## ATTACHMENT 3

ATTACHMENT 3(A)

# General Facility Description 

49 Mountain Avenue
North Stonington, Connecticut
Owner: Tucker Village LLC
2.24 Acre Parcel

The footprint of the proposed telecommunications facility is located at the western edge portion of a 2.24 acre parcel owned by Tucker Village LLC located at 49 Mountain Avenue in North Stonington. The proposed facility consists of a $45^{\prime} \times 90^{\prime}$ compound within a $100^{\prime}$ by $100^{\prime}$ lease area. The proposed height of the new selfsupporting monopole tower is 190' above grade level ("AGL").

AT\&T will install up to twelve (12) panel antennas (centerline) at the 187' AGL height of the tower together with an associated $12^{\prime} \times 20^{\prime}$ radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 40' by 75' area to accommodate AT\&T's equipment and provide for future shared use of the facility by other carriers. The tower compound would be enclosed by an 8' foot high chain link fence. Vehicle access to the facility would be provided by a gravel access drive approximately 400' in length. Utility connections will be run underground from Mountain Avenue.

## Site Evaluation Report

## I. LOCATION

A. COORDINATES: $41^{\circ} 30^{\prime} 16.7^{\prime \prime} \mathrm{N} \quad 71^{\circ} 52^{\prime} 55.7^{\prime \prime} \mathrm{W}$
B. GROUND ELEVATION: 474' AMSL
C. SITE ADDRESS: 49 Mountain Avenue, Connecticut
D. ZONING WITHIN 1/4 MILE OF SITE: Residential

## II. DESCRIPTION

A. SITE SIZE: $45^{\prime}$ by $90^{\prime}$ compound
B. LESSOR'S PARCEL: 2.24
C. TOWER TYPE/HEIGHT: Monopole/190' AGL
D. SITE TOPOGRAPHY AND SURFACE: The proposed tower and associated compound are near the top of a slope leading up from Mountain Avenue.
E. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The surrounding terrain is characterized by rolling hills with ground elevations ranging from 170' AMSL to approximately 534' AMSL. A review of the site together with available site information provided by Federal, State and local databases indicates that the nearest wetlands are over 400, distant from the proposed facility and access drive. No activity is proposed near or directly within the delineated wetland area.
F. LAND USE WITHIN 1/4 MILE OF SITE: General land use activities directly surrounding the subject parcel include residential uses, wooded and undeveloped land, and various roads and highways, including Route 201.

## III. FACILITIES

A. POWER COMPANY: Connecticut Light and Power
B. POWER PROXIMITY TO SITE: Electric power will be available for use from Mountain Avenue.
C. TELEPHONE COMPANY: AT\&T
D. PHONE SERVICE PROXIMITY: Telephone facilities/service will be available from Mountain Avenue.
E. VEHICLE ACCESS TO SITE: Access to the facility would be provided by a gravel access driveway

## F. OBSTRUCTIONS: None

G. CLEARING AND FILL REQUIRED: The facility would require the removal of 36 trees above $6 "$ DBH and some clearing of brush. Some fill will be required to properly grade the proposed access drive and compound construction area. Detailed plans would be included in a Development and Management Plan ("D\&M" plan) after any approval of the facility which may be issued by the Connecticut Siting Council.
IV. LEGAL
A. PURCHASE [ ] LEASE [ X ]
B. OWNER: Tucker Village LLC
C. ADDRESS: 49 Mountain Avenue, North Stonington, Connecticut

## Facilities and Equipment Specification

## I. TOWER SPECIFICATIONS:

A. MANUFACTURER: To be determined
B. TYPE: Self-Supporting monopole
C. HEIGHT: 190' AGL

DIMENSIONS: Approximately $5^{\prime}$ in diameter at the base, tapering to approximately $2^{\prime}$ at the top.
D. LIGHTING: None as set forth in attached FAA report
II. TOWER LOADING:
A. AT\&T - up to 12 panel Antennas, along with up to 12 TMA/Diplexers
a. Model - Powerwave P90-14-XLH-RR or equivalent panel antenna
b. Antenna Dimensions - approximately 48 " H x 12 "W x 6 "D
c. Position on Tower $-187^{\prime}$ centerline AGL and below
d. Transmission Lines - MFG/Model: Commscope Aluminum; Size 1-5/8"
B. Future Carriers - To be determined

## III. ENGINEERING ANALYSIS AND CERTIFICATION:

The tower will be designed in accordance with American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site. The details of the tower and foundation design will be provided as part of the final $\mathrm{D} \& \mathrm{M}$ plan.

