STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

RE: APPLICATION OF SBA TOWERS II, LLC
FOR A CERTIFICATE OF ENVIRONMENTAL
COMPATIBILITY AND PUBLIC NEED FOR
THE CONSTRUCTION, MAINTENANCE AND
OPERATION OF A TELECOMMUNICATIONS
FACILITY AT ONE OF TWO ALTERNATE SITES AT
RABBIT HILL ROAD, WARREN, CONNECTICUT

DOCKET NO. 378

Date: May 14, 2009

PRE-FILED TESTIMONY OF RODNEY BASCOM, P.E.

- Q1. Mr. Bascom, please state your name and position.
- A. Rodney Bascom and I am a Civil Engineer at Clough Harbour & Associates, LLP ("CHA"). CHA is located at 2139 Silas Deane Highway, Suite 212, Rocky Hill, Connecticut. A copy of my resume' is attached hereto as Exhibit 1.
- Q2. <u>Please state your qualifications.</u>
- A. I received a bachelor's degree in civil engineering from Clarkson University in 1982. I am a licensed civil engineer in the State of Connecticut. I have worked in the engineering field for over 26 years and have been employed by CHA for 24 years. I have managed and assisted in the permitting of more than 1,000 wireless telecommunications facilities in New England and New York.
- Q3. Please describe your involvement in this matter.
- A. CHA was responsible for designing and preparing the site plans for the proposed Facility at both Site A and Site B (both located at Rabbit Hill Road in Warren) including the site access plan, the compound plan and tower elevation. In addition, CHA conducted a tree inventory of both sites to determine the number of trees with a diameter of 6 inches or larger that would need to be removed for the construction of the site access



driveway and compound. Finally, CHA was responsible for conducting and preparing the visibility analysis (contained in the application at Exhibit L) for both Site A and Site B.

Q4. <u>Please describe the Property.</u>

A. The property owned by the Tanners consists of an approximately 106 acre parcel, known as assessor parcel 4/10-1 (the "Property"). The Tanners also own several other parcels in the vicinity of the Property, including property located on Jack Corner Road (assessor parcels 9-32, 9-17, and 10-6) and additional property on Rabbit Hill Road (assessor parcel 4-3). The Property is bounded to the west by Rabbit Hill Road and to the north by Jack Corner Road. The highest elevation on the Property occurs at or near Jack Corner Road and the elevation of the Property drops off to the south of Jack Corner Road. The Property is currently used for farming operations with associated outbuildings. Portions of the Property, including the location of Site A, are wooded and undeveloped. The Property is located in the north zoning district, as defined by the Warren zoning regulations. Both Site A and Site B are located on the Property.

Q5. Please describe Site A.

A. Site A is located in the southwestern portion of the Property in the wooded, undeveloped portion of the Property. The location of Site A is not used for any agricultural purposes by the owners of the Property. Site A is located at an existing ground elevation of 1105 feet above mean sea level ("AMSL"), which will be altered to a finished grade elevation of 1088 feet AMSL.



Q6. Please describe the access driveway to Site A.

A. The access driveway to Site A will extend from Rabbit Hill Road along the southerly boundary line of the Property. The access driveway will extend approximately 480 feet to the compound. Originally in its technical report, SBA proposed to gravel the proposed access driveway. However, in response to comments received from the Town of Warren concerning grading, erosion concerns and comments regarding the Town's driveway regulations, SBA did redesign the proposed access driveway for Site A to comply with the Town's comments. These changes included paving the access driveway, including an asphalt driveway apron, a pull over area a portion of the way up the driveway and redesigning the driveway to comply with the Town's grading requirements. Now, as proposed in the application, the grade of the driveway will not exceed 15%.

Q7. Please describe the proposed Facility at Site A.

