COHEN and WOLF P.C.
ATTORNEYS AT LAW

JESSE A. LANGER

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

August 4, 2011

VIA FEDERAL EXPRESS and ELECTRONIC MAIL

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

Re: Docket No. 407 – Application by T-Mobile Northeast LLC for a Certificate of Environmental Compatibility and Public Need for a Telecommunications Facility at 77-145 Pleasant Point Road in the Town of Branford, 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 Interrogatories to the Connecticut Siting Council

Please contact me if you have any questions.

Very truly yours,

Jesse A. Langer

JAL/lcc
Enclosures

cc: Service List (*w/encl.*)

1115 Broad Street
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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 PLEASANT POINT ROAD IN THE TOWN OF BRANFORD, CONNECTICUT

DOCKET NO. 407

Date: August 4, 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 second set of Pre-Hearing Interrogatories propounded by the Connecticut Siting Council in connection with the above-captioned Application.

31. Please provide photographic simulations of the proposed tower as it will appear from Long Island Sound and the Thimble Islands.

A31 Please see memorandum, photographic simulations and comparative viewshed map relating to the proposed facility and views of the facility from the Long Island Sound appended hereto as Attachment A.

32. Could T-Mobile construct the proposed tower as a monopole with internal antennas? If so, what would be the diameter of the monopole?

A32 A monopole with an outside radome diameter of 36" would be sufficient for T-Mobile's appurtenance installation.

33. Would construction of the facility as a monopole with internal antennas affect T-Mobile's projected coverage from the facility?

A33 Internal mount antennas would not affect T-Mobile's coverage from the proposed site initially. However, as traffic increases and more channels are needed, combiners will be needed in light of the limited quantity of antenna ports. Combiners would increase the overall loss associated with the radio frequency ("RF") path and would ultimately reduce the effective coverage footprint of a given sector due to reduced power at the antenna for broadcast.

Additionally, the use of internal mount antennas would reduce the ability of a carrier to modify antenna characteristics such as azimuths and mechanical downtilt settings. A better alternative to internal mounted antennas would be the deployment of flush-mount or close-mount antennas to a monopole. This design allows for more flexibility in RF coverage design from the facility and allows greater ability for technology upgrades as well as the use of microwave dishes for back haul solutions.

The deployment of a flush-mount or close-mount antenna design would also allow T-Mobile to build a steel monopole, which can be upgraded to platforms or multi antenna brackets in the future. Such upgrades would be difficult with an internal mount facility, as the enclosure would have to be removed and replaced with a section of monopole in the future. The existing carriers would have go off-line to complete construction.

Internal mount enclosures introduce additional obstacles if the municipality considers locating its equipment on the facility. Since many municipal radio designs include whip antennas, the installation to the upper section of an internal mount facility can prove problematic especially if there are multiple municipal antennas.

Respectfully submitted,

T-MOBILE NORTHEAST LLC

By: _____

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Jesse A. Langer, Esq.
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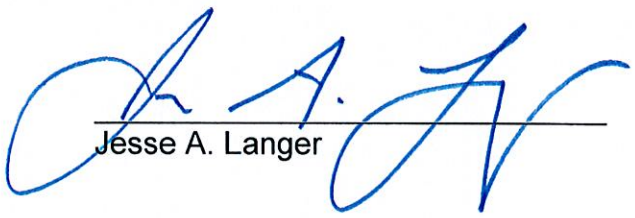
CERTIFICATE OF SERVICE

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

Transportation
Land Development
Environmental
Services

Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Mr. Hans Fiedler
Development Manager CT
T-Mobile
35 Griffin Road
Bloomfield, CT 06002

Date: August 3, 2011

Project No.: 41245.06

From: Mike Libertine

Re: Docket 407 – T-Mobile
Supplemental Visual Resource Evaluation
Pleasant Point Road
Branford, Connecticut

At the request of T-Mobile, and in response to question 31 of interrogatories submitted by the Connecticut Siting Council (Council) dated January 4, 2011, Vanasse Hangen Brustlin, Inc. ("VHB") completed a supplemental Visual Resource Evaluation ("VRE") to evaluate the potential visibility of T-Mobile's proposed wireless telecommunications facility ("Facility") from Long Island Sound.

