



POLE ATTACHMENT AND WIRELESS INSTALLATION STANDARDS

VERSION 1.0

ISSUED DATE: _____, 2021
EFFECTIVE DATE: _____, 2022

New Braunfels Utilities Pole Attachment and Wireless Installation Standards

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I. STATEMENT OF PURPOSE

New Braunfels Utilities (NBU) has established these Pole Attachment and Wireless Installation Standards (Standards) to govern access to and use of NBU Eligible Poles. Applicable to all communications services and facilities providers for attachment of Communications Facilities and Network Nodes, these Standards provide for a non-discriminatory, uniform, consistent, and streamlined approach for access to and use of Eligible Poles in a manner that will facilitate the delivery of a variety of communication services and facilities consistent with the safe and reliable operation of NBU Facilities. These Standards will work to ensure that NBU and all communication providers attaching to NBU Eligible Poles comply with all applicable laws, standards, regulations, and ordinances.

Pursuant to applicable law, NBU will provide Certificated Providers, certain non-certificated providers of Communications Services or facilities, and certain Private Network providers with access to its Utility Poles for the purpose of installing wire Attachments. In addition, for those attaching entities to which such rates apply, NBU will establish annual pole attachment rates at a level not exceeding the rates that would result from the application of the FCC's telecommunications pole attachment formula. Finally, pursuant to Chapter 284, Local Government Code, NBU will offer "Network Providers" access to its Utility Poles on agreed terms and conditions, including per-foot-of-use or requirement rates for the construction of Network Nodes and Transport Facilities. NBU will, therefore, grant non-discriminatory access to its Non-Decorative Streetlight Poles and Utility Poles for Network Nodes pursuant to its obligations under Chapter 284, while also taking into account the burdens that Network Nodes place on NBU Facilities.

Consistent with applicable legal requirements and the voluntary commitments of NBU under these Standards, wire Attachments may be installed on NBU's Utility Poles, but not on Streetlight Poles or Transmission Poles. Conversely, Network Nodes will have access to Non-Decorative Streetlight Poles and specific Utility Poles, subject to certain restrictions and Make-Ready Electrical Construction requirements. Consistent with the rate design for wire Attachments, which is based on a per-foot rental rate, Network Nodes will be assessed annual rent based on the number of feet of Eligible Pole to which the facilities are attached or require.

These Standards seek to balance the competing needs and interests of multiple and varied communications providers seeking to access and utilize NBU's distribution and Streetlight Pole infrastructure, while at the same time recognizing that the core purpose and function of this infrastructure is for NBU's safe and reliable distribution and delivery of electric and street-lighting services to its customers. The use of any of NBU's Poles or other facilities must, therefore, at all times ensure the continued operational integrity, safety, and reliability of NBU's Facilities, electric services, personnel, and the general public.

These Standards are organized into six parts:

- Section I** Statement of Purpose
- Section II** General Administrative Provisions
- Section III** General Technical Provisions

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Section IV Specifications Applicable to Wire Attachments

Section V Specifications Applicable to Network Nodes

Section VI Appendices

Upon their effective date, NBU will enforce these Pole Attachment Standards with respect to any entity that attaches its facilities to an NBU-owned Eligible Pole regardless of the status of a Pole Attachment Agreement, Application, or Permit.

NBU reserves the right to amend these Standards at any time and manner in response to technical and market conditions and, as necessary, to comply with changes in applicable engineering or safety standards or changes in local, state, or federal law. Any such changes will be applied in a non-discriminatory manner with respect to similarly situated entities and facilities.

To the extent that issues arise that are not contemplated within these Standards, NBU will work with Attaching Entities and Network Providers to find a solution that effectively addresses the issue consistently with these Standards.

These Standards supersede all prior NBU pole attachment rules and regulations. Amendments to these Standards will become effective pursuant to the procedures set forth herein and as provided in NBU's *Standard Pole Attachment and Wireless Installation License Agreement*.

II. GENERAL ADMINISTRATIVE PROVISIONS

A. Definitions

For the purposes of these Standards, the following terms, phrases, words, and their derivations shall have the meaning given herein. Except where inconsistent with the context, words used in the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number. The words “shall” and “will” are mandatory and “may” is permissive. Words not defined shall be given their common and ordinary meaning.

1. **Affiliate** means, when used in relation to a Licensee, another entity that owns or controls, is owned or controlled by, or is under common ownership or control with the Licensee.
2. **Antenna** means communications equipment that transmits or receives electromagnetic radio frequency signals used in the provision of Wireless Services. Antennas are inventoried Network Node components.
3. **Antenna Area** means the area on an Eligible Pole where the Antenna(s) are installed and are components of a Network Node.
4. **Applicable Codes** means:
 - (a) Uniform building, fire, electrical, plumbing, or mechanical codes adopted by a recognized national code organization, including without limitation the National Electric Code and the National Electric Safety Code; and
 - (b) Local amendments to those codes to the extent not inconsistent with state or federal law.
5. **Applicable Engineering Standards** means all applicable engineering and/or safety standards governing the installation, maintenance and operation of facilities and the performance of all work in or around NBU's Facilities and includes NBU's clearance standards, the National Electrical Safety Code (NESC), the National Electrical Code (NEC), the Texas Health & Safety Code, Chapter 752 (Vernon 1992) and any subsequent amendments which relate to the maintenance of proper clearances and related safety issues, the regulations of the Occupational Safety and Health Act (OSHA), applicable regulations of the Federal Communications Commission (FCC), the Environmental Protection Agency (EPA), lawful requirements of Public Authorities, and/or other requirements of NBU that are non-discriminatory to each Licensee as compared to all other similarly situated Attaching Entities or Network Providers and the types of facilities they employ.
6. **Application** means a complete Application for a Permit submitted by a Licensee to NBU for the purpose of requesting consent to install a new Attachment, Overlashing, or Network Node onto or supported by one or more NBU Eligible Poles. For new Attachments and/or Overlashings, the

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maximum number of Utility Poles to be considered on a single Application is twenty (20) Utility Poles. For Network Nodes onto an NBU Eligible Pole, a single Application may include up to a maximum of five (5) Network Node locations, together with the applicable Eligible Poles, provided that the Network Nodes are of similar design at each of the locations within the identified boundaries of a Wireless Project Area and consist of Pre-Certified Equipment. Mid-Span Installations do not require Applications, but a Notification of Mid-Span Installations (as defined below) instead.

7. **Application Fee** means the non-refundable fee or fees described in Appendix H of these Standards, compensating NBU for the administrative and other work required to process and review an Application.
8. **Application Form** means the form(s), referenced in Appendix B, a Licensee is required to submit to NBU, along with all applicable documents, as part of a complete Application in order to request a Permit. Such forms include the *Application for Pole Attachment Permit* and the *Application for Wireless Installation Permit*. A Mid-Span Installation does not require an Application; rather, an Attaching Entity seeking to attach a Mid-Span Installation shall submit the “Mid-Span Installation Notification Form” found in Appendix B, along with all applicable supporting information and documentation.
9. **Attaching Entity** means any eligible public or private entity that places an Attachment on a Utility Pole in accordance with NBU’s applicable requirements, including the execution of a *Standard Pole Attachment and Wireless Installation Agreement* and these Standards, to provide Communications Services or Communications Facilities, including backhaul services via Transport Facilities.
10. **Attachment** means (a) each aerial cable in usable space together with its associated messenger cable, guy wire, anchors, and associated hardware, and each amplifier, repeater, receiver, appliance or other device or piece of equipment, whether comprised of steel, aluminum, copper, coaxial, optical fiber, or other media or material utilized to provide Communications Services; and (b) any hardware or equipment identified as (i) a Communications Facility affixed to an NBU Utility Pole utilizing one foot or less of Communication Space, regardless of the means of physical attachment to the Utility Pole; or (ii) a Mid-Span Installation utilizing the same one foot of Communication Space as the Messenger cable to which it is attached. Neither Overlapping an existing permitted Attachment or Service Drops shall count as separate Attachments. This definition shall not apply to communications wires or facilities installed by the City or NBU.
11. **Attachment Arm** means an NBU-approved metal or fiberglass bracket used to support attaching wires away from the face of the Utility Pole in order to meet required specifications and standards.

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12. **Attachment Rate** means the annual rate for one foot of usable Utility Pole space as determined by NBU consistent with Section 54.204(c), Texas Utilities Code.
13. **Authorization for Make-Ready Electrical Construction** means the form, referenced in Appendix B, NBU shall issue to a Licensee that requests the Licensee's authorization for NBU to undertake Make-Ready Electrical Construction. The *Authorization for Make-Ready Electrical Construction* form shall also provide an estimate for the advanced payment cost required to be paid for the Make-Ready Electrical Construction.
14. **Backhaul Network Interface Device** means the network interface enclosure that marks the location where a Communications Facility interconnects with a pole-mounted Network Node for the purpose of providing telecommunications transport service between the Network Node and the host network. The Backhaul Network Interface Device shall be considered the point of demarcation between the Network Node and the provider of telecommunications transport service.
15. **Cable Services** means the provision of one-way transmission to subscribers of video programming, or other programming service, and subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service by a cable system. Cable Services shall not include Information Services or Video Services, as defined in Section 66.002, Texas Utilities Code.
16. **Capacity** means the ability of an existing Eligible Pole to accommodate an additional Attachment, Overlash, and/or Network Node based on Applicable Engineering Standards, including space, design, and loading considerations.
17. **Certificated Provider** means a competitive service provider of Communications Services, Cable Services, or Video Services that has received a Certificate of Convenience and Necessity, a Certificate of Operating Authority, a Service Provider Certificate of Operating Authority, or a State Issued Certificate of Franchising Authority from the Public Utility Commission of Texas.
18. **City** means the City of New Braunfels, Texas.
19. **Chapter 284** refers to Chapter 284, Texas Local Government Code.
20. **Collection Notice Letter** means a letter of notification produced by NBU itemizing charges owed to NBU as a result of damages to NBU Facilities caused by a Licensee, or its respective contractors, subcontractors, or agents, or by a third-party causing damage to the Licensee's Attachments, Communication Facilities, and/or Network Nodes, or NBU Facilities. This letter constitutes NBU's demand for recovery of all costs associated with repairs to the damaged facilities.
21. **Communications Facility** means a wire or cable facility including, but not limited to, a fiber optic, copper, or coaxial cable or wire utilized by a

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Licensee to provide Communications Services, and any and all associated equipment. A Communications Facility also includes a Messenger or other material, appurtenance, or apparatus of any sort necessary or desirable for use in the provision of a Licensee's Communications Services. A Communication Facility shall not include Wireless Equipment.

22. **Communications Services** means the provision of service, including but not limited to Telecommunications Services, Cable Services, Video Services, or Information Services over wire or cable facilities utilizing Attachments to Utility Poles or Network Nodes, including without limitation Wireless Services.
23. **Communications Space** means the portion of a Utility Pole's usable space designated for the installation of Communications Facilities, the top of which is forty (40) inches below NBU's Neutral or lowest electrical supply conductor.
24. **Communication Worker Safety Zone** means that space on a Utility Pole measured from the location of the Neutral to a location forty (40) inches below the Neutral or any power supply fiber optic cable as described in the NESC.
25. **Completion of Attaching Entity Construction** means the form, referenced in Appendix B, a Licensee shall issue to NBU providing written notice of completion of either (a) Make-Ready Communication Construction; or (b) Make-Ready Wireless Installation Construction, as appropriate.
26. **Complex Transfer** means the transfer or relocation of a third-party Attachment or Overlash onto an NBU Utility Pole that will require cutting and splicing of a Communication Facility resulting in a network and/or customer outage affecting the Licensee that owns the Communication Facility subject to transfer or relocation, or the transfer or relocation of such an Attached or Overlash Communication Facility located over and across a state or federal highway.
27. **Contractual Authorities** means the terms and conditions provided in the Agreement and these Standards, which are incorporated herein by reference as if fully set forth, as they may be amended from time to time.
28. **Critical Communications Facility** means a Communications Facility that must provide "always on" connectivity for public safety communications or public health operations whose failure would pose a potential imminent threat to public health or safety.
29. **Days** means calendar days, unless specifically designated as business days.
30. **Decorative Streetlight 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 City Code or NBU rules or regulations.

31. **Deployment Plan** means a document prepared by a Licensee that shall include: (a) footprint of the network buildout illustrated in a map depicting the municipal jurisdiction, or parts thereof, within the NBU service area expected to be covered by the project; (b) overall network deployment schedule and phasing; (c) map of backbone fiber rings routes, if any; (d) description of overall physical plant architecture and design; (e) description of typical Service Drop installations; (f) estimated number of Eligible Poles expected to be attached to including a reasonable “ramp-up” and “ramp-down” plan; (g) project and corporate organizational chart for the Licensee; and (h) signature page attesting to the veracity of the Deployment Plan executed by an authorized officer of the Licensee.
32. **Distributed Antenna System** or **DAS Systems** means an outdoor system of Antenna nodes and associated Wireless Equipment Cabinets interconnected by one or more fiber or coaxial cable Communication Facilities and supported by communications equipment and components housed within a hut structure located on private or public property away from NBU Facilities.
33. **Electrical Space** or **Supply Space** means the upper portion of a Utility Pole reserved for the installation of electric distribution facilities to support existing and planned electric distribution equipment as described in the NESC.
34. **Eligible Pole** means a Utility Pole or a Non-Decorative Streetlight Pole.
35. **Emergency** means the existence of a situation which, in the reasonable discretion of NBU or a Licensee, if not remedied will result in an immediate threat to public safety, a hazardous condition, damage to property, or a service outage.
36. **Engineer** means any licensed professional engineer or registered engineering firm the services of which a Licensee obtains to complete engineering work on NBU Facilities.
37. **Federal Communications Commission** or **FCC** means the independent federal agency established to regulate, in the public interest, communications by radio and wire.
38. **Graffiti** means any inscriptions, word, figure, painting or other defacement that is written, marked, etched, scratched, sprayed, drawn, painted or engraved on or otherwise affixed to any Licensee’s Communications Facilities, Network Nodes, or any part thereof whether or not authorized by the Licensee.
39. **Historic District** means an area that is zoned or otherwise designated as a historic district under municipal, state, or federal law.

- 40. **Information Services** means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing and cable modem service, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.
- 41. **Intermodulation Test** means a report that contains a mathematical model identifying potential interference based on computational harmonic mixing of proposed and existing transmit and receive frequencies in the immediate vicinity.
- 42. **Inventory** means a complete count of all Poles, Attachments, and Network Nodes, including Unauthorized Attachments and Unauthorized Network Nodes, on Poles NBU owns or to which NBU attaches within the NBU service territory.
- 43. **Joint Meeting Transfer** means the coordinated transfer of a pole-mounted Network Node by its owner to take place at the same time as an Attaching Entity schedules the installation of a new Attachment, Overlash, or Mid-span Installation onto or supported by the same Utility Pole that hosts the Network Node, which requires adjustments of existing Attachments or Utility Pole replacement as part of the One-Touch Transfer Process.
- 44. **Law** means common law or a federal, state, or local law, statute, code, rule, regulation, order, or ordinance.
- 45. **Licensee** means a Requestor that has executed an Agreement to become an authorized Attaching Entity, Network Provider, or both.
- 46. **Macro Tower** means a guyed or self-supported pole or monopole greater than the height parameters prescribed by Section 284.103, Local Government Code, or other applicable law, and that supports or is capable of supporting antennas.
- 47. **Make-Ready Charges** means all reasonable administrative, engineering design, construction, inspection, and management charges associated with Make-Ready Work.
- 48. **Make-Ready Communication Construction** means that portion of Make-Ready Work associated with construction work requiring access to Communication Facilities within the Communication Space of an Utility Pole, including, but not limited to the movement, transfer, relocation, or modification of an existing Attachment, Overlash, Mid-span Installation; the replacement of an Utility Pole; and all other construction activities necessary to accommodate the installation of a new Attachment, Overlash, or Mid-span Installation. Make-Ready Communications Construction shall include, where applicable, the nexus between aerial and underground communication construction.

49. **Make-Ready Electrical Construction** means that portion of Make-Ready Work associated with construction work requiring access to NBU Facilities within the Electrical or Supply Space of a Utility Pole, which includes, but is not limited to the movement, transfer, relocation, or modification of NBU electric distribution facilities; the replacement of a Utility Pole; and all other construction activities necessary to accommodate the installation of a new Attachment, Overlash, or Network Node. Make-Ready Electrical Construction shall include, where applicable, the nexus between aerial and underground electrical construction.
50. **Make-Ready Communications Engineering** means that portion of Make-Ready Work associated with the preparation, submission, review, and approval of the Licensee's *Application for Pole Attachment Permit* or *Application for Wireless Installation Permit* not included within Make-Ready Electrical Engineering. Make-Ready Communications Engineering shall include, but not limited to, the preparation of the following in support of the Application: the Pre-Construction Survey; engineering design documents for Make-Ready Communications Construction or Make-Ready Network Node Construction; and the submission of such documents to NBU for review, potential modification, and approval. Make-Ready Communications Engineering shall include, where required, the approval of a professional engineer, and the engineering design specifications related to the nexus between aerial and underground construction of Communications Facilities as part of Make-Ready Communications Construction of a Network Node as part of Make-Ready Wireless Construction.
51. **Make-Ready Electrical Engineering** means that portion of Make-Ready Work associated with the preparation, submission, review, and approval of the Licensee's *Application for Pole Attachment Permit* or *Application for Wireless Installation Permit* pertaining to the engineering design document(s) for Make-Ready Electrical Construction. Make-Ready Electrical Engineering shall include, where required, the approval of a professional engineer, and the engineering design specifications related to the nexus between aerial and underground construction of electrical distribution facilities as part of Make-Ready Electrical Construction.
52. **Make-Ready Network Node Construction** means that portion of the Make-Ready Work associated with construction work requiring access to a Utility Pole below the Communications Space or access to a Non-Decorative Streetlight Pole at any location that does not interfere with the streetlight components including, but not limited to the movement, transfer relocation, or modification of an existing Attachment or Overlash when an Eligible Pole replacement is necessary or otherwise in order to accommodate the Network Node components; and all other construction activities necessary to accommodate the Network Node on an Eligible Pole. Make-Ready Network Node Construction shall include, where applicable, the nexus between aerial and underground communications construction.

53. **Make-Ready Work** means all work that is required to accommodate a Licensee's Attachment, Overlash, or Network Node onto an Eligible Pole as appropriate in compliance with the Applicable Engineering Standards. Make-Ready Work may include, but is not limited to, Make-Ready Electrical Engineering, Make-Ready Electrical Construction, Make-ready Communications Engineering; Make-Ready Communications Construction, Make-Ready Network Node Construction; along with NBU's review of the Application, engineering design documents, Pole Loading Analysis documents, engineering work, construction work, permitting work, tree trimming (other than tree trimming performed for normal maintenance purposes), Eligible Pole replacement, and the Post-Construction Inspection.
54. **Messenger** means any cable owned by a Licensee extending between Utility Poles that is used as support for a Communications Facility or upon which a Mid-span Installation is clamped.
55. **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.
56. **Mid-span Installation** means a Micro Network Node attached to a messenger cable suspended between two Utility Poles and attached in the Communication Space.
57. **National Electric Safety Code (NESC)** means the current edition published by the Institute of Electrical and Electronic Engineers (IEEE) as may be amended or supplemented from time-to-time.
58. **National Joint Utilities Notification System (NJUNS)** means the national not-for-profit organization that helps support effective communication between utilities, Attaching Entities, and Network Providers.
59. **NBU Facilities** means all personal property and real property owned or controlled by NBU, including Eligible Poles.
60. **Network Node**, also known as **Wireless Installation** for purposes of these Standards, means equipment at a fixed location that enables the provision of wireless communications between user equipment and a communications network and does not exceed the dimensions permitted under Chapter 284, Texas Local Government Code or other applicable law. 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

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- b. does not include:
 - i. an electric generator;
 - ii. a Pole; or
 - iii. a Macro Tower.

Except where required otherwise by context, the terms Network Node and Wireless Installation include a Mid-Span Installation.

- 61. **Network Node Space** means the space on an NBU Eligible Pole within which NBU has authorized the installation of a Network Node.
- 62. **Network Operations Center** or **NOC** means a centralized location from which a Licensee's administrators remotely supervise, monitor, and maintain the day-to-day operations of a network. The scope of responsibilities of a NOC may be national or regional in nature.
- 63. **Network Provider** means:
 - a. Wireless Service Provider; or
 - b. a person or entity that does not provide Wireless Service 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.
- 64. **Neutral** means the conductor used to carry unbalanced current. In single-phase systems, the conductor used for a return current path.
- 65. **New Braunfels Utilities** or **NBU** shall mean New Braunfels Utilities, a municipally owned utility.
- 66. **Node Support Pole** means a Pole installed by a Network Provider for the primary purpose of supporting a Network Node.
- 67. **Non-decorative Streetlight Pole** shall mean an NBU-owned Streetlight Pole that is not a Decorative Streetlight Pole.
- 68. **Notice of Dispute Form** means the form that a Licensee must use to dispute NBU's determination of liability associated with a claim for damages caused to NBU Facilities by Licensee or its contractors, subcontractors, or agents. This form is provided in Appendix C.
- 69. **Notice to Proceed** means the form, referenced in Appendix B, NBU shall issue to Licensee that provides written notification that the Licensee may proceed with (a) Make-Ready Communication Construction; (b) Make-Ready Network Node Construction; or (c) Make-Ready Electrical Construction, as appropriate.
- 70. **Notice of Safety Violation** means the form, referenced in Appendix B, NBU shall issue to Licensee providing written notice of NBU's

identification of a Safety Violation with one or more of the Licensee's Attachments, Overlashings, or Network Nodes.

71. **Notice of Safety Violation Assessment Charge** means the form, referenced in Appendix B, NBU shall issue to Licensee providing written notice of the levying of a Safety Violation Assessment Charge to the Licensee.
72. **Notice of Unauthorized Attachment or Unauthorized Network Node** means the form, referenced in Appendix B, NBU shall issue to a Licensee providing written notice of NBU's identification of an Unauthorized Attachment or Unauthorized Network Node owned by the Licensee.
73. **Notification of Mid-Span Installation or Notification** means a complete "Notification of Mid-Span Installation" form found in Appendix B, together with applicable supporting information and documentation for the purpose of notifying NBU of an Attaching Entity's intent to install a new Mid-Span Installation supported by one or more NBU Utility Poles.
74. **Notification Fee** means the non-refundable fee or fees described in Appendix H of these Standards, compensating NBU for the administrative and other work required to process and review a Notification.
75. **One-Touch Transfer** means the transfer, relocation, or alteration of third-party Communication Facilities or Mid-span Installations whether conducted by a Licensee or NBU subject to the requirements described herein.
76. **Overlash** means to place an additional wire or cable Communications Facility onto an existing Attachment or Messenger already secured to the Utility Pole in order to accommodate additional wire or cable Communications Facility capacity.
77. **Overlapping** means an additional wire or cable Communications Facility mounted onto an existing fiber optic, coaxial, or Messenger cable already secured to the Utility Pole in order to accommodate additional wire or cable Communications Facility capacity the total bundle of which, together with the Messenger cable to which it is attach, does not exceed 3.5" in diameter.
78. **Pedestals** or **Vaults** or **Enclosures** means above- or below-ground housings that are used to enclose a cable/wire splice, power supplies, amplifiers, and passive devices and/or provide a service connection point and that shall not be attached to NBU Eligible Poles.
79. **Permit (Permit for Attachment, Network Node, or Mid-Span Installation)** means the written or electronic authorization from NBU to make or maintain an Attachment, Overlash, or Network Node to a specific NBU Eligible Pole pursuant to the requirements of the Pole Attachment Agreement and these Standards.

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80. **Pole** means a City-owned Service Pole, a Utility Pole, a Streetlight Pole, third-party Utility Pole, or a Network Provider or third-party-owned Node Support Pole.
81. **Pole Attachment Agreement** or **Agreement** means the Standard Pole Attachment and Wireless Installation License Agreement executed by both a Licensee and NBU.
82. **Pole Attachment Program** means the development, implementation, and operation of the NBU Pole Attachment Standards including but not limited to the execution of applicable Pole Attachment Agreements, review of Applications, completion of appropriate Make-Ready Electrical Construction, inspection of Make-Ready Electrical Construction, issuance of Permits, coordination of network deployments and expansions, resolution of conflicts and disputes, provision of applicable invoices, conducting workshops, accepting stakeholder input, amending the Standards as appropriate, enforcing the Standards, conducting Inventories, and all other general program administration and duties.
83. **Pole Attachment Standards** or **Standards** means these “NBU Pole Attachment and Wireless Installation Standards” with an initial effective date of February 7, 2022, and as amended from time to time.
84. **Pole Attachment Standards Revision Request (PASRR)** means the form, referenced in Appendix B, any stakeholder shall submit to NBU to propose a revision(s) to these Standards.
85. **Pole Attachment Standards Revision Request (PASRR) Comment Form** means the form, referenced in Appendix B, any stakeholder shall submit to NBU in which the stakeholder may provide comments to a PASRR during the PASRR’s comment period.
86. **Post-Construction Inspection** means the survey inspection required by NBU to determine and verify that the Make-Ready Electrical Construction, Make-Ready Communications Construction, Make-Ready Network Node Construction, and all other Make-Ready Electrical Construction, including the installation of an Attachment, Overlash, and/or Network Node was made in accordance with Applicable Engineering Standards, the Application, and all other Permit requirements.
87. **Pre-Certified Equipment** means Wireless Equipment for which a Network Provider has submitted manufacturing specifications and information to NBU for review and approval and for which NBU has given its approval or pre-certification.
88. **Pre-Construction Survey** means the field survey and all other work and operations required by Applicable Engineering Standards to determine the Make-Ready Electrical Construction necessary to accommodate an Attaching Entity’s Communications Facilities or Network Provider’s Communications Facilities or Network Node onto an Eligible Pole. Such work includes, but is not limited to, field inspection and administrative

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processing. The field survey to be done prior to preparation of Make-Ready Engineering shall be conducted by NBU in coordination with the Licensee's Engineer or other qualified employee or agent.

- 89. **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.
- 90. **Private Network** means a network constructed by a private or public entity, such as a school, a university, or a unit of local government, used solely for non-commercial communications purposes.
- 91. **Private Network Services** means non-commercial Communications Services provided by means of a Private Network.
- 92. **Public Rights-of-Way** or **Public Right-of Way** means the areas on, below, or above a public roadway, highway, street, public sidewalk, alley, waterway, or utility easement in which the City of New Braunfels or other governmental entities within the NBU service area have an interest.
- 93. **Receiver** means any electronic device the purpose of which is to collect, amplify, and/or control radio frequencies.
- 94. **Registration and Annual Reporting Form** means the initial registration form, available from NBU's website and referenced in Appendix A, a Requestor must submit in order to enter into a Pole Attachment Agreement with NBU and which must be updated annually (or as changes warrant) to meet the annual reporting requirements of an Licensee.
- 95. **Remote Radio Heads (RRH)** means a transceiver with transmitting and receiving capability of radio frequencies. The RRH will be served by optical fiber, direct-current power, and output to a single or multiple Antennas. Remote Radio Heads are an inventoried Network Node component.
- 96. **Request for Pre-Certification of Wireless System** means the form, referenced in Appendix B, a Network Provider shall submit to NBU to request NBU to review and approve Wireless Equipment for a Network Node in advance of its submission of an Application.
- 97. **Request for Waiver of Applicable Engineering Standards (Waiver Request)** means the form, referenced in Appendix B, a Licensee shall submit to NBU to request a waiver of one or more Applicable Engineering Standards.
- 98. **Requestor** means an eligible entity that submits a *Registration and Annual Reporting Form* in order to enter into an Agreement with NBU under which it may submit Applications for Permits to access NBU's Eligible Poles for the purpose of installing Attachments, Overlashings, and/or Network Nodes.
- 99. **Reserved Capacity** means Capacity or space on an Eligible Pole that NBU has identified and reserved for its own core electric utility service and lighting requirements, including space for any and all associated internal

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communications functions that are essential to the proper operations of such core electric utility service, pursuant to reasonably projected need.

