SECTION 26 05 53
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Power Raceway Identification Materials
2. Metal-Clad Identification Materials
3. Power and Control Cable Identification Materials
4. Conductor Identification Materials
5. Floor Making Tape
6. Underground-Line Warning Tape
7. Warning Labels and Signs
8. Instruction Signs
9. Equipment Identification Labels
10. Miscellaneous Identification Products
11. Exterior Signs and Nameplaces
12. Arc Flash labeling per the Arc Flash report prepared by the Architect.

B. Meet the following performance requirements:

1. Identification shall be of a material and attachment method suitable to the environment where it is located. Exterior identification shall be weather, chemical and UV resistant.

C. Provide consistent, informative labeling for all furnished wired or installed equipment and devices. Coordinate with the Drawings, Specifications and Short Circuit, coordination and Arc Flash report.

1.2 RELATED WORK

A. Section 26 00 10 – Basic Electrical Requirements, is an integral part of this section. Requirements and work indicated in 26 00 10 are not repeated in this Section.

B. Refer to electrical Drawings for additional requirements.

1.3 COORDINATION

A. Coordinate work under provisions indicated in Section 26 00 10.

1.4 QUALIFICATIONS / QUALITY ASSURANCE

A. Conform to requirements indicated in Section 26 00 10.

1.5 REGULATORY REQUIREMENTS

A. Conform to requirements indicated in Section 26 00 10.

B. ANSI Z535 Safety Standards.

C. ANSI A13.1.

D. OSHA

1.6 SUBMITTALS

A. Submit as required here in and under Section 26 00 10.

B. Submit materials, colors and nameplate schedule for review.

C. Submit materials, colors and schedule for signage for review.

D. Submit on mounting methods and material.

1.7 EXTRA MATERIALS

A. Furnish under provisions indicated in Section 26 00 10.

1.8 PROJECT RECORD DOCUMENTS

A. Submit under provisions indicated in Section 26 00 10.

1.9 OPERATION AND MAINTENANCE DATA

A. Submit under provisions indicated in Section 26 00 10.

1.10 WARRANTY

A. Provide under provisions indicated in Section 26 00 10.

PART 2 - PRODUCTS

2.1 POWER RACEWAY IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.

B. Colors for Raceways Carrying Circuits at 600 V or Less:

1. Refer to Part 3 for color code.
2. Legend: Indicate voltage and system or service type.

C. Colors for Raceways Carrying Circuits at More Than 600 V:

1. Black letters on an orange field.
2. Legend: "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high letters on 20-inch (500-mm) centers.

D. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

E. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

F. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

G. Tape and Stencil for Raceways Carrying Circuits More Than 600 V: 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers diagonally over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stop stripes at legends.

H. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.

I. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.2 METAL-CLAD CABLE IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.

B. Colors for Raceways Carrying Circuits at 600 V and Less:

1. Refer to Part 3 for color code.
2. Legend: Indicate voltage and system or service type.

C. Colors for Raceways Carrying Circuits at More Than 600 V:

1. Black letters on an orange field.
2. Legend: "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high letters on 20-inch (500-mm) centers.

D. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

E. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; 2 inches (50 mm) wide; compounded for outdoor use.

2.3 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.

B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

C. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.

D. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

E. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

F. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

2.4 CONDUCTOR IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.

B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

D. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

E. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

F. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

2.5 FLOOR MARKING TAPE

A. 2-inch- (50-mm-) wide, 5-mil (0.125-mm) pressure-sensitive vinyl tape, with black and white stripes and clear vinyl overlay.

2.6 UNDERGROUND-LINE WARNING TAPE

A. Tape:

1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
2. Printing on tape shall be permanent and shall not be damaged by burial operations.
3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.

B. Color and Printing:

1. Comply with ANSI Z535.1 through ANSI Z535.5.
2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE.
3. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE.

