# Connecticut Siting Council

# APPLICATION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

TOWN OF STERLING

ONECO FACILITY

DOCKET NO.

FEBRUARY 25, 2009



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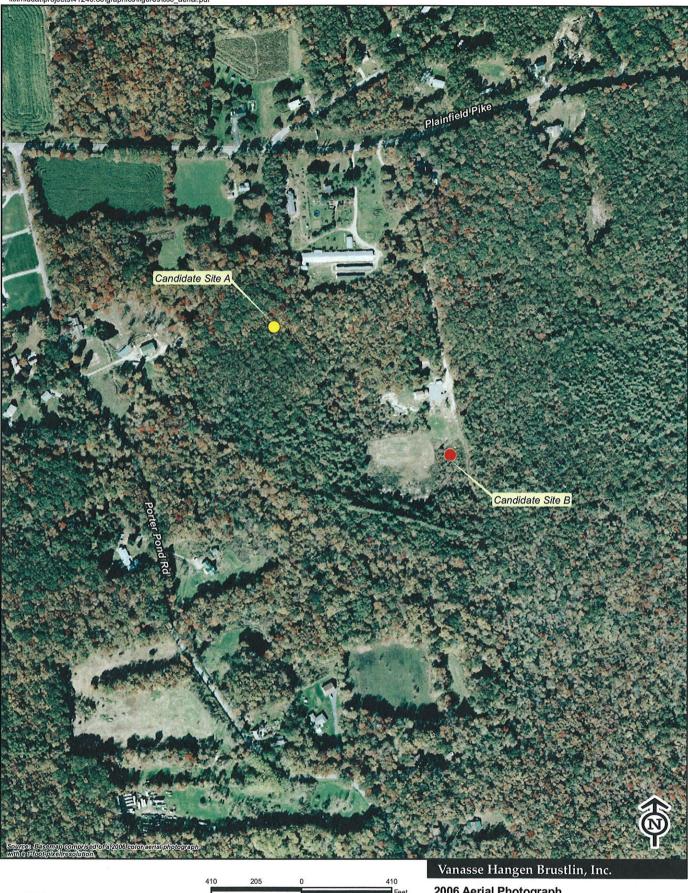
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#### **EXECUTIVE SUMMARY**

Cellco Partnership d/b/a Verizon Wireless ("Cellco") proposes to construct a telecommunications tower and related facility at one of two locations in the Oneco section of the Town of Sterling, Connecticut (the "Oneco Facility"). The Oneco Facility will provide coverage along Route 14a, and portions of Routes 14 and 49, as well as local roads in the central portion of the Town of Sterling.

The first alternative site ("Site A") is located on an 18.51 acre parcel owned by Robert D. and Dorothy A. Klein (Discount Four Seasons Greenhouse) at 859 and 863 Plainfield Pike (Route 14a) in Sterling. At Site A, Cellco proposes to construct a 100-foot telecommunications tower within a 50' x 75' fenced compound. Cellco would install up to 15 panel-type antennas at the 97-foot level on the tower. Cellco's antennas would not extend above the top of the tower. Equipment associated with the antennas and a diesel-fueled backup generator will be located in a 12' x 30' shelter installed near the base of the tower. Vehicular and utility access to Site A would extend from Plainfield Pike.

The second alternative site ("Site B") is located on an 11.99 acre parcel owned by Julio Medeiros at 875 Plainfield Pike (Route 14a) in Sterling. Site B is located approximately 950 feet southeast of Site A. At Site B, Cellco would construct a 100-foot telecommunications tower within a 50' x 75' fenced compound. Cellco would install up to 15 panel-type antennas at the 97-foot level on the tower. Cellco's antennas would not extend above the top of the tower. Equipment associated with the antennas and a diesel-fueled backup generator will be located in a 12' x 30' shelter installed near the base of the tower. Vehicular and utility access to Site B would extend from Plainfield Pike.





2006 Aerial Photograph
Proposed Verizon Wireless
Telecommunications Facility
Oneco
Candidate Site A - 859 and 863 Plainfield Pike
Candidate Site B- 875 Plainfield Pike
Sterling, Connecticut

## STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:

:

APPLICATION OF CELLCO : DOCKET NO.

