

ZONING

210 Attachment 6

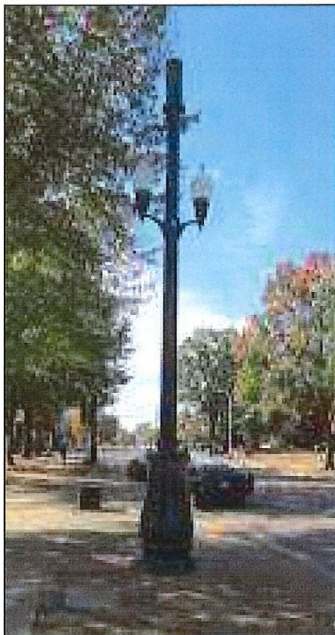
Township of Concord

Appendix A

Article XXVI. Design Standards

Chapter 210 - Zoning Ordinance

Non-Tower Based Small Wireless Communications Facility Design Standards



Concord Township - Delaware County, Pennsylvania

December 12, 2022

CONCORD CODE

Article XXVI. Design Standards

Chapter 210- Zoning Ordinance

Non-Tower Based Small Wireless Communications Facility Design Standards

This Appendix includes the following Written and Graphic Design Standards:

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SOURCES:

Millcreek: Small Wireless Facility Design Standards, July 14, 2020.

West Chester Borough - Chester County, PA Small Wireless Facility Design Guidelines

Forest Park, Illinois, Code of Ordinances: Stealth, Concealment and Aesthetic Standards

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Background and Purpose

210-309.A.(1)
Design Standards

Legislative Intent:

210-309.A.(1)(a)

These Design Standards are intended to provide design and aesthetic requirements and specifications that all non-tower based small wireless facilities installed within the street right-of-way, and on buildings and/or structures shall meet prior to installation within Concord Township.

Applicability:

210-309.A.(1)(b)

Small wireless facility providers shall consider the aesthetics of the existing streetlights and other infrastructure near proposed small cell locations, and shall comply with these Design Standards.

210-309.A.(1)(c)

The specifications provided in these Design Standards are for single carrier with single technology installations within the street right-of-way only, and for installations on permitted buildings and structures not in the public street right-of-way.

210-309.A.(1)(d)

Deviations from these Design Standards may be approved if reasonable on a case-by-case basis by Concord Township prior to installation.

General Requirements

210-309.A.(2)

Legislative Intent:

210-309.A.(3)(a)

Small wireless facilities installed within the street right-of-way are intended to achieve the General Requirements outlined in this section.

Design Standards:

210-309.A.(3)(b)

Any small wireless facilities collocated shall comply with the following requirements:

- [1] So as not to significantly create a new obstruction to property sight lines.
- [2] At the intersection of property lines, or along secondary property streets that are facing the intersection.
- [3] With appropriate clearance from existing utilities.
- [4] Preferably equidistant from adjacent poles.
- [5] In a single family neighborhood, the noise limit shall be 5 dBA above ambient sound, not to exceed 30 dBA as measured at a property line. Other noise regulations may apply. If the facility does not generate noise, include this information in the submittal so information can be shared with neighborhood.
- [6] Providers shall consider the aesthetics of existing streetlights and street furniture in the neighborhood of the proposed small cell locations.
- [7] All equipment located within the public street right-of-way shall be located such that it meets ADA requirements and does not obstruct, impede, or hinder usual pedestrian or vehicular travel or interferes with the operation and maintenance of signal lights, signage, street lights, street furniture, fire hydrants, or business district maintenance.
- [8] Minimize impact to the aesthetics of the existing poles.
- [9] New poles shall match aesthetics of adjacent poles.
- [10] These aesthetic considerations and accommodations shall be included in the application submittal.

210-309.A.(3)(c)

The preferred location for small wireless facilities include:

- [1] On-strand attached to a utility pole
- [2] Attachments to utility poles
- [3] Attachment to plain wood or metal streetlights
- [4] Installation of monopoles
- [5] Attachment to traffic signal poles
- [6] Attachment to enhanced service area streetlights
- [7] Collocated on nonresidential buildings or structures, multifamily residential buildings with 10 or more units and/or other facilities such as schools, hospitals, residential rehabilitation centers, and like-type facilities.

210-309.A.(3)(d)

Small cell equipment shall be mounted on or hidden inside the pole as follows:

- [1] Antenna: Shall be inside a cantenna.

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- [2] Monopoles: All equipment shall be inside a monopole in base cabinet.
- [3] Utility poles and wood poles: All equipment located on poles if allowed by pole owner, and anything not on the pole shall be located in a ground mounted equipment box. Fiber in conduits shall be flush with pole.
- [4] Traffic signal poles: All equipment shall be in ground mounted equipment box. Fiber shall be inside the pole in conduit (if conduit is not available, pole cannot be used).
- [5] New/replacement metal streetlight poles: All equipment shall be inside pole in round base cabinet.
- [6] Decorative streetlights: Shall be replaced with equipment inside pole.
- [7] Enhanced service area streetlights: Shall replace existing streetlight with matching streetlight and all equipment shall be inside pole.
- [8] Shall be placed so as not to interfere with normal operation and maintenance of streetlight or other street appurtenances.
- [9] Radiation certified to be at safe levels by a Non-Ionizing Radiation Electromagnetic Radiation Report (NIER) shall be submitted to the pole owner and retained on file for equipment type and model.
- [10] The NIER report shall be endorsed by a Qualified Professional. It shall specify minimum approach distances to the general public as well as electrical and communication workers that are not trained for working in an RF environment (uncontrolled) when accessing the pole by climbing or bucket.
- [11] Concord Township workers and contractors shall have the ability to easily shut off radio signals and power while working on pole. (And Concord Township has the right to turn off or disconnect for necessary operations).
- [12] Attachments to a pole or any new or replacement pole shall have a smooth transition between the small cell and the pole and (except for the top of a cantenna), and shall not have any flat surface of more than 1.5 inches to prevent creation of a ledge.
- [13] New small cell facility shall be encased in a separate conduit than any Concord Township electronics.

210-309.A.(3)(e)

Power and Ground Mounted Equipment Boxes shall have:

- [1] Back up batteries in a ground mounted equipment box, or underground where possible.
- [2] A separate meter and disconnect for both the power and the cell signal that can be accessed and operated by street lighting maintenance personnel.
- [3] A power metered.

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General Standards

210-309.A.(3)
Design Standards

Legislative Intent:

210-309.A.(3)(a)

Small wireless facilities installed within the street right-of-way are intended to comply with the General Standards outlined in this section.

Design Standards:

210-309.A.(3)(b)

Small wireless facilities installed within the street right-of-way shall meet the following standards.

[1] Internal Installs	Equipment shall be installed within new poles, and when feasible within an existing pole.
[2] External Shrouding	The antenna shall be contained in a cantenna. Any other equipment shall be contained in an equipment cabinet unless the visual impact can otherwise be reduced by the location on the pole.
[3] Width	The width may not exceed the diameter of the pole by more than three inches on either side.
[4] Sidearm (off-set) Installs	If permitted, may not allow the furthest point of the enclosure to extend more than 18 inches from the pole.
[5] Conduits	All cables shall be in conduits and shall be flush with the pole unless required to be installed inside the pole.
[6] Hardware Attachment	All hardware attachments shall be hidden. Welding onto existing equipment is not permitted.
[7] Color	All equipment shall be painted to match pole aesthetic. Paint shall be powder coated over zinc paint. If a wood pole, the visible attachments and hardware shall be colored gray.
[7] Equipment Cabinet Access Doors	Lockable access door sized to install, maintain, and remove all small cell equipment as needed shall meet provider's requirements, and utility access shall be per the utility provider's requirements.
[8] Cables	All cables shall be clearly labeled for future identification.
[9] Cantennas	Cantenna shall be mounted directly on top of the pole unless a side arm installations is required by a pole owner. A tapered transition between the upper pole and cantenna is required. Cantenna shall be a maximum of 14-inch diameter.

