

**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 166 PAWCATUCK AVENUE THE TOWN  
OF STONINGTON, CONNECTICUT

DOCKET NO. 399

Date: March 30, 2010

**PRE-FILED TESTIMONY OF SCOTT M. CHASSE**

**Q1. Please state your name and profession.**

A1. Scott M. Chasse and I am a civil engineer and co-founder of All-Points Technology Corporation ("All-Points").

**Q2. What kind of services does All-Points provide?**

A2. All-Points is a civil and structural engineering firm with offices located in Killingworth, Connecticut and North Conway, New Hampshire that provides design and permitting services to wireless providers in the northeast including Connecticut and New York. All-Points develops zoning and construction drawings for the installation of prefabricated equipment shelters and equipment cabinet arrays with supporting antennae on existing structures and for new stand-alone cellular towers. All-Points also manages surveys, wetland delineations, coastal consistency analyses and visual resource evaluations for proposed telecommunications facilities.

**Q3. Please summarize your professional background in telecommunications.**

A3. I have a B.S. in civil engineering from the University of Connecticut. I have been licensed as a professional engineer in Connecticut since 1997 and in New York since 2001. I have over thirteen years of experience in the telecommunications industry. My experience includes the zoning, design and construction of more than 1250 wireless telecommunications facilities.

**Q4. What services did All-Points provide T-Mobile with respect to the proposed Facility?**

A4. T-Mobile retained All-Points to design and prepare the site plans for the proposed telecommunications facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). The site plans included the site access plan, the compound plan and tower elevation for the Facility. In addition, All-Points evaluated the proposed development to determine whether the proposed Facility would require the removal of any trees.

**Q5. Please describe the site of the proposed Facility.**

A5. The site of the proposed Facility is 166 Pawcatuck Avenue, Stonington, Connecticut ("Property"). The Property is a 5.02 acre parcel and is designated on the Assessor's Tax Map as Map 26, Block 2, Lot 1. The Property is zoned RR-80. Warren D. Main and Patricia L. Main own the Property and currently use it as a residence and farm. T-Mobile would lease a 2,100 square foot area located in the northeasterly portion of the Property.

**Q6. Please describe the access to the proposed Facility.**

A6. Vehicle access to the Facility would extend from Pawcatuck Avenue along an existing gravel driveway and across an existing cleared field. T-Mobile would add a gravel driveway, which would connect the existing driveway to the proposed Facility.

**Q7. Please describe the proposed Facility.**

A7. The Facility would consist of a 120-foot monopole structure with antenna arrays mounted thereon and related equipment on the ground at the base on a concrete pad. The Facility would sit within a 1,800 square foot compound, which would be enclosed by an eight-foot high chain link fence. The compound area would sit within the 2,100 square foot leased area. T-Mobile would install panel antennas mounted on T-arms at 117'-9" +/- above grade level. The Facility would also accommodate three additional carriers in the Connecticut marketplace. T-Mobile would extend utility service underground from existing utility demarcations located on the subject property.

**Q8. Would the construction, operation and maintenance of the proposed Facility require the removal or relocation of any trees?**

A8. No. T-Mobile would not have to remove or relocate any trees in constructing, operating and maintaining the proposed Facility.

**Q9. How much clearing and grading is necessary?**

A9. The proposed Facility would require approximately eighty cubic yards of cut for the compound and access and approximately 95 cubic yards of cut for the proposed utility trench. The access drive and compound would require approximately ninety cubic


yards of fill. The proposed Facility would be finished with approximately ninety yards of crushed stone. In my opinion, with appropriate sedimentation and erosion controls installed, this amount of disturbance would be minimal.

**Q10. Please describe the results of the on-site wetlands inspection.**

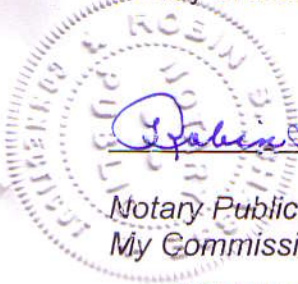
A10. At the request of T-Mobile, All-Points retained Vanasse Hangen Brustlin, Inc. (“VHB”) to conduct a wetlands inspection of the Property, the results of which are found at Exhibit K of the Application. All-Points and VHB reviewed the materials concerning the location of the proposed Facility, access drive and utility easements. VHB then conducted an in-field review of the Property to determine the location of wetlands on or near the Property and the impact of the proposed Facility on any wetlands. Based upon VHB’s inspection, there is a narrow, forested wetland system on the Property. The Facility would be approximately 165 feet from this wetland system in an upland hayfield. The proposed gravel access, which would connect the existing access and the Facility, would be approximately seventy-five feet from the wetland system. Proper sedimentation and erosion controls implemented for the construction of the Facility, specifically for the proposed access, would avoid any adverse impact.


**Q11. Can the tower be designed with a pre-engineered fault to prevent encroachment on adjacent properties?**

A11. Yes, it is common practice to design towers with such engineered faults and in fact many of the facilities approved by the Council have been designed in this manner.

  
\_\_\_\_\_  
Scott M. Chasse

Sworn and subscribed to before me this  
30 day of March, 2010.



