

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

IN RE: :  
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 APPLICATION OF SBA TOWERS II LLC FOR : DOCKET NO. 387  
 A CERTIFICATE OF ENVIRONMENTAL :  
 COMPATIBILITY AND PUBLIC NEED FOR :  
 THE CONSTRUCTION, MAINTENANCE AND :  
 OPERATION OF A TELECOMMUNICATIONS :  
 FACILITY AT 44 GAVITT ROAD, :  
 BARKHAMSTED, CONNECTICUT : NOVEMBER 18, 2009

**RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO  
CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE**

On October 23, 2009, the Connecticut Siting Council (“Council”) issued Pre-Hearing Interrogatories (Set One) to the Intervenor, Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to the above-captioned docket. Below are Cellco’s responses.

**Question No. 1**

What are Verizon's licensed operating frequencies in this part of the state?

**Response**

Cellco is licensed to operate in the cellular (850 MHz), personal communications service (“PCS”) (1900 MHz) and LTE (700 MHz) frequency bands throughout the State of Connecticut.

**Question No. 2**

What is the design signal strength for Verizon’s system for in-vehicle coverage? For in-building coverage?

**Response**

Cellco’s minimum coverage thresholds are -75 dBm for reliable in-building service and -85 dBm for reliable in-vehicle service.

Question No. 3

What is the existing signal in the area Verizon would serve from this proposed site?

Response

Cellco's existing signal strength in this area ranges from -86 dBm to -110 dBm at cellular frequencies and from -86 dBm to -128 dBm at PCS frequencies. Cellco is not currently providing LTE frequency service in the area.

Question No. 4

What would be the total area Verizon could cover from the proposed site?

Response

Cellco's coverage footprint from the proposed cell site with antennas at the 157-foot level on the tower would be approximately 12.6 square miles at cellular frequencies, 4.67 square miles at PCS frequencies and 12.24 square miles at LTE frequencies.

Question No. 5

What are the lengths of Verizon's coverage gaps on State Routes 219 and 179 in the vicinity of the proposed facility?

Response

Cellco currently experiences a 4.52 mile gap at cellular frequencies and a 6.4 mile gap at PCS frequencies along Route 219 and a 2.34 mile gap at cellular frequencies and a 5.9 mile gap at PCS frequencies along Route 179 in the vicinity of the proposed Barkhamsted cell site. Cellco is not currently providing any LTE frequency service in the area.

Question No. 6

What are the respective distances Verizon could cover on State Routes 219 and 179 from the proposed site?

### Response

From the proposed Barkhamsted cell site, with antennas at the 157-foot level on the tower, Cellco would provide coverage along Route 219 of 3.2 miles at cellular frequencies, 2.25 miles at PCS frequencies and 3.36 miles at LTE frequencies and would provide coverage along Route 179 of 4.02 miles at cellular frequencies, 2.59 miles at PCS frequencies and 3.77 miles at LTE frequencies.

### Question No. 7

Provide propagation maps, at the frequencies currently being used by Verizon, showing Verizon's existing wireless coverage in the vicinity of the proposed site, what its coverage(s) would be from the proposed site, and what would be the combined coverages of its existing sites and the proposed site.

### Response

Attachment A includes plots showing cellular and PCS coverage from Cellco's existing Hartland, East Hartland, Hartland SE, Huggins Gorge, West Granby, North Canton, Barkhamsted W, Barkhamsted S, New Hartford N, and Collinsville cell sites and composite plots showing cellular and PCS coverage from Cellco's existing cell sites in the Barkhamsted area together with proposed Gavitt Road facility. Attachment A also includes stand alone coverage plots showing cellular, PCS and LTE coverage from the proposed Barkhamsted facility. These plots only reflect -85 dBm coverage - Cellco's minimum design coverage threshold.

### Question No. 8

Identify, by address, sites with which Verizon's antennas at the proposed site would hand off signals – include type and height of structure and height of Verizon's antennas on structure and distance and direction from the proposed tower.

## Response

The proposed Barkhamsted facility would interact with nine of Cellco's adjacent cell sites.

1. Cellco's existing Hartland SE cell site consists of antennas at the 110-foot level on the 120-foot monopole located at 350 Hartland Boulevard in Hartland. This cell site is approximately 2.45 miles to the Northeast of the proposed Barkhamsted facility.

2. Cellco's existing Hartland cell site consists of antennas at the 170-foot level on the 180-foot monopole located at 307 Center Hill Rd in West Hartland. This cell site is approximately 4.27 miles to the Northwest of the proposed Barkhamsted facility.

3. Cellco's existing East Hartland cell site consists of antennas at the 170-foot level on the 180-foot monopole located at 22 Welsh Road in East Hartland. This cell site is approximately 3.75 miles to the Northeast of the proposed Barkhamsted facility.

4. Cellco's existing West Granby cell site consists of antennas at the 137-foot level on the 150-foot monopole located at 8 Upper Meadow Road in West Granby. This cell site is approximately 4.25 miles to the East of the proposed Barkhamsted facility.