C. Underground Warning Tape:

1. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of

the conductive core, bright-colored, [continuous-printed on one side with the inscription of the utility,] compounded for direct-burial service.
2. Overall Thickness: 5 mils (0.125 mm).
3. Foil Core Thickness: 0.35 mil (0.00889 mm).
4. Weight: 28 lb/1000 sq. ft. (13.7 kg/100 sq. m).
5. 3-Inch (75-mm) Tensile According to ASTM D 882: 70 lbf (311.3 N), and 4600 psi (31.7 MPa).

2.7 WARNING LABELS AND SIGNS

A. Comply with NFPA 70 and 29 CFR 1910.145.

B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.

C. Baked-Enamel Warning Signs:

1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
2. 1/4-inch (6.4-mm) grommets in corners for mounting.
3. Size as required to fit lettering with minimal size of 7 by 10 inches (180 by 250 mm).

D. Metal-Backed, Butyrate Warning Signs:

1. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch (1-mm) galvanized-steel backing; and with colors, legend, and size required for application.
2. 1/4-inch (6.4-mm) grommets in corners for mounting.
3. Size as required to fit lettering with minimum size of10 by 14 inches (250 by 360 mm).

E. Danger label and sign shall include, but are not limited to, the following legends:

1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES (915 MM)."
3. Refer to Drawings for additional sign requirements.

2.8 INSTRUCTION SIGNS

A. Engraved, laminated acrylic or plastic, minimum 1/16 inch (1.6 mm) thick for signs up to 20 sq. inches (129 sq. cm) and 1/8 inch (3.2 mm) thick for larger sizes.

1. Engraved legend with black letters on white face.
2. Punched or drilled for mechanical fasteners.
3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

B. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).

C. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.

2.9 EQUIPMENT IDENTIFICATION LABELS

A. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.

1. Extra strength laminated TZ tape by P-Touch or approved equivalent.

B. Self-Adhesive, Engraved, Laminated Acrylic Label: Adhesive backed. Minimum letter height shall be 3/8 inch (10 mm).

C. Engraved, Laminated Acrylic Label: Punched or drilled for screw mounting. Minimum letter height shall be 3/8 inch (10 mm).

D. Stenciled Legend: In nonfading, waterproof ink or paint. Minimum letter height shall be 1 inch (25 mm).

2.10 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Paint: Comply with requirements in Division 09 painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).

B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

2.11 EXTERIOR SIGNS AND NAMEPLATES

A. Heavy duty aluminum or stainless steel

B. Plastic expected life with over laminate is 3-5 years. This custom printed sign is made of 60-mil thick high performance plastic which is lightweight enough to mount almost anywhere

1. For indoor or outdoor use
2. Won't fade in the sun and endures temperatures between -40°F to 176°F

C. Provide for extended life and performance, Seton UltraTuff™ overlaminate (this extra layer protects the sign from graffiti, weather, fading, solvents, chemicals and abrasion - plus it guarantees the sign for life).

2.12 ARC FLASH LABELS

A. Arc flash labels shall be machine printed vinyl signs complying with OSHA and NFPA 70E requirements including information and OSHA compliant color coding and symbology.

PART 3 - EXECUTION

3.1 INSTALLATION

A. All equipment and designated devices shall be properly identified by means of permanent, clear and concise nameplates, tags, signs, directories and color coding.

B. Provide engraved acrylic nameplates for all equipment identification and signage unless specifically indicated otherwise. Adhesive Film Label with Clear Protective Overlay may be used for:

1. Device plates

2. 120V circuit number identification (e.g. a Bodine transfer relays)

C. Fire Alarm device identification: Mechanically fasten or engrave identification on the item to be identified. Secure nameplates and signs to equipment using screws or rivets. Properly applied epoxy or superglue adhesive may be accepted for device plate nameplates only with prior approved by the Architect. Embossed adhesive labels are not acceptable for any identification required by the Contract Documents.

D. Verify identity of each item before installing identification products.

E. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install nameplates and signs, etc. parallel to equipment lines.

