Connecticut Siting Council

APPLICATION OF CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS

verizon

HAMDEN 8
208 KIRK ROAD
HAMDEN, CONNECTICUT

DOCKET NO. _____

MARCH 3, 2017

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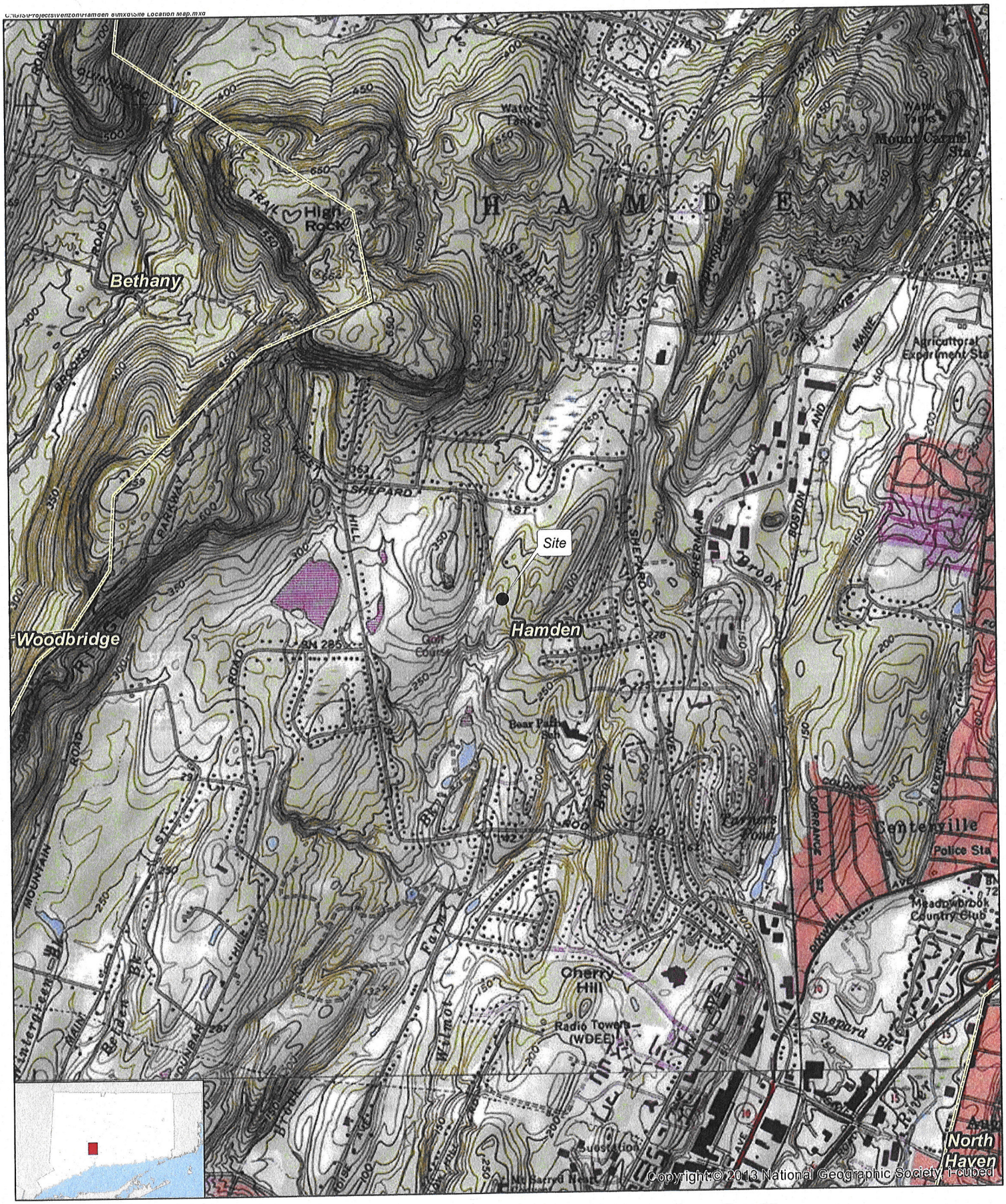
EXECUTIVE SUMMARY

Cellco Partnership d/b/a Verizon Wireless ("Cellco") ("Applicant"), proposes to construct a telecommunications tower and related improvements (the "Hamden 8 Facility") in the westerly portion of an approximately 9.34 acre parcel at 208 Kirk Road (a/k/a 1075 Paradise Avenue), in Hamden, Connecticut (the "Property"). The Property is owned by Joseph Vignola and Denise Courtmanche Vignola. The Hamden 8 Facility would provide Cellco customers with reliable wireless service to existing coverage gaps in the area and increased network capacity in Hamden.

