

# Connecticut Siting Council

---

APPLICATION OF CELLCO PARTNERSHIP  
D/B/A VERIZON WIRELESS



CANTERBURY SOUTH  
46 CEMETERY ROAD  
CANTERBURY, CONNECTICUT

DOCKET NO. \_\_\_\_\_

AUGUST 23, 2017

**TABLE OF CONTENTS**

	<b>Page</b>
EXECUTIVE SUMMARY.....	i
LOCATION MAP.....	ii
AERIAL PHOTO.....	iii
I. INTRODUCTION.....	1
A. Authority and Purpose .....	1
B. The Applicant.....	2
C. Application Fee.....	3
II. SERVICE AND NOTICE REQUIRED BY C.G.S. SECTION 16-50 <b><u>l</u></b> (b) .....	3
III. STATEMENT OF NEED AND BENEFITS FOR THE PROVISION OF ADVANCED AND RELIABLE WIRELESS SERVICES .....	3
A. Federal Policy .....	3
B. Public Need and System Design .....	6
1. Need for the Canterbury South Facility .....	6
2. Proposed Cell Site Information.....	6
3. System Design and Cell Site Equipment .....	8
a. System Design.....	8
b. Cell Site Equipment .....	9
4. Technological Alternatives .....	10
C. Site Selection and Tower Sharing.....	10
1. Cell Site Selection.....	10
2. Tower Sharing.....	11
3. Overall Costs and Benefits.....	12
4. Environmental Compatibility.....	12
a. Primary Facility Impact is Visual.....	12
b. Environmental Reviews and Agency Comments.....	14
c. Non-Ionizing Radio Frequency Radiation .....	16
d. Other Environmental Issues .....	17
5. Consistency with Local Land Use Controls.....	17
a. Planned and Existing Land Uses.....	17
b. Plan of Conservation and Development .....	18

**TABLE OF CONTENTS**  
(continued)

	<b>Page</b>
c.    Zoning Regulations .....	18
d.    Inland Wetland and Watercourse Regulations .....	18
6.    Local Input .....	20
7.    Consultations With State and Federal Officials .....	20
a.    Federal Communications Commission .....	21
b.    Federal Aviation Administration (FAA) .....	21
c.    United States Fish and Wildlife Service .....	21
d.    Connecticut Department of Energy and Environmental Protection .....	21
e.    Connecticut State Historic Preservation Officer .....	22
D.    Estimated Cost and Schedule .....	22
1.    Overall Estimated Costs .....	22
2.    Overall Scheduling .....	22
IV.    CONCLUSION .....	22

