

Small Nodes Design Manual

City of Webster, Texas



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Section 1: Purpose of this Design Manual

The City of Webster, Texas (City) recognizes that the State of Texas has delegated the fiduciary duty, as a trustee, to manage the public rights-of-way for the health, safety, and welfare of the public, subject to state law.

The goal of this design manual is to provide guidance to wireless network providers to install in the public rights-of-way their wireless facilities, described and defined in Texas Local Government Code, Chapter 284, Section 284.002 as “micro network nodes, “network nodes” and node support poles”.

Section 2: Applicability

These design guidelines only apply to the activities related to transport facilities for network nodes, activities of a network provider collocating network nodes in the public right-of-way or installing, constructing, operating, modifying, replacing, and maintaining node support poles in a public right-of-way, and municipal authority in relation to those activities according to Texas Local Government Code Section 284.051.

Section 3: Definitions

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

Applicable codes means: uniform building, fire, electrical, plumbing, or mechanical codes adopted by a nationally recognized code organization; and local amendments to those codes to the extent not inconsistent with Texas Local Government Code Chapter 284.

Collocate/Collocation means the installation, mounting, maintenance, modification, operation, or replacement of network nodes in a public right-of-way on, or adjacent to a pole.

Decorative pole means a streetlight pole specially designed and placed for aesthetic purposes and on which no appurtenances or attachments, other than specially designed informational or directional signage or temporary holiday or special event attachments, have been placed or are permitted to be placed according to the nondiscriminatory City Code of Ordinances.

Design district means an area that is zoned, or otherwise designated by municipal code, and for which the City maintains and enforces unique design and aesthetic standards on a uniform and nondiscriminatory basis. A Planned Unit Development and a Special District such as the NASA Parkway District, and other areas with decorative light poles are examples of design districts.

Law means common law or a federal, state, or local law, statute, code, rule, regulation, order, or ordinance.

Macro tower means a guyed or self-supported pole or monopole greater than the height parameters prescribed by Texas Local Government Code Section 284.103, and that supports or is capable of

supporting antennas.

Micro network node means a network node that is not larger in dimension than 24 inches in length, 15 inches in width, and 12 inches in height, and that has an exterior antenna, if any, not longer than 11 inches.

Municipally owned utility pole means a utility pole owned or operated by a municipally owned utility, as defined by Texas Utility Code Section 11.003, and located in a public right-of-way.

Municipal Park means an area that is utilized by the City as a public park otherwise designated by municipal code as a public park for the purpose of recreational activity.

Network node means equipment at a fixed location that enables wireless communications between user equipment and a communications network. The term:

- a) Includes:
 - (i) Equipment associated with wireless communications;
 - (ii) A radio transceiver, an antenna, a battery-only backup power supply, and comparable equipment, regardless of technological configuration; and
 - (iii) Coaxial or fiber-optic cable that is immediately adjacent to and directly associated with a particular collocation; and
- b) Does not include:
 - (i) An electric generator;
 - (ii) A pole; or
 - (iii) A macro tower.

Network provider means:

- a) A wireless service provider; or
- b) A person that does not provide wireless services and that is not an electric utility but builds or installs on behalf of a wireless service provider:
 - (i) Network nodes; or
 - (ii) Node support poles or any other structure that supports or is capable of supporting a network node.

Node support pole means a pole installed by a network provider for the primary purpose of supporting a network node.

Permit means a written authorization for the use of the public right-of-way or collocation on a service pole required from a municipality before a network provider may perform an action or initiate, continue, or complete a project over which the municipality has police power authority.

Pole means a service pole, municipally owned utility pole, node support pole, or utility pole.

Private easement means an easement or other real property right that is only for the benefit of the grantor and grantee and their successors and assigns.

Public right-of-way means the area on, below, or above a public roadway, highway, street, public sidewalk, alley, waterway, or utility easement in which the municipality has an interest. The term

does not include:

- (a) A private easement; or
- (b) The airwaves above a public right-of-way with regard to wireless telecommunications.

Public right-of-way management ordinance means the adopted Webster City Code of Ordinances.

Public right-of-way rate means an annual rental charge paid by a network provider to a municipality related to the construction, maintenance, or operation of network nodes within a public right-of-way in the municipality.

Service pole means a pole, other than a municipally owned utility pole, owned or operated by a municipality and located in a public right-of-way, including:

- (a) A pole that supports traffic control functions;
- (b) A structure for signage;
- (c) A pole that supports lighting, other than a decorative pole; and
- (d) A pole or similar structure owned or operated by a municipality and supporting only network nodes.

Transport facility means each transmission path physically within a public right-of-way, extending with a physical line from a network node directly to the network, for the purpose of providing backhaul for network nodes.

