NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
199 Brickyard Rd Farmington, CT 06032
860-209-4690
denise@northeastsitesolutions.com

March 21, 2017

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
150 East Aurora Street, Waterbury CT 06708
Latitude: 41.57500000
Longitude: -73.05830000
T-Mobile Site#: CTNH334A_L1900

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing 109.4-foot smokestack located at 150 East Aurora Street, Waterbury CT 06708. The smokestack was approved by Waterbury PZC and is no longer under the City of Waterbury's jurisdiction. T-Mobile currently maintains six (6) antennas at the 105-foot level of the existing 109.4-foot smokestack. The smokestack is owned by American Tower Corporation. The property is owned by 150 East Aurora Storage & Light MFG LLC. T-Mobile now intends to replace three (3) existing antenna with three (3) new 700MHz antenna and add three (3) new 1900/2100 MHz antenna. The new antennas would be installed at the 105-foot level of the smokestack.

Planned Modifications:

Remove:
NONE

Remove and Replace:
(3)KRC118048 Antenna **(Remove) –** (3) LNX6515DS A1M Antenna **(Replace)**

Install New:
(3) AIR32DB B66Aa B2a Antenna
(1) Hybrid Cable

Existing to Remain:
(3)KRC118023 Antenna
(3) TMA
(3)RRUS11 B12
(1) Hybrid
(12) 1-5/8" Coax

NORTHEAST SITE SOLUTIONS

Turnkey Wireless Development

This facility was approved by the City of Waterbury PZC. On June 27, 2006 – Approved by the City of Waterbury to install antenna to the existing smokestack. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to Mayor Neil M. O'Leary, Elected Official for the City of Waterbury and James A. Sequin, City Planner as well as the property owner and the tower owner.

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

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

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

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

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

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

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

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

Sincerely,

Denise Sabo
Mobile: 860-209-4690
Fax: 413-521-0558
Office: 199 Brickyard Rd, Farmington, CT 06032
Email: denise@northeastsitesolutions.com

Attachments
cc: Neil O'Leary- Mayor - as elected official
James A. Sequin- City Planner

NORTHEAST
SITE SOLUTIONS
Turnkey Wireless Development

American Tower Corporation - as tower owner
150 East Aurora Storage & Light MFG LLC - as property owner

54 Main Street Unit 3 | Sturbridge Ma 01566 | f: 413-521-0558 | www.northeastsitesolutions.com

Exhibit A

DEPARTMENT OF PLANNING
CITY OF WATERBURY
235 GRAND STREET
WATERBURY, CONNECTICUT 06702
Tel. (203) 574-6818 Fax (203) 346-3949

no wetlands

James A. Sequin, AICP
City Planner

APPLICATION FOR A CERTIFICATE OF ZONING COMPLIANCE

(SHADED AREAS FOR STAFF USE)

ADDRESS: 150 E AURORA ST
TAX ID:

DATE: 1-7-08

APPLICANT:

Name:	T-Mobile / OMNIPT
Address:	100 Filley ST
City, State, Zip	Bloomfield CT 06002
Phone:	516-807-1983 - Nick
Fax:	
Email	

PROPERTY OWNER:

Name:	150 E AURORA ST Storage
Address:	25350 Budde Rd
City, State, Zip	Spring TX 77380
Phone:	
Fax:	
Email	

AS BUILT PLAN ATTACHED?	☐ YES	☐ NO
A-2 SURVEY REQUIRED?	☐ YES	☐ NO
SITE VISIT REQUIRED?	☐ YES	☐ NO

ZONING DISTRICT: Fee: $

CHANGE OF USE:
EXISTING USE:
PROPOSED USE:

$75

called 1/9

TYPE OF IMPROVEMENT

- ☐ NEW PRINCIPAL STRUC
- ☐ ADDITION
- ☐ DECK
- ☐ POOL
- ☐ GARAGE
- ☐ FENCE
- ☐ SHED
- ☐ SIGN
- ☒ OTHER

eet.)

CellCite	110'

EARTH EXCAVATION

	Cubic Yards
CUT	
FILL	
REGRADING	

NICK CONDOULIS
nickcondoulis@costrottaconstruction.com

COSTROTTA CONSTRUCTION MANAGEMENT INC.

99 Maple Place
Freeport, NY 11520

office (516) 223-5404
fax (516) 223-5406
cell (516) 807-1983

DEVELOPMENT STANDARDS:	Provided	
LOT SIZE (Sq. Ft.)		
FRONTAGE ON PAVED CITY STREET (Feet)		
BUILDING COVERAGE (Sq. Ft.)		
SIDE YARD (Feet)		
SIDE YARD (Feet)		
FRONT YARD (Feet)		
REAR YARD (Feet)		
NUMBER OF ONSITE PARKING SPACES		

COMMISSION ACTIONS:

VARIANCE Type:	☒ Not Needed	☐ Approved	☐ Pending
SPECIAL PERMIT Type:	☒ Not Needed	☐ Approved	☐ Pending
SPECIAL EXCEPTION Type:	☒ Not Needed	☐ Approved	☐ Pending

IMPORTANT INFORMATION

An application for a Certificate of Zoning compliance must be accompanied by a plot plan containing all the information necessary to enable the Zoning Administrator to decide whether the proposed building, alteration, addition, or use complies with all the provisions of these regulations.

The Zoning Administrator may rely on the information submitted above in making a determination of compliance. It is the responsibility of the applicant to assure the accuracy of all information submitted.

NOTICE OF RIGHT TO ADVERTISE (CGS 8-3 (f))

No building permit or certificate of occupancy shall be issued for a building, use or structure subject to the zoning regulations of a municipality without certification in writing by the official charged with the enforcement of such regulations that such building, use or structure is in conformity with such regulations or is a valid nonconforming use under such regulations. Such official shall inform the applicant for any such certification that such applicant may provide notice of such certification by either (1) publication in a newspaper having substantial circulation in such municipality stating that the certification has been issued, or (2) any other method provided for by local ordinance. Any such notice shall contain (A) a description of the building, use or structure, (B) the location of the building, use or structure, (C) the identity of the applicant, and (D) a statement that an aggrieved person may appeal to the zoning board of appeals in accordance within thirty days of the publication of the notice.

I certify that the information submitted herein is accurate to the best of my knowledge and that I have been informed of my right to advertise, at my own expense, notice of any certification received.

Signature: _____ Date: 1-7-08

Office Use Only

CERTIFICATION:

Date Rec'd: Date Completed:

☒ Approved ☐ Denied

Reason for denial:

Signature: Date: 1-7-08

Land Use Officer

The City of Waterbury
DEPARTMENT OF INSPECTION
235 Grand Street, Waterbury, CT 06702
(203) 574-6832

PERMIT NUMBER
7285D

Building Permit

Date: 6-27-06

Applicant:
Company Name: Omnipoint Communications
Address: 100 Filley St
City/State/Zip: Bloomfield CT 06002

Location of Work:
Address: 150 East Aurora St

Location of Owner:
Owner's Name: 150 East Aurora Storage
Address: 25350 Budde Rd
City/State/Zip: Spring TX 77380

Leave is hereby granted to M. Omnipoint Communications

to erect a T-Mobile Antenna

as follows: Length____ ft.; Width____ ft.; No. of Stories____; No. of Rooms____

Building to be used as Commercial

Construction Classification ____ Use Group____

Designed Live Load: 1st____ 2nd____ 3rd____ Roof____

Remarks:____

The conditions on which this permit is granted are, that the said building shall be erected in accordance with the laws of the State of Connecticut, and the ordinances of the City of Waterbury. If any of the statements of said applicant be not true, or if any change is made in said plans or specifications without the consent of the Building Inspector or his duly appointed agents, this permit shall be revocable.

Limited to six months from date. This permit may be sooner revoked for any violation of any ordinance, statute or order of constituted authority. This permit is subject to the condition that should there be any change in the ordinance or statutes or institution of proceedings to establish any building line or other improvements, before said building is completed, then no further work shall be done on said building thereafter conflicting with such new statute, order, ordinance, or institution of proceedings.

E. Gil Mandeline
Building Official

ESTIMATED COST: $ 150,000.00
Permit Fee: $ 3,005.00
State Ed Fee: $ 24.00
CO: $ 25.00
CA: $
Penalty Fee: $
TOTAL AMOUNT: $ 3,054.00

The City of Waterbury
DEPARTMENT OF INSPECTION
235 Grand Street, Waterbury, CT 06702
(203) 574-6832

Certificate Number
32492

Certificate of Use and Occupancy

Date: _____

This Certificate Must be Signed Before Building Can be Occupied.

This is to certify that address 150 East Aurora St may be used for T-Mobile antenna and is in compliance with the provisions of the State of Connecticut Basic Building Code.