A. The proposed Facility at Site A would consist of a 160-foot monopole and associated equipment compound and access driveway. The compound area is 60 foot by 60 foot and will be fenced in with an 8-foot high security fence and associated gate. The proposed Facility at Site A will accommodate antenna arrays and equipment for AT&T, Verizon, both interveners in this docket. The proposed Facility at Site A will be designed to accommodate all carriers currently licensed in Litchfield County, the Town of Warren's emergency services equipment and emergency services equipment from Litchfield County dispatch.

Q8. <u>Please describe the utility routing for Site A.</u>

A. Utilities would be run underground from existing service on Rabbit Hill Road along the access driveway.



Q9. Please describe Site B.

A. Site B is also located on the Property. It is approximately 730 feet to the northwest of Site A and is located in the vicinity of the residence and agricultural outbuildings on the Property. Site B is located at an existing ground elevation of 1154 feet AMSL, which will be altered to a finished grade elevation of approximately 1153 feet AMSL. Site B is 51 feet higher in ground elevation compared to Site A based on existing elevations and 65 feet higher based on proposed elevations.

Q10. Please describe the access driveway to Site B.

A. The access driveway to Site B will extend from Rabbit Hill Road along an existing asphalt access driveway a distance of approximately 176 feet and then along a new gravel access driveway a distance of approximately 297 feet (for a total distance of 473 feet).

Q11. Please describe the proposed Facility at Site B.

A. The proposed Facility at Site B would consist of a 150-foot monopole and associated equipment compound and access driveway. The compound area is 50 foot by 70 foot and will be fenced in with an 8-foot high security fence and associated gate. The proposed Facility will accommodate antenna arrays and equipment for AT&T and will be designed to accommodate all carriers currently licensed in Litchfield County, the Town of Warren's emergency services equipment and emergency services equipment from Litchfield County dispatch.

Q12. Please describe the utility routing for Site B.

A. Utilities would be run underground from existing service on Rabbit Hill Road to the Site B Facility. As can be seen from the plans located at Exhibit B in the application,



the utility run would not be run along the access driveway but will be run in a direct route from Rabbit Hill Road to the equipment compound.

- Q13. Please describe the process for conducting the Visual Analysis Report.
- A. At the request of SBA, CHA conducted the Visual Analysis Report (found at Exhibit L of the Application), which included the preparation of a computer-generated viewshed map and performing a balloon float test at each of the two alternate sites on November 20, 2008. The predictive model is employed to assess potential visibility throughout the entire Study Area (a two mile radius surrounding the site), including private property and/or otherwise inaccessible areas for field verification. The "balloon float" test and Study Area drive-through reconnaissance are conducted to obtain location and height representations of the proposed Facility, confirm the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map and report.
- Q14. Please describe how you prepared the viewshed analysis for the Visual Analysis Report.
- A. Using computer modeling tools, the areas from which the tower is expected to be visible are calculated. This is based on information entered into the computer model, such as tower height, its ground elevation, existing vegetation and surrounding topography. Data incorporated in the model includes digital elevation models ("DEMs") and a digital forest layer for the project area. The forested areas within the study area are overlaid on the DEMs and then a series of constraints are applied to the computer model to achieve a realistic estimate of where the tower will be visible from within the surrounding landscape.



Also included in the viewshed model is a data layer, obtained from the Connecticut State Department of Environmental Protection ("DEP"), which depicts various land and water resources such as state parks and forests, recreational facilities, dedicated open space and DEP boat launches. Additionally, information is gathered from the Connecticut State Department of Transportation ("DOT") and local officials to determine if there are any state or locally designated scenic or historic roadways.

Q15. Please describe how you conducted the balloon test.

A. The balloon float test consisted of raising a helium-filled weather balloon, approximately four feet in diameter, to the height of 160 feet at Site A and 150 feet at Site B. Of note, the balloon at Site A was flown in the open field and photosimulations were adjusted according to the distance and ground elevation differences in the Site A balloon float location. In addition, the Site B was flown at a height of 160 feet during the balloon float. The height of Site B was subsequently reduced to 150 feet and the photosimulations were adjusted accordingly.