VHB conducted a balloon float on July 27, 2011 and reconnaissance of Long Island Sound and the area around the Thimble Islands An approximate 5-foot diameter, helium-filled weather balloon was tethered at the proposed height of 160 feet above grade at the Site location. Weather conditions were favorable for the balloon float, with sunny skies and temperatures in the low 90s. Winds were relatively calm with occasional gusts approaching 12 miles per hour. Once the balloon was aloft, VHB personnel boated off-shore to compare results of the predictive computer model presented in the April 2010 VRE Report and to capture views towards the proposed Facility from various points on Long Island Sound, as depicted on the accompanying photolog map and associated photographs.

The Facility would be visible from various locations on the Sound, as depicted in the photographs obtained from the representative locations below.

1. View from Long Island Sound west of Middle Rock
2. View from Long Island Sound at Buoy #5
3. View from Long Island Sound at Buoy #8
4. View from Long Island Sound south of Rogers Island
5. View from Long Island Sound west of Governor Island
6. View from Long Island Sound overlooking Potato Island
7. View from Long Island Sound north of Governor Island
8. View from Long Island Sound northwest of Cut In Two Island
9. View from Long Island Sound at Buoy #11
10. View from Long Island Sound northwest of Davis Island

Generally, the results of this supplemental visibility analysis were consistent with the predictive model and information presented in the 2010 VRE report. Although the viewshed map presented in the VRE depicts large areas of visibility in Long Island Sound, it is noted that the predictive model makes no distinction as to the extent of the Facility protruding above the tree line; it simply provides a representation of line-of-sight between two points (the view point and the top of Facility). This is important to consider because numerous locations identified on the viewshed map as potentially visible above the tree canopy either did not reveal the balloon or the balloon appeared to be at, or just slightly above or below, the tree canopy. Where the Facility may be seen on Long Island Sound, it is at distances of nearly a mile and beyond.

Observations of coastline development during this supplemental analysis indicate that substantial residential development exists throughout the area and is visible from Long Island Sound. In addition, at least one existing telecommunications tower can be seen from various locations Long Island Sound. This Sprint-owned facility is located on Acorn Street in Branford, approximately 1.5 miles to the north of the proposed Facility; T-Mobile is not located on this tower. The attached viewshed map depicts visibility associated with both the existing Acorn Street tower as well as the proposed T-Mobile Facility.

It is VHB's opinion that the addition of the proposed Facility would not degrade visual quality through significant alteration of the natural features of vistas and viewpoints. While it is evident that some coastal locations would have views of the proposed Facilty, VHB believes that the photographs presented herein support our position that the installation of the proposed Facility would not represent a wholly unique or otherwise prominent feature from the majority of these vantage points or result in an adverse impact on coastal resources.

