

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 471
D/B/A VERIZON WIRELESS FOR A :
CERTIFICATE OF ENVIRONMENTAL :
COMPATIBILITY AND PUBLIC NEED FOR :
THE CONSTRUCTION, MAINTENANCE :
AND OPERATION OF A WIRELESS :
TELECOMMUNICATIONS FACILITY AT :
208 KIRK ROAD (a/k/a 1075 PARADISE :
AVENUE) IN HAMDEN, CONNECTICUT : MAY 30, 2017

**RESPONSES OF CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS TO PRE-HEARING
INTERROGATORIES FROM MS. PATRICIA SORRENTINO (SET 2)**

On May 19, 2017, Ms. Patricia Sorrentino issued Pre-Hearing Interrogatories (Set 2) to Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to Docket No. 471. Below are Cellco’s responses.

Question No. 1

Reference Question 13 of Applicant’s Responses to Patricia Sorrentino’s Pre-Hearing Interrogatories (the “Interrogatories”). Please provide the information for the two alternative sites depicted in Schedule 1 of the Hamden 8 Search Area for the following:

- a. The name of Applicant’s representative who evaluated the alternative sites.
- b. The dates on which the Applicant investigated the alternative sites to determine whether those areas are capable of supporting the Applicant’s telecommunications antennas and related equipment at a location and elevation that satisfies its technical requirements.

- c. Site evaluation documentation concerning each site's capability to support the Applicant's telecommunications antennas and related equipment at a location and elevation that satisfies its technical requirements.
- d. Information regarding whether an increase to the existing utility poles will be necessary.
- e. Information concerning whether the proposed utility facilities will be above ground or underground.
- f. Reference Schedule 2 attached hereto (an aerial view of the Vignola property).
Has the Applicant considered or discussed with the Lessor the possibility of locating the proposed tower in this location?

Response

- a. The alternative sites were evaluated by Cellco's Radio Frequency (RF) Design Engineer Jaime Laredo. The Laurel View Country Club parcel (310 West Shepard Avenue), the only alternative parcel listed in the Site Search Summary that would have satisfied Cellco's wireless service objectives, was also evaluated, preliminarily, by Mike Libertine and Dean Gustafson of APT Corp. for visual and potential wetlands impacts.
- b. The evaluation of the parcels at 1125 Shepard Avenue, 310 West Shepard Avenue and 905 Shepard Avenue occurred between July of 2014 and September of 2016.
- c. The parcels at 1125 Shepard Avenue maintains a ground elevation of approximately 240 feet above mean sea level (AMSL), about 56.5 feet lower than the ground elevation at the proposed tower site. A tower at 1125 Shepard Avenue would need to be 260 feet tall to satisfy Cellco's wireless service objectives in the

area and is only 0.9 miles from Cellco's existing Hamden North Facility. At this height, a facility at 1125 Shepard Avenue would interfere with service from Cellco's existing Hamden North Facility.

The parcel at 905 Shepard Avenue maintains a ground elevation of approximately 220 feet above mean sea level (AMSL), almost 76.5 feet lower than the ground elevation at the proposed tower site. A tower at 905 Shepard Avenue would need to be 280 feet tall to provide service comparable to that provided by the proposed Hamden 8 Facility. Like the 1125 Shepard Avenue alternative, a tower at 905 Shepard Avenue would interfere with service from Cellco's existing Hamden North Facility.

As discussed in the Application, a 180-foot tall tower at 310 West Shepard Avenue (Laurel View Country Club) would satisfy Cellco's wireless service objectives in the area.

- d. Power to the proposed cell site would extend underground from utility pole number 6414 located adjacent to the proposed access drive off of Country Club Drive. Cellco, therefore, does not anticipate the need to install any additional utility poles.
- e. Cellco anticipates that power to the proposed cell site would extend underground from utility pole number 6414.
- f. Prior to receiving this request, Cellco had not considered the use of the southeast portion of the Vignola property as an alternative tower site. That said, Cellco has now confirmed that the landowner is not willing to relocate the tower to this portion of his property.

