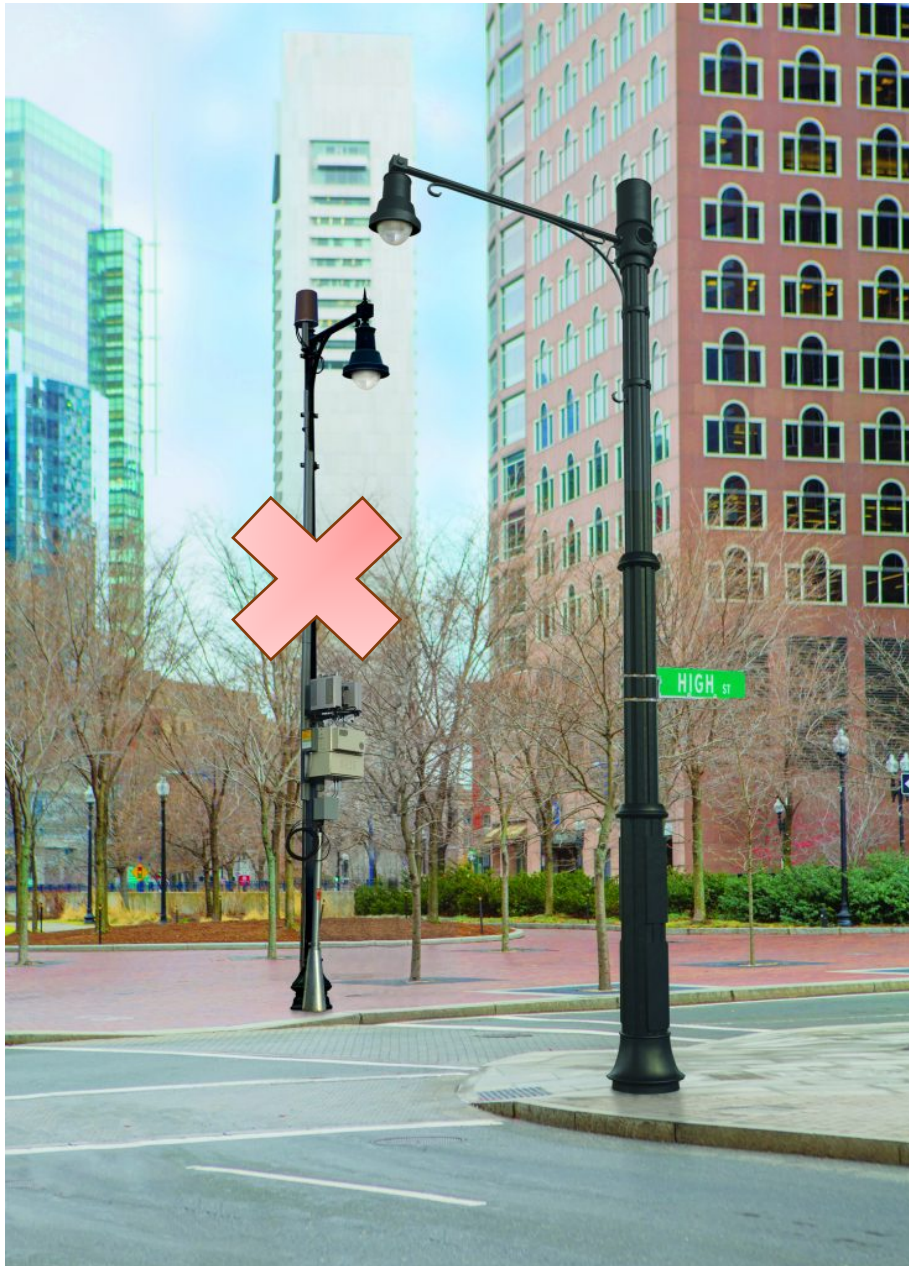


Town of Burlington Small Wireless Facility

and similar structures

Design Rules and Regulations



This policy describes approved aesthetic and location criteria for Small Wireless Facilities in the Town of Burlington. These requirements apply to both the SWF and accessory equipment, such as ground-mounted equipment. The Planning Board approved Town of Burlington Small Wireless Facility and similar structures Design Rules and Regulations at their meeting of April 4, 2019.

1. Background

Public spaces and streetscapes enhance the quality of life for our residents and visitors, and ensures that the Town has the foundation to become a more walkable and sustainable city. It also serves as the city's civic, cultural, and physical framework of the character of Burlington.

