

JESSE A. LANGER

PLEASE REPLY TO: Bridgeport
E-Mail Address: jlanger@cohenandwolf.com

October 25, 2011

VIA FEDERAL EXPRESS

Ms. Linda Roberts, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 421 – Application by T-Mobile Northeast LLC for a Certificate of Environmental Compatibility and Public Need for a Telecommunications Facility at 158 Edison Road, Trumbull, Connecticut

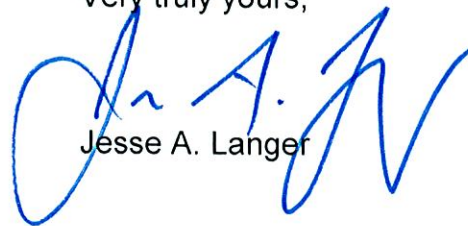
Dear Ms. Roberts:

Enclosed herein please find the following document filed on behalf of the Applicant, T-Mobile Northeast LLC:

- (1) An original and twenty (20) copies of Applicant T-Mobile Northeast LLC's responses to the Connecticut Siting Council's First Set of Interrogatories.

Please contact me if you have any questions.

Very truly yours,



Jesse A. Langer

JAL:lcc

Enclosures
cc: Service List

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE
NORTHEAST LLC FOR A
CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED
FOR A TELECOMMUNICATIONS FACILITY
AT 158 EDISON ROAD IN THE
TOWN OF TRUMBULL, CONNECTICUT

DOCKET NO. 421

Date: October 25, 2011

**INTERROGATORY RESPONSES TO CONNECTICUT SITING
COUNCIL FROM APPLICANT T-MOBILE NORTHEAST LLC**

The Applicant, T-Mobile Northeast LLC ("T-Mobile"), submits the following responses to the first set of Pre-Hearing Interrogatories propounded by the Connecticut Siting Council in connection with the above-captioned Application.

1. Did T-Mobile receive all of the return receipts for the abutting landowners listed in Application Attachment G? If not, list the abutters that did not receive notice and describe any additional effort to serve notice. When was the abutter list compiled?
A1 T-Mobile has confirmation that all but one of the abutting landowners received notice of the telecommunications facility, proposed by T-Mobile, which would be located at 158 Edison Road, Trumbull ("Facility"). On July 13, 2011, and August 16, 2011, T-Mobile attempted to notify Susan M. Tierney, the record owner of 12 Merwin Street, but both attempts were returned unclaimed. T-Mobile compiled the abutters list initially on February 19, 2010, and updated that list on May 10, 2010, June 18, 2010, January 4, 2011 and June 7, 2011.
2. Regarding the Site Search Summary (Tab J);
 - a) what tower height was examined at Property 10 (965 Church Street)? Was the property owner contacted regarding possible telecommunications use? If so, was the property owner receptive? Provide a propagation plot for the height examined.
 - b) regarding Property 9, the address given is 5065 Main Street but this same address is listed in Tab I as a location of an existing T-Mobile facility. Please clarify.

- c) regarding Property 2, did T-Mobile consider the possibility of installing a free-standing tower at this property?

A2 965 Church Street. T-Mobile's radio frequency ("RF") engineers rejected this parcel as a feasible alternative to the proposed property located at 158 Edison Road, Trumbull, Connecticut ("Property"). The parcel is located at the bottom of a steep hill in a topographic "bowl." The geography would prohibit a stand-alone facility from achieving the coverage objective. Additionally, the existing building on the parcel is only three stories high and, accordingly, a roof top facility would not achieve the coverage objective. As a result, T-Mobile did not communicate with the property owner about siting a telecommunications facility on this parcel.

5065 Main Street. Yes, this parcel already hosts an existing T-Mobile facility, which is located on the rooftop of the Trumbull Mall. A purported voluntary association, called Citizens Against Trumbull Tower ("CATT"), requested that T-Mobile consider an undeveloped portion of this parcel. The current owners, however, are considering whether to develop the parcel for commercial uses other than the placement of a telecommunications facility. Additionally, T-Mobile's RF engineers rejected this parcel because of T-Mobile's existing facility located on the Mall rooftop.