- 100. **Revisions** means changes or modifications to the NBU Pole Attachment Standards, which may require changes in the collection of field data necessary to prepare an Application for submission.
- 101. **Riser** means metallic or plastic encasement materials supported by metal standoff brackets placed vertically on an Eligible Pole to guide and protect communication wires and cables where they transition from overhead to underground or vice-versa.
- 102. **Safety Briefing** means a document or presentation materials prepared by a Licensee and provided to NBU to educate NBU employees and contractors regarding specific process on how to work safely near and/or around the Licensee's specific Attachment or Network Node technologies and locations.
- 103. **Safety Violation** means Licensee's violation of the Applicable Engineering Standards that: (a) is reasonably expected to endanger life or property; or (b) poses a potential safety risk to any NBU employee, Licensee employee or contractor, or to the general public.
- 104. **Safety Violation Assessment Charge** means the charge payable by a Licensee for failure to correct a Safety Violation as provided herein.
- 105. **Service Disconnect Switch** means the electrical device owned by the Licensee the purpose of which is to de-energize the entire Wireless Installation, and must meet the requirements provided in the NBU Electric Service Standards and all other applicable code requirements.
- 106. **Service Drop** means a single wired drop installed to provide Communications Service to an individual customer measured from the customer premises to the closest available Utility Pole without requiring any additional anchors or guys to comply with all Applicable Engineering Standards. Unless otherwise stated herein, Service Drops are subject to all terms and conditions of these Standards.
- 107. **Service Pole** means a City-owned Pole located in the Public Rights-of-Way that supports traffic control functions or signage.
- 108. **Simple Transfer** means the transfer, relocation, or alteration of any Attachment or Overlash on an existing Utility Pole or onto a new Utility Pole that does not require cutting and splicing of the Communication Facility subject to such transfer, relocation, or alteration. A Simple Transfer may include the transfer, relocation, or alteration of a Network Node that is mounted or otherwise supported by a Utility Pole.
- 109. **Slab-Mounted Equipment Cabinet** means a ground-based Wireless Equipment Cabinet mounted on a concrete slab or similar structure.
- 110. **Standard Pole Attachment and Wireless Installation Agreement** or **Agreement** means an executed agreement between NBU and a Licensee

that adopts and incorporates these Standards by reference, and under which the Requestor agrees to abide by the terms and conditions of the Agreement as well as the duties and obligations set out in these Standards as they may be amended from time to time. An Agreement shall include additional legal protections and obligations of the parties not specifically covered in the Standards.

- 111. **Streetlight Pole** means a pole structure owned by NBU that is not part of the electric distribution system has the primary function of supporting equipment used to provide overnight streetlight service or all night area light service. A Streetlight Pole may be either a Decorative Streetlight Pole or a Non-Decorative Streetlight Pole.
- 112. **Tag** means to place a distinct marker within twelve inches (12”) of an Eligible Pole on the wires and cables, coded by number, color, or other means that will readily identify the owner of the Attachment, Mid-span Installation, or Network Node as set forth at Appendix K. The Tag shall be consistent with accepted communications industry standards.
- 113. **Tagging Plan** means a written plan developed by a Licensee at the request of NBU to address and remedy untagged or incorrectly tagged Attachments, Overlashings, or Network Nodes.
- 114. **Telecommunications Services** means the services defined at 47 U.S.C. §153(53), as it may be amended.
- 115. **Transport Facility** means each transmission path physically within the Public Rights-of-Way, extending with a physical line from a Network Node directly to the relevant Wireless Service Provider’s network, installed for the purpose of providing backhaul for Network Nodes.
- 116. **Transmitter** means any electronic device the purpose of which is to generate, amplify, and/or control, radio frequencies.
- 117. **Unauthorized Attachment** means any Attachment or Overlash of a Licensee for which the Licensee has not obtained a Permit.
- 118. **Unauthorized Attachment Charge** means the charge payable by a Licensee for Unauthorized Attachments as described in Appendix H.
- 119. **Unauthorized Network Node** means any Network Node of Licensee for which the Licensee has not obtained a Permit.
- 120. **Unauthorized Network Node Charge** means the charge payable by a Licensee or other person for Unauthorized Network Node as described in Appendix H.
- 121. **Utility Pole** means an NBU electric distribution system utility pole owned by NBU carrying primary and/or secondary voltages with phase to phase voltages up to and including 34.5 kilovolts (kV).

122. **Video Services** means video programming services provided through wireline facilities located at least in part in the Public Right-of-Way without regard to delivery technology, including Internet protocol technology.
123. **Wireless Equipment** means any FCC-authorized radio equipment components owned by a Network Provider used for a Network Node, including Antennas, Remote Radio Heads, Transmitters, transceivers, and related equipment on an Eligible Pole-mounted Network Node or Mid-span Installation of a Micro Network Node.
124. **Wireless Equipment Area** means the space comprising of the area where the following components of a pole-mounted Network Node are located: (a) Antenna Area; (b) Wireless Equipment Cabinet; and (c) Backhaul Network Interface Device.
125. **Wireless Equipment Cabinet** means a weather-tight enclosure that houses Network Node equipment and components. Wireless Equipment Cabinets are inventoried Network Node components. Subject to the further provisions of these Standards and Chapter 284, Local Government Code, a Wireless Equipment Cabinet, together with all other equipment associated with a Network Node shall be ground-based and shall not be higher than three feet six inches in height, width, or depth.
126. **Wireless Installation** means a Network Node or Micro Network Node, including a Mid-Span Installation.
127. **Wireless Interference** means the material adverse effect of unwanted energy due to one or a combination of emissions, radiations, or inductions upon reception in a pre-existing radio communication system, manifested by any material performance degradation, misinterpretation, or loss of information which could be extracted in the absence of such unwanted energy.
128. **Wireless Project Area** means a defined urban or suburban geographical area identified by a Licensee for the deployment of one or more Network Nodes utilizing the same technology at each installation in order to provide, or enhance the provision of, Wireless Service or Commercial Mobile Radio Service. A Wireless Project Area shall consist of a small portion of the overall service area covered by the Certificated Provider or Wireless Service Provider on whose behalf the Network Nodes are deployed, and is not considered part of a Deployment Plan.
129. **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.
130. **Wireless Service Provider** means a person that provides Wireless Service to the public.

B. Registration of Entity

1. **Initial Registration Information.** Before executing an Agreement, a Requestor must submit a complete *NBU Registration and Annual Reporting Form*, referenced in Appendix A, and submit the completed form to NBU. The Registration and Annual Reporting Form must indicate:
 - a. Corporate name of the Requestor;
 - b. Corporate contact information;
 - c. Contact information for a primary liaison and an escalation list of company personnel responsible to respond to any operational requests from NBU;
 - d. Whether the entity holds a certificate from the Public Utility Commission of Texas (PUCT), and if so, what kind;
 - e. If the entity has been granted a franchise, license agreement, permit or ordinance by the City of New Braunfels or a another city within the NBU service area; and
 - f. If the Requestor is a Network Provider, identify the name and contact information of any Wireless Services Providers under contract with Requestor.

Where applicable, the Requestor shall provide copies of the PUCT certificate and any franchise or license agreements, permits, or ordinances with the *Registration and Annual Reporting Form* authorizing access to the Public Rights-of-Way within the NBU service area. NBU shall have no obligation to execute an Agreement or approve an Application for a Permit within any part of its service area to any Requestor that has not been granted the right to use Public Rights-of-Way for the installation of Communications Facilities by means of Attachments or Network Nodes.

2. **Updates to Registration Information.** The *Registration and Annual Reporting Form* must be submitted to NBU at least annually thereafter, and as changes in the Licensee's information warrant. Licensee has an obligation and duty to maintain the accuracy of the information in the *Registration and Annual Reporting Form* at all times. ***NBU is not obligated to contact any person not listed as a contact on the Registration and Annual Reporting Form.***

C. Execution of Standard Pole Attachment and Wireless Installation License Agreement

Every registered Requestor must execute an Agreement that incorporates these Standards by reference, and NBU must countersign such Agreement before the Requestor may submit an Application or Notification. Except as otherwise set out herein, an Application must be submitted in compliance with these Standards for every new Attachment, Overlash, and/or Network Node that a Licensee seeks for

an NBU Eligible Pole. NBU's Pole Attachment Application process is described in detail in Section IV for Attachments and in Section V for Network Nodes.

NBU may approve or deny an Application, in whole or in part, for reasons of safety, reliability, or insufficient Capacity that cannot be resolved in a manner consistent with Applicable Engineering Standards and the conditions, processes, and timelines outlined in these Standards. The uninterrupted processing of a Licensee's Application is contingent on the timely payment of undisputed invoices as provided in the Agreement for Make-Ready Work and other fees or charges applicable to Attachments or Network Nodes and compliance with the requirements and specifications of these Standards.

The issuance of a Permit is the only means for securing the privilege to install an Attachment or Network Node on or supported by any NBU Eligible Pole.

1. **Agreements Required for Network Nodes.** A Network Node may only be attached to or supported by an Eligible Pole pursuant to an Agreement. Any Network Node not covered by an Agreement found mounted onto or supported by an Eligible Pole shall be considered an Unauthorized Network Node subject to Unauthorized Network Node Charges and any other sanctions or remedies specified herein or in the Agreement.
2. **Standards Applicable Regardless of Effective Agreement.** Upon their effective date, these Standards shall be applicable to all Attachments, Network Nodes, and related Communication Facilities of a Licensee whether or not the Licensee is a party to a valid and existing Agreement. Any Attachments or Network Nodes in place at the time the corresponding Agreement expires or terminates, as well as any additional Unauthorized Attachments installed subsequent to such expiration or termination but prior to the execution of a successor agreement, will be subject to these Standards. Upon execution of a successor Agreement, these Standards will remain in effect and shall be incorporated into the contractual terms in such successor agreement(s). This Section is not intended to supersede, eliminate, or substitute any contractual protections or duties included in such successor agreement(s).

D. Application or Notification

1. **Requirements for Installations.** No person or entity is authorized to install an Attachment, Overlashing, Network Node, or Mid-Span Installation onto or supported by an Eligible Pole without first executing an Agreement; submitting one or more complete Applications or Notifications; and securing the required *Permit for Attachment or Network Node*.
2. **No Commingling of Attachments.** When submitting an Application or Notification, the Licensee must specify whether the Application is for a wireline Attachment or a Network Node. The comingling of wireline Attachments and Network Nodes under one Application or Notification is strictly prohibited, except to the extent that a Network Provider seeks to

connect one or more Network Nodes to Transport Facilities. In such instances, an Application for an Attachment and an accompanying Network Node Application or Notification may be submitted and considered by NBU together as a single project provided the Licensee identifies the Applications or Notifications as “associated” on the appropriate Application Forms.

E. Termination of Permit

1. **Automatic Termination of Permit.** Any Permit issued pursuant to these Standards shall automatically terminate when the Licensee ceases to have authority to construct and operate its Communications Facilities or Network Nodes on public or private property, including federal property, at the location of the Eligible Pole covered by the Permit.
2. **Surrender of Permit.** A Licensee may at any time surrender any Permit and remove the corresponding Attachment(s) and/or Network Node(s) from the affected Eligible Pole(s) or a Mid-Span Installation supported by the affected Eligible Poles; provided, however, that before commencing any such removal, Licensee must, not less than ten (10) days before Licensee intends to remove an Attachment, Network Node, or Mid-Span Installation, submit an Application or Notification to and obtain a Permit allowing removal from NBU. All such work is subject to the insurance requirements of the Agreement. No refund of any fees or costs paid to NBU will be made upon removal.
3. **Termination or Surrender; Removal.** If Licensee’s Permit is terminated or surrendered pursuant to the provisions of this Section or as a consequence of breach of the Agreement, but Licensee fails to remove its Attachments or Network Nodes from or supported by NBU’s Facilities within the time provided in the Permit, NBU shall have the right to remove the Attachments or Network Nodes at the Licensee’s expense.

F. Annual Reporting Requirements

As required by Section II.B., Licensees must submit a *Registration and Annual Reporting Form* prior to executing an Agreement, and an annual update on or before October 31 of each year thereafter. Concurrently with submitting the updated Registration and Annual Reporting Form, Licensee shall report the following to NBU:

1. **List of Installations.** Licensee shall provide a list of specific Eligible Poles (by NBU Pole number, if available) on or supported by which Licensee has installed, during the previous twelve (12) month reporting period, new Attachments, Overlashings, or Network Nodes, including risers, Service Drops, and Mid-Span Installations, on or supported by an Eligible Pole, or any other facility for which no Permit was required under these Standards.
2. **List of Non-Functional Attachments.** Licensee shall provide a list of all Attachments, Overlashings, Network Nodes, or other equipment that has either become non-functional, surrendered, or for which Licensee is no

longer paying the annual Pole Attachment Fee or Network Node Fee during the previous twelve (12) month reporting period. The report shall identify the specific Eligible Pole (by NBU Pole number, if available) on or supported by which the nonfunctional Attachment, Overlash, Network Node, or other equipment is located or supported and provide a description of the nonfunctional equipment.

3. **Removed Equipment.** Licensee shall provide a list of all Attachments, Overlashings, Network Nodes, or other equipment removed (and not replaced by substantially similar equipment) from specific Eligible Poles (by NBU Pole number, if available) during the previous twelve (12) month reporting period. The report shall identify the Eligible Pole from which the equipment was removed, a description of the removed equipment, and indicate the approximate date of removal. This requirement does not apply where Licensee surrenders a Permit.
4. **Data Required.** For all new or existing Attachments, Overlashings, or Network Nodes or related Communications Facilities, Licensee shall provide relevant pole identification data for all Eligible Poles Requestor's Attachments, Overlashings, or Network Nodes, or other Communications Facilities occupy or require for support, including NBU pole number and GPS location data for entry into the NBU GIS system, and equipment tagging information.
5. **Emergency Contact.** Licensee shall maintain current at all times the emergency contact information required by the Agreement, along with contact information for their Network Operations Center.
6. **Failure to Report.** Failure of a Licensee to comply with the annual reporting requirements of this Section shall constitute a Default under the Agreement. result in NBU suspending all work on Licensee's Applications.
7. **Right to Audit.** NBU reserves the right to perform an audit on any annual reporting required herein to validate the information provided. Any failure on the part of Licensee to provide accurate reporting shall constitute a Default under the Agreement, and in addition to any remedies available under the Agreement, Licensee shall pay NBU the costs incurred to perform the audit.

G. Notices

1. **Notice of Revisions to the Pole Attachment Standards.** NBU shall publish any proposed revisions to these Standards on the NBU public website (the "Standards Amendment Notice"). NBU shall also send an electronic Standards Amendment Notice to the primary contact and email address for each Licensee provided in the Registration and Annual Reporting Form. NBU is under no obligation to contact anyone other than the primary contact provided with regard to notices under this Section. NBU shall enforce and a Licensee shall adhere to the revised Standards for new Applications on their effective date. No revisions to the Applicable

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Engineering Standards shall be retroactive to existing permitted Attachments, Overlashings, or Network Nodes, unless required by city, county, state, or federal law, or if the Attachment, Overlash, or Network Node is modified after the effective date of the revised Standards. If an Attachment, Overlash, or Network Node is modified, including without limitation moved, upgraded, repaired, replaced, or Overlashed (in the case of an existing Attachment), the Attachment, Overlash, or Network Node shall immediately become subject to the Standards then in effect. NBU will publish the Standards Amendment Notice not less than sixty (60) days prior to their effective date.

NBU may conduct an annual workshop during the month of December or an ad hoc workshop at any time for the benefit of all Licensees. In the workshop, NBU and Licensees may discuss overall implementation of the Standards, including proposals for making amendments to improve operations, procedures, or administration of NBU's Pole Attachment Program. All proposals for either Revisions to the Standards proposed by NBU will be discussed at a workshop prior to publication for comment, adoption, and acceptance.

2. **Process to Request Revisions to the Standards.** A Licensee may formally request a revision to the Standards pursuant by:
 - a. Completing the NBU Pole Attachment Standards Revision Request (PASRR) form, which is available for download from NBU's website; and
 - b. Submitting the completed PASRR to NBU.

NBU shall review a properly completed PASRR form received and will publish the PASRR on the Pole Attachment webpage for stakeholder comments for a minimum of thirty (30) days.

Licensees and other interested stakeholders may submit comments, including proposed substitute language, within the thirty (30) day comment period. Comments are to be submitted to NBU using the PASRR Comment form, a web link to which is available for download from the NBU website.

Within thirty (30) days following the end of the comment period, NBU will publish its rationale and decision to accept, modify, or reject the PASRR either in whole or in part and its proposed effective date, if accepted, which shall be no less than sixty (60) days from the date of the notice, unless NBU finds good cause for a reduction in time for notice. NBU reserves the right to extend the time for stakeholder comments or the period to respond to stakeholder comments. In the event of such extension, NBU will notify stakeholders by posting such notice of extension on the Pole Attachment website.

H. Scope of Standards

1. **Grant of Permit.** The issuance of a Permit by NBU authorizing the placement of an Attachment, Overlash, or Network Node on or supported by an Eligible Pole, pursuant to the provisions of these Standards, will operate to grant a Licensee a revocable, nonexclusive license to install and maintain the Attachment, Overlash, or Network Node, as applicable, on or supported by a specific Eligible Pole, or set of Utility Poles in the case of Attachments or a Mid-span Installation. The grant of a Permit entitles a Licensee to the quiet enjoyment of its Attachments, Overlash, or Network Node subject to all requirements of these Standards, including the procedures for the transfer or relocation of such Attachment, Overlash, or Network Node.
2. **Duties and Obligations Under Standards.** These Standards set out the duties and obligations of NBU and a Licensee regarding the processing of an Application or Notification, issuance of a Permit, compliance with Applicable Engineering Standards, and administration of an Attachment, Overlashing, or Network Node on or supported by an Eligible Pole during the entire lifecycle of the Attachment, Overlashing, or Network Node.
3. **Permit Issuance Conditions.** NBU may issue a Permit to a Licensee when there is sufficient Capacity to accommodate the requested Attachment or Network Node or when pole loading conditions would not prohibit an Overlashing, and the corresponding Application or Notification complies with all Applicable Engineering Standards. NBU may deny a Permit on a nondiscriminatory basis where there is insufficient Capacity or for reasons of safety, reliability, or as set forth in the Applicable Engineering Standards. NBU shall provide the specific nondiscriminatory reasons for denial of an Application or Notification in writing with the rejected Application or Notification.
4. **No Interest in Property.** No use, however lengthy, of any NBU Facilities, and no payment of any fees or charges required under these Standards or otherwise, shall create or vest in a Licensee any easement or other ownership or property right of any nature in any portion of such NBU Facilities.
5. **Non-Exclusivity.** A Permit granted to a Licensee under these Standards is non-exclusive and shall have no effect or take legal precedence over any Permit, rights, or other privileges granted by NBU to any other entity to use an NBU Eligible Pole or other NBU Facilities.
 - a. No Licensee is entitled to reserve or schedule space on any Eligible Pole, other than pole space for which a Permit has been granted to Licensee.
 - b. An approved Permit is subject at all times to NBU's right to provide core electric utility services, including the provision of all internal communications essential to the proper operations of such core electric utility services, using its Eligible Poles.

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- c. The issuance of a Permit by NBU grants only a license and no possessory interest to a specific Eligible Pole or to any space on such pole.
6. **NBU's Rights Over Poles.** The granting of a Permit does not in any way limit NBU's right to locate, install, operate, maintain, relocate, or remove its Poles in the manner and at the time that will best enable it to fulfill its core electric and customer service requirements. NBU reserves to itself the right to maintain its Poles and other NBU Facilities and to operate its facilities thereon in such manner as shall enable NBU to fulfill its own electric service, lighting, maintenance, and customer service obligations and requirements.
7. **Restoration of NBU Service.** NBU's service restoration requirements shall take precedence over any and all work operations of any Licensee on or supported by NBU's Eligible Poles. NBU may relocate, replace, or remove a Licensee's Attachments, Overlashings, or Network Nodes, transfer them to substituted poles or perform any other work in connection with such Attachments, Overlashings, or Network Nodes that NBU deems necessary in order to safely and efficiently restore electrical service. NBU shall not be liable to a Licensee for any actions NBU takes pursuant to this Section. The affected Licensee shall reimburse NBU for the reasonable expenses that NBU incurs relating to such work within thirty (30) days of the date NBU issues an invoice for such work.
8. **Permitted Uses.** All Licensees shall be permitted to use an approved Attachment or Overlash only for the purpose of providing Communications Services or Communications Facilities. Network Nodes shall only be used for the provision of Wireless Services.
 - a. A Licensee is not permitted to install an Attachment, Overlash, or Network Node on behalf of any other party, sublease an Attachment, Overlash, or Network Node to any other party, or Overlash Communications Facilities or install any Network Node devices belonging to a third-party, regardless of whether the third-party is an Affiliate of a Licensee; provided, however, that certain Wireless Installations that Licensee may deploy, construct, install, repair, or maintain under the Standards may be licensed, leased, owned, or operated by one or more Wireless Service Provider customers of Licensee ("Licensee's Customers") pursuant to license, lease, or sales agreements between Licensee and Licensee's Customers, if Licensee's Customers are also party to an Agreement with NBU.
 - b. Wireless Installations provided for the benefit of Licensee's Customers shall be treated as Licensee's Wireless Facilities under these Standards, and Licensee shall be responsible for performance of all of Licensee's obligations under these Standards with respect to all Wireless Installations Licensee deploys, constructs, installs, repairs, or maintains on or supported by an Eligible Pole.

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- c. Licensee shall provide Licensee's Customer a written notice of the NBU's requirements under these Standards, Licensee's Agreement, and any applicable Permit, at or before the time Licensee submits an Application or Notification, notifying Licensee's Customer that it has an obligation to become party to an Agreement with NBU ("NBU Requirements").
 - d. If Licensee constructs or intends to construct a Wireless Installation owned, leased, or licensed for use in whole or in part by one or more of Licensee's Customers, including without limitation a Wireless Service Provider (a "Third-Party Facility"), Licensee shall provide notice to NBU of such arrangement at the time it submits an Application or Notification. Licensee's notice to NBU of Third-Party Facility shall include: (i) the name, address, email address, and contact telephone number of Licensee's Customer; (ii) the model number of and the technical specifications for the Third-party Facility; and (iii) a description of the nature of the interest Licensee's Customer holds or will hold in the Third-Party Facility (*e.g.*, whether Licensee's Customer will own the Third-Party Facility or will lease or license the Third-Party Facility from Licensee). The information required by this Subsection shall be provided as part of the Application or Notification. Any installation of an Attachment, Overlashing, or Network Node in violation of a Permit shall be considered an Unauthorized Attachment or Unauthorized Network Node subjecting the non-compliant Licensee to enforcement action by NBU, including all remedies for Default under the Agreement.
9. **Expansion of Capacity.** NBU may expand Pole Capacity at a Licensee's expense when necessary to accommodate an additional Attachment or Network Node approved pursuant to the issuance of a Permit, and when consistent with local governmental land use requirements of general applicability and the Applicable Engineering Standards. NBU is under no obligation to install, retain, extend, or maintain any Eligible Pole for the benefit of a Licensee when such pole or system of poles is not needed for NBU's core electric or customer service requirements.
10. **Reserved Capacity.** At the time that NBU receives an Application or Notification, NBU, to the extent information is known at that time by NBU, may communicate to the requesting Licensee NBU's obligation to reserve space on an Eligible Pole or Utility Pole as Reserved Capacity for its own future use in accordance with a *bona fide* electric system expansion or improvement plan that reasonably and specifically projects a need for that space for the provision of its core electric utility or lighting services, including any and all associated internal communications. Reserved Capacity shall be made available for use by a Licensee consistent with these Standards and this Section until NBU has a need for such Reserved Capacity.
- i. NBU may reclaim the Reserved Capacity if required for NBU's use at such time by giving a Licensee at least ninety (90) days' advance notice.

NBU shall give the Licensee the option to remove its Attachment or Network Node from or supported by the affected Eligible Pole or Utility Pole, as applicable, or to pay for the cost of any Make-Ready Electrical Construction needed to expand Capacity so that the Licensee may maintain its Attachment or Network Node on the affected Eligible Pole or supported by the affected Utility Pole as provided below.

- ii. NBU may require a Licensee to remove its Attachment or Network Node from the affected Eligible Pole on which it has been installed or the Utility pole supporting it if the Licensee does not agree to pay for the cost of Make-Ready Electrical Construction needed to expand Capacity within forty-five (45) days of NBU issuing notice that NBU requires use of the Reserved Capacity. NBU may remove the Attachment or Network Node if the Licensee fails to remove it from the affected Eligible Pole or Utility Pole within ninety (90) days of NBU issuing notice that NBU requires use of the Reserved Capacity. NBU shall invoice the affected Licensee for the actual cost that NBU incurs for such removal, and the Licensee shall pay such invoice no later than thirty (30) days following issuance of invoice.
- iii. If NBU reclaims Reserved Capacity for which a Licensee has received a Permit and paid for Make-Ready Electrical Construction but the installation of the Attachment and/or Network Node is not complete, NBU shall refund all payments made by the Licensee to NBU for the Application Fee and Make-Ready Electrical Construction on the affected Pole.

11. **Authorization for Use of One-Touch Transfer Process.** All Licensees with Attachments, Overlashings, or Network Nodes on or supported by NBU Eligible Poles or Utility Poles shall be subject to a Simple Transfer or rearrangement of their Attachments, Overlashings, or Network Nodes pursuant to the One-Touch Transfer Process described in Section IV.B.5 and Section V.B.5, provided that any such transfer or rearrangement is consistent with these Standards including all Applicable Engineering Standards. A Licensee is entitled to utilize the One-Touch Transfer Process in installing its Attachments, Overlashings, or Network Nodes, provided that the requirements of Section IV.B.4, Section IV.B.6, Section V.B.6, and Section V.B.7 are followed.

I. Fees and Charges

- 1. **General.** All Licensees shall be subject to the NBU Schedule of Pole Attachment Rates, Fees, and Charges as specified in Appendix H, as it may be amended, and shall comply with the terms and conditions specified herein.
 - a. Wherever NBU is required to perform any work related to the Pole Attachment Program on behalf of a Licensee, NBU, in its sole discretion, may utilize its employees or contractors, or any combination of the two, to perform such work. Invoices submitted directly to a

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Licensee from an NBU contractor shall be treated as if the invoice was issued from NBU pursuant to these Standards.

- b. Wherever a Licensee is required to pay for such work done or contracted by NBU, the charge for such work shall include all reasonable material, labor, travel, engineering, administrative, and applicable overhead costs, other than those costs compensated by payment of the applicable Application Fee or Notification Fee; the annual Pole Attachment Fee; or the Network Node Fee.
 - c. Except as provided in Section II.H.10.iii hereto, no rates, fees, and/or charges specified in Appendix H shall be refunded on account of any surrender of a Permit.
 - i. All Licensees shall pay NBU or its contractor in accordance with the terms of this Section and Appendix H.
 - ii. If NBU or its contractor does not receive an undisputed payment from a Licensee for any amounts owed within forty-five (45) days after it becomes due, the Licensee shall pay, in addition to the initial amount, interest to NBU at the rate provided in the Agreement, or the highest interest rate allow by law, whichever is less, on the amount due beginning from the first of the month following the forty-five (45) days until the payment is made.
 - d. Should undisputed payment not be received within forty-five (45) days following the due date, Licensee shall be in Default.
2. **Dispute of Charges.** Excluding the annual Pole Attachment Fee or the annual Network Node Fee, should a Licensee wish to dispute an invoice from either NBU or its contractors, the Licensee shall within fifteen (15) days of receipt of the invoice provide NBU written notice of its intention to dispute the invoice.
- a. **Notice.** This notice shall include:
 - i. A copy of the invoice being disputed;
 - ii. A detailed description of the disputed amounts;
 - iii. Licensee's claim of dispute; and
 - iv. Any legal or factual basis for the claim of dispute.
 - b. **NBU Response.** Within fifteen (15) days of receipt of the written notice of dispute, NBU will arrange a meeting or teleconference with the Licensee to begin discussions regarding the dispute in accordance with the conflict resolution provisions provided herein.
 - c. **Timely Payment Required.** Licensee's invocation of the dispute process does not relieve the Licensee from timely payment of the invoice. If NBU and the Licensee reach agreement on an amount less than the invoiced amount under dispute and paid under protest or dispute, NBU or its contractor shall either refund, reimburse, or

provide future credit to the Licensee in accordance with the agreements of the parties.

3. **Application Fee, Notification Fee, and Make-Ready Engineering Review.**

- a. Compensatory Fees to be Paid. Each Licensee shall pay an Application Fee or Notification Fee to compensate NBU for the cost of administrative and other work required to manage the Application or Notification processes that are not directly reimbursed by a Licensee through Make-Ready Electrical Construction charges or otherwise covered by the annual Pole Attachment Fee or the Network Node Fee. The appropriate Application Fee or Notification Fee, set forth in Appendix H, shall be paid to NBU at the time the Application or Notification is submitted. If the Licensee fails to pay the Application Fee or Notification Fee upon submission, the Application or Notification shall be deemed incomplete. As a result, NBU will not process the Application or Notification or any subsequent Application(s) or Notification(s) for which no Application Fee or Notification Fee has been submitted.
- b. Reimbursement of NBU or Contractors. A Licensee shall reimburse NBU or its contractor for its actual costs to complete the Application or Notification process, including the Make-Ready Engineering review, described in Section IV and Section V. NBU or its contractor shall invoice each Licensee for the work completed in processing the Licensee's Applications or Notifications on a monthly basis. If the Licensee fails to pay the Make-Ready Engineering costs within thirty (30) days following issuance of the invoice, Licensee shall be in Default.
- c. Cancellation and Refunds. If an Application or Notification is submitted by a Licensee with the appropriate Application Fee or Notification Fee, but is then cancelled, the Application Fee or Notification Fee submitted with the cancelled Application or Notification shall not be refunded, but is deemed fully earned. The Licensee shall also reimburse NBU or its contractor for the reasonable and necessary costs incurred up to the date of cancellation. Should NBU cancel the Application or Notification pursuant to its rights under these Standards, NBU will reimburse the Application Fee or Notification Fee to the Licensee and the Licensee shall not owe NBU for costs incurred up to the date of cancellation.

