

# EXHIBIT B

J.U.

SEP 18 1968

Mr. D.B. Seifried, Operating Manager  
Orange and Rockland Utilities, Inc.  
10 North Broadway  
Nyack, New York

Mr. Seifried:

Due to the delay in obtaining signature for our agreement dated March 20th involving pole damage by a third party, I would like to revise the effective date from May 1, 1968 to October 1, 1968.

Unless I hear otherwise, I will assume this revision is mutually agreed to by your Company.

ORIGINAL SIGNED BY  
E. V. REICHENSACHER  
Division Engineer, Hudson

G.J. Cray:st  
435-9976

(This Attachment has been prepared to facilitate correlating administrative procedures related to the General Agreement. It shall not be considered as being a part of the General Agreement).

Attachment No. 1  
Revised May 1, 1968  
N.J. Bell Telephone Co.

FILE WITH AGREEMENT OF JANUARY 1, 1962  
BETWEEN THE ROCKLAND ELECTRIC COMPANY  
AND THE NEW JERSEY BELL TELEPHONE  
COMPANY FOR THE JOINT USE OF POLES

By the interchange of a letter between Mr. D.B. Seifried, Rockland Electric Company and Mr. E.V. Reichenbacher, Division Engineer, Hudson dated March 20, 1968, the following procedures were mutually agreed to:

THIRD PARTY BILLING-ACCIDENT DAMAGE CASES

Billing in connection with damage by a third party to either New Jersey Bell Telephone Company or Rockland Electric Company property will be on an actual cost basis, with the exception of charges for pole removal which shall be billed fixed cost basis. Each Company will bill the third party for the actual costs incurred in restoring its own plant, and will bill the other company for the actual costs incurred in performing work (associated with the damage case) for the other company. The only exception being pole removal work which shall be billed on a fixed cost basis. For example if a Telephone Company owned pole is broken by an automobile the Telephone Company places a new pole and transfers. The Electric Company then transfers its construction and removes the pole. Billing will be as follows:

1. Telephone Company bills third party damager the actual cost of placing the new pole and restoring the Telephone Company Plant plus the fixed cost for removal of the old pole.
2. The Electric Company bills the third party the actual cost of restoring its plant and bills the Telephone Co. the fixed cost for removal of the old pole.
3. The use of fixed removal cost eliminates the delays previously experienced by the pole owning company in obtaining actual removal costs from the attaching company.

If the restoral procedure were reversed and the Electric Company replaced the Telephone Company owned pole and the Telephone is to transfer from and remove the old pole, then:

1. The Electric Company would bill the third party (damager) for the actual costs incurred in restoring its plant.
2. The Electric Company would bill the Telephone Company the actual costs incurred in placing the new Telephone Company owned pole.

- 2 -

3. The Telephone Company would bill the third party (damager) a total of the Electric Company actual cost bill for placing to new pole, the actual cost incurred in restoring its own plant and the fixed cost for removal of the old pole.

The Telephone Company claims agent must have all charges to be billed to the third party damager within 30 days of the damage in order to comply with existing state laws. Therefore, it is necessary that the Rockland Electric Co. forward their bill for work done for the Telephone Company within 30 days of the date of damage. If the charges are not received within the 30 day limit the District Engineer will contact the Rockland Electric Company, Plant Investment Department at Nyack, New York to obtain the charges.

If the Telephone Company replaces a damaged pole for the Rockland Electric Company it will submit a bill to the Electric Company within 30 days of the damage. If the Electric Company does not receive the bill within the 30 day limit they will contact the Telephone Company District Engineer involved to obtain the charges.

The Telephone Company bills submitted to a third party damager will contain the following statement:

"This bill is presented wholly on behalf of the New Jersey Bell Telephone Company and payment thereof does not release the payer from any obligation to any other person or corporation."

Bills submitted to third party damagers by the Rockland Electric Co. will contain a similar statement.

These procedures are set forth to cover the usual situation and do not preclude special arrangements which may be agreed to by both companies in extraordinary cases.

THIS AGREEMENT, to be effective on the first day of January, 1962, made by and between the ROCKLAND ELECTRIC COMPANY, a corporation of the State of New Jersey, hereinafter called the Electric Company, party of the first part, and the NEW JERSEY BELL TELEPHONE COMPANY, a corporation of the State of New Jersey, hereinafter called the Telephone Company, party of the second part:

WITNESSETH:

WHEREAS, the Electric Company and the Telephone Company desire to provide for the Joint Use of their respective poles when and where such Joint Use will be of mutual advantage in meeting their service requirements.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto, for themselves, their successors and assigns, do hereby covenant and agree as follows:

Definitions.

FIRST: For the purpose of this Agreement, JOINT USE refers to the placing and maintaining upon the same pole or poles of attachments of each party. Poles owned by one party upon which the other party maintains attachments are referred to as JOINTLY USED POLES. The party having sole ownership of the pole is described as OWNER. The party making and maintaining, or applying for permission to make and maintain attachments on poles of the Owner, is described as LICENSEE. ATTACHMENTS refers to wires, cables, lamp fixtures, transformers, terminals or fuse boxes, lightning arresters, switches, guy wires, clearance attachments, and all other apparatus or fixtures or appurtenances now used or hereafter used upon poles by either party in its business. TRANSFERRING refers to the moving of attachments from one pole to another and placing them upon the new pole in accordance with the Specifications herein contained. REARRANGING refers to the reconstruction or relocation of attachments on the same pole to bring them into conformity with the Specifications. TRANSFERRING AND REARRANGING each includes the expense of the necessary tree cutting or trimming due to the changed position of the attachments, and of obtaining the necessary rights for such. CURRENT VALUE refers to the initial cost of a pole or guy stub adjusted to reflect depreciation and obsolescence. NET LOSS refers to a sum equal to the current value in place of the pole which is replaced, plus the cost of its removal, minus its salvage value.

NORMAL JOINTLY USED POLE under this Agreement shall be a 35 foot, Class 4 wood pole as covered by the American Standards Association specifications except in specific situations where poles of some other height or class are necessary or adequate to provide normal space for the respective parties and to meet the requirements of the Specifications mentioned in Section THIRTY-FIRST. The parties agree that, insofar as practicable, shorter poles or poles of less strength will be used where such poles will meet the requirements of the parties hereto and of the Specifications. Any preservative treatment applied to new or existing Jointly Used poles shall be subject to mutual approval by both parties.

NORMAL SPACE on a Jointly Used pole is the space designated, by the provisions of the Specifications mentioned in Section THIRTY-FIRST for the exclusive use of both parties for their respective attachments; except, that certain attachments of one party may be located in space reserved for the other party in accordance with said Specifications or as specifically provided elsewhere in this Agreement.

Scope of  
Agreement.

FIRST:

SECOND: This Agreement shall be in effect in the territory of the State of New Jersey in which the parties hereto now or in the future both have the right to operate. This Agreement shall cover all wood poles of each of the parties now existing or hereafter erected in the above territory when said poles are brought hereunder in accordance with the procedure hereinafter provided in this Agreement.

Poles Excluded  
From Joint Use.

FIRST

THIRD: Each party reserves the right to exclude from Joint Use (1) poles which, in the Owner's judgment are necessary for its own sole use; and (2) poles which carry, or are intended by the Owner to carry, circuits of such character that in the Owner's judgment the proper rendering of its service now or in the future makes Joint Use of such poles undesirable.

#### I. RELATING TO JOINT USE OF POLES

SECOND:

Percentage of  
Ownership of  
Poles in  
Joint Use.

FOURTH: In any case where the parties hereto shall conclude arrangements for the Joint Use of any poles (including guy stubs), the ownership of such poles shall be determined by mutual agreement to the end that the Telephone Company will solely own 46% and the Electric Company will solely own 54% of the total number of poles and guy stubs

60%

- 2 -

40%

*Second:* Jointly Used under this Agreement. In this connection, it is understood between the parties hereto, that in the event one of the parties has a sole requirement for a pole or poles longer than 40 feet in length, such party shall become the Owner of such pole or poles unless in specific cases the other party elects to remain or become the Owner of such pole or poles.

The provisions of Section FOURTH above may be modified or revised from time to time as may be mutually agreed upon and approved in writing by the Division Engineer-Hudson of the Telephone Company and the Manager of Operations of the Electric Company.

The provisions for maintaining the agreed to percentages of pole ownership are included in Part V of this Agreement.

Joint Use of  
New Poles or  
Reconstructed  
Pole Line.

*Third:* FIFTH: Whenever either party hereto requires new pole facilities within the territory covered by this Agreement, either as an additional pole line, as an extension of an existing pole line, or in connection with the reconstruction of an existing pole line, and such pole facilities are not to be excluded from Joint Use under the provisions of Section THIRD, it shall promptly notify the other party to that effect in writing (verbal notice, subsequently confirmed in writing, may be given), stating the proposed location of the new poles. Within ten days after the receipt of such written notice, the other party shall reply in writing, stating whether it does, or does not, desire Joint Use of said poles and, if it does, the amount of space it requires. The parties shall cooperate in designing the proposed construction or reconstruction to meet the needs of both parties with due regard to pole height and class, span lengths and other pertinent factors including the provisions of the Specifications mentioned in Section THIRTY-FIRST.

Each party shall place its own attachments on the new Jointly Used poles and perform any tree trimming or cutting incidental thereto.

Joint Use of  
Existing  
Poles.

*Fourth:* SIXTH: Either party shall have the right as Licensee, in accordance with the terms of this Agreement, to place its attachments on any pole owned by the other party after the completion of any transferring or rearranging required in connection with the proposed attachments on said poles, including any necessary pole replacements, subject, however, to the provisions of Sections THIRD and THIRTY-FIRST.

Poles of  
Insufficient  
Height or  
Strength.

SEVENTH: Whenever any Jointly Used pole or any pole about to be so used under the provisions of this Agreement is insufficient in height or strength for the existing attachments and for any proposed immediate additional attachments thereon, the Owner, upon the request of the Licensee, shall promptly replace such pole with a new pole of the necessary height and strength and shall make such other changes in the existing pole line in which such pole or poles are included as the conditions may then require. When mutually agreed upon in specific cases, the Licensee may replace such poles and become the Owner thereof.

Each party shall place, transfer and rearrange its own attachments, including any tree trimming or cutting incidental thereto and shall perform all work required promptly and in such manner as not to interfere with the attachments or service of the other party.

Licensee's  
Right to  
Remove  
Attachments.

EIGHTH: The Licensee shall have the right to remove its attachments from the poles of the Owner at any time.

APP. 8 4.02

Owner Desires  
Exclusive Use  
of Jointly Used  
Pole.

NINTH: If at any time the Owner desires the exclusive use of a Jointly Used pole, the Licensee shall remove its attachments therefrom as soon as practicable after receipt of written notice from the Owner and in any case within six (6) months after receipt of such notice unless a longer period is mutually agreed upon. Unless otherwise agreed, the Licensee shall bear the Net Cost of such removal and relocation.

Abandonment of  
Poles by Owner.

TENTH: If the Owner desires at any time to abandon any Jointly Used pole, it shall give the Licensee notice in writing to that effect at least sixty (60) days prior to the date on which it intends to abandon such pole. If, at the expiration of said period, the Owner shall have no attachments on such pole but the Licensee shall not have removed all of its attachments therefrom, such poles shall thereupon become the property of the Licensee, and the Licensee shall save harmless the former Owner of such pole from all obligation, liability, damages, costs, expenses or charges incurred thereafter, and not arising out of anything theretofore occurring, because of, or arising out of, the presence or condition of such pole or of any attachments thereon; and shall pay the Owner a sum equal to the then Current Value of such abandoned pole or poles or such other equitable sum as may be agreed upon between the parties.



Abandonment of  
Poles by Both  
Parties.

ELEVENTH: If both parties at the same time abandon any Jointly Used pole, each party shall, at its own expense, remove its attachments therefrom. The last party removing its attachments shall remove the pole and dispose of it to the best advantage unless otherwise mutually agreed upon in a specific case. The expense involved in the removal of the pole shall be borne by the Owner. If the Licensee removes the pole, the Owner shall be credited with the salvage value of the pole and Licensee shall advise the Owner, in writing, if any sidewalk, etc., repairs are required due to the pole removal. Owner shall be responsible for such repairs and costs thereof.

Character of  
Circuits  
Changed.

TWELFTH: When either party desires to change the character of its circuits on Jointly Used poles, such party shall give ninety (90) days notice in writing to the other party of such contemplated change. The parties shall then cooperate in determining: (1) The conditions under which Joint Use may be continued on a mutually satisfactory basis; or (2) The most practical and economical method of providing for separate lines. In the latter event the party whose circuits are to be removed from the Jointly Used poles shall promptly carry out the necessary work. Unless otherwise agreed, the party planning the change of character of its circuits shall move at its sole expense or if such party is the pole Owner and requests the Licensee to move, the pole Owner shall bear the Licensee's net costs of such removal and relocation. Any changes in pole ownership shall be made through purchase and sale.

## II. RELATING TO THE DIVISION OF COSTS

The provisions of this Part apply to the Joint Use of poles by the two parties hereto when the Electric Company's circuits operate at less than 5,000 volts between conductors or less than 2,900 volts to neutral or ground. Where Joint Use with higher voltages is involved, the division of costs and ownership of poles will be agreed to in connection with the required approval of such Joint Use.

New Poles, Pole  
Relocations,  
Replacements  
and Removal of  
Defective Poles.

THIRTEENTH: The pole Owner shall bear the cost of (1) new Jointly Used poles placed under this Agreement, (2) removal or replacement of defective poles and (3) pole relocations and replacements when not required for the sole benefit of the Licensee. However, when poles are replaced because of the needs of both parties, and poles longer than 40 feet are required solely for the benefit of the Licensee, the Owner of the replaced poles shall bear

Replacement or  
Relocation for  
Sole Benefit  
of Licensee.

the Net Loss and the Licensee shall become the Owner of the replacing poles and bear the cost of same except in cases where the original pole Owner elects to continue as Owner in which cases the Owner shall bear entire cost of the replacement.

FOURTEENTH: When an existing Jointly Used pole has been satisfactory for Joint Use and replacement or relocation is required for the sole benefit of Licensee, Owner shall place a new pole satisfactory for both parties at Owner's expense and Licensee shall bear the Net Loss entailed in the replacement. However, in the event the Licensee's requirements involve replacing a 40 foot or shorter pole with one 45 feet or longer, the Licensee shall become the Owner and bear the cost of the new pole and shall reimburse the Owner of the replaced pole for the Net Loss except in cases where the original Owner elects to continue as Owner, in which cases the Owner shall place the new pole at Owner's expense and Licensee shall bear the Net Loss entailed in the replacement.

Where the existing pole is relocated for the sole benefit of Licensee, Licensee shall bear the cost of relocating the Owner's pole.

When Non-Joint  
Poles are not  
Suitable for  
Joint Use.

FIFTEENTH: When existing non-Joint Use poles are to become Jointly Used but are not suitable for Joint Use due to insufficient height or strength or because the span lengths are unsatisfactory, Owner shall place additional poles, replace existing poles or rearrange the pole line at Owner's expense. However, in the event the Licensee has a sole requirement for poles longer than 40 feet the Licensee shall become the Owner and bear the cost of such poles except in cases where the original Owner elects to continue as Owner, in which cases the Owner shall bear the cost of such poles. The Net Loss entailed in the replacement of any existing nondefective poles shall be borne by Owner unless:

A. If at the time the pole line was constructed, Owner had consulted the other party and the other party had expressed no interest in Joint Use, Licensee shall bear the Net Loss entailed in the replacement of said poles.

B. If a pole line was designed for Joint Use and subsequently, one or more poles require replacement with poles taller or stronger for the sole benefit of Licensee, Licensee shall bear the Net Loss entailed in the replacement of said poles.

5.04  
C. If the pole or poles had been excluded from Joint Use under the provisions of Section THIRD, Licensee shall bear the Net Loss entailed in the replacement of said pole or poles.

Abandonment of One of Two or More Pole Lines

SIXTEENTH: In the case of abandonment of one of two or more pole lines on the same street, highway, etc., the terms under which Joint Use shall be established shall be mutually agreed upon in the particular case.

Division of Costs in Specific Situations.

SEVENTEENTH: If in specific situations, the division of costs of Jointly Used poles in accordance with the provisions of this Agreement will result in inequities or otherwise make Joint Use unattractive to one of the parties hereto, even though such Joint Use may be desirable or economical from the over-all standpoint, nothing herein shall preclude the establishment of other arrangements for the division of costs of Jointly Used poles in such situations when approved in writing by designated representatives of the parties hereto.

Cost of Placing, Rearranging, etc. Attachments.

5.07  
EIGHTEENTH: Each party shall place, maintain, rearrange, transfer and remove its own attachments at its own expense except as specifically stated in Section TWELFTH.

Regarding Payments Between Parties.

NINETEENTH: Any payment made by the Licensee under the foregoing provisions of this Part shall not in any way affect the ownership of the Jointly Used poles concerned except where it is specifically stated that the Licensee is to become the Owner.