  
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Robin S. Chasse

Notary Public  
My Commission expires

**ROBIN S. CHASSE**  
**NOTARY PUBLIC**  
MY COMMISSION EXPIRES JUNE 30, 2014

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE  
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DOCKET NO. 399

Date: March 31, 2010

**PRE-FILED TESTIMONY OF MICHAEL CHUN**

**Q1. Please state your name and profession.**

A1. Michael Chun and I am a program director for EBI Consulting ("EBI"). EBI is located at 21 B Street, Burlington, MA, 01803.

**Q2. What kind of services does VHB provide?**

A2. EBI is a full service environmental, health and safety consulting firm. It provides a wide array of services for those in the telecommunications industry, including assessments under the National Environmental Policy Act of 1969 (the "NEPA").

**Q3. Please summarize your professional background in telecommunications.**

A3. I have a B.S. in biology, with a minor in geology, from Colgate University and a M.A. in energy policy and environmental science, with a concentration in hydrogeology. This degree also included courses in environmental planning and permitting from Tufts University Graduate School. I am working on a Masters in architectural history from Drew University Certificate Program. I have also completed several continuing legal education courses in a variety of topics including surface / groundwater and soil field sampling, wetlands identification, an introduction to Section 106, and Section 106 and

wireless telecommunication towers. I am also certified by the United States Fish and Wildlife Service as a Habitat Evaluation Procedure practitioner.

I have extensive experience in Phase I and II environmental site assessment, NEPA compliance, environmental assessments and remediation consulting services to, among other industries, telecommunication firms. My work with environmental reviews includes analysis of historical properties, wetlands, endangered species habitat, flood plains, and other areas of environmental concerns in relation to proposed and existing telecommunications facilities.

**Q4. What services did EBI provide T-Mobile with respect to the proposed Facility?**

A4. T-Mobile retained EBI to perform NEPA compliance for the proposed telecommunications facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). I performed the NEPA analysis for the proposed Facility.

**Q5. Please describe the results of the NEPA analysis?**

A5. The Facility is categorically excluded from any requirement for further environmental review by the Federal Communications Commission ("FCC") in accordance with the NEPA and no permit is required by the FCC prior to construction of the proposed Facility. Please see the NEPA Summary Report attached to the Application as Exhibit P.



**Q6. Is the proposed Facility located in an officially designated wilderness area or wildlife preserve?**

A6. No. The Property is not designated as a wilderness area and it is not located in any areas identified as a wildlife preserve or in a U.S. Fish and Wildlife Service National Wildlife Refuge.

**Q7. Is the proposed Facility likely to affect threatened or endangered species or designated critical habitats?**

A7. No. The Facility would not affect threatened or endangered species or designated critical habitats. There are no endangered species identified in New London County. The Piping Plover is the only threatened species in New London County. The Piping Plover's natural habitat is along coastal beaches. Because the proposed Facility would be located in a cleared agricultural field along the Amtrak rail line, the Facility would not affect the Piping Plover or its habitat.

**Q8. Is the proposed Facility likely to affect any National Parks, National Forests, National Parkways or Scenic Rivers, State Forest, State Designated Scenic Rivers or State Gamelands?**

A8. No. The proposed Facility would not affect any National Parks, National Forests, National Parkways or Scenic Rivers, State Forest, State Designated Scenic Rivers or State Gamelands.



**Q9. Is the proposed Facility likely to affect any districts, sites, buildings, structures, or objects of significance in American history, architecture, archeology, engineering or culture as listed, or potentially eligible for listing in the National Register of Historic Places?**

A9. No. The proposed Facility would not impact any recognized districts, sites, buildings, structures or objects of significance in American history, architecture, archeology, engineering or culture as listed on the National Register of Historic Places. In a letter dated September 30, 2009, the State Historic Preservation Officer concluded that the Facility would have no such impact. See the Exhibit N attached to the Application.

**Q10. Will the proposed Facility affect any Native American religious sites?**


A10. No. EBI also consulted with three Native American Indian tribes – the Mohegan Indian Tribe, the Mashantucket Pequot Tribe and the Narragansett Indian Tribe – because they might have interests impacted by the construction, operation and maintenance of the Facility. All three Tribes confirmed that they do not have any interests that would be impacted by the Facility.

**Q11. Will the proposed Facility be located in a floodplain?**

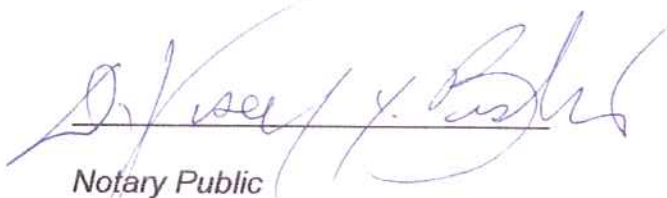
A11. No, the proposed Facility would not be located in a 100 year flood plain.

**Q12. Will the proposed Facility involve a significant change in surface features (i.e. wetlands, deforestation, water diversion)?**

A12. No. The nearest wetland system is more than 100 feet from the proposed Facility compound. The proposed Facility would not require the removal of any trees.

  
Michael Chun

Sworn and subscribed to before me this  
31 day of March, 2010.

