

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
 :
APPLICATION OF SBA TOWER II, LLC FOR : DOCKET NO. 396
A CERTIFICATE OF ENVIRONMENTAL :
COMPATIBILITY AND PUBLIC NEED FOR :
THE CONSTRUCTION, MAINTENANCE AND :
OPERATION OF A TELECOMMUNICATIONS :
FACILITY AT 49 BRAINERD ROAD, :
NIANTIC (EAST LYME), CONNECTICUT : MARCH 16, 2010

RESPONSES OF CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS TO
PRE-HEARING INTERROGATORIES FROM FRIENDS OF THE PATTAGANSETT TRUST

On March 1, 2010, the Friends of the Pattagansett Trust (the "Trust") issued one set of Pre-Hearing Interrogatories to the applicant, SBA Towers II LLC ("SBA"), intervenor, Cellco Partnership d/b/a Verizon Wireless ("Cellco"), and intervenor, New Cingular Wireless PCS, LLC ("AT&T"). Cellco offers the following responses only to those questions that it believes are relevant to its status in this proceeding.

Question No. 1

Have you or your corporate predecessors or affiliates installed a micro-cell wireless communications facility in New York or New England?

Response

No.

Question No. 2

If so, how many times and in what location?

Response

See response to Question No. 1.

Question No. 3

How many times have you successfully installed a micro-cell wireless communications facility outside Connecticut?

Response

See response to Question No. 1.

Question No. 4

Are there other sites in East Lyme that you are considering developing wireless communications facilities? Please describe.

Response

Cellco has no active search rings in the Town of East Lyme other than the one associated with the Docket No. 396 application. Cellco has been asked to consider several alternative sites in the Brainerd Road area including an alternative location on the 49 Brainerd Road parcel, a potential T-Mobile tower location off Indian Woods Road and four different locations on Town of East Lyme property; Assessor's Parcel ID 10.3, 14-1.

Question No. 6

Did you consider locating at the site located off Route 156 in East Lyme at latitude 41 18 57.48 longitude 72 13 58.4 (Indian Woods Road)? Were you aware that this site has been leased by T-Mobile to provide coverage to the same coverage as the SBA proposed site? If so, explain why this site cannot provide adequate coverage to the target area with less visual impact.

Response

The precise coordinates that Cellco received from T-Mobile for its Indian Woods Road tower site are Latitude 41° 18' 58.13" Longitude 72° 13' 57.49". It is our understanding that T-Mobile would be proposing the construction of a 160-foot tower at this location and would install

its antennas at a centerline height of 157 feet. At an antenna center line of 147 feet above ground level (“AGL”), the highest available location on the T-Mobile tower, Cellco can provide comparable cellular and LTE coverage to that achieved from the SBA tower at 49 Brainerd Road. Because the T-Mobile tower site is located further to the north, Cellco cannot provide comparable PCS service to that achieved at the Brainerd Road site. This difference would affect Cellco’s coverage in the Black Point area. Notwithstanding the deficiencies in PCS coverage, Cellco would use T-Mobile site if it were approved by the Council. Cellco has no opinion on whether the T-Mobile facility would have less visual impact than the proposed SBA facility.

Question No. 7

Please provide coverage and visual impact maps (existing, proposed and combined) for the location identified above in Int. #6. For the coverage maps please use the same coverage modeling program with the same inputs (other than those that are site specific), power assumptions, antenna configurations, lost ratios and scale as to the proposed site and present the results on a clear plastic overlay for comparison purposes.

Response

Plots, on clear plastic overlays, showing Cellco’s coverage from the T-Mobile tower site off Indian Woods Road are attached. The clear plastic overlays could not be reproduced in 11” x 17” format but are provided in 8 ½” x 11” format. An 8 ½” x 11” format base map has also been provided allowing for a comparison of coverage.

Question No. 8

Please identify the size of the search ring and explain why that radius was chosen.

Response

Cellco established a search area in East Lyme in June of 2009. That search area is

depicted on the map attached behind Tab 2. After establishing the search area and prior to commencing an actual real estate search in the area, Cellco was contacted by SBA and was made aware of its proposed tower site off Brainard Road.

Question No. 10

Are you aware of the build-out notification required of spectrum license holders filed with the FCC by any of the potential tenants on the proposed tower for the basic trading area which includes East Lyme. Can you provide a copy of your five and ten year build-out notifications and any technical justification and/or coverage maps filed in conjunction therewith?

Response

Cellco is familiar with the notification requirements referenced for its FCC licensed spectrum. Build-out notifications filed with the FCC are proprietary information and are not therefore published on the FCC's website. The only information published on the FCC website relates to the dates of the completed build-out. The dates available on the FCC's website indicate that Cellco has satisfied its build-out requirements.