Photographic Documentation and Simulations

Proposed Wireless Telecommunications Facility

CTNH802
Pleasant Point Road
Branford, CT

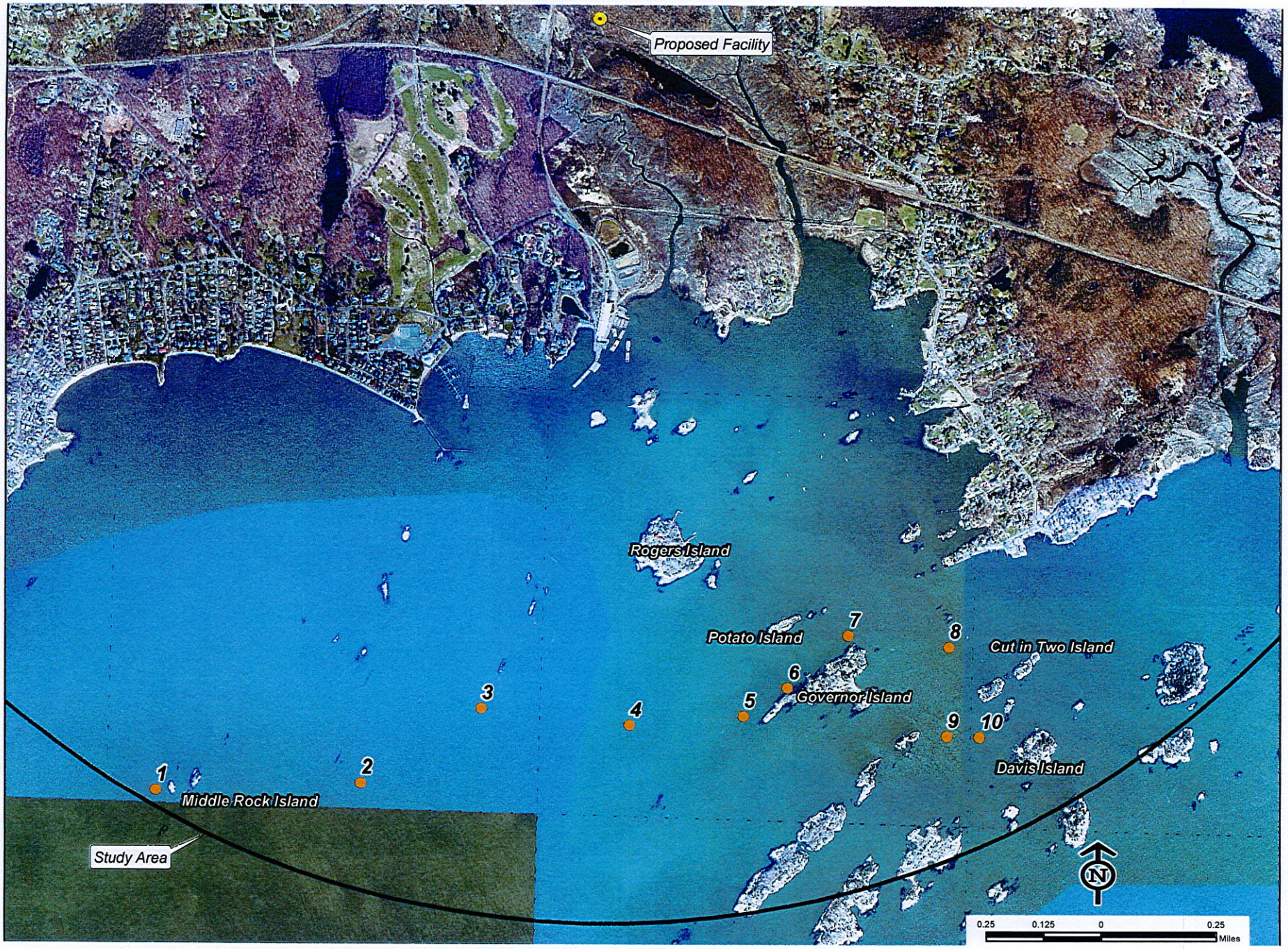
SUBMITTED TO:

T-Mobile

SUBMITTED BY:

VHB

PHOTOLOG MAP



T··Mobile·· VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	LONG ISLAND SOUND WEST OF MIDDLE ROCK	NORTHEAST	1.94 MILES +/-	YEAR-ROUND

T-Mobile

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	LONG ISLAND SOUND WEST OF MIDDLE ROCK	NORTHEAST	1.94 MILES +/-	YEAR-ROUND

T-Mobile

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	LONG ISLAND SOUND AT BUOY #5	NORTHEAST	1.74 MILES +/-	YEAR-ROUND

T - -Mobile-

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	LONG ISLAND SOUND AT BUOY #5	NORTHEAST	1.74 MILES +/-	YEAR-ROUND

T · · Mobile ·

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	LONG ISLAND SOUND AT BUOY #8	NORTHEAST	1.53 MILES +/-	YEAR-ROUND

T··Mobile·

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	LONG ISLAND SOUND AT BUOY #8	NORTHEAST	1.53 MILES +/-	YEAR-ROUND

T · · Mobile ·

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	LONG ISLAND SOUND SOUTH OF ROGERS ISLAND	NORTH	1.55 MILES +/-	YEAR-ROUND

