

City of Salem

Sign Program Phase III Implementation New Pedestrian Directional Signs and Maps

Volume I – Technical Specifications

Volume II – Detail Drawings

Volume III – Sign Text Schedule

Volume IV – Sign Location Plan

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Volume I –
Technical Specifications

SECTION 10400 - EXTERIOR/INTERIOR SIGNS

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

- A. The drawings and general provisions of the Contract including the General Conditions apply to work under this Section.
- B. The work in this Section shall be completely coordinated with the work of other Sections. Verify and work of other trades that adjoin materials of this Section before the installation of items herein dimensions specified. Cooperate with such trades to assure the steady progress of all work under this Contract.
- C. All Signs listed in the Scope of Work shall be fabricated and installed 60 days following award of the contract.

1.02 SCOPE OF WORK

- A. The Contractor shall furnish all materials, labor, tools, equipment and incidentals to fabricate and install all Signing as described herein.

The total program consists of seventeen (17) pedestrian signs and six (6) pedestrian map kiosks. The minimum program for this bid consists of eight (8) pedestrian signs and three (3) pedestrian map kiosks. Individual pricing of the signs and kiosks will determine what work, if any, beyond the minimum program will be completed in this phase. It is anticipated that any remaining work will be completed in a future phase, and thus this contract will be for two years.

- B. The Contractor shall comply with the Davis Bacon Act and pay prevailing wage rates for any on-site labor and/or installation.
- C. The scope of work is also to include filling and repairing any damaged surfaces caused by the work, including restoration of brick and concrete sidewalks.
- D. It is anticipated that some traffic control will be required for certain sign installations. Arranging traffic control for the project is the responsibility of the contractor and should be scheduled in the most cost effective way. Salem Police details cost \$40 per hour and have a four-hour minimum. If a detail lasts five-and-one-half hours, then there is an eight-hour charge. There is an additional ten percent administrative fee which will be waived for this project.
- E. The City will waive City permit fees for this project. No permits to erect the signs will be required and there will be no permit fees.

- F. The Contractor shall fabricate and install signs as indicated in the drawings and schedules attached and as specified herein including:

<u>Sign Type</u>	<u>Description</u>
05	Pedestrian Directional Sign
06A	New Pedestrian Map

- G. The above Scope of Work is documented as follows:
1. Volume I – Technical Specifications (8 1/2" x 11" format)
 2. Volume II – Detail Drawings (11" x 17" format)
 3. Volume III – Sign Text Schedule (8 1/2" x 11" format)
 4. Volume III – Sign Location Plan (11" x 17" format)

1.03 INSPECTION OF SITE

The Contractor shall visit the site of the proposed work and fully acquaint himself with existing conditions and should fully inform himself as to the facilities involved and the difficulties and restrictions attending the performance of the Contract, prior to submitting his price quotation.

1.04 PRICE QUOTATIONS

- A. The bidder shall provide a price quotation for unit prices only, for fabrication and for installation of each Sign Type listed above.
- B. The quantities established with the Preliminary Sign Message Schedule are for bidding/pricing purposes only. The Final Sign Message Schedule will be issued after the contract has been awarded and the quantities in the Final Sign Message Schedule may increase or decrease. Unit prices established in the accepted bid will still apply.
- C. The Contractor is required to hold to unit prices for 1 year following acceptance of installation by Owner in writing.
- D. The Bidder shall submit with the price quotation:
1. The name of any subcontractors to be employed for production.

1.05 SUBMITTALS

- A. Project Schedule
1. Upon execution of the Contract, the Contractor shall submit a complete project schedule

to include, as a minimum, the following:

- a. Shop Drawing Submittal _____ Date
- b. Sample Submittals _____ Date
- c. Begin Fabrication _____ Date
- d. Begin Installation _____ Date
- e. Completion of Installation _____ Date

- 2. The Sign Contractor shall submit periodic updates to the Owner indicating any deviation from the agreed upon project schedule and the completion date.