Cellco plans to construct a 160-foot monopole tower. Cellco would install twelve (12) panel-type antennas and six (6) remote radio heads on a low-profile platform at the top of the tower. The top of Cellco's antennas will extend above the top of the tower to an overall height of approximately 163 feet above ground level ("AGL"). Cellco would install two (2) equipment cabinets, a diesel-fueled back-up generator, a 11'-6" x 16' steel equipment platform and canopy structure near the base of the tower. The tower and equipment cabinets will be located within a 50' x 55' fenced compound and leased area. Vehicular access to the tower site would extend from the Country Club Drive cul-de-sac over a new gravel access driveway, a distance of approximately 386 feet to the facility compound. Utilities would extend from existing service along Country Club Drive. A four-foot tall retaining wall will be installed along the westerly side of the facility compound.



Legend

- Site
- Municipal Boundary

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Site Location Map

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

verizon

ALL-POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Mount Carmel, CT (1984)
Map Date: January 2017

1,000 500 0 1,000 Feet

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Legend

- Approximate Subject Property Boundary
- Approximate Parcel Boundary (CTDEEP GIS)
- Proposed Facility Layout

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Aerial Photograph

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

verizon

ALL POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: 2012 Aerial Photograph (CT ECO)
Map Scale: 1 inch = 200 feet
Map Date: January 2017

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
APPLICATION OF CELLCO 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 AT 208 KIRK ROAD, HAMDEN, CONNECTICUT	:	DOCKET NO. ____
	:	MARCH 3, 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 on an approximately 9.34 acre parcel at 208 Kirk Road (a/k/a 1075 Paradise Lane) in Hamden, Connecticut (the "Property"). This site is known as Cellco's "Hamden 8 Facility".

The proposed Hamden 8 Facility would be located in the westerly portion of the Property. At this location, Cellco would construct a 160-foot self-supporting monopole tower within a 50'

x 55' fenced compound and leased area. Cellco would attached twelve (12) panel-type antennas and six (6) remote radio heads ("RRHs") to a low profile platform at the top of the tower. The top of Cellco's antennas would extend above the top of the tower to an overall height of approximately 163 feet above ground level ("AGL"). Two (2) equipment cabinets and a diesel-fueled back-up generator would be located on a 11'-6" x 16' equipment platform and steel canopy structure located on the ground near the base of the tower. Vehicular access to the site would extend from Country Club Drive over a new gravel access driveway a distance of approximately 386 feet to the cell site. Utilities will extend from existing service along Country Club Drive.

Included in this Application, as Attachment 1, is a factual summary and project plans for the Hamden 8 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, CT 06108
Attention: Anthony Befera

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

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

C. Application Fee

The estimated total construction cost for the Hamden 8 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*l*(b)

Copies of this Application have been sent 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 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 28 and March 1, 2017, by Cellco in the *New Haven Register* pursuant to C.G.S. Section 16-50*l*(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*l*(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 Hamden 8 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, 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 requirement 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[1] 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.

[1] Connecting America: The National Broadband Plan, Federal Communications Commission (2010).

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.[2] 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 New Haven 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 Hamden 8 Facility would not enlarge Cellco's authorized service area in New Haven County.

B. Public Need and System Design

1. Need for the Hamden 8 Facility

As noted above, the Act has pre-empted any state or local determination of public need for wireless services. In New Haven County, 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.

[2] FCC Declaratory Ruling WT Docket No. 08-165.

Cellco currently provides wireless service in Hamden and the surrounding towns from its existing Hamden North 2, Hamden North, Hamden East, Centerville, Hamden 2, Hamden, Bethany, Bethany North, Prospect and Cheshire cell sites. Plots showing the extent of reliable wireless service in the area reveal a series of "coverage gaps" in all of Cellco's operating frequencies. Significant portions of these coverage gaps will be filled by service from the Hamden 8 Facility. (*See* Attachment 6). In addition to the coverage benefits, the proposed Hamden 8 Facility will provide significant capacity relief to Cellco's Hamden (Alpha sector), Hamden North (Gamma sector), Hamden East (Alpha sector), Centerville (Alpha sector) and Hamden 2 (Alpha sector) cell sites which are currently operating at or beyond their capacity limits.