100 Middlebrooks Avenue. T-Mobile's RF engineers considered this parcel and determined that a free-standing tower would have to be closer to 160 feet above grade level. Such a facility would have a greater visual impact than the Facility proposed on the Property. Additionally, T-Mobile did not pursue this parcel further because the Town of Trumbull ("Town") expressed interest in locating the proposed Facility on the Property. The Property would allow T-Mobile to (1) locate the Facility on a site with an already existing 100 foot tower; (2) replace that existing tower, which is nearing the end of its life cycle; and (3) provide the Town with improved emergency services capabilities.

3. What height above ground level are the antennas at T-Mobile site 11679A? What area does this site serve? Describe the type and service area for T-Mobile site 11999A.

A3 T-Mobile's antennas are located at approximately 76'9" above grade level at site 11679A. Site 11679A serves the area surrounding the Trumbull Mall, including coverage up to and onto the Merritt Parkway (Route 15) to the north, Route 111 to the east and the surrounding secondary roadways extending out to Madison Avenue to the west and Old Town Road to the south.

Site 11999A is an in-building system at the Trumbull Mall and, therefore, provides coverage exclusively within the Mall itself.

4. Were other locations on the Trumbull Mall property considered for development of a tower facility? If not, why not?

A4 T-Mobile only considered the undeveloped portion of the Trumbull Mall property referenced by CATT. See response to Interrogatory 2, above. T-Mobile did not consider any other locations because of T-Mobile's existing facility on the Mall rooftop. The addition of a telecommunications facility on the Trumbull Mall property would result in duplicative coverage.

5. What is the demand on the system in the area of the proposed site?

A5 The demand in the area of the proposed Facility includes both voice and data.

6. How much capacity is needed in the area of the proposed site?

A6 The primary purpose of the proposed Facility is to provide an initial footprint of service in this area. The proposed Facility would introduce voice and data services to the coverage objective. T-Mobile experiences a coverage gap in the area of the proposed Facility, with coverage falling below T-Mobile's required threshold levels. T-Mobile anticipates some future capacity relief for the surrounding cells.

7. Are certain frequencies assigned to different data types (e.g. AWS used for data?) Are certain frequencies assigned to voice?

A7 Yes. T-Mobile provides voice and data services over two technologies, broadcasting in two frequency bands. T-Mobile operates its GSM radios in the PCS band centered around a transmit frequency of 1950 MHz and its UMTS radios in the AWS band centered around 2100 MHz.

8. Is the proposed site required for a specific T-Mobile service? (data only? voice only?)

A8 The proposed Facility would provide voice and data services.

9. What signal strength is required to transmit voice/text? Streaming data? Downloading? Does the coverage footprint differ for each of these services? If so, please explain how they differ and provide coverage plots from the site for each service.

A9 T-Mobile utilizes a minimum design threshold of -84 dBm for reliable in-vehicle coverage for voice services. T-Mobile can transmit data services at

a similar signal strength; however, the signal may be at a reduced throughput or quality. The driving force behind reliable high speed data transfer is signal quality or clarity. Traffic loading on a wireless system can deteriorate the quality level of data services because of increased noise, which is introduced into the environment. As a result, greater signal levels are required to provide consistent high speed data transfer, especially for downloading large files or utilizing a streaming data application. It is difficult to assign a static value to what signal level is required to provide these data services because of fluctuating RF environments and traffic loads. The coverage plots provided with the Application for Certificate serve as a good starting point. The deeper green shading represents areas where the proposed coverage would be at a -76 dBm signal level or better. Data transmission should be fairly robust within these areas.

