

SECTION 101423 - PANEL SIGNAGE

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Panel signs.
- B. Related Requirements:
 - 1. Division 22 Section "Identification for Plumbing Piping and Equipment" for labels, tags, and nameplates for plumbing systems and equipment.
 - 2. Division 23 Section "Identification for HVAC Piping and Equipment" for labels, tags, and nameplates for HVAC systems and equipment.
 - 3. Division 26 Section "Identification for Electrical Systems" for labels, tags, and nameplates for electrical equipment.
 - 4. Division 26 Section "Interior Lighting" for illuminated, self-luminous, and photoluminescent exit sign units.

1.3 DEFINITIONS

- A. Accessible: In accordance with the U.S. Department of Justice "2010 ADA Standards for Accessible Design."

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For panel signs.
 - 1. Include fabrication and installation details and attachments to other work.
 - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
 - 3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign at least half size.
- C. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.
 - 1. Include representative Samples of available typestyles and graphic symbols.
- D. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), in manufacturer's standard size unless otherwise indicated and as follows:
 - 1. Panel Signs: Full-size Sample.
- E. Sign Schedule: Use same designations specified or indicated on Drawings or in a sign schedule.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals.

1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image.
 - c. Separation or delamination of sheet materials and components.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Accessibility Standard: Comply with applicable provisions in the U.S. Department of Justice "2010 ADA Standards for Accessible Design."

2.2 SIGNS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. American Graphics, Inc.
 - 2. Avalis Wayfinding Solutions
 - 3. Best Sign Systems, Inc.
 - 4. Henry Graphics
 - 5. Mohawk Sign Systems.
 - 6. Nelson-Harkins Industries.
 - 7. The Sign Store.
- B. Panel Sign: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
 - 1. Laminated-Sheet Sign: Sandblasted polymer face sheet with raised graphics laminated to acrylic or phenolic backing sheet to produce composite sheet.
 - a. Composite-Sheet Thickness: 0.125 inch (3.18 mm).
 - b. Changeable Graphics: Slide-in changeable insert.
 - 2. Graphic Process: Provide raised copy in accordance with one of the following processes:
 - a. Provide computer cut raised letters/symbols chemically welded to panel surface.
 - b. Provide raised letters/symbols by blasting away panel surfaces leaving raised text and Braille as an integral part of the sign.
 - c. All raised letters/symbols shall be minimum 1/32 inch (0.79 mm) thick in contrasting color from panel surfaces/background.
 - 3. Sign-Panel Perimeter: Finish edges smooth.
 - a. Edge Condition: Square cut.
 - b. Corner Condition in Elevation: Square.
 - 4. Mounting: Surface mounted to wall with silicone adhesive.
 - 5. Surface Finish:
 - a. Integral Acrylic Sheet Color: As selected by Architect from full range of industry colors.
 - b. For projects with more than one building/facility, contractor shall assume a different color will be selected for each building facility.
 - 6. Text and Typeface: Accessible raised characters and Braille. Helvetica Condensed. Finish raised characters to contrast with background color, and finish Braille to match background color.
 - 7. Flatness Tolerance: Sign panel shall remain flat or uniformly curved under installed conditions as indicated and within a tolerance of plus or minus 1/16 inch (1.59 mm) measured diagonally from corner to corner.

2.3 PANEL-SIGN MATERIALS

- A. Acrylic Sheet: ASTM D4802, category as standard with manufacturer for each sign, Type UVF (UV filtering).
- B. Polycarbonate Sheet: ASTM C1349, Appendix X1, Type II (coated, mar-resistant, UV-stabilized polycarbonate), with coating on both sides.
- C. Plastic-Laminate Sheet: NEMA LD 3, general-purpose HGS grade, 0.048-inch (1.2-mm) nominal thickness.

- D. Paints and Coatings for Sheet Materials: For copy and background colors, provide Pantone Matching System (PMS) colored coatings, including inks and paints that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and are nonfading for application intended.
- E. Exterior Panel Signs: Signs that are located on the exterior of the building shall be constructed of weather resistant materials recommended by the manufacturer. Appearance of exterior signs shall match interior.

2.4 ACCESSORIES

- A. Adhesives: Silicone adhesive as recommended by sign manufacturer.

2.5 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
 - 1. Preassemble signs and assemblies in the shop to greatest extent possible.
- B. Signs with Changeable Message Capability: Fabricate signs to allow insertion of changeable messages as follows:
 - 1. For slide-in changeable inserts, fabricate slot without burrs or constrictions that inhibit function. Furnish initial changeable insert. Furnish two blank inserts for each sign for Owner's use.
 - 2. Insert slot shall have a clear polycarbonate layer over slot for the insert to fit behind.
 - 3. Inserts shall be 1/16" thick engraved or digitally printed plastic laminate. Inserts shall exactly match background color of sign.

2.6 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Directional Finishes: Run grain with long dimension of each piece and perpendicular to long dimension of finished trim or border surface unless otherwise indicated.
- D. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of signage work.
- B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.
 - 1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
 - 2. Install signs so they do not protrude or obstruct according to the accessibility standard.
 - 3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.

4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- B. Room-Identification Signs and Other Accessible Signage: Install in locations on walls as indicated and according to accessibility standard.
- C. Mounting Methods:
 1. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.

3.3 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 101423