  
Notary Public  
My Commission expires

State of New York  
County of New York  
31 Sworn to before me this  
day of MARCH 20 10

DR. JOSEPH Y. BISTRICER  
Notary Public, State of New York  
No. 01BI6031795  
Qualified in New York County  
Commission Expires October 12, 2013

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

RE: APPLICATION BY T-MOBILE  
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DOCKET NO. 399

Date: March 30, 2010

**PRE-FILED TESTIMONY OF DEAN E. GUSTAFSON**

**Q1. Please state your name and profession.**

A1. Dean E. Gustafson and I am a professional soil scientist and senior wetland scientist for Vanasse Hangen Brustlin, Inc. ("VHB"). VHB is located at 54 Tuttle Place in Middletown, Connecticut.

**Q2. What kind of services does VHB provide?**

A2. Among many other services, VHB provides a full array of services for the permitting of telecommunications facilities, including wetlands compliance, visual impact analyses and environmental assessments under the National Environmental Policy Act of 1969 ("NEPA").

**Q3. Please summarize your professional background in telecommunications.**

A3. I have a B.S. in plant and soil sciences from the University of Massachusetts. I am a professional soil scientist with over twenty-one years of experience in wetlands consulting. My experience includes wetlands delineation, evaluation, mitigation design, monitoring, stream restoration and permitting before local, state and federal bodies. I

have a particular expertise in wetland identification, wetland impact assessments, wetland mitigation design and oversight, and soil mapping and classification. I have provided wetland consultation for more than one hundred telecommunications facilities.

**Q4. What services did VHB provide T-Mobile with respect to the proposed Facility?**

A4. T-Mobile retained VHB to perform a Visual Resource Evaluation Report, a wetlands compliance analysis and a coastal consistency analysis for the proposed telecommunications facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). I performed the wetlands assessment and coastal consistency analysis for the proposed Facility.

**Q5. What did you do to determine the existence of wetlands on or near the site of the proposed Facility?**

A5. On August 28, 2009, I performed an on-site investigation of the site of the proposed Facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Property") for the purposes of determining the regulatory limits of wetlands. I also reviewed the site plans prepared by All-Points Technology Corporation for the Facility. Based upon the on-site investigation and review of the site plans, I delineated wetlands in proximity to the proposed project and completed a wetlands delineation report, which is attached to the Application as Exhibit K.

**Q6. Based upon your investigation, are there any wetlands located on the Property?**

A6. Yes. The Facility would be approximately 165 feet east from this wetland system in an upland hayfield. The proposed gravel access, which would connect the existing access and the Facility, would be about seventy-five feet east from the wetland system.

**Q7. Please describe the wetland system located on the Property.**

A7. The wetland system consists of a relatively narrow, forested and maintained hayfield wetland system. This wetland system starts along the southern boundary of the Property, south of the existing gravel access that serves the Property. Seasonal flows are conveyed in a man-made channel (intermittent watercourse feature) to an approximate fifteen inch reinforced concrete pipe under the existing access. The outfall from the culvert sheet flows over an existing hayfield wetland located west of the proposed Facility.

**Q8. Based upon your investigation, are there any wetlands located off the Property but near the site of the proposed Facility?**

A8. No. There are no other wetland systems proximate to the proposed Facility.

**Q9. In your professional opinion, based upon your review of the site plans and the proposed site of the Facility, would the construction, operation and maintenance of the Facility impact any wetland system?**

A9. No. The Facility is located a significant distance from the identified wetland system and would not result in any long term likely adverse impacts. Proper

sedimentation and erosion controls implemented for the construction of the Facility, specifically for the proposed access, would avoid any adverse temporary impact to nearby wetlands.

**Q10. Would the access or utility routing proposed for the Facility impact any wetland system?**

A10. No. Proper sedimentation and erosion controls implemented for construction of the proposed Facility, specifically for the installation of the proposed access, would avoid any adverse impact to the wetland system. Additionally, the location of the utility easements would prevent the utility routing from impacting the wetland system.

  
Dean E. Gustafson

Sworn and subscribed to before me this  
30th day of March, 2010.

  
Kristine M. Paul

Notary Public

My Commission expires

**KRISTINE M. PAUL**  
**NOTARY PUBLIC**  
MY COMMISSION EXPIRES JAN. 31, 2014

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DOCKET NO. 399

Date: March 31, 2010

**PRE-FILED TESTIMONY OF SCOTT HEFFERNAN**

**Q1. Please state your name and profession.**

A1. Scott Heffernan, and I am the president and principal engineer for Transcom Engineering, Inc. ("Transcom"), which is located in Sterling, Massachusetts.

**Q2. What kind of services does Transcom provide?**

A2. Transcom provides wireless design services for both commercial and government projects including, but not limited to, evaluating possible sites for telecommunications facilities, system design, and determining radio frequency ("RF") coverage, capacity and interference for proposed telecommunications facilities.

**Q3. Please summarize your professional background in telecommunications.**

A3. I have a B.S. in Physics from Clark University and Certificates in Telecommunications Engineering and UNIX Programming from Northeastern University. I have over fourteen years of experience in wireless engineering, which includes the design, integration, optimization and management of network build-outs for commercial wireless carriers such as Nextel, AT&T, Wireless, Cingular and Voicestream (T-Mobile's predecessor). I have also been involved in network design for government entities such



as the Department of Homeland Security, Department of the Army, Department of the Navy, and the United States Marine Corps. I have spent the last six years primarily as an independent contractor for T-Mobile, focusing on the design and integration of the T-Mobile wireless network.

