

SECTION 10 14 02**INTERIOR SIGNAGE****PART 1 GENERAL****1.1 REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALUMINUM ASSOCIATION (AA)

AA DAF-45 (2003) Designation System for Aluminum Finishes

AA PK-1 (2008) Pink Sheets: Designations and Chemical Composition Limits for Aluminum Alloys in the Form of Castings and Ingot

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

AAMA 2604 (2005) Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels

ASTM INTERNATIONAL (ASTM)

ASTM B 209 (2007) Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B 221 (2008) Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM C 1036 (2006) Standard Specification for Flat Glass

ASTM D 635 (2006) Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 (2008; AMD 1 2008) National Electrical Code - 2008 Edition

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

36 CFR 1191 Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities

1.2 SYSTEM DESCRIPTION

Provide interior signage of the design, detail, sizes, types, and message content shown on the drawings/attachments/signage placement schedule (as applicable), conforming to the requirements specified, and placed at the locations indicated. Signs shall be complete with lettering, framing as detailed, and related components for a complete installation. Signage shall be obtained from a single manufacturer with edges and corners of finished letterforms and graphics true and clean. Recyclable materials shall conform to EPA requirements in accordance with Section 01 62 35 RECYCLED / RECOVERED MATERIALS.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G

Drawings showing elevations of each type of sign, dimensions, details and methods of mounting or anchoring, mounting height, shape and thickness of materials, and details of construction. A schedule showing the location, each sign type, and message shall be included.

SD-03 Product Data

Installation; G

Manufacturer's descriptive data, catalogs cuts, installation and cleaning instructions.

SD-04 Samples

Interior Signage; G

One sample of each of the following sign types showing typical quality, workmanship and color. The samples may be installed in the work, provided each sample is identified and location recorded.

- a. Directional sign.
- b. Standard Room sign.
- c. Changeable message strip sign.

Software; G

Two (2) copies of the software for user produced signs

SD-10 Operation and Maintenance Data

Approved Manufacturer's Instructions; G
Protection and Cleaning; G

Six copies of operating instructions outlining the step-by-step procedures required for system operation. The instructions shall include simplified diagrams for the system as installed. Six copies of maintenance instructions listing routine procedures, repairs, and guides. The instructions shall include the manufacturer's name, model number, service manual, parts list, and brief description of all equipment and their basic operating features. Each set shall be permanently bound and shall have a hard cover. The following identification shall be inscribed on the covers: the words "OPERATING AND MAINTENANCE INSTRUCTIONS", name and location of the facility, name of the Contractor, and contract number.

1.4 DELIVERY, STORAGE, AND HANDLING

Materials shall be packaged to prevent damage and deterioration during shipment, handling, storage and installation. Product shall be delivered to the jobsite in manufacturer's original packaging and stored in a clean, dry area in accordance with manufacturer's instructions.

1.5 EXTRA MATERIALS

Provide 12 extra frames and extra stock of the following: 12 blank plates of each color and size. Provide 20 paper inserts and software for creating text and symbols for IBM compatible computers for Owner production of paper inserts after project completion. Provide equipment necessary for removal of signage parts and pieces.

PART 2 PRODUCTS

2.1 STANDARD PRODUCTS

Signs, plaques, and dimensional letters shall be the standard product of a manufacturer regularly engaged in the manufacture of such products that essentially duplicate signs that have been in satisfactory use at least 2 years prior to bid opening.

2.2 ROOM IDENTIFICATION

2.2.1 Standard Room Signs

Signs shall consist of acrylic plastic 2 mm (0.080 inch) thickness minimum conforming to ANSI Z97.1 and shall conform to the following:

- a. Units shall be frameless, approximately 8 inches wide x 8 inches high. Corners of signs shall be squared.
- b. Provide one surface mounted sign for every room in the building showing room name and room number.

2.2.2 Changeable Message Strip Signs

Changeable message strip signs shall be of same construction as standard room signs to include a clear sleeve that will accept a paper or plastic insert identifying changeable text. The insert shall be prepared dry transfer letters applied to paper card stock, or typeset message photographically enlarged to size and mounted on paper card stock or typewritten message photographically enlarged or used at actual size. Provide [paper and] software for creating text and symbols for IBM compatible computers for Owner production of paper inserts after project completion. Sliding inserts or slide knobs that slide horizontally exposing different graphic information shall be provided as identified in the signage placement schedule and drawings.

2.2.3 Type of Mounting for Signs

Surface mounted signs shall be mounted with countersunk mounting holes in plaques and mounting screws fabricated from materials that are not corrosive to sign material and mounting surface.

2.2.4 Graphics

Signage graphics for modular signs shall conform to the following:

- a. Surface Applied Photopolymer: Integral graphics and braille achieved by photomechanical stratification processes. Photopolymer used for ADA compliant graphics shall be of the type that has a minimum durometer reading of 90. Tactile graphics shall be raised 0.8 mm (1/32 inch) from the first surface of plaque by photomechanical stratification process.

2.2.5 Character Proportions and Heights

Letters and numbers on signs conform to 36 CFR 1191.

2.2.6 Raised and Braille Characters and Pictorial Symbol Signs (Pictograms)

Raised letters and numbers on signs shall conform to 36 CFR 1191.

2.3 BUILDING DIRECTORY

Building directory shall be provided with a changeable directory listing consisting of the areas, offices and personnel located within the facility. Dimensions (30 inches wide by 40 inches tall), details, and materials of sign shall be as specified herein.

2.3.1 Header Panel

Header panel shall be acrylic with raised acrylic letters.

