STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:
APPLICATION OF NORTH ATLANTIC TOWERS, LLC and NEW CINGULAR WIRELESS PCS, LLC (AT&T) FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS TOWER FACILITY AT ONE OF TWO SITES: 171 SHORT BEACH ROAD, BRANFORD, OR 82 SHORT BEACH ROAD, EAST HAVEN, CONNECTICUT

DOCKET NO. 427

June 7, 2012

RESPONSES TO SITING COUNCIL'S INTERROGATORIES – SET I

Q1. Were return receipts received for each abutting landowner identified behind Tab 9 of the application? If not, list the abutters that did not receive notice and describe any additional effort to serve notice. When was the abutter list compiled?

A1. *Three certified mail receipts were not returned from Carl A. Cheslock, William Delegorges and James Edward Berardi. Another notice was sent to each of these abutters via first class mail.*

The abutters list for the Branford Site was provided by the Town GIS Analyst on March 30, 2012.

The abutters list for the East Haven Site was originally collected from the Town Assessor's Office on August 15, 2011 and updated on March 19, 2012.

Q2. In regards to the Site Search (Application Tab 2) provide more information for the following:

a) 100 Double Beach Road: provide a coverage model for the height examined;

b) 64 Shore Beach Drive: provide a coverage model for the height examined. Was a tower facility considered for this property?

c) 345 Shore Drive: what height would meet AT&T's need?

d) 175 Clark Avenue: provide a coverage model for the height examined. Was a monopole with a traditional array considered? How does coverage differ between a flagpole and a monopole at this location? Was a tower with antennas mounted close to the monopole (8-inch standoff arms) considered here?

e) Was the Branford Land Trust contacted regarding potential use of their parcels that are located within the search area?

f) Was the Bruce Williams property at 54 Hilton Drive, East Haven, considered? If not, why not?

g) Were any of the multi-family housing parcels along Briarwood Lane in Branford considered? If not, why not?

A2. *Please see the responses below:*

a) 100 Double Beach Road: provide a coverage model for the height examined;

A propagation plot for 100 Double Beach Road at 120' AGL, or the height examined, is included in Attachment 1. Also included is a plot of existing coverage and coverage from a 120' tower at 100 Double Beach Road that demonstrates gaps to the north and west.

b) 64 Shore Beach Drive: provide a coverage model for the height examined. Was a tower facility considered for this property?

A propagation plot for 64 Shore Drive is included in Attachment 1. This location was analyzed for a roof mounted antenna/siren support structure at 30' AGL. Also included is a plot of existing coverage and coverage from a rooftop mounted antenna at 64 Shore Drive that demonstrates large gaps to the north and east. A tower was not considered for this location given the very limited/insufficient space at grade for a tower facility.

c) 345 Shore Drive: what height would meet AT&T's need?

At 345 Shore Drive, a height of approximately 140' AGL would provide adequate service.

d) 175 Clark Avenue: provide a coverage model for the height examined. Was a monopole with a traditional array considered? How does coverage differ between a flagpole and a monopole at this location? Was a tower with antennas mounted close to the monopole (8-inch standoff arms) considered here?

A propagation plot for 175 Clark Avenue at 75' AGL, the height examined, is included in Attachment 1. Also included is a plot of existing coverage and coverage from a 75' AGL facility at this location that demonstrates large gaps to the north and east. The FAA TOWAIR review at this location at heights above 75' AGL resulted in a "fail slope" result. As such, 75' AGL was the height reviewed. Given that a facility at the limited height of 75' AGL would not provide adequate coverage, no other facility design options were reviewed. In general, due to space limitations, flagpole facilities cannot accommodate antennas at the same mounting height. Therefore, flagpole facilities require additional height to achieve similar coverage as a monopole facility where antennas are mounted at the same height.

e) Was the Branford Land Trust contacted regarding potential use of their parcels that are located within the search area?

The Branford Land Trust was not contacted. During its site search efforts, North Atlantic Towers consulted with the Town of Branford and also the Short Beach Civic

Association and neither requested that the land trust properties be considered. In addition, the land trust properties are dedicated open space parcels where tower development would not be permitted.

f) Was the Bruce Williams property at 54 Hilton Drive, East Haven, considered? If not, why not?

This parcel was not considered as a tower at this parcel will likely have more visibility to the Branford Electric Railway Historic District than the proposed facility at the East Haven Site. In addition, properties improved with residential structures were avoided as these properties are considered less suitable than the proposed Sites for the siting of a tower facility in relation to the Siting Council's statutory review criteria set forth in Section 16-50p of the Connecticut General Statutes given the underlying residential uses as compared to the Fire Department use of the East Haven Site.

g) Were any of the multi-family housing parcels along Briarwood Lane in Branford considered? If not, why not?

