426 Kinds Park Dr. EXT Apt D
Liverpool, NY 13090
ahebel@clinellc.com
215.588.7035

February 9, 2021

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

Re: Notice of Exempt Modifications – AT&T Site CT5404
AT&T Telecommunications Facility @ 319-321 New Britain Ave Unionville, CT 06085

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC ("AT&T") currently maintains a wireless telecommunications facility on an existing +/- 190' monopole tower at the above referenced address, latitude 41.7497919, longitude -72.8726989. Said monopole tower is owned by Town of Farmington.

AT&T desires to modify its existing telecommunications facility by replacing (3) antennas, adding (3) antennas, replacing (3) RRUs, adding (6) RRUs, adding (1) surge arrestors and associated cables within the equipment lease space as more particularly detailed and described on the enclosed Construction Drawings prepared by Centerline Communications last revised on February 2, 2021. The centerline height of the existing antennas is and will remain at 150 feet.

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with R.C.S.A §16-50j-73, a copy of this letter is being sent to the following individuals: Kathleen A. Blonski Town Manager of the Town of Farmington, and as property and tower owner: Shannon Rutherford Acting Town Planner of Town of Farmington.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require an extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission's safety standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*
5. The proposed modifications will not cause an ineligible change or alternation in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis dated February 2, 2021 and prepared Centerline Communications enclosed herewith.

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

Best Regards,

Allison Hebel
Site Acquisition Consultant – Agent for AT&T
Centerline Communications LLC
750 West Center St. Ste 301
West Bridgewater, MA 02379
215-588-7035
ahebel@clinellc.com

Enclosures:
Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Available Town of Farmington Original Tower Approval Records
Exhibit 7 – Notice Deliver Confirmations

Cc: Kathleen Blonski Town Manager of the Town of Farmington, and as property/Tower owner
Shannon Rutherford Acting Town Planner of Town of Farmington

EXHIBIT 1

PROJECT INFORMATION

TOWER OWNER:	Town of Farmington
SITE NAME:	UNIONVILLE –FARMINGTON (CT5404)
SITE ADDRESS:	319–321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
LATITUDE:	41° 44' 59.25"
LONGITUDE:	–72° 52' 21.72"
TOWER HEIGHT:	190'–0"± AGL
RAD CENTER:	150''–0"± AGL
ZONING JURISDICTION:	TOWN OF UNIONVILLE
COUNTY:	HARTFORD

DESCRIPTION OF WORK:

TELECOMMUNICATIONS FACILITY UPGRADE (LTE 4C, 5C, 5G NR, BWE & RETRO):

MONOPOLE:

INSTALL:
- (3) DMP65R–BU8DA ANTENNAS (ONE PER SECTOR)
- (3) OPA65R–BU8DA ANTENNAS (ONE PER SECTOR)
- (3) 4449 B5/B12 RRUS (ONE PER SECTOR)
- (3) 4478 B14 RRUS (ONE PER SECTOR)
- (3) 8843 B2/B66A RRUS (ONE PER SECTOR)
- (1) DC6–48–60–0–8F SURGE ARRESTOR
- (2) DC POWER LINES
- (6) Y CABLES
- (1) 2" FLEX CONDUIT

REMOVE:
- (3) P65–17–XLH–RR ANTENNAS (ONE PER SECTOR)
- (3) RRUS–11 B12 (ONE PER SECTOR)
- (6) LINES OF 1–5/8" COAX

EXISTING TO REMAIN:
- (3) 800–10121 ANTENNAS (ON PER SECTOR)
- (3) TPA–65R–L–CUUUU–H8 ANTENNAS (ONE PER SECTOR)
- (6) LGP21901 DIPLEXERS (TWO PER SECTOR)
- (6) LGP–21401 TMAS (TWO PER SECTOR)
- (3) RRUS–32 B2 (ONE PER SECTOR)
- (3) RRUS–32 B30 (ONE PER SECTOR)
- (2) DC6–48–60–18–8F SURGE ARRESTOR
- (2) 18 PAIR FIBER
- (4) 8 DC LINES
- (6) LINES OF 1–5/8" COAX

EQUIPMENT AREA/GROUND:

INSTALL:
- (1) 6630
- (1) IDLE
- (1) NETSURE 7100
- (1) DC12

REMOVE:
- (1) EXISTING POWER PLANT

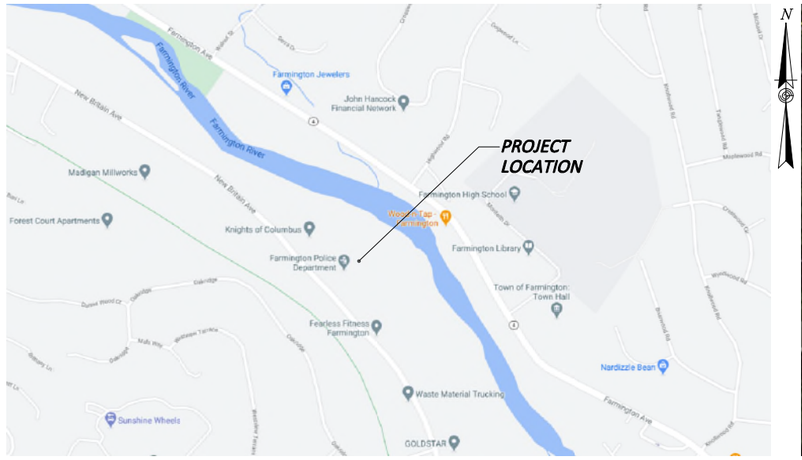
PROJECT DIRECTORY

A&E / PROJECT MANAGER:
CENTERLINE COMMUNICATIONS
750 WEST CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
CONTACT: DAVID FORD
PHONE 844.748.8878

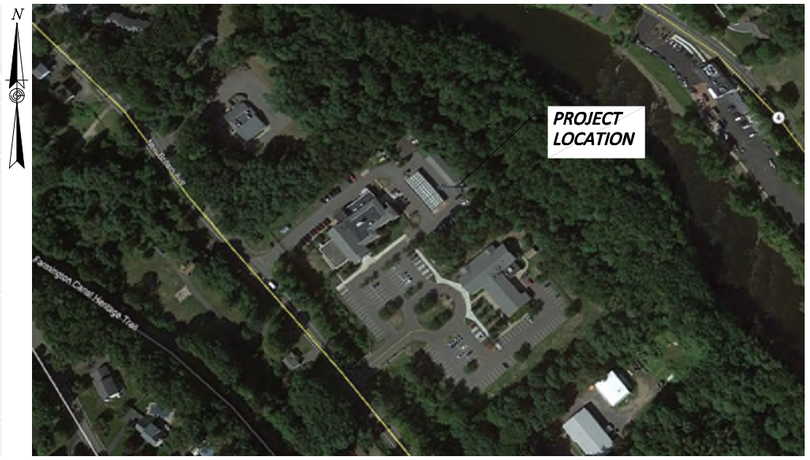
APPLICANT:
at&t MOBILITY CORP.
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

at&t

SITE NUMBER: CT5404
FA# 10071289
SITE NAME: UNIONVILLE -FARMINGTON
PACE ID: MRCTB048765, MRCTB048768, MRCTB048766, MRCTB048767 & MRCTB048770
PROJECT: LTE 4C, 5C, 5G NR, BWE & RETRO



VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

DIRECTIONS:

84–EAST TO EXIT 39 IN FARMINGTON (ROUTE 4). KEEP GOING STRAIGHT OFF THE EXIT 4 WEST CONTINUE ON FARMINGTON AVE. YOU WILL TURNLEFT ONTO SOUTH MAIN STREET AND CROSS OVER STEEL BRIDGE. TURN LEFT ONTO NEW BRITAIN AVE AFTER CROSSING BRIDGE. FOLLOW DOWN YOU WILL SEE POLICE DEPARTMENT ON LEFT WITHPOLE BEHIND IT. REPORT TO MAIN DESK WITH I.D. THEY WILL OPEN GATE TO GAIN ACCESS TO SITE.ADDRESS: 36 UNIONVILLE–FARMINGTON319–321 NEW BRITAIN AVE, FARMINGTON, CT

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 PURPOSE 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 REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

NO.	DESCRIPTION	REV.	DATE
T–1	TITLE SHEET	1	02/02/21
GN–1	GENERAL NOTES	1	02/02/21
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A–2	ANTENNA LAYOUT & ELEVATIONS	1	02/02/21
A–3	DETAILS	1	02/02/21
SN–1	STRUCTURAL NOTES	1	02/02/21
RF–1	RF PLUMBING DIAGRAM	1	02/02/21
G–1	GROUNDING DETAILS	1	02/02/21

at&t MOBILITY CORP.
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

CENTERLINE COMMUNICATIONS
750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS		
1	02/02/21	ISSUED FOR CONSTRUCTION
0	12/15/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

CBYD.COM 811 Call Before You Dig, Inc.

SITE NAME:	UNIONVILLE –FARMINGTON
SITE NUMBER:	CT5404
SITE ADDRESS:	319–321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	TITLE SHEET
DRAWING #:	T–1
REVISION:	1

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – CENTERLINE COMMUNICATIONS
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 SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY 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 & CONNECTICUT STATE BUILDING CODE 2018
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
LIGHTING 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–G, STRUCTURAL STANDARDS FOR STEEL

ANTENNA TOWER 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	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE	TYP	TYPICAL
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED		

RF NOTES

1. ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR

2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.

3. RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8.

4. ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS–OCCUPIED, INDOORS–UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.

5. RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT ACCESSORIES SHALL BE USED.

6. THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.

7. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CABLE PORT.

8. ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.

9. 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.

10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.

11. ANTENNAS SHALL BE PAINTED,WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.

12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

ANTENNA CABLE AND SCHEDULING NOTES

1. SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION.

2. TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER AT&T ANTENNA CABLE MARKING STANDARD:

- TOP OF TOWER END OF MAIN COAX
- BOTTOM OF TOWER END OF MAIN COAX
- DIRECTLY BEFORE AND AFTER RF EQUIPMENT
- END OF JUMPERS AT BTS EQUIPMENT

3. ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.

4. PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE EQUIPMENT.

at&t MOBILITY CORP.
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

CENTERLINE COMMUNICATIONS
750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS		
1	02/02/21	ISSUED FOR CONSTRUCTION
0	12/15/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

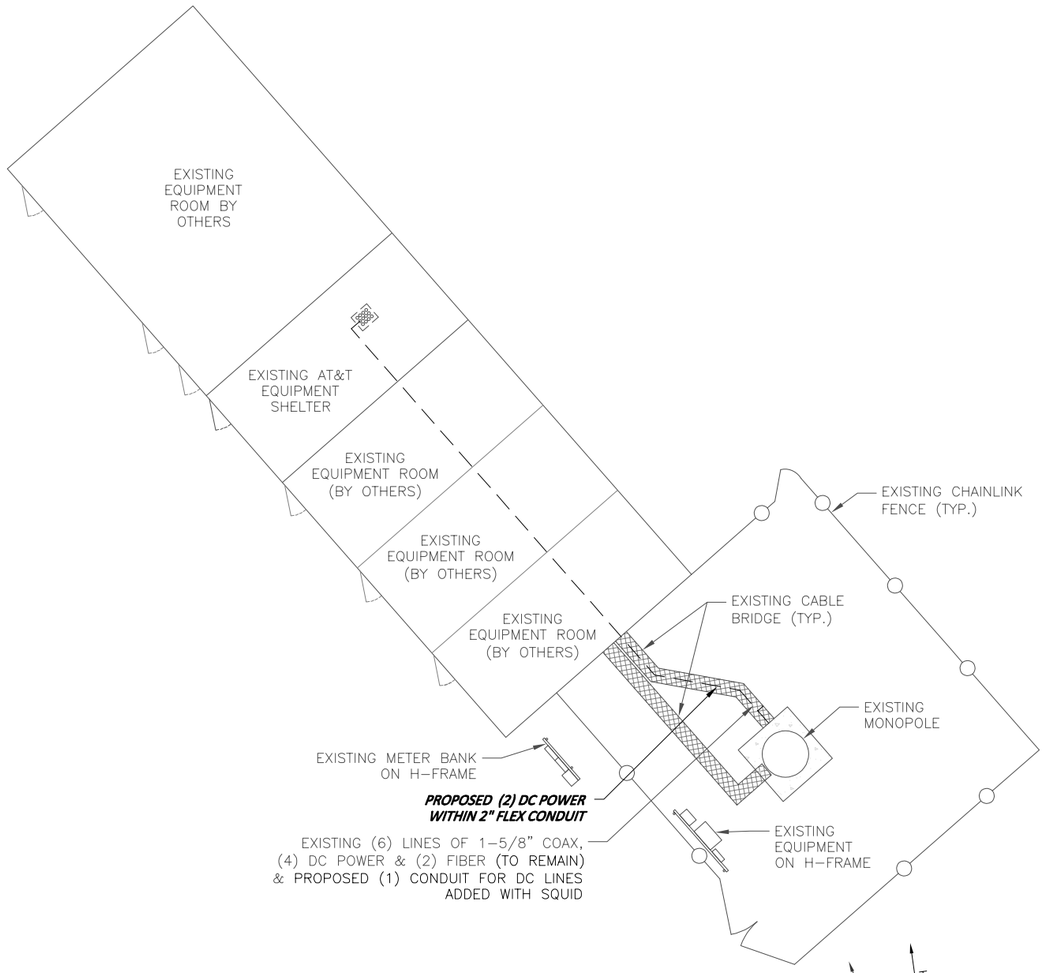
STATE OF CONNECTICUT
DEREK J. CREASER
No. 28554
LICENSED PROFESSIONAL ENGINEER

811 DigSafe MA·ME·NH·RI·VT

SITE NAME:	UNIONVILLE –FARMINGTON
SITE NUMBER:	CT5404
SITE ADDRESS:	319–321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	GENERAL NOTES
DRAWING #:	GN–1
REVISION:	1

NOTES:

1. REFERENCE STRUCTURAL ANALYSIS BY OTHERS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



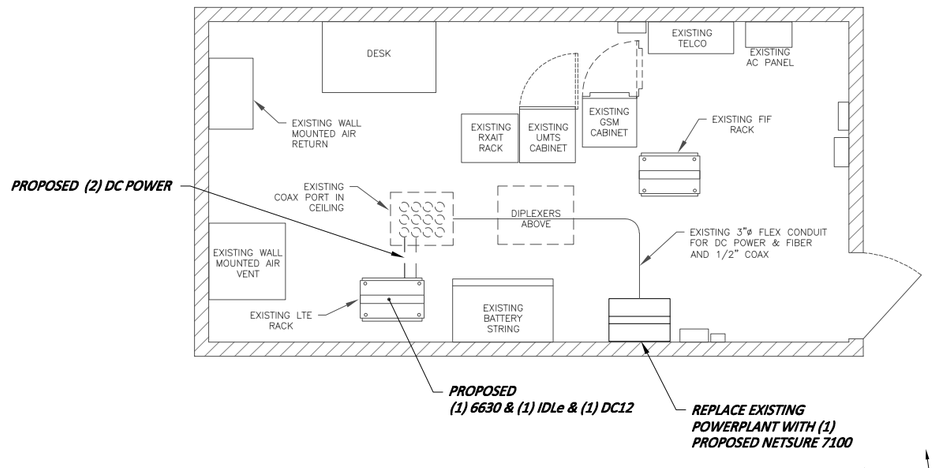
COMPOUND PLAN

SCALE: 1/8" = 1'-0" (22"X34")
1/16" = 1'-0" (11"X17")

GRAPHIC SCALE

8 0 4 8 16 32

(IN FEET)



EQUIPMENT PLAN

SCALE: 3/8" = 1'-0" (22"X34")
3/16" = 1'-0" (11"X17")

GRAPHIC SCALE

2'-8" 0 1'-4" 2'-8" 5'-4" 10'-8"

(IN FEET)

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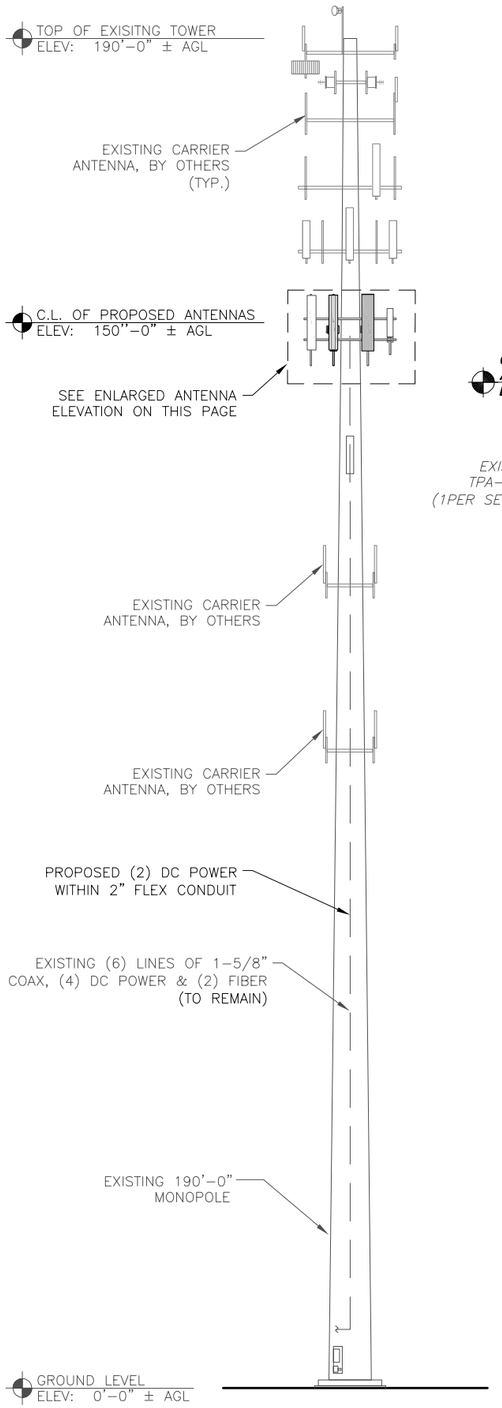
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	COMPOUND & EQUIPMENT PLANS
DRAWING #: A-1	REVISION: 1



TOWER ELEVATION

SCALE: 3/32" = 1'-0" (22"X34")
3/64" = 1'-0" (11"X17")

NOTES:

