City of Council Bluffs
Small Cell Design Guidelines

Approved <Date>

SECTION I: PURPOSE

The purpose of these guidelines is to establish general procedures and standards, consistent with all applicable federal and state laws, for the siting, construction, installation, collocation, modification, relocation, operation and removal of small cell wireless technology within the City's right of way and on City property. The goals of these guidelines are to:

A. Provide standards, technical criteria and details for small cell facilities in the City's right of way and on City property to be uniformly applied to all applicants and owners of small cell facilities or support structures for such facilities.

B. Enhance the ability of wireless communications carriers to deploy small cell wireless technology in the City quickly, effectively and efficiently so that residents, businesses and visitors benefit from ubiquitous and robust wireless service availability.

C. Preserve the character of the City's neighborhoods and corridors.

D. Ensure that small cell facilities and support structures conform with all applicable health and safety regulations and will blend into their environment to the greatest extent possible.

E. Comply with, and not conflict with or preempt, all applicable state and federal laws.

SECTION II: DEFINITIONS

Abandoned means any small cell facilities or wireless support structures that are unused for a period of three hundred sixty-five (365) days without the operator otherwise notifying the city and receiving the city's approval.

Antenna means communications equipment that transmits or receives radio frequency signals in the provision of wireless service.

Applicant means any Person applying for a Permit hereunder.

Architectural Review District means City-designated Historic Districts, Landmark Sites and Conservation Districts as well as National Register of Historic Places Historic Districts and Sites.

City means the City of Council Bluffs.

City property means property other than Right of Way owned by the City.

Collocation or Collocate means to install, mount, maintain, modify, operate, or replace wireless facilities on a wireless support structure.

County means Pottawattamie County, Iowa.

Decorative Pole means a pole, arch, or structure other than a street light pole placed in the right of way to specifically designed and placed for aesthetic purposes and on which no appurtenances or attachments have been placed except for any of the following (a) electric lighting; (b) specially designed informational or directional signage; (c) temporary holiday or special event attachments.

Industrial Area means an industrially-zoned area.
Operator means a wireless service provider, cable operator, or a video service provider that operates a small cell facility and provides wireless service. *Operator* includes 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(2), and services that are fixed in nature or use unlicensed spectrum.

Ornamental Pole means a pole or structure placed in the right of way to support traffic signals and/or streetlights which has been specifically designed and placed for aesthetic purposes. Ornamental Poles often include appurtenances or attachments for flags, planters and/or other aesthetic features.

Permit means the non-exclusive grant of authority issued by the City of Council Bluffs to install a small cell facility and/or a wireless support structure in a portion of the right of way in accordance with these guidelines.

Permittee means the owner and/or operator issued a Permit pursuant to these guidelines.

Person means any natural person or any association, firm, partnership, joint venture, corporation, or other legally recognized entity, whether for-profit or not-for-profit.

Retail and Commercial Areas means a commercially-zoned area.

Residential Area means a residentially-zoned area.

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 compatible public use, which is owned or controlled by the City of Council Bluffs.

Small Cell Facility means a wireless facility that meets both of the following requirements:

(1) Each antenna is located inside an enclosure of not more than six (6) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an enclosure of not more than six (6) cubic feet in volume.

(2) All other wireless equipment associated with the facility is cumulatively not more than twenty-eight (28) 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.

State means the State of Iowa.

Toll means the pause or delay of the running of the required time period.

Utility Pole means a structure that is designed for, or used for the purpose of, carrying lines, cables, or wires for electric or telecommunications service. "Utility pole" excludes street signs and decorative poles.

Wireless Support Structure means a pole, such as a monopole, either guyed or self-supporting, street light pole, traffic signal pole, a fifteen (15) foot or taller sign pole, or utility pole capable of supporting small cell facilities. *Wireless Support Structure* excludes (a) a utility pole or other facility owned or operated by a municipal electric utility and (b) a utility pole or other facility used to supply traction power to public transit systems, including railways, trams, streetcars and trolley buses.

