SECTION 27 16 19 TELECOMMUNICATIONS PATCH CORDS, STATION CORDS, AND CROSS CONNECT WIRES

Part 1 General

1.1 Summary

- 1.1.1 This section shall govern the products for telecommunications patch cords (cables), station cords (at work area outlets), and cross connect wires.
 - 1. The contractor shall supply all necessary cross connect wires as part of a complete and functioning telecommunications system.
 - 2 Supply and (2) copper patch cords for every horizontal cable installed. Only (1) patch cord at patch panel end for voice cabling required.
 - 3. Supply quantities fiber optic patch cords as specified by CCS.

1.2 Related Documents

- 1.2.1 The latest versions of the following codes, standards, and guidelines shall be followed. Bring to CCS' immediate attention where construction documents or conditions differ from requirements in codes, standards, guidelines and specifications.
- 1.2.2 The following standards:
 - 1. ANSI/TIA-568-C.0, Generic Telecommunications Cabling for Customer Premises
 - 2. ANSI/TIA-568-C.2, Balanced Twisted-Pair Telecommunications Cabling and Components Standards
 - 3. ANSI/TIA-568-C.4, Broadband Coaxial Cabling and Components Standard
 - 4. TIA-569-C, Commercial Building Standard for Telecommunications Pathways and Spaces
 - 5. TIA-606-B, Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- 1.2.3 The following guidelines:
 - 1. BICSI, Telecommunications Distribution Methods Manual (TDMM)
 - 2. BICSI, Information Transport Systems Installation Methods Manual (ITSIMM)
- 1.2.4 The following project specifications:
 - 1. 27 11 19 Termination Blocks and Patch Panels

1.3 Quality Assurance

- 1.3.1 Patch cords and station cords are to be covered by the Contractor's and Manufacturer's System Warranty
- 1.3.2 Each patch cord shall be tested to ANSI/TIA-568-C.2 component requirement by the manufacturer. The manufacturer shall test 100% of the patch cords. Each patch cord shall be shipped with a quality control label, which is referenced to actual test data verifying high performance.

1.4 Submittals

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- 1.4.1 The following submittals are due at the Pre-Construction Phase, in accordance with submittal requirements in Section 27 05 00 Communications:
 - 1. Product Information
 - a) Provide manufacturer's product information cutsheet or specifications sheet with the specific product number identified or filled out.
 - b) Provide spreadsheet (in Microsoft Excel format), indicated cable type, manufacturer, part model or series, and quantity of cables to be supplied to CCS.
 - 1) CCS will then indicate the desired lengths and percentage of desired lengths contractor is to supply.
- 1.4.2 The following submittals are due Post-Construction, in accordance with the submittal requirements in Section 27 05 00 Communications:
 - 1. Record Drawings
 - a) Pre-construction submittals should match the products actually delivered to CCS. If not, provide CCS with updated information.

Part 2 Product

- 2.1 Copper Cross Connects
 - 2.1.1 Provide cross-connect wires as indicated on the drawings and as required to form a complete and functional telecommunications system.
 - 1. Manufacturer shall be such that the advanced telecommunications system warranty will be met.
- 2.2 Copper Patch Cords Voice and Data Applications
 - 2.2.1 All patch cords shall be CMR (FT4) rated and stamped accordingly.
 - 2.2.2 Patch cords shall be manufactured of stranded conductor cable with (8) position (4) pair terminations at both ends. New building construction shall use 6A product.

Specified Product:

Category	Rating	Colour	Length	System	Location
5e, 6, 6A	CMR/FT4	Green	various	Voice	Telecom Room
5e, 6, 6A	CMR/FT4	Blue	various	Data	Workstation
5e, 6, 6A	CMR/FT4	Blue	various	Data	Telecom Room

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5e, 6, 6A	CMR/FT4	Yellow	1 foot	Security	Camera
5e, 6, 6A	CMR/FT4	Yellow	various	Security	Telecom Room

- 2.2.11 Manufacturer shall be the same as copper connectivity manufacturer:
 - 1. Hubbell
 - 2. Panduit
- 2.3 Optical Fiber Patch Cords
 - 2.3.1 All patch cords shall be CMR (FT4) rated and stamped accordingly. New installations shall have LC/APC connectors.
 - 2.3.2 Minimum bend radius shall be 7.5mm
 - 2.3.3 Insertion Loss maximum shall be 0.2dB
 - 2.3.4 Specified Product:

Termination Rating Type Length
Panduit/Corning various CMR/FT4 duplex various

Part 3 Execution

3.1 General

Deliver all patch cords and station cords to CCS.

End of Section 27 16 19