

SAM HOUSTON STATE UNIVERSITY

Project Sign Types

Sam Houston State University Sign Types

- A.1 Primary Campus Gateway
- A.2 Secondary Campus Gateway
- B.1 Large Vehicular Directional
- B.2 Small Vehicular Directional
- C.1 Pedestrian Directional
- C.2 Pedestrian Directory Unit
- D.1 Building Identity Monument
- D.2 Facility Identity
- D.3 Building Identity Masonry
- E.1 Parking Lot ID
- E.2 HCP Accessible Directional
- F.1 Information/Regulatory
- F.1 Information/Regulatory

Colors and Materials/Finishes

Paint Colors / Vinyl / Finishes (paint finishes to match the following colors)

- P-1 Matthews Dark Bronze 41-313 acrylic polyurethane, **semi-gloss finish**
- P-2 Benjamin Moore HC-85 (taupe), acrylic polyurethane, **semi-gloss finish**
- P-3 Matthews Nipon Orange 42-216, acrylic polyurethane, **semi-gloss finish**
- P-4 Sherwin Williams 2738 (Obsidian), acrylic polyurethane, **semi-gloss finish**
- P-5 Matthews Natural White 42-202, acrylic polyurethane, **semi-gloss finish**
- P-6 Matthews Capri Blue 42-219, acrylic polyurethane, **semi-gloss finish**
- P-7 Matthews Federal Green 42-259, acrylic polyurethane, **semi-gloss finish**
- P-8 Matthews Gray 42-209, acrylic polyurethane, **semi-gloss finish**
- P-9 Benjamin Moore 977 (taupe), (color infill for letterforms on stone signs to match this)
- V-1 Vinyl: 3M Scotchlite 680 (reflective) or equivalent
- V-2 Vinyl: 3M White (non-reflective) 7725 or equivalent
- V-3 Vinyl: 3M Orange (non reflective) 7725-014 or equivalent
- V-4 Vinyl: 3M Deep Mahogany (non-reflective) 7725-019 or equivalent
- V-5 Vinyl: 3M Bright Green (non-reflective) 7725-186 or equivalent
- V-6 Vinyl: 3M Vivid Blue (non-reflective) 7725-017 or equivalent
- V-7 Vinyl: 3M Black (non-reflective) 7725-012 or equivalent

Project Sign Typestyles

Minion Bold

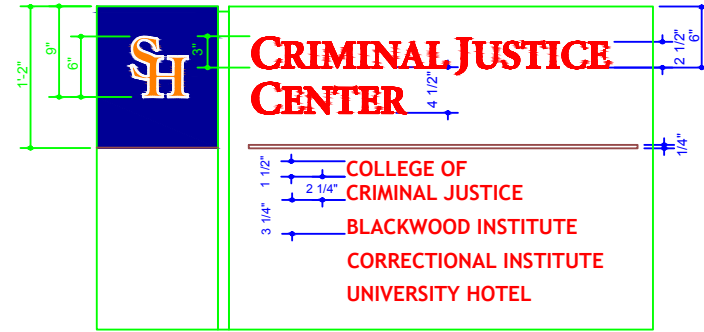
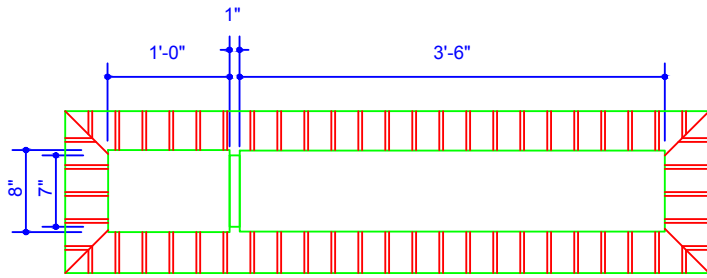
**ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890**

Trebuchet MS Bold

**ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890**

Project Symbols





Fabrication Notes

1. Sign Panel

Sign unit to be standard 1/8" (.125) reinforced aluminum sign can painted one (1) color; P-1 bronze. Graphics and text to be on one (1) side unless indicated otherwise in message schedule. Vertical reveal, and reveal at base of face unit to be painted P-4 dark blue. Building identity text to be V-2 white vinyl; all sub-text to be V-2 white vinyl (not reflective). Logo area to be painted P-4 dark blue; logo infill to be V-3 orange vinyl with V-2 white outline.

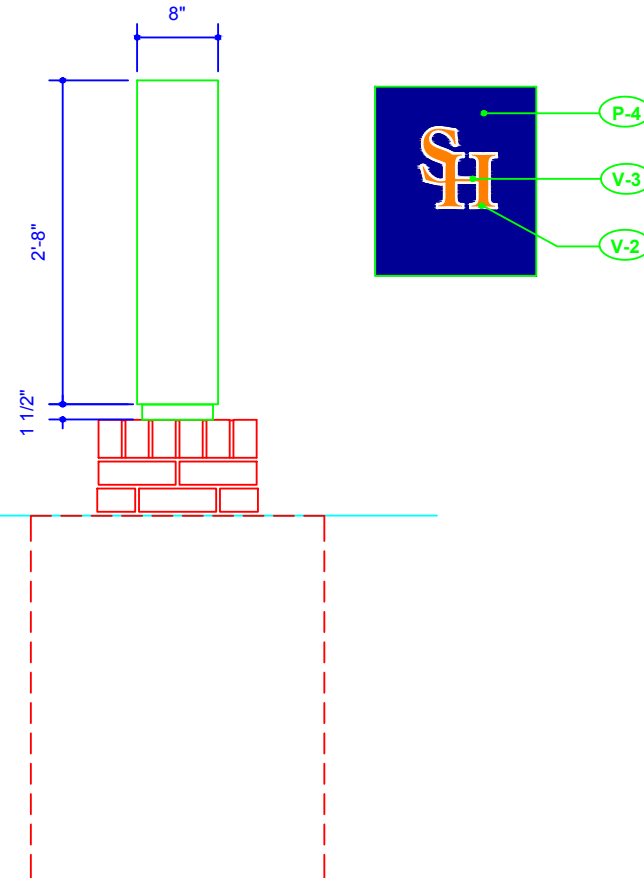
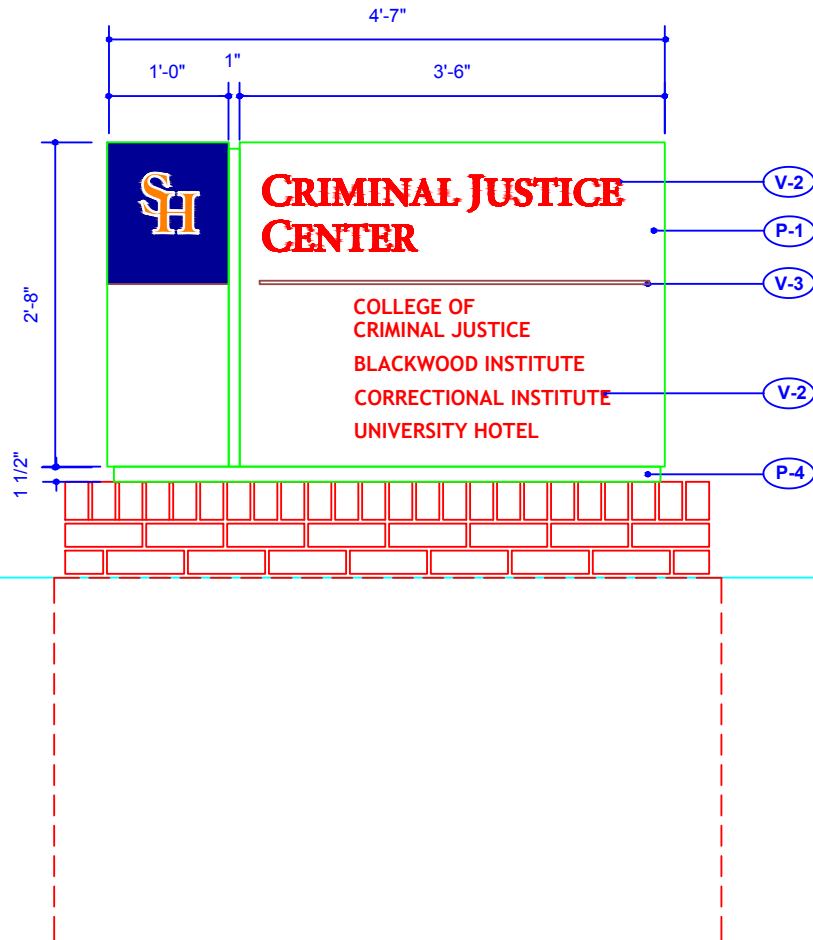
2. Type Faces

Minion Bold for building identity text; large and small caps as shown.