### III. RELATING TO GUYS, GUY ANCHORS AND GUY STUBS

Responsibility for Guying.

6.01  
TWENTIETH: Each party shall be fully responsible for the provision of guying facilities adequate to sustain unbalanced loads due to its attachments.

Jointly Used Guy Anchors, Guy Stubs and Guys.

TWENTY-FIRST: The parties agree that guy anchors, guy stubs and guys shall be used jointly wherever such Joint Use will be practical and mutually advantageous and agreeable. Such Joint Use shall be on the following basis:

\* A. The unbalance on Jointly Used Poles, in terms of storm load in heavy loading areas, requiring guying by each party and permitting the application of joint guys, joint anchors or both shall be as specified in the Specifications.

B. In placing Jointly Used poles in new pole lines, in extensions of existing lines and in replacing existing poles, guy anchors, guy stubs and guys suitable for Joint Use shall be placed as far as practicable when guying is required by both parties, at the pole Owner's expense. The same procedure shall apply in the case of existing Jointly Used poles where guying does not exist but is required by both parties.

Limitation on  
Joint Use of  
Anchors.

Where the combined load of both parties on a Jointly Used guy anchor would exceed the maximum allowable load for the largest type anchor mutually agreed to by both parties for Joint Use, each party shall own and maintain its own guy anchor.

Ownership of  
Jointly Used  
Guying  
Facilities.

Jointly Used guys, guy stubs and anchors shall in each case be owned by the Owner of the pole or stub with which the guying is associated.

Relating to  
Existing Solely  
Used Guy  
Anchors.

C. Either party may, subject to the approval of the owner of an existing solely used guy anchor, attach a guy to such anchor, if adequate for the purpose. When such attachment is approved and made, the anchor shall be considered in Joint Use and in each case the Owner of the pole shall remain or become the Owner of the Jointly Used anchor without payment or compensation to Licensee.

D. Where an existing solely used guy anchor is not adequate for Joint Use, the party requiring the additional guy shall generally place its own anchor. However, where Joint Use is desirable for right of way or other reasons, a guy anchor adequate for Joint Use may be placed at the cost and expense of the party requiring the additional guying. If the Joint Use anchor was placed for the needs of the Licensee, the pole Owner shall become the Owner of the Jointly Used anchor without payment or compensation to Licensee.

Each party shall attach or transfer to the new anchor at its own expense.

Replacement of  
Existing  
Jointly Used  
Anchor.

E. Where an existing Jointly Used anchor becomes inadequate due to an increase in the guying requirements of one party, and it is mutually agreed to replace the existing guy anchor with a larger anchor, the cost and expense of such replacement shall be borne by the party having the increase in guying requirements and the Owner of the pole shall remain or become the Owner of the replacement anchor without payment or compensation to the Licensee.

86.02  
Each party shall attach or transfer to the new anchor at its own expense.

Relating to  
Existing Solely  
Used Guy Stubs.

86.02  
F. Either party may, subject to the approval of the Owner of an existing solely used guy stub, attach a guy to such stub, if adequate for the purpose. When such attachment is approved and made, the stub shall be considered in Joint Use and in each case the Owner of the pole with which the guy stub is associated shall remain or become the Owner of the Jointly Used guy stub. In such cases where the Licensee was the Owner of the guy stub, ownership of the stub shall be transferred to the Owner by purchase and sale.

86.02  
G. Where mutually agreed upon, a guy stub, owned and used only by Owner of pole, may be replaced with a guy stub suitable for Joint Use. The new stub shall be placed at the cost and expense of Owner of pole with which said stub is associated, and such stub shall be and remain the property of the pole Owner. Owner shall be reimbursed by Licensee for the Net Loss entailed in the replacement. Each party shall place or transfer its guy at its own expense.

H. Where mutually agreed upon, a guy stub owned and used only by Licensee, may be replaced with a guy stub suitable for Joint Use. The new stub shall be placed at the cost and expense of the Owner of pole with which said stub is associated and such stub shall become the property of the pole Owner. Licensee shall be reimbursed for its Net Loss involved in the replaced stub. Each party shall place or transfer its guy at its own expense.

Relating to  
Guys.

86.02  
I. Where a guy has been solely used by Owner of pole and Licensee also requires a guy, Licensee shall generally place a guy for its sole use. When mutually agreed upon, Licensee may place a guy suitable for Joint Use at Licensee's expense. Pole Owner shall thereupon assume full ownership in the Jointly Used guy without payment or compensation to Licensee, and remove its own guy at its sole expense.

86.02  
J. Where a guy has been solely used by Licensee and pole Owner also requires a guy, pole Owner shall generally place a separate guy for its sole use. When mutually agreed upon, pole Owner may place a guy suitable for Joint Use at its sole expense and shall become the Owner thereof. Licensee shall remove its guy at its expense.

Responsibility  
for Removing  
Anchor Rods.

K. The last party removing its guy strand from a Jointly Used guy anchor rod or pipe shall be responsible for the removal of the anchor rod or pipe and shall bear the cost of its removal.

Maintenance of  
Jointly Used  
Guys, Anchors  
and Guy Stubs.

L. Jointly used guys, guy anchors and guy stubs shall be maintained in safe and serviceable condition, and shall in each case be replaced when necessary at the expense of the Owner of the pole with which such guy, anchor or stub is associated.

M. The parties agree that relinquishment of ownership without direct compensation by each party to the other of guys and guy anchors, under the provisions of this Section, should be in such proportion that inequities will not result for either party.

Maintenance of  
Solely Used  
Guys, Anchors  
and Guy Stubs.

TWENTY-SECOND: Guy anchors, guy stubs and guys used solely by one of the parties hereto, including such guys when attached to Jointly Used stubs or anchors, shall be owned, installed and maintained by the party solely using such anchors, stubs or guys.

#### IV. RELATING TO ATTACHMENT RENTALS

One Party's  
Attachments on  
Poles Owned by  
Other Party.

TWENTY-THIRD: Under this Agreement, both parties agree that no rentals shall be paid or payable by either party to, or received or receivable by either party from the other for or on account of any pole or guy stub usage.

Other Companies  
or Parties'  
Attachments.

TWENTY-FOURTH: The Telephone Company may, with the concurrence of the Electric Company, grant permission to other communication companies or parties to attach communication wires or cables within the Telephone Company's space reservation. Rentals paid by the third company or party in such cases shall be paid to the Telephone Company.

The Electric Company may, with the concurrence of the Telephone Company, grant permission to other companies or parties using supply circuits to attach supply wires or cables within the Electric Company's space reservation. Rentals paid by the third company or party in such cases shall be paid to the Electric Company.

#### V. MAINTENANCE OF POLE OWNERSHIP RATIO

Attachment  
Count.

TWENTY-FIFTH: An attachment count, using sampling procedures mutually agreed to by both parties shall be made each fourth year or at longer intervals as may be



mutually agreed upon, to determine the number of poles and guy stubs each party has an Attachment or Attachments on poles or guy stubs owned by the other party.

Inspection  
Result  
Statement.

TWENTY-SIXTH: Subsequent to the attachment count referred to in Section TWENTY-FIFTH, the two parties shall mutually agree in writing to the total number of poles and guy stubs owned by each party having an Attachment or Attachments of the other party on them and such statement shall be approved by the Division Engineer-Hudson of the Telephone Company and by the Manager of Operations of the Electric Company.

Adjustment of  
Pole Ownership.

TWENTY-SEVENTH: In the event the statement mentioned in the preceding Section indicates that the percentages of Joint Use pole and guy stub ownership are other than those mentioned in Section FOURTH, the Company owning a smaller percentage of poles and guy stubs in Joint Use than required shall (1) acquire through purchase and sale a sufficient quantity of existing Jointly Used poles and guy stubs from the other Company or (2) place a sufficient number of Joint Use poles and stubs to bring its Joint Use pole and guy stub ownership percentage to that stated in Section FOURTH. The cost of poles and guy stubs involved in the purchase and sale shall be based on their Current Values. The ownership of Jointly Used guy anchors and guys associated with such poles and stubs shall be transferred to the purchaser of the poles and stubs without payment or compensation for same.

TWENTY-EIGHTH: All Jointly Used poles and guy stubs purchased by one Company from the other Company shall be at locations mutually agreed upon by both Companies. It is understood that the purchasing Company will not be obligated to buy any Jointly Used pole longer than 40 feet where the selling Company has a sole requirement for a pole longer than 40 feet.

TWENTY-NINTH: The purchase and sale of Jointly Used poles and guy stubs shall be consummated within three months after the statement mentioned in Section TWENTY-SIXTH has been mutually agreed to.

THIRTIETH: The provisions included in this Part for maintaining the percentages of pole ownership may be modified or revised when mutually agreed upon and approved in writing by the Division Engineer-Hudson of the Telephone Company and the Manager of Operations of the Electric Company.

VI. RELATING TO JOINT USE GENERALLY

Specifications.

THIRTY-FIRST: All construction in connection with the Joint Use of poles covered by this Agreement shall be in conformity with the Specifications contained in Appendix "A" attached hereto and hereby made a part hereof, except for poles and attachments existing as of the date of this Agreement and more specifically covered in Section THIRTY-SECOND. Appendix "A" may be amended from time to time in accordance with developments and improvements in the art as may be mutually agreed upon and approved in writing by the Manager of Operations of the Electric Company and the Division Engineer-Rudson of the Telephone Company.

The Specifications contained in Appendix "A" are referred to as the Specifications in this Agreement. Any conditions not covered by the Specifications shall conform to the current edition of the National Electrical Safety Code.

Construction.

THIRTY-SECOND: All attachments hereafter placed on Jointly Used poles covered by this Agreement shall be constructed, erected, and maintained in accordance with the Specifications and shall be kept at all times in safe condition and in thorough and complete repair. (Each party shall do the work of placing, maintaining, transferring and rearranging its own attachments. All work shall be performed by each party in a manner so as not to interfere with the attachments or service of the other party.)

Jointly Used poles, including their attachments, existing as of the date of this Agreement, which are not in conformity with the Specifications, shall be brought into conformity therewith during their normal replacement, relocation, maintenance, rebuilding or reconstruction. As far as practicable, this procedure shall apply also in the case of individual pole replacements or rearrangements. Hazardous conditions shall in all cases be corrected promptly. After being brought into conformity with the Specifications, all attachments shall be maintained in accordance therewith.

Subject to the exceptions of Section THIRD, all additions to present Joint Use lines shall be built with poles suitable for Joint Use.

When replacing a Jointly Used pole, consideration shall be given to placing the new pole in the same hole occupied by the old pole, where transfer costs would



otherwise be excessive as in the case of poles carrying terminals of aerial cable, transformer equipment, underground connections, concentric service connections, or line dead ends.

Whenever it is necessary to replace or relocate a Jointly Used pole, both parties shall, before making the change, review their plans to the end that the proposed work will meet the requirements of both parties.

After a Jointly Used pole has been replaced, the party making the replacement shall notify the other party in writing to that effect, and the other party herein referred to shall cooperate in transferring its attachments within a reasonable time. The old pole shall be removed and disposed of to the best advantage by the last party removing its attachments unless otherwise agreed to between the two parties. For billing purposes, the established fixed price for cost of a pole removal shall be associated with the disposal of the major portion of the old pole.

**Interference.**

All supply and communication circuits and their connected apparatus shall be constructed, operated and maintained with due regard to avoiding or minimizing interference, by induction or by leakage, to the service given over the communication circuits. Where such interference is experienced, those measures shall be applied which will most conveniently and economically avoid or minimize the interference.

**Responsibility  
of Sidewalk,  
Etc., Repairs.**

If a broken or damaged sidewalk, etc., is a necessary part of pole (including guy stubs) placements or removals, the Owner shall be responsible for making the required repairs at his expense. If Licensee has placed or removed poles at Owner's expense, Licensee shall promptly advise the Owner in writing regarding the requirements for such repairs.

**Division of  
Pole Work.**

The placing of new poles and the relocation or replacement of existing poles shall be divided equitably between the two parties.

**Marking of  
Poles to  
Identify  
Ownership.**

THIRTY-THIRD: All poles owned by each party hereto shall be so marked as to identify ownership. Marking used by each party shall be mutually agreed to.

Pole  
Inspections.

THIRTY-FOURTH: The requirements for maintenance replacements of Jointly Used poles (including guy stubs) shall be determined through periodic inspections by and at the expense of the Owner of Jointly Used poles.

Maintenance of  
Joint Use  
Poles.

THIRTY-FIFTH: The Owner agrees to maintain the poles and to replace such as become defective without expense to the Licensee. In cases of replacement, each party shall transfer its own attachments to the new poles at its own expense.

Except in emergencies, all pole maintenance replacements due to deterioration or other work necessary under and during Joint Use shall be agreed to by the parties in each case in writing and shall be done by the party or parties designated by such agreement. Where there is a change in the character of the pole or in any essential condition, the change shall be also agreed to by both parties in writing.

Change in  
Location,  
Replacement or  
Removal of  
Joint Use Pole.

THIRTY-SIXTH: Except in emergencies, neither party shall change the location of, replace or remove any Jointly Used pole without the written consent of the other party.

Licensee  
Performing Work  
for Owner and  
Billing for  
Same, Including  
Damage Cases.

THIRTY-SEVENTH: When mutually agreed to in writing, the Licensee may place, remove, replace or relocate specific Owner's poles, guy stubs and Jointly Used guys and guy anchors. Billing for such work shall be in accordance with the provisions of Parts II and III of this Agreement and at costs included in the price schedules mentioned in Section FORTIETH.

Where work on items not covered in the price schedules mentioned in Section FORTIETH is performed by one party at the cost of the other party or where billing is in connection with damage to either party's property, the party performing the work shall bill at actual cost in accordance with its own practices.

Right-of-Way.

THIRTY-EIGHTH: It is agreed that either party granting Joint Use to the other party shall, as far as practicable, permit the other party use of its right-of-way. However, such granting party does not warrant or assure to such other party privileges or easements in connection therewith and such other party shall be solely responsible for the proper establishment of its own right-of-way and shall save harmless and indemnify the

granting party from claims, liability, or damage resulting from deficiencies in such establishment. It is the desire and intent of the parties, however, that insofar as feasible necessary rights-of-way including rights to trim trees for poles erected for Joint Use under this Agreement shall provide for electric and communication facilities and shall be obtained on right-of-way forms mutually agreed upon.

**Defaults.**

THIRTY-NINTH: If either party shall default in any of its obligations under this Agreement and such default continue thirty (30) days after notice thereof in writing by the other party, the party not in default may suspend the rights of the party in default insofar as concerns the granting of further Joint Use. If such default shall continue for a period of ninety (90) days after such suspension, the party not in default may forthwith terminate this Agreement as far as concerns the further granting of Joint Use.

**Bills and  
Payment for  
Work.**

FORTIETH: Upon the completion of work performed hereunder by either party, the expense of which is to be borne wholly or in part by the other party, the party performing the work shall present to the other party within thirty (30) days after the completion of such work an itemized statement of the costs and such other party shall within thirty (30) days after such statement is presented pay to the party doing the work such other party's proportion of the cost of said work.

The parties hereto shall cooperate in the preparation of schedules covering prices for poles, guys and guy anchors, average cost of pole removals, salvage allowance and any other unit costs or rates required in connection with billing between the parties in carrying out the provisions of this Agreement. Such schedules may be revised at any time upon approval in writing by the Manager of Operations of the Electric Company and the Division Engineer-Hudson of the Telephone Company.

**Assignment  
of Rights.**

FORTY-FIRST: Except as otherwise provided in this Agreement, neither party hereto shall assign or otherwise dispose of this Agreement or any of its rights or interests hereunder, or in any of the jointly used poles, or the attachments or rights-of-way covered by this Agreement, to any firm, corporation or individual, without the written consent of the other party; provided, however, that nothing herein contained shall prevent or limit the right of either party to mortgage any or all of its property, rights,

privileges, and franchises, or lease or transfer any of them to another corporation organized for the purpose of conducting a business of the same general character as that of such party, or to enter into any merger or consolidation; and, in case of the foreclosure of such mortgage; or in case of such lease, transfer, merger, or consolidation, its rights and obligations hereunder shall pass to, and be acquired and assumed by, the purchaser on foreclosure, the transferee, lessee, assignee, merging or consolidating company, as the case may be; and provided, further, that subject to all of the terms and conditions of this Agreement, either party may permit any corporation conducting a business of the same general character as that of such party, and owned, operated, leased and controlled by it, or associated or affiliated with it in interest, or connecting with it, the use of all or any part of the space reserved hereunder on any pole covered by this Agreement for the attachments used by such party in the conduct of its said business; and for the purpose of this Agreement, all such attachments maintained on any such pole by the permission as aforesaid of either party hereto shall be considered as the attachments of the party granting such permission, and the rights, obligations and liabilities of such party under this Agreement, in respect to such attachments, shall be the same as if it were the actual owner thereof.

**Attachments of  
Outside Parties.**

FORTY-SECOND: If either of the parties hereto has, prior to the effective date of this Agreement, conferred upon others, not parties to this Agreement, by contract or otherwise, rights or privileges to use any poles covered by this Agreement, nothing herein contained shall be construed as affecting such rights or privileges, and either party hereto shall have the right, by contract or otherwise, to continue and extend such existing rights or privileges.