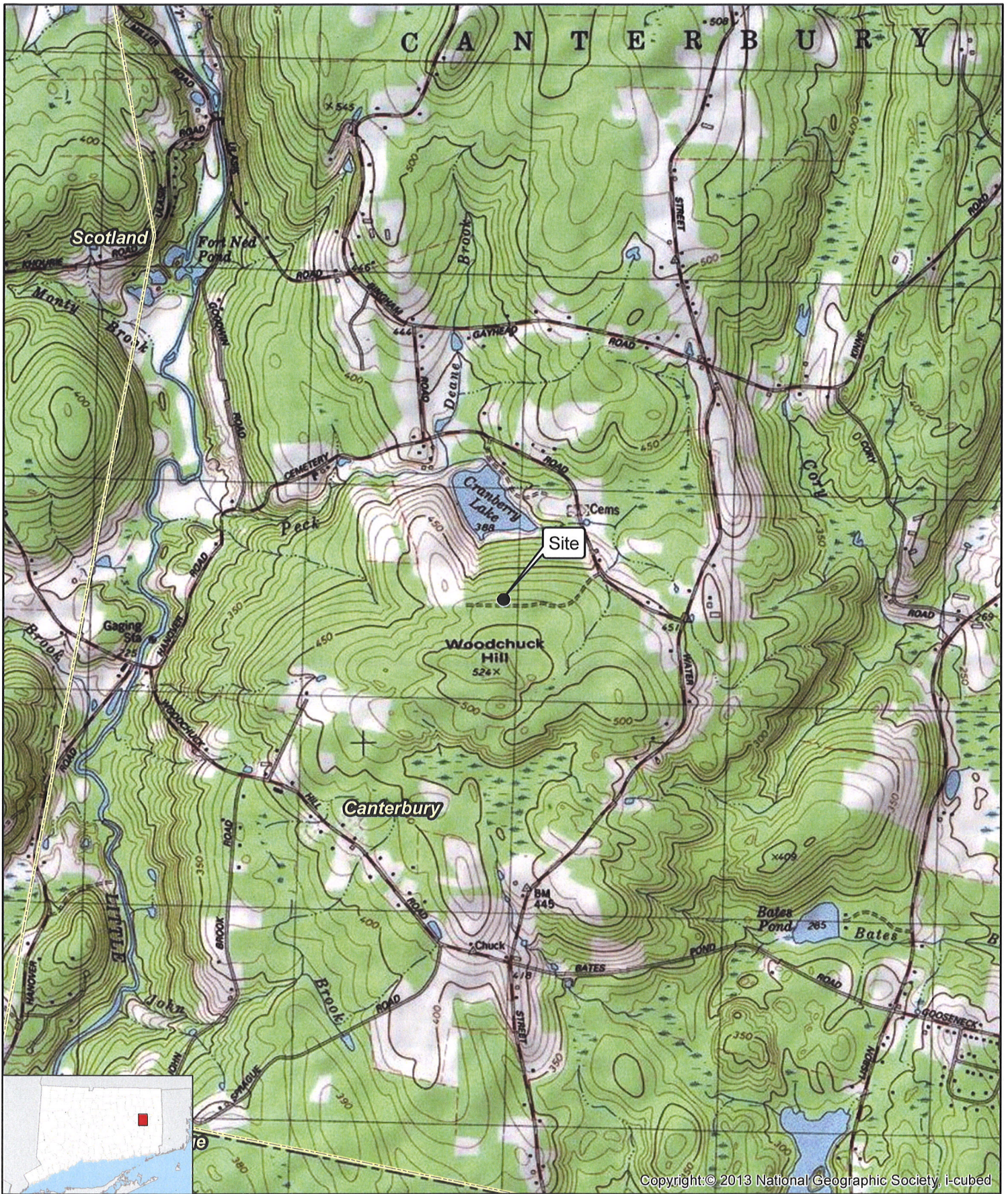
## LIST OF ATTACHMENTS

1. Canterbury South Facility – Factual Summary and Project Plans
2. Certificate of Service of Application on Government Officials; and List of Officials Served
3. Legal Notice in *The Bulletin*
4. Notice to Landowners; List of Abutting Landowners; Certificate of Service
5. Federal Communications Commission Licenses
6. Coverage Maps – Location of Canterbury South and Surrounding Cell Sites
7. Antenna and Equipment Specifications
8. Site Search Summary
9. Visibility Analysis
10. Preliminary USFWS and CT DEEP Compliance Determination Consultation
11. Wetlands Inspection Report and Vernal Pool Survey
12. Preliminary Historic Resources Determination
13. Farmland Soils Map
14. General Power Density Table
15. FEMA – Flood Insurance Rate Maps
16. Public Information Meeting – Legal Notice and Abutters List
17. Federal Airways & Airspace Summary Report
18. Redacted Land Lease Agreement

## EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) (“Applicant”) proposes to construct a wireless telecommunications facility on a 41.83-acre parcel at 46 Cemetery Road in Canterbury, Connecticut (the “Property”). The parcel is owned by Nicholas Holowaty II. Cellco refers to this cell site as its “Canterbury South Facility”. The Canterbury South Facility will provide improved wireless voice and data services in southern Canterbury, as well as portions of Sprague, Lisbon, Plainfield and Scotland, Connecticut.

Cellco proposes to construct a 160-foot monopole tower within a 50’ x 50’ fenced compound (80’ x 125’ leased area) in the southwesterly corner of the Property. Cellco would install nine (9) panel-type antennas and nine (9) remote radio heads on an antenna platform at the top of the tower. Cellco’s antennas will not extend above the top of the tower. Radio equipment cabinets and a diesel-fueled back-up generator would be located on a 9’-4” x 16’ steel equipment platform with a canopy roof installed within the facility compound. Vehicular access to the Canterbury South Facility would extend from Cemetery Road over a portion of an existing paved driveway, then over a new gravel driveway extension. Utilities would extend underground from existing service along Cemetery Road, adjacent to existing primary electrical service to an existing transformer near the owner’s garage, then underground from the existing transformer to the cell site.



Copyright © 2013 National Geographic Society, i-cubed

- Legend**
- Site
  - Municipal Boundary

**Map Notes:**  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Map, Scotland, CT (1983)  
 Map Scale: 1:24,000  
 Map Date: April 2017

-ii-



**Site Location Map**

Proposed Wireless  
 Telecommunications Facility  
 Canterbury South CT  
 46 Cemetery Road  
 Canterbury, Connecticut





APPROXIMATE PROPOSED TELCO CONDUITS  
ROUTED UNDERGROUND ADJACENT TO  
EXISTING UNDERGROUND UTILITY ROUTE

APPROXIMATE LOCATION OF  
EXISTING TRANSFORMER

PROPOSED 12' WIDE  
GRAVEL ACCESS DRIVE  
WITHIN PROPOSED 20' WIDE  
ACCESS/UTILITY EASEMENT

PROPOSED 20' WIDE  
ACCESS/UTILITY EASEMENT  
(ACCESS TO INITIALLY FOLLOW  
EXISTING GRAVEL DRIVE)

PROPOSED E/T CONDUITS ROUTED UNDERGROUND  
WITHIN A NEW 20' WIDE UTILITY EASEMENT

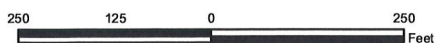
EXISTING PAVED ACCESS DRIVE

PROPOSED MONOPOLE TOWER WITHIN  
PROPOSED 50'X50' FENCED COMPOUND  
WITHIN PROPOSED 125'X80' LEASE AREA

**Legend**

- Subject Property
- Proposed Monopole Tower
- Approximate Proposed Facility Layout
- Proposed Underground Utility Route
- Existing Gravel Drive
- Existing Utility Pole
- Gate
- Fence
- Potential Vernal Pool
- Watercourse (CTDEEP)

-iii-



**Site Schematic**

Proposed Wireless  
Telecommunications Facility  
Canterbury South CT  
Holowaty Property  
46 Cemetery Road  
Canterbury, Connecticut



**Map Notes:**  
Base Map Source: 2016 Aerial Imagery (CTECO)  
Map Scale: 1 Inch = 250 feet  
Map Date: August 2017



**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

**IN RE:** :  
 :  
**APPLICATION OF CELLCO PARTNERSHIP** : **DOCKET NO. \_\_\_\_\_**  
**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 46** :  
**CEMETERY ROAD IN CANTERBURY,** :  
**CONNECTICUT** : **AUGUST 23, 2017**

