DROP AND BLOCK WIRING
PLANNING BUILDING RUNS

1. GENERAL

1.01 This section replaces Issue 2. It is being reissued to include changes in the National Electrical Code requirements which extend the use of uninsulated building attachments on NP and C Drop Wires and B Multiple Drop Wire working out of metal sheath cable.

2. RULES

2.01 In planning drop and block wire runs on buildings, observe the following rules:

(a) **Rules applying to both drop and block wire runs.**

(1) Plan the wire run so that the locations of the points of entrance and of the station protectors, where the latter are required, will conform to the rules covered in the Station Installation and Maintenance Practices.

(2) NP and C Drop Wires and B Multiple Drop Wire working out of metal sheath cable shall be supported on **uninsulated building attachments** on all types of building walls. (Where station protection is required, the B Multiple Drop Wire shall be fully protected with fuseless protectors.)

(3) Drop wires connecting to open wire circuits, however, shall be separated from flammable building walls, such as, wood, stucco on wood or metallic siding on wood and supported on **insulated building attachments.**

(4) Locate the first building attachment for drop wire, and the attachments for block wires, so that the wires will have the required clearance above highways, driveways, walks, private property, roofs, etc.

(5) If it is necessary to cross or parallel electric conduits, radio wiring, rain spouts or other obstructions on buildings, obtain the required separations.

(6) Do not run wires in front of signs or so as to interfere with fire escapes, clothes lines, awnings, shutters, hoists, doors, etc., making adequate allowance for the normal movement of such devices.

(7) Do not place wire runs on walls which are likely to be built against in the near future.

(8) Do not run wires diagonally on a building, except in the short lengths required to change the direction of the run from horizontal to vertical, etc.

(b) **Rules applying to drop wire runs only.**

(1) Locate the first building attachment so that the drop span will have the required clearance from light or power wires, trolley wires, other foreign wires and metallic objects.

(2) Locate the first building attachment so as to avoid tree interference, keeping in mind the future growth of existing trees. It is preferable to make a longer wire run on the building if by so doing the trees can be cleared.

(3) Locate the first building attachment so that the drop span can be placed with adequate sag.

2.02 The following rules shall be observed only in so far as practicable, since it may be impracticable in some installations to follow all of these instructions as well as those given in Paragraph 2.01.

(a) **Rules applying to both drop and block wire runs.**

(1) Locate the wire run with a view to permanency and accessibility. Avoid locating the run at an excessive height. Where it is impracticable to use a ladder or one is not available, attachments may be placed from windows. Install such attachments as near the preferred locations as safety permits.

(2) Do not make attachments to chimneys as the fastenings may be insecure or they may result in property damage.

(3) On building walls finished with stucco, rigid composition shingles, thin-wall brick veneer and similar materials, locate attachments on wood trim if prac-

ticable, and if the trim is sufficiently substantial to provide adequate support for the drop wire.

(4) Locate the wire run preferably on the rear and side walls of a building.

(5) Locate horizontal runs above the reach of the public, particularly children.

(6) On a brick building with a stone foundation, establish the run on the brick wall rather than on the rough stone of the foundation.

(7) Avoid attaching to tin, sheet metal and materials requiring frequent repairs or renewals.

(8) Avoid locating wire run on intermediate buildings that are in a deteriorated condition or are of a temporary nature. In such cases, it is preferable to install aerial spans between well built permanent buildings.

(9) Select a run where the wires will be as free as practicable from mechanical injury.

(10) Locate the run so as to require the minimum length of wire and as few turns as practicable.

(11) Locate the wire run so as to avoid light and power wires and so that it will encounter a minimum number of other obstructions.

(12) Locate attachments so that anchors will not be placed closer than 10 inches to the corner or the top of a wall, except in turning corners.

(13) Establish a vertical run preferably in the angle formed by intersecting walls if this would not increase the length of the run appreciably.

(14) Where ice conditions are severe, avoid locating vertical wire run within 2 feet of a rain spout.

(b) **Rules applying to drop wire runs only.**

(1) Select a location for the first attachment which will avoid running the drop in the direct line of vision from a window.

(2) In sections where ice and snow conditions are severe, endeavor to locate the wire run so that ice and snow falling from the roof will not strike the drop. If the drop in the span must pass under the sloping part of a roof, make the first attachment as near the eaves as practicable.

(3) Where two or more drop wires to the same building are involved, locate the first building attachments preferably at about the same point, bearing in mind that the locations of the initial and subsequent attachments should be such as to provide satisfactory wire runs in the span and on the building.

(4) Locate the first attachment preferably so as to make a direct vertical run to the last attachment, provided that the drop wire in the span would have adequate clearance from trees, would not be objectionable if it crosses adjacent property or would not cross portions of vacant lots on which buildings are likely to be erected.

2.03 When establishing a wire run on a building wall where cable has been placed, the wire run should, in general, parallel the cable run. If practicable, rings installed in conjunction with the cable clamps should be utilized for such runs.