On and subsequent to the effective date of this Agreement, and except as provided in the last paragraph of this Section, all agreements or contracts covering the attachment by a third party of supply circuits to jointly used poles shall be made by the Electric Company, and all agreements or contracts covering the attachment by a third party of communication wires or cables to jointly used poles shall be made by the Telephone Company, all such agreements or contracts for attachments to jointly used poles being subject to the approval of both parties hereto.

For the purpose of this Agreement, the attachments of any outside party as covered in the first two paragraphs of this Section, except those of a municipality or other public

authority, shall be treated as attachments belonging to the grantor, and the rights, obligations, and liabilities hereunder of the grantor in respect to such attachments shall be the same as if it were the actual owner thereof.

Wires, cables or other attachments of a municipality or other governing body, such as fire alarm, police or other like signal systems may be attached to jointly used poles covered by this Agreement under terms mutually agreed upon by the parties to this Agreement, provided such attachments are placed and maintained in accordance with the provisions of the National Electrical Safety Code and the Specifications.

**Liability and  
Damages.**

FORTY-THIRD: Whenever any liability is incurred by either or both of the parties hereto for damages for injuries to the employees or for injury to the property of either party, or for injuries to other persons or their property, arising out of the Joint Use of poles, guy stubs, guy anchors and guys under this Agreement, or due to the proximity of the wires and fixtures of the parties hereto attached to the Jointly Used poles covered by this Agreement, the liability for such damages, as between the parties hereto, shall be as follows:

A. Each party shall be liable for all damages for such injuries to persons or property caused solely by its negligence or solely by its failure to comply at any time with the Specifications; provided that construction temporarily exempted from the application of said Specifications under the provisions of Section THIRTY-SECOND shall not be deemed to be in violation of said Specifications during the period of such exemption.

B. Each party shall be liable for all damages for such injuries to its own employees or its own property as are caused by the concurrent negligence of both parties hereto or that are due to causes which cannot be traced to the sole negligence of the other party.

C. In the case of damages for such injuries to persons other than employees of either party, and/or damages for such injuries to property not belonging to either party that are caused by the concurrent negligence of both parties hereto or that are due to causes which cannot be traced to the sole negligence of one party, the parties shall be liable for said damages as follows:

Electric Company	54%
Telephone Company	46%

D. Where, on account of injuries of the character described in the preceding paragraphs of this Section, either party hereto shall make any payments to injured employees or to their relatives or representatives in conformity with (1) the provision of any workmen's compensation act or any act creating a liability to the employer to pay compensation for personal injury to an employee by accident arising out of and in the course of the employment, whether based on negligence on part of the employer or not, or (2) any plan for employees' disability benefits or death benefits now established or hereafter adopted by the parties hereto or either of them, such payment shall be construed to be damages within the terms of the preceding paragraphs lettered A and B and shall be paid by the parties hereto accordingly.

104  
E. All claims for damages arising hereunder that are asserted against or affect both parties hereto shall be dealt with by the parties hereto jointly; provided, however, that in any case under the provisions of paragraph C of this Section where the claimant desires to settle any such claim upon terms acceptable to one of the parties hereto but not to the other, the party to which said terms are acceptable may, at its election: If the Electric Company, pay to the Telephone Company the percent of the Electric Company's liability as stated in paragraph C of this Section of the expense which such settlement would involve, or if the Telephone Company, pay to the Electric Company the percent of the Telephone Company's liability as stated in paragraph C of this Section of the expense which such settlement would involve and thereupon said other party shall be bound to protect the party making such payment from all further liability and expense on account of such claim.

F. In the adjustment between the parties hereto of any claim for damages arising hereunder, the liability assumed hereunder, by the parties shall include, in addition to the amounts paid to the claimant, all expenses incurred by the parties in connection therewith, which shall comprise costs, disbursements and other proper charges and expenditures, but shall not include attorneys' fees.

G. Where a Jointly Used pole has been replaced and one of the parties hereto has transferred its attachments to the new pole and has removed all of its construction from the old pole and has so notified the other party in writing, if the other party fails to transfer its attachments and remove its construction from the old pole within sixty (60) days from the receipt of such notice from the



*10/26/59*  
other party, it shall become solely responsible for said old pole and said attachments and shall be solely liable for injury to persons not in the employ of either of the parties hereto and for damage to property not belonging to either of the parties hereto.

*10/26/59*  
**Payment of Taxes.**

**FORTY-FOURTH:** Each party shall pay all taxes, assessments, fees or charges levied on its own property upon all Jointly Used poles.

*10/26/59*  
Taxes and assessments which are levied on poles Jointly Used, including jointly used guys, guy anchors and guy stubs associated therewith, shall be paid by the Owner, except that any tax, fee, or charge levied on Owner's poles solely because of their use by the Licensee, shall be paid by the Licensee.

**Service of Notices.**

**FORTY-FIFTH:** Wherever in this Agreement notice is provided to be given by either party hereto to the other such notice shall be in writing and given by letter mailed, or by personal delivery, to the Electric Company at its office at 10 No. Broadway, Nyack, New York or to the Telephone Company at its office at 540 Broad Street, Newark 1, New Jersey, as the case may be, or to such other address as either party may, from time to time, designate in writing for that purpose.

**Waiver of Portions of Agreement.**

*10/26/59*  
**FORTY-SIXTH:** The failure of either party to enforce, insist upon, or comply with any of the terms and provisions of this Agreement, or its waiver of the same in any instance or instances, shall not be construed as a general waiver or relinquishment of any such terms or provisions, but the same shall be and remain at all times in full force and effect.

**Cancellation of Existing Agreements.**

*10/26/59*  
**A.** Any and all existing general agreements relating to the Joint Use of poles heretofore entered into between the parties, or between their predecessors or between companies which have been merged into or been succeeded by the parties to this Agreement, which were effective in the State of New Jersey, are hereby canceled as of the effective date of this Agreement, except as stated in paragraphs C and D of this Section. It is mutually agreed that the foregoing does not affect any existing Agreements relating to poles owned jointly or jointly used by the two parties hereto together with an outside party, not a party to this Agreement.

**B.** All poles solely owned by one of the parties and Jointly used by both parties hereto, as of the effective date of this Agreement, are hereby brought under this Agreement and hereafter shall be subject to all of the terms and provisions hereof.

**C.** The Agreement for the Joint Use of Poles between the parties hereto, dated January 1, 1959, shall remain in full force and effect with respect to all poles Jointly Owned by the parties hereto. The parties hereto agree not to enter into Joint Ownership of any additional poles under said

agreement of January 1, 1959, and agree to discontinue Joint Ownership of all existing Jointly Owned poles as soon as practicable through purchase and sale, and by other means available, to the end that each party will solely own the percentage of poles in Joint Use as stated in Section FOURTH of this Agreement. As Jointly Owned poles are transferred to sole ownership, such poles shall be brought under this Agreement and shall thereafter be subject to all of the terms and provisions hereof. After all Jointly Owned poles have been transferred to sole ownership, the Agreement dated January 1, 1959, referred to above, shall be fully abrogated and annulled through appropriate action by the parties hereto.

D. All of the terms and conditions specified in paragraph C of this Section regarding ownership, disposition, and applicability of agreements to Jointly Owned poles shall apply with equal force and effect to Jointly Owned guy anchors and Jointly Owned guys.

Term of  
Agreement.

FORTY-SEVENTH: Subject to the provisions of Section THIRTY-NINTH, Defaults, herein, this Agreement may be terminated, so far as concerns further granting of Joint Use by either party, after the first day of January 1965 upon one (1) year's notice in writing to the other party provided, that if not so terminated it shall continue in force thereafter until terminated by either party at any time upon one year's notice in writing to the other party as aforesaid, and provided further that notwithstanding such termination, this Agreement shall remain in full force and effect with respect to all poles Jointly Used by the parties at the time of such termination.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed in duplicate, and their corporate seals to be affixed thereto by their respective officers thereunto duly authorized.

ATTEST:

*Robt. J. Egan*  
Sec. Secretary

ATTEST:

*Thomas Glynn Walker*  
Secretary

ROCKLAND ELECTRIC COMPANY

By *Charles J. Helan*  
Executive Vice President

NEW JERSEY BELL TELEPHONE COMPANY

By *A.B. Nester*  
Division Engineer-Hudson

APPROVED AS TO FORM  
THOMAS GLYNN WALKER  
GENERAL COUNSEL



APPENDIX "A"

TO THE AGREEMENT DATED January 1, 1962 , BETWEEN  
THE ROCKLAND ELECTRIC COMPANY AND  
NEW JERSEY BELL TELEPHONE COMPANY

GENERAL SPECIFICATIONS FOR THE CONSTRUCTION OF JOINTLY USED  
WOOD POLE LINES CARRYING SUPPLY AND COMMUNICATION CIRCUITS

TABLE OF CONTENTS

1. SCOPE AND APPLICATION
2. DEFINITIONS
3. INDUCTIVE COORDINATION
4. POLE FRAMING SETTING DEPTHS AND INSPECTION
5. VERTICAL CLEARANCES
6. VERTICAL RUNS
7. COMMUNICATION SUSPENSION STRANDS AND LONGITUDINAL  
RUNS OF PAIRED CONDUCTORS
8. CLIMBING SPACE
9. MISCELLANEOUS ATTACHMENTS AND MARKINGS
10. GUYS
11. GUY INSULATORS
12. STRENGTH REQUIREMENTS, ATTACHMENT LEVELS, AND LIMITING SAGS.
13. INDUCTIVE COORDINATION PROCEDURES

## 1. SCOPE AND APPLICATION

### 1.01 Application

These Specifications shall apply to all joint use construction covered by this Agreement. They state the minimum requirements for separations, clearances and strength of construction, and are based on the National Electrical Safety Code, Sixth Edition.

### 1.02 Scope

(a) The requirements specified herein shall apply to all joint use construction involving communication cables or conductors and supply cables or conductors of the following types:

- (1) Constant potential alternating current supply circuits normally operating at voltages not exceeding 5,000 volts between conductors and not over 2,900 volts to neutral or ground.
- (2) Constant current supply circuits of not more than 7.5 amperes regardless of the voltage, and of more than 7.5 amperes where the open circuit voltage of the supply transformer is not more than 2,900 volts.
- (3) Any effectively grounded supply cables located above communication cables or conductors.
- (4) 13.2 KV multigrounded neutral distribution circuits when approved as specified in Section 13 of APPENDIX A

(b) All other types of joint use pole line construction shall be built to Grade B construction, as specified by the National Electrical Safety Code, current edition, with the exception that communication cables involved in such joint use construction need meet only the requirements of Grade C construction. Supporting structures (poles and guys) associated with such communication cables shall be built to Grade B construction.

### 1.03 New Developments

It is recognized that in the development of the art, other satisfactory methods of construction may be devised, and the fact that specific methods of construction are required herein does not preclude consideration at any time by the parties hereto of other methods of construction and the revision of these Specifications in the manner specified in SECTION THIRTY-FIRST of the Agreement. These are not complete Specifications, but are intended to embody the requirements which are most important from the standpoint of safety to plant, workmen and public.

### 1.04 Conditions Not Covered

Conditions not covered herein shall be governed by the appropriate requirements of the National Electrical Safety Code, current edition. Should the National Electrical Safety Code fail to cover a specific situation, the installation shall be made on the basis of general industry practice and the engineering judgement of the owner, subject to the approval of the other company.

## 2. DEFINITIONS

**2.01** For the purpose of these Specifications, the following terms when used herein shall have the following meanings:

(See Section **FIRST** of the Agreement for additional definitions.)

**Climbing Space** means the vertical space with specified horizontal dimensions reserved along the side of a pole to permit ready access to linemen to equipment and circuits located on the pole.

**Communication Circuit** means any circuit used exclusively for public or private communication or signaling purposes, not for the purpose of supplying electrical energy directly to lights, traffic signals, etc., and not directly connected to a commercial power supply system.

**Conductor** means a metallic conducting material, usually in the form of a wire (solid or stranded) suitable for carrying an electric current.

**Effectively Grounded** means permanently connected to earth through a ground connection of sufficiently low impedance and having sufficient current carrying capacity to prevent the building up of voltages which may result in undue hazard to connected equipment or to persons. (Bonds to metal sheathed aerial cables electrically connected to underground cable, or bonds to multi-grounded supply neutral wires provide a practicable means of effective grounding on jointly used poles.)

**Effectively Grounded Supply Cable** means an effectively grounded continuous metal-sheathed supply cable or an assembly of supply conductors cabled together and lashed to an effectively grounded messenger, the conductors of which will be promptly de-energized should conductor insulation fail. Spacer supply cable with an effectively grounded messenger which supports insulated supply conductors by means of insulating spacers placed at intervals in the span must be considered the same as open wire construction in matters of clearances and separations.

**Equipment** means noncurrent-carrying parts of transformer cases, apparatus cases, cable terminals, and the like, and supports for cables or conductors, and metal supply crossarm braces which are attached to metal crossarms or are less than 1 inch from metal transformer cases or metal hangers which are not effectively grounded.

**Neutral Space** means a space of 4 feet maintained on a pole between longitudinal and lateral supply and communication attachments. The only attachments permitted in the Neutral Space are guy wires, braces, vertical runs, lamp fixtures, guard arms, and the like as outlined herein.

**Private Property Construction** refers to services on private property usually limited to a single customer. It does not apply to regular line construction across private property from road to road, or interior block construction.

**Reference Gain** means the dividing point between the Neutral Space and the Communication space and is indicated by a cut gain or a mutually agreed upon marker.

**Supply Circuit** means any circuit used for the supply of electrical energy for lighting or power purposes and any circuit not classed as a communication circuit. Traffic signal circuits used to supply electrical energy for the lighting of signals are classified as supply circuits. Traffic signal cables carrying both control and supply circuits take the supply classification.

**Supply Circuit Voltage of effectively grounded circuits** means the highest effective voltage between any conductor and ground. Supply Circuit Voltage of circuits **NOT** effectively grounded is defined as the highest effective voltage between any two conductors of the circuit concerned.

**The Street Side of a Highway Pole** means that semicircumference of the pole facing vehicular traffic. At an intersection it is the semicircumference facing the intersection. See Plate 2.

**The Field Side of a Highway Pole** means that semicircumference opposite the Street side. See Plate 2.

**The Street Side of a Pole Located on Private Property** means that semicircumference of the pole as determined by the party erecting the pole and shall preferably be designated by placing the pole stencil on that side of the pole.

### 3. INDUCTIVE COORDINATION

3.01 The Principles and Practices for the Inductive Coordination of Supply and Communications systems given in the Reports of the Joint General Committee of the Edison Electric Institute and Bell Telephone System dated July 1945, and subsequent Modifications thereof, shall be followed.

## 4. POLE FRAMING, SETTING DEPTHS AND INSPECTION

4.01 Pole Framing

Normally, when poles are set for joint use, a Reference Gain shall be cut in each pole by the company placing the pole. A Reference Gain Tag (an aluminum tag embossed REF or other mutually approved type tag) nailed to the face or back of the pole shall be used to mark the Reference Gain location when (a) a pole has a cut Reference Gain which is at the wrong elevation or (b) the Reference Gain location, designated by a cut gain, is changed by mutual agreement. Where a pole has a cut Reference Gain and a Reference Gain Tag, the tag location shall be considered as the current Reference Gain location. The center of a cut Reference Gain, or Reference Gain Tag, where the tag takes precedence, shall be located at the top of the communication space as shown in plate A of this Appendix. Measurements shall normally be made from the top of the pole.

4.02 Standard Pole Setting Depths

The standard setting depths for poles set in firm earth are as follows:

<u>Pole Length</u>	<u>Setting Depth</u>	<u>Pole Length</u>	<u>Setting Depth</u>
30 ft.	5 ft.	50 ft.	7 ft.
35 ft.	*5-1/2 ft.	55 ft.	7 ft.
40 ft.	6 ft.	60 ft.	7-1/2 ft.
45 ft.	6-1/2 ft.		

\*Setting depth shall be 6 feet in sandy soil or where section lengths exceed 150 feet.

4.03 Poles Set in Sloping Banks

- (a) Poles which are set in a slope or within five feet of the edge of a bank shall be set deeper as shown on Plate 3
- (b) Poles which are set within five feet of the edge of a drainage ditch shall be set deeper by an amount equal to the depth of the ditch.

**4.04 Poles Set in Unstable Soil**

When poles are to be set in loose earth or swampy ground, the pole setting and setting depth shall be as mutually agreed upon in each specific case.

**4.05 Unguyed Corner Poles and Dead End Poles**

Unguyed corner poles, unguyed dead end poles and unguyed stubs shall be set one foot deeper than standard setting depth shown in 4.02 and, when mutually agreed to, shall also be ground braced.

**4.06 Depth of Setting in Rock**

Where solid rock is encountered at various depths below the ground level the setting depth for poles may be reduced as shown in the following table, provided that the diameter of the hole is such as to permit pieces of rock to be wedged firmly between the pole surface and the walls of the hole to prevent the pole from leaning.

