



SECTION 16742

TELEPHONE SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. The Telephone System shall include interior telephone wire, telephone outlets and boxes.

1.2 RELATED WORK

- A. Section 16130 - Boxes.
- B. Section 16421 - Utility Service Entrance.

1.3 SUBMITTALS

- A. Submit documents under provision of Division 1 and Section 16010.
- B. Product Data: Submit physical and operating characteristics of interior cable and outlet jacks.

1.4 REFERENCES

- A. ANSI/NEMA FB 1 - Telephone conduit fittings.

1.5 PROJECT RECORD DOCUMENTS

- A. Submit record documents under provision of Division 1 and Section 16010.
- B. Accurately record location of telephone outlet boxes.

1.6 WORK BY OWNER

- A. Telephone instruments will be supplied by the Owner.

PART 2 - PRODUCTS

2.2 TELEPHONE BOXES

- A. Outlet Boxes: Sheet metal, galvanized steel, as specified in Section 16130.

2.3 STANDARD TELEPHONE WIRE

- A. Description: Category 5e unshielded twisted 4-pair wiring (UTP), 24 AWG. Category 5e cable shall meet the physical requirements of ANSI/ICEA publication S-80-576 (ref. B1.6). Exterior jacket color shall be green.
- B. Characteristics:
1. Nominal Impedance: $100\text{-}\frac{1}{2} \pm 15\%$ from 1 MHz to 100 MHz)
 2. Maximum DC Resistance: $9.38 \frac{1}{2} / 100 \text{ m.}$
 3. Mutual Capacitance (max.): 5.25 nF/100m
- C. Manufacturers:
1. AMP.
 2. Mohawk.
 3. Substitutions: Or Approved Equal.

2.4 TELEPHONE OUTLET JACKS

- A. Manufacturers:
1. Panduit
 2. NORDX
 3. AMP
 4. Leviton
 5. Substitutions: Approved Equal.
- B. Recessed Wall Type: RJ45, Category 5e, 4-pair for modular type (quick connect terminals) suitable for back wiring and mounting in a standard electrical box. Jack shall include a plastic ivory faceplate and mounting lugs.

2.5 TELEPHONE SERVICE WIRING CONNECTION ENCLOSURE

- A. Description: Provide a service enclosure box with lockable hinged front doors to enclose the telephone service wiring termination 110 blocks for the entire facility. Locate the enclosure box on the telephone service board at the second floor telephone room. Size the enclosure box as necessary to accommodate wiring terminations.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Verify that field measurements are as shown on Drawings.
- C. Beginning of installation means installer accepts existing conditions.

3.2 TELEPHONE OUTLETS, WIRING, BOXES AND CONDUIT



- A. Provide telephone outlet boxes and jacks as shown on Drawings. Provide recessed (flush) mounted telephone outlet boxes in all finished areas. Provide surface mounted outlet boxes only in unfinished areas or where installed on existing exposed masonry walls.
- B. Do not install recessed telephone boxes back-to-back in walls; provide minimum 6-inch separation. Provide minimum 24 inches separation in acoustic rated walls.
- C. Secure recessed telephone boxes to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- D. Coordinate mounting heights and locations of outlet boxes mounted above counters, benches, and backsplashes.
- E. Install telephone outlet boxes 18 inches above finished floor.
- F. Conceal telephone wire within partitions or above ceilings. Provide straps as required to properly support cables.
- G. Do not make splices in telephone wiring. Provide telephone wiring continuous from outlet jacks to 110 telephone termination blocks to be located at the main telephone service board in the electrical room. Make all necessary wiring terminations.
- H. Test all installed telephone wire, outlets and terminations to assure proper operation.

END OF SECTION