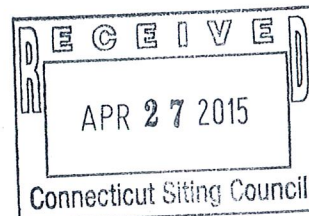


RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

April 23, 2015

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501



Re: EM-T-MOBILE-009-130611
T-Mobile Site ID CT11115F
38 Spring Hill Road, Bethel, CT
Notice of Compliance with Conditions and Construction Completion

ORIGINAL

Dear Attorney Bachman:

The Connecticut Siting Council ("Council") acknowledged the above referenced T-Mobile Northeast LLC ("T-Mobile") notice of exempt modification on July 11, 2013.

The Council imposed the following condition in its acknowledgment:

- T-Mobile shall verify that the base plate reinforcements referred to in the Structural Analysis Report prepared by Centrek Engineering dated March 7, 2013 and stamped by Carlo Centore have been completed;
- Within 45 days following completion of the antenna installation, T-Mobile shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the structural analysis.

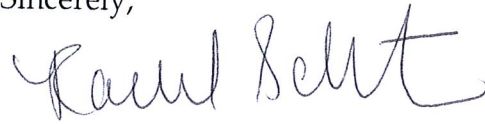
The attached PE Closeout Letter, dated April 22, 2015, provides evidence of compliance with the conditions outlined by the Council.

In addition, T-Mobile hereby notifies the Council that construction of the acknowledged modifications were complete as of February 27, 2014.

April 23, 2015
CT11115F
Page 2

Please don't hesitate to contact me with any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rachel Schwartzman".

Rachel A. Schwartzman, Esq.

cc: Samuel Simons, T-Mobile
Mark Richard, T-Mobile
Rob Stanford, Vertical Development LLC
Julie Kohler, Esq.

1279 Route 300
Newburgh, NY 12550(845) 567-6656 FAX: (845) 567-8703
www.tectonicengineering.com

Sam Simons
Engineering Development - Connecticut
T-Mobile
35 Griffin Road South
Bloomfield, CT 06002
sam.simons@t-mobile.com

April 22, 2015

RE: PE Close Out Letter
EM-T-MOBILE # 009-130611/T-Mobile Site ID # CT11115F

Dear Mr. Simons:

Tectonic Engineering & Surveying Consultants, P.C. ("Tectonic") has completed its post-construction review of the above-referenced site to determine whether T-Mobile complied with conditions imposed by the Connecticut Siting Council's (the "Council") acknowledgment letter, dated July 11, 2013 ("the Acknowledgment Letter"). Our compliance review included the following: the Acknowledgment Letter, the approved tower structural analysis report by Centek Engineering dated March 7, 2013 (the "Structural Analysis"), the approved design plans by Tectonic dated April 10, 2013, and the post modification certification letter by Salient Associates, LLC dated December 8, 2014 and signed by Paul Gionfriddo (the "Certification Letter").

On behalf of Tectonic, based on my review of the information, I, Manojkumar B. Patel, licensed professional engineer number 22038, certify that to the best of my knowledge, the T-Mobile work complied with the recommendations of the approved Structural Analysis.

Specifically, as required by the Acknowledgment Letter, I have reviewed the T-Mobile work for compliance with the following structural conditions imposed by the Council as detailed in the Certification Letter:

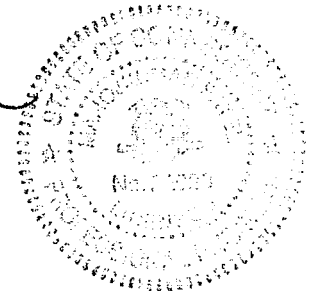
- The base plate reinforcements referred to in the Structural Analysis Report prepared by Centek Engineering dated March 7, 2013 and stamped by Carlo Centore.

Should you have any questions regarding the foregoing review, please contact me directly at 845-567-6656 ext. 2808.

Very truly yours,



Manojkumar B. Patel, P.E.
Sr. Project Manager



Cc: Rob Stanford (Vertical Development LLC)



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

VIA ELECTRONIC AND FIRST CLASS MAIL

March 2, 2015

Rachel A. Schwartzman, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: EM-T-MOBILE-049-130724, 1 Ecology Drive, Enfield
EM-T-MOBILE-014-130724405, Brushy Plains Road, Branford
EM-T-MOBILE-080-130903, 11 West Peak Drive, Meriden
EM-T-MOBILE-034-130531A, 41 Padnaram Road, Danbury
EM-T-MOBILE-091-130531A, 302 Ball Pond Road, New Fairfield
EM-T-MOBILE-009-130611, 38 Spring Hill Road, Bethel
EM-T-MOBILE-017-130611, 2 Willis Street, Bristol
EM-T-MOBILE-034-130726, 7 West View, Danbury
EM-T-MOBILE-166-130816, Route 322 aka Meriden Road aka 347 East Street, Wolcott
EM-T-MOBILE-004-130531, 81 Montevideo Road, Avon
EM-T-MOBILE-033-130719, 179 Shunpike Road, Cromwell
EM-T-MOBILE-166-130726, Andrew Road, Wolcott

Dear Attorney Schwartzman:

The Connecticut Siting Council (Council) is in receipt of your letter dated February 27, 2015, submitted on behalf of T-Mobile Northeast, LLC, requesting an extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

The Council hereby grants a 60-day extension of time, until May 2, 2015, to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

This extension is granted with the understanding that the Council will be notified should T-Mobile Northeast, LLC need additional time beyond 60 days to submit a notice of completion and associated post modification inspection reports or decide not to proceed with construction.

Thank you for your attention to this matter.