Depth Below Ground Line at Which Solid Rock is Encountered	Permissible Minimum Total Setting Depth*				
	30' Pole	35' or 40' Pole	45' Pole	50' or 55' Pole	60' Pole
0'0"	3'8"	4'0"	4'4"	4'8"	5'0"
0'6"	3'10"	4'2"	4'6"	4'10"	5'2"
1'0"	4'2"	4'6"	4'10"	5'2"	5'6"
1'6"	4'4"	4'8"	5'0"	5'4"	5'8"
2'0"	4'6"	5'0"	5'4"	5'8"	6'0"
2'6"	4'10"	5'2"	5'6"	5'10"	6'2"
3'0"	5'0"	5'4"	5'8"	6'0"	6'4"
3'6"	5'4"	5'8"	6'0"	6'4"	6'8"
4'0"	5'6"	5'10"	6'2"	6'6"	6'10"
4'6"	5'6"	6'0"	6'4"	6'8"	7'0"
5'0"	5'6"	6'0"	6'6"	6'10"	7'2"
5'6"	5'6"	6'0"	6'6"	7'0"	7'6"
6'0"		6'0"	6'6"	7'0"	7'6"
6'6"			6'6"	7'0"	7'6"
7'0"				7'0"	7'6"
7'6"					7'6"

\* Where solid rock is encountered within six inches of the standard depth, the pole may be set at this reduced depth, provided the adjacent poles in both directions are set at standard depth.

**4.07 Pole Inspections**

Periodic inspections shall be made of all poles to observe deterioration and loading and to determine which poles require replacement.

## 5. VERTICAL CLEARANCES

## 5.01 Above Ground

The minimum vertical clearances of communication cables or conductors above ground or railroad tracks, for spans of 175 feet or less between fixed supports at 60° F and no wind, shall be not less than the following. Where span lengths are greater than 175 feet, the minimum vertical clearances shall be increased to conform with the requirements of the National Electrical Safety Code, current edition.

<u>Nature of Ground or Rails Underneath Conductors, Cables or Guys</u>	<u>Minimum Clearance (Feet)</u>
<u>Crossing Over Railroad Tracks</u>	
Of Railroads Handling Freight Cars on Top of Which Men are Permitted	27 (2) (7)
Of Other Railroads	18 (7)
<u>Crossing Over Other Traveled Ways</u>	
Streets or Roads	18 (1)
Alleys	15
Driveways: (6)	16
To Business Establishments	16
To Farms and Estates	10
To Residence Garages	10 (4)
Spaces or Ways Accessible to Pedestrians Only	
<u>Running Along Streets, Alleys, Roads</u>	
In Urban and Suburban Districts:	
In General	18 (5) (8)
Alleys	15
In Rural Districts	14 (3) (5)
In Urban or Rural Districts:	
Spaces or Ways Accessible to Pedestrians Only	10 (4)

- (1) If a communication service drop, or a guy which is effectively insulated against the highest supply circuit voltage to which it is exposed, up to 8,700 volts, crosses a street or road, the clearance may be reduced to 16 feet at the side of the traveled way. The clearance for electric service drops under these conditions is 18 feet.
- (2) This value may be reduced to 25 feet for guys and for cables carried on messengers.
- (3) This clearance may be reduced to 13 feet where no part of the line overhangs any part of the highway which is ordinarily traveled. Where it is likely that loaded vehicles or machinery will be crossing under the line, a clearance of 16 feet shall normally be provided.
- (4) Communication conductors limited to between 0-160 volts to ground and communication cables may have a clearance of not less than 8 feet.

- (5) Where a pole line along a road is located relative to fences, ditches, embankments, etc., so that the ground under the line will never be traveled except by pedestrians, this clearance may be reduced to 8 feet.
- (6) Provide greater clearance where high vehicles may pass under the line.
- (7) Governed by the requirements stipulated by the railroads involved, but not less than the amount shown in the table.
- (8) This clearance may be reduced to 16 feet where no part of the line overhangs any part of the highway which is ordinarily traveled.

## 5.02 Vertical Separations Between Supply and Communication

Supply circuits shall be classified as follows:

- (a) In determining separations, an effectively grounded supply cable of any voltage shall be classified the same as open supply wires of 0 to 750 volts between conductors.
- (b) Neutral conductors of supply circuits shall have the same separations as the phase wires of the circuit with which they are associated, except that neutrals that are effectively grounded throughout their length and associated with circuits of 0 to 22,000 volts, may have the same separations as circuits of 0 to 750 volts between conductors.
- (c) Separations for constant-current circuits shall be determined on the basis of their nominal full load voltage.

<u>Minimum Vertical Separation Between:</u>	<u>Supply Circuit Voltage</u>	
	0-8,700	8,700-50,000
Horizontal Supply and Communication Crossarms	4 feet (b)	6 feet (b)
Supply Cables or Conductors and Communication Cables or Conductors - 60° F. No Wind - At the Pole	40 in. (b)	60 in. (a) (b)
Supply Cables or Conductors and Communication Cables or Conductors - 60° F. No Wind - In the Span	30 in. (b)	45 in. (b)
Supply Cables or Conductors and Communication Equipment; Communication Conductors and Supply Equipment; Supply and Communication Equipment	40 in. (c)	60 in. (c)

- (a) This may be reduced to 40 inches for an effectively grounded supply cable.
- (b) For span lengths in excess of 150 feet, vertical separation at the pole between open supply conductors and communication cables or conductors shall be adjusted so that under conditions of 60° F., no wind and final unloaded sag, no supply conductor of 750 volts or less shall be lower in the span than a straight line (Line of sight) through the center of the Reference Gains on adjacent poles, and no supply conductor (including supply cables not effectively grounded) of over 750 volts shall be lower in the span than 30 inches above such a straight line (Line of sight).
- (c) See paragraph 5.03 below for exceptions.



### 5.03 Encroachment into the Neutral Space

Where the common neutral supply conductor is the messenger of strand supported primary or secondary construction or where supply construction consists of a single phase primary installed on a ridge pin with a bare common neutral supply conductor attached directly to the pole with a conventional clamp, all transformer and equipment cases will be effectively grounded. Where any of the types of construction mentioned above are present on a jointly used pole, or where the equipment is encased in insulating material:

- (a) The bottom of a transformer or equipment case may extend 9 inches or less below the top of the neutral space and
- (b) The top of an effectively grounded communication equipment case may extend 9 inches or less above the center of the reference gain.

**Note:** The above does not apply to poles with supply line crossarms carrying open wire distribution with bare or insulated wire. In these instances, supply and communication equipment shall be completely within their respective supply and communication space.

### 5.04 Vertical Separations Between Communication Equipment and Street Lamp Fixtures

In general, street lamp fixtures shall be mounted so that no part of the fixture will be less than 24 inches above the center of the Reference Gain. Where a lower mounting height is desired by the Electric Company, the parties shall cooperate to obtain a mutually satisfactory location. Drip loops entering light fixtures from the surface of the pole shall be at least 12 inches from communication cables and through bolts. In no case shall the fixture have less vertical separation from communication equipment than set forth in the following table:

	Street Light Fixtures & Span Wires	
	Not Effectively Grounded (Series Circuit)	Effectively Grounded (2)
Above Communication Crossarms	20 in. (1)	20 in. (1)
Below Communication Crossarms	24 in.	24 in.
From Messengers Carrying Communication Cables	20 in. (1)	4 in.
From Communication Cable Terminals	20 in. (1)	4 in.
From Communication Brackets, Bridle Wire Rings, or Drive Hooks	16 in. (1)	4 in.

(1) May be reduced to 12 inches for either span wires or metal parts of light brackets at points 40 inches or more from pole surface.

(2) Multigrounded Neutral Supply Area    Communication cable on pole: Fixture or span wire bonded to cable strand. If cable strand is not bonded to multigrounded neutral supply wire within 10 pole spans, fixture shall be bonded to multigrounded neutral also.

Other Than Multigrounded Neutral Supply Area    Communication cable on pole: Fixture or span wire bonded to cable strand. All fixture or span wire to cable strand bonds shall be extended and connected to a ground rod or rods at base of pole.

## 6. VERTICAL RUNS

### 6.01 Location

- (a) Where practicable, supply and communication lateral or subsidiary runs from underground distribution systems shall be terminated on separate poles.
- (b) Supply vertical runs, other than street light leads, below the supply space shall be made on the street side or field side of the pole, whichever is designated as supply side of the pole. Street light leads to fixtures in the neutral space may be placed on either side of the pole. Leads supported on pins and brackets shall be placed as specified in paragraph 6.04.
- (c) Communication vertical runs shall be made on the street side or field side of the pole, whichever is designated as communication side of the pole.
- (d) All vertical runs shall be so arranged as to not interfere with the safe climbing or the safe use of pole steps and shall be separated from the ends of through bolts and the equipment of another party by one-eighth of the circumference of the pole where practicable, but in no case less than 2 inches.

### 6.02 Mechanical Protection Near Ground

All vertical cables, grounding conductors and supply conductors shall be protected by a covering which gives suitable mechanical protection from the ground line to a point not less than 8 feet nor more than 12 feet above the ground line. The protective covering for grounding conductors shall consist of wood molding or other insulating material giving equivalent protection.

**Exception:** This covering may be omitted for grounded metal conduit or armored cables which cannot be penetrated by gaffs of workmen's climbers.

### 6.03 Protective Covering Through Communication Space

Vertical supply cables or conductors installed on the surface of the pole (or any metal pipe in which such cables or conductors are enclosed) shall be provided with an insulating covering, such as wood molding or fiber conduit, where they pass communication space. This insulating covering shall extend from the lowest point of the vertical cables or conductors up to at least 40 inches above the highest of such attachments.

**Exception 1:** The insulating covering need not extend below a point 12 feet above ground, provided the mechanical protection extends that far above ground.

**Exception 2:** The installation of aerial supply services of not more than 300 volts to ground below communication attachments in alley type construction is permitted where other methods are not practicable. The minimum 40 inch separation between communication attachments on the pole and the point at which the electric service drop leaves the pole shown on Plate 8 shall be maintained. The supply cable or conductors installed on the surface of the pole shall be provided with an insulating covering such as wood molding or fiber conduit below the supply space and the supply service drop shall be protected with plastic insulating tubing or equivalent for a distance of 30 inches from the pole.

#### **6.04 Supply Cables and Conductors on Pins and Insulators**

Conductors of street lighting circuits, where not covered or enclosed in accordance with paragraph 6.03 shall be run in multiple conductor wire or cable on the street side of the pole held taut on standard insulators supported on pins or brackets and arranged so that they shall be held at a distance of approximately 5 inches away from the surface of the pole or from any pole steps.

#### **6.05 Supply Grounding Conductors**

Vertical ground wires through the communication space will not require any additional insulating covering if the insulation on the conductor is of tree wire classification and is in good condition.

## **7. COMMUNICATION SUSPENSION STRANDS AND LONGITUDINAL RUNS OF PAIRED CONDUCTORS**

7.01 Communication cable suspension strand and longitudinal runs of paired or multiple wire when attached directly to the pole shall be placed on the field side or the street side of the pole, whichever is designated as the communication side of the pole. Where more than one such strand or wire is present and attached directly to the pole all shall be on the same side of the pole.

### **7.02 Telephone Street Side Construction**

Subject to written agreement by the authorized representatives of the Electric Company and the District Engineer of the Telephone Company, Telephone Company street side construction on Jointly Used poles will be permitted as follows:

- (a) On new poles communication wires (except bare wire) and cables will normally be attached on the street side of the pole.
- (b) On existing poles, communication wires (except bare wire) and cables may be placed on the street side where the continued absence of low level street lights, supply vertical runs or other supply attachments in or below communication space on the street side of the pole is assured, due regard being given to the desirability of avoiding frequent crossovers from one side of the pole line to the other.
- (c) Where the street side has been mutually approved for communication construction, the pole shall be suitably marked to indicate the communication side.
- (d) Telephone Company will reimburse Electric Company for the cost of relocating any existing supply vertical run (including ground wires) from the street side to the field side of a pole when such relocation is required in connection with street side communication construction.

## **8. CLIMBING SPACE**

8.01 The following requirements as to climbing space apply only to attachments of one party when located below attachments of another party. A climbing space at least 30 inches square, measured horizontally, shall be provided past any cables, conductors, crossarms, or other attachments. (See Plate 4)

8.02 The climbing space shall extend vertically in the same position from a point at least 40 inches below any conductor or other attachment to a point at least 40 inches above such conductor or attachment.

8.03 Portions of the pole or one communication cable when included in one side or corner of the climbing space are not considered to obstruct the climbing space. Where there are two or more communication cables, the climbing space must be provided on the opposite side of the pole. The full width of the climbing space shall be provided past longitudinal runs, and shall be measured from the longitudinal run concerned. Vertical runs incased in suitable conduit or other protective covering and securely attached to the surface of the pole are not considered to obstruct the climbing space.

## **9. MISCELLANEOUS ATTACHMENTS AND MARKINGS**

### **9.01 Street Lamp Fixtures**

Street lamp fixtures, where below, or less than 40 inches above, communication attachments, shall meet the clearance requirements of paragraph 5.04 and also the requirements of this section. Street lamp fixtures shall not encircle the pole, but shall be confined to the half of the pole circumference toward the lamp, except that they may be attached by means of bolts passing through the pole.

### **9.02 Pole Steps**

Permanent metal steps shall not be placed on poles at a height less than 6-1/2 feet from the ground or other readily accessible place. Wood blocks shall not be used as pole steps. Where detachable steps are used at points less than 6-1/2 feet from the ground or other readily accessible place, the parts permanently attached to the pole shall be so constructed so that these parts alone cannot be used effectively in climbing the pole.

### **9.03 Warning Tag - Underground Cable**

Either company may place a warning tag on any pole immediately below the pole number stencil, to indicate the presence of underground cables or conduit which might be damaged as a result of pole replacement or other digging activity in the vicinity of said pole. Warning tags will be used generally only where cables or conduits lie within the "sidewalk area," that is between the curb and property lines, or on private property.

**10. GUYS****10.01 Point of Attachment**

Guys should be attached as near as practicable to the center of the load to be sustained, except as noted in paragraph 10.06. In deadending suspension strand or attaching guys in or below the neutral space, the pole shall not be encircled. Such attachments shall be made to bolts passing through the pole.

**10.02 Clearance From Cables, Conductors or Guys of Another Line**

The minimum clearance of guys when crossing over or under cables, conductors or guys of another line shall be as follows:

	<u>Clearance (Feet)</u>
Communication Cables or Conductors	2
Trolley Contact Conductors	4
Supply Cables	2
Supply Conductors:	
0-750 volts	2
More than 750 volts	4 (a)
Guy, Span and Lightning Protection Wires	2 (b)

For voltages greater than 50,000 this clearance shall be increased by 0.5 inch per  
(a) 1,000 volts of the excess.

(b) Completely insulated sections of guys attached to poles carrying no conductor of more than 8,700 volts may have less than this clearance from each other.

**10.03 Minimum Clearance When Attached to Same Pole**

The minimum clearance in any direction between guys and line conductors or cables attached to the same pole shall be as follows:

	<u>Clearance (Inches)</u>	
	<u>Not Parallel to Line</u>	<u>Parallel to Line</u>
Communication Cables or Conductors	6 (a)	6 (a)
Effectively Grounded Supply Cables	6	6 (a)
<u>Supply Conductors</u>		
0-8,700 Volts (Supply Circuit Voltage)	6	12
For each 1,000 Volts in Excess Add	0.4	0.4

(a) Where practicable, guys and messengers may be attached to the same through bolts. Guys which pass within 12 inches of supply conductors, and also pass within 12 inches of communication cables, shall be protected with a suitable insulating covering where the guy passes the supply conductors, unless the guy is effectively grounded or insulated with a strain insulator at a point below the lowest supply conductor and above the highest communication cable.

**10.04** Guys between transmission poles of the Electric Company and poles carrying Telephone Company cables or conductors shall have the greatest practicable separation from communication cables, conductors or attachments, preferably three feet or more.

**10.05 Approved Guying Arrangements**

On any pole or stub where guying is required by each Company, three types of guying arrangements have been approved. The arrangements are listed below in the order of preference, as permitted by the applied loads:

- (a) Separate guys to jointly used anchor.
- (b) Jointly used guy.
- (c) Separate guys to separate anchors.

**10.06 Jointly Used Guy**

(a) A jointly used guy is a guy so placed on a pole as to support the load imposed by both the Electric Company's and Telephone Company's construction. A jointly used guy shall be attached to a line pole 1-1/2 feet above the center of the Reference Gain. A jointly used pole-to-stub guy shall be attached to a stub at such a height as to provide adequate ground clearance. A jointly used stub-to-anchor guy should preferably be attached to the same bolt as the jointly used pole-to-stub guy. Where each Company has its own pole-to-stub guy, and the separation between the guys on the stub is 3 to 6 feet, a jointly used stub-to-anchor guy should be attached on the stub midway between the two guys. Where the separation is less than 3 feet, a jointly used stub-to-anchor guy should preferably be attached to the same bolt as the pole-to-stub guy of the Company placing the jointly used guy. Where the separation exceeds 6 feet, the location of the attachment for the joint guy shall be determined by special study.

