

SMALL WIRELESS FACILITY DESIGN GUIDELINES FOR PUBLIC RIGHT-OF-WAY (PROW) LOCATIONS

Section 1. PERMITTING PROCESS

Wireless Service Operators must comply with the following process when seeking to install wireless facilities in the public right-of-way (PROW):

- A. Master License. Apply for a Right-of-Way Use Agreement. A determination will be made within 30 days of application submittal. Approved wireless Service Operators will be offered a City of Corvallis Master License. Upon execution of the Master License Agreement, a wireless Service Operator may submit site license applications.
- B. Site Licenses. Under the Master License, the Licensee must obtain a Site License, and a Site license must be issued by the City for each location.
- C. Timely Processing. By reading thoroughly and following the Design Standard, approved Site Licenses will be issued within sixty (60) days.
- D. Field Investigation. We strongly suggest that site design and engineering include a field visit to avoid inaccuracies in a site application.
- E. Optional Pre-site application review. Pre-site application reviews by the City are optional, but recommended when a site proposal requires a variance from the Design Standard.
- F. Concealment Element Plan. For proposals that vary from the Design Standard, and concealment is best practice to mitigate the variation, applicant will file a concealment element plan.
- G. A Master License may not have any more than 20 pending Site Licenses under review at any given time.

Section 2. SMALL WIRELESS FACILITY DEFINITION

Facilities that may be granted licenses as a small wireless facility site shall meet the following criteria:

- A. The proposed facilities meet one of the following height parameters:
 - a. Are mounted on structures fifty feet (50') or less in height including their antennas as defined in 47 C.F.R. Section 1.1320(d), or
 - b. Are mounted on structures no more than 10 percent taller than other adjacent structures, or
 - c. Do not extend existing structures on which they are located to a height of more than fifty feet (50') or by more than 10 percent, whichever is greater.

- B. Each antenna associated with the deployment, excluding associated antenna facilities, is no more than 3 cubic feet in volume. The total volume of all antennas on a structure cannot exceed fifteen (15) cubic feet.
- C. All other facilities associated with the wireless site, including any pre-existing facilities, new wireless facilities associated with the antenna site and metering requirements of the electric service provider, is no more than twenty-eight (28) cubic feet in volume.
- D. The facilities do not result in human exposure to radio frequency radiation in excess of the applicable safety standards specified in the FCC's Rules and Regulations [47 CFR section 1.1307(b)].

Section 3. DESIGN STANDARD

- A. It is the City of Corvallis' goal to minimize new structures in the PROW. Site proposals that have the smallest possible footprint in the PROW are preferred. Any site plans proposed that do not follow the design standard shall include a reasoned explanation, and substantiated by documentation if appropriate, for the variance. In cases where concealment is best practice, a concealment element plan shall be included. Such considerations should include existing structures or landscaping that partially (or fully) screen the site. Such proposals will be given due consideration, but may not be approved. Proposals that meet the design standard shall be granted.
- B. Where the majority of electric utilities, cable and/or telecommunications facilities are located on existing poles, proposed small wireless facilities shall be mounted on existing poles or replacement poles set in place. Arterial and collector streets shall generally be encouraged over local and residential streets. Site proposals for alleys are discouraged. Small wireless facility sites that are proposed in single family residential areas, shall require public notification and comment as part of the review process.
- C. Proposed antenna and related facilities shall meet the requirements of:
 - a. the pole owner requirements;
 - b. National Electric Safety Code (NESC) and National Electric Code (NEC) standards, and;
 - c. City Land Use and Development Code, local, state and federal law.

