

Design Guidelines for the Installation of Wireless Telecommunications Facilities in the City of Norfolk Right-of-Way

I. Definitions

- A. Small Cell Facility: a Wireless Facility that meets both of the following qualifications: (i) each antenna is located inside an enclosure of no more than six cubic feet in volume, or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an imaginary enclosure of no more than six cubic feet and (ii) all other wireless equipment associated with the facility has a cumulative volume of no more than 28 cubic feet, or such higher limit as is established by the Federal Communications Commission. The following types of associated equipment are not included in the calculation of equipment volume: electric meter, concealment, telecommunications demarcation boxes, back-up power systems, grounding equipment, power transfer switches, cut-off switches, and vertical cable runs for the connection of power and other services
- B. Utility Pole(s): a structure owned, operated, or owned and operated by a public utility, local government, or the Commonwealth that is designed specifically for and use to carry lines, cables, or wires for communications, cable television, electricity or lighting.
- C. Wireless Facility(ies): equipment at a fixed location that enables wireless communications between user equipment and a communications network, including (i) equipment associated with wireless services, such as private, broadcast, and public safety services, as well as unlicensed wireless services and fixed wireless services, such as microwave backhaul, and (ii) radio transceivers, antennas, coaxial, or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration.
- D. Wireless Services: (i) "personal wireless services" as defined in 47 U.S.C. § 332(c)(7)(C)(i); (ii) "personal wireless service facilities" as defined in 47 U.S.C. § 332(c)(7)(C)(ii), including commercial mobile services as defined in 47 U.S.C. § 332(d), provided to personal mobile communication devices through wireless facilities; and (iii) any other fixed or mobile wireless service, using licensed or unlicensed spectrum, provided using wireless facilities.
- E. Wireless Services Provider: a certificated provider of Wireless Services which has a franchise agreement with the City of Norfolk to install, maintain and operate Wireless Facilities in the public right-of-way.
- F. Wireless Support Structure: a freestanding structure, such as a monopole, tower, either guyed or self-supporting, or suitable existing structure or alternative structure designed to support or capable of supporting wireless facilities. "Wireless support structure" does not include any telephone or electrical utility pole or any tower used for the distribution or transmission of electrical service.

II. Siting of Wireless Facilities in the Right-of-Way

A. New Wireless Facilities shall be installed or co-located on appropriate existing Utility Poles and Wireless Support Structures whenever possible. Wireless Services Providers shall use the smallest and least visible antennas, equipment cabinets, and other facilities to accomplish the operator's coverage and service objectives.

B. Fiber and copper telecommunications facilities shall be placed within existing underground ducts or conduits where possible so long as those ducts, conduits, manholes, or other facilities have adequate volume or capacity that is available for the installing party's facilities. Nothing in these guidelines prohibits private agreements regarding compensation for use, repair, or maintenance of installed ducts or conduits.

C. Any installations that are proposed for local landmark or historic districts will require additional review.

III. Design Guidelines

A. General

- i. Colors and materials for Wireless Facilities shall be chosen to blend in with the surroundings. All visible exterior surfaces shall be constructed of non-reflective materials and painted or textured using colors to match or blend with the primary background.
- ii. The color, design, and landscaping of above-ground installations may be varied from these guidelines in response to the request of property or business owners so long as the Director of Public Works approves such changes. Wireless Services Providers shall take all reasonable steps to modify proposed plans to accommodate public concerns and shall describe such changes in the permit application filed with the City.
- iii. When facility lighting is needed for security or safety reasons it shall be designed to avoid glare and minimize illumination on adjacent properties.
- iv. No advertising or signage, except as required for public safety purposes or by the Federal Communications Commission ("FCC") shall be placed on any above-ground Wireless Facilities or equipment. Informational signage required by these guidelines may include an identifying logo.
- v. A Tree Permit is required for the installation of any Wireless Facilities located within the canopy of a street tree, or a protected tree on private property, or within a minimum of a 10-foot radius of the base of such a tree. Depending on site-specific criteria (e.g. location of tree, size and type of tree etc.), the City Forester may require a radius greater than 10 feet.
- vi. All Wireless Facilities shall be designed to be resistant to and minimize opportunities for unauthorized access, climbing, vandalism, graffiti, and other conditions that would result in hazardous conditions, visual blight, or attractive nuisances. The Director of Public Works may require the provision of warning signs, fencing, anti-climbing devices, or other techniques to prevent unauthorized access and vandalism when, because of their location and/or accessibility, Wireless Facilities have the potential to become an attractive nuisance.

