

## SMALL CELL DESIGN GUIDELINES

### (Promulgated pursuant to Chapter 937 of the Codified Ordinances of the City of Brooklyn, Ohio)

#### **Section 1. OVERVIEW AND PURPOSE, DEFINITIONS.**

- (a) The purpose of these Design Guidelines is to:
- (1) Protect the health, safety, and welfare of the citizens of the City;
  - (2) Preserve the character of the City, including the City's neighborhoods, downtown, other business districts and historic districts;
  - (3) Give guidance to wireless telecommunications providers to assist such companies in the timely, efficient, safe, and aesthetically pleasing installation of Facilities; and
  - (4) Comply with, and not conflict with or preempt, all applicable state and federal laws.
- (b) For the purpose of these regulations, and the interpretation and enforcement hereof, the following words and phrases shall have the following meanings, unless the context of the sentence in which they are used shall indicate otherwise:
- (1) "Applicant" means any person or entity who submits an Application pursuant to these regulations.
  - (2) "Application" means the form issued by the Commissioner, to be submitted by an Applicant to obtain a Small Cell Use Permit from the City to Collocate a Small Cell Facility and/or to construct, maintain, modify, operate, or replace a Wireless Support Structure.
  - (3) "Accessory Equipment" means equipment used in conjunction with a Small Cell Facility and generally at the same location as, or in proximity to, the Small Cell Facility including, but not limited to, electric meters, concealment elements, telecommunications demarcation boxes, grounding equipment, power transfer switches, cut-off switches, and vertical cable runs.
  - (4) "City" means the City of Brooklyn, Ohio.
  - (5) "Collocation" or "Collocate" means to install, mount, maintain, modify, operate, or replace wireless Facilities on a Wireless Support Structure.
  - (6) "Commissioner" shall mean the Building Commissioner of the City or his or her designee.

- (7) “Design Guidelines” means the standards established in these regulations.
- (8) “Eligible Facilities or Eligible Support Structure Request” means any request for modification of an existing support structure or base station that does not substantially change the physical dimension of such support structure involving Collocation of new Facilities; removal of Facilities; or replacement of Facilities. A substantial change means:
  - (i) A modification that changes the physical dimension of a Wireless Support Structure by increasing the height of the Wireless Support Structure by more than ten percent (10%) or more than ten (10) feet, whichever is greater; and/or by adding an appurtenance to the body of the Wireless Support Structure that would protrude from the edge of the Wireless Support Structure by more than six (6) feet;
  - (ii) The installation of more than the standard number of equipment cabinets for the technology involved or the installation of more than four (4) cabinets, whichever is less;
  - (iii) The installation of any new ground-mounted equipment cabinets if there are not existing ground-mounted equipment cabinets or the installation of ground-mounted cabinets, more than ten percent (10%) larger in height or overall volume than any other ground-mounted cabinets associated with the structure;
  - (iv) Any excavation or deployment outside of the current site of the Facility;
  - (v) Removal of any concealment elements of the Facilities or the Wireless Support Structure; and
  - (vi) Any change that does not comply with these Design Guidelines, Chapter 937 of the Codified Ordinances, or state or federal law and regulations.
- (9) “Facilities” means Small Cell Facilities, Accessory Equipment, and Wireless Support Structures.
- (10) “Facilities Operator” means the person or entity responsible for the installation, operation, maintenance, replacement, and modification of Facilities. Facilities Operator includes:
  - (i) Operators;
  - (ii) Applicants who applied for consent to Collocate a Small Cell Facility or to construct, maintain, modify, operate, or replace a new

Wireless Support Structure pursuant to O.R.C. Section 4939.031(E) and who have obtained a Small Cell Use Permit; and