Question No. 2

Reference Schedule 1. Regarding the two alternative site locations that were circulated to the Connecticut Siting Council staff and counsel for Ms. Sorrentino, please explain the viability of providing access to those sites from the private driveway at the end of Kirk Road rather than from Country Club Drive.

Response

It would certainly be possible to construct an access driveway from Kirk Road, through the Vignola property, to any of the three (3) alternative cell site locations identified in Cellco's Responses to the Council's Pre-Hearing Question (Set 2) nos. 28 and 33. In each instance, the access drive from Kirk Road would be longer, result in more overall ground disturbance (grading; tree removal etc.) than any of the driveway options extending from Country Club Road. Country Club Road, therefore, remains the preferred access location.

Question No. 3

Reference Schedule 2. Based on the comments from the Town of Hamden, a State Legislator, and members of the public in the record and from the hearing on May 2, overwhelming opposition to tower access from Country Club Road is evident. Please answer the following questions:

- a. Has the Applicant evaluated accessing the tower site from the private driveway at the end of Kirk Road?
- b. Has the Applicant considered the ease and calculation of cost savings from utilization of the existing private driveway at the end of Kirk Road rather than initiating avoidable construction along Country Club Road?

- c. Please discuss the feasibility of siting the tower adjacent to the private driveway at the end of Kirk Road, with a relatively lengthy existing access road, which, based on aerial observation as depicted in Schedule 2, would eliminate the need to construct an entirely new access road as was initially proposed along Country Club Drive.

Response

- a. See Cellco's response to Question 2 above.
- b. An access drive to any of the alternative tower sites from Kirk Road has not been designed. Any driveway extending from Kirk Road to the westerly portion of the Vignola parcel would however, be longer, result in more ground disturbance and tree removal and have to contend with more of the parcel's topography than any of the Country Club Road driveway alternatives. We are therefore fairly confident that a driveway from Kirk Road would be more costly than any of the current options extending from Country Club Road.
- c. See Cellco's Response to Question 1.f. above.

Question No. 4

Reference Question 13 of the Interrogatories. Please clarify the Applicant's response that alternative sites were investigated following the November 16, 2017 Public Information Meeting. Was this a typographical error?

Response

Correct. The Public Information Meeting was held on November 16, 2016.

Question No. 5

Reference Tab 8 of the Executive Summary which states that Applicant's Hamden East

facility consists of antennas on the roof of a building at 2313 Whitney Avenue in Hamden (a “small cell”). Please answer the following questions:

- a. Has the Applicant evaluated the use of small cell facilities in Hamden as an alternative to the proposed Hamden 8 facility located in a densely populated residential neighborhood?
- b. Where are the Applicant’s small cell facilities currently located?
- c. How many small cell facilities are currently deployed and cover the Hamden 8 site search area in which Ms. Patricia Sorrentino resides.

Response

- a. Cellco’s Hamden East Facility at 2313 Whitney Avenue is a “macro-cell” facility, not a “small cell” facility. Technically, it is possible that a series of small cell installations could provide wireless service to the area around the Hamden 8 Facility. The actual number of small cell facilities that would be needed to provide coverage comparable to that from the proposed Hamden 8 Facility is not known but would be significant given the overall size of the area that Cellco is attempting to serve and the topography in northwest Hamden. Also, it would be difficult to penetrate some of the lower density residential areas around the proposed Hamden 8 Facility using small cells and would require the installation of antennas and support structures on private property. The use of a macro-cell tower site, as proposed in this Application, presents the most efficient and cost effective means of enhancing wireless service in this area.
- b. To date, Cellco has installed and activated two small cell facilities within the public right of way (PROW) in Hamden; one near property at 275 Circular

Avenue and one near property at 546 Circular Avenue. Cellco has received approvals to install two additional small cells in the PROW; one near property at 2100 Dixwell Avenue and one near property at 677 Pine Rock Avenue. Cellco has one application pending for the installation of a small cell near the intersection of Pine Rock Avenue and Woodin Street. These small cell installations are between 1.8 and 3.4 miles from the Hamden 8 Facility. (See Attachment 1).

