SECTION 27 08 00

TESTING, IDENTIFICATION AND ADMINISTRATION

PART 17 - GENERAL

1.1 SUMMARY

SCOPE

1. This section includes the minimum requirements for the testing, certification administration and identification of backbone and horizontal cabling.
2. This section includes minimum requirements for the following:
   a) UTP testing and testers
   b) Fiber optic testing and testers
   c) Labels and Labeling
   d) Documentation
3. Related Sections include the following:
   a) 17150 Backbone Cabling Requirements
   b) 17160 Horizontal Cabling Requirements.

1.2 QUALITY ASSURANCE

A. All testing procedures and testers shall comply with applicable requirements of:

1. ANSI/TIA/EIA 568- C.1 Commercial Building Telecommunications Cabling Standard, Part 1: General Requirements

B. Identification and administration work specified herein shall comply with the applicable requirements of:

1. ANSI/TIA/EIA – 606-B Administration Standards.
2. ANSI/TIA/EIA – 569-B Pathway and Spaces
3. ANSI/TIA/EIA – 568-C Telecommunications Cabling Standard.
4. ANSI/TIA/EIA – 758-B Customer Owned Outside Plant Telecommunications Cabling Standard
5. BICSI Telecommunications Cabling Installation Manual
6. BICSI Telecommunications Distribution Methods Manual

1.3 SUBMITTALS

A. Manufacturers catalog sheets and specifications for fiber and copper cable testers.

B. Test reports

1.4 100 OHM UTP CABLE TESTING

A. The testing parameters called for in this section shall include the horizontal channel for all installed drop locations.

B. Test cable with test set to match the NVP for the cable as stated by the cable manufacturer of the cable being installed.

C. The test parameters shall include Wire Map, Length, Attenuation, PS-NEXT, PS-ACR, PS-ELFEXT and Return-Loss

D. Wire Map

- The wire map test shall verify pair to pin termination at each end and check for connectivity errors. The wire map shall indicate the following for each of the eight conductors:
  - a) Continuity to the remote end
  - b) Shorts between any two or more conductors
  - c) Crossed pairs
  - d) Reversed Pairs
  - e) Split Pairs
  - f) Any other miss wiring

E. Cable Performance

- Must meet the minimum acceptable values as indicated in TIA/EIA 568B.1 Category 6 (TIA/EIA 568C.2-1) requirements.

1.5 IDENTIFICATION & LABELING

A. Confirm specific labeling requirements with customer's project coordinator prior cable installation or termination.

B. Cables

1. Backbone cables shall be marked at each endpoint and at all intermediate pull/ access points or junction boxes. Label shall indicate origination and destination TR ID, sheath ID and strand or pair range.

2. Horizontal cables shall be marked at each end, on the sheath indicating the TR, patch panel and panel port to which the cable is wired. Faceplates and Patch Panels

C. Faceplates and Patch Panels

1. Copper Patch Panels

a) Fiber patch panels shall be marked using adhesive labels indicating the range of circuits installed to it.

b) Each port shall be labeled with the origination and destination with the individual strand ID.

2. Faceplates

- Shall be labeled to indicate the room number and panel port [A thru Z] to which the cable is wired for each cable that it houses.

1.6 RECORD COPY AND AS - BUILT DRAWINGS

- Provide record copy drawings periodically through out the project as per 25030 or as requested by the project manager and at end of the project. Record copy drawings shall include notations reflecting the as built conditions of any additions to or variation from the drawings provided.

1.7 TEST RESULTS

1. Horizontal Copper Cabling

a) The Contractor shall test all cables and submit all horizontal copper cable test result data in electronic format, with the resulting file formatted with one test result per
8.5"x 11"
page.

b) To provide the test results in an acceptable format:

1) Export or Download the test results from the cable tester to a *.txt format.

2) Then open the *.txt file in Microsoft WORD 6.0 and save the file as a *.doc file.

2. Fiber Optic Cables

a) The Contractor shall test all fiber optic cables and submit all fiber test result data in an electronic format and provide one (1) hard copy of the test results showing graphically, the entire length of the fiber.

- Reports shall show circuit ID, cursor marks, total attenuation, date of installation and test used.

b) Contractor shall submit (1) copy of software capable of viewing the electronic test result files.

3. High Pair Count Copper Cables

a) The Contractor shall test all high count copper cables and submit test result information in an electronic format. Minimal acceptable formats are Word 6.0 or Excel 95/97.

b) See project coordinator for required format for test report documentation.

END OF SECTION