

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

# Connecticut Siting Council

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APPLICATION OF CELLCO PARTNERSHIP  
D/B/A VERIZON WIRELESS

PLYMOUTH WEST RELO  
33 KEEGAN ROAD  
PLYMOUTH, CONNECTICUT

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

FEBRUARY 13, 2015



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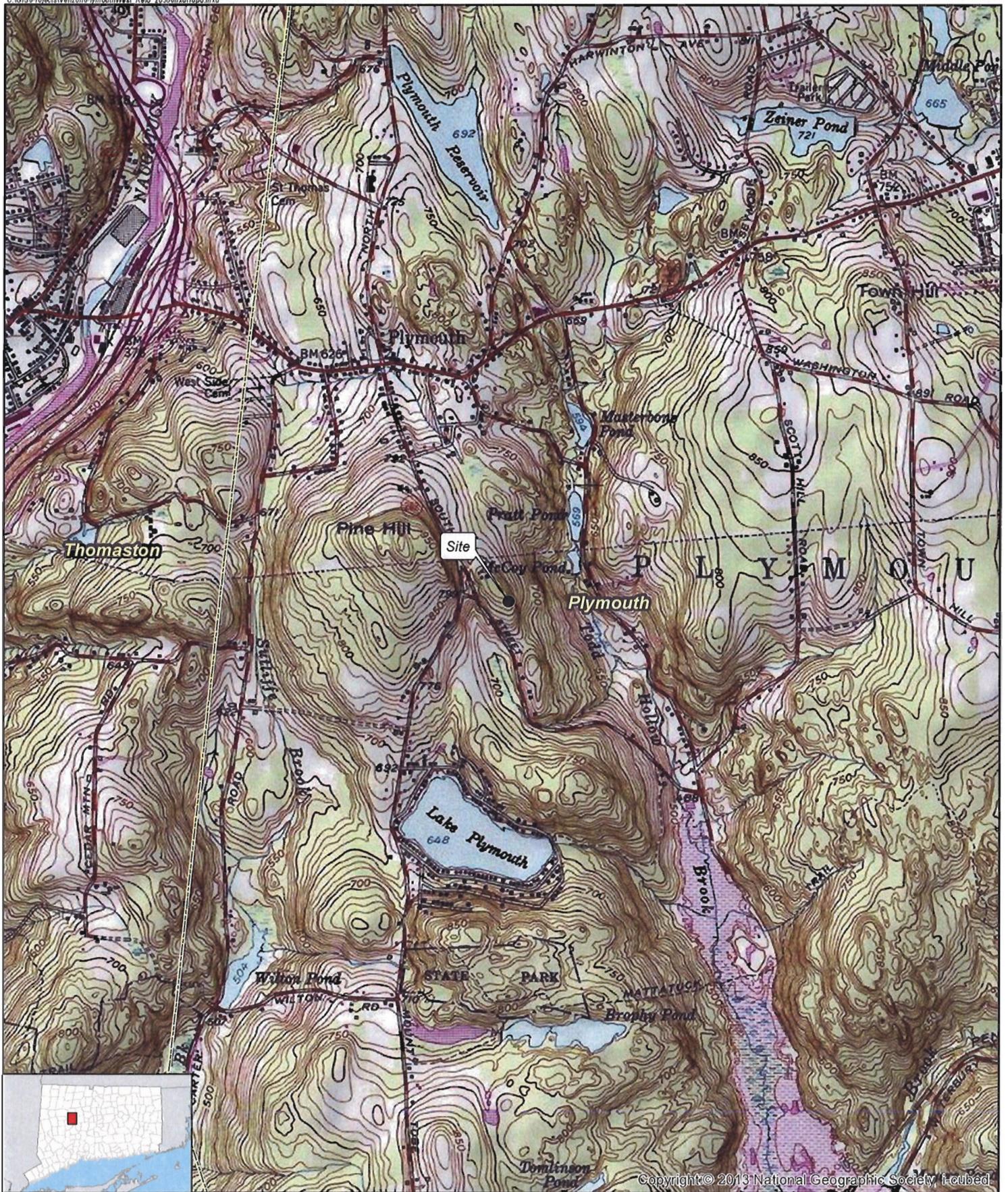
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1. Plymouth West Relo Facility – Factual Summary and Project Plans
2. Certificate of Service of Application on Government Officials and List of Officials Served
3. Legal Notice in *The Bristol Press*
4. Notice to Landowners; List of Abutting Landowners; Certificate of Service
5. Federal Communications Commission Licenses
6. Coverage Maps – Location of Plymouth West Relo and Surrounding Cell Sites
7. Antenna and Equipment Specifications
8. Site Search Summary
9. Visibility Analysis
10. USFWS Compliance Determination
11. NDDB Compliance Determination
12. Avian Resources Evaluation
13. Wetlands Investigation Report
14. SHPO Determination
15. FEMA – Flood Insurance Rate Maps
16. Federal Airways & Airspace Survey Report
17. Redacted Lease Agreement – Steven A. Westall

## EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) (“Applicant”), proposes to construct a telecommunications tower and related facility (the “Plymouth West Relo Facility”) on an approximately 12.4 acre parcel at 33 Keegan Road in Plymouth, Connecticut (the “Property”). The Property is owned by Steven A. Westall. The Plymouth West Relo Facility will replace Cellco’s existing 180-foot tower at 42 South Street in Plymouth, which Cellco intends to abandon and remove from that location. The Plymouth West Relo Facility would provide enhanced wireless services to significant portions of western Plymouth, particularly along portions of Routes 262 and 6, between Cellco’s existing Plymouth NW, Plymouth, Thomaston South and Thomaston Center cell sites.

At the Property, Cellco plans to construct a 140-foot monopole tower. Cellco would install twelve (12) panel-type antennas and nine (9) remote radio heads on a low-profile platform at a height of 140 feet above ground level (“AGL”). The top of Cellco’s antennas would extend above the top of the tower to an overall height of approximately 143 feet AGL. Cellco would also install a 12’ x 30’ shelter on the ground near the base of the tower to house its radio equipment and a diesel-fueled back-up generator. The tower and equipment shelter will be located within a 50’ x 50’ fenced compound and a 100’ x 100’ leased area. Vehicular access to the Plymouth West Relo tower site would extend from Keegan Road over a new 12-foot wide access driveway to the cell site, a distance of approximately 525 feet. Utilities would extend from existing service along Keegan Road.



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**Legend**

- Proposed Facility Location
- Municipal Boundary

**Map Notes:**  
 Base Map Source: USGS 7.5 Minute Topographic  
 Quadrangle Map, Thomaston (1976), CT  
 Map Scale: 1:24,000  
 Map Date: January 2015



**USGS Topographic Map**

Proposed Wireless  
 Telecommunications Facility  
 Plymouth West Relo  
 33 Keegan Road  
 Plymouth, Connecticut





**Legend**

-  Proposed Monopole Tower
-  Proposed Facility Layout
-  Property Line

**Map Notes:**  
 Base Map Source: 2012 Aerial Photograph (CTECO)  
 Map Scale: 1:1,800  
 Map Date: January 2015



**Aerial Photograph**

Proposed Wireless  
 Telecommunications Facility  
 Plymouth West Relo  
 33 Keegan Road  
 Plymouth, Connecticut



**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

<b>IN RE:</b>	:	
	:	
<b>APPLICATION OF CELLCO</b>	:	<b>DOCKET NO. _____</b>
<b>PARTNERSHIP D/B/A VERIZON</b>	:	
<b>WIRELESS FOR A CERTIFICATE OF</b>	:	
<b>ENVIRONMENTAL COMPATIBILITY</b>	:	
<b>AND PUBLIC NEED FOR THE</b>	:	
<b>CONSTRUCTION, MAINTENANCE AND</b>	:	
<b>OPERATION OF A WIRELESS</b>	:	
<b>TELECOMMUNICATIONS FACILITY</b>	:	
<b>AT 33 KEEGAN ROAD, PLYMOUTH,</b>	:	
<b>CONNECTICUT</b>	:	<b>FEBRUARY 13, 2015</b>

**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 on an approximately 12.4 acre parcel at 33 Keegan Road in Plymouth, Connecticut (the “Property”). This site is known as Cellco’s “Plymouth West Relo Facility”.

