Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

December 06, 2018

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

RE: **Notice of Exempt Modification for Verizon DO Macro:**
806384 Verizon Site ID: East Lyme CT
93 Roxbury Rd. East Lyme, CT 06357
Latitude: 41° 20' 08.35"/ Longitude: 72° 13' 18.27"

Dear Ms. Bachman:

Verizon currently maintains twelve (12) antennas at the 149-foot level of the existing 151-foot self-support tower at 93 Roxbury Rd. East Lyme, CT 06357. The tower is owned by Crown Castle. The Town of East Lyme own the property. Verizon now intends to replace two (2) antennas with two (2) new antennas. These antennas would be installed at the 151-foot level of the tower. Verizon also intends to replace three (3) RRU's and install one (1) diplexer.

This facility was approved by the Town of East Lyme Planning and Zoning Department and an e-mail was sent on 12/06/2018 to the department in an attempt to ascertain the original zoning documents.
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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.S.C.A. § 16-50j-73, a copy of this letter is being sent to First Selectman Mark K Nickerson, Town of East Lyme, Gary A. Goeschel II, Director of Planning, Town of East Lyme, as well as the property owner, and Crown Castle is the tower owner.

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

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

3. The proposed modification 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 Communication 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, Verizon respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,

Jeffrey Barbadora
Real Estate Specialist
12 Gill Street, Suite 5800, Woburn, MA 01801
781-729-0053
Jeff.Barbadora@crowncastle.com

Attachments:

Tab 1: Exhibit-1: Compound plan and elevation depicting the planned changes
Tab 2: Exhibit-2: Structural Modification Report
Tab 3: Exhibit-3: General Power Density Table Report (RF Emissions Analysis Report)

cc: The Honorable Mark K.
Nickerson
108 Pennsylvania Ave
Niantic, CT 06357-1510

Gary A. Goeschel II,
Director of Planning
108 Pennsylvania Ave
Niantic, CT 06357-1510


East Lyme Town
Transfer Sta
Riverview
Roxbury Rd
Dump Rd
Roxbury Rd
93 Roxbury Road
Roxbury Rd
Roxbury Rd
K
atellite
Google

93 ROXBURY RD

Location	93 ROXBURY RD	**Mblu**	15.0/ 3/ / /
Acct#	008267	**Owner**	METRO MOBILE CTS OF N L INC
Assessment	$811,230	**Appraisal**	$1,158,900
PID	4698	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$33,900	$1,125,000	$1,158,900

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$23,730	$787,500	$811,230

Owner of Record

Owner	METRO MOBILE CTS OF N L INC	**Sale Price**	$0
Co-Owner	C/O CROWN ATLANTIC CO	**Certificate**	
Address	PMB 353 4017 WASHINGTON RD MCMURRAY, PA 15317	**Book & Page**	297/ 552
		Sale Date	03/05/1990
		Instrument	

Ownership History

Ownership History
No Data for Ownership History

Building Information

Building 1 : Section 1

Year Built:	1990
Living Area:	450
Replacement Cost:	$36,171
Building Percent Good:	85
Replacement Cost Less Depreciation:	$30,700

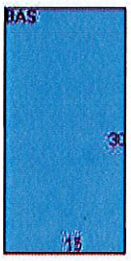
Building Attributes	
Field	**Description**
STYLE	Commercial

Building Photo

MODEL	Commercial
Grade	Average
Stories:	1
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	NA
Heating Type	None
AC Type	None
Bldg Use	TEL X STA MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	430C
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	10
% Comn Wall	0

(http://images.vgsi.com/photos2/EastLymeCTPhotos//\01\00\33/53.jpg)

Building Layout



(http://images.vgsi.com/photos2/EastLymeCTPhotos//Sketches/4

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	450	450
		450	450

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	430C
Description	TEL X STA MDL-94
Zone	R40
Neighborhood	
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.09
Frontage	0
Depth	0
Assessed Value	$787,500
Appraised Value	$1,125,000

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FN4	FENCE-8' CHAIN			250 L.F.	$3,200	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	$33,900	$1,125,000	$1,158,900
2016	$33,900	$1,125,000	$1,158,900
2015	$23,300	$62,700	$86,000

Assessment			
Valuation Year	Improvements	Land	Total
2017	$23,730	$787,500	$811,230
2016	$23,730	$787,500	$811,230
2015	$16,310	$43,890	$60,200

verizon

CROWN CASTLE

VERIZON SITE NAME:	EAST LYME CT
CROWN CASTLE SITE NAME:	NLN 136 943455
CROWN CASTLE BU NUMBER:	806384
SITE ADDRESS:	93 ROXBURY ROAD EAST LYME, CT 06357
SITE TYPE:	SELF SUPPORT TOWER

SITE INFORMATION

APPLICANT:
VERIZON
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PROPERTY OWNER:
ROXBURY ROAD LLC

TOWER OWNER:
CROWN CASTLE

CROWN CASTLE PM:
WILLIAM GATES
(518) 373-3517

LATITUDE (NAD83):
41° 20' 8.35"N
41.335653

LONGITUDE (NAD83):
72° 13' 18.27" W
-72.221744

COUNTY:
NEW LOMDON

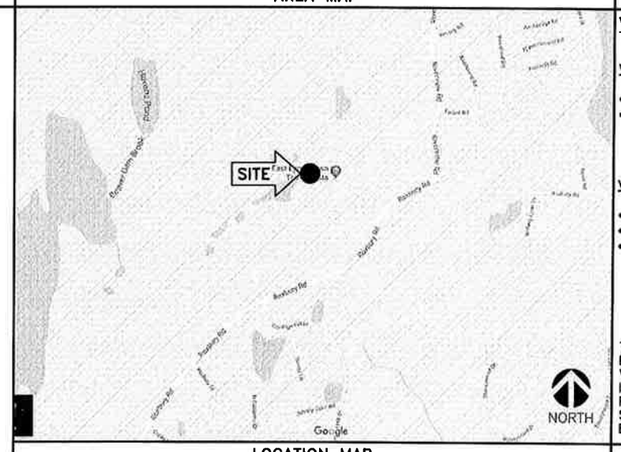
ZONING JURISDICTION:
TOWN OF EAST LYME

POWER COMPANY:
NATIONAL GRID
(800) 322-3223

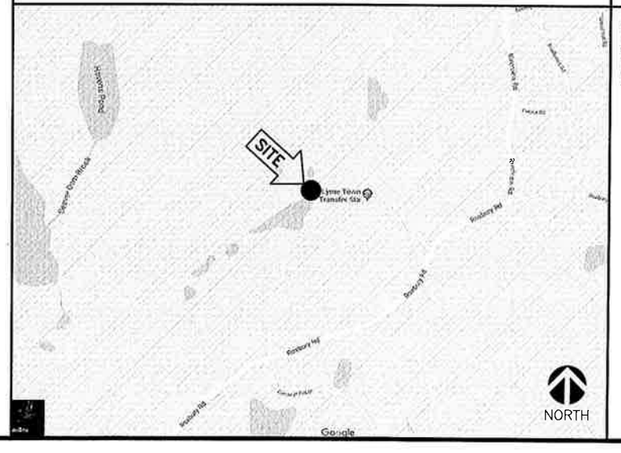
TELCO PROVIDER:
FIBER APP

VERIZON WIRELESS CM:
TBD

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

VERIZON PROPOSES TO MODIFY AN EXISTING UNMANNED TELECOMMUNICATION FACILITY:

VERIZON EQUIPMENT TO BE REMOVED:

- REMOVE (2) EXISTING PANEL ANTENNAS
- REMOVE (3) EXISTING RRH'S

VERIZON EQUIPMENT TO BE INSTALLED:

- INSTALL (2) COMMSCOPE PANEL ANTENNAS P/N: JAHH-65B-R3B
- INSTALL (3) SAMSUNG RRH'S P/N: B5/B13 RRH-FV01UD1A
- INSTALL (2) HYBRID CABLE P/N: HB158-1-08U8-S8J18

THESE PLANS HAVE BEEN DEVELOPED FOR THE MODIFICATION OF AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY OWNED OR LEASED BY VERIZON IN ACCORDANCE WITH THE SCOPE OF WORK PROVIDED BY VERIZON. INFINIGY HAS INCORPORATED THIS SCOPE OF WORK IN THE PLANS. THESE PLANS ARE NOT FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PASSING STRUCTURAL STABILITY ANALYSIS PREPARED BY A LICENSED STRUCTURAL ENGINEER. STRUCTURAL ANALYSIS MUST INCLUDE BOTH TOWER AND MOUNT.

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALL IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (2015 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 – LIGHTNING PROTECTION CODE
4. 2017 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. RI BUILDING CODE
7. LOCAL BUILDING CODE
8. CITY/COUNTY ORDINANCES

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO:	SHEET TITLE	REV
T-1	TITLE SHEET & PROJECT DATA	A
SP-1	VERIZON SPECIFICATIONS	A
A-1	OVERALL SITE PLAN	A
A-2	TOWER ELEVATION	A
A-3	ANTENNA LAYOUT & LOADING CHART	A
A-4	EQUIPMENT DETAILS	A
A-5	MOUNTING DETAILS	A
G-1	GROUNDING PLAN & DETAILS	A

DRIVING DIRECTIONS

FROM: PROVIDENCE, RI
1. 1.DEPART DORRANCE ST TOWARD FULTON ST / KENNEDY PLAZA
2. 2.TURN LEFT ONTO WASHINGTON ST
3. TURN RIGHT ONTO UNION ST
4. TURN RIGHT ONTO US-1 N / FOUNTAIN ST
5. TURN LEFT TO STAY ON US-1 N / FOUNTAIN ST
6. TAKE RAMP LEFT FOR I-95 SOUTH TOWARD NEW YORK
7. ENTERING CONNECTICUT
8. TAKE RAMP RIGHT FOR CT-161 TOWARD NIANTIC
9. TURN RIGHT ONTO CT-161 / FLANDERS RD
10. TURN RIGHT ONTO ROXBURY RD
11. ARRIVE AT 93 ROXBURY ROAD, EAST LYME, CT 06357

PLANS PREPARED FOR:
verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PLANS PREPARED BY:
INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1490 W. 121st. Ave., Suite 101
Westminster, CO 80234
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:
CROWN CASTLE

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
NOV 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	11/30/18	ETC	A

VERIZON SITE NAME: EAST LYME CT

CROWN CASTLE SITE NAME: NLN 136 943455

CROWN CASTLE BU #: 806384

SITE ADDRESS: 93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION: TITLE SHEET & PROJECT DATA

SHEET NUMBER: T-1

ELECTRICAL NOTES:

WORK INCLUDED

1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
   B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
   C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
   D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
   E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
   F. MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
3. LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
4. EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
5. GENERAL
   A. AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
   B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
6. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
   A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
   B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
   C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
   D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
   E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.