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[10] Stickers	Any on-pole cabinet and ground mounted utility box should be labeled with: a RF warning sticker, background to match pole color, no larger than 4 x 6 inches. Facing to the street near the elevation of the antennae; a 4-inch by 6-inch (maximum) plate with the provider's name, location identifying information, and 24-hour emergency telephone number; and No advertising, logos or decals.
[11] Lights	There shall be no lights on the equipment unless required by Federal Law.
[12] Ground Mounted Equipment Box	Ground mounted equipment boxes shall comply with existing Concord Township ordinance provisions, and shall be attached to a concrete foundation.
[13] Height of Equipment on Pole	The lowest point shall not be lower than 8 feet from the grade directly below the equipment enclosure.
[14] Power Meter	Power Meter(s) shall be provided as required by the utility company, and shall be in a location that: minimizes its interference with other users of Concord Township's right-of-way including, but not limited to, pedestrians, motorists, and other entities with equipment in the right-of-way; and minimizes its aesthetic impact.

Attachments: Third Party Poles

210-309.A.(4)
Design Standards

Legislative Intent:

210-309.A.(4)(a)

The attachment of a small cell facility to a third party pole is intended to comply with these Design Standards, and shall conform to the pole owner's attachment standards.

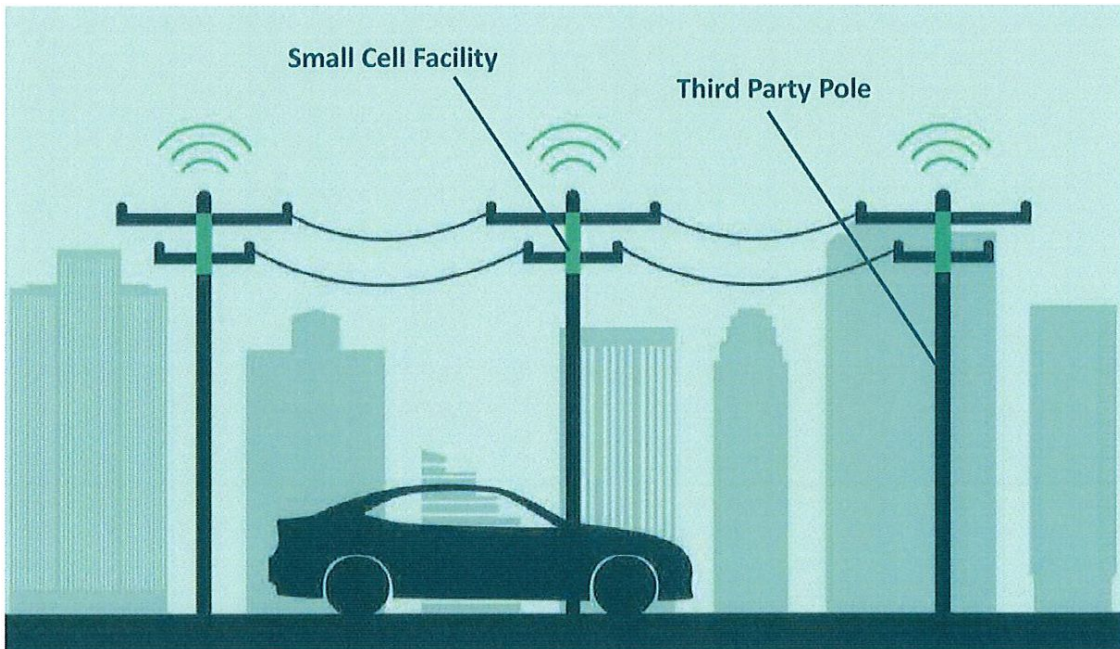
Design Standards:

210-309.A.(4)(b)

Any attachment to a utility pole or utility line shall first be approved by the owner of the utility pole. This includes attachment of overhead fiber and on-strand attachments proposed to attach to a utility pole. These standards apply whether attachment is to an existing utility pole, or if the owner requires installation of a replacement pole.

210-309.A.(4)(c)

A new utility pole installed for the purpose of attaching a small cell is not permitted, but would be treated as a monopole (see § 210-309.A.(5)).



Appropriate location on Third Party Poles

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Attachments: Traffic Signal Poles

210-309.A.(4)
Design Standards

Legislative Intent

210-309.A.(4)(d)

The attachment of a small cell facility on the top of a traffic signal upright pole is intended to comply with these Design Standards.

Design Standards:

210-309.A.(4)(e)

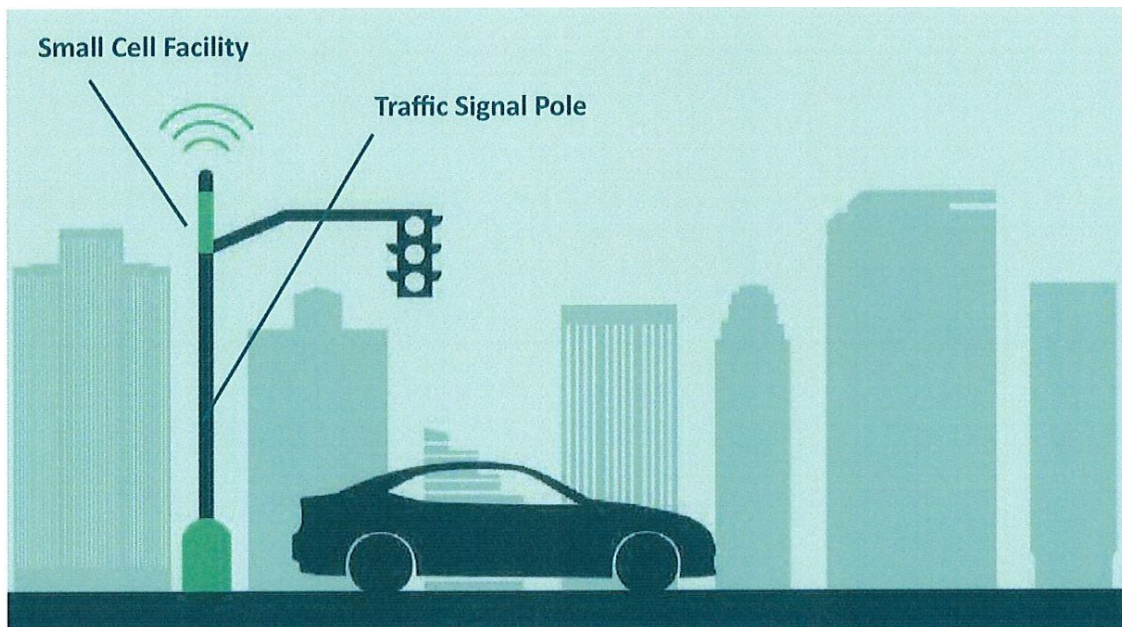
All provider equipment other than the antenna shall be housed inside a ground mounted equipment box or hidden within the cantenna. The antenna may only be attached to the top of the upright pole. No provider equipment shall be strapped to the outside of the signal pole or on a side arm extension.

