STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

APPLICATION TO INSTALL A SMALL CELL TELECOMMUNICATIONS FACILITY IN THE PUBLIC RIGHT-OF-WAY

Instructions

A Commercial Mobile Radio Service (CMRS) provider must obtain authorization from the Public Utilities Regulatory Authority (Authority) to install telecommunications fixtures in the public right-of-way (PROW) in accordance with General Statutes §§ 16-234(f) and 16-247h.

After providing Adjoining Property Owners (APO)s and the host municipality with notice letters, applicants must electronically file this **Application to Install a Telecommunications Facility in the Public Right-of-Way** (Application), including attachments, via the Authority's Web Filing System.

First-time applicants must file the Application as a New Docket Application.

For Applicants who have previously been approved to construct facilities in the PROW:

> **Unopposed Application:** Applications with no objections from APOs or host municipalities are to be filed as a **motion** in your primary small cell application docket.
>
> **Opposed Application:** Applications with objection(s) from APOs and/or host municipalities are to be filed as a **New Docket Application** in the Authority's Web Filing System.

Instructions regarding electronic filing with the Authority can be found under the Make an Electronic Filing section of PURA's website (Make and Electronic Filing).

If you need assistance in completing this application or with the application process, please contact the Office of Education, Outreach, and Enforcement (EOE):

Toll Free Number (in Connecticut):	1-800-382-4586
Toll Number Outside Connecticut:	1-860-827-2622
Email:	pura.information@ct.gov
Address:	10 Franklin Sq., New Britain, CT 06051
Website:	http://www.ct.gov/pura

APPLICATION TO INSTALL A TELECOMMUNICATIONS FACILITY IN THE PUBLIC RIGHT-OF-WAY

A. Applicant Information:

1. Company information:

Name:	Cellco Partnership d/b/a Verizon Wireless	*Attn.:*	Kristen Prentice
Address:	20 Alexander Drive		
Address:	Wallingford, CT 06492		
Phone:	(508) 389-3380		
Email:	kristen.prentice@verizonwireless.com		

2. Attorney's information (if any):

Law Firm:	Robinson & Cole LLP	*Attn.:*	Kenneth C. Baldwin and Emily C. Deans
Address:	One Station Place, Suite 800		
Address:	Stamford, CT 06902		
Phone:	(203) 462-7523		
Email:	kbaldwin@rc.com; edeans@rc.com		

B. Facility Information

1. General Information:

Purpose of the Facility	The purpose of the proposed Facility is to provide Cellco customers and emergency service providers with enhanced and more reliable wireless, voice, and data services near the Facility. Cellco has identified a need for additional coverage and/or capacity relief in this area and a new wireless facility at this location will help satisfy that need.
Facility Identification	Greenwich CT SC31
Type of Mount (Top/Side)	Side
MPE Value: **2 meters above ground level at the utility pole base**	<0.01% (See Attachment 3a)
MPE Value: **nearest habitable structure**	44.40% (See Attachment 3a)
Proposed Equipment Manufacturer	Integrated Antenna and Remote Radio Unit: Samsung
Proposed Equipment Model Number	Integrated Antenna and Remote Radio Unit: MT1602d-48B

2. Utility Pole Information:

Utility Pole Number	1498
Address of Adjacent Property	Stanwich Road across from 266 Stanwich Road, Greenwich, CT
Pole Owner(s)	Eversource & Frontier
Does Applicant have a Master Pole Agreement with the Pole Owner(s)?	(●) Yes ( ) No
Is the pole being replaced?	( ) Yes (●) No

3. Compliance with Legal Requirements

Does the municipality have regulations related to wireless facilities, including for the aesthetics or location of the facility? If yes, identify the regulations and state whether the proposed facility complies with the regulations.	(●) Yes ( ) No Section 6-140.1 of Greenwich's Municipal Code sets forth requirements for telecommunication facilities. A brief summary of the requirements and a copy of Section 6-140.1 of the Code are enclosed.
Did any APOs or municipality object to the Facility?	(●) Yes ( ) No (If yes, answer the following 2 questions.)
Identify the objector, the specific objection, and the reason the objection could not be resolved.	Cellco received an objection from the owners of 266 Stanwich Road, Marcelo and Jorgelina Stefani. Mr. and Mrs. Stefani objected on the basis of alleged issues with existing equipment attached to the pole and an alleged fire. Copies of the objection and Cellco's response are included in Attachment 5a.
Explain why public convenience and necessity require the proposed facility notwithstanding the objection.	The proposed small cell facility allows for the deployment of Verizon's advanced wireless technology. These small cell wireless technologies will provide members of the general public, Verizon customers and emergency service providers with the opportunity to access advanced wireless services including wireless broadband services. Consistent with the provisions of CGS § 16-247h, the proposed facility will help facilitate the efficient development and deployment of advanced wireless technology and infrastructure and promotes the shared use of existing utility poles in or near public rights of way.

C. Attachments

Attachment 1: Provide details of the installation, geographic location of the utility pole, and schematic of the pole attachments. Attachment 1 should include documents and narrative which demonstrate compliance with each element of Conn. Agencies Regs. § 16-247c-5(b) subparts (1)-(4).

Attachment 2: Provide an explanation of why the location and specific pole was selected, including the need for the facility and a suitability analysis of nearby utility poles. Additionally, explain why the proposed use of the PROW is in the public interest.

Attachment 3: Provide an engineering report and certification demonstrating that the facility complies with Federal Communications Commission (FCC) requirements for Radio Frequency (RF) emissions, including a Cumulative Power Density Table for RF emissions from the Facility. See 47 C.F.R. § 1.1310. The percentage of maximum permissible exposure (MPE) shall be calculated for at least two locations: (1) **2 meters above ground level at the base of a utility pole** and (2) **the nearest point on the closest habitable structure**. Provide as **Attachment 3(a)** an unlocked workable spreadsheet of the calculations which support the RF emission values submitted. Provide as **Attachment 3(b)** remote radio head specifications sheets for all antennas intended to be installed. Specification sheets must include values for maximum radio power and the antenna gain for each antenna intended to be installed.