Section 4. SITE SELECTION

- A. No facilities shall be installed in the PROW in a manner that obstructs, impedes or hinders:

- a. vehicle, bicycle or pedestrian traffic;
 - b. the legal use of the PROW by other users, or;
 - c. any operations of the City's infrastructure or systems, including but not limited to street light equipment, traffic signal equipment, smart city equipment, water and wastewater systems.
- B. No facilities shall be installed in the PROW in a manner that violates or conflicts with any laws, including but not limited to the City's code, ordinance or standards.
- C. The location of facilities including pole mounted facilities, cabinets, street furniture, replacement poles and/or any new poles:
- a. shall comply with the Americans with Disabilities Act (ADA), City construction standards, and state and federal regulations in order to provide a clear and safe passage within the PROW;
 - b. shall be a minimum distance of five hundred feet (500') from any existing or approved proposed Site for the same Licensee and two hundred foot (200') spacing is required between any 2 existing or proposed sites between any licensees.
- D. Removal of trees is not allowed. Pruning of trees require permission from the City Urban Forester.
- E. Electrical service to the site shall be provided by the franchised power company. Small wireless facilities shall not receive power through any third party's electric supply. Electrical permits are required for the installation of any electrical service.

Section 5. POLE SELECTION

Small wireless antennas and related facilities may be attached to existing or replacement utility poles or street light poles if the antennas and related facilities meet the following requirements:

- A. For existing poles:
- a. All installations of small wireless facilities shall have permission from the pole/structure owner to install facilities on such structure;
 - b. Each utility pole shall contain no more than one licensee's small wireless facility;
 - c. The small wireless facility shall, to the maximum extent feasible, match or complement the material or color of the pole and/or existing utility equipment, and;
 - d. Shall be non-reflective.
- B. In addition, replacement poles:
- a. Shall be located as close as possible to the existing pole, and the replaced pole shall be removed;

- b. May be of an increased height of no more than the minimal additional height needed to allow sufficient space for the required clearance from electrical utility wires, street lighting or other necessary existing equipment when required to accommodate antenna at the top or at the communications area of a pole;
- c. The City may approve minor deviations of the pole diameter when needed to provide adequate pole strength for the addition of the proposed pole mounted facilities;
- d. The City may approve up to a fifty percent (50%) increase of the pole diameter or thirty inches (30"), whichever is greater, when housing facilities within the pole base, and;
- e. If a pole must be replaced to accommodate a small wireless facility, concealment of all site related facilities shall be considered, when technically feasible.

Section 6. NEW POLES

The installation of a new pole for the purpose of locating small wireless facilities may be permitted only when the applicant establishes that:

- A. The small cell facility cannot be located on a site outside of the public right-of-way such as a public park, public property, or in or on a building whether by roof or wall mount or separate structure;
- B. The small wireless facility cannot be located on an existing or replacement pole within the PROW, and:
- C. A new, free standing, antenna proposal includes a concealment element plan that is approved by the City. The new pole shall:
 - a. be designed to internally incorporate all necessary associated facilities, wire and conduit;
 - b. match or be compatible with the design and color or material of the adjacent poles or the current city standard(s) for non-wood street light poles;
 - c. be no more than ten percent (10%) taller than other adjacent structures and are no more than forty feet (40') in height, and;
 - d. in such cases that Sections 6 C(a) and C(b) conflict, Section 6 C(a) shall prevail.

New poles and accessory facilities shall meet NESC and NEC safety requirements. New installations shall comply with OAR 437-002-0047 and 437-002-2316.

Section 7. CITY OWNED STREET AND TRAFFIC LIGHTS

Attachments to City owned structures shall have the same standard as a utility owned pole when other utilities are attached. If the structure is solely occupied by City facilities, the City shall determine whether the proposed facilities shall be attached to the existing pole or the pole will be replaced. The design of a public light fixture with an antenna site shall look substantially the same as the existing standard. Wherever compatible with the pole design and technologically feasible, all facilities and cabling shall be internal to the replacement street lighting standard.

