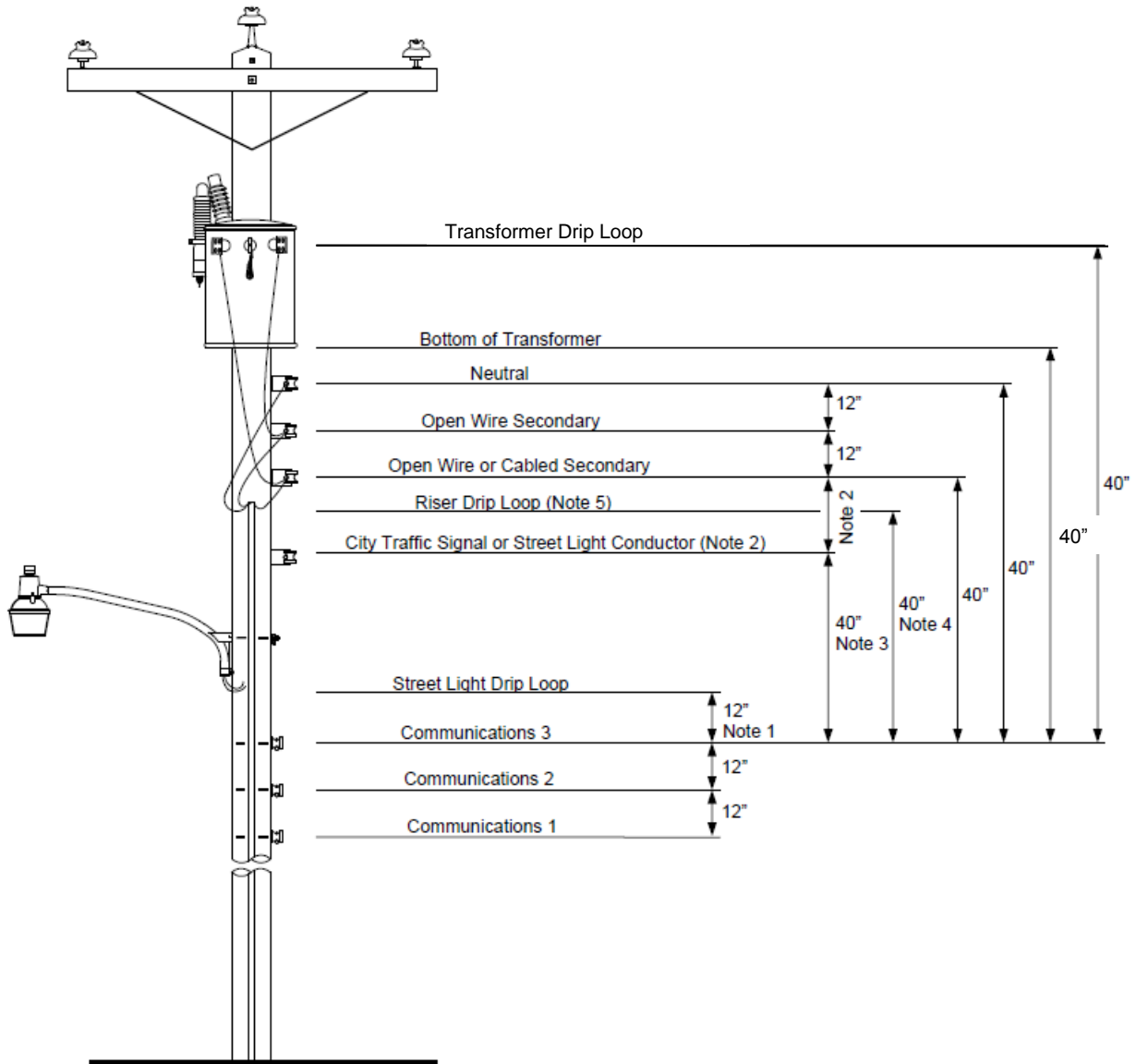


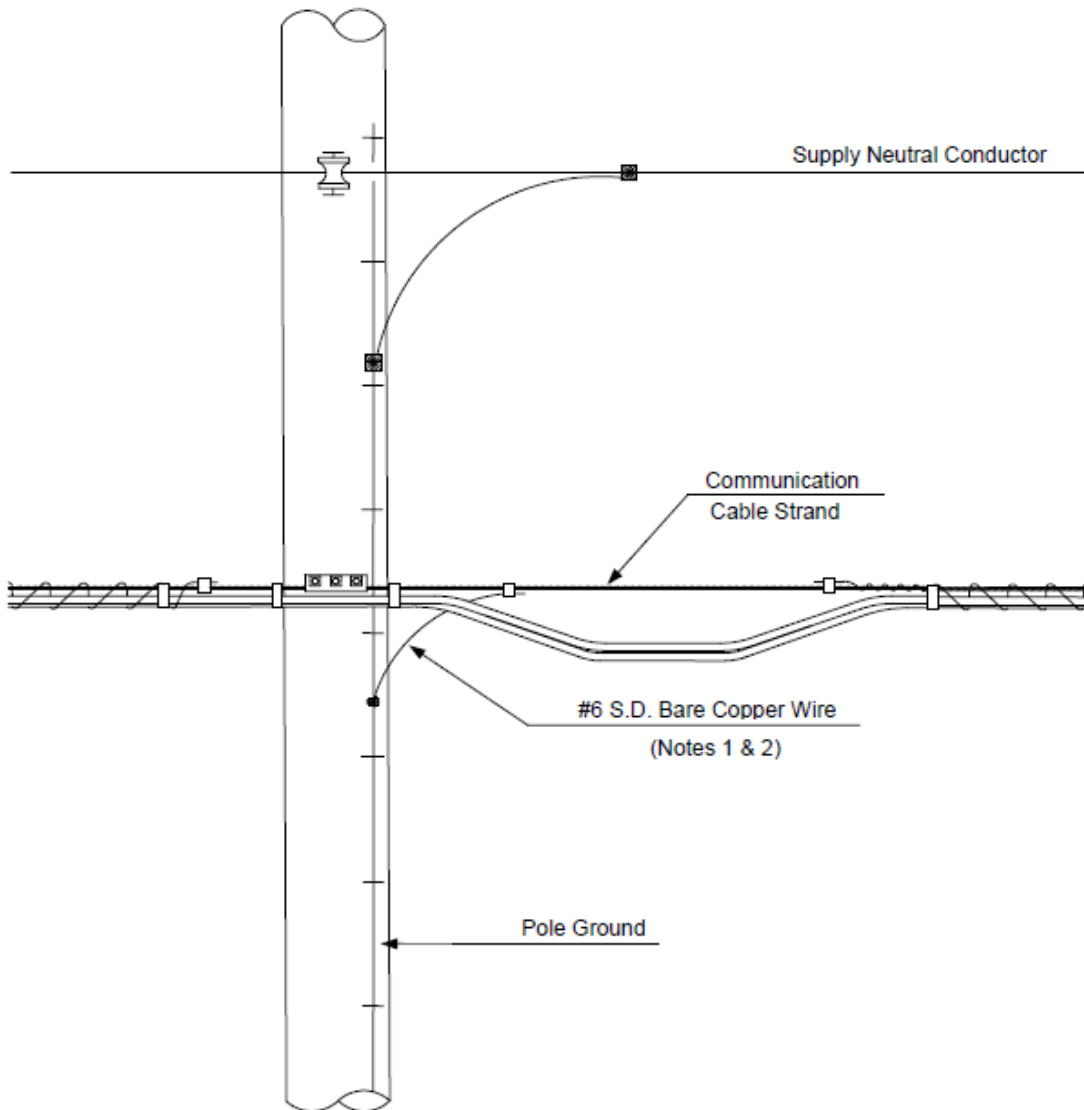
F1: Supply and Communication Clearances at the Pole



Notes:

1. May be reduced to 3" if street light drip loop covered entirely with a non-metallic covering.
2. City traffic signal or street light conductor (including drip loop) is to be 16" below secondary conductor or the top of secondary supply risers (whichever is lower).
3. Communication cable shall be minimum 40" below city traffic signal or city street light conductor.
4. Communication shall be minimum 40" below supply drip loops.
5. Includes the top of primary and secondary risers, including drip loops (whichever is lower).