Use Group (in accordance with provisions of Article 3): _____

Fire Grading (as defined in Table 902): _____

Maximum Live Load (as prescribed in Table 1106, p.s.f.): 1st _____ 2nd _____ 3rd _____

Permit No. 7285D Date: 6-27-06

Special Building Permit Stipulations and Conditions:

_____

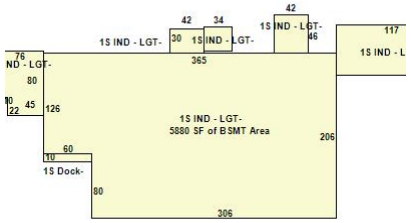
_____

_____
Building Official

REQUIRED?	DEPARTMENT	
● Yes ○ No	Zoning:	
○ Yes ● No	Engineering:	
○ Yes ● No	City Plan:	
● Yes ○ No	Fire Marshal:	1-7-08
○ Yes ● No	Inland Wetlands:	
○ Yes ● No	Health Dept:	
○ Yes ● No	Traffic Dept:	
○ Yes ● No	Delinquent Tax:	
○ Yes ● No	Water Dept:	
○ Yes ● No	Waste Disposal:	

Exhibit B

Location: 150 EAST AURORA ST **Owner:** 150 EAST AURORA STORAGE AND LIGHT MFG LL



Property Information:

Map Block Lot:	0143-0783-0021	**Acres:**	2.52
Primary Use:	Light Industrial	**Zone:**	IG
Neighborhood:	80000-Industrial General	**Vol/Page:**	5612
Mailing Address:	150 EAST AURORA STORAGE AND LIGHT MFG LL 25350 BUDDE RD SPRING TX 77380		

Property Values:

	Appraised Value	Assessed Value (70%)
Building	667113	466980
Land	232848	162990
OutBuilding	22082	15460
Total	922043	645430

Sales Information:

Sale Date	Sale Price	Sale Type	Valid sale

12/16/2005	610000	Additional Parcel	No
6/23/2004	0	Change of Name	No

Building Information:

Bldg Style:		**Living Area:**	87293sq.ft
Construction:	Average	**Year Built:**	1942
Exterior Wall:	Brick Solid	**Stories:**	1
Roof Cover:		**Heating:**	Forced Air
Condition:	Average	**Heat Fuel:**	
Rooms:	0	**Bedrooms:**	0
Full Baths:	0	**Half Baths:**	0

Building Information:

Bldg Style:		**Living Area:**	2562sq.ft
Construction:	Average	**Year Built:**	1976
Exterior Wall:	Wood Siding	**Stories:**	1
Roof Cover:		**Heating:**	Hot Water
Condition:	Average	**Heat Fuel:**	
Rooms:	0	**Bedrooms:**	0
Full Baths:	0	**Half Baths:**	0

Outbuilding Information:

Type	Area (sq.ft)	Year Built	Condition
Chain Link Fencing	1440sq.ft	1942	Average
Loading Dock Steel Dock	100sq.ft	1942	Average
Asphalt Paving	14000sq.ft	1942	Average
Loading Dock Dock	600sq.ft	1942	Average
Metal Shed	242sq.ft	1942	Average

Special Features:

Feature:	Sprinklers
Feature:	Freight Elevator Power
Feature:	Sprinklers

Permit Information:

Permit Date	Permit Number	Permit Type	Click for Details

10/21/2015	PR20150002806	BD - Demolition	Details
10/12/2010	PR20100001754	BD - Plumbing	Details
10/02/2014	PR20140002790	BD - Electrical	Details
09/25/2009	586-09-E	BD - Electrical	Details
09/25/2009	587-09-E	BD - Electrical	Details
09/18/2014	PR20140002516	BD - Electrical	Details
08/04/2015	PR20150002083	BD - Roofing	Details
07/15/2014	PR20140001836	BD - Plumbing	Details
05/14/2014	PR20140000906	BD - Building	Details
03/16/2016	PR20160000269	BD - Building	Details
01/12/2016	PR20160000071	BD - HVAC	Details
	PR20160002860	BD - Fire Sprinkler	Details
	PR20100001749	FM - Tank	Details

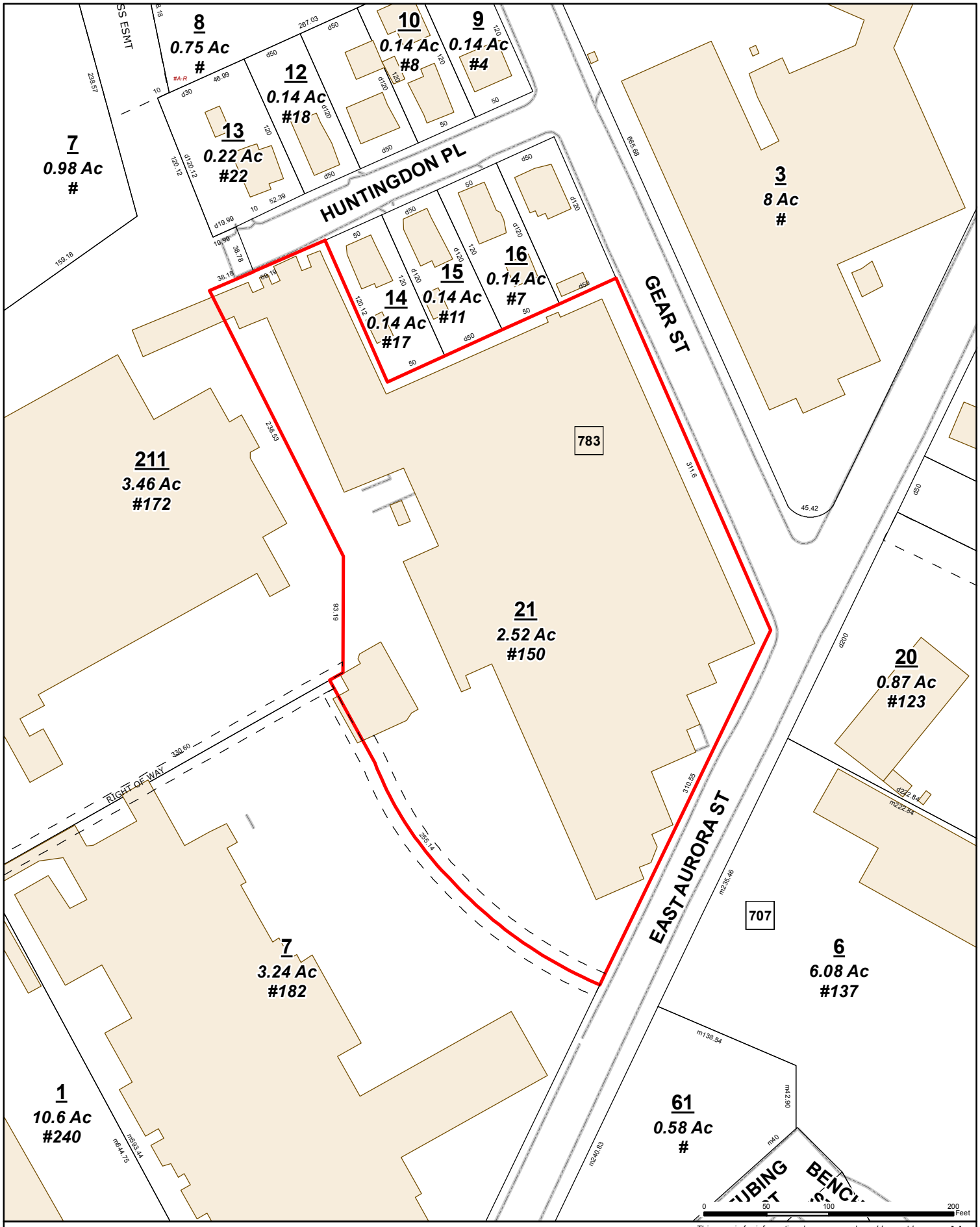
Planning Application:

Application Date	Application Number	Application Type	Click for Details
10/27/2016	PL20160000358	ZBA Variance	Details
06/07/2016	PL20160000194	ZC Special Permit	Details
01/29/2016	PL20160000033	Zoning Permit & Legacy Plot Plan Review with special issues	Details
01/26/2015	PL20150000033	ZBA Variance	Details
01/26/2015	PL20150000032	ZC Special Permit	Details
02/19/2014	PL20140000038	Zoning Permit & Legacy Plot Plan Review with special issues	Details
12/13/2013	PL20130000318	ZC Special Permit	Details

Code Enforcement:

Case Date	Case Number	Case Type	Click for Details
10/09/2013	CE20130000439	PL-Zoning	Details
03/18/2015	CE20150000092	PL-Zoning	Details