210-309.A.(4)(f)

There shall be not physical, electrical, or radio interference by the small cell with the traffic signal. The provided shall provide analysis that the proposed small cell facility shall not cause any interference with the Township safety radio system, traffic signal, emergency signal control devices, radio read water metres, “smart” streetlights, future “smart” applications, other Concord Township communications components, or nay other unforeseen interferences.

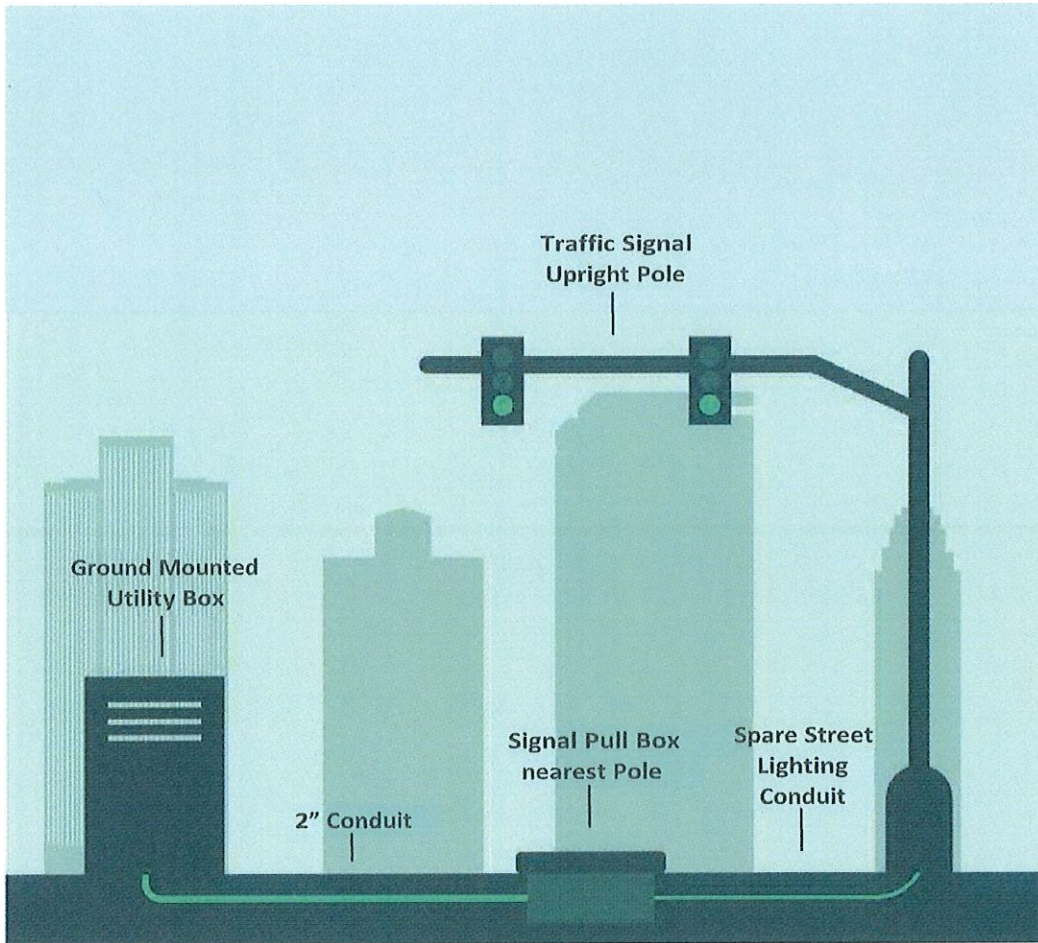
210-309.A.(4)(g)

A small cell facility shall not be placed on a traffic signal upright pole where there is a luminaire attached.



Appropriate location on Traffic Signal Poles

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Small Cell Facility Assembly on a Traffic Signal Pole

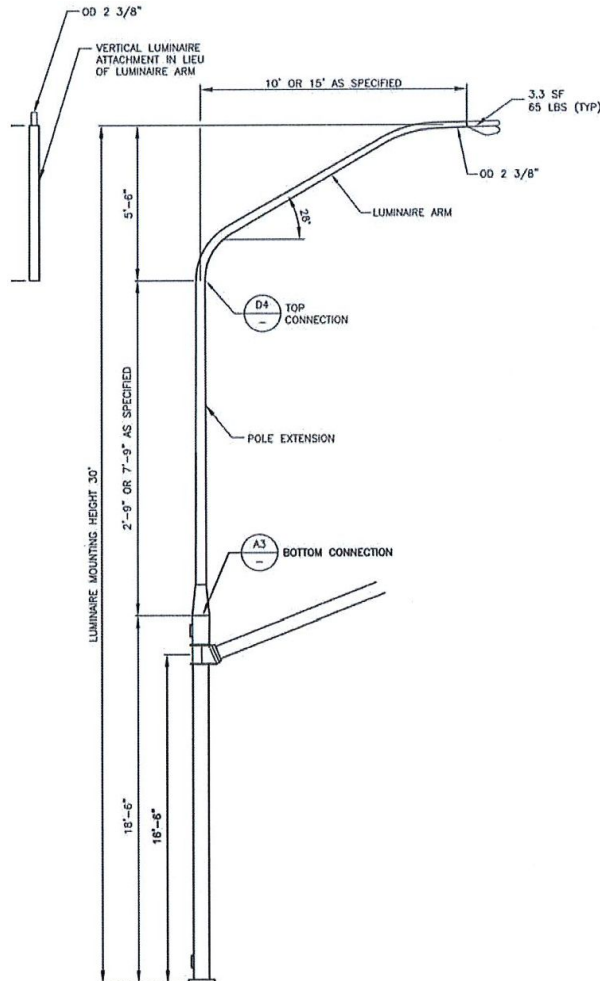
ZONING

Design Standards

210-309.A.(4)(h)

A small cell facility located on an existing traffic signal pole shall comply with the following:

- [1] Shop drawing submitted to the Concord Township Engineer and receive approval prior to ordering the signal.
- [2] Obtain Approval from the Township Landscape Architect, Engineer, and utility companies prior to trimming any trees and shrubs.
- [3] Luminaire arm or extensions, and related hardware shall be furnished by the contractor.
- [4] Steel: Grade C, ASTM C 570 all steel components to be hot-dipped galvanized, ASTM A 123, etched, and painted Black.
- [5] Paint: Powder Coated Gloss Black.
- [6] Maintained at least a ten-foot clearance from all luminaire hardware to overhead powerlines.
- [7] All metal components shall be painted. The painted finish shall not be damaged during transportation and placement.



Traffic Signal with Luminaire light extension

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Attachments: Street Lights

210-309.A.(4)
Design Standards

Legislative Intent:

210-309.A.(4)(i)

The attachment of a small cell facility to a streetlight are intended to include:

- [1] Collocating small cell equipment on plain (non-decorative) wood or metal streetlight poles.
- [2] Replacing an existing or adding a new wood or metal streetlight pole so that small cell equipment can be attached.
- [3] Collocating on enhanced service area streetlight poles.

Design Standards:

210-309.A.(4)(j)

All provider equipment shall be housed internal to the equipment cabinet or hidden behind the cantenna. No provider equipment shall be strapped to the outside of the pole.