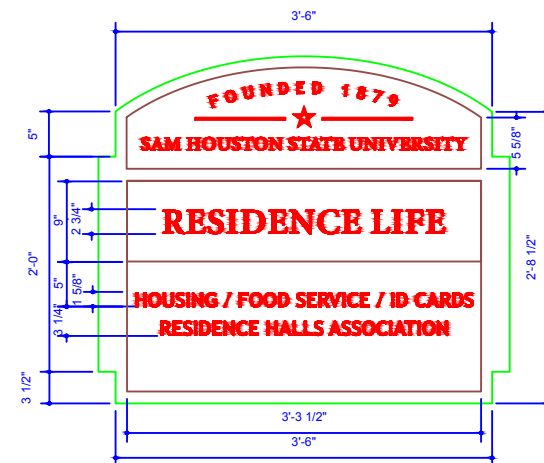
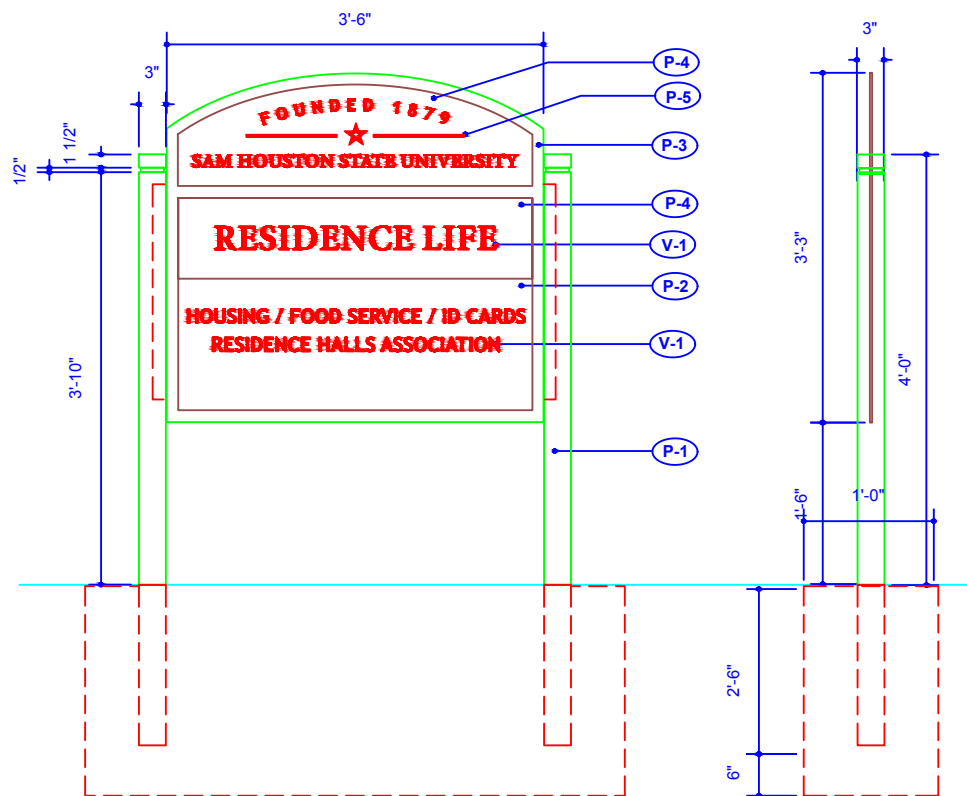
Trebuchet MS Bold for department listings.

3. Mounting

Panel to be mounted to masonry base. Base to be constructed of brick to match campus standard and constructed over reinforced concrete footing (RE:3/C3.4), or on existing paving where indicated on drawings or message schedule.



**BUILDING IDENTITY MONUMENT
C2.6**



Fabrication Notes

1. Sign Panel

Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides unless noted otherwise in message schedule. Borders and edges of panel to be painted P-3 orange. Upper field to be painted P-4 dark blue. Lower field to be painted P-2 taupe. Color band behind facility name to be painted P-4

Upper Panel All text, star and rule lines to be painted P-5 white.

Lower area All text to be white reflective vinyl V-1

2. Typefaces

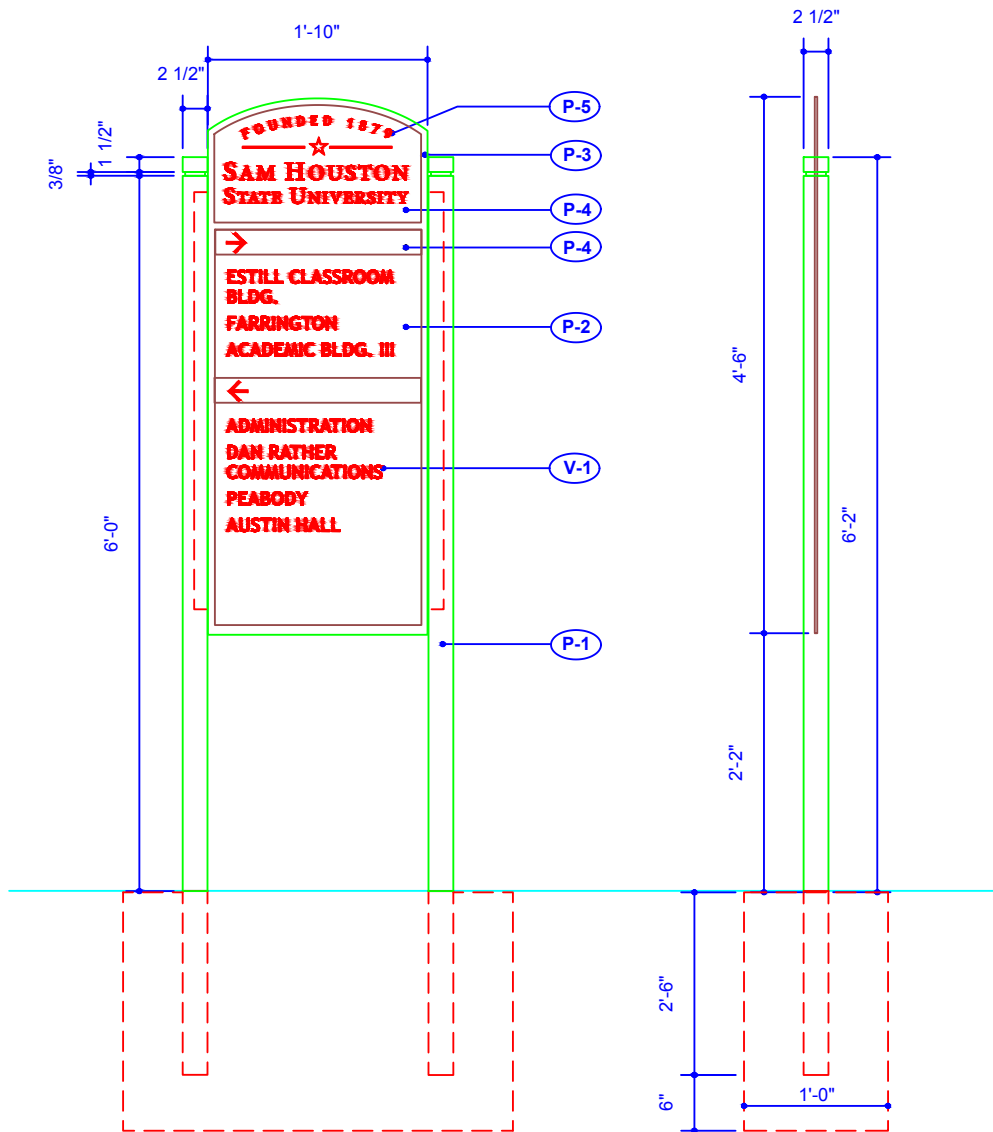
Minion Bold for campus letters. Letters to be spaced as shown. Also for name of facility.

Trebuchet MS Bold for "Founded 1879" and informational listings.