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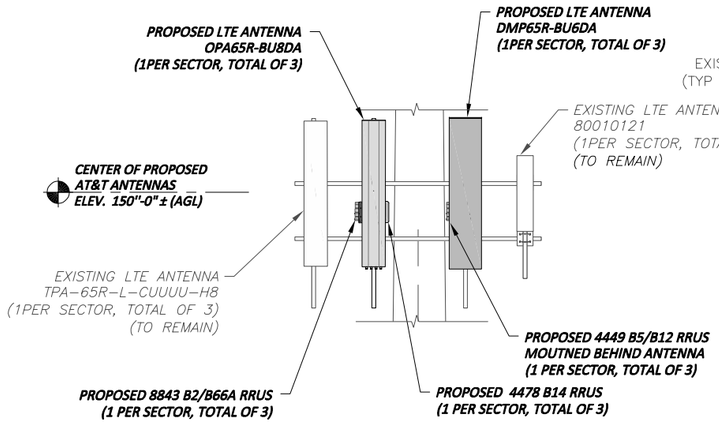
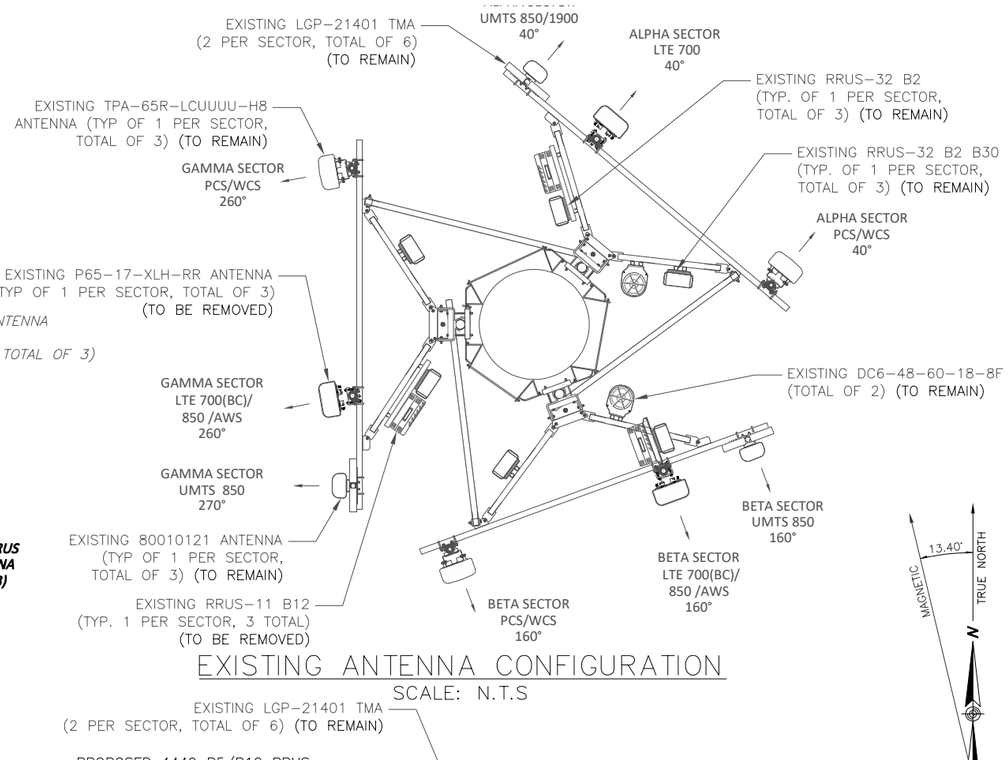


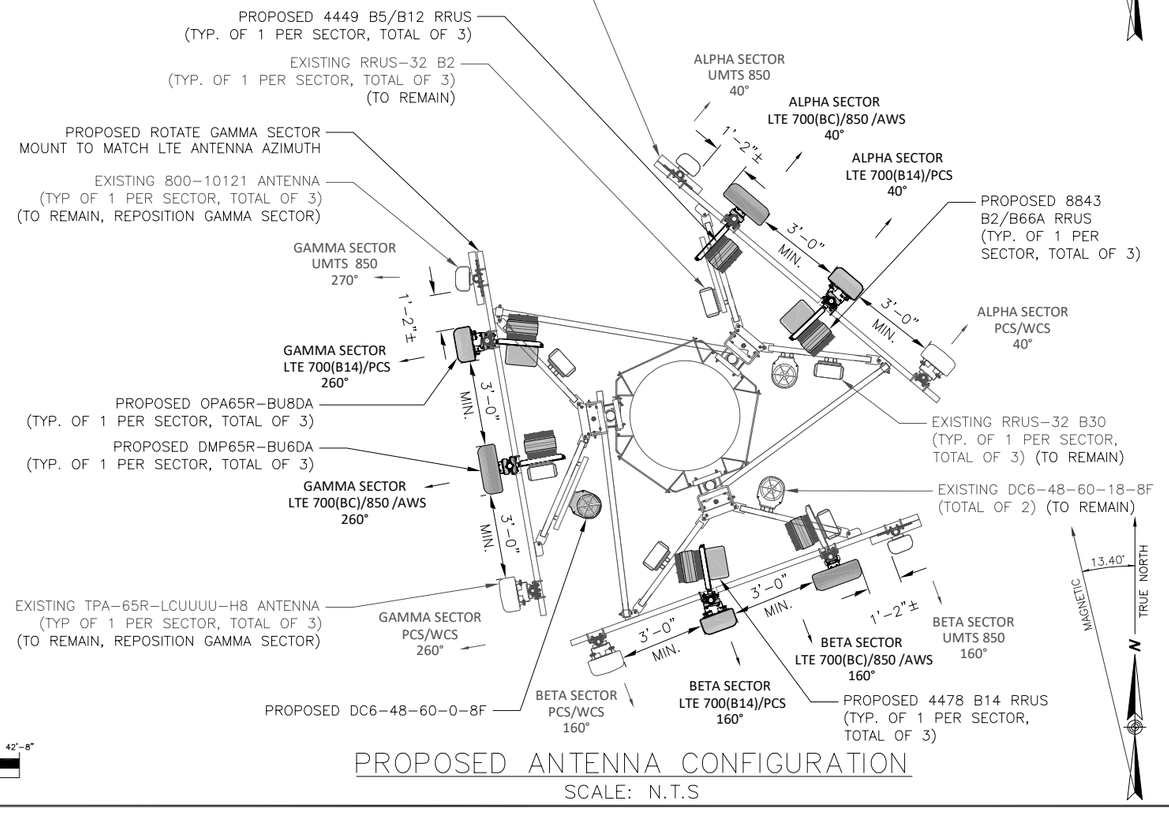
ENLARGED ANTENNA ELEVATION

SCALE: N.T.S



EXISTING ANTENNA CONFIGURATION

SCALE: N.T.S



PROPOSED ANTENNA CONFIGURATION

SCALE: N.T.S

GRAPHIC SCALE

5'-4" 0 5'-4" 10'-8" 21'-4" 42'-8"

(IN FEET)

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NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

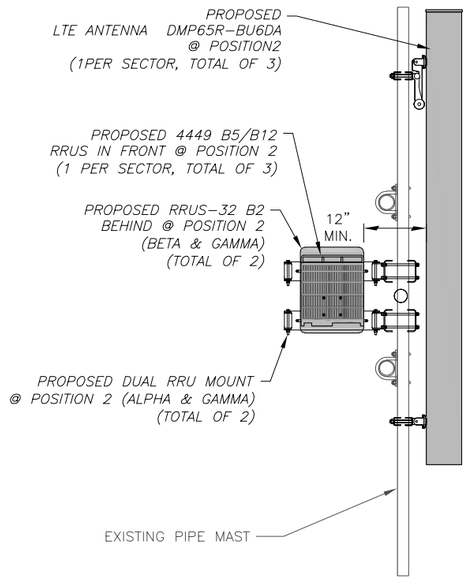
STATE OF CONNECTICUT
DEREK J. CREASER
No. 28554
LICENSED PROFESSIONAL ENGINEER

811 DigSafe MA-ME-NH-RI-VT

SITE NAME:	UNIONVILLE -FARMINGTON
SITE NUMBER:	CT5404
SITE ADDRESS:	319-321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	ANTENNA LAYOUT & ELEVATIONS
DRAWING #: A-2	REVISION: 1

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	EXISTING	UMTS 850	800-10121	54.5x10.3x5.9	±150'	40°	(E) (2) LGP21401 (E) (2) LGP21901	–	–	(2) 1-5/8 COAX (215'± LENGTH)	--
A2	**PROPOSED**	**LTE 700(BC)/850/AWS**	**DMP65R-BU8DA**	**96.0x20.7x7.7**	**±150'**	**40°**	–	**(P) (1) 4449 B5/B12 RRUS**	**15x13.2x10.4**	–	(E) (1) RAYCAP DC6-48-60-18-8F
A3	**PROPOSED**	**LTE 700(B14)/PCS**	**OPA65R-BU8DA**	**96.0x21.0x7.8**	**±150'**	**40°**	–	**(P) (1) 4478 B14 RRUS (P) (1) 8843 B2/B66A**	**18.1x13.4x8.26 14.9x13.2x10.9**	(E) (2) DC POWER & (1) FIBER	
A4	EXISTING	LTE PCS/WCS	TPA-65R-L-CUUUU-H8	96.0X14.4X8.6	±150'	40°	–	(E) (1) RRUS-32 B2 (E) (1) RRUS-32 B30	20.4x18.5x7.5 26.7x21.1x6.7	–	
B1	EXISTING	UMTS 850	800-10121	54.5x10.3x5.9	±150'	160°	(E) (2) LGP21401 (E) (2) LGP21901	–	–	(2) 1-5/8 COAX (215'± LENGTH)	--
B2	**PROPOSED**	**LTE 700(BC)/850/AWS**	**DMP65R-BU8DA**	**96.0x20.7x7.7**	**±150'**	**160°**	–	**(P) (1) 4449 B5/B12 RRUS**	**15x13.2x10.4**	–	(E) (1) RAYCAP DC6-48-60-18-8F
B3	**PROPOSED**	**LTE 700(B14)/PCS**	**OPA65R-BU8DA**	**96.0x21.0x7.8**	**±150'**	**160°**	–	**(P) (1) 4478 B14 RRUS (P) (1) 8843 B2/B66A**	**18.1x13.4x8.26 14.9x13.2x10.9**	(E) (2) DC POWER & (1) FIBER	
B4	EXISTING	LTE PCS/WCS	TPA-65R-L-CUUUU-H8	96.0X14.4X8.6	±150'	160°	–	(E) (1) RRUS-32 B2 (E) (1) RRUS-32 B30	20.4x18.5x7.5 26.7x21.1x6.7	–	
C1	**PROPOSED**	**LTE 700(BC)/850/AWS**	**DMP65R-BU8DA**	**96.0x20.7x7.7**	**±150'**	**260°**	–	**(P) (1) 4449 B5/B12 RRUS**	**15x13.2x10.4**	–	**(P) (1) RAYCAP DC6-48-60-0-8F**
C2	**PROPOSED**	**LTE 700(B14)/PCS**	**OPA65R-BU8DA**	**96.0x21.0x7.8**	**±150'**	**260°**	–	**(P) (1) 4478 B14 RRUS (P) (1) 8843 B2/B66A**	**18.1x13.4x8.26 14.9x13.2x10.9**	**(P) (2) DC POWER**	
C3	EXISTING	LTE PCS/WCS	TPA-65R-L-CUUUU-H8	96.0X14.4X8.6	±150'	260°	–	(E) (1) RRUS-32 B2 (E) (1) RRUS-32 B30	20.4x18.5x7.5 26.7x21.1x6.7	–	
C4	EXISTING	UMTS 850	800-10121	54.5x10.3x5.9	±150'	270°	(E) (2) LGP21401 (E) (2) LGP21901	–	–	(2) 1-5/8 COAX (215'± LENGTH)	--



ANTENNA & RRU MOUNTING DETAIL

N.T.S.

