SECTION 27 13 13
COMMUNICATIONS COPPER BACKBONE CABLING

PART 1 - GENERAL

1.1 DESCRIPTION:

This section specifies requirements for telecommunications copper (UTP) backbone and horizontal cabling in structured cabling systems in computer rooms.

1.2 SUMMARY

Section Includes:

A. Copper (UTP) Backbone Cables.

1.3 REFERENCES

A. VA Infrastructure Standard for Telecommunications Spaces.

1.4 RELATED WORK:

A. Computer room structured cabling: Section 27 10 00, STRUCTURED CABLING.

B. Termination equipment: Section 27 11 19, COMMUNICATIONS TERMINATION BLOCKS AND PATCH PANELS.

B. Cable labeling requirements: Section 27 05 53, IDENTIFICATION FOR COMMUNICATIONS SYSTEMS.

1.5 SUBMITTALS:

A. Submit in accordance with Section 27 05 00, COMMON WORK RESULTS FOR COMMUNICATIONS SYSTEMS.

PART 2 - PRODUCTS

2.1 COPPER (UTP) BACKBONE CABLES.

Copper (UTP) backbone and horizontal cables are used in computer room structured cabling to connect Main Distribution Areas (MDAs), Horizontal Distribution Areas (HDAs), and server cabinet Equipment Distributors (EDs).

A. Performance Category. Copper (UTP) backbone cables shall meet the Category 6A performance requirements. Category 6A connectors are required.

B. Performance Specifications. Meets or exceeds TIA-EIA-568-C.2-10 and TSB-155.

C. Limited Power (LP) Certification. UL Listed as x-LP (0.5A).

D. Termination. Factory pre-terminated TIA 568B.

E. Testing. Factory certified to meet performance category requirements per TIA 568-C.2.

F. Conductor Size. 22-24AWG.

G. Jacket Rating. Communications Multipurpose Cable, Plenum (CMP) shall be specified if any portion of the cable passes through an NEC-defined plenum. Communications Multipurpose Cable, Riser (CMR) shall be specified for all other applications. CMP may be used as a substitute for CMR.

H. Bundling and Construction. Copper (UTP) backbone cables shall be provided in 6-cable bundles with individual 8P8C media interface connectors (RJ-45 'jacks') or 6-jack cassettes designed to fit in copper (UTP) patch panels.

I. Color. A-side 8P8C media interface connectors (RJ-45) shall be blue. B-side 8P8C connectors shall be yellow.

J. Length. Backbone cabling used shall be procured to the specific length required by the design (horizontal and vertical paths) with no more than 2 feet of excess length.

PART 3 - EXECUTION

3.1 IMPLEMENTATION.

A. A. All cabling and equipment shall be labeled per the requirements of the VA Infrastructure Standard for Telecommunications Spaces.

B. Install first level backbone and horizontal structured cabling in the computer room in cable tray and fiber raceway systems following diverse path routing.

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