GUARANTEE

1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

1. AS-BUILT DRAWINGS:
   A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
2. SERVICE MANUALS:
   A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT VERIZON AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
   B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUTOFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
2. ROUTE 500 KCMIL CU. THHN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

RACEWAYS

1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
   A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
   B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
   C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.

   ON THIS PROJECT.
   E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "VERIZON". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
   F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
   G. MINIMUM SIZE CONDUIT TO BE ¾" TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
   H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.

   AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
   J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
   K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

   L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
   M. PROVIDE ALL CONDUIT ENDS WITH INSTULATED METALLIC GROUNDING BUSHINGS.
   N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
   O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
   P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/THHN INSULATION, EXCEPT AS NOTED.
4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

LENGTH (FT.)	HOME RUN WIRE SIZE
0 TO 50	NO. 12
51 TO 100	NO. 10
101 TO 150	NO. 8

8. VOLTAGE DROP IS NOT TO EXCEED 3%
9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DEVICES

1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.

DISCONNECT SWITCHES AND FUSES

1. DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
   A. GENERAL ELECTRIC COMPANY
   B. SQUARE-D
5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

INSTALLATION

1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
   A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
   B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

CLEANUP

1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
2. EXTERIOR
   A. VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
3. INTERIOR
   A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
   B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
   C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

PRODUCTS AND SUBSTITUTIONS

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

INSURANCE AND BONDS

1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

GENERAL NOTES:

INTENT

1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN,INDICATED OR SPECIFIED IN BOTH
3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

ABBREVIATIONS	
ADJ	ADJUSTABLE
AGL	ABOVE GROUND LINE
&	AND
APPROX	APPROXIMATE
@	AT
BTS	BASE TRANSMISSION STATION
CAB	CABINET
CLG	CEILING
CONC	CONCRETE
CONT	CONTINUOUS
DIA OR ø	DIAMETER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EGB	EQUIPMENT GROUND BAR
(E)	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GRND	GROUND
LG	LONG
MAX	MAXIMUM
MECH	MECHANICAL
MW	MICROWAVE DISH
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
(P)	PROPOSED
PCS	PERSONAL COMMUNICATION SYSTEM
PPC	POWER PROTECTION CABINET
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SS	STAINLESS STEEL
STL	STEEL
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TYP	TYPICAL
VIF	VERIFY IN FIELD
UON	UNLESS OTHERWISE NOTED
WWF	WELDED WIRE FABRIC
W/	WITH

PLANS PREPARED FOR:

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180 WASHINGTON VALLEY ROAD
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PLANS PREPARED BY:

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Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:

CROWN CASTLE

ENGINEERING LICENSE:

STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
NOV 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	11/30/18	ETC	A

VERIZON SITE NAME:

EAST LYME CT

CROWN CASTLE SITE NAME:

NLN 136 943455

CROWN CASTLE BU #:

806384

SITE ADDRESS:

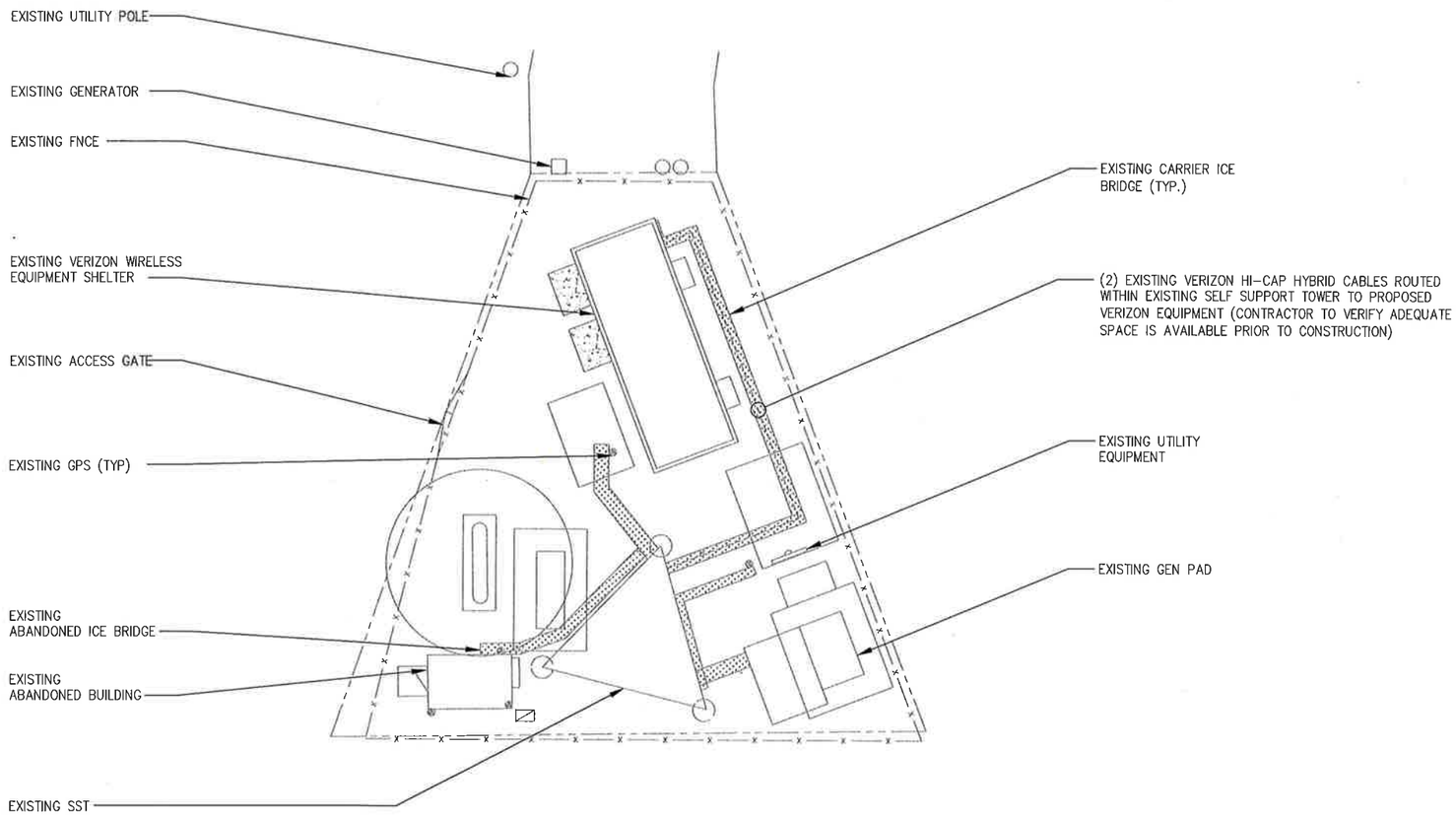
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:

VERIZON SPECIFICATIONS

SHEET NUMBER:

SP-1



GRAPHIC SCALE

10' 5' 0 5' 10'

NORTH

SCALE: 22"x34" SHEET 1"= 5'
SCALE: 11"x17" SHEET 1"= 10'

INFORMATION CONTAINED WITHIN DRAWINGS IS BASED ON PROVIDED INFORMATION AND IS NOT THE RESULT OF A FIELD SURVEY. CONTRACTOR TO VERIFY EXISTING FIELD CONDITIONS PRIOR TO ANY CONSTRUCTION

OVERALL SITE PLAN

SCALE: AS NOTED | 1

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806384

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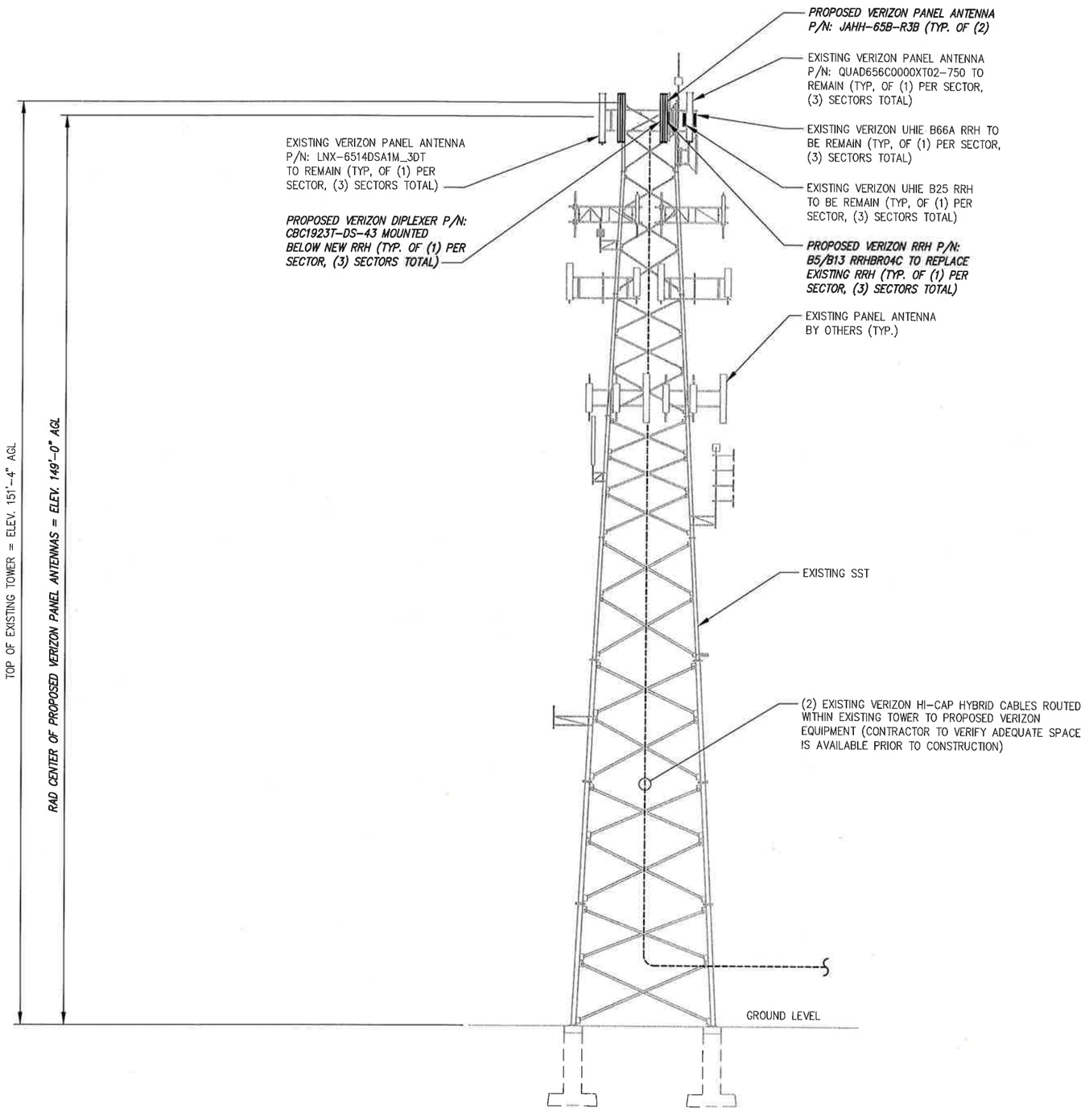
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:
OVERALL SITE PLAN

SHEET NUMBER:
A-1



PROPOSED TOWER ELEVATION

NO SCALE

1

INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT FOR THIS SITE AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.

