SECTION 27 1619 – PATCH CORDS, STATION CORDS AND CROSS-CONNECT CABLES

Revise this Section by deleting and inserting text to meet Project-specific requirements.

This Section uses the term "Architect" or "Engineer." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

Delete hidden text after this Section has been edited for the Project.

PART 1 - GENERAL

1.1   RELATED DOCUMENTS

A.   The Contractor's attention is specifically directed, but not limited, to the following documents for additional requirements:

1.   The current version of the *Uniform General Conditions for Construction Contracts*, State of Texas available on the web site of the Texas Facilities Commission.
2.   The University of Houston's *Supplemental General Conditions and Special Conditions for Construction*.
3.   The University of Houston *Network Infrastructure Design Standards* (available at https://uh.edu/infotech/services/computing/networks/network-infra-standards/).

1.2   SUMMARY

A.   Section Includes:

1.   Coordination with other trades and parts of the contract.
2.   Submittals (Action and Informational).
3.   Quality Assurance.
4.   Parts and Manufacturers.
5.   Installation and Testing.

B.   This section covers the cables used to provide connections to horizontal cables that transport signal between network distribution equipment and between such equipment and end-user hardware.

Revise subparagraph(s) below to suit Project.

1.3   PREINSTALLATION MEETINGS

A.   Preconstruction Conference: Conduct conference at [**Project site**] <**Insert location**>. The Contractor and the Facilities Project Manager lead the meeting. The UIT Project Manager must be invited to the preinstallation meetings.

Copy subparagraph below and edit for each activity required for preconstruction conference.

1. **<Insert activity>**.

1.4   SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A.   Follow the *Submittal Administrative Requirements* as stated in *Section 01 3300 Submittal Procedures*. For submittals to UIT, use electronic format only.

1.5   ACTION SUBMITTALS

A.   None.

1.6   INFORMATIONAL SUBMITTALS

A.   Product Data: For each type of product.

PART 2 - PRODUCTS

2.1   PARTS AND MANUFACTURERS

A.   Refer to *Section 01 2500 Substitution Procedures* for variations from approved manufacturers or parts. **Obtain written approval from UITNS before requesting a substitution for work covered by *Division 27 Communications.***

B.   Copper Cables

1.   Panduit

   a.   3-foot   UTPSP3
   b.   5-foot   UTPSP5
   c.   7-foot   UTPSP7
   d.   10-foot   UTPSP10
   e.   14-foot   UTPSP14
   f.   20-foot   UTPSP20
   g.   Colors: Above part numbers are off white. Append the following to part numbers to designate color.

      1)   BL = Black
      2)   BU = Blue
      3)   RD = Red
      4)   YL = Yellow
      5)   VL = Violet
      6)   OR = Orange

2.   CommScope

   a.   3-foot   UNC6-xx-3F
   b.   5-foot   UNC6-xx-5F
   c.   7-foot   UNC6-xx-7F

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       d.   10-foot   UNC6-xx-10F

       e.   14-foot   UNC6-xx-15F

       f.   20-foot   UNC6-xx-20F

       g.   xx = Color Designation. Replace xx in part numbers to designate color as follows:

           1)   BK = Black

           2)   BL = Blue

           3)   RD = Red

           4)   YL = Yellow

           5)   VL = Violet

           6)   OR = Orange

  C.   Fiber Optic Cables

     1.   CommScope or Corning

       a.   Single-mode: Fiber Optic Patch Cords with LC connectors – yellow

       b.   Multimode: Fiber Optic Patch Cords with ST connectors – orange

PART 3 - EXECUTION

3.1   General Installation

  A.   Cabling Contractor shall fully cooperate and coordinate with Owner's Voice and Data Communications Equipment providers as required to ensure proper integration and connectivity between systems.

  B.   Cabling Contractor shall furnish and install all patch cords in conjunction with Owner's Voice and Data Communications Equipment providers.

  C.   Cabling Contractor shall provide adequate technician support when Owner's Voice and Data Communications Equipment providers are planning and installing new voice and data equipment installation and connectivity.

  D.   Field terminated patch cables are strictly prohibited.

  E.   Label copper and fiber optic patch cables as described in *27 0553 Identification for Communications Systems*.

3.2   Copper Cable

  A.   Furnish and install two Category 6 copper patch cables (one 5 feet in length and one 7 feet in length) for each horizontal cable installed.

  B.   Take care to protect the minimum bend radius of 4 times the cable diameter on all copper patch cables.

C.   Assure that, at minimum, every horizontal cabling permanent link in the installation meets or exceeds performance characteristics of the field test specifications defined in ANSI/TIA-568.2-D *Balanced Twisted-Pair Telecommunications Cabling and Components Standard*.

D.   Copper Patch Cable Color:

1.   Blue   General purpose, office or lab connection
2.   Yellow   Wireless access point connection
3.   Violet   Security camera, Security device, door lock or Code Blue phone
4.   Green   EMECS system connection
5.   White   AV

E.   Connect all wireless (WAP) jacks to a gigabit port with Power over Ethernet (802.at) on a dedicated HPE switch for wireless devices.

3.3   Fiber Optic Cable

A.   Provide one duplex LC Fiber optic patch cable for every fiber optic strand terminated.

B.   Patch cables are to be of like type and connector to the terminated fiber optic cable type.

C.   Length is to be determined at installation and recorded in submittal documents. Make the cable length adequate to reach owner provided electronic equipment mounted in lower section of relay rack.

D.   Fiber Optic Patch Cable Color:

1.   Yellow: Single-mode
2.   Orange: Multi-mode

END OF SECTION 27 1619