

GUIDE SPECIFICATION

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SECTION 10440
INTERIOR UNFRAMED SIGNS – PHOTOPOLYMER BONDED to ENGINEERED POLYESTER
RESINS (Terra)

Welcome to ASI Guide Specification System! ASI has prepared this guide specification in printed and electronic media, as an aid to specifiers in preparing written construction documents for ADA compliant, unframed signs, for interior use, fabricated using a photopolymer bonded process. Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. They should be removed before the section is printed for use.

This guide specification is based on the Construction Specifications Institute (CSI), Section Format standards. References to section names and numbers are based on MasterFormat 95. For specification assistance with specific product applications, please contact the offices above. Detailed technical information, including available sizes, may also be obtained by contacting ASI office above.

ASI reserves the right to modify these guide specifications at any time. Updates to this guide specification will be posted as they occur. ASI makes no expressed or implied warranties regarding content, errors, or omissions in the information presented. Specifications modified or rewritten in excess of supplier's standard processes, products, and procedures may void warranties and related remedies. Contact the offices above regarding modifications and addition of new text.

1 PART 1- GENERAL

1.1 SUMMARY

- A. Related Documents: Provisions established within the General and Supplementary Conditions of the Contract, Division 1 - General Requirements, and the Drawings are collectively applicable to this Section.
- B. Section Includes:
 - 1. Unframed signs, with photopolymer face bonded to an engineered polyester resin sign base with minimum 40% post-industrial recycled content, single piece construction plaque to create raised graphics for interior applications.

 ASI has a complete line of signage products for the entire facility, including interior and exterior signs, dimensional letters, and directories. Many interior signs are updateable by the facility manager. Edit the Related Sections paragraph below to suit project requirements; delete sections that will not be used.