(b) Jointly used guys may be placed on 40 foot and smaller poles subject only to the following restrictions:

- (1) The requirements for one 7/16 inch guy strand will not be exceeded for the combined loads.
- (2) The bending moment on the pole at the guy attachment, due to the Electric Company's load, will not exceed the allowable fiber stress computed in accordance with the requirements of the National Electrical Safety Code, current edition. The computation to assure that this requirement is met is the responsibility of the Electric Company.
- (c) Where a jointly used guy is required and the limitations of paragraph 10.06 (b) above would be exceeded, the approval of the General Office of the Electric Company and the Staff Engineer-Outside Plant of the Telephone Company must be obtained in advance.
- (d) It is intended that joint guying will be considered when the ultimate loads exceed the following:

## (1) Power Company Load

Storm loading on the pole exceeds 660 pounds.

## (2) Telephone Company Load

6M Strand and Cable	3 Ft. Pull
10M Strand and Cable	2 Ft. Pull
16M Strand and Cable	1 Ft. Pull
10 Pin Crossarm of Open Wire	4 Ft. Pull
D Rural or D Urban Wires	11 Ft. Pull
High Strength Drop Wire	3 or More Dead-ended
	Also when product of Number of Wires Times Pull on Pole Exceeds 140

(e) The size of joint guy strand required shall be in accordance with Plate 15 "Guy Rule for Joint Guys." The "Total Design Load" shown on Plate 15 shall be the sum of the component storm loads of each Company, computed in accordance with the requirements of the National Electrical Safety Code.

(f) Joint guys shall be effectively grounded or insulated as specified by the practices of the Company placing the guy.

**10.07 Separate Guy to Jointly Used Anchor**

Each Company shall determine the size of and place its own guy in accordance with its own practices. A 3/4 inch double thimble guy rod and 8 inch expanding type anchor or a type of anchor that has been mutually agreed to in writing is the smallest anchorage that shall be installed for this type of guying.

**10.08 Jointly Used Guy Rods and Anchors**

The sizes of guy rods and anchors used for joint guying shall be as shown on Page 16 (all guy rods shall be equipped with double guy thimbles)

**10.09 Separate Guy to Separate Anchor**

Each Company shall determine the size of and place its own guy and anchor in accordance with its own practices.



- 16 -

## APPENDIX A

RATED ANCHOR HOLDING STRENGTHMAXIMUM ALLOWABLE STRAND COMBINATIONS

Anchor Size & Type	Double Thimble Rod Size	Holding Strength of Anchor and Rod	N. J. B. T. Co.		R. E. Co.	
			Strand	Strength	Strand	Strength
15" Swamp Screw and 8" Expansion	2" Pipe	15,000 lbs.	Gal. 3/16" 2.2M	2,400 lbs.	Gal. 1/2"	12,100 lbs.
			Gal. 3/16" 2.2M	2,400	Cop. .345" 12.5M	12,500
			Gal. 3/16" 2.2M	2,400	Alu. .343" 7#9	12,960
			Gal. 5/16" 6M	6,000	Gal. 7/16"	9,350
			Gal. 5/16" 6M	6,000	Alu. .277" 3#8	7,210
10" Expansion	3/4" x 9 ft.	15,000 lbs.	Gal. 5/16" 6M	6,000	Cop. .276" 8M	8,000
			Gal. 5/16" 6M	6,000 lbs.	Gal. 1/2"	12,100 lbs.
			Gal. 5/16" 6M	6,000	Cop. .386" 16M	16,000
			Gal. 5/16" 6M	6,000	Alu. .433" 7#7	19,060
			Gal. 3/8" 10M	11,500	Gal. 1/2"	12,100
12" Expansion	1-1/4" x 10 ft.	34,000 lbs.	Gal. 3/8" 10M	11,500	Cop. .345" 12.5M	12,500
			Gal. 3/8" 10M	11,500	Alu. .343" 7#9	12,960
			Gal. 3/8" 10M	11,500	Gal. 3/8"	6,950
			Gal. 7/16" 16M	18,000	Cop. .237" 6M	6,000
			Gal. 7/16" 16M	18,000	Alu. .277" 3#8	7,210
12" Expansion	1-1/4" x 10 ft.	34,000 lbs.	Gal. 3/8" 10M	11,500 lbs.	Cop. .386" 16M	16,000 lbs.
			Gal. 3/8" 10M	11,500	Alu. .433" 7#7	19,060
			Gal. 7/16" 16M	18,000	Gal. 1/2"	12,100
			Gal. 7/16" 16M	18,000	Cop. .386" 16M	16,000
			Gal. 7/16" 16M	18,000	Alu. .343" 7#9	12,960
12" Expansion	1-1/4" x 10 ft.	34,000 lbs.	Gal. 1/2" 25M	25,000	Gal. 7/16"	9,350
			Gal. 1/2" 25M	25,000	Cop. .303" 10M	10,000
			Gal. 1/2" 25M	25,000	Alu. .277" 3#8	7,210
			Gal. 1/2" 25M	25,000		
			Gal. 1/2" 25M	25,000		

## Notes:

1. Rated holding strength of existing anchor to be judged by size of rod attached.
2. Sum of ultimate strengths of guy strand attached to rod must not exceed rated holding strength of rod and anchor by more than 5%.

## **11. GUY INSULATORS**

### **11.01 Exposed Guys**

A guy shall be considered to be exposed if it passes over, under or between supply conductors or cables of any voltage or if it is attached to a pole carrying such conductors. A guy which is not electrically separated from an exposed guy shall be treated as an exposed guy.

### **11.02 Communication Guys**

#### **(a) Use of Insulators**

One or more insulators shall be placed in each exposed guy and so located that voltages which may be accidentally impressed between guy insulators will not energize any part thereof within 8 feet of the ground, or within 6 feet of any pole to which it is attached.

#### **(b) Grounding in Lieu of Strain Insulators**

Communication guys may be effectively grounded in lieu of placing strain insulators in them.

### **11.03 Supply Guys Crossing Communication Cables or Conductors or Attached to Poles Carrying Such Cables or Conductors**

#### **(a) Use of Insulators**

One or more insulators shall be placed in each exposed guy and located, where practicable, so that:

- (1) Voltages which may be accidentally impressed on the guy will not energize any part thereof within 8 feet of the ground, or within 6 feet of any pole carrying communication cables or conductors to which it is attached.
- (2) In the case of a longitudinal guy on a jointly used pole which is attached above supply conductors, voltages which may be accidentally impressed on the guy will not energize any part thereof within 30 inches above the level of any communication cables or conductors by which, or through which, it passes.
- (3) In the case of a side guy on a jointly used pole, which is attached above supply conductors and passes within 12 inches of any communication conductor on the jointly used pole, voltages which may be accidentally impressed on the guy will not energize any part thereof within 40 inches above the level of the highest communication conductor concerned.

#### **(b) Grounding in Lieu of Strain Insulators**

Supply guys may be effectively grounded in lieu of placing strain insulators in them.

- (7) Connection of rectifiers or other thermionic devices rated at 100 KW or more.
- (b) Division Distribution Engineers of the Electric Company shall notify District Engineers of the Telephone Company of proposed construction of the types listed below. This notification will normally be by telephone, although Telephone Company may request written notification in a particular case.
  - (1) New construction or reroutes of 13 KV distribution previously reported under (a) (4) above.
  - (2) An area being built to 13 KV construction standards for initial operation at 4 KV, where 13 KV operation is scheduled in five years.
  - (3) The proposed cut-over date for the initial step of conversion to 13 KV of an area previously approved.

#### 13.04 Confirmation of Coordination

Before physical work is started on the joint use portion of any subtransmission circuit, confirmation of satisfactory coordinative measures must be obtained from Telephone Company. Conversion of a 13 KV area may be started without Telephone Company approval, but no lines may be energized at 13 KV until confirmation of satisfactory coordinative measures is received and Telephone Company is notified of the date on which actual cutover will be commenced.

#### 13.05 Coordinative Measures

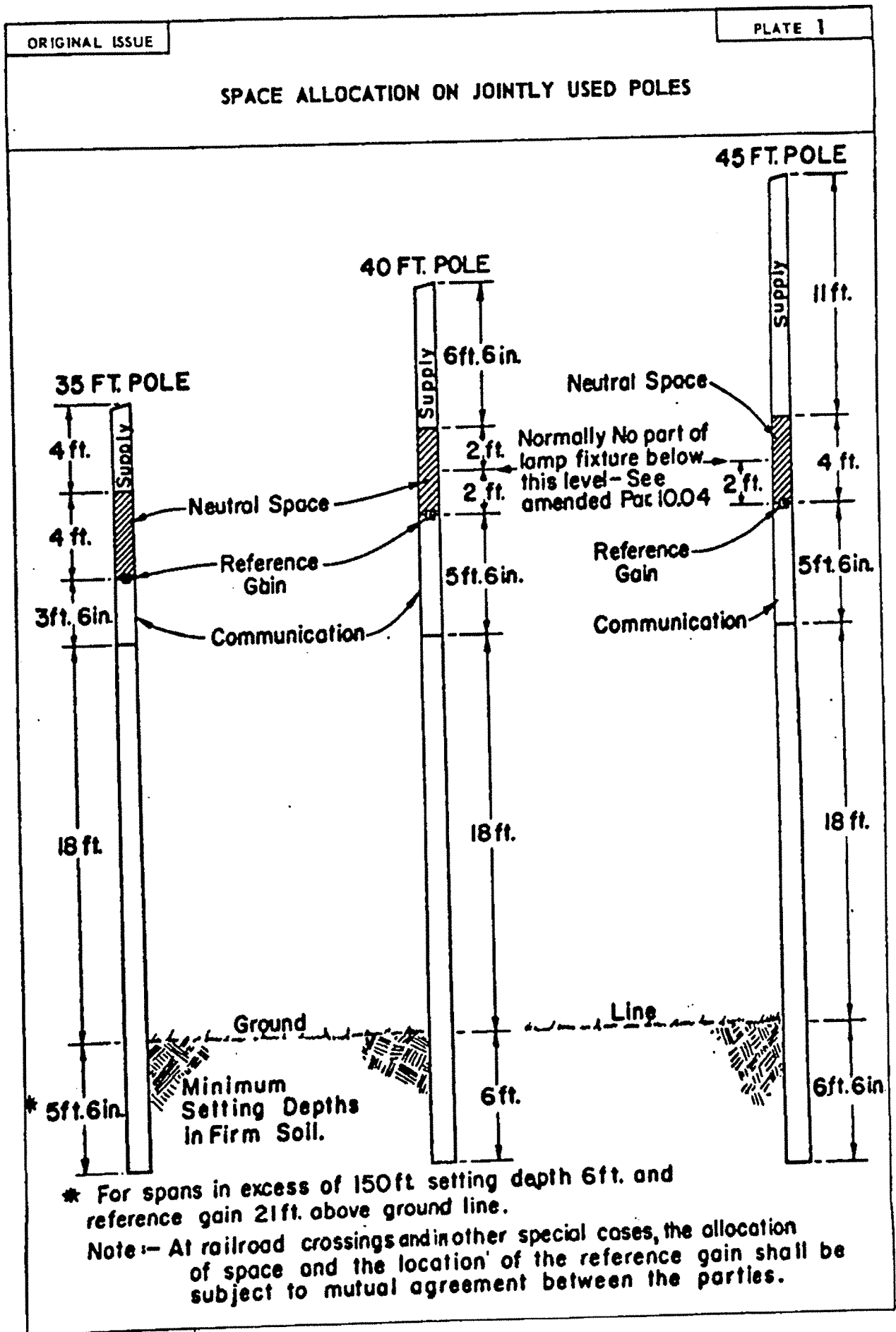
Supply circuit voltages in excess of 5,000 volts require coordinative measures to limit damage in the event of an accidental contact between supply and telephone plant. Coordinative measures consist of telephone cable sheath-to-supply neutral bonds, telephone open wire or covered wire auxiliary protectors, and such other measures as may be required by paragraph 3.01 of Appendix A.

##### (a) Sheath-to-Neutral Bonds (Telephone Cable Plant)

Upon request by Telephone Company, Electric Company will at its own expense, extend and connect a ground wire or wires, provided by and at the expense of Telephone Company, to the supply neutral conductor. Ground wire or wires shall have been previously connected to the telephone cable suspension strand by Telephone Company.

(b) **Auxiliary Protectors (Telephone Bare Wire or Covered Wire)**

Telephone Company will, at its expense, install auxiliary protectors on such poles as may require them, and in each case will provide the protectors with a length of ground wire as covered in current Telephone Company practices. Electric Company, on request and at its own expense, will extend and connect the protector ground wire to the supply vertical grounding conductor. This vertical conductor must be connected to a ground rod at base of pole and to the distribution supply neutral before the protector ground wire is connected to it. Telephone Company will endeavor to select poles equipped with vertical ground wires of this type in choosing protector locations. In those cases where such a vertical ground wire is not present, Electric Company will install one at its expense and then connect the protector ground wire to it.



ORIGINAL ISSUE

PLATE 2

# SPACE ALLOCATION (INCLUDING TYPICAL LOCATIONS OF VERTICAL RUNS)

## COMMUNICATION STREET SIDE CONSTRUCTION

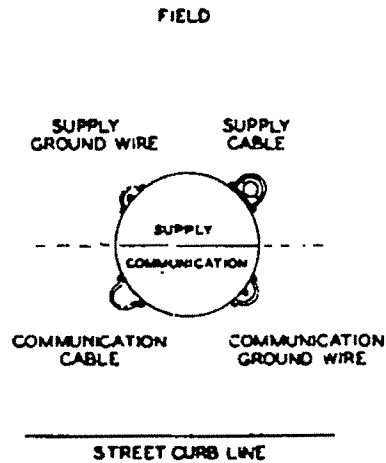


FIGURE 1

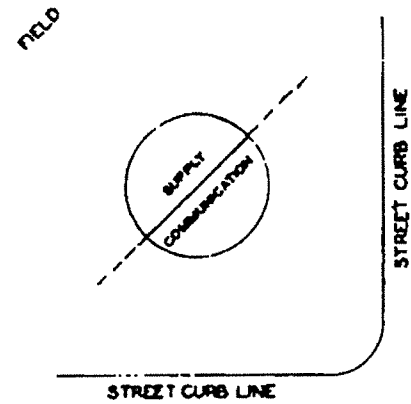


FIGURE 2

## SUPPLY STREET SIDE CONSTRUCTION

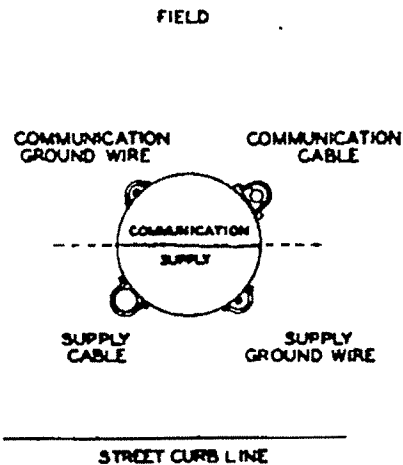


FIGURE 3

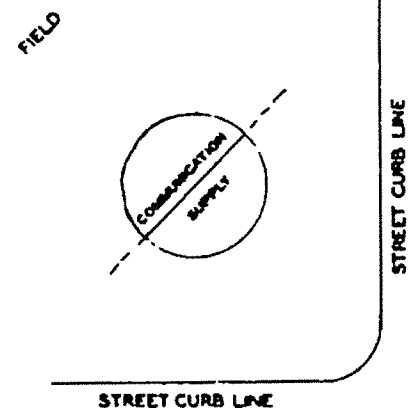
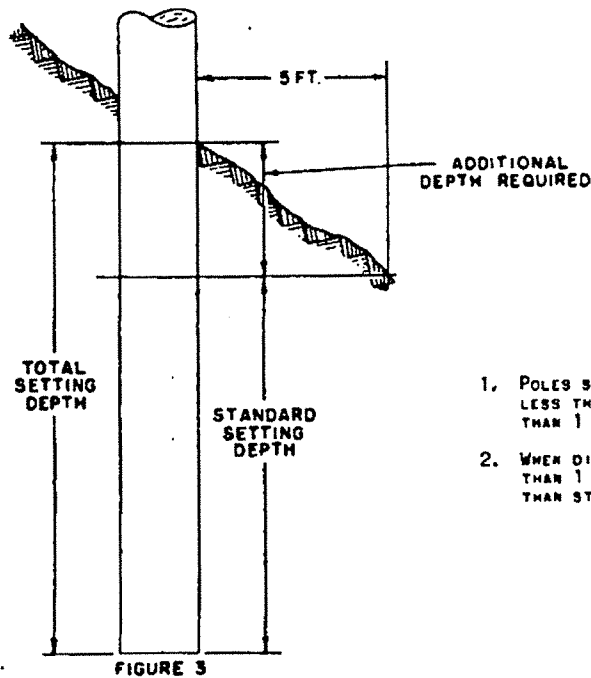
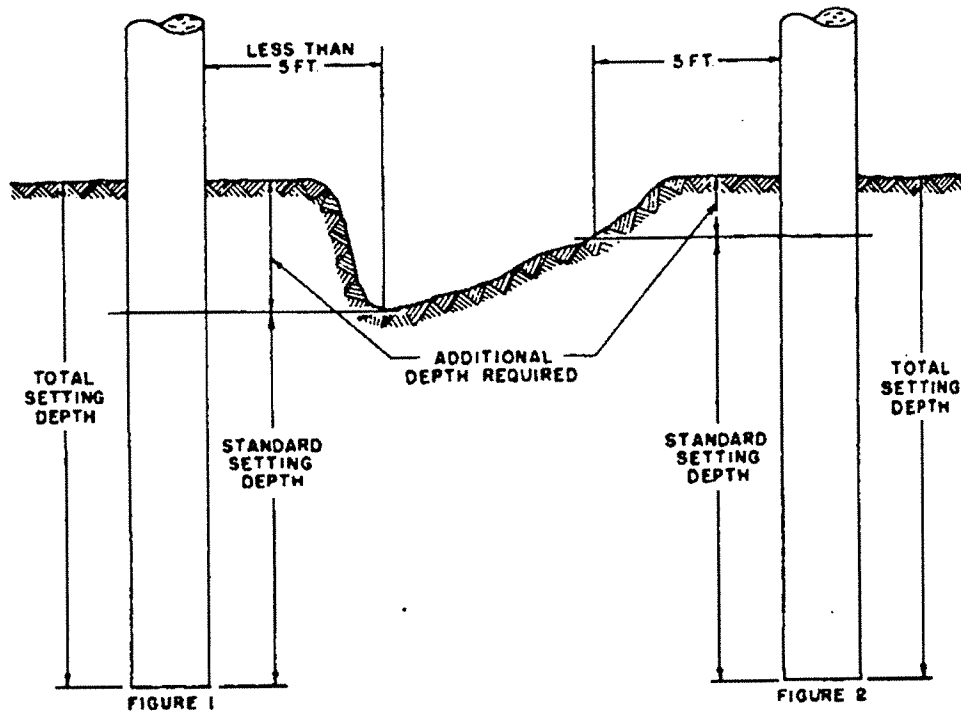