210-309.A.(4)(k)

On an existing pole, the equipment excluding the antenna shall be shrouded in an equipment box if on the pole, otherwise shielded from view (for example, behind a sign), hidden within the cantenna, or contained in a ground mounted equipment box.

210-309.A.(4)(l)

A small cell facility shall not be placed on a traffic signal upright pole where there is a luminaire attached.

210-309.A.(4)(m)

The provider may house the equipment inside the pole structure in an equipment box at the base of the upper pole on a new streetlight.

210-309.A.(4)(n)

A base equipment shall be round with a diameter of a base cabinet of at least 16-inch and no more than 20-inch diameter.

210-309.A.(4)(o)

The meter shall be contained in a ground mounted equipment box, unless permitted to be inside an equipment box as approved by the utility company.

210-309.A.(4)(p)

New streetlights or replacement streetlights shall comply with Concord Township provisions, which includes requirements pertaining to: luminaire design aesthetics, lighting level criteria, typical street light spacing, and street light details.

210-309.A.(4)(q)

All equipment height shall be above the ground at least eight feet. If the small cell equipment orients toward the street, the attachment shall be installed no less than 16 feet above the ground.

- [1] Equipment shall be oriented away from the street.

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- [2] The size of small cells shall be minimized as possible to minimize visual impact without interfering with the small cell operation.
- [3] Equipment may not block visibility of streetlight banners.

210-309.A.(4)(r)

Attachments to an enhanced service area light pole shall not change the overall character of light or proportion of the luminaires with the placement of a cantenna. The lighting level of service shall not be decreased.

210-309.A.(4)(s)

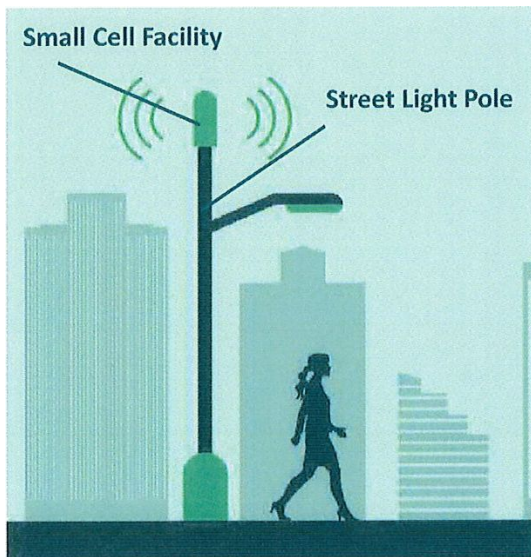
All new luminaires shall be the same height as adjacent streetlights.

210-309.A.(4)(t)

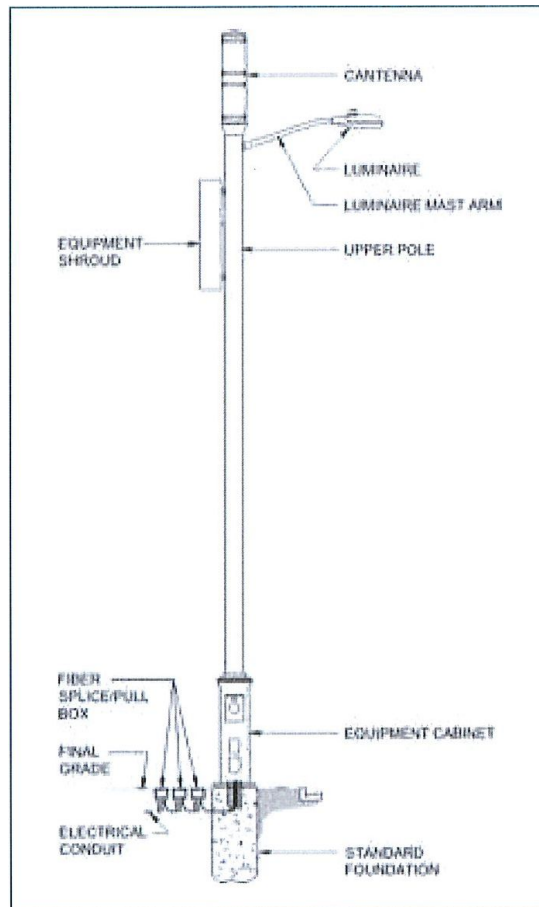
The Township may require a new streetlight in lieu of a monopole.

210-309.A.(4)(u)

Wood poles are only permitted with approval in areas that are predominately wood or when replacing an existing wood pole



Appropriate location on Street Lights



Combination Street Light Pole with Cantenna and Equipment Shroud

CONCORD CODE

Attachments: Buildings

210-309.A.(4)
Design Standards

Legislative Intent:

210-309.A.(4)(v)

The attachment of a small cell facility attached to a building is intended to preserve the existing character of the surrounding buildings and landscape, and are intended to blend in with the existing characteristics of the site.

Design Standards:

210-309.A.(4)(w)

Small wireless facilities may be mounted to nonresidential buildings or structures, on multifamily residential buildings with 10 or more units, and/or on other facilities such as schools, hospitals, and residential rehabilitation centers if the antennas do not interrupt the building's architectural theme

210-309.A.(4)(x)

The location of small wireless facilities shall preserve the existing character of the surrounding buildings and landscape to the extent consisted with the function of the proposed small wireless facilities.

210-309.A.(4)(y)

Small wireless facilities mounted on a building shall be concealed within a structure that is architecturally compatible with the existing rooftop, and shall be concealed on all sides.

210-309.A.(4)(z)

Small wireless facilities mounted to the side or roof of buildings shall employ a symmetrical, balanced design for all facade mounted antennas. Subsequent deployments shall be required to be provide consisted design, architectural treatment, and symmetry when placing antennas on the structure's exterior with any existing small wireless facilities on the same side of the structure.

210-309.A.(4)(aa)

The interruption of architectural lines or horizontal or vertical reveals is prohibited unless demonstrated to be unavoidable.

210-309.A.(4)(bb)

New architectural features such as columns, pilasters, corbels, or other ornamentation that conceal antennas may be used if it complements the architecture of the existing building.

210-309.A.(4)(cc)

Small wireless facilities shall utilize the smallest mounting brackets necessary in order to provide the smallest offset from the buildings.

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210-309.A.(4)(dd)

Skirts or shrouds shall be utilized on the sides and bottoms of antennas in order to conceal mounting hardware, create a cleaner appearance, and minimize the visual impact of the antennas.

210-309.A.(4)(ee)

Small wireless facilities shall be painted and textured to match the adjacent building surfaces.

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Installation of Monopoles

210-309.A.(5)
Design Standards

Legislative Intent:

210-309.A.(5)(a)

The installation of freestanding small wireless facilities, referred to as a monopole, are intended to comply with these Design Standards.

Design Standards:

210-309.A.(5)(b)

All small cell carrier equipment excluding the antenna shall be housed internal to an equipment cabinet at the base of the pole or hidden behind the cantenna. No provider equipment shall be strapped to the outside of the monopole.

210-309.A.(5)(c)

Monopoles to coordinate with neighborhood pole style and material type.

210-309.A.(5)(d)

New monopoles shall be metal (aluminum or steel).