Close



City of Waterbury
Public Works Department

MBL: **0143-0783-0021**

ADDRESS: 150 EAST AURORA ST

Exhibit C

T-Mobile

T-MOBILE NORTHEAST LLC

SITE NUMBER:
CTNH334A

SITE NAME:
NH334/E AURORA SMOKESTACK

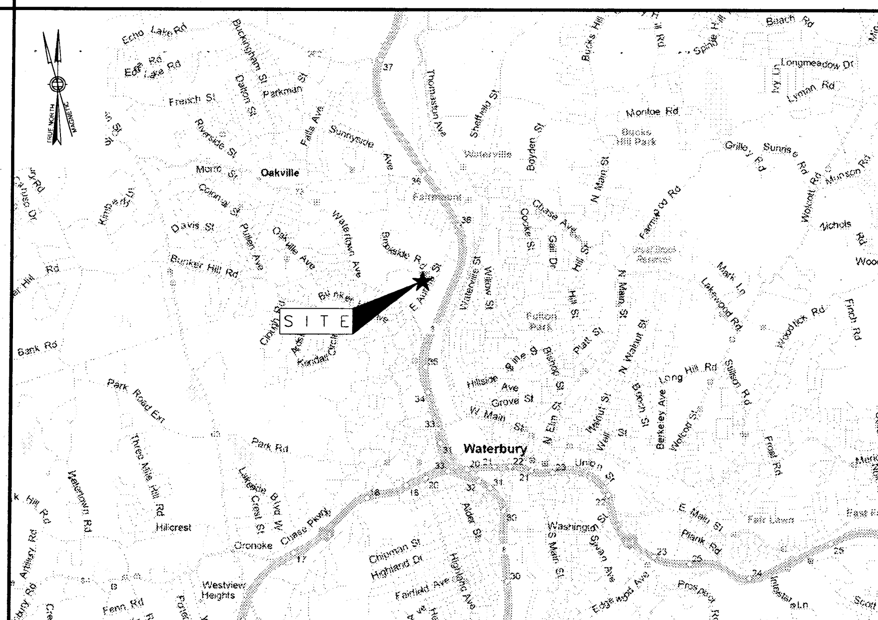
SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

(792DB CONFIGURATION)

SITE INFORMATION

SITE NUMBER:	CTNH334A	TOWER OWNER:	AMERICAN TOWER CORP 116 HUNTINGTON AVE. 11th FLOOR BOSTON, MA 02116
SITE NAME:	NH334/E AURORA SMOKESTACK		
SITE ADDRESS:	150 E AURORA ST WATERBURY, CT 06708	LOCAL POWER COMPANY:	EVERSOURCE
COUNTY:	NEW HAVEN	LOCAL TELCO COMPANY:	LIGHT TOWER
ZONING:	N/A	APPLICANT:	T-MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 P: (860) 648-1116
PARCEL ID:	N/A		
FAA 2-C COORDINATES:	N 41° 34' 30.0" W 72° 03' 29.6"		
GROUND ELEV:	294'-0"± AMSL	SITE ACQUISITION REPRESENTATIVE:	NORTHEAST SITE SOLUTIONS 420 MAIN STREET UNIT #2 STURBRIDGE, MA 01566 P: (860) 394-7021
STRUCTURE TYPE:	SMOKESTACK		
STRUCTURE HEIGHT:	109'-4"± AGL		
ANTENNA RAD CENTER:	105'-0"± AGL	ARCHITECT/ENGINEER:	VERTICAL RESOURCES GROUP 489 WASHINGTON STREET AUBURN, MA 01501 TEL:508-981-9590 FAX:508-519-8939

VICINITY MAP (NOT TO SCALE)



DRAWING INDEX

SHT #	SHEET DESCRIPTION
01	TITLE SHEET
02	GENERAL NOTES
03	ROOF PLAN & ELEVATIONS
04	ANTENNA DETAILS
05	GROUNDING & RF PLUMBING DIAGRAM
06	GROUNDING DETAILS

GENERAL NOTES

1. THIS IS AN IS UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:
   - HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
   - FACILITY HAS NO PLUMBING OR REFRIGERANTS.
   - THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATOR REQUIREMENTS.
2. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
3. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   BUILDING CODE: CONNECTICUT STATE BUILDING CODE
   ELECTRICAL CODE: 2008 (OR LATEST) NATIONAL ELECTRICAL CODE
   STRUCTURAL CODE: TIA/EIA-222-G OR LATEST EDITION

DIRECTIONS:
FROM BLOOMFIELD, CT PROCEED SOUTH ON I-91. CONTINUE THROUGH HARTFORD. TAKE I-91 SOUTH EXIT 32 TOWARDS I-84 WEST. CONTINUE ON I-84 WEST. TAKE I-84 WEST EXIT 20 TOWARDS CT RT-8 NORTH. TAKE CT RT-8 NORTH EXIT 35 TOWARDS RT-73. AT END OF OFF RAMP TURN RIGHT ONTO E AURORA ST. SITE WILL BE ON LEFT.

CONNECTICUT ONE CALL SYSTEM, INC. 1-800-922-4455 STOP-CALL BEFORE YOU DIG!

CALL BEFORE YOU DIG
CBYD.COM

CONNECTICUT LAW REQUIRES TWO WORKING DAYS NOTICE PRIOR TO ANY EARTH MOVING ACTIVITIES BY CALLING 800-922-4455 OR DIAL 811

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

CONSTRUCTION: ______________________ DATE: __________

SITE ACQUISITION: ______________________ DATE: __________

LEASING/
R.F. ENGINEER: ______________________ DATE: __________

LANDLORD/
PROPERTY OWNER: ______________________ DATE: __________

T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
O: 860-692-7100
F: 860-692-7159

NSS
NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET
STURBRIDGE, MA 01566
O: 860-692-7100
F: 860-692-7159

VRG
VERTICAL RESOURCES GRP.
489 WASHINGTON STREET
AUBURN, MA 01501
TEL: 508-981-9590
FAX: 508-519-8939

STATE OF CONNECTICUT JAMES P. STROKE No. 8657 REGISTERED PROFESSIONAL ENGINEER
MAR 14 2017

SUBMITTALS

NO	DATE	DESCRIPTION	BY
3	03/14/17	GENERAL REVISIONS	MN
2	03/01/17	GENERAL REVISIONS	MN
1	02/24/17	GENERAL REVISIONS	MN
0	02/08/17	ISSUED FOR REVIEW	MN

SITE NUMBER:
CTNH334-A

SITE NAME:
NH334/E AURORA SMOKESTACK

SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
01

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – PRIME CONTRACTOR
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – AT&T WIRELESS
   OEM – ORIGINAL EQUIPMENT MANUFACTURER

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 SCALE UNLESS OTHERWISE NOTED 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. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

7. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.

8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. ROUTING OF CONDUIT FOR POWER AND TELCO SHALL BE APPROVED BY OWNER OF SITE.

9. 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.

10. 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.

11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

SITE WORK GENERAL NOTES

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.

3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.

4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, TOP SOIL AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.

6. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.

7. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE OWNER SPECIFICATION FOR SITE SIGNAGE.

8. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE TRANSMISSION EQUIPMENT AND TOWER AREAS.

9. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

10. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION, SEE DETAIL 303.

11. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.

12. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL JURISDICTION'S GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

13. ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH TECHNICAL SPECIFICATION FOR CONSTRUCTION OF RADIO ACCESS NETWORK SITES.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000 PSI) MAY BE USED.

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH.....3 IN
   CONCRETE EXPOSED TO EARTH OR WEATHER:

   #6 AND LARGER .....2 INCH
   #5 AND SMALLER & WWF.....1 1/2 INCH

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

   SLAB AND WALL .....3/4 INCH
   BEAMS AND COLUMNS.....1 1/2 INCH

5. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD HILTI OR APPROVED EQUAL.

7. CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC 1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   (A) RESULTS OF CONCRETE CYLINDER TESTS PERFORMED AT THE SUPPLIER'S PLANT,

   (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.

   FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

8. AS AN ALTERNATIVE TO ITEM 7, TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.

9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

10. ALL CONCRETE SHALL BE SUPPLIED IN ACCORDANCE WITH TECHNICAL SPECIFICATION FOR CONSTRUCTION OF RADIO ACCESS NETWORK SITES.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL, EXPOSE UNDISTURBED NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.

2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.

3. AS AN ALTERNATIVE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING 1" SIEVE.

5. AS AN ALTERNATIVE TO ITEMS 2 AND 3 PROOF ROLL THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). ANY SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL, AND COMPACTED AS STATED ABOVE.

6. COMPACTION CRITERIA FOR OTHER FILL AREAS ON SITE SHALL MEET THE SAME REQUIREMENTS AS NOTED ABOVE.

7. SOIL COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH TECHNICAL SPECIFICATION FOR CONSTRUCTION OF RADIO ACCESS NETWORK SITES.

COMPACTION EQUIPMENT:

HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

ELECTRICAL INSTALLATION NOTES

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.

6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.

7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PERMANENT LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S). NO HAND WRITTEN LABELS ALLOWED.

8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED. NO HAND WRITTEN LABELS ALLOWED.

9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (SIZE 6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (SIZE 14 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND POWER GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.

18. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.

19. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

20. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

21. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.

22. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

23. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS

ELECTRICAL INSTALLATION NOTES (cont.)

24. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

25. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 (HOT-DIP) UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.

3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. STEEL FASTENER HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 (HOT-DIP)

4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.