C. Related Sections:		
Section 10410	Non-Illuminated Interior Directories	Series 440
Section 10410	Non-Illuminated Interior Directories	Series 470
Section 10410	Non-Illuminated Interior Directories	Series 490
Section 10410	Illuminated Interior Directories	Series 530
Section 10410	Illuminated Interior Directories	Series 560
Section 10410	Illuminated Interior Directories	Series 570
Section 10420	Cast Plaques	Cast Plaques
Section 10440	Interior Signage - Photochemically-Etched ADA Signs	SignEtch I
Section 10440	Interior Signage - Photochemically-Etched Plaque Signs	SignEtch II
Section 10430	Dimensional Letters - Fabricated Metal	LF Series
Section 10430	Dimensional Letters - Cut Metal	LPS Series
Section 10430	Dimensional Letters - Cast Metal	LC Series
Section 10430	Dimensional Letters - Metal-Laminate Acrylic	LPL Series
Section 10430	Dimensional Letters - Molded Plastic	LM Series
Section 10430	Dimensional Letters - Precision Cut Acrylic	LPP Series
Section 10440	Dimensional Letters - Cut Vinyl	LTV Series
Section 10430	Specialty Signs – Simulated stone materials	Simulated Materials
Section 10430	Specialty Signs –hardened enamel or porcelain materials	Porcelande™
Section 10430	Exterior Fiberglass Signs - 4 Sided Non Illuminated Monolith	Series 940S
Section 10430	Exterior Fiberglass Signs - 4 Sided Non Illuminated Pylon	Series 840R
Section 10430	Exterior Fiberglass Signs - 3 Sided Non Illuminated Monolith	Series 930S
Section 10430	Exterior Fiberglass Signs - 3 Sided Non Illuminated Pylon	Series 830R
Section 10430	Exterior Fiberglass Signs - 2 Sided Non-Illuminated Monolith	Series 920
Section 10430	Exterior Fiberglass Signs - 2 Sided Non Illuminated Pylon	Series 820
Section 10430	Exterior Fiberglass Signs - 2 Sided Non Illuminated Monolith	Series 920CF
Section 10430	Exterior Fiberglass Signs - 2 Sided Non Illuminated Pylon - Curved Face	Series 820CF
Section 10430	Exterior Fiberglass Signs - 4 Sided Illuminated Monolith	Series 1140S
Section 10430	Exterior Fiberglass Signs - 4 Sided Illuminated Pylon -	Series 1040R
Section 10430	Exterior Fiberglass Signs - 3 Sided Illuminated Monolith -	Series 1130S
Section 10430	Exterior Fiberglass Signs - 3 Sided Illuminated Pylon -	Series 1030R
Section 10430	Exterior Fiberglass Signs - 2 Sided Illuminated Monolith -	Series 1120
Section 10430	Exterior Fiberglass Signs - 2 Sided Illuminated Pylon -	Series 1020
Section 10430	Exterior Fiberglass Signs - 2 Sided Illuminated Pylon - Curved Face	Series 1020CF
Section 10430	Exterior Fiberglass Signs - Non-Illuminated Post and Panel	Series 820
Section 10430	Exterior Fiberglass Signs - Illuminated Post and Panel	Series 1020
Section 10430	Exterior Fiberglass Signs - Illuminated Wall Mounted	Series 1014
Section 10430	Exterior Fiberglass Signs - Non-Illuminated Wall Mounted	Series 814/825
Section 10430	Exterior Aluminum Signs - Post and Panel	2100 Series
Section 10430	Exterior Aluminum Signs - Post and Panel	2300 Series
Section 10430	Exterior Aluminum Signs - Post and Panel	2400 Series
Section 10430	Exterior Aluminum Signs - Post and Panel	2500 Series
Section 10430	Exterior Aluminum Signs - Curved Face	Pacific Exterior
Section 10430	Exterior Aluminum Signs - Interchangeable Components	Compass
Section 10430	Exterior Aluminum Signs - Flat Face	Messenger Exterior
Section 10440	Interior Unframed Signs	Series SP
Section 10440	Interior 4 Sided Framed Signs -	Series 320/390
Section 10440	Interior Unframed Signs - Plastic Laminate or Acrylic with Raster Braille	InTac
Section 10440	Interior Unframed Sign – Photopolymer Bonded to Acrylic	InTouch
Section 10440	Interior Unframed Signs - Photopolymer Bonded to Plastic Laminate/PETG	InTouch 2
Section 10440	Interior Door Signage - Thermoformed Resin - InForm	InForm
Section 10440	Interior Unframed Signs - Embossed (EmBoss)	EmBoss
Section 10420	Interior Updateable Signs	WS Series
Section 10440	Interior Updateable Signs -	Inhouse™ Classic Series 380
Section 10440	Interior Directional Signs -	PMA Series
Section 10440	Interior Overhead Signs -	PAP Series
Section 14440	Interior Desk Signs -	200 Series
Section 10440	Interior Modular Interchangeable Signs - Interior 20	Interior 20
Section 10440	Interior Modular Interchangeable Signs - Infinity	Infinity
Section 10440	Interior Modular Component Signs - Flat Face	Messenger Interior

Section 10440	Interior Modular Interchangeable Signs - Curved Face	Pacific Interior
Section 10440	Interior Unframed Signs - ECR Photopolymer-Based ADA Signage	Terra
Section 10440	Interior Aluminum Curved Face Extrusion Sign with Changeable Insert	Horizon
Section 10440	Interior Aluminum Flat Face Extrusion Sign with Changeable Insert	Venus
Section 10440	Interior Modular Interchangeable Signs - Jigsaw	Jigsaw
Section 10440	Interior Modular Interchangeable Signs - Puzzle	Puzzle

 If specific sign quantities, sizes, layouts, and graphic processes are not scheduled, an allowance may be utilized to set aside a monetary amount sufficient for purchase, delivery, and installation of signage.

- D. [Allowances: Work of this section is affected by allowances. Refer to Division 1 for allowance amounts and requirements.]

1.2 REFERENCES

- A. ASTM International (ASTM) D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
- B. ASTM International (ASTM) E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM International (ASTM) D1929 - Standard Test Method for Determining Ignition Temperature of Plastics.
- D. Underwriters Laboratories (UL) 94 - Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
- E. Underwriters Laboratories (UL) 723 - Standard for Test for Surface Burning Characteristics of Building Materials.

1.3 QUALITY ASSURANCE

 Include quality assurance requirements below which are consistent with the size and scope of the project and extent of work of this section. Only request qualification statements you intend to review, and which are necessary to establish qualifications of the product, manufacturer, or installer.