SECTION III: REQUIREMENT TO COMPLY

Placement, modification, operation, relocation and removal of a small cell facility and/or wireless support structure shall comply with any applicable standards stated in the City of Council Bluffs Municipal Code at the time the permit for installation, modification, relocation or removal is approved and as amended from time to time.

SECTION IV: LOCATIONS OF SMALL CELL FACILITIES, RELATED GROUND EQUIPMENT, AND WIRELESS SUPPORT STRUCTURES

Most Preferable Locations

The following are the most preferred areas for new small cell facilities.

A. *Industrial Areas* if not adjacent to a municipal park, residential area, or architectural review district.

B. *Highway Rights of Way* areas if not adjacent to a municipal park, residential area or architectural review district.

C. *Retail and Commercial Areas* if not adjacent to a municipal park, residential area or architectural review district.

Collocation Preference

It is the City's strong preference that whenever an applicant proposes to place a new wireless support structure with a small cell facility within two hundred fifty (250) feet from an existing wireless support structure, the applicant either collocate with the existing facility or demonstrate that a collocation is either not technically feasible or space on the existing facility is not potentially available.

Least Preferable Locations

The following are the least preferred areas for new small cell facilities.

A. Residential Areas

B. Municipal Parks

C. Architectural Review Districts

D. Maps, which may be updated from time to time, showing the boundaries of the above areas are available upon request from the Council Bluffs Community Development Department.

Order of Preference for Wireless Support Structures

The following list indicates the order of preference for wireless support structures for small cell facilities. Images of the Municipal Service Poles are attached in Exhibit A.

A. *Existing Utility Poles:* It is the City's preference that small cell facilities be installed on existing utility poles (electric or telephone) or lashed onto existing telephone or electrical lines between existing utility poles.

B. *Non-Ornamental Municipal Service Poles:* If the applicant does not have the right to use existing utility poles or lines under reasonable terms and conditions or the utilization imposes technical limits, the City prefers that the applicant next look to existing non-ornamental municipal street lights or traffic signal structures.

C. *New Poles:* If the first two (2) items have proven to be unavailable, the City prefers the installation of a new pole to serve as a wireless support structure.

D. *Ornamental Municipal Service Poles:* The use of ornamental municipal street lights and traffic signals as wireless support structures is discouraged. These should only be proposed if the three (3) items listed above are unavailable or when requested by the City based on the proposed location. Use of ornamental traffic signal mast arms is preferred over use of ornamental street lights.

E. *Sign Poles (15 feet or taller):* The only sign poles that may be considered are those that are at least fifteen (15) feet tall. These are the least preferred option for a wireless support structure.

SECTION V: CONSIDERATION OF ALTERNATE LOCATIONS

The City reserves the right to propose an alternate wireless support structure to the one proposed in the application. The City may also propose an alternate location for a new wireless support structure within one hundred (100) feet of the proposed location or within a distance that is equivalent to the width of the right of way in or on which the new 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.

SECTION VI: GUIDELINES ON PLACEMENT

Generally, an applicant shall construct and maintain small cell facilities and wireless support structures in a manner that does not (1) obstruct, impede or hinder the usual travel or public safety on a right of way; (2) obstruct the legal use of a right of way by other utility providers; (3) violate nondiscriminatory applicable codes; (4) violate or conflict with any standards stated in the City of Council Bluffs Municipal Code; and (5) violate the federal Americans with Disabilities Act.

The City 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 cell facility and/or wireless support structure shall match and be consistent with the materials and finish of the adjacent municipal poles of the surrounding area adjacent to their location. In the absence of adjacent municipal poles, the wireless support structure shall match the materials and finish of the adjacent utility poles.

Antennas on Existing or Replaced Utility Poles

The antenna(s) associated with collocation on existing or replaced utility poles must have concealed cable connections, antenna mount and other hardware. The maximum dimensions for antennas shall not be more than six (6) cubic feet in volume, including any enclosure for the antenna.