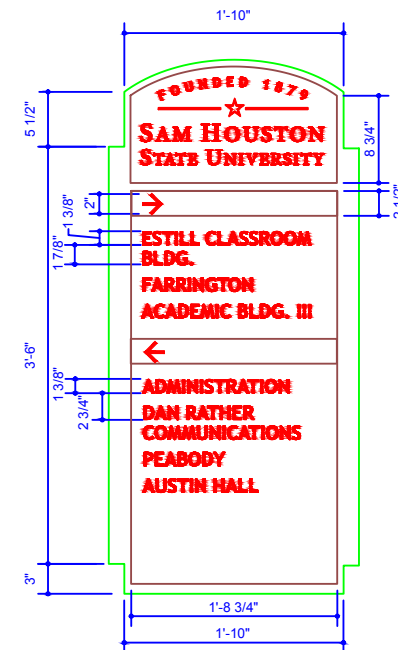
3. Mounting

Panel to be mounted to standard 3" square aluminum posts. Panel to slide into slots cut as shown in drawing on sheet C2.11. Post cap to be a 3" x 3" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted P-1 Bronze (see details sheet C2.11).

FACILITY IDENTITY SIGN C2.7



**PEDESTRIAN C.1
DIRECTIONAL C2.4**



Fabrication Notes

1. Sign Panel

Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides. Borders and edges of panel to be painted P-3 orange. Upper field to be painted P-4 dark blue. Lower field to be painted P-2 taupe. Color bands behind arrows to be painted P-4

Upper Panel All text, star and rule lines to be painted P-5 white.

Lower area directional information: All text, arrows, and symbols to be white reflective vinyl V-1

2. Typefaces

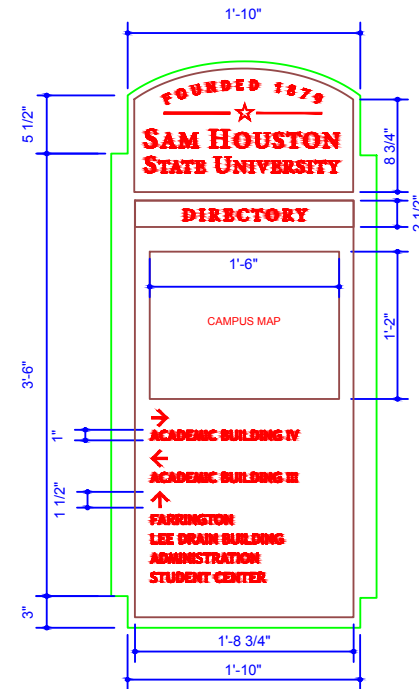
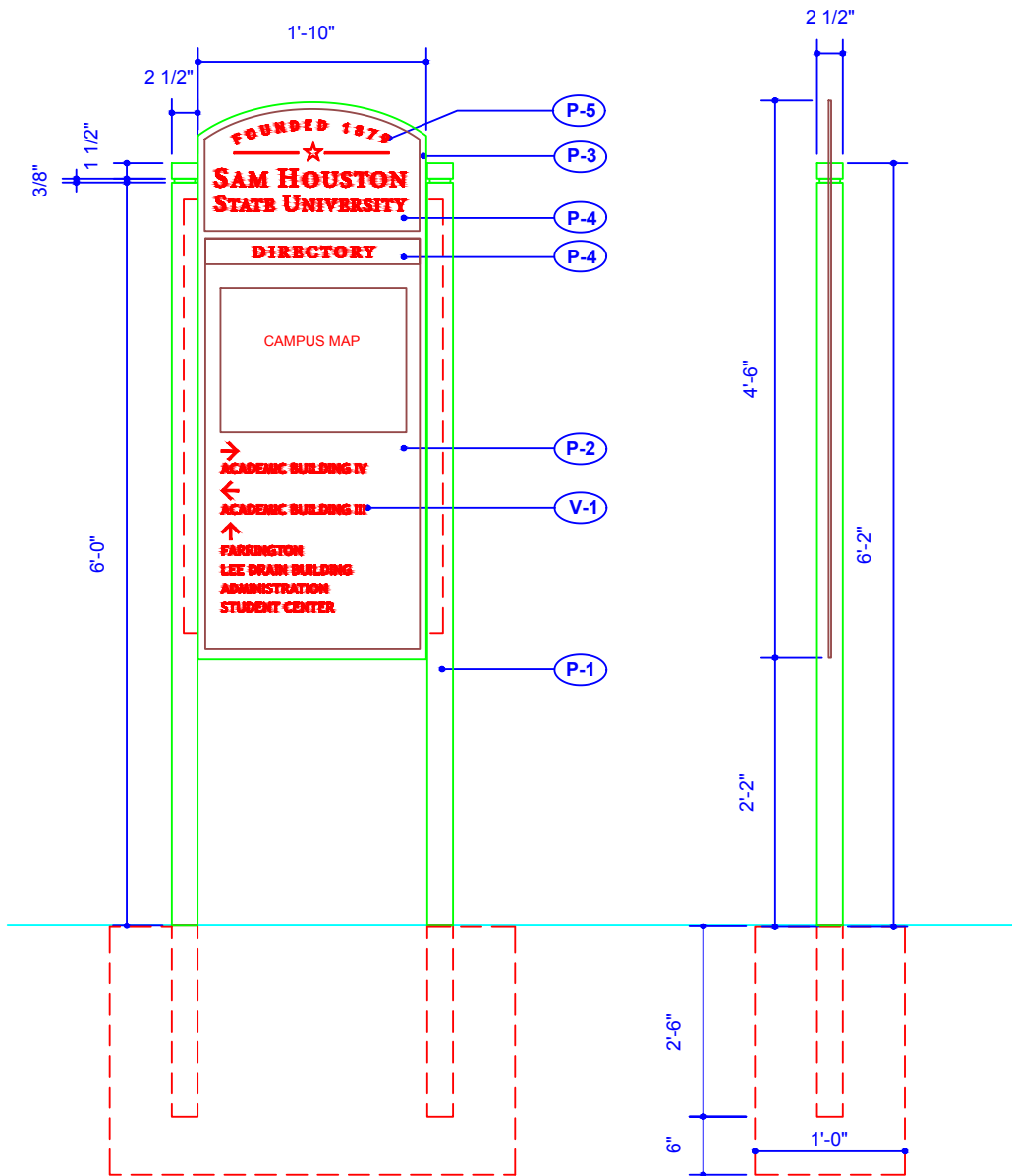
Minion Bold for campus letters. Letters to be spaced as shown.

Trebuchet MS Bold

for "Founded 1879" and directional listings.

3. Mounting

Panel to be mounted to standard 2-1/2" square aluminum posts. Panel to slide into slots cut as shown in drawing on sheet C2.11. Post cap to be a 2" x 2" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted P-1 Bronze (see details sheet C2.11).



Fabrication Notes

1. Sign Panel

Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides. Borders and edges of panel to be painted **P-3** orange. Upper field to be painted **P-4** dark blue. Lower field to be painted **P-2** taupe. Color bands behind arrows to be painted **P-4**. **Upper Panel:** All text, star and rule lines to be painted **P-5** white. **Lower Area Directional Information:** All text, arrows, and symbols to be white reflective vinyl **V-1**.

2. Typefaces

Minion Bold for campus letters. Letters to be spaced as shown.

Trebuchet MS Bold

for "Founded 1897" and directional listings.

