

# Wireless Communication

## Facility:

"Wireless communication facility" means the antennas, nodes, control boxes, towers, poles, conduits, ducts, pedestals, electronics and other related equipment used for the purpose of transmitting, receiving, distributing, providing, or accommodating wireless communications services.



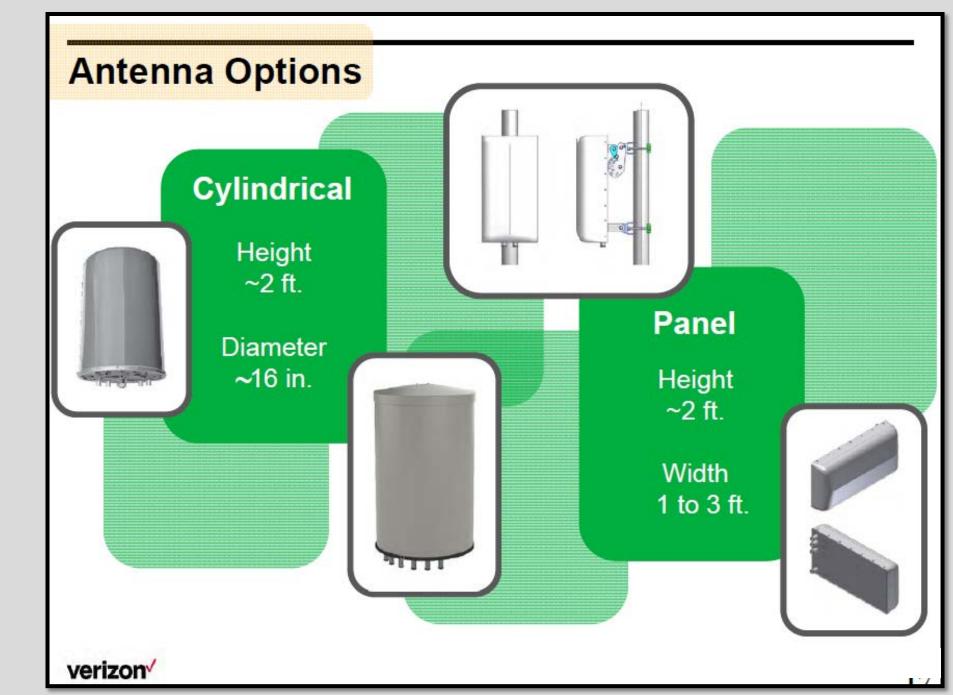


Image Source: Kitsap County Planning Commission work study presentation December 18, 2018

### **Antenna**

#### Macro Cell

- ~ 6 -8 feet in height
- 6 12 per pole
- Install height of 80 to
   200 feet

### Small Cell

- ~ 2 feet in height
- 1-3 per pole
- Install height of 20 to 40 feet



Image Source: <a href="https://www.slideshare.net/omarmasry/example-wireless-facilities">https://www.slideshare.net/omarmasry/example-wireless-facilities</a>

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Image Source: <a href="https://www.srcity.org/">https://www.srcity.org/</a>

## Related Equipment

#### Macro Cell

 2 – 4 large cabinets on ground, roof, or in an equipment room

### Small Cell

No ground cabinets



Image Source: <a href="http://concealfab.com/products/radio-shrouds-cabinets/">http://concealfab.com/products/radio-shrouds-cabinets/</a>

