

SECTION 10400

SIGNS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following types of signs:
  - 1. Panel signs.
  - 2. Dimensional letters and numbers.
  - 3. Cast metal plaques.

1.2 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. Shop Drawings: Show fabrication and erection of signs. Include plans, elevations, and large-scale sections of typical members and other components. Show anchors, grounds, layout, reinforcement, accessories, and installation details.
  - 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.
- C. Samples: Provide the following samples of each sign component for initial selection of color, pattern and surface texture as required and for verification of compliance with requirements indicated.
  - 1. Samples for selection of color, pattern, and texture:
    - a. Cast Acrylic Sheet and Plastic Laminate: Manufacturer's color charts consisting of actual sections of material including the full range of colors available for each material required.
    - b. Aluminum: Samples of each finish type and color, on 6-inch-long sections of extrusions and not less than 4-inch squares of sheet or plate, showing the full range of colors available.
    - c. Dimensional Letters: Provide representative samples of each dimensional letter type required, showing letter style, color, and material finish and method of attachment.

### 1.3 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. 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.

### 1.4 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.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- 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. Manufacturers of Panel Signs:
    - a. Mohawk Sign Systems.
    - b. Welch Architectural Signage.
  - 2. Manufacturers of Dimensional Letters:
    - a. A.R.K. Ramos Manufacturing Company, Inc.
    - b. ASI Sign Systems, Inc.
    - c. Gemini, Inc.
    - d. Metal Arts.
    - e. Spanjer Brothers, Inc.
    - f. Vomar Products, Inc.

### 2.2 MATERIALS

- A. Cast Acrylic Sheet: Provide cast (not extruded or continuous cast) methyl methacrylate monomer plastic sheet, in sizes and thicknesses indicated, with a minimum flexural strength of 16,000 psi when tested according to ASTM D 790, with a minimum allowable continuous service temperature of 176 deg F (80 deg C), and of the following general types:
  - 1. Opaque Sheet: Where sheet material is indicated as "opaque," provide colored opaque acrylic sheet in colors and finishes as selected from the manufacturer's standards.

- 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.
- E. Colored Coatings for Acrylic Plastic Sheet: Use colored coatings, including inks and paints for copy and background colors, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and are nonfading for the application intended.

### 2.3 PANEL SIGNS

- A. 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: Rounded to 3/8 inch radius.
  - 4. Size: 6 by 6 inch, unless noted otherwise.
- B. Copy: Helvetica.
- C. 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.
- D. Braille: Use engrave process for all Braille areas. Engrave Braille dots into surface of clear material.
- E. Symbols of Accessibility:
  - 1. Accessible elements: Provide international symbol of accessibility.
    - a. Provide male and female symbols as required for toilets.
  - 2. Text Telephones: Provide international TDD symbol.
  - 3. Volume Telephones: Provide symbol of handset with radiating sound waves.
  - 4. Assistive Listening Systems: Provide international symbol of Access for Hearing Loss.
  - 5. Elevators: Provide symbol containing person on stairs with flame.
- F. Provide characters complying with ADA Accessibility Guidelines and ICC/ANSI A117.1. Text shall be accompanied by Grade 2 braille.

### 2.4 DIMENSIONAL LETTERS AND NUMBERS

- A. 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.

## 2.5 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. Class II Clear Anodized Medium Satin Finish: AA-M31C22A31 (Mechanical Finish: Fine satin directional textured; Chemical Finish: Medium matte etched finish; Anodic Coating: Class II Architectural, clear film thicker than 0.4 mil).

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: 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. Locate signs in accordance with approved shop drawings and ADA requirements.
- B. Wall-Mounted Panel Signs: Attach panel signs to wall surfaces using the methods indicated below:
  1. Vinyl-Tape Mounting: Use double-sided foam tape to mount signs to smooth, nonporous surfaces. Do not use this method for vinyl-covered or rough surfaces.
- 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. Flush Mounting: Mount letters with backs in contact with the wall surface.
  2. Projected Mounting: Mount letters at the projection distance from the wall surface indicated.

### 3.2 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.

3.3 PANEL SIGN SCHEDULE

- | A. Types:          | Sizes:                       | Quantity:                  |
|--------------------|------------------------------|----------------------------|
| Living Unit Number | Provide 2" x 3"              | one for each unit          |
| Toilet             | Provide 8" x 6"              | one for each room          |
| Stairs             | Provide 6" x 6"              | one for each door to stair |
| Landings           | Provide 4" x 4"              | one for each landing       |
| Exit               | Provide 6" x 6"              | one for each exit          |
| Elevator           | Provide 8" x 6"              | one between each elevator  |
|                    | (In case of Fire Use Stairs) | at each floor              |
- B. Final room names and numbers will be verified during the submittal.
- C. Allow for 3 numerals on each living unit sign. Fabricate similar to other panel signs without Braille. Mount on face of each unit entry door, 60 inches above finish floor.
- D. Allow for 10 informational signs, 6 by 6 inch, with minimum of 15 characters each and room number.

END OF SECTION