

## EXHIBIT C

### **REQUIREMENTS FOR PRIVATE COMMUNICATION SYSTEMS ATTACHMENTS**

- I. ATTACHMENTS OF CABLE, WIRE, FIBER AND ASSOCIATED DEVICES
  
- II. ADDITIONAL REQUIREMENTS FOR ATTACHMENTS OF WIRELESS COMMUNICATIONS EQUIPMENT

## **PART I**

### **ATTACHMENTS OF CABLE, WIRE, FIBER AND ASSOCIATED DEVICES**

#### **DEFINITIONS**

1. 'Attacher' – Any telephone, cable TV, telecommunication and public or private digital or analog data transmission company, or their qualified contractors.
2. 'Cables' – For the purpose of these requirements, refers to any cable, wire, fiber, messenger, guy, etc.
3. Citizens' Electric Company – Also referred to as the 'Company'

#### **GENERAL**

4. Any rearrangement of Company facilities necessary to accommodate communication system attachments must be negotiated prior to making the attachment.
5. Bolt ends (except those solely purposed for climbing aids) shall not project greater than one (1) inch beyond the nut.

#### **IDENTIFICATION**

6. Joint-use attachers may affix pole identifiers consistent with their own pole installations, provided they do not interfere with Company pole identifiers.
  - a. Joint-use identification tags must specify attacher company name.
  - b. Joint-use identification tags must clearly indicate an attachment rather than pole ownership.
    - i. The words "Attached," "ATTCH," "Attachment" shall be present adjacent to the joint-use company name, in similar lettering and size.

7. Attachments shall be clearly marked such that Company personnel can ascertain ownership from ground level.
  - c. If colors, symbols or codes are used in markings, they must be consistent and provided to Company in advance of attachment.
  - d. When maintenance is performed, any missing or illegible markings shall be replaced.
  - e. Attachers may affix tags or stencils in the area of Company pole numbers, provided they do not interfere with Company pole identifiers.
    - i. Tags may not exceed three (3) inches in width or height.
    - ii. If multiple attachers use the same pole identification system (i.e., State Plane coordinates), they shall agree to a single number or code for that location. Preference shall be given to Company or joint-use pole numbers.
    - iii. Appropriate spacing shall be provided to accommodate pole climbing.
    - iv. Old nails and/or staples shall be removed if tags are replaced.

#### **ATTACHMENT MEANS AND POSITION**

8. The FCC defines the 'usable space' on a pole as the space 18ft or higher above ground level.
  - a. The topmost portion of poles is reserved for Company electrical attachments.
  - b. The bottom portion is reserved for incumbent telephone and cable companies.
  - c. The middle portion, with a *recommended* minimum height of 23ft or greater, is reserved for third-party communications attachments.
9. Cables shall generally be attached directly to the pole surface. Metallic or fiberglass offset brackets may be used to gain required horizontal clearances to buildings, trees, signs, etc., or to reduce the change in direction (angle) of the cable.
  - a. Offsets shall not be used to resolve or avoid vertical clearances.
  - b. Wood arms and/or offsets shall be used only with prior Company approval.
10. Cables shall be mounted on the same side of the pole as telephone cable(s) and Company secondary or neutral conductors. All thru-line cables shall occupy the same side of the pole.
  - a. When telephone cable(s) are not on the same side as secondary or neutral conductors, cables should be attached on the same side as the telephone cable(s).
  - b. If no telephone, secondary or neutral conductors are present, cables shall be attached on the 'road side' of the pole, or that which provides best access to trucks.
  - c. Attachers shall not 'box' in a pole by attaching to opposing sides of a pole.
11. All holes must maintain a minimum of two (2) inches, top edge to bottom edge, of vertical clearance from other holes.
12. Attachments shall remain in the same relative vertical order from one span to the next.

13. Cables shall be arranged to provide a horizontal climbing space as required by NESC Rule 236.
  - a. Mid-span taps shall be a minimum of 15" from the pole face to ensure adequate climbing space.
14. Over-lashing is permitted.
  - a. Not more than two cables are permitted on a single bolt.
  - b. Not more than one bolt extender is permitted on a single bolt.
15. Attachments to non-wood poles must be negotiated with the Company prior to attachment.