Question No. 11

Have you performed drive tests to determine the need for coverage? If so, what methods were used and what data was gathered from the drive test?

Response

Cellco did not perform a drive test at the SBA tower location.

Question No. 12

In what way have you determined the public need for this particular facility?

Response

Need for a particular facility is determined by Cellco RF engineers after a review and

evaluation of (1) system performance data, gathered on a monthly basis as baseline drive data; (2) propagation modeling which is used to produce coverage maps; (3) dropped calls and ineffective attempt data for surrounding cell sites; and (4) customer complaint data for the East Lyme area. Cellco is able to “fine tune” its propagation modeling tool using the baseline drive data it gathers for existing sites throughout its network. Existing coverage maps provided in response to the Council’s interrogatories therefore represent actual coverage from Cellco’s surrounding sites in East Lyme, Old Lyme and Waterford. Areas shaded in purple on these maps are areas of reliable service. Areas not shaded are areas where Cellco currently does not provide reliable service.

Question No. 13

Specifically, what data do you have evidencing this public need?

Response

See Cellco’s responses to Question No. 12 of Cellco’s responses to Siting Council (“Council”) Interrogatories dated February 16, 2010 and Question No. 12 above.

Question No. 14

How many residential wireless customers will this facility serve?

Response

Cellco objects to the request for customer-specific information. That information is confidential and will not be provided. That said, as discussed in its responses to Council interrogatories, Cellco’s primary objective in East Lyme is to provide coverage along Route 156, the Amtrak/Shoreline East Rail Line and local roads in the area as well as residential customers who may live within the coverage footprint of the proposed tower site.

Question No. 20

How many audible decibels will the associated equipment produce at the nearest points of the property line for the proposed Brainard Road site?

Response

See Cellco's response to Council Interrogatory No. 17.

Question No. 21

Do you have any data on the expected frequency of power outages requiring use of a backup?

Response

No.

Question No. 22

What computer software (name, producer, version) did you use in confirming the allegedly significant gap in coverage surrounding the site?

Response

Cellco uses a proprietary propagation modeling tool called Geo Plan Version 5.6.1. This tool is used across the country by Cellco's network designers.

Question No. 23

Is this software available for inspections so that others may make independent confirmation on its accuracy?

Response

No.

Question No. 24

In generating the proposed coverage maps what average tree height and leaf coverage was

assumed in the model?

Response

Leaf coverage and tree height data are modeling settings incorporated into Geo Plan and are therefore, proprietary.

Question No. 26

How are repeaters, microcell transmitters, distributed antenna systems and other types of “transmitting technologies” not feasible in the proposed area of East Lyme?

Response

Cellco is an intervenor in the above-referenced SBA tower docket and seeks to share space on the SBA tower, if it is approved by the Council. Cellco has not, therefore, explored or considered technological alternatives to the proposed SBA tower.

Question No. 27

Why are such technologies not feasible?

Response

See response to Question No. 26 above.

Question No. 28

What studies did you undertake to eliminate alternate technologies from consideration given that they are of lesser impact to surrounding property uses?

Response

See response to Question No. 26.

Question No. 29

Who conducted the feasibility studies on alternative technologies?

Response

See response to Question No. 26.

Question No. 30

Please provide the feasibility studies or data by which you determined the lack of feasibility?

Response

See Cellco's response to Question No. 26.

Question No. 31

Have you considered using a combination of DAS or leaky coax along the rail lines in conjunction with a shorter tower to cover the target area?

Response

See Cellco's response to Question No. 26.

Question No. 32

Is there a particular standard or decibel signal strength which you believe is necessary for adequate coverage for PCS (1900 MHz) service in the East Lyme area? For 850 MHz? For 700 MHz?

Response

Cellco's minimum signal strength for reliable service is negative 85 dBm throughout its wireless network. This threshold applies at all operating frequencies.

Question No. 33

What particular dBm signal strength do you believe is necessary for in vehicle coverage for PCS (1900 MHz, 700 MHz and 850 MHz) in the target area?

Response

Negative 85 dBm.

Question No. 35

For any signal strength predicted by your coverage modeling, what percent of locations is assumed for reliability?

Response

For coverage to meet its reliability standard, Cellco's goal is to achieve negative 85 dBm signal strength throughout 100% of a particular facility's coverage footprint.

Question No. 36

Are you assuming that your target coverage is "reliable service" or "adequate coverage"? Do these terms differ? How do you define these two terms for the purposes of meeting the goals of the Telecommunications Act of 1996?

Response

Cellco does not utilize nor does it define the term "adequate service". As discussed above, Cellco seeks to provide "reliable service". Reliable service is defined as areas where Cellco can provide and maintain a signal strength of not less than negative 85 dBm. Signal strength in areas below negative 85 dBm is not reliable.