Attachment 4: Provide the certificate of mailing to the host municipality and all APOs.

Attachment 5: Provide a copy of the text of the letter to APOs and copies of any correspondence or objections received from APOs.

Attachment 6: Provide a copy of the text of the letter to host municipalities and copies of any correspondence or objections received from municipalities.

SIGNATURE OF APPLICANT

The undersigned certifies that the information contained in this Application is true and accurate.

Signature: Emily C. Deans Date: 11/6/26

Name: Emily C. Deans Title: Attorney for Applicant, Robinson & Cole LLP

Section 3 of the Public Utilities Regulatory Authority's ("Authority") Small Cell Application Instructions and Form asks:

> Does the municipality have regulations related to wireless facilities, including for the aesthetics or location of the facility? If yes, identify the regulations and state whether the proposed facility complies with the regulations.

Section 6-140.1 of Greenwich's Municipal Code sets forth requirements for telecommunication facilities, including telecommunication towers and antennas. Section 6-140.1(3)(b) states that Regulated Facilities, including antennas attached to telephone poles, are allowed in all districts as a permitted use subject to site plan review by the Greenwich Planning & Zoning Commission. Regulated Facilities include all telecommunication equipment, towers, mounts, antennas, and other structures that are subject to local zoning regulation and includes telecommunication services not exempt from local regulation under the Connecticut General Statutes and the authority of the Connecticut Siting Council. *See* Section 6-140.1(2). Section 6-140.1(4)(a) encourages use of existing telephone poles and electric utility structures for locating telecommunication facilities..

The small cell pole attachment facility described in this application is under the exclusive jurisdiction of the Authority and therefore, as described below, preempts local land use authority.

The Authority has exclusive jurisdiction over the placement of small cell facilities on utility poles that are part of the electric distribution system in the public rights-of-way pursuant to Connecticut General Statutes § 16-234. *See* Docket No. 16-06-38, *Request for Declaratory Ruling by the Town of Greenwich et al. Regarding Regulatory Authority Over Small Cell Wireless Facilities,* Decision (Dec. 14, 2016). The Authority has determined that it does not have statutory authority to address the effects that the proposed facility may have on aesthetics or property values. *See* Docket No. 17-02-49, *PURA Formalization of Small Cell Antenna Applicant Processes and Procedures to Construct Facilities in Connecticut's Public Rights-of-Way,* Decision at 13 (Jun. 2, 2017).

Sec. 6-140. AIRCRAFT LANDING – TAKEOFF FACILITIES.

No aircraft landings, takeoffs and/or facilities or any related activities shall be permitted as a principal or accessory use in any business or residential zone. (11/14/84)

Sec. 6-140.1 TELECOMMUNICATION FACILITIES AND SITES. (Sec. 6-140.1 Telecommunication Facilities and Sites replaced former Sec. 6-140.1 Satellite Earth Stations (SES) 12/19/2001)

1. Statement of Purpose: In accord with the Federal Telecommunications Act of 1996, this section of the regulations is intended to accommodate the needs of residents, businesses and the general public, while protecting the public safety and general welfare of the Town, and minimizing any adverse visual and operational effects of towers or wireless communication facilities through careful analysis, design, siting and screening. The Planning and Zoning Commission recognizes that it is in the public interest to permit the siting of wireless communication towers and antennas within the Town's boundaries. This regulation establishes standards and requirements for telecommunication facilities and sites.

   These regulations are also meant to meet the spirit and intent of Sec. 16-50 L (e) of the CGS for projects that are subject to the approval of the Connecticut State Siting Council by which municipalities are afforded the right of pre-filed technical information and consultation with applicants for telecommunication towers and facilities 60 days before an application is filed with the Connecticut State Siting Council. The purposes are to regulate placement of antennas, towers, and other related facilities in a manner that will protect the town's visual quality; and safeguard the community by having the following objectives:

   OBJECTIVES:

   - to obtain information necessary to evaluate a proposed facility;

   - to minimize locations in residential zones, seek locations in business zones;

   - to limit the number and/or height of telecommunication towers throughout the community, especially by requiring multiple-user sharing of telecommunication facilities wherever possible (co-location);

   - to establish locations least disruptive to the public safety and welfare of the Town of Greenwich and are consistent with the Town Plan of Conservation and Development;

   - to minimize the number of towers needed to serve the community both now and in the future by maximizing the use of existing and approved suitable facilities (including existing towers, buildings and other facilities) to accommodate new wireless telecommunications antennas;

   - to minimize adverse visual effects through proper design, siting and screening in keeping with the Town's character;

   - to minimize negative effect on adjoining property values;

   - to protect scenic roads and historic resources as identified in the Town Plan of Conservation and Development from encroachment by inappropriate structures;

- to avoid injury and potential damage to adjacent properties from tower failure through high structural standards of engineering and careful siting of tower structures and setback requirements;

- to enhance the ability of providers of telecommunication services to provide such services to the community effectively and efficiently;

- to provide for the orderly removal of antennas and towers;

- to assure that these regulations are consistent with federal law, specifically the Telecommunications Act of 1996 by making sure the regulations:

    (a) Do not prohibit or have the effect of prohibiting Personal Wireless Service as defined in the Telecommunication Act of 1996.
    (b) Are not intended to be used to unreasonably discriminate among providers of functionally equivalent services.
    (c) Do not regulate Personal Wireless Services on the basis of the environmental effects of radio frequency emission, as long as the regulated services and facilities comply with the FCC's regulations concerning such emissions.