- (iii) Applicants who applied for consent to Collocate a Small Cell Facility or to construct, maintain, modify, operate, or replace a new Wireless Support Structure pursuant to O.R.C. Section 4939.033 and who have obtained a Small Cell Use Permit.
- (11) “Historic district” means a building, property, or site, or group of buildings, properties, or sites that are either of the following:
- (i) Listed in the national register of historic places or formally determined eligible for listing by the keeper of the national register, the individual who has been delegated the authority by the federal agency to list properties and determine their eligibility for the national register, in accordance with section VI.D.1.a.i-v of the nationwide programmatic agreement codified at 47 C.F.R. part 1, Appendix C;
  - (ii) A registered historic district as defined in section 149.311 of the Revised Code.
- (12) “Operator” means a wireless service provider, cable operator, or video service provider that operates a Small Cell Facility and provides wireless service, including a wireless service provider, cable operator, or a video service provider that provides information services as defined in the “Telecommunications Act of 1996,” 110 Stat. 59, 47 U.S.C. 153(20), and services that are fixed in nature or use unlicensed spectrum.
- (13) “Public Way” or “Right-of-Way” means the surface of, and the space within, through, on, across, above or below, any public street, public road, public highway, public freeway, public lane, public path, public alley, public court, public sidewalk, public boulevard, public parkway, public drive, public easement, and any other land dedicated or otherwise designated for a comparable public use, which is owned or controlled by the City or other public entity or political subdivision.
- (14) “Small Cell Facility” means a wireless facility
- (i) That meets both of the following requirements:
    - a. Each antenna is located inside an enclosure of not more than six (6) cubic feet in volume or, in the case of an antenna with exposed elements, the antenna and all of its exposed elements can fit within an enclosure of not more than six (6) cubic feet in volume; and

- b. All other wireless equipment associated with the facility is cumulatively not more than twenty-eight cubic feet in volume. The calculation of equipment volume shall not include electric meters, concealment elements, telecommunications demarcation boxes, grounding equipment, power transfer switches, cut-off switches, and vertical cable runs for the connection of power and other services.
  - (ii) That includes a “Small Wireless Facility,” which is a type of Small Cell Facility (A) in which each antenna is located within an enclosure of not more than three (3) cubic feet in volume or, in the case of an antenna with exposed elements, the antenna and all of its exposed elements can fit within an enclosure of not more than three (3) cubic feet in volume, (B) where such antenna is associated with a structure (1) 50 feet or less in height, including the antenna, or (2) is not more than 10 percent taller than adjacent structures, or (3) is not extended in height by more than 10 percent or to a height exceeding 50 feet, whichever is greater, and (C) which also otherwise satisfies the definition of “Small Wireless Facilities” found in the FCC’s Small Cell Order adopted September 26, 2018, FCC 18-133.
- (15) “Small Cell Equipment” means a Small Cell Facility and all Accessory Equipment.
- (16) “Small Cell Use Permit” means the permit granted by the City authorizing an Applicant to Collocate a Small Cell Facility or to construct, maintain, modify, operate, or replace a Wireless Support Structure in the Right-of-Way.
- (17) “Underground Area” means an area in the Right-of-Way where existing electric utilities, cable facilities, telecommunications facilities and other facilities, other than structures and facilities owned by the City or a transit authority, are located underground.
- (18) “Wireless Support Structure” means a pole, such as a monopole, either guyed or self-supporting, street light pole, traffic signal pole, a fifteen-foot or taller sign pole, or utility pole capable of supporting Small Cell Facilities. As used in these Design Guidelines, “Wireless Support Structure” excludes the following, except in connection with a Small Wireless Facility, in which case the following are not excluded:
  - (i) A utility pole or other facility owned or operated by a municipal electric utility; and

- (ii) A utility pole or other facility used to supply traction power to public transit systems, including railways, trams, streetcars, and trolleybuses.