PARTNERSHIP 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
OFF PLAINFIELD PIKE (ROUTE 14a),

ONECO (STERLING), CONNECTICUT : FEBRUARY 25, 2009

## 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, in the Oneco section of the Town of Sterling, Connecticut (the "Oneco Facility"). The proposed Oneco Facility would provide for much needed wireless telecommunications coverage along Route 14a

and portions of Route 14 and 49, as well as local roads in the area. In Oneco, Cellco's primary coverage objective is to provide enhanced Personal Communication System ("PCS") wireless service and fill-in cellular service between its existing Plainfield cell site approximately 2.4 miles to the west, its existing Sterling cell site approximately 1.9 miles to the northeast and its recently approved Moosup cell site approximately 2.2 miles to the northwest. Cellco also expects to provide 700 MHz service from the Oneco Facility in the near future. Cellco's Plainfield cell site consists of antennas at the 110-foot level on a 150-foot tower at 45 Spaulding Hill Road in Plainfield. Cellco's existing Sterling cell site consists of antennas at the 137-foot level on the 140-foot tower off Exeter Drive in Sterling. Cellco's recently approved Moosup cell site will consist of antennas at the 157-foot level of an existing 160-foot tower off Sterling Road in Plainfield.

Cellco proposes to construct a telecommunications facility at one of two site locations in Oneco. Either location would satisfy Cellco's coverage objectives in the area. The first alternative site ("Site A") would be located in the southwest portion of an 18.51 acre<sup>2</sup> parcel off Plainfield Pike (Route 14a) in Oneco, Connecticut. At Site A, Cellco would construct a 100-foot self-supporting monopole tower within a 50' x 75' fenced compound. At the top of the tower, Cellco would install a total of fifteen (15) panel-type antennas with their center line at the 97-foot level. Cellco's antennas will not extend above the top of the tower. Cellco expects its proposed Oneco Facility will provide coverage to area roadways as follows:

<sup>&</sup>lt;sup>1</sup> Cellco's Moosup cell site (Docket No. 368) was approved by the Council on February 19, 2009.

<sup>&</sup>lt;sup>2</sup> The 18.51 acre parcel is made up of two separate parcels, a 13.259 acre parcel known as 863 Plainfield Pike and a 5.25 acre parcel known as 859 Plainfield Pike. Both parcels are owned by Robert D. and Dorothy A. Klein.

Cellco Coverage

	Route 14a (Miles)	Route 49 (Miles)	Route 14 (Miles)	Overall Footprint (Square Miles)
Site A				
Cellular	3.55	0.52	1.82	5.7
PCS	2.38	0.25	0.82	3.1
Site B				
Cellular	3.18	0.45	1.48	4.2
PCS	2.41	0.39	0.46	2.7

Equipment associated with Cellco's antennas would be located in a 12' x 30' shelter installed near the base of the tower. Vehicular access to Site A would extend from Plainfield Pike over an existing gravel driveway servicing the Discount Four Seasons Greenhouse business, a distance of approximately 610 feet, then over a new gravel driveway extension an additional distance of approximately 410 feet to the cell site compound. Utility access to Site A would extend from existing service along Plainfield Pike to the south along the westerly boundary of the Klein property.

The second alternative site ("Site B") would be located in the southeasterly portion of an 11.99 acre parcel of Plainfield Pike (Route 14a) in Oneco. At Site B, Cellco would construct a 100-foot self-supporting monopole tower within a 50' x 75' fenced compound. At the top of the tower, Cellco would install a total of fifteen (15) panel-type antennas with their center line at the 97-foot level. Cellco's antennas will not extend above the top of the tower. Equipment associated with Cellco's antennas would be located in a 12' x 30' shelter installed near the base of the tower. Vehicular access to Site B would extend from Plainfield Pike over the landowner's existing gravel drive a distance of approximately 1,160 feet, then over a new gravel driveway extension an additional distance of approximately 290 feet to the Site B site compound area.

Utility access is proposed to be located within an existing CL&P easement extending from Plainfield Pike to the landowner's residence.