2. Definitions: When used in this section, the following words or phrases shall have the meaning defined below:

Adequate Capacity: Capacity is considered to be "adequate" if the Grade of Service (GOS) is p.01 or better for median traffic levels offered during the typical busy hour, as assessed by direct measurement of the Personal Wireless Service Facility in question. The GOS shall be determined by the use of standard Erlang B Calculations. As call blocking may occur in either the landline or radio portions of a wireless network, Adequate Capacity for this regulation shall apply only to the capacity of the radio components. Where Adequate Capacity must be determined prior to the installation of the Personal Wireless Services Facility in question, Adequate Capacity shall be determined on the basis of the busiest hour of the surrounding existing cell sites.

Adequate Coverage: Coverage is considered to be "adequate" within that area surrounding a Base Station where the predicted or measured median field strength of the transmittal signal is greater than or equal to - 85dbm for at least 95% of the intended coverage area. It is acceptable for there to be "holes" within the area of Adequate Coverage where the signal is less than -85dbm, as long as the signal regains its strength to greater than or equal to -85dbm farther away from the Base Station within the cell. For the limited purpose of determining whether the use of a Repeater is necessary or desirable, there shall be deemed not to be Adequate Coverage within said holes. The outer boundary of the area of Adequate Coverage, however, is that location past which the signal does not regain a strength of greater than or equal to -85dbm.

Alternative Tower Structure: Includes such things as man-made trees, clock towers, flag poles, bell steeples and similar alternative-design mounting structures that camouflage or conceal the presence of antennas or towers.

Antenna: A device used to collect, transmit and/or receive electromagnetic telecommunication or radio signals. Examples include panels, satellite dish antennas, parabolic (microwave) dishes and single pole devices.

Base Station: the primary sending and receiving site in a wireless telecommunication network.

Camouflaged: A wireless communication facility that is significantly disguised, hidden, part of an existing or proposed structure, or placed within an existing or proposed structure is considered "camouflaged." Flush mounted antennas painted to match a structure will be considered camouflaged as part of an existing or proposed structure as well as rooftop equipment cabinets that appear similar to other rooftop equipment units.

Carrier: A company that provides wireless services.

Co-Location: The use of a single mount on the ground by more than one carrier (vertical co-location) and/or several mounts on an existing building or structure by more than one carrier.

Commission: The Planning and Zoning Commission of the Town of Greenwich.

dbm: a measure of radio frequency signal power referenced to 1 milliwatt that indicates the relative loudness in relationship to the reference. For example, the level of 30 dbm is 30 db above 1 milliwatt which is 1 watt.

Elevation: The elevation at grade or ground level shall be given in Above Mean Sea Level (AMSL). The height of a wireless service facility shall be given in Above Ground Level (AGL). AGL is a measurement of height from the natural grade of a site to the highest point of a structure. The maximum elevation of the wireless service facility is AGL plus AMSL.

Environmental Assessment (EA): An EA is the document required by the Federal Communications Commission (FCC) and the National Environmental Policy Act (NEPA) when a wireless communication facility is placed in certain designated areas.

Equipment Shelter: An enclosed structure, cabinet, shed or box where the batteries and electrical equipment are housed.

Fall Zone: The area on the ground within a prescribed radius from the base of a wireless communication facility. The fall zone is the area within which there is a potential hazard from falling debris (such as ice) or collapsing material.

Grid System: A network of wireless communications facilities comprising the geographic service region of a wireless provider.

Licensed Carrier: A company authorized by the FCC to construct and operate a wireless communication facility.

Mount: The structure or surface upon which antennas are mounted, including the following four types of mounts: Roof mounted - on the roof of a building. Side mounted - on the side of a building. Ground mounted Tower - mounted on the ground (see Tower), and Structure mounted - mounted on a structure other than a building.

Monopole: A freestanding tubular tower.

Omni-directional (Whip) Antenna: A thin rod that beams and receives a signal in all directions. These antennas shall not exceed 20 feet in height or 7" in diameter unless otherwise permitted by the Commission.

Panel Antenna: A flat surface antenna usually developed in multiples. A directional or panel antenna shall not exceed 6 feet in height or 2 feet in width unless otherwise permitted by the Commission.

Personal Wireless Services: Commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services. These services include: cellular services, personal communication services (PCS), specialized mobile radio services, and paging services.

Radio Frequency Engineer: An engineer specializing in electrical or microwave engineering, especially the study of radio-frequencies.

Radio Frequency Radiation (RFR): The emissions from a wireless telecommunications service facility.

Regulated Facility, Service and/or Site: The equipment, towers, mount, antennas and other telecommunication structures subject to local zoning regulation. This includes all telecommunication services not exempt from local regulation under the provisions of the Connecticut General Statutes and the authority of the Connecticut Siting Council or not exempt from local regulation pursuant to the Telecommunication Act of 1996 or such other federal legislation or a federal authority.

Repeater: A small receiver/relay transmitter of not more than 20 watts output designed to provide service to areas that are not able to receive adequate coverage directly from a base station.

Satellite Earth Station Antenna: A parabolic dish and appurtenant tower or other antenna, tower or device the purpose of which is to receive, distribute or transmit a variety of signals in the form of microwaves to or from orbiting satellites or other extra-terrestrial or terrestrial sources.

Satellite and Microwave Dish Antennas: Shall not exceed 2 meters, (6.56 feet) in diameter. Building or rooftop mounted antennas shall be located so as not to be visible from abutting public streets or adjoining residences.

Security Barrier: A security system which may include a locked, impenetrable wall, or fence that is designed to secure an area.

Separation: The distance between one carrier's array of antennas and another carrier's array.

Temporary Personal Wireless Communication Facility: A facility that is to be placed in use for a limited amount of time, is not deployed in a permanent manner, and does not have a permanent foundation. The temporary facility must meet the FCC guidelines for RFR levels. Temporary facilities for less than 30 days shall be permitted with a letter from the applicant. For facilities to be installed for more than 30 days, a fuller explanation of the need for the temporary facility shall be included in the applicant's letter.
Tower: Any structure that is designed and constructed primarily for the purpose of supporting and/or acting as one or more antennas for telephone, radio, television, paging and similar communication purposes. This term includes but is not limited to:

> Guyed Tower: A monopole tower or lattice tower that is tied to the ground or other surface by diagonal cables.