The proposed Plymouth West Relo Facility would be located in the westerly portion of the Property, which is currently vacant and wooded. The Property owner's home is located on an adjacent parcel immediately south of the tower site. At this location, Cellco would construct a 140-foot self-supporting monopole telecommunications tower and install twelve (12) panel-type antennas and nine (9) remote radio heads ("RRHs") on a low profile platform at the 140-foot level. The top of Cellco's antennas would extend above the top of the tower to an overall height of approximately 143 feet above ground level ("AGL"). Equipment associated with Cellco's antennas and a diesel-fueled back-up generator would be located inside a 12' x 30' shelter located on the ground near the base of the tower. All facility improvements will remain within a 50' x 50' fenced compound and a 100' x 100' leased area. Vehicular access to the site would extend from Keegan Road over a new 12-foot access driveway to the cell site, a distance of approximately 525 feet. Utilities will extend from existing service along Keegan Road.

Included in this Application, as Attachment 1, is a factual summary and project plans for the Plymouth West Relo 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:

Sandy Carter, Regulatory Manager  
Verizon Wireless  
99 East River Drive  
East Hartford, Connecticut 06108

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 Plymouth West Relo 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 16-50l(b)**

Copies of this Application have been sent to municipal, regional, state and federal officials, pursuant to C.G.S. Section 16-50l(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 Cellco's intent to submit this Application was published on February 9 and 10, 2015, by Cellco in *The Bristol Press* pursuant to C.G.S. Section 16-50l(b). A copy of the published legal notice is included as Attachment 3. An Affidavit of Publication will be forwarded to the

Council as soon as it is available.

Attachment 4 contains a certification that notice of Cellco'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 landowners to whom such notice was sent and a sample notice letter.

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

The purpose of this section is to provide an overview and general description of the proposed Facility to be installed in Plymouth.

**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, including facility siting, 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 nationwide 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 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 President 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>

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

to ensure that all Americans would have access to broadband capability, whether wired or wireless; to establish the United States as a leader in wireless service innovation; and to 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 No. 14-153) and were specifically designed to accelerate broadband deployment by improving the efficiencies of the wireless facility siting process.

Included as Attachment 5 is a copy of the FCC's licenses issued to Cellco for its wireless service in Litchfield County, 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, by doing so, the licensee's authorized service area is not enlarged. The addition of the Plymouth West Relo Facility would not enlarge Cellco's authorized service area in Litchfield County.

**B. Public Need and System Design**

**1. Need for the Plymouth West Relo Facility**

In 1993 (Docket No. 156), the Council approved an application by Litchfield County Cellular, Inc. to construct a 180-foot telecommunications tower on property at 42 South Street in Plymouth. The South Street tower and related facility improvements, the Council's Docket No.

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

156 Certificate and the underlying Leases were all transferred to Cellco in 2008 as a part of its acquisition of the Alltel Communications FCC license and all of Alltel's tower sites in Litchfield County, Connecticut.<sup>3</sup> In 2011, the lessor's interest in Cellco's Ground Leases for the 42 South Street cell site was sold by the Property owner to AP Wireless Investments, LLC ("AP Wireless"). Since 2013, Cellco has been exploring, with AP Wireless, ways to reduce its rent for the two existing Ground Leases and the annual rent increases currently in place. On several occasions since that time, AP Wireless was notified that, Cellco would relocate its Plymouth West tower site if the terms for the Ground Leases could not be renegotiated. All such efforts have failed.

## **2. Cell Site Information**

The Plymouth West Relo Facility will provide coverage in western portions of Plymouth and comparable to that provided by Cellco's existing Plymouth West facility at 42 South Street. The proposed Plymouth West Relo Facility will provide reliable wireless service to a 2.05 mile portion of Route 262, a 1.46 mile portion of Route 6 and an overall area of 19.92 square miles at 700 MHz frequencies; a 1.96 mile portion of Route 262, a 1.40 mile portion of Route 6 and an overall area of 12.91 square miles at 850 MHz frequencies; a 1.89 mile portion of Route 262, a 1.38 mile portion of Route 6 and an overall area of 6.69 square miles at 1900 MHz frequencies; and a 1.44 mile portion of Route 262, a 1.19 mile portion of Route 6 and an overall area of 5.67 square miles at 2100 MHz frequencies.