Utility pole means a pole that provides:

- (a) Electric distribution with a voltage rating of not more than 34.5 kilovolts; or
- (b) Services of a telecommunications provider, as defined by Texas Utility Code Section 51.002.

Wireless service means any service, using licensed or unlicensed wireless spectrum, including the use of Wi-Fi, whether at a fixed location or mobile, provided to the public using a network node.

Wireless service provider means a person that provides wireless service to the public.

Section 4: Application Requirements

- A. Application requirements: The Permit Application shall be made by the network provider or its duly authorized representative and shall contain the required application requirements in the following.
 - 1. The Applicant's name, address, telephone number, and e-mail address.
 - 2. The names, addresses, telephone numbers, and e-mail addresses of all consultants, if any, acting on behalf of the Applicant with respect to the filing of the Application.
 - 3. Construction and engineering drawings prepared by a professional engineer licensed in the State of Texas, and for wireless facilities proposed to be attached to a Service

pole, a decorative pole or other City-owned or -controlled structure, a certification from the engineer that the existing pole or structure and its foundations have sufficient structural stability to support the proposed network node and can bear the wind load without pole modification, or in the event the installation will require pole re-enforcement, that such re-enforced pole will have sufficient structural stability to support the proposed network node and can bear the wind load without further pole modification. Such construction and engineering drawings must also address the design of the connection of any item to the pole. If pole re-enforcement is necessary, provider shall provide construction and engineering drawings for the proposed alteration to the existing pole. Any re-enforcement or replacement of a pole shall match the color of the existing pole. Any pole re-enforcement or replacement shall be at provider's sole cost.

4. Detailed 11"x17" drawings to scale, with calculations, showing strict conformity to the size limitations as set forth in City Code in accordance with Chapter 284.
5. Scaled dimensional drawings or pictures of the proposed attachments of the network node to the existing poles or structures as well as any other proposed wireless facility, indicating the spacing from existing curbs, driveways, sidewalks, and other existing poles. This shall include a before-and-after image of the pole and all proposed attachments thereto and associated standalone equipment. Any concealment or camouflage as required by the City Design Manual or by separate agreement must be detailed and shown.
6. Scaled dimensional construction and engineering drawings indicating the current public right-of-way line and showing any proposed underground conduit and equipment and its spacing from the City's existing utility facilities. Such drawings shall also show a sectional profile of the public right-of-way and identify all existing utilities and existing utility conflicts.
7. An Applicant proposing Collocation on a City-owned service pole must submit a copy of the signed agreement with the City allowing the collocation on the City-owned service pole located a specific address at the time of filing the Permit Application.
8. A certificate that the network node complies with applicable regulations of the Federal Communications Commission.
9. Certification that the proposed network node will be placed into active commercial service by or for a network provider not later than the 60th day after the date the construction and final testing of the network node is completed.
10. Sealed engineering drawings for the electrical service providing power to the proposed network node, which must include the conduit size, circuit size, calculations for amp, and distances running. Provider shall use 120 voltage when connecting to any City service pole or decorative pole and shall provide a key to meter upon inspection. The City is entitled to disconnect power to the network node

or other wireless facilities in emergency situations.

11. If the location of the proposed wireless facility lies within right-of-way adjacent to a state or federal highway, the Provider must provide evidence of a Permit from the state or federal government
12. Disclosure if the proposed installation is:
 1. In a Design District.
 2. In an underground utility district or other area with undergrounding requirements.
13. If a network node is proposed to be installed on a private Utility Pole, the Applicant must submit documentation demonstrating the right to access said Utility Pole from the owner of the utility.
14. Any additional information reasonably related to the network provider's use of the public rights-of-way to ensure compliance with the Design Manual and this chapter;
15. A sight distance analysis according to the guidelines of American Association of State Highway and Transportation Offices (AASHTO) for Highways and Streets sealed by a professional Engineer as licensed by the Texas Board of Professional Engineers.

Section 5: Prohibited and Preferred Locations

A. Prohibited or Restricted Areas for Certain Wireless facilities, except with Separate City Agreement or Subject to Concealment Conditions.

1. ***Municipal Parks and Residential Areas.*** In accordance with Texas Local Government Code, Chapter 284, Sec. 104:
 - a) A network provider may not install a node support pole in a public right-of-way without the City's discretionary, nondiscriminatory, and written consent if the public right-of-way is in a Municipal park or is adjacent to a street or thoroughfare that is:
 - i. Not more than 50 feet in width of paved street surface.
 - ii. Adjacent to single-family residential lots or other multifamily residences or undeveloped land that is designated for residential use by zoning or deed restrictions.
- 1.1 In accordance with Texas Local Government Code, Chapter 284, Section 284.104(b), a network provider installing a micro network node, network node, node support pole, and all other related ground equipment in a public right-of-way described above shall comply with private deed restrictions and other private restrictions in the area that apply to those facilities.
- 1.2 Each permit application shall disclose if it is within a Design District, Municipal Park, or Residential Areas as described above.