Sincerely,

Melanie A. Bachman
Acting Executive Director

MAB/cm

RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

February 27, 2015

Via Electronic and Overnight Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501

**Re: T-Mobile Notice of Completion Filings (Third Quarter Audit)
Connecticut Siting Council Letters, dated November 3, 2014 and February 20, 2015
Request for Extension of Time**

Dear Attorney Bachman:

T-Mobile Northeast, LLC ("T-Mobile") respectfully requests an additional two-month extension of time to respond to the Council's request for notice of completion of construction and associated post-modification inspection reports for the following sites:

EM-T-MOBILE-049-130724, 1 Ecology Drive, Enfield (Site ID CT11534A)
EM-T-MOBILE-014-130724 405, Brushy Plains Road, Branford (Site ID NH102C)
EM-T-MOBILE-080-130903, 11 West Peak Drive, Meriden (Site ID11132B)
EM-T-MOBILE-034-130531A, 41 Padnaram Road, Danbury (CT11896A)
EM-T-MOBILE-091-130531A, 302 Ball Pond Road, New Fairfield (CT11797A)
EM-T-MOBILE-009-130611, 38 Spring Hill Road, Bethel (CT11115F)
EM-T-MOBILE-017-130611, 2 Willis Street, Bristol (CT11270C)
EM-T-MOBILE-034-130726, 7 West View, Danbury (CT11923C)
**EM-T-MOBILE-166-130816, Route 322 aka Meridan Road aka 347 East Street,
Wolcott (CT11494B)**
EM-T-MOBILE-004-130531, 81 Montevideo Road, Avon (CT11284A)
EM-T-MOBILE-033-130719, 179 Shunpike Road, Cromwell (CT11059C)
EM-T-MOBILE-166-130726, Andrew Road, Wolcott (CT11403A)

T-Mobile has filed the appropriate compliance filings for several third quarter sites, but needs additional time to provide the requested information for the above-referenced sites. T-Mobile has diligently obtained much of the required documentation, and is working with its vendors and engineers to obtain the proper closeout records. T-Mobile continues to actively compile the requested information, but needs additional time to do so.

1115 BROAD STREET
P.O. BOX 1821
BRIDGEPORT, CT 06601-1821
TEL: (203) 368-0211
FAX: (203) 394-9901

158 DEER HILL AVENUE
DANBURY, CT 06810
TEL: (203) 792-2771
FAX: (203) 791-8149

320 POST ROAD WEST
WESTPORT, CT 06880
TEL: (203) 222-1034
FAX: (203) 227-1373

657 ORANGE CENTER ROAD
ORANGE, CT 06477
TEL: (203) 298-4066
FAX: (203) 298-4068

Please do not hesitate to let me know if you have any questions.

Sincerely,



Rachel A. Schwartzman

RAS/lcc

cc: Samuel Simons, T-Mobile Northeast, LLC (via electronic mail)
Mark Richard, T-Mobile Northeast, LLC (via electronic mail)
Robert Stanford, Vertical Development, LLC (via electronic mail)
Julie Kohler, Esq. (via electronic mail)



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

December 24, 2014

Rachel A. Schwartzman, Esq.
Cohen and Wolf, P.C.
P.O. Box 1821
Bridgeport, CT 06601

RE:

EM-T-MOBILE-004-130531	81 Montevideo Road	Avon
EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bethel
EM-T-MOBILE-014-130724	405 Brushy Plain Road	Branford
EM-T-MOBILE-017-130611	2 Willis Street	Bristol
EM-T-MOBILE-017-130729	985 Farmington Avenue	Bristol
EM-T-MOBILE-033-130719	179 Shunpike Road	Cromwell
EM-T-MOBILE-034-130531A	41 Padanaram Road	Danbury
EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury
EM-T-MOBILE-034-130726	7 West View Drive	Danbury
EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford
EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield
EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich
EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden
EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield
EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield
EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven
EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville
EM-T-MOBILE-135-130318	555 Main Street	Stamford
EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford
EM-T-MOBILE-166-130726	Andrews Road	Wolcott
EM-T-MOBILE-166-130816	Route 322/Meridian Road	Wolcott

Dear Attorney Schwartzman:

The Connecticut Siting Council (Council) is in receipt of your letter dated December 23, 2014, submitted on behalf of T-Mobile, requesting an extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

The Council hereby grants a 60-day extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications to March 2, 2015.

This extension is granted with the understanding that the Council will be notified should T-Mobile need additional time beyond 60 days to submit a notice of completion and associated post modification inspection reports or decide not to proceed with construction.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Melanie A. Bachman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Melanie A. Bachman
Acting Executive Director

MAB/cm

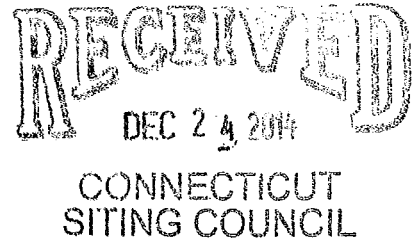
RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

December 23, 2014

Via Electronic and Overnight Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051



**Re: T-Mobile Exempt Modification Compliance Filings
Connecticut Siting Council Audit Letter dated November 3, 2014
Request For Extension of Time**

Dear Attorney Bachman:

T-Mobile Northeast, LLC ("T-Mobile") respectfully requests a 60-day extension of time to March 2, 2015 to respond to the Council's request, dated November 3, 2014, for exempt modification compliance data. The attached spreadsheet provides a list of the sites for which T-Mobile seeks a requested extension.

T-Mobile is actively compiling all of the requested information but needs additional time to provide the necessary documentation.

Please do not hesitate to let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel A. Schwartzman".

Rachel A. Schwartzman, Esq.

RAS/lcc
Enclosure

cc: Samuel Simons, T-Mobile Northeast, LLC (via electronic mail)
Mark Richard, T-Mobile Northeast, LLC (via electronic mail)
Robert Stanford, Vertical Development, LLC (via electronic mail)
Julie Kohler, Esq.