5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD, HILTI OR APPROVED EQUAL.

6. ALL STRUCTURAL STEEL SHALL BE SUPPLIED IN ACCORDANCE WITH TECHNICAL SPECIFICATION FOR CONSTRUCTION OF RADIO ACCESS NETWORK SITES.

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STATE OF CONNECTICUT
JAMES P. STROKE
No. 8657
REGISTERED PROFESSIONAL ENGINEER
MAR 14 2017

SUBMITTALS

NO	DATE	DESCRIPTION	BY
3	03/14/17	GENERAL REVISIONS	MN
2	03/01/17	GENERAL REVISIONS	MN
1	02/24/17	GENERAL REVISIONS	MN
0	02/08/17	ISSUED FOR REVIEW	MN

SITE NUMBER:
CTNH334-A

SITE NAME:
NH334/E AURORA SMOKESTACK

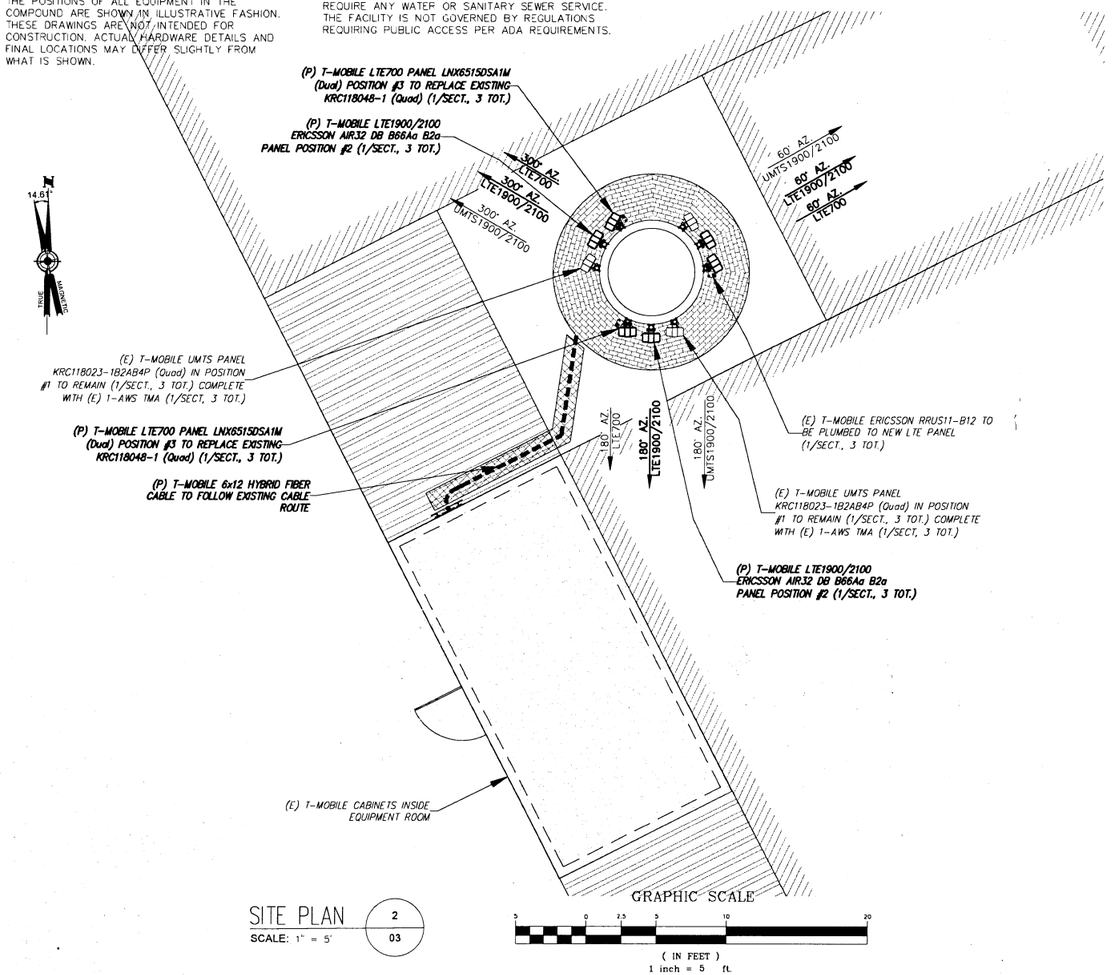
SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

SHEET TITLE:
GENERAL NOTES

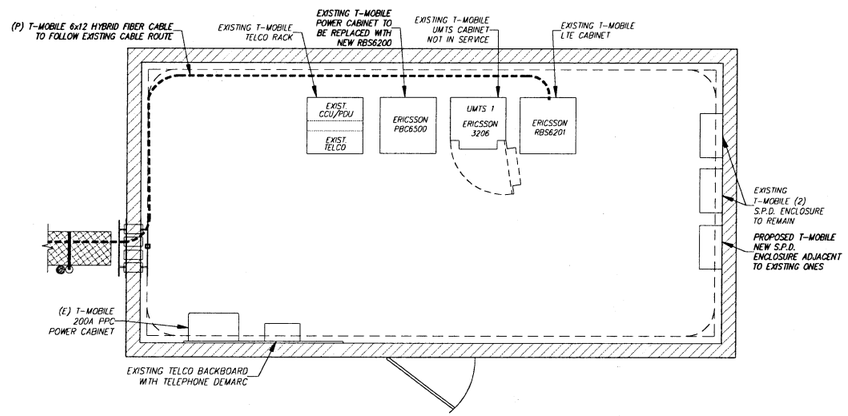
SHEET NUMBER:
02

GENERAL NOTES

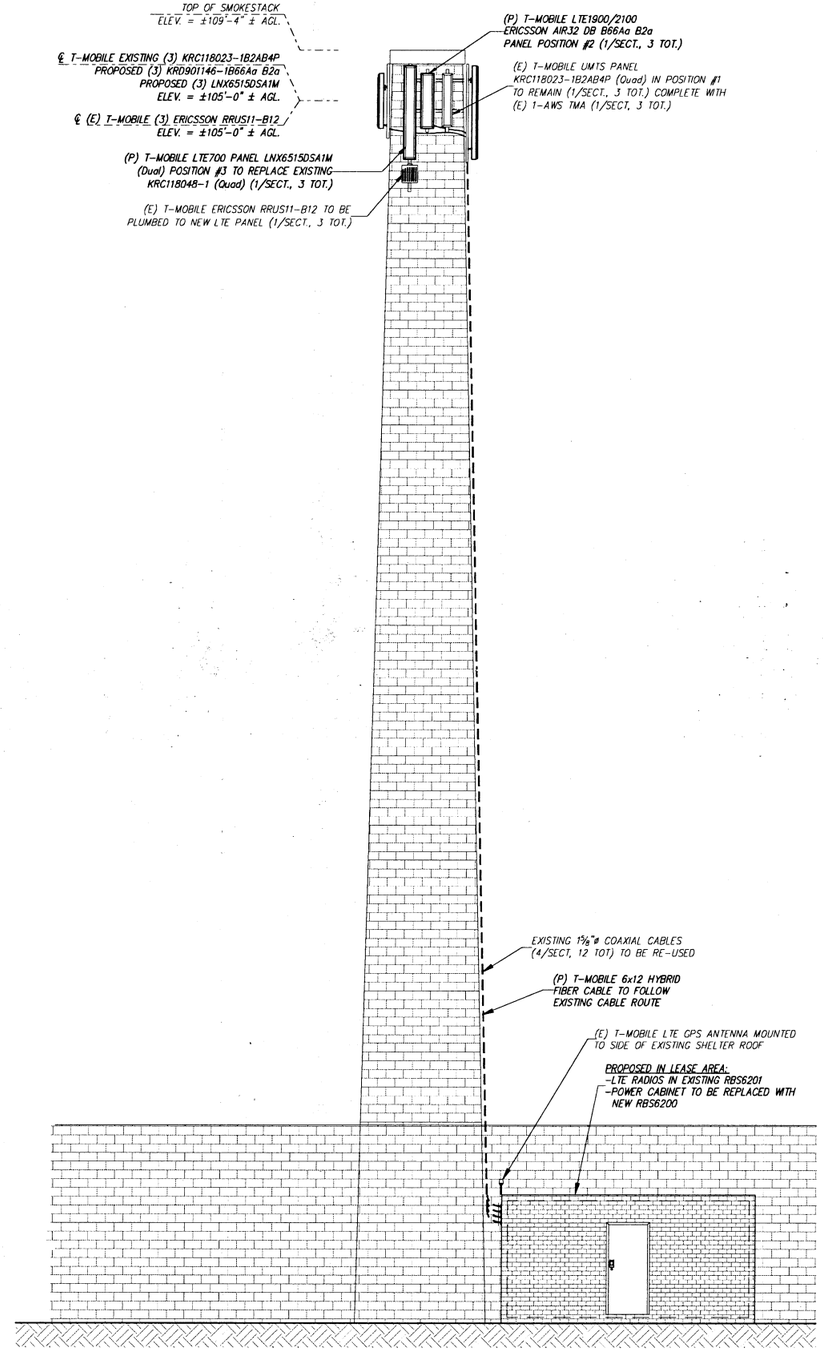
1. THE TYPE, DIMENSIONS, MOUNTING HARDWARE, AND THE POSITIONS OF ALL EQUIPMENT IN THE COMPOUND ARE SHOWN IN ILLUSTRATIVE FASHION. THESE DRAWINGS ARE NOT INTENDED FOR CONSTRUCTION. ACTUAL HARDWARE DETAILS AND FINAL LOCATIONS MAY DIFFER SLIGHTLY FROM WHAT IS SHOWN.
2. THE CELLULAR INSTALLATION IS AN UNMANNED PRIVATE AND SECURED COMPOUND. 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. CONSTRUCTION, MAINTENANCE & OPERATION OF PROPOSED TOWER-FACILITY WILL BE HELD IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS AND GUIDELINES.



