00	Powerwave 7770 w/mount pipe	50	13.1966	1.2170	0.0044	59771
99.00	PiROD 13' Platform w/handrail	50	12.9421	1.2159	0.0043	40927
90.00	PiROD 13' Platform w/handrail	50	10.6816	1.1761	0.0033	7611

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	111 - 97.5	Pole	TP16x16x0.375	1	-4731.16	596412.00	10.9	Pass
L2	97.5 - 97	Pole	TP17.49x16x0.375	2	-4732.49	596412.00	10.9	Pass
L3	97 - 72	Pole	TP22.735x17.49x0.25	3	-10415.20	1325560.00	68.1	Pass
L4	72 - 47	Pole	TP27.98x22.735x0.3	4	-13680.20	1898820.00	77.8	Pass
L5	47 - 21	Pole	TP33.392x26.5408x0.365	5	-20066.50	2842680.00	74.1	Pass
L6	21 - 1	Pole	TP37x33.392x0.389	6	-24266.00	3358360.00	73.8	Pass
							Summary	
						Pole (L4)	77.8	Pass
						RATING =	**77.8**	**Pass**

Stiffened or Unstiffened, Ungrouted, Circular Base Plate - Any Rod Material

TIA Rev G Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data	
BU#:	*CT2157*
Site Name:	*0*
App #:	*0*
Pole Manufacturer:	*Other*

Reactions		
Mu:	1200	ft-kips
Axial, Pu:	24	kips
Shear, Vu:	22	kips
Eta Factor, η	0.55	TIA G (Fig. 4-4)

Anchor Rod Data		
Qty:	8	
Diam:	2.25	in
Rod Material:	A615-J	
Strength (Fu):	100	ksi
Yield (Fy):	75	ksi
Bolt Circle:	45	in

If No stiffeners, Criteria:	AISC LRFD	<-Only Applcable to Unstiffened Cases

Anchor Rod Results

Max Rod (Cu+ Vu/ή):	168.0	Kips
Allowable Axial, Φ*Fu*Anet:	260.0	Kips
Anchor Rod Stress Ratio:	64.6%	**Pass**

Non-Rigid
AISC LRFD
φ*Tn

Plate Data		
Diam:	51	in
Thick:	1.5	in
Grade:	60	ksi
Single-Rod B-eff:	14.68	in

Base Plate Results Flexural Check

Base Plate Stress:	47.9	ksi
Allowable Plate Stress:	54.0	ksi
Base Plate Stress Ratio:	88.7%	**Pass**

Non-Rigid
AISC LRFD
φ*Fy
Y.L. Length: 25.61

Stiffener Data (Welding at both sides)		
Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

n/a

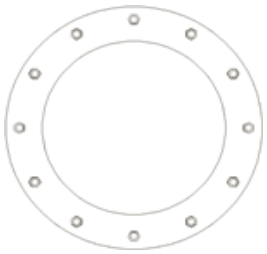
Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, fb/Fb+(fv/Fv)^2:	n/a
Plate Tension+Shear, ft/Ft+(fv/Fv)^2:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check:	n/a

Pole Data		
Diam:	37	in
Thick:	0.389	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Stiffened or Unstiffened, Ungrouted, Circular Base Plate - Any Rod Material

TIA Rev G Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data	
BU#:	*CT2157*
Site Name:	*0*
App #:	*0*
Pole Manufacturer:	*Other*

Reactions		
Mu:	650	ft-kips
Axial, Pu:	10	kips
Shear, Vu:	10	kips
Eta Factor, η	0.55	TIA G (Fig. 4-4)

Anchor Rod Data		
Qty:	6	
Diam:	2.25	in
Rod Material:	Other	
Strength (Fu):	105	ksi
Yield (Fy):	125	ksi
Bolt Circle:	55	in

