SECTION 17040
TELECOMMUNICATIONS LABELING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Facilities Management Design and Construction Guide, apply to this Section.

B. When included as a part of this specification, the following contain related requirements:

1. Division 16 Section “Raceways and Boxes”.
2. Division 16 Section “Cable Trays”.
3. Division 17 Section “General Telecommunications Infrastructure Requirements”.
4. Division 17 Section “Equipment Rooms, Telecommunications Rooms, and Service Entrances”.
5. Division 17 Section “Backbone Cabling”.
6. Division 17 Section “Horizontal Cabling”.
7. Division 17 Section “Customer-Owned Outside Plant”.
8. Division 17 Section “Telecommunications Testing and Documentation”.

1.2 SUMMARY

A. This Section includes instructions for labeling and documentation of telecommunications infrastructure.

1.3 DEFINITIONS

A. Telecommunications Cables: Term includes horizontal copper, optical and coaxial cabling, copper and optical riser cables, copper and optical outside plant cables, copper audio/visual cables, CCTV cables, building environmental and automation, and security wiring systems.

B. Telecommunications Pathways: A cable distribution system consisting of raceways, cable trays, racks and ladders; conduits; distribution rings and mechanical cable supporting devices.

1.4 SUBMITTALS

A. Construction record drawings.

B. System labeling schedules, including electronic copy of labeling schedules as specified in Part 3 of this Section, in software and format selected by Owner.
1.5 QUALITY ASSURANCE


PART 2 - PRODUCTS

2.1 IDENTIFICATION PRODUCTS

A. Comply with the following:

1. Cable Labels: Self-adhesive vinyl or vinyl-cloth wraparound tape markers, machine printed with alphanumeric cable designations.
2. Label Maker: Brady I.D. Pro or approved equivalent.

PART 3 - EXECUTION

3.1 IDENTIFICATION AND LABELING

A. General Label Requirements:

1. Mechanically print and install all labels per drawing details.
2. Format: Select font size to be readable and to fit all information required without overlap of text. Recommended font: Helvetica, Bold.
3. Use all capital letters.
4. Clean all surfaces prior to attachment of any label. Follow manufacturer’s recommendations for cleaning and affixing labels.

B. Telecommunications Outlets:

1. Label each station outlet block, station outlet faceplate, and patch panel per drawing details.
2. Station Outlet Faceplate Labeling:
   a. Label Location: On the top of the faceplate in the outlet location window. The manufacturer’s paper label strip fits behind the clear plastic window.
   b. Label Information: See detail drawings. Outlet numbers are unique to building.
   c. Method: Use manufacturer’s white paper inserts or approved equal. Utilize commercial software to print the information on an adhesive label and affix the label to the paper insert or type the information on the strip. Do not affix labels to the clear plastic window.

C. Patch Panels:

1. Label Locations: Centered over each patch panel jack location.
2. Label Information: See detail drawings.
3. Method: Use manufacturer’s recommended labels.
D. Coaxial Cable:
1. Label Location: 2 inches from each end of the cable and on trak jack modules
2. Example: 5730

E. Outside Plant Cables:
1. Label Location: On the jacket or sheath of the cable at the ends and at every splice, case, and manhole. Place near the hardware on which the cable is terminated.
2. Locate label in a visible and readable location.
3. Label Information: The cable identifier is the cable number followed by the cable pair count (numeric characters), both the beginning and ending count. The cable identifier is unique to the campus. Refer to the schematic drawings.
4. Provide polyethylene non-conductive cable tags with cable numbers as shown on the plans. Provide “Mini-Tags” model number SH as manufactured by Almetek Industries, Inc.
5. Install tags at all splices (on each cable that enters the splice case), terminations, cable tray to conduit transitions, in manholes (at least once on each cable as it passes through the manhole), and at other locations as directed by the Owner.
6. Example: A03 001-0100  A03 0101-0200

F. Inside Plant Cables:
1. Label Location: Within 4 inches of each termination and tap, where it is accessible in a cabinet or junction or outlet box, and elsewhere as indicated.
2. Label Information: Cable number. Follow detail drawings or EIA/TIA standards.
3. Method: Brady cable labels appropriately sized or approved equal.

G. Equipment Racks:
1. Rack Label Location: On the cross bar at the top of the rack on both sides of the rack.
2. Rack Label Information: See detail drawings.
3. Example: R001

H. Fiber Termination Enclosure Frames:
1. Label Location: On the outside of the enclosure surface in the top left corner of the panel front.
2. Label Information: See detail drawings.
3. Example: FP0456

I. Building Fiber Terminations Within the Fiber Termination Enclosure Frames:
1. Label Location: On the inside front panel of the enclosure in the location identified by the manufacturer for the label. In most cases, the manufacturer’s label will be used and relabeled. The connector layout within each closure may vary. In general, the columns of fiber connectors are grouped in units of six connectors. Columns count from left to right. Termination positions within a column count from top to bottom. Refer fiber termination numbering conflicts to the Owner for a decision.
2. Label Information: See detail drawings.
J. Cable Schedule: Post in prominent location in each equipment room and wiring closet. List incoming and outgoing cables and their designations, origins, and destinations. Protect with rigid frame and clear plastic cover. Furnish an electronic copy of final comprehensive schedules for Project, in software and format selected by Owner.

K. Cable Administration Drawings: Show building floor plans with cable administration point labeling. Identify labeling convention and show labels for telecommunications closets, terminal hardware and positions, horizontal cables, work areas and workstation terminal positions, grounding buses and pathways, and equipment grounding conductors. Follow convention of TIA/EIA-606. Furnish electronic record of all drawings, in software and format selected by Owner.

3.2 RECORD DRAWINGS

A. Maintain current documents at the construction site. Submit with Operation and Maintenance manuals.

B. Include all information required for shop drawings.

C. Include revisions to construction documents (addenda and field changes).

D. Include as-built drawings with outlet labeling shown for each outlet.

E. Provide spreadsheet with all outlet labeling as indicated on detail drawings.

END OF SECTION 17040