**Q4. What services did you provide T-Mobile regarding the proposed Facility?**

A4. I evaluated T-Mobile's existing network in this area of the State and assessed the need for the proposed telecommunications facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). In doing so, I considered the general design of T-Mobile's network, the technical constraints in selecting certain proposed facilities, and the specific need for the Facility. I also evaluated the potential designs for the proposed Facility.

**Q5. Please describe T-Mobile's wireless network in Connecticut.**

A5. T-Mobile's predecessor entities began constructing a wireless network to provide PCS (Personal Communication Services) service in Connecticut in the mid-1990s. T-Mobile is licensed by the Federal Communications Commission to provide PCS service using frequencies in the 1900 MHz range and AWS service using frequencies in the 2100 MHz range. Current efforts are directed to providing signals to areas without coverage and meeting demand for additional capacity within the areas already served. Each new site must be chosen to meet the need for coverage and/or capacity without creating RF interference among sites.

**Q6. What requirements does the nature of wireless technology place on T-Mobile's selection of cellular tower locations?**

A6. Like most personal communications service providers, T-Mobile's wireless network is based on the principle of frequency reuse. T-Mobile must select cellular tower locations so that the towers provide sufficient signal strength overlap to allow a call to be "handed-off" between cellular tower locations without creating unnecessary duplicative coverage and frequency interference. Terrain variations may also limit the siting of cellular towers.

Technological advances in service, such as the availability of data and video services through customer handsets, are also significant factors in system development. Increased customer demand and expectations resulting from those advances drive the need for additional sites.

T-Mobile's required lower limit threshold is -84 dBm, which is expected to provide reliable in-vehicle coverage. A higher threshold level of -76 dBm is the minimum required to provide reliable in-building coverage. At levels below the -84 dBm threshold, T-Mobile's service to customers for voice and data services would experience signal degradation. In addition, levels below -84 dBm would adversely affect T-Mobile's ability to provide reliable E-911 services as mandated by the federal government.

**Q7. Please describe T-Mobile's need for the proposed Facility.**

A7. The Facility would be an integral component of T-Mobile's wireless network in Stonington. There is a gap in coverage in this area, specifically along the Amtrak rail line, as well as along Pawcatuck Avenue, River Road and Greenhaven Road, just south of Interstate 95, and the surrounding area. The Facility, in conjunction with other

existing and future facilities in Stonington and surrounding towns, is necessary for T-Mobile to provide wireless services to people living and working in and traveling through this area of the State.

**Q8. How did you analyze the efficacy of the proposed Facility?**

A8. I used propagation prediction tools to determine the potential effectiveness of the proposed Facility in meeting the identified coverage need. That analysis took into account T-Mobile's coverage objective, T-Mobile's existing on-air sites in this area of the State and the existing terrain and vegetation. The analysis confirmed that the proposed Facility would provide service to the target area and would improve service generally within this area of Stonington. The Facility would provide effective service with an antenna array located at 117 feet above grade level ("AGL"). At lower heights, the coverage in this area of Stonington starts to deteriorate and fall below T-Mobile's minimum required threshold of -84 dBm.

**Q9. Was T-Mobile's search area for a facility based upon your analysis of need?**

A9. Yes. T-Mobile initiated its site search based upon my analysis of need in this area of Stonington. The site search began on or about August 15, 2008. This site search was centered in the vicinity of Pawcatuck Avenue and Hawley Street in Stonington. The search area radius was approximately one-half mile. Please refer to T-Mobile's responses to the Connecticut Siting Council's first set of interrogatories and attachments thereto.



**Q10. Has a test drive been conducted in this area regarding the proposed Facility?**

A10. Yes. T-Mobile continually drives its on-air sites for network analysis and propagation model tuning purposes. A wireless network is dynamic environment, subject to equipment, frequency and environmental changes. T-Mobile strives to have the most current test drive data available for any given area in its network. This allows for greater accuracy in its current network design of new facilities to ensure that each new facility is a quality edition to the network.

**Q11. Please summarize the basis for the height of the proposed Facility.**

A11. The analysis of this area of Stonington confirmed that the minimum height required to cover the intended coverage objective is at 117 feet AGL. At lower heights, the coverage in this area of Stonington starts to deteriorate and fall below T-Mobile's minimum required threshold of -84 dBm. Accordingly, antennae located at the proposed height would allow T-Mobile to provide adequate coverage within the target coverage area.

**Q12. Is adequate coverage in this area of Stonington necessary to provide consistent and reliable 911 service?**

A12. Yes. If the coverage within a specific area is inadequate, then not only does routine call reliability suffer, but so does 911 / emergency call reliability.

  
\_\_\_\_\_  
Scott Heffernan

Sworn and subscribed to before me this  
31st day of March, 2010.

Karen M. Bartholomew

*Notary Public*  
*My Commission expires*

KAREN M. BARTHOLOMEW  
NOTARY PUBLIC  
MY COMMISSION EXPIRES APR. 30, ~~2010~~  
2013

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

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DOCKET NO. 399

Date: March 30, 2010

**PRE-FILED TESTIMONY OF MICHAEL P. LIBERTINE**

**Q1. Please state your name and profession.**

A1. Michael P. Libertine and I am the Director of Environmental Services employed by Vanasse Hangen Brustlin, Inc. ("VHB"). VHB is located at 54 Tuttle Place in Middletown, Connecticut. My responsibilities at VHB include managing and overseeing the environmental science and engineering projects, including telecommunications projects, undertaken by VHB's Middletown office.