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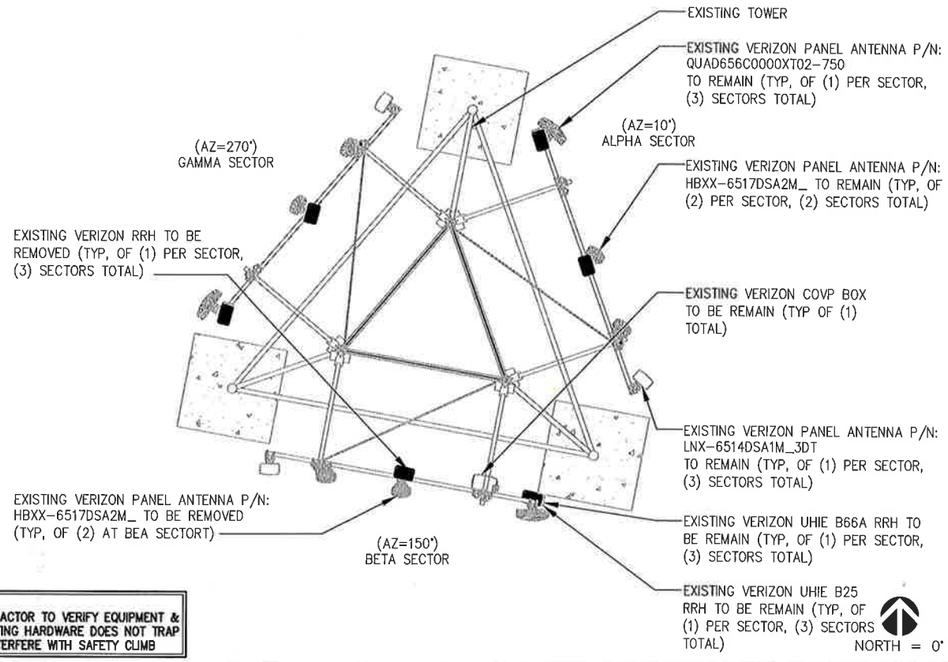
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:

TOWER ELEVATION

SHEET NUMBER:

A-2

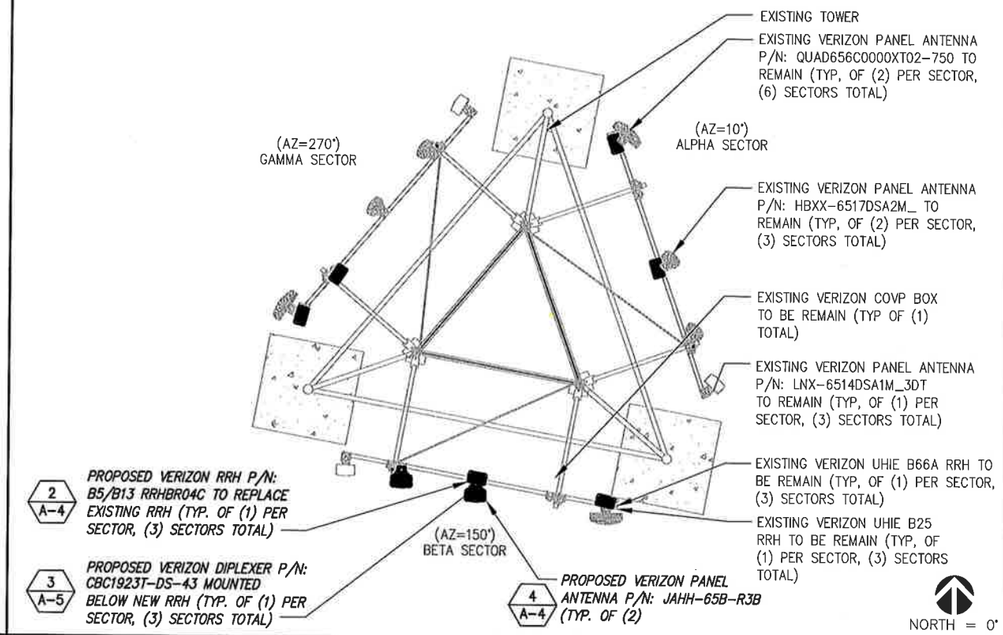


NOTE:
CONTRACTOR TO VERIFY EQUIPMENT & MOUNTING HARDWARE DOES NOT TRAP OR INTERFERE WITH SAFETY CLIMB

EXISTING ANTENNA LAYOUT | NO SCALE | 2

THE CONFIGURATION PLAN IS BASED ON PROVIDED INFORMATION AND IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO CONSTRUCTION.

INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT FOR THIS SITE AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. REFER TO STRUCTURAL ANALYSIS BY OTHERS PRIOR TO ANY CONSTRUCTION.



PROPOSED ANTENNA LAYOUT | NO SCALE | 2

SITE LOADING CHART

SECTOR	POSITION	SECTOR COLOR	TECHNOLOGY	ANTENNA MODEL #	VENDOR	QTY. (REMOVED)	QTY. (NEW)	RRH/DIPLEXER (QTY/MODEL)	AZIMUTH	DOWNTILT MECHANICAL	DOWNTILT ELECTRICAL	RAD CENTER	FEED LINE TYPE/LENGTH (FEET + 20%)
ALPHA	A1	RED	LTE 700	QUAD656C0000XT02-750	AMPHENOL	--	1/1	(1) UHIE B66A RRH 4x45 (1) UHFA B25 RRH 4x30	10°	0°	2°	±149' AGL	(2) EXISTING HYBRID CABLES
ALPHA	A2	RED	LTE 2100	HBXX-6517DS-A2M	ANDREW	--	1	***(1) B5/B13 RRHBR04C***	10°	0°	3°	±149' AGL	SHARED HYBRID CABLES
ALPHA	A3	RED	LTE 1900	HBXX-6517DS-A2M	ANDREW	--	--	--	10°	0°	2°	±149' AGL	EXISTING COAX
ALPHA	A4	RED	CDMA	LNX-6514DSA1M	ANDREW	--	--	--	10°	0°	3°	±149' AGL	--
BETA	B1	BLUE	LTE 700	QUAD656C0000XT02-750	AMPHENOL	--	1/1	(1) UHIE B66A RRH 4x45 (1) UHFA B25 RRH 4x30	150°	0°	6°	±149' AGL	SHARED HYBRID CABLES
BETA	B2	BLUE	LTE 2100/ LTE 1900	***JAHH-65B-R3B***	***ANDREW***	--	1	***(1) B5/B13 RRHBR04C***	***150°***	0°	2°	±149' AGL	SHARED HYBRID CABLES
BETA	B3	BLUE	LTE 700/ LTE 850	***JAHH-65B-R3B***	***ANDREW***	--	--	***(1) CBC1923T-DS-43***	***150°***	0°	2°	±149' AGL	EXISTING COAX
BETA	B4	BLUE	CDMA	LNX-6514DSA1M	ANDREW	--	--	--	150°	0°	8°	±149' AGL	--
GAMMA	G1	WHITE	LTE 700	QUAD656C0000XT02-750	AMPHENOL	--	1/1	(1) UHIE B66A RRH 4x45 (1) UHFA B25 RRH 4x30	270°	0°	2°	±149' AGL	SHARED HYBRID CABLES
GAMMA	G2	WHITE	LTE 2100	HBXX-6517DS-A2M	ANDREW	--	1	***(1) B5/B13 RRHBR04C***	270°	0°	2°	±149' AGL	SHARED HYBRID CABLES
GAMMA	G3	WHITE	LTE 1900	HBXX-6517DS-A2M	ANDREW	--	--	--	270°	0°	2°	±149' AGL	EXISTING COAX
GAMMA	G4	WHITE	CDMA	LNX-6514DSA1M	ANDREW	--	--	--	270°	0°	5°	±149' AGL	--

NOTE:
CABLE LENGTHS ARE BASED ON PROVIDED INFORMATION. CONTRACTOR TO VERIFY REQUIRED CABLE LENGTHS PRIOR TO CONSTRUCTION.

