
DIVISION 27 – COMMUNICATIONS

27 0528 PATHWAYS FOR COMMUNICATIONS SYSTEMS

- A. Fiber and copper cabling will be provided between buildings by Owner Coordinate with IT department for conduit requirements.

27 1005 INTERIOR COMMUNICATION CABLING

- A. General: Building design shall include a complete, empty conduit and/or cable tray system for use by the University's Telephone and Data Systems.
- B. Main terminal cabinet shall be surface mounted in the IT Communications.
- C. Coordinate requirements with CMU IT department.
- D. If telephone/data circuits are being installed as a part of other construction that requires an electrical permit, the Authority Having Jurisdiction (AHJ) will inspect the telephone/data circuits
- E. If telephone/data circuit install is stand alone, no permit is required. However, The AHJ will inspect if requested.

27 1116 EQUIPMENT RACKS

- A. Equipment racks with horizontal and vertical cable management will be provided by Owner.
- B. Provide grounding from room ground bar which comes from MSB in electrical room, to rack with a #6awg green ground.

27 2000 IT DISTRIBUTION ROOM GUIDELINES

- |A. Information Technology - Main Distribution Room (IT MDR)
 - 1. Room size shall be 150 square feet (15x10)
 - 1. Sealed concrete floors with vinyl base
 - 2. Open ceilings, painted
 - 3. Minimum of 2 walls to have fire rated plywood installed 8 feet in height by 5/8 thick, painted.
 - 2. Provide 3 dedicated 20 amp circuits (circuits shall be just for OIT Room). Locate near the equipment racks. It is preferred that the circuits be on backup generator power.
 - 3. Equipment rack space requirements
 - 1. Equipment rack size 2 feet wide by 3 feet deep
 - 2. Provide a minimum of 3 feet clear space in the front and rear of the rack.
 - 4. Provide general outlets around the room on a different circuit.
 - 5. It is preferred that the space be ventilated using the building system ventilation. However convection ventilation is acceptable. Basic design temperature for the space shall be below 90 degrees ambient. The equipment in the space could generate 40K BTUs/Hr. (realistically it is closer to 10K BTUs/Hr.).
 - 6. Floors shall be sealed concrete

7. Provide a minimum of two (2) 4" EMT conduits, sleeved through floor or ceiling as required. Final quantity of conduits shall be determined during the Design Development Phase.
8. If allowed by code, it is preferred that the door swing out of the space.
9. Provide proper fire caulk and stopping at all penetrations and voids as required by building code.

| B. Information Technology - Intermediate Distribution Room (IT IDR)

1. Room size shall be 100 square feet (10x10)
 - a. Sealed concrete floors with vinyl base
 - b. Open ceilings, painted
 - c. Minimum of 2 walls to have fire rated plywood installed 8 feet in height by 5/8 thick, painted.
 - d. IT IDR to be stacked one above the other as feasible.
2. Provide 2 dedicated 20 amp circuits (circuits shall be just for OIT closet). Locate near the equipment racks. It is preferred that the circuits be on backup generator power.
3. Equipment rack space requirements
 - a. Equipment rack size 2 feet wide by 3 feet deep
 - b. Provide a minimum of 3 feet clear space in the front and rear of the rack.
4. Provide general outlets around the room on a different circuit.
5. It is preferred that the space be ventilated using the building system ventilation. However convection ventilation is acceptable. Basic design temperature for the space shall be below 90 degrees ambient. The equipment in the space could generate 40K BTUs/Hr. (realistically it is closer to 10K BTUs/Hr.).
6. Provide a minimum of two (2) 4" EMT conduits sleeved through floor or ceiling as required. Final quantity of conduits shall be determined during the Design Development Phase.
7. If allowed by code, it is preferred that the door swing out of the space.
8. Provide proper fire caulk and stopping at all penetrations and voids as required by building code.

27 4000 AUDIO/VISUAL SYSTEMS

- A. Building design shall include a complete, empty conduit and/or cable tray system for use by University OIT Department.
- B. Public Address Equipment: Local PA systems shall be capable of operation without a technician in attendance. Special attention should be given to the problem of secure storage of equipment.
- C. Television and Computer Networking Systems: Closed circuit TV, student response systems, classroom or lecture room audio/visual systems, computer systems, etc. shall be provided as required by the Program of Building Requirements and other parts of this design criteria.

- D. Coordinate requirements with CMU IT department.

https://www.cmich.edu/office_provost/OIT/Documents/AVStandards-OIT.pdf

27 5124 INTERCOM SYSTEMS

- A. Intercom system is not required in resident building.

27 5132 TELEVISION DISTRIBUTION

- A. Building design shall include a complete, empty conduit system for use by University.
- B. Coordinate requirements with CMU IT department.

END OF SECTION

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9.20.12	Section 27 1005 – Interior Communication Cabling inserted sub-section D and E.	Steve Lawrence
12.15.17	Section 27 1116 & 27 4000 Equipment Rack Grounding & Audio Visual Hyperlink to AV Design Standards	Jonathan Webb
4.3.18	Added Section 27 2000 IT Distribution Room Guidelines	Jonathan Webb