If No stiffeners, Criteria:	AISC LRFD	<-Only Applcable to Unstiffened Cases

Anchor Rod Results

Max Rod (Cu+ Vu/ή):	99.2	Kips
Allowable Axial, Φ*Fu*Anet:	273.0	Kips
Anchor Rod Stress Ratio:	36.4%	**Pass**

Non-Rigid
AISC LRFD
φ*Tn

Plate Data		
Diam:	61	in
Thick:	1.75	in
Grade:	60	ksi
Single-Rod B-eff:	19.57	in

Base Plate Results Flexural Check

Base Plate Stress:	28.5	ksi
Allowable Plate Stress:	54.0	ksi
Base Plate Stress Ratio:	52.8%	**Pass**

Non-Rigid
AISC LRFD
φ*Fy
Y.L. Length: 40.69

Stiffener Data (Welding at both sides)		
Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

n/a

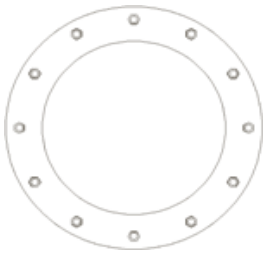
Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, fb/Fb+(fv/Fv)^2:	n/a
Plate Tension+Shear, ft/Ft+(fv/Fv)^2:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check:	n/a

Pole Data		
Diam:	37	in
Thick:	0.389	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

CCI Foundation Tool Suite - Monopole Pier

CCIFTS 1.1.103.14128 - Phase 1 Date: 5/17/2018

BU:	CT2157
Site Name:	
App Number:	N/A
Work Order:	

Monopole Drilled Pier

Input

Criteria

TIA Revision:	G
ACI 318 Revision:	2008
Seismic Category:	B

Forces

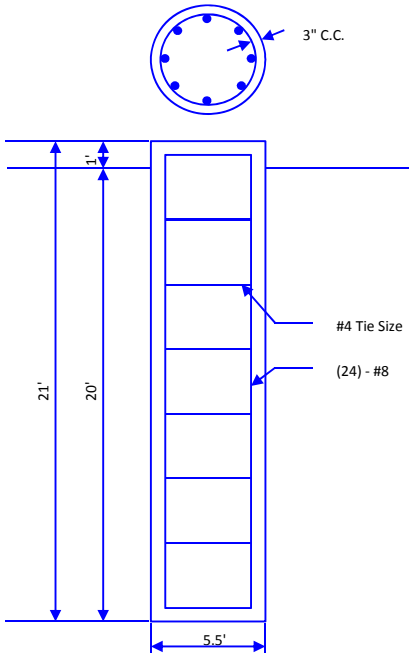
Compression	24.3	kips
Shear	21.9	kips
Moment	1842	k-ft
Swelling Force	0	kips

Foundation Dimensions

Pier Diameter:	5.5	ft
Ext. above grade:	1	ft
Depth below grade:	20	ft

Material Properties

Number of Rebar:	24	
Rebar Size:	8	
Tie Size	4	
Rebar tensile strength:	60	ksi
Concrete Strength:	3000	psi
Ultimate Concrete Strain	0.003	in/in
Clear Cover to Ties:	3	in



Soil Profile: Profile 1

Layer	Thickness (ft)	From (ft)	To (ft)	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)	Ultimate Uplift Skin Friction (ksf)	Ultimate Comp. Skin Friction (ksf)	Ultimate Bearing Capacity (ksf)	SPT 'N' Counts
1	3	0	3	120	0	28				
2	10	3	13	78	0	38				
3	16	13	29	43	0	38				

Analysis Results

Soil Lateral Capacity

Depth to Zero Shear:	3.37	ft
Max Moment, Mu:	1895.76	k-ft
Soil Safety Factor:	2.34	
Safety Factor Req'd:	1.33	
RATING:	56.9%	

Soil Axial Capacity

Skin Friction (k):	119.78	kips
End Bearing (k):	0.00	kips
Comp. Capacity (k), ϕCn:	119.78	kips
Comp. (k), Cu:	24.30	kips
RATING:	20.3%	