- c. None of the small cell facilities identified in response to Question 5.b. are in the coverage footprint of the Hamden 8 Facility.

Question No. 6

Reference Tab 6 and 7 of the Executive Summary. Please demonstrate small cells that would serve as an alternative in the area the Applicant indicates needs relief.

Response

See Cellco's response to Question 5.a. above. No small cells are currently installed, approved to be installed or proposed in or near the coverage footprint of the Hamden 8 Facility.

Question No. 7

As noted in the site visit, the Applicant did not mark every tree. Of the twenty-nine trees that were identified, please clarify, for the record, whether the marked trees are the only major trees that will be removed. Please provide, for the record, the approximate number of additional trees, bushes and shrubs that would require removal.

Response

The twenty-nine (29) trees marked on the project plans, as trees to be removed, are those trees greater than six inch diameter at breast height ("dbh"). Smaller trees and bushes are not marked on the project plans nor were they marked in the field. Please note that on the revised

plans submitted in responses to the Council's Pre-Hearing Questions (Set 2) nos. 28 and 33, the number of larger trees (greater than six inches dbh) proposed to be removed has been reduced to 27, for the "Proposed Site Alternate Layout"; 11 for "Alternate Site 1"; and 5 for "Alternate Site 2". Cellco has not completed a count of small trees and bushes that would need to be removed at each location.

Question No. 8

Reference the article attached hereto as Schedule 3. Please comment on why residents should not be concerned about the risks of the tower based on this article.

Response

The FCC has adopted a standard for exposure to Radio Frequency ("RF") emissions from telecommunications facilities like the Hamden 8 Facility. Cellco, and all other wireless service providers, need to comply with the FCC standard. To ensure compliance with the applicable standards, Cellco has performed a worst-case maximum power density calculation for the proposed Hamden 8 Facility according to the methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65, Edition 97-01 (August 1997) ("OET Bulletin 65"). The calculation is a conservative, worst-case approximation for radio frequency ("RF") emissions at the closest accessible point to the antennas, in this case the base of the tower, and assumes that all antennas are transmitting simultaneously, on all channels, at full power. Even under these absolute worst-case conditions, the calculations indicate that the maximum permissible exposure level for Cellco's 700, 850, 1900 and 2100 MHz antennas combined would remain more than five times below (18.28%) the FCC's Standard. Actual RF emissions levels from the proposed Hamden 8 Facility would be far below these "worst-case" calculations. A worst-case General Power Density Table is included behind Tab 13 of the Application.

Question No. 9

Reference Schedule 4, which establishes that tornados, while not regular occurrences, are not unknown to the greater Hamden area. Please provide evidence of the tower's structural safety including the safety of the following: (i) any attachments and appurtenances on the tower, as described in Tab 7 of the Executive Summary, which may become unhinged; (ii) the installed fencing and (iii) the fuel storage facility that will be placed on the site (all of which, based on the original application and Mr. Weinpahl's testimony, are 270 feet from the home of Ms. Sorrentino).

Response

All cell site improvements (the tower, tower foundation, equipment platform etc.) will be designed and constructed in accordance with all applicable structural and building code requirements.

Question No. 10

Application Tab 10 indicates consultation with the DEEP NDDB Program. Has the Applicant received any correspondence to date?

Response

No.

Question No. 11

Application page 16 indicates consultation with the State Historic Preservation Office. Has the Applicant received any correspondence to date?

Response

No.