SITE PLAN 2/03
SCALE: 1" = 5'



EQUIPMENT ROOM LAYOUT 1/03
SCALE: 1" = 2.5'



TOWER ELEVATION VIEW 3/03
SCALE: N.T.S

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STATE OF CONNECTICUT
JAMES P. STROKE
No. 8657
REGISTERED PROFESSIONAL ENGINEER
MAR 1 2017

SUBMITTALS

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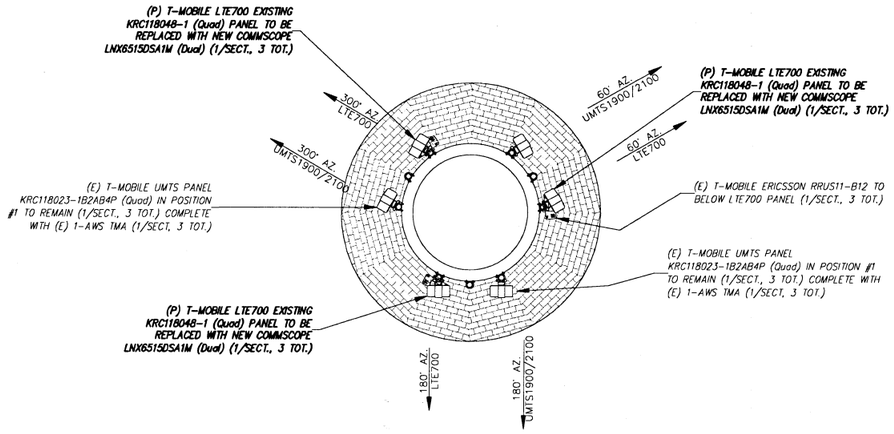
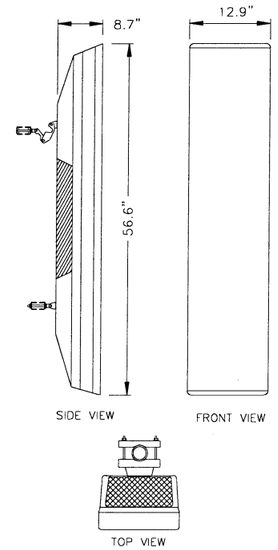
0	02/08/17	ISSUED FOR REVIEW	MN

SITE NUMBER:
CTNH334-A
SITE NAME:
NH334/E AURORA SMOKESTACK
SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708
SHEET TITLE:
SITE PLAN & ELEVATIONS
SHEET NUMBER:
03



EXISTING ANTENNA CONDITIONS 1/04

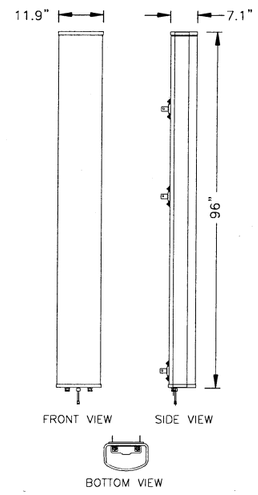
SCALE: N.T.S



MANUFACTURER:	ERICSSON
MODEL:	AIR32 B66Aa B2A
DIMENSIONS:	HxWxD 56.6"x12.9"x8.7"

ANTENNA DETAILS ERICSSON AIR32 B66Aa/B2A 5/04

SCALE: N.T.S

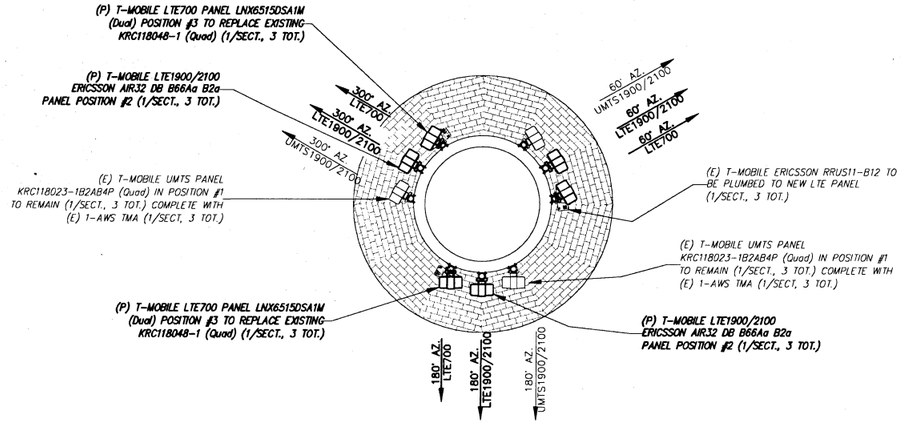


MANUFACTURER:	COMSCOPE
MODEL:	LNX 6515DS A1M
DIMENSIONS:	HxWxD 96"x11.9"x7.1"

ANTENNA DETAILS LNX 6515DS A1M 6/04

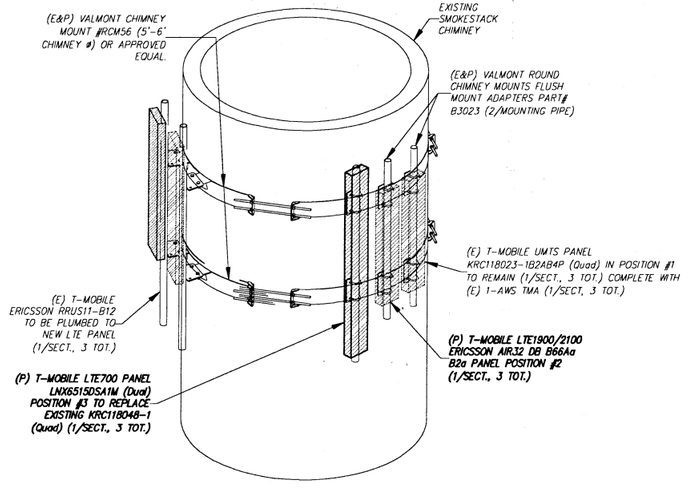
SCALE: N.T.S

NOTES:
REFER TO FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS AND CONFIGURATIONS



PROPOSED ANTENNA CONFIGURATION 2/04

SCALE: N.T.S



ANTENNA & PIPE MAST ATTACHMENT 6/04

SCALE: N.T.S

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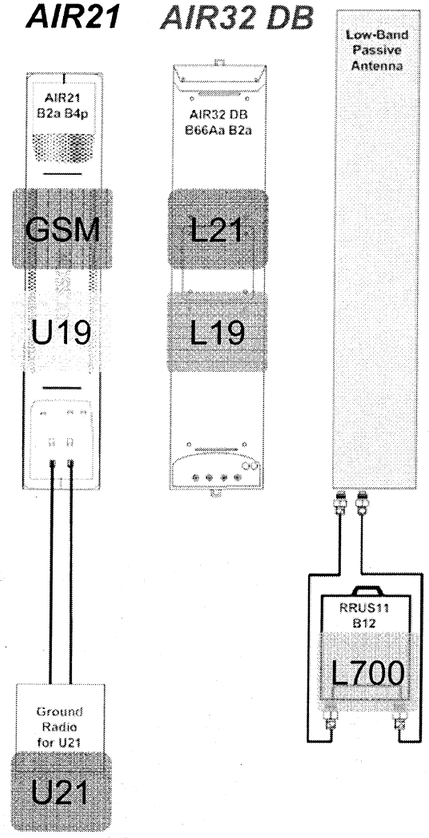
CTNH334-A

