



**CITY OF REDMOND**  
Engineering Department

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Received Date/By:	Permit #
Reviewed By:	Approval Date:
Fees:	Date Paid:

## SMALL WIRELESS FACILITY (SWF) APPLICATION

### Contact Information

Applicant: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_ Email: \_\_\_\_\_

Authorized Representative: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_ Email: \_\_\_\_\_

### Facility Site Information

General Vicinity of Proposed SWFs: \_\_\_\_\_

Total Number of SWFs proposed: \_\_\_\_\_

Number of Pole(s) Proposed (if applicable): \_\_\_\_\_

*Please provide GIS coordinates for all proposed SWFs as part of the Site Plan Submittal Requirements. Additionally, if a SWF is proposed outside of a ROW on real property, provide applicable property information; address, legal description (TL) and zoning.*

### Fees

- 1) \$500 for up to five (5) SWF in the same application.
- 2) \$100 per additional SWF beyond five (5) in the same application.
- 3) \$1,000 for installation of non-recurring new pole to support SWF in the right-of-way.
- 4) \$750 per extension (1-year).
- 5) \$125 or Actual Cost (whichever is greater), for expedited and/or third-party professional review.

**To the best of my knowledge, all statements and information contained in this application and attached exhibits are true and correct. I authorize City of Redmond staff to enter the property for inspection of the site in conjunction with this land use application.**

Authorized Representative: \_\_\_\_\_ Date: \_\_\_\_\_

\*\* Note – authorized representative’s signature required, may not be the same entity as tower owner.

## SUBMITTAL REQUIREMENTS

All plans must be submitted electronically. Please email this application and all submittal requirements to [siteplan@ci.redmond.or.us](mailto:siteplan@ci.redmond.or.us). Once the application is received by the City and entered into our system, you will receive an email back with a permit number for the [ePermitting](#) website. Prior to final approval application fees may be paid in person at the Community Development Counter on the second floor of City Hall, located at 411 SW 9<sup>th</sup> St, or paid online using the [ePermitting system](#).

Please include the following with your application:

- **Narrative.** The application shall include a written narrative that describes in detail all the equipment and components to be included in the facility, e.g., antenna(s) and arrays, equipment cabinet(s), back-up generator(s), air conditioning unit(s), lighting, fencing, etc. The following information shall also be provided:
  - **Height.** Provide an engineer's diagram showing the height of the facility and all its visible components. Carriers must provide evidence that establishes that the proposed facilities are designed to the minimum height required from a technological standpoint for the proposed site to meet the carrier's coverage objectives.
  - **Construction.** Describe the anticipated construction techniques and timeframe for construction or installation of the facilities. This narrative shall include all temporary staging and the type of vehicles and equipment to be used.
- **Geographic Service Area.** The applicant shall identify the geographic service area for the proposed facility, including a map showing all the applicant's existing sites in the local service network associated with the gap the facility is meant to close. The applicant shall describe how this service area fits into and is necessary for the service provider's service network.
- **Site Plan.** The applicant shall provide a site plan including the following information (as applicable):
  - A vicinity map of the proposed site including latitude/longitude, right-of-way and adjacent tax lots;
  - Existing site features, including trees, if any, which are proposed to be retained or removed;
  - The location and dimensions of all existing and proposed structures, utilities, pavement and other improvements on the site and adjacent to the site for 150 feet. Setback dimensions for all existing and proposed buildings and structures shall be provided on the site plan;
  - The location and dimensions of all vehicle parking and maneuvering areas, including entrances and exits to the site, and service areas.
  - Include City Engineer approval signature block.
- **Visual Impact.** The applicant shall provide a visual impact analysis showing the maximum silhouette, viewshed analysis, color and finish palette, and proposed screening for all components of the facility. The analysis shall include photo simulations and other information as necessary to determine the visual impact of the facility as seen from multiple directions. The applicant shall include a map showing where the photos were taken.