2. ***Design Districts.*** In accordance with Texas Local Government Code, Chapter 284, Section 284.105, a network provider must obtain advance written approval from the City before collocating network nodes or installing node support poles in a Design District with decorative poles or in an area of the City zoned or otherwise designated as a Design District.
 - 2.1 As a condition for approval of network nodes or node support poles in Design Districts or Districts with decorative poles, the City shall require reasonable design or concealment measures for the network nodes, micro network nodes, node support poles, and any other related ground equipment. Therefore, any request for installations in a Design District with decorative poles must be accompanied with proposed concealment measures in the permit applications.
 - 2.2 The City requires that a network providers must utilize camouflage measures to improve the aesthetics of the network nodes, node support poles, and all related ground equipment, or any portion of the nodes, poles, or equipment, to minimize the impact to the aesthetics in Design Districts.
 - 2.3 A network provider shall comply with and observe all applicable City, state, and federal historic preservation laws and requirements.
3. ***Historic Landmarks.*** A network provider is discouraged from installing a network node or node s support pole within 300 feet of a historic site or structure or Historic Landmark recognized by the City, state or federal government (*see, for example, and not limited to* §442.001(3) of the Texas Government Code, and 16 U.S.C. §470), as of the date of the submission of the permit. It is recommended that each permit application disclose if it is with 300 feet of such a structure.
4. ***Compliance with Undergrounding Requirements.*** In accordance with Chapter 284, Sec. 284.107, a network provider shall comply with nondiscriminatory undergrounding requirements, including municipal ordinances, zoning regulations, state law, private deed restrictions, and other public or private restrictions, that prohibit installing aboveground structures in a public right-of-way without first obtaining zoning or land use approval.

B. Most preferable locations

1. ***On existing poles*** in non-residential areas.
2. ***Industrial areas*** if not adjacent to a Municipal Park, Residential area, Historic District or Design District.
3. ***Highway Rights-of-Way areas*** if not adjacent to a Municipal Park, Residential area, or Design District.
4. ***Retail and Commercial areas*** if not adjacent to a Municipal Park, Residential area, or Design District.

C. Designated Areas.

1. The City Council may designate an area a Design District under Texas Local Government Code, Chapter 284, Section 284.105, at any time.
2. The failure to designate an area in this Chapter shall not mean that such an area is not within a defined district, if so designated by the City Council. Future areas may be designated as one of these Districts at any time. Such a designation does not require a zoning case.

D. Exceptions

Subject to Texas Local Government Code, Chapter 284, Section 284.109, a network provider may construct, modify, or maintain in a public right-of-way a network node or node support pole that exceeds the height or distance limitations prescribed by this chapter only if the municipality approves the construction, modification, or maintenance subject to all applicable zoning or land use regulations and applicable codes.

E. Order of Preference regarding network node attachment to existing facilities and new node support poles.

1. ***Existing telephone or electrical lines between existing utility poles.*** Micro network nodes shall only be lashed on existing telephone or electrical lines between existing utility poles (electric poles or telephones poles), with notice to the pole owner as required by the Federal Pole Attachment Act, and not placed on utility poles, node support poles or service poles.
2. ***Existing Utility Poles (electric poles or telephones poles),*** shall be the preferred support facility for network nodes and related ground equipment.
3. ***Municipal Service Poles:***
 - a. *Non-decorative street lights* with a height of more than 20 feet.
 - b. *Traffic signal structures* when such installation will not interfere with the integrity of the facility and will not interfere with the safety of public and in accordance with an agreement as allowed by Chapter 284, Sec. 285.056 and Sec. 284.101 (a) (3), and (b). A structural analysis sealed by a professional engineer licensed in the state of Texas will be required to show no adverse effects at a design wind speed of 140mph.
 - c. *Street signage* shall be a low priority use for attachment of a network node.
 - d. *Other municipal Service pole* use is discouraged.
4. ***New node support poles*** shall be the least preferred type of allowed facility for attachment of network nodes.

Section 6: Placement Guidelines

- A. Generally: In accordance with Texas Local Government Code, Chapter 284 Section 284.102, a network provider shall construct and maintain network nodes and node support poles in a manner that does not:
1. Obstruct, impede, or hinder the usual travel or public safety on a public right-of-way;

2. Obstruct the legal use of a public right-of-way by other utility providers, including the City;
3. Violate nondiscriminatory applicable codes;
4. Violate or conflict with the City's publicly disclosed public Right-of-Way Management Ordinance or this Design Manual;
5. Violate the federal Americans with Disabilities Act of 1990 (42 U.S.C. Section 12101 et seq.).