EM/TIS #	Address	Town	Council Additional Conditions	Compliance with Council Additional Conditions Received	Notice of Completion Received	Decision Date
EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford	Yes	No	No	3/12/2013
EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich	N/A	N/A	No	3/12/2013
EM-T-MOBILE-135-130318	555 Main Street	Stamford	Yes	No	No	4/9/2013
EM-T-MOBILE-006-130528	60 Rice Lane	Beacon Falls	Yes	No	No	6/26/2013
EM-T-MOBILE-002-130529	401 Wakelee Avenue	Ansonia	N/A	N/A	No	6/27/2013
EM-T-MOBILE-004-130531	81 Montevideo Road	Avon	N/A	N/A	No	7/9/2013
EM-T-MOBILE-034-130531A	41 Padararam Road	Danbury	Yes	No	No	7/9/2013
EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury	N/A	N/A	No	7/9/2013
EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield	N/A	N/A	No	7/9/2013
EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield	N/A	N/A	No	7/9/2013
EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford	N/A	N/A	No	7/9/2013
EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven	N/A	N/A	No	7/10/2013
EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bethel	Yes	No	No	7/11/2013
EM-T-MOBILE-017-130611	2 Willis Street	Bristol	Yes	No	No	7/12/2013
EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville	N/A	N/A	No	7/12/2013
EM-T-MOBILE-033-130719	179 Shampine Road	Cromwell	Yes	No	No	8/7/2013
EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield	N/A	N/A	No	8/7/2013
EM-T-MOBILE-014-130724	405 Brushy Plain Road	Branford	Yes	No	No	8/13/2013
EM-T-MOBILE-017-130729	985 Farmington Avenue	Bristol	N/A	N/A	No	8/20/2013
EM-T-MOBILE-034-130726	7 West View Drive	Danbury	N/A	N/A	No	8/20/2013
EM-T-MOBILE-166-130726	Andrews Road	Wolcott	Yes	No	No	8/20/2013
EM-T-MOBILE-166-130816	Route 322/Meridian Road	Wolcott	N/A	N/A	No	9/3/2013
EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden	Yes	No	No	9/18/2013



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

July 11, 2013

Julie D. Kohler, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: **EM-T-MOBILE-009-130611** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 38 Spring Hill Lane, Bethel, Connecticut.

Dear Attorney Kohler:

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

- T-Mobile shall verify that the base plate reinforcements referred to in the Structural Analysis Report prepared by Centek Engineering dated March 7, 2013 and stamped by Carlo Centore have been completed;
- Within 45 days following completion of the antenna installation, T-Mobile shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the structural analysis;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated June 10, 2013. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.



This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,



Melanie A. Bachman
Acting Executive Director

MAB/CDM/jb

c: The Honorable Matthew S. Knickerbocker, First Selectman, Town of Bethel
Steve Palmer, Planning & Zoning Official, Town of Bethel
Spring Hill Lane LLC



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

June 13, 2013

The Honorable Matthew S. Knickerbocker
First Selectman
Town of Bethel
1 School Street
Bethel Municipal Center
Bethel, CT 06801-2105

RE: **EM-T-MOBILE-009-130611** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 38 Spring Hill Lane, Bethel, Connecticut.

Dear First Selectman Knickerbocker:

The Connecticut Siting Council (Council) received a request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72, a copy of which has already been provided to you.

If you have any questions or comments regarding the proposal, please call me or inform the Council by June 27, 2013.

Thank you for your cooperation and consideration.

Very truly yours,

Melanie Bachman
Acting Executive Director

MB/jb

c: Steve Palmer, Planning & Zoning Official, Town of Bethel

JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport

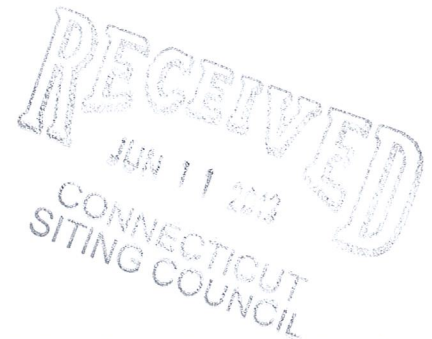
WRITER'S DIRECT DIAL: (203) 337-4157

E-Mail Address: jkohler@cohenandwolf.com

June 10, 2013

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**Re: Notice of Exempt Modification
Spring Hill Lane, LLC/T-Mobile co-location
Site ID CT11115F
38 Spring Hill Lane, Bethel, CT**



Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, Spring Hill Lane, LLC ("Spring Hill") owns the existing telecommunications tower and related facility at 38 Spring Hill Lane, Bethel Connecticut (coordinates 41 21' 48.3876"/73 23' 50.4204"). T-Mobile intends to replace six antennas and related equipment at this existing telecommunications facility in Bethel ("Bethel Facility"). Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to First Selectman Matt Knickerbocker. Spring Hill Lane, LLC also owns the property.

The existing Bethel Facility consists of a 125 foot tall monopole structure. T-Mobile plans to replace six antennas at a centerline of 102 feet. (See the plans dated April 10, 2013 attached hereto as Exhibit A). T-Mobile will also install fiber cable and reuse existing coax cables. The existing Facility is structurally capable, with modifications, of supporting T-Mobile's proposed replacement equipment, as indicated in the Structural Assessment Letter dated May 6, 2013 and referenced Centek Structural Analysis Report dated March 7, 2103, both attached hereto as Exhibit B. T-Mobile proposes to implement the modifications and recommendations contained in the Centek Structural Analysis Report.

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

June 10, 2013
Site ID CT11115F
Page 2

1 . The proposed modification will not increase the height of the tower. T-Mobile's replacement antennas will be installed at the 102 foot centerline. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.


2 . The installation of the T-Mobile replacement equipment in the existing compound, as reflected on the attached site plan, will not require an extension of the site boundaries. T-Mobile's proposed equipment will be located entirely within the existing compound area.

3 . The proposed modification to the Facility will not increase the noise levels at the existing facility by six decibels or more.

4 . The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated June 5, 2013 T-Mobile's operations would add 1.131% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 78.531% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Bethel Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