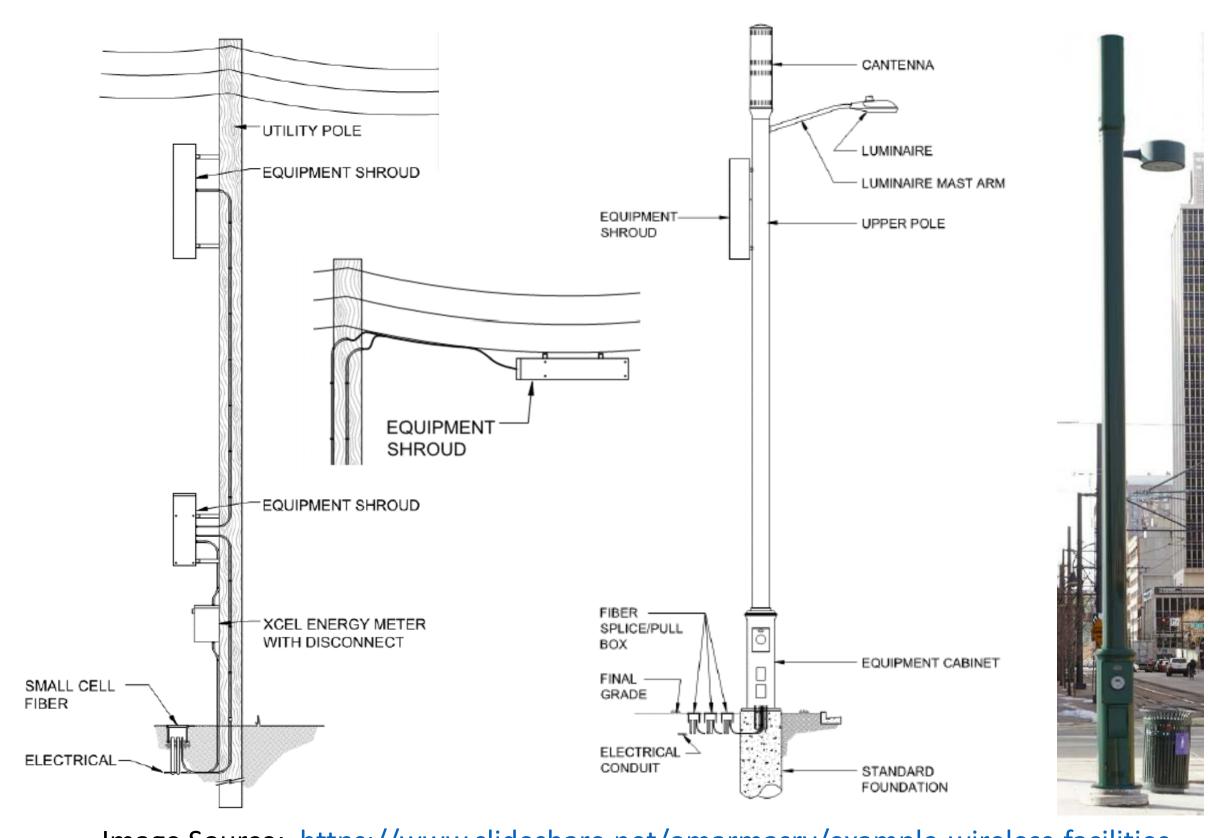


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### Shrouding

# Tower-Based Facility:

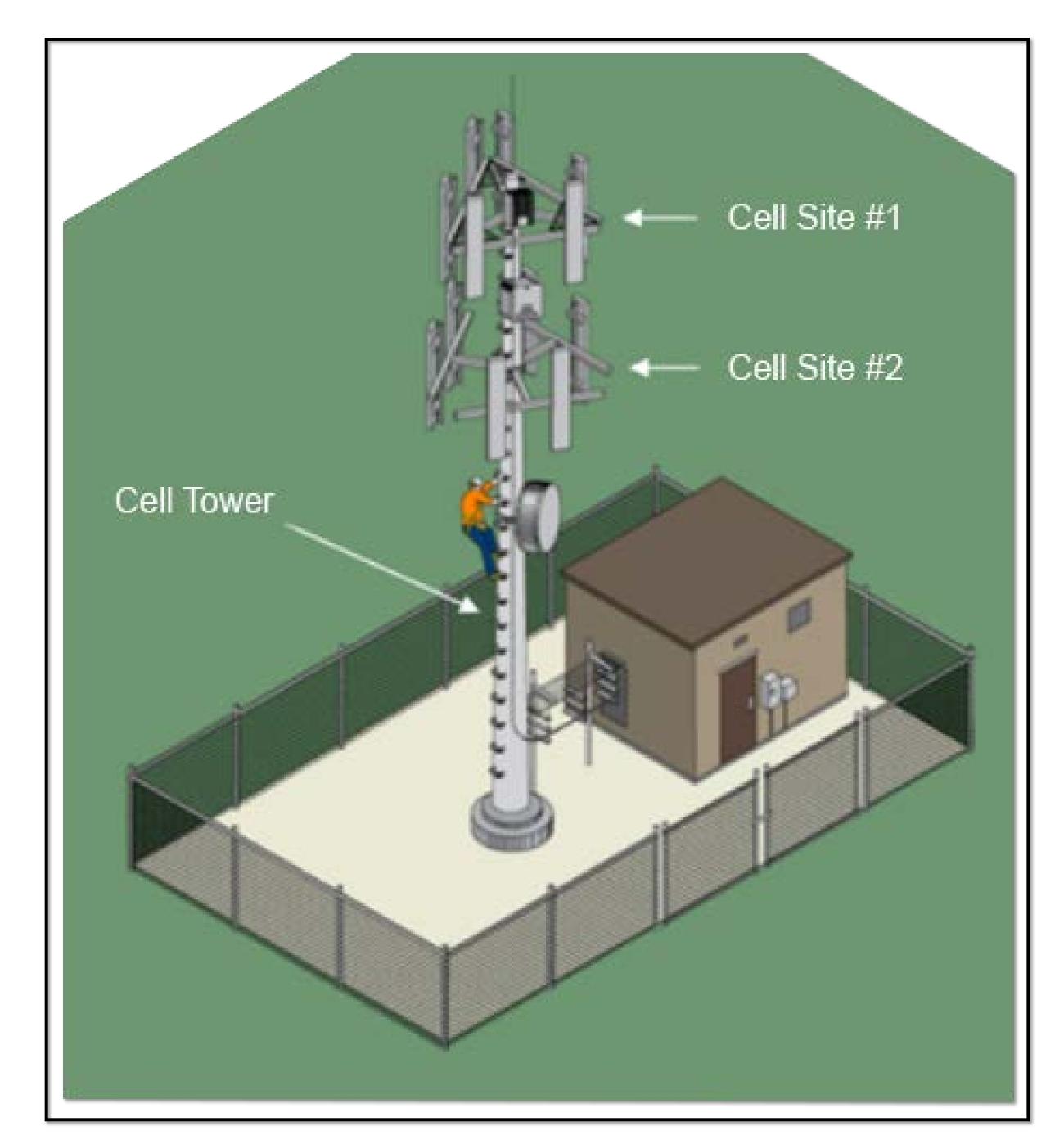
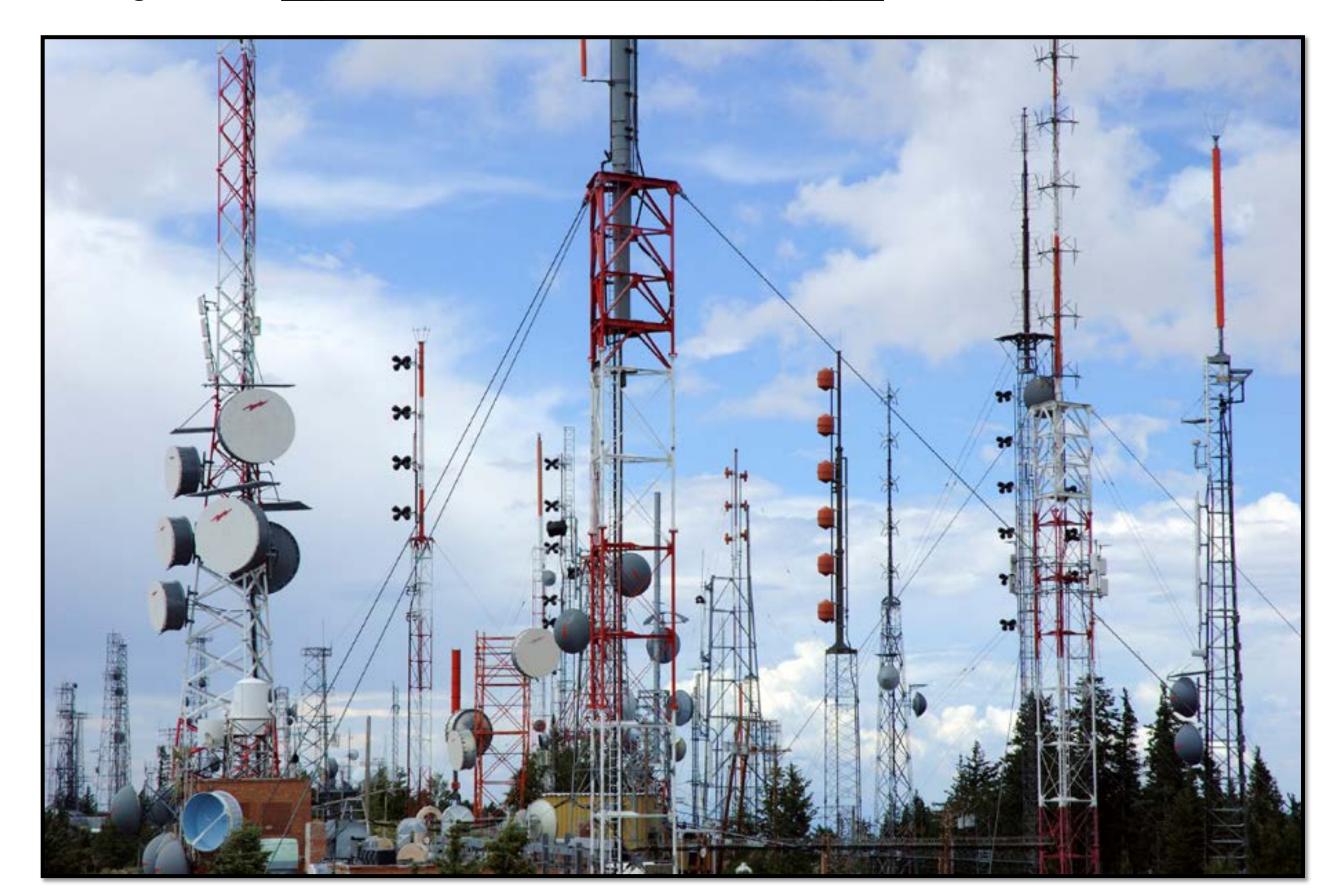