B. General Requirements and Information:

1. **Size limits.** Network providers shall provide detailed drawings, with calculations to show strict conformity to the size limitations as set forth in Texas Local Government Code, Chapter 284, in accordance with, but not limited to Chapter 284, Sec. 284.002, size of a Micro Network Node, Sec. 284.003, Size of Network Nodes, and Sec. 284.103, Max. Pole Height, with each application and with each request for a permit for each location.
2. **State and Federal Rights-of-way permit.** If the project lies within a Highway Right-of-Way, the applicant must provide evidence of a permit from the State or Federal Government.
3. **Confirmation of non-interference with City Safety Communication Networks.**
 - a) The network provider needs to provide analysis that the proposed network node shall not cause any interference with City public safety radio system, traffic signal light system, or any other City safety communications components in accordance with Texas Local Government Code, Chapter 284, Sec. 284.304.
 - b) It shall be the responsibility of the network provider to evaluate, prior to making application for permit, the compatibility between the existing City infrastructure and the provider's proposed network node. A network node shall not be installed in a location that causes any interference. Network nodes shall not be allowed on City's public safety radio infrastructure.
4. **Improperly Located Network Node facilities, Node support poles and related ground equipment.**
 - a) Improperly located network node facilities, node support poles and related ground equipment shall not impede pedestrian or vehicular traffic in the Right-of-Way. If any network node facilities, node support poles or ground equipment is installed in a location that is not in accordance with the plans approved by the City Manager, or designee and impedes pedestrian or vehicular traffic or does not comply or otherwise renders the Right-of-Way non-compliant with applicable Laws, including the American Disabilities Act, then the network provider shall promptly remove the network node facilities, node support poles or ground equipment.
 - b) Notice to remove unauthorized facilities and relocate and penalty: After ten (10) days' notice to remove network node facilities, node support poles or ground equipment that is located in the incorrect permitted location, if not relocated the network provider shall be subject to a penalty as prescribed in the City Code of Ordinances.

C. **Underground Requirement Areas.**

1. In accordance with Texas Local Government Code, Chapter 284, Section 284.107, a network provider shall, in relation to installation for which the City approved a permit application, comply with nondiscriminatory undergrounding requirements, including municipal ordinances, zoning regulations, state law, private deed restrictions, and other public or private restrictions, that prohibit installing aboveground structures in a public right-of-way without first obtaining zoning or land use approval.
2. If a location is designated by the City transitions to be an Underground Requirement Area, then a network provider's permit for the location of the micro network node, network node, node support pole, and related ground equipment at such location will be revoked ninety (90) days after the designation, with removal of said micro network node, network node, node support pole and related ground equipment at such location within 90 days of such designation, or as otherwise reasonably allowed by the City of the transition of other overhead facilities.
3. Before commencing underground installation, the City and "Texas811," or similar underground utility contractor must be called so that the area can be flagged for underground utilities.

D. **Network Node facilities placement:**

1. **Right-of-way:** network node facilities, node support poles and related ground equipment shall be placed, as much as possible, within two (2) feet of the outer edge of the Right-of-way line to minimize any obstruction, impediment, or hindrance to the usual travel of public safety on a public right-of-way.
2. **Height above ground.** Network node attachments to a pole shall be installed at least eight (8) feet above the ground in accordance with Texas Local Government Code Chapter 284, Section 284.108, and if a network node attachment is projecting toward the street, for the safety and protection of the public and vehicular traffic, the attachment shall be installed no less than sixteen (16) feet above the ground.
3. **Protrusions.** In accordance with Texas Local Government Code Chapter 284, Section 284.003(a)(1)(C), Sec. (a)(2)(C) and Sec. 284.003 (a)(3)(B) no protrusion from the outer circumference of the existing structure or pole shall be more than two (2) feet.

E. **New Node support poles.**

1. **New Node support poles Spacing.** New node support poles shall be spaced apart from existing utility poles or node support poles at the same as the spacing between utility poles in the immediate proximity, but no less than at a minimum of 300 feet from a utility pole or another node support pole to minimize the hazard of poles adjacent to road ways, and to minimize effect on property values and aesthetics on the area.
2. **Height of node support poles or modified utility pole.** In accordance with Texas Local Government Code Chapter 284, Section 284.103, a node support pole or modified utility pole may not exceed the lesser of:
 - a) 10 feet in height above the tallest existing utility pole located within 500 linear feet of the new pole in the same public right-of-way; or
 - b) 55 feet above ground level.