Question No. 12

Reference Question 10 of the Applicant's Responses to Connecticut Siting Council Pre-Hearing Questions. Please explain why the Applicant engaged in a "somewhat abbreviated site search effort" and how such attempt compares to the ordinary search effort undertaken by Applicant.

Response

As stated in Cellco's response to the Council's Pre-Hearing Question (Set 1) no. 10, prior to Cellco entering into its lease agreement with the property owner, the owner had previously entered into a tower lease agreement with AT&T. When the AT&T lease expired, Cellco approached Mr. Vignola and negotiated terms of the current lease. The initial site search effort was "somewhat abbreviated" simply because Mr. Vignola had previously expressed a willingness to lease space on his property for a tower site to AT&T and was, therefore, the first property owner approached by Cellco's real estate consultants. As discussed in the Application and in response to pre-hearing questions, Cellco also investigated four (4) additional parcels, all Town-owned, as a part of its site search effort. *See* Cellco's Application Tab 8 and Cellco's Responses to the Council's Pre-hearing Question no. 9.

Question No. 13

Please demonstrate that the proposed site and the two alternate sites on the lessor's property are not visible from Sleeping Giant State Park.

Response

The nearest trail section in Sleeping Giant State Park lies approximately 2.25 miles northeast of the property at 208 Kirk Road (measured to the park entrance at Route 10). A series of interconnecting trails lead around, up, over and along the Giant, some offering open vistas.

Based on mapping information published in the Connecticut Walk Book - *The Guide to the Blue-Blazed Hiking Trails of Western Connecticut Western Connecticut, 19th Edition, 2006*, (Attachment 2) most viewpoints are not oriented southwest towards the Hamden 8 Facility. The viewpoint closest to the Kirk Road property (on the Giant's Red Diamond Trail) is located in the western portion of the park near the Giant's "head" at an elevation of approximately 400 feet above ground level ("AGL"). The proposed and alternate Facility locations at 208 Kirk Road would be situated at ground elevations ranging from approximately 300 to 325 feet AGL, with a relative top of tower height ranging from 460 and 445 feet. Mount Carmel, located across Route 10 to the southwest of Sleeping Giant, rises to an elevation of over 460 feet AGL. The combination of topography, structures and tree canopy would obstruct direct lines of sight towards Kirk Road and the Hamden 8 Facility at any of the alternative site locations under consideration would not be visible. Similarly, the highest view point on Sleeping Giant with views oriented to the southwest lies at 710 feet AGL, near the Giant's "chest" on the White Square Trail. Set back nearly 4,000 feet farther east from Route 10, this location is over three (3) miles from the Kirk Road property. Despite its higher elevation, this location is set back sufficiently from Mount Carmel such that the intervening combined topography and tree cover would similarly obstruct direct lines of sight towards the proposed Facility (at any of the locations under consideration).