SITE NAME:
NH334/E AURORA SMOKESTACK

SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

SHEET TITLE:
ANTENNA DETAILS

SHEET NUMBER:
04



COAX/FIBER CABLE PLUMBING DIAGRAM 1/05

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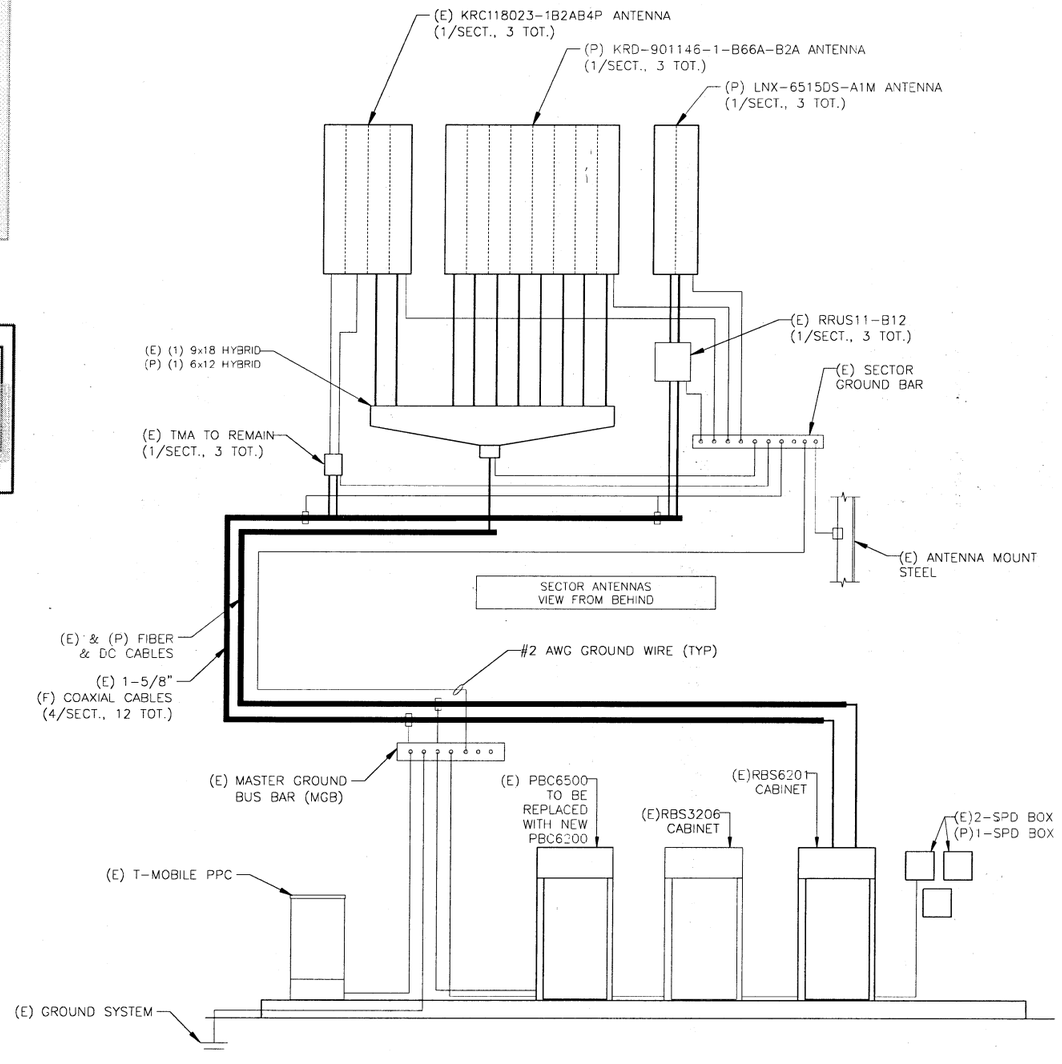

GROUNDING PLUMBING DIAGRAM 2/05

SCALE: N.T.S.

HYBRID FIBER/POWER JUMPER NOTES:

1. IN GENERAL THIS CABLE WILL HANDLE SIMILARLY TO A " COAXIAL CABLE. 38" COAXIAL CABLE.
2. THE TERMINATED FIBER ENDS HOWEVER ARE FRAGILE AND MUST BE PROTECTED DURING INSTALLATION. LEAVE THE PACKAGING AROUND THE FIBER ENDS IN PLACE UNTIL READY TO CONNECT THE JUMPER BETWEEN OVP AND RRU OR BBU.
3. DO NOT BEND THE FIBER BREAKOUT CABLE (BETWEEN THE MAIN CABLE AND THE FIBER CONNECTOR) TIGHTER THAN " (19MM) RADIUS, ELSE THERE IS A RISK OF BREAKING THE GLASS. 34" (19MM) RADIUS, ELSE THERE IS A RISK OF BREAKING THE GLASS.
4. ATTACH THE MAIN CABLE SECURELY TO THE STRUCTURE OR EQUIPMENT USING HANGERS AND/OR CABLE TIES TO PREVENT STRAIN ON CONNECTIONS FROM MOVEMENT IN WIND OR SNOW/ICE CONDITIONS.
5. ENSURE THE LC FIBER CONNECTORS ARE SEATED FIRMLY IN PANEL IN OVP OR IN EQUIPMENT.
6. INSTALLATION TEMPERATURE RANGE IS -22F TO 158F (-30C TO 70C).
7. MINIMUM CABLE BEND RADII ARE 10.3 INCH (265MM) LOADED (WITH TENSION ON THE CABLE) AND 5.2 INCH (130MM) UNLOADED.
8. MAXIMUM CABLE TENSILE LOAD IS 350 LB (1560N) SHORT TERM (DURING INSTALLATION) AND 105 LB (470N) LONG TERM.
9. STANDARD LENGTHS AVAILABLE ARE 6 FEET, 15 FEET AND 20 FEET

TRUNK FIBER NOTES:

1. IN GENERAL THIS CABLE WILL HANDLE SIMILARLY TO " COAXIAL CABLE, AND SIMILAR INSTALLATION TECHNIQUES APPLY. ALL 78" COAXIAL CABLE, AND SIMILAR INSTALLATION TECHNIQUES APPLY. ALL CABLES ARE INDIVIDUALLY SERIALIZED, BE SURE TO WRITE DOWN THE CABLE SERIAL NUMBER FOR FUTURE REFERENCE.
2. THE TERMINATED FIBER ENDS (THE BROKEN OUT FIBERS PLUS CONNECTORS) HOWEVER ARE FRAGILE, AND THESE MUST BE PROTECTED DURING THE INSTALLATION PROCESS.
3. LEAVE THE PROTECTIVE TUBE AND SOCK AROUND THE FIBER TAILS AND CONNECTORS IN PLACE DURING HOISTING AND SECURING THE CABLE. REMOVE THIS ONLY JUST PRIOR TO MAKING THE FINAL CONNECTIONS TO THE OVP BOX.
4. DO NOT BEND THE FIBER ENDS (IN THE ORANGE FURCATION TUBES) TIGHTER THAN " (19MM) BEND RADIUS, ELSE THERE IS 34" (19MM) BEND RADIUS, ELSE THERE IS A RISK OF BREAKING THE GLASS FIBERS.
5. BE SURE THAT THE LACE UP ENDS AND FIBER CONNECTORS ARE NOT DAMAGED BY ATTACHMENT OF A HOISTING GRIP OR DURING THE HOISTING PROCESS, ATTACH A HOISTING GRIP ON THE JACKETED CABLE NO LESS THAN 6 INCHES BELOW THE FIBER BREAKOUT POINT. IF A HOISTING GRIP IS NOT EASILY ATTACHED, USE A SIMPLE LINE ATTACHED BELOW THE FIBER BREAK-OUT POINT (I.E. AT THE CABLE OUTER JACKET). PREVENT THE FIBER TAILS (IN PROTECTIVE TUBE) AT THE CABLE END FROM UNDUE MOVEMENT DURING HOISTING BY SECURING THE PROTECTIVE TUBE (WITH OUTER SOCK) TO THE HOISTING LINE.
6. DURING HOISTING ENSURE THAT THERE IS A FREE PATH AND THAT THE CABLE, AND ESPECIALLY THE FIBER ENDS, WILL NOT CATCH ON TOWER MEMBERS OR OTHER OBSTACLES.
7. INSTALLATION TEMPERATURE RANGE IS -22F TO 158F (-30C TO +70C).
8. MINIMUM CABLE BEND RADII ARE 22.2" (565MM) LOADED (WITH TENSION ON THE CABLE) AND 11.1" (280MM) UNLOADED.
9. MAXIMUM CABLE TENSILE LOAD IS 3560 N (800 LB) SHORT TERM (DURING INSTALLATION) AND 1070 N (240 LB) LONG TERM.
10. COMMSCOPE NON LACE UP GRIP RECOMMENDED FOR MONOPOLE INSTALLATIONS. 11. MAXIMUM HANGER SPACING 3FT (0.9 M).