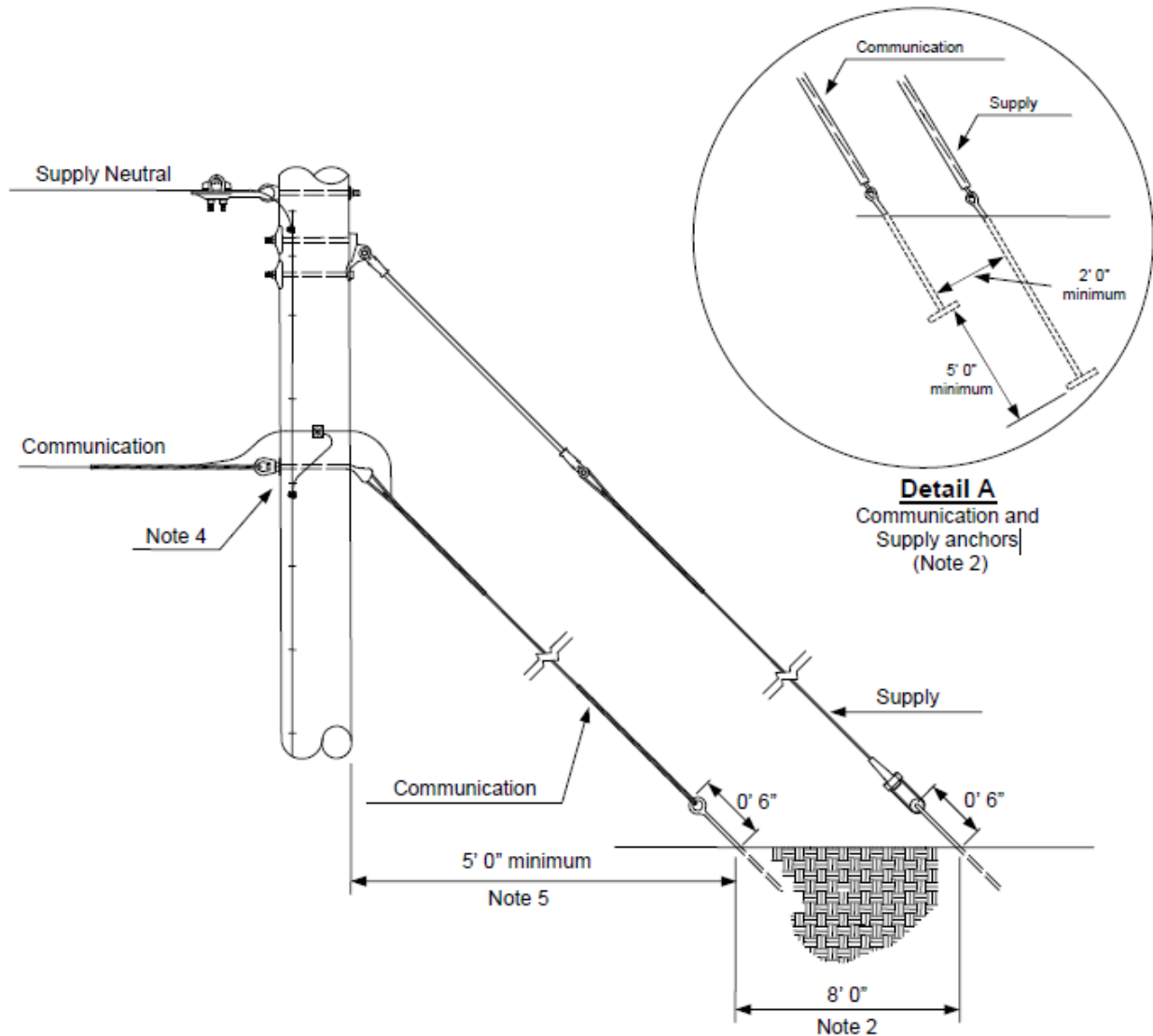
F2: Licensee Bonding to Pole Ground



Notes:

1. Communication cable strand shall be bonded to pole ground on every pole.
2. Communication cable company to furnish #6 S.D. bare copper bonding wire and connectors and connect to pole ground.