**APPLICATION FOR CERTIFICATE OF  
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED**

**I. INTRODUCTION**

**A. Authority and Purpose**

This Application and the accompanying attachments (collectively, the “Application”) is submitted by Cellco Partnership d/b/a Verizon Wireless (“Cellco” or the “Applicant”), pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (“C.G.S.”), as amended, and Sections 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (“R.C.S.A.”), as amended. The Application requests that the Connecticut Siting Council (“Council”) issue a Certificate of Environmental Compatibility and Public Need (“Certificate”) for the construction, maintenance, and operation of a wireless telecommunications facility at 46 Cemetery Road in Canterbury, Connecticut (the “Property”). Cellco identifies this cell site as its “Canterbury South Facility”. The proposed Canterbury South Facility will consist of a 160-foot monopole tower in the southwest corner of a 41.83-acre parcel. Cellco would install its antennas and remote radio heads on an antenna platform at the top of the tower. The tower, Cellco’s



equipment cabinets and a diesel-fueled back-up generator will be installed within a 50' x 50' fenced compound and 80' x 125' leased area.

Included in this Application, as Attachment 1 is a factual summary and project plans for the proposed Canterbury South Facility. This summary, along with the other attachments submitted as part of this Application, contain all of the site-specific information required by statute and the regulations of the Council.

**B. The Applicant**

Cellco is a Delaware Partnership with an administrative office located at 99 East River Drive, East Hartford, CT, 06108. Cellco is licensed by the Federal Communications Commission ("FCC") to operate a wireless telecommunications system in the State of Connecticut within the meaning of C.G.S. Section 16-50i(a)(6). Cellco has extensive national experience in the development, construction and operation of wireless telecommunications systems and the provision of wireless telecommunications service to the public. Operation of the wireless telecommunications systems and related activities are Cellco's sole business in the State of Connecticut.

Correspondence and/or communications regarding this Application may be addressed to:

Cellco Partnership d/b/a Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108  
Attention: Anthony Befera

A copy of all such correspondence or communications should also be sent to:

Robinson & Cole LLP  
280 Trumbull Street  
Hartford, Connecticut 06103-3597  
(860) 275-8200  
Attention: Kenneth C. Baldwin, Esq.

**C. Application Fee**

The estimated total construction cost for the Canterbury South Facility would be less than \$5,000,000. Therefore, pursuant to Section 16-50v-1a(b) of the Regulations of Connecticut State Agencies, an application fee of \$1,250 accompanies this Application in the form of a check payable to the Council.

**II. SERVICE AND NOTICE REQUIRED BY C.G.S. SECTION 16-50(b)**

Copies of this Application have been sent mailed to municipal, regional, state and federal officials, pursuant to C.G.S. Section 16-50(b). A certificate of service, along with a list of the officials served with a copy of the Application, is included as Attachment 2.

Notice of Celco's intent to submit this Application was published on August 17 and August 18, 2017, by Celco in *The Bulletin* pursuant to C.G.S. Section 16-50(b). A copy of the legal notice is included in Attachment 3. A copy of an Affidavit of Publication will be forwarded to the Council as soon as it is available.

Attachment 4 contains a certification that notice of Celco's intent to file this Application was sent to each person appearing of record as an owner of land that may be considered to abut the Property in accordance with C.G.S. Section 16-50(b), as well as a list of the property owners to whom such notice was sent and a sample notice letter, including attachments.

**III. STATEMENT OF NEED AND BENEFITS FOR THE PROVISION OF  
ADVANCED AND RELIABLE WIRELESS SERVICES**

The purpose of this section is to provide an overview and general description of the proposed Canterbury South Facility.

**A. Federal Policy**

In 1996, the United States Congress adopted the federal Telecommunications Act (the

“Act”). (Pub. L. No. 104-104, 110 Stat. 56). The Act recognized, among other things, an important nationwide need for high-quality wireless telecommunication services of all varieties. The Act also expressly promotes competition and seeks to reduce federal, state and local government regulation in all aspects of the telecommunications industry in order to foster lower prices for consumers and to encourage the rapid deployment of new and advanced wireless service and technologies.

Because the FCC and the United States Congress have determined that there is a pressing public need for high-quality wireless telecommunications service nationwide, the federal government has preempted the determination of public need by states and municipalities, including the Council, with respect to public need for the service to be provided by the facility described in this Application. In addition, the FCC has promulgated regulations containing technical standards for wireless systems, including design standards, in order to ensure the technical integrity of each system and nationwide compatibility among all systems. State and local regulation of these matters is likewise preempted. The FCC has also exercised its jurisdiction over and preempted state and local regulation with respect to radio frequency emission and interference issues by establishing regulations and requirements in these areas as well.

Pursuant to FCC authorizations, Cellco has constructed and currently operates a wireless system throughout Connecticut. This system, together with Cellco’s system throughout its New England and national markets, has been designed and constructed to operate as one integrated, contiguous system, consistent with Cellco’s business policy of developing compatibility and continuity of service on a regional and national basis.