2.3.2 Doors

2.3.2.1 Door Glazing

Door glazing shall be in accordance with ASTM C 1036, Type 1, Class 1, Quality 3, minimum 3 mm (1/8 inch) thick clear polycarbonate sheet 4.8 mm (3/16 inch) thick.

2.3.2.2 Door Construction

Extruded aluminum door frame shall be of same finish as surrounding frame. Corners shall be mitered, reinforced and assembled with concealed fasteners. Hinges shall be standard with the manufacturer, in finish to match frames and trim. Glazing shall be set in frame with resilient glazing channels.

2.3.2.3 Door Locks

Door locks shall be manufacturer's standard, and shall be keyed alike. Provide two sets of keys.

2.3.3 Fabrication

Extruded aluminum frames and trim shall be assembled with corners reinforced and mitered to a hairline fit, with no exposed fasteners.

2.3.5 Negative Graphics Directory System

Directory shall consist of internally illuminated unit with backlit photo negative directory strips and a black background. Unit shall have a tinted tempered safety solar glass door.

2.3.5.1 Construction

The directory shall be constructed of an aluminum 150 mm (6 inch) deep frame with satin black anodized finish. Unit shall be pedestal mounted. Unit shall have a 75mm (3 inch) high header lettering as shown. Unit shall have a 9.3 mm (3/8 inch) face door frame with concealed hinges and locking system. Door frame shall be aluminum with satin black anodized finish.

2.3.5.2 Message Strips

Message strips shall be photo negative type updatable by user.

2.4 METAL PLAQUES **(NOT USED, specified in Section 10 14 01)**

2.5 DIMENSIONAL BUILDING LETTERS **(NOT USED, specified in Section 10 14 01)**

2.6 PRESSURE SENSITIVE LETTERS

Ensure that edges and corners of finished letterforms and graphics are true and clean. Do not use letterforms and graphics with rounded positive or negative corners, nicked, cut, or ragged edges.

2.6.1 Typeface

Helvetica medium.

2.6.2 Size

As indicated.

2.7 ALUMINUM ALLOY PRODUCTS

Aluminum extrusions shall be at least 3 mm (1/8 inch) thick, and aluminum plate or sheet shall be at least 1.3 mm (0.0508 inch) thick. Extrusions shall conform to ASTM B 221M (ASTM B 221); plate and sheet shall conform to ASTM B 209M (ASTM B 209). Where anodic coatings are specified, alloy shall conform to AA PK-1 alloy designation 514.0. Exposed anodized aluminum finishes shall be as shown. Welding for aluminum products shall conform to AWS D1.2/D1.2M.

2.8 ANODIC COATING

Anodized finish shall conform to AA DAF-45 as follows:

- a. Clear (natural) designation AA-M10-C22-A31, Architectural Class II 0.010 mm(0.4 mil) or thicker.
- b. Integral color anodized designation AA-M10-C22-A32, Architectural Class 0.010 to 0.018 mm(0.4 to 0.7 mil).
- c. Electrolytically deposited color-anodized designation AA-M10-C22-A34, Architectural Class II 0.010 to 0.018 mm(0.4 to 0.7 mil).

2.9 ORGANIC COATING

Organic coating shall conform to AAMA 2604, with total dry film thickness not less than 0.030 mm (1.2 mils).

2.10 FABRICATION AND MANUFACTURE

2.10.1 Factory Workmanship

Holes for bolts and screws shall be drilled or punched. Drilling and punching shall produce clean, true lines and surfaces. Exposed surfaces of work shall have a smooth finish and exposed riveting shall be flush. Fastenings shall be concealed where practicable.

2.10.2 Dissimilar Materials

Where dissimilar metals are in contact, the surfaces will be protected to prevent galvanic or corrosive action.

2.11 COLOR, FINISH, AND CONTRAST

Color shall be white letters and symbols on medium grey background. Finish of all signs shall be eggshell, matte, or other non-glare finish as required in handicapped-accessible buildings.

PART 3 EXECUTION

3.1 INSTALLATION

Signs shall be installed plumb and true and in accordance with approved manufacturer's instructions at locations shown on the schedule below. Mounting height and mounting location shall conform to 36 CFR 1191. Required blocking shall be installed. Signs on doors or other surfaces shall not be installed until finishes on such surfaces have been installed. Signs installed on glass surfaces shall be installed with matching blank back-up plates in accordance with manufacturer's instructions.

3.1.1 Anchorage

Anchorage shall be in accordance with approved manufacturer's instructions. Anchorage not otherwise specified or shown shall include slotted inserts, expansion shields, and powder-driven fasteners when approved for concrete; toggle bolts and through bolts for masonry; machine carriage bolts for steel; lag bolts and screws for wood. Exposed anchor and fastener materials shall be compatible with metal to which applied and shall have matching color and finish. Where recommended by signage manufacturer, foam tape pads may be used for anchorage. Foam tape pads shall be minimum 2 mm(1/16 inch) thick closed cell vinyl foam with adhesive backing. Adhesive shall be transparent, long aging, high tech formulation on two sides of the vinyl foam. Adhesive surfaces shall be protected with a 0.13 mm(5 mil) green flatstock treated with silicone. Foam pads shall be sized for the signage in accordance with signage manufacturer's recommendations. Signs mounted to painted gypsum board surfaces shall be removable for painting maintenance. Signs mounted to lay-in ceiling grids shall be mounted with clip connections to ceiling tees.

3.1.2 Protection and Cleaning

Protect the work against damage during construction. Hardware and electrical equipment shall be adjusted for proper operation. Glass, frames, and other sign surfaces shall be cleaned at completion of sign installation in accordance with the manufacturer's approved instructions.

END OF SECTION