Question No. 37

Please describe what the P.02 level of service is and what is required by the FCC.

Response

A P.02 level of service refers to the blocking ratio of calls in the system in reference to the Erlang B tables for traffic usage. The FCC does not mandate any such level of service.

Question No. 48

The application targets coverage for mobile traffic on Route 156, Route 95 and the Amtrak corridor; what data do you have indicating customer complaints or demand for service in these areas?

Response

As explained in Cellco's response to Council Interrogatory No. 8, Cellco would provide service to existing PCS and cellular coverage gaps along State Route 156 between its existing Old Lyme, East Lyme and Waterford South cell sites and provide additional service along the Amtrak and Shoreline East rail line in the East Lyme area. Cellco does not expect to provide coverage to any portion of Interstate 95 from the SBA tower site. The information used to support Cellco's need for this facility is discussed above in response to Question No. 12 above.

Question No. 52

What is the percentage of dropped calls and ineffective attempts, as compared to the remainder of the market trading area in East Lyme?

Response

The sectors of Cellco's surrounding cell sites that are directed toward the Brainerd Road area experience dropped calls at a rate of 1.57% and ineffective attempts at a rate of 1.43%. This, again, is only one indicator of need for a facility in this area.

Question No. 53

What is the lowest height you can construct a tower to improve coverage (with and without co-location carriers)?

Response

Cellco has identified the 147-foot level on the SBA tower as the minimum antenna height

necessary to satisfy its coverage objectives in the East Lyme area.

Question No. 56

Please identify how many other future sites will be necessary, at a minimum to accomplish adequate coverage for East Lyme.

Response

Again, Cellco does not utilize nor has it defined the term “adequate coverage.” That said, Cellco has no current plans for future sites in the East Lyme area for the foreseeable future. If future capacity needs arise in the area, additional sites may be required.

Question No. 57

Please identify all sites in addition to the proposed facility on which the applicant intends to seek permission from the Siting Council to construct or modify a facility in the subject area.

Response

None at this time.

Question No. 58

Is the ability to send text, image and video necessary for public safety? If so, how?

Response

Yes. The use of voice, data and video services by public safety and emergency service purposes is occurring more regularly as advanced wireless services are deployed. For example, through the use of Cellco’s network firefighters can now receive a data transmission of building floor plans or other similar information that may assist them in the fighting of a fire or locating access points or utility connections to a building.

Video and photo documentation of certain events (e.g. crimes being committed; traffic accidents; power plant explosions) are often transmitted, via a wireless network, to law

enforcement and emergency service personnel.

Lastly, Cellco recently received an e-mail from David Elliott, Captain of the Bungay Fire Brigade in Woodstock, Connecticut. The text of this e-mail is reproduced below and speaks for itself.

I am currently Captain of Fire of the Bungay Fire Brigade in Woodstock, CT. Last night we had an emergency call for a hunter lost in the woods in our district. As I responded I had my Motorola Droid with me. Because I had the google maps feature on my droid, along with the other features of the phone, I was able to pin point not only where we thought this person was but also ways for our fire fighters to enter to search for him and also to keep track of the direction we were moving in during our search.

This phone aided us saving this person's life by allowing us to use those maps at our disposal and also as we continued to work we were able to cross check rough locations and plans to where we were going send search teams in.

This is a great phone and it has great coverage in a town where cell phone coverage is tough. I just wanted to share this story with you because I think it was a very large asset to my fire department that I had this phone on me. If you have any questions or anything you'd like to know or share feel free to contact me.

Thank you for your time, Capt. David Elliott Verizon customer

Question No. 59

Will changes in traffic usage necessitate heightening the tower beyond 170 feet, or contradict the need to install a 170-foot tower in the first place?

Response

Cellco antennas will be located at the 147-foot level on the SBA tower. At this height Cellco can satisfy its coverage objectives in the area. Cellco has no plans to increase its antenna height on the proposed SBA tower.

Question No. 63

Can you provide coverage propagation maps and isolated propagation maps for the proposed facility on clear plastic overlays using the scale that matches that of the application?

Response

The plots requested are attached. The clear plastic overlays could not be reproduced in 11" x 17" format but are provided in 8 ½" x 11" format. An 8 ½" x 11" format base map has also been provided to allow for a comparison of coverage.

Question No. 64

What is the minimum dBm signal strength to accomplish hand off of a call to an adjacent cell for 700 MHz, 850 MHz and 1900 MHz?

Response

Negative 85 dBm.

CERTIFICATE OF SERVICE

I hereby certify that on the 16th day of March, 2010, a copy of the foregoing was sent via

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