Image Source: <a href="https://www.steelintheair.com/cell-site-types/">https://www.steelintheair.com/cell-site-types/</a>



Guy-wire Towers and Lattice Towers
Image Source: <a href="https://www.steelintheair.com/Blog/wp-content/uploads/2015/12/towers.jpg">https://www.steelintheair.com/Blog/wp-content/uploads/2015/12/towers.jpg</a>

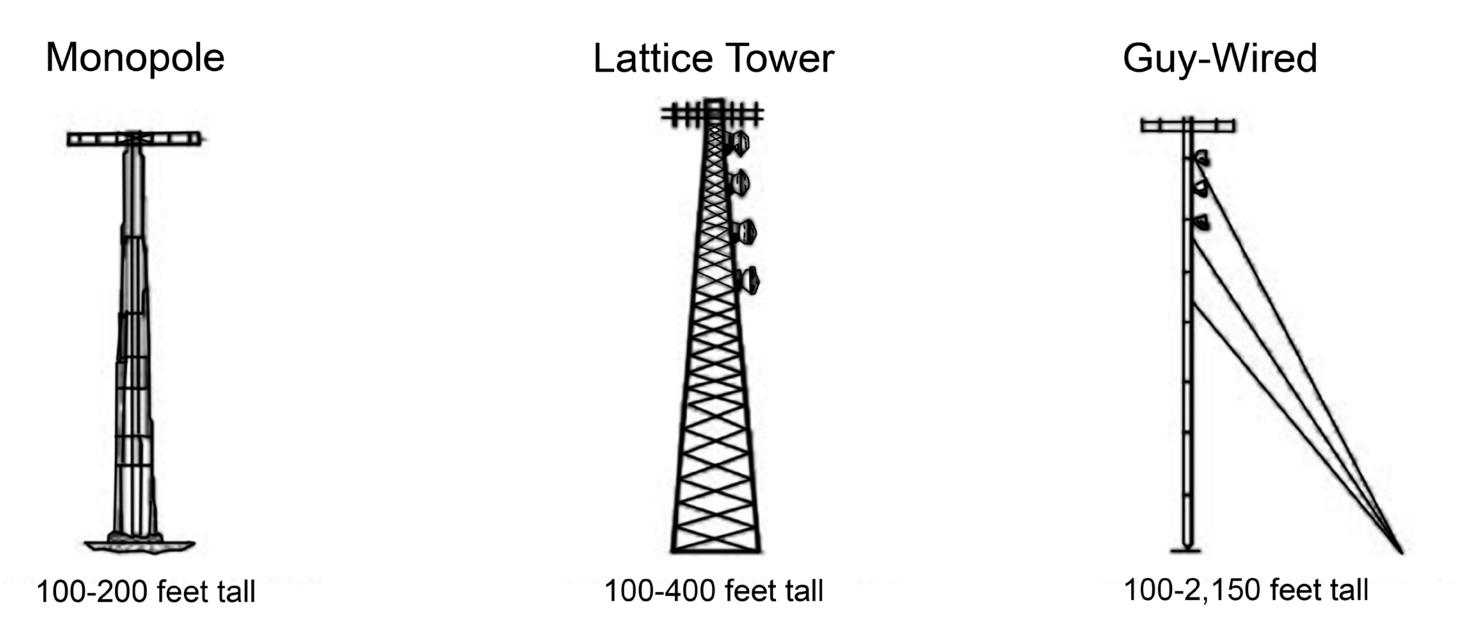
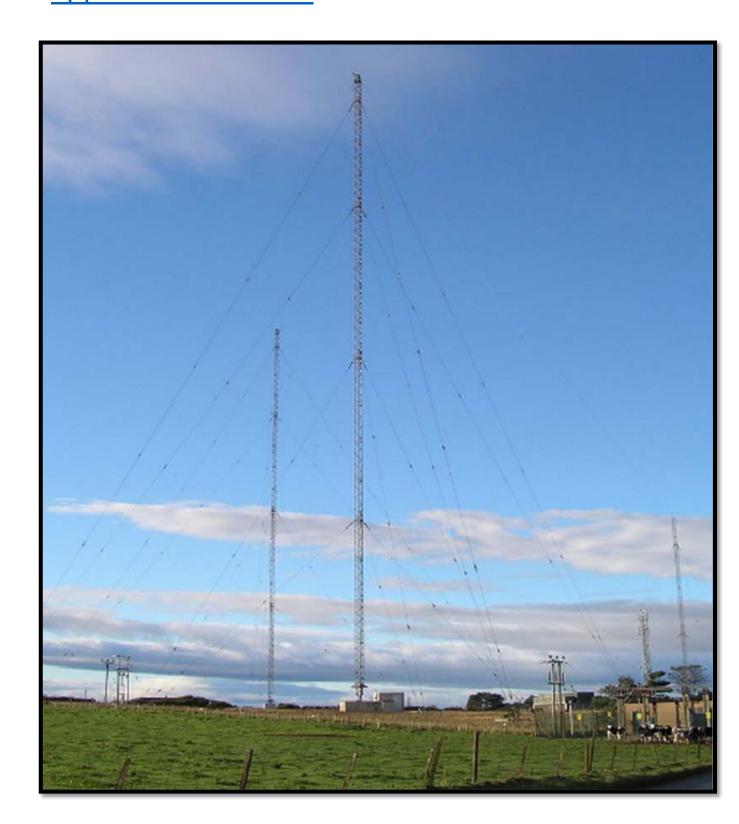