- **Maintenance.** Describe the anticipated maintenance and monitoring program for the antennas, back-up equipment, and landscaping.
- **Landscape Plan.** Plan showing all proposed landscaping, screening and proposed irrigation with a discussion of how the chosen materials at maturity will screen the site.
- **Parking.** Provide a site plan showing the designated parking area for maintenance vehicles and equipment.
- **Franchise Agreement with City and Owner of Pole.** Final approval will require the Carrier to enter into a franchise agreement with the City as well as the owner of the pole.
- **FCC License.** Provide a copy of the FCC license and/or construction permit, including documentation showing that the applicant is in compliance with all FCC RF emissions safety standards [FCC Rules and Regulations, 47 CFR section 1.1307(b)].
- **Lighting and Marking.** Any proposed lighting and marking of the facility, including any required by the FAA.
- **Structural Analysis.** Include a structural analysis report stamped by a civil engineer registered in the state of Oregon stating whether the Pole and Pole foundation have structural capacity to support the facilities proposed to be placed on it. If existing foundations are to be used the structural report shall have the dimensions of the existing foundation on the analysis. New foundations shall be identified in the plans and structural report as a new foundation. If a new pole is required due to a structural report or existing pole is damaged the City shall approve new pole proposed by Carrier.
- **Traffic Control.** A traffic control plan will be required to show how traffic will be managed during construction/installation.



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# **Small Wireless Facility Design Standards**

**July 2019**

Continuously revised from this day forward.

## **Small Wireless Facility Design Standards**

The following design standards apply to requests to locate a Small Wireless Facility (SWF) in a City of Redmond public right-of-way (ROW). SWF's include small cell facilities, microcells, and small cell networks. The intent of these design standards is to allow flexibility to the applicant pursuant of approval through a deviation request subject to Section I. In addition, the requirements of the City of Redmond Code, Chapter 3, Sections 3.800 through 3.830 apply.

### **A. Definitions.**

Facilities that may be considered an SWF site shall meet the following definition:

1. The proposed facilities meet one of the following height parameters:
  - a. are mounted on structures 50 feet 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 50 feet or by more than 10 percent, whichever is greater.
2. Each antenna or antenna enclosure shall not exceed three cubic feet in volume, and the total volume of multiple antennas on one structure shall not exceed fifteen (15) cubic feet unless additional antenna volume is requested pursuant to Section I.
3. The total volume of installed equipment external to the pole (including, but not limited to cabinets, vaults, boxes) shall not exceed twenty-one (21) cubic feet. This maximum applies to all equipment installed at the time of original application and includes any equipment to be installed at a future date. Antennas and antenna enclosures are excluded.

### **B. General Requirements.**

1. SWF installations shall conform to the City of Redmond Public Works Standard Specifications.
2. Facilities do not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in the FCC's Rules and Regulations [47 CFR section 1.1307(b)].
3. Applications and Permitting Process - Permissions Required. Except as otherwise provided in this Section, no person shall place any SWF in the ROW. A wireless provider shall comply with the following permitting process when seeking to install a SWF in the public ROW:

- a. Submit a Small Wireless Facility Application and obtain permit from the City Engineering Department.
- b. If necessary, obtain a Street Cut Permit (Public Works Excavation Permit) from the City Public Works Department (i.e., pavement breaking.)
- c. Fees shall be paid before the City Engineer can approve the application. A Notice to Proceed will be issued pending receipt of the fees and final application approval.
- d. Execute a signed Franchise Agreement through the City's Finance and Accounting Department.
- e. Submit pole owner letter of approval to City Engineering, if applicable.

#### 4. Location Guidelines.

The following are guidelines for siting individual SWF's:

- a. Every effort should be made to install equipment in vaults underground or concealed as provided by the referenced design guidelines above.
- b. Power connections to freestanding facilities shall be buried underground in vaults unless otherwise approved.
- c. All supporting equipment and connections to telecom facilities shall be installed in vaults underground unless adequately shielded per the design guidelines or as approved otherwise.
- d. The separation between Wireless Providers installed SWF's shall be a minimum of two-hundred fifty (250) feet to minimize impacts to aesthetics and interaction between Wireless Providers.
- e. New facilities linked together via fiber optics or other telecommunications infrastructure (other than wireless) shall be installed underground (connecting cables and power) unless they are co-located on existing power and telecom facilities. A Public Works Excavation Permit is required.
- f. Provide intersection clear sight distance per the latest edition of AASHTO Geometric Design of Highway and Streets.