210-309.A.(5)(e)

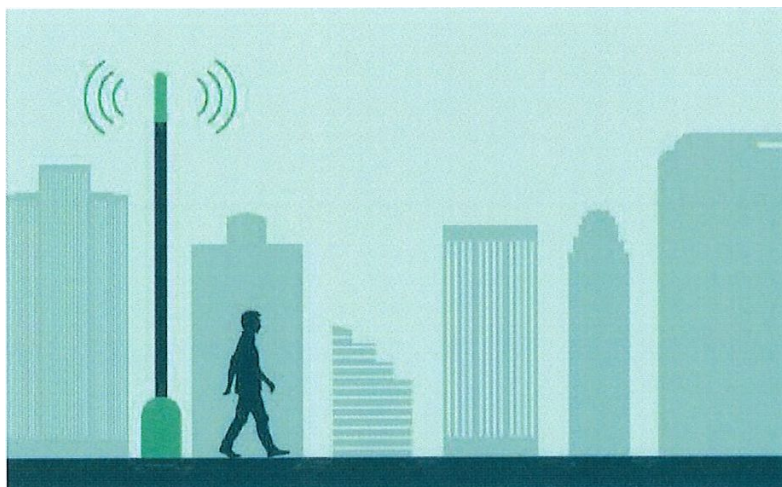
Ownership of monopoles shall remain with the provider. Concord Township reserves the right to attach any sign (such as a no parking sign) on the monopole.

210-309.A.(5)(f)

At least 15% of the pole design structural capacity shall be reserved for future Concord Township installations.

210-309.A.(5)(g)

All new poles shall have appropriate clearance from existing utilities.



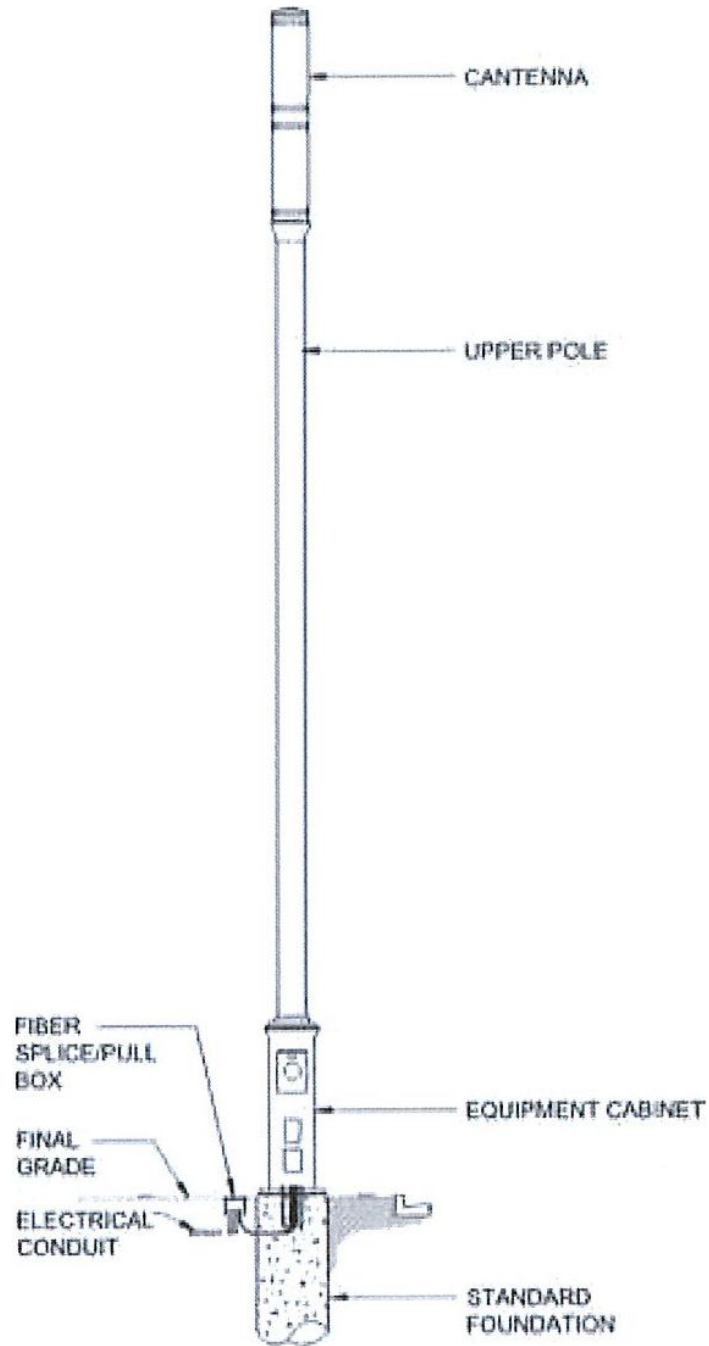
Small Wireless Facility on Monopole

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Design Standards

210-309.A.(5)(h)

Freestanding small cell pole components include the foundation, equipment cabinet, upper pole, antenna, and all hardware and electrical equipment necessary for a complete assembly, as shown depicted below.



Monopole

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Location and Placement

210-309.A.(6)
Design Standards

Legislative Intent:

210-309.A.(6)(a)

The location and placement of Small Cell Wireless Facilities are intended to comply these Design Standards.

Design Standards:

210-309.A.(6)(b)

The preferred location for a new pole is generally on a property line in order to avoid interference with a building facade, views, business signage, pedestrian flow, etc.

210-309.A.(6)(c)

Shall be located in a manner that does not impede, obstruct, or hinder pedestrian or vehicular travel.

210-309.A.(6)(d)

Shall be placed so as not to be located along the frontage of a Historic building or structure, or other resource deemed historic on a federal or state level, or by Concord Township.

210-309.A.(6)(e)

Shall be placed so as not to significantly create a new obstruction to property sight lines.

210-309.A.(6)(f)

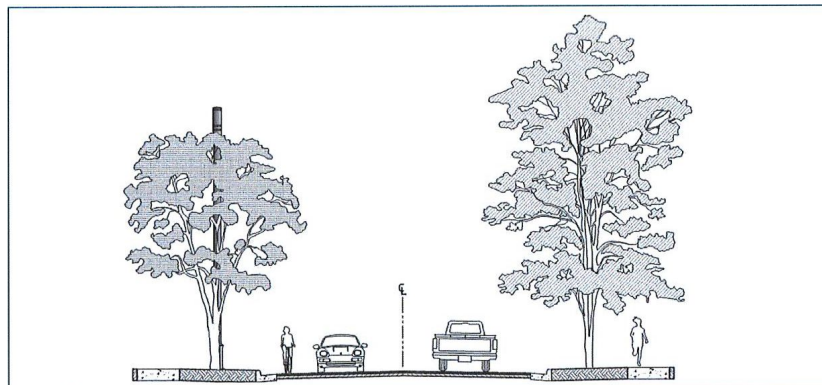
Shall be located at the intersection of property lines, or along secondary property street facing.

210-309.A.(6)(g)

Shall be located within the street side treatments, such as park strips, wherever possible.

210-309.A.(6)(h)

Shall be placed in alignment with existing trees, utility poles, and streetlights and other street furniture located along the streetscape.



Freestanding facility located in alignment with other streetscape elements

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Design Standards

210-309.A.(6)(j)

Shall be placed in order to provide adequate clearance from existing utilities.

210-309.A.(6)(l)

Shall be located 10 feet away from the triangle extension of an alley way flare.