F. Ground Equipment.

1. **Ground Equipment near street corners and intersections:** Ground equipment should be minimal and the least intrusive. In accordance with Chapter 284.102 (1), to minimize any obstruction, impediment, or hindrance to the usual travel or public safety on a public right-of-way the maximum line of site required to add to safe travel of vehicular and pedestrian traffic and in order to maximize that line of sight at street corners and intersections and to minimize hazards at those locations.
2. **Ground Equipment near Municipal Parks.** For the safety of Municipal Park patrons, particularly small children, and to allow full line of sights near Municipal park property, the network provider shall not install ground equipment in a right-of-way that is within a park or within 250 feet of the boundary line of a park, unless approved by the City Manager, or designee in writing.
3. **Minimize Ground equipment density.** In accordance with Texas Local Government Code Chapter 284, Section 284.102 (1), to enhance the safety requirements of line of sight of pedestrians, particularly small children, the City Manager, or designee, may deny a request for a proposed location if the network provider installs network node ground equipment where existing ground equipment within 300 feet already occupies a footprint of 25 square feet or more.
4. **Water, Sewer, and Storm Drainage Lines:** Special precautions must be taken where underground fiber optic cable is installed in public street rights-of-way commonly used for utility corridors.
 - a) Underground utilities and service connections must be identified prior to excavation. The City and “Texas811,” or similar underground utility contractor must be contacted to identify the locations of subsurface utilities.
 - b) If temporary disruption of service is required, the installation contractor must notify the City, the service provider, and customers at least 48 hours in advance. No service on such lines may be disrupted until prior approval from the City and the service provider.
 - c) At locations where the fiber optic cable will cross other subsurface utilities or structures, the cable must be installed to provide a minimum of 12 inches of vertical clearance between it and the other subsurface utilities or structures, while still maintaining the other applicable minimum depth requirement. To maintain the minimum depth requirement, the cable must be installed under the existing utility. If the minimum 12-inch clearance cannot be obtained between the proposed cable facility and the existing utility, the fiber optic cable must be encased in steel pipe to avoid future damage.
 - d) **Existing Water Lines:** No communication lines shall be placed on top of a water line but may be placed to the side of a water line at least four (4) feet from the center line of the water line. When crossing a water line, a 12 inch vertical or horizontal clearance must be maintained. Poles must be at least five (5) feet from a water line.
 - e) **Existing Sewer Lines:** No communication lines shall be placed on top of a sewer line but may be placed to the side of a sewer line at least four (4) feet

from the centerline of the sewer line. When crossing a sewer line, a 12-inch vertical or horizontal clearance must be maintained. Poles must be at least three (3) feet from a sewer line.

- f) **Existing Storm Drainage Lines:** No communication lines shall be placed on top of a storm drainage line but may be placed to the side of a storm drainage line at least four (4) feet from the centerline of the storm drainage line. When crossing a storm drainage line, a 12-inch vertical or horizontal clearance must be maintained. Poles must be at least three (3) feet from a storm drainage line.

- 5. **Blocking streets, roads, alleys or lanes:** Texas Department of Transportation (TxDOT) standards must be followed for work zone areas that will block streets, roads, alleys or lanes. A traffic plan must be submitted to the City prior to construction.

G. Municipal Service Poles:

- 1. *In accordance with Agreement:* Installations on all service poles shall be in accordance with an agreement as allowed by Texas Local Government Code, Chapter 284, Sec. 285.056 and Sec. 284.101(3) and (b).
- 2. *Required industry standard pole load analysis:* Installations on all service poles shall have an industry standard pole load analysis completed and submitted to the municipality with each permit application indicating that the service pole to which the network node is to be attached will safely support the load, in accordance with Texas Local Government Code Chapter 284, Section 284.108.
- 3. *Height of attachments:* All attachments on all service poles shall be at least eight (8) feet above grade, in accordance with Chapter 284, Sec. 285.108 (a) (1)-(2) and if a network node attachment is projecting toward the street, for the safety and protection of the public and vehicular traffic, the attachment shall be installed no less than sixteen (16) feet above the ground.
- 4. *Installations on Traffic Signals:* Installations on all traffic signal structures must not interfere with the integrity of the facility in any way that may compromise the safety of the public and must be in accordance with an agreement as allowed by Texas Local Government Code Chapter 284, Sec. 285.056 and Sec. 284.101 (a) (3), and (b). Installation of network node facilities on any traffic signal structures shall:
 - a. Be encased in a separate conduit than the traffic light electronics;
 - b. Have a separate electric power connection than that of the traffic signal structure; and
 - c. Have a separate access point than the traffic signal structure.
- 5. *Installation of City facilities and private property:* The network provider shall be responsible for repairing any damage to any street, street right-of-way, ditch or any structure to its original condition immediately upon completing the installation. Any change to the slope of the land must be remedied, and there must be replacement of top soil and grass to its original condition.