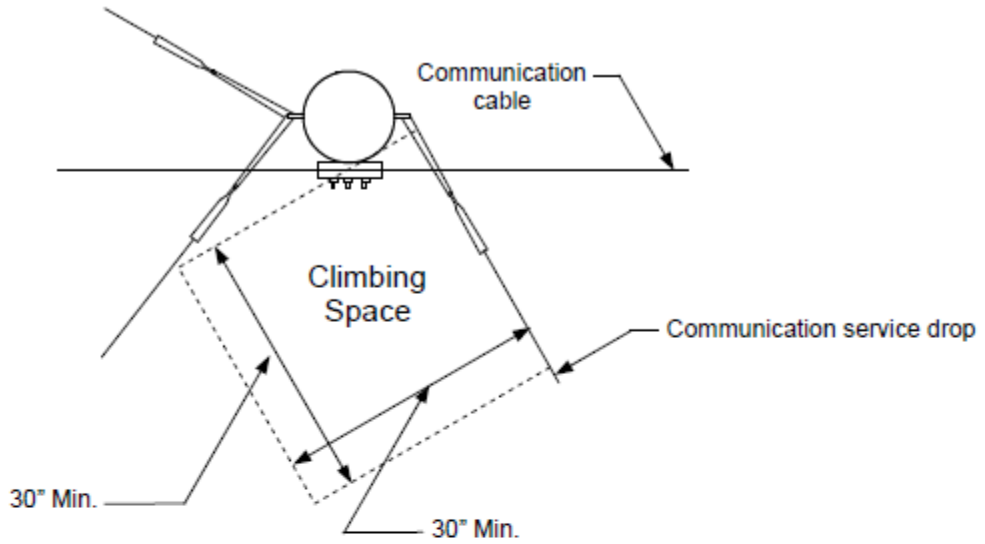
F3: Down Guys and Anchors



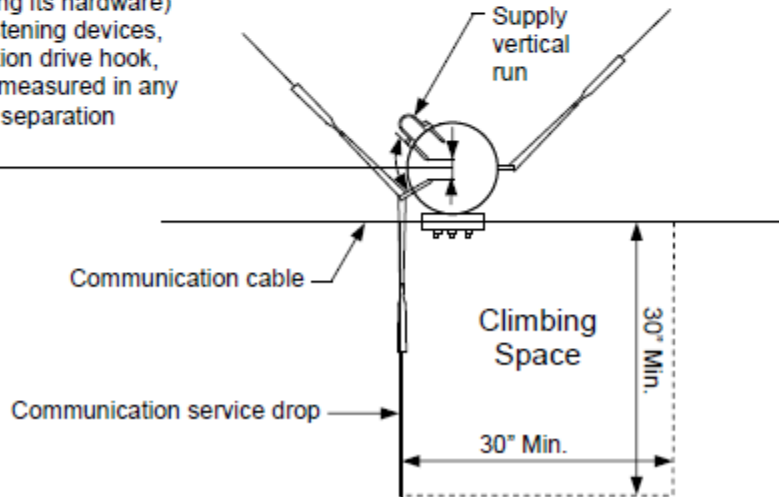
Notes:

1. Each company (Supply and Communication) shall install independent guys and anchors for their respective facilities. Auxiliary anchor eyes on supply anchor rods shall not be utilized.
2. Every effort should be made to install anchors with a horizontally spacing of 8 feet. However, a minimum horizontal spacing of 5 feet can be used in situations where the horizontal spacing must be reduced. When 5 feet of horizontal spacing is unavailable, the horizontal spacing may be reduced to 2 feet provided the Supply anchor is installed a minimum of 5 feet vertically beneath the Communication anchor measured in-line with the anchor rod (See Detail A). When the spacing is reduced to 2 feet a new Supply anchor shall be installed at the Communication company expense unless the depth of the existing Supply anchor can be determined. The new Supply anchor shall be installed before the Communication anchor.
3. If agreed by multiple Communication companies and designed as a system to support the total loads applied, provided the points of attachment are relatively close to each other on the pole, a common Communication guy and/or anchor can be installed. Communication company installing the anchor shall coordinate design and installation with all parties. Design shall be submitted to Supply company for approval before construction.
4. Communication cable stand and guy wires shall be bonded and connected to the pole ground. Communication companies shall furnish the necessary #6 SD bare copper wire and connectors to connect directly to the pole ground.
5. No Communication anchor shall be installed closer than 5 feet from the surface of the pole.

