

SECTION 27 0528 - PATHWAYS FOR COMMUNICATIONS AND TECHNOLOGY

PART 1 - GENERAL

1.1 RELATED DOCUMENT

1. Telecommunications Backboard
2. Cable Tray
3. Cable Runway
4. Conduits
5. Boxes

B. Related Sections

1. Division 26 – Electrical.
2. Division 27 – Technology and Communications Systems
3. Division 28 – Electronic Safety and Security

1.3 QUALITY ASSURANCE

- A. NFPA 70 – The National Electrical code
- B. ANSI/TIA 568-C.0 – Generic Telecommunications Cabling for Customer Premise
- C. ANSI/TIA/EIA 568-C.1 – Commercial Buildings Telecommunications Cabling Standard
- D. ANSI/TIA/EIA 569 – Commercial Building Standard for Telecommunications Pathway Spaces
- E. ANSI/TIA/EIA 606-A – Administration Standard for the Telecommunications Infrastructure Commercial Building; TR-42.6 - Labeling
- F. ANSI/TIA/EIA 607A – Commercial Building Grounding and Bonding

NORTHWESTERN UNIVERSITY
PROJECT NAME _____
JOB # _____

FOR: _____
ISSUED: 03/29/2017

- J. Comply with most current edition of the Northwestern University Design Standards.

1.4

1. Telecommunications Backboards shall be provided on three wall of each TR (Telecommunications Room). The Backboards and shall be 4' wide x 8' high x 3/4" thick fire retardant plywood, painted with white paint.

B. Cable Trays

1. Wire Mesh

- a. Cable Trays shall be constructed of continuous, rigid, welded steel wire mesh, which shall permit continuous ventilation of cables and maximum dissipation of heat. Edges shall be constructed with a continuous safety edge T-welded wire lip, and shall be welded at all intersections.
- b. Cable Trays shall have a UL Classification.
- c. Cable Trays shall be constructed of carbon steel wire, ASTM A 510, Grade 1008, wire welded, bent, and surface treated after manufacturing.
- d. The fin0.831 0 Td(5(f)-10 Td(5(f)-10dh)-3.2(i0dh(d.)Tj.3(T)-175a)]TJ [s)-8(t)-1.16(s)-1(i)-t5iwr5desh

- 1) No conduit bend shall exceed 90°.
 - 2) Conduit bends must be no less than 6-inch radius.
 - 3) No conduit route shall have more than two bends.
 - 4) Continuous conduit runs shall not exceed 100 ft. nor contain more than two (2) 90° bends without utilizing appropriately sized pull boxes,
5. In Floor Service Boxes shall utilize a minimum of a 1" conduit. In Floor Service box conduits shall be individual home runs, and shall at no cost be daisy chained, i.e. configured so that a box feeds another box, unless explicitly indicated on the Drawings.

3.3 FIELD QUALITY CONTROL

- A. Keep areas of work accessible until inspection by authorities having jurisdiction.
- B. Where deficiencies are found, repair products so they comply with the Construction Documents.
- C. Install work in full accordance with the rules, regulations, and safety requirements of Federal, State, County and City authorities having jurisdiction over premises. Do not construe this as relieving Contractor from compliance with any requirements of the Specifications which are in excess of Code requirements and not in conflict therewith.
- D. Correct unacceptable workmanship and, as necessary, provide additional inspection to verify compliance with this Specification at no additional cost to the Owner or the Owner's appointed representative.

3.4 ADJUSTING AND CLEANING

- A. Remove equipment, materials, and debris, leaving area in undamaged, clean condition.
- B. Clean all surfaces adjacent to sealed openings to be free of excess firestopping materials and soiling as work progresses.

END OF SECTION 27 0528