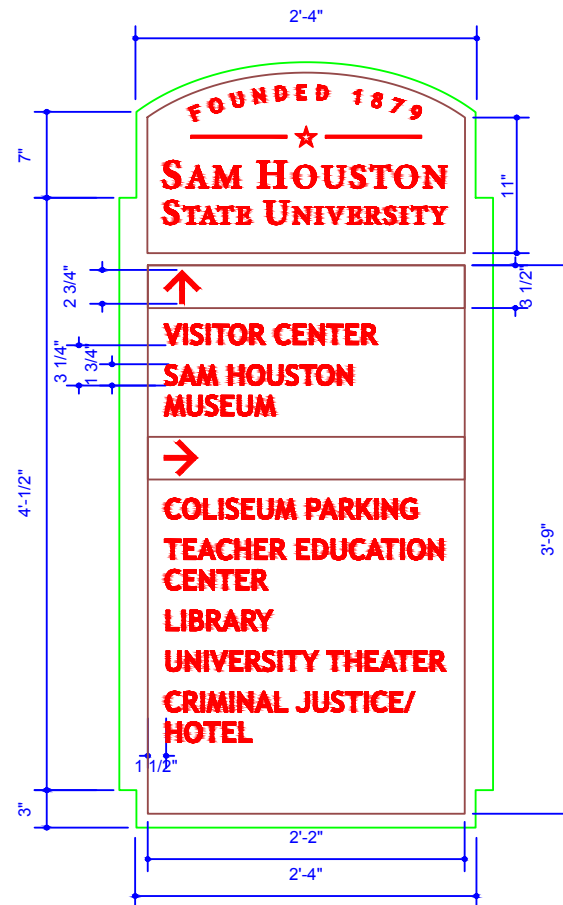
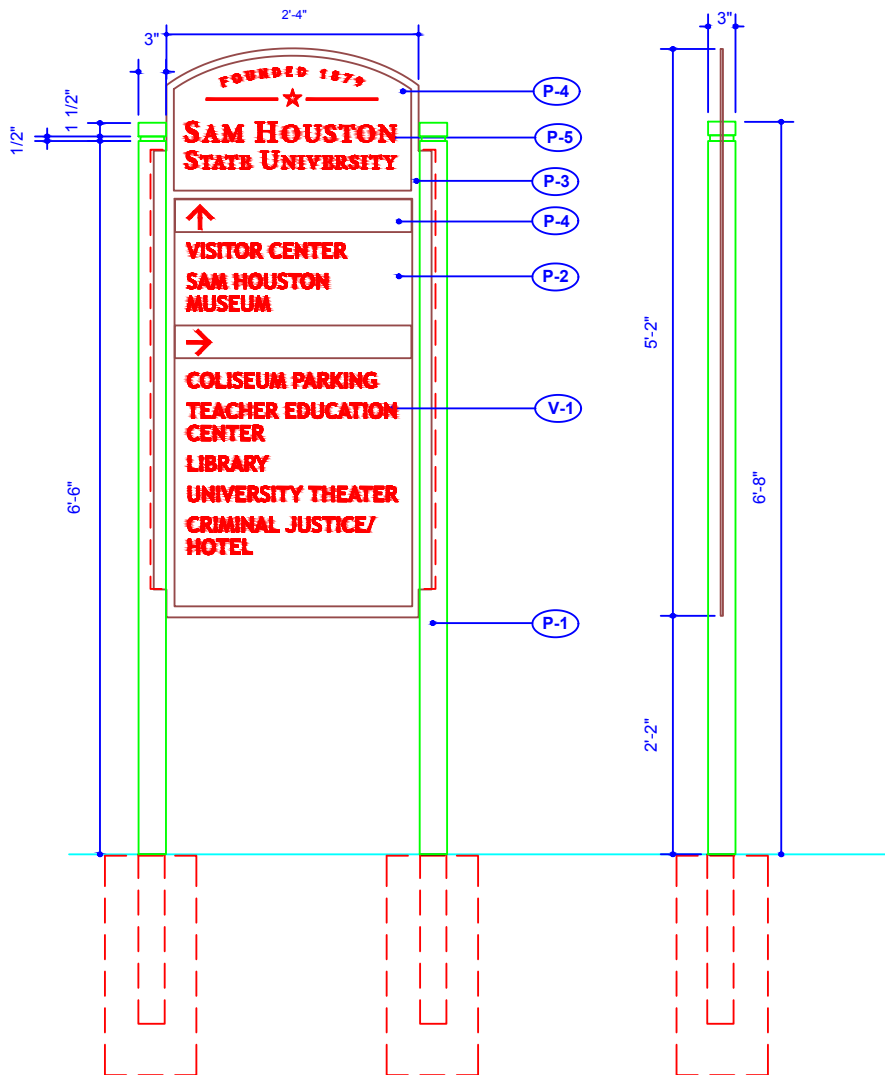
3. Map Panel

Map will be printed on 3M IJ180C or equivalent and covered with 3M 8518 clear laminate with UV protection or equivalent. Map will be applied to 1/8" aluminum surface. Surface under and around maps will be **P-2** taupe. Digital files for map to be provided by University. Maps are 18" x 14".

4. Mounting

Panel to be mounted to standard 2-1/2" square aluminum posts. Panel to slide into slots cut as shown in drawing on sheet C2.11. Post cap to be a 2-1/2" x 2-1/2" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted **P-1** bronze (see details: Sheet C2.11.)

PEDESTRIAN C.2 DIRECTIONAL C2.5



LARGE VEHICULAR DIRECTIONAL C2.2

Fabrication Notes

1. Sign Panel

Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides. Borders and edges of panel to be painted **P-3** orange. Upper field to be painted **P-4** dark blue. Lower field to be painted **P-2** taupe. Color bands behind arrows to be painted **P-4**. **Upper Panel:** All text, star and rule lines to be painted **P-5** white. **Lower Area Directional Information:** All text, arrows, and symbols to be white reflective vinyl **V-1**.

2. Typefaces

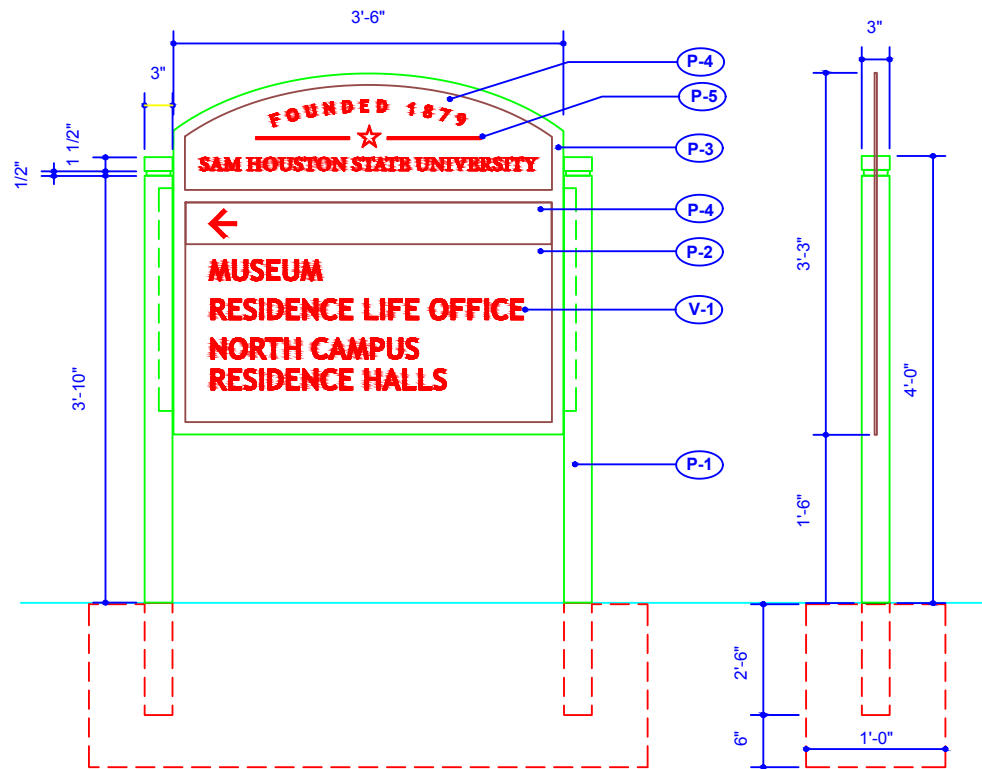
Minion Bold for campus letters. Letters to be spaced as shown.

Trebuchet MS Bold

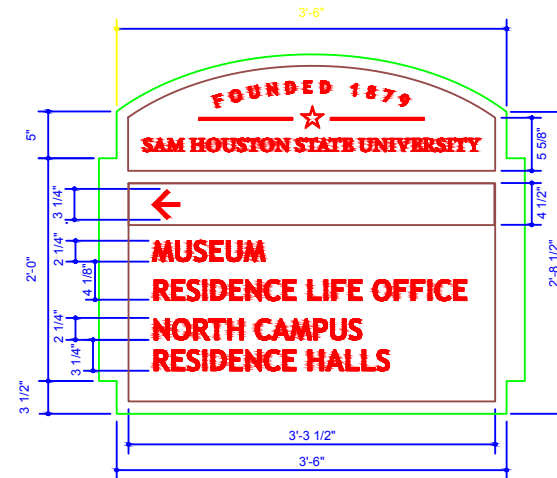
for "Founded 1897" and directional listings.