Section 7: General Aesthetic Requirements

A. **Concealment.**

1. Concealment of network node support poles shall be required by the City in Design Districts and areas with decorative poles pursuant to Texas Local Government Code Chapter 284, Section 284.105.
2. It is also the City's preference that all new node support poles be camouflaged, except those located in an area zoned industrial. Network providers shall submit their proposal for camouflage with the permit application.
3. The network node facilities shall be concealed or enclosed as much as reasonably possible in an equipment box, cabinet, or other unit that may include ventilation openings. External cables and wires hanging off a pole shall be sheathed or enclosed in a conduit, so that wires are protected and not visible or visually minimized to the extent possible in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.

B. New Node Support Pole Spacing. New node support poles shall be at a minimum 300 feet from a utility pole or another node support pole to minimize the hazard of poles adjacent to road ways and to minimize effect on property values and aesthetics on the area.

C. Minimize Ground Equipment Concentration. In order to minimize negative visual impact to the surrounding area, and in accordance with Texas Local Government Code Chapter 284, Sec. 284.102 (1) to enhance the safety requirements of line of sight for pedestrians, particularly small children, the City's designee may deny a request for a proposed location if the network provider installs network node ground equipment where existing ground equipment, within 300 feet already occupies a footprint of 25 square-feet or more to minimize effect on property values and aesthetics on the area.

D. **Allowed Colors**

1. Colors in Design Districts must be approved by the City Manager or designee. All colors shall be earth tones or shall match the background of any structure the facilities are located upon and all efforts shall be made for the colors to be inconspicuous. Colors in areas other than in Design Districts shall conform to colors of other installations of telecommunication providers in the immediately adjacent areas.

Section 8: Electrical Supply

A. Network providers shall be responsible for obtaining any required electrical power service to the *micro network node, network node facilities, node support poles and ground equipment*. The City shall not be liable to the network provider for any stoppages or shortages of electrical power furnished to the micro network node, network node facilities, node support poles or ground equipment, including without limitation, stoppages or shortages caused by any act,

omission, or requirement of the public utility serving the structure or the act or omission of any other tenant or network provider of the structure, or for any other cause beyond the control of the City.

- B. A network provider shall not allow or install generators or back-up generators in the public right-of-way in accordance with Texas Local Government Code, Chapter 284, Section 284.002(12)(B)(1).

Section 9: Insurance, Indemnity, Bonding and Security Deposits

- A. Insurance, bonding and security deposits shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
- B. Indemnity shall be in accordance with Chapter 284, Sec. 284.302, as provided for in Chapter 283, Sec. 283.057 (a) and (b) of the Texas Local Government Code.

Section 10: Requirements in regard to Removal, Replacement, Maintenance and Repair

A. Removal or relocation by network provider.

1. Removal and relocation by the network provider of its *micro network node, network node facilities, node support pole, or related ground equipment* at its own discretion, shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
2. If the network provider removes or relocates a *micro network node, network node facility, node support pole or other related ground equipment* at its own discretion, it shall notify the City Manager, or designee in writing no less than ten (10) business days prior to removal or relocation. Network providers shall obtain all permits required for relocation or removal of its *micro network node, network node facility, node support pole or other related ground equipment* prior to relocation or removal.
3. The City shall not issue any refunds for any amounts paid by network providers for *micro network node, network node facility, node support pole or other related ground equipment* that have been removed.

B. Removal or relocation required for City project.

1. Removal and relocation of network providers *micro network node, network node facility, node support pole or other related ground equipment*, or portions thereof required for a City project shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code, Chapter 284, Section 284.107, except as provided in existing state and federal law.
2. In accordance with Texas Local Government Code, Chapter 284, Section 284.107,

except as provided in existing state and federal law, a network provider shall relocate or adjust *micro network node, network node facility, node support pole or other related ground equipment* in a public right-of-way in a timely manner and without cost to the City managing the public right-of-way.