- A. Replacement street light poles shall mount lighting fixture at the same height as the existing fixture, to the extent technically feasible.
- B. Replacement street light poles, including the antennas, shall be not more than thirty-five feet (35') or ten percent (10%) taller than the original pole, whichever is greater. If additional height is necessary to avoid obstruction or interference by the luminaire and to allow appropriate concealment, a reasoned explanation is required for a variance.
- C. Siting wireless facilities on traffic lights is discouraged, and will be subject to the same qualifying requirements as New Poles.
- D. Attachments to historical or ornamental poles is not allowed.

Section 8. ANTENNAS

- A. Small wireless facility antenna(s) shall, to the full extent permitted under the NESC and the pole owner's requirements, be mounted:
 - a. The minimum distance required to:
 - i. prevent material interference
 - ii. comply with third-party pole owner requirements
 - b. In a manner that shall not extend outside an imaginary space that increases the pole radius by twenty eight inches (28").
- B. Antenna size.
 - a. A single antenna is no more than 3 cubic feet in volume.
 - b. Multiple antennas associated with a single site total no more than fifteen (15) cubic feet.
- C. Canisters attached to the top of a pole shall not exceed the diameter of the pole, unless technically required and then shall not be more than fifty percent (50%) greater than the diameter of the pole or sixteen inches (16") in diameter, whichever is greater.
- D. Skirts or shrouds shall be utilized, to the extent technically feasible, on the sides and bottoms of antennas in order to conceal mounting hardware, create a cleaner appearance, and minimize the visual impact of the antennas.

- E. Exposed cabling and wiring shall be limited to within 6" of the antenna(s), to the extent technically feasible. All other pole mounted wires and cables shall be installed in conduit.
- F. Antennas shall be at least thirty feet (30') from any structures on private property.
- G. Antenna shall not:
 - a. significantly block light, air or views from adjacent windows.
 - b. impair/access to private walkways, doors or windows.
- H. To the extent technically feasible, panel antennas shall be mounted in a manner to promote the appearance of a single unit.
- I. Strand mounted antennas:
 - a. are limited to one (1) per span;
 - b. shall be placed as close as possible to the nearest pole and in no event no more than five feet (5') of the pole;
 - c. shall not be located in or above any part of the PROW subject to vehicular traffic.
 - d. shall be installed with the minimum excess exterior cabling or wires.

Section 9. POLE MOUNTED FACILITIES

- A. Pole mounted facilities shall, to the full extent permitted under the NESC and the pole owner's requirements, be mounted:
 - a. no more than six inches (6") from the pole, measured from the surface of the pole to the inside edge of the facilities;
 - b. in a manner that shall not extend outside an imaginary space that increases the pole radius by eighteen inches (18").
- B. The base of all cabinets or facilities attached to poles shall be installed at least nine and one half (9.5) feet above the ground, and if a cabinet attachment is oriented toward the street and/or bicycle facilities, for the safety and protection of the public and vehicular traffic, the base of the attachment shall be installed no less than fifteen and one half (15.5) feet above the bicycle facility and/or street.
- C. To the extent technically feasible, facilities shall be oriented away from residential windows, doorways and entrances.
- D. Installation shall be as aesthetically as is reasonably possible in a workmanship-like fashion so as to not interfere with climbing and maintenance of the pole by all parties.

Section 10. GROUND MOUNTED FACILITIES

- A. Any site proposal that includes new above ground facilities in the PROW shall include documentation establishing that the facilities cannot be mounted on or in existing structures. The location of vault, cabinets, street furniture, replacement poles and/or any new poles within the PROW:
 - a. Shall comply with City standards;
 - b. Shall be ADA Compliant;
 - c. Shall be a minimum of 25' from any PROW intersection, and;
 - d. Shall be a minimum of 15' from any driveway.

- B. The preferred location shall be:
 - a. within 3' of the point where a shared property line intersects the PROW, and;
 - b. within 1' of the edge of PROW

- C. Whenever feasible, facilities that cannot be pole-mounted shall be undergrounded in a vault meeting the City's construction standards or incorporated into street furniture.