10. Explain the demand on the cellular system from the use of wireless devices (including but not limited to phones and wireless tablets) for downloading or streaming data.
- A10 Each service provided on a cellular / PCS network imposes unique demands on the network's resources. Voice services typically impose less demand on a network than that of high speed data services. Simple voice patterns require the transfer of lower amounts of data, particularly when compared to streaming video. The demand on existing networks will increase as handheld devices continue to evolve and offer increasing numbers of data rich applications.**
11. Are there weak points in the existing network for downloading and/or streaming data in the area of the proposed site?
- A11 Yes. T-Mobile experiences a coverage gap in the areas surrounding the proposed Facility. The existing coverage levels in these areas are below T-Mobile's minimum design threshold for providing reliable voice and data service. The existing coverage levels inhibit the ability to download data or stream data reliably.**
12. How large is the coverage footprint in square miles?
- A12 The coverage footprint is approximately 9.67 square miles at -84 dBm and 1.83 square miles at -76 dBm.**
13. How was the tower height of 150 feet determined? Describe the topographical challenges mentioned on page 6.
- A13 T-Mobile has determined that 140 feet AGL is the minimum design height to achieve its coverage objective in the area surrounding the proposed facility. This assessment is based primarily on the terrain and clutter surrounding the proposed Facility. To the north of the proposed Facility,**

the terrain slopes upward, increasing by 50 feet over approximately 3 miles. Additionally, the terrain drops approximately 40 feet over a 0.4 mile stretch to the southeast towards the Merritt Parkway (Route 15). These changes in terrain elevation, combined with the existing canopy clutter, limit coverage potential from the proposed Facility. The proposed height would be necessary to overcome these topographical challenges. The additional 10 feet would be required to accommodate the regional dispatch platform proposed by the Town without interfering with T-Mobile's antennas.

14. Does this facility provide the emergency communication needs for the entire Town or Trumbull? Are there other town of Trumbull emergency communications facilities that will be in service once the proposed tower is in operation? Does the proposed site provide municipal emergency communication services to adjacent Towns?

A14 T-Mobile obtained the following information regarding the Town's emergency communications needs from Northeastern Communications, the consultant for the Town. It is T-Mobile's understanding that Northeastern Communications will participate in the hearing and, therefore, Northeastern Communications can verify the following information.

The existing lattice tower located on the Property ("Existing Tower") serves as the primary dispatch location for all the Town's emergency service agencies. The police radio system utilizes seven sites. The Existing Tower operates presently as a "receive site" and would become one of the two back-up sites for the present system (with the improvements proposed in the Application for Certificate). The Town anticipates using the proposed Facility as "a primary transmit site" once the Town moves to simulcast technology.

The Existing Tower also serves as a "transmit site" for the Fire Department and EMS, as well as a backup site for Public Works. The Town's police department serves as the emergency operation center for the Town and, therefore, all emergency services need transmit capabilities from the Property in the event that phone lines become inoperable.

The Existing Tower does not provide emergency communications services to other municipalities. The Town has communicated with Monroe and Easton about a combined dispatching facility.

15. Please provide a copy of the emergency communications study conducted for the Town.

A15 T-Mobile is not aware of an emergency communications study conducted by the Town or its consultant.

16. Provide an antenna orientation plan for the town antennas.
- A16 The Town controls the design and configuration of the dispatch platform. It is T-Mobile's understanding that the Town's consultant, Northeastern Communications, will participate in the hearing and, therefore, Northeastern Communications can verify the Town's proposed configuration. Nevertheless, T-Mobile is not aware of an antenna orientation plan. Please see the Town's most recent inventory appended hereto as Attachment A; see also Application, Exhibit C. T-Mobile is also not aware of any updated information regarding the Town's inventory of equipment for the dispatch platform.**
17. Provide the estimated cost for T-Mobile antennas and radio equipment.
- A17 The estimated cost of T-Mobile's antennas and radio equipment is approximately \$72,000.**
18. Provide a visibility evaluation of the tower from the immediate area around the tower, using an aerial photo (1 inch = 500 feet or similar).
- A18 An aerial photo is appended hereto as Attachment B.**