The multi-family housing parcels along Briarwood Lane in Branford were not considered. During its site search efforts, North Atlantic Towers consulted with the Town of Branford and also the Short Beach Civic Association and neither requested that these properties be considered. In addition, properties improved with residential structures were avoided as these properties are considered less suitable than the proposed Sites for the siting of a tower facility in relation to the Siting Council's statutory review criteria set forth in Section 16-50p of the Connecticut General Statutes given the underlying residential uses as compared to the commercial use (Branford Site) and the Fire Department use (East Haven Site) of the proposed sites.

Q3. Provide a coverage model for the proposed Branford tower at a height of 110 feet.

A3. *A propagation plot depicting existing and proposed coverage of the proposed Branford Site facility at a height of 110' is included in Attachment 2.*

Q4. Explain why the power density values in the technical report differ significantly from the power density values contained within the application.

A4. *The power densities in the technical reports included the results with antennas pointed down at the base of the proposed tower and did not consider the effects of the directional coverage of the antenna. The power density reports provided in the Application (Application Attachments 4B and 5B) used a realistic, yet still conservative, 10 dB of antenna discrimination to the calculated values at ground level due to the directionality of the proposed antennas as explained in the reports. LTE antennas were also included in the power density calculations included with the Application.*

Q5. Are different frequencies and signal level thresholds required for the transmission of voice/data, streaming data, downloading? Does the coverage footprint differ for each of these services? If so, please explain how they differ.

A5. *The proposed facility is designed for -74 dBm for in-building coverage and -82 dBm for in-vehicle coverage to provide reliable service for both voice and data services. The coverage footprint for these services does not differ. Therefore, the propagation plots provided in the Application show the available voice and data service in the area. As demonstrated in the Radio Frequency Analysis Report provided in Attachment 1 of the Application, there is currently a significant gap in reliable voice and data service in this area of East Haven and Branford.*

Q6. In regards to the propagation models, why was the cellular system chosen to indicate need?

A6. *Cellular coverage (850 MHz) is the primary frequency band that determines the coverage footprint of the AT&T system in this area. PCS frequencies provide significantly less coverage than cellular, so cellular coverage defines the limits of the system for the majority of AT&T customers.*

Q7. What is the range of existing signal levels within the proposed service area? What is the estimated drop call/ineffective attempt rate within the proposed service area?

A7. *Signals in the coverage gap range from -82 dBm down to less than -100 dBm. The overall dropped call rate for sites in this vicinity is 0.58%. However, the dropped call statistic alone is not a reliable indicator of an inadequate network for various reasons:*

- *Many users become familiar with areas of poor coverage or no service and stop making calls in these areas;*

- *Since mobile communication is a two-way connection, if a cell site cannot hear a mobile unit, it will not register as a failure if that link is problematic; and*

- *Dropped calls are a partial indicator of quality - sometimes you can hold a call but the person on the other end cannot hear you.*

The type of spotty and unreliable coverage currently in this area is not acceptable for users of the AT&T network. Overall, reliable coverage relates directly to the customer experience and AT&T customers are highly mobile, making calls from their vehicles, their places of business and their homes. In addition, many customers are now substituting cell phones for their landline phone service as their only means of voice communications. To properly serve these customers, the service must be reliable, particularly since the service carries 911 calls.

Q8. The radio frequency report mentions a completed drive test. Please provide results of the test.

A8. *A propagation plot of the drive test results is included in Attachment 3.*

Q9. Explain the demand on the cellular system from the use of wireless devices (including but not limited to phones and wireless tablets) for downloading or streaming data.

A9. *Providing wireless service of any kind requires getting signal to customers at sufficient strength to provide reliable service, whether the service provided to customers is voice or data. Meeting increased demand by the public requires more sites or more radio*

spectrum at the existing sites. Demand for data service comes from AT&T's customers and therefore the proposed facility directly serves the clearly expressed public need.

As service moves away from the original AT&T GSM (2G) voice service through UMTS (3G) and toward an eventual goal of voice over LTE (VoLTE or 4G), all the voice and data services will converge into one digital data stream and the lines separating the different kinds of service will disappear.

However, as demonstrated in the RF application materials, there is currently no reliable voice or data service in the current coverage gap in this area of Branford and East Haven and the need for the proposed site is driven by coverage, not capacity.

Q10. What is the distance from the proposed East Haven tower to the boundary of Farm River State Park? What types of recreational activities are offered at this park? From what portion of the park would the proposed tower be visible?