Both the Site A and Site B towers and leased areas are designed to accommodate additional carriers as well as municipal and emergency services antennas and equipment. As of the date of this filing neither the Town nor any other wireless carriers have committed to share the proposed facility.

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. A diesel-fueled 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 building would be equipped with a silent intrusion and systems alarm 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 will visit the cell site on a monthly basis. More frequent visits may be required if there are problems with the cell site equipment.

Included in this Application as <u>Attachments 1 and 2</u> are factual summaries and project plans for the proposed Site A and Site B facility locations in Oneco. These summaries, along with the other attachments submitted as part of this Application, contains all of the site-specific information required by statute and the regulations of the Council.

In accordance with Paragraph I(F) of the Council's "Application Guide" for Community Antenna Television and Telecommunication Towers, a copy of the Application Guide is included as <a href="Attachment 3">Attachment 3</a>. The Application Guide contains references to the specific pages of this Application and the attachments where the information required under Section VI of the Application Guide may be found.

## 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). Operation of the wireless telecommunications systems and related activities are Cellco's sole business in the State of Connecticut.

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.

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 the applicant's attorneys:

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

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#### C. Application Fee

The estimated total construction cost for the Oneco 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 \$1,000 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 by certified mail, return receipt requested, to municipal, regional, state and federal officials, pursuant to C.G.S. Section 16-50*l*(b). A certificate of service, along with a list of the parties served with a copy of the Application, is included as Attachment 4.

Notice of Cellco's intent to submit this Application was published on February 19 and 20, 2009, by Cellco in the *Norwich Bulletin* pursuant to C.G.S. Section 16-50*l*(b). A copy of the published legal notice is included as <u>Attachment 5</u>. A copy of the publisher's affidavit or certificate of publication will be submitted to the Council as soon as it is available.

Attachment 6 contains a certification that notices were sent to each person appearing of record as an owner of property that may be considered to abut the Site A and Site B parcels in accordance with C.G.S. Section 16-50*l*(b), as well as a list of the property owners to whom such notice was sent and a sample notice letter. Neither the Site A or Site B Facilities are located within 2,500 feet of a municipal boundary.

## III. REQUIRED INFORMATION: PROPOSED WIRELESS FACILITY

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

#### A. General Information

Prior to the 1980's, mobile telephone service was characterized by insufficient frequency availability, inefficient use of available frequencies and poor quality of service. These limitations generally resulted in problems of congestion, blocking of transmissions, interference, lack of coverage and relatively high cost. Consequently, the FCC, in its Report and Order released May 4, 1981 in FCC Docket No. 79-318, recognized the public need for technical improvement, wide-area coverage, high quality service and a degree of competition in mobile telephone service.

More recently, the federal Telecommunications Act of 1996 (the "Act") emphasized and expanded on these aspects of the FCC's 1981 decision. Among other things, the Act recognized an important nationwide public need for high-quality wireless telecommunication services of all varieties. The Act also expressly promotes competition and seeks to reduce regulation in all aspects of the telecommunications industry in order to foster lower prices for consumers and to encourage the rapid deployment of new telecommunications technologies.

Cellco's proposed Oneco Facility would be part of the expanding wireless telecommunications network envisioned by the Act and has been developed to help meet these nationwide goals. In particular, Cellco's system has been designed, and the cell sites proposed in this Application have been selected, so as to maximize the geographical coverage and quality of service while minimizing the total number of cell sites required.

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 proposed facility. 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 interference issues by establishing regulations in this area 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 east coast 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.

Included as <u>Attachment 7</u> is a copy of the FCC's authorization issued to Cellco for its cellular, PCS and new 700 MHz wireless service in Windham 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 the licensee's authorized service area is not enlarged. The Oneco Facility would not enlarge Cellco's authorized service area.

## B. Public Need and System Design

#### 1. Public Need

As noted above, the Act has pre-empted any state or local determination of public need for wireless services. In Windham County, Cellco holds an FCC License to provide PCS and cellular service, and recently acquired the license to provide 700 MHz service. Pursuant to its FCC Licenses, Cellco has developed and continues to develop a network of cell sites to serve the demand for wireless service in the area. Cellco's network currently provides coverage in the Plainfield/Sterling area from its existing Plainfield cell site to the west, Sterling cell site to the

northeast and recently approved Moosup cell site to the northwest of the Oneco Facility. Plots showing coverage from Cellco's existing facilities alone and together with the coverage from the Site A and Site B cell site locations are included as Attachment 8.