Lattice Tower: A type of mount that is self-supporting with multiple legs and cross bracing of structural steel.

Monopole Tower: The type of mount that is self-supporting with a single shaft of wood, steel, fiberglass, concrete or other material and a platform (or racks) for panel antennas arrayed at the top.

3. Use Regulations:

a. Exemptions. The following shall be exempt from this regulation, but may be subject to a Building Permit issuance:

(1) Repair of towers and antennas, provided no changes in design, height or appearance occur.
(2) Antenna with no tower used solely for residential household television and radio, including amateur radio, reception if they are 18" in diameter or less, or no higher than 6 feet in height.
(3) Satellite Antennas measuring 2 meters (6.56 feet) or less in diameter and located in commercial districts on screened rooftops and satellite antenna 1 meter (3.28 feet) or less in diameter regardless of location. Larger Satellite Antennas shall be considered Regulated Facilities allowed as a Permitted Use under these regulations subject to site plan approval by the Commission and/ or the Town Planner's administrative approval as well as subject to the following special provision unless it is demonstrated that an adequate signal cannot be received:

- In residential zones ground mounted antennas shall be confined to the rear yard and not visible from a street.

- In residential zones, a roof-mounted antenna may be allowed if:

  - It is not visible from a street.

  - Its visibility from adjacent properties is minimized.

  - Any proposed screening is reviewed by the Architectural Review Committee for compatibility with the design of the principal structure.

  - It is consistent with the purposes and standards of Sec. 6-15.

- In residential zones where placed in a rear yard or in a side yard, if a side yard location is required, antennas shall be set back from rear and side lot lines a minimum distance of ten (10) feet for R-6, R-7 and R-12 zones, fifteen (15) feet for the R-20 zone.

(4) Amateur radio antennas subject to the following provisions:

- Any ground mounted amateur radio tower shall be located in the rear yard only.

- Any tower and antenna less than 40 feet in total height, that is owned and operated by an amateur radio operator licensed by the FCC shall not be erected nearer to any property line than a distance equal to the vertical height of the tower.

- A tower or antenna affixed to a residential structure shall be located on the rear of the structure.

- For the purposes of safety where there is no existing fence with a locked gate at a height to restrict unauthorized access, a fence or locked gate is to be installed surrounding the base of an amateur radio tower. The fence and locked gate must be at a height to be sufficient to restrict unauthorized access.

b. Regulated Facilities are allowed as a Permitted Use in all districts subject to Site Plan review by Planning & Zoning Commission and/or Town Planner administrative approval shall be acted on within 65 days of the day of receipt unless an applicant requests an extension or extensions up to a maximum of 65 days. Regulated Facilities include:

(1) A Regulated Facility proposed on or in an existing structure as within a stealth flagpole, steeple, chimney, or similar structure that meets zoning requirements.
(2) A Regulated Facility proposed on an existing structure including but not limited to a guyed, lattice, or monopole tower, or water tower, provided the installation does not increase the height of the existing structure.
(3) An antenna(s) located on an electric transmission and distribution tower, telephone pole and similar existing utility structure, provided there is no more than an increase of twenty feet in the height of the existing structure as a result of the installation. No increase in height shall be permitted on a utility structure located within historic districts designated by the Greenwich Historic District Commission or within 150 feet of the pavement of any Town road or State highway designated as a Town Scenic Road or State Scenic Highway.
(4) Antenna(s), either on the roof or side mounted, provided such facility does not project more than ten feet above the building or height limit of the zoning district within which the facility is located whichever is lower. However, such mount may be located on a building or structure that is legally non-conforming with respect to height, provided it does not project above the existing building or structure height.
(5) A regulated facility intended solely for the purpose of Police, Fire, Ambulance and other Emergency Dispatch. A tower may be erected as a Permitted Use for these purposes unless it is to be shared by a commercial wireless service carrier, which shall require a Special Permit.

c. Regulated Facilities allowed, as a Special Permit Use subject to Site Plan approval shall include:

(1) Any regulated facility that does not qualify as a Permitted Use as set forth in 3.b above.
(2) All proposed Ground Mounted Towers except in the WB (Waterfront Business) Zone, where towers are prohibited.
(3) Any device designated for over-the-air reception of television broadcast signals, multi-channel distribution service or direct broadcast satellite service shall be in accordance with Section 207 of the Telecommunication Act of 1996.

4. General Standards and Requirements for All Permitted and Special Permit Uses:

a. If feasible, regulated facilities shall be located on existing structures, including but not limited to buildings, water towers, flag pole existing telecommunications facilities, utility poles and towers, and related facilities, provided that such installation preserves the character and integrity of those structures. In particular, applicants are urged to consider use of existing telephone and electric utility structures as sites for regulated activities. Where co-location is not proposed, the Commission in making a decision on the application may request information from the applicant to demonstrate that co-location is not feasible.
b. A licensed carrier shall be either an applicant or co-applicant and documentation of qualifications as a licensed carrier shall be provided. Where the application includes a facility regulated by the Connecticut Siting Council, the applicant shall document submission of an application to the Siting Council.
c. In the case of an existing facility, a copy of the current FCC license and the application for modification shall be provided. In the case of a proposed facility, a copy of the application for State or Federal approvals to construct a facility shall be submitted.
d. A structural analysis signed by a Professional Engineer licensed in the State of Connecticut indicating that the tower, structure and foundation meets all applicable building codes for all proposed antennas with ½" radial ice. Any changes to an existing structure requires a new structural analysis indicating that the original design requirements have not been compromised. This does apply to towers and antennas on or adjacent to private residences for amateur and direct broadcast video services.
e. All submittals supplied in accordance with any standards and/or guidelines shall be in accordance with those in effect at the time of filing.
f. Provide a statement from the applicant's engineer indicating that the proposed facility will not cause any interference to public safety radio systems.
g. All towers shall be protected against unauthorized climbing.
h. All new towers shall be designed to provide co-location of additional antenna systems.
i. The applicant shall submit documentation, in the form of a letter from the property owner of the facility on which the antenna is proposed to be located that the owner has reviewed the applicant's submittal and is aware of its implications. This letter should also acknowledge the property owner's legal right to install an antenna and use an existing structure at the time of application for a Site Plan approval and/or Special Permit approval.
j. Where an antenna or mount is proposed on an existing structure:

   - For a Permitted Use the Fall Zone shall be shown on the site plan and shall not pose a safety threat to surrounding property.