**Q2. What kind of services does VHB provide?**

A2. Among many other services, VHB provides environmental compliance and permitting support for telecommunications facilities, including visual impact analyses and wetlands and natural resources assessments.

**Q3. Please summarize your professional background in telecommunications.**

A3. I have assisted in the permitting of over 500 telecommunications projects in New England and New York over the past twelve years. My responsibilities include the coordination and oversight of environmental and land use evaluations, visual impact analyses and regulatory permitting support.

My background includes over eighteen years of consulting in the environmental field. I have a B.S. in natural resources management from the University of Connecticut and a B.A. in marketing from Stonehill College. I am also a licensed Environmental Professional in Connecticut. I have served as the project manager for more than 1,600 environmental site assessments and field investigations for property transfers in Connecticut, Rhode Island, New Hampshire, Massachusetts, New Jersey, New York, Florida and Canada.

**Q4. What services did VHB provide T-Mobile regarding the proposed Facility?**

A4. T-Mobile retained VHB to perform a Visual Resource Evaluation ("Evaluation") and provide a Visual Resource Evaluation Report ("VRE Report"), wetlands delineation and a coastal consistency analysis for the proposed telecommunications facility at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). I oversaw these activities associated with the proposed Facility.

**Q5. Please describe the process for conducting the Visual Resource Evaluation.**

A5. The Evaluation consists of a predictive computer model and in-field analysis. The predictive computer model assesses the potential visibility of the Facility within a two mile radius ("Study Area"), including private property and/or otherwise inaccessible areas for field verification. The in-field analysis consists of a "balloon float" and drive through reconnaissance of the Study Area. This in-field investigation allows VHB to obtain location and height representations, back-check the initial predictive computer



model results and inventory/document the visibility of the proposed Facility from areas accessible to the public. VHB compares the results of the predictive computer model and the in-field analysis and incorporates the combined results into the final viewshed map. In this case, VHB had the opportunity to review in-field conditions via a balloon float on September 21, 2009. The completed VRE Report and viewshed map are included in Exhibit M of the Application.

**Q6. Please describe how VHB prepared the viewshed analysis for the VRE Report.**

A6. VHB uses a computer modeling tool called ERSI's ArcView® Spatial Analyst, to calculate the areas within the Study Area where the Facility would be visible. This software is based upon data such as the height of the Facility, the Facility's ground elevation, the surrounding topography and existing vegetation. VHB first constructs a digital elevation model, which is derived from Connecticut LiDAR-based digital elevation data produced by the University of Connecticut Center for Land Use Education and Research, to develop a three dimensional topographic layer of the Study Area. A forest canopy layer is then created by hand-tracing (digitizing) mature trees and woodland areas (as depicted on 2006 digital orthophotos [aerial photographs]), converting this into a geographic data layer, and assigning an average height value. During the initial analysis, VHB omits the tree canopy so the only visual constraint is topography. This initial analysis provides a reference point useful in understanding areas that may provide direct lines of sight and determining seasonal visibility fluctuations. Subsequent to the initial analysis, VHB adds the existing vegetation data (in this case, a height of sixty-five feet was assigned to this data layer). VHB also includes an additional data

layer, obtained from the Connecticut State Department of Environmental Protection, depicting significant resource areas such as State forests and parks, recreational facilities, registered historic sites, open space lands and other sensitive visual receptors. VHB depicts on the view shed map any state-or locally-designed scenic roads and Connecticut blue-blazed hiking trails that exist in the Study Area.

**Q7. Please describe how VHB conducted the balloon float.**

A7. On September 21, 2009, VHB raised and maintained a four-foot diameter helium filled weather balloon at the location of the proposed Facility tethered to a height of 120 feet to conduct the initial in-field analysis. After stabilizing the balloon, VHB traveled the local public thoroughfares within the Study Area to verify the computer generated viewshed map and inventory areas of visibility. In conducting the drive-by reconnaissance, VHB focused its evaluation on nearby residential areas and other potential sensitive visual receptors. While the balloon was aloft, VHB took photographs from a variety of locations, settings and vantage points to assist in evaluating where the balloon was visible. VHB also recorded the latitude and longitude of each photograph using a handheld global positioning system (GPS) receiver unit. The photographs were taken using a NIKON D-80 digital camera body and NIKON eighteen to 135 millimeter lens. VHB set the lens to fifty millimeters, which most accurately represents the unaided human eye.

**Q8. How did VHB select the locations for the photographs during the in-field investigation?**

A8. VHB selected several of the photograph locations using a preliminary version of the viewshed map to identify areas adjacent to public roads within the Study Area from

where the proposed Facility might be visible. Particular emphasis is placed on residential and recreational areas, as well as scenic roads. VHB selects other locations based on in-field observations made during the time of the balloon float.