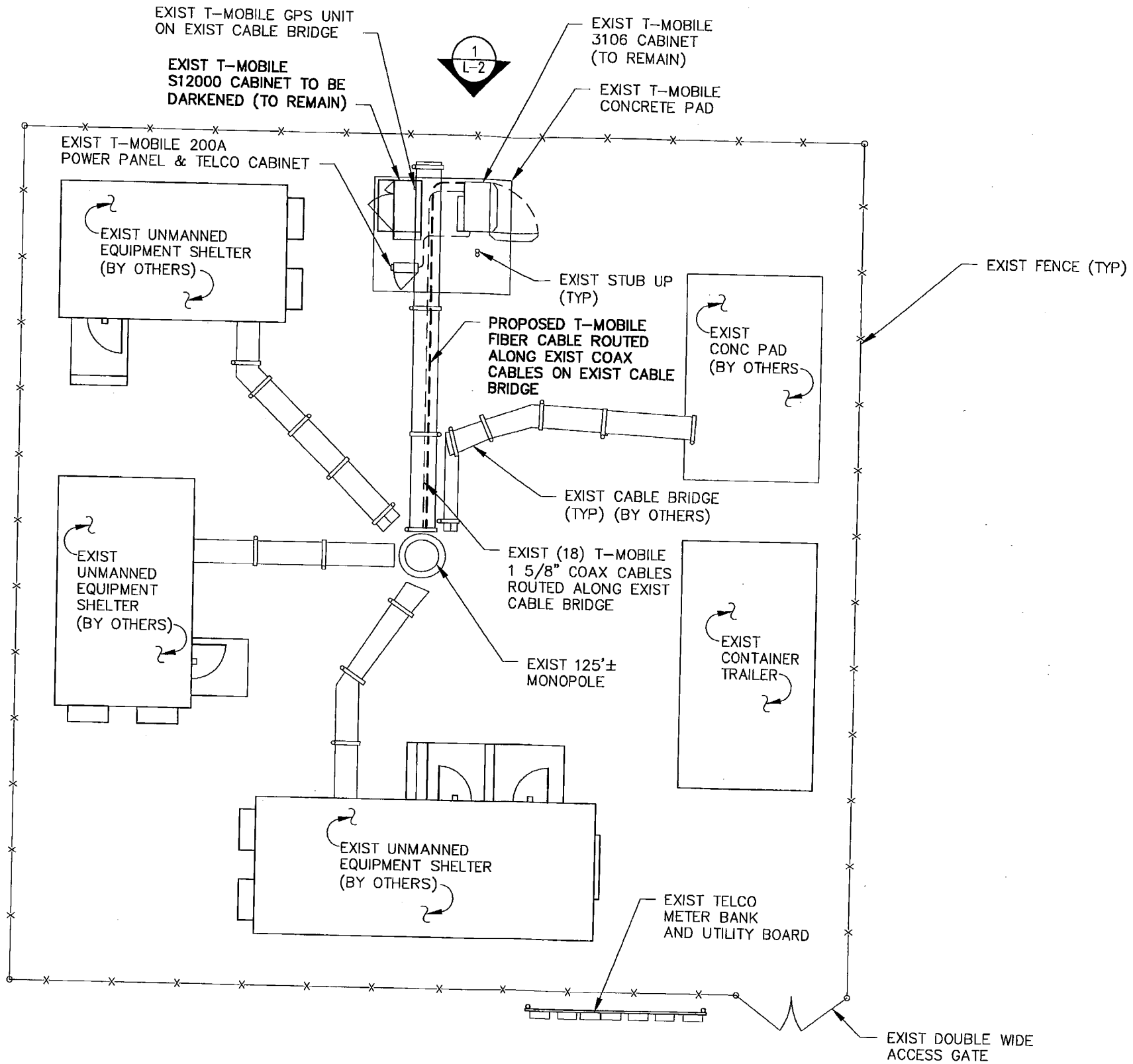
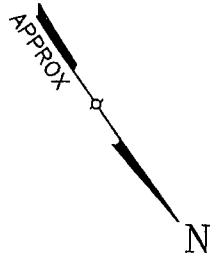
Sincerely,



Julie D. Kohler, Esq.

cc: Town of Bethel, First Selectman Matt Knickerbocker
Spring Hill Lane, LLC
Jamie Ford, HPC Wireless

EXHIBIT A



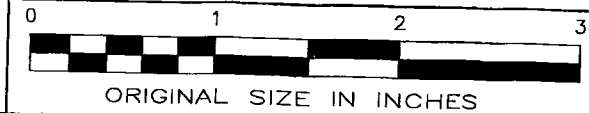
1
L-1

SITE PLAN

SCALE: 3/32" = 1'-0"

STRUCTURAL NOTE:
EXIST MOUNTS, PLATFORMS AND MONOPOLE
TO BE VERIFIED FOR STRUCTURAL SUITABILITY
OF PROPOSED INSTALLATION BY A STATE
LICENSED P.E.

CONFIGURATION
2C



TECTONIC

- PLANNING
- ENGINEERING
- SURVEYING
- CONSTRUCTION MANAGEMENT

TECTONIC Engineering & Surveying
Consultants P.C.

1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-8856
Fax: (845) 567-8703

..T..Mobile..

NORTHEAST LLC.

T-MOBILE NORTHEAST, LLC. PHONE: (973) 688-6500
4 SYLVAN DRIVE
PARSPANY, NJ 07054

APPROVALS

T-MOBILE _____
LANDLORD _____
RF _____
CONSTRUCTION _____

PROJECT NUMBER 6644.CT1115F DESIGNED BY TN

REV	DATE	REVISION	DRAWN BY
1	04/10/13	FOR COMMENT	SW

ISSUED BY _____ DATE _____

SITE INFORMATION

CT1115F
CT115/SNET VALLEY_FT
38 SPRING HILL LANE
BETHEL, CT 06801

SHEET TITLE

SITE PLAN

SHEET NUMBER

L-1

..T..Mobile..
NORTHEAST LLC.