Concrete/Steel Check

Mu (from soil analysis)	1895.76	k-ft
ϕMn	2360.22	k-ft
RATING:	80.3%	

rho provided	0.55	
rho required	0.33	OK

Rebar Spacing	6.59	
Spacing required	16.00	OK

Dev. Length required	16.38	
Dev. Length provided	43.82	OK

Overall Foundation Rating: 80.3%

48 NEWTOWN

Location	48 NEWTOWN	**Mblu**	K12/ / 265/ /
Acct#		**Owner**	48 NEWTOWN ROAD CORPORATION
Assessment	$906,400	**Appraisal**	$1,294,800
PID	7333	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$900,700	$394,100	$1,294,800

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$630,500	$275,900	$906,400

Owner of Record

Owner	48 NEWTOWN ROAD CORPORATION	**Sale Price**	$0
Co-Owner		**Book & Page**	1706/ 908
Address	50 NEWTOWN RD DANBURY, CT 06810	**Sale Date**	11/08/2004
		Instrument	29

Ownership History

Ownership History				
Owner	**Sale Price**	**Book & Page**	**Instrument**	**Sale Date**
48 NEWTOWN ROAD CORPORATION	$0	1706/ 908	29	11/08/2004
MORRIS JULIA B NOMINEE	$0	1706/ 906	29	11/08/2004
FORTY EIGHT NEWTOWN ROAD	$0	1041/0377		03/04/1993

Building Information

Building 1 : Section 1

Year Built:	1988
Living Area:	5,680
Replacement Cost:	$721,286
Building Percent Good:	81
Replacement Cost Less Depreciation:	$584,200

Building Attributes	
Field	**Description**
STYLE	Restaurant
MODEL	Commercial
Grade	Average
Stories:	2
Occupancy	4
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Glass/Thermo.
Roof Structure	Gable/Hip

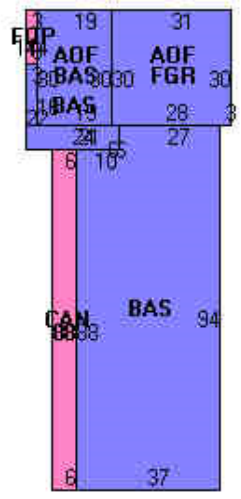
Building Photo

Building Photo

(http://images.vgsi.com/photos2/DanburyCTPhotos//\00\03\05/58.jpg)

Building Layout

Roof Cover	Metal/Tin
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Ceram Clay Til
Interior Floor 2	Carpet
Heating Fuel	Gas
Heating Type	Forced Air-Duc
AC Type	Central
Bldg Use	Comm/Res MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	201
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUS-CEIL & WL
Rooms/Prtns	AVERAGE
Wall Height	12
% Comn Wall	0



(http://images.vgsi.com/photos2/DanburyCTPhotos//Sketches

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	4,180	4,180
AOF	Office, (Average)	1,500	1,500
CAN	Canopy	528	0
FGR	Garage	930	0
FOP	Open Porch	42	0
		7,180	5,680

Building 1 : Section 1

Year Built: 1988
Living Area: 0
Replacement Cost: $721,286
Building Percent Good: 81
Replacement Cost Less Depreciation: $584,200

Building Attributes	
Field	**Description**
Style	Outbuildings
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 Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	

Building Photo

(http://images.vgsi.com/photos2/DanburyCTPhotos//\00\02\70/15.jpg)

Building Layout

Building Layout

(http://images.vgsi.com/photos2/DanburyCTPhotos//Sketches

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

Kitchen Style:	
Fireplaces	
Whirlpool	
Addn'l Kitchen	
Bsm Gar	
Fin Bsm Area	
Fin Bsm Qual	
Nhbd	
MH Park	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	201
Description	Comm/Res MDL-94
Zone	CG20
Neighborhood	6000
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.6
Frontage	0
Depth	0
Assessed Value	$275,900
Appraised Value	$394,100