4. **Advance Payment for Make-Ready Electrical Construction.** Where Make-Ready Electrical Construction is required, the Licensee is required to make advance payment for the Make-Ready Electrical Construction as set forth herein. All required Make-Ready Electrical Construction must be completed before a Licensee may install any Attachments, Overlashings, or Network Nodes. NBU shall provide an invoice and request authorization

for the Make-Ready Electrical Construction by submitting to the Licensee the completed *Authorization for Make-Ready Electrical Construction* form, referenced in Appendix B. The estimate provided in the *Authorization for Make-Ready Electrical Construction* form shall be valid for forty five (45) days after issuance. Should the Licensee not indicate its acceptance within the forty five (45) day time-frame, the Application or Notification shall be deemed cancelled. If approved by the Licensee, the Licensee shall pay NBU pursuant to the terms of *Authorization for Make-Ready Electrical Construction* and Section II.I.1. **NBU will not schedule or release to construction any Make-Ready Electrical Construction work on behalf of a Licensee until NBU receives the advance payment in full.**

- a. As provided in this Section, NBU will require advance payment of estimated expenses for Make-Ready Electrical Construction. NBU shall perform a true-up of costs for work orders closed and the following will apply:
 - i. To the extent that the actual costs of the work order exceed the advance payments of estimated expenses, the Licensee shall pay NBU for the net difference in costs; or
 - ii. To the extent that the actual costs of the work order are less than estimated costs, NBU will refund to the Licensee the net difference in costs.

In either event, NBU shall either invoice or refund the appropriate costs to the Licensee within sixty (60) days following the close of each calendar quarter.

- b. For any actual costs incurred by NBU that are not reflected in the work order costs for any reason, an estimated cost will be determined by NBU and added to the actual work order costs to account for these costs during the true up process.

5. Annual Pole Attachment Fee and Network Node Fee. NBU shall assess and Licensee shall pay, in addition to any other fees or charges authorized under the Contractual Authorities, fees and charges for the privilege of installing, maintaining, owning, leasing, licensing, using, or operating Attachments or Network Nodes on or supported by Eligible Poles.

- a. NBU shall assess fees for billable Attachments and Network Nodes on a per-pole-foot-required basis at the highest rate permitted under applicable law (the “Attachment Rate”). NBU will provide Licensee notice of the applicable Attachment Rate for the next calendar year by October 31 of each year.
- b. Licensee’s initial payment of the Pole Attachment Fee or Network Node Fee for any Attachment or Network Node, as applicable, shall be made on the date Licensee completes installation of the Attachment or Network Node to which a fee or fees are applicable.

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- c. After installation of an Attachment or Network Node, for each year Licensee operates under this Agreement:
 - i. Licensee shall, on or before October 31 of each year, provide NBU with a completed *Registration and Annual Reporting Form*; and
 - ii. NBU shall, on or before December 1 of each year, following receipt of Licensee's *Registration and Annual Reporting Form*, notify Licensee of the Attachment Rate and invoice the annual Attachment Connection Fee and Network Node Fee to Licensee (the "Fee Statement").
 - iii. Licensee shall, on or before December 31 of each year, following delivery of the Fee Statement, pay to NBU in advance for the following calendar year: (a) the Attachment Rate multiplied by the number of pole-feet occupied by or required for Licensee's Attachments for all or any part of the preceding calendar year (as defined herein, the "Pole Attachment Fee"); and (b) the Attachment Rate multiplied by the number of pole-feet occupied by or required for Licensee's Network Nodes installed or in place on or supported by an Eligible Pole for all or any part of the preceding calendar year (as defined herein, the "Network Node Fee").

6. **Unauthorized Attachments or Unauthorized Network Nodes.** The installation of Unauthorized Attachments or Unauthorized Network Nodes poses an increased risk to NBU personnel, the public, and legitimate Attachments, Overlashings, and Network Nodes of other Attaching Entities or Network Providers. NBU shall issue a *Notice of Unauthorized Attachment or Unauthorized Network Node*, referenced in Appendix B, promptly upon discovery of an Unauthorized Attachment or Unauthorized Network Node to the Licensee that owns such Attachment(s) or Network Node(s). Such notice shall include the specific location of the Unauthorized Attachment or Network Node (including NBU Pole number); the type of Attachment, Overlashing, or Network Node; and the basis of NBU's determination that the Attachment, Overlashing, or Network Node is unauthorized.

- a. A Licensee may dispute NBU's determination by providing the Attachment's or Network Node's Permit or approved Application from NBU within forty-five (45) days of NBU's issuance of notice.
- b. NBU will invoice for any Unauthorized Attachment or Unauthorized Network Node identified by the terms and conditions of this Section and Appendix H. Any Unauthorized Attachment Charges or Unauthorized Network Node Charges shall be paid within thirty (30) days of the date of the invoice, provided that Licensee has had an opportunity to dispute any such determination.

- c. If the Licensee or operator fails to pay the Unauthorized Attachment Charges or Unauthorized Network Node Charges for any verified Unauthorized Attachments within thirty (30) days following issuance of the invoice, such failure shall constitute a Default under the Agreement.

J. Compliance with Pole Attachment Standards & NBU Enforcement

1. **Expectation of Compliance.** Pursuant to the Agreement, each Licensee shall fully comply with the terms and conditions set forth in these Standards as a condition of receiving and maintaining a Permit from NBU.
2. **Enforcement of Standards.** Pursuant to the Agreement, NBU reserves all rights available to NBU under these Standards or said agreement to enforce compliance with these Standards in a non-discriminatory manner. Further, NBU will enforce these Standards in a non-discriminatory manner with respect to any Licensee regardless of the status of the Agreement with NBU.
3. **Safety Violations & Safety Violation Assessment Charge.**
 - a. If during an Inventory or otherwise, NBU determines that one or more of a Licensee's Attachments or Network Nodes, or any part thereof, are installed, used, or maintained in such a manner as to create one or more Safety Violations, NBU shall promptly notify the Licensee by issuing a *Notice of Safety Violation*. Licensee shall correct the Safety Violation(s) as soon as possible, but no later than five (5) days from NBU's issuance of the *Notice of Safety Violation*.

If the Safety Violation has not been cured within the five (5) day period, NBU may correct the conditions giving rise to a Safety Violation at Licensee's sole cost and risk. Before undertaking corrective measures, if practicable, NBU will attempt to notify the non-compliant Licensee in writing. If NBU determines the Safety Violation poses an Emergency, NBU may perform such work or take such action as it deems necessary without first giving written notice to the Licensee. As soon as practicable after correcting the Safety Violation, NBU will advise the Licensee of the work performed or the action taken.

NBU will facilitate the resolution of responsibility for violations in the event that multiple Licensees are on the same Pole.
 - b. The Licensee shall be responsible for all costs incurred by NBU in taking action pursuant to this Section to correct or remedy Licensee's Safety Violation(s) (the "Safety Violation Assessment Charge").
 - c. Following the correction of the Safety Violation(s), NBU shall issue a Notice of a Safety Violation Assessment Charge, the form of which is in Appendix B, to the Licensee.

- d. The Licensee may dispute responsibility for such Safety Violation Assessment Charge within fifteen (15) days of NBU's issuance of notice. NBU and the Licensee shall meet within fifteen (15) days of NBU receiving the notice of dispute to review all relevant facts and work towards an agreement on the question of responsibility of the Safety Violation(s). NBU will provide its determination of responsibility within ten (10) days of the determination meeting. Should NBU in its reasonable judgment determine the Licensee was at fault, the Licensee shall be assigned responsibility for the Safety Violation Assessment Charge. However, should NBU in its reasonable judgment determine the Licensee is not at fault, NBU may in its discretion waive the Safety Violation Assessment Charge and investigate to determine the responsible party. Regardless of NBU's determination as to the Safety Violation Assessment Charge, the Licensee that owns the Attachment or Network Node producing the Safety Violation is required to remedy the Safety Violation within five (5) days of NBU's issuance of the *Notice of Safety Violation*.

Should the Licensee fail to dispute the Safety Violation Assessment Charge within fifteen (15) days of issuance of the Notice of Safety Violation Assessment Charge as required by this Section, the Licensee shall be required to pay the full amount of any Safety Violation Assessment Charges levied by NBU within thirty (30) days from receipt of invoice. Failure to make timely payment shall constitute a default under the Agreement.

4. **Failure to Enforce.** Failure of NBU to take action to enforce compliance with any of the terms and conditions of these Standards shall not constitute a waiver or relinquishment of any term or condition of these Standards, but the same shall be and remain at all times in full force and effect until terminated, in accordance with these Standards or the Agreement.

K. Conflict Resolution

Notwithstanding the provisions of Section III.A.5 and Section III.A.6, conflicts, both informal and formal, identified between NBU and a Licensee arising from or related to technical interpretations or day-to-day administration of these Standards shall comply with this Section.

1. **Conflict Resolution.** Licensee shall provide notice of a conflict via electronic mail to the NBU Chief Engineer of Electrical Systems. Licensee shall (a) provide a specific detailed description of the conflict including any previous efforts to remedy the conflict, and (b) call for progressive management involvement in the resolution process. Both NBU and the Licensee shall use their best efforts to arrange personal meetings, telephone conferences, or video conferences, as needed, at mutually convenient times and places at each of the following successive management levels, each of

which will have a period of allotted time as specified below in which to attempt to resolve the conflict:

- a. Successive Management Levels (for NBU).
 - i. First Level: Chief Engineer of Electrical Systems – 10 days.
 - ii. Second Level: Director of Electric Services – 15 days.
 - iii. Third Level: Chief Operations Officer – 15 days.
 - iv. Fourth Level: General Counsel – 15 days.
 - b. The allotted time for the first-level of resolution process will begin on the next business day following the submission of the electronic mail of the conflict by the submitting party. If a resolution is not achieved at any given management level at the end of their allotted time, then the allotted time for the negotiators at the next management level will begin on the next business day unless the parties agree otherwise to extend the allotted time.
2. **Resolution Reached.** If a resolution is reached, the parties shall draft a letter agreement that outlines the basis of the disagreement, the steps taken to reach settlement, and the settlement provisions. Both NBU and the Licensee shall provide their affirmative support of the agreed resolution.
 3. **Failure to Reach Resolution.** If a resolution is not achieved at the final management level within their allotted time at the operation level, then either party may initiate the last step of the Dispute Resolution process as defined in the Agreement.

L. Liability Insurance

A Licensee shall provide the insurance required in the Agreement.

M. Indemnification

Licensee shall indemnify NBU and other indemnitees defined in the Agreement to the extent provided in the Agreement.

N. Security Instrument

Licensee shall secure and maintain a Security Instrument as described in the Agreement.

III. GENERAL TECHNICAL PROVISIONS

A. General Design & Construction Standards & Specifications

1. **Professional Engineer.** A Licensee shall utilize a licensed Professional Engineer to undertake and complete the Make-Ready Communications Engineering and Pole Loading Analysis (PLA) calculations required in completing an Application for Permit as described in Section IV and Section V. For the purposes of these Standards, an Engineer shall include engineering employees or contractors with a valid state of Texas professional engineering license in good standing.

The Licensee's Engineer shall adhere to all Applicable Engineering Standards and requirements of NBU. Failure to comply with such standards and requirements may result in NBU revoking its approval of the Engineer. If NBU reasonably determines that an Engineer's non-compliance resulted in substandard work, the Licensee shall be required to remedy all work the Engineer conducted that does not comply with the Applicable Engineering Standards and any other requirements of NBU at the sole expense of the Licensee.

2. **Contractors.** All work, with the exception of One-Touch Simple Transfers, performed on NBU Facilities on behalf of a Licensee pursuant to a Permit shall be done by Licensee's employees, contractors, or subcontractors approved by NBU, which approval shall not be unreasonably withheld, delayed, or conditioned. One-Touch Simple Transfers shall only be undertaken by contractors approved by NBU in its reasonable discretion in the context of Application or Notification review pursuant to Sections IV.B.4.d. or V.B.5.b. The Licensee shall bear full responsibility for ensuring its employees, agents, contractors, and subcontractors are in full compliance with the requirements of these Standards. A Licensee may be required to remedy any and all work conducted by either its employees, contractor, or subcontractor that does not comply with the Applicable Engineering Standards and other construction standards and requirements of NBU. NBU reserves the right to halt all work undertaken by the Licensee or its contractors/subcontractors that in NBU's sole discretion is deemed unsafe or undertaken contrary to NBU standards and requirements.
3. **Right to Review.** NBU contemplates relying upon the Pre-Construction Survey and other engineering/field evaluation reports developed and relied upon in connection with any Application Licensee submits. NBU reserves the right to perform its own engineering and field evaluation or verification as appropriate or necessary using either NBU employees or contractors. Licensee shall pay the reasonable costs for NBU to undertake such additional engineering and field evaluation.
4. **Installation/Maintenance of Communications Facilities.** All Licensees shall be responsible for the installation and maintenance of their

Communications Facilities and/or Network Nodes in accordance with the requirements and specifications set out in these Standards, including the Appendices. A Licensee shall at all times and at its own expense make and maintain its Attachments, Overlashings, and Network Nodes in a safe and workmanlike manner, and keep them in good repair and condition in accordance with the Applicable Engineering Standards.

Notwithstanding the foregoing, Attachments, Overlashings, and Network Nodes that complied with the Applicable Engineering Standards or these Standards, as applicable at the time they were originally installed, may be operated in place until such time that such facilities are subject to modification, upgrade, rebuild, repair, transfer, relocation, or other such changes that require submission of either an Application or Notification, at which time these facilities will be required to bring such facilities into compliance with the then-current Applicable Engineering Standards.

The Licensee, its employees, and contractors, shall install and utilize adequate protective equipment to ensure the safety of people and facilities. The Licensee shall install, at its own expense, protective devices designed to handle the voltage and current impressed on its Communications Facilities or Network Nodes in the event of a contact or due to close proximity with a supply conductor(s) or other energized equipment. NBU shall not be liable for any actual or consequential damages to the Licensee's Communication Facilities, Network Nodes, or Licensee's customers' facilities resulting from such contact or proximity with NBU's supply conductor(s) or other energized equipment.

Licensee shall not connect an Attachment, Overlapping, or Network Node to a power supply until NBU and any other authority having jurisdiction shall have completed an inspection of an appropriate, Licensee-installed, fused service disconnect or circuit breaker.

5. **Conflicts within the Standards.** If there exists a difference or conflict in the Applicable Engineering Standards, the following rules will apply:
 - a. if one Applicable Engineering Standard is more stringent than the other, the more stringent shall apply;
 - b. if one of the conflicting specifications, regulations, or practices is not more stringent than the other, the specification, regulation, or practice of the National Electrical Safety Code (NESC) will apply; or
 - c. if the conflict cannot be resolved under the first two rules, NBU will determine in good faith which specification, regulation, or practice shall apply, with safety concerns given the highest priority in such determination, subject to the conflict resolution procedures outlined in Section II.K.1.
6. **Request for Waiver.** A Licensee may request a waiver of specific items of the Applicable Engineering Standards by submitting a properly completed

Request for Waiver of Applicable Engineering Standards form (Waiver Request), a link to which is in Appendix B and available on the NBU Pole Attachment website, either before or at the time of Application or Notification submission. The request must specifically identify the Applicable Engineering Standard requested to be waived, justification for requesting the granting of the waiver, and the proposed solution to be permitted under the waiver. NBU shall notify the Licensee in writing within thirty (30) days of receiving a properly completed Waiver Request form. NBU will not grant any waiver that in the sole discretion of NBU may result in a violation of the NESC, NEC, or other applicable federal, state, or local law, regulation, or ordinance.

7. **Guying.** All guying, including the installation of independent anchors for each Attachment or Network Node requiring guying to accommodate a Licensee's Attachments or Network Nodes shall be provided by and at the expense of the Licensee to the satisfaction of NBU as specified in the Applicable Engineering Standards and in Appendix D.
8. **Tagging.** Each Licensee shall properly install identification Tags on all of its Attachments, Overlashings, or Network Nodes as specified in Appendix K and/or applicable federal, state, local, or industry regulations in effect at the time of installation. Failure of a Licensee to provide proper tagging of its new Attachments, Overlashings, or Network Nodes or failure to undertake in good faith its Tagging Plan shall be considered a violation of the Applicable Engineering Standards.
 - a. If NBU discovers in a reasonable sampling of Attachments, Overlashings, or Network Nodes that a Licensee has Attachments, Overlashings, or Network Nodes that are untagged or incorrectly tagged as to the current ownership of the Attachment, Overlash, or Network Node, excluding Service Drops, exceeding five percent (5%) of its total Attachments or Network Nodes respectively, the Licensee, at NBU's request, shall within fifteen (15) days, provide to NBU a written plan (Tagging Plan) to Tag the Attachments, Overlashings, or Network Nodes. The Tagging Plan shall identify an estimated schedule to complete the tagging of all untagged or incorrectly tagged Attachments, Overlashings, or Network Nodes within a six (6) month period for Attachments or Overlashings and within one (1) month for Network Nodes. The Licensee and NBU shall meet at a mutually agreed upon frequency during the timeframe outlined in the Tagging Plan to determine Licensee's compliance with its Tagging Plan. NBU reserves the right to conduct field audits to assess the Licensee's compliance with its Tagging Plan.
 - b. In the event any Attachment, Overlashing, or Network Node is untagged or incorrectly tagged, and NBU must determine the owner's identity in order to address the repair or maintenance of an NBU Facility where NBU cannot undertake such repair or

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maintenance absent the removal or transfer of such Attachment, Overlashing, or Network Node, NBU will undertake the following protocol:

- i. NBU will expend up to thirty (30) minutes of reasonable effort to determine the owner of the untagged Attachment, Overlashing, or Network Node at no cost to the Licensee; then
- ii. If the initial thirty (30) minute effort is unsuccessful, NBU shall continue with its search until ownership is determined. NBU shall bill and the non-compliant Licensee shall pay NBU at the Tracing Line Ownership rate set forth at Appendix H for the time required to determine the Attachment, Overlashing, or Network Node ownership.

9. **Physical Interference with NBU Facilities.** A Licensee shall not allow its Communications Facilities or Network Nodes to impede, impair or interfere with the installation, placement, or operation of any NBU Facilities in place at the time the Communications Facilities or Network Nodes are installed. A Licensee shall correct Communications Facilities, Network Nodes, or any part thereof that impede, impair, or interfere with any NBU Facilities such condition within ten (10) days from receipt of written notice of such impairment from NBU. Failure to timely correct such condition will result in NBU, at its option, taking all necessary steps to correct said condition at Licensee's expense plus \$250. NBU will attempt to notify the non-compliant Licensee in writing prior to performing such work whenever practicable but is not obligated to do so.

If a Licensee continues to allow its Communications Facilities or Network Nodes to impede, impair, or interfere with the operation of any NBU Facilities after the initial correction period, the Licensee shall be in default under the Agreement.

A Licensee shall not be responsible for physical interference with future installations of other Licensees, provided that the Licensee's prior Attachments or Network Nodes are duly permitted by NBU and comply with all Applicable Engineering Standards and the requirements of these Standards at the time of the initial installation, unless otherwise required by applicable federal, state, or local laws. Where NBU undertakes to add to or modify NBU Facilities other than to remedy a non-compliant condition Licensee has caused, and where that action would require the replacement of an Eligible Pole, NBU and all affected Licensees shall be responsible for their own cost of transferring their Attachments, Overlashing, or Network Nodes within the timeframes outlined in these Standards. NBU will be responsible for the cost of the pole replacement.

No Applications or Notifications will be approved for a Network Node on NBU Eligible Poles within five hundred feet (500') of any NBU Substation's outer fence.

10. **Performance Interference to Licensee's Customer.** To the extent a Licensee identifies any interference with its or Licensee's Customer's Communications Services that Licensee claims may be related to NBU Facilities, neither Licensee nor Licensee's Customers may identify NBU as the source of such interference to any retail customer absent a test report verifying the source and not less than ten (10) days prior notice to NBU of the report's findings. The Licensee shall cooperate with NBU to investigate the source of any such signal interference and shall at NBU's request conduct a test, at the Licensee's expense, verifying the source of such interference. The test equipment used for verifying the source of interference must be calibrated to the standards provided by the National Institute of Standards and Technology or any similar, mutually agreeable standards organization. In the event such testing provides conclusive evidence that NBU Facilities are the source of such interference, NBU shall reimburse the Licensee for the reasonable expense of the testing and will work with Licensee to reasonably mitigate the interference that does not impose undue burdens on NBU's ability to provide electric service.
11. **Wireless Interference.** All Network Nodes, including Mid-span Installations, shall be operated so as not to cause Wireless Interference to any existing or future NBU Facilities, NBU wireless systems or operations, governmental public safety facilities or operations. Nor shall they cause Wireless Interference to the facilities or operations of any other Licensees or FCC-licensed operator. In the event of Wireless Interference, the Licensee shall shut down the Wireless Equipment causing such interference within one (1) hour of NBU contacting the Licensee's Network Operations Center. If the Licensee fails to timely shut down the Wireless Equipment, NBU reserves the right to disconnect electric service to the Network Node, including battery or other back-up power. Thereafter, following receipt of written notice of the incident, the Licensee will take all commercially reasonable steps necessary to permanently eliminate such interference, including but not limited to, recalibration or replacement of the equipment and the subsequent powering down of said equipment for intermittent testing pursuant to the requirements of Section III.A. In the event the Wireless Interference cannot be eliminated through equipment recalibration or replacement, the Network Node shall be removed and the equipment may be installed at an alternative location that does not cause Wireless Interference pursuant to an Application. These activities shall be carried out by the Licensee at its own expense.

In the event of Wireless Interference as described in the previous paragraph, the Licensee shall correct such condition within ten (10) days from receipt of written notice. If Licensee fails to timely correct such Wireless Interference condition permanently, NBU may, at its option, take all necessary steps to eliminate the reoccurrence of Wireless Interference at Licensee's expense. NBU will attempt to notify the non-compliant Licensee in writing prior to performing such steps whenever feasible. If after notice and the initial correction period a Licensee allows its Network

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Nodes to interfere with the operation of any NBU Facilities as described above, the Licensee shall be subject to enforcement action, including but not limited to:

- a. Interruption of NBU-supplied power to the identified Network Node;
- b. Suspension of the processing Licensee's Applications pending resolution of such interference; or
- c. Other remedies, at law or in equity, under the applicable Agreement.

If NBU in its sole discretion determines that a Licensee's impairment or interference condition poses a potential Emergency, NBU may perform such work or take such action(s) as it deems necessary to eliminate the potential Emergency without first giving written notice to the Licensee. As soon as practicable thereafter, NBU will advise the non-conforming Licensee of the work performed or the action(s) taken. The non-conforming Licensee shall be responsible for all costs NBU incurs in taking action pursuant to this Section, plus \$250.

- a. Interference Studies & Testing. In the Application process and at Wireless Interference events, NBU requires the documentation and analysis of testing for potential Wireless Interference. NBU reserves the right to hire consultants and industry experts to perform Wireless Interference testing, investigations, and/or analysis at the sole expense of the Licensee.
 - i. *Initial Installation* - In the Pre-Certification, Application, or Notification process for the initial installation of the Network Node, an Intermodulation Test report will be provided by the Licensee.
 - ii. *Equipment Upgrades or Replacements* - In the Pre-Certification, Application, or Notification process for an upgrade, or non-like-for-like replacement of the initial Network Node, an Intermodulation Test report will be provided by the Licensee.
 - iii. *Interference Studies & Testing Report* - The Intermodulation Test report will have an executive summary stating a "highly likely" or "not likely" for potential intermodulation issues. The Intermodulation Test report shall be prepared by an Engineer trained and certified in radio frequency engineering.
- b. In NBU's sole discretion, a more in-depth radio frequency (RF) interference study may be required where: i) a "highly likely" assessment of intermodulation issues in a summary of any Intermodulation Test report; or ii) a known or unresolved RF interference complaint arises. The RF interference study will require an onsite visit(s) to gather field measurements and site conditions.

The following areas will be addressed: intermodulation products, including transmitter and receiver; receiver noise & desensitization, transmitter noise & harmonics; and spurious emissions. Such RF interference study shall be undertaken and approved by an Engineer, trained and certified in radio frequency engineering. Additionally, the RF interference report will have an executive summary with action statement, a method of RF interference remedies (if necessary), and all input parameters indexed.

- c. A Licensee may intermittently, temporarily, or permanently shut-off power to remedy or troubleshoot Wireless Interference issues. If NBU or Licensee interrupts electrical service to the Network Node, it shall not be reinstated without NBU's written approval following Licensee's request to reestablish electrical service. NBU reserves the right to determine if all Wireless Interference issues are remedied prior to granting approval to reinstate electrical power.

- 12. **Enclosures.** Except as to Licensee's facilities located on Licensee's private property or easements, no Licensee shall place new pedestals, vaults, or other enclosures on or within six (6) feet of any Eligible Pole or other NBU Facilities without NBU's prior written permission. The Licensee shall specifically identify any request for such proximity to an Eligible Pole or NBU Facilities in its Application or Notification. If permission is granted by NBU, all such installations shall be in compliance with the specifications and drawings referenced in Appendix D, Appendix I, or other Applicable Engineering Standards.

- 13. **Vegetation Management.** Licensees shall be responsible for performing, or causing the performance of, all tree trimming and other vegetation management necessary for the safe and reliable installation, use, and maintenance of their Attachments, Overlashings, or Network Nodes and to avoid stress on Eligible Poles caused by contact between tree limbs and the Licensees' Attachments, Overlashings, or Network Node components.

Per NESC, all crossing span and adjoining spans on each side of a line crossing, railroad crossing, limited-access highway crossing, or navigable waterway requiring a crossing permit shall be kept free from overhanging or decayed trees or limbs that could fall into the line, including both supply and communication cables. (NESC Rule 218, Vegetation Management, C2-2017)

All tree trimming shall be performed in accordance with OSHA regulations or local municipal ordinances, as may be amended from time to time. Licensees shall use qualified tree trimming contractors approved by NBU who shall adhere to industry and local municipal ordinances, standards, and requirements for tree trimming and vegetation management. Failure of a tree trimming contractor to adhere to and comply with such standards and requirements may result in NBU revoking its approval of the tree trimming contractor to perform further work of any kind on or around NBU Facilities.

A Licensee may be required to remedy any and all work conducted by its tree trimming contractor that fails to comply with the tree trimming standards and requirements set forth in these Standards. NBU reserves the right to halt any and all work by any such tree trimming contractor that NBU in its discretion deems to be unsafe or is performed contrary to the standards and requirements set forth in the Standards of Applicable Engineering Standards.

14. **Pre-Certification of Wireless System.**

- a. **NBU Pre-Certification.** NBU requires the initial configuration of a specific technology of a Network Nodes for each Licensee to be Pre-Certified in order to minimize potential interference with communication equipment essential to NBU's core electric operations and for public safety. Pursuant to Section V.B.2.e, before submitting an *Application for Wireless Installation Permit*, or a *Notification for Mid-Span Installation*, a Licensee must submit a completed *Request for Pre-Certification of Wireless System* form to NBU.

The pre-certification process shall consist of three key activities: (i) testing for Wireless Interference; (ii) representation of the proposed Network Node; and (iii) NBU's review and approval of the *Request for Pre-Certification of Wireless System* form.

- i. **Testing for Wireless Interference.** A Licensee shall identify in writing all FCC licensed frequencies, by FCC licensee, that will be used as part of a Network Node and NBU shall disclose all licensed and unlicensed frequencies utilized in its operations. The Licensee will then conduct and submit the reports required by Appendix D, Section C.1, together with a list of other jurisdictions or locations where the proposed technology and configuration has been pre-certified or accepted for commercial use.
- ii. **Representation of Network Node.** The Licensee shall provide a mock installation of a proposed Network Node, in compliance with Appendix D, Section C.16. A combination of detailed engineering drawings, pictures of the Network Node installation at other locations may, at NBU's sole discretion, be substituted for a mock installation,

NBU will complete its review and either approve or reject the *Request for Pre-Certification of Wireless System* within a reasonable time after receipt of all requested information and documentation. NBU may extend this time requirement based upon the timely response of the Licensee to any NBU inquiry.

- b. **Third-Party Pre-Certification.** In lieu of submitting the initial configuration of a specific technology of a Network Nodes to NBU

for Pre-Certification, a Licensee may submit evidence that the specific configuration of equipment a Licensee intends to install pursuant to one or more Applications has been certified by another Texas Municipally Owned Utility under standards no less rigorous than these Standards. NBU may accept or reject an alternative Pre-Certification under the terms of this section in its reasonable discretion.

