### SECTION 101400 - SIGNS

### 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. This Section includes the following types of signs:
  - 1. Panel signs.
  - 2. Dimensional letters and numbers.

#### 1.3 DEFINITIONS

A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."

### 1.4 SUBMITTALS

- A. Product Data: For each type of sign specified, including details of construction relative to materials, dimensions of individual components, profiles, and finishes.
- B. LEED Submittals: Follow submittal requirements of Division 01 Section "Submittal Requirements" and provide product data on the LEED Materials Documentation Cover Sheet attached as an Appendix to Division 01 Section "Sustainable Design and LEED Requirements."
- C. Shop Drawings: Show fabrication and erection of signs. Include plans, elevations, and largescale sections of typical members and other components.
  - 1. Provide message list for each sign required, including large-scale details of wording and lettering layout.
  - 2. For signs supported by or anchored to permanent construction, provide setting drawings, templates, and directions for installation of anchor bolts and other anchors to be installed as a unit of Work in other Sections.
  - 3. Templates: Furnish full-size spacing templates for individually mounted dimensional letters and numbers.
- D. Samples for Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available.

# 1.5 QUALITY ASSURANCE

- A. Sign Fabricator Qualifications: Firm experienced in producing signs similar to those indicated for this Project, with a record of successful in-service performance, and sufficient production capacity to produce sign units required without causing delay in the Work.
- B. Single-Source Responsibility: For each separate sign type required, obtain signs from one source of a single manufacturer.
- C. Regulatory Requirements: Comply with the Americans with Disabilities Act (ADA) and with code provisions as adopted by authorities having jurisdiction.
  - 1. Interior Code Signage: Provide signage as required by accessibility regulations and requirements of authorities having jurisdiction. These include, but are not limited to, the following:
    - a. Illuminated Exit Signs: Refer to Division 26.
    - b. Elevator Signs: Refer to Division 14.
    - c. Signs for Accessible Spaces:
      - 1) Accessible entrances.
      - 2) Accessible toilets.
  - 2. Notify Architect of details or specifications not conforming to code.
- D. Design Concept: The Drawings indicate sizes, profiles, and dimensional requirements of signs and are based on the specific types and models indicated. Sign units by other manufacturers may be considered provided deviations in dimensions and profiles do not change the design concept as judged by the Architect. The burden of proof of equality is on the proposer.

## 1.6 PROJECT CONDITIONS

A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication to ensure proper fitting. Show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay.

#### 1.7 COORDINATION

A. Coordinate placement of anchorage devices with templates for installing signs.

#### 1.8 WARRANTY

- A. Warranty: Manufacturer's standard form in which 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 polymer finishes beyond normal weathering.
    - b. Deterioration of embedded graphic image colors and sign lamination.

2. Warranty Period: Five years from date of Substantial Completion.

# PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).
- B. Aluminum Castings: Provide aluminum castings of alloy and temper recommended by the sign manufacturer for the casting process used and for the use and finish indicated.
- C. Fasteners: Use concealed fasteners fabricated from metals that are not corrosive to the sign material and mounting surface.
- D. Anchors and Inserts: Use nonferrous metal or hot-dipped galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

#### 2.2 PANEL SIGNS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
  - 1. Mohawk Sign Systems.
  - 2. Welch Architectural Signage.
- B. Substrate: Fabricate signs from 1/8 inch thick matte clear acrylic with edges mechanically and smoothly finished to eliminate cut marks. Background color to be subsurface.
  - 1. Background Color: As selected by the Architect from manufacturer's standard colors.
  - 2. Edge Condition: Straight.
  - 3. Corner Condition: Square.
  - 4. Size: 6 by 6 inch, unless noted otherwise.
- C. Copy: Helvetica.
- D. Letterform: route copy into face of substrate 1/32 inch deep. Chemically weld (inlay) computer precision cut tactile copy into routed letter openings so that tactile copy is embedded in substrate and remains at least 1/32" above surface of substrate.
  - 1. Height: 5/8 inch minimum letter height.
- E. Braille: Use engrave process for all Braille areas. Engrave Braille dots into surface of clear material.
- F. Symbols of Accessibility:
  - 1. Accessible elements: Provide international symbol of accessibility.