Right of Way

Small cell facilities and wireless support structures and related equipment shall be placed, as much as possible, in line with other utility features and in a location that minimizes any obstruction, impediment or hindrance to the usual travel or public safety on a right of way.

Height Above Ground

Small Cell Facilities: Small cell facilities shall be installed at least eight (8) feet above the ground. If a small cell facility attachment is projecting toward the street, for the safety and protection of the public and vehicular traffic, the City may require the attachment to be installed no less than sixteen (16) feet above the ground.

New wireless support structures: In areas where there are no wireless support structures or utility poles taller than thirty (30) feet in height above ground level and the maximum allowable height for building construction in the underlying zoning district is thirty (30) feet in height above

ground level or less, the overall height of a new wireless support structure and any collocated antennas shall not be more than thirty (30) feet in height above ground level.

In all other areas, the overall height of a new wireless support structure and any collocated antennas shall not be more than forty (40) feet in height above ground level.

Existing wireless support structures: For an existing wireless support structure, the antenna and any associated shroud or concealment material are permitted to be collocated at the top of the existing wireless support structure and shall not increase the height of the existing wireless support structure by more than five (5) feet.

Protrusion

No protrusions from the outer circumference of the existing structure or pole shall be more than two (2) feet. The pole and all attachments to the pole that are projecting, or any equipment or appurtenance mounted on the ground, shall comply with Americans with Disabilities Act and shall not obstruct an existing or planned sidewalk or walkway. The City, at its option, may waive the requirement to limit the protrusion to no more than two (2) feet.

Location of Equipment - General

Small cell facilities and related equipment shall not impede pedestrian or vehicular traffic in the right of way. If any small cell facility or wireless support structure is installed in a location that is not in accordance with the plans approved by the City, impedes pedestrian or vehicular traffic and/or or does not comply or otherwise renders the right of way non-compliant with applicable laws, including the Americans with Disabilities Act, then the operator shall promptly remove the small cell facilities and/or wireless support structure. If the operator does not complete removal in a reasonable timeframe, the City will remove it and bill the operator for the cost of the removal.

The applicant is required to incorporate ambient noise suppression measures and/or required to place the equipment in locations less likely to impact adjacent residences or businesses to ensure compliance with all applicable noise regulations.

Utility Lines: Service lines must be undergrounded whenever feasible to avoid additional overhead lines. For metal poles, undergrounded cables and wires must transition directly into the pole base without any external junction box.

Spools and Coils: To reduce clutter and deter vandalism, excess fiber optic or coaxial cables for small cell facilities shall not be spooled, coiled or otherwise stored on the pole except within the approved enclosure such as a cage or cabinet.

Above-Ground Conduit: On wood poles, all above-ground wires, cables and connections shall be encased in the smallest section or smallest diameter PVC channel, conduit, u-guard, or shroud feasible, with a maximum dimension of four (4) inches in diameter. Such conduit shall be finished in zinc, aluminum or stainless steel, or colored to match those metal finishes.

Location of Ground Mounted Equipment

Ground equipment should be minimal and the least intrusive. It should be placed to minimize any obstruction, impediment, or hindrance to the usual travel or public safety on a right of way, maximize the line of sight required to add to safe travel of vehicular and pedestrian traffic and maximize that line of sight at street corners and intersections and minimize hazards at those locations. The City may deny a request that negatively impacts vehicular and/or pedestrian safety.

The equipment shroud or cabinet must contain all the equipment associated with the facility other than the antenna. All cables and conduits associated with the equipment must be concealed from view, routed directly through the metal pole (with the exception of wood power poles) and undergrounded between the pole and the ground-mounted cabinet.

Location of Pole Mounted Equipment

All pole-mounted equipment must be installed as flush to the pole as possible. Equipment attached to metal poles must be installed using stainless steel banding straps. Equipment attached to wood poles may be bolted to the pole or installed using stainless steel banding straps. When the straps are attached to a metal pole, they must match the color of the pole. Through-bolting or use of lag bolts is prohibited. All pole mounted equipment shall be located as close together as technically possible and if possible, on the same side of the pole.