The tower and facility compound have been designed to accommodate additional wireless

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<sup>3</sup> Cellco maintains two ground leases for the existing Plymouth West cell site. One ground lease encompasses the area occupied by the tower and Metro PCS equipment space. The second ground lease encompasses the area Cellco uses for its shelter. The additional ground lease was established to accommodate Cellco's larger equipment shelter.

carriers as well as state or local emergency services antennas and equipment if a need exists. Cellco's equipment shelter would house radio and related equipment, including (a) receiving, transmitting, switching, processing and performance monitoring equipment; and (b) automatic heating and cooling equipment. Cellco's back-up generator would also be installed in a segregated generator room within the shelter for use during power outages and periodically for maintenance purposes.

The tower and equipment shelter would be enclosed by an 8-foot high security fence and gate. Cellco's equipment shelter would be equipped with a silent intrusion and system alarms and will be monitored on a 24-hour basis to receive and to respond to incoming alarms or other technical problems. The equipment building would remain unstaffed, except as required for maintenance. Once the cell site is operational, maintenance personnel generally visit the cell site on a monthly basis. More frequent visits may be required if there are problems with the cell site equipment.

The primary purpose for the Plymouth West Relo Facility is to replace Cellco's existing wireless facility at 42 South Street and continue to provide enhanced wireless telecommunications services in western portions of Plymouth, particularly along portions of Route 262, Route 6 and in the surrounding residential neighborhoods. Cellco maintains four (4) existing telecommunication facilities within approximately three (3) miles of the proposed Plymouth West Relo Facility. Each of these facilities directly interact with the existing South Street cell site and would interact, in a similar fashion, with the new Plymouth West Relo Facility.

Cellco's existing Thomaston South cell site consists of antennas at the 137-foot level on

an existing 160-foot tower at 170 Mt. Tobe Road in Plymouth and is located approximately 2.3 miles south of the proposed Plymouth West Relo Facility. Cellco's existing Thomaston Center cell site consists of antennas at the 152-foot level on an existing 175-foot tower at 580 Chapel Street in Thomaston and is located approximately 1.5 miles west of the proposed Plymouth West Relo Facility. Cellco's existing Plymouth cell site consists of antennas at the 135-foot level on an existing 170-foot tower at 171 Town Hill Road in Plymouth and is located approximately 1.4 miles northeast of the proposed Plymouth West Relo Facility. Cellco's existing Plymouth NW cell site consists of antennas at the 165-foot level on an existing 195-foot tower at 297 North Street in Plymouth and is located approximately 2.2 miles north of the proposed Plymouth West Relo Facility.

Plots showing coverage from Cellco's existing facilities in the area, alone and together with coverage from the proposed Plymouth West Relo Facility, are included as Attachment 6.<sup>4</sup>

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

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

Cellco's wireless system in general and the proposed Plymouth West Relo 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.

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<sup>4</sup> Cellco's existing coverage maps without the proposed Plymouth West Relo Facility show coverage from all surrounding cell sites in gray and coverage from the existing Plymouth West tower at 42 South Street in black.

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 fiber optic networks, local exchange company and long distance carrier networks. Cellco has designed its wireless system to conform with applicable standards and constraints for wireless systems and to minimize the need for additional cell sites in the absence of additional demand or unforeseen circumstances.

**b. Cellular System Equipment**

The key elements of the cellular system are Cellco’s 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 channels; call set-up and supervision; radio frequency equipment control; internal diagnostics; response to remote and local test demand; data from the wireless units 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 twelve (12) panel-type transmit/receive antennas (three (3) model LNX-6514DS-VTM, 700 MHz antennas; three (3) LNX-6514DS-VTM, 850 MHz antennas; three (3) model HBXX-6517DS-VTM, 1900 MHz antennas; and three (3) model HBXX-6517DS-VTM, 2100 MHz antennas. Cellco will also install a total of nine (9) remote radio heads behind its 700 MHz, 1900 MHz and 2100 MHz

antennas, two (2) HYBRIFLEX™ fiber optic antenna cables and one (1) GPS antenna. Back-up power to the Plymouth West Relo Facility will be provided by a 35 kW diesel-fueled generator. Specifications for Cellco's antennas, remote radio heads, antenna cables and back-up generator are included in Attachment 7.