#### **CLEARANCE**

*NESC Clearances provided in this section are current as of the latest revision. Changes to the NESC shall be adhered to even if this document has not yet been updated.*

16. All clearances associated with cable and equipment attachments must be in accordance with the latest edition and supplements of the National Electric Safety Code (NESC), as well as any other state or municipal regulations.
17. On Company poles supporting telephone and cable television facilities, Private Communication facilities shall be located above the cable television company facilities with a minimum vertical clearance of 12" unless reduced spacing is agreed to by the telephone company and cable television company attached to the pole.
  - a. Six (6) inches of vertical clearance is required mid-span.
18. The minimum vertical clearance above surfaces at the low point in a span shall conform to the NESC. The majority of such clearances are listed in Table 232-1 of the NESC. Some common clearance requirements for insulated communications cables follow:
  - a. 9.5ft to ground over areas accessible only to pedestrians.
  - b. 15.5ft to ground along or over roads, streets and other areas subject to truck traffic.
  - c. 23.5ft to the top of railroad tracks.

#### **GUYING**

19. Attachments are required to guy unbalanced loads imposed on the pole caused by dead-ends or changes in direction.
  - a. Dead-ends and significant changes in direction shall always be guyed.
  - b. Small changes in direction shall be guyed when power and/or telephone facilities following a similar route are also guyed.
  - c. Any attachment that may (or does) result in a change of the pole position (including displacement of the pole top or bend in the pole center) shall be guyed.
  - d. The Company may, at its discretion, require guying as it determines is necessary.
  - e. Guys are to be installed prior to attaching cables (including messengers/suspension strands).

20. The total number of guys that may be attached to one anchor is the number of eyes on the rod.
  - a. If additional guys are required beyond the allowable limit, the last Company to guy may either replace the existing anchor with a triple-eye anchor or install an additional anchor.
  - b. New anchors should be triple-eye.
  - c. New anchors shall be installed no less than 6ft from existing anchors.
  - d. The company installing a new anchor is responsible to secure all necessary land rights, inclusive of the rights for other attachers to attach to and guy using the new anchor per these requirements.
  - e. Screw or cross plate anchors are preferred.

#### **CABINETS FOR COMMUNICATIONS SYSTEMS**

*This section covers all cabinets installed for communications systems. See Part II of this document for additional requirements related specifically to wireless transmission equipment and antennas.*

21. Cabinets for communications systems may be mounted directly on the pole or suspended from the Private Communication System cable suspension strand.
  - a. New pole or strand mounted cabinets may not be installed on or within 6ft of poles with the following already attached:
    - i. Transformers
    - ii. Air Break or Load Break switches
    - iii. Disconnect Switches
    - iv. Reclosers
    - v. Capacitors
    - vi. Control Cabinets (Company, joint use or third party)
    - vii. Risers (Company, joint use or third party), unless first approved by Company and/or other attachers
    - viii. Electrical service entrance equipment (unless supplying the cabinet to be installed)
  - b. Additionally, poles with the following configurations may not have cabinets attached:
    - i. Four-way (or more) junction
    - ii. Class '5'
    - iii. Non-wood poles
    - iv. Decorative poles
    - v. Poles inaccessible to trucks
    - vi. Double-circuit construction
  - c. Exceptions may be made at the Company's discretion.

22. Cabinets may not be installed in any manner that restricts or substantially reduces practical and safe access to facilities already attached to the pole or open space available for future attachments.
23. Cabinets may not be installed in any manner that impedes the visibility of drivers on a public roadway.
24. On poles with existing outdoor lights, cabinets must be installed such that lighting coverage is not substantially degraded. Care shall be taken to avoid shadows that could pose safety or security hazards.
25. Cabinets shall be clearly marked, in a manner legible from the ground, with the following information:
  - a. Owner Name
  - b. Contact Phone Number
  - c. Unique Identifier
  - d. Alternatively, an identification tag affixed to the pole in the area of existing pole tags is permitted. Tag design must be approved by the Company.
26. Cabinets shall not have exterior lights that could cause confusion, alarm or disturbance to the general public.
27. Attacher must perform pole loading calculations to ensure that equipment does not significantly alter the mechanical loading of the pole, or produce undue moment or horizontal or vertical loading.
  - a. Attacher must produce pole loading calculations upon request of Company.
  - b. Company may require an increase in pole size at its discretion, to be installed at attacher's expense.
28. Attacher shall provide the company with physical specifications of all equipment cabinets with initial application and upon Company request.
29. Wireless transmitters on cabinets (*Excluding those covered in Part II*) shall not exceed an output power of 5.6 watts.
  - a. Transmitters in excess of 5.6w shall be treated as 'Wireless Communications Equipment' and are subject to the additional requirements set forth in Part II.