T-MOBILE NORTHEAST, LLC. PHONE: (973) 688-6500
4 SYLVAN DRIVE
PARSIPPANY, NJ 07054

APPROVALS

T-MOBILE _____
LANDLORD _____
RF _____
CONSTRUCTION _____

PROJECT NUMBER: 6644.CT1115F DESIGNED BY: TN

REV	DATE	REVISION	DRAWN BY
Δ	04/10/13	FOR COMMENT	SW

ISSUED BY: _____ DATE: _____

SITE INFORMATION

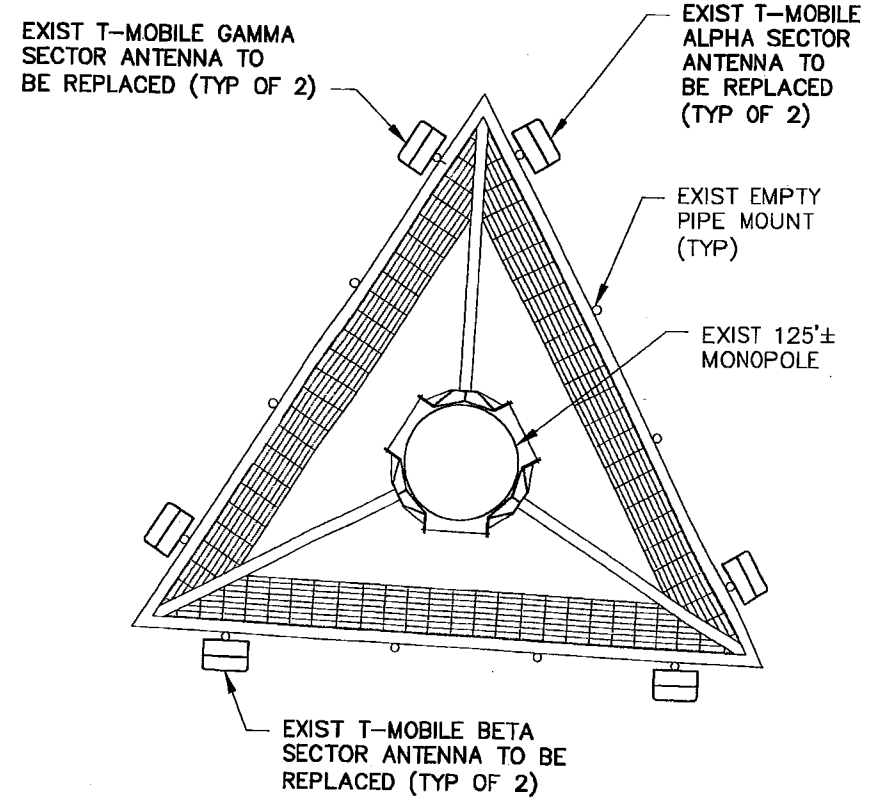
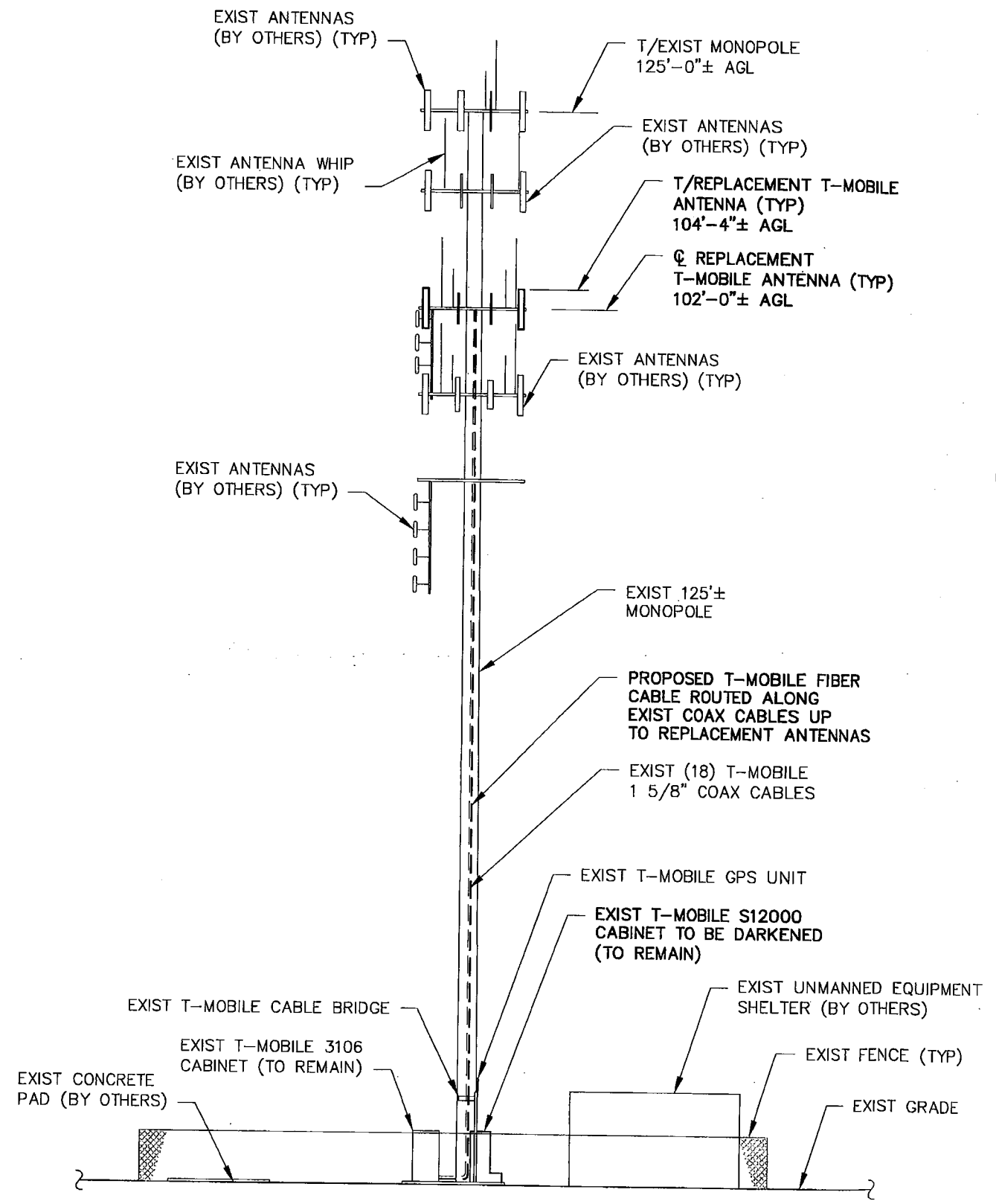
CT1115F
CT115/SNET VALLEY_FT
38 SPRING HILL LANE
BETHEL, CT 06801

SHEET TITLE

ELEVATION &
ANTENNA PLAN

SHEET NUMBER

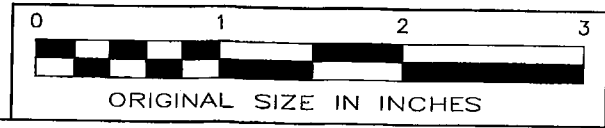
L-2



2 ANTENNA PLAN
SCALE: 1/4" = 1'-0"

1 ELEVATION
SCALE: 1/16" = 1'-0"

STRUCTURAL NOTE:
EXIST MOUNTS, PLATFORMS AND MONOPOLE TO BE VERIFIED FOR STRUCTURAL SUITABILITY OF PROPOSED INSTALLATION BY A STATE LICENSED P.E.