A10. *The distances from the proposed East Haven Site tower to the nearest boundaries of Farm River State Park are approximately 200' to the south-southwest, and approximately 450' to the west. Recreational activities offered at this park consist of bicycling, birding, car-top boating (canoes, kayaks, row-boats), hiking, fishing and crabbing.*

Seasonal, or "leaf-off", views of the proposed facility are anticipated from select locations within Farm River State Park. These seasonal views mainly include several small areas just south of Route 142; a picnic area located approximately 550' southwest of the proposed facility currently comprised of single table and benches set within a small clearing; and along a relative high point of an established hiking trail located roughly 200' south of the picnic area described above. Given the dense forest cover within and adjacent to these areas, potential views of the proposed facility would be mostly obstructed by existing vegetation. Year-round views of the proposed facility are anticipated over open marsh areas within the Park that are located approximately 1,500' (+ 0.29-mile) and 2,000' (+ 0.40-mile) southeast and southwest of the tower location, respectively. These areas are typically inaccessible via the established hiking trail system within the Park.

Q11. On the abutters map for the proposed East Haven site, the boundary between parcels 7 & 8 is different than other marked boundaries - what is the difference between the two boundary types?

A11. *At one time, parcels 7 and 8 were owned by the same person. The dashed line on the abutters map was used to show that the two parcels were once in common ownership. The current owners of parcels 7 and 8 are shown on the abutters map for the East Haven site in the Application (Attachment 5A).*

Q12. Identify the boundaries of the Branford Electric Railway Historic District.

A12. *Based on information obtained from the National Register of Historic Places database of the United States National Park Service, the Branford Electric Railway Historic District encompasses the Shoreline Trolley Museum, located at 17 River Street, East Haven, and both the electric rail line right-of-way and the rolling stock of historic railway cars. The trolley line begins at 17 River Street and continues south to its terminus, north of Court Street. The railway cars are housed in several large pole-frame and corrugated metal buildings, south of the museum beyond Farm River State Park. Included in Attachment 4*

is a copy of the Branford Electric Railway Historic District map from the National Register of Historic Places database as well as a map showing the Branford Electric Railway Historic District and the location of the Branford Site and the East Haven Site.

Q13. Identify the boundaries of the Short Beach Historic District. Is this a town, state or nationally recognized district?

A13. *Based on information provided by the Connecticut State Historic Preservation Officer (SHPO), the Short Beach Historic District encompasses an area extending from Route 142 (both sides) south to Long Island Sound, from Clark Avenue east to Glen Street. The District is not currently listed on the National Register of Historic Places, but is recognized by the Connecticut SHPO as being "eligible for listing" on the National Register.*

Q14. Was a 125-foot tower originally proposed at the East Haven site? If so how will coverage be affected by lowering the tower to the proposed 103 feet? Provide a coverage map from this site with a tower height of 125 feet.

A14. *Yes, a 125' tall tower, with a 120' AGL antenna centerline, was originally proposed at the East Haven Site. As demonstrated in the Application, the tower height at the East Haven Site was lowered to 103' AGL in compliance with the SHPO no adverse effect determination for this site. Lowering the height of the tower from 125' (120' antenna centerline height) to 103' (100' antenna centerline height) opens an in-vehicle coverage gap north of Cosey Beach Avenue between Philip Street and Coe Avenue in East Haven and reduces the overall area of in-building coverage in that same vicinity. The reduction in height also increases the size of an in-vehicle coverage gap on Route 142 in Branford and reduces the extent of in-building coverage in that vicinity. Included in Attachment 5 is the propagation plot of the East Haven Site at 125' AGL (120' antenna centerline height).*

Q15. What is the distance and direction to the nearest residence from each proposed tower?

A15. *The nearest residence to the proposed Branford Site is located approximately 210' to the south at 177 Short Beach Road.*

The nearest residence to the proposed East Haven Site is located approximately 105' to the northwest at 90 Short Beach Road.

Q16. How many residences are within 1,000 feet of each tower?

A16. *Approximately 334 residential structures are located within 1,000' of the proposed Branford Site.*

Approximately 115 residential structures are located within 1,000' of the proposed East Haven Site.

Q17. Provide an estimated cost for AT&T's antennas and radio equipment.

A17. *The estimated cost for AT&T's antennas and equipment is approximately $250,000.*

Q18. Provide a "close up" visibility evaluation of the immediate area around each tower using an aerial photograph of the area at a scale of 1 inch = 500 feet (or similar).

A18. *Please see the requested aerial maps included in Attachment 6.*

Q19. Would the proposed facility comply with recommended United States Fish and Wildlife Service guidelines for minimizing potential impacts to bird species? Please explain.

A19. *Yes. Please see the table annexed hereto as Attachment 2 which identifies the USFW guidelines and demonstrates how the proposed facilities at both proposed Sites comply with the guidelines. In addition, both the proposed Branford Site and the East Haven Site are located a distance of at least 2 miles from the nearest "Important Bird Area" as designated by the National Audubon Society.*

CERTIFICATE OF SERVICE

I hereby certify that on this day, a copy of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council and:

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