2. Cell Site Information

The proposed Hamden 8 Facility will provide reliable wireless service to an overall area of 11.7 square miles at 700 MHz frequencies; 11.0 square miles at 850 MHz frequencies; 6.7 square miles at 1900 MHz frequencies; and 4.0 square miles at 2100 MHz frequencies. Within each of the areas coverage footprints are portions of significant travel corridors including Routes 10, 15 and 40, and commercial and residential areas.

The Hamden 8 tower and facility compound have been designed to accommodate additional wireless carriers as well as state or local emergency services antennas and equipment if a need exists. Cellco's equipment cabinets would house radio and related equipment, including receiving, transmitting, switching, processing and performance monitoring equipment. Cellco's battery back-up system free standing back-up generator would be available for use during power outages and periodically for maintenance purposes.

The tower and equipment platform, with steel canopy, equipment cabinets and back-up generator would be enclosed by an 8-foot high security fence and gate. Cellco's equipment cabinets would be equipped with 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. 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.

Cellco maintains ten (10) existing telecommunications facilities within approximately seven (7) miles of the proposed Hamden 8 Facility. Each of these existing facilities will interact, in some fashion with the proposed Hamden 8 cell site.

Cellco's existing Hamden North 2 cell site consists of antennas on a tower at 150 Willow Street in Hamden, approximately 4 miles north of the proposed Hamden 8 Facility. Cellco's Hamden North cell site consists of antennas inside a faux farm silo at 890 Evergreen Avenue in Hamden, approximately 1.6 miles northeast of the proposed Hamden 8 Facility. Cellco's existing Hamden East cell site consists of antennas on the roof of the building at 2321 Whitney Avenue in Hamden, approximately 1.8 miles southeast of the proposed Hamden 8 Facility. Cellco's existing Centerville cell site consists of antennas on the roof of the building at 955 Mix Avenue in Hamden and is located approximately 1.5 miles south of the proposed Hamden 8 Facility. Cellco's Hamden 2 cell site consists of antennas on a roof-mounted tower at 265 Benham Street in Hamden, approximately 1.8 miles south of the proposed Hamden 8 Facility. Cellco's Hamden cell site consists of antennas on a tower at 1055 Wintergreen Avenue in Hamden, approximately 3.8 miles southwest of the proposed Hamden 8 Facility. Cellco's Bethany cell site consists of antennas on a tower at 93 Old Amity Road in Bethany,

approximately 3.7 miles west of the proposed Hamden 8 Facility. Cellco's Bethany North cell site consists of antennas on a tower at 719 Amity Road in Bethany, approximately 4.5 miles northwest of the proposed Hamden 8 Facility. Cellco's Prospect cell site consists of antennas on a tower at 178 New Haven Road in Prospect, approximately 6.0 miles northwest of the proposed Hamden 8 Facility. Cellco's Cheshire cell site consists of antennas on a tower at 751 Higgins Road in Cheshire, approximately 6.8 miles north of the proposed Hamden 8 Facility.

Plots showing coverage from Cellco's existing facilities in the area, alone and together with coverage from the proposed Hamden 8 Facility, are included as Attachment 6.

3. System Design and Cell Site Equipment

a. System Design

Cellco's wireless system in general and the proposed Hamden 8 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 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 (Model SBNHH-1D65B) operating in its 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency ranges. Cellco will also install a total of six (6) remote radio heads behind its 700 MHz and 2100 MHz antennas; two (2) HYBRIFLEX™ fiber optic antenna cables inside the monopole tower; and one (1) GPS antenna attached to the canopy roof of the equipment platform. Back-up power to the Hamden 8 Facility will be provided by a battery system and a 20 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 Hamden 8 Facility satisfies this goal and would help resolve existing coverage problems in the area, provide high-quality reliable wireless service along portions of Route 10, Route 15, Route 40 as well as local roads and in surrounding commercial and residential land areas and provide capacity relief to several of its existing cell sites 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 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. Cellco currently maintains ten (10) wireless telecommunications facilities within approximately seven (7) miles of the Hamden 8 Facility location. Each of these existing facilities will, to some extent, interact with the proposed Hamden 8 Facility and are identified on the coverage maps included in