SITE LOADING CHART | NO SCALE | 3

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JOB NUMBER: TBD

MLA PARTNER:
CROWN CASTLE

ENGINEERING LICENSE:
STATE OF CONNECTICUT JOHN S. STEVENS No. 24705 LICENSED PROFESSIONAL ENGINEER
NOV 30 2018

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	11/30/18	ETC	A

VERIZON SITE NAME: EAST LYME CT

CROWN CASTLE SITE NAME: NLN 136 943455

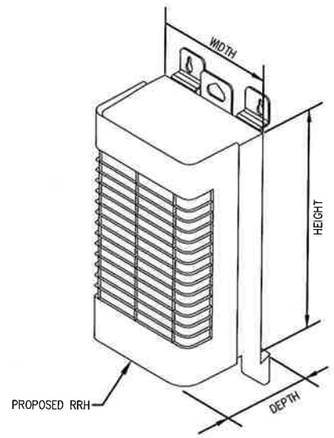
CROWN CASTLE BU #: 806384

SITE ADDRESS: 93 ROXBURY ROAD EAST LYME, CT 06357

SHEET DESCRIPTION: ANTENNA LAYOUT & LOADING CHART

SHEET NUMBER: A-3

DETAIL NOT USED | NO SCALE | 1



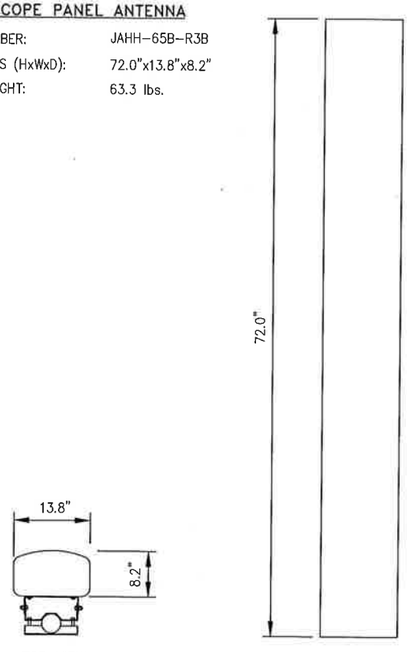
SIZE AND WEIGHT TABLE				
RRH	WIDTH	DEPTH	HEIGHT	WEIGHT WO BRACKET
B13-RRH4X30-R4	12.0"	9.0"	21.6"	57.2 LBS

REMOTE RADIO HEAD SPECIFICATIONS | NO SCALE | 2

DETAIL NOT USED | NO SCALE | 3

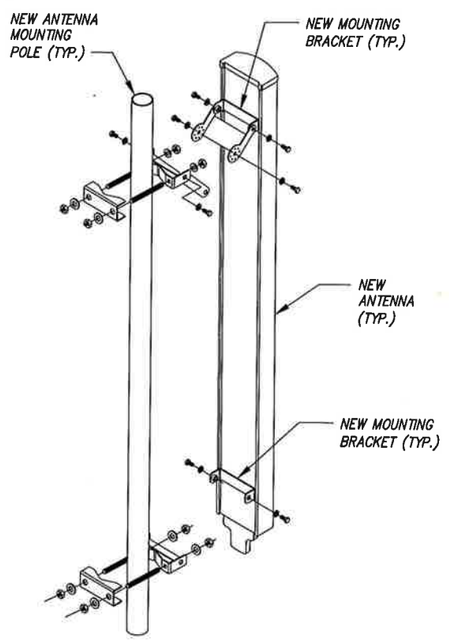
COMMSCOPE PANEL ANTENNA

PART NUMBER: JAHH-65B-R3B
DIMENSIONS (HxWxD): 72.0"x13.8"x8.2"
TOTAL WEIGHT: 63.3 lbs.



FRONT VIEW

TOP VIEW



PANEL ANTENNA & MOUNTING DETAILS | NO SCALE | 4

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BEDMINSTER, NJ 07921

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NLN 136 943455

CROWN CASTLE BU #:
806384

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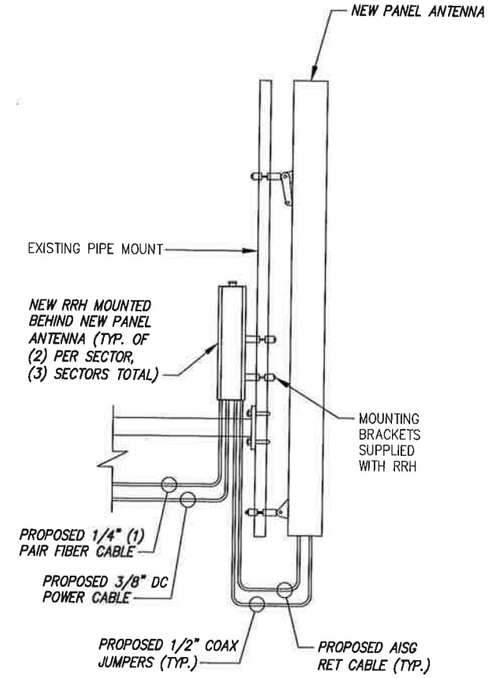
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:
EQUIPMENT & DETAILS

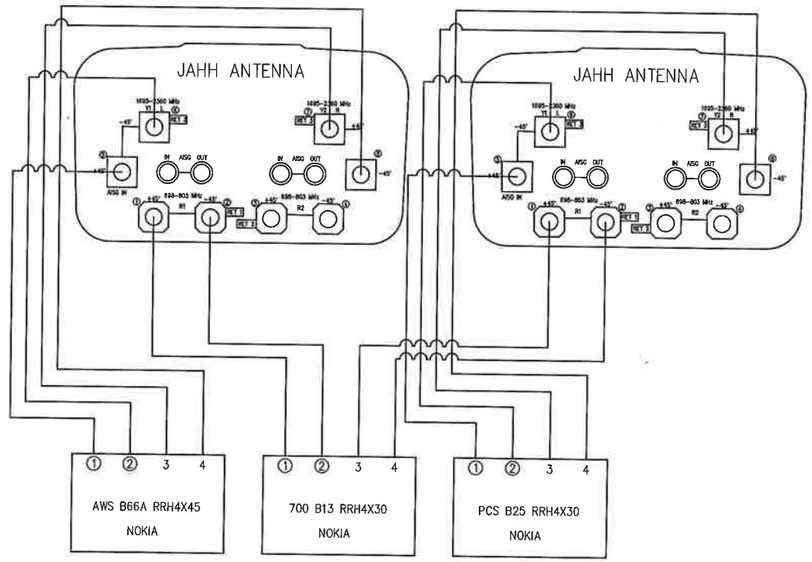
SHEET NUMBER:
A-4

DETAIL NOT USED	NO SCALE	1



RRH MOUNTING DETAIL	NO SCALE	2

DETAIL NOT USED	NO SCALE	3



WIRING DIAGRAM	NO SCALE	4

PLANS PREPARED FOR:

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BEDMINSTER, NJ 07921

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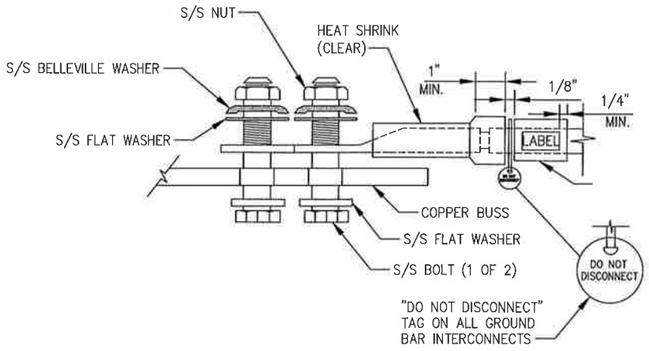
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:

MOUNTING DETAILS

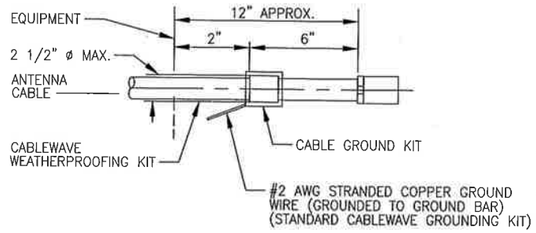
SHEET NUMBER:

A-5



NOTE:
ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION COMPOUND.

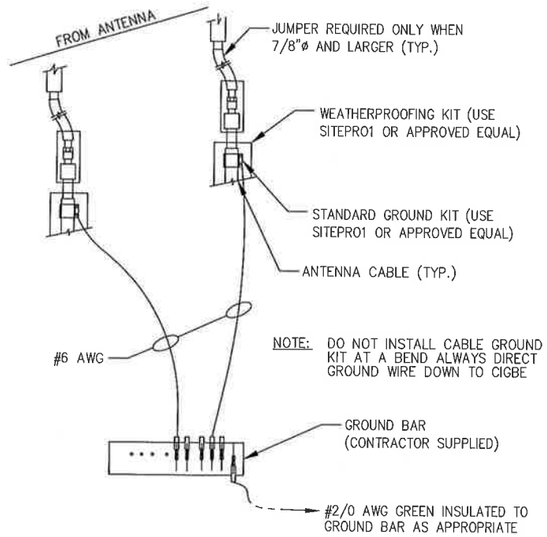
TYPICAL EQUIPMENT GROUND CONNECTION | NO SCALE | 1



TO ANTENNA CABLE

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

TYPICAL CABLE GROUND KIT CONNECTION | NO SCALE | 2



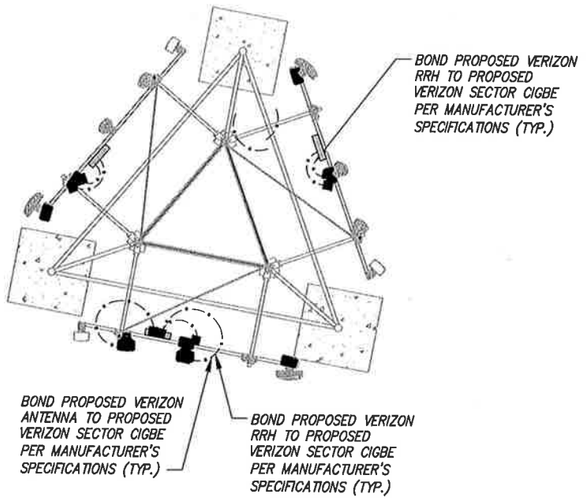
TYPICAL CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS | NO SCALE | 3

GENERAL GROUNDING NOTES:

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
   - #2 BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELD TO RODS OR GROUND RING
   - LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELD AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. CONTRACTOR TO INSTALL GROUNDING IN CLOSE PROXIMITY TO EQUIPMENT PLATFORM OR PAD.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
6. ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
9. THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND.
12. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

GROUNDING SYMBOLS:

⊗	GROUND ROD
☐	ACCESS WELL
⊠	GROUND ROD WITH ACCESS
■	COMPRESSION TYPE CONNECTION
●	EXOTHERMIC WELD TYPE CONNECTION
—G—	#2/0 BTS COPPER CONDUCTOR BURIED GROUND CABLE
⬠ (#)	INDICATES CODED NOTE



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 1

PLANS PREPARED FOR:
verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

PLANS PREPARED BY:
INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
1490 W. 121st. Ave., Suite 101
Westminster, CO 80234
Office # (303) 219-1178
Fax # (303) 242-8636
JOB NUMBER: TBD