## SBA Towers III LLC

## WIRELESS COMMUNICATIONS FACILITY

N. STONINGTON 3 - CT11796-S 49 MOUNTAIN AVENUE NORTH STONINGTON, CT





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 PLACEMENT AND CONSTRUCTION | 5 |  |
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## GENERAL CONSTRUCTION SEOUENC

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ATTACHMENT 3(B)

## Environmental Assessment Statement

## I. PHYSICAL IMPACT

## A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. The construction and operation of the tower and related site improvements will have no effect on any off-site watercourses or waterbodies, and the equipment associated with the facility will discharge no pollutants to area surface or groundwater systems. The distance from the proposed project where ground disturbance would occur to the nearest wetland is over 400', with no activity occurring directly within the delineated wetland area. Thus, the proposed project will not directly impact any wetland's hydrologic functional role. Moreover, Best Management Practices to control storm water and soil erosion during construction will be implemented.

## B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. A generator for emergency power is proposed which will have de minimus emissions associated with its operation.

## C. LAND

Some minimal clearing and grading may be necessary in the compound area and access drive. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

## D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from an emergency generator.

## E. POWER DENSITY

The cumulative worst-case calculation of power density from AT\&T's operations at the facility would be $3.5 \%$ of the MPE standard. Attached is a copy of a Power Density Report indicating same.

## F. VISIBILITY

The potential visual impact of the proposed monopole was determined by preparation of the attached Visual Analysis Report. The potential visibility was assessed within an approximate two (2) mile radius using a computer-based, predictive view shed model and in-field visual analysis. The monopole would be visible to approximately 104 acres within the 8,042 -acre study area. The majority of year-round views would occur over open water and along their immediate shorelines. No views are anticipated from the portion of the Narragansett Trail within the Study Area.

## II. SCENIC, NATURAL, HISTORIC \& RECREATIONAL VALUES

The parcel on which the facility is located and immediate surrounding areas exhibit no scenic, natural, historic or recreational characteristics which are unique. The Connecticut State Historic Preservation Officer ("SHPO") has been contacted and is reviewing the site currently. The Connecticut Department of Environmental Protection ("CTDEP") Natural Diversity Database ("NDDB") maps for the proposed site have been reviewed. Attached is a letter from the Connecticut Department of Environmental Protection confirming that no nearby threatened or endangered species are known and accordingly no impact on these species is anticipated.


June 17, 2011

## Connecticut Siting Council

Subject: New Cingular Wireless, North Stonington, CT

## Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless to investigate the RF Power Density at the proposed site located in North Stonington, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and pointing directly at the ground. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.


Summary: Under worst-case assumptions, the RF Power Density at the proposed site located in North Stonington, CT will not exceed $3.50 \%$ of the FCC MPE limit for General Public/ Uncontrolled Environments.

Sincerely,


Anthony Wells
Managing Partner

Clinton Papenfuss
SBA Towers
5900 Broken Sound Parkway NW
Boca Raton, FL 33487
** DETERMINATION OF NO HAZARD TO AIR NAVIGATION **

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

| Structure: | Antenna Tower CT 11796-S |
| :--- | :--- |
| Location: | North Stonington, CT |
| Latitude: | $41-30-16.70 \mathrm{~N}$ NAD 83 |
| Longitude: | $71-52-55.70 \mathrm{~W}$ |
| Heights: | 194 feet above ground level (AGL) |
|  | 669 feet above mean sea level (AMSL) |

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:
$\qquad$ At least 10 days prior to start of construction (7460-2, Part I) Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 03/17/2012 unless:
(a) extended, revised or terminated by the issuing office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2508. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-ANE-838-OE.