RRU CHART

QUANTITY	MODEL	L	W	D
3(P)	4449 B5/B12	15.0"	13.2"	10.4"
3(P)	4478 B14	18.1"	13.4"	8.3"
3(P)	8843 B2/B66A	14.9"	13.2"	10.9"
3(E)	RRUS-32 B2	20.4"	18.5"	7.5"
3(E)	RRUS-32 B30	26.7"	12.1"	6.7"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

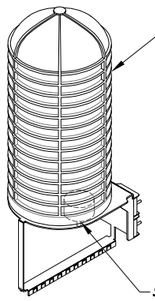
NOTES:

1. REFERENCE STRUCTURAL ANALYSIS BY OTHERS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

REFER TO THE FINAL RFDS AND TABLE FOR THE PROPOSED RRUS MODEL, QUANTITY, AND DIMENSIONS

RRUS DETAIL

N.T.S.



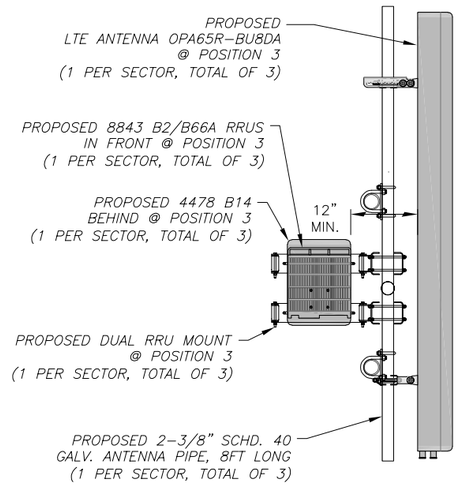
PROPOSED /EXISTING SURGE SUPPRESSOR MODEL NUMBERS: DC6-48-60-18-8F DC6-48-60-0-8F DIMENSIONS: L24.0"x11"Ø

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

STRIKESORB 30-V1 SURGE PROTECTIVE DEVICE

DC SURGE SUPPRESSOR DETAIL

N.T.S.



ANTENNA & RRU MOUNTING DETAIL

N.T.S.

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CENTERLINE COMMUNICATIONS
750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

REVISIONS		
1	02/02/21	ISSUED FOR CONSTRUCTION
0	12/15/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 27555
LICENSED PROFESSIONAL ENGINEER

811 DigSafe MA-ME-NH-RI-VT

SITE NAME:	UNIONVILLE -FARMINGTON
SITE NUMBER:	CT5404
SITE ADDRESS:	319-321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	DETAILS
DRAWING #:	A-3
REVISION:	1

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. 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.
3. 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".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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 NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. 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 DI.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. 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.

SPECIAL INSPECTION CHECKLIST

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

NOTES:

1. REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
2. PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
3. PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
4. HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
5. 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.
6. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
4. VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
5. CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
6. EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

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REVISIONS		
1	02/02/21	ISSUED FOR CONSTRUCTION
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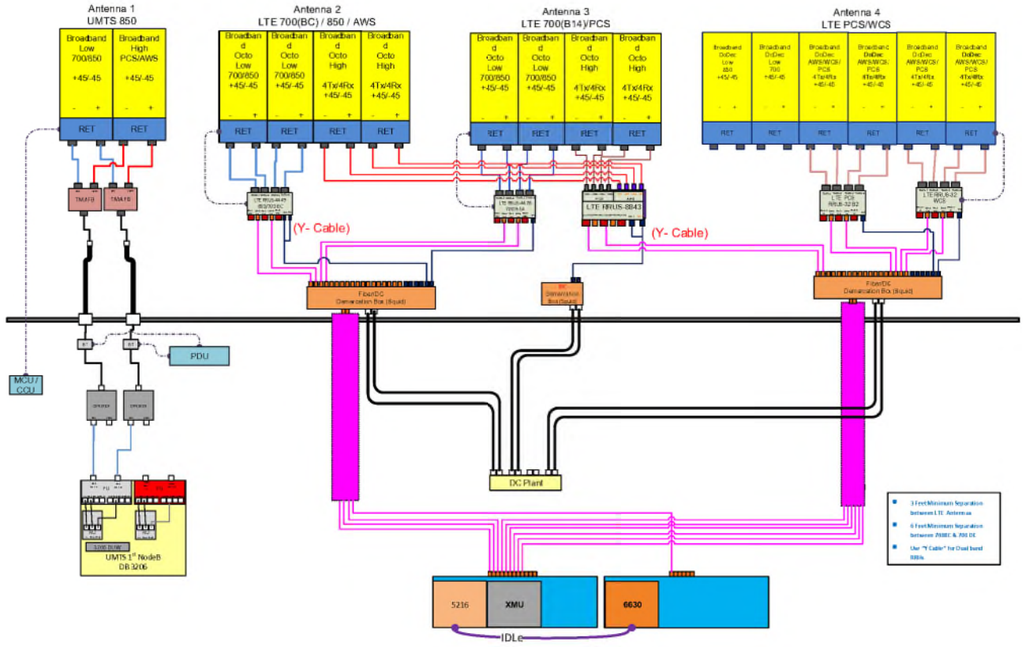
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
KT	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

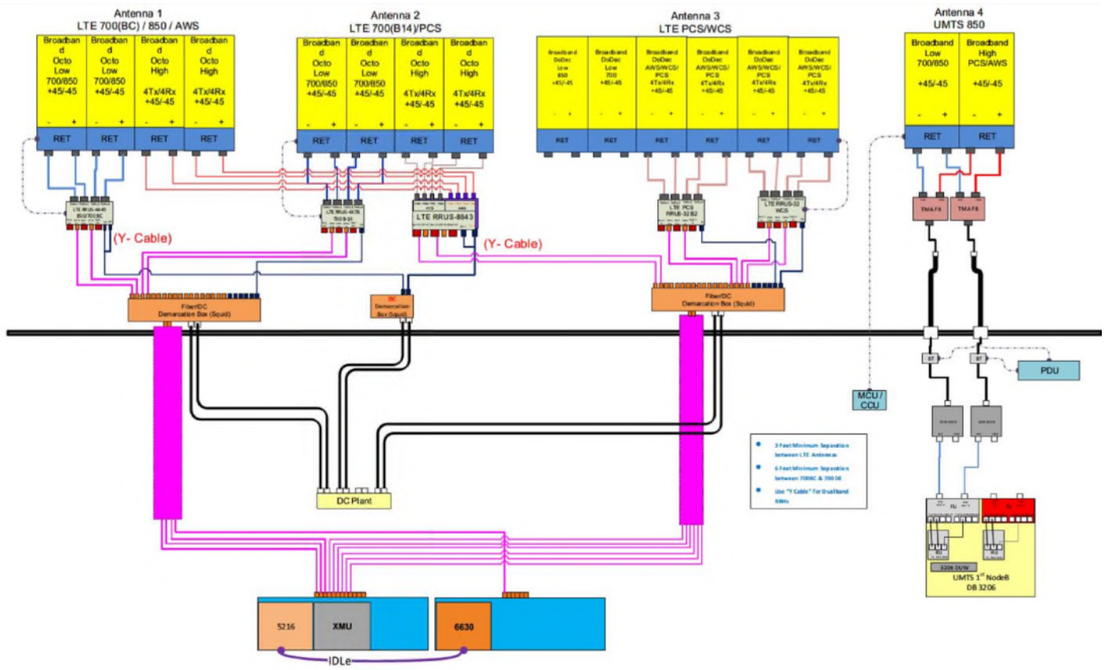
SITE NAME:	UNIONVILLE -FARMINGTON
SITE NUMBER:	CT5404
SITE ADDRESS:	319-321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	STRUCTURAL NOTES
DRAWING #:	SN-1
REVISION:	1

CT5404_LTE Multi Carriers_A_B_C_Rev.3.vsd



PLUMBING DIAGRAM FOR ALPHA & BETA SECTORS

N.T.S.



PLUMBING DIAGRAM FOR GAMMA SECTOR

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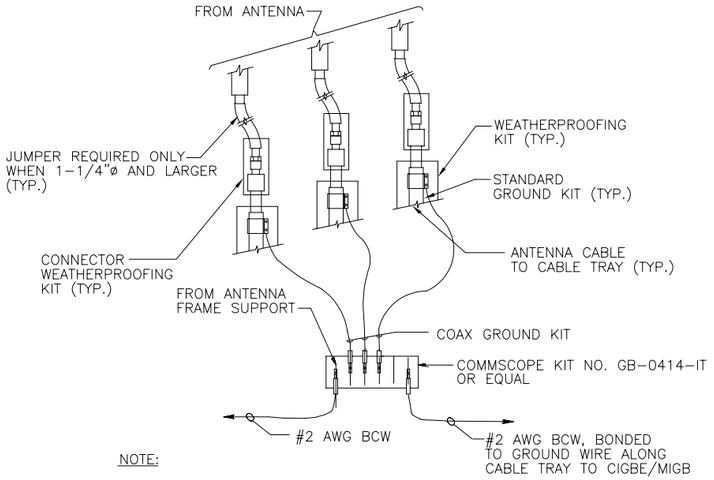
SITE NAME: UNIONVILLE –FARMINGTON
SITE NUMBER: CT5404
SITE ADDRESS: 319–321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE: LTE 4C, 5C, 5G NR, BWE & RETRO

SHEET TITLE:	
DRAWING #: RF–1	REVISION: 1



NOTE:

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

GROUNDING RISER DIAGRAM

N.T.S.

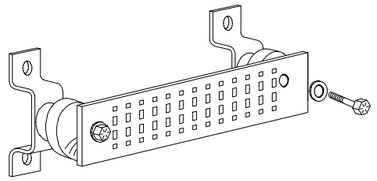
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

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.