5. Ground-mounted equipment in the ROW is discouraged unless the applicant can demonstrate that pole-mounted equipment is not technically feasible, or the pole owner requires placement of equipment on the ground (such as an electric meter). If ground-mounted equipment is necessary, then the applicant shall conceal the equipment in a cabinet, in street furniture or with landscaping.
6. Replacement poles and new poles shall comply with the Americans with Disabilities Act (ADA), city construction and sidewalk clearance standards, and city, state and federal laws and regulations to provide a clear and safe passage within the ROW. Further, the location of any replacement or new pole must comply with applicable traffic requirements, not interfere with utility or safety fixtures (e.g., fire hydrants, traffic control devices), and not adversely affect public health, safety or welfare.
7. Replacement poles shall be located as near as feasible to the existing pole. The abandoned pole must be removed within 15 days.
8. Any replacement pole shall substantially conform to the material and design of the existing pole or adjacent poles located within the contiguous ROW unless a different design is requested pursuant to Section I.
9. No advertising, branding, or other signage is allowed unless approved by the City Engineer as a concealment technique or as follows:
  - a. Safety signage as required by applicable laws and regulations; and,
  - b. Identifying information and 24-hour emergency telephone number on wireless equipment in a visible area. Signage shall have a clear and unobstructed distance of seven (7) feet.
10. Antennas and antenna equipment shall not be illuminated except as required by municipal, federal or state authority, provided this shall not preclude deployment on a street light.

**C. SWF's Attached to Wooden Poles and Non-Wooden Poles with Overhead Lines.**

SWF located on wooden utility poles and non-wooden utility poles with overhead lines shall conform to the following design criteria unless a deviation is requested pursuant to Section I:

1. Proposed antenna and related equipment shall meet:
  - a. The FCC definition of SWF and antenna;
  - a. The pole owner requirements; and
  - b. National Electric Safety Code (NESC) and the National Electric Code (NEC) Safety signage as required by applicable laws and regulations; and,

2. The pole at the proposed location may be replaced with a taller pole or extended for the purpose of accommodating an SWF; provided that the replacement or extended pole does not exceed 50 feet in height or 10 percent taller than adjacent poles, whichever is greater. The replacement or extended pole height may be increased if required by the pole owner, and such height increase is the minimum necessary to provide sufficient separation and/or clearance from electrical and wireline facilities. Such replacement poles may either match the approximate color and materials of the replaced pole or shall be the standard new pole used by the pole owner in the city.
3. To the extent technically feasible, antennas, equipment enclosures, and all ancillary equipment, boxes, and conduit shall match the approximate material and design of the surface of the pole or existing equipment upon which they are attached, or adjacent poles located within the contiguous ROW.
4. Antennas which are mounted on poles shall be installed as close to the pole as technically feasible from the surface of the utility pole. For clarity, an additional distance is allowed if needed for pole owner requirements or effective operation of the SWF.
5. No antenna shall extend more than 20 inches horizontally past the outermost mounting point unless additional antenna space is requested pursuant to Section I.
6. Antenna equipment, including but not limited to ancillary equipment, radios, cables, associated shrouding, disconnect boxes, meters, microwaves, and conduit, which is mounted on poles shall be installed as close to the pole as technically feasible and allowed by the pole owner.
7. Antenna equipment for SWF's must be attached to the pole unless otherwise required by the pole owner or permitted to be ground-mounted [pursuant to subsection (B)(7) above]. The equipment must be placed in an enclosure reasonably related in size to the intended purpose of the facility and reasonable expansion for future frequencies and or technologies. The applicant is encouraged to place the equipment enclosures(s) behind decorations, banners, or signs that may be on the pole.
8. Conduits and cabinets shall cover all cables and wiring to the extent that it is technically feasible if allowed by pole owner. The number of conduits shall be minimized to the number technically necessary to accommodate the SWF.