Recognizing the public safety benefits that enhanced wireless telecommunications networks can provide, the United States, Congress also enacted the Wireless Communications and Public

Safety Act of 1999 to promote and enhance public safety by making 911 the universal emergency assistance number, furthering the deployment of wireless 911 capabilities and further encouraging the construction and operation of seamless, ubiquitous and reliable wireless networks. In 2004, Congress enacted the Enhanced 911 (E-911) Act for the specific purpose of enhancing and promoting Homeland Security, public safety and citizen activated emergency response capabilities. These goals and other related responsibilities imposed on wireless service providers can only be satisfied if Cellco maintains a ubiquitous and reliable wireless network.

In December of 2009, President Obama issued Presidential Proclamation No. 8460 (74 C.F.R. 234 (2009)), which recognizes the need to protect the nation's "critical infrastructure", including, among others, "cellular phone towers". In 2010, the FCC developed a national broadband policy<sup>1</sup> to 1) ensure that all Americans would have access to broadband capability, whether wired or wireless, 2) establish the United States as a leader in wireless service innovation, and 3) establish, in America, the fastest and most extensive wireless network. In an effort to encourage a more timely review and approval of wireless facility siting applications, the FCC, in 2011, established specific time limits for local and State land use decisions on wireless facilities.<sup>2</sup>

In 2012, Congress passed the Middle Class Tax Relief and Job Creation Act which included a provision (Section 6409) which mandates the approval of certain eligible wireless facility modifications. The provisions of Section 6409 were further clarified in the FCC's October 17, 2014 Report and Order (FCC-14-153) and were specifically designed to accelerate broadband deployment by improving wireless siting policies.

---

<sup>1</sup> Connecting America: The National Broadband Plan, Federal Communications Commission (2010).

<sup>2</sup> FCC Declaratory Ruling WT Docket No. 08-165.

Included as Attachment 5 is a copy of the FCC's authorization issued to Cellco for its wireless service in Connecticut. The FCC's rules permit a licensee to modify its system, including the addition of new cell sites, without prior approval by the FCC, as long as the licensee's authorized service area is not enlarged. The Canterbury South Facility would not enlarge Cellco's authorized service area.

**B. Public Need and System Design**

**1. Need for the Canterbury South Facility**

As noted above, the Act has pre-empted any state or local determination of public need for wireless services. In Connecticut, Cellco holds an FCC License to provide wireless services in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency ranges. Pursuant to its FCC Licenses, Cellco has developed and continues to develop a network of cell sites to serve the demand for enhanced wireless services throughout the nation and more specifically, the State of Connecticut.

Cellco currently provides limited wireless service in portions of Canterbury and the surrounding towns from its existing Baltic, Lisbon, Jewett City, Plainfield South, Canterbury, Hampton and Scotland cell sites. Plots showing the extent of reliable wireless service in the area reveal significant "coverage gaps" in all of Cellco's operating frequencies. Significant portions of these coverage gaps, particularly in southern portions of Canterbury, will be filled by service from the proposed Canterbury South Facility. (See Attachment 6).

**2. Proposed Cell Site Information**

The proposed Canterbury South Facility would be located in the southwest corner of an approximately 41.83-acre parcel at 46 Cemetery Road in Canterbury. The Property is owned by

Nicholas Holowaty II and is used for residential purposes. At this site, Cellco would construct a 160-foot self-supporting monopole telecommunications tower within a 50' x 50' fenced compound and 80' x 125' leased area. Cellco would install a total of nine (9) panel-type antennas and nine (9) remote radio heads on an antenna platform at the top of the tower. Cellco's antennas will not extend above the top of the tower. Equipment associated with Cellco's antennas, including two (2) equipment cabinets and a 20 kW diesel-fueled back-up generator would be located on a 9'-4" x 16' steel platform with a canopy roof located near the base of the tower. Cellco's equipment cabinets would house radio receiving, transmitting, switching, processing and performance monitoring equipment. The back-up battery system and generator will allow the facility to remain operational if and when commercial power to the facility is interrupted. The equipment would remain unstaffed, except as required for maintenance. Once the cell site is operational, Cellco technicians will visit the cell site periodically for maintenance purposes. Cellco's back-up generator is exercised once every two weeks for approximately 30 minutes.

Vehicular access to the proposed cell site would extend from Cemetery Road over the Property owner's existing paved driveway a distance of approximately 1,020 feet, then over and gravel driveway extension an additional distance of approximately 670 feet to the cell site. Utilities will extend from existing service along Cemetery Road, to the north of the access drive, adjacent to existing primary electrical service to a transformer near the owner's garage, then underground from the transformer to the cell site.

The proposed Canterbury South Facility would provide reliable wireless service to a 4.0 mile portion of Route 14; a 2.9 mile portion of Route 97; a 2.75 mile portion of Route 169, and an overall area of 47.98 square miles at 700 MHz frequencies; a 3.76 mile portion of Route 14; a

1.4 mile portion of Route 97; a 1.4 mile portion of Route 169, and an overall area of 39 square miles at 850 MHz frequencies; a 1.7 mile portion of Route 14; and an overall area of 13.97 square miles at 2100 MHz frequencies. The Canterbury South Facility will not provide any service along Routes 97 and 169 at 2100 MHz. Cellco will not initially deploy its 1900 MHz service at the Canterbury South Facility.