CONFIGURATION
2C

EXHIBIT B

1279 Route 300
Newburgh, NY 12550

(845) 567-6656
www.tectonicengineering.com

Jamie Ford
HPC Wireless
46 Mill Plain Rd, (Floor 2)
Danbury, CT 06811

May 06, 2013

**RE: W.O. 6644-CT11115F
SITE ID: CT11115F
38 SPRING HILL LANE
BETHEL, CT 06801
STRUCTURAL ASSESSMENT LETTER (MODERNIZATION PROJECT)**

Dear Ms. Ford,

Tectonic Engineering and Surveying Consultants, P.C. (Tectonic) has performed a limited visual inspection and a structural review in regards to the proposed upgrade of the T-Mobile site mentioned above for the Modernization Project.

The proposed T-Mobile antenna upgrade includes the replacement of existing three (3) RFS APX16PV-16PVL-E antennas (Dimension: 53"H x 12.9"W x 3.1" D; Weight: 40 lbs. ea.) and three (3) RFS APX16DWW-16DWVS antennas (Dimension: 55.9"H x 13.3"W x 3.15" D; Weight: 40 lbs. ea.) with six (6) AIR21 B2A/B4P antennas (Dimension: 55.9"H x 12"W; Weight: 105 lbs. max.). The total wind area of the proposed antennas is smaller than the total wind area of existing antennas while the increase in the antenna weight is relatively small. Based on the review of the previous analysis report prepared by Centek Engineering, dated March 7, 2013, the existing monopole will have adequate capacity **once the modifications and recommendations** as shown in Centek's report are completed and verified.

It is our understanding that there will be no change to the equipment cabinet configuration.

This structural assessment is based on a limited visual inspection and information provided by the client. We assume that the original site has been designed, fabricated and constructed in compliance with the applicable building code at the time. Contractor shall field verify existing conditions and recommendations as noted on the construction drawings and notify the design engineer of any discrepancies prior to installation of the proposed upgrade.

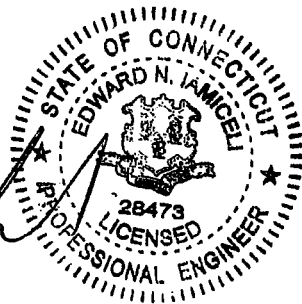
Should you have any questions, please do not hesitate to contact Tammy Nosek at 845-567-6656 Ext 2807.

Sincerely,

TECTONIC



Edward N. Iamiceli, P.E
Project Manager



Structural Analysis Report

125-ft Existing EEL Monopole

*Proposed Verizon Wireless
Antenna Upgrade*

Verizon Site Ref: Bethel

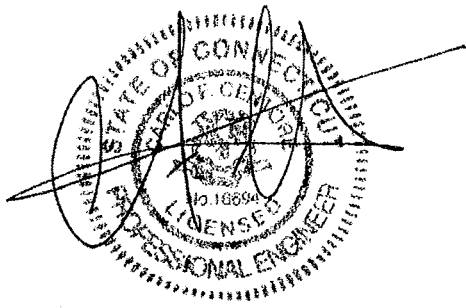
*38 Spring Hill Lane
Bethel, CT*

Centek Project No. 12124.CO4

~~*Date: December 11, 2012*~~

~~*Rev 1: February 13, 2013*~~

Rev 2: March 7, 2013



Prepared for:

**Verizon Wireless
99 East River Road, 9th Floor
East Hartford, CT 06108**

Table of Contents

SECTION 1 - REPORT

- INTRODUCTION.
- ANTENNA AND APPURTENANCE SUMMARY.
- PRIMARY ASSUMPTIONS USED IN THE ANALYSIS.
- ANALYSIS.
- TOWER LOADING.
- TOWER CAPACITY.
- FOUNDATION AND ANCHORS.
- CONCLUSION.

SECTION 2 – CONDITIONS & SOFTWARE

- STANDARD ENGINEERING CONDITIONS.
- GENERAL DESCRIPTION OF STRUCTURAL ANALYSIS PROGRAM.

SECTION 3 – CALCULATIONS

- RISATower INPUT/OUTPUT SUMMARY.
- RISATower DETAILED OUTPUT.
- SPREAD FOOTING W/ PIER ANALYSIS.

SECTION 4 – REFERENCE MATERIAL

- VERIZON RF DATA SHEET.
- ANTENNA CUT SHEETS.

Introduction

The purpose of this report is to summarize the results of the non-linear, P- Δ structural analysis of the antenna upgrade proposed by Verizon Wireless on the existing monopole (tower) located in Bethel, CT.

The host tower is a 125-ft tall, three-section, eighteen sided, tapered monopole originally designed and manufactured by EEI job no; 14009-E01, dated March 9, 2006. The tower geometry, structure member sizes and foundation system information were obtained from the aforementioned tower design documents. Antenna and appurtenance information were obtained from a previous structural report prepared by Centek Engineering job no. 11001.CO61 dated November 16, 2011, a structural report prepared by Salient Associates LLC, for Sprint dated October 12, 2012 and a Verizon RF data sheet.

The tower is made up of three (3) tapered vertical sections consisting of A572-65 pole sections. The vertical tower sections are slip joint connected. The diameter of the pole (flat-flat) is 18.00-in at the top and 55.00-in at the base.

Verizon is proposing the removal of nine (9) panel antennas and the installation of nine (9) panel antennas, six (6) RRH's and one (1) distribution box mounted to the existing low profile platform. Refer to the Antenna and Appurtenance Summary below for a detailed description of the proposed antenna and appurtenance configuration.