B. Pole Modifications and/or Replacements

1. **Restrictions on Certain Poles.** NBU may deny an Application for Permit for access to an Eligible Pole in flood zones, river crossings or other such locations, or if the proposed new Attachment or Network Node cannot be accommodated without creating a potential to disrupt or impair NBU Facilities or endanger the safety of people or facilities.
2. **Requests for Taller or Larger Eligible Poles in Replacement of Existing Poles.**
 - a. NBU in its sole discretion may erect a taller or larger Eligible Pole to accommodate a Licensee's Attachment or Network Node if the Licensee requests the taller or larger Eligible Pole and pays the costs of such replacement pole in advance.
 - b. If NBU elects to replace an Eligible Pole as provided in this section, the replacement Eligible Pole, including any permitted pole-top equipment, shall not be larger than an H-9 pole or exceed the lesser of:
 - i. Sixty-five feet (65') in total length, including that portion of the pole that is buried below grade; or
 - ii. Ten (10) feet in height above the tallest existing Eligible Pole within 500 linear feet of the new pole in the same public right-of-way.

C. Particular Pole Installations

1. **Steel, Concrete and Fiberglass Eligible Poles.** Licensee may submit Applications for the installation of Attachments, Communications Facilities, or Network Nodes on or supported by existing distribution steel or concrete Eligible Poles under the following additional conditions:
 - a. *Steel Eligible Poles.* Attachments must be firmly secured with no more than two (2) clamps or stainless steel bands per Eligible Pole. The drilling of any additional holes into steel Eligible Poles or associated equipment is permitted with express approval. Attachments may use self-tapping set screws for grounding of equipment on steel Eligible Poles. A Licensee may request access to a steel Eligible Pole for installation of a Network Node. All Riser cables necessary to connect the components of a Network Node on

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a steel Eligible Pole must be installed inside the steel pole, provided the structural integrity of the pole is maintained, unless NBU gives Licensee express permission to install an external Riser.

- b. *Concrete and Fiberglass Eligible Poles.* Attachments or Network Nodes must be firmly secured with no more than two (2) clamps or stainless steel bands per Eligible Pole unless pre-drilled holes are available for use. The drilling of any additional holes into fiberglass or concrete Eligible Poles or associated equipment is **prohibited** without express written permission from NBU.
- c. *Utility Poles with Street Lights.* Licensee may submit Applications or Notifications to install Attachments or Network Nodes to or supported by overhead Utility Poles with street lights installed on them.
- d. *Non-Decorative Streetlight Poles.* Network Nodes may be installed on Non-Decorative Streetlight Poles without any NBU distribution primary circuits, provided that the Network Node does not interfere with the maintenance and operation of the Non-Decorative Streetlight Pole.
 - i. On a case-by-case basis, NBU will consider the approval for installation of Network Nodes on non-wood Non-Decorative Streetlight Poles, provided that the fully-integrated proposed Non-Decorative Streetlight Pole meets all of the following criteria:
 - The pole is specifically manufactured to be a turn-key, dual-purpose structure for a Network Node and a Non-Decorative Streetlight Pole;
 - The pole meets the current and estimated future street-lighting purposes of the current Non-Decorative Streetlight Pole;
 - The pole is substantially similar to or improved in aesthetics, capabilities, and functions to the existing Non-Decorative Streetlight Pole; and
 - The pole provides for no increase in maintenance requirements or operating costs to NBU.
 - ii. The training of communication cables, wires, or fiber through the interior of a Non-Decorative Streetlight Pole is prohibited, unless the pole is equipped with internal conduit.
 - iii. The drilling of any additional holes into metal or fiberglass Non-Decorative Streetlight Poles or associated equipment is prohibited. Network Nodes may use self-tapping set screws for grounding of equipment on metal Eligible Poles. No

grounding is required for equipment installed on fiberglass poles.

- e. *Transmission Structures.* NBU's transmission poles, towers, or other structures are outside of the scope of these Standards and the Agreement. **No Attachments or Network Nodes are permitted on or supported by NBU transmission poles, towers, or other structures regardless of the presence of distribution underbuild or any other equipment.**
 - f. *Poles with Distribution Equipment Installed.* Network Nodes are prohibited on any NBU Pole on which is installed electric distribution equipment, including, but not limited to: transformers, capacitors, reclosers, sectionalizers, switches, voltage-regulators, voltage-regulator racks, or primary metering.
 - g. *Foreign Poles.* Many of the poles to which NBU's electrical lines are attached are not owned by NBU and are outside the scope of these Standards. Therefore, NBU cannot give permission to attach to these poles. The Licensee is solely responsible for obtaining permission from the respective pole owner to install any Attachments or Network Nodes on or supported by such non-NBU-owned poles.
 - h. *Mid-Span Micro Network Nodes.* A Micro Network Node shall not be installed mid-span except where both supporting poles are NBU-owned Utility Poles.
2. **Restrictions Applicable to Mid-Span Installations.** The restrictions applicable to Wireless Installations outlined above apply to Mid-Span Installations; however, such restrictions are only applicable to Mid-Span Installations as described below, provided such installations otherwise comply with all Applicable Engineering Standards.
- a. *Steel Poles.* All Riser cables necessary to connect the components of a Mid-Span Installation back to the Slab-Mounted Equipment Cabinet must be installed outside the steel Pole using U-Guard, provided the structural integrity of the Pole is maintained.
 - b. *Distribution Poles with Overhead Street Lights.* Subject to these Standards, NBU will provide access to Overhead Streetlight Poles for the purpose of accommodating Mid-Span Installations, provided that such installations do not interfere with the maintenance and operation of the overhead street lights.
 - c. *Poles with Distribution Equipment Installed.* Mid-Span Installations may be installed next to Poles or Streetlight Poles that host electric distribution equipment, provided that the Riser that protects the coaxial cable supporting the strand-mounted micro network node component of the Mid-Span Installation shall not be installed on such a pole structure if the Riser:

- i. would interfere with NBU's ability to operate or maintain its electrical equipment;
- ii. could not be installed in compliance with NESC requirements; or
- iii. the Pole or Streetlight Pole already supports three Risers.

D. NBU Not Required to Relocate. Except as provided by the Make-Ready Electrical Construction process outlined in Section IV.B.4, and Section V.B.5, no provision of these Standards requires NBU to relocate, modify, or replace any Eligible Pole or other NBU Facility for the benefit of any Licensee.

E. Replacement, Removal, Relocation, or Abandonment of NBU Facilities.

1. **NBU Replacement, Removal, or Relocation of NBU Facilities and Relocation of Licensee's Facilities.** If at any time NBU is mandated or in its sole discretion decides to replace, remove, relocate, abandon, or place underground its facilities, resulting in the need for removal or abandonment of Eligible Poles on which one or more Licensee has installed Attachments, Overlashings, or Network Nodes, NBU shall give the affected Licensee notice in writing the impending replacement, removal, relocation, abandonment, or undergrounding as soon as practical, but at least ninety (90) days prior to the date on which NBU intends to replace, remove, relocate, or abandon such Eligible Poles or other NBU Facilities. The Licensee shall relocate at its expense its affected Attachments, Overlashings, or Network Nodes within ninety (90) days after receipt of said notification. Notice may be reduced to thirty (30) days if NBU is required to remove or abandon its facilities as the result of the action of a third party or the City of New Braunfels, and the greater notice period is not practicable.
2. **NBU Abandonment of Poles.** In the event that NBU determines to abandon an Eligible Pole, NBU, in its sole discretion, may grant an interested Licensee the option of purchasing without warranty such Eligible Pole at a price negotiated with NBU. The interested Licensee must notify NBU in writing within thirty (30) days of the date of NBU's notice of abandonment that the Licensee desires to purchase the to-be-abandoned Eligible Pole. Thereafter, within forty-five (45) days, the Licensee must also secure and deliver proof of all necessary governmental approvals and easements allowing the Licensee to independently own and access the pole within the forty-five (45) day period.
 - a. If Licensee fails to secure the necessary governmental approvals, or should NBU and the Licensee fail to enter into an agreement prior to the end of the forty-five (45) day period, the Licensee shall remove at its expense its affected Attachments, Overlashings, or

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Network Nodes within sixty (60) days after receipt of said notification.

- b. NBU may limit Licensee's time for relocation to thirty (30) days if NBU is required to remove or abandon its facilities as the result of the action of a third party, including the City of New Braunfels, and the greater notice period is not practicable.
- c. NBU is under no obligation to sell any Licensee an Eligible Pole or other NBU Facilities that it intends to remove or abandon.

3. **Allocation of Costs.** The costs for any rearrangement or transfer of a Licensee's Attachments or Network Nodes, or the replacement of an Eligible Pole, including any related costs for tree-cutting or trimming required to clear the new location of NBU's cables or wires, shall be allocated to NBU or the affected Licensees on the following basis:

- a. If NBU intends to modify or replace an Eligible Pole solely for its own electric business requirements, NBU shall be responsible for the costs related to the modification or replacement of the pole. Any affected Licensee shall be responsible for the rearrangement or transfer of its Attachments or Network Node at its expense. Prior to making any such pole modification or replacement, NBU shall provide the affected Licensee at least forty-five (45) days written notice of its intent to allow the Licensee a reasonable opportunity to elect to modify or add to its existing Attachment or Network Node. Should the Licensee so elect, it must seek NBU's written permission by submitting a complete Application. The notification requirement of this Section shall not apply to Emergency situations.
- b. If the Licensee elects to modify or add to its Attachments or Network Node, it shall bear the incremental Make-Ready costs NBU incurs in making the space on the modified or replaced poles accessible to the Licensee.

F. Removal of Licensee's Facilities.

- 1. **Abandoned Facilities.** A Licensee shall report through the annual registration process described in Section II.F and remove at the Licensee's expense all abandoned, non-functional, and obsolete Attachments, Overlashings, Network Nodes, or other Communications Facilities on NBU Eligible Poles that the Licensee or Licensee's Customer, where permitted pursuant to the Contractual Authorities:
 - a. No longer utilizes for providing Communications Services or Telecommunications Services;
 - b. Has abandoned or plans to abandon during the next reporting period; or
 - c. Has replaced with operating capacity of alternative facilities.

Except as otherwise provided, the Licensee shall remove abandoned facilities coincident with their replacement, and in all cases within thirty (30) days of the Attachments or Network Nodes meeting any of the above conditions, unless the Licensee receives written notice from NBU that removal is necessary to accommodate NBU's use of the affected Eligible Poles pursuant to a reservation of Capacity, in which case the Licensee shall remove such Attachments or Network Nodes within sixty (60) days of NBU issuing such written notice. Where a Licensee has placed Overlashings, the Overlashings may remain in place until NBU notifies the Licensee that removal is necessary to accommodate NBU's use of the affected poles. The Licensee shall give NBU notice of any such Overlashings as required in Section IV.B.2.

2. Removal on Expiration/Termination. If a Licensee's Agreement or any individual Permits expire or are terminated and are not renewed or replaced, the Licensee shall submit a written plan that describes the commitment, schedule, and process for the removal of its Attachments, Overlashings, or Network Nodes from the affected Eligible Poles to NBU for approval. NBU shall review such plan and either approve or request additional details within a reasonable time after receipt of the plan. Following approval of the plan by NBU, the Licensee shall make judicious progress toward fulfilling the removal commitments made by the Licensee in the plan. Such removals will be at the Licensee's sole expense.
3. Removal for Failure to Meet Standards. NBU may require the removal or modification of an existing Attachment, Overlashing, or Network Node, at the Licensee's expense, if NBU reasonably determines that such Attachment, Overlashing, or Network Node did not meet the clearance requirements set forth in the Standards at the time of installation or modification, or may create a potential to disrupt or impair NBU Facilities or endanger the general safety of people or facilities. Such removals will be at the Licensee's sole expense.
4. Removal for NBU Abandonment of Pole. NBU may require the removal or modification of an existing Attachment, Overlashing, or Network Node, at the Licensee's sole expense, if NBU abandons the Pole and Licensee does not agree to acquire the Pole as provided in and under the time requirements of Section III.E.2. of these Standards.

G. Licensee's Failure to Remove or Relocate.

If following the expiration of the applicable notice period the affected Licensee has not yet removed or relocated its affected Attachments, Overlashings, or Network Nodes from the affected Eligible Poles, NBU may, at its option, require removal or relocation of Attachments, Overlashings, or Network Nodes, or transfer the affected Pole to Licensee.

1. Removal or Relocation. NBU may have the Attachments, Overlashings, or Network Nodes of the affected Licensee removed or relocated from the

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Eligible Poles or other NBU Facilities. If NBU elects to have the Attachments, Overlashings, or Network Nodes removed or relocated:

1. NBU shall notify Licensee in writing of its intent to remove or relocate the affected Attachments, Overlashings, or Network Nodes not less than ten (10) days before commencing removal or relocation.
 2. After providing notice of its election to remove or relocate the affected Attachments, Overlashings, or Network Nodes, NBU may in its sole discretion use reasonable efforts to remove or relocate the affected Attachments, Overlashings, or Network Nodes at Licensee's sole cost and risk.
 3. Licensee shall pay NBU:
 - a. The cost of removal or relocation; and
 - b. Twenty percent (20%) of the cost of removal or relocation to compensate NBU for acting as a manager of the relocation or removal;
 4. Licensee shall pay all sums due under this provision within thirty (30) days of NBU's delivery of an invoice for the costs of removal or relocation of the affected Attachments, Overlashings, or Network Nodes.
2. Transfer of Pole. Alternatively, NBU may elect to transfer without warranty any Pole for which license has failed to timely remove or relocate its Attachments, Overlashings, or Network Nodes.

H. Overlashing

1. **Application Required.** Section IV.B hereto governs the Application process for new Attachments and Overlashings. Regardless of Overlashing size or methodology, Licensees are required to maintain their Overlashings in compliance with the Applicable Engineering Standards in effect at the time of the Overlashing installation, except where a change is required by applicable law.
2. **Overlashing Third-Party Facilities.** A Licensee is prohibited from Overlashing Communications Facilities of a third-party, including an Affiliate of the Licensee.
3. **Annual Pole Attachment Fee.** A Licensee shall not be required to pay a separate annual Pole Attachment Fee for such Overlashed Communications Facilities, provided that (a) the annual Pole Attachment Fee is already being billed for the original Attachment that was Overlashed; and (b) the Overlash, including the existing cable and accompanying equipment, does not require more than one foot of space where attached to an Eligible Pole in order to maintain clearances in accordance with Applicable Engineering Standards.

I. Inspection and Inventory of Licensee's Facilities

1. **Inspections.** NBU, at its discretion and in addition to any inspections undertaken during Make-Ready Electrical Construction and Post-Construction Inspections, may engage in two other specific types of inspections or Inventory of Attachments or Network Nodes attached to or supported by NBU Eligible Poles. These include: a) routine visual inspections of Attachments or Network Nodes that NBU employees may conduct at any time, at its own cost; and b) a formal Inventory that NBU may conduct no more frequently than once every five (5) years that NBU may undertake with its own personnel or with outside contractors, subject to formal competitive bidding, the cost of which shall be borne by all Licensees on a pro-rata basis determined by the ratio of Licensee's attachments to the attachments of NBU and all other attaching entities. Regardless of inspection or Inventory method:
 - a. A Licensee shall install, maintain, and inspect its Attachments, Overlashings, and Network Nodes to ensure these facilities are in good order and safe to the general public at all times. If any inspection reveals that any Licensee's Attachments, Overlashings, or Network Nodes are not in compliance with the Applicable Engineering Standards in effect at the time the Application was approved, NBU shall provide written notice and the Licensee shall make any and all corrections to bring the Attachment, Overlashing, or Network Node into compliance with the Applicable Engineering Standards.
 - b. If it is found that a Licensee has made an Attachment or Network Node without a Permit, the Licensee shall pay an Unauthorized Attachment Charge or Unauthorized Network Node Charge as specified in Appendix H, in addition to applicable Pole Attachment Fees, Application Fees, and Make-Ready Charges, if any.
 - c. Notwithstanding any other provisions contained in these Standards, including this Section, no revisions to the Applicable Engineering Standards shall be retroactive to existing permitted Attachments, Overlashings, or Network Nodes unless required by city, county, state, or federal law.
 - d. All Attachments, Overlashings, or Network Nodes must comply with the Applicable Engineering Standards in effect at the time of installation or modification of the Attachment, Overlash, or Network Node.
2. **Routine Visual Inspections or Inventory.** Any qualified NBU employee or contractor may conduct a routine inspection or inventory of a Licensee's Attachments, Overlashings, or Network Nodes. In practice, these routine inspections or inventory may be undertaken and completed as part of the daily work assignment of an NBU employee. The cost of this work is

included in the determination of the annual Attachment Rate. In the course of a routine visual inspection, an NBU employee or contractor may require a Licensee or its contractors installing an Attachment, Overlashing, or Network Node to supply evidence of a valid Permit or permission from NBU to access an NBU Eligible Pole or other NBU Facilities. NBU reserves the right to demand the Licensee or its contractor to immediately suspend work on the Attachment, Overlashing, or Network Node should the Licensee or contractor be unable to furnish the valid Permit or other notice of permission for NBU's inspection. If NBU directs the work be suspended, the Licensee or its contractor shall suspend the work in a safe and orderly manner ensuring the suspension of the work will not cause a danger to NBU employees, contractors, or the general public.

3. **Formal Inventory Performed By NBU or Third-Party Contractor Subject To Competitive Bid.** NBU may contract with a third-party contractor to conduct a formal Inventory of either all or designated Eligible Poles or Decorative Streetlight Poles within the NBU service area. The cost of this formal Inventory shall not be included in the calculation of the Attachment Rate. All Licensees shall cooperate and participate in the Inventory. Each Licensee will share the total cost of the Inventory on a pro-rata basis with all other Licensees based on the number of found Attachments and Network Nodes belonging to each Licensee and the space occupied or required by each. For the limited purpose of determining the pro-rata shared costs, NBU Facilities will count as one (1) Attachment on each Eligible Pole. In undertaking this formal Inventory:
 - a. NBU shall have sole responsibility for the management, review, and approval of the Inventory.
 - b. NBU shall routinely conduct meetings, communicate in writing, via electronic mail, with all Licensees to discuss the progress and on-going results of the Inventory. NBU will seek to find consensus with the Licensees as to the most effective schedule and methodology of these meetings and communications, but may proceed in its sole discretion if consensus cannot be reached within a reasonable time. Each Licensee shall be expected to cooperate fully with NBU or the third-party contractor conducting the Inventory by assigning a single point of contact to attend project meetings and receive the written communications and to answer any questions either NBU or the third-party contractor may have concerning the Licensee's Communication Facilities or Network Nodes. Each Licensee shall be given access to the Inventory results and other supporting documentation relating to its own Attachments, Overlashes, or Network Nodes, including maps, spreadsheets, and other related items. NBU shall post on its webpage information regarding the status of the Inventory.
 - c. At the conclusion of the Inventory, NBU shall provide a written report to each Licensee containing a draft of the final Inventory

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Attachment or Network Node count for the Licensee and other documentation necessary to substantiate the third-party contractor's Inventory findings. If the Licensee does not provide a written challenge to the draft Inventory count or results within sixty (60) days of the issuance of NBU's draft Inventory count, the Inventory count will be deemed correct.

- d. If a Licensee finds discrepancies in the Inventory findings and wishes to challenge the results of the draft Inventory report, the Licensee shall, within sixty (60) days of NBU issuing the draft Inventory report provide NBU written notice of the Licensee's intent to challenge the results. In this notice, the Licensee shall provide to NBU all relevant documentation to substantiate its challenge for review and consideration by NBU.
- e. NBU may, upon Licensee's request, in its reasonable discretion grant Licensee in writing additional time to review the Inventory findings and submit a challenge to the draft Inventory report.
- f. All costs related to this challenge, including both NBU's and third-party contractor's labor and other expenses required to respond to and resolve a challenge to Inventory results shall be borne by the Licensee challenging the Inventory results. Should multiple Licensees provide notice of their intent to challenge the results, NBU will pro-rate the cost and expenses required to respond to the challenges as described in this Section to the Licensees participating in the challenge
- g. NBU will meet with the Licensee(s) challenging Inventory results within ten (10) days of receiving a written notice of challenge or such other period as agreed to by the parties in writing to discuss the challenge and to attempt to reach agreement and settlement on the Licensee's Attachment or Network Node count.
- h. To the extent the Licensee prevails in identifying errors or omissions in the Inventory in excess of ten percent (10%) of total Attachments or Network Nodes attributed to the Licensee, NBU shall be responsible for its own and the third-party contractor costs attributable to the challenge/verification process.
- i. Following resolution of all challenges, NBU shall issue a final Inventory report and shall true-up each Licensee's count to the number of Attachments or Network Nodes identified in the final Inventory report including any Unauthorized Attachments or Unauthorized Network Nodes.
- j. Unauthorized Attachments or Unauthorized Network Nodes reported shall incur an Unauthorized Attachment Charge or Unauthorized Network Node Charge, as provided in Appendix H,

and shall otherwise be processed in accordance with Subsection J, Unauthorized Occupancy or Access.

4. **No Liability.** The making of any inspections or Inventory under this Section, or the failure to do so, shall not operate to impose upon NBU any liability of any kind whatsoever or relieve a Licensee of any responsibility, obligations, or liability, whether assumed or otherwise existing.
5. **Licensee-Conducted Inventory.** Nothing in these Standards prevents a Licensee from performing its own Inventory of its own Attachments or Network Nodes, which NBU may consider in the determination of that Licensee's total Attachment or Network Node count. Before NBU will consider such inventory, the Licensee shall be required to meet with NBU and describe the methodology and approach used to conduct the inventory. The cost of such inventory shall be the sole risk and responsibility of the Licensee undertaking the inventory.

J. Unauthorized Occupancy or Access

1. **Unauthorized Attachment and Unauthorized Network Node.** An Attachment is an Unauthorized Attachment and a Network Node is an Unauthorized Network Node where no Permit has been issued by NBU.

The Unauthorized Attachment Charge or Unauthorized Network Node Charge is due and payable irrespective of whether a Permit is subsequently issued to the Licensee for the Unauthorized Attachment or Unauthorized Network Node.
2. **Assessment of Charge for Unauthorized Attachments or Unauthorized Network Nodes.** If an Attachment or a Network Node belonging to a Licensee is unauthorized as specified herein, NBU, without prejudice to its other rights or remedies, may assess an Unauthorized Attachment Charge or Unauthorized Network Node Charge as specified in Appendix H, for each Unauthorized Attachment or Unauthorized Network Node.
3. **Procedure for Correction and Assessment.** NBU, without prejudice to its other rights or remedies, will send the Licensee a written Notice of the Unauthorized Attachment or Unauthorized Network Node, a copy of which is referenced in Appendix B. Such notice shall include the specific location of the Eligible Pole where the Unauthorized Attachment or Unauthorized Network Node is found and the nature of the Unauthorized Attachment or Unauthorized Network Node. Within thirty (30) days of receipt of a *Notice of Unauthorized Attachment or Unauthorized Network Node*, the Licensee must submit to NBU for the Unauthorized Attachment or Unauthorized Network Node: (a) an Application for a Permit; (b) the correct Application Fee; and (c) the Unauthorized Attachment Charge or Unauthorized Network Node Charge.
4. **Removal of Unauthorized Attachments or Unauthorized Network Nodes.** Should the Licensee fail to submit the Application or Notification, correct Application Fee or Notification Fee, and the Unauthorized

Attachment Charge or Unauthorized Network Node Charge within the thirty (30) days allotted, the Licensee must remove its Unauthorized Attachment or Unauthorized Network Node. Licensee remains obligated to pay the Unauthorized Attachment Charge or Unauthorized Network Node Charge within thirty (30) days. If Licensee fails to remove the Unauthorized Attachments or Unauthorized Network Nodes within the time provided, NBU may remove them without liability and the Licensee shall promptly reimburse NBU for the expense, plus \$250, together with payment of the Unauthorized Attachment Charge or Unauthorized Network Node Charge, no later than thirty (30) days following NBU's issuance of an invoice.

5. **No Ratification of Unauthorized Use.** No act or failure to act by NBU with regard to a Licensee's Unauthorized Attachments or Unauthorized Network Nodes shall be deemed as ratification of the unauthorized use, and if any Permit is subsequently issued, such Permit shall not operate retroactively or constitute a waiver by NBU of any of its rights or privileges. The non-compliant Licensee shall remain subject to all liabilities, obligations, and responsibilities under the Agreement and these Standards with regard to said unauthorized use from its inception.
6. **Excessive Unauthorized Attachments.**
 - a. If a Licensee is determined by NBU pursuant to an Inventory or by other means to have Unauthorized Attachments or Unauthorized Network Nodes accounting for the greater of (i) more than two percent (2%) of its total Attachments or Network Nodes; or (ii) thirty (30) or more Unauthorized Attachments or three (3) or more Unauthorized Network Nodes, Licensee shall be in breach of its Agreement and subject to the Agreement's remedies for default.
 - b. For those persons not parties to an Agreement found with Unauthorized Attachments or Unauthorized Network Nodes or who are otherwise not authorized to attach to NBU Eligible Poles or other NBU Facilities, NBU may pursue any remedy available under applicable law or equity to remedy the trespass or other claim.

K. Operational Duties & Responsibilities

1. **Duty to Inspect.** While recognizing its duty to maintain and update its electric distribution system in order to provide safe and reliable electric service, NBU does not warrant that its Eligible Poles are free of defects or non-compliant Attachments or Network Nodes. Licensee acknowledges in submitting an Application or Notification that it has an obligation to inspect NBU's Eligible Poles and the premises surrounding such poles prior to commencing any work utilizing NBU's Eligible Poles or entering the premises surrounding such poles. **LICENSEE SHALL REPORT ANY NBU FACILITIES THAT LICENSEE IDENTIFIES AS UNSAFE TO NBU AT (830) 608-8800 AS SOON AS PRACTICABLE AFTER SUCH CONDITIONS ARE IDENTIFIED. LICENSEE MAY NOT**

UNDERTAKE ANY WORK AT A LOCATION DETERMINED TO BE UNSAFE UNTIL NBU HAS REMEDIATED THE CONDITION.

2. **Knowledge of Work Conditions.** It is the continuing responsibility of a Licensee to acquaint itself, its employees, agents, contractors, or subcontractors with these Standards including all Applicable Engineering Standards relating to the work for which Licensee may seek a Permit. Failure to become familiar with these Standards and with the facilities, difficulties, or restrictions attending the execution of such work may result in the denial of a Permit, delay in construction, assessment of penalties, and removal of a non-conforming Attachment, Overlashing, or Network Node, among other remedies that NBU may impose for violations of these Standards.

Further, the Licensee acknowledges such dangers and accepts as its duty and sole responsibility to notify, inform, and keep informed its employees, agents, servants, contractors or subcontractors of the following:

- a. NBU Eligible Poles may be treated with chemical wood preservatives; and
- b. It is Licensee's responsibility to ensure that any person having a valid reason to climb a pole in performance of assigned job duties is personally satisfied as to the structural integrity of such poles prior to climbing or doing other work on the pole.

3. **Duty of Competent Supervision and Performance.** All Licensees are on notice that in the performance of work under these Standards, a Licensee and its employees, agents, servants, contractors, or subcontractors **will work near electrically energized lines, transformers, or other NBU Facilities, and energy therein will not be interrupted at any time, except in an Emergency endangering life, personal injury, or property.** All Licensees shall ensure that their employees, agents, servants, contractors, or subcontractors have the necessary qualifications, skill, knowledge, training, and experience to protect themselves, their fellow employees, employees of NBU, and the general public from harm or injury while performing work permitted pursuant to these Standards. In addition, all Licensees shall furnish their employees, agents, servants, contractors or subcontractors competent supervision. Licensees shall further ensure that its employees, agents, servants, contractors, or subcontractors have sufficient and adequate tools, equipment, and training for the required work to be performed in a safe manner.

In the event of an Emergency or otherwise in which it may be necessary for NBU to de-energize any part of NBU Facilities, the Licensee shall ensure that work is suspended until such NBU Facilities have been de-energized and properly grounded and that no such work is conducted unless and until an authorized NBU employee has communicated that such NBU Facilities have been made safe and are ready for the Licensee to work.

4. **Requests to De-energize.** A Licensee may request that NBU de-energize and render safe any NBU Facility for its benefit and convenience. Such request shall be made in writing and received by NBU at least fourteen (14) days in advance of the date the work is planned. The Licensee shall reimburse NBU in full for all costs and expenses incurred, in accordance with Section II.I, to comply with such request. With the exception of actions taken because of an Emergency, before any NBU Facilities are de-energized under this section, NBU shall provide upon request an estimate of all costs and expenses, including loss of revenue, anticipated to be incurred in accommodating the Licensee's request.
5. **Interruption of Service.** In the event that a Licensee causes an interruption of service by damaging or interfering with any NBU Facilities, the Licensee at its expense shall immediately do all things reasonable to avoid further injury or damages, direct and incidental, resulting therefrom and shall notify NBU immediately of these activities.
6. **Duty to Inform.** **THE WORK CONTEMPLATED UNDER THESE STANDARDS INVOLVES IMMINENT DANGERS INCLUDING SERIOUS BODILY INJURY OR DEATH FROM ELECTROCUTION.** The Licensee acknowledges such dangers and accepts as its duty and sole responsibility to notify, inform, and keep informed its employees, agents, servants, contractors, or subcontractors of such dangers and shall not be passed or assigned this duty and responsibility to any third-party.
7. **Duty to Protect Data.** A Licensee has an obligation and duty under Section 418.181, Texas Government Code (Confidentiality of Certain Information Relating to Critical Infrastructure), to protect and hold confidential NBU data relating to NBU Facilities and not disclose such data to any third-party without NBU's written consent. NBU will undertake reasonable measures to keep a Licensee's proprietary data, when expressly designated as such, confidential and secure.
8. **Duty to Provide a Safety Briefing.** A Licensee who desires to install a Network Node on the NBU system is required to prepare a Safety Briefing suitable for NBU employees and contractors who may be required to work near and/or around such equipment. The content of the Safety Briefing is to be preapproved by NBU before distribution and conveyance to NBU employees and contractors.