## **POWER SUPPLIES**

*This section covers all cabinets installed for communications systems. See Part II of this document for additional requirements related specifically to wireless transmission equipment and antennas.*

30. Cabinet installations supplied by Company secondary:
  - a. Approved 120/240Vac meter base, up to 200A nominal rating permitted on Company poles, location to be approved by Company.
  - b. Requests for unmetered supply will be approved at Company discretion.
  - c. Labeled safety disconnect accessible to Company personnel is required.
    - i. Must be lockable in compliance with OSHA lockout/tagout requirements.
  
31. Cabinet installations containing or connected to a backup, stand-by or UPS power supply:
  - a. Must be labeled accordingly.
  - b. Labeled safety disconnect accessible to Company personnel is required.
    - i. May be in addition to 120/240V supply disconnect (See 28 above)..  
OR
    - ii. A combined disconnect and/or transfer switch for both utility and backup supply may be used with Company approval—provided it is clearly labeled
    - iii. Must be lockable in compliance with OSHA lockout/tagout requirements.
  
32. Cabinet installations powered via communications cable or 3<sup>rd</sup> party owned supply conductors.
  - a. To be reviewed and approved by Company
  - b. Must be labeled accordingly
  - c. Labeled safety disconnect accessible to Company personnel is required
    - i. Must be lockable in compliance with OSHA lockout/tagout requirements.

## PART II

### ADDITIONAL REQUIREMENTS FOR ATTACHMENTS OF WIRELESS COMMUNICATIONS EQUIPMENT

#### DEFINITIONS

1. 'Wireless Equipment' – For the purpose of these requirements 'Wireless Equipment' is defined as any device intended to produce, receive or process wireless communications, regardless of size, construction or ownership. This includes power supplies, controls, antennas and other individual or combined components.
  - a. Including (*but not limited to*):
    - i. 'Small Cell'
    - ii. 5G
    - iii. Community wireless
  - b. Excluding:
    - i. Government or institutional emergency communications equipment
    - ii. Citizens' Electric (Company) communications equipment
    - iii. Municipal, PADOT, etc. monitoring equipment

#### GENERAL

2. Limit of one RF antenna per pole location.
3. A pole loading study shall be provided for all Wireless Equipment installations meeting one or more of the following criteria:
  - a. Cabinet size of greater than three (3) cubic feet
  - b. Cabinet with any side of greater than six (6) square feet
  - c. Cabinet weight of greater than 100lbs
  - d. Antenna of greater than 12" in any dimension
4. Equipment shall not significantly alter, or produce undesirable mechanical load on pole.  
(See Part I-Sec 27)

#### SPACING & POSITION

5. On poles with primary voltage conductors, Wireless Equipment may not be attached at or above the level of the Company secondary or neutral conductors, whichever is lower.
6. On poles with secondary only, requests to attach equipment that will extend to or above the level of the Company secondary will be approved at Company's discretion.



7. Wireless Equipment attachments must meet or exceed all applicable design and safety standards, including, but not limited to:
  - a. NESC
  - b. NEC
  - c. OSHA
  - d. Local Ordinance
8. Horizontal offsets, used for attacher convenience or to gain required horizontal or vertical clearances, are permitted only with the approval of Company.
9. If Wireless Equipment is suspended from a communications cable or messenger, all extents of the equipment, including antennas and cable loops, must meet the applicable clearances for Wireless Equipment or the corresponding communications cable or messenger, whichever is greater. (*See 'Clearances' in Part I*)
10. Antennas shall not extend greater than 10ft above the pole top.
  - a. Exceptions require prior Company approval.
  - b. Antennas shall comply with all necessary FAA visibility requirements (*i.e. markers and/or lights*).

#### **RF EXPOSURE & SAFETY**

11. Wireless Equipment installations shall conform to all FCC, OSHA, IEEE and other applicable safety and exposure standards.
12. Wireless Equipment shall be mounted with sufficient clearance such that personnel working on other attached facilities are not exposed to radiated power in excess of the FCC Maximum Permissible Exposure (MPE) limit for the general public.
13. Wireless Equipment shall be affixed with appropriate signage in conformance with applicable standards and shall, at a minimum, provide the following:
  - a. Any potential RF Exposure hazards
  - b. Minimum safe working distances
  - c. Procedure for safe shutdown of equipment if required to mitigate RF (or energy control) hazards
14. Signage shall be clearly visible and shall not interfere with climbing.
15. Attacher shall verify that Wireless Equipment will not interfere with or negatively impact any existing Power or Communication equipment installed on nearby utility poles.