FIGURE 4

ORIGINAL ISSUE

PLATE 3

# POLE SETTING DEPTH ON SLOPING GROUND OR NEXT TO A DITCH



1. POLES SHALL BE SET AT STANDARD DEPTH IF DITCH IS LESS THAN 1 FT. DEEP OR IF DROP OF SLOPE IS LESS THAN 1 FT. IN 5 FT.
2. WHEN DITCH IS DEEPER THAN 1 FT. OR SLOPE GREATER THAN 1 FT. IN 5 FT., POLES SHALL BE SET DEEPER THAN STANDARD AS SHOWN ON THIS SHEET.



ORIGINAL ISSUE

PLATE 4

# TYPICAL CLIMBING SPACE MINIMUM REQUIREMENTS

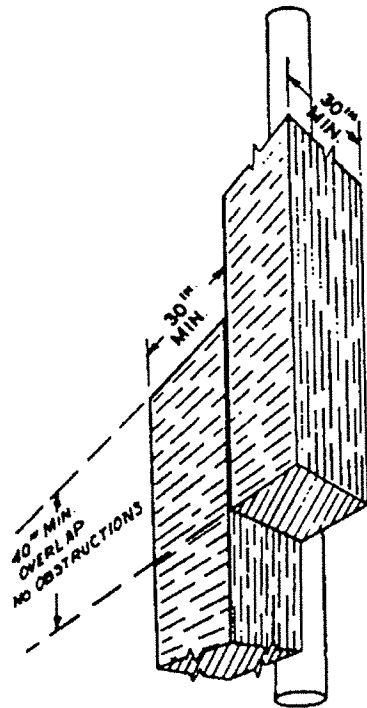


FIGURE 1

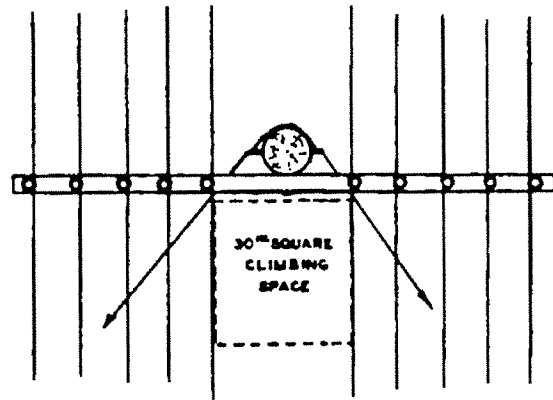


FIGURE 2

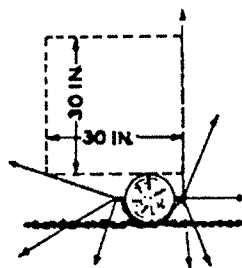


FIGURE 3

ORIGINAL ISSUE

PLATE 5

## RELATIVE POSITION OF ATTACHMENTS, SHOWING VERTICAL CLEARANCES

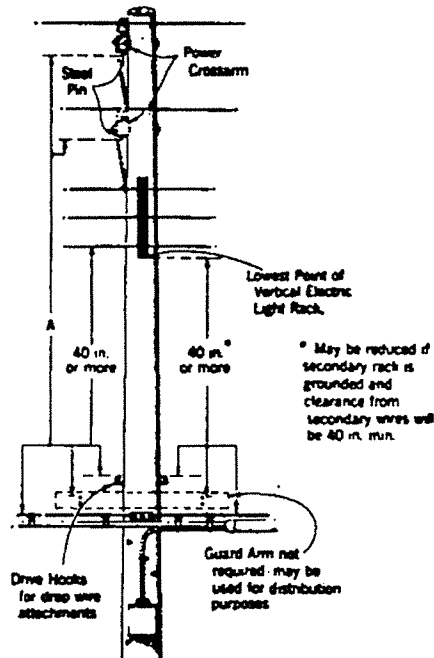


Fig. 1

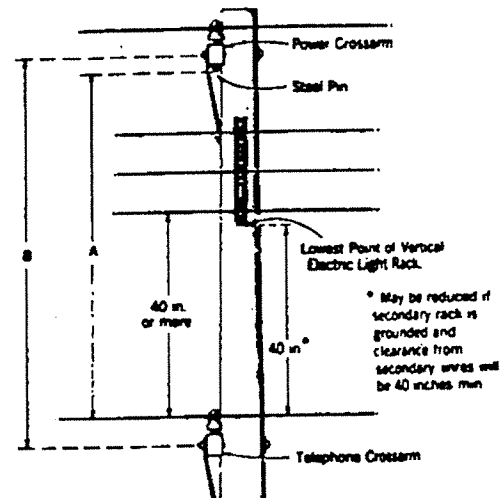


Fig. 2

"A"

Of grounded circuits.

VOLTAGE TO GROUND	VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	15,000 and less	40
8700 — 50,000	15,000 — 86,500	60

Of other power circuits.

VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	40
8700 — 50,000	60

"B"

Grounded power systems.

VOLTAGE TO GROUND	VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	15,000 and less	48
8700 — 50,000	15,000 — 86,500	72

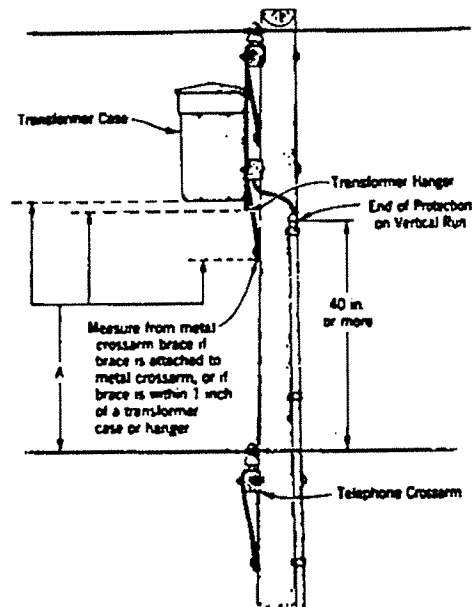
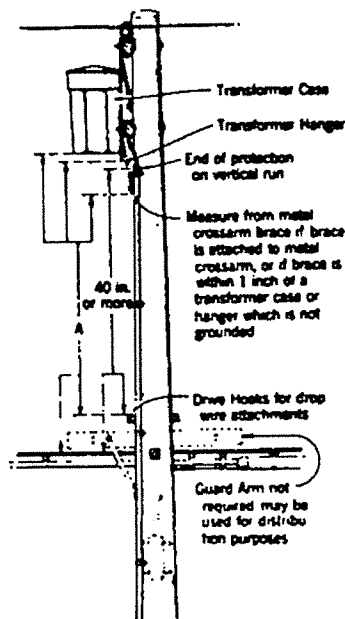
Other power systems.

VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	48
8700 — 50,000	72

ORIGINAL ISSUE

PLATE 6

# SUPPLY TRANSFORMER INSTALLATION, SHOWING SEPARATION FROM COMMUNICATION CABLES AND CONDUCTORS



Supply grounding conductors shall be provided with an insulating covering from their lowest point up to at least 40 inches above the highest communication attachment, except that this covering need not extend below the top of the protection provided for 8 feet above ground

"A"

Grounded power systems.

VOLTAGE TO GROUND	VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	15,000 and less	40*
8700 — 50,000	15,000 — 86,500	60*

Other than grounded power systems.

VOLTAGE BETWEEN WIRES	CLEARANCE (INCHES)
8700 and less	40
8700 — 50,000	60

\* May be 30 inches if case is effectively grounded as a uniform procedure over a well defined area. (See Paragraph 5.03)

ORIGINAL ISSUE

PLATE 7

## STREET LAMP INSTALLATIONS

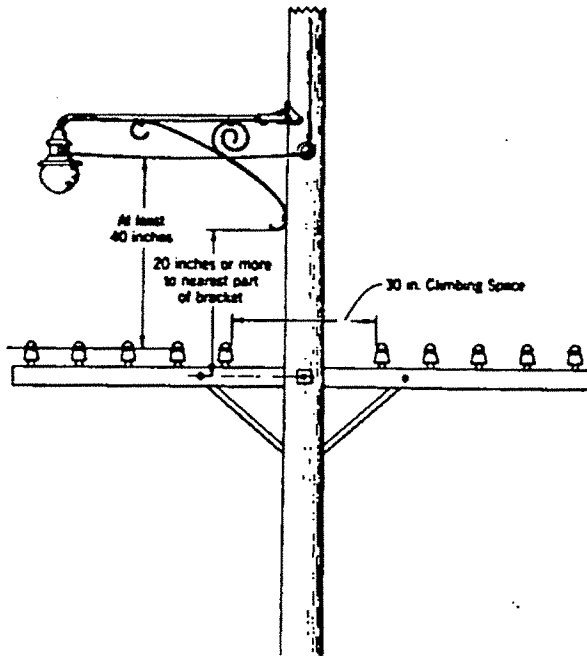


Fig. 1

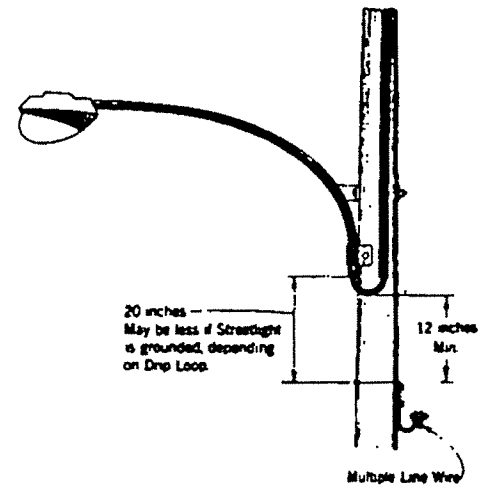


Fig. 2

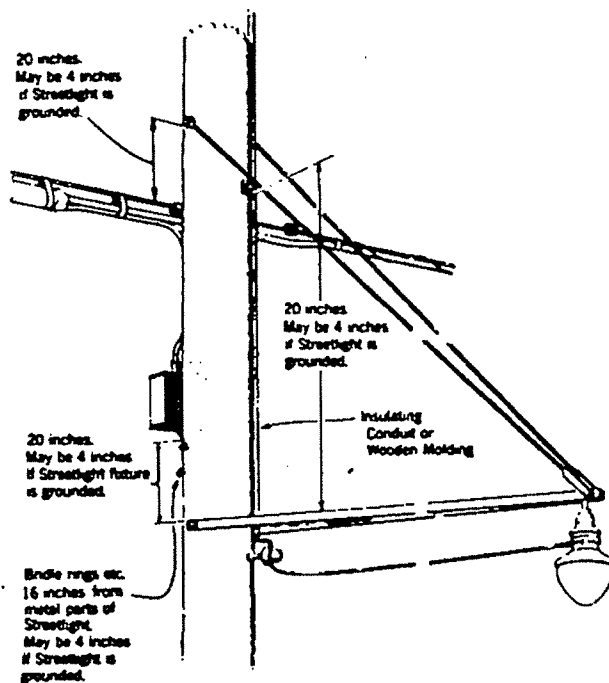


Fig. 3

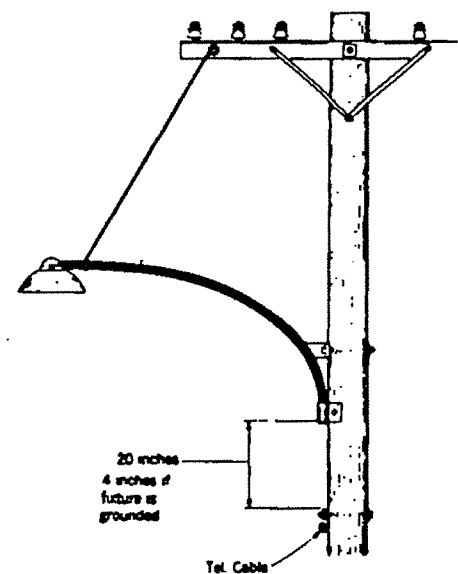


Fig. 4

ORIGINAL ISSUE

PLATE 8

# STREET LAMP INSTALLATIONS

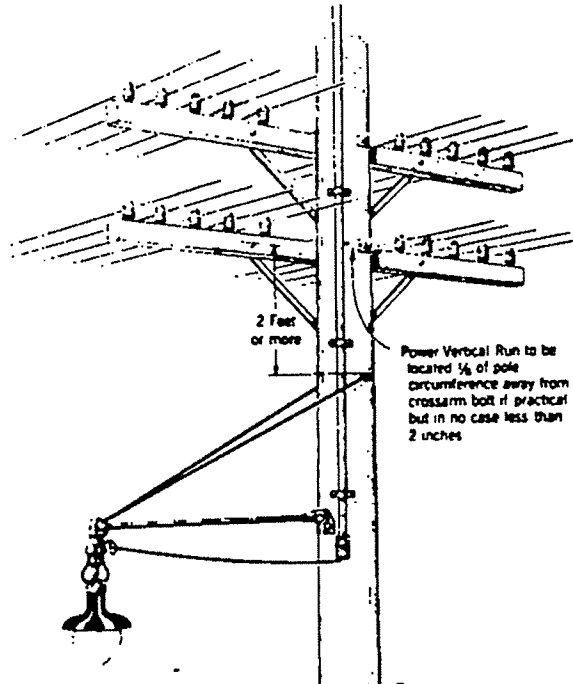


Fig. 5

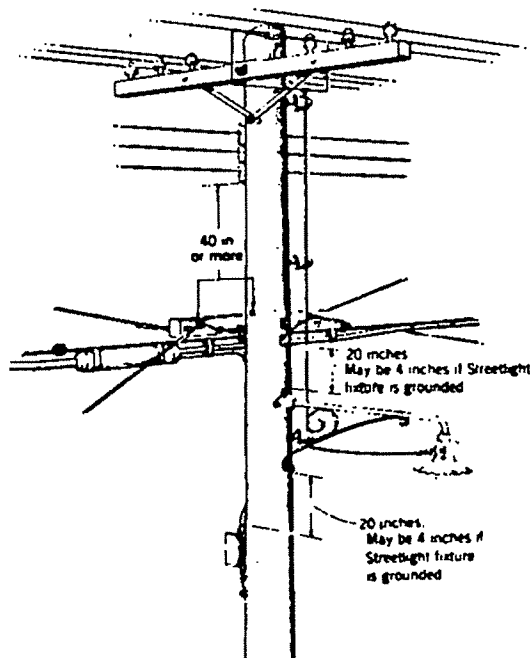


Fig. 6

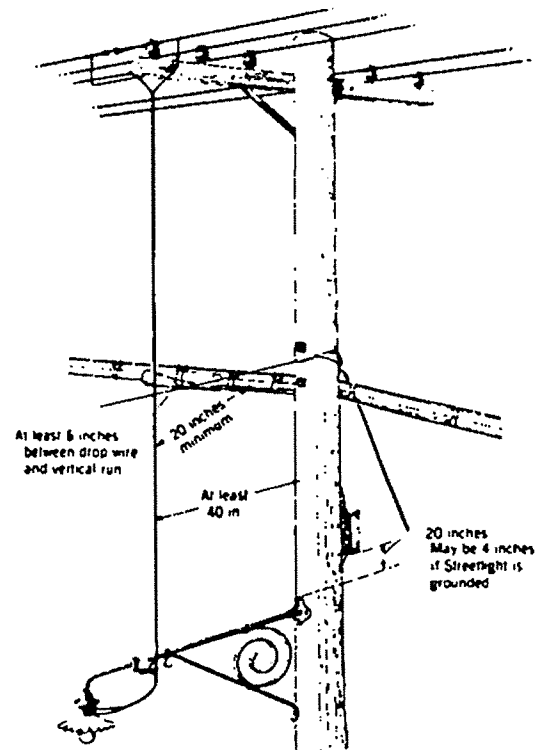
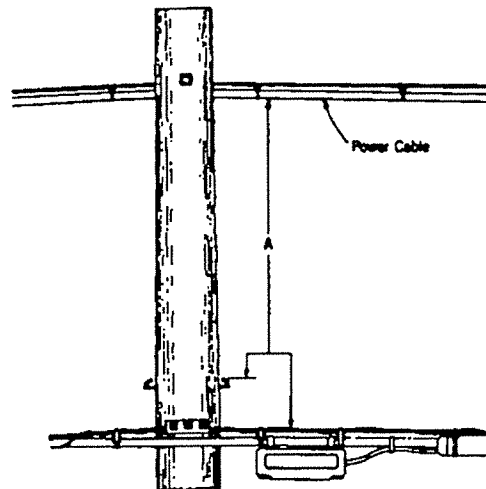