**Q9. Please describe the estimated visibility of the proposed Facility.**

A9. The areas from which the Facility would be at least partially visible year round comprise only ninety-nine acres, which is just over 1 percent of the entire Study Area. The Facility would be partially visible year round to twelve residential properties within the Study Area, which would include four properties on Pawcatuck Avenue within the immediate vicinity of the proposed Facility; two properties along Hawley Street; two properties on South Anguilla Road; two properties on Route 184; and two properties on Greenhaven Road. Areas of seasonal visibility would comprise of approximately fifty-one additional acres, primarily within approximately 0.25 mile of the proposed Facility. There are approximately nine additional residential properties that may have limited seasonal views of the Facility, including eight properties along Pawcatuck Avenue and one property on Hawley Street.

**Q10. Please describe any features that would reduce potential visual impact of the proposed Facility.**

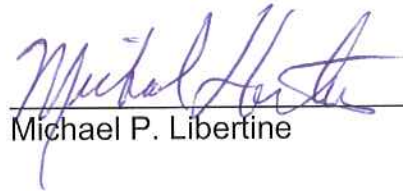
A10. The generally rolling topography and forested nature of the site vicinity help to reduce the potential visual impacts of the proposed Facility. The existing vegetation in the Study Area consists of mixed deciduous hardwood species with an average estimated height of sixty-five feet. The tree canopy covers nearly 4,184 acres of the 8,042 acre Study Area. The Study Area also includes 105 linear miles of



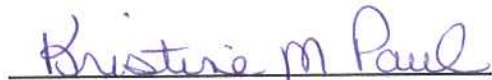
roadways and rail line as well as 567 miles of surface water (Wequetequock River and Pawcatuck River).

**Q11. Will the proposed Facility have any visual impact on any scenic, historic or recreational sites, hiking trails or parks?**

A11. No views of the Facility are anticipated from known historic resources, the Barn Island Wildlife Area, Pawcatuck River Wildlife Area, or the two locally-designated scenic roads in Stonington. The Facility would be visible from a short segment of Route 1A in Westerly, Rhode Island, approximately 1.8 miles southeast of the site; these views would be limited to the top portion (upper 10± feet) of the Facility or at the tree-line on the horizon.

  
Michael P. Libertine

Sworn and subscribed to before me this  
30th day of March, 2010.



*Notary Public*  
*My Commission expires*

**KRISTINE M. PAUL**  
**NOTARY PUBLIC**  
MY COMMISSION EXPIRES JAN. 31, 2014

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DOCKET NO. 399

Date: March 29, 2010

**PRE-FILED TESTIMONY OF RAYMOND M. VERGATI**

**Q1. Please state your name and profession.**

A1. Raymond M. Vergati and I am the vice president of operations for HPC Development, LLC ("HPC") with respect to projects in New England. HPC is located at 46 Mill Plain Road, 2<sup>nd</sup> Floor, Danbury, Connecticut.

**Q2. What services does HPC provide?**

A2. HPC Development is a full service professional consulting and site development firm servicing the wireless telecommunications, broadband, broadcast, and wind energy industries. With respect to the telecommunications industry, HPC provides management services for site development projects including, but not limited to, locating primary and backup sites for telecommunications facilities within a specified search area; coordinating the site design with A&E firms, radio frequency ("RF") engineers and construction managers; and negotiating lease or option agreements.

**Q3. What is your professional background in telecommunications?**

A3. I received a B.S. in finance (with a minor in Spanish) from Seton Hall University. I have approximately twelve years of experience in the telecommunications industry. I have managed site development projects for wireless carriers since 2001, including site acquisition, zoning needs and oversight of construction vendors. Since April of 2008, I have managed site acquisition for T-Mobile Northeast LLC ("T-Mobile") regarding numerous sites in Connecticut.

**Q4. What services has HPC provided T-Mobile with respect to the proposed Facility?**

A4. T-Mobile retained HPC to perform a search for possible sites within this area of the Town of Stonington ("Town"), assist in negotiating the acquisition of a particular site and oversee the development of that particular site. HPC has overseen the development of the telecommunications facility proposed at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). I assisted in all facets of the site acquisition.

**Q5. How does T-Mobile conduct a search for possible sites?**

A5. T-Mobile decides to seek out a site in an area based upon the needs of its wireless infrastructure and extensive research of the subject area. T-Mobile looks for possible site candidates in areas in which T-Mobile has identified coverage and/or capacity needs. The area targeted is the geographical location where the installation of a site would, based on general radio frequency engineering and system design standards, likely address the identified problem. T-Mobile's goal is to locate sites that



will remedy coverage or capacity issues, while resulting in the least environmental impact to the surrounding area.

T-Mobile is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, T-Mobile first studies the area in and near the area of need to determine whether any suitable structure exists. If T-Mobile cannot find a structure with appropriate height and structural capabilities, it turns to industrial/commercial areas or individual parcels that have appropriate environmental and land use characteristics. T-Mobile looks for sites that will produce the least amount, if any, environmental impact on the surrounding area. Ultimately, the suitability of each location depends on whether that location would accommodate the coverage need and whether there would be any negative environmental effects.

**Q6. Please describe the search undertaken by T-Mobile for this Facility.**

A6. The site search began on or about August 15, 2008. This site search was centered in the vicinity of Pawcatuck Avenue and Hawley Street in the Town. The search area radius was approximately one-half mile. Please refer to T-Mobile's responses to the Connecticut Siting Council's first set of interrogatories and attachments thereto.