To address the growing demand for wireless technology across the United States, cellular providers propose to increase the capacity of their networks by deploying small cell infrastructure (Small Cell), a new lower-powered antenna technology, to reduce data traffic load on roof mounted equipment and larger cell towers. This new technology requires infrastructure to be installed in closer proximity to the users on the ground. Small Cell infrastructure consists of antennas and related power equipment that transmits wireless signals to improve reliable data streaming. This infrastructure will provide cellular and data coverage to smaller geographic areas. New Small Cell facilities will improve the provider's ability to meet the public's current 4G (LTE) voice and data demands and the future 5th generation cellular needs for interconnected devices to operate at high speeds to access data.

Small Cell infrastructure will affect the function and aesthetics of public spaces. Cities across the nation are beginning to address the issue of balancing the need to accommodate the increased cellular demand with their community's public space character and function. To provide the necessary coverage, each cellular provider will install infrastructure to serve their individual needs; additionally, some companies serve as an infrastructure provider installing equipment that will house infrastructure for multiple cellular providers. Like other utilities, federal law allows Small Cell infrastructure equipment in the public right-of-way. Balancing the need to accommodate increasing cellular demand while preserving public space character and function is critically important, as is the need to design and place the proposed infrastructure in an appropriate way.

2. Adoption

These Rules and regulations are intended to cover the general standards and aesthetics for the design and installation of Small Cell and similar technology.

3. Siting Prohibitions

Small Cell infrastructure is not permitted to be installed on:

- a. No small cell wireless installation shall be installed on Double Poles

- b. No small cell wireless installation shall be installed on poles which are not ADA
- c. compliant.
- d. No equipment shall be placed inconsistent with ADA regulations for passage around said infrastructure.
- e. Cabinets or other small cell infrastructure may not be placed within the travel way of the sidewalk to impede ADA accessibility. Sidewalk travel ways shall maintain a minimum of 4 feet in width to accommodate the snow clearing vehicles along the sidewalks.
- f. No small cell wireless installations shall remain within the Town right of way or
 - a. on Town property which has not been certified as in use in the annual recertification
 - b. affidavit.
- g. No small cell wireless installation equipment shall be replaced or altered without
 - a. a re-application, hearing, and approval from the Board of Selectmen unless the
 - b. equipment is no longer properly functioning, and it is being replaced with the
 - c. same or substantially similar equipment.

4. Aesthetic Requirements for Small Cell Wireless Facilities

- a. Except when Small Cell infrastructure is attached to a wood pole, poles and all equipment must be the same color and finish as surrounding streetlight poles or third party poles.
- b. Exposed wires are not permitted.
- c. Corporate or company names (except for location identification purposes noted below), logos, identifying graphics or other advertisements shall not be painted, embossed, applied or displayed in any manner on the poles, equipment enclosures (boxes, cabinets, etc.), hand hole covers, or other component of the pole. Individual location identification information will be permitted, provided no letter, number, or graphic symbol is taller than one inch in height.
- d. Standalone Poles: The height of any standalone pole including its antenna(e) shall not exceed 32 feet or no more than 10 percent taller than other adjacent poles, whichever is greater.
- e. Wood Poles: The height of any replacement wood pole including its antennae shall not exceed 45 feet.

5. ANTENNAS

- a. Each small wireless antenna shall be located entirely within a shroud or canister type enclosure.

- b. The diameter of the antenna enclosure at its widest point should not be wider than two times the diameter of the top of the wireless support structure. The enclosure shall not exceed six cubic feet in volume.
- c. All antenna enclosures shall either be mounted to the top of the wireless support structure pole and aligned with the centerline of the wireless support structure, or mounted to the side of the wireless support structure such that the vertical centerline of the antenna enclosure shall be parallel with the wireless support structure with the height of the side mounted antenna being at a location on the wireless support structure noted in the application and approved by the Town, but at least 10 feet above ground level at its lowest point.
- d. Tree "topping" or the improper pruning of trees is prohibited. Any proposed pruning or removal of trees, shrubs or other landscaping already existing in the ROW must be noted in the application and must be approved by the Tree Warden.

5.1 CABLES AND WIRES

All cables, wires and connectors related to the small wireless facility must be fully concealed on the wireless support structure and shall match the color of the wireless support structure. There shall be no external cables and wires related to the small wireless facility hanging off or otherwise exposed on the wireless support structure.

5.2 COLORS

All colors shall match the background of any wireless support structure that the facilities are located upon, including equipment cabinets. Notwithstanding the foregoing, in the case of existing wood utility poles, finishes of conduit shall be zinc, aluminum or stainless steel, or colored to match those metal finishes, and equipment cabinets shall be the color of brushed aluminum.

5.3 EQUIPMENT ENCLOSURES/CONCEALMENT

- a. Equipment enclosures, including electric meters, shall be as small as possible, but in no event larger than 28 cubic feet in volume. Ground-mounted equipment shall incorporate concealment elements into the proposed design matching color and materials of the wireless support structure, unless other materials or colors are approved by the Town. Concealment may include, but shall not be limited to, landscaping, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.