3. Mounting

Panel to be mounted to standard 3" square aluminum posts. Panel to slide into slots cut as shown in drawing on sheet C2.11. Post cap to be a 3" x 3" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted **P-1** bronze (see details: Sheet C2.11.)



SMALL VEHICULAR DIRECTIONAL C2.3



Fabrication Notes

1. Sign Panel

Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides. Borders and edges of panel to be painted **P-3** orange. Upper field to be painted **P-4** dark blue. Lower field to be painted **P-2** taupe. Color bands behind arrows to be painted **P-4**. **Upper Panel:** All text, star and rule lines to be painted **P-5** white. **Lower Area Directional Information:** All text, arrows, and symbols to be white reflective vinyl **V-1**.

2. Typefaces

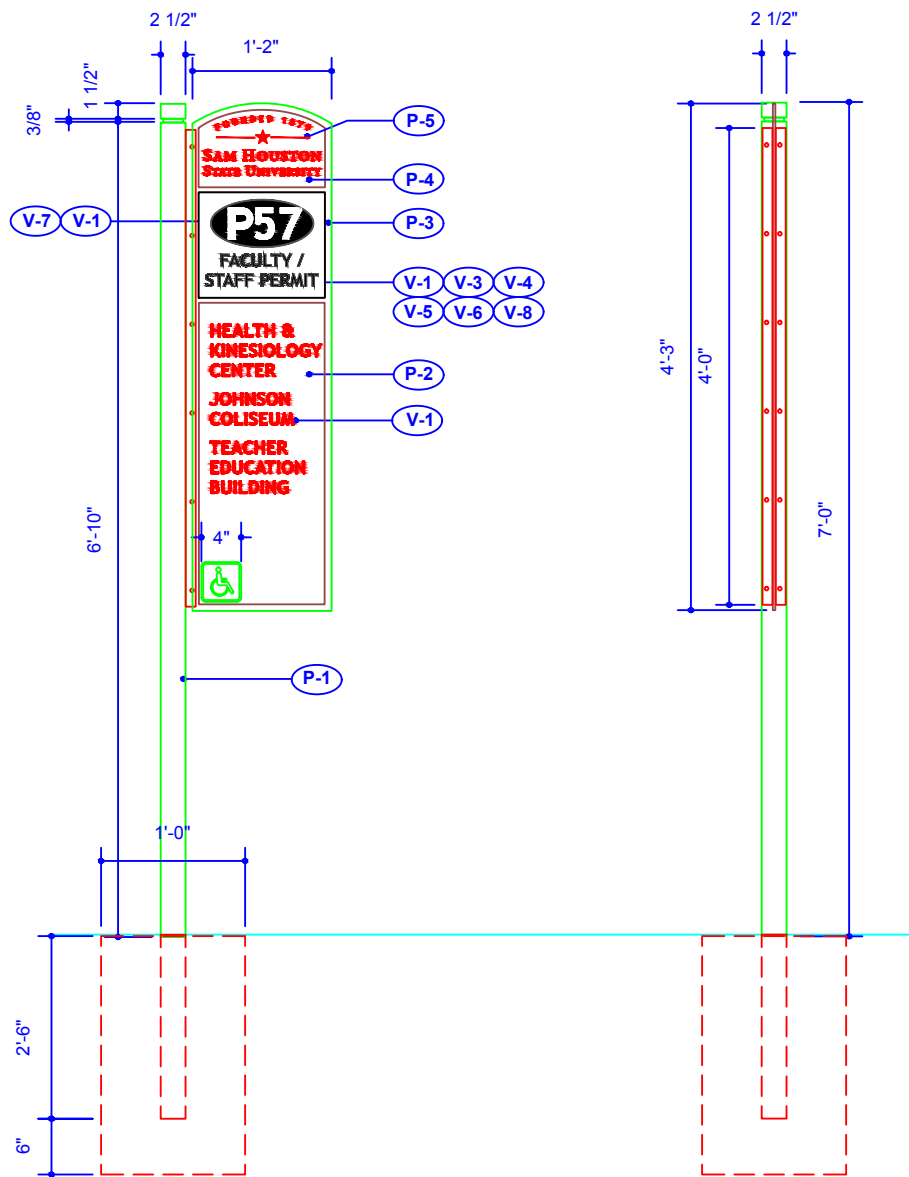
Minion Bold for campus letters. Letters to be spaced as shown.

Trebuchet MS Bold

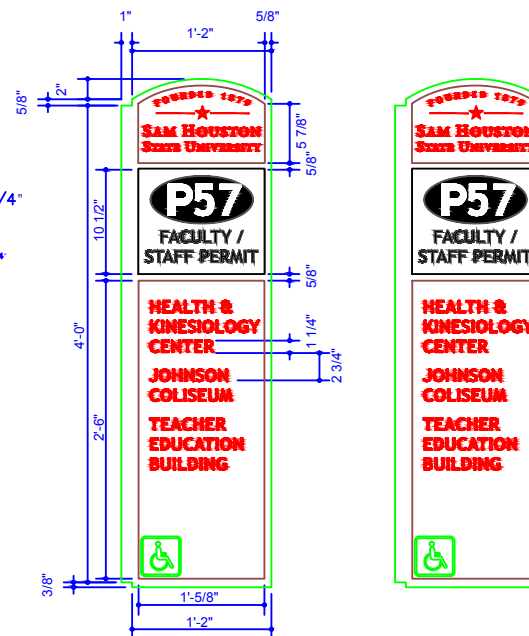
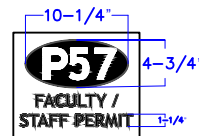
for "Founded 1897" and directional listings.

3. Mounting

Panel to be mounted to standard 3" square aluminum posts. Panel to slide into slots cut as shown in drawing on sheet C2.11. Post cap to be a 3" x 3" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted **P-1** bronze (see details: Sheet C2.11.)



PARKING LOT E.1 IDENTITY C2.9



3M Vinyl Color Schedule

	V-7 3M 7725-012 Black
	V-1 3M 680 Reflective White
	V-4 3M 7725-019 Deep Mahogany
	V-1 3M 680 Reflective White
	V-5 3M 7725-186 Bright Green
	V-1 3M 680 Reflective White
	V-3 3M 7725-014 Bright Orange
	V-1 3M 680 Reflective White
	V-6 3M 7725-017 Vivid Blue
	V-1 3M 680 Reflective White
	V-8 3M 7725-263 Perfect Match Red
	V-1 3M 680 Reflective White

Fabrication Notes

1. Sign Panel
Panel to be standard 1/8" (.125) aluminum panel painted 3 colors. Graphics and text to be on both sides of panel. Borders and edges of panel to be painted **P-3** orange. Upper field to be painted **P-4** dark blue. Lower field to be painted **P-2** taupe. Color field behind parking number designation to vary according to message schedule.

Upper Field: All text, star and rule lines to be painted **P-5** white.

Middle Field: Parking number and permit color information to have the base color installed first. **V-1** cut vinyl reflective goes over base color except for **Faculty/Staff** signs. They will be **V-1** reflective installed first with cut **V-7** black vinyl lettering over **V-1** reflective.

Lower Field: All text, arrows, and symbols to be white reflective vinyl **V-1**.