T··Mobile·

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	LONG ISLAND SOUND SOUTH OF ROGERS ISLAND	NORTH	1.55 MILES +/-	YEAR-ROUND

T··Mobile·

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	LONG ISLAND SOUND WEST OF GOVERNOR ISLAND	NORTHWEST	1.55 MILES +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	LONG ISLAND SOUND WEST OF GOVERNOR ISLAND	NORTHWEST	1.55 MILES +/-	YEAR-ROUND

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	LONG ISLAND SOUND OVERLOOKING POTATO ISLAND	NORTHWEST	1.52 MILES +/-	YEAR-ROUND

T··Mobile·

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	LONG ISLAND SOUND OVERLOOKING POTATO ISLAND	NORTHWEST	1.52 MILES +/-	YEAR-ROUND

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	LONG ISLAND SOUND NORTH OF GOVERNOR ISLAND	NORTHWEST	1.44 MILES +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	LONG ISLAND SOUND NORTH OF GOVERNOR ISLAND	NORTHWEST	1.44 MILES +/-	YEAR-ROUND

T-Mobile

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	LONG ISLAND SOUND NORTHWEST OF CUT IN TWO ISLAND	NORTHWEST	1.57 MILES +/-	YEAR-ROUND

T · · Mobile ·

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	LONG ISLAND SOUND NORTHWEST OF CUT IN TWO ISLAND	NORTHWEST	1.57 MILES +/-	YEAR-ROUND

T-Mobile

VHB

PHOTOGRAPHIC DOCUMENTATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	LONG ISLAND SOUND AT BUOY #11	NORTHWEST	1.74 MILES +/-	YEAR-ROUND

T · · Mobile ·

VHB

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	LONG ISLAND SOUND AT BUOY #11	NORTHWEST	1.74 MILES +/-	YEAR-ROUND

T-Mobile

VHB

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	LONG ISLAND SOUND NORTHWEST OF DAVIS ISLAND	NORTHWEST	1.78 MILES +/-	YEAR-ROUND

PHOTOGRAPHIC SIMULATION

VIEW	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	LONG ISLAND SOUND NORTHWEST OF DAVIS ISLAND	NORTHWEST	1.78 MILES +/-	YEAR-ROUND

T··Mobile··

VHB

Comparative Viewshed Analysis
Proposed T-Mobile Wireless Telecommunications Facility
CTNH802
Pleasant Point Road
Branford, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Existing Facility height is 150 feet; Proposed Facility height is 160 feet.
- Existing tree canopy height estimated at 60 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.
- Results field verified by balloon float.

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-meter pixel resolution; digitized by VHB, 2011
- Base map comprised of Branford and Guilford (1984), USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP, 1997
- Federal Open Space data layer provided by CT DEP, 2004
- CT DEP Property data layer provided by CT DEP, April 2010
- CT DEP boat launches data layer provided by CT DEP, Dec 2008
- Scenic Roads layer derived from available State and Local listings

Map Compiled July, 2011

Legend

- Proposed Tower Location
- 21 Acorn Road Tower Location

Photographs - July 27, 2010
- Balloon visible above trees

- Year-Round Visibility At 160 Feet AGL
- Year-Round Visibility At 150 Feet AGL
- Protected Municipal and Private Open Space (CT DEP, 1997)
  - Cemetery
  - Preservation
  - Conservation
  - Existing Preserved Open Space
  - Recreation
  - General Recreation
  - School
  - Uncategorized
- CT DEP Property (CT DEP, May 2010)
  - 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 Open Space (CT DEP, 2004)
- Boat Launches (CT DEP, Dec 2009)
- Scenic Road (State and Local)
- Town Line

Inset Map
Town of Branford

Path: J:\41245.06\GIS\Project\Branford_Comparative_Viewshed_Map.mxd

VHB

T-Mobile