- b. Radio equipment shall be fully enclosed within an equipment cabinet or concealed within the antenna shroud enclosure matching the color and materials of the wireless support structure, unless other materials or colors are approved by the Town.
- c. Landscaping concealing equipment enclosures shall be planted in such quantity and size such that 100% screening is achieved within two years of installation.

6. SIGNAGE/LOGOS/LIGHTS/DECALS/COOLING FANS

- a. Signage: The small wireless facility permittee shall post its name, location identifying information, and emergency telephone number in an area on the cabinet of the small wireless facility that is visible to the public. Signage required under this section shall not exceed 4 inches by 6 inches, unless otherwise required by law (e.g. radio-frequency (RF) ground notification signs) or the Town. If no cabinet exists, the signage shall be placed at the base of the pole.
- b. Lights: New small wireless facilities and wireless support structures shall not be illuminated, except in accord with state or federal regulations, or unless illumination is integral to the camouflaging strategy such as design intended to look like a street light pole.
- c. Logos/Decals: The small wireless facility operator/permittee shall remove or paint over unnecessary equipment manufacturer decals. The color shall match or shall be as approved by the Building Inspector. Small wireless facilities and wireless support structures shall not include advertisements and may only display information required by a federal, state, or local agency. The small wireless facility operator/permittee shall utilize the smallest and lowest visibility RF warning sticker required by government or electric utility regulations. Placement of the RF sticker shall be as close to the antenna as possible.
- d. Cooling Fans: In residential areas, the small wireless facility operator/permittee shall use a passive cooling system. In the event that a fan is needed, the small wireless facility operator/permittee shall use a cooling fan with a low noise profile.

7. LOCATION REQUIREMENTS

7.1 MOST PREFERABLE LOCATIONS

The following are the most preferred areas for new small wireless facilities in the order of preference (1 being most preferable):

1. *Industrial Districts* if not adjacent to a park, residential district or historic district.

2. *Public Rights of Way* areas if not adjacent to a park, residential district.

7.2 COLLOCATION PREFERENCE

It is the Town's strong preference that whenever an applicant proposes to place a new small wireless facility that the applicant collocate the same on existing wireless support structures.

7.3 LEAST PREFERABLE LOCATIONS

The following are the least preferred areas for new small wireless facilities in the order of preference (3 being least preferable).

1. *Residential Districts*
2. *Parks*

7.4 CONSIDERATION OF ALTERNATE LOCATIONS

The Town reserves the right to propose an alternate location for a small wireless facility and/or wireless support structure to the location proposed in the application within one hundred feet of the proposed location or within a distance that is equivalent to the width of the ROW or structure in or on which the small wireless facility and/or wireless support structure is proposed, whichever is greater, which the operator shall use if it has the right to use the alternate location on reasonable terms and conditions and the alternate location does not impose technical limits or additional costs.

7.5 General limits: Adherence to Other Applicable Standards

If a streetscape is redesigned in the future, including, but not limited to the location and type of streetlights, small cell providers will be required to remove their infrastructure at their own cost and apply to reinstall small cell infrastructure in accordance with these guidelines and the new streetscape.

7.6 GUIDELINES ON PLACEMENT

The Town desires to promote cleanly organized and streamlined facilities using the smallest and least intrusive means available to provide wireless services to the community. Generally, a small wireless facility and/or wireless support structure shall match and be consistent with the materials and finish of the wireless support structure, adjacent poles and structures, and of the surrounding area adjacent to their location.

The following additional guidelines on placement shall apply:

- a. Small wireless facilities and wireless support structures shall be located no closer than 150 feet away, radially, from another small wireless facility and wireless support structure.
- b. A combination wireless support structure and streetlight pole should only be located where an existing pole can be removed and replaced, or at a new location where it has been identified that a streetlight is necessary.
- c. Small wireless facilities and wireless support structures shall be located in a manner that does not impede, obstruct, or hinder usual public pedestrian or vehicular travel or public safety on a ROW.
- b. Small wireless facilities and wireless support structures shall be located in a manner that does not obstruct the legal use of a ROW by a utility provider.
- c. Small wireless facilities and wireless support structures shall be located in a manner that does not violate or conflict with the zoning and general bylaws, applicable law and regulations, or this policy.
- d. Small wireless facilities and wireless support structures shall be located in a manner that does not violate the federal Americans with Disabilities Act.
- e. Small wireless facilities and wireless support structures shall be located in a manner that does not negatively impact the structural integrity of the associated wireless support structure.
- f. Small wireless facilities and wireless support structures shall be located in alignment with existing trees, utility poles, streetlights, and buildings.
- g. Small wireless facilities and wireless support structures shall be located equidistant between trees when possible, with a minimum of 15 feet separation such that no proposed disturbance shall occur within the critical root zone of any tree.
- h. Small wireless facilities and wireless support structures shall be located with appropriate clearance from existing utilities.
- i. Small wireless facilities and wireless support structures shall be located so as not to be located along the frontage of any building deemed to be of historic significance on a federal, state, or local level.
- j. Small wireless facilities and wireless support structures shall be located not within sight triangles at street intersections.
- k. New wireless support structures shall not be located directly in front of any existing residential, commercial or industrial structure.

