
Part 1 General

1.1 RELATED SECTIONS

- .1 Division 01- General Requirements.
- .2 Section 26 05 00 – Common Work Results – Electrical.

1.2 REFERENCES

- .1 American National Standards Institute:
 - .1 ANSI J-STD-607-A-2002, Joint Standard - Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications.
- .2 Telecommunications Industries Association (TIA)/Electronic Industries Alliance (EIA):
 - .1 TIA/EIA-606-2002, Administration Standard for the Commercial Telecommunications Infrastructure.
- .3 U.S. Department of Labor/Occupational Safety and Health Administration (OSHA):
 - .1 Nationally Recognized Testing Laboratory (NRTL).

1.3 SYSTEM DESCRIPTION

- .1 Telecommunications grounding and bonding system consisting of grounding busbars, bonding backbones, and other bonding conductors.
- .2 Provides ground reference for telecommunications systems within building and bonding to ground of equipment in telecommunications rooms.
- .3 Metallic pathways, cable shields, conductors, and hardware within telecommunications spaces are bonded to telecommunications grounding and bonding system.

Part 2 Products

2.1 BONDING CONDUCTOR FOR TELECOMMUNICATIONS

- .1 Copper conductor, green insulated, size as indicated to: ANSI J-STD-607-A.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 BONDING CONDUCTORS GENERAL

- .1 When placed in ferrous metallic conduit or EMT, bond one end of conduit or EMT using grounding bushing.

3.3 BONDING TO TELECOMMUNICATIONS GROUNDING BUSBAR

- .1 Bond metallic communications raceways to the existing TGB in room 2299 using #6 AWG green insulated copper conductor.
- .2 For communications cables within Server/Telephone Room having shield or metallic member, bond shield or metallic member to the TGB.
- .3 Bond equipment racks and cabinets as indicated to the existing TGB using #6 AWG green insulated copper conductor.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Division 01 – General Requirements.
- .2 Section 26 05 00 – Common Work Results – Electrical.
- .3 Section 26 05 31 – Junction and Pull Boxes.
- .4 Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.
- .5 Section 26 05 32 – Outlet Boxes, Conduit Boxes and Fittings.

1.2 SYSTEM DESCRIPTION

- .1 Raceway system for communications systems consisting of outlet boxes, cover plates, conduits, pull boxes, fish wires, cable tray and overhead J-hook distribution system.

Part 2 Products

2.1 MATERIAL

- .1 Conduits: In accordance with Section 26 05 34 Conduits, Conduit Fastenings and Conduit Fittings.
- .2 Non-metallic raceway:
 - .1 Multiple channel non-metallic raceway base
 - .2 103mm x 45mm Supplied with pre-punched mounting holes.
 - .3 CSA 22.2 No.62-93
 - .4 Compatible with NEMA standard 70mm faceplates.
 - .5 PVC construction in Off White to be field painted match supplied REL
- .3 Raceways: In accordance with Section 26 05 34 Conduits, Conduit Fastenings and Conduit Fittings.
- .4 Junction and pull boxes: in accordance with Section 26 05 31 – Splitters, Junction and Pull Boxes.
- .5 Outlet boxes, conduit boxes and fittings: in accordance with Section 26 05 32 – Outlet Boxes, Conduit Boxes and Fittings.
- .6 Fish wire: polypropylene type.
- .7 J-hooks: CADDY CAT64 or approved equal.
- .8 Cable tray: (Wire Basket):
 - .1 Carbon steel wire, ASTM A 510, Grade 1008. Wire welded, bent, and surface treated after manufacture.
 - .2 Finish for Carbon Steel Wire after welding and bending of mesh to be Electrodeposited Zinc Plating: ASTM B 633, Type III, SC-1.