**Q7. Did T-Mobile consider alternative sites?**

A7. Yes. T-Mobile considered several sites other than the site of the proposed Facility. Those sites considered and rejected by T-Mobile are as follows:



1. Pawcatuck Thread Mill, 12 River Road. This property hosts the Pawcatuck Thread Mill, which is being developed into apartments and stores. The existing building is four stories high with a five story penthouse on the northwest corner of the building. T-Mobile reviewed the building to determine whether a facility located on the rooftop would provide adequate coverage for the intended coverage objective. T-Mobile concluded that the rooftop is too far to the southeast to afford adequate coverage to T-Mobile's coverage goal.

2. Highland Homestead Inc, 170 Pawcatuck Avenue. This property abuts the property of the proposed Facility. This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile contacted the owners of this property, but they were not interested in leasing land to T-Mobile to construct a telecommunications tower.

3. First Student Bus Company, 50 Extrusion Drive. This property hosts an existing light duty lattice tower, which is approximately forty-five feet high. T-Mobile contacted the owners of this property, but they were not interested in having T-Mobile replace the existing tower with a higher telecommunications facility which would be needed to address T-Mobile's coverage goal.

4. Davis Standard, LLC, 1 Extrusion Drive. This property hosts an existing one story building. T-Mobile reviewed the building to determine whether a facility located on the rooftop would provide adequate coverage for the Amtrak rail line. T-Mobile concluded that the rooftop is too low to afford adequate coverage to T-Mobile's coverage goal.

5. End South Broad Street Amtrak Right of Way Parcel. There are no suitable structures on this property for a telecommunications facility and, therefore, this site would require the construction of a tower. Access to the parcel is across property owned by the Town of Stonington. T-Mobile met with the First Selectman, the Honorable Edward Haberek, Jr., about a prospective facility on this property. The Town was not interested in constructing a facility on this alternative site because it would be within the vicinity of a school and park. The Town asked T-Mobile to consider alternate locations for a telecommunications facility.

6. South Broad Street, Town of Stonington Sewer. This property hosts the Town's pump station. There is an existing light duty lattice tower, which is approximately twenty-five feet high. T-Mobile concluded that the existing lattice tower is too short to meet its coverage goals, and the tower is structurally inadequate to support T-Mobile antennas. T-Mobile met with the First Selectman, the Honorable Edward Haberek, Jr., about a prospective facility on this property. The Town decided not to pursue this alternative site because it would be within the vicinity of a school and park. The Town asked T-Mobile to consider alternate locations for a facility.



7. 151 Greenhaven Road, Town of Stonington. This property hosts an existing old lattice tower, which is approximately thirty feet high. The tower is no longer in use. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the lattice tower is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal.

8. Town of Stonington Sewer Treatment Plant, 34 Mary Hall Road. This property hosts the town's water pollution station. There is an existing light duty lattice tower on roof which is approximately forty-five feet tall. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the lattice tower is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location.

9. 333 Greenhaven Road. This property hosts an existing old windmill, which is approximately thirty-five feet tall. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the windmill is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location.

10. Palmer Neck Road, State of Connecticut. This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the parcel is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location.

11. Greenhaven Road, State of Connecticut. This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the parcel is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location.

12. Brucker PTWY, State of Connecticut. This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the parcel is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location.

13. 568 Greenhaven Road This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide adequate coverage for the intended coverage objective. T-Mobile concluded that the parcel is too far to the southwest to afford adequate coverage to T-Mobile's coverage goal and that a much taller structure would be needed at this location. Additionally, the property owner has not responded to T-Mobile's inquiry about locating a telecommunications facility on the parcel.

**Q8. Why did T-Mobile select the site of the proposed Facility over the other candidate sites reviewed by HPC?**

A8. The proposed site of 166 Pawcatuck Avenue, Stonington, Connecticut ("Property") is superior to other parcels in the area. The Property is 5.02 acres. T-Mobile would not have to remove any trees to construct the Facility. The proposed Facility would be approximately 650 feet from Pawcatuck Avenue with excellent screening from mature trees. The property immediately to the north of the proposed Facility is heavily wooded. Verizon has expressed an interest to co-locate on the proposed Facility.

The proposed Facility would enhance wireless service availability to existing and future T-Mobile wireless device users. Enhanced coverage provided by the Facility will allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The intended coverage area of the proposed Facility would include the Amtrak rail line, as well as along Pawcatuck Avenue, River Road and Greenhaven Road, just south of Interstate 95 in the Village of Pawcatuck, and the surrounding area.

The construction, maintenance and operation of the Facility would have minimal environmental impacts, if any, on the surrounding area. The Facility would not impact any wetland or coastal resources. Finally, the visual impact of the Facility would be



minimal. The areas from which the Facility would be at least partially visible year round comprise of just over 1 percent of the entire two mile radius study area. Seasonal visibility would be limited to select areas within 0.25 miles of the proposed Facility.

**Q9. Has T-Mobile consulted with municipal officials about the proposed Facility?**

A9. Yes. T-Mobile has met its obligations for municipal consultation under General Statutes § 16-50I (e). On September 29, 2009, T-Mobile submitted a technical report to the First Selectman, the Honorable Edward Haberek, Jr., regarding the Facility. The technical report, a copy of which is included in the bulk filing accompanying the Application, which includes specifics about the Property, the Facility, the site selection process and the environmental effects, if any, of the proposed Facility. On November 5, 2009, representatives of T-Mobile met with the First Selectman; the Director of Public Works, Joe Bragaw; and the Town Engineer, Larry Sullivan, to discuss the proposed Facility. The Town also invited the property owners abutting the Property to attend and ask questions. In a letter, dated November 25, 2009, the Town stated that it has no issues with the proposed Facility.