F. Apply identification devices to surfaces that require finish after completing finish work.

G. Self-Adhesive Identification Products: Degrease and clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

H. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.

I. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.

J. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.

K. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:

1. Outdoors: UV-stabilized nylon.
2. In Spaces Handling Environmental Air: Plenum rated.

L. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches (400 mm) overall.

M. Painted Identification: Comply with requirements in Division 09 painting Sections for surface preparation and paint application.

N. Provide nameplates indicating "Breakers to be operated by Authorized Persons only" for the following:

1. Fire Alarm System
2. Security System
3. Control Panels
4. Emergency Lighting

O. Conductor and Raceway Color Coding: 1/8 inch (3 mm) lettering and provide nameplate at each panelboard and switchboard indicating color coding system. Mount on the interior of the door if so equipped; otherwise on the back of the trim.

3.2 IDENTIFICATION SCHEDULE

A. Concealed Raceways, Duct Banks, More Than 600 V, within Buildings: Tape and stencil 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers over orange background that extends full length of raceway or duct and is 12 inches (300 mm) wide. Stencil legend "DANGER CONCEALED HIGH VOLTAGE WIRING" with 3-inch- (75-mm-) high black letters on 20-inch (500-mm) centers. Stop stripes at legends. Apply to the following finished surfaces:

1. Floor surface directly above conduits running beneath and within 12 inches (300 mm) of a floor that is in contact with earth or is framed above unexcavated space.
2. Wall surfaces directly external to raceways concealed within wall.
3. Accessible surfaces of concrete envelope around raceways in vertical shafts, exposed in the building, or concealed above suspended ceilings.

B. Accessible Raceways, Metal-Clad Cables, More Than 600 V: Self-adhesive vinyl or Snap-around labels. Install labels at 30-foot (10-m) maximum intervals.

C. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 20 A, and 120 V to ground: Identify with self-adhesive vinyl label self-adhesive vinyl tape applied in bands. Install labels at 10-foot (3-m) maximum intervals.

D. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:

1. Emergency Power.
2. Power.
3. UPS.
4. Security
5. Fire Alarm
6. Telecom

E. Power-Circuit Conductor Identification, 600 V or Less: Where conductors can be exposed (for example junction boxes, panels, loads, etc.), use color-coding conductor tape to identify the phase.

1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for conductors.

   a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
   b. Colors for 208/120-V Circuits:
      1) Phase A: Black.
      2) Phase B: Red.
      3) Phase C: Blue.
      4) Neutral: White

   c. Colors for 480/277-V Circuits:
      1) Phase A: Brown.
      2) Phase B: Orange.
      3) Phase C: Yellow.
      4) Neutral: Gray.

   d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where

splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

2. Provide wire markers on each conductor in panelboard gutters, pull boxes, outlet and junction boxes, and at load connection. Identify with branch circuit or feeder number for power and lighting circuits, and with control wire number as indicated on schematic and interconnection diagrams or equipment manufacturer's shop drawings for control fire alarm and low voltage system wiring.

F. Power-Circuit Conductor Identification, More than 600 V: Where conductors are exposed, use write-on tags or nonmetallic plastic tag holder with adhesive-backed phase tags, and a separate tag with the circuit designation.

G. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.

H. Conductors to Be Extended in the Future: Attach write-on tags or marker tape to conductors and list source.

I. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.

1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.

J. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.

1. Limit use of underground-line warning tape to direct-buried cables.
2. Install underground-line warning tape for both direct-buried cables and cables in raceway.

K. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.

L. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels or Baked-enamel warning signs or Metal-backed, butyrate warning signs.

1. Comply with 29 CFR 1910.145.
2. Identify system voltage with black letters on an orange background.
3. Apply to exterior of door, cover, or other access.
4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:

    a. Power transfer switches.
    b. Controls with external control power connections.
    c. Switchboards.

M. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.

N. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch- (10-mm-) high letters for emergency instructions at equipment used for power transfer and load shedding.

O. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with submittals, wiring diagrams, schedules, and the Operation and Maintenance Manual. Identify device circuit numbers and load served. Apply labels to distribution equipment including each section and device in each section, disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems.

1. Labeling Instructions refer to drawing details for additional information:

    a. Indoor Equipment: Engraved, laminated acrylic label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high with the equipment name ½ inch (13mm) and the additional text ¼" (7mm).
    b. Outdoor Equipment: Engraved, laminated acrylic label.
    c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
    d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.
    e. Text shall be "Gothic Normal".

2. Equipment to Be Labeled includes but is not limited to:

    a. Panelboards up to 225A: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be mechanically fastened engraved, laminated acrylic label. Each 3 phase device shall have individual nameplates adjacent to the device. All devices shall be individually numbered.
    b. Panelboards over 225A: Panelboard identification shall be mechanically fastened engraved, laminated acrylic label. Each device shall have individual nameplates adjacent to the device. All devices shall be individually numbered.
    c. Switchboards / Switchgear / Motor Control Centers / other distribution equipment: Enclosure identification shall be mechanically fastened engraved, laminated acrylic label. Each device shall have individual nameplates adjacent to the device.
    d. Enclosures and electrical cabinets.
    e. Access doors and panels for concealed electrical items.
    f. Distribution equipment (switchgear, switchboards, motor control centers, etc.).
    g. Mechanical equipment (CRAHS, chillers, pumps, etc.).
    h. Transformers: Label that includes tag designation shown on Drawings for the transformer, feeder, and panelboards or equipment supplied by the secondary.
    i. Emergency system boxes and enclosures.
    j. Enclosed switches.
    k. Enclosed circuit breakers.
    l. Enclosed controllers.
    m. Variable-speed controllers.
    n. Push-button stations.
    o. Power transfer equipment.
    p. Contactors.
    q. Remote-controlled switches, dimmer modules, and control devices.
    r. Battery-inverter units.
    s. Battery cabinets.
    t. Power-generating units.

u. Monitoring and control equipment.
v. UPS equipment.
w. Receptacles
x. Disconnects include cover, also provide label indicating fuse size and class.
y. Bodine Transfer relays
z. HVAC equipment indicating circuits serving equipment (e.g. CRAH, pumps, etc)
aa. Pilot lights.
bb. Mimic Bus identify source and supply at each location.
cc. Cabinets and pull boxes: 3/8 inch (9 mm); identify system (e.g. telephone, data, fire alarm, sound, etc.).

3.3 ARC FLASH LABELS

A. Label distribution equipment with arc flash labels per the Arc Flash study.

B. Provide labels at each bus and piece of equipment in the report.

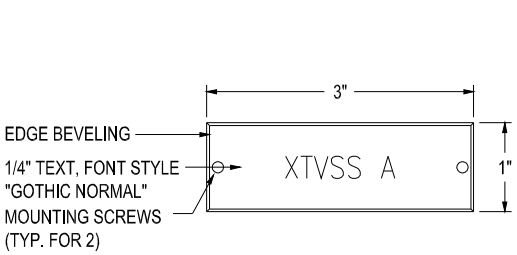
C. Provide labels at each access point to distribution equipment including rear and side access door.