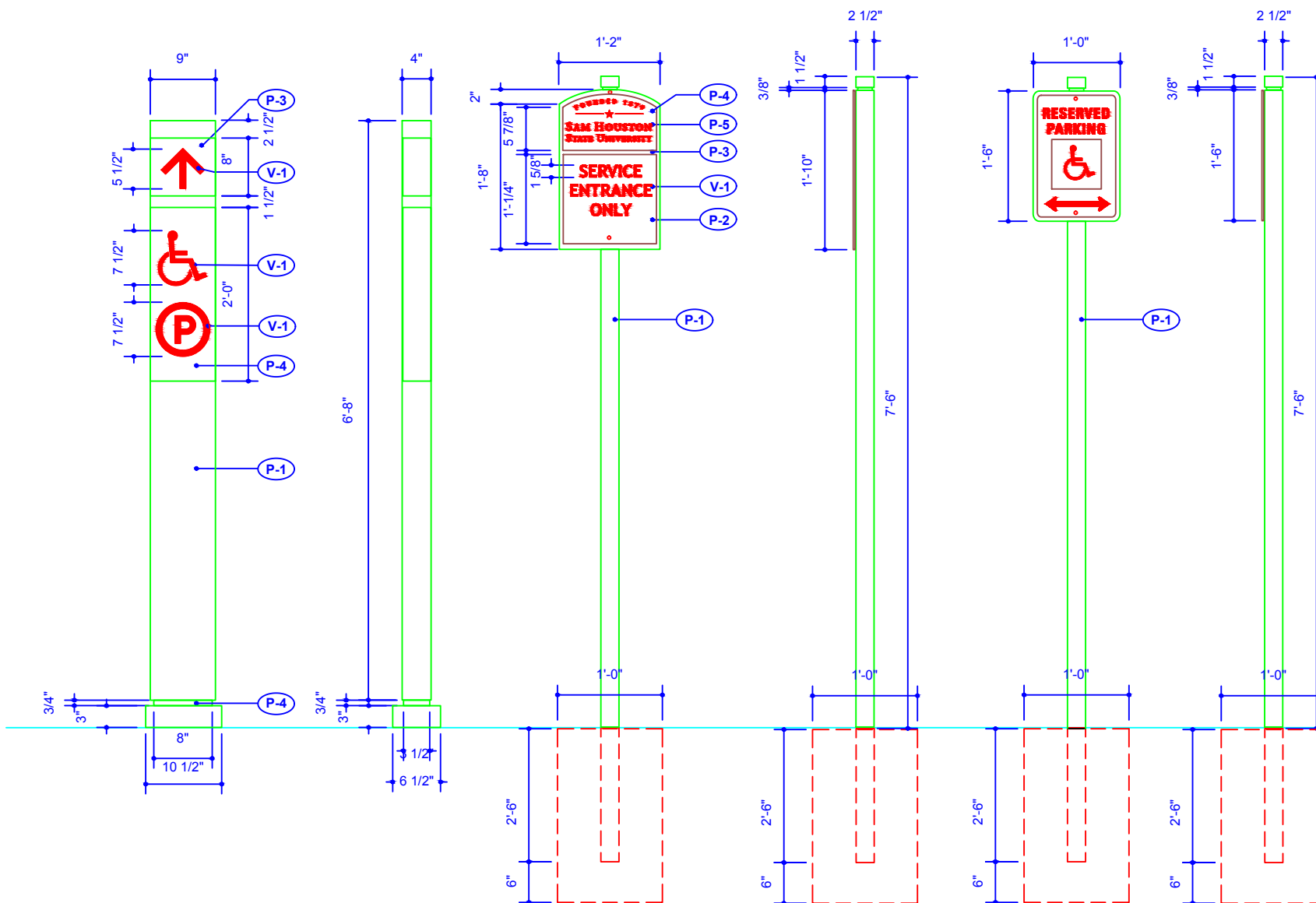
2. Typefaces

Minion Bold for campus letters. Letters to be spaced as shown.

Trebuchet MS Bold for "Founded 1897" and directional listings.

3. Mounting

Panel to be mounted to standard 2-1/2" square aluminum post. Panel to be attached to post with (2) L-brackets mechanically-fastened or spot-welded to sign panel, and mechanically fastened to sign post with tamper-proof screws. Post cap to be a 2-1/2" x 2-1/2" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted **P-1** bronze (see details: Sheet C2.11.)



Fabrication Notes

E.2 HCP Accessible Unit

Unit to be fabricated of 1/8" (.125) aluminum painted 3 colors. Vertical structure to be mounted to cast concrete footing and secured with mounting bolts as best determined by fabricator. Graphics and text to be on both sides of unit. Unit to be painted as noted on drawing with V-1 reflective white vinyl graphics.

F.1 Information/Regulatory Signs

Sign panels to be 1/8" (.125) aluminum panels painted as noted. Panels to be painted P-1 bronze on backside. Standard DOT panels to be used where required. Face panels to be mounted to standard 2 1/2" square aluminum sign posts with tamper-proof hardware painted to match color on face panel.

2. Typefaces

Minion Bold for campus letters. Letters to be spaced as shown.

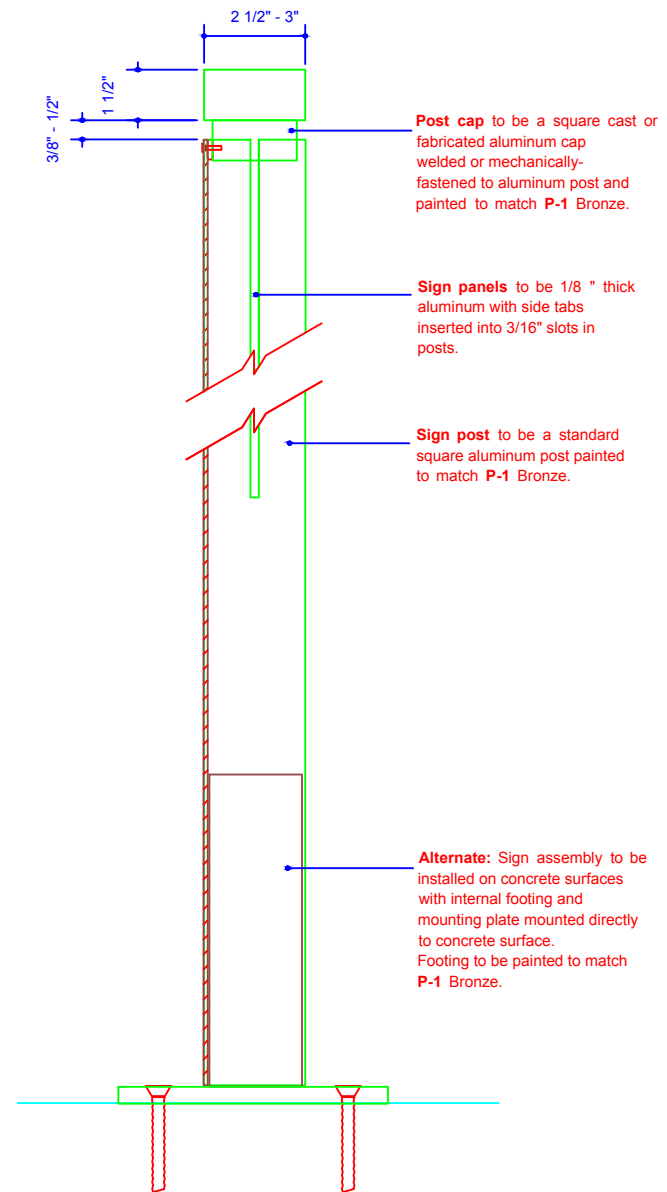
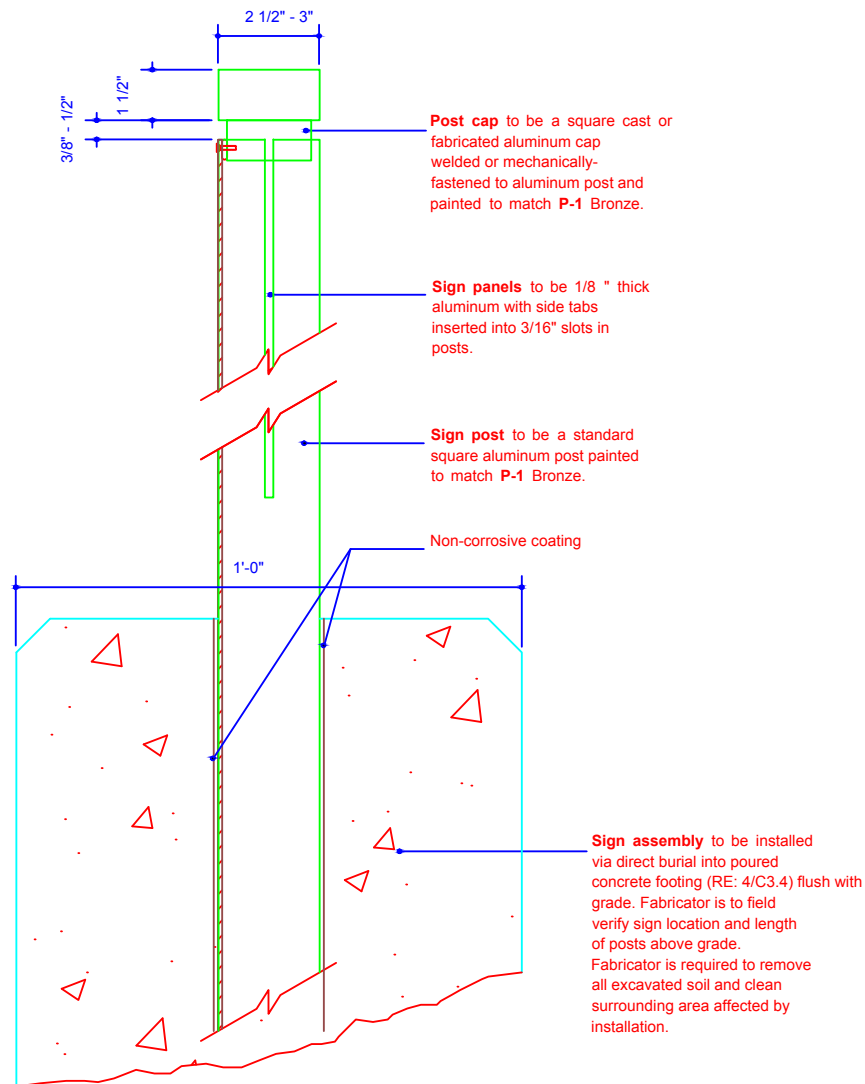
Trebuchet MS Bold

for "Founded 1879" and all other text.

