Outdoor Wi-Fi Access Point Installation Guidelines

for Member-Placed Structures SOP

November 2025

To help ensure safe and effective installation of outdoor Wi-Fi access points, members who plan to place a post, pole, or similar structure for this purpose must follow the guidelines below.

1. Conduit Requirements

- Install a conduit from the structure (pole/post) to the exterior wall of the building housing the ONT/router.
- Conduit must be PVC Schedule 40, 1 inch or larger to allow proper installation of Cat6 Ethernet cable.
- Bury conduit at a minimum depth of 18 inches below ground surface.
- Avoid sharp bends; must use sweeping 90° elbows when transitioning from underground to above grade.
- Include a pull string accessible from both ends.
- Conduit must be securely strapped to the permanent structure at both ends.
- Conduit should run to the top of the post/pole, also conduit should stub up at least 18 inches above grade at the structure housing the ONT/router.

2. Cable Length Limit

- Total Cat6 Ethernet cable length from ONT/router to Wi-Fi access point must not exceed 300 feet.
- Recommended: Install the pole/post within 150 feet of the building to stay within cable limits.
- Plan the location of the pole/post accordingly.

3. Height and Accessibility

- Post must be at least 8 feet above ground level.
- If mounting higher than 8 feet, ensure the location is accessible by a bucket truck for maintenance.
- Avoid areas blocked by fences, trees, or steep terrain.

4. Pole/Post Requirements

- Material Options: Pressure-treated wood (minimum 4x4) or galvanized steel pipe (minimum 2-inch diameter).
- Foundation: Set post 8 to 10 feet tall at a minimum of 24" deep. For post 12 feet or taller, set post a minimum of 36" or at 10% of post height, plus 24 inches(Be sure post 12 feet and taller are accessible by bucket truck)
- Use concrete footing for stability; allow proper curing.
- Post must be plumb and level.

Need Help or Have Questions?

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