Once the balloons were aloft, CHA personnel drove the public road system within a two-mile radius (the "Study Area") to inventory those areas where the balloons were visible and photograph the balloons from numerous vantage points to document representative locations where the proposed tower will be visible from either site. In addition, as noted in the visual analysis report, CHA staff walked the walking trails located in the Macricostas Preserve, located more than a half mile to the southwest of the Property. CHA staff also hiked Mount Tom to determine if either site would be visible from the Mount Tom observatory tower. The location of each photograph was recorded using a hand-held GPS receiver and subsequently plotted on a USGS topographic quad



map, to indicate their approximate distance and relative location to the proposed Facility at either Site.

Q16. How were the representative locations chosen?

A. Since it is impossible to present photographs from every possible vantage point within the Study Area, CHA selected representative locations to depict the proposed Facility at either Site. Several photo locations were selected prior to the in-field evaluation, utilizing a preliminary version of the viewshed map to identify areas adjacent to public roads from where the proposed Facility (at either Site) might be visible. These locations included sensitive visual receptors in the area, including the Macricostas Preserve, Mount Tom and several locally designated scenic roads in the area. Other locations were identified based on in-field observations made during the time of the balloon float.

Q17. Please describe the visibility of the proposed Facility at Site A and Site B.

A. Areas from which the proposed Facility will be at least partially visible from Site A year-round comprise 121 acres or approximately 1.5% of the entire study area. We expect the proposed Facility at Site A to be visible along portions of Rabbit Hill Road, Jack Corner Road and Route 202. We estimate approximately five residential properties may have partial year-round views of the proposed Facility from portions of their parcels. In addition, the proposed Facility at Site A may be at least partially visible seasonally (during "leaf off" conditions) from an additional 15 acres and portions of approximately 11 additional residential properties. As can be seen from the viewshed map, much of both the year-round and seasonal visibility will occur on the host Property itself.



At Site B, the proposed Facility will be at least partially visible year-round from 79 acres or 1% of the entire study area. We expect the proposed Facility at Site B to be visible along Rabbit Hill Road, Jack Corner Road and Route 202. We estimate approximately five residences may have partial year-round views of the proposed Facility from portions of their parcels. In addition, the proposed Facility at Site B may be at least partially visible seasonally (during "leaf off" conditions) from an additional 46 acres and portions of approximately 11 additional residential properties.

- Q18. Please describe any features of the Site A Property or Site B Property that will assist in reducing any potential visual impact of the proposed Facility.
- A. The size of the host Property (106 acres) serves as a visual buffer that assists in reducing any visual impact of the proposed Facility at either Site. As can be seen from the viewshed maps for both sites, much of the anticipated visibility at either site occurs on the Property itself. In addition, at Site A, the existing vegetation and ground elevation do serve to further minimize the visual impact of the site. Locating Site A within the wooded area serves to camouflage much of the visibility of the tower, particularly the lower portions. In addition, Site A is located at a lower ground elevation, whereby the existing vegetation serves as a backdrop from views to the south to further reduce its visual impact.
- Q19. Will the proposed Facility at either site have any impact on any sensitive visual receptors such as scenic, historic or recreational sites or parks?
- A. No, the proposed Facility at either site will not impact any sensitive visual receptors. As seen in the visual analysis report, neither site will be visible from Lake Waramaug or the scenic road surrounding it. In addition, neither site will be visible from the walking trails located in the Macricostas Preserve or from the Mount Tom



observatory. Finally, as noted by the State Historic Preservation Office, the proposed Facility at either site will have no effect on historic, architectural or archaeological resources listed.

The statements above are true and complete to the best of my knowledge.

Subscribed and sworn before me this 13th day of May, 2009.

NO TARY PUBLIC MY COMMISSION EXPIRES JAN. 31, 2012

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