210-309.A.(6)(m)

Shall not be located within 100 feet of the apron of a fire station or other adjacent emergency service facility.

210-309.A.(6)(n)

A wireless provider shall not install a new utility pole in a public street right-of-way adjacent to a residential zone property, if the curb to curb measurement of the street is 60 feet wide or less.

210-309.A.(6)(o)

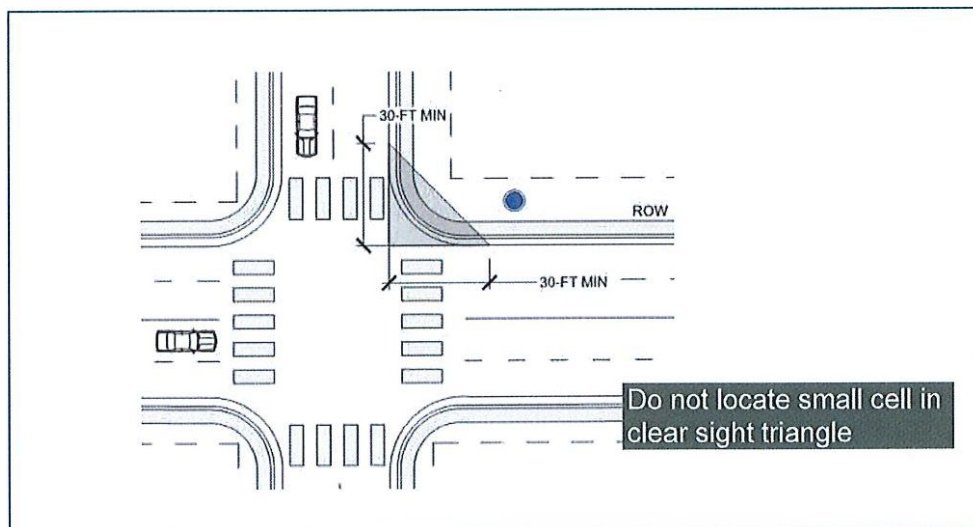
Freestanding small cells shall be located such that they in no way impede, obstruct, or hinder the usual pedestrian or vehicular travel, affect public safety, obstruct the legal access to or use of the public ROW, violate applicable law, violate or conflict with public right-of-way design standards, specifications, or ordinance provision, violate the Federal Americans with Disabilities Act of 1990, or in any way create a risk to public health, safety, or welfare.

210-309.A.(6)(p)

Free standing small cells shall be located within the street right-of-way, and off set from the sidewalk, out of the clear sight triangle, as shown below.

210-309.A.(6)(q)

Small wireless facilities may be collocated on the roof of nonresidential buildings or structures, multi-family residential buildings with 10 or more units and/or other facilities such as schools, hospitals, residential rehabilitation centers, and like-type facilities.



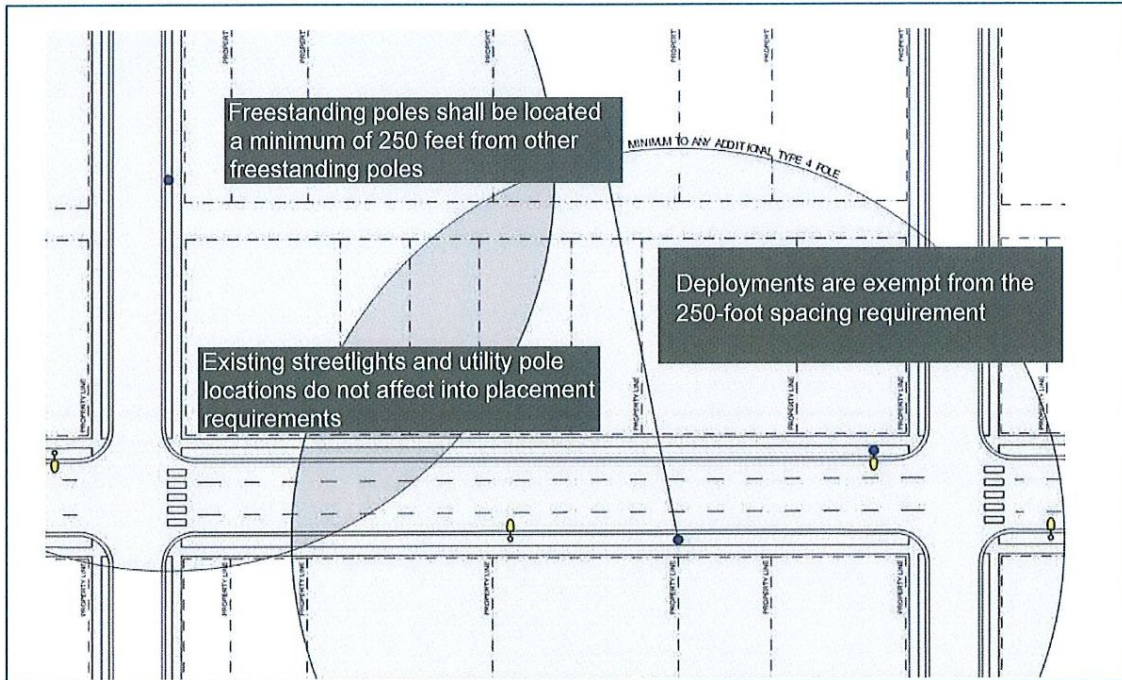
Located out of the clear sight triangle

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Design Standards

210-309.A.(6)(r)

Shall be placed at a minimum of 250 feet apart radially. This radius extends around corners and into alleys.



Freestanding Small Cell Facility Spacing Radius

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Design Standards

210-309.A.(6)(s)

Shall be located equal distance between trees and other poles when possible, with a minimum of 15 feet separation such that no proposed disturbance shall occur within the critical root zone of any tree.

210-309.A.(6)(t)

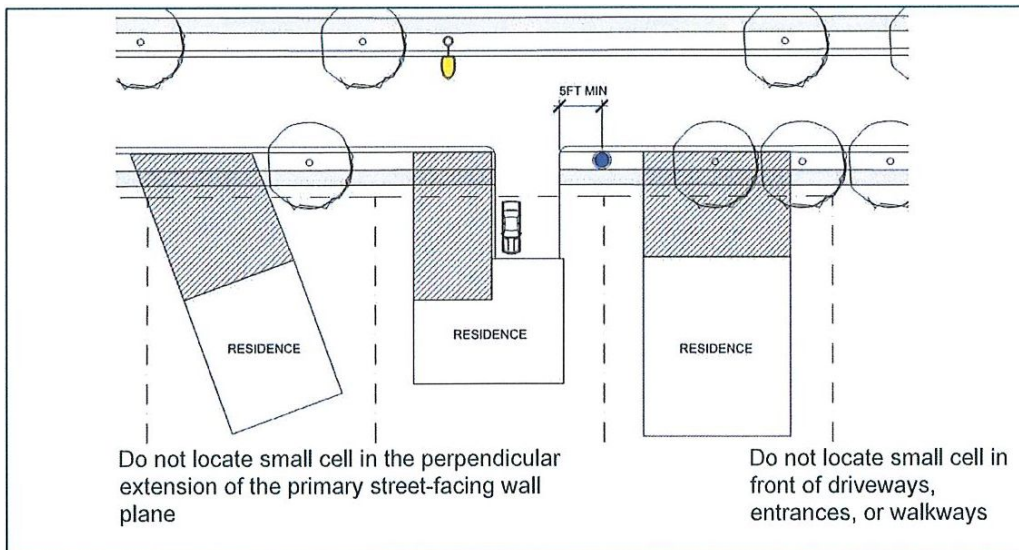
Small cell facilities shall not be installed between the perpendicular extension of the primary street facing facade of any single- or two-family residence as depicted below.