To the greatest extent possible, new wireless support structures shall be located in line with existing lot lines or an equidistance from any two existing structures. In areas of the Town where multiple structures abut each other and/or where no side

lot setback requirements exist, new wireless support structures shall not be located directly in front of an entrance or window of any existing structure.



8. Pedestrian Path and Amenity Zone

- a. The sidewalk area of public space is typically delineated into the pedestrian path and the amenity zone. The amenity zone is located between the pedestrian path
- b. and the roadway and provides access between the two as well as the area for
- c. street trees, streetlights and traffic signals, and other functional elements. It is
- d. critical that all pedestrian paths are clear to facilitate safe and optimal access and circulation along sidewalks.
- e. Standalone poles shall not be located in the clear pedestrian path
- f. Standalone poles shall be aligned with existing streetlights, third party poles, and street trees as applicable in order to maintain a visual and physical organization of structures within the right-of-way, as measured from the center of the base of the pole. When streetlight and street tree alignment are offset within the amenity or curbside zones, prioritize alignment of the small cell facility with streetlights.
- g. All measurements shall be taken from the outer edge of the standalone pole and
- h. the infrastructure listed in the following specific limits/prohibitions.
- i. Standalone poles must be placed a minimum of six feet (6') from existing fire hydrants or buildings' fire connections.

- j. Standalone poles shall be located a minimum of 10 feet (10') from light poles and traffic signal poles.
- k.
- l. Standalone poles shall be located a minimum of 3 feet (3') from bicycle racks and shall not impede the attachment of bicycles.
- m.
- n. Standalone poles shall be placed a minimum of ten feet (10') from any
- o. above grade building face, including bay windows, show windows, oriel
- p. windows, and building projections or overhangs.
- q. Poles should be located, to the maximum extent possible, to minimize impact on
- r. businesses and residential mixed-use development by avoiding placement
- s. directly in front of building entrances, alignment with windows, primary entry
- t. walks, or delivery zones or entrances.



9. Access, Circulation, and Sight Distances

- a. Safe and functional access, circulation, and clear sight lines are important for pedestrian ease of movement and to maintain unobstructed line of sight among
- b. drivers, pedestrians, bicyclists.
- c. Standalone poles shall not obstruct ADA access, including maintaining a clear
- d. landing at the top of curb ramps at crosswalks.
- e. Pole placement shall not impede, obstruct, violate, conflict with, or hinder any
- f. mode of travel over or access to any public street, bridge, tunnel, highway, lane,
- g. path, alley, sidewalk, or driveway, including but not limited to the obstruction of

- h. sight lines.
- i. Poles shall be placed consistent with the most current Manual on Uniform Traffic
- j. Control Devices and adopted District standards for maintenance of an
- k. intersection's sight line triangles.

- l. A minimum of fifteen feet (15') shall be maintained between the pole and the
- m. outside edge of the alley or driveway.

10. Other required submission information

- a. A composite map of all the desired locations of the small cell providers to understand the total need for facilities and the areas of highest demand within the study area.
- b. An understanding as to why there is no requirement for multiple providers to share infrastructure (hoteling) and whether this could occur if the number of allowable poles were reduced.

11. Other applicable stealth applications



STEALTH designs, engineers, and fabricates interior small cell systems in addition to exterior sites. We can create just about anything your imagination can dream up, including, but not limited to:

- a. Chimneys

- b. Light Poles
- c. Rooftop Pods
- d. Cupolas (as seen above)
- e. The Town of Burlington encourages any application that reduces the visual clutter within our environment.

12. LIMITATIONS

While the Town fully intends to apply the guidelines established in this policy uniformly to all small wireless facility applications, there may be circumstances where not every specific guideline may be met. In these cases, Town staff will use its reasonable discretion in approving small wireless facilities permit applications that deviate from the strict application of this policy.

13. EFFECTIVE DATE OF POLICY

This Policy will be effective as of the ___ of April, 2019. Modifications of the Design Rules and Regulations may be modified from time to time by the Burlington Board of Selectman.