Outbuildings

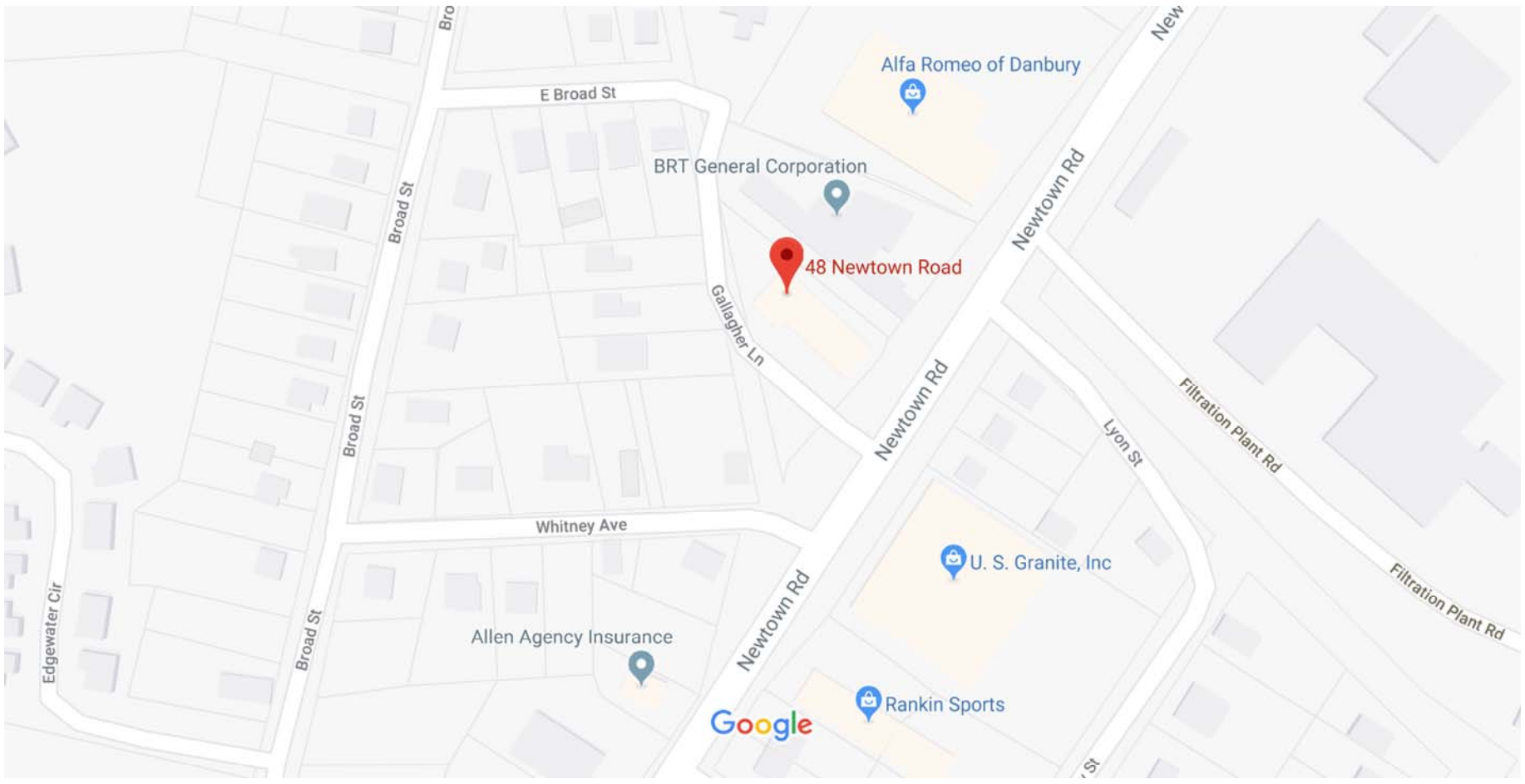
Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
CEL	Cell Tower			1 UNITS	$300,000	1
PAV1	Paving-Asphalt			10500 S.F.	$16,500	1