Image Source: <a href="https://www.sheridanmedia.com/news/commissioners-approve-cell-tower-board-appointments11278">https://www.sheridanmedia.com/news/commissioners-approve-cell-tower-board-appointments11278</a>



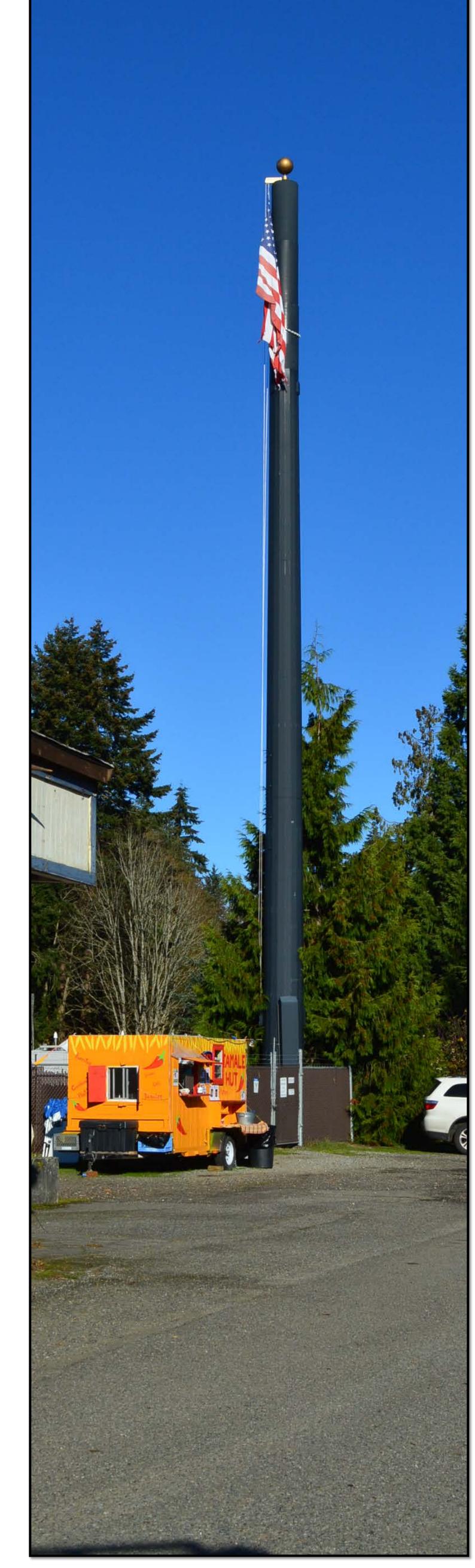
Guy-wire Tower
Image Source: <a href="https://en.wikipedia.org">https://en.wikipedia.org</a>



Mono-pole Image Source: Kitsap County



Image Source: <a href="https://ehtrust.org/take-action/educate-yourself/top-10-facts-about-cell-phones-and-wi-fi-2/">https://ehtrust.org/take-action/educate-yourself/top-10-facts-about-cell-phones-and-wi-fi-2/</a>



Mono-pole Image Source: Kitsap County

## Non-Tower Facilities:

"Non-tower wireless facility" means a facility that is not a small wireless facility and does not involve, as part of the initial installation or construction, a wireless support structure. The term includes antennas, data collections units, and related equipment, but shall not include any wireless support structure. Except as allowed for small wireless facilities, the need to construct a wireless support structure will transform the non-tower facility into a tower-based facility.



Image Source: <a href="https://www.capegazette.com/article/five-att-cellphone-towers-installed-rehoboth/171309">https://www.capegazette.com/article/five-att-cellphone-towers-installed-rehoboth/171309</a>

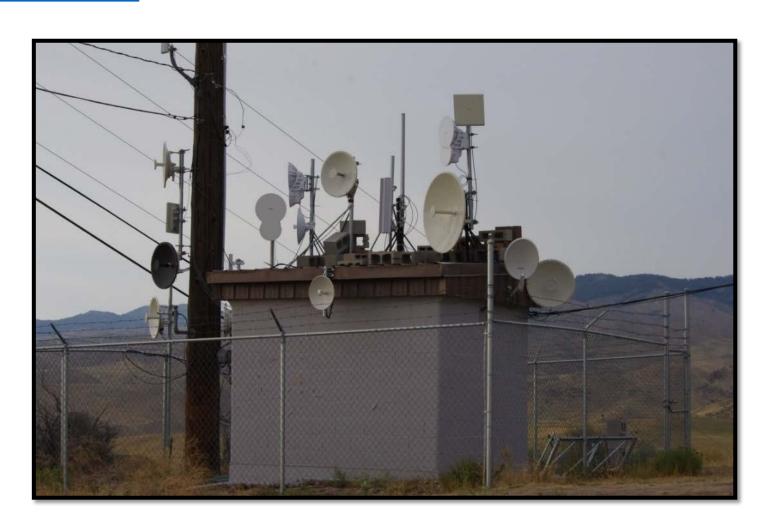


Image Source: <a href="https://pxhere.com/en/photo/867110">https://pxhere.com/en/photo/867110</a>