**Section 2. GENERAL STANDARDS**

- (a) Facilities shall not be installed unless the Facilities are compliant with these Design Guidelines, Chapter 937 of the Codified Ordinances and any Application requirements, and all applicable local, state, and federal laws.
- (b) A Facilities Operator shall not construct, maintain, modify, operate, or replace any Facilities not clearly depicted in an Application for a Small Cell Use Permit.
- (c) All work shall be performed in a professional manner consistent with the highest standards of workmanship.
- (d) Facilities shall be maintained in good and safe condition and in a manner that complies with all applicable federal, state and local requirements.
- (e) Facilities shall not be installed in any location that causes any interference with the City's public safety radio system, traffic and emergency signal light system, or other City safety communications systems or system components.
- (f) The City may propose an alternative location for proposed Facilities up to one hundred (100) feet from the proposed location or within a distance that is equivalent to the width of the Public Way, whichever is greater. The Facilities Operator shall utilize the alternative location unless the Facilities Operator shows that the alternative location is not technically feasible or would materially inhibit the provision of wireless services by the Facilities Operator within the City.
- (g) Facilities shall not interfere with existing or planned street trees.
- (h) Signage shall be mounted on all new Facilities providing the Facilities Operator's name, an emergency contact phone number, an informational contact number, and all other information required by law. Unless otherwise prohibited by law, signage shall be discreet in color and shall match the Facilities and surrounding area and font size used on the sign shall be no smaller than 9 point font and no larger than 14 point font.
- (i) Unless otherwise required by law, all manufacturer stickers and decals shall be removed from Facilities.
- (j) Facilities shall be camouflaged using existing land forms, vegetation, and structures to screen the Facilities from view and to blend in with the surrounding built and natural environment.
- (k) The City may require the Facilities Operator to incorporate additional concealment elements before approving an Application. Concealment elements

may include, but shall not be limited to, fencing, public art, strategic placement, and placement within existing or replacement street furniture.

- (l) Facilities shall not have any flashing or other visible lights, sirens or regular noise other than a cooling fan that may run intermittently. Internal lights must be shielded from public view.
- (m) All hardware, including antenna mounting brackets and hardware, antenna mounting posts, cables, shrouds and other equipment mounted shall be painted in a color designated by the City, and the color shall match the Facilities. The City may require the Facilities Operator use a different, non-matching color on a case-by-case basis when the City determines a non-matching color would better fulfill the purposes of these Design Guidelines.
- (n) A Facilities Operator shall remove or paint over any graffiti on the Facilities at Facility Operator's sole expense as soon as practicable, but no later than ten (10) days from the date the Facilities Operator receives notice of the graffiti.

### **Section 3. SPECIFICATIONS FOR COLLOCATION**

- (a) Small Cell Equipment shall not interfere with the primary purpose of a Wireless Support Structure.
- (b) Small Cell Equipment to be attached to a Wireless Support Structure shall be attached at least six (6) feet above ground level. If Small Cell Equipment is projecting toward the street then the Small Cell Equipment shall be installed no less than sixteen (16) feet above ground level.

### **Section 4. ANTENNAS**

- (a) Antennas and Accessory Equipment must be capable of fitting within an enclosure not larger than six (6) cubic feet in volume.
- (b) Antennas and Accessory Equipment shall not increase the overall height of an existing Wireless Support Structure by more than five (5) feet; provided, however, that the permissible increase in height resulting from collocation or installation of a Small Wireless Facility on a Wireless Support Structure shall comply with Section 1(b)(14) of these Design Guidelines.
- (c) Antennas mounted on a Wireless Support Structure shall be enclosed inside the Wireless Support Structure whenever possible and otherwise within a canister or other shroud. All Accessory Equipment associated with the antenna shall be concealed and shall not visibly protrude from the shroud or canister.
- (d) The width of the canister or other shroud encasing the antenna and Accessory Equipment shall not exceed the width of the topmost portion of the Wireless Support Structure or ten inches (10") in diameter, whichever is less.

- (e) The enclosure or shroud shall be painted to match or complement the Wireless Support Structure.
- (f) Antennas shall be installed in a manner that minimizes the visual impact to the general public.
- (g) Antennas shall not impair light or substantially obstruct views from adjacent window(s).
- (h) Antennas located on the exterior of a Wireless Support Structure shall be top-mounted on a Wireless Support Structure. The City may approve a side-mounted antenna if, in the City's discretion, the side-mounted antenna would be more appropriate given the built environment, neighborhood character, overall site appearance or would otherwise promote the purposes in these Design Guidelines.