Respectfully submitted,

T-MOBILE NORTHEAST LLC

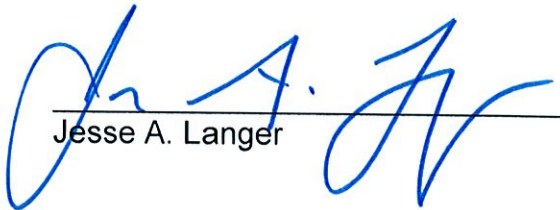
By: 

Julie D. Kohler, Esq.
Jesse A. Langer, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604
Tel. (203) 368-0211
Fax (203) 394-9901
jkohler@cohenandwolf.com
jlanger@cohenandwolf.com

CERTIFICATE OF SERVICE

I hereby certify that on this day a copy of the foregoing was delivered by Electronic Mail and First Class U.S. Mail, postage prepaid, to all parties and interveners of record, as follows:

Keith R. Ainsworth, Esq.
Evans Feldman & Ainsworth, L.L.C.
261 Bradley Street
P.O. Box 1694
New Haven, CT 06507-1694
(Via Email: krainsworth@snet.net)



Jesse A. Langer

ATTACHMENT A

ATTACHMENT B

Connecticut Siting Council Docket NO. 421
 T-Mobile Northeast LLC Application
 Response to Interrogatory Question 18
 Proposed Wireless
 Telecommunications Facility
 CTFF481
 158 Edison Road
 Trumbull, Connecticut
 Viewshed Analysis

NOTE:
 - Viewshed analysis conducted using ESRI's Spatial Analyst.
 - Proposed Facility height is 150 feet - Whip antennas extend to 174 feet AGL.
 - Existing tree canopy height estimated at 60 feet.