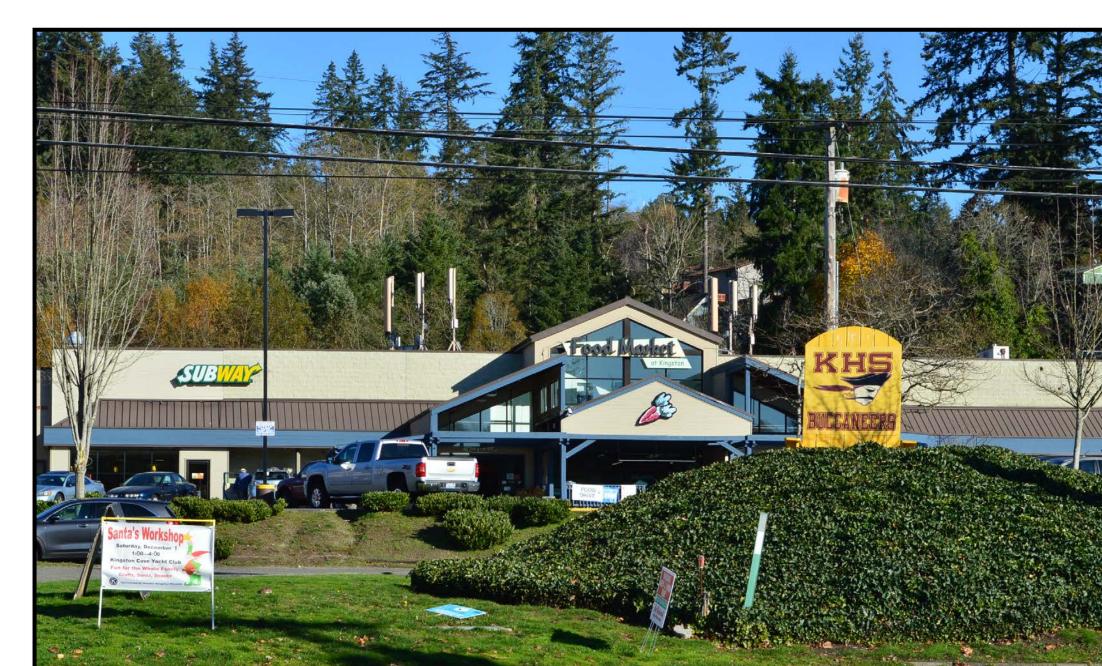


Image Source: <a href="https://pxhere.com/en/photo/799328">https://pxhere.com/en/photo/799328</a>

Image Source: Kitsap County

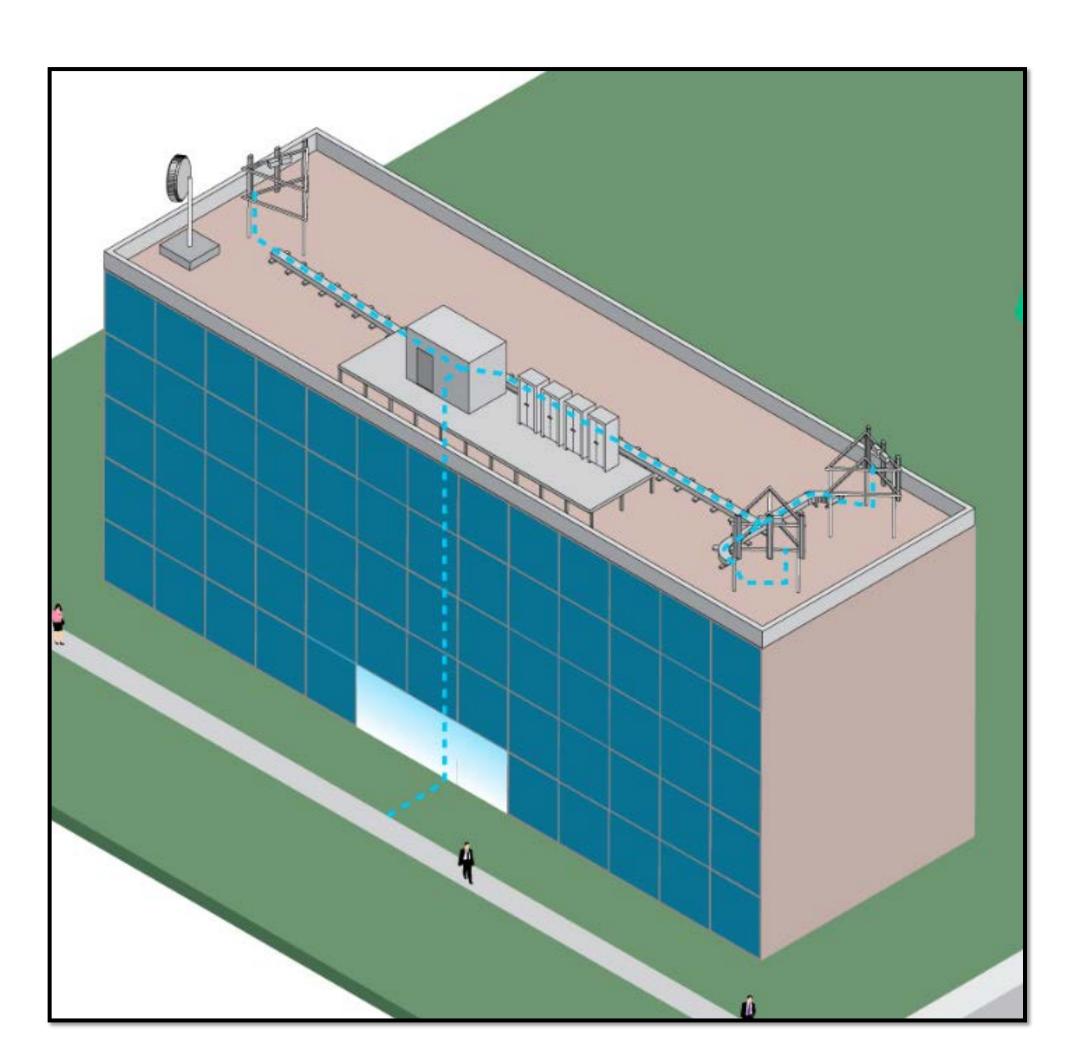


Image Source: <a href="https://www.steelintheair.com/cell-site-types/">https://www.steelintheair.com/cell-site-types/</a>