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

Pursuant to its FCC licenses, Cellco is authorized to provide wireless telecommunications services throughout the State of Connecticut. Cellco submits that there are no equally effective technological alternatives that would allow Cellco to provide its wireless service to the area than those described in this Application. In fact, Cellco's wireless system represents state-of-the-art technology offering high-quality wireless 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 one 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 Plymouth West Relo Facility satisfies this goal and, like the cell site at 42 South Street it will replace, would meet its wireless service objectives in western Plymouth, particularly along portions of Route 262, Route 6 and in the surrounding areas.

Similar to the search for a new tower site, the site search process for the Plymouth West Relo Facility started with the establishment of a specific site search area or ring established by Cellco's Radio Frequency 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 wireless service objectives. A list of existing towers or other non-tower structures considered is included in Attachment 8. Excluding its existing cell site at 42 South Street, Cellco currently shares four (4) existing towers within approximately 2.5 miles of the Plymouth West Relo Facility location. These existing sites would all directly interact with the proposed Plymouth West Relo Facility and are identified on the coverage maps included in Attachment 6. These adjacent tower sites cannot, however, satisfy Cellco's need for reliable service in or near the designated Plymouth West Relo 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 existing non-tower structures of suitable height exist in western portions of Plymouth. Cellco initiated its site search process for the Plymouth West Relo Facility in 2013, and identified the property at 33 Keegan Road as a viable candidate for a cell site. Cellco determined that an antenna centerline height of 140 feet at the Property would satisfy its coverage 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**

Cellco has designed the Plymouth West Relo Facility tower and compound to be shared by other wireless carriers, and the Town, or local emergency service providers, if a need exists. 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. Metro PCS, a tenant on the existing 42 South Street tower, and AT&T will share the proposed Plymouth West Relo Facility. The existing Ground Leases at the 42 South Street facility do not maintain adequate

space for a new AT&T shelter and/or municipal emergency service equipment.

**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 continuing ability to receive high-quality, reliable wireless services in the western portions of Plymouth. The Plymouth West Relo Facility, as a replacement to Cellco's existing Plymouth West 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 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 Plymouth West Relo Facility would be a part has 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, 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 or disguised installations.” Where appropriate, telecommunications towers camouflaged as trees, for example, could help to further reduce visual impacts associated with these structures. Attachment 9 contains Visibility Analysis prepared by All-Points Technology Corporation for the Plymouth West Relo Facility. The Visibility Analysis assesses the visual impact of the proposed 140-foot tower on the surrounding areas and includes photographic simulations for the Council’s review and consideration.<sup>5</sup>

According to the Visibility Analysis, areas where the top portion of the tower would be visible above the tree canopy comprise approximately 65 acres or eight-tenths of one percent (0.8%) of the 8,042 acre study area. Year-round visibility of the Plymouth West Relo Facility tower is generally limited to the Property and the immediate surrounding areas within about 0.25 miles of the cell site. When the leaves are off the trees, seasonal views, through intervening trees and branches are anticipated to occur in some locations within a 284 acre area around the tower site.

There are eleven (11) residences within 1,000 feet of the Plymouth West Relo Facility. The closest off-site residence is located approximately 215 feet to the south at 41 Keegan Road. This residence is owned by Cellco’s landlord, Steven A. Westall.

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<sup>5</sup> At the request of the Property owner, Cellco has included, in its Visibility Analysis, several photosimulations of a “monopine tower” for the Council’s review and consideration.

Weather permitting, the Applicant will raise balloons with a diameter of at least three (3) feet at the Plymouth West Relo Facility location on the day of the Council's hearing on this Application, or at a time otherwise specified by the Council.<sup>6</sup>

**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 cell site 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"). Information on the USFWS and DEEP reviews regarding impacts on known populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the proposed site are included in Attachments 10 and 11.

**(1) USFWS Compliance Determination**

According to the USFWS Compliance Determination dated July 2, 2014, for the proposed cell site, no federally listed endangered or threatened species are known to occur in the vicinity of the Plymouth West Relo Facility. The proposed development of the Plymouth West Relo Facility

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<sup>6</sup> While not the focus of the Visibility Analysis, there is one additional "visual" benefit of the new Plymouth West Relo Facility tower that cannot be ignored. Once the proposed 140-foot tower at the Property is approved and constructed, Cellco will remove the existing 180-foot tower from the 42 South Street parcel, eliminating all views of that existing structure.

will not, therefore, result in any effect on federally-listed, endangered or threatened species. (*See* USFWS Compliance Determination – Attachment 10).