Signature Control No: 129750163-131033972
( DNE )
Vee Stewart
Specialist
Attachment(s)
Frequency Data
Map(s)
cc: FCC

| LOW <br> FREQUENCY | HIGH <br> FREQUENCY | FREQUENCY <br> UNIT | ERP | ERP <br> UNIT |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 698 | 806 | MHz | 1000 | W |
| 806 | 824 | MHz | 500 | W |
| 824 | 849 | MHz | 500 | W |
| 851 | 866 | MHz | 500 | W |
| 869 | 894 | MHz | 500 | W |
| 896 | 901 | MHz | 500 | W |
| 901 | 902 | MHz | 7 | W |
| 930 | 931 | MHz | 3500 | W |
| 931 | 932 | MHz | 3500 | W |
| 932 | 932.5 | MHz | 17 | dBW |
| 935 | 940 | MHz | W |  |
| 940 | 941 | MHz | 3500 | W |
| 1850 | 1910 | MHz | 1640 | W |
| 1930 | 1990 | MHz | 1640 | W |
| 2305 | 2310 | MHz | 2000 | W |
| 2345 | 2360 | MHz | 2000 | W |



ATTACHMENT 3(C)

# Proposed Wireless Telecommunications Facility 

# North Stonington 3 

## 49 Mountain Avenue <br> North Stonington, CT

$\begin{array}{ll}\text { Prepared by } & \begin{array}{l}\text { VHB/Vanasse Hangen Brustlin, Inc. } \\ \\ \\ \\ \\ \\ \\ \text { Middletown, CT } 06457\end{array}\end{array}$

September 2010

## Visual Resource Evaluation

SBA Towers II LLC seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need to construct a wireless telecommunications facility ("Facility") to be located on property at 49 Mountain Avenue ("Host Property") in the town of North Stonington, Connecticut. This Visual Resource Evaluation was conducted to approximate the visibility of the proposed Facility within a two-mile radius of the Site ("Study Area"). Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area. Also contained in Attachment A is a photograph of the proposed Facility location.

## Project Introduction

The proposed Facility includes the construction of a 190-foot tall monopole designed to support up to four antenna platforms with associated ground equipment to be located within a fenced enclosure at the base of the tower. Based on information provided by the project engineer, Clough Harbor Associates, LLP, the proposed Facility is located at approximately 475 feet above mean sea level (AMSL). Access to the Facility would be provided via a proposed gravel driveway off Mountain Avenue.

## Site Description and Setting

Identified in the Town of North Stonington land records as Map 2734/Block 75/Lot 9552, the host property consists of approximately 34.48 acres of wooded, undeveloped land. Land use within the general vicinity of the host property is mainly comprised of low-density residential development, much of which is seasonal, and undeveloped woodlands. In total, the Study Area features approximately 27 linear miles of roadways, including segments of Route 201.

The topography within the Study Area is generally characterized by gently rolling hills with ground elevations that range from 170 feet AMSL to approximately 534 feet AMSL. The Study Area contains approximately 252 acres of surface water that includes Billings Lake located approximately 0.20 -mile to the east of the proposed Facility; Anderson Pond located 0.61 -mile to the northwest; and Wyassup Lake located roughly 0.95 -mile to the southeast. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species that occupy approximately 7,214 acres of the 8,042 -acre study area $(90 \%)$. The average tree canopy height throughout the Study Area was estimated to be approximately 65 feet.