   - For Site Plan and Special Permit Use the Fall Zone shall be shown on the site plan, shall be contained within the property lines and shall not pose a safety threat to surrounding property.
k. Ground-mounted, roof-mounted or side-mounted equipment for Regulated Facilities shall be consistent with the noise standards as stated in the Town of Greenwich Noise Ordinance, Chapter 6B of the Town of Greenwich Code.

5. <u>General Standards and Requirements - Ground Mounted Tower Special Permit</u>:

   a. Where a ground-mounted tower is proposed, the applicant shall have the burden of proving that there are no feasible and available existing structures upon which to locate as an alternative to the proposed ground mounted tower, and there are no other locations in a

business zone. If 50% or more of the service area of a site is in another municipality, additional justification is required as to why the site chosen for the tower is in Greenwich.

If the applicant demonstrates that it is not feasible to locate on an existing structure, the ground mounted tower shall be designed to be camouflaged to the greatest extent possible, including but not limited to use of compatible building materials and colors, screening, landscaping and placement within trees.

In all cases where the Commission determines that an expert/peer review of the applicant's application, service area, tower sharing, alternative location or other technical issues is reasonably warranted, the applicant shall be required to reimburse the Town for the cost of performing such expert/peer review.

b. Towers shall be located to minimize adverse impacts upon:

(1) Historic Places, Districts and Scenic Roadways: Where possible, towers shall be sited to have the least detrimental visual impact to designated scenic roads and historic districts, ridge lines, areas within National Historic Districts within the Town, properties listed in the State or Federal Register of Historic Places, and designated historic overlay zones in the Town's Building Zone Regulations.
(2) Minimize impacts on Residential Property Values: To the extent possible, the facility shall not be seen from residential properties or adversely impact residential property values because of a tower's proximity to residences.
(3) Structural Safety: Structural failure, danger to buildings and attractive nuisance. Towers shall, when possible, not be sited in Flood Plain Zones or Special Flood Hazard Areas.
(4) Electromagnetic Safety: Emissions from the tower or Personal Wireless Service Facility shall not exceed the FCC guidelines.
(5) Environmental Degradation:

a. A detailed description of technical alternatives for any proposed tower and their environmental impacts and mitigation measures shall be submitted.
b. Towers shall be sited to avoid affecting rare or endangered flora and fauna in areas shown on the Connecticut DEP and Federal Listed Species and Natural Communities Map. They should also be sited, when possible, away from wetlands. All new towers shall be monopole unless adequate engineering reasons acceptable to the Commission justify an alternative type of construction.
c. In order to ensure public safety, the minimum distance from the base of any new proposed ground-mounted regulated facility to any property line, road, habitable dwelling, business or institutional use, or public recreational area shall be the height of the facility/mount, including any antennas or other appurtenances.
d. In reviewing a Special Permit application for a ground-mounted facility, the Commission will be guided by the following preferred locations: a) totally enclosed within existing structures, b) on existing utility structures, c) on institutional structures, d) on existing approved towers, poles, etc., e) in commercial zones, and along major transportation routes.

The Commission may allow an encroachment within the setback on the applicant's property if it finds that a substantially better design will result from such reduction. In making such a finding, the Commission shall consider both the visual and safety impacts of the proposed facility. Monopoles shall be the preferred type of such

ground-mounted facility under this provision. Service providers shall submit full information establishing that they have exhausted all technically feasible alternatives for minimizing size and visual impacts of the proposed installation and for sharing space or using an existing facility or structure before any permit for a new tower shall be granted.

6. Special Permit Application Requirements: All applications for a Special Permit shall be filed with the Commission and shall include:

   a. Topographic - Location Map. The applicant shall provide a topographic location map at a scale of 1" = 2,000' showing:

      (1) The antenna or tower location.
      (2) Existing and proposed facilities in and within a three mile radius of the site outside the Town that would connect or be interconnected with, or "hand off" to the proposed facility.
      (3) The boundaries of the tower view shed i.e., the area within which the Tower can be seen based upon an assessment of the topography surrounding the site.
      (4) The applicant shall provide coverage parameters used in their analysis and the following coverage maps indicating adequate coverage for:

         (a) Proposed site
         (b) All existing facilities that would connect or be interconnected with or “hand off” to the proposed facility (composite map).
         (c) All existing facilities, and the proposed facility that would connect to or be interconnected with, or “hand off” to the proposed facility (composite map).
         (d) All rejected sites.

   b. The applicant shall provide adequate information to justify that the site is needed to provide adequate capacity and/or coverage.
   c. For ground-mounted towers the applicant shall provide an evaluation of the visual effect of the proposed tower location both within the Town and adjacent municipalities. Areas of special concern to be addressed in this evaluation shall include, but not be limited to:

      (1) The areas identified as existing or proposed open space or preservation areas in the Town Plan of Conservation and Development, especially land lying within 300 feet of a sub-regional watershed line as shown on maps prepared by the State DEP Natural Resources Center and on file in the Town Hall.
      (2) Areas within National Historic Districts within the Town which include but are not limited to: the Putnam Hill; Round Hill; Fourth Ward; Strickland Road; Greenwich Avenue; and the Municipal Designed District Historic Districts; properties that appear on the National Register of Historic Places; and any present or future historic districts, historic overlay zones, ridge lines and scenic roads that have been or will be designated by the Planning and Zoning Commission.
      (3) The applicant shall provide an additional copy or copies of the application for municipalities located within 3 miles of the proposed site. The Commission shall submit this copy to adjacent municipalities for review and comment.