MLA PARTNER:
CROWN CASTLE

ENGINEERING LICENSE:
STATE OF CONNECTICUT
JOHN S. STEVENS
No. 24705
LICENSED PROFESSIONAL ENGINEER
NOV 30 2018

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	11/30/18	ETC	A

VERIZON SITE NAME:
EAST LYME CT

CROWN CASTLE SITE NAME:
NLN 136 943455

CROWN CASTLE BU #:
806384

SITE ADDRESS:
93 ROXBURY ROAD
EAST LYME, CT 06357

SHEET DESCRIPTION:
GROUNDING PLANS

SHEET NUMBER:
G-1

NLN136-OCI E. LIME

BUILDING PERMIT

APPLICANT COPY

THIS PERMIT NOT VALID UNLESS PROPERLY RECEIPTED BY CASHIER

VALIDATION

DATE 7 PERMIT NO. 83614

APPLICANT Omnipoint Communications ADDRESS 100 Filley St Bloomfield, CT 06002 (NO.) (STREET) (CONTR'S LICENSE)

PERMIT TO Installation of telecommunications antenna/assoc. equipment cabinet w/ existing tower (TYPE OF IMPROVEMENT) NO. STORY (PROPOSED USE) DWELLING UNITS

AT (LOCATION) 93 Roxbury Rd (NO.) (STREET) ZONING DISTRICT

BETWEEN (CROSS STREET) AND (CROSS STREET)

SUBDIVISION Map 13 LOT 3 BLOCK LOT SIZE

BUILDING IS TO BE FT. WIDE BY FT. LONG BY FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTION

TO TYPE NA USE GROUP U BASEMENT WALLS OR FOUNDATION (TYPE)

REMARKS

20,000 153.#4680 3.2) cash fee

AREA OR VOLUME (CUBIC/SQUARE FEET) ESTIMATED COST $ PERMIT FEE $

OWNER Lessee Omnipoint Communications, Inc.

ADDRESS 100 Filley St Bloomfield, CT 06002 BUILDING DEPT. BY

MINIMUM OF THREE CALLED INSPECTIONS REQUIRED FOR ALL CONSTRUCTION WORK.
1. FOUNDATIONS OR FOOTINGS.
2. PRIOR TO COVERING STRUCTURAL MEMBERS (READY FOR LATH OR FINISH COVERING).
3. FINAL INSPECTION BEFORE OCCUPANCY.

APPROVED PLANS MUST BE RETAINED ON JOB AND THIS CARD KEPT POSTED UNTIL FINAL INSPECTION HAS BEEN MADE. WHERE A CERTIFICATE OF OCCUPANCY IS REQUIRED, SUCH BUILDING SHALL NOT BE OCCUPIED UNTIL FINAL INSPECTION HAS BEEN MADE.

WHERE APPLICABLE SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING AND MECHANICAL INSTALLATIONS.

POST THIS CARD SO IT IS VISIBLE FROM STREET

BUILDING INSPECTION APPROVALS	PLUMBING INSPECTION APPROVALS	ELECTRICAL INSPECTION APPROVALS
1	1	1
2	2	2
3	HEATING INSPECTING APPROVALS	REFRIGERATION INSPECTION APPROVALS
	1	1
OTHER	2	2

WORK SHALL NOT PROCEED UNTIL THE INSPECTOR HAS APPROVED THE VARIOUS STAGES OF CONSTRUCTION.

PERMIT WILL BECOME NULL AND VOID IF CONSTRUCTION WORK IS NOT STARTED WITHIN SIX MONTHS OF DATE THE PERMIT IS ISSUED OR WORK IS SUSPENDED FOR SIX MONTHS.

INSPECTIONS INDICATED ON THIS CARD CAN BE ARRANGED FOR BY TELEPHONE OR WRITTEN NOTIFICATION.

license - 21572 site - 806324

BUILDING PERMIT

AMOUNT PAID

THIS PERMIT NOT VALID UNLESS PROPERLY RECEIPTED BY CASHIER

VALIDATION

DATE March A 19 93 PERMIT NO. B 992

APPLICANT Jeffrey York ADDRESS 9 Barnes Industrial Rd Wallingford, CT

(NO.) (STREET) (CONTR'S LICENSE)

Add 9 antennas onto existing latice tower & assoc. telecommunications equipment

PERMIT TO (TYPE OF IMPROVEMENT) (NO.) STORY (PROPOSED USE) NUMBER OF DWELLING UNITS

AT (LOCATION) 93 Roxbury ZONING DISTRICT 40

(NO.) (STREET)

BETWEEN (CROSS STREET) AND (CROSS STREET)

SUBDIVISION Map 35 LOT 13 BLOCK LOT SIZE

BUILDING IS TO BE FT. WIDE BY FT. LONG BY FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTION

TO TYPE N/A USE GROUP U BASEMENT WALLS OR FOUNDATION

(TYPE)

REMARKS:

49,000 346.#2754349

AREA OR VOLUME (CUBIC/SQUARE FEET) ESTIMATED COST $ PERMIT FEE $

OWNER Leasee- Metro-Mobile of NL, Inc

ADDRESS 180 Washington Meriden, CT

BUILDING OFFICIAL BY

FORM NO. BOCA - BP 1984

Town of East Lyme

P.O. DRAWER 519 · NIANTIC, CONNECTICUT 06357

ZONING OFFICIAL
1-860-739-5401

ZONE: RU-40 PERMIT NUMBER: 98-170

DESCRIPTION OF PERMIT USE: installation of cellular telecommunication antennas and related equipment on existing tower

APPLICANT NAME: Jeffrey York - Agent for Sprint PCS
MAIL ADDRESS: 9 Barnes Industrial Road Wallingford CT 06492
TELEPHONE NO.: (203) 294-5676
APPLICANT SIGNATURE: Jeffrey A. York Agent for Sprint

OWNER'S NAME: Bell Atlantic Mobile
MAIL ADDRESS: 20 Alexander Drive Wallingford CT 06492
TELEPHONE NO.: (203) 294-7403
OWNER'S SIGNATURE OR LETTER OF AUTHORIZATION: See Attached

EFFECTED PROPERTY ADDRESS: 93 Roxbury Road East Lyme
X ASSESSOR MAP NO.: 35 LOT NO.: 13

FEE: 10.00 # 2754349

ZONING OFFICIAL: Wm Muckland 3/2/98

COMMENT AND CONDITIONS:
Existing Tower

NLN-1
EAST LYME

PERMIT

JOB WEATHER CARD

5902

DATE March 16, 1998 PERMIT NO. ____

APPLICANT Nextel of New York ADDRESS ____ (APPLICANT'S LICENSE)

PERMIT TO ____ (TYPE OF IMPROVEMENT) (____) NO. STORY ____ (PROPOSED USE) NUMBER OF DWELLING UNITS ____

ZONING DISTRICT ____

AT (LOCATION) 93 Holmbury Rd (NO.) (STREET)

BETWEEN ____ (CROSS STREET) AND ____ (CROSS STREET)

SUBDIVISION ____ LOT ____ BLOCK ____ LOT SIZE ____

BUILDING IS TO BE ____ FT. WIDE BY ____ FT. LONG BY ____ FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTION

TO TYPE ____ USE GROUP ____ BASEMENT WALLS OR FOUNDATION ____

REMARKS: Addition 9 antennas/ 1-7 x 11 : Prefab bldg/cables & utilities

55,000 400 #1942

AREA OR VOLUME ____ (CUBIC/SQUARE FEET) ESTIMATED COST $ ____ PERMIT FEE $ ____

OWNER Town of East Lyme lessee Nextel of NY

ADDRESS ____

BUILDING DEPT. BY ____

FORM NO. BOCA - BP 1984

THIS PERMIT CONVEYS NO RIGHT TO OCCUPY ANY STREET, ALLEY OR SIDEWALK OR ANY PART THEREOF, EITHER TEMPORARILY OR PERMANENTLY. ENCROACHMENTS ON PUBLIC PROPERTY, NOT SPECIFICALLY PERMITTED UNDER THE BUILDING CODE, MUST BE APPROVED BY THE JURISDICTION. STREET OR ALLEY GRADES AS WELL AS DEPTH AND LOCATION OF PUBLIC SEWERS MAY BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. THE ISSUANCE OF THIS PERMIT DOES NOT RELEASE THE APPLICANT FROM THE CONDITIONS OF ANY APPLICABLE SUBDIVISION RESTRICTIONS.

MINIMUM OF THREE CALLED INSPECTIONS REQUIRED FOR ALL CONSTRUCTION WORK:	APPROVED PLANS MUST BE RETAINED ON JOB AND THIS CARD KEPT POSTED UNTIL FINAL INSPECTION HAS BEEN MADE. WHERE A CERTIFICATE OF OCCUPANCY IS REQUIRED, SUCH BUILDING SHALL NOT BE OCCUPIED UNTIL FINAL INSPECTION HAS BEEN MADE.	WHERE APPLICABLE SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING AND MECHANICAL INSTALLATIONS.
1. FOUNDATIONS OR FOOTINGS. 2. PRIOR TO COVERING STRUCTURAL MEMBERS (READY FOR LATH OR FINISH COVERING). 3. FINAL INSPECTION BEFORE OCCUPANCY.		

POST THIS CARD SO IT IS VISIBLE FROM STREET

BUILDING INSPECTION APPROVALS	PLUMBING INSPECTION APPROVALS	ELECTRICAL INSPECTION APPROVALS
1	1	1
2	2	2
3	HEATING INSPECTING APPROVALS	REFRIGERATION INSPECTION APPROVALS
	1	1
OTHER ____	2	2

WORK SHALL NOT PROCEED UNTIL THE INSPECTOR HAS APPROVED THE VARIOUS STAGES OF CONSTRUCTION.

PERMIT WILL BECOME NULL AND VOID IF CONSTRUCTION WORK IS NOT STARTED WITHIN SIX MONTHS OF DATE THE PERMIT IS ISSUED AS NOTED ABOVE.

INSPECTIONS INDICATED ON THIS CARD CAN BE ARRANGED FOR BY TELEPHONE OR WRITTEN NOTIFICATION.