## METHODOLOGY

To evaluate the visibility associated with the proposed Facility, VHB used the combination of a predictive computer model and in-field analysis. The predictive model provided a preliminary assessment of potential visibility throughout the entire study area, including private property and other areas inaccessible for direct observations. A "balloon float" and Study Area reconnaissance were subsequently conducted for field verification to back-check the initial computer modeling results, to obtain location and height representations, and to provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

## Visibility Analysis

VHB uses ArcGIS® Spatial Analyst, a computer modeling tool developed by Environmental Systems Research Institute, Inc., to calculate the areas from which at least the top of the proposed Facility is expected to be visible. Project- and Study Area-specific data were incorporated into the computer model, including Facility height, its ground elevation, underlying and surrounding topography and existing vegetation. Information used in the model included Connecticut LiDAR ${ }^{1}$-based digital elevation data and model and a digital forest (or tree canopy) layer developed for the Study Area. The LiDAR-based Digital Elevation Model (DEM) represents ten-foot spatial resolution elevation information for the state of Connecticut that was derived through the spatial interpolation of airborne LiDARbased data collected in the year 2000 and has a horizontal resolution of ten (10) feet. The data was edited in 2007 and made available by the University of Connecticut through its Center for Land Use Education and Research (CLEAR). To create the forest layer, mature trees and woodland areas depicted on aerial photographs (ranging in dates from 2004 to 2008) were manually digitized (hand traced) in ArcGIS®, creating a geographic data layer for inclusion in the computer model. The black and white, digital aerial photographs, obtained from the Connecticut Department of Transportation, were flown in the spring of 2004 and selected for use in this analysis because of their image quality and depiction of pre-leaf emergence (i.e., "leaf-off") conditions. These photographs are half-foot pixel resolution. The more recent aerial photographs (2006 and 2008) were overlaid and evaluated to identify any new development resulting in the removal of trees.

Once the specific data layers were entered, the ArcGIS® Spatial Analyst Viewshed tool was applied to achieve an estimate of locations where the proposed Facility could be visible. First, only topography was used as a possible visual constraint; the tree canopy was omitted to evaluate potential visibility with no intervening vegetative screening. The initial omission of

[^0]this data layer resulted in an excessively conservative prediction, but it provided an opportunity to identify areas within potential direct lines of sight of the Facility.

The forest data layer was then overlaid and built into the DEM, using a conservative average tree canopy height of 50 feet, to establish a baseline assessment of intervening vegetation. The resultant preliminary viewshed map was used during the in-field activities (described further below) to compare the outcome of the initial computer modeling with observations of the balloon float to identify deviations. Information obtained from the field reconnaissance was ultimately incorporated into the model to refine the viewshed map.

The average tree canopy height, in this case 65 feet, was determined based on information collected in the field using a combination of a hand-held laser range finder and comparative observations. The revised average tree canopy height of 65 feet was then incorporated into the model and the results displayed on the viewshed map. The forested areas were overlaid on the DEM with a height of 65 feet added to the base elevation and the visibility within the Study Area calculated.

As a final step, the forested areas were extracted from the areas of visibility, using a conservative assumption that a person standing within the forest will not be able to view the proposed Facility beyond a distance of approximately 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations within this distance could provide visibility of at least portions of the proposed Facility at any time of the year. In "leaf-on" conditions, this distance may be overly conservative for most locations. However, for purposes of this analysis, it was reasoned that forested land beyond 500 feet of the proposed Facility would consist of light-impenetrable trees of a uniform height.

Also included on the map is a data layer, obtained from the State of Connecticut Department of Environmental Protection ("CTDEP"), which depicts various land and water resources such as parks and forests, recreational facilities, dedicated open space, CTDEP boat launches and other categories. In addition, based on a review of the Connecticut Walk Book (East Addition), the Narragansett Trail, part of the Connecticut Blue Blaze trail system, traverses the Study Area. These portions of the trail are depicted on the attached viewshed map. Lastly, based on both a review of published information and discussions with municipal officials in North Stonington it was determined that there are no state or locally-designated scenic roadways located within the Study Area.