7. Site Plan Requirements:

The Site Plan shall meet the requirements of the Site Plan Sec. 6- 14 of these Regulations. In addition, the following information shall be provided on the Site Plan. The Commission may waive one or more of the following items at the request of the applicant where the Commission or its designated representative determines that such is not necessary to determine compliance with these Regulations.

a. Property lines within 300 feet.
b. Significant tree cover for trees of 12inches (dbh) or greater by dominant species and average height on the subject property and within 300 feet, where permission to survey trees is granted by the property owner. Trees to remain and to be removed shall be noted on the plans.
c. Outline of all existing buildings, including description of use (e.g. residential, etc) on the subject property and all adjacent property within 300 feet where permission to enter an adjoining property is granted by the property owners.
d. Proposed location of antennas, mount and equipment shelter.
e. Proposed security barrier, indicating type and extent as well as point of controlled entry.
f. Location of all roads, including driveways to serve the facility, public and private, on the property and all adjacent properties within 300 feet, where permission to enter an adjoining property is granted by the property owner.
g. Distances, at grade, from the proposed facility to each building within 300', including those on adjoining property, where permission to enter an adjoining property is granted by the property owner, on a vicinity plan.
h. Contours at two-feet intervals based upon AMSL (see "elevation" in definitions section) for the subject property and adjacent property, where permission to enter an adjoining property is granted by the property owner, within 300 feet.
i. All proposed changes to the existing property, including grading, vegetation removal and temporary or permanent roads or driveways, drainage facilities existing and proposed. A drainage report shall be submitted if grading, driveways or roads are proposed.
j. Illustrations, dimensioned and to scale, of the proposed mount, antennas, equipment shelters, cable runs, parking areas, and any other construction or development attendant to the facility.

8. Special Permit applications with Site plans shall also provide the following information regarding sight lines and elevations of the proposed facility where the Commission determines that such is necessary to determine compliance with these Regulations:
   a. Sight line representation. A sight line representation shall be drawn from any public road and/or building within 300 feet and if beyond the property on adjoining property where permission to enter an adjoining property is granted by the property owner, to the highest point (visible point) of the regulated facility. Each sight line shall be depicted in profile, drawn at one-inch equals 40 feet horizontal, and one-inch to 10 feet vertical scale. The profiles shall show all intervening trees and buildings.
   b. Existing (before condition) photos. Each sight line shall be illustrated by one four inch by six inch color photo of the existing conditions seen from any public road within 300 feet.
   c. Proposed (after condition) photos. Each of the existing condition photos shall have the proposed regulated facility superimposed on it to show what will be seen from public roads if the proposed facility is built.
   d. Site elevations, or views at grade from the north, south, east and west for a 50-foot radius around the proposed regulated facility plus from all existing public and private roads that serve the subject property. Elevations shall be at either one-quarter inch equals one foot or one-eighth inch equals one-foot scale and show the following:

(1) Antennas, mounts and equipment shelters with total elevation dimensions and AGL of the highest point.
(2) Security barrier. If the security barrier will block views of the facility, the barrier drawing shall be cut away to show the view behind the barrier.
(3) Any and all structures on the subject property.
(4) Existing significant trees of 12 inches (dbh) or greater at current height and proposed trees and shrubs at proposed height at time of installation with approximate elevations dimensioned.
(5) Existing and proposed grades using two foot contours above mean sea level.

e. Specifications by a Connecticut Licensed Engineer to certify that the pole or tower can sustain winds based on the current building code standards of the State of Connecticut.

9. Other Special Permit/Use Requirements: The following reports and requirements shall be addressed as part of the Special Permit application for new tower locations.

a. Report on Adequate Coverage, Adequate Capacity and Justification of Need for Ground Mounted Tower. A written report prepared by an RF engineer shall address the following: General Requirements and Standards:

(1) A description of the service area for each communication system on the tower including a map showing the location of the planned facility and the extent of the proposed service area.
(2) A statement setting forth the rationale and justification for the proposed antenna or tower in the proposed location.
(3) A statement of the signal strength service objectives for each proposed wireless service on the tower.
(4) An analysis for each proposed use demonstrating that the proposed location will provide the required level of service and that other potential co-location sites in the service area will not provide equal or better service.
(5) Documentation that for each proposed use of the tower the proposed antenna height is the minimum necessary to provide Adequate Coverage.
(6) Demonstration that the service proposed can not be provided with equipment added to an existing or other proposed antennas or tower.
(7) Alternative locations explored and why not chosen.
(8) Submit a statement that the site does or does not require lighting per the FAA regulations. If the lighting is required an explanation shall be provided as to the type of lights to be used and what will be done to minimize the effects to the surrounding area and migrating birds.
(9) A map of sufficient detail to indicate the area where the FCC RFR exposure standard are calculated to be exceeded for the general public. Sufficient detail power density calculations shall be provided by the applicant to support the map.

Specific Requirements:

(1) The applicant shall provide written documentation of all Facility Sites in Greenwich and any Facility Sites outside of Greenwich that are within 3 miles of the proposed site, in which it has a legal interest, whether by ownership, leasehold or otherwise. From each such Facility Site, it shall demonstrate with written documentation that these Facility Sites are not already providing, or do not have the potential by adjusting the Site, to provide Adequate Coverage and/or Adequate Capacity to the Town of Greenwich.