- .3 Cable tray will consist of continuous, rigid, welded steel wire mesh cable management system, to allow continuous ventilation of cables and maximum dissipation of heat, with UL Classified splices where tray acts as Equipment Grounding Conductor (EGC).
- .4 Provide splices, supports, and other fittings necessary for a complete, continuously grounded system.
- .5 Mesh: 2 x 4 inches (50 x 100 mm).
- .6 Straight Section Lengths: 118 inches (3,000 mm).
- .7 Fittings: Wire mesh cable tray fittings are field-fabricated from straight tray sections, in accordance with manufacturer's instructions and Item 2.3.
- .8 CF Series Cable Tray Size:
- .9 Depth: Cable tray depth will be (unless otherwise shown on drawings) 105 mm
- .10 Width: Cable tray width will be (unless otherwise shown on drawings) 600 mm
- .11 Length: Cable tray length will be 118 inches (3000 mm) unless otherwise shown on drawings.
- .12 Fill Ratio: Cable tray may be filled to (40%) of total fill capacity. Size cable tray to accommodate future cabling changes or additions.

Part 3 Products

3.1 MATERIAL

- .1 Conduits: In accordance with Section 26 05 34 - Conduits, Conduit Fastenings and Conduit Fittings.
- .2 Junction and pull boxes: in accordance with Section 26 05 31 – Splitters, Junction & Pull Boxes and Cabinets.
- .3 Outlet boxes, conduit boxes and fittings: in accordance with Section 26 05 32 – Outlet Boxes, Conduit Boxes and Fittings.
- .4 Fish wire: polypropylene type.

Part 4 Execution

4.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

4.2 INSTALLATION

- .1 Install fish wire, outlet boxes, pull boxes, coverplates, conduit, cable tray, J-hooks, miscellaneous and positioning material to constitute a complete system, in preparation for cable installation under this contract.

- .2 Cable Tray (Wire Basket):
 - .1 Supply and install wire basket for conveyance of communications system cabling within communications rooms.
 - .2 Maximum length of unsupported communications wire basket shall be 1500 mm.
 - .3 Coordinate locations of wire basket supports with other trades to ensure that they are easily accessible.
 - .4 Ground cable trays at end of continuous run.
- .3 J-Hooks:
 - .1 Not Applicable.
- .4 Conduits:
 - .1 Provide conduits for conveyance of communications system cabling as follows:
 - .1 In ceiling spaces that are not accessible (i.e. above gypsum board ceilings).
 - .2 In public areas that have exposed (open) ceilings.
 - .3 For all fiber optic cables.
- .5 All conduits for voice/data outlets shall be stubbed to cable tray.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Division 01 – General Requirements.
- .2 Section 26 05 00 – Common Work Results – Electrical.
- .3 Section 26 05 32 – Outlet Boxes, Conduit Boxes and Fittings.
- .4 Section 26 05 34 – Conduits, Conduit Fastenings and Conduit fittings.

1.2 SYSTEM DESCRIPTION

- .1 Cabling and devices for audio and video communications.
- .2 Conduit, boxes and fittings as indicated.

1.3 SUBMITTALS

- .1 Submit Shop Drawings in accordance with Section 26 05 00 – Common Work Results - Electrical:
- .2 Submit Cable Test Results.

Part 2 Products

2.1 MATERIALS

- .1 As specified on drawings.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

- .1 Use CSA approved lubricants of type compatible with cable jacket to reduce tension.
- .2 Provide conduits, pull boxes and outlet boxes as indicated on drawings.
- .3 Faceplates shall have an appropriate icon to indicate outlet type. Each jack faceplate shall be clearly labelled as per the Owner's requirements. Blank inserts shall be provided for unused ports.

3.3 FIELD QUALITY CONTROL

- .1 Perform tests in accordance with Section 26 05 00 – Common Work Results - Electrical.
- .2 Perform tests using qualified personnel. Provide necessary instruments and equipment.
- .3 All materials shall be the most current offered by each manufacturer and shall comply with all applicable standards.
- .4 Appropriate care and installation techniques shall be used to ensure that the manufacturers specifications for minimum bend radius, maximum tensile rating and vertical rise are met.

END OF SECTION