IV. SPECIFICATIONS APPLICABLE TO WIRE ATTACHMENTS

A. Pole Attachment Application Process

NBU offers Licensees a non-discriminatory process for access to NBU Eligible Poles for Wire Attachments or Overlashings as listed below. Application Forms and additional information regarding the NBU Pole Attachment Program is available on NBU's website.

B. Standard Process for Wire Attachments or Overlashings

1. **Application for Permit Required.** A Licensee shall not install any new Attachment or new Overlapping on any NBU Utility Pole without first submitting an Application and obtaining a Permit pursuant to the requirements and procedures set forth below and elsewhere in these Standards.
 - a. **Application Form.** All Licensees shall use the *Standard Pole Attachment Application*, a copy of which is available on NBU's website, which may be amended from time to time, provided that any such amendments are consistent with Applicable Engineering Standards and are applied to all similar types of Attachments on a non-discriminatory basis.
 - i. A single Application may include up to a maximum of twenty (20) Utility Poles for new Attachments.
 - ii. NBU's acceptance of the submitted design documents required as part of a complete Application Form does not relieve the Licensee of full responsibility for any errors or omissions in the engineering analysis and compliance with all Applicable Engineering Standards.
 - b. **Service Drops.** If Licensee is attached to a Utility Pole, it may install a Service Drop from that Utility Pole without prior approval, provided that (i) the Service Drop otherwise conforms to all requirements for an Attachment under these Standards; and (ii) Licensee submits an Application pertaining to the Service Drop to NBU no later than fifteen (15) days after installation. If NBU rejects or denies the Application, Licensee shall remove the Service Drop within 15 days of notice.
 - c. **Pole Ownership.** For purposes of Application submittal, unless NBU records or Utility Poles indicate otherwise, NBU shall be presumed to be the owner of all Utility Poles subject to Attachment. The Licensee is responsible for field verifying Utility Pole ownership and notifying NBU of any discrepancies between NBU's maps/records and the actual Utility Poles in the field.

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- d. Compliance with Standards. Licensee shall comply with the Texas Engineering Act, Section 1001.001, *et seq.*, Texas Occupations Code, to the extent it is applicable to the work described herein, and with the most current version of the NESC, including any and all revisions, and all other Applicable Engineering Standards. The Licensee shall provide documentation, sealed by an Engineer, establishing that the installation made the basis of the Application, including Licensee's Pole Loading Analysis (PLA) documents, comply with these Standards. NBU will not process an Application that fails to provide the signed certification statement included therein.
- e. Pole Loading Analysis (PLA). A Licensee, in connection with an Application, must comply with the PLA methodology described herein and in Appendix G. Acceptable software for use of PLA shall be a commercially available product with general industry acceptance. Should the Licensee utilize a commercially available software application that NBU does not possess, the Licensee shall make available to NBU at least one software license for NBU use at the Licensee's expense, subject to NBU's Information Technology requirements. The Licensee will gather the pole and Attachment physical and technical information required to conduct a PLA on Utility Poles that meet the criteria for PLA as described in Appendix G, with assistance as required from NBU.
- f. Submission of Application. Completed Applications may be submitted by either U.S. mail or electronically to attachment@nbutexas.com. The Application shall include:
 - i. A completed Application Form, as referenced in Appendix B;
 - ii. Detailed design documents of the required Make-Ready Communications Construction, prepared or reviewed by an Engineer;
 - iii. A proposed installation schedule;
 - iv. Evidence satisfactory to NBU in its reasonable discretion that Licensee has obtained all necessary authority to use or occupy any private easement in which the relevant NBU structure or structures are installed, and upon request evidence that the Licensee has obtained all necessary authority to use or occupy the public rights-of-way through which Licensee's facilities pass;
 - v. PLA worksheets and results, as required by Appendix G;
 - vi. Relevant pole identification data, including NBU pole number and GPS location data for entry into the ID1 field of the NBU GIS system, and equipment tagging information;

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- vii. If applicable, a Waiver Request form, as described in Section III.A.6; and
- viii. The appropriate Application Fee.

Such Application shall be prepared by, or under the authority of, the Licensee. The detailed design documents referenced in this Section will be undertaken and completed in design tools to be determined by NBU. All actions pursuant to this Section shall be at the Licensee's cost and risk.

Licensee shall submit the appropriate Application Fee at the time of Application submission.

2. **NBU Review of Application.** NBU will respond to each completed Application and Make-Ready Communications Engineering design documents submitted by the Licensee within forty-five (45) days of receipt. Should NBU return an Application for clarification or modification, the time required for the Licensee to address the concerns raised and return the Application shall not count against the forty-five (45) day period. Any Application that does not conform to the requirements provided in Section IV.B.2. and the Applicable Engineering Standards will be deemed incomplete and immediately rejected by NBU. If an Application is rejected as incomplete, the Licensee will be provided with a detailed description of changes, modifications, or revisions to the Application necessary for NBU's review and approval within thirty (30) days of rejection of the Application.

In the event NBU does not finalize its review of a completed Application within forty-five (45) days as provided in this section, NBU may impose an extension period in which to complete its review for each Application.

- a. Review. In making its decision as to whether to approve an Application, NBU will consider the Application's proposed compliance with engineering and safety requirements, in accordance with Applicable Engineering Standards. In addition, NBU shall consider Capacity constraints, including the future needs of NBU as determined in accordance with the Reserved Capacity provisions set forth in Section II.H.10, flood zone requirements, in-flight NBU projects, and other circumstances known at the time that could directly affect the engineering, safety requirements, and Capacity constraints of the Application submission and review which may impact the Application, including any known third-party requests or Attachment to the same Pole.
- b. Estimation, Acceptance, and Payment for Make-Ready Electrical Engineering and Construction.
 - i. Make-Ready Electrical Engineering and Estimate for Make-Ready Electrical Construction. In the event that a Licensee's

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proposed Application requires NBU to undertake and complete Make-Ready Electrical Construction to accommodate the Licensee's Application, NBU will review the Licensee's detailed design documents, evaluate the Application and Make-Ready Communications Engineering and PLA, and determine if Make-Ready Electrical Construction is required. If Make-Ready Electrical Construction is required to accommodate the proposed a proposed Attachment, NBU will conduct the necessary Make-Ready Electrical Engineering and provide Licensee with an estimate of the cost for the required Make-Ready Electrical Construction work provided by the Licensee. NBU will submit its estimate of the cost of Make-Ready Electrical Construction to the Licensee utilizing the *NBU Authorization for Make-Ready Electrical Construction* form.

- ii. Licensee's Acceptance or Rejection of Make-Ready Electrical Construction Estimate. The Licensee shall have sixty (60) calendar days following the issuance of the *NBU Authorization for Make-Ready Electrical Construction* form to approve the estimate and provide payment or to request changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design documents. Failure of the Licensee to respond to NBU or return the *NBU Authorization for Make-Ready Electrical Construction* form within the sixty (60) calendar day period will result in the Application being cancelled by NBU, with all applicable Application Fees being non-refundable. If Licensee accepts the *Authorization for Make-Ready Electrical Construction*, it shall make advance payment of the cost estimate in order for any Make-Ready Electrical Construction to proceed in accordance with the provisions of Section II.I.3. Licensee shall pay the cost of Make-Ready Electrical Engineering even if NBU cancels the Application or the Licensee withdraws the Application.
- iii. Licensee-Requested Changes. If Licensee requests changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design documents consistent with Applicable Engineering Standards, NBU may, within forty-five (45) days of receipt of Licensee's request, agree in writing to the proposed changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design, in which case the Licensee may, if necessary, resubmit the Application as amended to conform to the changes, modifications, or revisions to which NBU agreed, and the revised Application shall be deemed granted. If NBU rejects

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the Licensee's proposed changes, modifications, or revisions, Licensee may either accept NBU's original Make-Ready Electrical Engineering design documents or withdraw the Application.

In the event NBU fails to complete its review of Licensee's request within forty-five (45) days, NBU may extend the time for its review for a reasonable time.

- c. Compliance by Licensee. Regardless of NBU's disposition of the Make-Ready Electrical Construction design and engineering documents or any Licensee request for changes, modifications, or revisions, the Licensee shall comply with the requirements of the Texas Engineering Act, the National Electrical Safety Code, and all other Applicable Engineering Standards as required by this Standard in conducting Make-Ready Communications Engineering and Make-Ready Communications Construction.
- d. Application Approval.
 - i. *If Make-Ready Electrical Construction is Required.* After Licensee accepts the original or a revised *NBU Authorization for Make-Ready Electrical Construction* and makes payment of the estimate as required herein, NBU shall perform Make-Ready Electrical Construction as set forth below. After NBU's completion of Make-Ready Electrical Construction, NBU will issue to the Licensee the *NBU Notice to Proceed* with Make-Ready Communications Construction.
 - ii. *If Make-Ready Electrical Construction is Not Required.* After acceptance of all necessary revisions to the Application, NBU will issue to the Licensee the *NBU Notice to Proceed*.
- e. Treatment of Multiple Requests for Same Utility Pole. NBU shall consider complete Applications received from multiple Licensees to attach to the same Utility Pole on a "first-come, first-served," non-discriminatory basis.
 - i. If NBU receives an Application from a second prospective Licensee following acceptance of a complete Application, but before completing Make-Ready Electrical Construction or issuing a *Notice to Proceed* on the first Application, NBU will reject the second Application and any subsequent Applications for the same Utility Pole without consideration of the proposed Attachments from the Application which was first-in-time. NBU will reconsider the rejected Application if it is revised and resubmitted in consideration of the characteristics of the installations contemplated in the first-in-time Application and eliminates any conflict. If the

second Application requests use of the Utility Pole for installation of a Network Node, NBU will evaluate the Network Node Application as if the Attachment of the first Licensee has been completed.

- ii. If the first-in-time Application requires NBU to undertake and complete any Make-Ready Electrical Construction on a Utility Pole, and a subsequent request for an Attachment or Network Node is received before NBU completes the Make-Ready Electrical Construction necessary for the first-in-time Application, NBU will meet with each Licensee and allocate the costs to complete Make-Ready Electrical Construction between the Licensees requesting access to the Utility Pole.
- iii. If the first-in-time Licensee fails to timely install its Attachment or Network Node, as applicable, NBU will revoke permission to construct the facility that is the subject of the first-in-time Application. NBU will then process the second-in-time Application. Where Make-Ready Electrical Construction on a Utility Pole for the first-in-time Application has been completed, but the Licensee fails to timely install its Attachment or Network Node, Licensee shall nevertheless remain responsible for payment of the Make-Ready Electrical Construction charges incurred.

3. **Make-Ready Electrical Construction.** If Make-Ready Electrical Construction is required to accommodate a Licensee's Attachment or Overlapping, NBU or its contractors shall perform such work at Licensee's expense.

- a. Advance Payment. Upon execution of *Authorization for Make-Ready Electrical Construction* by a Licensee, NBU shall schedule the Make-Ready Electrical Construction. Pursuant to Section II.I.3, NBU shall require payment from Licensee in advance for any Make-Ready Electrical Construction to be performed by NBU or its contractors based upon the estimated cost of such work.
- b. Work Performed by NBU or NBU Contractor. Make-Ready Electrical Construction shall be performed only by NBU or a contractor authorized by NBU to perform such work. NBU will use reasonable efforts to complete the Make-Ready Electrical Construction to accommodate a Licensee's Attachments within sixty (60) days of receipt of the advanced payment estimate for the Make-Ready Electrical Construction. NBU will provide to the Licensee as soon as possible the estimated schedule for completing the Make-Ready Electrical Construction.
- c. Work Schedule. In performing all Make-Ready Electrical Construction to accommodate a Licensee's Attachments, NBU will include such work in its normal work schedule on a non-

discriminatory basis. In the event the Licensee requests that the Make-Ready Electrical Construction be performed on a priority basis or outside of NBU's normal working hours, the Licensee shall pay the appropriate increased costs. **Nothing herein shall be construed to require performance of any Make-Ready Electrical Construction on a priority basis, outside of NBU's normal working hours, or before other scheduled work, NBU service restoration, or other Emergency work.**

- d. Notice to Proceed. Following completion of the Make-Ready Electrical Construction, NBU will issue an NBU *Notice to Proceed* to the Licensee (Applicant) that the Utility Pole is available for Make-Ready Communications Construction and Attachment. When applicable, the Licensee shall proceed to install its Attachments utilizing the One-Touch Transfer Process. Whenever the transfer of an Attachment or Network Node would require cutting or splicing of the Communication Facility or disruption of wireless service, the Complex Transfer Process shall apply.
- e. Failure to Attach. A Licensee must exercise the right granted by the NBU *Notice to Proceed* within sixty (60) days of issuance of the *Notice to Proceed*. If needed, Licensee may request in writing to NBU an additional thirty (30) day extension of the effective period of the *Notice to Proceed*. The request for this extension must be received by NBU no later than the expiration date provided in the *Notice to Proceed*. In considering this request, NBU will review past construction practices of Licensee and current efforts underway to complete the installation for which the extension was requested. NBU will provide a written response to the request for extension within a reasonable time after receiving the request. NBU, at its discretion, may not consider any requests for extension received after the expiration of the *Notice to Proceed*.
 - i. Failure to install an Attachment within the effective period of the *Notice to Proceed*, or extended period if granted by NBU, will result in expiration of the Application. Any applicable Application Fees and any payments made for Make-Ready Electrical Construction already completed shall be deemed fully earned and will not be refunded. Following expiration of an Application, should the Licensee wish to continue to install the Attachment subject to the expired Application, Licensee must submit a new Application covering the same Attachment including all appropriate Application Fees and following all relevant timelines as though it was a new Application.
 - ii. NBU and Licensee shall determine a mutually-agreeable schedule for the completion of the Make-Ready Electrical Construction and/or Licensee's Attachment installation

should an issue of Force Majeure, as described in the Agreement, be asserted by either party.

4. **Make-Ready Communication Construction – One Touch Transfer.** The transfer of third-party Attachments or Network Nodes, whether conducted by a Licensee or NBU, shall hereinafter be referred to as the “One-Touch Transfer Process.” Pursuant to these Standards, the One-Touch Transfer Process allows a Licensee to transfer or rearrange an Attachment of one or more Licensees in the Communications Space of a Utility Pole, or coordinate the Joint Meeting Transfer of a Network Node, as may be necessary, to accommodate the installation of a new Attachment in conformance with the requirements identified in this Section. All One-Touch Transfers conducted by a Licensee or NBU must comply with the following requirements:
- a. Simple Transfers Only. One-Touch Transfers shall be limited to rearrangement or transfer of third-party Attachments on an existing Utility Pole or a Mid-Span Installation suspended by a messenger cable between two Utility Poles. Such Attachment or Mid-Span installation may be rearranged within an existing Utility Pole or transferred onto a replacement Utility Pole (along with any supporting Communication Facility or Overlash) only where it may be accomplished without cutting and splicing or severance of any affected Mid-span Installation from the Communication Facility providing connectivity.
 - b. Joint Meeting Transfer. Any Attachment or Network Node on a Utility Pole hosting Attachments subject to One-Touch Transfer shall be modified within the same Utility Pole or transferred onto a replacement Utility Pole at the same time as the Attachments subject to Simple Transfer through the coordination of a Joint Meeting Transfer of the Network Node.
 - i. Before a Licensee seeking to avail itself of the One-Touch Transfer process begins to undertake Make-Ready Communication Construction, it shall, not less than thirty (30) days before the date contemplated for the start of Make-Ready Communication Construction, notify in writing each affected existing Licensee owning an Attachment or Network Node on an affected Utility Pole and arrange for a Joint Meeting Transfer of the Network Node.
 - ii. Such notice shall identify the specific Utility Pole subject to Simple Transfer where the Attachment or Network Node is mounted. The written notice shall provide sufficient instructions to coordinate the Joint Meeting Transfer.
 - iii. Either party may make earlier arrangements with the other for any proposed Joint Meeting Transfer.

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- iv. Licensees have an obligation to cooperate to successfully complete the Joint Meeting Transfer of the Network Node.
 - A) In the event the Licensee utilizing the One-Touch Transfer Process fails to provide the required notice of the Joint Meeting Transfer to the Licensee that owns the Attachment or Network Node, the former will be responsible for the cost of removing and relocating the Network Node to a replacement Utility Pole.
 - B) In the event the Licensee that owns the Attachment or Network Node fails to attend the Joint Meeting Transfer or attends the meeting but fails to relocate the Attachment or Network Node as part of the One-Touch Transfer Process, such Licensee shall be responsible for modifying the Attachment or Network Node within the same Utility Pole or transferring the Network Node onto a replacement Pole within ten (10) days following the date of the failed Joint Meeting Transfer. Failure to relocate the Attachment or Network Node within such ten (10) day period shall result in NBU finding the Network Node in non-compliance with these Standards and subject to remedies under the Agreement, including without limitation a penalty as provided in Appendix H.
- c. Removal of the Existing Utility Pole. Licensee utilizing the One-Touch Transfer Process shall be responsible for the cost of removing the existing Utility Pole if a replacement Utility Pole is required to be installed as part of the One-Touch Transfer Process.
- d. Contractors. Where Licensee does not directly perform the Make-Ready Communications Construction required pursuant to an Application or a Notification, Licensee must engage qualified contractors for such work. NBU reserves the right to reject Licensee's choice of contractors in its reasonable discretion based upon factors including but not limited to contractor's lack of experience in the NBU system, negative experiences with the contractor's work on the NBU system, or negative references from sources NBU determines in its sole discretion to be reasonable.
- e. Applicability to NBU. NBU's communications wires or facilities installed in the Communication Space of a Utility Pole will also be subject to the One-Touch Transfer Process.
- f. One-Touch Transfers Subject to Applicable Engineering Standards. All Make-Ready Communication Construction performed under the One-Touch Transfer Process shall meet Applicable Engineering

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Standards, including NBU's clearance standards. Applications that include Make-Ready Communications Construction and One-Touch Transfers that fail to meet Applicable Engineering Standards will be rejected by NBU.

- g. Cost Responsibility. Where in the sole judgment of NBU a Utility Pole is identified as defective, NBU will be responsible for the cost to replace such defective Utility Pole. In all other instances, the Licensee shall pay all costs of Make-Ready Work associated with One-Touch Transfers as described below:
- i. Where the Utility Pole includes one or more third-party Attachment(s) that fail to meet Applicable Engineering Standards but otherwise there is sufficient space on the Utility Pole to accommodate the Licensee's Attachment, Make-Ready Work will not include the transfer of the third-party Attachment(s), unless the lowest Attachment on the Utility Pole fails to meet NESC clearance standards or poses a public safety hazard. In that case, Make-Ready Work will include the relocation of the non-compliant Attachment and the Licensee may recover the cost to bring such Attachment into compliance from the owner of the non-compliant Attachment.
 - ii. Where the Utility Pole includes one or more third-party Attachment(s) that fail to meet Applicable Engineering Standards, and in order to accommodate the Licensee's Attachment on the same Utility Pole the third-party Attachment(s) must be rearranged, the cost of rearranging the third-party Attachment(s) will be included in Make-Ready Work. In addition, if the lowest Attachment on the Utility Pole fails to meet all relevant NESC clearance standards or poses a public safety hazard, the Licensee may recover the cost to bring such Attachment into compliance from the owner of that Attachment.
 - iii. Where the Utility Pole includes one or more third-party Attachment(s) that fail to meet Applicable Engineering Standards, and in order to accommodate the Licensee's Attachment a new Utility Pole must be installed, the cost of the new Utility Pole and the transfer of the third-party Attachment(s) will be included in the Make-Ready Work.
 - iv. Where the Utility Pole includes one or more third-party Attachment(s) that meet Applicable Engineering Standards, and otherwise there is enough space on the Utility Pole to accommodate the Licensee's Attachment, Make-Ready Work will not include the transfer of the third-party Attachment(s).

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- v. Where the Utility Pole includes one or more third-party Attachment(s) that comply with Applicable Engineering Standards, and in order to accommodate the Licensee's Attachment on the same Utility Pole the third-party Attachment(s) must be rearranged, the cost of rearranging the third-party Attachment(s) will be included in Make-Ready Work.
- vi. Where the Utility Pole includes one or more third-party Attachment(s) that comply with Applicable Engineering Standards, and in order to accommodate the Licensee's Attachment a new Utility Pole must be installed, the cost of the new Utility Pole and the transfer of the third-party Attachment(s) will be included in Make-Ready Work.
- h. Notice of Transfer. A Licensee shall provide all third-parties having wire Attachments or Overlashings affected by a proposed One-Touch Transfer with advance written notice of such One-Touch Transfer not less than thirty (30) days prior to undertaking such One-Touch Transfer. This notice shall be provided using the NJUNS to a duly designated representative of the affected Licensee, unless NBU prescribes another method of notice. Such notice shall identify the specific Utility Pole(s) subject to the new Attachments or Overlashings and affected by such One-Touch Transfer. The Licensee that desires to utilize the One-Touch Transfer Process shall bear the responsibility of determining the appropriate representative for each Licensee affected by the Licensee's implementation of the One-Touch Transfer Process, with the assistance of NBU.
- i. Critical Communication Facilities. If an affected Licensee, in its reasonable discretion, determines that a proposed One-Touch Simple Transfer poses a risk of disconnection or interruption of service to a Critical Communications Facility, the affected Licensee shall notify the requesting Licensee and NBU in writing within ten (10) days of receiving the notice of transfer. The affected Licensee is obligated to make the requested transfer of their Critical Communication Facilities within fifteen (15) days of providing such notice. Failure to transfer the Critical Communications Facilities in a timely manner will subject the Critical Communications Facility to the One-Touch Transfer Process.
- j. Post-Transfer Notice. Within fifteen (15) days following the completion of a One-Touch Transfer, the Licensee shall send written notice of the completed One-Touch Transfer and as-built reports to each affected Licensee. Within thirty (30) days of receipt of these as-built reports, the Licensee that owns the Communications Facilities that were transferred or relocated may conduct an inspection at the expense of the Licensee that moved the facilities. If the One-Touch Transfer failed to meet all Applicable Engineering

Standards, the owner of the Communications Facilities subject to transfer or relocated will notify the Licensee responsible for the One-Touch Transfer of any deficiency, which will be corrected within fifteen (15) days following receipt of such written notice at the expense of the Licensee responsible for the One-Touch Transfer. The Licensee responsible for the One-Touch Transfer shall pay the actual, reasonable, and documented inspection expenses incurred by the owner of the Communication Facilities subject to transfer or relocated, within thirty (30) days of receipt of an invoice. Failure of the owner of the moved or relocated Attachment to undertake and complete the inspection within the thirty (30) day period shall be deemed acceptance of the One-Touch Transfer.

- k. Licensee's Attachments Subject to One-Touch Transfer by Other Entities. A Licensee's Communications Facilities shall be subject to the One-Touch Transfer Process conducted by another Licensee or NBU pursuant to the same terms and conditions prescribed in this Section and in Appendix H

5. Make-Ready Communication Construction - Complex Transfers.

- a. Responsibility for Complex Transfers. The accomplishment of a Complex Transfer is considered part of Make-Ready Communication Construction and shall be performed by the Licensee that owns the Attachment subject to transfer. It is the responsibility of the Licensee requesting the Complex Transfer to negotiate a private process with the owning Licensee for the Complex Transfer, subject to NBU's provision of any necessary contact information. The cost of the Complex Transfer shall be borne by the requesting Licensee. Network Nodes will not be subject to the Complex Transfer process as any modification or transfer of such facilities shall be subject to the Joint Meeting Transfer process.
- b. Complex Transfers Escalation Process. In the event a Licensee cannot or does not reach agreement on a process for the expedient transfer of an Attachment subject to a Complex Transfer, the requesting Licensee may rely on the following escalation procedures. At any time during these escalation procedures, the requesting Licensee and the owner of the Attachment subject to the Complex Transfer may reach agreement on a voluntary transfer process. In such event, the requesting Licensee shall notify NBU in writing of this agreement.
 - i. Level 1: Initial Request for Complex Transfer (Days 0 to 30)
 - A) Initial Notice Letter. The requesting Licensee shall provide written notice to owner of the Attachment subject to Complex Transfer requesting the transfer

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of such Attachment using NJUNS with a copy to NBU. The Licensee that owns such Attachment shall perform the transfer within thirty (30) days of receipt of notice from the requesting Licensee.

- ii. Level 2: Initial Escalation Process (Days 31 to 60)
 - A) Escalation Notification. If the owner fails to transfer the Attachment subject to Complex Transfer within the initial thirty (30) days, the requesting Licensee shall send a certified letter notifying the non-compliant Licensee that failure to transfer the Attachment within a subsequent thirty (30) days (escalation period) of receipt of notice will result in the Attachment in question being designated by NBU as non-compliant with the Complex Transfer Process and subject to penalty, as described in Appendix H, on the basis of interference with the requesting Licensee's permitted Attachment rights. The requesting Licensee shall send NBU a copy of the escalation letter and all other correspondence between the parties related to this matter.
 - B) Duty to Negotiate. The requesting Licensee is required to continue negotiations with the non-compliant Licensee during the thirty (30) day escalation period. Absent extraordinary circumstances, the non-compliant Licensee's failure to transfer the Attachment subject to Complex Transfer by the end of the thirty (30) day escalation period shall be considered a lack of cooperation on the part of the non-compliant Licensee. Conversely, absent extraordinary circumstances, requesting Licensee's refusal to agree to an alternative process for the transfer of the Attachment in question within a reasonable date certain shall be considered a lack of cooperation on the part of the requesting Licensee.
 - C) Notice of Success Complex Transfer. If the non-compliant Licensee transfers the Attachment subject to Complex Transfer within the thirty (30) day escalation period, or the requesting Licensee transfers the Attachment by mutual agreement of the parties, no further escalation will be necessary.
- iii. Level 3: NBU Finding of Non-Compliant Attachments (Days 61 to 90)
 - A) Request for Finding of Non-compliant Attachments. If the requesting Licensee and the non-compliant

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Licensee cannot reach agreement, and the Licensee with an existing Attachment subject to Complex Transfer fails to transfer it within the thirty (30) day escalation period, the requesting Licensee shall notify NBU in writing within five (5) days thereafter, provide a short summary of efforts to negotiate the rearrangement or transfer of the Attachment in question, and request NBU to make a finding of Non-Compliant Attachment on the basis of interference with the requesting Licensee's permitted Attachment rights.

B) Notification of Non-Compliant Attachments. Within fifteen (15) days of receiving the request for a finding of Non-Compliant Attachments, NBU will evaluate the request, and if it finds the request credible, NBU will notify the non-compliant Licensee that NBU has determined the Attachment subject to Complex Transfer is declared as a "Non-Compliant Attachment."

C) Default and Post-Default Process. Where a Licensee's Attachment is determined to be a Non-Compliant Attachment, Licensee shall be in Default and subject to all remedies under the terms of the Agreement.

Thereafter, the non-compliant Licensee will have fifteen (15) days in which to transfer the Non-Compliant Attachment and notify NBU in writing in order to reinstate the processing of Applications or Notifications.

D) Duty to Negotiate. The requesting Licensee is required to continue negotiations with the non-compliant Licensee that owns the Non-Compliant Attachment during the fifteen (15) day period.

E) Notice of Transfer. If the non-compliant Licensee transfers the Non-Compliant Attachment within the fifteen (15) day period, or the requesting Licensee transfers the Non-Compliant Attachment by mutual agreement of the parties, the moving party shall notify NBU in writing.

iv. Level 4: Transfer or Removal of Unauthorized Attachments (Days 91 and Beyond)

A) Notification of Failed Transfer. If the parties fail to negotiate the successful transfer of the Non-

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Compliant Attachment, the requesting Licensee shall promptly notify NBU in writing of the failed attempt and explain the reasons for the unsuccessful transfer.

- B) Notification of Transfer of Non-Compliant Attachments. Following receipt of the notification of failed transfer, NBU shall promptly proceed to transfer the Non-Compliant Attachment at the respective owner's expense. Following the transfer of the Non-Compliant Attachment, NBU will provide written notification of the transfer to the non-compliant Licensee.
- C) Notice of Transfer. In the event the non-compliant Licensee transfers the Non-Compliant Attachment, or the requesting Licensee transfers the Non-Compliant Attachment by mutual agreement of the parties, prior to NBU's transfer efforts, the moving party shall notify NBU in writing.

6. Notice of Attachment Completion and Acceptance.

The Licensee shall notify NBU in writing by submitting the *Completion of Licensee Construction* form, including as-built drawings, within thirty (30) days following the acceptance by all Licensees the facilities of which were rearranged or transferred pursuant to Section IV.B.5 (Simple Transfers) or Section IV.B.6 (Complex Transfers) that all Make-Ready Communication Construction has been completed and accepted, and that the new Attachments or Overlashings and all Make-Ready Work are ready for NBU to undertake Post-Construction Inspection.