Cellco's existing surrounding cell sites include: *Baltic* – antennas on an existing tower at 62 North Main Street in Sprague, located approximately 3.5 miles southwest of the proposed Canterbury South Facility; *Lisbon* - antennas on an existing tower at 26 Mell Road in Lisbon, located approximately 6.0 miles south of the proposed Canterbury South Facility; *Jewett City* – antennas on an existing tower at 257 Norman Road in Griswold, located approximately 6.4 miles southeast of the proposed Canterbury South Facility; *Plainfield South* – antennas on an existing tower at 1197 Norwich Road in Plainfield, located approximately 5.0 miles southeast of the proposed Canterbury South Facility; *Canterbury* – antennas on an existing tower at 53 Westminster Road in Canterbury, located approximately 3.5 miles northeast of the proposed Canterbury South Facility; *Hampton* – antennas on an existing tower at 185 Fiske Road in Hampton, located approximately 7.4 miles northwest of the proposed Canterbury South Facility; and *Scotland* – antennas on an existing tower at 165 Huntington Road in Scotland, located approximately 3.7 miles northwest of the proposed Canterbury South Facility.

### **3. System Design and Cell Site Equipment**

#### **a. System Design**

Cellco's wireless system in general and the proposed Canterbury South Facility, in particular, have been designed and developed to allow Cellco to achieve and to maintain high

quality, reliable wireless service. The system design is capable of orderly expansion and is compatible with other wireless systems. The resulting quality of service compares favorably with the quality of service provided by conventional wireline telephone service. The wireless system is designed to assure a true cellular configuration of base transmitters and receivers in order to cover the proposed service area effectively while providing the highest quality of service possible.

Mobile telephone switching offices ("MTSOs") in Windsor and Wallingford are interconnected and operate Cellco's wireless systems in Connecticut as a single network, offering the subscriber uninterrupted use of the system while traveling throughout the State. This network is further interconnected with the local exchange company and long distance carrier networks.

Cellco has designed its wireless system in conformity with applicable standards and constraints for wireless systems. Cellco's system is also designed to minimize the need for additional cell sites in the absence of additional demand or unforeseen circumstances.

**b. Cell Site Equipment**

The key elements of the cellular system are the two MTSOs located in Windsor and Wallingford and the various connector cell sites around the state. The major electronic components of each cell site are radio frequency transmission and receiving equipment and cell site controller equipment. This equipment is capable of expanding in modules to meet system growth needs. The cell site equipment primarily provides for: message control on the calling channel; call setup and supervision; radio frequency equipment control; internal diagnostics; response to remote and local test commands; data from the mobile or portable unit in both directions and on all channels; scan receiver control; transmission of power control commands; rescanning of all timing; and commands and voice channel assignment.



In addition to the ground-mounted radio equipment, Cellco intends to install nine (9) panel-type transmit/receive antennas; nine (9) remote radio heads (RRHs); two (2) HYBRIFLEX™ fiber optic antenna cables; and a GPS antenna. Back-up power to the Canterbury South Facility will be provided by a back-up battery system and a 20 kW, diesel-fueled generator. Specifications for Cellco's antennas, RRHs, antenna cables and generator are included in Attachment 7.

#### **4. Technological Alternatives**

Pursuant to authorization by the FCC, Cellco is authorized to provide wireless telecommunications services throughout the State of Connecticut. Cellco submits that there are no equally effective technological alternatives to the proposal contained herein. In fact, Cellco's wireless system represents state-of-the-art technology offering high-quality service. Cellco is aware of no viable and currently available alternatives to its system design for carriers licensed by the FCC.

#### **C. Site Selection and Tower Sharing**

##### **1. Cell Site Selection**

Cellco's goal in selecting cell sites, like the ones described above, is to locate a facility in such a manner as to allow it to build and to operate a high-quality wireless system with the least environmental impact. Cellco has determined that the proposed Canterbury South Facility would satisfy this goal and provide high-quality reliable wireless service along portions of Routes 14, 97 and 169 and local roads, as well as residential and agricultural land uses in the area.

The methodology of cell site selection for a wireless system generally limits the search for possible locations to a specific site search area established by Cellco's Radio Frequency (RF) Engineers and network designers. In any search area, Cellco first examines the use of existing

towers or other sufficiently tall structures that might help satisfy its coverage objectives. A list of existing towers or other non-tower structures considered is described above and included in Attachment 8. Cellco currently shares each of these existing towers, all of which are within approximately eight (8) miles of the Canterbury South Facility location. These existing sites are identified on the coverage maps included in Attachment 6. The adjacent cell sites cannot, however, satisfy the coverage objectives for the Canterbury South Facility search area.

Cellco also regularly investigates the use of existing, non-tower structures in an area, when available, as an alternative to building a new tower. No such non-tower structures of suitable height exist in southerly portions of Canterbury. Cellco initiated a site search process for the Canterbury South cell site in February, 2015, and identified the Property as a viable candidate for a cell site. Cellco determined that an antenna centerline height of 157 feet at this location would satisfy its wireless service objectives in the area. The Site Search Summary (Attachment 8) together with the site information contained in Attachment 1 support Cellco's position that the site selected represents the most feasible alternative of the sites investigated.

## **2. Tower Sharing**

The Applicant will design the facility tower and compound to be shared by a minimum of four (4) wireless carriers, and the Town, or local emergency service providers, if a need exists. The tower itself could also be designed to be extended up to 20 feet in accordance with past requests from the Council. This type of tower sharing arrangement would reduce, if not eliminate, the need for these other carriers or municipal entities to develop a separate tower in this same area in the future. As of the date of this filing, no other wireless carrier nor the Town of Canterbury has expressed any interest in the Canterbury South Facility.