The documentation shall include, for each Facility Site listed, the exact location in latitude and longitude, in degrees, minutes and seconds, ground elevation, height of tower or structure, type of Antennas, Antenna gain, height of Antennas on tower or structure, output frequency, number of channels, power input and proposed maximum power output per channel. Potential adjustments to these existing Facility Sites, including changes in Antenna type, orientation, gain, height or power output shall be specified. Radial Plots from each of these Facility Sites, as they exist, and with adjustments as above, shall be provided as part of the Application.

(2) Distance from existing tower: the applicant must certify that existing Towers within 1000' of the proposed new tower do not meet the applicant's structural specifications or technical requirements or that a co-location agreement could not be obtained at reasonable terms and conditions, including price.

(3) The applicant shall demonstrate with written documentation that it has analyzed the feasibility of Repeaters in conjunction with all Facility Sites listed in compliance with subsections 1 & 2 (above) to provide Adequate Coverage and/or Adequate Capacity to the Town of Greenwich. Radial Plots of all Repeaters considered for use in conjunction with these Facility Sites shall also be provided as part of the application.

b. A soil report complying with Appendix 1: Geo-technical Investigations, ANSI/EIA-222-E manual standards, as amended, verifying the design specifications of the tower foundation and anchors for the guy wires, if used.

c. An Environmental Impact and Evaluation of the Site Emissions Report assessing the impact of the proposed tower and site construction and operation, assessing its impact on:

(1) Areas designated as conservation or preservation areas in the Town's Plan of Conservation and Development and Open Space Plan, and in the State Plan of Conservation and Development. The following areas on, or adjacent to the site, shall be shown on the Site Plan and discussed in the Environmental Report.

- Protected areas.

- Areas for proposed septics and wells.

- All inland wetlands and watercourses.

- Critical habitats for plants and animals.

- Historic structures or sites, unusual features, buildings, monuments, or areas.

- Permanently protected lands, such as Town Park and forestlands, and land protected by a non-profit conservation organization.

(2) Site emissions and RFR filing requirements. The applicant shall provide a statement listing the existing and maximum future projected measurements of RFR from the proposed regulated facility, for the following situations:

- Existing or ambient: the measurements of existing RFR.

- Existing plus proposed facilities: maximum estimate of RFR from the proposed Regulated Facility plus the existing RFR environment.

- Certification, signed by an RF engineer, stating that RFR measurements are accurate and meet FCC guidelines as specified in the Radio frequency Radiation Standards sub-section of this regulation.

d. Landscape and Screening Requirements: If the site is not already adequately screened by virtue of its location or natural topography as viewed from public roads or existing residences, the Commission may require a landscape plan and in addition, for a new tower, a fence with a minimum height of 6 feet shall be provided. Existing vegetation on and around the site shall be preserved to the greatest extent possible.
A planting plan shall be provided to screen building(s), equipment shelters, fuel tanks, other man-made structures and as much of the tower as possible. The plan shall show an evergreen screen surrounding the site. This shall be a row of evergreen trees (planted 10 feet on center maximum). Evergreens shall have a minimum height of 6 feet at planting and be a type that grows to a minimum of 15 feet at maturity. The Commission may accept any combination of existing vegetation, topography, walls, up to a maximum of six feet, or other features that meet or exceed the above evergreen screen requirement. The applicant and operator shall be responsible for continual maintenance of plantings and ensure continued effectiveness.

e. A Construction Plan: A preliminary construction plan prepared by a Connecticut licensed engineer showing construction and drainage details, including the access road and construction or drainage improvements, including above-ground wires, cables, ducts, utility and signal cables, guying and guy-anchor details.

f. Monitoring and Maintenance.

(1) The applicant shall provide within 90 days after the facility is operational and on an annual basis from the granting of the permit, a report showing the actual field measurements at the site taken in accordance with the proper procedure to indicate the level of compliance with the RFR standards as established in the FCC guidelines. A RF engineer shall sign this report. If the site is not in compliance, the applicant shall take the corrective action within 30 days to bring the site into compliance. The applicant will provide a second field measurement to verify site compliance. The applicant as the owner of the tower will be responsible to ensure that all users are within compliance and take the necessary actions to maintain compliance. The report shall also indicate that the current signs and fencing are adequate or indicate changes that will be made.

(2) The Commission may require as a condition of the Special Permit that after the facility is operational, the applicant shall submit, within 90 days of beginning operations, and at annual intervals from the date of issuance of the Special Permit, existing measurement of noise from the facility. Such measurements shall be signed by an acoustical engineer, stating that noise measurements are accurate and meet the Noise Standards of the Town of Greenwich Health Department.

(3) Tower owner(s) shall pay for an independent consultant (a licensed professional structural engineer), hired by the Town, to conduct inspections of the tower's structural integrity and safety every ten years or when directed by the Town. A report of the inspection results shall be prepared by the Independent consultant and submitted to

the Planning and Zoning Commission, the Commissioner of Public Works, and the Building Official. Any major modification of an existing facility, which includes changes to tower dimensions or antenna numbers or type, shall require a new structural inspection.

(4) Should the inspection of any tower reveal any structural defects that in the opinion of the independent consultant renders the tower unsafe, the following action shall be taken. Within 10 business days of notification of unsafe structure, the owner(s) of the tower shall submit a plan to remediate the structural defect(s). This plan shall be initiated within 10 days of the submission of the remediation plan, and completed as soon as reasonably possible. Failure to accomplish this remediation of structural defect(s) within 10 business days of initial notification shall be a violation of the special permit and subject the owner(s) to penalties and fines.