## Balloon Float and Study Area Reconnaissance

On August 11, 2010 Vanasse Hangen Brustlin Inc., (VHB) conducted a balloon float to further evaluate the potential viewshed within the Study Area. The balloon float consisted of raising and maintaining an approximate four-foot diameter, helium-filled weather balloon at the proposed site location at a height of 190 feet. A second balloon was tethered at 160 feet AGL. Once the balloons were secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area and accessed Billings Lake, Anderson Pond and

Wyassup Lake in order to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. During the balloon float, the temperature was approximately 85 degrees Fahrenheit with calm wind conditions and mostly sunny skies.

## Photographic Documentation

During the balloon float, VHB personnel conducted visual reconnaissance within the Study Area to inventory those areas where the balloon was and was not visible. The balloons were photographed from a number of different vantage points to document the actual view towards the proposed Facility. The locations of the photos are described below:

| View | Location | Orientation | Dist. To Site | Visibility |
| :---: | :--- | ---: | :--- | :--- |
| 1 | Billings Lake | Southwest | $\pm 0.50-$ Mile | Year-Round |
| 2 | Billings Lake | Southwest | $\pm 0.45-$ Mile | Year-Round |
| 3 | Billings Lake | Southwest | $\pm 0.55-$ Mile | Year-Round |
| 4 | Billings Lake | Southwest | $\pm 0.33-M i l e$ | Year-Round |
| 5 | Wyassup Lake | Northwest | $\pm 1.36-M i l e$ | Year-Round |
| 6 | Anderson Pond | Southeast | $\pm 0.83-$ Mile | Year-Round |
| 7 | Anderson Pond | Southeast | $\pm 0.76-$ Mile | Year-Round |
| 8 | Adjacent to \#589 Route 201 | Southeast | $\pm 0.99-$ Mile | Non-Visible |
| 9 | Adjacent to \#62L Patricia Avenue | Southeast | $\pm 0.75-$ Mile | Non-Visible |
| 10 | Northwest Corner Road | Northeast | $\pm 1.26-$ Mile | Non-Visible |
| 11 | Route 201 at Michael Street Cemetery | East | $\pm 0.46-M i l e$ | Year-Round |
| 12 | Cedar Drive | East | $\pm 0.10-M i l e$ | Year-Round |
| 13 | Legend Wood Road | Northeast | $\pm 0.23-M i l e$ | Year-Round |
| 14 | Island Road | Northwest | $\pm 0.21-M i l e$ | Non-Visible |
| 15 | Mountain Avenue adjacent to proposed site | Southwest | $\pm 0.07-$ Mile | Non-Visible |
|  | access |  |  |  |

Photographs of the balloon from the view points listed above were taken with a Nikon D-80 digital camera body and Nikon 18 to 135 mm zoom lens. For the purposes of this report, the lens was set to 50 mm . "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a $24 \times 36 \mathrm{~mm}$ image, the normal focal length is about $50 \mathrm{~mm} .{ }^{11}$

The locations of the photographic points are recorded in the field using a hand-held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

[^1]
## Photographic Simulation

Photographic simulations were generated for the representative locations where the balloon was visible during the in-field activities. The photographic simulations portray a scaled rendering of the proposed Facility from these locations, with four wireless service providers represented. Using field data, site plan information and 3-dimension (3D) modeling software, a spatially referenced model of the site area was generated. Geographic coordinates (latitude and longitude) were collected in the field for all of the photograph locations via GPS and later used to generate virtual camera positions within the spatial 3D model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo rendering software programs. The balloon was included in the photographs to provide a visual marker and to cross-reference the height and proportions of the proposed Facility. A photolog map and the simulations are contained in Attachment A.

## CONCLUSIONS

Based on this analysis, areas from where the proposed 190-foot monopole would be visible above the tree canopy comprise approximately 104 acres within the 8,042- acre Study Area. As depicted on the attached viewshed map (included as Attachment B), the majority of yearround visibility associated with the proposed Facility occurs over open water on portions of Billings Lake (approximately 65 acres), Anderson Pond (approximately 13 acres) and Wyassup Lake (approximately 11 acres) and along their immediate shorelines. The viewshed map also depicts areas of limited year-round visibility along select portions of Cedar Drive, Legend Woods Road and Route 201. VHB estimates that at least partial year-round views of the proposed Facility may be achieved from portions of approximately 12 residential properties within the Study Area. Overall, year-round visibility is limited to these areas by the intervening topography and vegetation contained within the Study Area. No views are anticipated from the portion of the Narragansett Trail contained within the Study Area.