Fig. 7

ORIGINAL ISSUE

PLATE 9

# CONSTRUCTION WITH SUPPLY CABLE



"A"

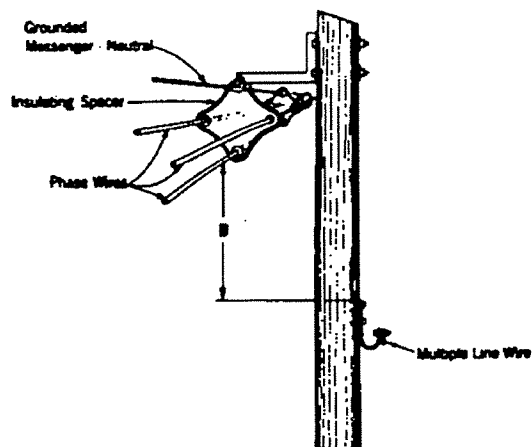
Grounded metallic sheath  
cables .....40 in.

Any cable lashed to a  
grounded messenger ....40 in.

Insulated conductors lashed to  
or spiraled around a  
grounded messenger ....40 in.

Other power cables  
8700 V or less.....40 in.  
8700 V to 50,000 V....60 in.

Fig. 1



"B"

Spacer type power cables (with  
grounded messenger)

8700 V or less to  
ground .....40 in.

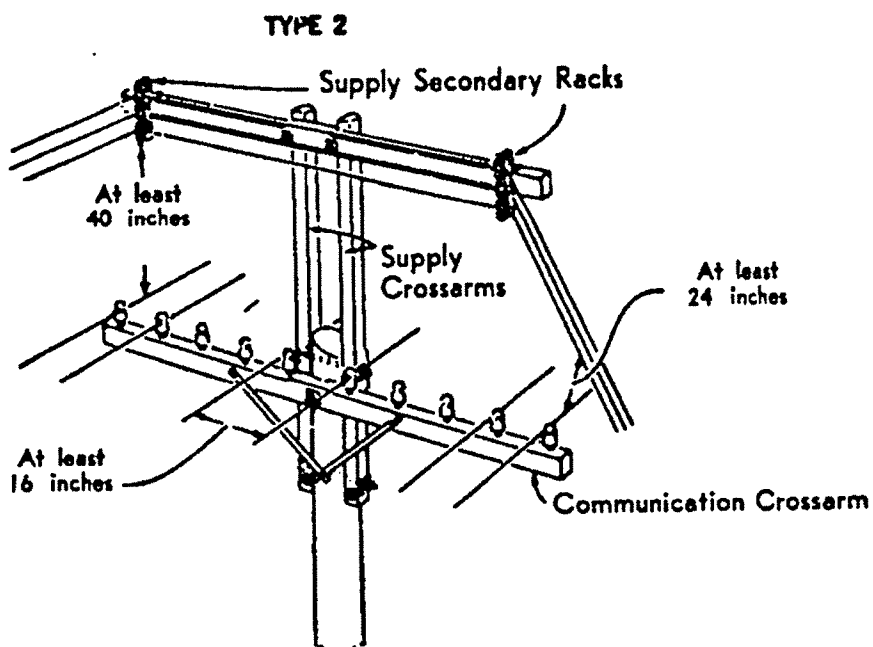
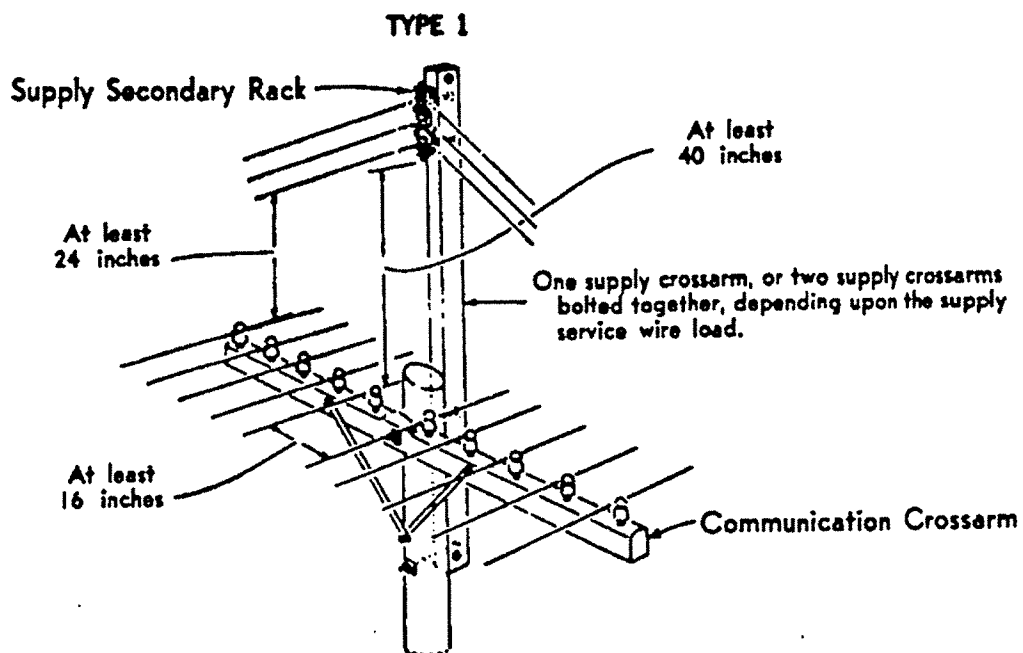
8700 V to 50,000 V to  
ground .....60 in.

Fig. 2

ORIGINAL ISSUE

PLATE 10

## TYPICAL POLE TOP EXTENSION FIXTURES

**Notes:**

Type 2 extension fixtures should be used only where Type 1 fixtures will not provide at least a 24 inch clearance between the supply service wires and the communication conductor on the end pin.

Where fixtures having a metal upright member are used, the supply service wires shall be supported on wood crossarms.



ORIGINAL ISSUE

PLATE 11

## CLEARANCES

### SERVICE DROP CLEARANCE

2'-0" MINIMUM IN ANY DIRECTION  
IF TELCO ABOVE OR AT SAME  
LEVEL AS ELECTRIC

1'-0" MINIMUM  
IF TELCO BELOW ELECTRIC  
FOR THE ENTIRE SPAN

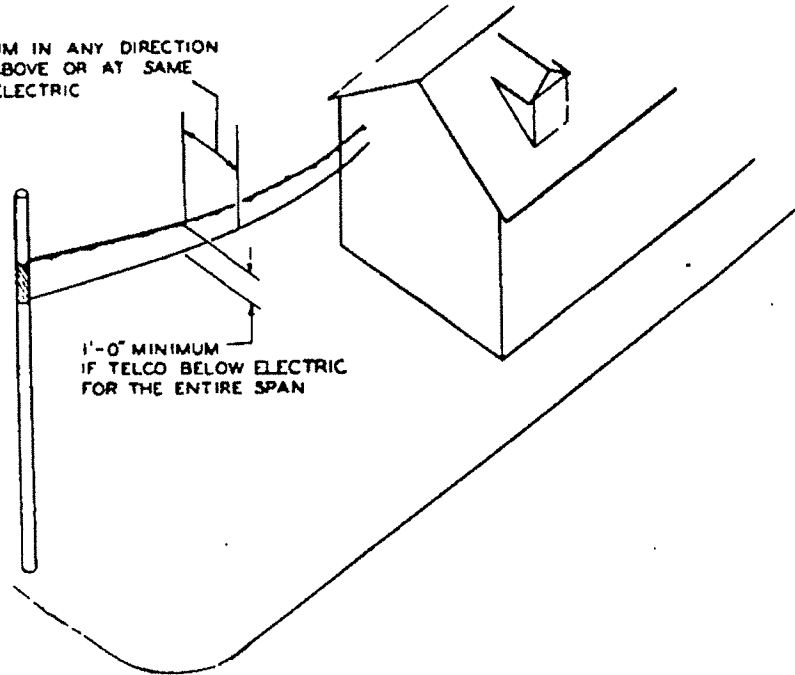


Fig. 1

### AIRPORT MARKER LIGHTS

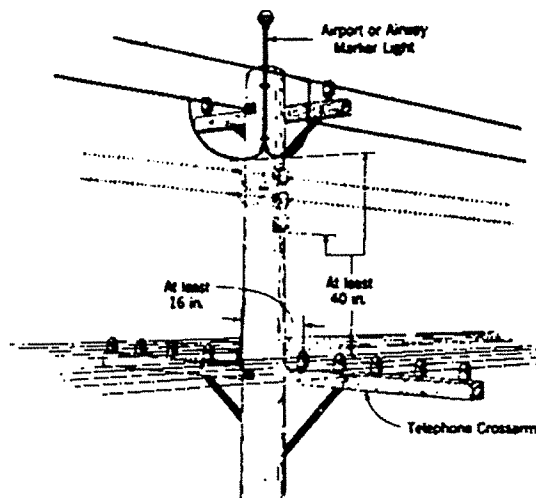
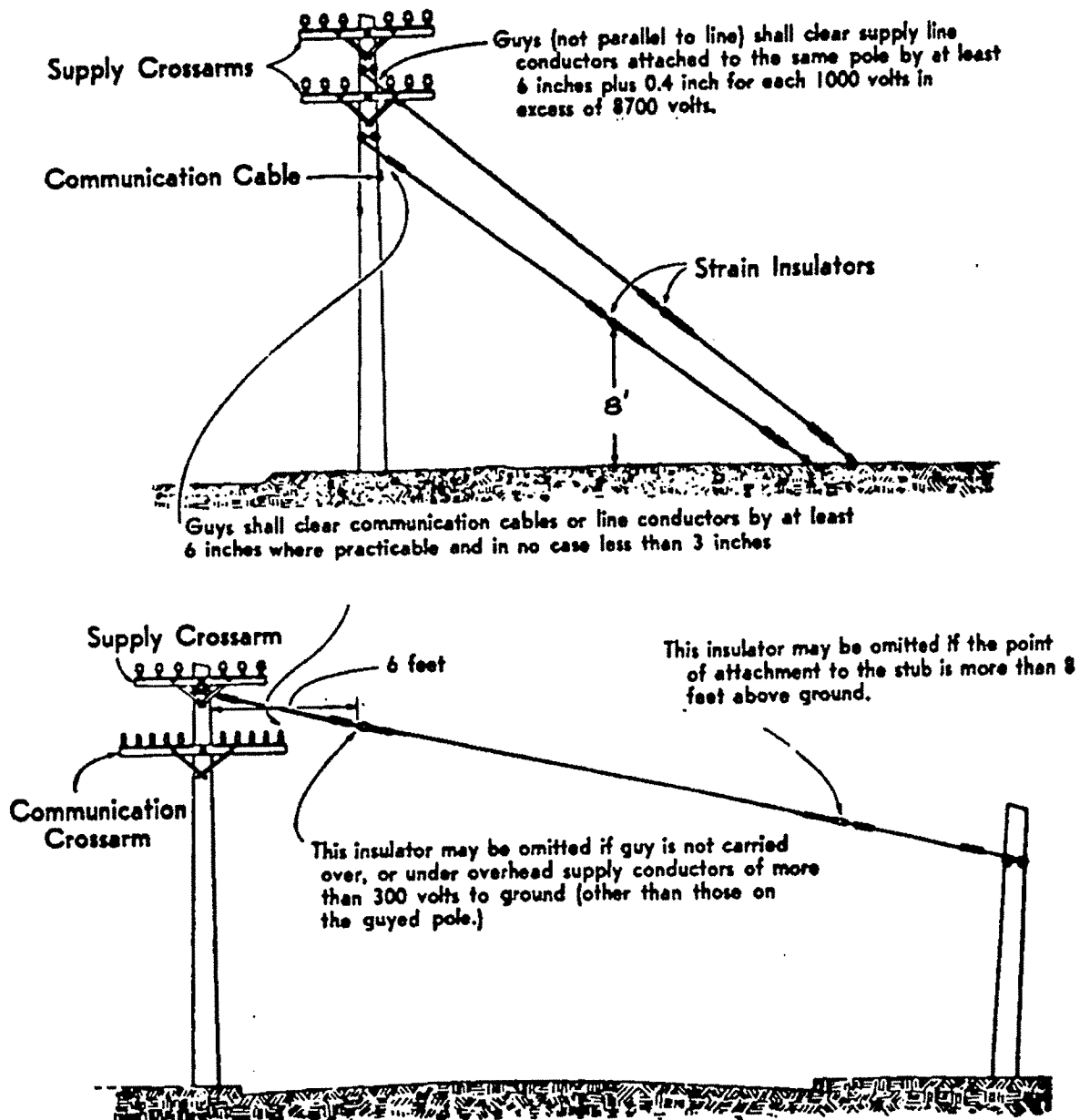


Fig. 2

ORIGINAL ISSUE

PLATE 12

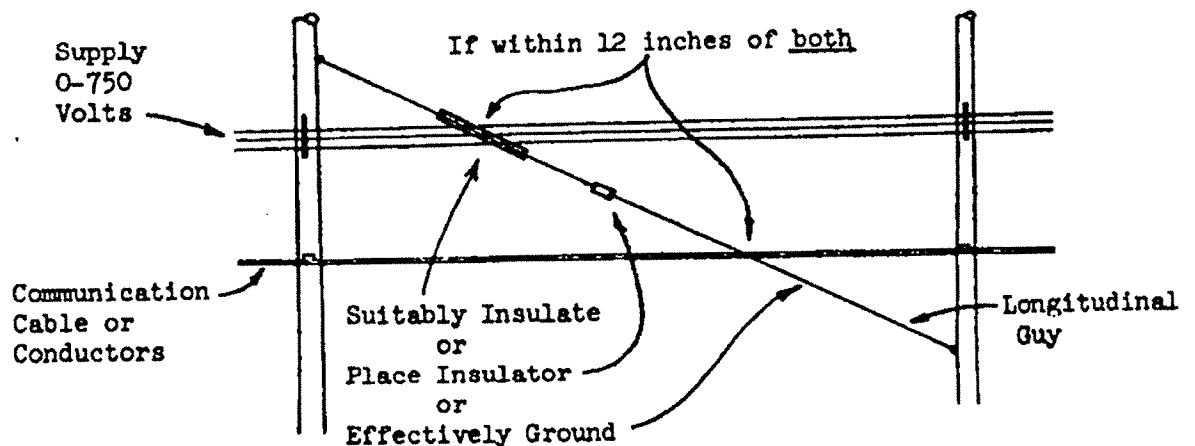
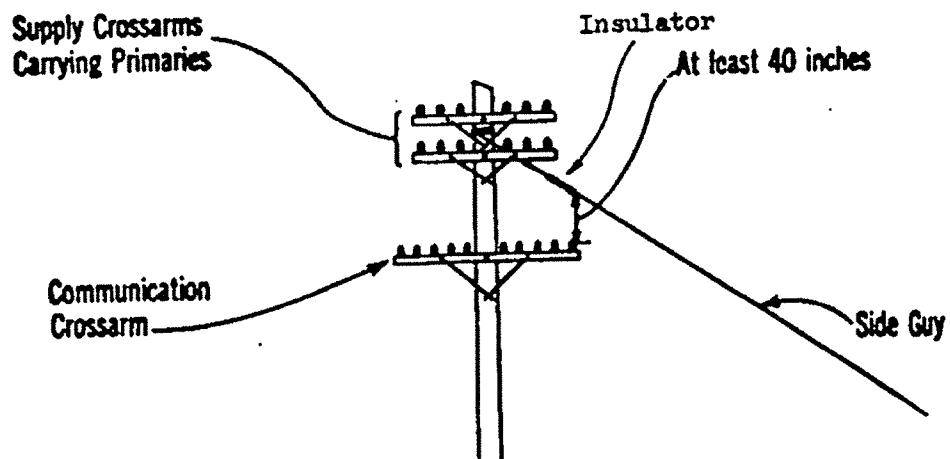
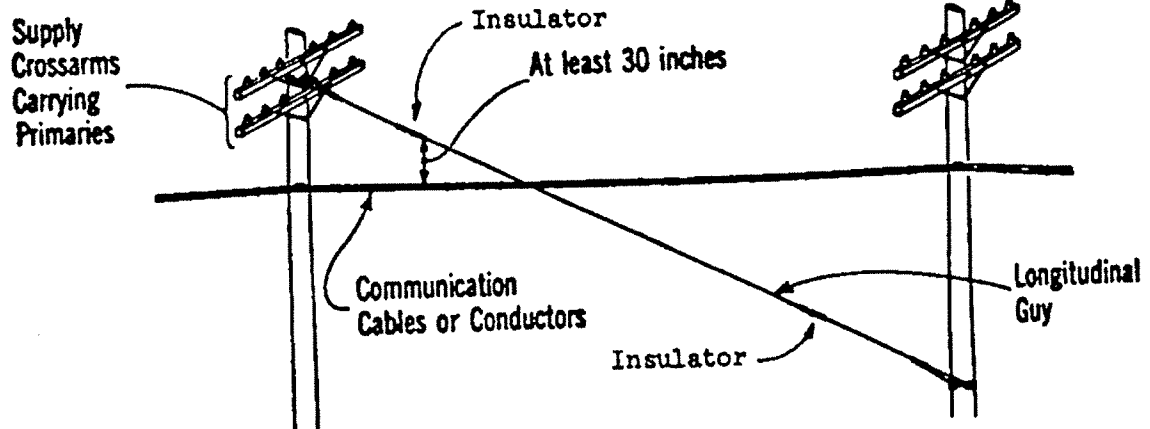
## USE OF STRAIN INSULATORS IN UNGROUNDED GUYS