BUILDING PERMIT

JOB WEATHER CARD

DATE _____ 19 ____ PERMIT NO. _____

APPLICANT _____ ADDRESS _____ (NO.) (STREET) (CONTR'S LICENSE)

PERMIT TO _____ (TYPE OF IMPROVEMENT) (___) NO. STORY _____ (PROPOSED USE) NUMBER OF DWELLING UNITS _____

AT (LOCATION) _____ (NO.) (STREET) ZONING DISTRICT _____

BETWEEN _____ (CROSS STREET) AND _____ (CROSS STREET)

SUBDIVISION _____ LOT _____ BLOCK _____ LOT SIZE _____

BUILDING IS TO BE _____ FT. WIDE BY _____ FT. LONG BY _____ FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTIO

TO TYPE _____ USE GROUP _____ BASEMENT WALLS OR FOUNDATION _____ (TYPE)

REMARKS: _____

AREA OR VOLUME _____ (CUBIC/SQUARE FEET) ESTIMATED COST $ _____ PERMIT FEE $ _____

OWNER _____

ADDRESS _____ BUILDING DEPT. BY _____

THIS PERMIT CONVEYS NO RIGHT TO OCCUPY ANY STREET, ALLEY OR SIDEWALK OR ANY PART THEREOF, EITHER TEMPORARILY O PERMANENTLY. ENCROACHMENTS ON PUBLIC PROPERTY, NOT SPECIFICALLY PERMITTED UNDER THE BUILDING CODE, MUST BE AP PROVED BY THE JURISDICTION. STREET OR ALLEY GRADES AS WELL AS DEPTH AND LOCATION OF PUBLIC SEWERS MAY BE OBTAINE FROM THE DEPARTMENT OF PUBLIC WORKS. THE ISSUANCE OF THIS PERMIT DOES NOT RELEASE THE APPLICANT FROM THE CONDITION OF ANY APPLICABLE SUBDIVISION RESTRICTIONS.

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1	1	1
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3	HEATING INSPECTING APPROVALS	REFRIGERATION INSPECTION APPROVALS
	1	1
OTHER _____	2	2

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INSPECTIONS INDICATED ON THIS CA CAN BE ARRANGED FOR BY TELEPHO OR WRITTEN NOTIFICATION.

FORM NO. BOCA - BP 1984

Date: **October 02, 2018**

Holly Haas
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277

Tectonic
1279 Route 300
Newburgh, NY 12550
(845) 567-6656

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	1949
	Carrier Site Name:	EAST LYME CT
Crown Castle Designation:	**Crown Castle BU Number:**	806384
	Crown Castle Site Name:	NLN 136 943455
	Crown Castle JDE Job Number:	534510
	Crown Castle Work Order Number:	1639525
	Crown Castle Order Number:	461220 Rev. 0
Engineering Firm Designation:	**Tectonic Project Number:**	9800.806384
Site Data:	**93 ROXBURY ROAD, EAST LYME, New London County, CT** **Latitude *41° 20' 8.35"*, Longitude *-72° 13' 18.28"*** **151.292 Foot - Self Support Tower**	

Dear Holly Haas,

Tectonic Engineering & Surveying Consultants P.C. (Tectonic) is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

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

LC5: Proposed Equipment Configuration **Sufficient Capacity**

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 145 mph from the 2016 Connecticut State Building Code (2012 IBC). Exposure Category B with a maximum topographic factor, Kzt, of 1.0 and Risk Category III were used in this analysis.

Structural analysis prepared by: Mahesh Chillarge / VE

Respectfully submitted by:

STATE OF CONNECTICUT
ANTONIO A. GUALTIERI
No. 25406
LICENSED
PROFESSIONAL ENGINEER

Antonio A. Gualtieri, P.E.
Sr. Vice President

10/02/18

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 151.292 ft Self Support tower designed by ROHN.

The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

Building Code:	2012 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	145 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.275 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
148.0	149.0	3	amphenol	QUAD656C0000X w/ Mount Pipe	2	1-5/8
		1	commscope	CBC1923T-DS-43		
		4	commscope	HBXX-6517DS-A2M w/ Mount Pipe		
		2	commscope	JAHH-65B-R3B w/ Mount Pipe		
		3	commscope	LNX-6514DS-AIM w/ Mount Pipe		
		3	nokia	B25 RRH4X30 (UHFA)		
		3	nokia	B66A RRH4X45 (UHIE)		
		2	rfs celwave	DB-B1-6C-12AB-0Z		
		3	samsung telecommunications	RFV01U-D1A		
	148.0	1	crown mounts	SM 510-3		

Table 2 – Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
150.0	157.0	1	telewave	ANT150F2	1	7/8
	155.0	1	motorola	WB2623		
	153.0	1	tower mounts	2.5' x 2-3/8" Pipe Mount		
146.0	146.0	1	panasonic	WV-CW864	2	3/8
133.0	134.0	3	kathrein	800 10504 w/ Mount Pipe	6	1-5/8
	133.0	1	crown mounts	SM 104-3		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
128.0	130.0	1	motorola	SC614	1	7/8
		1	motorola	WB2623		
		1	telewave	ANT150F2		
	128.0	1	crown mounts	SO 305-1		
121.0	122.0	3	alcatel lucent	1900MHz RRH (65MHz)	4	1-1/4
		3	alcatel lucent	800MHz 2X50W RRH W/FILTER		
		3	alcatel lucent	TD-RRH8x20-25		
		1	rfs celwave	APXV9ERR18-C-A20 w/ Mount Pipe		
		2	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		
		3	rfs celwave	APXVTM14-C-120 w/ Mount Pipe		
	121.0	1	crown mounts	SM 505-3		
103.0	103.0	3	commscope	LNX-6515DS-VTM	6 1	1-5/8 1-1/4
		1	crown mounts	SM 701-3		
		3	ericsson	ERICSSON AIR 21 B2A B4P		
		3	ericsson	ERICSSON AIR 21 B4A B2P		
		3	ericsson	KRY 112 144/1		
		3	ericsson	RRUS 11 B12		
90.0	96.0	1	rfs celwave	BLR8-A-B1	-	-
	90.0	1	crown mounts	SO 302-1		
83.0	95.0	1	motorola	WB2623	2	1/4
	90.0	1	telewave	ANT150D3		
	83.0	1	crown mounts	SO 305-1		
61.0	61.0	1	maxrad	BM0T8905	1	1/4
50.0	52.0	1	lucent	KS24019-L112A	1	1/2
	50.0	1	crown mounts	SO 305-1		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Dr. Clarence Welti P.E.,P.C.	258373	CCISITES
4-POST-MODIFICATION INSPECTION	Paul J.Ford & Company	2457484	CCISITES
4-POST-MODIFICATION INSPECTION	Paul J.Ford & Company	3046703	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	ROHN	958525	CCISITES
4-TOWER MANUFACTURER DRAWINGS	ROHN	258359	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Vertical Structures, inc.	2215933	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Paul J.Ford & Company	2457486	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Paul J.Ford & Company	2883931	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	All Points Technology Corp. P.C.	801526	CCISITES
4-TOWER STRUCTURAL ANALYSIS REPORTS	Paul J.Ford & Company	6922296	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.4.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built and maintained in accordance with the manufacturer's specifications.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3) The existing base plate grout was considered in this analysis. Grout must be maintained and inspected periodically and must be replaced if damaged or cracked. Refer to Crown Castle document ENG-PRC-10012, Base Plate Grout Repair.
4) Tectonic did not analyze the antenna supporting mounts as a part of this analysis report and assumed they are structurally sufficient. It is the carrier's responsibility to ensure structural compliance of their existing and/or proposed antenna supporting mounts.
5) Certain soil parameters and aspects of tower geometry are based on the previous analysis report by Paul J. Ford & Company, referenced above.
6) The tower foundation is sufficient without the foundation modifications, therefore they have no been considered.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	151.292 - 146.229	Leg	ROHN 2.5 STD	3	-5.25	80.51	12.4	Pass
T2	146.229 - 141.167	Leg	ROHN 2.5 STD	15	-9.40	80.51	18.0	Pass
T3	141.167 - 121.042	Leg	ROHN 2.5 EH	24	-28.01	61.44	45.6	Pass
T4	121.042 - 114.313	Leg	ROHN 2.5 EH (GR)	48	-38.53	67.62	57.0	Pass
T5	114.313 - 107.646	Leg	ROHN 2.5 EH (GR)	57	-49.24	67.62	72.8	Pass
T6	107.646 - 100.917	Leg	ROHN 2.5 EH (GR)	66	-59.31	105.08	56.4	Pass
T7	100.917 - 94.2014	Leg	ROHN 3 EH (GR)	78	-71.09	113.83	62.5	Pass
T8	94.2014 - 87.4861	Leg	ROHN 3 EH (GR)	87	-82.25	152.46	53.9	Pass
T9	87.4861 - 80.7708	Leg	ROHN 3 EH (GR)	99	-94.08	152.91	61.5	Pass
T10	80.7708 - 70.6875	Leg	ROHN 4 EH (GR)	111	-109.26	149.92	72.9	Pass
T11	70.6875 - 60.6041	Leg	ROHN 4 EH (GR)	120	-126.32	222.64	56.7 60.2 (b)	Pass
T12	60.6041 - 50.5104	Leg	ROHN 4 EH (GR)	132	-144.45	223.85	64.5	Pass
T13	50.5104 - 40.4166	Leg	ROHN 4 EH (GR)	144	-162.12	223.96	72.4	Pass
T14	40.4166 - 30.3125	Leg	ROHN 5 EH (GR)	156	-180.63	259.32	69.7	Pass
T15	30.3125 - 20.2083	Leg	ROHN 5 EH (GR)	165	-197.33	336.62	58.6 66.5 (b)	Pass
T16	20.2083 - 10.1041	Leg	ROHN 5 EH (GR)	177	-215.98	336.70	64.1	Pass
T17	10.1041 - 0	Leg	ROHN 5 EH (GR)	189	-231.68	336.76	68.8	Pass
T1	151.292 - 146.229	Diagonal	L 1.5 x 1.5 x 3/16	9	-1.00	4.64	21.6	Pass
T2	146.229 - 141.167	Diagonal	L 2 x 2 x 3/16	18	-3.24	11.40	28.4 41.5 (b)	Pass
T3	141.167 - 121.042	Diagonal	L2 1/2x2 1/2x3/16	30	-4.31	13.41	32.1 64.9 (b)	Pass
T4	121.042 - 114.313	Diagonal	L2 1/2x2 1/2x3/16	51	-5.77	13.61	42.4	Pass
T5	114.313 - 107.646	Diagonal	L2 1/2x2 1/2x3/16	60	-5.84	12.63	46.3	Pass
T6	107.646 - 100.917	Diagonal	2L 2.5 x 2.5 x 3/16 (3/16)	69	-6.96	44.34	15.7 51.3 (b)	Pass
T7	100.917 - 94.2014	Diagonal	L3x3x3/16	81	-7.38	18.03	40.9 50.6 (b)	Pass
T8	94.2014 - 87.4861	Diagonal	L3x3x3/16	90	-7.81	14.71	53.1	Pass
T9	87.4861 - 80.7708	Diagonal	2L 3 x 3 x 3/16 (1/4)	102	-8.25	51.56	16.0 61.4 (b)	Pass
T10	80.7708 - 70.6875	Diagonal	2L3x3x3/16x1/4	114	-9.27	43.37	21.4 63.8 (b)	Pass
T11	70.6875 - 60.6041	Diagonal	2L3x3x3/16x1/4	123	-10.00	38.91	25.7 64.8 (b)	Pass
T12	60.6041 -	Diagonal	2L3x3x1/4x1/4	135	-10.18	48.37	21.0	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
	50.5104						66.6 (b)	
T13	50.5104 - 40.4166	Diagonal	2L3x3x1/4x1/4	147	-10.69	44.31	24.1 40.8 (b)	Pass
T14	40.4166 - 30.3125	Diagonal	2L3 1/2x3 1/2x1/4x1/4	159	-10.65	65.18	16.3 43.6 (b)	Pass
T15	30.3125 - 20.2083	Diagonal	2L3 1/2x3 1/2x1/4x1/4	168	-12.01	58.97	20.4 43.9 (b)	Pass
T16	20.2083 - 10.1041	Diagonal	2L 4 x 4 x 1/4 (1/4)	180	-11.52	79.52	14.5 46.3 (b)	Pass
T17	10.1041 - 0	Diagonal	2L 4 x 4 x 1/4 (1/4)	192	-13.21	74.02	17.9 46.2 (b)	Pass
T6	107.646 - 100.917	Secondary Horizontal	L 2 x 2 x 3/16	74	-1.03	6.42	16.0	Pass
T8	94.2014 - 87.4861	Secondary Horizontal	L 2 x 2 x 3/16	95	-1.43	5.20	27.4	Pass
T9	87.4861 - 80.7708	Secondary Horizontal	L 2 x 2 x 3/16	107	-1.63	4.70	34.7	Pass
T11	70.6875 - 60.6041	Secondary Horizontal	L2 1/2x2 1/2x3/16	128	-2.19	7.38	29.7	Pass
T12	60.6041 - 50.5104	Secondary Horizontal	L3x3x1/4	140	-2.51	14.88	16.8 27.0 (b)	Pass
T13	50.5104 - 40.4166	Secondary Horizontal	L3x3x1/4	152	-2.81	13.20	21.3 30.3 (b)	Pass
T15	30.3125 - 20.2083	Secondary Horizontal	L 3 x 3 x 3/16	173	-3.42	8.25	41.5 41.6 (b)	Pass
T16	20.2083 - 10.1041	Secondary Horizontal	L3x3x3/16	185	-3.75	7.46	50.2	Pass
T17	10.1041 - 0	Secondary Horizontal	L 3.5 x 3.5 x 1/4	197	-4.02	14.30	28.1 36.7 (b)	Pass
T1	151.292 - 146.229	Top Girt	L2 1/2x2 1/2x3/16	5	-0.16	7.01	2.3	Pass
T3	141.167 - 121.042	Top Girt	L2 1/2x2 1/2x3/16	25	-0.88	6.99	12.6 14.2 (b)	Pass
							Summary	
						Leg (T10)	72.9	Pass
						Diagonal (T12)	66.6	Pass
						Secondary Horizontal (T16)	50.2	Pass
						Top Girt (T3)	14.2	Pass
						Bolt Checks	66.6	Pass
						Rating* =	72.9	Pass