- vii. At the time of modification or upgrade of Wireless Facilities, existing equipment shall, if technically possible and to the extent feasible, be replaced with equipment of equal or greater technical capacity and reduced size so as to reduce visual impacts.
- viii. Each Wireless Services Provider shall provide signage identifying the name and phone number of a party to contact in event of an emergency. The signage shall be attached to the equipment cabinet of any Utility Pole or Wireless Support Structure to which Wireless Facilities are attached. Dimensions shall not exceed 8 1/2 inches by 11 inches.
- ix. The exterior walls and roof covering of all aboveground equipment shelters and cabinets shall be constructed in accordance with the Virginia Uniform State Building Code. Openings in all above-ground equipment shelters and cabinets shall be protected against penetration by fire and windblown embers to the extent feasible.
- x. If the Wireless Services Provider is unable to meet the above Design Guidelines, a detailed request for a variance must be submitted as part of the permitting process for further review.

B. Utility Poles and Wireless Support Structures

- i. Wireless Facilities installed on existing Wireless Support Structures and Utility Poles shall not be larger, more obtrusive, or more readily visible than the existing wireless facilities and devices affixed to the structure or pole. Notwithstanding the foregoing sentence, this section shall not be construed to prohibit installation of Wireless Facilities in accordance with the provisions of these Design Guidelines on existing Wireless Support Structures or Utility Poles that do not contain existing Wireless Facilities and devices.
- ii. The height of new Utility Poles or new Wireless Support Structures, measured from grade to highest reach of equipment or antenna, shall not be more than ten (10) feet above the tallest existing Utility Pole located within a 500' radius of the proposed location of the new Utility Pole or new Wireless Support Structure, unless additional height is expressly granted by the Director of Public Works. Additional height shall only be granted where it is essential for proper functionality of Wireless Facilities.
- iii. A Small Cell Facility attached to the top of a Utility Pole or Wireless Support Structure shall not exceed the qualifications stated in the definition of Small Cell Facility provided in these Design Guidelines.
- iv. New Utility Poles and Wireless Support Structures shall match or be consistent with the materials, finish, and color of the adjacent Utility Poles or Wireless Support Structures, respectively, in the surrounding area. Steel poles are preferred so that all wiring can be internal to the pole. Any external equipment should match the color of the pole. If wooden poles must be used, all loose wires shall be wrapped and secured with a riser guard.

C. Equipment Enclosures

- i. Subject to applicable state and federal regulations, a maximum of 2 equipment enclosures and 1-meter box for each Wireless Services Provider may be attached to a Utility Pole or Wireless Support Structure, as follows:
 - ii.
 - a) A primary equipment enclosure installed on the same Utility Pole or Wireless Support Structure as the antenna enclosure(s), preferably facing the street or perpendicular to the street, shall be no larger than approximately 28 cubic feet in volume, except the applicant will undertake all reasonable efforts to provide the smallest enclosure reasonably possible that is compatible with current technology. An electric meter and a disconnect switch may be located outside of the primary equipment enclosure, and shall not be included in the calculation of equipment volume.
 - b) In lieu of a separate meter box, the Director of Public Works may allow a larger primary equipment enclosure if the applicant demonstrates that the enclosure will contain an electricity meter and disconnect switch.
 - c) A secondary equipment enclosure installed on a Utility Pole or Wireless Support Structure that is near the Utility Pole or Wireless Support Structure to be used for the antenna enclosure(s) and primary equipment enclosure, preferably perpendicular to the street, shall be as small as reasonably possible with current technology. If the Wireless Services Provider determines that the secondary equipment enclosure cannot be placed perpendicular to the street, then the enclosure may face the street.
 - d) The bracket supporting an equipment enclosure shall not extend more than the minimum necessary to support the equipment.

D. Supporting Elements

If a supporting element for any antenna enclosure such as a cross-arm or pole top extension is needed, such supporting element shall be no larger, longer, or bulkier than is necessary to comply with applicable law or such generally applicable written rules.

E. Ground Mounted Utility Boxes and Cabinets.

All Wireless Facility boxes and cabinets shall be installed in accordance with the Right-of-Way Excavation & Restoration Manual, specifically Attachment 1, "City of Norfolk Policy Pertaining to Certain Telecommunications and Cable Television Facilities."

F. State Law

If and to the extent that these Guidelines are or become inconsistent with requirements set forth in the Virginia Code, Virginia Code requirements shall prevail.

APPROVED: Richard Broad Date: 6/19/19
Director of Public Works