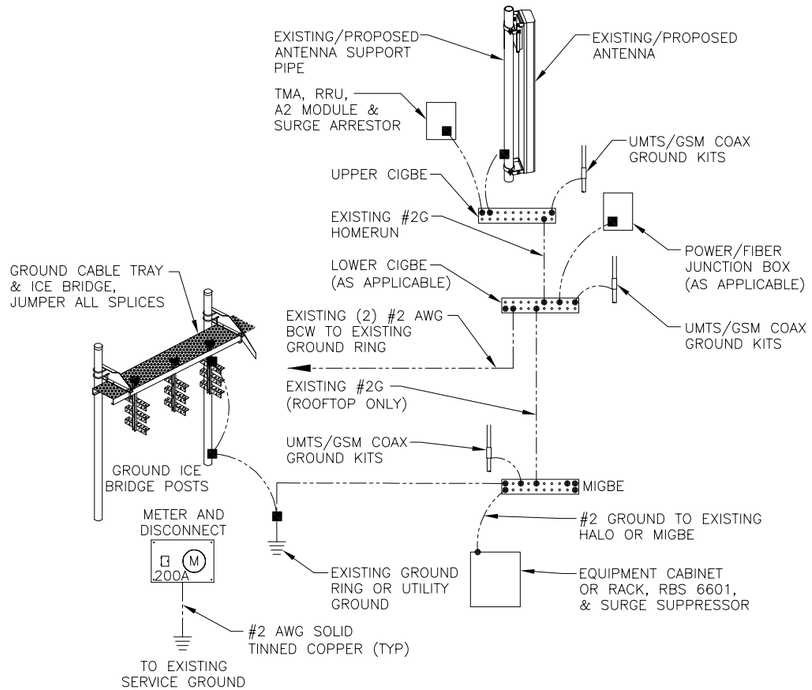
SECTION "A" – SURGE ABSORBERS

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



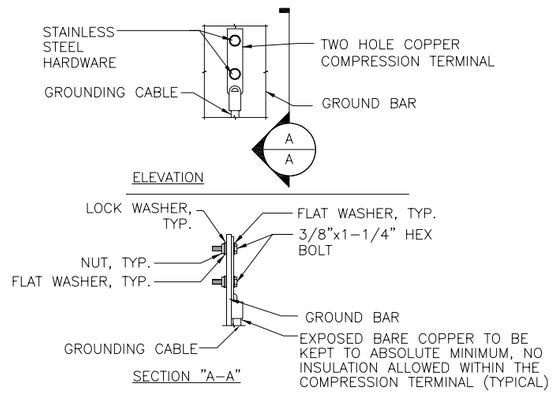
GROUND BAR DETAIL

N.T.S.



GROUNDING RISER DIAGRAM

N.T.S.



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

GROUND BAR CONNECTION DETAIL

N.T.S.

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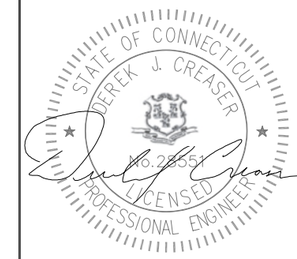

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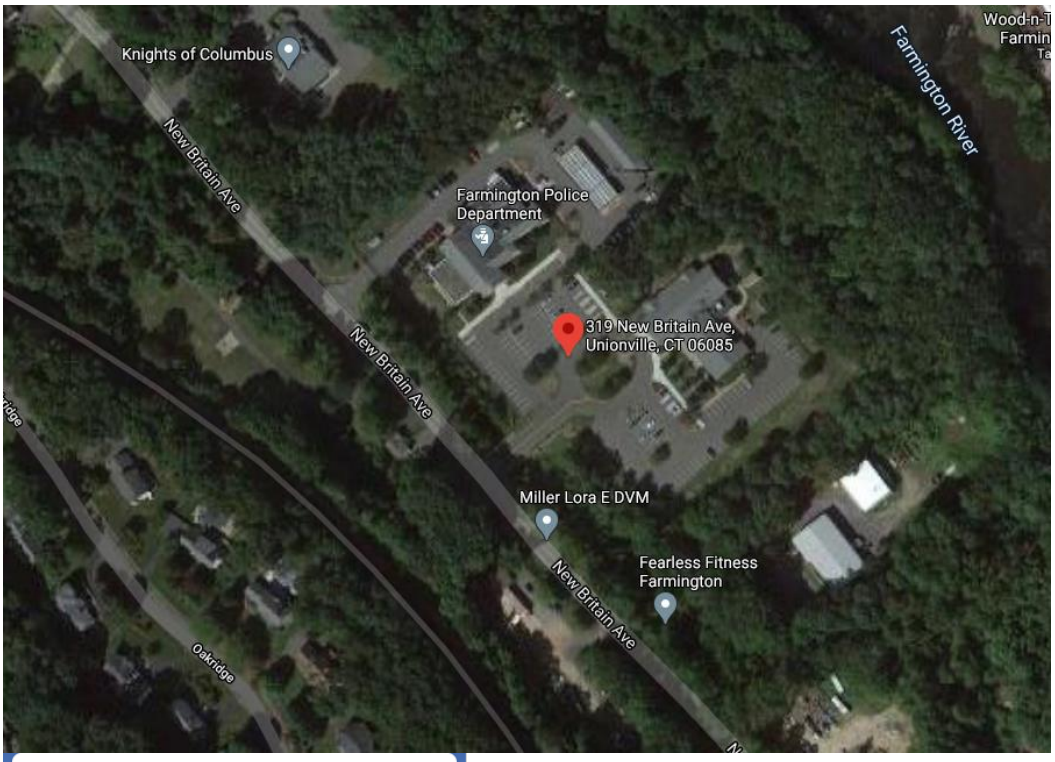
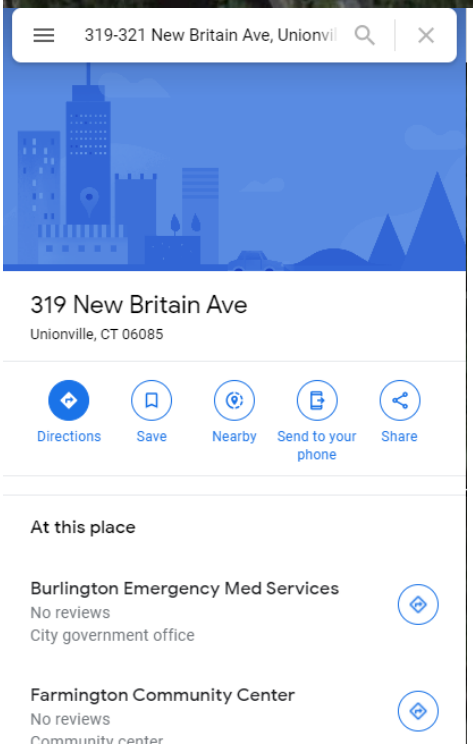
SITE NUMBER:	CT5404
SITE ADDRESS:	319–321 NEW BRITAIN AVENUE UNIONVILLE, CT 06085
PROJECT TYPE:	LTE 4C, 5C, 5G NR, BWE & RETRO
SHEET TITLE:	GROUNDING DETAILS
DRAWING #:	G–1
REVISION:	1

EXHIBIT 2


Knights of Columbus
New Britain Ave
Farmington Police Department
319 New Britain Ave, Unionville, CT 06085
New Britain Ave
Farmington River
Miller Lora E DVM
Fearless Fitness Farmington
New Britain Ave
Oakridge


319-321 New Britain Ave, Unionvi
319 New Britain Ave
Unionville, CT 06085
Directions
Save
Nearby
Send to your phone
Share
At this place
Burlington Emergency Med Services
No reviews
City government office
Farmington Community Center
No reviews

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2017.

Information on the Property Records for the Municipality of Farmington was last updated on 2/8/2021.

Parcel Information

Location:	319 NEW BRITAIN AV UNIT 321	Property Use:	Public Use	Primary Use:	Governmental Building
Unique ID:	13200319321	Map Block Lot:	0035 1-8	Acres:	13.20
490 Acres:	0.00	Zone:	CR	Volume / Page:	0571/0159
Developers Map / Lot:		Census:	4603-00		

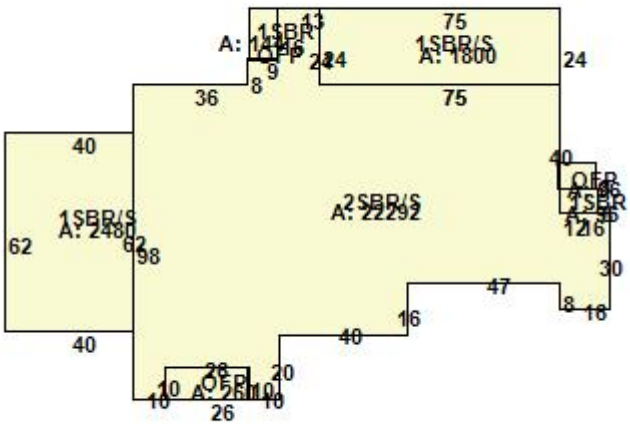
Value Information

	Appraised Value	Assessed Value
Land	1,278,240	894,770
Buildings	17,520,375	12,264,260
Detached Outbuildings	45,322	31,730
Total	18,843,937	13,190,760

Owner's Information

Owner's Data
FAMINGTON TOWN OF NEW POLICE/COMMUNITY CENTER 1 MONTEITH DR FARMINGTON, CT 06032

Building 1



Category:	Public Use	Use:	Jail - Police Station	GLA:	26,812
Stories:	2.00	Construction:	Fire Proof	Year Built:	2001

Heating:	FHA	Fuel:	Natural Gas	Cooling Percent:	100
Siding:	Brick	Roof Material:	Slate	Beds/Units:	0