Image Source: Kitsap County

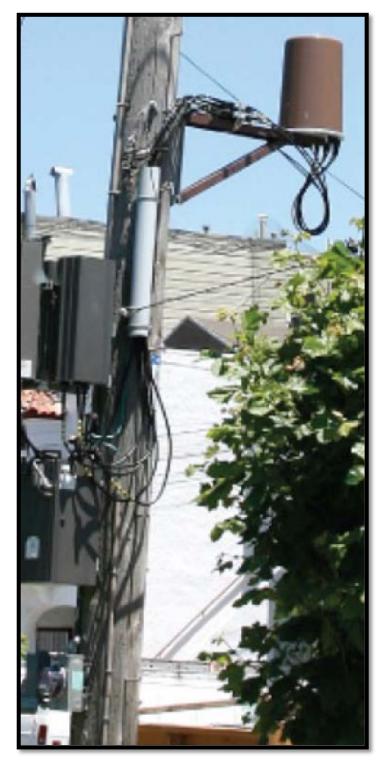
## Small Wireless Facilities:

"Small wireless facility" means a facility that meets each of the following conditions:

- 1. The facility:
  - a. Is mounted on a structure 50 feet or less in height, with the height including any antennas; or
  - b. Is mounted on a structure no more than 10 percent taller than other adjacent structures; or
  - c. Does not extend an existing structure on which is to be located to a height of more than 50 feet or by more than 10 percent, whichever is greater.
- 2. Each antenna associated with the facility, excluding associated antenna equipment is no more than three cubic feet in volume; and
- 3. All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume; and
- 4. The facility is not required to be registered with the FCC under 47 CFR Part 17; and
- 5. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable FCC safety standards in 47 CFR 1.1307(b).



Image Source: <a href="https://www.nytimes.com/2018/03/02/technology/5g-cellular-service.html">https://www.nytimes.com/2018/03/02/technology/5g-cellular-service.html</a>



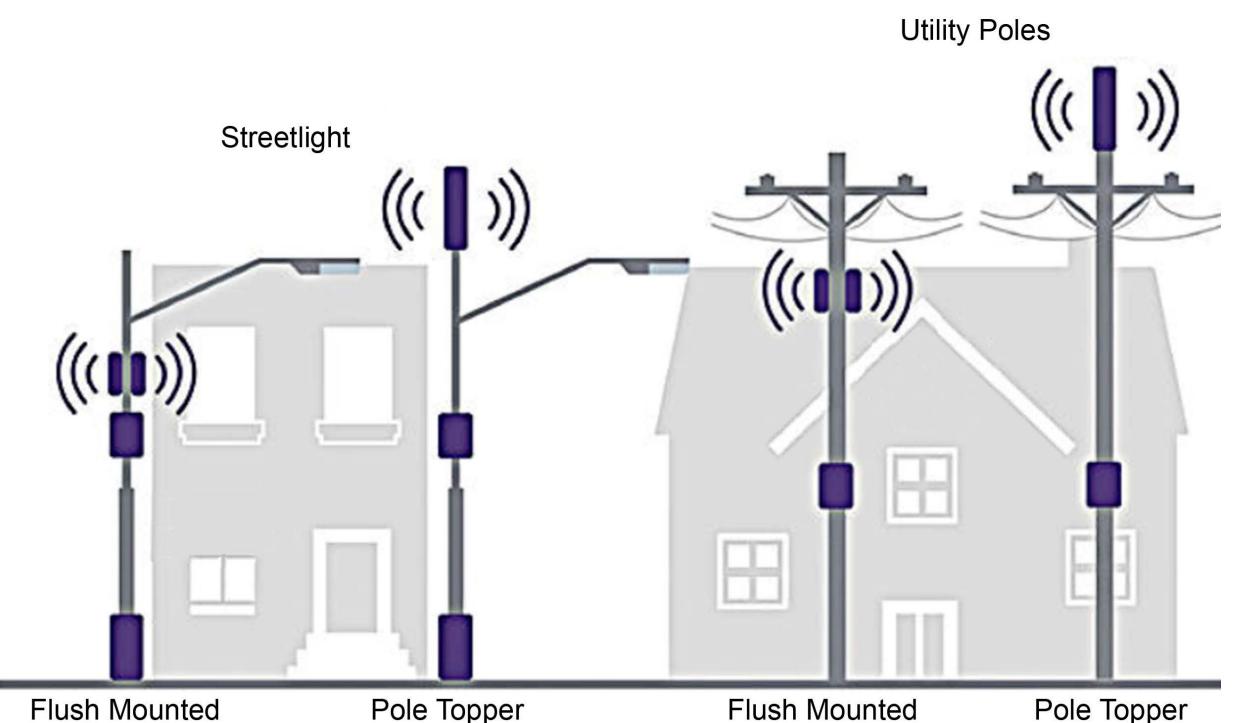






Image Source:
<a href="https://sf-">https://sf-</a>
<a href="planning.org/node/1">planning.org/node/1</a>
47