### **3. Overall Costs and Benefits**

Aside from the limited visual impacts discussed further below, the Applicant believes that there are no significant costs attendant to the construction, maintenance, and operation of the proposed cell site. In fact, the public will benefit substantially from its increased ability to receive high-quality, reliable wireless service in the Town of Canterbury.<sup>3</sup> The Canterbury South Facility would be a part of a communications system that addresses the public need identified by the FCC and the United States Congress for high-quality, competitive mobile and portable wireless service. Moreover, the proposed cell site would be part of a system designed to limit the need for additional cell sites in the future. The overall costs to the Applicant for development of the proposed cell site are set forth in Section III.D. of the Application.

### **4. Environmental Compatibility**

Pursuant to Section 16-50p of the General Statutes, in its review of the Application, the Council is required to find and to determine, among other things, the nature of the probable environmental impact, including a specification of every significant adverse effect, whether alone or cumulatively with other effects, on, and conflicting with the policies of the state concerning the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife.

#### **a. Primary Facility Impact is Visual**

The wireless system of which the proposed Canterbury South Facility would be a part has

---

<sup>3</sup> Businesses and individuals across the country have become much more dependent on wireless services especially in emergency situations. The public safety benefits of wireless telephone service are illustrated by the Connecticut State Police Enhanced 911 emergency calling system. The E-911 emergency calling system is available statewide to all wireless telephone users. Numerous other emergency service organizations have turned to wireless telephone service for use during natural disasters and severe storms when wireline service is interrupted or unavailable.

been designed to meet the public need for high-quality, reliable wireless service while minimizing, to the extent possible, any potential adverse environmental impacts. In part because there are few, if any other adverse impacts, the primary impact of facilities such as this is visual. This visual impact will vary from location to location around a proposed tower site, depending upon factors such as vegetation, topography, the distance of nearby properties from the tower and the location of buildings and roadways in a “sight line” toward the tower. Similarly, visual impact of a tower facility can be further reduced through the proper use of alternative tower structures; so-called “stealth installations.” Attachment 9 contains Visibility Analysis prepared by All-Points Technology Corporation (“APT”) for the Canterbury South Facility. The Visibility Analysis assesses the visual impact of the tower on the surrounding areas and includes photosimulations for the Council’s review and consideration.

According to the Visibility Analysis, areas where the monopole tower would be visible above the tree canopy comprise approximately 119 acres, or 1.5 percent of the 8,042 acre study area. Year-round visibility of the Canterbury South Facility tower are limited to locations on the Property and within the immediate vicinity (approximately 0.57 miles) of the Property. Areas where seasonal views are anticipated comprise approximately 202 additional acres (2.5 percent of the 8,042 acre study area).

There are no off-site residences within 1,000 feet of the Canterbury South Facility. The closest off-site residence is located at 40 Cemetery Road, approximately 1,048 feet to the northeast. Weather permitting, the Applicant will raise balloons with a diameter of at least three (3) feet at the Canterbury South Facility location on the day of the Council’s hearing on this Application, or at a time otherwise specified by the Council.

**b. Environmental Reviews and Agency Comments**

Section 16-50j of the General Statutes requires the Council to consult with and to solicit comments on the Application from the Commissioners of the Departments of Energy and Environmental Protection, Public Health, Public Utility Regulatory Authority, Economic Development, and Transportation, the Council on Environmental Quality, and the Office of Policy and Management, Energy Division. In addition to the Council's solicitation of comments, Cellco, as a part of the National Environmental Policy Act ("NEPA") Checklist, solicits comments on the proposed Canterbury South Facility from the U.S. Department of the Interior, Fish and Wildlife Service ("USFWS"), Environmental and Geographic Information Center of the Connecticut Department of Energy Environmental Protection ("DEEP") and the Connecticut Historical Commission, State Historic Preservation Officer ("SHPO").

**(1) USFWS, Migratory Birds & NDDB Reviews**

According to the May 30, 2017 Preliminary USFWS, Migratory Birds & NDDB Compliance Determination prepared by APT, one federally-listed threatened species is known to occur in the vicinity of the Property documented as the *Northern Long-Eared Bat* ("NLEB"). For the reasons discussed in the compliance determination, Cellco submits that the proposed Canterbury South Facility will not adversely affect the NLEB.

The proposed Canterbury South Facility would also comply with the USFWS recommended guidelines for reducing impacts to the migratory birds. Finally, no known areas of State-listed species exist on the most recent DEEP/NDDB maps in the location of the proposed cell site. (See Attachment 10).

(2) **Wetlands Inspection Report and Vernal Pool Survey**

As discussed in Section III.C.5.d. below, Cellco identified a total of six (6) wetland areas on the Property that may be impacted by elements of the Canterbury South Facility site development activity. The Canterbury South Facility is located approximately 45 feet northeast of “Wetland 1” and approximately 250 feet from a potential vernal pool identified on an adjacent parcel to the south. Wetlands 2 and 3 are located in the easterly portion of the Property, south of the owner’s existing access driveway. Cellco has no plans to disturb or disrupt Wetlands 1, 2 or 3. Wetlands 4, 5 and 6 are located to the north of the existing driveway between the owner’s barn and Cemetery Road. Wetlands 4 and 5 were previously impacted (temporarily), when the owner installed underground utilities extending from Cemetery Road. During a recent design visit, Eversource determined that Cellco must locate its utilities underground adjacent to the owner’s existing service. This work will require temporary impacts to Wetlands 4 and 5. Wetland 6 will not be impacted by the installation of utilities. (See Wetlands Inspection Report – Attachment 11).