5. Cellco's existing Huggins Gorge cell site consists of antennas at the 97-foot level on the 120-foot monopole located at 30 Higley Road in West Granby. This cell site is approximately 3.21 miles to the Northeast of the proposed Barkhamsted facility.

6. Cellco's existing North Canton cell site consists of antennas at the 150-foot level on the 150-foot monopole located at 540 Cherry Brook Road in North Canton. This cell site is approximately 3.71 miles to the Southeast of the proposed Barkhamsted facility.

7. Celco's existing Barkhamsted W cell site consists of antennas at the 145-foot level on the 145-foot monopole located at 5 Old Farm Road in Barkhamsted. This cell site is approximately 6.1 miles to the Southwest of the proposed Barkhamsted facility.

8. Celco's existing Barkhamsted S cell site consists of antennas at the 127.5-foot level on the 144-foot monopole located at 127 New Hartford Road in Barkhamsted. This cell site is approximately 5.69 miles to the Southwest of the proposed Barkhamsted facility.

9. Celco's existing New Hartford N cell site consists of antennas at the 147-foot level on the 160-foot monopole located at 115 Greenwoods Industrial Park in New Hartford. This cell site is approximately 5.02 miles to the Southwest of the proposed Barkhamsted facility.

Question No. 9

Provide the following information: number of channels per sector for each antenna system that would be installed on the proposed tower, ERP per channel for each antenna system, and frequency at which each antenna system would operate.

Response

**PCS Antennas**

**Alpha Sector – 157 ft.**

Antenna Type: LPA –  
185080/12CF

Frequency: Tx: 1965-  
1980,1945-1950 MHz; Rx:  
1885-1900,1865-1870 MHz

No. Channels: 14

ERP/Channel: 341.48 W Max

**Beta Sector – 157 ft.**

Antenna Type: LPA –  
185063/12CF

Frequency: Tx: 1965-  
1980,1945-1950 MHz; Rx:  
1885-1900,1865-1870 MHz

No. Channels: 14

ERP/Channel: 482.35 W Max

**Gamma Sector – 157 ft.**

Antenna Type: LPA –  
185080/12CF

Frequency: Tx: 1965-  
1980,1945-1950 MHz; Rx:  
1885-1900,1865-1870 MHz

No. Channels: 14

ERP/Channel: 341.48 W Max

## Cellular Antennas

### Alpha Sector – 157 ft.

Antenna Type: LPA-80080/6CF

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9

ERP/Channel: 359.39 W Max

### Beta Sector – 157 ft.

Antenna Type: LPA-80063/6CF

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9

ERP/Channel: 403.25 W Max

### Gamma Sector – 157 ft.

Antenna Type: LPA-80080/6CF

Frequency: Tx: 869-880,890-891.5 MHz; Rx: 824-835, 845-846.5 MHz

No. Channels: 9

ERP/Channel: 359.39 W Max

## LTE Antennas

### Alpha Sector – 157 ft.

Antenna Type: BXA-70063/6CF (1)

Frequency: Tx:746 – 757 MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 825.05 W Max

### Beta Sector – 157 ft.

Antenna Type: BXA-70063/6CF (1)

Frequency: Tx:746 – 757 MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 825.05 W Max

### Gamma Sector – 157 ft.

Antenna Type: BXA-70063/6CF (1)

Frequency: Tx:746 – 757 MHz; Rx: 776-787 MHz

No. Channels: 1

ERP/Channel: 825.05 W Max

## Question No. 10

What is the minimum height at which Verizon could achieve its coverage objectives from the proposed site?

## Response

The minimum height at which Cellco could achieve its coverage objectives from this site is 157 feet.

Question No. 11

Provide a propagation map showing what Verizon's coverage would be at 10 feet below its antennas' proposed height at the proposed site.

Response

A composite coverage plot showing Cellco's PCS and cellular coverage at the Barkhamsted site at 147 feet is included as Attachment B.

Question No. 12

What is the approximate cost of the antennas and related equipment that Verizon would install at the proposed facility?

Response

The total estimated cost for Cellco's equipment is approximately \$600,000.

Question No. 13

What is the size of the equipment shelter Verizon would use at this site?

Response

Cellco would install its standard 12' x 30' shelter at the proposed Barkhamsted facility.

Question No. 14

What would Verizon use for back up power at this site?

Response

Cellco's back up power system relies first on a battery back-up system, then on its back-up generator. The battery system and back-up generator are located inside Cellco's equipment shelter. The generator will be maintained in a separate 10' x 12' generator room. The batteries are located in the main equipment area of the shelter.

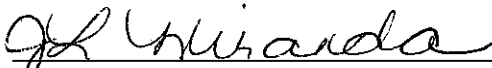
**CERTIFICATE OF SERVICE**

I hereby certify that on this 18th day of November 2009, a copy of the foregoing was sent,  
postage prepaid, to:

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