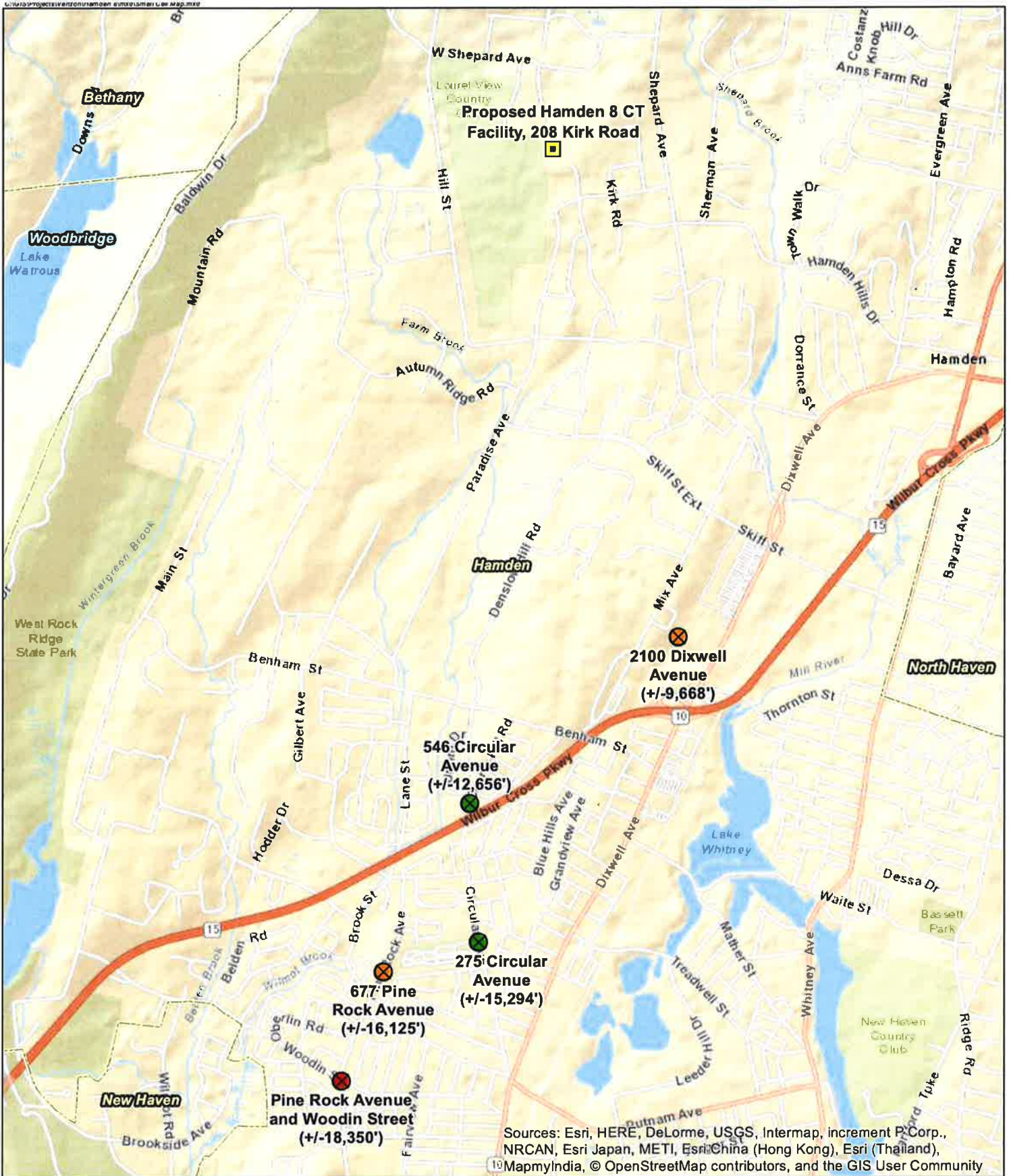
CERTIFICATION OF SERVICE

I hereby certify that on this 30th day of May 2017, a copy of the foregoing was sent via electronic mail to the following:

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ATTACHMENT 1



Legend

- Proposed Verizon Wireless Hamden 8 CT Facility Location
- Verizon Wireless Small Cells**
- Active Small Cell Site
- Approved Small Cell Site (to be installed)
- Application Pending for New Small Cell Site

Verizon Wireless Small Cells Map

Proposed Wireless Telecommunications Facility
 Hamden 8 CT
 208 Kirk Road
 Hamden, Connecticut

Map Notes:
 Base Map Source: 2012 Aerial Photograph (CTECO)
 Map Scale: 1 inch = 2,500 feet
 Map Date: May 2017



ATTACHMENT 2

SLEEPING GIANT TRAILS SG-1



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G	Green square	R	Red circle
O	Orange square	B	Blue oval
R	Red square	A	Red triangle
V	Violet square	R	Red hexagon
W	White square	R	Red diamond
Y	Yellow square	U	White horseshoe
B/W	Blue/violet square	X	White ski
Y/G	Yellow/green square		

