

SECTION 271400 – TELEPHONE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:

1. This Section specifies the telephone raceway system for buildings and structures.
2. Provide all labor, materials, and equipment as necessary to complete all work as indicated on the drawings, and as specified herein.
3. The Contractor shall furnish and install a complete telephone raceway system with all necessary components for a complete system as described in the specification and shown on the drawings.

Include the following paragraph if the Contractor will be installing the cable, punch down blocks, etc.

4. The Contractor shall furnish and install all cable, terminal blocks, punch blocks, and all necessary components from the facility Telephone Utility Room to each outlet designated to have cable, and leave 12” of cable at each outlet for termination by others.

- B. Work Not Included

Include the following paragraph if the Physical Plant Telecom Department will be installing the cable, punch down blocks, etc.

1. The telephone wiring, terminations, and connectors shall be provided and installed by others.

- C. Related Sections include the following:

1. Applicable sections of Division 26 - Electrical

1.3 SYSTEM DESCRIPTION

- A. *Need description.*

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. Telephone cables
 - 2. Punch down blocks and all related components
 - 3. Outlets

1.5 QUALITY ASSURANCE

- A. *Need text.*

PART 2 - PRODUCTS

2.1 TELEPHONE CABINETS

- A. Telephone cabinets shall be 24 inches wide, 24 inches high and 6 inches deep, flush mounting and supplied with 3/4 inch plywood backboard installed in the cabinet.
- B. Panel front shall be equipped with Corbin Catalog No. 15751 catch, lock, and No. TEU-1 key.
- C. Cabinets may be standard electric panelboard boxes, such as manufactured by General Electric, or Westinghouse.

2.2 TELEPHONE OUTLETS

- A. Telephone outlets shall be Hubbell catalog number SSF12, SSF14, SSF16 (Stainless steel faceplate 2, 4, or 6 openings single gang) or SSF204, SSF206, SSF209 or SSF212 (Stainless steel faceplate 4, 6, 9, or 12 openings double gang). Fill all outlet positions with blank fillers.

Use the following paragraph if the Contractor will be installing the cable.

2.3 TELEPHONE CABLE

- A. Telephone cable shall be twisted pair communication cable and shall meet EIA/TIA 568 Category 5e requirements and shall be CMP rated. Cables shall be four pair with a gray overall jacket, Avaya Catalog number 66131418 (Cat 5e), or approved equal.

PART 3 - EXECUTION

3.1 GENERAL

- A. In general, outlets shall be installed 18 inches above finished floor unless otherwise noted.

3.2 WORK IN EXISTING WALLS

- A. Flush telephone outlets installed in existing walls shall consist of single gang, extra deep, non-metallic, "old work" boxes such as Carlon catalog no. B114R or Union Box catalog no. 6070-4.
- B. Telephone wire shall be fished in the wall and run to the communication closet on the respective floor. Wire shall be anchored every three feet to structural members, slabs, or walls; they shall not be laid on or fastened to channels of suspended ceilings, duct work, conduit, piping, or other building systems.
- C. Where cables are run parallel they shall be bundled and anchored every three feet same as above.

3.3 WORK IN NEW WALLS

- A. Flush telephone (communication) outlets installed in new walls shall consist of the following:
 - 1. An extra deep single gang steel box with a 3/4" conduit installed to the cable tray system or the closest Floor Communication Room.
 - 2. Two of these outlet boxes shall be installed at all locations where telephone (communications) is needed. The boxes shall be spaced approximately six inches apart.

3.4 WALL MOUNTED TELEPHONE OUTLET BOXES

- A. Wall mount telephone outlet boxes shall be an extra deep single gang steel box with a 3/4" conduit installed to the cable tray system or the closest Floor Communication Room. The wall space within 12" from the center of the outlet box in all directions shall be kept clear of all other devices, equipment, attachments, items, etc., to allow space for a wall mount telephone set.

3.5 SURFACE OUTLETS

- A. Surface telephone outlets shall consist of Wiremold No. 5747 shallow switch and receptacle box.

3.6 FLOOR OUTLETS

- A. Telephone floor outlets shall be Walker Catalog No. 501 AL, surface mounting service fitting.

If the project includes the wiring by the Contractor, then use the following paragraphs..

3.7 TELEPHONE WIRING

A. Telephone wiring shall be the following:

1. Install the number of telephone cables to each outlet as shown on the drawings.
2. Install a feeder cable to each floor. The number of pairs in the feeder shall be equal to the number of telephone outlets on the floor plus fifty, rounded up to the nearest increment of 100 pairs. The conductors in the feeder cable shall be #24 AWG solid annealed copper.
3. All cable shall meet the requirements of NEC 800-3(b).

B. In the Telephone Utility Room and Floor Communications Rooms, all pairs of all telephone cables shall terminate on new punch down terminal blocks, Type 66M Siemens part no. S66M1-50, installed on blue backboards made by Allen Tel, part no. GB183B1. Above each blue backboard install white spool board Allen Tel part no. GB187B1. Pairs shall be tagged indicating the location of the other end of the cable. Cable shall be routed through "D" rings Allen Tel part no. GB13C along outer edge of plywood and across bottom of plywood up to the 66 blocks. Terminate cables on 66 blocks maintaining a 1" loop in each pair.

END OF SECTION 271400