Antenna and Appurtenance Summary

The existing, proposed and future loads considered in this analysis consist of the following:

- TOWN (Existing):
Antennas: One (1) 18' x 4" Omni-directional whip antenna mounted on a 4-ft standoff with an elevation of 124-ft above existing grade.
Coax Cables: Two (2) 1-5/8" \varnothing coax cables running on the inside of the existing monopole.
- AT&T (Existing):
Antennas: Six (6) Powerwave 7770 panel antennas, two (2) Powerwave P65-16-XLH-RR panel antennas, one (1) Powerwave P90-16-XLH-RR panel antennas, six (6) Powerwave LGP21401 TMA's and three (3) TT19-08BP111-001 TMA's mounted on a 13-ft low profile platform with a RAD center elevation of 123-ft above existing grade.
Coax Cables: Twelve (12) 1-5/8" \varnothing coax cables running on the inside of the existing monopole.
- AT&T (Existing):
Antennas: Six (6) Ericsson RRUS-11 and one (1) Raycap DC6-48-60-18-8F surge arrester mounted to one (1) universal ring mount with a RAD center elevation of 123-ft above existing grade level.
Coax Cables: One (1) fiber cable and two (2) dc control cables running on the inside of the existing monopole.

CENTEK Engineering, Inc.
Structural Analysis - 125-ft EEI Monopole
Verizon Wireless Antenna Upgrade – Bethel
Bethel, CT
Rev 2 ~ March 7, 2013

- **SPRINT (Existing/Reserved):**
Antennas: Three (3) Andrew DB950F85T2E-M and three (3) RFS APXVSPP18-C-A20 panel antennas mounted on a 13-ft low profile platform with a RAD center elevation of 114-ft above existing grade.
Coax Cables: Six (6) 1-5/8" Ø coax cables and three (3) 1-1/4" Ø Hybriflex cables running on the inside of the existing monopole.
- **SPRINT (Existing/Reserved):**
Antennas: Three (3) ALU 1900 MHz RRH's and three (3) ALU 800 MHz RRH's flush mounted to the tower with a RAD center elevation of 109-ft above grade.
- **T-MOBILE (Existing):**
Antennas: Three (3) RFS APX16DWV-16DWVS panel antennas, three (3) RFS APX16PV-16PVL-X panel antennas and six (6) Ericsson KRY-112 TMA's mounted on a 13-ft low profile platform with a RAD center elevation of 104-ft above existing grade.
Coax Cables: Eighteen (18) 1-5/8" Ø coax cables running on the inside of the existing monopole.
- **TOWN (Existing):**
Antennas: One (1) 20' 4-bay dipole antenna mounted on the T-Mobile 13-ft low profile platform with an elevation of 102-ft above existing grade.
Coax Cables: Two (2) 1-5/8" Ø coax cables running on the inside of the existing monopole.
- **TOWN (Existing):**
Antennas: Two (2) 18' x 4" Omni-directional whip antennas mounted on the Verizon 13-ft low profile platform with an elevation of 92-ft above existing grade.
Coax Cables: Two (2) 1-5/8" Ø coax cables running on the inside of the existing monopole.
- **NEXTEL (Existing):**
Antennas: Twelve (12) Andrew DB844H90E-XY panel antennas mounted on a 13-ft low profile platform with a RAD center elevation of 84-ft above existing grade.
Coax Cables: Twelve (12) 1-5/8" Ø coax cables running on the inside of the existing monopole.
- **TOWN (Existing):**
Antennas: One (1) 20' 4-bay dipole antenna mounted on a 13-ft low profile platform with an elevation of 72-ft above existing grade.
Coax Cables: Two (2) 1-5/8" Ø coax cables running on the inside of the existing monopole.
- **VERIZON (Existing to Remain):**
Antennas: Three (3) Antel BXA-171063-12BF panel antennas and six (6) RFS FD9R6004/2C-3L Diplexers mounted to one (1) low profile platform with a RAD center elevation of 95-ft above existing grade.
Coax Cables: Twelve (12) 1-5/8" Ø coax cables running on the inside of the existing monopole.

- VERIZON (Existing to Remove):
Antennas: One (1) Swedcom SLCP 2x6014, two (2) Antel BXA-70063-4CF, two (2) Antel LPA-80063-8CF and four (4) LPA-80080-8CF panel antennas mounted to one (1) 13-ft low profile platform with a RAD center elevation of 95-ft above existing grade.
- VERIZON (Proposed):
Antennas: One (1) RFS DB-T1-6Z-8AB-0Z main distribution box flush mounted with a RAD center elevation of 97-ft above existing grade.
Coax Cables: One (1) 1-5/8" Ø fiber line running on the inside of the existing monopole.
- VERIZON (Proposed):
Antennas: Three (3) Antel BXA-171063-8BF panel antennas, three (3) Antel BXA-70063-6CF panel antennas, one (1) Antel BXA-80063-6BF panel antenna, two (2) Antel BXA-80080-6CF panel antennas, three (3) Alcatel-Lucent RRH2x40-AWS Remote Radio Heads and three (3) Alcatel-Lucent RRH2x40-07-U Remote Radio Heads mounted to one (1) low profile platform with a RAD center elevation of 95-ft above existing grade.

Primary Assumptions Used in the Analysis

- The tower structure's theoretical capacity not including any assessment of the condition of the tower.
- The tower carries the horizontal and vertical loads due to the weight of antennas, ice load and wind.
- Tower is properly installed and maintained.
- Tower is in plumb condition.
- Tower loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as specified in the original tower design documents or reinforcement drawings.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- All tower members were properly designed, detailed, fabricated, installed and have been properly maintained since erection.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- All existing coax cables to be installed as indicated in this report.

A n a l y s i s

The existing tower was analyzed using a comprehensive computer program entitled tnxTower. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower shaft, and the model assumes that the shaft members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for the controlling basic wind speed (fastest mile) with no ice and a 75% reduction of wind force with ½ inch accumulative ice to determine stresses in members as per guidelines of TIA/EIA-222-F-96 entitled "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The controlling wind speed is determined by evaluating the local available wind speed data as provided in Appendix K of the CSBC¹ and the wind speed data available in the TIA/EIA-222-F-96 Standard. The higher of the two wind speeds is utilized in preparation on the tower analysis.

T o w e r L o a d i n g

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA/EIA-222-F, gravity loads of the tower structure and its components, and the application of ½" radial ice on the tower structure and its components.