210-309.A.(6)(u)

Free standing small cell facilities shall not be installed in residential communities where existing utilities are located underground, unless authorized by Concord Township.



Freestanding Small Cell Facility located between property lines and trees



Freestanding Small Cell Facility located between property lines

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Design Standards:

210-309.A.(6)(v)

When located adjacent to a commercial establishment, such as a shop or restaurant, care shall be taken in order to locate the facility so that it does not negatively impact the business. Small cell facilities shall not be located in-front of store front windows, primary walkways, primary entrances or exits, or in such a way that it would impede a delivery to the building. Small cells should be located between properties as much as possible as shown



Freestanding Small Cell Facility located in commercial area

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Acceptable and Unacceptable Examples

210-309.A.(7)
Design Standards

Legislative Intent:

210-309.A.(7)(a)

Small cells are intended to be installed in order to be minimize visual impact, without interfering with the small cell operation.

Design Standards:

210-309.A.(7)(b)

Small cells shall be installed in per the acceptable installation examples illustrated below, and shall not be installed per the unacceptable installation examples.

ACCEPTABLE EXAMPLES



Facility on Existing Traffic Light

210-309.A.(7)(c)

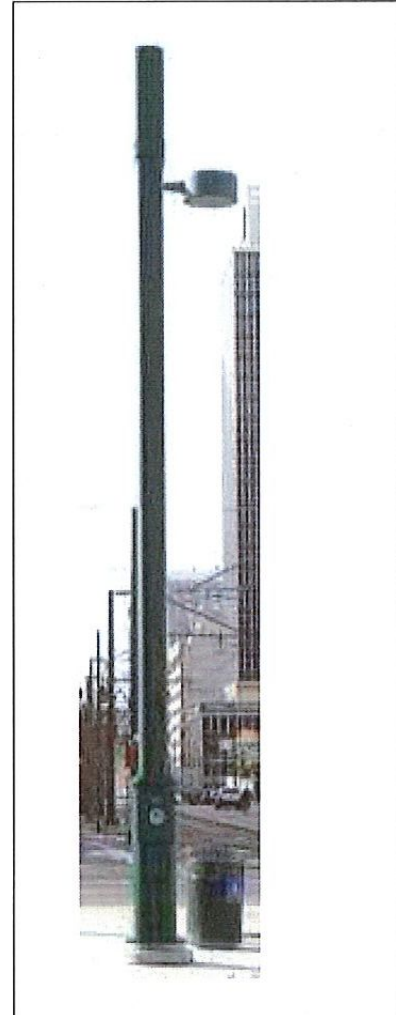
The conduit, mounting bracket, and other hardware are hidden from view.

210-309.A.(7)(d)

There is a smooth transition between the upper pole and the antenna attachment.

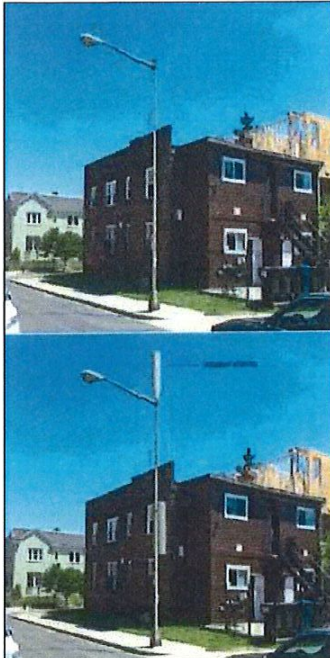
210-309.A.(7)(e)

The upper pole is not smooth and/or straight, with 1.5 inch maximum of flat surface where mounted to the equipment cabinet.



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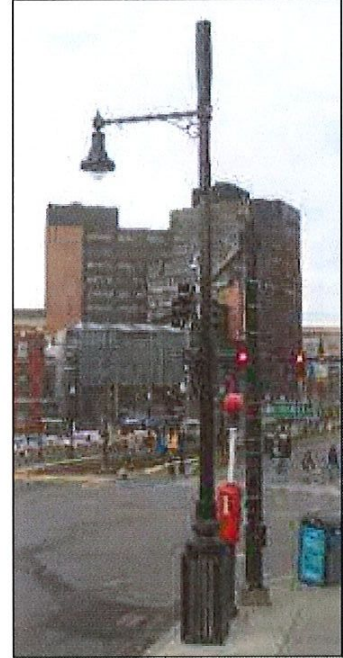
ACCEPTABLE EXAMPLES (CONTINUED)



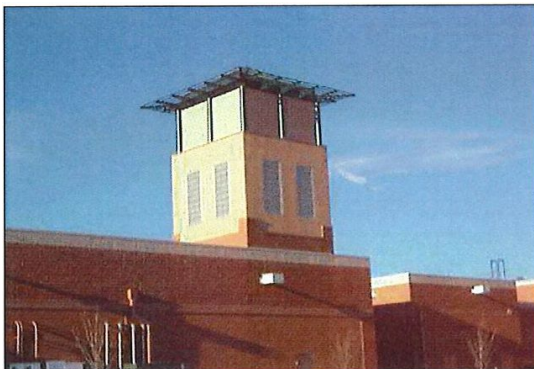
Facility on Pendant Pole



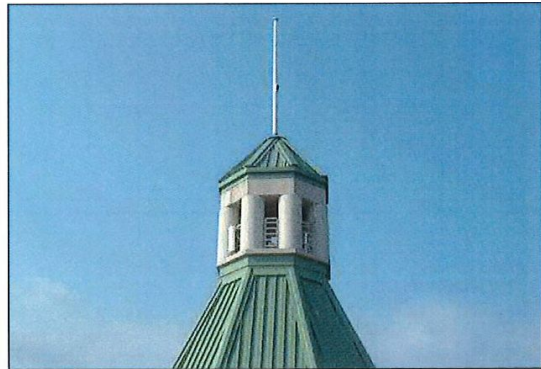
Extension of Existing Street Light



New Pole with Decorative Street Light



The antennas screened from view



The antenna is architecturally compatible

ZONING

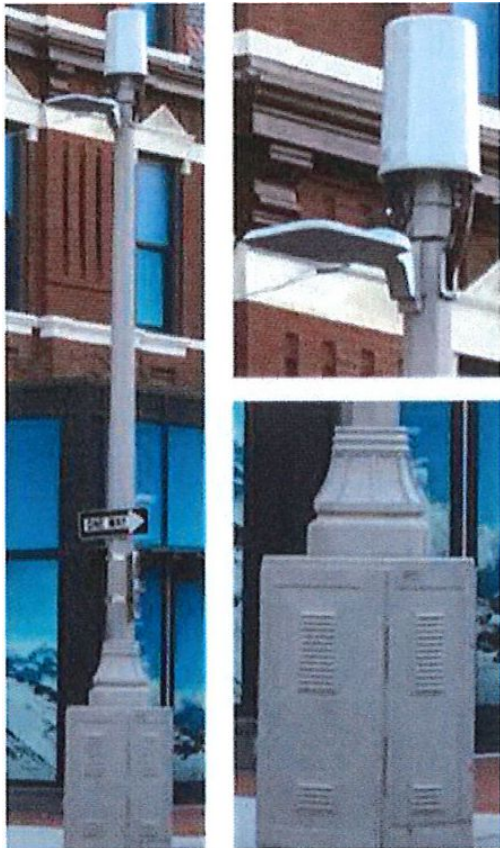
UNACCEPTABLE EXAMPLES



The antennas are vertically revealed with no screening



The antennas are not concealed and interrupt the architectural theme



210-309.A.(7)(f)

The conduit, mounting bracket, and other hardware are not hidden from view.