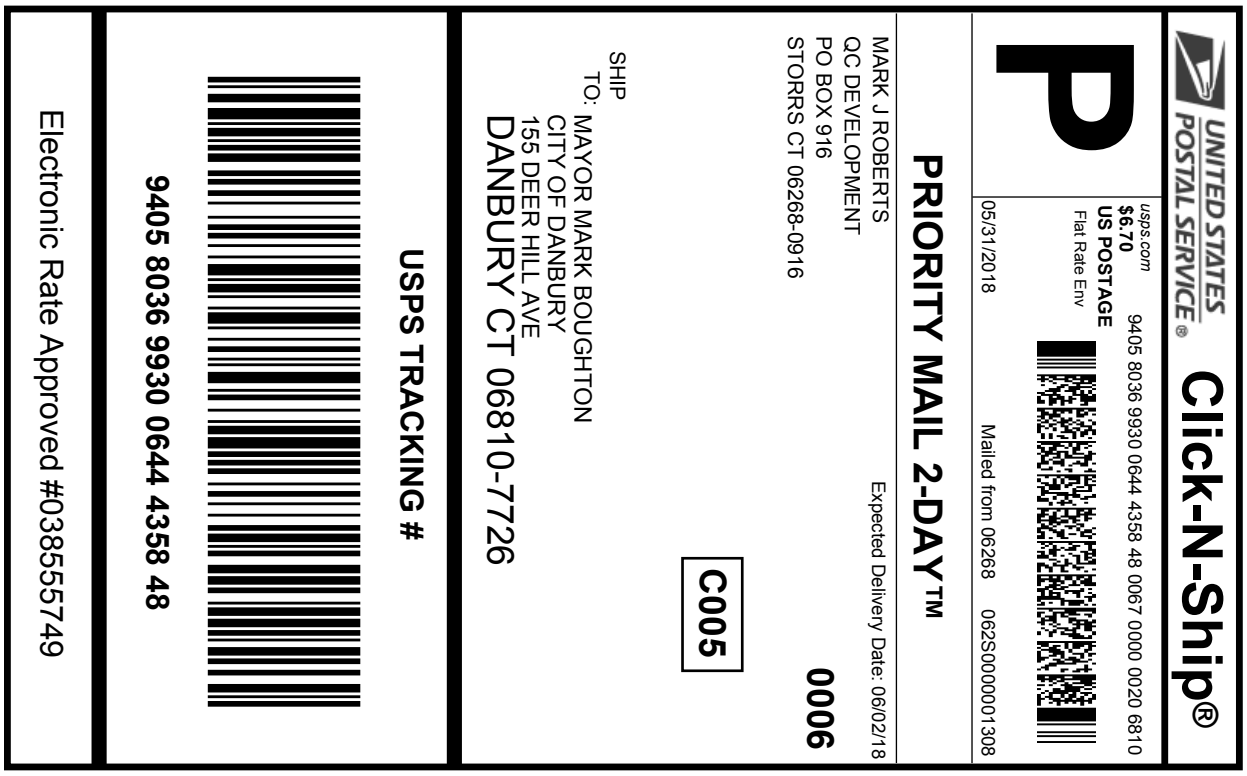
Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$764,800	$375,300	$1,140,100
2015	$755,700	$375,300	$1,131,000
2014	$755,700	$375,300	$1,131,000

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$535,400	$262,700	$798,100
2015	$529,000	$262,700	$791,700
2014	$529,000	$262,700	$791,700

Google Maps 48 Newtown Rd





Cut on dotted line.