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STURBRIDGE, MA 01566
O: 860-692-7100
F: 860-692-7159

VRG
VERTICAL RESOURCES GRP.
489 WASHINGTON STREET
AUBURN, MA 01501
TEL: 508-981-9590
FAX: 508-519-8939

STATE OF CONNECTICUT
JAMES P. STROKE
No. 8657
REGISTERED PROFESSIONAL ENGINEER

MAR 14 2017

SUBMITTALS

NO	DATE	DESCRIPTION	BY
3	03/14/17	GENERAL REVISIONS	MN
2	03/01/17	GENERAL REVISIONS	MN
1	02/24/17	GENERAL REVISIONS	MN
0	02/08/17	ISSUED FOR REVIEW	MN

SITE NUMBER:
CTNH334-A

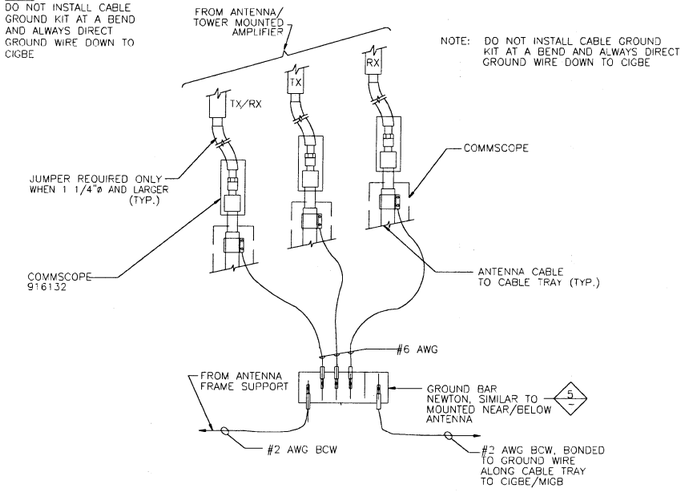
SITE NAME:
NH334/E AURORA SMOKESTACK

SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

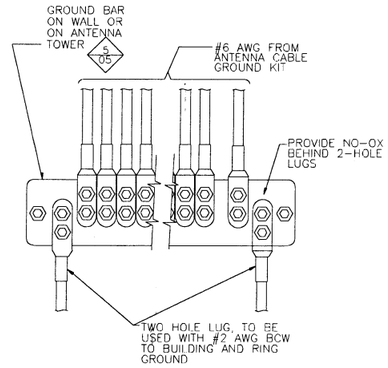
SHEET TITLE:
GROUNDING & RF PLUMBING DIAGRAM

SHEET NUMBER:
05

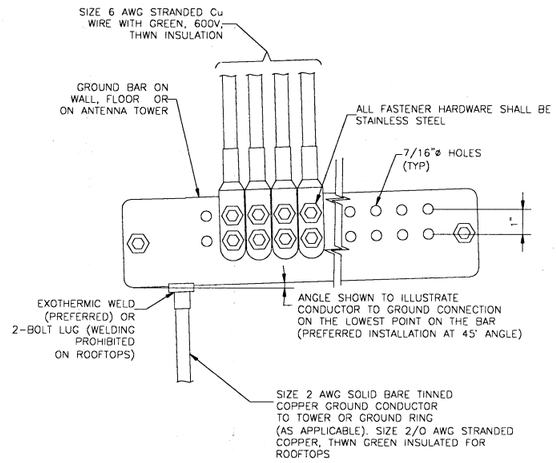
NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE



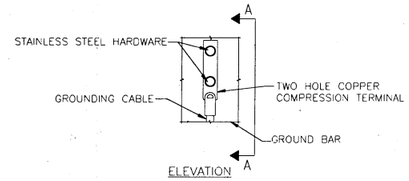
CONNECTION OF GROUND WIRES TO GROUNDING BAR — 1/06
SCALE: N.T.S.

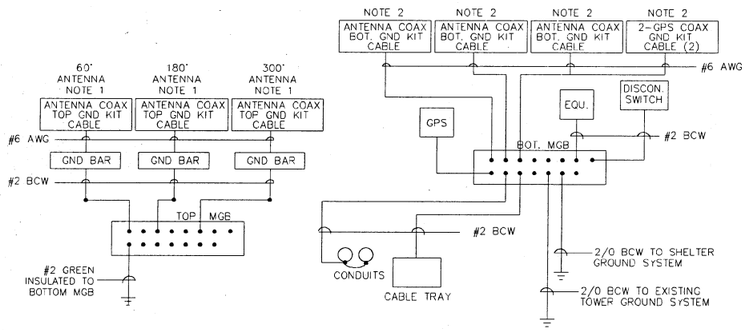


INSTALLATION OF GROUND WIRE TO GROUND BAR — 2/06
SCALE: N.T.S.



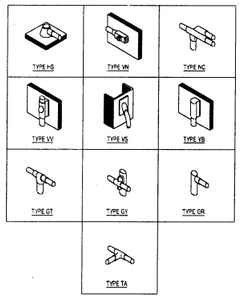
INSTALLATION OF GROUND WIRE TO ANTENNA CABLE GROUND BAR — 5/06
SCALE: N.T.S.





NOTE:
1. BOND ANTENNA GROUNDING KIT CABLE TO TOP CIGBE
2. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIGBE

GROUNDING ONE-LINE DIAGRAM — 3/06
SCALE: N.T.S.

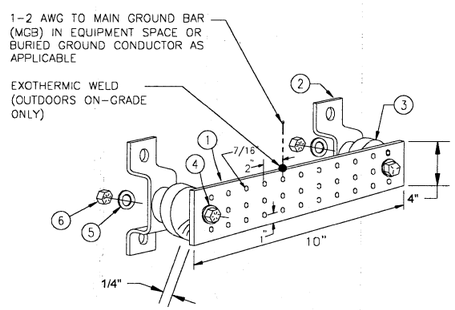


GROUNDING CONNECTION DETAIL — 4/06
SCALE: N.T.S.

NOTES:
1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYP. MECHANICAL CONNECTION — 6/06
SCALE: N.T.S.

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C. OR APPROVED EQUAL			
ITEM	REQ.	PART NO.	DESCRIPTION
①	1	1/4"x4"x12"	PRE DRILLED GND. BAR
②	2	A-6056	WALL MTG. BRKT.
③	2	3061-4	INSULATORS
④	2	3012-13	5/8"-11x4" H.H.C.S.
⑤	4	3015-8	5/8 LOCKWASHER
⑥	2	3014-8	5/8"-11 HEX NUT



GROUND BAR DETAIL — 7/06
SCALE: N.T.S.

T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
O: 860-692-7100
F: 860-692-7159

NSS NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development
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0	02/08/17	ISSUED FOR REVIEW	MN

SITE NUMBER:
CTNH334-A
SITE NAME:
NH334/E AURORA SMOKESTACK
SITE ADDRESS:
150 E AURORA ST
WATERBURY, CT 06708

SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
06

Exhibit D

Vertical Resources Group, Inc.

March 16, 2017

Chuck Regulbuto
Director of Operations
Northeast Site Solutions, LLC
420 Main Street
Sturbridge, MA 01566

SUBJECT: LTE 1900 Analysis Document
American Tower Corp owned existing 109'-4" tall Smoke Stack
T-Mobile Site #: CTNH334-A – NH334/E Aurora Smoke Stack
T-Mobile Project: L1900 Upgrade, 792DB Configuration
150 East Aurora St, Waterbury, CT 06708
Our File: 50-545

The following is to confirm we have reviewed aforementioned smokestack for T-Mobile's proposed replacement of existing (3) Ericsson KRC118048/1 (96.0"x12.1"x8.7", 126Lbs) with new (3) Commscope LNX6515DSA1M (96.0"x11.9"x7.1", 44Lbs), new (3) Ericsson KRD901146/1B66AB2A (56.6"x12.9"x8.7", 132Lbs) together with existing (3) Ericsson AIR21 B2A/B4P (55.0"x12.0"x7.9", 83Lbs), (3) Ericsson RRUS-11B12 (19.7"x1"x7.1", 51Lbs) (3) TMA's (6.1"x6.9"x2.7", 15Lbs) face mounted on the outside existing chimney at elevation ±105'-0".