3. A network provider understands and acknowledges that the City may require a network provider to remove or relocate its *micro network node, network node, node support pole and related ground equipment*, or any portion thereof from the right-of-way for City construction projects as allowed by state and federal law, including the common-law.
4. A network provider shall, at the City Manager or designee's direction, remove or relocate the same at the network provider's sole cost and expense, except as otherwise provided in existing state and federal law, whenever the City Manager reasonably determines that the relocation or removal is needed for any of the following purposes: required for the construction, completion, repair, widening, relocation, or maintenance of, or use in connection with, any City construction or maintenance project of a street or public right-of-way to enhance the traveling public's use for travel and transportation.
5. If a network provider fails to remove or relocate the *micro network node, network node, node support pole and related ground equipment, or portion thereof* as required by the City Manager, or designee within ninety (90) days of the network provider's receipt of the request, then the City shall be entitled to remove the *micro network node, network node, node support pole and related ground equipment, or portion thereof*, at the network provider's sole cost and expense, without further notice to the network provider.
6. A network provider shall, within thirty (30) days following issuance of invoicing for the same, reimburse the City for its reasonable expenses incurred in the removal (including, without limitation, overhead and storage expenses) of the *micro network node, network node, node support pole and related ground equipment, or portion thereof*.

C. Removal Required by City for safety and imminent danger reasons.

1. A network provider shall, at its sole cost and expense, promptly disconnect, remove, or relocate the applicable *micro network node, network node, node support pole and related ground equipment* within the time frame and in the manner required by the City Manager, or designee, if it is determined that the disconnection, removal, or relocation of any part of a *micro network node, network node, node support pole and related ground equipment*:
 - a) is necessary to protect the public health, safety, welfare, or City property;
 - b) the *micro network node, network node, node support pole and related ground equipment, or portion thereof*, is adversely affecting proper operation of streetlights or City property;
 - c) Network provider fails to obtain all applicable licenses, permits, and certifications required by law for its *micro network node, network node, node*

support pole and related ground equipment, or use of any location under applicable law strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.

2. If the City Manager, or designee reasonably determines that there is imminent danger to the public, then the City may immediately disconnect, remove, or relocate the applicable *micro network nodes, network node, node support pole, and related ground equipment* at the provider's sole cost and expense in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
3. The City Manager, or designee shall provide ninety (90) days written notice to the network provider before removing a *micro network node, network node, node support pole and related ground equipment* under this Section, unless there is imminent danger to the public health, safety, and welfare.
4. A network provider shall reimburse the City for the City's actual cost of removal of *micro network node, network node, node support pole and related ground equipment* within thirty (30) days of receipt of the invoice from the City.

Section 11: Installation and Inspections

A. Installation

1. A network provider shall, at its own cost and expense, install the *micro network node, network node facilities, node support poles and related ground equipment* in a good and workmanlike manner in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
2. All work done in connection with the installation, operation maintenance, repair, modification, and/or replacement of the *micro network node, network node, node support poles and related ground equipment* shall be in compliance with all applicable laws, ordinances, codes, rules, and regulations of the City, applicable county, the State and Federal Government.

B. Inspections

1. The City Manager, or designee, may perform visual inspections of any *micro network node, network node, node support pole or related ground equipment* located in the right-of-way shall be allowed in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
2. If the inspection requires physical contact with the *micro network node, network node, node support poles, or related ground equipment*, the City Manager, or designee shall provide written notice to the network provider within five (5) business days of the planned inspection. Network providers may have a representative present during such inspection.

Section 12: Requirements upon abandonment of obsolete Micro Network Nodes, Network Nodes, Node support poles, and Related Ground Equipment

1. Abandoned or obsolete *micro nodes, network nodes, node support poles and related ground equipment* shall be removed in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
2. Network providers shall remove *micro network nodes, network nodes, node support poles and related ground equipment* when such facilities are abandoned regardless of whether or not it receives notice from the City. Unless the City sends notice that removal must be completed immediately to ensure public health, safety, and welfare, the removal must be completed within the earlier of ninety (90) days of the *micro network nodes, network nodes, node support poles and related ground equipment* being abandoned or within ninety (90) days of receipt of written notice from the City. When network provider removes, or abandons permanent structures in the right-of-way, the network provider shall notify the City Manager, or designee in writing of such removal or abandonment and shall file with the City the location and description of each micro network node, network node, node support pole and related ground equipment removed or abandoned. The City shall require the network provider to complete additional remedial measures necessary for public safety and the integrity of the right-of-way.

Section 13: General Provisions

1. **As Built Maps and Records:** Network providers as built maps and records shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
 - a) Network providers shall maintain accurate maps and other appropriate records of its network node facilities, node support poles, and related ground equipment as they are actually constructed in the rights-of-way, including, upon request, the use of Auto CAD/GIS digital format. Network providers shall supply the City with accurate as built maps of all installed network nodes, micro network nodes, node support poles, and all other related ground equipment.
2. **Courtesy and Proper Performance.** Courtesy and proper performance of network provider's personnel, and contractors shall be in strict accordance with the City's Rights-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
 - a) Network providers shall make citizen satisfaction a priority in using the right-of-way. Network providers shall train its employees to be customer service-oriented and to positively and politely interact with citizens when dealing with issues pertaining to its *micro network nodes, network nodes, node support poles and related ground equipment* in the right-of-way. Network provider's employees shall be clean, courteous, efficient, and neat in appearance and committed to offering the highest quality of interaction with the public. If, in the opinion of the City Manager or designee,

a network provider is not interacting in a positive and polite manner with citizen, he or she shall request the network provider to take all remedial steps to conform to these standards.