*Rating per TIA-222-H Section 15.5

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	0	72.6	Pass
1,2	Base Foundation	0	52.1	Pass
1,2	Base Foundation Soil Interaction	0	78.2	Pass

Structure Rating (max from all components) =	78.2%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.
2) Rating per TIA-222-H Section15.5

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

The existing base plate grout was considered in this analysis. Grout must be maintained and inspected periodically and must be replaced if damaged or cracked. Refer to Crown Castle document ENG-PRC-10012, Base Plate Grout Repair.

Date: **October 10, 2018**

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Westminster, CO 80003
(919) 782-2710
brandon.little@ets-pllc.com

Subject:	**Mount Structural Analysis**	
Contractor Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	1949
	Carrier Site Name:	East Lyme CT
Crown Castle Designation:	**Crown Castle BU Number:**	806384
	Crown Castle Site Name:	NLN 136 943455
	Crown Castle JDE Number:	534510
	Crown Castle PO Number:	1263858
	Crown Castle Application Number:	461220 Rev. 0
Engineering Firm Designation:	**ETS Project No.:**	184435.14
Site Data:	**93 Roxbury Road, East Lyme, New London County, CT 06357** **Latitude: 41° 20' 8.35" Longitude: -72° 13' 18.28"**	
Structure Information:	**Tower Height & Type:**	151.3-ft Self Support
	Mount Elevation:	148.0-ft
	Mount Width & Type:	14.0-ft Sector Mount

Dear Charles McGuirt,

Engineered Tower Solutions, PLLC is pleased to submit this **"Mount Structural Analysis Report"** to determine the structural integrity of *Verizon Wireless* antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Sector Mount (Multiple) **Sufficient Capacity**

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 135 mph as required by the ***2016 Connecticut State Building Code***. Applicable Standard references and design criteria are listed in Section 2 – Analysis Criteria.

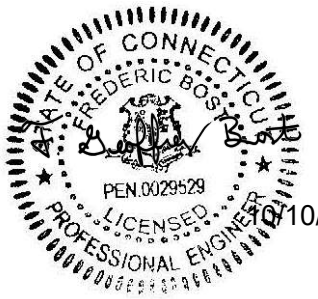
We at Engineered Tower Solutions, PLLC appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount structural analysis prepared by:

Helen Tesfaye, EI
Structural Engineer I

Respectfully Submitted by:

Frederic G. Bost, PE
Owner/President



10/10/18

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1) INTRODUCTION

This mount is a 14.0 ft Sector mount installed at the 148.0 ft elevation of the 151.3 ft Self Support tower designed by ROHN. Engineered Tower Solutions, PLLC, did not visit the site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis

2) ANALYSIS CRITERIA

Building Code:	2012 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	135 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic Ss:	0.162
Seismic S1:	0.058
Service Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 – Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
148.0	149.0	3	AMPHENOL	QUAD656C0000X	(3) 14.0 ft Sector Mount
		4	COMMSCOPE	HBXX-6517DS-A2M	
		2	COMMSCOPE	JAHH-65B-R3B	
		3	COMMSCOPE	LNX-6514DS-AIM	
		1	COMMSCOPE	CBC1923T-DS-43	
		3	NOKIA	B25 RRH4X30 (UHFA)	
		3	NOKIA	B66A RRH4X45 (UHIE)	
		2	RFS/CELWAVE	DB-B1-6C-12AB-OZ	
		3	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A	

3) ANALYSIS PROCEDURE

Table 2 – Documents Provided

Document	Remarks	Reference	Source
Structural Level Drawings (Installed)	Crown Castle	09/25/2018	CCI Sites
Structural Level Drawing (Proposed)	Crown Castle	09/25/2018	CCI Sites
Carrier Application	App # 461220 Rev. 0	09/24/2018	CCI Sites
4-Structural Analysis Report	Tectonic	7891948	CCI Sites

3.1) Analysis Method

RISA-3D (version 16.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix C.

3.2) Assumptions

1) Engineered Tower Solutions, PLLC, did not visit the site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis
2) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specification.
3) The configuration of antennas, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
6) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
7) Engineered Tower Solutions, PLLC makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of the mount. Engineered Tower Solutions, PLLC will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of Engineered Tower Solutions, PLLC pursuant to this report will be limited to the total fee received for compilation of this report.
8) It is the tower owner's responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
9) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of Engineered Tower Solutions, PLLC.
10) Member connections are assumed to have been designed to meet or exceed the theoretical capacity of the connected member.
11) Steel grades have been assumed as follows:

a)	Channel, Solid Round, Angle, Plate	ASTM A36 (Gr 36)
b)	HSS (Rectangular)	ASTM 500 (Gr B-46)
c)	HSS (Round)	ASTM 500 (Gr B-42)
d)	Pipe	ASTM A53 (Gr 35)
e)	Connection Bolts	ASTM A325
f)	U-Bolts	SAE 429 Gr.2

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

4) ANALYSIS RESULTS

Table 3a – Mount Component Stresses vs. Capacity: Alpha Sector

Mount Centerline (ft)	Component	% Capacity	Pass/Fail	Notes
148.0	Face Mount – Horizontal	49.8	PASS	1
	Mount Pipe – Vertical	87.8	PASS	1
	Sidearm – Horizontal	63.1	PASS	1

Table 3b – Mount Component Stresses vs. Capacity: Beta Sector

Mount Centerline (ft)	Component	% Capacity	Pass/Fail	Notes
148.0	Face Mount – Horizontal	51.6	PASS	1
	Mount Pipe – Vertical	95.8	PASS	1
	Sidearm – Horizontal	71.1	PASS	1

Table 3c – Mount Component Stresses vs. Capacity: Gamma Sector

Mount Centerline (ft)	Component	% Capacity	Pass/Fail	Notes
148.0	Face Mount – Horizontal	40.3	PASS	1
	Mount Pipe – Vertical	75.1	PASS	1
	Sidearm – Horizontal	67.7	PASS	1

Notes:
1) See additional documentation in "Appendix C – Software Analysis Output" for calculations supporting the % capacity consumed.