**(2) DEEP Natural Diversity Data Base Review**

According to the DEEP, Natural Diversity Data Base State and Federal Listed Species and Significant Natural Communities Map, the proposed Plymouth West Relo Facility will present no potential conflicts with any species of concern. A Preliminary DEEP Compliance Determination is included in Attachment 11. Although not required, based on the results of the NDDDB map review, Cellco will be submitting a formal request for rare species review by the DEEP.

**(3) Avian Resources Evaluation**

The proposed Plymouth West Relo Facility is not proximate to an Important Bird Area and complies with the USFWS Guidelines for minimizing impacts to birds. Cellco also does not anticipate that the proposed tower will impact migratory bird species. (*See* Avian Resources Evaluation – Attachment 12).

**(4) Wetlands Investigation**

As discussed in Section III.C.4.d. below, the development of the Plymouth West Relo Facility will have no direct impact on wetlands, the closest of which is located approximately 130 feet to the west of the access driveway entrance, west of Keegan Road. Cellco does not anticipate that the development of the proposed facility will adversely impact this wetland resource. A Wetland Investigation report is included in Attachment 13.

**(5) State Historic Preservation Officer**

There are no historic resources within one-half mile of the Plymouth West Relo Facility location. Regardless, Cellco filed a request for State Historic Preservation Office (“SHPO”) review

of this tower proposal. On October 14, 2014, SHPO determined that “the proposed undertaking ... will have no adverse effect to contributing resources eligible for listing or listed on the National Register of Historic Places District”. A copy of the SHPO’s determination letter is included in Attachment 14.

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

The FCC has adopted a standard for exposure to Radio Frequency (“RF”) emissions from telecommunications facilities like those proposed in this Application. To ensure compliance with the applicable standards, Cellco has performed a worst-case maximum power density calculation for the proposed cell site 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 700, 850, 1900 and 2100 MHz antennas would remain well below (26.69%) the FCC’s Standard. Actual RF emissions levels from the proposed facility would be far below these “worst-case” calculations.

**d. Other Environmental Issues**

No sanitary facilities are required for the Plymouth West Relo Facility. The operations at the approved Plymouth West Relo 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 Plymouth West Relo 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 Town's Plan of Conservation and Development (the "Plan") and Zoning 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 Plymouth West Relo Facility is located on an approximately 12.4 acre parcel owned by Steven A. Westall. The Property is vacant and heavily wooded and located in the Town's R40 (Residential) zone district. The Property owner's residence is located approximately 215 feet to the south. Cellco is unaware of any plans by the owner to develop the Property beyond that described in the Application.

**b. Plan of Conservation and Development**

The Town of Plymouth Plan of Conservation & Development (2004 Update) (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 Town's Zoning Map, the Property is located in Plymouth's Residential

(R-40) zone. Pursuant to Article 6(P)(2) of the Plymouth Zoning Regulations, Wireless Communication Facilities, under the Town's jurisdiction, are permitted in all zones subject to the approval of a Special Permit from the Planning and Zoning Commission. Towers must be setback at least a distance equal to the tower height of the tower, plus twenty (20) feet, from a property line and 200 feet from a residence. As mentioned above, the closest residence is located 215 feet to the south and is owned by Cellco's landlord Steven A. Westall. The tower is setback approximately 168 feet from the Property boundary to the north and approximately 36 feet of the Property boundary to the south.

**d. Inland Wetland and Watercourse Regulations**

The Plymouth Inland Wetlands and Watercourses Regulations (the "IWWC 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 the land of such wetlands or watercourses or such upland area within 100 feet of the wetland or watercourse. Four (4) copies of the IWWC Regulations of the Town of Plymouth were filed, in bulk, with the Council.

Matthew Gustafson, Registered Soil Scientist and Dean Gustafson, Professional Soil Scientist with APT, conducted a field investigation and completed a Wetlands Investigation report for the proposed Plymouth West Relo Facility. The closest wetland area to the tower is located approximately 130 feet to the west of the site access drive entrance, west of Keegan Road. In its Wetlands Investigation Report, APT concludes that the Plymouth West Relo Facility will have no direct impact to wetlands in the area. Cellco's Wetlands Investigation report is included in Attachment 13.