3. Mounting

Panel to be mounted to standard 2" square aluminum post. Post cap to be a 2 1/2" x 2 1/2" square aluminum cap mechanically fastened to aluminum post. Cap, post, and hardware to be painted P-1 Bronze. (see details sheet C2.11).

HANDICAPPED AND INFORMATIONAL C2.10



MOUNTING DETAILS

C2.11

SAM HOUSTON STATE UNIVERSITY

Material Specifications for Exterior Signage

1.0 Fabrication

Shop fabrication and tolerances shall conform to the standards of the industry. All items shall be shop fabricated so far as practicable. Perform high-quality, professional workmanship. Attach materials with sufficient strength, number and spacing not to fail until materials joined are broken or permanently deformed. Fabricate all work to be truly straight, plumb, level and square and to sizes, shapes and profiles indicated on the approved shop drawings.

1.1 Shop Assembly

Pre-assemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation.

1.2 Welding

All welding procedures shall conform to applicable AWS specifications. All welds shall develop capacity of members being joined unless specific length or extent is noted on the drawings. Type of alloy filler metal and electrodes to be that which is recommended by producer of the metal to be welded, and as required for color match, strength and compatibility in the fabricated items.

1.3 Flatness of Panels

Panels shall show no visual distortion when viewed in installed position. All panel faces shall be of such flatness that when measured, the maximum slope of the surface at point, measured from the nominal plane of the surface, shall not exceed 1.0%. Any panel not meeting these requirements is subject to rejection by the Owner.

1.4 Wind Loading

Exterior signs shall be designed to withstand wind pressure loadings of 30 psf (146.5 kg/sq.m) on the gross area of the exposed units, acting in all directions or to meet and/or exceed all applicable codes, whichever is greater. The Signage Contractor will be required to have structural elements of exterior signs stamped by an engineer. Standard and approved methods of fabrication will be required by the Owner.

1.5 Thermal Movement

Design, fabricate and install component parts to provide for expansion and contraction over a temperature range for the material of 150 degrees Fahrenheit (83.3 degrees Celsius), without buckling, sealant joint failure, glass breakage, undue stress on members or anchors, and other detrimental effect.

1.6 Corrosion Protection

Coat concealed metal surfaces which will be in direct contact with concrete, masonry, wood or dissimilar metals, in exterior work, and work to be built into exterior and below

grade walls and decks, with a heavy coat of bituminous paint. Do not extend coating onto exposed surfaces.

1.7 Other

Holes for bolts and screws shall be drilled. Parts to receive hardware shall be countersunk. Fasteners shall be of basic metal and alloy, matching finished color and texture as the metal being fastened, unless otherwise indicated. There shall be no exposed fasteners; all fasteners shall be concealed. Exposed ends and edges shall be milled smooth, with corners slightly rounded. Joints exposed to weather shall be formed to exclude water.

Design components to allow for expansion and contraction for a minimum material temperature range of 150 degrees Fahrenheit, without causing buckling, excessive opening of joints or over-stressing of welds and fasteners. Joints shall be fastened flush to conceal reinforcement, or welded where thickness of section permits. Contact surfaces of connected members shall be ground true. Parts shall be so assembled that joints will be tight and practically unnoticeable, without use of filling compound.

Form work to the required shapes and sizes, with true curves, lines and angles. Provide necessary rebates lugs and brackets for assembly of units. Use concealed fasteners wherever possible. Plates for mounting hardware shall be welded in place.

2.0 Installation

The installation of fixed material shall be under the general direction of the Owner in accordance with applicable specifications and layout drawings.

2.1 Preparation

Coordinate setting drawings, diagrams, templates, instructions and directions for the installation of items having integral anchors which are to be embedded in concrete or masonry construction. Coordinate delivery of such items to applicable trades for installation.

2.2 Delivery to Premise

Unless indicated to the contrary, items of loose material shall be delivered, uncrated, assembled, set in proper place and installed ready for use, free from breakage, blemishes or other defects.

2.3 Inspection

Examine the substrate and the conditions under which the materials are to be installed. Do not proceed with the work until unsatisfactory conditions detrimental to the timely and proper completion of the work have been corrected.

2.4 Anchors and Inserts

Furnish inserts and anchoring devices that must be set in concrete or built into masonry for installation of this work. Provide setting drawings, templates, instructions and directions for installation of anchorage devices. Provide toothed steel or lead shield

expansion bolt devices for drilled-in-place anchors and inserts for exterior installation. Provide units with exposed surfaces matching the texture and finish of metal item anchored.

2.5 Cutting, Fitting and Placement

Perform all cutting, drilling and fitting required for installation. Set the work accurately in location, alignment and elevation, plumb, level and true, measured from established lines and levels. Provide temporary bracing or anchors as required.

Form tight joints with exposed connection accurately fitted with uniform reveals and spaces for sealants and joint fillers. Where cutting, welding and grinding are required for proper shop fitting and jointing of the work, restore finishes to eliminate any evidence of such corrective work.

Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing or provide new units.

2.6 Erection

All surfaces shall be covered with protective cover non-deleterious to finish for protection until final installation or erection. Complete all connections in proper alignment and tighten bolts securely. Leveling is to be done only by instruments; measuring equal distances from existing building surfaces will not be acceptable as a basis of level and/or plumb. After erection, all surfaces marred during erection and exposed bolts, bolt heads, etc., shall be retouched with the same paint used previously.

2.7 Electrical

All electrical lighting and power devices contained within or upon signage devices which are usually included as part of the illumination system of that device such as lamps, sockets, internal wiring, etc. Additionally, the Signage Contractor is responsible for electrical connection only of signage items. Power distribution to required locations shall be the responsibility of the Contractor unless otherwise specifically noted on the drawings.

2.8 Protective Coverings

Restore protective coverings that have been damaged during shipment or installation of the work. Remove protection when requested for inspection of finishes and replace. Retain protective coverings intact and remove simultaneously from similar finished items to preclude non-uniform oxidation and discoloration. Remove protective coverings only when there is no possibility of damage from other work yet to be performed at the same location.

2.9 Cleaning of Premises

The Signage Contractor shall use special care in the disposition of excess materials and rubbish. Rubbish shall not be allowed to accumulate but shall be consistently collected and removed at the completion of this work, on a daily basis.

Storage for paint materials, preparation and mixing, shall be in well-lit and ventilated central location but shall not be allowed on finished or carpeted flooring. Ample protection by means of drop cloths or layers of paper must be provided for existing apparatus or parts of the building.

Adequate safeguards shall be provided against fire by placing oils, rags and waste in self-closing metal receptacles and shall be removed from the work and storage area at the end of each work shift. Under no circumstances will they be allowed to accumulate.

3.0 Materials and Finishes

3.1 Aluminum

Aluminum used for exposed structural elements shall be T-5 mill aluminum, thickness as shown on the drawings. Aluminum used for concealed framing of signage shall be 6063 T-5 alloy with mill finish.

3.1.1 Extrusions

Shapes and thicknesses as shown and as required to fulfill requirements, but not less than 1/8" (3.2 mm) thick, unless otherwise shown. Suitable alloy and temper for extruding with adequate structural characteristics and suitable for finishing as specified.