Tower Mount Rating (max from all components) =	**95.8%**

Table 4 – Tieback Connection Data Table (Alpha Sector)

Tower Connection Node No.	Existing/ Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb)[3]	Notes
38	Existing	2892.5	Leg	ROHN 2.5 STD	864.1	2

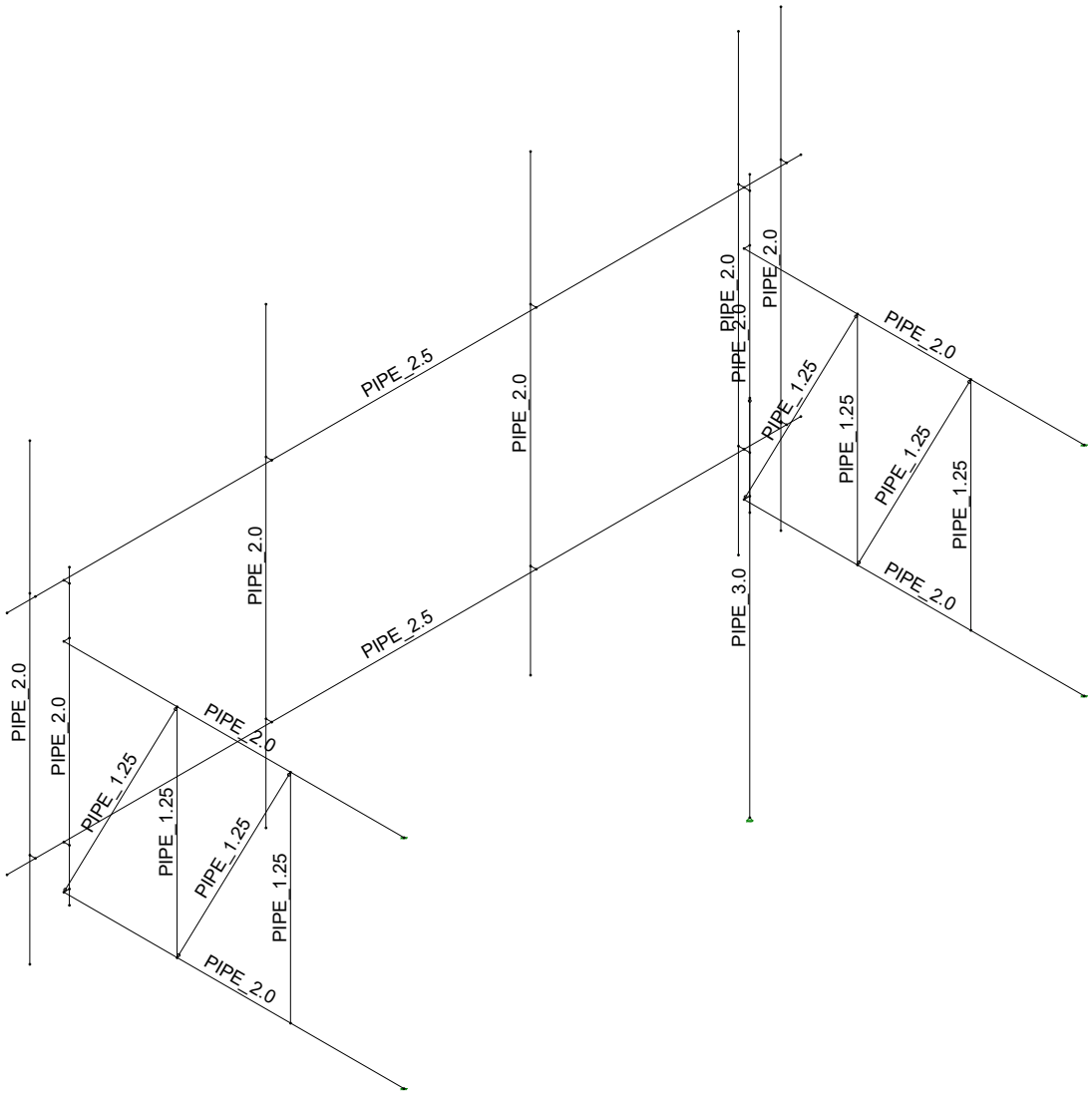
Notes:
1) Tieback connection point is within 25% of either end of the connected tower member
2) Tieback connection point is NOT within 25% of either end of the connected tower member
3) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*

4.1) Recommendations

The tower mount has sufficient capacity to carry the existing and proposed load configuration. No modifications are required at this time.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



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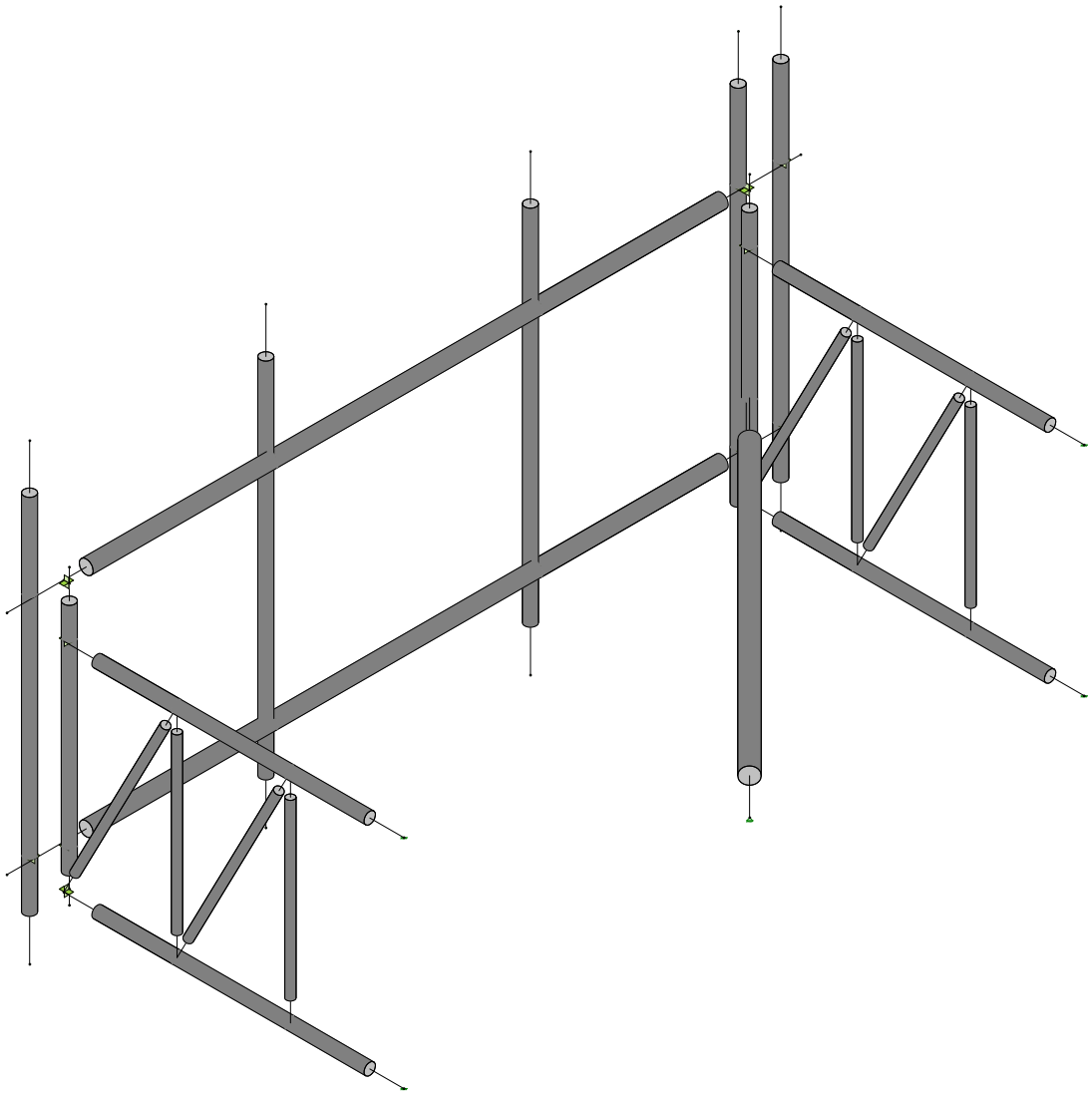

ETS	806384 - NLN 136 943455	SK - 2
HHT		Oct 9, 2018 at 1:04 PM
184435.14		NLN 136 943455_Loaded.r3d

Site Name: Newtown CT SC6
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	1	6086.07	6086.07	173	0.0731	1.0	7.31%
VZW Cellular	869	1	3709.2	3709.2	173	0.0446	0.579333333	7.69%
VZW AWS	2145	1	9129.12	9129.12	173	0.1097	1.0	10.97%
VZW 700	746	1	3085.2	3085.2	173	0.0371	0.497333333	7.45%

Total Percentage of Maximum Permissible Exposure 33.43%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
2. continuous transmission from all available channels at full power for indefinite time period; and,
3. all RF energy is assumed to be directed solely to the base of the pole.

December 7,2018

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The following is the proof-of-delivery for tracking number **773903568075**.

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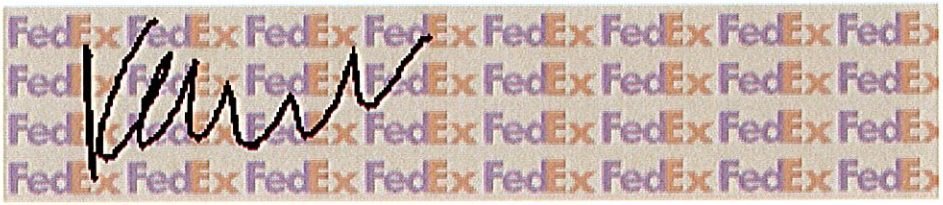
Signed for by:	K.GALBO	**Delivery location:**	108 PENNSYLVANIA AVE. NIANTIC, CT 06357
Service type:	FedEx Priority Overnight	**Delivery date:**	Dec 7, 2018 09:43
Special Handling:	Deliver Weekday		



Shipping Information:

Tracking number:	773903568075	**Ship date:**	Dec 6, 2018
		Weight:	0.5 lbs/0.2 kg

Recipient:
Mark K. Nickerson
Town of East Lyme
108 Pennsylvania Ave.
NIANTIC, CT 06357 US

Shipper:
Kristian McKay
3530 Toringdon Way
STE 300
CHARLOTTE, NC 28277 US

Reference
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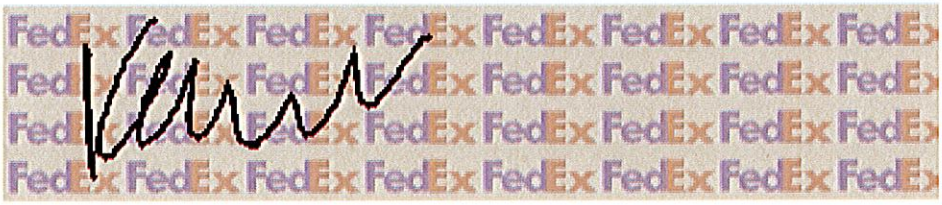

Shipping Information:

Tracking number:	773903616324	**Ship date:**	Dec 6, 2018
		Weight:	0.5 lbs/0.2 kg

Recipient:
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