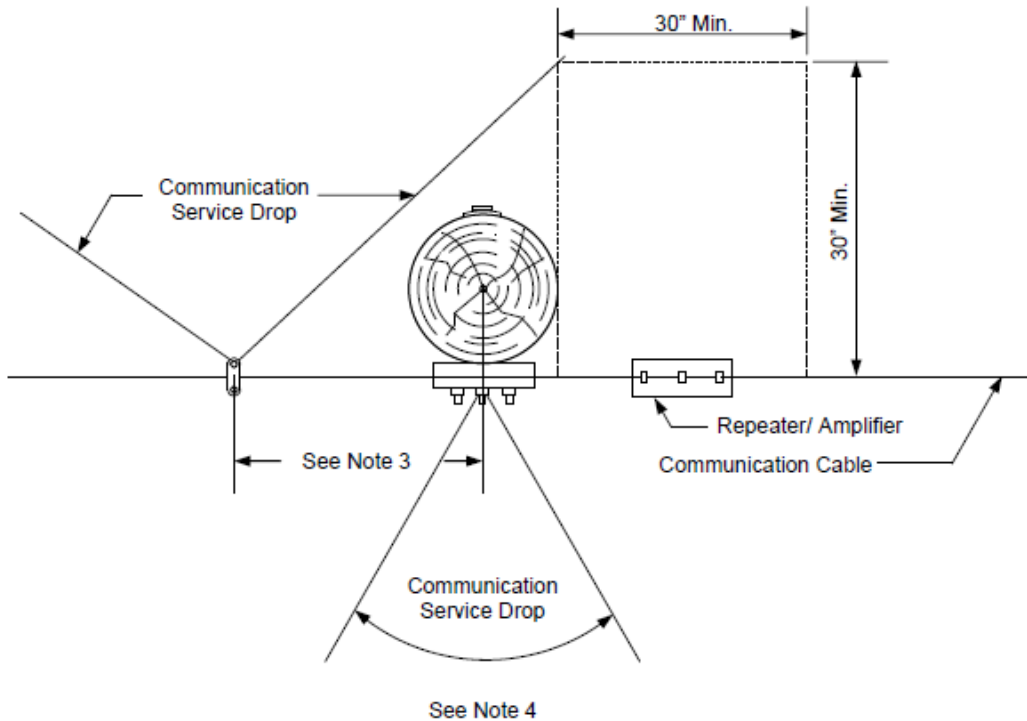
F4: Climbing Space thru Communication Service Drops



The separation between supply vertical run (including its hardware) and other bolts, fastening devices, and/or communication drive hook, shall be at least 2" measured in any direction, including separation within the pole.