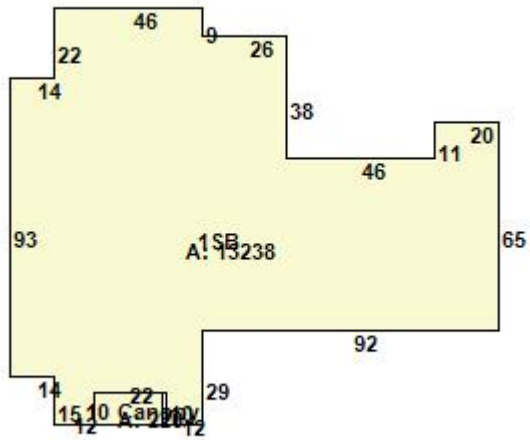
Special Features

Elevator, Comm Elec Pass	1
Wet Sprinklers	26887

Attached Components

Type:	Year Built:	Area:
Open Frame Porch	2002	260
Open Frame Porch	2002	144
Open Frame Porch	2002	96

Building 2



Category:	Public Use	Use:	Community Recreation Center	GLA:	13,238
Stories:	1.00	Construction:	Fire Proof	Year Built:	2001
Heating:	FHA	Fuel:	Natural Gas	Cooling Percent:	100
Siding:	Brick	Roof Material:	Arch Shingles	Beds/Units:	0

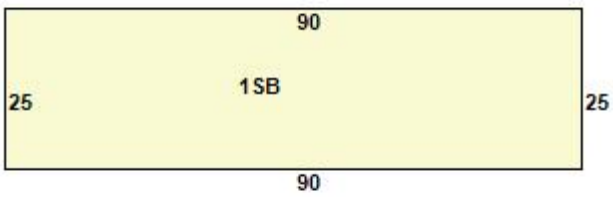
Special Features

Wet Sprinklers	13238

Attached Components

Type:	Year Built:	Area:
Commercial Canopy	2001	220

Building 3



Category:	Industrial	Use:	Utility Building	GLA:	2,250
Stories:	1.00	Construction:	Fire Proof	Year Built:	2002
Heating:	FHA	Fuel:	Natural Gas	Cooling Percent:	0
Siding:	Brick	Roof Material:	Arch Shingles	Beds/Units:	0

Special Features

Wet Sprinklers	2250

Attached Components

Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Commercial Canopy	2001	0.00	0.00	626
Steel Overhead Door	2001	0.00	0.00	2
Steel Overhead Door	2001	0.00	0.00	2
Paving	2001	0.00	0.00	30,000
Frame Shed	2016	0.00	0.00	336

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
FAMINGTON TOWN OF	0571	0159			No	$0

EXHIBIT 3

CENTERLINE COMMUNICATIONS
750 West Center Street, Suite 301
West Bridgewater, MA 02379
781.713.4725

Structural Analysis Report

Site Number	CT5404
FA Number	10071289
Site Name	Unionville - Farmington
Project	LTE 4C/5C/5G NR, BWE & RETRO
Pace ID	MRCTB048765, MRCTB048768, MRCTB048766, MRCTB048767, MRCTB048770
Site Location	319 – 321 New Britain Avenue Unionville, CT 06085 41.7497919° N, 72.8726989° W
Design Codes	TIA-222-G Standards 2015 IBC ASCE 7-10 2018 Connecticut State Building Code
Tower Classification	Monopole

	Stress Ratio	Overall Result
Structural Rating	**98.7%**	**PASS**

Client:

at&t Mobility Corp.
55 Cochituate Road
Framingham, MA 01701

at&t

Date: 2/2/2021

Scope of Work:

Centerline Communications was authorized by AT&T to perform an analysis of the existing 190 ft monopole tower to determine its capacity to support the proposed and existing AT&T equipment listed in this report.

Existing and Proposed Appurtenances:

Carrier	Mounting Level (ft)	Center Line Elevation (ft)	Number of Appurtenances	Antenna Manufacturer	Appurtenance Model	Feed Lines (in)
-	188.0	192.17	1	-	3' DISH	(1) 7/8
		188.0	1	-	2.0" X 9' LONG PIPE	
-	188.0	190.0	3	-	6' OMNI	(3) 1/2
		188.0	3	-	5' STANDOFF	
		186.0	1	KATHREIN	PR-950	(1) 1/2
-	183.75	183.75	2	-	3' YAGI	(2) 1/2
		183.75	2	-	5' STANDOFF	
-	178.5	183.83	1	-	3' OMNI	(1) 1/2
		178.5	2	-	5' STANDOFF	
SPRINT	173.75	173.75	3	RFS	APXVSPP18-C-A20	(3) LDF6-50A
		173.75	6	-	96" x 18" PANEL ANTENNA	
		173.75	6	-	RRH	
		173.75	1	-	12' PLATFORM WITH HANDRAIL	
T-MOBILE	160.5	162.5	3	ANDREW	LNX-6516DS-A1M	(12) LDF7-50A (1) 1 3/8 (1) 5/16
		162.5	6	ERICSSON	AIR 21 B4A/B2P	
		162.5	3	ERICSSON	RRUS11 B12	
		162.5	3	ERICSSON	KRY11Q114/1	
		160.5	1	-	12' PLATFORM	
AT&T	150.0	150.0	3	KATHREIN	80010121	(6) 1-5/8 (2) FIBER (4) DC POWER **(2) DC POWER**
		150.0	3	CCI	TPA-65R-LCUUUU-H8	
		150.0	**3**	**CCI**	**DMP65R-BU8DA**	
		150.0	**3**	**CCI**	**OPA65R-BU8DA**	
		150.0	3	ERICSSON	RRUS 32 B30	
		150.0	3	ERICSSON	RRUS 32 B2	
		150.0	**3**	**ERICSSON**	**4449 B5/12**	
		150.0	**3**	**ERICSSON**	**4478 B14**	
		150.0	**3**	**ERICSSON**	**8843 B2/B66A**	
		150.0	2	RAYCAP	DC6-48-60-18-8F	
		150.0	**1**	**RAYCAP**	**DC6-48-60-18-8F**	
		150.0	6	POWERWAVE	LGP21901	
		150.0	6	POWERWAVE	LGP21401	
		150.0	3	-	12' SECTOR FRAME	

-	113.0	116.0	3	-	4’ OMNI	(3) LDF4-50A
		113.0	3	-	5’ STANDOFF	
-	89.75	89.75	3	-	15’ OMNI	(3) LDF4-50A
		89.75	3	-	5’ STANDOFF	
-	52.0	52.0	1	-	GPS	(1) LDF4-50A
		52.0	1	-	3.5’ STANDOFF	

*Note: Proposed equipment shown in **bold**.*

Design Criteria:

Design Codes:

2018 Connecticut State Building Code
2015 International Building Code
ASCE 7-10
TIA-222-G Standards

Ultimate Wind Speed	125 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.00 in.
Exposure Category	C
Topographic Category	1
Risk Category	II
Site Soil Class (Assumed)	D – Stiff Soil
Seismic Design Category	B

***Refer to calculations for additional design criteria.**

Conclusion:

Section Capacity (Summary)

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	191.08 - 165.33	Pole	TP26x19.5625x0.25	1	-4104.54	1475010.00	16.2	Pass
L2	165.33 - 130.75	Pole	TP34.0052x24.77x0.3125	2	-13917.40	2384690.00	58.1	Pass
L3	130.75 - 97.08	Pole	TP41.0625x32.437x0.375	3	-22407.20	3454030.00	73.6	Pass
L4	97.08 - 64.25	Pole	TP49.0052x39.2383x0.375	4	-32579.60	3903670.00	88.3	Pass
L5	64.25 - 32.25	Pole	TP56.0104x46.8227x0.375	5	-42646.50	4213510.00	98.7	Pass
L6	32.25 - 1	Pole	TP62.0781x53.7291x0.375	6	122241.00	4296360.00	77.3	Pass
L6	32 - 1	Reinforcing	6-1/2x1-1/4	14	-370862.00	427884.00	86.7	Pass
	42 - 32	Reinforcing	6-1/2x1-1/4	10	-265855.00	427884.00	62.1	Pass
							Summary	
						Pole (L5)	98.7	Pass
						Reinforcing (L6)	86.7	Pass
						Base Plate	85.9	Pass
						RATING =	**98.7**	**Pass**

Structure Rating (max from all components) =	**PASS**

Recommendations:

The existing tower has sufficient capacity to support the existing and proposed loading for the final loading configuration. Modifications to the tower structure are not required.

Reference Documents:

- AT&T RFDS 4093553, dated January 21, 2020
- Construction Drawings by Empire Telecom, dated January 18, 2018
- Structural Analysis by Maser Consulting, dated August 16, 2018
- Mount Analysis by Maser Consulting, dated September 12, 2017
- Tower Mapping Report by Tower Engineering Professionals, dated December 20, 2017
- Site Notes and Photos by Centerline Communications, dated August 12, 2020

Assumptions and Limitations:

- The tower and structures were built and maintained with the manufacturer's specifications.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in this report and the referenced drawings.
- Existing appurtenance information obtained from the previous Structural Analysis by Maser Consulting, dated August 16, 2018 and Tower Mapping Report by Tower Engineering Professionals, dated December 20, 2017.
- All of the previous tower modifications were built and maintained with the manufacturer's specifications as identified in the previous Structural Analysis by Maser Consulting, dated August 16, 2018.
- As-built foundation information was not available nor provided for this report. Therefore, the in-place capacity of the foundation could not be verified. A more thorough and accurate assessment of the foundation capacity will require site specific foundation information.

EXHIBIT 4

CENTERLINE COMMUNICATIONS
750 West Center Street, Suite 301
West Bridgewater, MA 02379
781.713.4725

Mount Analysis Report

Site Number	CT5404
FA Number	10071289
Site Name	Unionville - Farmington
Project	LTE 4C/5C/5G NR, BWE & RETRO
Pace ID	MRCTB048765, MRCTB048768, MRCTB048766, MRCTB048767, MRCTB048770
Site Location	319 – 321 New Britain Avenue Unionville, CT 06085 41.7497919° N, 72.8726989° W
Design Codes	TIA-222-H Standards 2018 IBC ASCE 7-16 2018 CT State Building Code
Mount Centerline	150 ft.
Mount Classification	Sector Frame

	Stress Ratio	Overall Result
Existing Mount	**79%**	**PASS**

Client:

at&t Mobility Corp.
55 Cochituate Road
Framingham, MA 01701

at&t

Date: 12/23/2020

Scope of Work:

Centerline Communications was authorized by AT&T to perform a mount analysis of the existing antenna mount to determine its capacity to support the proposed and existing AT&T equipment listed in this report. This mount was analyzed using RISA 3D v17.0.4.