The viewshed map also depicts several additional areas where seasonal (i.e. during "leaf off" conditions) views are anticipated. These areas comprise approximately 32 acres and are located within the general vicinity of the proposed Facility and along the western shoreline of Billings Lake, adjacent to areas of potential year-round visibility. VHB estimates that limited seasonal views of the proposed Facility may be achieved from portions of approximately 6 additional residential properties.

The approximate number of residential properties where potential views of the proposed Facility may be achieved is provided in the table below:

| Location | Number of Residential Properties <br> With Potential Year-Round (Leaf-On) <br> Visibility | Number of Residential Properties <br> With Potential Seasonal (Leaf-Off) <br> Visibility |
| :--- | :---: | :---: |
| Billings Lake | 1 |  |
| Cedar Drive | 3 | - |
| Coal Pit Road | - | 2 |
| Island Road | 1 | 3 |
| Mountain Avenue | 1 | - |
| Murphy Road | 3 | 1 |
| Wyassup Road | 3 | - |
|  |  | - |
| TOTAL: | $\mathbf{1 2}$ | $\mathbf{6}$ |

## Attachment A

## Photolog Documentation Map, Project Area Photograph, Balloon Float Photographs and Photographic Simulations

PHOTOLOG MAP


PHOTOGRAPHIC DOCUMENTATION


PROPOSED PROJECT AREA
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PHOTOGRAPHIC DOCUMENTATION


## PHOTOGRAPHIC SIMULATION



PHOTOGRAPHIC DOCUMENTATION



PHOTOGRAPHIC DOCUMENTATION


PHOTOGRAPHIC DOCUMENTATION


## Attachment B

## Viewshed Map


(VHB $\operatorname{SBA}(1)))$

Viewshed Analysis SBA Towers II, LLC Telecommunications Facility North Stonington 3 49 Mountain Avenue North Stonington, Connecticut Note: North Stonington, Connecticut

- Vienshed analysis conducted using ESRIs Spatial Analyst.
-Proposed Facilith heioht is 1 100 feet.
teit
 - Existing tree canopy height estimated at 65 feet.
- Study Area is comprised of to two-mile radius surounding
the proposed faciity and includes 8,042 acres of land. DATA SOURCES
Digital elevation model (DEM) derived from Connecticut LiDAR-based
Digital Elevation Data (collected in 2000 ) with a 10 -foot spatial resolution Digital Elevation Data (collected in 20000 with a 10 -foot spatial resolution
produced by the University of Connecticut and the Center for Land Use
Eduation and Research (CIEAR); Education and Research (CLEAR); 2007
Forest areas derived from 2008 digital orthophotos with 1-meter
Forest areas derived from 2008 digitala orthophotos with 1 -meter
pixel resolution; idititized by VHB, 2010
-Base map comprised of Jewett City Ashaway (1984), Old Mystic (1 pixel resolution; digitized by VHB, 2010
Base map comprise of Jewett City, Ashaway (1984), Old Mystic (1983),
and Voluntown (1975) USGS Quaarangle Maps and Voluntown (1975) USGS Quadrangle Maps
- Municipal and Private Open Space data layer provided by CT DEP, 1997 Municipal and Private Open Space data layer provided by CT
Federal Open Space data ayer orovided by CT DEP, 2004
CT DEP Property data layer provided by CT DEP, April 2010 - Federal Open Space data layer provided by CDDP, 2004
CT DEP Property data layer provided by C DEP Apriol 2010
CT DEP Protected Open Space Mapping (POSM) data layer CT DEP Protected Open Space Mapping (POSM) data layer
provided by CT DEP, Dec 2009
provided by CT DEP, Dec 2009
CT DEP boat launches data layer provided by CT DEP, Dec 2009
- Scenic Roads layer derived from available State and Local listings
-Scenic Roads layer derived fig
Legend
$\bigcirc$ Proposed Tower Location
Photographs - August 11, 201
- Balloon is not visibl
Balloon visible above trees
$\square$ CT DEP Property (CT DEP, May 2010
- Balloon visible above trees