**Section 5. WIRELESS SUPPORT STRUCTURE-MOUNTED EQUIPMENT**

- (a) All Wireless Support Structure-mounted Small Cell Equipment other than the antenna(s) and electric meter must be concealed within an equipment cabinet.
- (b) Equipment cabinets shall be mounted flush to the Wireless Support Structure.
- (c) Equipment cabinets shall be stacked together on the same side of the Wireless Support Structure and oriented away from any windows and doorways to minimize visual impacts thereupon.
- (d) The equipment cabinets must be non-reflective and painted, wrapped or otherwise colored to match the Wireless Support Structure.
- (e) Equipment shall not impair light or substantially obstruct views from adjacent window(s) or from any Driveway or Public Way.

**Section 6. GROUND-MOUNTED SMALL CELL EQUIPMENT**

- (a) The City shall not approve the proposed location of ground-mounted Small Cell Equipment unless the Applicant (1) proposes the ground-mounted equipment in connection with a Collocation, and (2) shows that the equipment cannot be feasibly placed on the Wireless Support Structure or in an underground vault.
- (b) If technically feasible, Small Cell Equipment should be located in a vault buried underground rather than being ground-mounted. If underground placement is not technically feasible or would materially inhibit the provision of wireless services by the Applicant within the City, ground-mounted Small Cell Equipment shall be contained in a shroud or cabinet.
- (c) All ground-mounted Small Cell Equipment shall be installed in a manner that minimizes the visual and ingress/egress impact to the general public.

- (d) Ground-mounted Small Cell Equipment shall be placed as far as practicable from pedestrian sidewalks and shall neither block nor be placed within the sidewalk in any way.
- (e) Equipment shall not substantially obstruct views from adjacent driveways or Public Ways.

**Section 7. CABLES**

- (a) All cables, conduit and wiring shall be located inside conduit and inside the Wireless Support Structure or an equipment cabinet.
- (b) Excess cables and wiring shall not be spooled, coiled or otherwise stored on the exterior of the Wireless Support Structure unless within an enclosure. Cables shall not be externally visible.

**Section 8. ELECTRICAL METERS**

- (a) Facilities Operators shall use flat-rate electric service when available in order to eliminate the need for a meter.
- (b) If a meter is required, then Facilities Operators shall use the smallest and least intrusive electric meter available. Whenever permitted by the electric service provider, the electric meter shall be painted to match the Wireless Support Structure.

**Section 9. UTILITY LINES**

- (a) Service lines shall be underground to avoid additional overhead lines. The underground cables and wires must transition directly into the Wireless Support Structure base without any external junction box.

**Section 10. SPECIFICATIONS FOR REPLACEMENT OF WIRELESS SUPPORT STRUCTURES**

- (a) A Facilities Operator shall be required to replace an existing Wireless Support Structure in the following circumstances:
  - (1) The Wireless Support Structure upon which the Applicant has proposed to Collocate Small Cell Equipment is deemed incapable of bearing the added weight of the Small Cell Equipment; or
  - (2) An existing Wireless Support Structure is located within 100 feet of the proposed site of a new Wireless Support Structure but the existing Wireless Support Structure is incapable of bearing the additional weight of the Small Cell Equipment.