Final Appurtenances Configuration:

Elevation (ft)	Position[1]	Azimuth (degrees)	Quantity	Appurtenance	Sector
150	MP1	40	1	800-10121 Antenna	
150	**MP2**	**40**	**1**	**DMP65R-BU8DA Antenna**	
150	**MP3**	**40**	**1**	**OPA65R-BU8DA Antenna**	
150	MP4	40	1	TPA-65R-LCUUUU-H8 Antenna	
150	R1	40	2	LGP21401 TMA	
150	**MP1**	**40**	**1**	**4449 B5/B12 RRH**	Sector 1
150	**R5**	**40**	**1**	**4478 B14 RRH**	
150	**R5**	**40**	**1**	**8843 B2/B66A RRH**	
150	R4	40	1	RRUS-E2 B29 RRH	
150	R6	40	1	RRUS-32 B30 RRH	
150	MP13	40	1	DC6-48-60-0-8F Squid	
150	MP5	160	1	800-10121 Antenna	
150	**MP6**	**160**	**1**	**DMP65R-BU8DA Antenna**	
150	**MP7**	**160**	**1**	**OPA65R-BU8DA Antenna**	
150	MP8	160	1	TPA-65R-LCUUUU-H8 Antenna	
150	R2	160	2	LGP21401 TMA	
150	**R7**	**160**	**1**	**4449 B5/B12 RRH**	Sector 2
150	**R8**	**160**	**1**	**4478 B14 RRH**	
150	**R8**	**160**	**1**	**8843 B2/B66A RRH**	
150	R7	160	1	RRUS-E2 B29 RRH	
150	R10	160	1	RRUS-32 B30 RRH	
150	R9	160	1	DC6-48-60-0-8F Squid	
150	MP9	260	1	800-10121 Antenna	
150	**MP10**	**260**	**1**	**DMP65R-BU8DA Antenna**	
150	**MP11**	**260**	**1**	**OPA65R-BU8DA Antenna**	
150	MP12	260	1	TPA-65R-LCUUUU-H8 Antenna	
150	R3	260	2	LGP21401 TMA	
150	**MP9**	**260**	**1**	**4449 B5/B12 RRH**	Sector 3
150	**R13**	**260**	**1**	**4478 B14 RRH**	
150	**R13**	**260**	**1**	**8843 B2/B66A RRH**	
150	R11	260	1	RRUS-E2 B29 RRH	
150	R12	260	1	RRUS-32 B30 RRH	
150	**R11**	**260**	**1**	**DC6-48-60-0-8F Squid**	

Notes:

1. MP represent Mount Pipe and R represent RRH mount.
2. Existing Appurtenance
3. **Proposed Appurtenance**

Design Criteria:

Design Codes:

TIA-222-H Standards
2018 IBC
ASCE 7-16
2018 CT State Building Code

Ultimate Wind Speed	116 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.5 in.
Exposure Category	C
Topographic Method	Method 1, Cat. 1
Risk Category	II
Site Soil Class (Assumed)	D-Stiff Soil
Seismic Design Category	B
Spectral Response Acceleration Parameter at a Short Periods, S_S	0.184 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S_1	0.054 g
Short Period Site Coefficient, F_a	1.6
Long Period Site Coefficient, F_v	2.4

***Refer to calculations for additional design criteria.**

Conclusion:

The results of the analysis concluded that the existing AT&T mounts *are capable* to support the proposed and existing AT&T equipment loads upon completion of the modifications. Centerline Communications recommends the following:

- Install (1) 2" STD x 8.0' long mount pipe in all sectors.

	Stress Ratio	Overall Result
Existing Mount	**79%**	**PASS**

Reference Documents:

- AT&T RFDS ID #4093553 V1.0, dated 08/14/2020
- Structural Analysis by Maser Consulting, dated 08/16/2018
- Tower Mapping by Tower Engineering Professionals, dated 12/20/2017
- Mount Mapping Report by Trylon, dated 11/17/2020

Assumptions and Limitations:

- The calculations performed by Centerline Communications are limited to the structural members in these calculations only.
- Structural calculations in this report do not check the adequacy of the supporting structure, other mounts, or coax mounting attachments.
- The calculation assumes all structural members to be in good condition i.e. no damage, rust or other defects.

EXHIBIT 5

Radio Frequency Emissions Analysis Report

January 5, 2021

Centerline Communications on behalf of AT&T

Site Name: Unionville-Farmington; Number: CT5404
PACE IDs: MRCTB048768, MRCTB048767, MRCTB048766, MRCTB048765, and MRCTB048770
Site Address: 319-321 NEW BRITAIN AVENUE, UNIONVILLE, CT 06085
FA#: 10071289
USID: 25996

Site Compliance Summary

Compliance Status:	Compliant
Carrier MPE% of FCC General Population Allowable Limit:	0.05076000%
Composite MPE% of FCC General Population Allowable Limit:	0.27546000%

January 5, 2021

Centerline Communications
Attn: John Benedetto, RF Manager
550 Cochituate Road Suite 550 – 13&14
Framington, MA 01701

Emissions Analysis for Site: **Unionville-Farmington**

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed AT&T facility to be located a monopole near **319-321 NEW BRITAIN AVENUE, UNIONVILLE CT 06085** 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (µW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 700 MHz (LTE) bands are 467 $\mu W/cm^2$. The 850 MHz (LTE/5G) band limit is 567 $\mu W/cm^2$. 1900 MHz (PCS), 2100 MHz and 2300 MHz (WCS) band limit is 1000 µW/cm2.

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*:

RRH #	Frequency Band	Technology	Channel Count	Transmit Power per Channel (W)
1	850	UMTS	1	40
2	700	LTE	2	40
2	850	LTE/5G	2	40
2	2100	AWS	4	40
3	700	LTE	4	40
3	1900	PCS	4	40
4	1900	PCS	4	40
4	2300	WCS	4	25

Table 1: Channel Data Table

The following antennas listed in Table 2 were used in the modeling for transmission in the 700 MHz (LTE), 850 MHz (LTE/5G), 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection.

Sector	Antenna Number	Make / Model	Centerline (ft)
A	1	KATHREIN 80010121	150
A	2	CCI DMP65R-BU8D	150
A	2	CCI DMP65R-BU8D	150
A	2	CCI DMP65R-BU8D	150
A	3	CCI OPA65R-BU8D	150
A	3	CCI OPA65R-BU8D	150
A	4	CCI TPA-65R-LCUUUU-H8	150
A	4	CCI TPA-65R-LCUUUU-H8	150
B	5	KATHREIN 80010121	150
B	6	CCI DMP65R-BU8D	150
B	6	CCI DMP65R-BU8D	150
B	6	CCI DMP65R-BU8D	150
B	7	CCI OPA65R-BU8D	150
B	7	CCI OPA65R-BU8D	150
B	8	CCI TPA-65R-LCUUUU-H8	150
B	8	CCI TPA-65R-LCUUUU-H8	150
C	9	KATHREIN 80010121	150
C	10	CCI DMP65R-BU8D	150
C	10	CCI DMP65R-BU8D	150
C	10	CCI DMP65R-BU8D	150
C	11	CCI OPA65R-BU8D	150
C	11	CCI OPA65R-BU8D	150
C	12	CCI TPA-65R-LCUUUU-H8	150
C	12	CCI TPA-65R-LCUUUU-H8	150

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.

ID	Make / Model	Frequency Band	Gain (dBd)	Centerline (ft)	Channel Count	TX Power (W)	ERP (W)	MPE %
Alpha 1	KATHREIN 80010121	850	11.25	150.0	1	40	533.41	0.002957000
Alpha 2	CCI DMP65R-BU8D	700	12.25	150.0	2	40	1343.04	0.006327000
Alpha 2	CCI DMP65R-BU8D	850	12.55	150.0	2	40	1439.10	0.004917000
Alpha 2	CCI DMP65R-BU8D	2100	15.45	150.0	4	40	5612.03	0.006008000
Alpha 3	CCI OPA65R-BU8D	700	13.15	150.0	4	40	3304.61	0.014476000
Alpha 3	CCI OPA65R-BU8D	1900	15.15	150.0	4	40	5237.45	0.005979000
Alpha 4	CCI TPA-65R-LCUUUU-H8	1900	13.95	150.0	4	40	3973.01	0.005443000
Alpha 4	CCI TPA-65R-LCUUUU-H8	2300	14.85	150.0	4	25	3054.92	0.003742000
Beta 5	KATHREIN 80010121	850	11.25	150.0	1	40	533.41	0.000028000
Beta 6	CCI DMP65R-BU8D	700	12.25	150.0	2	40	1343.04	0.000069000
Beta 6	CCI DMP65R-BU8D	850	12.55	150.0	2	40	1439.10	0.000035000
Beta 6	CCI DMP65R-BU8D	2100	15.45	150.0	4	40	5612.03	0.000042000
Beta 7	CCI OPA65R-BU8D	700	13.15	150.0	4	40	3304.61	0.000109000
Beta 7	CCI OPA65R-BU8D	1900	15.05	150.0	4	40	5118.23	0.000042000
Beta 8	CCI TPA-65R-LCUUUU-H8	1900	13.95	150.0	4	40	3973.01	0.000037000
Beta 8	CCI TPA-65R-LCUUUU-H8	2300	14.85	150.0	4	25	3054.92	0.000016000
Gamma 9	KATHREIN 80010121	850	11.25	150.0	1	40	533.41	0.000038000
Gamma 10	CCI DMP65R-BU8D	700	12.25	150.0	2	40	1343.04	0.000057000
Gamma 10	CCI DMP65R-BU8D	850	12.55	150.0	2	40	1439.10	0.000064000
Gamma 10	CCI DMP65R-BU8D	2100	15.45	150.0	4	40	5612.03	0.000067000
Gamma 11	CCI OPA65R-BU8D	700	13.15	150.0	4	40	3304.61	0.000119000
Gamma 11	CCI OPA65R-BU8D	1900	15.15	150.0	4	40	5237.45	0.000066000
Gamma 12	CCI TPA-65R-LCUUUU-H8	1900	13.95	150.0	4	40	3973.01	0.000077000
Gamma 12	CCI TPA-65R-LCUUUU-H8	2300	14.85	150.0	4	25	3054.92	0.000047000
							AT&T MPE%	**0.05076000 %**

Table 3: AT&T Antenna Inventory & Power Level

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 4* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s).