(3) **State Historic Preservation Officer**

According to a Preliminary Historic Resources Determination prepared by APT for the Canterbury South Facility, there are no historic resources on or eligible for listing on the State or National Register of Historic Places within one-half mile of the proposed Canterbury South Facility. (See Attachment 12). The SHPO’s review of the tower proposal is on-going. A copy of the SHPO’s final comments on this proposal will be filed with the Council as soon as they are available.

**(4) Agriculture**

Farmland soils suitable for agricultural use includes land that is defined as prime or farmland of Statewide or local importance, based on soil type. It identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed crops and is available for these uses.<sup>4</sup> According to the National Cooperative Soil Survey (U.S. Department of Agriculture, Natural Resources Conservation Service), eastern and northern portions of the Property contain “Prime” and “Statewide Important” Farmland soils. None of these areas will be impacted by construction of the Canterbury South Facility compound or gravel driveway extension. Trenching associated with the installation of utilities to the cell site will have a minor and temporary impact on Prime Farmland soils in the easterly portion of the Property along Cemetery Road. (See Farmland Soils Map included in Attachment 13).

**c. Non-Ionizing Radio Frequency Radiation**

The FCC has adopted standards for exposure to Radio Frequency (“RF”) emissions from telecommunications facilities like those proposed in the Application. To ensure compliance with the applicable standards, Cellco has performed a general power density calculation for the proposed Canterbury South 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 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

---

<sup>4</sup> Connecticut Environmental Conditions Online (CTECO Resource Guide) [www.cteco.uconn.edu](http://www.cteco.uconn.edu).

antennas at the proposed Canterbury South Facility would remain well below (27.28%) the FCC's Standard. Actual RF emissions levels from the proposed facility would be far below these "worst-case" calculations. A worst-case General Power Density table is included in Attachment 14.

**d. Other Environmental Issues**

No sanitary facilities are required for the Canterbury South Facility. The operations at the Canterbury South Facility will not cause any significant air, water, noise or other environmental impacts, or hazard to human health.

Based on agency comments received and field investigations by the Cellco project team, the Applicant submits that the proposed Canterbury South Facility will have no significant adverse effect on scenic, natural, historic or recreational features, and that none of the potential effects alone or cumulatively with other effects is sufficient reason to deny this Application.

**5. Consistency with Local Land Use Controls**

The Council Application Guide for Community Antenna Television and Telecommunication Facilities, as amended in July 2012, requires the inclusion of a narrative summary of the project's consistency with the Municipality's Plan of Conservation and Development (the "Plan"), Zoning Regulations, and Wetland Regulations as well as a description of planned and existing uses of the site location and surrounding properties.

**a. Planned and Existing Land Uses**

The proposed Canterbury South Facility would be located on an approximately 41.83-acre parcel owned by Nicholas Holowaty II. The Property is zoned Rural District ("RD") and is used for residential purposes. The Property is surrounded by low-density residential and agricultural land uses.



**b. Plan of Conservation and Development**

The Town of Canterbury Master Plan of Conservation & Development (Dated August 1, 2010) (the “Plan”), does not identify telecommunications facilities as a land use consistent or inconsistent with the general planning and conservation principles or policies of the Town. Four (4) copies of the Plan were filed, in bulk, with the Council.

**c. Zoning Regulations**

According to the Canterbury Zoning Map, the Property is located in the RD zone. Pursuant to Section 16 of the Canterbury Zoning Regulations, wireless communications facilities, like the one proposed in this Application, are permitted by in the RD zone with the approval of a Special Exception from the Canterbury Planning and Zoning Commission. The Canterbury Zoning Regulations require towers to meet the setback requirements of the zone in which the facility is located or a distance equal to the height of the tower, whichever is greater.<sup>5</sup> The proposed 160-foot tower is located within 40 feet of the southerly (side) property line and 95 feet from the westerly (rear) property line and would not comply with the Town’s setback requirements. The regulations state that towers must be a monopole design and may be camouflaged, if appropriate. The tower must also be designed to accommodate at least three (3) additional carriers and constructed in accordance with all applicable structural standards.

**d. Inland Wetland and Watercourse Regulations**

The Canterbury Inland Wetlands and Watercourses Regulations (“Wetland Regulations”) define Regulated Activity as any operation within or use of a wetland or watercourse involving removal or deposition of material, or any obstruction, construction, alteration or pollution, of

---

<sup>5</sup> Section 5.5 of the Zoning Regulations establishes a building setback requirement of 50 feet for the front yard and 25 feet for the side and rear yards in the RD zone.

such wetlands or watercourses. Four (4) copies of the Canterbury Wetland Regulations were filed, in bulk, with the Council. APT completed a thorough wetlands investigation and Vernal Pool Survey to assess and evaluate potential impacts of the proposed facility. Copies of a Wetlands Inspection Report and a Vernal Pool Survey are included in Attachment 11. As discussed above, APT identified six (6) wetland areas on or proximate to the Property that could, given the proximity to site improvements, be impacted by the development of the Canterbury South Facility. Wetland 1 is located along the southwest boundary of the Property and is within approximately 45 feet of the proposed facility compound. Provided appropriate soil erosion controls are maintained throughout site construction, the Canterbury South Facility should not have an adverse impact on Wetland 1. Wetlands 2 and 3 are located in the southeast portion of the Property, to the south of the owner's existing paved access drive. Provided appropriate soil erosion and sedimentation controls are maintained throughout site construction, the Canterbury South Facility should not have an adverse impact on Wetlands 2 and 3. Wetlands 4, 5 and 6 are small wetland pockets located to the east of the Property owner's barn and residence. Eversource has determined that utility access to the Canterbury South Facility should extend from Cemetery Road adjacent to the owner's existing utility service. This utility routing will result in temporary impacts to Wetlands 4 and 5. A wetland protection and restoration plan has been developed and is incorporated into the project plans included in Attachment 1. (*See Plan Sheet C-5*).