#### 2. System Design and Equipment

#### a. System Design

Cellco's wireless system in general and the proposed Oneco Facility, in particular, have been designed and developed to allow Cellco to achieve and to maintain high quality, reliable wireless service without interruption from dropped calls and interference.

The system design provides for frequency reuse and hand-off, 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. Cell site transmissions are carefully tailored to the FCC's technical standards with respect to coverage and interference and to minimize the amount of power that is radiated.

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 ("LEC") and inter-lata (long distance) carriers network.

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. Cellular System 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. Cellco's CDMA wireless networks are deployed on two platforms: the earlier AUTOPLEX system, using Series II base stations, and the newer FLEXENT CDMA system, using smaller, more compact modular base stations. Because the Series II base stations are no longer manufactured, the newer CDMA systems, using smaller, more compact modular base stations are used for all current installations.

The major electronic components of each cell site are radio frequency transmission and receiving equipment and cell site controller equipment. Cellco's cellular system uses Lucent Flexent® Modular Cell 4.0B cell site equipment to provide complete cell site control and performance monitoring. 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. Additional information with respect to the Lucent Flexent® Modular Cell 4.0B equipment is contained in Attachment 9.

#### 3. Technological Alternatives

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 is to locate its 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 both Site A and Site B as described in this Application will satisfy this goal and would be necessary to fill significant PCS coverage gaps, resolve cellular coverage problems, provide new 700 MHz service and provide, overall, high-quality reliable service along portions of Route 14a and portions of Routes 14 and 49, as well as local roads in Oneco.

The methodology of cell site selection for Cellco's wireless system generally limits the search for possible locations to specific locations within a general search area. A list of existing towers or other non-tower structures considered is included in Attachment 10. Cellco currently provides service in this area from its existing Plainfield cell site, an existing AT&T tower located at 45 Spaulding Hill Road in Plainfield; its existing Sterling cell site, an existing MCF tower off Exeter Drive in Sterling; and its recently approved Moosup cell site (Council Docket No. 368) off Sterling Road in Plainfield. (See Attachment 8). These existing and approved sites cannot resolve the significant coverage problems along Route 14a. 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 the Oneco area. The site search summary together with the site information contained in Attachments 1 and 2 support Cellco's position that the sites selected represent the most feasible alternative of the sites investigated.

#### 2. Tower Sharing

Cellco has designed both the Site A and Site B cell sites so that it could be shared by a minimum of four wireless carriers, and the Town, 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. As of the date of this filing, no other carrier has expressed any interest in the Oneco Facility.

#### D. Cell Site Information

#### 1. <u>Site Facilities</u>

Use of either of the proposed alternative cell sites would require the construction of a new tower. At Site A, Cellco would construct a new 100-foot tall tower and install fifteen (15) panel-type directional antennas at the 97-foot level on the tower. Cellco would install a 12' x 30' single-story shelter near the base of the tower to house Cellco's receiving, transmitting, switching, processing and performance monitoring equipment and the required heating and cooling equipment. A diesel-fueled generator would be installed within a segregated room in Cellco's equipment shelter for use during power outages and periodically for maintenance purposes. The tower and equipment shelter would be surrounded by an 8-foot high security fence and gate. (*See Attachment* 1).

At Site B, Cellco would construct a new 100-foot tall tower and install fifteen (15) panel-type directional antennas at the 97-foot level on the tower. Cellco would install a 12' x 30' single-story shelter near the base of the tower to house Cellco's receiving, transmitting, switching, processing and performance monitoring equipment and the required heating and cooling equipment. A diesel-fueled generator would be installed within a segregated room in Cellco's equipment shelter for use during power outages and periodically for maintenance purposes. The tower and equipment shelter would be surrounded by an 8-foot high security fence and gate. (*See Attachment* 2).

