PART 1 - GENERAL

1.1 SUMMARY

A. Section includes identification requirements for building control systems wiring and devices.

B. Related Sections:
   1. 25 0513 Conductors and Cables
   2. 25 0528 Pathways
   3. 25 3519 Control Valves
   4. 25 3515 Switches and Relays
   5. 25 1223 Client-Server Information/Database Integration
   6. 25 1400 Local Control Units

1.2 REFERENCES

A. Refer to 25 0000 Integrated Automation

1.3 DEFINITIONS

A. Refer to 25 0000 Integrated Automation

1.4 SYSTEM DESCRIPTION

A. Labeling for control panels, instrumentation within panels, control valves/dampers, field instruments, thermostats, wire, cable, and tubing.

B. Floor level instrumentation such as reheat valves, VAV dampers need not be labeled.

1.5 SUBMITTALS

A. Sample valve, damper and other instrument tags.

B. Sample wire, cable and tubing tags.

C. Sample panel tags.

D. List of all tag names and abbreviations. (From points list)

E. Tag installation methods for each type and condition.

1.6 QUALITY ASSURANCE

A. Where major devices are above ceiling, provide identification on ceiling grid to assist in locating device. Include direction arrow to identify specific tile.

B. Tags shall be machine generated and easily readable.

C. Tags shall be appropriate for the environment installed.

D. Do not mark on instruments with permanent markers, i.e.: felt pens or paint sticks.

E. Install tags for easy readability. Handwritten identification is not acceptable.

F. All identification in a single infrastructure must have the same format where possible.
G. Increase size of identification tags and text where needed for easy readability from practical line of sight. Some tags may need to be readable from a greater distance than others.

Note: Section specific quality requirements should be defined here but not repeated from other sections.

PART 2 - PRODUCTS

2.1 Where suitable P-touch labeling will be accepted as approved by FESO.

2.2 INSTRUMENT IDENTIFICATION

A. Construction:
   1. 1/16" thick laminated phenolic plastic, white with black core.
   2. Nominal size of 1" high by 1 to 4" wide.
   3. Stamped in 1/4" high block characters.

B. Self adhesive is acceptable where conditions will allow for permanent mounting.

2.3 CONTROL PANELS IDENTIFICATION

A. Construction:
   1. 1/16" thick laminated phenolic plastic, white with black core.
   2. Nominal size of 2" by 4".
   3. Stamped 1" high block letters.

B. Self adhesive is acceptable where conditions will allow for permanent mounting.

2.4 CONTROL VALVE AND DAMPER IDENTIFICATION

A. Construction:
   1. 1/16" thick laminated phenolic plastic, white with black core, or minimum 0.032" thick, polished brass or 316 stainless steel.
   2. Nominal size of 2" by 4".
   3. Stamped 1" high block letters.

B. Hanging type only, self adhesive is not acceptable for permanent mounting.

2.5 WIRE, CABLE AND TUBE IDENTIFICATION

A. Heat Shrink Sleeves:
   1. Manufacturer: Rhino or Brady Bradysleeve.
   2. Labels shall be heat shrink sleeve type, but not shrunk. Heat shrink labels shall be used on wire, cable, and tubing except for vendor specific cables that may not be cut.

B. Self Laminating Wrap-On Labels:
   1. Manufacturer: Rhino or Brady WML series.
   2. Self Laminating Wrap-On Type Labels shall be self-laminating wrap-on type. Self-laminating, wrap-on labels shall be used only on wire and cable that may not be cut.

C. Self adhesive is acceptable where conditions will allow for permanent mounting

PART 3 - EXECUTION

3.1 INSTRUMENT IDENTIFICATION

A. Coordinate with Owner for any exceptions.
B. Each device inside a control panel shall be tagged on the panel back plate with a machine printed tag bearing the item tag name, i.e. CISSF1ST for the instrument.

C. In mechanical rooms and outdoor locations, label each instrument with item tag name. All devices above the ceiling not associated with terminal device controller shall also be labeled.

D. Size label to accommodate instrument tag number and description.

E. Affix label on instrument or adjacent to if impractical on device

F. Fastening Methods for indoor applications:
   1. Self adhesive or double-side adhesive tape
   2. Epoxy Cement as required

G. Fastening Methods for weather exposed or other conditions where self adhesive is impractical:
   1. Field tags: Use Round head, No. 0 x 3/16", Type U, metallic drive screw, (0.075 diameter, blunt), size 51 (0.067") drill, stainless steel or chromium plated. Cadmium plated screws are not allowed. Similar screw may be substituted.
   2. Panel face: Use Phillips panhead, No. 2-56 x 5/16", Type T, self-tapping sheet metal screw (0.086 diameter, blunt, notched), size 48 (0.076") drill, stainless steel or chromium plated. Cadmium plated screws are not allowed. Similar screw may be substituted.

H. Provide control panel interior mounted instrument tags. Engraved legend shall be instrument tag number.

3.2 CONTROL PANEL IDENTIFICATION

A. Each panel face shall have an engraved plastic tag bearing the panel number designated in the approved submittal.

B. Provide control panel face mounted instrument tags as required. Engraved legend form as follows:

   EQUIPMENT IDENTIFICATION
   DEVICE FUNCTION
   INSTRUMENT TAG NUMBER

   1. Instrument tag number shall be per owner’s standard.
   2. Coordinate label tags and format prior to purchasing or installation.

3.3 CONTROL VALVE AND DAMPER IDENTIFICATION

A. Provide valve and damper tags for controlled equipment, excluding terminal devices.

B. Hang tag on actuator with wire or chain for easy readability.

C. Valve and damper tag number shall be per contract documents and owner’s standard.

D. Coordinate label tags and format with Owner, prior to purchasing or installation.

3.4 WIRE, CABLE AND TUBE IDENTIFICATION

A. All instrument and output device wiring shall be labeled at every termination including both sides of interim splices within field terminal panels. Labels are required for wire pairs, and not for individual wires.

B. Labels shall be installed within two (2) inches of termination, or in the case of I/O devices around the wire jacket anywhere in the device wiring cavity within six (6) inches of termination.

C. Labels shall be machine printed with indelible ink on plastic tubing. In no case are self-adhesive labels accepted, unless machine printed and protected with clear heat shrinkable tubing.
D. For Delta V system, label names shall reflect the computer number, I/O type and I/O number i.e. 340-AI-01-7, and the item detail tag name, i.e. SF1_ST. Tag names and numbers shall be on separate lines. The Owner shall provide the tag names and numbers after the final instrument list is generated.

E. For DDC system, labeling shall match point naming on engineering drawings.

END OF SECTION