- A. Supplier: Obtain all products in this section from a single supplier.
- B. Regulatory Requirements: Products shall meet requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and local amendments and modifications.
- C. Manufacturing of engineered polyester resin panels must be produced from a minimum of 40% post-industrial recycled content. A recognized 3rd party certification group, such as Scientific Certification Systems (SCS), must certify this recycled content.
- D. Installer: Installation shall be performed by installer specialized and experienced in work similar to that required for this project.

Include submittal requirements below which are consistent with the scope of the project and extent of work of this section. Only request submittals which are necessary for review of design intent.

1.4 SUBMITTALS

- A. Submit in accordance with requirements of Division 1.
- B. Product Data: Submit product data for specified products. Include material details for each sign specified.
- C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including dimensions, anchorage, and accessories.
- D. Samples: Submit supplier's standard color chart for selection purposes and selected colors for verification purposes.
- E. Installation: Submit supplier's installation instructions.
- F. Closeout Submittals:
 - 1. Submit operation and maintenance data for installed products, including precautions against harmful cleaning materials and methods.
 - 2. Submit warranty documents specified herein.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of Division 1.
 - 1. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
 - 2. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
 - 3. Store products protected from weather, temperature, and other harmful conditions as recommended by supplier.
 - 4. Handle products in accordance with manufacturer's instructions.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 WARRANTY

- A. Project Warranty: Comply with requirements of Division 1.
- B. Manufacturer's Warranty: Submit manufacturer's standard warranty document executed by authorized company official.
 - 1. Warranty Period: One year from product ship date.

2 PRODUCTS

In 2.1A1 below, modify to reflect name, address, and phone/fax of local ASI Affiliate who is supplying the product or system to the project.

2.1 SIGNAGE SYSTEMS

- A. Acceptable Manufacturers:
 - 1. ASI Signage Innovations, 8181 Jetstar Drive, Suite 100, Irving, Texas 75063; (214) 352 9140 telephone; (214) 352 9741 facsimile; (800) ASI-SPEC [274-7732]
 - 2. Substitutions: Submit in accordance with Section 01600.
- B. Acceptable Product: Terra ADA- Ready Sign System with requirements indicated for materials, thickness, finish colors, designs, patterns, shapes, sizes and edge details.

Terra ADA Ready Plaque Series Signs offer a variety of standard and custom sizes, shapes, edge detail and appearance options, all fabricated using photopolymer bonded to an engineered polyester resin backing plate constructed of a minimum of 40% post-industrial recycled content and of single piece construction to create raised graphics. Revise the sections below to suit project requirements. Note that Grade 2 Braille and raised characters must be used to identify all permanent rooms and spaces.

2.2 SIGN MATERIALS

- A. Face: Terra Photopolymer Face, in matte (non-glare) finish.
 - 1. Composition: 0.032 inch (0.8 mm) thick moisture resistant, non-glare nylon photo polymer with engineered polyester resin backing plate, single piece construction.
 - 2. Base thickness: [Select from Manufacturers Standard Available thicknesses]
- B. Backing Plate: [Choose from Standard Available Color[s] and Pattern[s] or specify custom engineered polyester resin substrate from 3form Varia product line].
 - 1. Surface burning characteristics: Flame spread/smoke developed rating less than 75/120, tested to ASTM E84 and UL 723.
 - 2. Rate of burning: Tested to ASTM D635 at nominal 0.060 inch (1.5 mm) thickness with resulting Classification CC1.
 - 3. Vertical burning: Tested to UL 94, classified as 94V-2 in thickness of 0.118 inch (3.0 mm) or greater and 94HB in thicknesses less than 0.118 inch (3.0 mm).
 - 4. Self ignition temperature: 800 degrees F (427 degrees C), tested to ASTM D1929.