Basic Wind Speed:	Fairfield; v = 85 mph (fastest mile)	[Section 16 of TIA/EIA-222-F-96]
	Bethel; v = 95 mph (3 second gust) equivalent to v = 77.5 mph (fastest mile) <i>TIA/EIA wind speed controls.</i>	[Appendix K of the 2005 CT Building Code Supplement]
Load Cases:	<u>Load Case 1</u> ; 85 mph wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation.	[Section 2.3.16 of TIA/EIA-222-F-96]
	<u>Load Case 2</u> ; 74 mph wind speed w/ ½" radial ice plus gravity load – used in calculation of tower stresses. The 74 mph wind speed velocity represents 75% of the wind pressure generated by the 85 mph wind speed.	[Section 2.3.16 of TIA/EIA-222-F-96]
	<u>Load Case 3</u> ; Seismic – not checked	[Section 1614.5 of State Bldg. Code 2005] does not control in the design of this structure type

¹ The 2005 Connecticut State Building Code as amended by the 2009 CT State Supplement. (CSBC)

Tower Capacity

Tower stresses were calculated utilizing the structural analysis software tnxTower. Allowable stresses were determined based on Table 5 of the TIA/EIA code with a 1/3 increase per Section 3.1.1.1 of the same code.

- Calculated stresses were found to be within allowable limits. In Load Case 1, per tnxTower "Section Capacity Table", this tower was found to be at **85.7%** of its total capacity.

Tower Section	Elevation	Stress Ratio (percentage of capacity)	Result
Pole Shaft (L2)	47.67' – 96.04'	85.7%	PASS

Foundation and Anchors

The existing foundation consists of a 7-ft square x 1-ft long reinforced concrete pier on a 25.0-ft square x 4.5-ft thick reinforce concrete pad. The sub-grade conditions used in the analysis of the existing foundation were obtained from the aforementioned EEI design documents. The base of the tower is connected to the foundation by means of (12) 2.25"Ø, ASTM A615-75 anchor bolts embedded approximately 5-ft into the concrete foundation structure.

Review of the foundation and anchor design consisted of verification of applied loads obtained from the tower design calculations and code checks of allowable stresses:

- The tower base reactions developed from the governing Load Case 1 were used in the verification of the foundation and its anchors:

Location	Vector	Proposed Reactions
Base	Shear	26 kips
	Compression	35 kips
	Moment	2362 kip-ft

- The foundation was found to be within allowable limits.

Foundation	Design Limit	IBC 2003/2005 CT State Building Code Section 3108.4.2 (FS) ⁽¹⁾	Proposed Loading (FS) ⁽¹⁾	Result
Reinforced Concrete Pad and Pier	OTM ⁽²⁾	2.0	2.55	PASS

Note 1: FS denotes Factor of Safety.

Note 2: OTM denotes Overturning Moment

CENTEK Engineering, Inc.
 Structural Analysis - 125-ft EEI Monopole
 Verizon Wireless Antenna Upgrade – Bethel
 Bethel, CT
 Rev 2 ~ March 7, 2013

- The anchor bolts and base plate with the reinforcements per Salient Associates, LLC report dated October 12, 2012 were found to be within allowable limits.

Tower Component	Design Limit	Stress Ratio (percentage of capacity)	Result
Anchor Bolts	Tension	84.2%	PASS
Base Plate	Bending	85.0%	PASS

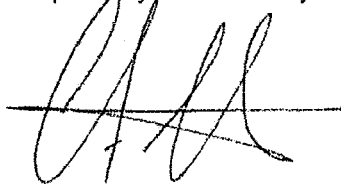
Conclusion

This analysis shows that the subject tower with the base plate reinforcement per Salient Associates, LLC report dated October 12, 2012 is adequate to support the proposed modified antenna configuration.

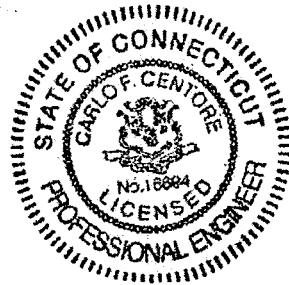
The analysis is based, in part, on the information provided to this office by Verizon Wireless. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

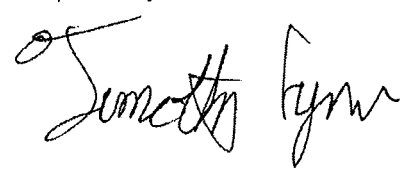
Respectfully Submitted by:



Carlo F. Centore, PE
 Principal ~ Structural Engineer



Prepared by:



Timothy J. Lynn, EIT
 Structural Engineer

EXHIBIT C



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: CT11115F

CT115/SNET Valley FT
38 Spring Hill Lane
Bethel, CT 06801

June 05, 2013

EBI Project Number: 62136713

June 05, 2013

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

Re: Emissions Values for Site: **CT11115F - CT115/SNET Valley FT**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 38 Spring Hill Lane, Bethel, 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 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

General population/uncontrolled exposure limits apply to situations in which the general 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 ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. 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 38 Spring Hill Lane, Bethel, 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, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is 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 (1940.000 MHz—to 1950.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 4) 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.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications

- 7) The antenna mounting height centerline of the proposed antennas is **102 feet** above ground level (AGL)
- 8) 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.

All calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT1115F - CT115/SNET Valley FT
Site Address	38 Spring Hill Lane, Bethel, CT 06801
Site Type	Monopole

Sector 1																		
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage	
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	102	96	None	0	0	48.326044	1.885145	0.18851%	
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	102	96	None	0	0	0	0	0.00000%	
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
Sector total Power Density Value:													0.377%					

Sector 2																		
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage	
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	102	96	None	0	0	48.326044	1.885145	0.18851%	
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	102	96	None	0	0	0	0	0.00000%	
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
Sector total Power Density Value:													0.377%					

Sector 3																		
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage	
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	102	96	None	0	0	48.326044	1.885145	0.18851%	
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	102	96	None	0	0	0	0	0.00000%	
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	102	96	1-5/8"	0	0	24.163022	0.942572	0.09426%	
Sector total Power Density Value:													0.377%					

Site Composite MPE %	
Carrier	MPE %
T-Mobile	1.131%
Sprint	12.340%
AT&T	22.870%
Nextel	21.050%
Verizon Wireless	21.140%
Total Site MPE %	78.531%

Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **1.131% (0.377% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously.

The anticipated composite MPE value for this site assuming all carriers present is **78.531%** of the allowable FCC established general public limit. 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 within the allowable 100% threshold standard per the federal government.



Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803