ORIGINAL ISSUE

PLATE 13

# USE OF STRAIN INSULATORS IN GUYS ATTACHED ABOVE SUPPLY CONDUCTORS



ORIGINAL ISSUE

PLATE 14

# NEUTRAL BONDING

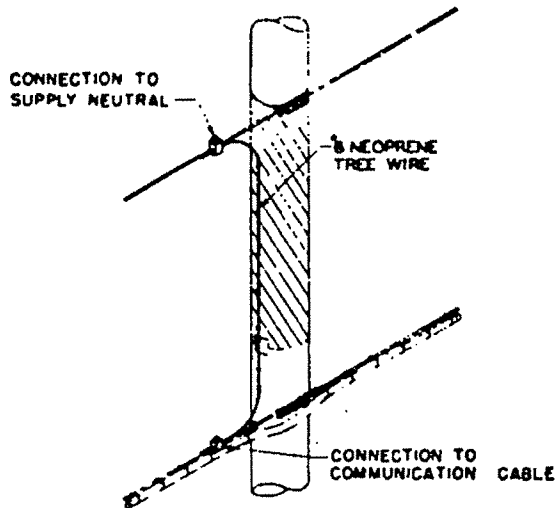


FIGURE 1 COMMUNICATIONS CABLE TO SUPPLY NEUTRAL BOND

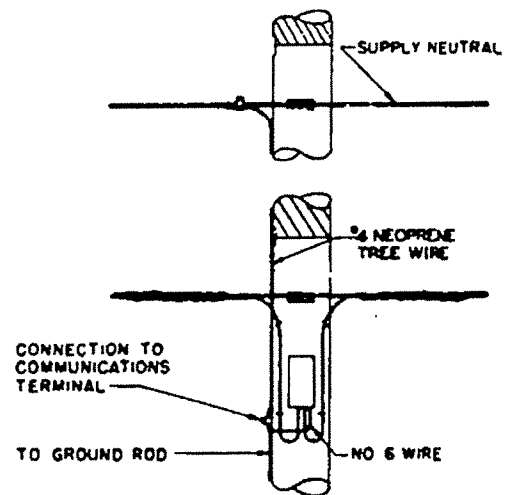


FIGURE 2 COMMUNICATION PROTECTED WIRE TERMINAL BONDED TO SUPPLY VERTICAL GROUND WIRE

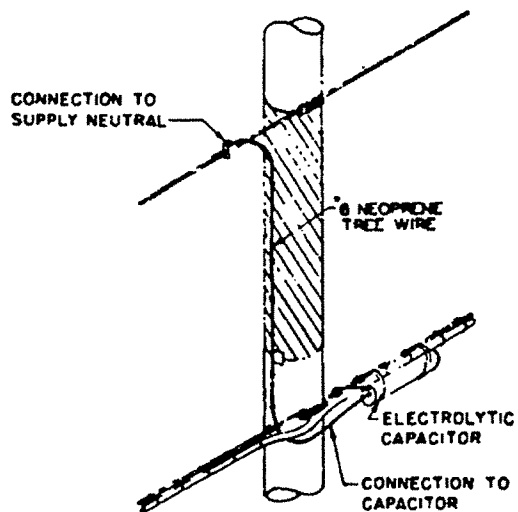
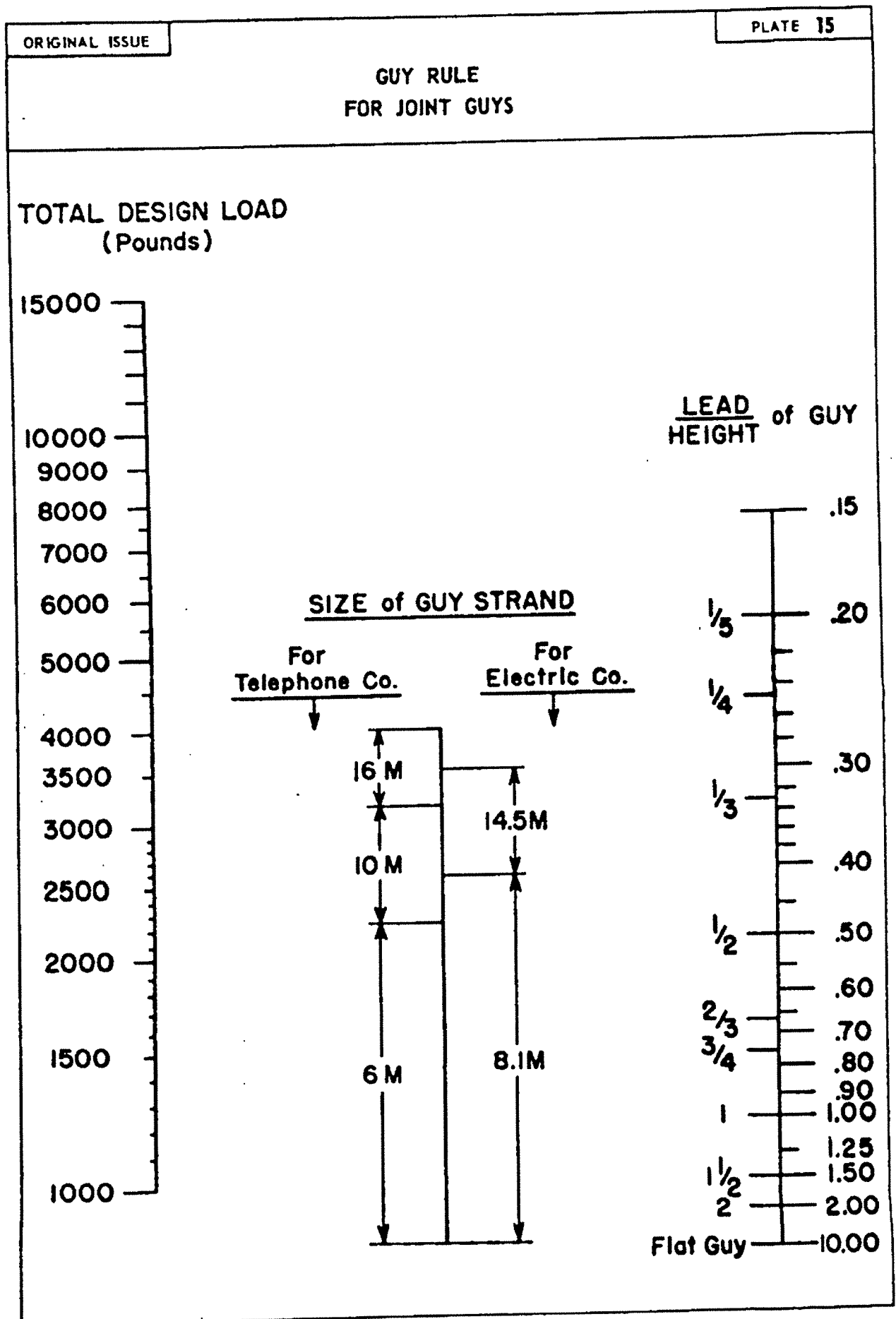


FIGURE 3 COMMUNICATION CABLE TO SUPPLY NEUTRAL BOND WITH ELECTROLYTIC CAPACITOR



5.03

EXHIBIT A - NUNO CASE PHONE  
NEW JERSEY STATE UNIVERSITY CAMPUS  
ROCKAWAY BEACH, NEW JERSEY

These prices are to be effective on all bills with Antiquity Dates of January 1, 1978 and thereafter until revised by Antiquity.

Note: Nuno Case phones do not apply to billing in connection with George's work by Antiquity in either Company's property. On all such cases Antiquity billing shall be on an actual Cost basis.

Item I - Full cost of New or Replacement Poles

<u>Length of Pole</u>	<u>Price</u>
30'	\$ 38.00
35'	31.00
40'	100.00
45'	114.50
50'	117.00
55'	117.00

has full cost is responsible for all in the Antiquity costs thereof.

Item II - Full cost of Repair Work

(\$17.00)

Item III - Full cost of Anchors

<u>Size and Type of Anchor</u>	<u>Price</u>
5/8" Rod, 9" Expanding Anchor	\$30.00
3/4" Rod, 3" Expanding Anchor	\$6.00
1" Rod, 10" Expanding Anchor	\$0.00
1-1/4" Rod, 12" Expanding Anchor	\$0.00

CURRENT VALUE OF POLES USING G.E. TIME-SHARE  
COMPUTER AND ASSUMING NO CHANGE IN POLE PRICES  
FOR 1970

1970

ROCKLAND ELECTRIC - N.J. BELL TEL.

CURRENT VALUE OF STANDING POLES YEAR 1970

PRICES EFFECTIVE ON BILLS WITH AUTHORITY DATES  
OF 1-1-70 THRU 12-31-70 FOR FULLY TREATED  
PINE AND CEDAR POLES

YEAR PLD	30'	35'	40'	45'	50'	55'	AGE
1970	\$68	\$84	\$102	\$124	\$152	\$225	0
1969	66.2	81.9	99.5	121	158.2	220.9	1
1968	64.4	79.8	97	118.1	154.5	215.8	2
1967	57	69.2	85.1	104.3	144.2	217.3	3
1966	55.4	67.3	82.8	102.1	140.5	212	4
1965	50.1	65.3	79.7	96.7	145	199.5	5
1964	48.5	63.4	77.4	94	141.2	194.5	6
1963	45.3	58.1	71.7	88.8	122.9	155.3	7
1962	43.7	56.2	69.5	85.2	119.4	151.1	8
1961	35.7	47.9	61.7	76.3	98.2	110.3	9
1960	34.4	45.2	59.5	73.9	95.2	107	10
1959	33	44.5	57.5	71.4	92.2	103.7	11
1958	31.6	42.8	55.5	69	89.2	100.4	12
1957	31.7	43	55.8	69.5	89.9	101.2	13
1956	27.9	38.1	49.8	62.1	80.5	90.9	14
1955	23.6	32.6	47.7	53.7	70	79	15
1954	22	30.7	40.5	50.9	55.5	75.2	16
1953	22.9	32	42.3	53.2	59.5	78.5	17
1952	19	26.9	35.9	45.4	59.7	67.5	18
1951	15.7	22.8	30.7	39.2	51.8	53.8	19
1950	12.5	18.8	25.8	33.2	44.3	50.5	20
1949	12.5	18.9	25	33.5	44.9	51.2	21
1948	12.8	19.3	25.5	34.3	45.9	52.4	22
1947	10.9	15.9	23.6	30.8	41.5	44.9	23
1946	9	14.6	20.8	27.4	37.3	42.8	24
1945	5.4	9.9	15	20.4	28.5	33	25
1944	3.1	7	11.4	15.1	23.1	25.9	26
1943	-.7	2.1	5.3	8.5	13.5	15.4	27
1942	-.3	2.7	6.2	9.6	15.2	18.3	28
1941	-1.2	1.7	5	8.4	13.6	15.5	29
1940	-2	.7	3.8	7.1	12	14.7	30

NEGATIVE FIGURES = ZERO VALUE

POLE OVER 30 YEARS OF AGE = ZERO VALUE



SCHEDULE B - CURRENT VALUE POLE PRICESNEW JERSEY BELL TELEPHONE COMPANYROCKLAND ELECTRIC COMPANY

These prices are to be effective on bills with Authority Dates of January 1, 1969 through December 31, 1969.

Full Prices for Fully Treated pine and cedar poles.

<u>Year Placed</u>	<u>30 ft.</u>	<u>35 ft.</u>	<u>40 ft.</u>	<u>45 ft.</u>	<u>50 ft.</u>	<u>55 ft.</u>
1969	68.00	84.00	102.00	124.00	162.00	226.00
1968	66.30	82.00	99.60	121.20	158.40	221.10
1967	59.10	71.60	88.00	108.20	148.60	223.80
1966	57.50	69.80	85.80	105.60	146.10	218.80
1965	52.20	67.90	82.70	100.20	150.10	206.40
1964	50.70	66.10	80.50	97.70	146.40	201.50
1963	47.50	60.70	74.80	92.50	127.80	161.40
1962	46.00	58.90	72.80	90.00	124.50	157.30
1961	37.80	50.40	64.80	80.00	102.70	115.40
1960	36.50	48.80	62.80	77.70	99.90	112.20
1959	35.20	47.20	60.90	75.40	97.00	109.10
1958	33.70	45.40	58.70	72.70	93.80	105.50
1957	33.90	45.70	59.20	73.40	94.70	106.60
1956	29.80	40.60	52.70	65.60	84.90	95.60
1955	25.50	34.90	45.70	57.00	74.10	83.50
1954	23.70	32.80	43.00	53.90	70.10	79.20
1953	24.60	34.10	44.80	56.10	73.10	82.60
1952	20.40	28.70	38.00	47.90	62.70	71.00
1951	16.90	24.20	32.50	41.20	54.30	61.60
1950	13.70	20.00	27.30	34.90	46.50	52.80
1949	13.40	19.80	27.10	34.90	46.50	52.90
1948	13.50	20.10	27.60	35.50	47.40	54.00
1947	11.20	17.30	24.10	31.40	42.20	45.70
1946	9.40	15.00	21.30	28.00	38.10	43.70
1945	5.70	10.20	15.40	20.80	29.00	33.50
1944	3.40	7.30	11.80	16.50	23.60	27.50
1943	1.00	2.70	6.00	9.40	14.60	17.50
1942	1.00	3.70	7.30	11.20	16.90	20.10
1941	1.00	3.10	6.60	10.30	15.90	19.00
1940	1.00	2.50	5.90	9.50	14.90	17.80
1939 & Earlier	1.00	2.00	5.30	8.80	14.00	16.90

6.00

SCHEDULE A - FIXED COST SHEET  
NEW JERSEY BELL TELEPHONE COMPANY  
ROCHESTER DISCOUNT COMPANY

These prices are to be effective on all bills with finality  
 Dates of January 1, 1999 and thereafter until revised by mutual agreement.

Note: Fixed Cost prices do not apply to billing in connection with:  
 damage caused by accidents to either Company's property. In  
 all such cases Inter-Company Billing shall be on an Actual  
Cost basis.

Item I - Full cost of Pole or Pole-Accessories

<u>Length of Pole</u>	<u>Amount</u>
30'	\$ 62.00
35'	84.00
40'	106.00
45'	128.00
50'	150.00
55'	172.00

The pole owner is responsible for all other expenses including  
 costs thereof.

Item II - Full cost of Pole Hardware

\$21.00

Item III - Full cost of Anchors

<u>Size and Type of Anchor</u>	<u>Amount</u>
5/8" Rod, 8" Expanding Anchor	\$33.00
3/4" Rod, 8" Expanding Anchor	35.00
1" Rod, 10" Expanding Anchor	40.00
1-1/4" Rod, 12" Expanding Anchor	60.00