The equipment shelter would be equipped with silent intrusion and systems alarms. Cellco personnel will be available on a 24-hour basis to receive and to respond to incoming alarms. The equipment building will remain unstaffed, except as required for periodic maintenance purposes.

#### 2. Overall Costs and Benefits

Aside from the limited visual impacts discussed further below, Cellco 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 Oneco.<sup>3</sup> The Oneco 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 Cellco for development of the proposed cell site are set forth in Section III.E. of the Application.

#### 3. 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 associated with the development of either Site A or Site B, whether alone or cumulatively with other effects, on, and conflicting with the policies of the state concerning the natural environment, ecological

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<sup>&</sup>lt;sup>3</sup> Businesses across the State have become more dependent on wireless telecommunication services. The public safety benefits of wireless telephone service are illustrated by the improved Connecticut State Police 911 emergency calling system. The 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. As a deterrent to crime, the general public will further benefit from the Cellular Telecommunications Industry Association's donation of more than 50,000 cellular phones to "Neighborhood Watch" groups nationwide.

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 Oneco Facility would be a part has been designed to meet the public need for high-quality, reliable wireless service while minimizing any potential adverse environmental impact. 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 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 installations." Where appropriate, telecommunications towers camouflaged as trees, for example, can help to further reduce visual impacts associated with these structures. Attachment 11 contains a detailed Visual Resource Evaluation Report, prepared by VHB, Inc. (the "VHB Report") that assesses the visual impact of the proposed Site A and Site B towers and includes photosimulations of the tower at each alternative site for the Council's consideration. The VHB Report concludes that areas where the Site A tower would be visible above the tree canopy are limited to approximately 7 acres, or less than one-half of one percent of the 8,525 acre study area (the "Study Area"). A majority of these year-round views are from the 18.51 acre property. Beyond the Site A property year-round visibility exists on limited portions of Route 14a, Porter Pond Road and residential areas to the west. Cellco estimates that select portions of six residential properties would have at least partial year-round views of the Site A tower. Areas where seasonal views are anticipated comprise

approximately 28 additional acres and are limited to the immediate vicinity (within 0.5 miles) of the Site A location.

The VHB Report concludes that areas where the Site B tower would be visible above the tree canopy are limited to approximately 4 acres, or less than one-half of one percent of the Study Area. Areas of potential year-round visibility of the Site B tower remain entirely on the 11.99 acre Site B property. Cellco estimates that select portions of two residential properties would have at least partial year-round views of the Site B tower. Areas where seasonal views are anticipated comprise approximately nine additional acres and are limited to the immediate vicinity of the Site B location.

There are approximately seven residences within 1,000 feet of the Site A tower location. Two of the seven are located on the Site A landlord's property. The Site B landlord's residence is the only such structure within 1,000 feet of the Site B tower location. The closest off-site residence is located approximately 631 feet to the north of Site A, and is owned by N/F Agnus S. Kanerva. The closest residence to Site B is approximately 1,200 feet to the southwest of the proposed tower location.

Weather permitting, Cellco will raise a balloon with a diameter of at least three (3) feet at each of the proposed alternative cell sites 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(h) of the General Statutes requires the Council to consult with and to solicit comments on the Application from the Commissioners of the Departments of Environmental Protection, Agriculture, Public Health, Public Utility Control, Economic and Community

Development, and Transportation, the Council on Environmental Quality, and the Office of Policy and Management. In addition to the Council's solicitation of comments, Cellco, as a part of its National Environmental Policy Act ("NEPA") Checklist, solicits comments on the proposed alternative facilities from the U.S. Department of the Interior, Fish and Wildlife Service ("USFWS"), Environmental and Geographic Information Center of the Connecticut Department of Environmental Protection ("DEP") and the Connecticut Historical Commission, State Historic Preservation Officer ("SHPO"). USFWS and DEP comments regarding impacts on known populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the proposed alternative sites are included in Attachment 12. According to the USF&W letter dated January 2, 2009, there are no federally-listed, threatened or endangered species or critical habitat known to occur in Windham County, Connecticut, where the Site A and Site B facilities are located, and as such the proposed development will not result in an adverse effect to any federally listed, endangered or threatened species. This January 2, 2009 correspondence was noted in the USF&W review conducted by VHB. (See Attachment 12 – VHB Memoranda dated February 13, 2009).