210-309.A.(7)(g)

There is not a smooth transition between the upper pole and the antenna attachment.

210-309.A.(7)(h)

The upper pole is not smooth and/or straight.

CONCORD CODE

Technical Specification

210-309.A.(8) *Design Standards*

Legislative Intent:

210-309.A.(8)(a)

Small wireless facilities installed within the right-of-way are intended to achieve to meet the General Standards outlined in this section.

Design Standards:

210-309.A.(8)(b)

Small wireless facilities installed within the right-of-way shall meet the following standards.

GENERAL

210-309.A.(8)(c)

All work shall conform to these specifications and the National Electrical Code (NEC) when the small cell pole is owned by Concord Township or the utility provider, or the National Electrical Safety Code (NESC) when the small cell pole is owned by the electric company.

210-309.A.(8)(d)

The Contractor and/or provider shall keep fully informed of and comply with all Federal, State, and local laws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which may affect those engaged or employed on the work, or affect the conduct of the work.

210-309.A.(8)(e)

The small wireless facility shall be identified with the carrier on the facility.

AESTHETIC REQUIREMENTS

ANTENNAS AND ACCESSORY EQUIPMENT

210-309.A.(8)(e)

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

210-309.A.(8)(f)

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.

210-309.A.(8)(g)

The size of the antenna shall not exceed 3 cubic feet in volume.

210-309.A.(8)(h)

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

ZONING

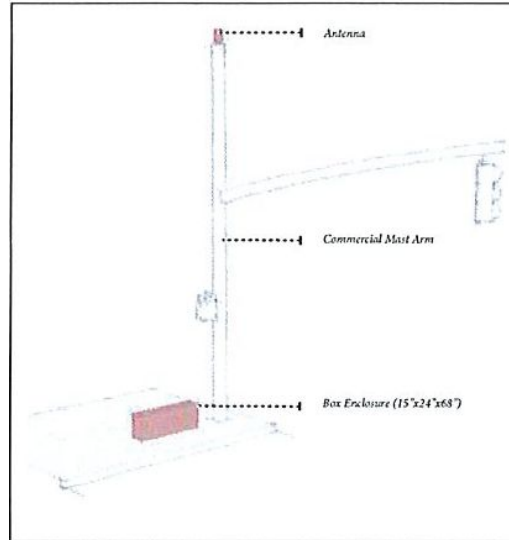
wireless support structures such that the vertical centerline of the antenna enclosure shall be parallel with the wireless support structure with the height of the side mounted antenna being at a location on the wireless support structure noted in the application, and approved by Concord Township, but at least 10 feet above ground level at its lowest point, ensure year round concealment.

210-309.A.(8)(i)

Tree “topping” or improper pruning of trees is prohibited.

210-309.A.(7)(j)

Accessory equipment may not exceed 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 Township. Concealment may include, but shall not be limited to, landscaping, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.



Ground mounted equipment boxes

210-309.A.(7)(k)

Landscaping concealing equipment enclosures shall be planted in such quantity and size such that 100% screening is achieved within two years of installation, and shall be evergreen in order to ensure year round concealment.

210-309.A.(7)(l)

The maximum utility pole height shall be 50 feet.

CABLES AND WIRES

210-309.A.(8)(m)

All cables, wires and connectors related to the small wireless facility shall 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.

DIMENSIONS

210-309.A.(8)(n)

The dimensions of the small cell facilities shall match those in the FCC order.

CONCORD CODE

FOUNDATIONS

210-309.A.(8)(o)

Concrete bases and equipment pads shall be pre-cast or cast-in-place concrete per Concord Township standard to meet ACI 318. A complete foundation includes the concrete, reinforcing steel, anchor bolts, leveling nuts, conduit stubs, ground rod and wire, excavation and backfill, restoration, accessories as required to provide a complete unit. Banner arm (if required) wind loading shall be incorporated into light standard structural design.

SMALL CELL STANDARDS, POLES, AND INSTALLATION DESIGN

210-309.A.(8)(p)

A complete light standard includes the metal upper pole, mounting bracket, mast arm(s), cantenna, equipment cabinet, base, grounding system, and all hardware. The upper pole shall have a handhole at the top to maintain Concord Township fiber and Streetlight electrical service. An optional handhole shall be provided at the bottom of the upper pole if fiber and electrical service cannot be accessed from the equipment cabinet.

210-309.A.(8)(q)

Small cell standards shall be consistent with the style, material, and color of Street Light poles required in the Zoning District or Zoning Overlay District.

210-309.A.(8)(r)

Material type, shape, of small standards shall be the consistent throughout the design district, unless otherwise approved by Concord Township.

210-309.A.(8)(s)

Conduit, mounting bracket, and other hardware shall be hidden from view.

210-309.A.(8)(t)

Cantenna shall include a smooth transition between the upper pole and cantenna attachment.

210-309.A.(8)(u)

The upper pole shall be smooth and straight, with 1.5 inch (maximum) of flat surface where mounted to the equipment cabinet.

210-309.A.(8)(v)

The equipment cabinet shall be round, and the diameter shall be in the range of 16 to 20 inches.

SAFETY

210-309.A.(8)(w)

An eight-foot high security fence shall surround any separate communications equipment building, per Section 210-212.D. of the Zoning Ordinance. Such fence shall be of a type and design that is in character with the architecture of the surrounding area. All wire chain-link fences shall be coated with green or black plastic-coated wire, and all cinder-block and cement block walls shall be faced with stone, stucco or similar finishing.

ZONING

HISTORIC DISTRICT, STRUCTURES, BUILDINGS, SITES, RESOURCES AND PROTECTED VIEW-SHEDS

210-309.A.(8)(x)

In order to maintain the character of a Historic District, Structure, Building Site, Resource or protected view-sheds, all wireless facilities and new structures in a Historic District shall employ screening, concealment, camouflage, or other stealth techniques in order to minimize visual impacts. Small wireless facilities on existing structures or new poles within a Historic District shall be subject to the following:

- [1] Shall be placed so as not to be located along the frontage of a Historic building or structure, or resource deemed historic on a federal or state, or by Concord Township.
- [2] New and replacement structures shall be of monopole design.
- [3] The design of wireless facilities and related new structures shall be integrated with existing buildings, structures and landscaping, and consider the height, color, style, placement, design and shape in order to minimize the negative impact to aesthetics.
- [4] Installation of small cell facilities shall comply with the aesthetic standards and shall be reviewed by the Concord Township Historic Commission.

CONTINUED MAINTENANCE

210-309.A.(8)(y)

All structures and facilities shall be installed and maintained so as not to obstruct nor hinder travel or public safety within the right-of-way, or obstruct the legal use of the right-of-way by Concord Township and utilities.

210-309.A.(8)(z)

Wireless providers are responsible for repairing any damage to the right-of-way, and shall return the area to at least the condition that existed prior to any work being completed.