Instructions

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

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0644 4358 48

Trans. #:	436080546
Print Date:	05/30/2018
Ship Date:	05/31/2018
Expected Delivery Date:	06/02/2018
Insured Value:	$50.00

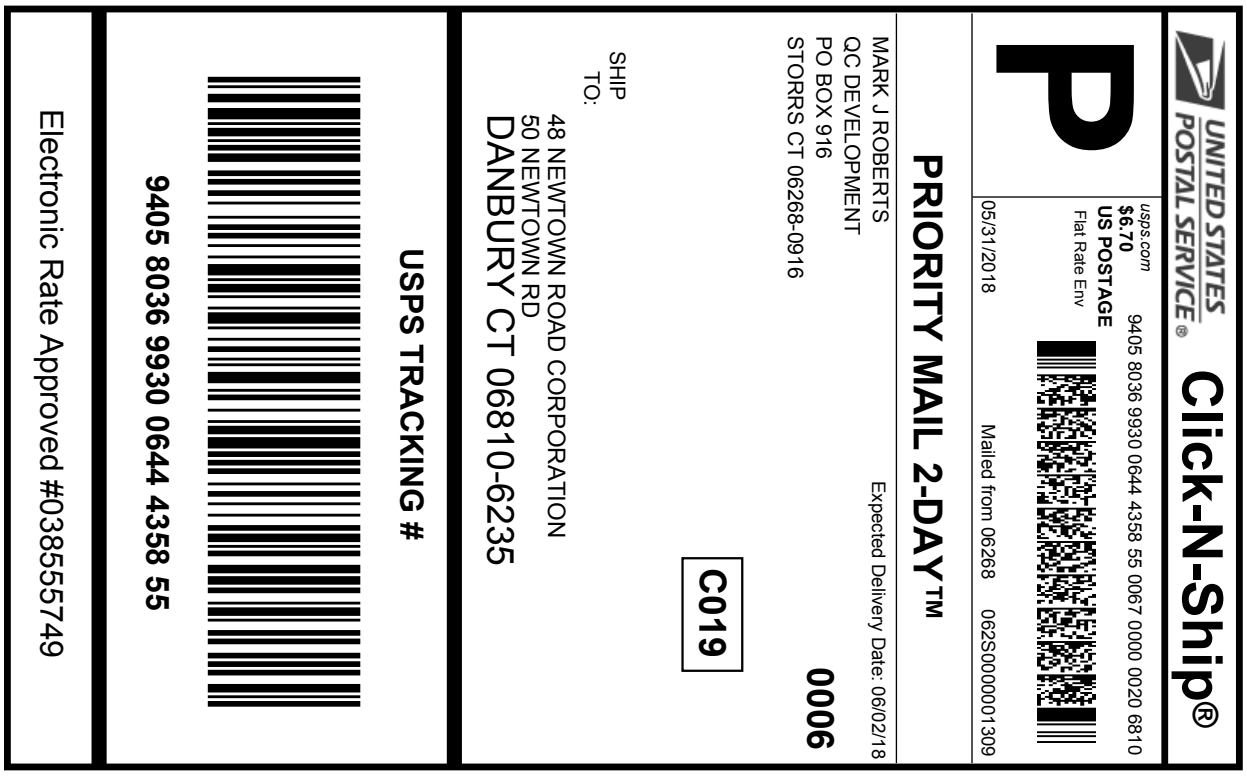
Priority Mail® Postage:	**$6.70**
Insurance Fee	**$0.00**
Total	**$6.70**

From: MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

To: MAYOR MARK BOUGHTON
CITY OF DANBURY
155 DEER HILL AVE
DANBURY CT 06810-7726

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

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

Instructions

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

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0644 4358 55

Trans. #:	436080546
Print Date:	05/30/2018
Ship Date:	05/31/2018
Expected Delivery Date:	06/02/2018
Insured Value:	$50.00

Priority Mail® Postage:	**$6.70**
Insurance Fee	**$0.00**
Total	**$6.70**

From: MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

To: 48 NEWTOWN ROAD CORPORATION
50 NEWTOWN RD
DANBURY CT 06810-6235

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

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com