- a. Provide male and female symbols as required for toilets.
- 2. Elevators: Provide symbol containing person on stairs with flame.
- G. Provide characters complying with ADA Accessibility Guidelines and ICC/ANSI A117.1. Text shall be accompanied by Grade 2 braille.

# 2.3 DIMENSIONAL LETTERS AND NUMBERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
  - 1. A.R.K. Ramos Manufacturing Company, Inc.
  - 2. ASI Sign Systems, Inc.
  - 3. Gemini, Inc.
  - 4. Metal Arts.
  - 5. Spanjer Brothers, Inc.
  - 6. Vomar Products, Inc.
- B. Cast Letters and Numbers: Form individual letters and numbers by casting. Produce characters with smooth, flat faces, sharp corners, and precisely formed lines and profiles, free from pits, scale, sand holes, or other defects. Cast lugs into the back of characters and tap to receive threaded mounting studs. Comply with requirements indicated for finish, style, and size.
  - 1. Metal: Aluminum.
  - 2. Letter Height: 12 inches.
  - 3. Letter Thickness: 2 inches.
  - 4. Letter Style: As selected by the Architect.

### 2.4 FINISHES

- A. Colors and Surface Textures: For exposed sign material that requires selection of materials with integral or applied colors, surface textures or other characteristics related to appearance, provide color matches indicated, or if not indicated, as selected by the Architect from the manufacturer's standards.
- B. Metal Finishes: Comply with NAAMM "Metal Finishes Manual" for finish designations and applications recommendations.
- C. Aluminum Finishes: Finish designations prefixed by "AA" conform to the system established by the Aluminum Association for designating aluminum finishes.
  - 1. Baked-Enamel Finish: AA-M4xC12C42R1x (Mechanical Finish: Manufacturer's standard, other nondirectional textured; Chemical Finish: Chemical conversion coating, acid chromate-fluoride-phosphate pretreatment; Organic Coating: as specified below). Apply baked enamel in compliance with paint manufacturer's specifications for cleaning, conversion coating, and painting.

- a. Organic Coating: Thermosetting-modified acrylic enamel primer/topcoat system complying with AAMA 603.8 except with a minimum dry film thickness of 1.5 mils, medium gloss.
  - 1) Color: As selected by the Architect from the manufacturer's standard colors.

### 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 work.
- B. Verify that items are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 INSTALLATION

- A. Locate sign units and accessories where indicated, using mounting methods of the type described and in compliance with the manufacturer's instructions.
  - 1. Install signs level, plumb, and at the height indicated, with sign surfaces free from distortion or other defects in appearance.
  - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.
- B. Wall-Mounted Signs: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
  - 1. Two-Face Tape: Mount signs to smooth, nonporous surfaces. Do not use this method for vinyl-covered or rough surfaces.
  - 2. Signs Mounted on Glass: Provide matching opaque plate on opposite side of glass to conceal mounting materials.
- C. Dimensional Letters and Numbers: Mount letters and numbers using standard fastening methods recommended by the manufacturer for letter form, type of mounting, wall construction, and condition of exposure indicated. Provide heavy paper template to establish letter spacing and to locate holes for fasteners.
  - 1. Projected Mounting: Mount aluminum letters and numbers at the projection distance from the wall surface indicated.

## 3.3 CLEANING AND PROTECTION

A. After installation, clean soiled sign surfaces according to the manufacturer's instructions. Protect units from damage until acceptance by the Owner.

## 3.4 PANEL SIGN SCHEDULE

| A. Types:  | Sizes:   | Quantity:   |
|--|--|---|
| HC Accessible Symbols<br>Toilet<br>Stairs<br>Landings<br>Exit<br>Units | Provide 4" x 4"<br>Provide 8" x 6"<br>Provide 6" x 6"<br>Provide 4" x 4"<br>Provide 6" x 6"<br>Provide 4" x 4" | one for each entry door<br>one for each public toilet<br>one for each door to stair<br>one for each landing<br>one for each exit<br>one for unit door |
|  |  |   |

- B. Rooms with more than one entrance door shall have a sign at each door.
- C. Final room names and numbers will be verified during the submittal.
- D. Allow for 25 informational signs, 6 by 6 inch, with minimum of 15 characters each and room number.
- E. Provide cast aluminum letters for address for the building. Provide letters as indicated on the drawings, 12 inches high.

# END OF SECTION 101400