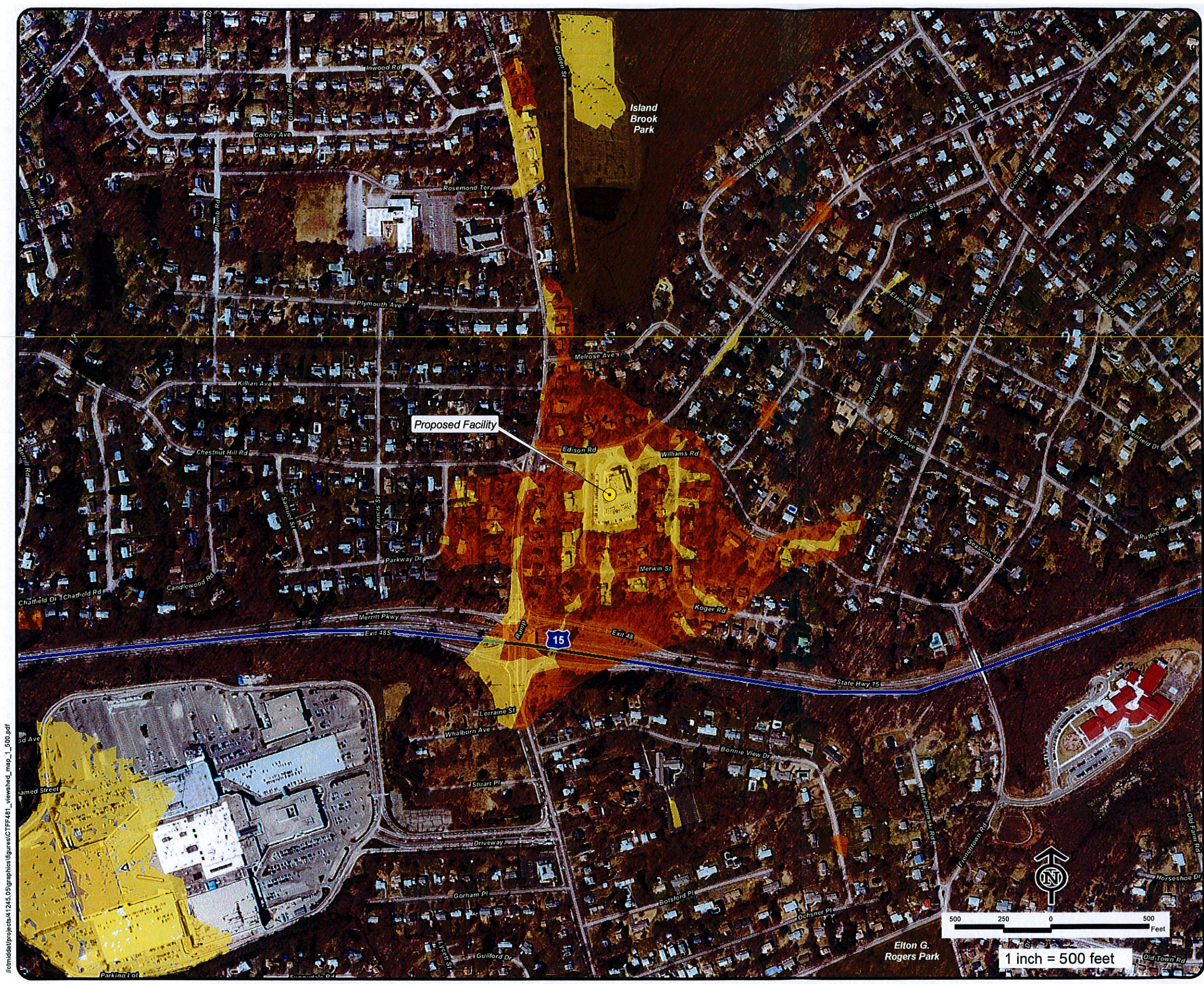
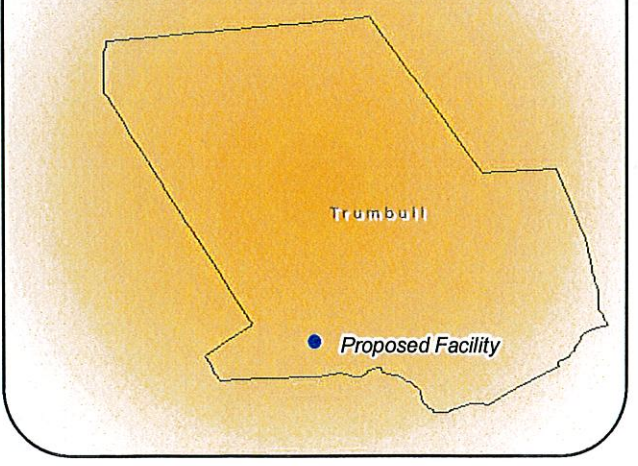
DATA SOURCES:
 - Digital elevation model (DEM) derived from Connecticut LIDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
 - Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
 - Base map comprised of 2008 Urban Area Natural Color Aerial Photographs with an approximate 1-foot pixel resolution
 - Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
 - Protected CT DEP properties data layer provided by CTDEP, May 2007
 - CT DEP boat launches data layer provided by CT DEP, 1994
 - Scenic Roads layer derived from available State and Local listings.

Map Compiled October, 2011

Legend

- Tower Location
- Seasonal Visibility
- Year-Round Visibility
- Protected Municipal and Private Open Space Properties (1997)
- Cemetery
- Preservation
- Conservation
- Existing Preserved Open Space
- Recreation
- General Recreation
- School
- Uncategorized
- CT DEP Protected Properties (2007)
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve
- Natural Area Preserve
- Fish Hatchery
- Flood Control
- Other
- State Park Trail
- Water Access
- Wildlife Area
- Wildlife Sanctuary
- Federal Protected Properties (1997)
- CT DEP Boat Launches (1994)
- Scenic Road (State and Local)
- Town Line

Inset Map
 Town of Trumbull



/com/ida/projects/41245.05/graphics/figures/CTFF481_Viewshed_map_1_5000.pdf