Attachment 6. 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 designated Hamden 8 search area. Cellco initiated a site search process for the Hamden 8 cell site and identified the property at 208 Kirk Road as a viable candidate for development. Cellco determined that an antenna centerline height of 160 feet at the Property would satisfy its wireless service (coverage and capacity) 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 will 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. AT&T Wireless has expressed interest in sharing the Hamden 8 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 services in Hamden. The Hamden 8 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 Hamden 8 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 ("APT") for the

Hamden 8 Facility. The Visibility Analysis assesses the visual impact of the proposed 160-foot tower on the surrounding areas and includes photographic simulations for the Council's review and consideration.

According to the Visibility Analysis, areas where the top portion of the tower would be visible above the tree canopy comprise approximately 42 acres or 0.52% of the 8,042 acre study area. Year-round visibility of the Hamden 8 Facility tower is generally limited to locations within about 0.25 miles of the cell site. At nearby locations large portions of the tower may be visible. Beyond the immediate area, views become more sporadic and intervening vegetation and existing infrastructure serve to obstruct large portions of the Hamden 8 Facility. When the leaves are off the trees, seasonal views, through intervening trees and branches are anticipated to occur in some locations within a 385 acre area around the tower site.

There are twenty-eight (28) residential structures within 1,000 feet of the Hamden 8 Facility. The closest off-site residence is located approximately 240 feet to the south at 46 Country Club Drive.

Weather permitting, the Applicant will raise balloons with a diameter of at least three (3) feet at the Hamden 8 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 Utilities 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").

(1) USFWS & CTDEEP NDDB Reviews

According to the Preliminary USFWS & CTDEEP Compliance Determination prepared by APT, one federally-listed Threatened species, the *Northern Long-Eared Bat* ("NLEB"), has been documented in the vicinity of the proposed Hamden 8 Facility. However, there is no adverse effect on these species. The proposed Hamden 8 Facility would be located within a wooded area and adjacent to a field currently planted with Christmas trees. The proposed cell site would require the removal of approximately 0.4-acres of mature vegetation. However, the proposed cell site is not located near known NLEB hibernacula or maternity roost trees. (*See* Preliminary USFWS & CTDEEP Compliance Determination – Attachment 10).

(2) Wetlands Investigation

As discussed in Section III.C.5.d. below, the development of the Hamden 8 Facility will have no direct impact on wetlands or watercourses. The closest wetland area is located approximately 300 feet to the south of the proposed Hamden 8 Facility. Cellco does not anticipate that the development of the proposed facility will adversely impact this wetland resource. A Wetland Inspection report is included in Attachment 11.

(3) State Historic Preservation Officer

According to a Preliminary Historic Resources Determination prepared by APT, there are no properties on or eligible for listing on the National Register of Historic Places located within one-half mile of the proposed Hamden 8 Facility. One State Registered Historic resource, the Jeremiah Gilbert House, is located within approximated 0.4-miles to the east of the Hamden 8 Facility. Based on APT's Visibility Analysis (provided in Attachment 9) there are no views of the proposed Hamden 8 Facility from the Jeremiah Gilbert House. It is Cellco's position, therefore, that the proposed Hamden 8 Facility will not adversely affect historic resources. Consultation with the State Historic Preservation Office ("SHPO") is on-going. A concurrence determination is anticipated and will be forwarded to the Council once it is received. A copy of APT's Preliminary Historic Resources Determination is included in Attachment 12.

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 radio frequency ("RF") emissions at the closest accessible point to the antennas, in this case the base of the tower, and assumes that all antennas are transmitting simultaneously, on all channels, at full power. Even under these absolute worst-case conditions, the calculations indicate that the maximum permissible exposure level for Cellco's 700, 850, 1900 and 2100 MHz antennas would remain more than five times below

(18.28%) 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 13.

d. Other Environmental Issues

No sanitary facilities are required for the Hamden 8 Facility. The operations at the approved Hamden 8 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 Hamden 8 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 Hamden 8 Facility is located on an approximately 9.34 acre parcel owned by Joseph Vignola and Denise Courtmanche Vignola. The Property is located in the Towns Residential (R-3) zoning district and is used as a tree farm and for residential purposes.