3.1.2 Sheets and Plates

Sizes and minimum gauges as shown and as required to fulfill performance requirements. Suitable alloy and temper for forming and fabrication requirements with adequate temper and structural characteristics and suitable for finishing as specified.

3.1.3 Finishing

Aluminum finishes shall be acrylic polyurethane two-part catalyzed coating system. All coating applications shall be prepared and spray applied in the factory by skilled mechanics. All surfaces shall be mechanically sanded removing all grain lines, striations, and surface blemishes, cleaned with non-abrasive scouring pads, rinsed, and air-dried prior to receiving coatings.

- A. Coatings shall be prepared as designated by manufacturers latest literature for surface preparation and application but in no case less than one (1) applicable primer coat and two (2) final full coats. All finished surfaces shall be uniform.
- B. Colors shall match color designations as indicated on the drawings.

3.2 Brass/Bronze

3.2.1 Alloys

Alloy numbers specified below refer to standards of the Copper Development Association (CDA).

- A. Extrusions: Architectural bronze, alloy 385
- B. Sheet and Plate: Muntz metal, alloy 280
- C. Castings: Series 800 and 900 alloy best suited for color matching.

3.2.2 Finishing

Provide finishing complying with CDA designations, matching samples provided by Graphic Designer or Owner.

- A. Polished Finish: M21M34C12 with clear urethane coating for exterior applications, and two-coat application of carnauba wax, hand buffed, for interior applications.
- B. Satin Finish: M31C12 with clear urethane coating for exterior applications, and two-coat application of carnauba wax, hand buffed, for interior applications.
- C. Statuary Finish: M32C12C55
- D. Chrome Plated Finish: ASTM-B-456, Type SC-2 over a coating of copper and nickel. Provide a bright polished finish unless otherwise shown.

3.3 Concrete

3.3.1 Reference Standards

Strictly comply with the following referenced standards: ACI 318, ACI 614, ACI 306, ACI 347, ACI 315, ACI 302 and CRSI Manual of Standard Practice.

3.3.2 Portland Cement Concrete

Comply with ASTM C94. Proportion mixes in compliance with ACI 301. Provide concrete having minimum 3000 psi compressive strength at 28 days, 3" to 4" slump, 4% to 6% entrained air for concrete exposed to freezing and 2% to 4% for all other concrete, and minimum 5.5 sacks of cement per cubic yard of concrete.

3.3.3 Reinforcing

Provide ASTM A615, Grade 60, new, deformed rebars. Provide ASTM A185, new, rectangular welded wire fabric.

3.3.4 Formwork

Contractor's option, but shall be suitable to provide straight, flat, accurately aligned surfaces within specified tolerances.

3.3.5 Installation

Securely construct and brace formwork to provide concrete members and structures of sizes, shapes, elevations, profiles, alignments, and positions indicated within specified tolerances. Place and tie reinforcing in position and secure against displacement.

3.3.6 Finishing

Steel trowel slab surfaces to provide hard, slick, smooth, uniform planes within specified tolerances. Do not add cement, sand, water or mortar to slab surfaces.

4.0 Miscellaneous Products

4.1 Silkscreen Inks

All inks, paints and lacquers required for silkscreened or imprinted surfaces or other specified surfaces, shall be a type made for the surface material on which it is to be applied and recommended by the manufacturer of the ink or paint. Exact identification of all ink and paint shall be noted on the shop drawings, together with data describing the method of application and if other than "air"-dried drying. All silkscreen inks shall be made by a manufacturer with experience in production and consistency of such inks for the purposes and surfaces involved.

4.1.1 General Requirements

All screen printing specified shall be executed from photo screens prepared from reproductions of the copy specified. The Signage Contractor shall submit full-size showings of foundry to be used to the Graphic Designer for approval. All above work is to be included in this contract. No hand-cut screens will be accepted.

Prime coats or other surface pre-treatment, where recommended by the manufacturer for inks, paints or lacquers, shall be included in the work (and noted on the shop drawings) as part of the finished surface work at no additional cost to the Owner.

All screen printing shall be executed in such a manner that all edges and corners of finished letterforms and graphic devices are true and clean. Letterforms with rounded positive or negative corners, edge build-up or bleeding, etc., will not be accepted.

No paint, ink or lacquer that will fade, discolor or delaminate as a result of proximity to UV light source or heat therefrom shall be used. All inks, paints and lacquers shall be evenly applied and without pinholes, scratches, orange peeling, application marks, etc. Rear-illuminated panels containing the above or other defects which cause light leaks in surface areas specified to be covered will not be accepted. Workmanship in connection with finishes and formations of letters and/or graphics shall conform to the standards of the trade and shall be acceptable to the Graphic Designer.

4.1.2 Manufacturers

Provide silkscreen inks in colors and sheen as specified and manufactured by one of the following or approved equal:

Naz-Dar Company
Chicago, Illinois

Wornow Products Department
Dexter Corporation
Industry, California

Colonial Printing Ink Company
East Rutherford, New Jersey

4.2 Vinyl

This specification defines basic materials and fabrication methods for markings/graphics to be used by the Signage Contractor for cut out graphics. No deviation from these specifications is permissible without the written approval of the Owner or Graphic Designer. The Signage Contractor shall certify that all markings/graphics conform to these specifications, and will be replaced without additional cost to the Owner if they fail to meet this requirement.

4.2.1 Non-Reflective

Non-reflective film should be 3M series 7725 (7 years durability on signs) or equivalent.

4.2.2 Reflective

The marking film shall be 3M ScotchLite™ reflective sheeting, series 680, 580 or 480, or others as approved by the Owner or Graphic Designer. The Signage Contractor shall verify all City and State traffic codes for grade of reflective vinyl, and shall use high intensity vinyl when required by code. If codes do not specify, then engineering grade vinyl is acceptable.

4.2.3 Pressure Sensitive

Cut vinyl to be 1.8 mil (0.89) thick, pre-spaced and pre-aligned on transfer paper. Provide vinyl graphics in colors and type styles shown.

4.2.4 Letterforms

Size: Letterforms shall be as shown or indicated on the drawings, and shall be the only typography used. Letter size for the appropriate sign types shall be as shown on the drawings and graphic layouts. Alternate letterforms and letter size will not be accepted.

Spacing: Letter spacing shall be at the standard optical-spacing. Spacing between words shall equal the horizontal dimension of a lower-case “m” for the size of the copy being used. The Signage Contractor shall furnish to the Graphic Designer for approval, a full-size spacing pattern for each message specified. No work shall be executed from spacing patterns not approved by the Graphic Designer.

4.2.5 General Requirements

- A. Color, copy and logotype rendition shall be approved by Owner or Graphic Designer prior to production.
- B. Graphics shall be weather-resistant and shall not be affected by oil, water, salt spray or alcohol.
- C. Where specifically noted, provide reverse cut copy for application to glass. All other applications shall be “correct-reading” on the exterior of glass.
- D. Size, colors and shape of markings to be fabricated in accordance with 3M Product Specs for each item. Marking shall be in accordance with 3M Instruction Bulletin No. 5.
- E. All cut edges (i.e. laser, kiss cut, guillotined, etc.) shall be smooth and free of ragged areas.

- F. Markings shall be packaged in substantial cartons which will protect against physical damage in shipping and handling and against dirt or moisture contamination.

5.0 Paints and Coatings

5.1 Acrylic Polyurethane

5.1.1 Grip Gard ®

Grip Gard ® approved automotive type paint systems manufactured by Akzo Wyandotte or approved equal. Signage Contractor shall be approved by the manufacturer for application of paint or coating system. Signage Contractor shall apply paint system strictly observing the manufacturer's recommendations regarding application technique using internal mix conventional spray equipment. Apply as to achieve 100% coverage at the rate of 150 square feet per gallon or as manufacturer recommends.

Overall appearance must match specified color and pattern of submitted sample. Pattern and sheen should be uniform. If primer is visible through paint when inspected, paint coverage will be considered incomplete and disapproved by the Owner or Graphic Designer. Should the Owner or Graphic Designer disapprove of the applied coating, the Signage Contractor shall bear all costs to complete paint finish.

5.1.2 Matthews

Matthews acrylic polyurethane enamels as manufactured by the Matthews Paint Company, or approved equal.

Contractor shall apply paint system strictly observing manufacturer's recommendations regarding application and mixing. Apply as to achieve 100% coverage at a rate of 150 square feet per gallon or as manufacturer recommends.