

What is a small cell?

Additional information about small cells and how they differ from other wireless installations

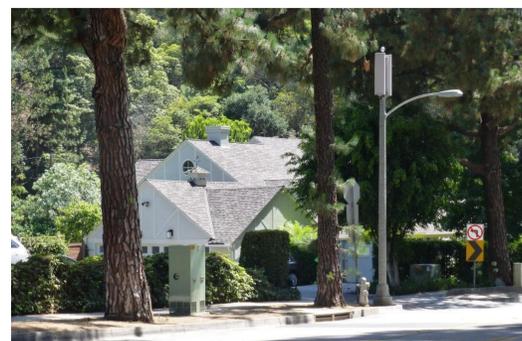
Small Cell Overview

- The new FCC rules apply to **“small wireless facilities”**
- These facilities are mounted on structures that are:
 - No more than 50 feet tall including the antenna, or
 - No more than 10 percent taller than neighboring structures



Small Cell Antennas and Equipment

- Antennas for small wireless facilities can be up to **3 cubic feet** in volume
- Multiple antennas are allowed on the same “small cell” pole
- Supporting wireless equipment, such as power cabinets, can be up to **28 cubic feet** in volume



This small cell deployment features antennas that are under 3 cubic feet. Supporting equipment is housed at ground level in a 22½ cubic foot cabinet

Common Mounting Locations

- Because of their size, small wireless facilities offer greater flexibility in terms of where they can be installed
- Small cells can be mounted on a wide range of locations, including:
 - Utility poles (telephone, electric, etc.)
 - Street lights
 - Road signs
 - Smaller wood or metal “monopoles”
 - On the top or side of buildings (less popular because it can limit the direction that a signal can travel)



Understanding Macrosites

- Macrosites or “macrocells” are wireless installations that are much larger than small cells
- They are typically located much higher in the air and provide coverage to a larger area
- As a result, they usually take up more space than small cells
- Tonight’s conversation focuses on small cells, not macrosites

Common Macrosite Tower Types

- **Monopole Towers**
 - Constructed from a single metal tube, uses a smaller footprint, cables may be concealed inside the pole
 - Common Height: 50-175 ft.
- **Guyed Towers**
 - A thinner tower stabilized by “guy line” wires, typically requires multiple acres of land, may allow animals to graze underneath if located on farmland
 - Common Height: 250-500 ft.
- **Lattice Towers**
 - A free-standing tower self-supported by a lattice structure, often most affordable, but require a sizeable foundation
 - Common Height: 150-250 ft.