When pole-mounted equipment is either permitted or required, all equipment other than the antenna(s), electric meter and disconnect switch must be concealed within an equipment cage. Equipment cabinet may not extend more than twenty-four (24) inches from the face of the pole. The equipment cabinet must be non-reflective, colored to match the existing pole if attached to a metal pole, and in the color of brushed aluminum if attached to a wood pole. Equipment cabinets should be mounted as flush to the pole as possible. Any standoff mount for the equipment cabinet may not exceed four (4) inches.

Electric Meter: The City strongly encourages site operators to use flat-rate electric service when it would eliminate the need for a meter. When a meter is necessary, site operators shall use the smallest and least intrusive electric meter available. Whenever permitted by the electric service provider, the electric meter base should be painted to match the pole.

Telephone/Fiber Optic Utilities: Cabinets for telephone and/or fiber optic utilities may not extend more than twenty-four (24) inches from the face of the pole, and must be painted, wrapped or otherwise colored to match the pole. Microwave or other wireless backhaul is discouraged when it would involve a separate and unconcealed antenna.

Undergrounded Equipment Vaults

Equipment in an environmentally controlled underground vault may be required in some areas where technologically feasible and appropriate for the location.

New Wireless Support Structures

Spacing: The City strongly discourages more than one (1) new wireless support structure per block and will not approve more than one (1) per two hundred fifty (250) feet on each side of the street to minimize the hazard of poles adjacent to roadways and minimize visual clutter and distractions to vehicular traffic. An exemption may be granted if the applicant can demonstrate that this restriction has the effect of preventing wireless service to this location. Wireless support structures shall be spaced apart from utility poles or wireless support structures supporting small cell facilities at the same spacing between utility poles in the immediate proximity.

If multiple requests are received to install two (2) or more poles that would violate the spacing requirement or to collocate two (2) or more small cell facilities on the same wireless support structure, priority will be given to the first request received that meets these guidelines.

Alignment with Other Poles: The centerline of any new wireless support structure must be aligned, as much as possible, with the centerlines of existing poles on the same street segment, but only if the new structure's height does not conflict with overhead power utility lines and facilities.

General Restrictions on New Wood Poles: In all locations, the City reserves the right to require a metal pole rather than a wood pole based on the built and/or natural environmental character of the proposed site location. The City will not approve any new wood poles in an Architectural Review District.

Wood Pole Footings and Foundations: All new wood poles must be direct buried to a depth determined, stamped, sealed and signed by a professional engineer licensed and registered by the State of Iowa, and subject to the City's review and approval.

Metal Pole Footings and Foundations: All new metal poles must be supported with a reinforced concrete pier. The design including the pier, footings and anchor bolts shall be stamped, sealed and signed by a professional engineer licensed and registered by the State of Iowa, and subject to the City's review and approval. All anchor bolts must be concealed from public view with an appropriate pole boot or cover subject to the City's prior approval.

Metal Pole Material: All metal poles must be constructed from hot-dip galvanized steel or other corrosion-resistant materials approved by the City and finished in accordance with these guidelines to avoid rust stains on adjacent sidewalks, buildings or other improvements.

Metal Pole Finish: Metal poles must be painted black. The applicant may select a paint or powder coat system in compliance with ATSM standards.

Lighting, Planters, Flags, Banners: The City may require the applicant to install functional streetlights and/or brackets to hold hanging flower planters, flags and/or banners when technically feasible and the City determines that such additions will enhance the overall appearance and usefulness of the proposed facility. The City may install hanging flower planters, flags and/or banners utilizing the brackets.

City-Owned Wireless Support Structures

Required Load Analysis: Installations on all City-owned poles shall have an industry standard pole load analysis completed, sealed and signed by a Professional Engineer licensed and registered by the State of Iowa and submitted to the City with each permit application indicating that the City-owned pole to which the small cell facility will to be attached will safely support the load.