In accordance with the Connecticut Soil Erosion Control Guidelines, as established by the Council for Soil and Water Conservation, adequate and appropriate soil erosion and sedimentation control measures will be established and maintained throughout the cell site construction period. In addition, the Applicant will employ appropriate construction management practices to ensure that no pollutants would be discharged to any nearby watercourse or wetland areas or to area groundwater during the construction process.

According to the Federal Emergency Management Agency Flood Insurance Rate Map (“FIRM”), Community Panel Number 090138 0003C (Revised to November 6, 1998) the proposed 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(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On May 15, 2014, Cellco representatives met with Margus Laan, Director of Planning and Economic Development and Charles Wiegert, Interim Director of Public Works, as designees for Mayor David Merchant to commence the ninety (90) day municipal consultation process. Mr. Laan and Mr. Wiegert received copies of technical information summarizing Cellco’s plans to establish a telecommunications facility as described above. At this meeting, Cellco discussed, in detail, the issues related to the existing 42 South Street facility, aspects of the proposed Plymouth West Relo Facility, the site location being considered, the need for wireless service improvements in western Plymouth and the Connecticut Siting Council application process.

Cellco representatives also appeared before the Plymouth Planning and Zoning Commission

(“PZC”) at a special meeting of July 17, 2014, to discuss the Plymouth West Relo Facility. The PZC asked Cellco to consider relocating the tower, from its original location, to satisfy the town’s property line setback requirements from the adjacent parcel to the north at 23 Keegan Road. The tower is setback 168 feet from the northern Property boundary and satisfies the Town’s setback requirement. The tower is setback approximately 36 feet from the nearest property line to the south.

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

Attachments 10, 11, 12, 13 and 14 and Section III.C. of the Application describes consultations with state and federal officials regarding the proposed Plymouth West Relo Facility.

a. **Federal Communications Commission**

FCC approval of a particular tower site is not required where the authorized service area of the licensed carrier is not enlarged. The FCC did not, therefore, review this particular proposal.

b. **Federal Aviation Administration**

Cellco prepared a Federal Airways & Airspace Summary Report (“FAASR”) for the proposed Plymouth West Relo Facility. This report confirms that, pursuant to FAA standards and guidelines, the proposed tower would not constitute an obstruction or hazard to air navigation and notice to the FAA is not required. No obstruction marking or lighting is required nor will be proposed. A copy of the FAASR is included in Attachment 16.

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

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

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

(1) **Environmental and Geographic Information Center**

See Section III.C.4.b.(2) above.

(2) **Bureau of Air Management**

Under normal operating conditions, the Cellco equipment at the Plymouth West Relo Facility would generate no air emissions. During power outage events and periodically for maintenance purposes, Cellco would utilize a diesel-fueled generator to provide emergency back-up power. 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, and therefore is exempt from general air permit requirements.

e. **Connecticut State Historic Preservation Officer**

See Section III.C.4.b.(5) above.

**D. Estimated Cost and Schedule**

1. **Overall Estimated Costs**

The total estimated cost of construction for the Plymouth West Relo Facility is \$878,000.

This estimate includes:

(1)	Cell site radio equipment of approximately	\$300,000
(2)	Tower, coax and antenna costs of approximately	88,000
(3)	Power systems costs of approximately	40,000
(4)	Equipment shelter costs of approximately	90,000

- (5) Miscellaneous costs (including site preparation and installation) of approximately 360,000

**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. Due to the delivery schedules of the manufacturers, installation of the building and installation of the tower are expected to take an additional two to four weeks. Equipment installation is expected to take an additional two 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 Plymouth West Relo Facility and the removal of the existing 42 South Street tower will not have any substantial adverse environmental effects. A public need exists for high quality reliable wireless service in the Town of Plymouth and throughout Litchfield 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 for these services in general and the Plymouth West Relo Facility in particular, far outweighs any possible environmental effects resulting from the construction of the proposed cell site.

WHEREFORE, Cellco respectfully requests that the Council approve this Application for a Certificate of Environmental Compatibility and Public Need for the proposed Plymouth West Relo Facility.

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON  
WIRELESS

By: \_\_\_\_\_

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