7. Post-Construction Inspection.

- a. Construction Subject to Inspection. NBU shall complete a Post-Construction Inspection of applicable Make-Ready Work at the Licensee's expense within sixty (60) days of receiving the Licensee's notification set forth in Section IV.B.7. NBU will conduct the Post-Construction Inspections to evaluate compliance with the requested Permit, Applicable Engineering Standards, or other design and installation requirements. Completion of a Post-Construction Inspection by NBU shall not in any way relieve any Licensee or a Licensee's insurers of any responsibility, duty, obligation, or liability under these Standards, any contractual agreement, or otherwise; nor does NBU's ability to make Post-Construction Inspections relieve a Licensee from its obligations to exercise due care in the installation of its Attachments or Overlashings. The Post-Construction Inspection provision set forth in this Section does not affect any other inspection requirements elsewhere in these Standards. This Section also applies to supplemental Post-Construction Inspections where the Licensee

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reports “final corrections” of previously identified non-compliant work or locations as described below.

- b. Compliance. In the event a Post-Construction Inspection reveals that corrections or other actions are required of a Licensee, including without limitation those required for reasons of safety or structural integrity, the Licensee shall make such required corrections or take the requested actions within ten (10) days after the date NBU sends written notice. If NBU determines in its reasonable judgment and discretion that the needed corrections rise to the level of an Emergency, NBU may perform the necessary corrective work without providing notice, at the Licensee’s sole risk and cost, plus \$250. As soon as practicable thereafter, NBU will advise the Licensee of the work performed or the action taken.
- c. Issuance of Permit. Upon satisfactory completion of the Post-Construction Inspection, NBU shall notify the Licensee in writing that NBU has approved the Attachments identified in the Application by submitting to the Licensee a Permit for the affected facilities.

- C. Reserved for Future Use**
- D. Reserved for Future Use**
- E. Reserved for Future Use**

F. Standard Process for Overlashing Existing Attachments

1. **Application for Permit Required.** All provisions of Section IV.B.2 shall be applicable to Applications considered under the Standard Process for Overlashing Existing Attachments, except as provided below:
 - a. A Licensee may Overlash its own Attachments where the facilities comprising the Overlashing and Attachment do not exceed a combined total of four inches (4”) in diameter at the point of Attachment to a Pole, such Overlashing fully complies with the Applicable Engineering Standards both at the point of Attachment to a Pole and for its span between poles, and no Make-Ready Electrical Construction is required. In such cases, the Licensee shall provide NBU with fifteen (15) days’ prior written notice of the Overlashing and its compliance with the requirements set forth in this Section.
 - b. The combined volume of the bundle of any Overlashing or Attachment may not exceed four inches (4”) in diameter at the point of Attachment to a Pole, unless Licensee obtains advance written permission of NBU.
 - c. A Licensee shall be permitted to Overlash its own Attachments without prior written notice or submitting an Application to NBU in the event such Overlashing is necessary to restore service temporarily to the Licensee’s customers and is in compliance with the Applicable Engineering Standards. In such cases, the Licensee shall provide NBU with written notice of the Overlashing within five (5) days of its completion.
 - d. Such notice as required in Section IV.F.2.a, Section IV.F.2.b, and Section IV.F.2.c above will be provided using the NBU *Standard Pole Attachment Application*, available on NBU’s website and shall include:
 - i. The Utility Poles and Attachments subject to Overlashing, including relevant pole identification data, including NBU pole number and GPS location data for entry into the NBU GIS system, and equipment tagging information;
 - ii. The total diameter and estimated weight of the existing Communications Facilities subject to Overlash;
 - iii. The diameter and estimated weight of the added Communications Facilities;
 - iv. The owner of the Communication Facilities;
 - v. The total estimated diameter and weight of the Communications Facilities after the Overlash;
 - vi. Applicable PLA documents, if any;

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- vii. Applicable Make-Ready Electrical Construction engineering design documents, if any; and
 - viii. The applicable Application Fee.
- 2. **NBU Review of Application.** All provisions of Section IV.B.3 shall be applicable to Applications considered under the Standard Process for Overlashing Existing Attachments, except as provided below:
 - a. Where no Make-Ready Electrical Construction is required, NBU shall review and provide written Notices to Proceed in accordance with the provisions of Section IV.F.2.a and Section IV.F.2.b above.
 - b. Where Make-Ready Electrical Construction is required, the provisions of Section IV.B.4 shall apply.
- 3. **Make-Ready Electrical Construction.** If required, all provisions of Section IV.B.4 shall be applicable to Make-Ready Electrical Construction for Applications considered under the Standard Process for Overlashing Existing Attachments.
- 4. **Make-Ready Communication Construction – One Touch Transfers.** If required, all provisions of Section IV.B.5 shall be applicable to Make-Ready Communications Construction for Applications considered under the Standard Process for Overlashing Existing Attachments regarding One-Touch Transfers.
- 5. **Make-Ready Communication Construction - Complex Transfers.** If required all provisions of Section IV.B.6 shall be applicable to Make-Ready Communications Construction for Applications considered under the Standard Process for Overlashing Existing Attachments regarding Complex Transfers.
- 6. **Notice of Attachment Completion and Acceptance.** All provisions of Section IV.B.7 shall be applicable to Notice of Attachment Completion and Acceptance for Applications considered under the Standard Process for Overlashing Existing Attachments.
- 7. **Post Construction Inspection.** All provisions of Section IV.B.8 shall be applicable to Post Construction Inspection for Applications considered under the Standard Process for Overlashing Existing Attachments.

V. SPECIFICATIONS APPLICABLE TO NETWORK NODES

A. Network Node Application Process

NBU offers Licensees access to Eligible Poles, subject to certain restrictions and Make-Ready Construction requirements, for the purpose of attaching Network Nodes pursuant to the Application processes. The technical specifications for Network Nodes are found in Appendix D, Appendix G, and Appendix I. Additional information, including the Application Forms for a Network Node installation, may be downloaded from NBU's website.

B. Standard Process for Network Nodes

1. **Application for Permit Required.** A Licensee shall not install any new Network Node on any NBU Eligible Pole without first submitting an Application and obtaining a Permit pursuant to the requirements and procedures set forth in these Standards.
 - a. **Application Form.** All Licensees shall use the *Application for Network Node Form*, a copy of which is available on NBU's website, which may be amended from time to time, provided that any such amendments are consistent with Applicable Engineering Standards and are applied to similar types of Network Nodes and similarly situated Licensees on a non-discriminatory basis.
 - i. A single Application may include up to a maximum of five (5) Network Node locations, together with the applicable Eligible Poles, provided that the Network Nodes are of similar design and consist of Pre-Certified Equipment.
 - ii. NBU's acceptance of the submitted design documents required as part of a complete Application Form submittal does not relieve the Licensee of full responsibility for any errors or omissions in the engineering analysis and compliance with all Applicable Engineering Standards.
 - b. **Pole Ownership.** For the purposes of Application submittal, unless NBU records or Eligible Poles indicate otherwise, NBU shall be presumed to be the owner all Eligible Poles subject to a Network Node installation. The Licensee is responsible for field verifying Eligible Pole ownership and notifying NBU of any discrepancies between NBU's maps/records and the actual Eligible Poles in the field.
 - c. **Compliance with Standards.** Licensee shall comply with the Texas Engineering Act, Section 1001.001, *et seq.*, Texas Occupations Code, to the extent it is applicable to the work described herein, and with the most current version of the NESC and Appendices D, F, G and I, including any and all revisions, and all other Applicable

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Engineering Standards. The Licensee shall certify its compliance with the above on each Application it submits to NBU for processing. The certification statement shall be signed by an employee or agent of the Licensee who has the final authority or responsibility to approve the Application. NBU will not process an Application that fails to provide the signed certification statement included therein. The Licensee shall provide documentation, sealed by an Engineer, establishing that the Licensee's applicable Pole Loading Analysis (PLA) documents comply with all requirements specified by the above mentioned standards.

- d. Pole Loading Analysis (PLA). A Licensee, in connection with an Application, must comply with the PLA methodology described herein and in Appendix G. Acceptable software for use of PLA shall be a commercially available product with general industry acceptance. Should the Licensee utilize a commercially available software application that NBU does not possess, the Licensee shall make available to NBU at least one software license for NBU use at the Licensee's expense, subject to NBU's Information Technology requirements. The Licensee will gather the pole and Attachment physical and technical information required to conduct a PLA on Eligible Poles that meet the criteria for PLA as described in Appendix G, with assistance as required from NBU.
- e. Submission of Application. Completed Applications may be submitted by either U.S. mail or other means mutually agreeable by NBU and the Licensee. The Application shall include, in PDF format:
 - i. A complete Application with all applicable supporting documents, tests, reports, applications, permit numbers, and license numbers;
 - ii. A copy of an approved *Request for Pre-Certification of Wireless System* form for the type of Network Node proposed;
 - iii. A copy of the Safety Briefing for the type of Network Node proposed;
 - iv. Engineering design documents created using the ANSI/SCTE Graphic Symbols Drawing Standards, prepared or reviewed by an Engineer, and including a detail description of the Network Node in compliance with all Applicable Engineering Standards, all detailed design documents for any required Make-Ready Communications Construction;
 - v. The proposed Deployment Plan for the proposed Wireless Project Area, including a description of how the Network

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Node will be served with electricity and backhaul broadband telecommunications transport service;

- vi. A copy of an approved NBU application for electric service showing the NBU electricity account number for the Network Node, or an NBU letter identifying an existing electricity account number that will serve the Network Node upon completion of construction;
- vii. Report certifying compliance with FCC OET Bulletin 65 signage requirements and the location of such signage on the Eligible Pole, if applicable;
- viii. PLA worksheets and results, as required by Appendix G;
- ix. Relevant pole identification data, including NBU pole number and GPS location data for entry into the ID1 field of the NBU GIS system, and equipment tagging information;
- x. A proposed installation schedule;
- xi. Evidence that Licensee has obtained all necessary authority to use or occupy the public rights-of-way or easement in which the relevant NBU structure or structures are installed;
- xii. If applicable, a Waiver Request form, as described in Section III.A.6; and
- xiii. The appropriate Application Fee.

Such Application shall be prepared by, or under the authority of, the Licensee. The detailed design documents referenced in this Section will be undertaken and completed in design tools to be determined by NBU. All actions pursuant to this Section shall be at the Licensee's cost and risk.

Licensee shall submit the appropriate Application Fee at the time of Application submission.

2. **NBU Review of Application.** NBU will respond to each completed Application and Make-Ready Communications Engineering design documents submitted by the Licensee within sixty (60) days of receipt. Should NBU return an Application for clarification or modification, the time required for the Licensee to address the concerns raised and return the Application shall not count against the sixty (60) day period. An Application for a Mid-span Installation requiring a supporting Overlash installation provided by the Licensee will be considered by NBU pursuant to Section IV.F and this Section. An Application for a DAS System requiring supporting new Attachments for fiber backhaul transport facilities will be considered by NBU pursuant to Section IV.B and this Section. Any Application that does not conform to the requirements provided in Section V.B.2.e and the Applicable Engineering Standards will be deemed incomplete and immediately rejected by NBU. If an Application is rejected

as incomplete, the Licensee will be provided with a detailed description of changes, modifications, or revisions to the Application necessary for NBU's review and approval within thirty (30) days of rejection of the Application.

In the event NBU does not finalize its review of a completed Application within sixty (60) days, NBU may impose an extension period in which to complete its review for each Application.

In making its decision as to whether to issue a Permit, NBU will consider engineering and safety requirements, in accordance with Applicable Engineering Standards. In addition, NBU shall consider Capacity constraints, including the future needs of NBU as determined in accordance with the Reserved Capacity provisions set forth in Section II.H.10, flood zone requirements, in-flight NBU projects, and other circumstances known at the time that could directly affect the engineering, safety requirements, and Capacity constraints associated with desired pole. Specifically, NBU will not consider a Network Node to be installed on an Eligible Pole that is subject to a pending Network Node Application or that is already hosting a Network Node. Other Capacity constraints may impact approval of a Network Node Application as described in Section V.B.4.f below.

3. Estimation, Acceptance, and Payment for Make-Ready Electrical Engineering and Construction.

- a. Make-Ready Electrical Engineering and Estimate for Make-Ready Electrical Construction. In the event that a Licensee's proposed Application requires NBU to undertake and complete Make-Ready Electrical Construction to accommodate the Licensee's Application, NBU will review the Licensee's detailed design documents, evaluate the Application and Make-Ready Communications Engineering and PLA, and determine if Make-Ready Electrical Construction is required. If Make-Ready Electrical Construction is required to accommodate the proposed a proposed Attachment, NBU will conduct the necessary Make-Ready Electrical Engineering and provide Licensee with an estimate of the cost for the required Make-Ready Electrical Construction work provided by the Licensee. NBU will submit its estimate of the cost of Make-Ready Electrical Construction to the Licensee utilizing the *NBU Authorization for Make-Ready Electrical Construction* form.
- b. Licensee's Acceptance or Rejection of Make-Ready Electrical Construction Estimate. The Licensee shall have fifteen (15) calendar days following the issuance of the *NBU Authorization for Make-Ready Electrical Construction* form to approve the estimate and provide payment or to request changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design documents. Failure of the Licensee to respond to NBU or return the *NBU Authorization for Make-Ready Electrical Construction* form within the fifteen (15) calendar day period will result in the Application

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being cancelled by NBU, with all applicable Application Fees being non-refundable. If Licensee accepts the *Authorization for Make-Ready Electrical Construction*, it shall make advance payment of the cost estimate in order for any Make-Ready Electrical Construction to proceed in accordance with the provisions of Section II.I.3. Licensee shall pay the cost of Make-Ready Electrical Engineering even if NBU cancels the Application or the Licensee withdraws the Application.

- c. Licensee-Requested Changes. If Licensee requests changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design documents consistent with Applicable Engineering Standards, NBU may, within sixty (60) days of receipt of Licensee's request, agree in writing to the proposed changes, modifications, or revisions to the proposed Make-Ready Electrical Construction design, in which case the Licensee may resubmit the Application as amended to conform to the changes, modifications, or revisions to which NBU agreed, and the revised Application shall be deemed granted. If NBU rejects the Licensee's proposed changes, modifications, or revisions, Licensee may either accept NBU's original Make-Ready Electrical Engineering design documents or withdraw the Application.

In the event NBU fails to complete its review of Licensee's request within sixty (60) days, NBU may extend the time for its review for a reasonable time. A Network Node shall never be installed without the affirmative written consent of NBU and the issuance of a Permit.

- d. Compliance by Licensee. Regardless of NBU's disposition of the Make-Ready Electrical Construction design and engineering documents or any Licensee request for changes, modifications, or revisions, the Licensee shall comply with the requirements of the Texas Engineering Act, the National Electrical Safety Code, and all other Applicable Engineering Standards as required by this Standard in conducting Make-Ready Communications Engineering and Make-Ready Communications Construction.
- e. Application Approval.
 - i. *If Make-Ready Electrical Construction is Required.* After Licensee accepts the original or a revised *NBU Authorization for Make-Ready Electrical Construction* and makes payment of estimated costs, NBU will perform Make-Ready Electrical Construction as set forth below.
 - ii. *If Make-Ready Electrical Construction is **Not** Required.* After acceptance of all necessary revisions to the Application, NBU will issue to the Licensee the *NBU Notice to Proceed*.
- f. Treatment of Multiple Requests for Eligible Poles in the Same General Area. NBU will not authorize more than one Network Node

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per Eligible Pole. Eligible Pole assignments for Network Node Applications shall be considered on a “first-come, first-served,” non-discriminatory basis. Should a Licensee fail to install a Network Node within the allotted time frame, the requested pole will be released and made available to another Licensee upon request.

- i. If NBU issues a Permit and the Licensee fails to install the Network Node in compliance with Section V.B.5, NBU will release the requested Eligible Pole for use by another Licensee.
- ii. In situations where NBU receives multiple Network Node Applications for Eligible Poles within the same general area from different Licensees, NBU will limit a Licensee to only one Network Node for every six (6) contiguous Eligible Poles. Under no circumstances will a Licensee be allowed to reserve an Eligible Pole for future use.
- iii. NBU will not allow more than one (1) Mid-span Installation between any two (2) contiguous Utility Poles. Mid-span Installations shall not be installed on any Attachments suspended from Non-Decorative Streetlight Poles. Subject to interference testing, a pole-mounted Network Node may be installed on an Eligible Pole that hosts an Attachment that supports a Mid-Span Installation.
- iv. An Antenna node for a DAS System shall not be attached on an Eligible Pole that already hosts a pole-mounted Network Node, or vice-versa. Subject to interference testing, a Mid-span Installation may be installed adjacent to an Attachment that is installed on a Utility Pole that hosts a DAS System Antenna node.

4. **Make-Ready Electrical Construction.** If Make-Ready Electrical Construction is required to accommodate a Network Node, NBU or its contractors shall perform such work at Licensee’s expense as provided in Section V.B.4, Section V.B.5, and Appendix B.

- a. Advance Payment. Upon execution of *Authorization for Make-Ready Electrical Construction* by a Licensee, NBU shall schedule the Make-Ready Electrical Construction. Pursuant to Section II.I.3, NBU shall require payment from Licensee in advance for any Make-Ready Electrical Construction to be performed by NBU or its contractors based upon the estimated cost of such work.
- b. Work Performed by NBU or NBU Contractor. Make-Ready Electrical Construction shall be performed only by NBU or a contractor authorized by NBU to perform such work. NBU will strive to perform the Make-Ready Electrical Construction to accommodate a Licensee’s Network Node within sixty (60) days of

receipt of the advance payment for the Make-Ready Electrical Construction. NBU shall provide to the Licensee as soon as practicable the estimated schedule for completing the Make-Ready Electrical Construction.

- c. Work Schedule. In performing all Make-Ready Electrical Construction to accommodate a Licensee's Network Nodes, NBU will include such work in its normal work schedule on a non-discriminatory basis. In the event the Licensee requests that the Make-Ready Electrical Construction be performed on a priority basis or outside of NBU's normal working hours, the Licensee shall pay the increased costs. **Nothing herein shall be construed to require performance of any Make-Ready Electrical Construction on a priority basis, outside of NBU's normal working hours, or before other scheduled work, NBU service restoration, or other Emergency work.**
- d. Notifying Other Licensees. Prior to commencing Make-Ready Electrical Construction, NBU shall provide no less than five (5) days' written notice to the Licensees on the affected Eligible Poles of the impending work. Such written notice shall be provided through NJUNS.
- e. Notice to Proceed. Following completion of the Make-Ready Electrical Construction, NBU will issue an NBU *Notice to Proceed* to the Licensee (Applicant) that the Eligible Pole is available for Make-Ready Network Node Construction. When applicable, the Licensee shall proceed to install its Network Nodes utilizing the One-Touch Transfer Process described in Section V.B.6 below. Whenever the transfer of an Attachment would require the cutting or splicing of the Communication Facility, the Complex Transfer Process in Section V.B.7 below shall apply.
- f. Failure to Attach. A Licensee must exercise the right granted by the NBU *Notice to Proceed* within sixty (60) days of issuance of the *Notice to Proceed*. If needed, the Licensee may request in writing to NBU an additional thirty (30) day extension of the effective period of the *Notice to Proceed*. The request for this extension must be received by NBU no later than seven (7) days before the expiration date provided in the *Notice to Proceed*. In considering this request, NBU will review past construction practices of the Licensee and current efforts underway to complete the installation for which the extension was requested. NBU will provide a written response to the request for extension within a reasonable time after receiving the request. NBU, at its discretion, may not consider any requests for extension received within seven (7) days of the expiration of the *Notice to Proceed*.

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- i. Failure to install a Network Node within the effective period of the *Notice to Proceed*, or extended period if granted by NBU, will result in expiration of the Application and all applicable Application Fees and any payments made for Make-Ready Electrical Construction already completed shall be deemed fully earned and will not be refunded. Following expiration of an Application, should the Licensee wish to continue to install the Network Node subject to the expired Application, the Licensee must submit a new Application covering the same Network Node including all appropriate Application Fees and following all relevant timelines as though it was a new application.
- ii. NBU and the Licensee shall determine a mutually-agreeable schedule for the completion of the Make-Ready Electrical Construction should an event of Force Majeure, as described in the Agreement, be asserted by either party.

5. **Make-Ready Network Node Construction – One Touch Transfer.** The transfer of third-party Attachments or Network Nodes, whether conducted by a Licensee or NBU, shall hereinafter be referred to as the “One-Touch Transfer Process.” Pursuant to these Standards, the One-Touch Transfer Process allows a Licensee permitted to install a Network Node to transfer or rearrange the Attachments of one or more Licensees in the Communications Space of a Utility Pole, as may be necessary, to accommodate the new Network Node contingent upon compliance with requirements identified in this Section. All One-Touch Transfers conducted by a Licensee or NBU must comply with the following requirements:

- a. **Simple Transfers Only.** One-Touch Transfers shall be limited to the rearrangement or transfer of a third-party Attachment on an existing Pole and Mid-Span Installation suspended by a messenger cable between two Utility Poles. Such Attachment or Mid-Span Installation may be rearranged within an existing Utility Pole or transferred onto a replacement Utility Pole, provided the affected Attachment or Mid-span Installation (along with any supporting Communication Facility or Overlashing) is not subject to cutting and splicing and any affected Mid-span Installation is not severed from the Communication Facility providing connectivity.
- b. **Contractors.** Where Licensee does not directly perform the Make-Ready Network Node Construction required pursuant to an Application or a Notification, Licensee must engage qualified contractors for such work. NBU reserves the right to reject Licensee’s choice of contractors in its reasonable discretion based upon factors including but not limited to contractor’s lack of experience in the NBU system, negative experiences with the contractor’s work on the NBU system, or negative references from sources NBU determines in its sole discretion to be reasonable.

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- c. Applicability to NBU. NBU's communications wires or facilities installed in the Communication Space of a Utility Pole will also be subject to the One-Touch Transfer Process.
- d. One-Touch Transfers Subject to Applicable Engineering Standards. All Make-Ready Network Node Construction performed under the One-Touch Transfer Process shall meet all Applicable Engineering Standards, including NBU's clearance standards. As part of the Make-Ready Network Node Construction, a Licensee may modify one or more Attachments on a Utility Pole and any Mid-span Installation suspended from a messenger cable between two Utility Poles, by relocating said Attachments/Messengers within an existing Utility Pole or transferring the Attachments/Messengers onto a replacement Utility Pole, as necessary to accommodate the Network Node. Applications that include Make-Ready Network Node Construction and One-Touch Transfers that fail to meet Applicable Engineering Standards will be rejected by NBU.
- e. Cost Responsibility. Where in the sole judgment of NBU a Utility Pole is identified as defective, NBU will be responsible for the cost to replace such defective Utility Pole. In all other instances, the Licensee shall pay all costs of Make-Ready Work associated with One-Touch Transfers as described below:
 - i. Where the Utility Pole includes one or more third-party Attachment(s) that fail to meet Applicable Engineering Standards but otherwise there is sufficient space on the Utility Pole to accommodate the Licensee's Network Node, Make-Ready Work will not include the transfer of the third-party Attachment(s), unless the lowest Attachment on the Utility Pole fails to meet NESC clearance standards or poses a public safety hazard. In that case, the Licensee shall notify NBU, who will notify the owner of the non-compliant Attachment that the Attachment is non-compliant with the Applicable Engineering Standards or presents a Safety Violation in accordance with the provisions of Section II.K.3. The Licensee requesting the Network Node will not be allowed to undertake the installation of the Network Node until the non-compliant Attachment is remedied.
 - ii. Where the Utility Pole includes one or more third-party Attachment(s) that fail to meet Applicable Engineering Standards, and in order to accommodate the Licensee's Network Node on the same Utility Pole the third-party Attachment(s) must be rearranged, the cost of rearranging the third-party Attachment(s) will be included in Make-Ready Work. Provided that if the lowest Attachment on the Utility Pole fails to meet all relevant NESC clearance standards or poses a public safety hazard, the Licensee may

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recover the cost to bring such Attachment into compliance from the owner of that Attachment, but no others.

- iii. Where the Utility Pole includes one or more third-Party Attachment(s) that fail to meet Applicable Engineering Standards, and to accommodate the Licensee's Network Node a new Utility Pole must be installed, the cost of the new Utility Pole and the transfer of the third-party Attachment(s) will be included in the Make-Ready Work.
 - iv. Where the Utility Pole includes one or more third-party Attachment(s) that meet Applicable Engineering Standards, and otherwise there is enough space on the Utility Pole to accommodate the Licensee's Network Node, Make-Ready Work will not include the transfer of the third-party Attachment(s).
 - v. Where the Utility Pole includes one or more third-party Attachment(s) that comply with Applicable Engineering Standards, and to accommodate the Licensee's Network Node on the same Utility Pole the third-party Attachment(s) must be rearranged, the cost of rearranging the third-party Attachment(s) will be included in Make-Ready Work.
 - vi. Where the Utility Pole includes one or more third-party Attachment(s) that comply with Applicable Engineering Standards, and to accommodate the Licensee's Network Node a new Utility Pole must be installed, the cost of the new Utility Pole and the transfer of the third-party Attachment(s) will be included in Make-Ready Work.
- f. Notice of Transfer. A Licensee shall provide all third-parties affected by a proposed One-Touch Transfer with advance written notice of such One-Touch Transfer not less than thirty (30) days prior to undertaking such One-Touch Transfer. This notice shall be provided using the NJUNS to a duly designated representative of the affected Licensee, unless another method of notice is prescribed by NBU. Such notice shall identify the specific Utility Pole(s) subject to the Network Node and affected by such One-Touch Transfer. The Licensee that desires to utilize the One-Touch Transfer Process shall bear the responsibility of determining the appropriate representative for each Licensee affected by the Licensee's implementation of the One-Touch Transfer Process.
- g. Critical Communication Facilities. If an affected Licensee, in its reasonable discretion, determines that a proposed One-Touch Simple Transfer poses a risk of disconnection or interruption of service to a Critical Communications Facility, the affected Licensee shall notify the requesting Licensee and NBU in writing within ten (10) days of receiving the notice of transfer described in Section

V.B.6.f. The affected Licensee is obligated to make the requested transfer of its Critical Communication Facilities within fifteen (15) days of providing such notice. Failure to transfer the Critical Communications Facilities in a timely manner will subject the Critical Communications Facilities to the One-Touch Transfer Process.

- h. Post-Transfer Notice. Within fifteen (15) days following the completion of a One-Touch Transfer, the Licensee shall send written notice of the completed One-Touch Transfer and as-built reports to each affected Licensee. Within thirty (30) days of receipt of these as-built reports, the Licensee that owns the Communications Facilities that were transferred or relocated may conduct an inspection at the expense of the Licensee who moved the facilities. If the One-Touch Transfer fails to meet all Applicable Engineering Standards, the owner of the Communications Facilities subject to transfer or relocated will notify the Licensee responsible for the One-Touch Transfer of any deficiency, which will be corrected within fifteen (15) days following receipt of such written notice at the expense of the Licensee responsible for the One-Touch Transfer. The Licensee responsible for the One-Touch Transfer shall pay the actual, reasonable, and documented inspection expenses incurred by the owner of the Communication Facilities subject to transfer or relocated, within thirty (30) days of receipt of an invoice. Failure of the owner of the moved or relocated Attachment to undertake and complete the inspection with the thirty (30) day period shall be deemed acceptance of the One-Touch Transfer.
- i. Licensee's Attachments Subject to One-Touch Transfer by Other Entities. A Licensee's Communications Facilities shall be subject to the One-Touch Transfer Process conducted by another Licensee or NBU pursuant to the same terms and conditions prescribed in this Section and in Appendix H.

6. Make-Ready Network Node Construction - Complex Transfers.

- a. Responsibility for Complex Transfers. The accomplishment of a Complex Transfer is considered part of Make-Ready Communication Construction and shall be performed by the Licensee that owns the Attachment subject to transfer. It is the responsibility of the Licensee requesting the Complex Transfer to negotiate a private process with the owning Licensee for the Complex Transfer. The cost of the Complex Transfer shall be borne by the requesting Licensee.
- b. Complex Transfers Escalation Process. In the event a Licensee cannot reach agreement on a process for the expedient transfer of an Attachment or Network Node subject to a Complex Transfer, the requesting Licensee may rely on the following escalation

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procedures. At any time during these escalation procedures, the requesting Licensee and the owner of the Attachment or Network Node subject to the Complex Transfer may reach agreement on a voluntary transfer process. In such event, the requesting Licensee shall notify NBU in writing of this agreement.