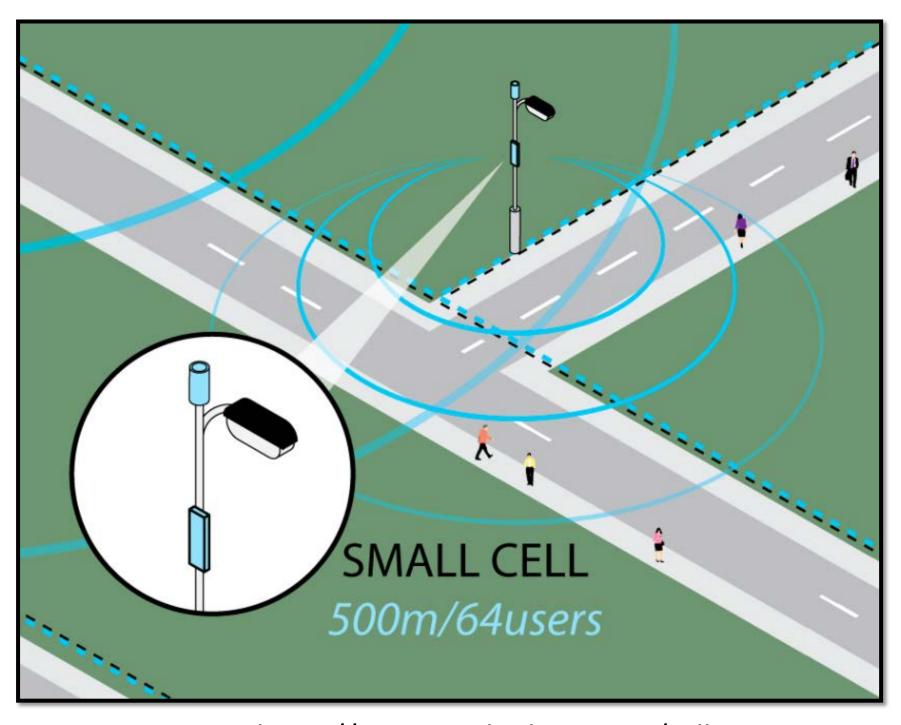


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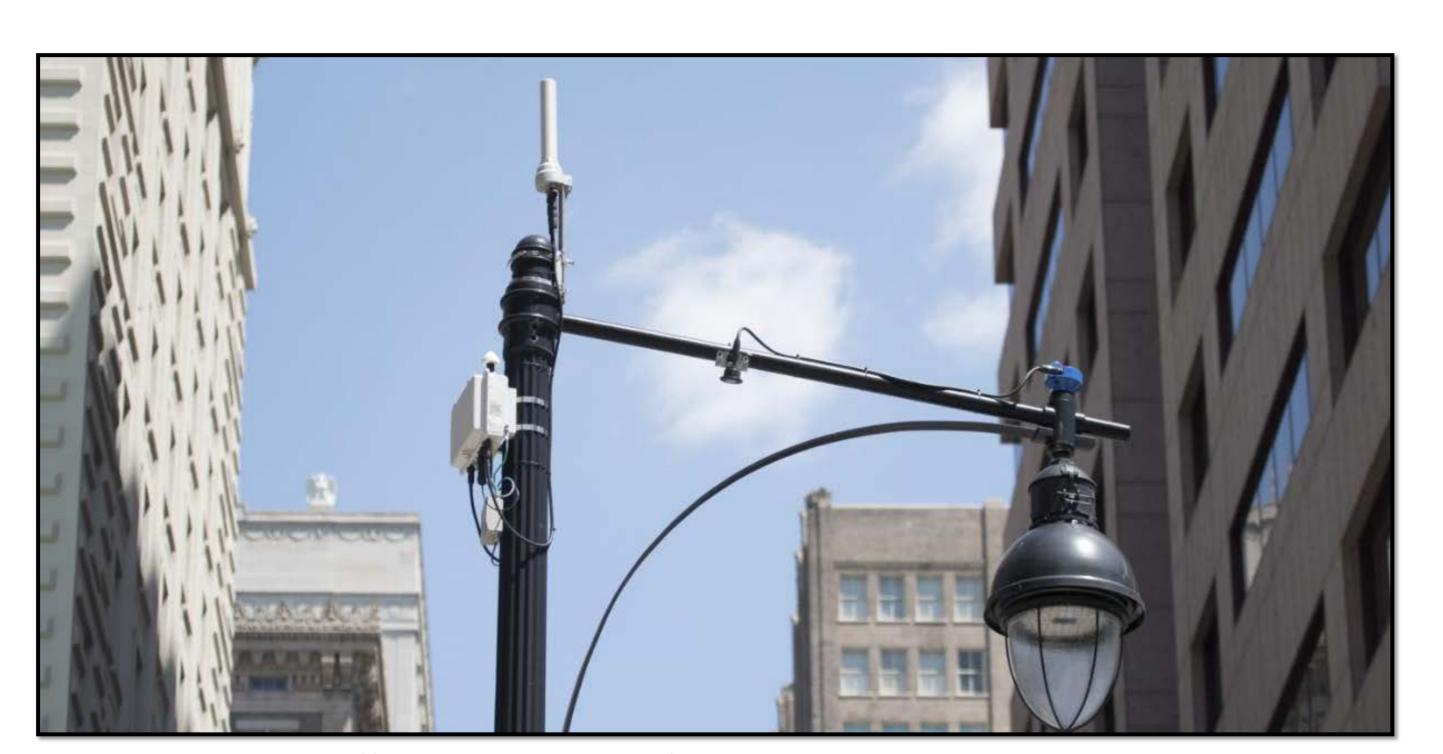


Image Source: <a href="https://newsroom.sprint.com/tiny-mighty-small-cells.htm">https://newsroom.sprint.com/tiny-mighty-small-cells.htm</a>



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# Stealth Technology Examples:



Image Source:
<a href="https://www.thegreenhead.com/2004/09">https://www.thegreenhead.com/2004/09</a>
/can-you-spot-hidden-cell-towers.php