Frequency Band	Technology	Centerline (ft.)	# of Channels	ERP W (Per Channel)	Total Power Density ($\mu W/cm^2$)	Allowable MPE ($\mu W/cm^2$)	MPE %
850	UMTS	150.0	1	533.4085729	0.0167540	567	0.00295700
700	LTE	150.0	2	671.5216072	0.0295280	467	0.00632700
850	LTE/5G	150.0	2	719.5483661	0.0278650	567	0.00491700
2100	AWS	150.0	4	1403.007496	0.0600780	1000	0.00600800
700	LTE	150.0	4	826.1520623	0.0675560	467	0.01447600
1900	PCS	150.0	4	1309.36278	0.0597950	1000	0.00597900
1900	PCS	150.0	4	993.2532421	0.0544250	1000	0.00544300
2300	WCS	150.0	4	763.7302783	0.0374230	1000	0.00374200
						Alpha Sector	0.04984900
850	UMTS	150.0	1	533.4085729	0.0001560	567	0.00002800
700	LTE	150.0	2	671.5216072	0.0003210	467	0.00006900
850	LTE/5G	150.0	2	719.5483661	0.0001970	567	0.00003500
2100	AWS	150.0	4	1403.007496	0.0004180	1000	0.00004200
700	LTE	150.0	4	826.1520623	0.0005090	467	0.00010900
1900	PCS	150.0	4	1279.558044	0.0004180	1000	0.00004200
1900	PCS	150.0	4	993.2532421	0.0003670	1000	0.00003700
2300	WCS	150.0	4	763.7302783	0.0001630	1000	0.00001600
						Beta Sector	0.00037600
850	UMTS	150.0	1	533.4085729	0.0002170	567	0.00003800
700	LTE	150.0	2	671.5216072	0.0002640	467	0.00005700
850	LTE/5G	150.0	2	719.5483661	0.0003610	567	0.00006400
2100	AWS	150.0	4	1403.007496	0.0006690	1000	0.00006700
700	LTE	150.0	4	826.1520623	0.0005540	467	0.00011900
1900	PCS	150.0	4	1309.36278	0.0006620	1000	0.00006600
1900	PCS	150.0	4	993.2532421	0.0007720	1000	0.00007700
2300	WCS	150.0	4	763.7302783	0.0004680	1000	0.00004700
						Gamma Sector	0.00053500
						AT&T MPE%	**0.05076000 %**

Table 4: 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:

Carrier	Predicted MPE %
AT&T	0.05076000%
Unknown Carrier	0.22470000%
Composite	**0.27546000%**

Table 5: Total Predicted MPE(%) by Carrier

Compliance Status:

The anticipated composite MPE value for this site assuming all carriers present is **0.27546000%** 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.

Dane Folie
RF Compliance Consultant
Centerline Communications, LLC
750 West Center St. Suite 301
West Bridgewater, MA 02379

EXHIBIT 6

Allison Hebel

From: Nicole Primich <primichn@farmington-ct.org>
Sent: Wednesday, February 10, 2021 1:30 PM
To: Allison Hebel
Subject: 319 - 321 New Britain Ave, Unionville CT

Good Afternoon Allison.

I was able to look at the files, here in office, for the above address. Per your request I searched for the original tower/antenna drawings, however, it seems we do not have those available. I can tell you that the project was done in 2002 and I believe it to be a Sprint PCS tower. I have some "newer" drawings from 2014 for an update, done for Sprint, I am not sure if those will help. Please let me know how to proceed.

Truly,

Nicole Primich

Town of Farmington
Public Works Department
Building & Engineering – Secretary
860.675.2305 (Engineering)
860.675.2315 (Building)
860.675.2319 (fax)

EXHIBIT 7

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.

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

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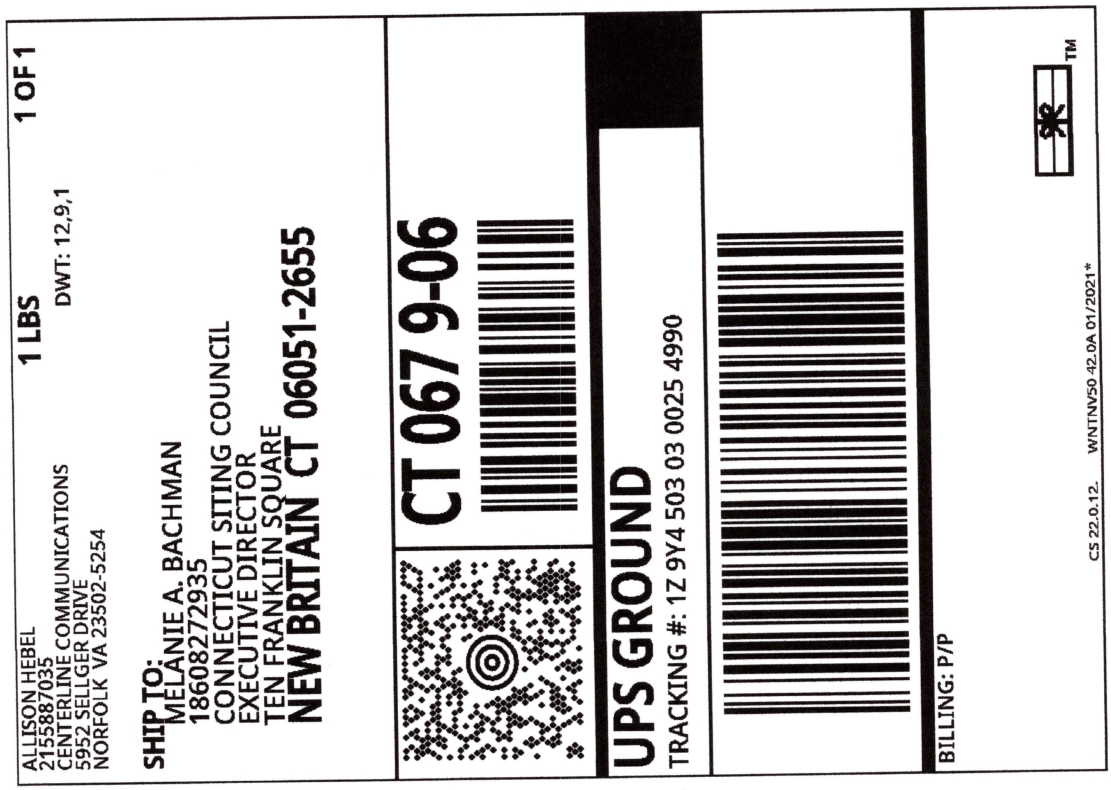
NORFOLK ,VA 23502

UPS Access Point™
ADVANCE AUTO PARTS STORE 7464
5741 E VIRGINIA BEACH BLVD
NORFOLK ,VA 23502

UPS Access Point™
CVS STORE # 6403
6678 E VIRGINIA BEACH BLVD
NORFOLK ,VA 23502

FOLD HERE



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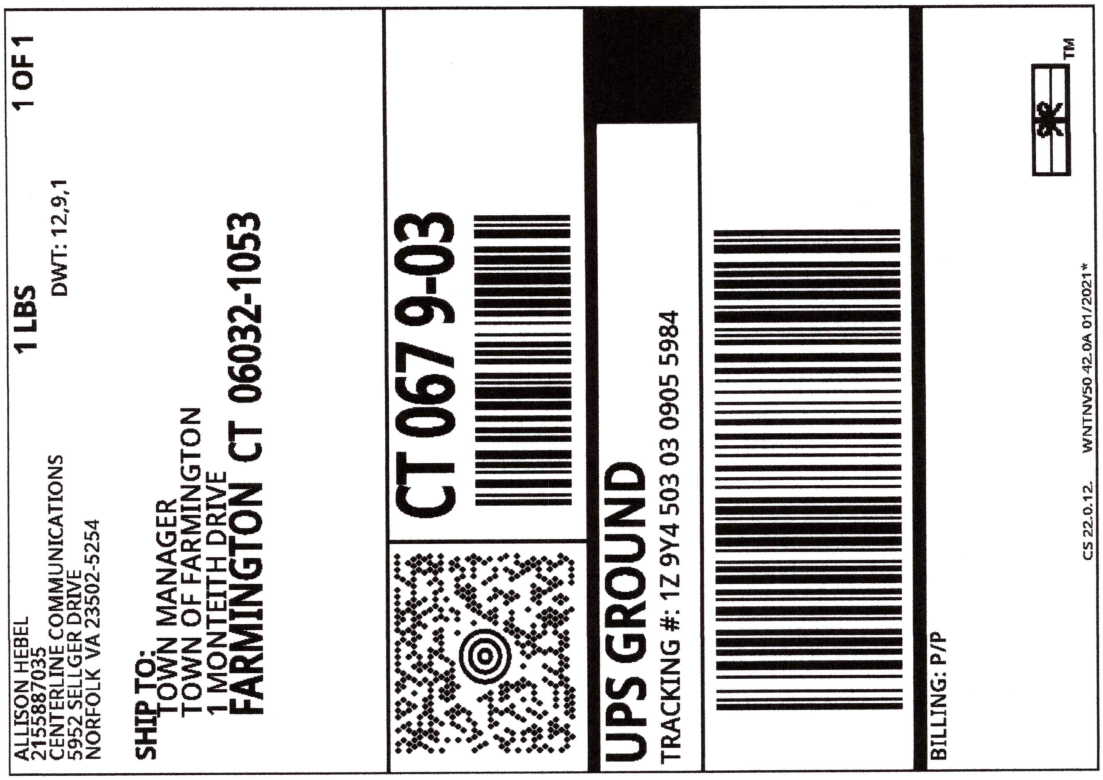

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