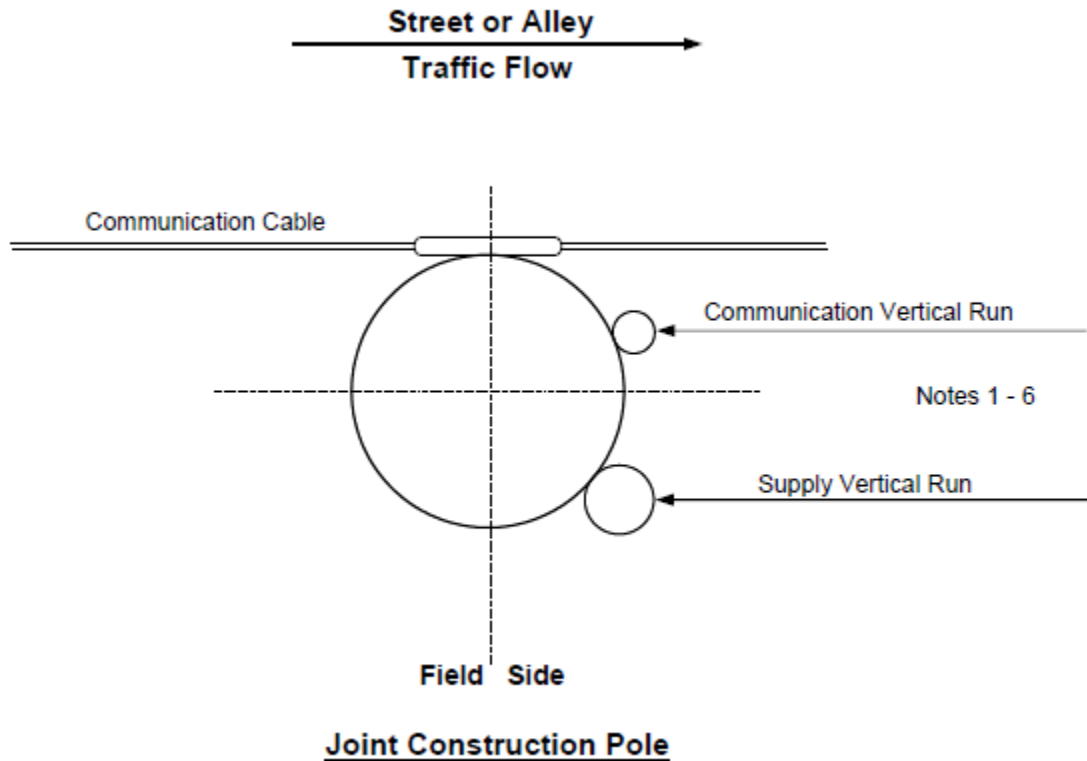
F5: Communication Attachment & Service Drop



Notes:

1. See (F6: Location of Vertical Runs) for placing vertical runs on poles.
2. Attachments shall be arranged vertically on the pole and mounted directly to the pole. Cross arms, extension arms, and standoff brackets shall not be utilized to meet clearance requirements. Use of this equipment for purposes other than to meet clearance requirements shall be approved in advance by BTU Engineering and requires a comprehensive mechanical loading analysis for all affected facilities.
3. Make this distance sufficient to clear the climbing space with the nearest service drop.
4. Service drops on the street or alley side of poles should be pulled off the pole.
5. New attachments shall be placed on the pole in accordance with the following:
 - a. If a pole already has lines (Supply and/or Communication) installed on opposite sides of the pole (i.e. the pole is boxed), the new Communication attachment shall always be made on the street side of the pole.
 - b. If a pole is not already boxed, the new Communication attachment shall always be made on the same side of the pole as the existing attachments.
6. To reduce the impact of Communication attachments on mechanical pole loading and to preserve BTU's ability to place facilities on its poles, attachments should be installed as low as permissible on the pole. Where there are no previous attachments on the pole, the first attachment shall always be placed at the lowest position which complies with the greater clearance requirements specified by either the NESC or BTU. In such cases, subsequent Communication attachments shall be made above the previous attachments and be as low as possible to maintain required clearances from Supply and Communication facilities.

F6: Location of Vertical Runs



Notes:

1. Supply and communication vertical runs shall not be made on the same pole where it is practicable to place them on separate poles.
2. Supply vertical runs shall be on quarter of pole opposite communication cable if existing, otherwise on field quarter of pole when along street or alley.
3. Locate supply vertical runs on side of pole away from the normal traffic flow where practicable.
4. Communication vertical runs shall be made on quarter of pole adjacent to communication cable and on side of pole away from the normal traffic flow where practicable.
5. All vertical runs shall be so arranged as not to interfere with climbing or working space. When the addition of a communication vertical run on pole with an existing supply vertical run obstructs more than 25% of the pole surface, the additional communication vertical run shall be mounted on standoff brackets a minimum of 4" and a maximum of 12" off the pole. Vertical runs facilitate climbing space as per the NESC. Vertical runs on standoff brackets should be in conduit as approved by the NESC.
6. Consult section 239 of the NESC for situations not covered by this standard.