During its field investigation, APT also identified a potential vernal pool associated with Wetland 1, approximately 250 feet from any development activity associated with the Canterbury South Facility. According to the Vernal Pool Survey and field observations, APT determined that Wetland 1 does not appear to contain vernal pool breeding habitat.

According to the Federal Emergency Management Agency Flood Insurance Rate Map (“FIRM”), Community Panel Number 0901830015A (Effective October 16, 1984) the Canterbury South Facility would be located in Flood Zone X, an area outside the 500 year flood zone. A copy of the FIRM is also included in Attachment 15.

**6. Local Input**

Section 16-50~~l~~(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On November 21, 2016, Cellco representatives met with Roy A. Piper, Canterbury’s First Selectman and Melissa Gil, the Town’s Land Use Director to commence the ninety (90) day municipal consultation process. Mr. Piper and Ms. Gil received a copy of technical information summarizing Cellco’s plans to establish a telecommunications facility as described above. At this meeting, Cellco discussed, in detail, the aspects of the proposed Canterbury South Facility, the need for wireless service in southern portions of Canterbury and the Connecticut Siting Council application process. At the request of the Town, Cellco hosted a Public Information Meeting (“PIM”) at Canterbury Town Hall on April 6, 2017. At the PIM, Cellco discussed the need for the Canterbury South Facility and the Council’s application process. Notice of the PIM was published in the *Norwich Bulletin* on March 22, 2017, and was sent to abutting landowners. A list of abutting landowners notified of the PIM, a copy of the notice letter to abutters and a copy of the Legal Notice of the PIM is included in Attachment 16.

**7. Consultations With State and Federal Officials**

Attachments 10, 11, 12, 13, 15 and 17 and Section III.C.7. of the Application describes consultations with state and federal officials regarding the proposed Canterbury South Facility.

a. **Federal Communications Commission**

The FCC did not review this particular proposal. As discussed above, FCC approval is not required where the authorized service area is not enlarged.

b. **Federal Aviation Administration (FAA)**

As it does with all of its tower applications, Cellco completed a Federal Airways & Air-Space Summary Report for the proposed Canterbury South Facility to determine if the proposed tower would constitute an obstruction or hazard to air navigation. This analysis has confirmed, pursuant to FAA standards and guidelines, that the proposed tower would not constitute an obstruction or hazard to air navigation. Therefore, no obstruction marking or lighting would be required. A copy of the Federal Airways and Airspace Summary Report is included in Attachment 17.

c. **United States Fish and Wildlife Service**

*See* Section III.C.4.b.(1) above.

d. **Connecticut Department of Energy and Environmental Protection**

(1) **Natural Diversity Data Base**

*See* Section III.C.4.b.(1) above.

(2) **Bureau of Air Management**

Under normal operating conditions, Cellco's equipment at the Canterbury South Facility would generate no air emissions. During the loss of commercial power and periodically for maintenance purposes, Cellco would utilize a propane-fueled generator to provide emergency back-up power to the proposed cell site. Cellco's back-up generator will be managed to comply with the

“permit by rule” criteria established by the Connecticut Department of Energy and Environmental Protection (“DEEP”) Bureau of Air Management pursuant to R.C.S.A. § 22a-174-3b.

**e. Connecticut State Historic Preservation Officer**

See Section III.C.4.b.(3) above.

**D. Estimated Cost and Schedule**

**1. Overall Estimated Costs**

The total estimated cost of construction for the Canterbury South Facility is approximately \$658,000. This estimate includes:

(1) Cell site radio equipment .....	\$170,000
(2) Tower, coax and antenna.....	250,000
(3) Electrical/Communications Installation .....	50,000
(4) Equipment and platform.....	98,000
(5) Miscellaneous (including site preparation, access, grading) .....	45,000

**2. Overall Scheduling**

Site preparation and engineering would commence following Council approval of Cellco’s Development and Maintenance (“D&M”) Plan and are expected to be completed within two to four weeks. Equipment installation is expected to take an additional four weeks after installation of the building and installation of the tower. Cell site integration and system testing is expected to require two weeks after equipment installation.

**IV. CONCLUSION**

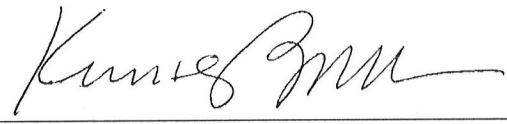
Based on the facts contained in this Application, Cellco submits that the establishment of the Canterbury South Facility will not have any substantial adverse environmental effects. A public

need exists for high quality reliable wireless service in the Town of Canterbury and throughout Windham County, as determined by the FCC and the United States Congress, and a competitive framework for providing such service has been established by the FCC and the Telecommunications Act of 1996. Cellco submits that the need far outweighs any possible environmental effects resulting from the construction of the proposed cell site.

WHEREFORE, Cellco respectfully requests that the Council grant this Application for a Certificate of Environmental Compatibility and Public Need for the proposed Canterbury South Facility.

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON  
WIRELESS

By: 

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, Connecticut 06103-3597  
(860) 275-8200  
Attorneys for the Applicant