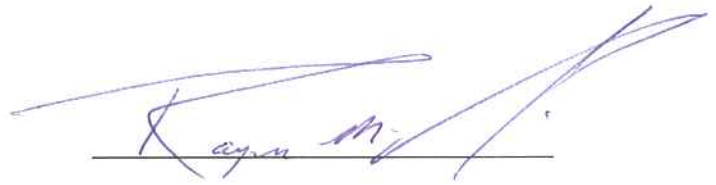
**Q10. Has T-Mobile offered the Town the opportunity to co-locate its emergency services equipment on the Facility?**

A10. T-Mobile has expressed to the Town its willingness to provide, free of charge, space on the proposed monopole for municipal public safety communications antennas. The Town has reserved its right to co-locate its equipment on the Facility, but has not yet expressed its intentions to do so.

**Q11. Did T-Mobile post a sign giving the public notice of the hearing on this Application?**

A11. Yes. On or about March 26, 2010, T-Mobile posted a sign, giving public notice of T-Mobile's Application and the related public hearing, on property owned by the Town along Pawcatuck Avenue (Assessor I.D. 13-6-3), within the vicinity of the Property. T-Mobile posted the sign at this location, as opposed to the Property itself, at the request of the Council. This location would likely provide more visibility for the sign when compared to the more isolated location of the Property. Photographs of the sign and an affidavit are appended hereto as Attachment A.





Raymond M. Vergati

Sworn and subscribed to before me this  
29th day of March, 2010.

Karen M. Bartholomew

*Notary Public*  
*My Commission expires*

KAREN M. BARTHOLOMEW  
NOTARY PUBLIC  
MY COMMISSION EXPIRES APR. 30, ~~2010~~  
2013

# **ATTACHMENT A**

**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 166 PAWCATUCK AVENUE THE TOWN  
OF STONINGTON, CONNECTICUT

DOCKET NO. 399

Date: March 29, 2010

**AFFIDAVIT OF RAYMOND M. VERGATI**

I, Raymond M. Vergati, do hereby declare and state:

1. I am over the age of 18 years, and believe in the obligation of an oath.
2. I am the vice president of operations of HPC Development, LLC ("HPC")

with respect to projects in New England.

3. I have personal knowledge of the development of the Facility including the specific contents of this affidavit.

4. HPC has overseen the development of the telecommunications facility proposed at 166 Pawcatuck Avenue, Stonington, Connecticut ("Facility"). I assisted in all facets of the site acquisition.

5. On or about March 26, 2010, a sign was installed on property owned by the Town along Pawcatuck Avenue (Assessor I.D. 13-6-3), within the vicinity of the Property.

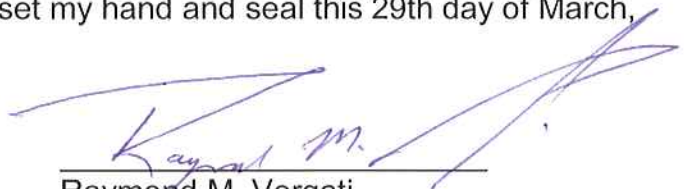
6. On or about March 29, 2010, I viewed the sign installed on the property identified as Assessor I.D. 13-6-3.

7. The sign was posted at this location, as opposed to the Property itself, at the request of the Connecticut Siting Council ("Council"). This location would likely provide more visibility for the sign when compared to the more isolated location of the Property.

8. The sign was installed at least ten business days prior to the date of the hearing on the Application for a Certificate of Environmental Compatibility and Public Need submitted to the Council bearing docket number 399.

9. Photographs of the sign, as posted, are attached hereto as Exhibit A.

**IN WITNESS WHEREOF**, I have hereunto set my hand and seal this 29th day of March, 2010.

  
Raymond M. Vergati

Subscribed and sworn to before me this 29th day of March, 2010



Notary Public  
My Commission Expires:

KAREN M. BARTHOLOMEW  
NOTARY PUBLIC  
COMM. EXPIRES 12/31/2013  
2013

# **EXHIBIT A**





**PUBLIC NOTICE**

Public Notice: [Illegible text regarding a public hearing or notice, possibly mentioning a date like 10/20/10 and a location like 200 West, Torrington, CT.]

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## PUBLIC NOTICE

1 Mobile Weather art LLC ("Mobile") has filed an application with the Connecticut Siting Council ("Council") for the construction of a telecommunications facility at 166 Pawcatuck Avenue, Shelton, CT. The maximum height of this facility shall not exceed 120ft. The Council will hold a public hearing on April 13th, 2010 at 152 Elm Street, Shelton, CT 06484 at 1 pm and 7 pm. Mobile will conduct a balloon float representative of the proposed height between 8:00am and 6:00pm on the day of the public hearing. A copy of the application can be reviewed at the town hall or the offices of the Council in New Britain, CT. For more information, please contact the Council by telephone at (860) 827-2935, electronically at [www.ct.gov](http://www.ct.gov) or by mail at 10 Franklin Square, New Britain, Connecticut 06251.

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