3.4 COLOR CODE SYSTEM FOR LABELLING AND ENGRAVED NAMEPLATES

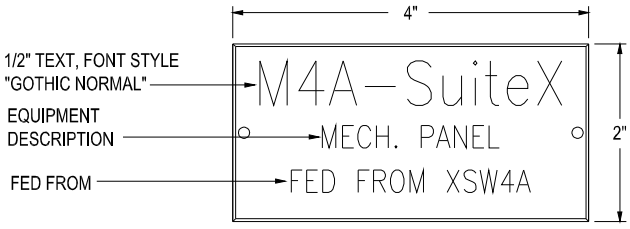
System Use	Background Color	Text Color	Remarks
Utility CB	White	Blue	Service equipment
Tie CB	White	Green	Main Swbd
Generator	White	Brown	Normal Gen
Not Assigned	White	Gray	
UPS System A	Blue	White	Swbd, UPS, PDU, Panels
UPS System B	Brown	White	Swbd, UPS, PDU, Panels
UPS System C	Green	White	Swbd, UPS, PDU, Panels
UPS System D	Gray	White	Swbd, UPS, PDU, Panels
Redundant Systems	Brushed Brass or yellow	Black	Gen and Swbds
Over 600Volts	Orange	Black	
House Loads	White	Black	
Non-UPS Base Bldg Power	Black	White	
Mechanical Power	Black	White	
DC Power	Yellow	White	
Data Center Non UPS	Black	White	Lighting, outlets, etc
Life Safety	Red	White	
Fire Alarm Safety	White	Red	
Exterior (non system)	Stainless	Black	Equip not associated with a system
Instructions	White	Black	
Safety Instruction Signs	White/Green	Black	OSHA standard (See Note 1)
Caution Signs	Yellow/Black	Yellow/Black	OSHA standard (See Note 2)
Danger Signs	Red/Black/White	White	OSHA standard (See Note 3)
HMI screen	White	Normal	Operation screen in Auto
HMI screen	Blue	Normal	Operation screen in Manual
HMI screen	Gray	Normal	Operation screen in Test
HMI screen for Gen R	Maroon		Redundant Power screen

Note 1: Safety Instruction Signs: Standard color of the background shall be white; and the panel, green with white letters. Any colors used against the white background shall be black.
Note 2: Caution Signs: Standard color of the background shall be yellow; and the panel, black with yellow letters. Any letters used against the yellow background shall be black.
Note 3: Danger Signs: The colors shall be red, black and white.

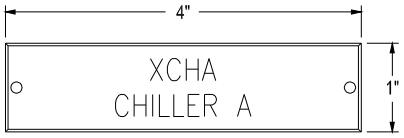
3.5 TYPICAL NAMEPLATES



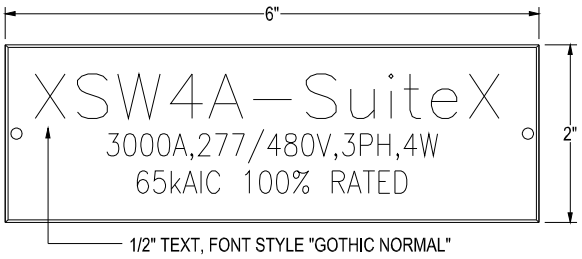
TYPICAL SMALL BREAKER NAMEPLATE
SCALE: N.T.S.



TYPICAL EQUIPMENT NAMEPLATE
SCALE: N.T.S.



TYPICAL LARGE BREAKER NAMEPLATE
SCALE: N.T.S.



1. FOR EACH SECTION OF SWITCHBOARD. SOME SECTIONS ARE 3PH, 3W

TYPICAL SWITCHBOARD NAMEPLATE
SCALE: N.T.S.

NAMEPLATE COLOR CODES BY SYSTEM		
USE	BACKGROUND	LETTERING
SYSTEM A	BLUE	WHITE
SYSTEM B	BROWN	WHITE
SYSTEM C	GREEN	WHITE
SYSTEM D	GRAY	WHITE
REDUNDANT	BRUSHED BRASS	BLACK
HOUSE LOADS	WHITE	BLACK
LIFE SAFETY	RED	WHITE
INSTRUCTIONS	WHITE	BLACK
OVER 600V	ORANGE	BLACK

NOTE:
NAME PLATES BASED ON SETON CO. WITH MULTI-PLY ACRYLIC ENGRAVED SETON FLEX PLASTIC. NAME PLATES WITH GOTHIC NORMAL LETERING.

END OF SECTION