- i. Level 1: Initial Request for Complex Transfer (Days 0 to 30)
 - A) Initial Notice Letter. The requesting Licensee shall provide written notice to owner of the Attachment or Network Node subject to Complex Transfer requesting the transfer of such Attachment using NJUNS with a copy to NBU. The Licensee that owns such Attachment or Network Node shall perform the transfer within thirty (30) days of receipt of notice from the requesting Licensee.
- ii. Level 2: Initial Escalation Process (Days 31 to 60)
 - A) Escalation Notification. If the owner fails to transfer the Attachment or Network Node subject to Complex Transfer within the initial thirty (30) days, the requesting Licensee shall send a certified letter notifying the non-compliant Licensee that failure to transfer the Attachment or Network Node within a subsequent thirty (30) days (escalation period) of receipt of notice will result in the Attachment or Network Node in question being designated by NBU as non-compliant with the Complex Transfer Process and subject to penalty, as described in Appendix H, on the basis of interference with the requesting Licensee's permitted Attachment rights. The requesting Licensee shall send NBU a copy of the escalation letter and all other correspondence between the parties related to this matter.
 - B) Duty to Negotiate. The requesting Licensee is required to continue negotiations with the non-compliant Licensee during the thirty (30) day escalation period. Absent extraordinary circumstances, the non-compliant Licensee's failure to transfer the Attachment or Network Node subject to Complex Transfer by the end of the thirty (30) day escalation period shall be considered a lack of cooperation on the part of the non-compliant Licensee. Conversely, absent extraordinary circumstances, a refusal by the requesting Licensee to agree to a reasonable alternative process for the

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transfer of the Attachment or Network Node in question within a reasonable date certain shall be considered a lack of cooperation on the part of the requesting Licensee.

- C) Notice of Success Complex Transfer. If the non-compliant Licensee transfers the Attachment or Network Node subject to Complex Transfer within the thirty (30) day escalation period, or the requesting Licensee transfers the Attachment or Network Node by mutual agreement of the parties, no further escalation will be necessary.

iii. Level 3: NBU Finding of Non-Compliant Attachments (Days 61 to 90)

- A) Request for Finding of Non-compliant Attachments or Network Nodes. If the requesting Licensee and the non-compliant Licensee cannot reach agreement and the other Licensee fails to transfer the Attachment or Network Node subject to Complex Transfer within the thirty (30) day escalation period, the requesting Licensee within five (5) days thereafter shall notify NBU in writing, provide a short summary of efforts to negotiate the rearrangement or transfer of the Attachment or Network Node in question, and request NBU to make a finding of Non-Compliant Attachment or Network Node on the basis of interference with the requesting Licensee's permitted rights.

- (1) Notification of Non-Compliant Attachments. Within fifteen (15) days of receiving the request for a finding of Non-Compliant Attachment or Network Node, NBU will evaluate the request and if it finds the request credible, NBU will notify the non-compliant Licensee that NBU has determined the Attachment or Network Node subject to Complex Transfer is declared as either a "Non-Compliant Attachment" or "Non-Compliant Network Node," as appropriate.

- (2) Accrual of Penalties. The non-compliant Licensee will begin accruing penalties as provided in Appendix H of these Standards until the Non-Compliant Attachment or Non-Compliant Network Node is transferred.

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- (3) *Suspension of Applications or Notifications.*
NBU will suspend the processing of the non-compliant Licensee's Applications or Notifications.

Thereafter, the non-compliant Licensee will have fifteen (15) days in which to transfer the Non-Compliant Attachment or Non-Compliant Network Node and notify NBU in writing that the relocation has been completed in order to reinstate the processing of Applications or Notifications. If the non-compliant Licensee fails to transfer the Non-Compliant Attachment or Non-Compliant Network Node within fifteen (15) days, the Non-Compliant Attachment or Non-Compliant Network Node will be subject to further penalties and transfer. NBU will reinstate the processing of the non-compliant Licensee's Applications or Notifications within a reasonable time after receiving receipt of written notification of the transfer of the Non-Compliant Attachment or Non-Compliant Network Node and the payment of all assessed penalties.

- B) *Duty to Negotiate.* The requesting Licensee is required to continue negotiations with the non-compliant Licensee that owns the Non-Compliant Attachment or Network Node during the fifteen (15) day period.
- C) *Notice of Transfer.* If the non-compliant Licensee transfers a Non-Compliant Attachment or Non-Compliant Network Node within the fifteen (15) day period, or the requesting Licensee transfers the Non-Compliant Attachment or Non-Compliant Network Node by mutual agreement of the parties, the moving party shall notify NBU in writing, and NBU shall reinstate processing of the other Licensee's Applications or Notifications within a reasonable time after receiving payment of all outstanding penalties.
- D) *Stop Processing Applications or Notifications.* If NBU does not receive written notification of the transfer of the Non-Compliant Attachment or Non-Compliant Network Node by the end of the fifteen (15) day period, NBU shall stop processing the non-compliant Licensee's Applications and Notifications pending further written notice of a successful transfer and the payment of all outstanding penalties.

- iv. Level 4: Transfer or Removal of Unauthorized Attachments (Days 91 and Beyond)
- A) Notification of Failed Transfer. If the parties fail to negotiate the successful transfer of the Non-Compliant Attachment or Non-Compliant Network Node, the requesting Licensee shall promptly notify NBU in writing of the failed attempt and explain the reasons for the unsuccessful transfer.
 - B) Notification of Transfer of Non-Compliant Attachments. Following receipt of the notification of failed transfer, NBU shall promptly proceed to transfer the Non-Compliant Attachment or Non-Compliant Network Node at the respective owner's expense. Following the transfer of the Non-Compliant Attachment or Non-Compliant Network Node, NBU will provide written notification of the transfer to the non-compliant Licensee within a reasonable timeframe. NBU shall reinstate processing of the non-compliant Licensee's Applications or Notifications within a reasonable time after receiving payment for the transfer cost and all outstanding penalties.
 - C) Notice of Transfer. In the event the non-compliant Licensee transfers the Non-Compliant Attachment or Non-Compliant Network Node, or the requesting Licensee transfers the Non-Compliant Attachment or Non-Compliant Network Node by mutual agreement of the parties, prior to NBU's transfer efforts, the moving party shall notify NBU in writing. The non-compliant Licensee shall be assessed a one-time penalty as provided in Appendix H of these Standards. Thereafter, NBU shall reinstate the processing of the non-compliant Licensee's Applications or Notifications within a reasonable time after receiving payment of all outstanding penalties.

7. Notice of Attachment or Network Node Completion and Acceptance.

The Licensee shall notify NBU in writing by submitting the *Completion of Licensee Construction* form, including as-built drawings, within ten (10) days following the acceptance by all Licensees the facilities of which were rearranged or transferred pursuant to Section V.B.6 (Simple Transfer) or Section V.B.7 (Complex Transfers) that all Make-Ready Network Node Construction has been completed and accepted, and that the new Network Node and all Make-Ready Work are ready for NBU to undertake Post-

Construction Inspection.

8. Post-Construction Inspection.

- a. Construction Subject to Inspection. NBU shall complete a Post-Construction Inspection of applicable Make-Ready Work at the Licensee's expense within sixty (60) days of receiving the Licensee's notification of completion set forth in Section V.B.8. NBU will conduct the Post-Construction Inspections to evaluate compliance with the requested Permit, Applicable Engineering Standards, or other design and installation requirements. Completion of a Post-Construction Inspection by NBU shall not in any way relieve any Licensee or a Licensee's insurers of any responsibility, duty, obligation, or liability under these Standards, any contractual agreement, or otherwise; nor does NBU's ability to make Post-Construction Inspections relieve a Licensee from its obligations to exercise due care in the installation of its Network Nodes. The Post-Construction Inspection provision set forth in this Section does not affect any other inspection requirements elsewhere in these Standards. This Section also applies to supplemental Post-Construction Inspections where the Licensee reports "final corrections" of previously identified non-compliant work or locations as described below.
- b. Compliance. In the event a Post-Construction Inspection reveals that corrections or other actions are required of a Licensee, including without limitation those required for reasons of safety or structural integrity, the Licensee shall make such required corrections or take the requested actions within ten (10) days after the date NBU sends written notice. If NBU determines in its reasonable judgment and discretion that the needed corrections rise to the level of an Emergency, NBU may perform the necessary corrective work without providing notice, at the Licensee's sole risk and cost, plus \$250. As soon as practicable thereafter, NBU will advise the Licensee of the work performed or the action taken.
- c. Issuance of Permit. Upon satisfactory completion of the Post-Construction Inspection, NBU shall notify the Licensee in writing that NBU has approved the Network Node(s) identified in the Application by submitting to the Licensee a Permit for said Network Node(s).

C. Standard Process for Strand-Mounted Mid-Span Installations.

1. Advance Notice of Mid-Span Installations Required. Certain provisions of Section V.B.2. as modified below in subsection (a) to this section, shall apply to Notifications considered under this Section V.C. applicable to strand-mounted Mid-Span Installations, as well as, the provisions listed in Subsection V.C.2.b) – c) below:

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- a. For Mid-Span Installations. Licensee shall provide NBU with a Notification conforming to the requirements of subsection (a), in addition to the provisions of subsection (b) of this section, rather than an Application, not less than ten (10) calendar days before the proposed date of installation.
 - i. Pole Ownership. For the purposes of Notification submittal, unless NBU records and/or Poles indicate otherwise, NBU shall be presumed to be the owner all Poles or Overhead Streetlight Poles utilized to support a Mid-Span Installation. Licensee is responsible for field verifying pole ownership and notifying NBU of any discrepancies between NBU's maps/records and the actual pole structures in the field.
 - ii. Compliance with Standards. Licensee shall comply with the Texas Engineering Act at Section 1001.001, et seq., of the Texas Occupations Code to the extent it is applicable to the work described herein, and with the most current version of the National Electrical Safety Code (NESC), including any, and all, revisions to both, and all other Applicable Engineering Standards. Licensee shall certify its compliance with the NESC and all Applicable Engineering Standards on each Notification it submits to NBU for processing. The certification statement shall be signed by an employee or agent of Licensee who has the final authority or responsibility to approve the Notification. A Notification that fails to provide the signed certification statement included therein is invalid. If applicable, Licensee shall provide documentation, sealed by an Engineer, establishing that Licensee's applicable Make Ready Electrical Construction design and Pole Loading Analysis (PLA) documents comply with all requirements specified by the NESC and the Applicable Engineering Standards.
- A) Pole Loading Analysis (PLA). Licensee, in connection with a Notification, must comply with the PLA methodology described herein and in Appendix G in the event it is necessary to replace a Pole or Overhead Streetlight Pole in order to accommodate a Mid-Span Installation. Acceptable software for use of PLA shall be a commercially available product with general industry acceptance. Should Licensee utilize a commercially available software application that NBU does not possess; Licensee shall make available to NBU at least one software license for NBU use at Licensee's expense, subject to NBU's information technology requirements. Licensee will gather the physical and technical information for the requested Poles or Overhead Streetlight Poles, Wireless Equipment, Overlash,

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and wire Attachment associated with the Mid-Span Installation required to conduct a PLA as described in Appendix G, with assistance as required from NBU.

- iii. Submission of Notification. A complete Notification may be submitted by either U.S. mail, electronically to attachment@nbutexas.com, or other means mutually agreeable to NBU and Licensee. In addition to the requirements of Subsection V.C.2.b), the Notification shall include:
 - A) Engineering design documents created using the ANSI/SCTE Graphic Symbols Drawing Standards, prepared or reviewed by an Engineer, and including a detail description of the Mid-Span Installation in compliance with all Applicable Engineering Standards, all detailed design documents for any required Make-Ready Communications Construction and Make-Ready Electrical Construction, and Licensee's estimated cost of any proposed Make-Ready Electrical Construction;
 - B) A copy of an approved NBU application for electric service showing the electricity account number for a new Slab-Mounted Equipment Cabinet that energizes and supports the Mid-Span Installation, or a NBU letter identifying an existing electricity account number that will service a new Slab-Mounted Equipment Cabinet upon completion of construction;
 - C) If applicable, PLA worksheets and results, as required by Appendix G; and
 - D) If applicable, a Waiver Request form, as described in Section III.A.6.
- b. Licensee shall provide such notice as is required herein using the applicable Notification listed in the NBU Pole Attachment Services Forms, provided in Appendix B and available on the NBU website and shall identify, provide, or demonstrate:
 - i. The Poles and Messenger cable intended to support the proposed Mid-Span Installation, including equipment tagging information;
 - ii. The total diameter and estimated weight of the existing Messenger cable and Overlashed Communications Facility intended to support the proposed Mid-Span Installation;
 - iii. The dimensions and estimated weight of the proposed Mid-

Span Installation;

- iv. The owner of the Messenger cable;
 - v. The total weight of the Messenger cable supporting the proposed Mid-Span Installation and the Overlashed Communications Facility providing connectivity and energizing the proposed Mid-Span Installation;
 - vi. The path from the Mid-Span Installation to the Slab-Mounted Equipment Cabinet providing the power source energizing such installation;
 - vii. Applicable Make-Ready Work engineering design documents, if any; and
 - viii. That the proposed Mid-Span Installation meets all Applicable Engineering Standards.
- c. A Mid-Span Installation and associated equipment attached to or supported by a Messenger cable shall not exceed 25 pounds.
 - d. The Slab-Mounted Equipment Cabinet from which a Mid-Span Installation is energized shall be metered.

2. NBU Review of Notification; Construction; Permitting.

- a. Identification of Capacity, Safety, Reliability, or Engineering Issue. If, after NBU receives a Notification of Mid-Span Installation, NBU determines that the proposed Mid-Span Installation would create one or more capacity, safety, reliability, or engineering issues requiring correction, NBU shall provide specific documentation of the issue or issues to Licensee seeking the Mid-Span Installation within the ten (10) calendar day notice period. NBU will not charge a fee to Licensee seeking a Mid-Span Installation in connection with the submission, review, or processing of Licensee's Notification of Mid-Span Installation.
- b. Licensee Actions in Response to Identification of Issue Requiring Correction; NBU Response. Upon receipt of NBU's documentation of one or more capacity, safety, reliability, or engineering issues requiring correction in a proposed Mid-Span Installation, Licensee shall modify the proposed Mid-Span Installation to address the issue or issues NBU has identified and shall provide NBU with notice of the proposed means of correction through an amended Notification of Mid-Span Installation.
- c. Processing of Amended Notification of Mid-Span Installation. If

Licensee submits an amended Notification of Mid-Span Installation, NBU shall have five (5) business days in which to review the amended Notification of Mid-Span Installation to determine if the proposed Mid-Span Installation would create one or more capacity, safety, reliability, or engineering issues requiring correction, and if so, to provide Licensee with specific documentation of the issue or issues. Licensee must address the issue or issues NBU has identified and shall provide NBU with notice of the proposed means of correction through an amended Notification of Mid-Span Installation.

- d. Construction and Notice of Completion. If within the ten (10) calendar day Notification of Mid-Span Installation notice period or any five (5) business day amended Notification of Mid-Span Installation notice period (i) NBU does not identify any capacity, safety, reliability, or engineering issue in the proposed Mid-Span Installation requiring correction; or (ii) Licensee submits an amended Notification of Mid-Span Installation curing the issue or issues NBU has identified, Licensee may proceed with construction of the proposed Mid-Span Installation in accordance with (x) the terms of the original or amended Notification of Mid-Span Installation in response to which NBU has not identified any capacity, safety, reliability, or engineering issue; and (y) including any requirements pertaining to Make-Ready Work as provided in Sections V.C. 4., 5., 6., and 7. When construction of the Mid-Span Installation is complete, Licensee shall, within ten (10) business days, provide NBU with a Notice of Completion pursuant to Section V.C.8. hereof.
 - e. Post-Construction Inspection and Permit Issuance. Upon receipt of Licensee's Notice of Completion, NBU shall perform a Post-Construction Inspection of the completed Mid-Span Installation in accordance with Section V.C.9. hereof to identify any capacity, safety, reliability, or engineering issue the completed construction of the Mid-Span Installation presents. If the completed Mid-Span Installation presents any capacity, safety, reliability, or engineering issues, NBU shall notify Licensee, and Licensee shall, within ten (10) business days, take such actions as are necessary to cure the issue or issues identified. If upon completion of the Post-Construction Inspection NBU does not identify any capacity, safety, reliability, or engineering issue in the completed Mid-Span Installation requiring correction, or Licensee cures the issue or issues NBU has identified in the Post-Construction Inspection, NBU shall issue a Permit in accordance with the terms of the original or amended Notification of Mid-Span Installation and conforming to any correcting construction, as appropriate.
3. **No Make-Ready Communications or Make-Ready Electrical Construction.** Where no Make-Ready Communications or Make-Ready

Electrical Construction is required, and the proposed Mid-Span Installation otherwise conforms to all Applicable Engineering Standards, Licensee may proceed with construction of the Mid- Span Installation.

4. **Make-Ready Electrical Construction.** Where Make-Ready Electrical Construction is required, the provisions of Section V.B.4. shall apply to a Mid-Span Installation.
5. **Make-Ready Communication Construction – One Touch Transfers.** If a proposed Mid-Span Installation requires Make-Ready Communication Construction in the form of one or more Simple Transfers, all provisions of Section V.B.5. shall be applicable.
6. **Make-Ready Communication Construction - Complex Transfers.** If a proposed Mid- Span Installation requires Make-Ready Communication Construction in the form of one or more Complex Transfers, all provisions of Section V.B.6. shall be applicable.
7. **Notice of Attachment Completion and Acceptance.** All provisions of Section V.B.7. providing for Notice of Attachment Completion and Acceptance shall be applicable to a Mid-Span Installation.
8. **Post-Construction Inspection.** All provisions of Section V.B.8. providing for Post- Construction Inspection shall be applicable to a Mid-Span Installation.

VI. APPENDICES

Appendix A: Registration and Annual Reporting Form

This most current version of this form is available for download from NBU's webpage.



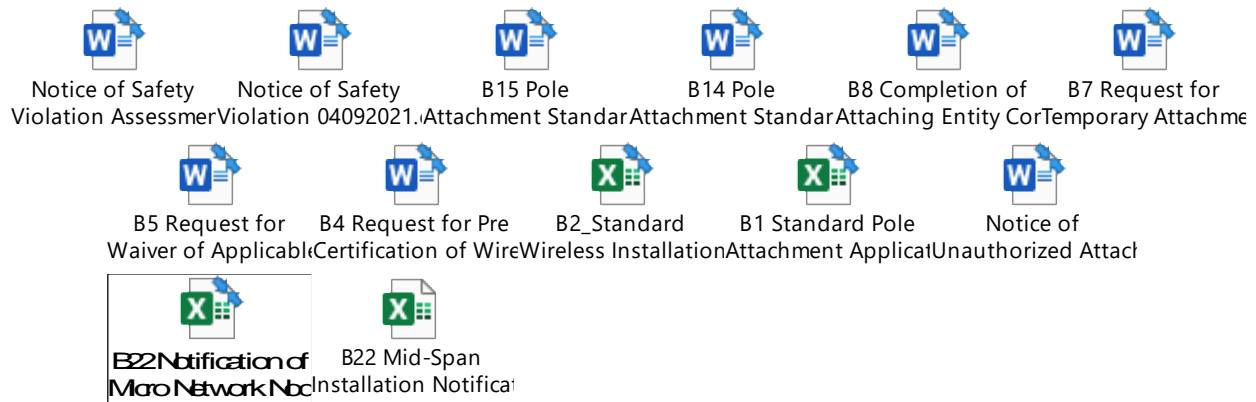
A1_Registration and
Annual Reporting Form

A1: A1 Registration and Annual Reporting Form

Appendix B: Pole Attachment and Wireless Installation Program Forms

These most current version of these forms are available for download from NBU's webpage.

- B1: Application for Pole Attachment Permit**
- B2: Application for Wireless Installation Permit**
- B3: Request for Pre-Certification of Wireless System**
- B4: Request for Waiver of Applicable Engineering Standards**
- B5: Authorization for Make-Ready Electrical Construction**
- B7: Completion of Licensee Construction**
- B8: Notice to Proceed**
- B9: Permit for Attachment or Network Node**
- B10: Notice of Unauthorized Attachment or Unauthorized Network Node**
- B11: Pole Attachment Standards Revision Request (PASRR)**
- B12: Pole Attachment Standards Revision Request (PASRR) Comment Form**
- B13: Notice of Safety Violation**
- B14: Notice of Safety Violation Assessment Charge**
- B22: Mid-Span Notification Form**



Appendix C: Notice of Dispute Form

This most current version of this form is available for download from NBU's webpage.

C1: Appendix C - NBU Notice of Dispute Form



Notice of Dispute
Form.docx

Appendix D: Specifications for Attachments and Network Nodes

The following engineering and construction specifications practices will be followed by the Licensee when installing Attachments or Network Nodes to NBU Eligible Poles or other NBU Facilities. The items listed below are not an exhaustive list and are intended to supplement, not replace the National Electrical Safety Code (NESC) or other Applicable Engineering Standards required by the Agreement, NBU Pole Attachment Standards, or other applicable NBU standards and specifications.

A. General

The following items are applicable to Attachments and Network Nodes.

1. **Attachment and Cable Clearances.** Licensee's Attachments on NBU Utility Poles and Network Nodes on or supported by NBU Eligible Poles, including metal attachment clamps and bolts, metal cross-arm supports, bolts and other equipment, must be attached so as to maintain the minimum separations specified in the National Electrical Safety Code (NESC) and in the NBU drawings and standards provided in Appendices D, F, G and I. NBU requires Licensee's compliance with revisions of the NESC upon adoption by NESC of those revisions. Compliance with NESC Sections pertaining to overhead communication lines **will be strictly enforced** by NBU. Attachments must be located on the same side of an NBU Eligible Pole as NBU's neutral.
2. **Vertical Runs on Utility Poles.** All vertical runs on Utility Poles shall be placed on the quarter faces of the Utility Pole using a standoff bracket with a two-inch (2") clearance in any direction from cable, bolts clamps, metal supports and other equipment. All vertical runs shall utilize riser construction.
3. **Cable Bonding.** A Licensee's messenger cable shall be grounded at each NBU Utility Pole to which it is attached using ground wire at each wooden NBU Utility Pole and using a riv-nut at each metal pole.
4. **Down Guys and Anchors.**
 - a. Down guys shall not be bonded to ground or Neutral wires of the NBU Utility Pole and shall not provide a current path to ground from the Utility Pole ground or power system Neutral.

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- b. All Licensees shall provide their own anchors. **Under no circumstances** shall the Licensee attach its guy to an NBU anchor. Licensee shall use best efforts to maintain a minimum of four (4) feet clearance in any direction of its anchors from the NBU anchor.
 - c. No Attachments or Network Nodes may be installed on a Utility Pole until all required guys and anchors are installed. No Attachment or Network Node may be modified, added to, or relocated in such a way as will materially increase the stress or loading on a Utility Pole until all required guys and anchors are installed.
 - d. Anchors and guys must be installed on each Utility Pole where an angle or dead-end occurs. Licensee shall make guy attachments to Utility Poles at the height of its Attachment or Network Node.
5. **Climbing Space.** All Attachments and Network Nodes must be placed to allow and maintain at all times a clear and proper climbing space on the face of the NBU Utility Pole. Attachments shall be placed on the same side of the Utility Pole as existing Attachments. In general, all other facilities and vertical runs should be placed on Utility Pole quarter faces.
6. **Riser Installations.** All Riser installations, including those providing 120/240-volt power for Licensee's equipment enclosure shall be placed on the quarter faces of a Utility Pole and limited such that one side (180 degrees) of the pole is kept clear for climbing space and future replacement of the pole and must be installed in NBU approved conduit with a weatherhead attached to the Utility Pole with metal stand-off brackets. Communication cable Risers should be located on the same side of the pole as their overhead Communication Services cables are attached. Ground wires may be attached directly to the Utility Pole. There shall be a forty (40") inch separation from the top of an electric Riser to the highest Communication Services Attachment.
7. **Identification:** All Licensees' Attachments, Communications Facilities, and Network Nodes, including all cable, shall be identified with Tags as required by these Standards and described in Appendix K.
8. **Communication Worker Safety Zone.** The Communication Worker Safety Zone between Attachments, Communication Facilities, and Network Nodes and supply facilities on the same Utility Pole extends horizontally out to the boundaries of the climbing space and working space as described in the NESC. The Communication Worker Safety Zone is measured vertically from the level of the closest surface of the Attachment, Communication Facility, or Network Node to the level of the closest surface of the electrical supply facility. The required clearance of the Communication Worker Safety Zone is measured vertically between the levels of the equipment involved. Stand-off bracket installation will not be allowed to meet the forty-inch (40") clearance requirement. No mounting brackets are permitted in the Communication Worker Safety Zone.
9. **Electric Meter.** Licensee shall not install an electric meter or Service Disconnect Switch on any NBU Pole.

10. **Metered Connections.** All Communications Services will be metered connections subject to NBU's Electric Service terms and conditions, as they may be amended.
11. **Relocating Attachments or Network Nodes.** When moving an Attachment or Network Node from one location to another, Licensee shall immediately treat all affected holes left in the Utility Pole with industry-standard wood preservative and plug all holes left by such Attachments or Network Nodes.
12. **Bolts.** No bolt used by Licensee to attach its Attachments, Communication Facilities, or Network Nodes shall extend or project more than one inch (1") beyond its nut.
13. **Workmanship.** Licensee shall install and maintain any and all of its Attachments, Communication Facilities, and Network Nodes in a neat and workmanlike manner consistent with the maintenance of the overall appearance of the Utility Pole as determined by NBU in its reasonable discretion.
14. **Sag and Mid-Span Clearances.** Licensee will leave proper sag in its lines and cables and shall observe the established sag of power line conductors and other cables so that minimum clearances are (a) achieved at Utility Poles located on both ends of the span; and (b) retained throughout the span. At mid-span, a minimum of twelve inches (12") of separation must be maintained between Licensee's lines and cables and any other communication cables. At the Utility Pole support, a twelve inch (12") spacing must be maintained between Licensee's connection and any other Attaching Entities' Attachments or Network Provider's Network Node as noted in Appendix F. Slack spans may not exceed 80', and sag shall mirror the sag of NBU's conductors. Sag at state highway/TxDOT crossings must provide not less than 19' vertical clearance. Slack loops for communications cables must be located on snowshoes.

B. Wire Attachments

1. **Service Clearances.** A thirty-inch (30") separation shall be maintained between NBU's service cable and any other Licensee's facilities located on a customer's private property in accordance with the National Electric Code (NEC).
2. **Service Drop Clearance.** The parallel minimum separation between a Licensee's Service Drops and existing Communications Service Drops shall be six inches (6"), and the crossover separation between the drops shall be twelve inches (12").
3. **Communications Services Cables.** All Communications Services cables not owned by NBU shall be attached within the Communication Space that is located no less than forty inches (40") below the NBU Neutral.
4. **Platforms.** Communication Facilities/Attachments in a pole line must dip underground one Utility Pole before and one Utility Pole after on all NBU Platforms for voltage- regulator banks.
5. **Attachment Arm.** Communications Services Attachments shall be installed without the use of Attachment Arms, extension arms, stand-off brackets or similar hardware, unless otherwise approved in advance and in writing by NBU for each Utility Pole. The proposed use of Attachment Arms, extension arms, stand-off

brackets or similar hardware by a Licensee shall be clearly identified on the Application for Permit.

- 6. Overhead Streetlight Clearances.** Communication cables proposing to attach below the Overhead Streetlight fixture, shall be installed 12” minimum below the bottom mast arm or drip loop of the Overhead Streetlight supply conductor whichever is lowest. The Overhead Streetlight supply conductor shall be covered with a non-metallic conduit.

C. Network Nodes.

- 1. FCC OET Bulletin 65 (Maximum Permissible Exposure).** Licensee shall comply with all provisions and guidelines of the FCC OET Bulletin 65, as may be amended from time to time. As part of the Pre-Certified Equipment process, and prior to NBU granting any Permit to attach, Licensee shall submit a report certifying FCC OET 65 compliance for each applied or licensed Network Node location. The report can be in the format of the Licensee’s regulatory department standards. The following elements, at a minimum, must be contained within the report:

- a. A statement of compliance (or non-compliance),
- b. Date of the report,
- c. Date of statement of compliance,
- d. NBU pole number proposed for the Network Node,
- e. Licensee’s site or identification number for the Network Node,
- f. GPS coordinates of the proposed pole for the Network Node,
- g. Calculation of RF power at the transmitter or Remote Radio Heads,
- h. Calculation of RF power at the Antennas,
- i. Location of the applicable signage with above ground level height listed.
- j. Wireless Equipment Specifications – Data Sheets for all Wireless Equipment that make up the Wireless Installation setup. The data sheets shall include, at a minimum, voltage requirements, ERP, EHF, licensed and unlicensed frequencies, duty cycle, and FCC license reference copy. This information shall be organized based on the four components of the Wireless Installation:
 - i. Antennas, including brackets, cables, conduit, and enclosures;
 - ii. Wireless Equipment Electronics, including Remote Radio Heads, transmitters, transceivers, receivers, related electronic components, communications cables, power supply wires, conduit, and enclosures;
 - iii. Backhaul Equipment, including the type of communications facility providing backhaul, name of communications provider,

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- conduit, and type of network interface device or other component marking the point of demarcation with the communications provider; and
- iv. Power Supply, including the type of Service Disconnect Switch used to shut off power and mark the point of delivery for electricity.
 - k. Wireless Interference Analysis Report – The Wireless Provider must provide contact information for Wireless Interference analysis follow up and for coordination when operational circumstances require a power down of Wireless Equipment. Provide the following contact information:
 - Contact Name
 - Contact Phone Number
 - Contact Email
 - Contact Company Name
 - Contact Company Address
 - l. Interference Analysis – Report should include any calculated interference that could be produced via interaction with NBU Licensed frequencies.
 - i. C to I based study should be performed if carrier frequencies are adjacent or co-channel to NBU frequencies.
 - ii. Study should list results in dB and can be done on service area basis.
 - m. Intermodulation Analysis – The Intermodulation Analysis Report (the “Report”) must include a clearly written interference analysis of the Wireless Provider’s licensed frequencies against the target frequencies provided by NBU.
 - i. The Report shall assume minimum range of collocation to maximum range of source to be two thousand (2,000’) feet.
 - ii. If planned Wireless Equipment is to be within one mile of another FCC licensed transmitter, the Report shall include those additional frequencies.
 - iii. The Report should also include any known interference that could be produced via interaction with other FCC Licensees in the referenced application band of frequencies.
 - A) For the purpose of this item, assumed minimum range of collocation to maximum range of source to be two-thousand feet (2000’).
 - B) Resulting report should show non-interference against the target NBU frequencies to the seventh order.