Height of Attachments: All attachments on all City-owned poles shall be at least eight (8) feet above grade and if a small cell facility is projecting toward the street, for the safety and protection of the public and vehicular traffic, the City may require the attachment to be installed no less than sixteen (16) feet above the ground.

Power Source: A small cell facility on a City-owned wireless support structure may use the same power source that provides power for the original purpose of the wireless support structure. The City will provide a proposed flat rate for anticipated annual cost of power.

Installations on Traffic Signals and Street Lights: Installations on all traffic signal structures or street lights must not interfere with the integrity of the facility in any way that may compromise the safety of the public. The installation must not interfere with other existing uses on the pole such as traffic signals, street lights, hanging flower planters, flags, and/or banners. Installation of small cell facilities on any traffic signal structure or street light shall (a) be encased in a separate conduit than the traffic light electronics; (b) have a separate electric power connection than the traffic signal/street light structure; and (c) have a separate access point than the traffic signal/street light structure.

Installations on Sign Poles (15 feet or taller): Installations on sign poles may only occur if the sign pole is fifteen (15) feet or taller.

Reservation of space for future public safety or transportation uses: An application for space on a City owned or operated wireless support structure that conflicts with space reserved for future public safety or transportation uses documented in an approved plan in place at the time of the application will be denied unless the operator pays for the replacement of the pole or wireless support structure and the replaced pole or wireless support structure will accommodate the future use and the small cell facility.

SECTION VII: UNDERGROUNDING REQUIREMENTS

The City may deny requests to install structures and facilities in the right of way or on City property in an area where the City has required all structures and facilities except those owned by the City to be placed underground or elsewhere in the right of way or a utility easement. These areas are easily identifiable as those locations where electric has been placed underground; however, if an applicant is uncertain as to whether such facilities have been placed underground in the area, the applicant should contact the City for clarification before applying for or installing any wireless support structures and/or small cell facilities in the area. The applicant may request a waiver if the operator is unable to achieve its service objective using a location in the right of way or on City property where the prohibition does not apply, in a utility easement the operator has the right to access, or in or on other suitable locations or structures made available by the City at reasonable rates, fees and terms.

SECTION VIII: GENERAL AESTHETIC REQUIREMENTS

Concealment

New Wireless Support Structures: It is the City's preference that all new wireless support structures be camouflaged, except for those located in an area that is predominantly

industrial. The applicant shall submit their proposal for camouflage with the permit application.

Small Cell Facilities: Small cell facilities shall be concealed or enclosed as much as possible in an equipment box, cabinet, or other unit that may include ventilation openings. Unless approved by the City in writing, there shall be no external cables and wires hanging off a pole. The approved ones shall be sheathed or enclosed in a conduit, so that wires are protected and not visible or visually minimized to the extent possible.

Equipment Enclosures: Equipment enclosures, including electric meters, shall be as small as possible. Ground-mounted equipment shall incorporate concealment elements into the proposed design. Concealment may include, but shall not be limited to, landscaping, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.

Landscaping: Landscape screening shall be provided and maintained around ground mounted equipment enclosures. The planting quantity and size should be such that 100% screening is achieved within two years of installation. The City may grant an exemption from this landscaping requirement based on the characteristics of the specific location for the equipment enclosure. 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 right of way must be noted in the application and must be approved by the City.

When underground vaults are proposed, they shall be located to minimize disruption to the placement of street trees. Adequate planting depth shall be provided between the top of the vault and the finished grade to allow plants to grow in a healthy condition.

Allowed Colors

All colors shall match the background of any wireless support structure that the facilities are located upon. In the case of existing wood 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. Ground mounted equipment cabinets shall be the color of brushed aluminum.