(5) A contact person or corporate department shall be designated in writing by the applicant as the person to contact regarding any matters concerning the proposed facility if and when constructed. The designation shall include at least the name, address and telephone number of the designated contact person and shall be included with the application and shall also be displayed on a sign mounted at the entrance to the facility. The purpose of this is to designate the person to whom should be reported any electro-magnetic interference with receptor devices on adjoining or nearby properties, with emergency services communications, any violations of these regulations, or any public safety and/or emergency conditions existing at the site. The contact person shall reply in writing within 2 business days to the person making the contact with a copy to the Zoning Enforcement Officer of the Town and shall take prompt action appropriate to the nature of the reported condition.

g. A statement from the applicant indicating that, weather permitting, the applicant will raise a balloon with a diameter of at least eight feet, at the proposed ground mounted Tower site and to the proposed Tower height. Such balloon shall be raised and kept in place for at least three days prior to the date of the public hearing scheduled on the application. A legal notice of the scheduled balloon raising shall be published in a local newspaper. Proof of such publication shall be submitted with the application.

h. A list of all federal, State, regional, district, and municipal agencies, which have conducted or will conduct a review of the proposed tower together with a copy of any of the issued position/decision/recommendation of such agency or board with respect to the proposed facility.

1. Federal Environmental Filing Requirement Information to be Supplied. Since the National Environmental Policy Act (NEPA) applies to all applications for wireless communication facilities applications will need to be accompanied by the information that will be provided to satisfy the NEPA requirement where applicable . NEPA is administered by the FCC via procedures adopted as Subpart 1, Section 1.1307 et seq. (47 CRF Ch.1). The FCC requires that an environmental assessment (EA) be filed with the FCC prior to beginning operations for any wireless communications facility proposed in or involving any of the following:

(1) Wilderness areas
(2) Wildlife preserves
(3) Endangered species habitat
(4) Historical site.
(5) Indian religious site

(6) Flood plain
(7) Wetlands
(8) High intensity white lights in residential neighborhoods
(9) Excessive radio frequency radiation exposure

At the time of application filing, an Environmental Assessment that meets FCC requirements shall be submitted to the Commission for each Regulated Facility Site that requires such an environmental assessment to be submitted to the FCC. For all Special Permit uses the applicant shall identify and assess the impact of the proposed facility on areas recommended for conservation as presented in the Town Plan and State Plan of Conservation and Development. The applicant shall list location, type and amount (including trace elements) of any materials proposed for use within the facility that are considered hazardous by the federal, state or local governments.

i. Other Requirements.

(1) Commercial advertising shall not be allowed on an antenna or Tower.
(2) Signal lights shall not be permitted unless required by the FCC or FAA.
(3) All other uses not clearly necessary to the operation/maintenance of the antenna or tower and associated equipment are prohibited, unless expressly approved as a condition of the permit. Applications shall describe in detail all associated equipment to be maintained or stored on the site.
(4) Only unmanned facilities, including buildings are permitted and not more than one unmanned equipment shelter and/or storage building of a maximum of 400 square feet for each carrier may be permitted on a site provided the total area of such buildings and/or shelter contains no more than 1600 square feet of gross floor area and is not more than 12 feet in height.
(5) Equipment shelters and buildings shall be designed to be in harmony with the surrounding neighboring properties and with due consideration for the impact that the tower will have on these properties, i.e., buildings in residential districts must have characteristics such as roof lines, siding, fenestration, etc., that are compatible with residential structures in the immediate area as determined by the Commission. The Commission may impose conditions that foster a compatible design of the antenna tower with the site and the surrounding environment.
(6) Wireless telecommunication facilities shall be insured by the owner(s) of the poles, towers and antennas providers against damage to person or property. The owner(s) shall provide a Certificate of Insurance to the Commission on an annual basis in which the Town of Greenwich shall be an additionally named insured.
(7) An “As-Built” plan certified by a Connecticut licensed land surveyor/engineer.
(8) All utilities serving the Regulated Facility must be underground.

j. Fees: A schedule of fees for Towers and Personal Wireless Facilities permitting and renewal, any monitoring or emissions and inspection of structures, and any other fees shall be established by the Commission as provided by State Statutes or required to defray costs, and shall be amended from time-to-time as necessary.

k. Abandonment: Immediate notification of discontinuance of use shall be made to the Town. The following shall apply to the removal of abandoned towers and related appurtenances:
(1) A pole, tower, or transmitting facility not in use for more than one year shall be removed by the service facility owner or its agents. This removal shall be completed within 90

days after the one-year period. Upon removal, the site shall be restored to its previous appearance. All cabling, antennas and mounting must also be removed.

(2) The Commission may require the posting of a bond or other security to the satisfaction of the Town Comptroller to secure compliance with the approved installation of all antenna towers and antenna(s) and to ensure the timely and proper removal of said tower and/or antenna and its supporting base to a depth of not less than two feet below the grade. Upon removal, the site shall be restored to its previous appearance.

I. Severability: If a court of competent jurisdiction adjudges any part, sentence paragraph, section or clause of this Section unconstitutional the remainder of these regulations shall not be affected thereby.

Sec. 6-140.2 FENCES AND WALLS.

(a) Zoning approval shall be required for all walls, fences or combinations thereof that are solid or substantially obstruct light, air or ventilation and are over six feet six inches (6'6") in height. Height shall be determined by a measurement taken from the side having the lower existing grade. Existing grade shall mean the elevation of the ground adjacent to the proposed fence, or wall, or combination thereof prior to any regarding, fill, excavation or berming and concurrent with or subsequent to the erection of the fence or wall.

(b) Fences or walls or a combination thereof when located in the required yard may not have additional materials attached which would together exceed six feet six inches (6'6") in height.

(c) A fence post may exceed the maximum permitted fence height by up to six (6) inches.

(d) Building permits shall be required for any type of fencing constructed as an appurtenance to a sports court larger than 1,000 sq. ft. or any other recreational facility.

(e) Fences, and walls located ten (10) feet or less from a front or street side lot line may not exceed three (3) feet in height as measured from the existing grade within ten (10) feet on both sides of a driveway. No fence or wall or plantings may impede the minimum sight distance set forth in the Department of Public Works Roadway Design Manual. (7/19/2006)

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