- (b) Designs for replacement of Wireless Support Structures shall be as architecturally similar as possible to the existing Wireless Support Structure to be replaced unless otherwise approved or required by the City.
  - (1) All luminaire mast arms shall be the same length, arch, and style as the original luminaire arm, unless otherwise specified by the City.
  - (2) The City may require the Facilities Operator to install a new metal Wireless Support Structure rather than a new wood support structure.
- (c) Except in the SF-DH zoning district, the overall height of a replacement Wireless Support Structure, including proposed Collocated antenna, shall not be more than forty (40) feet in height above ground level; provided, however, that the height of a Wireless Support Structure upon which a Small Wireless Facility is to be mounted shall comply with Section 1(b)(14) of these Design Guidelines. The overall height of a replacement Wireless Support Structure, including proposed Collocated antenna, shall not be more than thirty-five (35) feet in height above ground level in the SF-DH zoning district so long as there is no Wireless Support Structure or utility pole taller than thirty feet located within three-hundred (300) feet of the location of the proposed replacement Wireless Support Structure; provided, however, that if a Small Wireless Facility is to be mounted upon it, the Facilities Operator may request a height consistent with Section 1(b)(14) of these Design Guidelines.
- (d) All existing signs, traffic signals, emergency signal detection units, video detection cameras, video cameras, crosswalk service buttons, crosswalk signals, and any other pedestrian or traffic devices shall be reinstalled or replaced with new units by the Facilities Operator at no cost to the City.
- (e) The concrete Wireless Support Structure foundation for the original Wireless Support Structure shall be removed either partially or completely by the Facilities Operator as instructed by the City.
  - (1) If partially removed, the original Wireless Support Structure foundation shall be taken back to a level that is twelve (12) inches below the existing grade and covered with four (4) inches of one-half ( $\frac{1}{2}$ ) inch to three-quarter ( $\frac{3}{4}$ ) inch compose of rock material. The remaining eight (8) shall be native soil.
  - (2) If the entire original Wireless Support Structure foundation must be removed, then all foundation materials (concrete, rebar, metals, bolts, etc.) shall be removed. The type of backfill material and compaction required is: (a) one-half ( $\frac{1}{2}$ ) sack slurry for the entire depth in paved areas, and (b) one-half ( $\frac{1}{2}$ ) sack slurry for the entire depth except the top twelve (12) inches will be native soil in landscaped areas.

## **Section 11. SPECIFICATIONS FOR NEW WIRELESS SUPPORT STRUCTURES**

- (a) New Wireless Support Structures shall be designed and constructed to accommodate at least two (2) sets of Small Cell Equipment on the same Wireless Support Structure. The collocation of wireless facilities on existing wireless support structures is encouraged as a means of minimizing the number of wireless support structures in Public Ways
- (b) New Wireless Support Structures shall maintain a distance of three hundred (300) feet from existing monopoles, or utility poles.
- (c) In residential districts, new Wireless Support Structures shall be located at the shared property line between two residential parcels where the parcels intersect the Right-of-Way when available.
- (d) In non-residential districts, new Wireless Support Structures shall be located between tenant spaces, storefront bays, or adjoining properties at the shared property lines where the parcels intersect the Right-of-Way when available.
- (e) New Wireless Support Structures shall not interfere with any metered parking space.
- (f) A new Wireless Support Structure shall not be located in front of a building entrance or exit.
- (g) Except in the residential zones, the overall height of a new Wireless Support Structure, including proposed Collocated antenna, shall not be more than forty (40) feet in height above ground level; provided, however, that the height of a Wireless Support Structure upon which a Small Wireless Facility is to be mounted shall be consistent with Section 1(b)(14) of these Design Guidelines. The overall height of a new Wireless Support Structure, including proposed Collocated antenna, shall not be more than thirty-five (35) feet in height above ground level in the residential zones so long as there is no Wireless Support Structure or utility pole taller than thirty feet located within three-hundred (300) feet of the location of the proposed new Wireless Support Structure; provided, however, that if a Small Wireless Facility is to be mounted upon it, the Facilities Operator may request a height consistent with Section 1(b)(14) of these Design Guidelines.
- (h) Design Requirements
  - (1) **Shape and Dimensions.** All new wireless structures shall be constructed of solid hot-dipped galvanized steel, be round in shape with the pole shaft tapered in diameter from the base to the top with a maximum of twelve (12) inches at the base.
  - (2) **Transformer Base.** All new wireless support structures shall include a one-piece case aluminum alloy transformer base in a breakaway design,

consistent with engineering standards subject to the City's review and approval.