In its comment letter dated September 19, 2008, the DEP stated that there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species at either Site A or Site B. (See <a href="Attachment 12">Attachment 12</a> – DEP response letter dated September 19, 2008). At the request of the SHPO, Heritage Consultants LLC conducted an archeological reconnaissance survey for both the Site A and Site B facility locations. After reviewing this survey, the SHPO determined that no further archeological investigations were warranted. A particular focus of the survey was on the character of the Dorrance Inn and the Sterling Hill Historic District. After a review of the

completed survey the SHPO determined that the proposed Oneco Facility tower would have "<u>no</u> adverse effect" upon the historic ambiance of these historic resources. (See <u>Attachment 12</u>).

This review by State administrative agencies furnishes ample expert opinion on the potential environmental impacts from the Site A and Site B alternatives, in the context of the criteria which the Council must consider.

## 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 maximum power density calculations for the proposed cell site according to the methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) ("OET Bulletin 65"). The calculation is a conservative, worst-case approximation for RF power density levels at the closest accessible point to the antennas, in this case the base of the tower, and with all antennas transmitting simultaneously on all channels at full power. The calculations indicate that the maximum power density level for Cellco antennas would be 25.28% of the Standard at the Site A location and 28.98% of the Standard at the Site B location.

#### d. Other Environmental Issues

No sanitary facilities are required for the Oneco Facility. The operations at the Oneco 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 Cellco's project team,

Cellco submits that the proposed facility will have no significant adverse effect on scenic, natural,

historic or recreational features, and that none of the potential effects from either Site A or Site B alone or cumulatively with other effects is sufficient reason to deny this Application.

#### 4. Consistency with Local Land Use Controls

The Council Application Guide for Community Antenna Television and Telecommunication Facilities, as amended on February 16, 2007, requires the inclusion of a narrative summary of the project's consistency with the Town's Plan of Development 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 Site A cell site would be located in the southwesterly portion of an 18.51 acre parcel owned by Robert D. and Dorothy A. Klein located at 859 and 863 Plainfield Pike in Sterling, Connecticut. The property is used for residential and commercial greenhouse purposes, the Discount Four Seasons Greenhouse. This parcel is surrounded by commercial, agricultural and residential land uses. The proposed Site B cell site would be located in the southeasterly portion of an 11.99 acre residential parcel owned by Julio Medeiros located at 875 Plainfield Pike. This parcel is also surrounded by commercial, agricultural and residential land uses.

## b. Sterling Town Plan of Conservation and Development

The Town of Sterling Plan of Development dated 1981 (the "Plan") does not specifically identify telecommunications towers as a land use consistent or inconsistent with the general planning or conservation policies of the Town of Sterling. Four copies of the Plan were filed, in bulk, with the Council on February 25, 2009.

#### c. Town of Sterling Ordinances and Regulations

The Town of Sterling Ordinances and Regulations (the "Town Ordinances") include provisions for the establishment of Wireless Telecommunications Facilities. (See Bulk File – Town of Sterling Ordinance and Regulations pp. 114-129). Applications for wireless telecommunications facilities under the Town's jurisdiction are subject to approval by the Sterling Board of Selectman. Section 4.1.1 of the Town Ordinances encourages the use of municipal property and facilities and establishes a general order of preference for the siting of telecommunications facilities. These preferences, from most preferred to least preferred, include (1) the use of existing structures (e.g. water towers; chimneys); (2) existing or approved towers; (3) new tower on the site of an existing tower; (4) towers in industrial areas; (5) towers in commercial areas; and (6) towers in residential areas. The Town Ordinances also require a tower be setback a distance equal to its height plus 100 feet; the use of a monopole design; the placement of utilities underground; and the applicant to accommodate tower sharing, among other things. Four copies of the Ordinances and Regulations were filed in bulk, with the Council.

#### d. Inland Wetland and Watercourse Regulations

The Sterling Inland Wetland and Watercourses ("IWW") Regulations regulate activity within identified wetland or watercourse areas and those upland areas within 100 feet of a wetland or watercourse or within 200 feet of the Moosup River. Four (4) copies of the Sterling IWW Regulations were filed, in bulk, with the Council.