2.3 FABRICATION OPTIONS

- A. Tactile Graphics and Text:
 - 1. Fabrication process: Provide tactile copy [and grade 2 Braille] raised 1/32 inch minimum from plaque first surface by manufacturer's photopolymer production process. Sign face of single material, tactile characters and Braille integral to photopolymer. Laminated photo polymers, applied characters, and engraved characters or Braille are not acceptable.
 - 2. Provide lettering and graphics precisely formed, uniformly raised to comply with relevant ADA regulations and requirements indicated for size, style, spacing, content, position, and colors. Tactile characters to be raised min. 1/32" from surface. Computerized translation of sign copy to Grade 2 Braille to be responsibility of the manufacturer.
 - 3. Fabricate panel material in accordance with manufacturer's instructions and approved shop drawings.
 - 4. Fabricate signs by photopolymer process using film negatives to produce characters and graphics in contrasting color, raised. Refer to Signage Schedule for sign messages.
- B. Mounting Panel Options:
 - 1. Size:
 - a) [Same size.]
 - b) [Oversized or Undersized.]
 - 2. Thickness:
 - a) [.125 inch thick matte finished acrylic.]
 - b) [.080 inch thick matte finished acrylic.]
 - c) [.125 inch thick clear acrylic.]
 - d) [.080 inch thick clear acrylic.]
- C. Background Appearance Options:
 - 1. [Engineered Polyester Resin color[s] or Pattern[s]: Select from manufacturer's standard range]

- 2. [Specify custom engineered polyester resin substrate from 3form Varia product line.]
- D. Tactile Lettering and Graphics Color Options: [Select from manufacturer's standard colors that provide appropriate contrast levels for ADA compliance.]
- E. Overall panel size: [Specify height and width of sign up to 18 x 23 inches.]
- F. Shape: [Standard] [Custom - specify].
- G. Edge Detail: [Square] [Beveled] [Roman Ogee] [Bull Nosed]
- H. Letter style[s], color[s], letter size[s] and layout position: [Specify from manufacturer's standard letter styles and color charts.]
- I. Text schedule: [Verify correct capitalization.]

In 2.4 below, select from one or more of the mounting options available.

2.4 INSTALLATION METHOD

- A. [System VT, vinyl tape.]
- B. [System SA, silicone adhesive.]
- C. [System MH, mounting holes for mechanical fasteners.]
- D. [System CSMH, counter sunk mechanical fasteners.]
- E. [System PM, partition mount, compatible with systems furniture panels.]

2.5 FABRICATION - GENERAL

- A. General: Comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
- B. Preassemble signs in the shop to the greatest extent possible to minimize field assembly. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in a location not exposed to view after final assembly.
- C. Conceal fasteners if possible; otherwise, locate fasteners to appear inconspicuous.
- D. Form panels to required size and shape. Comply with requirements indicated for design, dimensions, finish, color, and details of construction.
- E. Coordinate dimensions and attachment methods to produce message panels with closely fitting joints. Align edges and surfaces with one another in the relationship indicated.

3 EXECUTION

3.1 EXAMINATION

- A. Site Verification of Conditions: Verify installation conditions previously established under other sections are acceptable for product installation in accordance with manufacturer's instructions.
- B. Scheduling of installation by Owner or it's representative implies that substrate and conditions are prepared and ready for product installation. Proceeding with installation implies installer's acceptance of substrate and conditions.

3.2 INSTALLATION

- A. Install product in accordance with manufacturer's instructions.
- B. Install product in locations indicated using mounting methods recommended by sign manufacturer and free from distortion, warp, or defect adversely affecting appearance.
- C. Install product level, plumb, and at heights indicated.
- D. Install product at heights to conform to Americans with Disabilities Act Accessibility Guidelines (ADAAG) and applicable local amendments and regulations.
- E. Install signs within the following tolerances and in accordance with manufacturer's recommendations:
 - 1. Interior Signs: Within 1/4 inch vertically and horizontally of intended location.

3.3 CLEANING, PROTECTION, AND REPAIR

- A. Repair scratches and other damage which might have occurred during installation. Replace components where repairs were made but are still visible to the unaided eye from a distance of 5 feet.
- B. Remove temporary coverings and protection to adjacent work areas. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project in accordance with provisions in Division 1.

3.4 SIGN SCHEDULE

- A. Schedule: Refer to signage schedule and Drawings for sizes, locations, and layout of signage types, sign text copy, and graphics.

END OF SECTION