NBU reserves the right not to accept reports that NBU in its reasonable discretion deem incomplete, contradictory, or erroneous. All statements of compliance must be signed by an authorized and responsible employee of the Licensee or the FCC licensee that owns the licensed frequencies subject to compliance, if the Licensee

is not the same party (the “Licensed Party”). The Licensee or Licensed Party is required to resubmit annual reports and statement of compliance for each permitted Network Node location. The annual report will be due on the anniversary date for annual reports set by NBU in Section II.F.

2. **RF Signage Requirements.** Approved signage compliant with FCC OET Bulletin 65 shall be posted at each Eligible Pole or at multiple locations on the pole as required by FCC OET 65. The RF signage shall comply with the appropriate and predetermined exposure level applicable to: “General Public,” “Occupational Worker,” and “Specialized Worker” as shown in the figure below.



All signage shall be 8” x 12” and made of weather, corrosion, and ultra-violet (UV) resistant materials.

3. **Antenna.** All Antennas shall be located in a defined Antenna Area as provided in the illustrations in Appendix I. The Antenna Area is not exclusive for the Licensee’s sole use, but shall allow for other permitted Licensees and expressly NBU’s use and operation of the pole. Antennas shall be flush-mounted.
- a. **Type, Size and Quantity** – Antennas can be of a panel or omnidirectional type. Panel Antennas may not exceed twelve inches (12”) in height (vertical length), twelve inches (12”) in width, or eight inches (8”) in depth. Omni directional antennas cannot exceed twelve inches (12”) in height (vertical length), twelve inches (12”) in width (depth and width are the same measurement of an omnidirectional antenna). There can only be one (1) antenna cylinder enclosure for wireless backhaul antenna per Antenna Area. Additional consideration for Antenna height is specified in Appendix I.
 - b. **Licensed Frequency** - Antennas shall only transmit or receive frequencies that are licensed by the FCC to the Licensee or its Wireless Service Provider customer or unlicensed frequencies. No third-party agreements are accepted for non-licensed Licensees to transmit or receive frequencies of another FCC-licensed entity. Frequency bands listed by the FCC to be unlicensed, and available for open use, may be transmitted or received, as long as they do not cause interference with another Licensee, FCC-license entity, or NBU.
 - c. **Attachment Position and Defined Space** - Antenna clearances in any direction from supply and other communications lines shall be in

compliance with this Section and Appendix I. Under no circumstance shall an Antenna clearance be less than specified by the NESC.

- d. RF/Power Shut-Off – NBU maintains the right to open the Service Disconnect Switch in order to deenergize the Antennae prior to performing any work on an NBU Utility Pole. Licensee shall install any backup power in a manner that ensures that it will not emit RF when the Service Disconnect Switch is operated to an open/off position.
- e. Backup Power – Licensee shall install any battery backup power in a manner that ensures that the associated Network Node and Antenna will not emit RF when the Service Disconnect Switch is operated to an open/off position. Backup AC power devices are prohibited.

4. Riser Cable. Riser cables are used to connect Antennas and Antenna accessory equipment, backhaul services, and power lines to Wireless Equipment components. All Riser Cables shall be in conduit with top side weatherheads. Power cables transporting AC power shall be in separate conduit from DC power or telecommunications cable. All conduit shall be standard UV-resistant PVC conduit painted to match the pole.

- a. Type, Size and Quantity - Cables can be coaxial, fiber optic, solid or stranded metallic conductor. Hybrid cables, cable with two or more cable types enclosed in one sheath, are permitted. No exposed Riser cables, Riser cables not in conduit, shall exceed the nominal size of 5/8 inch for coaxial or fiber optic, or 2 AWG for solid or stranded metallic conductor.
- b. Attachment Position and Defined Space - Riser cables with conduit must be affixed to the pole with two (2) hole pipe straps (minimum of 3 required to support the service raceway).
- c. Cable Slack - No exposed Riser cable slack to be stored externally. All slack to be stored in junction boxes or Wireless Equipment Cabinets within the Wireless Equipment Area.

5. Radio Equipment. Radio equipment may be located in RRHs, housed in the Wireless Equipment Cabinet, or within an Antenna enclosure. The most common application of radio equipment is in the RRH. Radio equipment can transmit, receive, or transceive.

- a. Type, Size and Quantity - Radio equipment is not limited to size or quantity.
- b. Attachment Position and Defined Space - Radio equipment is housed in other inventoried Network Node components. An RRH may be installed within the Wireless Equipment Area to include internal mounting with in the Wireless Equipment Cabinet.

6. Slab-Mounted Equipment Cabinet. A Slab-Mounted Equipment Cabinet must be at least twenty-five feet (25') from any NBU pole structure, anchor, guy, conduit, or Riser as shown in Appendix I, and must not exceed the dimension requirements in Chapter 284 of the Texas Local Government Code. Irrespective of statutory requirements, NBU encourages Wireless Providers to reduce the footprint of the

Slab-Mounted Equipment Cabinet. NBU does not grant permission for Wireless Equipment to be located on third-party property. It is the responsibility of the Wireless Provider to secure legal authority to use such private property. Slab-Mounted Equipment Cabinet installations must include provisions for NBU Meter and the Service Disconnect Switch. All such installations must comply with NBU's electric service standards and are subject to review and approval, which shall not be unreasonably withheld. For Slab-Mounted Equipment Cabinet installation, the Antenna will be installed on an NBU pole structure in the communication space.

7. **Prohibited Poles** – Network Node equipment may *not* be installed on:
 - a. Junction poles (a Utility Pole where the NBU primary electric distribution line runs in three or more directions);
 - b. Utility Poles that are 65 feet or greater in length;
 - c. Transmission poles;
 - d. Eligible Poles with a Network Node equipment already installed;
 - e. Eligible Poles with cabinets containing controls such as fire alarm, police signal, or traffic signals;
 - f. Eligible Poles with existing equipment mounted to them such as primary metering, capacitor controls, regulator controls, recloser controls, air-switch operating handles, distribution automation equipment, or an existing electrical service entrance;
 - g. Poles used for guying purposes only and with no electric distribution equipment or wires;
 - h. Poles that are not readily accessible to mechanized equipment (i.e., a bucket truck); and
 - i. Poles with existing underground electric or communication riser conduits.
8. **Markings.** Licensee shall install signs or decals made of weather, corrosion, and UV resistant materials easily visible from the ground level. At a minimum, each sign or decal shall indicate the Antenna's owner/operator's name, emergency 24-hour contact number, and unique identifier for that Antenna site.
9. **Wireless Equipment Installations.** Installation of Wireless Equipment Cabinets and Wireless Equipment Area for DAS Systems may be located outside the Public Right-of-Way; provided, however, that NBU does not have authority to grant permission for Network Nodes to be located on third-party property. It is the responsibility of the Licensee to secure legal authority to use such private property and to provide evidence of such authority at the time an Application is submitted.
10. **Conduit Requirements.** Conduits described in this Section refer to below ground conduits and transitions to Riser cable conduits or Wireless Equipment Cabinets.
 - a. **Type, Size and Quantity** - Below ground, all horizontal runs shall be schedule 40 PVC or SRD-11 HDPE. Transitions to above ground shall be

in schedule 40 PVC conduit. All coupling points shall be threaded mechanical or solvent-welded and watertight. Conduits may not exceed a diameter of four inches (4"). No more than two (2) conduits shall be permitted to affix to Wireless Equipment Cabinets or Riser cable conduit.

- b. Conduit for Electric Service - Licensee shall be responsible for furnishing and installing any primary and secondary conduit necessary for NBU to provide electric service to the Wireless Equipment Cabinet. The specification for the conduit and its manner of installation shall be approved by NBU prior to installation and shall follow specifications found in NBU's *Service Entrance Requirements Manual*, which approval shall not be unreasonably withheld.
- c. Conduit Location - Licensee shall install all conduit leading to NBU's Eligible Pole including the elbow and first joint up the pole. Conduits shall remain twelve inches (12") from all other Wireless Equipment below ground facilities. All conduits shall be locatable and the responsibility of the Licensee to locate per Texas law and the regulations of the Damage Prevention Councils of Texas.

11. Backhaul Service. Backhaul service refers Communications Services provided by means of Transport Facilities and not between localized components of the Network Node or Network Nodes installed on one or more Eligible Poles. Backhaul service typically uses fiber optic Transport Facilities, as copper circuits do not provide the necessary bandwidth for data throughput. Copper telephone circuits and coaxial cables may be used for wireline backhaul if bandwidth speeds allow. All provision of Section IV and Section V of the Standards apply to the installation of wireline backhaul services.

- a. *Self-Provisioned* - The Licensee may provide its own backhaul service through installation of Transport Facility Attachments to Utility Poles. The self-provisioned wire Attachment may be existing or proposed. NBU will use reasonable efforts to review both the wire Attachment Application and the Network Node Application concurrently, but each Application is treated separately for contractual purposes. Applications and all associated documents must have a common reference name for any concurrent Applications review to be considered as part of a common project.
- b. *Third-Party Provided* - A Licensee may contract backhaul service from another Licensee. The third-party provided wire Attachment may be existing or proposed. If proposed, the third-party Licensee must have an executed Agreement and shall submit the Attachment Applications at the same time as the Network Node Application is submitted. NBU will use reasonable efforts to review both the third-party wire Attachment Application and the Network Node Application concurrently, but each Application is treated separately for contractual purposes. Applications and all associated documents must have a common reference name for any concurrent Application review to be considered.

- c. *Type of Backhaul Facility* - Typically, the backhaul facility originates as a wire Attachment on the same Utility Pole as the Network Node. Underground backhaul facilities are permitted when transitioning from any of the following: another NBU Utility Pole line, a transportation crossing, or to a Licensee-installed pole. Applications with predominantly underground backhaul services will not be approved.
- d. *Point of Demarcation* – The Backhaul Network Interface Device is to be clearly stated on the submitted Network Node engineering drawings, as required with the Pre-Certified Equipment form and the Application, with the provider of backhaul services clearly identified.

12. Bonding. It is the policy and practice of NBU to bond to ground on all Poles installed on the NBU distribution system. Licensees are required to install their own specific ground electrode and ground bond for any Network Nodes. All of the following defined Wireless Equipment components, or pole appurtenance listed, must be bonded:

- a. Antenna(s),
- b. Antenna bracket(s) or standoff(s),
- c. Riser conduit(s),
- d. RRH(s), and
- e. Wireless Equipment Cabinets.

Licensee shall install one central point of bonding at the Antenna Area and a second central point of bonding at the Wireless Equipment Area. Central points of bonding shall be a ground bar measuring no greater than four inches (4”) high, twelve inches (12”) wide, and exactly one-fourth inch (¼”) thick. Any two ground bars on a pole must be connected via #2 AWG solid wire (aluminum, copper, copper-clad aluminum, copper-clad steel) exothermically welded. All connections from wireless components with factory-installed ground posts will be bonded with solid or stranded wire mechanically (or hydraulically) crimped with lugs – the wire shall be aluminum, copper-clad aluminum, copper, copper-clad steel and between #2 AWG to #6 AWG in size. Lugs on the ground bar side will have two lug holes and two mechanical fasteners. A fastener bolt nominal thread size (or factory grounding post) for bonding shall be no smaller than one-sixteenth inch (1/16”) diameter than the lug hole or ground bar hole. The closest ground bar to grade on any pole will be bonded via #2 AWG solid wire exothermically welded to ground rod. Ground rods shall be steel or copper-cad steel, 5/8-3/4 inches in diameter, and driven at least eight feet (8’) below grade in undisturbed soil. All mechanical connections shall be “tool-tight” with no play or slack if manipulated by hand. All metal material bonded must be non- reactive to inhibit corrosion.

- a. Existing Ground Present - An Application for any Network Node shall note if an NBU ground is present or not at the specific pole location proposed for the Network Node. When an existing NBU ground or Licensee’s ground is present, the Network Node shall be bonded to existing ground rod(s) at a minimum of twelve inches (12”) below grade. The ground wire size will be

#2 AWG and exothermically bonded on each ground rod. All Network Node ground rods shall be at a minimum twelve inches (12”) from other ground rods and/or anchors.

- b. Sharing of NBU Grounding Facilities - Network Nodes shall not bond to existing NBU Facilities for grounding unless specifically approved in writing by NBU. Approvals must be granted in advance and shall be made on a case-by-case basis, but shall not be unreasonably withheld.
- c. No Ground Present – An Application for any Network Node shall note if an NBU ground is present or not at the specific pole location proposed for the Network Node. If no ground is present, adding an NBU ground may be an applicable task for any NBU approved Make-Ready Construction.

13. Electric Service.

- a. Equipment Subject to Electric Service – All equipment requiring electrical service shall follow all applicable codes and regulations including obtaining applicable local building or electrical permits.
- b. Compliance with NBU’s Electric Service Standards – The Licensee shall follow all requirements provided in the applicable NBU Electric Service Standards, as amended from time to time, for its Network Node.
 - i. *Application for Electric Service* – The Licensee must make an application for electrical service from NBU as required by NBU’s Application for Commercial Electric Service, as may be amended from time to time. The electric service application is not part of the *Application for Wireless Installation Permit* but must be completed prior to NBU providing electric service to the location.
 - ii. *Metered connections* – All services will be metered connections subject to the terms and conditions of NBU’s electric service rates, as may be amended.
 - iii. *Electric Metering* – All electric services for Network Nodes will be metered. NBU’s responsibility for the delivery of electricity to a Network Node ends at the “point of delivery” as that term is defined in NBU Electric Service Standards. The “point of delivery” for Network Nodes shall be as follows:
 - A) *Slab-Mounted Equipment Cabinet* – For Network Nodes deployed using the Slab-Mounted Equipment Cabinet design, the “point of delivery” shall be at the line side of the meter socket located in the cabinet as provided in NBU’s electric service standards.
 - B) *Wireless Equipment Cabinet* – For Network Nodes deployed using the pole-mounted Wireless Equipment Cabinet design, the “point of delivery” shall be at the junction (service entrance) as provided in NBU’s electric service standards.

- c. Technical Drawings of Equipment Subject to Electric Service – Technical drawings in Portable Document Format identifying all electrical specifications and requirements for the Network Node shall be provided to NBU as part of the Pre-Certified Equipment process outlined in Section III.A.14, and shall accompany every Application for a Wireless Installation.
 - d. Backup AC Power – Backup AC power devices will not be allowed.
- 14. **Mid-span Installations.** All Mid-span Installations shall be no closer than fifteen inches (15”) or no further than seventy-two inches (72”) from any NBU Utility Pole as referenced in Appendix I.
- 15. **Down Guys and Anchors:**
 - a. Down guys shall not be bonded to ground or Neutral wires of the NBU Utility Pole and shall not provide a current path to ground from the Utility Pole ground or power system Neutral.
 - b. All Licensees shall provide their own anchors. **Under no circumstances** shall the Licensee attach its guy to an NBU anchor. Licensee shall use best efforts to maintain a minimum of four (4) feet clearance in any direction of its anchors from the NBU anchor.
 - c. No Attachments may be installed on a Utility Pole until all required guys and anchors are installed. No Attachment may be modified, added to, or relocated in such a way as will materially increase the stress or loading on a Utility Pole until all required guys and anchors are installed.
 - d. Anchors and guys must be installed on each Utility Pole where an angle or dead-end occurs. Licensee shall make guy attachments to Utility Poles at the height of its cable Attachment.
 - e. No sidewalk guys may be installed.
 - f. Down-guy angles must match those of NBU or be no greater than 60 degrees, ground to guy.
- 16. **Mock-Up Installations.** Prior to any submission of an Application for a Wireless Installation, a Licensee shall coordinate the mock-up installation of the proposed Wireless Installation at NBU’s training yard or any other location designated by NBU. The Licensee shall schedule the mock-up demonstration with NBU. The mock-up installation shall be a realistic representation of how the Wireless Installation will be installed. The following activities will be accomplished by a successful mock-up installation:
 - a. Compliance with Applicable Engineering Standards – The mock-up installation shall be constructed and inspected for compliance with all Applicable Engineering Standards and Appendix I.
 - b. Safety Training – The mock-up installation will be used for “on site” and/or “in class” safety training of NBU employees regarding the specifications of the Wireless Installation and any radio frequency occupational training

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related to working in close proximity to the Antenna devices. This content shall be incorporated into the Safety Briefing required in this Standard.

- c. Meter Installation – The mock-up display may include the installation of a Slab- Mounted Equipment Cabinet installation, or a pole-mounted Wireless Equipment Cabinet installation, both of which shall include a Meter and Service Disconnect Switch connected to the Wireless Installation in compliance with NBU’s Electric Service Standards.
- d. Pole Use Measurement – Once NBU certifies that the mock-up installation is fully compliant with all the requirements of Appendix D, Section B, NBU will measure and document the number of feet that the Wireless Installation covers on the Pole. This measurement will be used for the purpose of determining the annual Wireless Installation Fee for all Wireless Installations of the same configuration.
- e. Approval of Pre-Certification of Wireless Equipment Form – Upon completion of the pre-certification process, NBU will approve the Pre-Certification of Wireless Equipment Form which will authorize the Licensee to begin submitting Applications for the same pre-certified Wireless Installation configuration. Should the Licensee at any time wish to upgrade Wireless Equipment that will substantially change the pre-certified Wireless Installation configuration, or deploy new Wireless Equipment technology under a different Wireless Installation configuration, the Licensee shall coordinate a new mock-up installation to pre-certify the alternative Wireless Installation configuration. NBU will not accept Applications for an alternative Wireless Installation configuration that has not been pre-certified.

Appendix E: Reserved for Future Use

Appendix F: Attachment Requirements

These most current version of these requirements are available for download from NBU's webpage.

- T-1: Overhead Minimum Clearances***
- T-2: Overhead Minimum Clearances***
- T-3: Grounding Connections***
- T-4 Guy Wire Requirements***
- T-5 Minimum Clearance Between Circuits***
- T-6 Minimum Clearance to Service & Roadway***
- T-7 Pole Tag Requirements***
- T-8 Attachments at Transformer Poles***
- T-9 Alternate Transformer Pole Attachments***
- EU-910 Underground Conduit Installation***

Appendix G: Pole Loading Requirements

It is the determination of NBU that pole attachments can have a significant wind loading and stress effect on a pole and can cause overloading. Therefore, nothing should be attached to a pole that is not engineered to be there in advance.

1. **Engineering and Planning Qualifications.** Any Pole Loading Analysis (PLA) submitted as part of the Application package shall be signed and sealed by a licensed Professional Engineer approved by NBU.
2. **PLA Submittal requirements.** Licensee shall submit PDF copies of the full PLA report for each pole identified as requiring a PLA study pursuant to this Appendix G. Acceptable software for use of PLA will be a commercially available product with general industry acceptance. If Licensee or its contractor performs its PLA using a software application that NBU does not possess, Licensee shall upon request make available to NBU at least one software license for NBU use at Licensee's expense, subject to NBU's Information Technology requirements.
3. **Pole Loading Parameters.** PLA is to be performed in accordance with the requirements of **Light Loading Zone** as described the current version of the National Electric Safety Code (NESC Rule 250, Figure 250-1, C2-2017) for the New Braunfels area. NBU PLA Grade Requirements shall be as follows:
 - *Single Circuit and Streetlight Poles:* NESC Grade C.
 - *Double Circuit:* NESC Grade C.
 - *Network Nodes:* NESC Grade C is required for any Eligible Pole utilized for a pole-mounted Network Node.
4. **Required conditions for PLA.** NBU will require PLA for the following conditions:
 - Utility Poles with angles of greater than 10° (guyed & un-guyed) - single & double circuit
 - Utility Poles with primary spans greater than 200 feet
 - All un-guyed Non-Decorative Streetlight Poles with "break away" bases
 - All NBU dead-end Utility Poles
 - All Utility Poles supporting equipment such air-break switches, transformers, regulators, reclosers, and capacitor banks
 - All Utility Poles on which 3-phase electric distribution is installed
 - All Utility Poles with five (5) or more Attachments, other than primary, secondary and Neutral attachments.
 - All Eligible Poles for which a Network Node is requested and all Utility Poles intended to support a Mid-span Installation. For Mid-span Installations, both end-point Utility Poles shall have a PLA completed.

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- Any critical Eligible Pole identified by NBU that is not specified in categories above.
5. **Reserved Capacity for Proposed Pole Change Outs.** NBU shall require Reserved Capacity for any new or replaced Utility Pole as follows:
- *Single Circuit:* ten percent (10%)
 - *Double Circuit:* twenty percent (20%)
6. **Pole Loading Analysis Time Limitations.** PLA analysis shall be valid for a time period of no longer than six (6) months from the time of Application submission. After this six (6) month period, a new PLA analysis will be required.

Appendix H: Schedule of Pole Attachment and Network Node Rates, Fees, and Charges

Although NBU is exempt from the definition of the term “utility” that applies to the regulations of the Federal Communications Commission (FCC) relating to pole attachments made by providers of communications services; NBU uses the current FCC formula applicable to providers of telecommunications services. NBU reserves the right to adjust this Schedule of *Pole Attachment and Network Node Rates, Fees, and Charges* in accordance with any changes in the FCC formula delineated below, and with updated NBU cost information.

1. Application Fee

- a. Wire Attachments. For wire Attachments, the Application Fee is \$45.00 per NBU Utility Pole identified in the Application. This fee includes any costs incurred by NBU in processing the application. The costs incurred by NBU in processing the application will be recovered from the Applicant.
- b. Network Nodes. For Network Nodes, the Application Fee shall be \$500.00 per Application for up to five Network Nodes, plus \$100 per Network Node thereafter. The costs incurred by NBU in processing the application will be recovered from the Applicant.

2. Annual Fees

- a. Wire Attachments. Pursuant to the terms of the Agreement, each Licensee with Attachments shall be assessed an the annual rental. The annual Attachment Rate, which is used in determining the annual rental payment due, is determined by NBU for each Licensee as specified in the Agreement, in accordance with applicable law.
- b. Overlashing. Overlashing an existing Permitted Attachment is not a separate Attachment and will not be subject to a separate assessment of annual rental, unless the Overlash requires that Licensee occupy more than one foot of Utility Pole space to meet clearance requirements.
- c. Network Nodes. Pursuant to the terms of the Agreement, each Licensee with Network Nodes shall be assessed the annual rental. The annual Attachment Rate, which is used in determining the annual rental payment due, is determined by NBU for each Licensee as specified in the Agreement.
- d. Mid-span Installations. Mid-span Installations shall be assessed the Pole Attachment Fee for the amount of space required on both Utility Poles supporting the Mid-span Installation to comply with the vertical clearance requirements of the Applicable Engineering Standards
- e. Attachment Rate Formula. The applicable Attachment Rate formula, the annual Attachment Rate, and the financial and operational inputs utilized by NBU in the calculation of the Attachment Rate formula are available on the NBU webpage.

3. Unauthorized Attachment Charge

A Licensee or other Attaching Entity shall pay NBU, in addition to the annual rental that would have been payable for such Attachments if they had been authorized, an

Unauthorized Attachment Charge as provided below:

- a. For entities without a valid Agreement, the Unauthorized Attachment Charge shall be determined to be \$500.00 per Attachment per year for each Unauthorized Attachment. Unless an Attaching Entity without a valid Agreement proves to NBU's reasonable satisfaction otherwise, the Unauthorized Attachment shall be presumed to have been in place for 10 years.
- b. For Licensee with a valid Agreement, the Unauthorized Attachment Charge shall be \$100.
- c. In addition to the Unauthorized Attachment Charge, Licensee shall pay the annual rental that would have been payable from and after the date the Attachment was first placed on a Pole as determined from Licensee's records or other evidence.
- d. If NBU cannot independently determine the date on which the Unauthorized Attachment was made, or the Attaching Entity cannot prove to NBU's reasonable satisfaction that the Unauthorized Attachment was installed more recently, the Unauthorized Attachment will be presumed to have been installed by the Licensee or other Attaching Entity on the next day following the last completed Inventory or five (5) years, whichever is less.

4. Unauthorized Network Node Charge

A Licensee or other Network Provider shall pay NBU, in addition to the annual rental that would have been payable for such Network Nodes if they had been authorized, an Unauthorized Network Node Charge as provided below:

- a. For Network Providers without a valid Agreement, the Unauthorized Network Node Charge shall be \$500 per month for each Unauthorized Network Node.
- b. For Licensees with a valid Agreement, the Unauthorized Network Node Charge shall be determined to be \$100 per month per Network Node.
- c. In addition to the Unauthorized Network Node Charge, Licensee shall pay the annual rental that would have been payable from and after the date the Network Node was first placed on or supported by a Pole as determined from Licensee's records or other evidence.
- d. If NBU cannot independently determine the date on which the Unauthorized Network Node was installed, or the Licensee cannot prove to NBU's reasonable satisfaction that the Unauthorized Network Node was installed more recently, the Unauthorized Network Node will be presumed to have been installed by the Licensee or other Network Provider on the next day following the last completed Inventory or five (5) years, whichever is less.

5. Other

- a. Non-Compliance with Complex Transfer Process. Pursuant to Section IV.B.6 of the NBU Pole Attachment Standards, NBU shall levy a penalty of \$350 per non-compliant Attachment to the Licensee failing to make the Complex Transfer in the required timeframe.

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- b. Non-Compliance with Joint Meeting Transfer. Pursuant to Section IV.B.6 of the NBU Pole Attachment Standards, NBU shall levy a penalty of \$350 per day to the non-compliant Licensee that fails to attend or fails to complete the transfer or modification of a Network Node within the required Joint Meeting Transfer ten (10) day timeframe. The penalty shall become automatically effective beginning on the eleventh (11th) day following the Joint Meeting Transfer conference.

- 6 Tracing Line Ownership Fee.** In the event any Attachment or Network Node is untagged and NBU must determine the owner's identity to address the repair or maintenance of an NBU Eligible Pole, equipment, or facility that NBU cannot undertake absent removal or transfer of said Attachment or Network Node, NBU shall bill the owner of the Attachment or Network Node for time reasonably undertaken by NBU to determine the identity of the owner of the Attachment or Network Node. After the first half hour of line tracing, which shall be at NBU's cost, the Licensee that owns the untagged Attachment or Network Node shall pay NBU the Tracing Line Ownership Fee of \$100 per hour thereafter. Partial hours shall be rounded up to the next whole hour. NBU shall bill the Licensee within thirty (30) days of determining the Licensee's identity.

Appendix I: Network Node Diagrams

These most current version of these requirements are available for download from NBU's webpage.

- I1: NBU Wireless Antenna Tangent Attachment – Mid Pole Space***
- I2: NBU Wireless Antenna Tangent Attachment – Mid-Pole Space Above Comm.***
- I3: NBU Wireless Antenna Secondary Streetlight Pole – Mid Pole Space***
- I4: NBU Wireless Antenna Secondary Streetlight Pole – Mid Pole Space Above Comm.***

Appendix J: Reserved for Future Use

Appendix K: Pole Attachment List & Detail

K1: Pole Attachment Tag List

The following table defines tag numbers for Licensee. NOTE: Some Licensees or Attaching Entities shown may not be approved at the time of publication.

Tag Number	Company Name of Licensee	Tag Number	Company Name of Licensee
1	NBU	26	
2	Spectrum (Charter Communications)	27	
3	AT&T	28	
4	Grande Communications	29	
5		30	
6		31	
7		32	
8	Alpheus	33	
9	FiberLight	34	
10	GVTC	35	
11	GVTC	36	
12	ExteNet	37	
13	Verizon	38	
14	CenturyLink	39	
15		40	
16		41	Zayo
17		42	
18		43	
19		44	
20		45	
21		46	
22		47	
23		48	
24		49	
25		50	

K2: Pole Attachment Tag Detail

For the purposes of Tagging an Attachment, Overlash or Network Node (including a Mid-span Installation), NBU requires the use of a Tag placed within twelve inches (12") of a Pole on the wires and cables, coded by number, color, or other means that will readily identify the owner of the Attachment at a Pole from ground level. The Tag shall be as specified below.