**D. SWF's Attached to Non-Wooden Light Poles and Non-Wooden Utility Poles without Overhead Utility Lines.**

1. SWF's attached to existing or replacement non-wooden light poles and non-wooden utility poles without overhead lines shall conform to the following design criteria unless a deviation is requested pursuant to Section I:
  - a. **External Equipment.** The antennas and associated equipment enclosures must be camouflaged to appear as an integral part of the pole or be mounted as close to the pole as feasible and must be reasonably related in size to the intended purpose of



the facility and reasonable expansion for future frequencies and/or technologies, not to exceed the volumetric requirements described in Section I. If the equipment enclosure(s) is mounted on the exterior of the pole, the applicant is encouraged to place the equipment enclosure(s) behind any decorations, banners or signs that may be on the pole. Conduit and fiber must be fully concealed within the pole.

- b. **Concealed Equipment.** All equipment (excluding disconnect switches), conduit and fiber must be fully concealed within the pole. The antennas must be camouflaged to appear as an integral part of the pole or be mounted as close to the pole as feasible.
2. Any replacement pole shall substantially conform to the material and design of the existing pole or adjacent poles located within the contiguous ROW unless a different design is requested pursuant to Section I.
3. The height of any replacement pole may not extend more than 10 feet above the height of the existing pole unless such further height increase is required in writing by the pole owner.

#### E. **New Poles.**

SWF's may be attached to new poles that are not replacement poles under sections C or D, installed by the wireless provider, subject to the following criteria:

1. Antennas, antenna equipment and associated equipment enclosures (excluding disconnect switches), conduit, and fiber shall be fully concealed within the structure. If such concealment is not technically feasible, or is incompatible with the pole design, then the antennas and associated equipment enclosures must be camouflaged to appear as an integral part of the structure or mounted as close to the pole as feasible, and must be reasonably related in size to the intended purpose of the facility and reasonable expansion for future frequencies and/or technologies, not to exceed the volumetric requirements in Section A.
2. To the extent technically feasible, all new poles and pole-mounted antennas and equipment shall substantially conform to the material and design of adjacent poles located within the contiguous ROW unless a different design is requested pursuant to Section I.
3. New poles shall be no more than forty (40) feet in height unless additional height is requested pursuant to Section I.
4. The city prefers that wireless providers install SWF's on existing or replacement poles instead of installing new poles, unless the wireless provider can document that installation on an existing or replacement pole is not technically feasible or otherwise not possible (due to a lack of owner authorization, safety considerations, or other reasons acceptable to the City Engineer).

**F. Downtown Design Overlay Zone**

SWF's or poles to support collocation of SWF's located in City's Downtown Design Overlay Zone must be designed to have a similar appearance, including material and design elements, if technically feasible, of other poles in the rights-of-way within 500 feet of the proposed installation. Any such design or concealment measures may not be considered part of the SWF for the purpose of the size restrictions in the definition of SWF.

**G. Preservation of Historic Resources**

SWF's or poles to support collocation of SWF's located in Historic Districts and near a Landmark shall be designed to have a similar appearance, including material and design elements, if technically feasible. Any such design or concealment measures may not be considered part of the SWF for the purpose of the size restrictions in the definition of SWF.

**H. Strand Mounted Equipment.** Strand mounted SWF's are permitted, subject to the following criteria:

1. Each strand mounted antenna shall not exceed 3 cubic feet in volume, unless a deviation is requested pursuant to Section H.
2. Only 2 strand mounted antennas are permitted between any two existing poles.
3. Strand mounted devices shall be placed as close as possible to the nearest pole and in no event more than five feet from the pole unless a greater distance is required by the pole owner.
4. No strand mounted device will be located in or above the portion of the roadway open to vehicular traffic.
5. Strand mounted devices must be installed with the minimum excess exterior cabling or wires (other than original strand) to meet the technological needs of the facility.

**I. Deviation from Design Standards.**

1. An applicant may obtain a deviation from these design standards if compliance with the standard: (a) is not technically feasible; (b) impedes the effective operation of the SWF; (c) impairs a desired network performance objective, or (d) otherwise materially inhibits or limits the provision of wireless service. The city may also provide a deviation from these standards when it finds the applicant's proposed design provides equivalent or superior aesthetic value when compared to strict compliance with these standards.
2. Requests for deviation must be narrowly tailored to minimize deviation from the requirements of these design standards.
3. The SWF design approved under this Section must meet the conditions of *47 CFR Sec. 1.6002(l)*...
4. City Engineer will review and may approve a request for deviation to the minimum extent required to address the applicant's needs or facilitate a superior design.