Code:	Connecticut State Building Code 2016, I.B.C. 2012, ASCE7-10, EIA-222-G
Risk Category:	II
Exposure Category:	'B'
Topographic Category:	1
Wind Speed:	125 Mph (CT B.C. 2016 ultimate gust), 97 Mph (nominal 3 sec gust IBC 1609.3.1) 90Mph (EIA-222-G), 3 sec. Gust Speed
Ice:	¾"radial
Snow:	P_G = ground snow load = 35 Psf (CT B.C. 2016)
Load Combination:	$1.2D + 1.0D_G + 1.6W_O$ $1.2D + 1.0D_G + 1.0D_i + 1.0W_i$
Antenna Mount Type:	Non penetrating Valmont chimney mount RCM56 with flush mount adapters part B3023

Smokestack Existing & Proposed Loading (appurtenances): *install height of ±105'-0"*

Discrete Appurtenances:

(P) 3-Ericsson KRD901146-1B66AB2A	***56.6"x12.9"x8.7"***	***132 Lbs***	***71 Lbs (ice)***
(P) 3-Commscope LNX6515DSA1M	***96.0"x11.9"x7.1"***	***44 Lbs***	***101 Lbs (ice)***
(e) 3-Ericsson KRC118023-1B2AB4P	55.0"x12.0"x7.9"	83 Lbs	63 Lbs (ice)
(e) 3-Generic Style AWS TMA	6.1"x6.9"x2.7"	15 Lbs	5 Lbs (ice)
(e) 3-Ericsson RRUS-11B12	19.7"x17"x7.2"	51 Lbs	33 Lbs (ice)

Linear Appurtenances:

25' – 103' (e) 12- 1⅝"ø Coaxial cables	1.96" outside diameter	0.52 Lbs/Ft
25' – 103' (e) 1- 9x18 1¼"ø Hybridflex	1.54" outside diameter	1.5 Lbs/Ft
25' – 103' (P) 1- 6x12 1¼"ø Hybridflex	***1.54" outside diameter***	***1.5 Lbs/Ft***

Proposed Wind Load:

$F=(q_z)(G_H)(C_A)(A_A)$ $G_H = 0.85$ C_A = Table 2-8

$q_z=(0.00256)(K_Z)(K_{ZT})(K_D)(V^2)(I)$

$K_Z = 1.0$ $K_D = 0.95$ $V = 97$ mph

$K_{ZT} = 1.0$ $I = 1.0$

$q_z= 0.00256(1.0)(1.0)(0.95)(97)^2(1.0) = 22.9 Lbs/Ft^2$

$F_B=(q_z)(G_H)(C_A)(A_A) = (22.9 Lbs/Ft^2)(0.85)(C_A)(A_A) = 19.5 Lbs/Ft^2 * C_A * A_A$

$F_I=(q_z)(G_H)(C_A)(A_A) = (6.1 Lbs/Ft^2)(0.85)(C_A)(A_A) = 5.2 Lbs/Ft^2 * C_A * A_A$

Verification of existing smokestack for new loading:

Total Bare Weight of all sector Appurtenances = 975 Lbs
Total Ice Weight on all sector Appurtenances = 819 Lbs
Total weight to be supported by smokestack (iced condition)= (975Lbs+819Lbs) = 1794Lbs

Verification of existing smokestack for new loading (cont'd):

$F_{Bare\ WindF\ B66AB2A} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(1.35*5.0Ft^2)$ = 132Lbs
$F_{Bare\ WindF\ LNX6515} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(1.4*7.9Ft^2)$ = 218Lbs
$F_{Bare\ WindF\ B2AB4P} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(1.3*8.0Ft^2)$ = 116Lbs
$F_{Bare\ WindF\ RRUS11} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(1.2*2.3Ft^2)$ = 53Lbs
$F_{Bare\ WindF\ AWSTMA} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(1.2*0.3Ft^2)$ = 7Lbs
$F_{Bare\ WindF\ COAX} = 19.5Lbs/Ft^2 * C_A * A_A = (19.5Lbs/Ft^2)(0.8*2Ft/Ft)$ = 31Lbs/Ft

Applied T-Mobile equipment wind load moment about smokestack base:

$M_{TMO\ equipment} = (F_{TMO\ equipment})*(H_{TMO\ equipment}) + M_{TMO\ Coax} = (0.80Kip)*(105Ft) + 91KipFt = 175\ KipFt$

Per Infinigy analysis report dated March 9, 2016 the existing smokestack has the following geometry:

Smokestack top width = 6.42ft
Smokestack bottom width = 9.20ft
Smokestack height = 109.375ft
Resulting smokestack surface area = 852.2SqFt
Smokestack weight = 309.1 Kip.

Applied wind load on existing smokestack:

$F_{Smokestack} = 19.5Lbs/Ft^2 * C_F * A_F = (19.5Lbs/Ft^2)(1.1*852Ft^2) = 18.3Kip$

Applied smokestack wind load moment about smokestack base:

$M_{Smokestack} = (F_{smokestack})*(H_{smokestack}/2) = (18.3Kip)*(54.7Ft)$ = 1001KipFt

Total applied smokestack wind load moment about smokestack base:

$M_{Overturning} = M_{TMO\ equipment} + M_{Smokestack} = 175KipFt + 1001KipFt = 1176KipFt.$

Total Resisting smokestack overturning moment about smokestack base:

$M_{resisting} = W_{stack}*(D_{bot}/2) = (309.1Kip)*(9.2ft/2) = 1420KipFt.$

$M_{resisting} = 1420KipFt. > M_{Overturning} = 1176KipFt.$ OK!

Overturning Check = 1176KipFt / 1420KipFt = 83%

Existing Smokestack is at 83% capacity OK!

The existing smokestack structure is capable of supporting the proposed and existing T-Mobile antenna loading in conformance with the requirements of the Connecticut State Building Code, ASCE7 for a reference wind velocity of 97 mph (3 sec. Gust Speed, nominal IBC 1609.3.1) and ¾" radial ice.

Analysis results stemming from worst case scenarios for bare wind and iced loading for T-Mobile's replacement of (3) KRC118048/1 for (3) LNX6515DSA1M, (3) KRD901146/1B66AB2A, with existing (3) AIR21 B2A/B4P, (3) RRUS-11B12, (3) TMA's (elev. ±105'-0"), with associated DC & fiber cables generate stresses which remain within the allotted capacities in accordance with Connecticut State Building Code, ASCE 7 *Minimum Design Loads for Buildings and other Structures.*

We trust the analysis and recommendations presented in this report will meet your requirements. However, please do not hesitate to contact us if you have any queries, or require any further information regarding this study.

We trust the forgoing information will meet your requirements.

Yours very truly,

Miguel Nobre,P.E.

STATE OF CONNECTICUT JAMES P. STROKE No. 885 REGISTERED PROFESSIONAL ENGINEER MAR 16 2017

Exhibit E

EBI Consulting
environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTNH334A

NH334/E Aurora Smokestack
150 E Aurora Street
Waterbury, CT 03708

February 13, 2017

EBI Project Number: 6217000547

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	6.44 %

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

EBI Consulting
environmental | engineering | due diligence

February 13, 2017

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Emissions Analysis for Site: **CTNH334A – NH334/E Aurora Smokestack**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **150 E Aurora Street, Waterbury, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (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 public 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 public 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.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the 700 MHz Band is approximately 467 $\mu W/cm^2$, and the general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **150 E Aurora Street, Waterbury, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

3) 2 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

5) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel

6) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

7) Since the 2100 MHz UMTS radios are ground mounted there are additional cabling losses accounted for. For each ground mounted 2100 MHz UMTS RF path an additional 1.38 dB of cable loss was factored into the calculations used for this analysis. This is based on manufacturers Specifications for 130 feet of 1-5/8" coax cable on each path.

8) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. 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. This is rarely the case, and if so, is never continuous.

9) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

10) The antennas used in this modeling are the **Ericsson AIR32 B66Aa/B2A** & **Ericsson AIR21 B2A/B4P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6515DS-A1M** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR32 B66Aa/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Ericsson AIR21 B2A/B4P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

11) The antenna mounting height centerline of the proposed antennas is **105 feet** above ground level (AGL).

12) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

13) All calculations were done with respect to uncontrolled / general public threshold limits.

EBI Consulting

environmental | engineering | due diligence

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	Ericsson AIR32 B66Aa/B2A	Make / Model:	Ericsson AIR32 B66Aa/B2A	Make / Model:	Ericsson AIR32 B66Aa/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	105	Height (AGL):	105	Height (AGL):	105
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	3.42	Antenna B1 MPE%	3.42	Antenna C1 MPE%	3.42
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	105	Height (AGL):	105	Height (AGL):	105
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	6,367.38	ERP (W):	6,367.38	ERP (W):	6,367.38
Antenna A2 MPE%	2.34	Antenna B2 MPE%	2.34	Antenna C2 MPE%	2.34
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	105	Height (AGL):	105	Height (AGL):	105
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.68	Antenna B3 MPE%	0.68	Antenna C3 MPE%	0.68

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile (Per Sector Max)	**6.44 %**
No Additional Carriers Listed in the CSC Active MPE Database	NA
Site Total MPE %:	**6.44 %**

T-Mobile Sector A Total:	6.44 %
T-Mobile Sector B Total:	6.44 %
T-Mobile Sector C Total:	6.44 %
Site Total:	6.44 %

T-Mobile _Max Values per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	105	17.12	AWS - 2100 MHz	1000	1.71%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	105	17.12	PCS - 1900 MHz	1000	1.71%
T-Mobile AWS - 2100 MHz UMTS	2	849.42	105	6.23	AWS - 2100 MHz	1000	0.62%
T-Mobile PCS - 1950 MHz UMTS	2	1,167.14	105	8.56	PCS - 1950 MHz	1000	0.86%
T-Mobile PCS - 1950 MHz GSM	2	1,167.14	105	8.56	PCS - 1950 MHz	1000	0.86%
T-Mobile 700 MHz LTE	1	865.21	105	3.17	700 MHz	467	0.68%
						Total:	**6.44%**

Summary

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

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	6.44 %
Sector B:	6.44 %
Sector C:	6.44 %
T-Mobile Per Sector Maximum:	6.44 %
Site Total:	6.44 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **6.44%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.