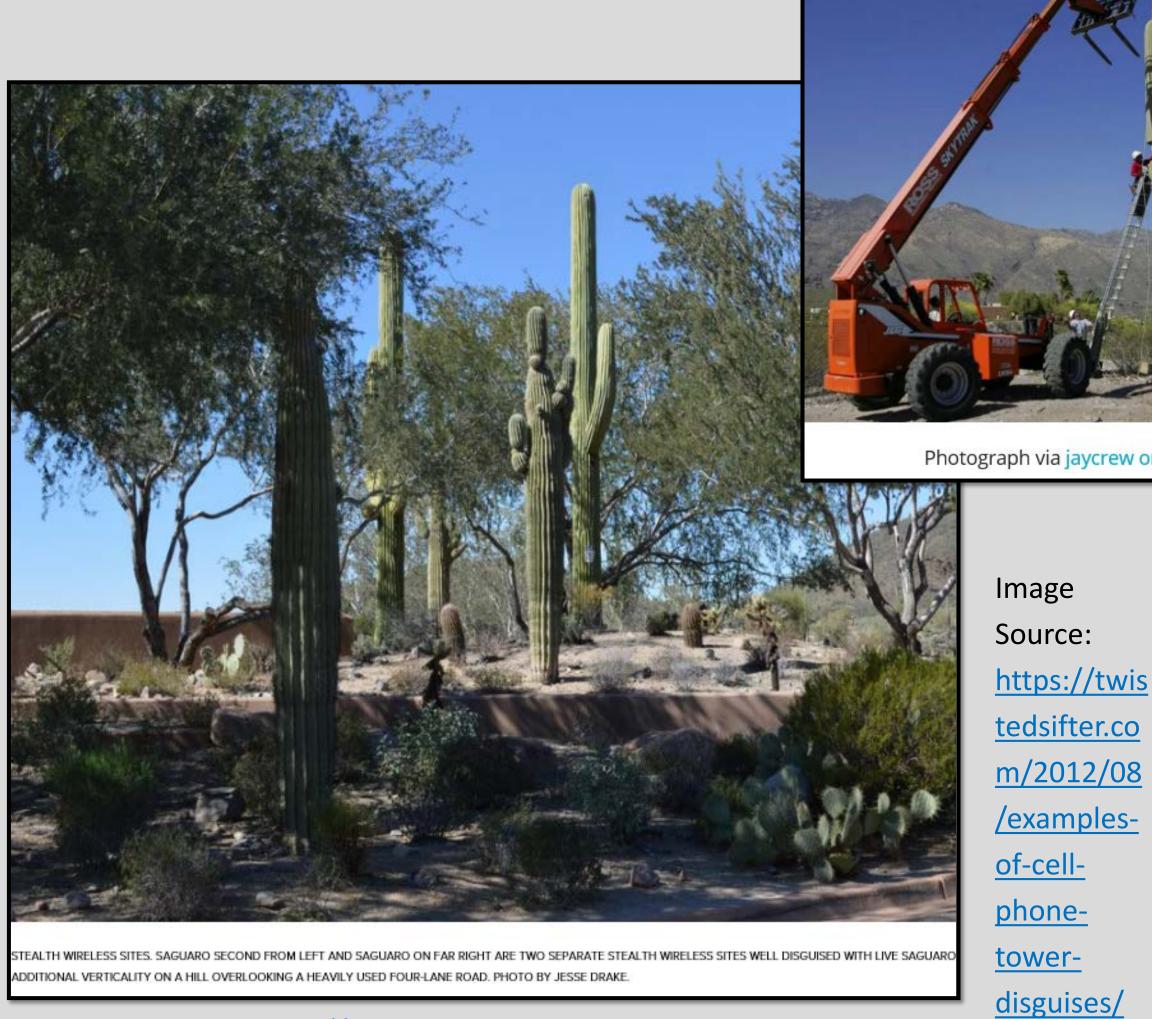


Image Source: <a href="https://www.westernplanner.org">https://www.westernplanner.org</a>



Image Source: <a href="https://twistedsifter.com/2012/08/examples-of-cell-phone-tower-disguises/">https://twistedsifter.com/2012/08/examples-of-cell-phone-tower-disguises/</a>



Image Source: Kitsap County



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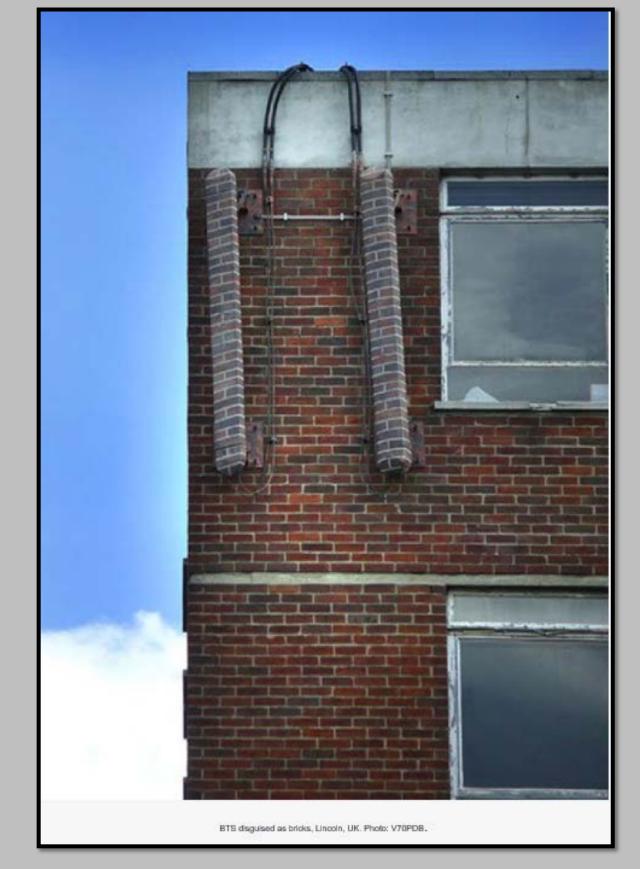


Image Source: <a href="http://rhizome.org/">http://rhizome.org/</a>



Image Source: <a href="https://weburbanist.com/2010/03/26/faux-ny-towers-cleverly-concealed-cellular-sites/">https://weburbanist.com/2010/03/26/faux-ny-towers-cleverly-concealed-cellular-sites/</a>



Image Source: <a href="http://www.proterra-design.com/telecommunications/">http://www.proterra-design.com/telecommunications/</a>