3. **Drug Policy.** The drug policy of network provider's personnel and contractors in the public rights-of-way shall be in strict accordance with the City's rights-of-way management ordinance, and other applicable ordinances, except to the extent not consistent with Chapter 284.
 - a) It is the policy of the City to achieve a drug-free workforce and workplace. The manufacture, distribution, dispensation, possession, sale, or use of illegal drugs or alcohol by network provider's employees, contractors, subcontractors, sub-network providers, or vendors while on City rights-of-way is prohibited.
4. **Allocation of Funds for Removal and Storage.** The City Council has currently appropriated no funds to pay for the cost of any removal or storage of *micro network nodes, network nodes, node support poles and related ground equipment*, as authorized under the law.
5. **Ownership.** Ownership of network nodes and related equipment shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable codes and ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
 - a) No part of a *micro network nodes, node support poles, and related ground equipment* erected or placed on the right-of-way by network providers will become, or be considered by the City as being affixed to or a part of, the right-of-way. All portions of the *micro network node, network node, node support pole and related ground equipment* constructed, modified, erected, or placed by network providers on the right-of-way will be and remain the property of the network provider and may be removed by the network provider at any time, provided the network provider notifies the City Manager or designee prior to any work in the right-of-way.
6. **Tree Maintenance.** Tree maintenance shall be in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
 - a) A network provider, its contractors, and agents shall obtain written permission from the City before trimming trees hanging over its *micro network nodes, network nodes, or node support poles*, to prevent branches of such trees from contacting attached *micro network nodes, network nodes, or support poles*. The City shall not be liable for any damages, injuries, or claims arising from network provider's actions under this section.
7. **Signage.** Signage shall be in strict accordance with the City's Rights-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
 - a) Network providers shall post its name, location identifying information, and emergency telephone number in an area on the cabinet of the network node facility that is visible to the public. Signage required under this section shall not exceed 4"x 6", unless otherwise required by law, City Manager, or designee.

- b) Except as required by law or by the utility pole owner, a network provider shall not post any other signage or advertising of the *micro network node, network node, node support pole, service pole or utility pole*.
8. **Graffiti Abatement.** Graffiti abatement shall be in strict accordance with the City Code of Ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
- a) As soon as practical, but not later than ten (10) calendar days from the date the network provider receives notice thereof, the provider shall remove all graffiti on any of its *micro network nodes, network nodes, node support poles and related ground equipment* located in the right-of-way. The foregoing shall not relieve the network provider from complying with any City graffiti or visual blight ordinance or regulation.
9. **Restoration.** A network provider shall restore and repair the public rights-of-way from any damage to, or any facilities located within the right-of-way, and the property of any third party resulting from the network provider's removal or relocation activities (or any other network provider's activities hereunder) in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.
- a) All required repairs shall commence within ten (10) calendar days following the date of such removal or relocation, at the network provider's sole cost and expense, including restoration of the right-of-way and such property to substantially the same condition as it was immediately prior to the date the network provider was granted a permit for the applicable location or did the work at such location (even if the network provider did not first obtain a permit), including restoration or replacement of any damaged trees, shrubs or other vegetation. Approval of all required repairs and replacements are subject to the sole discretion of the City.
10. **Network provider's Responsibility.** A network provider shall be responsible and liable for the acts and omissions of the network provider's employees, temporary employees, officers, directors, consultants, agents, affiliates, subsidiaries, sub-network provider's and subcontractors in connection with the installation of any *micro network node, network node, node support pole, transport facility and related ground equipment*, as if such acts or omissions were the network provider's acts or omissions in strict accordance with the City's Right-of-Way Management Ordinance, and other applicable ordinances, except to the extent not consistent with Texas Local Government Code Chapter 284.

Section 14: Administrative Hearing- Request for Exemption

1. Should the network provider desire to deviate from any of the standards set forth in the Design Manual, the provider may request an Administrative Hearing before the Building Board of Adjustments. The Building Board of Adjustments shall act as the Board of Appeals for a Request for Exemption.

Section 15-19. Reserved.

Section 20: Design Manual Updates

Placement or Modification of *micro network nodes, network nodes, node support poles, transport facilities, and related ground equipment* shall comply with the City's Design Manual at the time the permit for installation or modification was submitted and approved. The City has the right to amend the Design Manual from time to time.