b. Plan of Conservation and Development

The Town of Hamden Plan of Conservation & Development (amended and effective on October 15, 2009) (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 the Residential (R-3) zone. Pursuant to Section 672 of the Hamden Zoning Regulations, wireless telecommunications facilities are permitted in all zones subject to the approval of a special permit use from the Hamden Planning and Zoning Commission. Towers shall be setback from all property lines a distance equal to their height. Towers and antenna and appurtenances shall be painted a neutral color or given the other such finish, as determined by the Commission. The tower must be able to accommodate a minimum of three (3) users that include, but are not limited to, other wireless communication companies, and local police, fire and ambulance companies. A security fence, no more than six feet in height, may be required around the antenna tower and other equipment. Landscaping may be required by the Commission. The proposed Hamden 8 Facility is consistent with each of these zoning requirements.

d. Inland Wetland and Watercourse Regulations

The Hamden Inland Wetlands and Watercourses Commission Regulations (the "IWWC Regulations") defines Regulated Activity as any operation within, or use of, a wetland or watercourse involving removal or deposition of materials, or any obstruction, construction, alteration or pollution of such wetlands or watercourses. Four (4) copies of the Hamden IWWC

Regulations were filed, in bulk, with the Council.

Dean Gustafson, Professional Soil Scientist with APT, conducted a field investigation and completed a Wetland Inspection report for the proposed Hamden 8 Facility. The closest wetland area to the tower site is located off the Property approximately 300 feet south of the start of proposed access and utility easement and nearly 600 feet south of the facility compound. The Wetland Inspection report is included in Attachment 11.

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"), Map Number 09009C0293H, Panel 293 (Effective December 17, 2010) 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 14.

6. Local Input

Section 16-50*l*(e) of the Connecticut General Statutes, as amended, requires local input on matters before the Council. On September 7, 2016, Cellco representatives met with Dave Garretson, Director of Legislative and Constituent Services for Mayor Curt B. Leng and Dan Kops, Hamden's Planning and Zoning Director, to commence the ninety (90) day municipal consultation process. The Town 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 aspects of the proposed Hamden 8 Facility, the site location being considered, the need for wireless service improvements in Hamden and the Connecticut Siting Council application process.

Shortly after the initial municipal consultation meeting, Cellco was contacted by Town officials and was asked to consider, as an alternative to the Kirk Road tower site, a tower location on municipal property at the Laurel View Country Club ("LVCC"). Cellco's project team was specifically asked to consider and evaluate a tower location near the golf course maintenance operations area in the northeast corner of the LVCC parcel. Cellco prepared a preliminary lease exhibit, a preliminary visual assessment and desktop environmental reviews for this potential alternative tower site. Cellco's RF engineers also evaluated the LVCC parcel and determined that a tower at the location selected by the Town would need to be 180 feet tall to satisfy its wireless service objectives.

At the request of the Town, Cellco hosted a Public Information Meeting ("PIM") at Hamden Town Hall on November 16, 2016. At the PIM, Cellco discussed the need for the proposed Hamden 8 Facility and the Siting Council's application process. Cellco presented information on both the proposed Kirk Road tower site and the alternative tower site at the LVCC.

Notice of the PIM was published in the *New Haven Register* on October 27, 2016 and was sent to abutting landowners of both the 8 Kirk Road parcel (13 abutters) and the LVCC parcel (82 abutters). A list of the abutting landowners notified of the PIM, a copy of the notice letter and a copy of the Legal Notice of the PIM is included in Attachment 15.

The November 16, 2016 PIM was attended by approximately 20 residents and public officials. Shortly after the PIM, Town officials notified Cellco that the LVCC parcel should not be pursued as an alternative tower location. Additional Town-owned parcels were also reviewed and rejected as a part of the Hamden 8 site search effort. (*See* Attachment 8).

7. Consultations With State and Federal Officials

Attachments 10 and 12 and Section III.C. of the Application describes consultations with state and federal officials regarding the proposed Hamden 8 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 Hamden 8 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.(1) above.

(2) Bureau of Air Management

Under normal operating conditions, the Cellco equipment at the Hamden 8 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.(3) above.

D. Estimated Cost and Schedule

1. 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 Hamden 8 Facility will not have any substantial adverse environmental effects. A public need

exists for high quality reliable wireless service in the Town of Hamden and throughout New Haven 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 Hamden 8 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 Hamden 8 Facility.

Respectfully submitted,

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS

By: _____

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