Signage/Lights/Logos/Decals/Cooling Fans

Signage: Operator shall post its name, location identifying information, and emergency telephone number in an area on the cabinet of the small cell facility that is visible to the public. Signage required under this section shall not exceed 4" x 6", unless otherwise required

by law (e.g. RF ground notification signs) or the City. If no cabinet exists, the signage shall be placed at the base of the pole.

Lights: New small cell 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.

Logos/Decals: Remove or paint over unnecessary equipment manufacturer decals. New small cell facilities and wireless support structures shall not include advertisements and may only display information required by a federal, state or local agency. Utilize the smallest and lowest visibility radio-frequency (RF) warning sticker required by government or electric utility regulations. Place the RF sticker as close to the antenna as possible.

Cooling Fans: In residential areas, use a passive cooling system. In the event that a fan is needed, use a cooling fan with a low noise profile.

SECTION IX: AESTHETIC REQUIREMENTS

As noted in Section IV, the City's preference for wireless support structures is existing utility poles. The next preference is for non-ornamental municipal service poles. Ornamental municipal poles should be avoided if possible.

When collocating on the City's ornamental black traffic signal mast arms, the preferred collocation spot is on the traffic signal pole without attached street signs, with the antenna placed at the top of the vertical pole immediately below the finial. Each proposed collocation will be subject to a site-specific review.

The City strongly discourages the use of the City's ornamental streetlights as wireless support structures. They should be used only when no other options exist, including the ability to install a new wireless support structure. If used, the height may not be increased more than five (5) feet, the light fixture must be located at the top of the pole, and the small cell facility must not interfere with the attachment of flags, hanging planters and/or banners.

If existing utility poles are not available for collocation, operators may propose a new wireless support structure. New wireless support structures that will be more than twenty (20) feet in height shall match the design of the City's ornamental black traffic signal mast arms. New wireless support structures that will be twenty (20) feet or less in height shall match the City's ornamental streetlights. Information on the manufacturer and model identification, and detailed drawings of these support structures are available from the Engineering Department.

New Wireless Support Structures

Residential Areas: In residential areas, new wireless support structures should be located to avoid obstructing the view of building facades by placing the wireless support structure at a corner, intersection or along a lot line. New wireless support structures should be located in the yard location where other overhead utilities are located unless it is not technically feasible to do so. Applicants shall clearly explain the rationale for requests that deviate from this expectation.

In order to meet the service needs of operators, the City will consider requests to locate small cell facilities on other municipal property, such as municipal parking lots, in an architectural review district.

SECTION X: GENERAL PROVISIONS

Tree Maintenance

Operator, its contractors, and agents shall obtain written permission from the City before trimming trees in the right of way hanging over its small cell facility and/or wireless support structure to prevent branches of such trees from contacting attached small cell facility. When trimming such trees on private property, the operator, its contractors, and agents shall notify the City and obtain written permission from the property owner. When directed by the City, operator shall trim under the supervision and direction of the City. The City shall not be liable for any damages, injuries, or claims arising from operator's actions under this section.

Graffiti Abatement

As soon as practical, but not later than fourteen (14) calendar days from the date operator receives notice thereof, operator shall remove all graffiti on any of its small cell facilities and/or wireless support structures located in the right of way. The City may agree to an extension of time for abatement when necessitated by the need to order replacement equipment when such equipment is ordered in a timely manner.

Minor Technical Exceptions

The City recognizes that in some circumstances strict compliance with these guidelines may result in undesirable aesthetic outcomes and that minor deviations should be granted when the need for such deviation arises from circumstances outside the applicant's control.

Waivers if requirements have the effect of prohibiting the provision of wireless service to a location

In the event that any applicant asserts that strict compliance with any provision in these guidelines, as applied to a specific proposed small cell facility, would effectively prohibit the provision of personal wireless services, the Mayor may grant a limited, one-time exemption from strict compliance.

Effective Date

These Guidelines shall take effect on the date approved by the City Council and shall apply to all applications for small cell siting, construction, installation, collocation, modification, relocation, operation and removal filed after the effective date.