$\square \begin{aligned} & \text { Protected Muncicipal and Private } \\ & \text { Open Space (CT DEP, 1997) }\end{aligned}$ Cemetery
Preservation
Conseration
Kisting Presereved Open Space Conseration
Existing Preserved Open Space
Recreation
General Recreation
School




## Inset Map <br> Town of North Stonington



ATTACHMENT 3(D)

February 7, 2011

David Bahlman
Division Director
Deputy State Historic: Preservation Officer

Historic Preservation and Museum Division

One Constitution Plaza Second Floor Hartford, Connecticut 06103
860.256 .2800
860.256 .2763 (f)

Ms. Coreen Kelsey<br>Environmental Coordinator<br>VHB, Inc.<br>54 Tuttle Place<br>Middletown, CT 06457

Subject: Revised Comments on the Proposed SBA Towers II LLC Telecommunications Facility, 49 Mountain Avenue, North Stonington, Connecticut.

Dear Ms. Kelsey:
The State Historic Preservation Office has reviewed the supplementary information you have provided concerning the referenced project. SBA Towers proposes the construction of a $\sim 190$-foot tall monopole tower and associated ground facilities within a $\sim 45$-foot by $\sim 90$ foot fence-enclosed compound area. The tower will be constructed approximately 500 feet the east of Mountain Avenue within a densely wooded area atop a hill overlooking Billings Lake to the east. Access to the site will be provided by a new 12 -foot wide gravel roadway.

SHPO reviewed the project previously and recommended that an archaeological reconnaissance survey be completed to identify any potentially significant archaeological resources that might be affected by the construction. Heritage Consultants, LLC (Heritage) recently completed the requested survey, which included subsurface testing of the proposes tower site and ground facilities. No potentially significant archaeological resources were identified during the survey and Heritage recommends no additional investigations. Based on the information submitted to our office, it appears that the archaeological survey was completed in accordance with SHPO's Environmental Review Primer for Connecticut's Archaeological Resources. We concur with Heritage's professional opinion that further archaeological investigations for this project are not warranted. SHPO believes that the proposed telecommunications facility at 49 Mountain Avenue will have no effect on historical or archaeological resources listed in, or eligible for listing in, the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking. This comment is provided in accordance with the National Historic Preservation Act. For further information, please contact Daniel Forrest, Staff Archaeologist, at (860) 256-2761 or daniel.forrest @ct.gov.

Kelsey - Proposed Telco Tower at 49 Mountain Ave, North Stonington, CT February 7, 2011
(Page 2/2)

Sincerely,


David Bahlman
Deputy State Historic Preservation Officer
cc: Knowles/MPTN-THPO


# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 

Bureau of Natural Resources

Wildlife Division
79 Elm Street, Sixth Floor
Hartford, CT 06106
Natural Diversity Data Base

September 17, 2010
Ms. Coreen Kelsey
Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, CT 06457
Re: Proposed New Wireless Telecommunications Facility, SBA Towers, CT11796-S/North Stonington 3, 49
Mountain Ave, N. Stonington, CT
Dear Ms. Kelsey:
I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed new wireless telecommunications facility, SBA Towers, CT11796-S/North Stonington 3, 49 Mountain Ave, N. Stonington, CT. According to our information, there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Environmental Protection's Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact mine if you have further questions at (860) 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,


Cc: NDDB File \# 18011



[^0]:    ${ }^{1}$ LiDAR is an acronym for Light Detection and Ranging. It is a technology that utilized lasers to determine the distance to an object or surface. LiDAR is similar to radar, but incorporates laser pulses rather than sound waves. It measures the time delay between transmission and reflection of the laser pulse.

[^1]:    ${ }^{1}$ Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