- D. Site Licenses cannot be issued if location of ground facilities will interfere with vehicle, bicycle or pedestrian traffic line of sight. In circumstances where existing ground facilities is within one hundred (100) feet line of sight, the City may require the collocation of the proposed ground facilities. The City may deny a request for a proposed location if the proposed small wireless facility's ground facilities increases the footprint of all existing and approved proposed utility ground facilities to a footprint of greater than twenty (20) square feet within a one hundred (100) foot line of sight distance of the proposed site.

- E. Ground mounted facilities shall comply with the following:
 - a. The volume shall be no more than twenty-eight (28) cubic feet less the volume of the pole mounted facilities;
 - b. All ground facilities enclosed in a single cabinet;
 - c. The facilities cabinet for small wireless facilities shall be the smallest amount of cabinet enclosure necessary to enclose the facilities.
 - d. Disconnect switches may be located outside of the primary facilities cabinet.

Section 11. NEW WIRE, CABLE OR FIBER LINES

- A. Electrical and Communications Feeds and Inter-connection wires shall:
 - a. be placed underground in a continuous conduit (schedule 40 or greater) system at a minimum depth of 36";
 - b. comply with city standards for utilities in the PROW.

- B. overhead wire, cable or fiber line installation, for the purpose of locating small cell facilities may be permitted only when the applicant establishes that:
 - a. cannot be located underground because of existing utility conflicts;

- b. point of interconnection is within three hundred (300) feet, and;
- c. existing communications facilities are predominantly overhead.

Section 12. SIGNAGE

A sign shall be placed on the pole in a location that can be read from street level. The sign shall be of the smallest size needed to comply with pole owner requirements and State and federal law. It shall display the following information:

- a. name of the operator of the site;
- b. site identification number;
- c. an emergency phone number, and;
- d. a Radio Frequency Advisory.

The pole owner may require additional RF signage in accordance with applicable federal law and any relevant pole owner requirements. No other signage is allowed.

Section 13. ILLUMINATION

Small wireless facilities shall not be illuminated, except as required by municipal, state or federal authority. Facilities shall not have static or flashing light(s) that are visible when the enclosures are closed. This provision does not preclude deployment on a street light.

Section 14. GENERATORS

Generators are not permitted.

Section 15. DOCUMENTATION

Proposals that include a request for a variance from the design standard shall provide a reasoned explanation.

Section 16. FEDERAL REGULATORY REQUIREMENTS

These provisions shall be interpreted and applied in order to comply with the provisions of federal law. By way of illustration and not limitation, any small wireless facility which has been certified

as compliant with all FCC and other government regulations regarding the human exposure to radio frequency emissions will not be denied on the basis of radio frequency (RF) radiation concerns.

Section 17. CONFLICTING DESIGN REQUIREMENTS

In circumstances where the design requirements of the pole owner and the city are different, the more stringent of the two shall prevail. City design requirements that are in direct conflict with the pole owner's requirement may be waived.

Section 18. THIRD PARTY REVIEW

The City reserves the right to have any non-conforming site applications reviewed for structural or technical issues at the Licensee's expense.

Section 19. MAINTENANCE

Any work required after the initial installation, inspection and approval shall be subject to the City permitting requirements for work proposed in the PROW.

Section 20. DESIGN VARIANCE

1. An applicant may obtain a variance from the design standards if compliance with the standard:
 - a. is not technically feasible;
 - b. impedes the effective operation of the small wireless facility or impairs a desired network objective;
 - c. materially inhibits or limits the provision of wireless service.
2. Requests for variance must be narrowly tailored to minimize variance from the requirements of this design standards.
3. The City may also allow for a variation from these standards when it finds the applicant's proposed design provides superior aesthetic value when compared to strict compliance with these standards.
4. The small wireless facility design approved under this Section 20(A) must meet the conditions of a small wireless facility, as defined in Section 2.

5. City will approve all requests for variance from the design standard to the minimum extent required to address the applicant's needs or facilitate a superior design.