Dean Gustafson, Professional Soil Scientist with VHB, Inc., conducted a field investigation and completed two separate Wetlands Delineation Reports (the "Wetlands Reports") for the Site A and Site B Facilities. According to the Wetlands Reports, neither Site A

nor Site B will directly or indirectly affect wetlands or watercourses. Copies of the Wetlands Delineation Reports are included in <u>Attachment 13</u>.

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, Cellco 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 0901180015B (Effective Date March 4, 1985), the Facility would be located in Flood Zone C. A copy of the FIRM is also included in <u>Attachment 13</u>.

#### 5. Local Input

Section 16-50*l*(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On December 8, 2008, Cellco representatives met with Sterling First Selectman Russell M. Gray to commenced the sixty (60) day municipal consultation process. First Selectman Gray received copies of technical information summarizing Cellco's plans to establish a telecommunications facility in Oneco. During the meeting, Cellco representatives offered to meet again with any other municipal board or commission seeking additional information about the proposal. To date, Cellco has not been asked to attend any further meetings or hearings.

#### 6. Consultations With State and Federal Officials

Attachment 12 and Section III.D. of the Application describe Cellco's consultations with state and federal officials regarding Cellco's proposed Oneco 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

As with all of its tower applications, Cellco has conducted the appropriate air-space analysis for the proposed Site A and Site B cell site locations to determine if the proposed tower would constitute an obstruction or hazard to air navigation. Cellco's analyses have confirmed, pursuant to FAA standards and guidelines, that neither the proposed Site A or Site B towers would constitute an obstruction or hazard to air navigation and therefore no obstruction marking or lighting would be required. Copies of the Federal Airways & Airspace Summary Reports are included in Attachment 14.

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

According to the USFWS, there are no federally-listed or proposed, threatened or endangered species or critical habitat known to occur in either the Site A or Site B project areas. (See VHB Reports dated February 13, 2009 in <u>Attachment 12</u>).

#### d. Connecticut Department of Environmental Protection

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

As discussed above based on a review of the DEP/NDDB, the DEP determined that there are no extant populations of Federal or State endangered, threatened or special concern species at the Site A or Site B facility locations.

#### (2) Bureau of Air Management

The on-site emergency back-up generator proposed as a part of this Application will operate in compliance with R.C.S.A. § 22a-174-3b. As proposed, this emergency generator will be run

only during the interruption of utility service to the cell site and periodically as required for maintenance purposes.

## e. Connecticut State Historic Preservation Officer

As discussed above, <u>Attachment 12</u> also includes the SHPO's determination that the proposed Oneco Facility (Site A or Site B) will have <u>no adverse effect</u> on the State's historic resources.

### E. <u>Estimated Cost and Schedule</u>

## 1. Overall Estimated Costs

The total estimated cost of construction of the proposed Site A Facility is \$820,000. This estimate includes:

(1)	Cell site radio equipment of approximately	\$450,000
(2)	Tower, coax and antenna costs of approximately	150,000
(3)	Power systems costs of approximately	20,000
(4)	Equipment building costs of approximately	50,000
(5)	Miscellaneous costs (including site preparation and installation) of approximately	150,000

The total estimated cost of construction of the proposed Site B Facility is \$820,000. This estimate includes:

(1)	Cell site radio equipment of approximately	\$450,000
(2)	Tower, coax and antenna costs of approximately	150,000
(3)	Power systems costs of approximately	20,000
(4)	Equipment building costs of approximately	50,000
(5)	Miscellaneous costs (including site preparation and installation) of approximately	150,000

#### 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 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 and evidence contained in this Application, Cellco submits that the establishment of the Oneco Facility at either Site A or Site B, will not have any substantial adverse environmental effects. A public need exists for high quality reliable wireless service in the westerly portion of the Town of Sterling 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 public need in this case far outweighs any possible environmental effects resulting from the construction of either of the proposed alternative cell sites. Moreover, the alternative cell sites proposed in this Application will help to provide a level of service in the area that is commensurate with the public demand currently and in the foreseeable future.

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

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

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