- (3) Foundation/Footer.
  - (i) All new wireless support structures must be supported with a reinforced concrete foundation and footer designed, stamped, sealed and signed by a professional engineer licensed and registered in the State of Ohio, and subject to the City's review and approval.
  - (ii) Anchor bolts must be constructed from steel (high strength) per ATSM A36, threaded (J-Type/L-Type), hot dip galvanized steel per ODOT CM Item No. 711.02, and in a strength and diameter, stamped, sealed and signed by a professional engineer licensed and registered in the State of Ohio, and subject to the City's review and approval.
  - (iii) All anchor bolts must be concealed from public view with an appropriate pole boot or cover, powder coated to match the pole.
- (4) Color. New wireless support structures, including the breakaway transformer base, shall have a powder coated finish in the dark earth tone colors such as dark green, dark brown, gray, or black consistent with the color of other poles in the immediate vicinity.

## **Section 12. HISTORIC DISTRICT REGULATIONS**

Except antennas, all Small Cell Equipment to be located in the Right-of-Way in the [HISTORIC DISTRICTS] shall be located in an underground vault or shall be subject to such reasonable, technologically feasible, and non-discriminatory design or concealment measures as the City may specify, as long as such measures do not have the effect of prohibiting or materially inhibiting the Facilities Operator's provision of service. Such measures are not considered part of the Small Cell Facility for purposes of facility size restrictions in these Design Guidelines or Chapter 937 of the Codified Ordinances. If such measures are technologically infeasible then the Facilities Operator may submit a waiver request pursuant to Section 13(d).

## **Section 13. UNDERGROUND AREA REGULATIONS**

- (a) Whenever any existing electric utilities, cable facilities, telecommunications facilities or other facilities are located underground within a Public Way of the City, the Facilities Operator must also locate its Facilities and service lines underground.
- (b) A Facilities Operator may replace an existing Wireless Support Structure or Collocate Small Cell Facilities on an Existing Wireless Support Structure even if the Wireless Support Structure is located in an Underground Area.

- (c) A Facilities Operator shall not install a new Wireless Support Structure in an Underground Area.
- (d) An Operator may apply to the Commissioner for a waiver of the underground placement requirement if the requirement prevents the Facilities Operator from achieving its service objective and the Facilities Operator is unable to achieve its service objective by placing Facilities at:
  - (1) A location in the public Right-of-Way where the prohibition does not apply;
  - (2) A utility easement the service provider has the right to access; and
  - (3) Other suitable locations or structures made available by the City at reasonable rates, fees and terms.
- (e) Submission of a waiver request pursuant to subsection (d) is subject to the Facilities Operator's agreement to toll the timeframes set forth in Section 937.08(a) of the Codified Ordinances by fourteen (14) days.

**Section 14. DISCRETIONARY WAIVER**

It is within the Commissioner's reasonable discretion to waive any portion or portions of these Design Guidelines, as permitted or warranted under state or federal law, where strict compliance with such requirements, in the judgment of the Commissioner is not necessary or appropriate to protect the City's interests and the purposes and intents of these Design Guidelines.

**Section 99. PENALTIES; EQUITABLE REMEDIES**

- (a) Any Facilities Operator or other person or entity acting as the agent of a Facilities Operator found not to be in compliance with any of the provisions of these guidelines shall be assessed an administrative penalty not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00) for each event of non-compliance. A separate and distinct event of non-compliance shall be deemed to have occurred each day during or on which an event of non-compliance occurs or continues.
- (b) If a Facilities Operator fails to comply with these Design Guidelines, Chapter 937 of the Codified Ordinances, or the provisions set forth in Chapter 4939 of the Revised Code, the City may terminate the Facility Operator's Small Cell Use Permit.
- (c) Nothing in these regulations shall be construed as limiting any judicial remedies that the City may have, at law or in equity, for enforcement of these regulations.

Adopted by:

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Katie Gallagher, Mayor

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Dale Kulcsar, Building Commissioner

Date adopted: \_\_\_\_\_, 2019