B. Shop Drawings/Sign Message Schedules

- 1. The Contractor shall submit shop drawings for all Sign Types.
 - a. Shop drawings are drawings by the Contractor with details at full or half-size for use in actual fabrication. Shop drawings detail the work that is to be done and the materials, fasteners and fabrication methods to be used in executing that work. Copies of Designer's Detail Drawings will not be accepted as shop drawings.
 - b. The Contractor shall verify measurements in the field (VIF) and indicate them on the shop drawings. Fabrication shall not proceed unless field dimensions have been verified and shop drawings approved.
- 2. The Contractor shall submit complete Sign Message Schedule for all Sign Types.

C. Samples

Sample Submittals are in addition to quantities shown in sign message schedule. They are record project samples to be kept on file at the Architect's office.

- 1. For each typestyle specified submit full samples of all alphabets, including numbers and punctuation, on 11" x 17" laser prints and samples of standard letter spacing and word spacing (at min. of 3/4" cap height) for approval prior to fabrication.
- 2. Submit artwork of all symbols and logos to be used on 11" x 17" laser prints for approval prior to fabrication.
- 3. Submit samples of colors on all substrates specified for each Sign Type.
- 4. Large Scale Digital Output
Submit Half Scale digital print proof of each Map location and a 12"x12" full scale section.
- 5. Submit full workmanship samples of the following:
 - 1. Finial with collar
 - 2. Directional Sign Panel with finish and graphics
 - 3. Section of Display Case for Map
 - 4. 12" x 12" full size section of map on substrate, and lamination

D. Templates

1. Provide full size templates for all messages and graphics for all Sign Types. Outline drawings of letterforms will not be accepted as templates.

1.06 REFERENCE STANDARDS

- A. The work shall conform to the codes and standards of the following agencies as further cited herein:

AA: Aluminum Association, 818 Connecticut Avenue, NW, Washington, D.C. 20006.

ADAAG: Americans with Disabilities Act Accessibility Guidelines

ANSI: American National Standards Institute

ASTM: American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103 as published in "Compilation of ASTM Standards in Building Codes"

1.07 QUALITY ASSURANCE

- A. The approved manufacturer shall have at least five years of experience in the type of work required; shall have a reputation for doing satisfactory work on time; and shall have recently successfully completed similar work.
- B. The Drawings in this Bid Package are for design intent only. The Contractor is responsible for the proper engineering of all items. The internal structure, dimensions and specifications for all items shall be indicated in the Contractor's shop drawings. Sign Contractor to engineer signs to proper level to withstand abuses of their environment.
- C. The Contractor shall inform the Architect and Owner of any product and/or material deficiencies or incompatibilities that will prevent the signs from withstanding the conditions and abuses of their environment.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store work under this Section in a manner to prevent cracking or stress of components and to prevent mechanical damage or damage by the elements.
- B. Deliver work under this Section to Site in ample time to avoid delay in job progress and at such times as to permit proper coordination of the various parts.

1.09 GUARANTEES

- A. Attention is directed to provisions of the GENERAL CONDITIONS regarding guarantees and warranties for work under this Contract.

- B. Manufacturers shall provide their standard guarantees for work under this Section. However, such guarantees shall be in addition to and not in lieu of all other liabilities which manufacturers and Contractors may have by law or by other provisions of the Contract Documents.
- C. Contractor shall guarantee all work under this Contract for a period of not less than one year during which time the Contractor shall maintain and service all signs provided under this Contract.
- D. Contractor shall provide to the Owner, in writing, specific product warranties for Digital Print Graphics.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Aluminum

1. Aluminum plate for all signs shall conform to ASTM-B209, Alloy 6061-T6 to thickness indicated on drawings.
2. Aluminum extrusions for all signs shall conform to ASTM-B221 Alloy 6061-T6 to dimensions and thickness indicated on drawings.
3. Aluminum shall be of best commercial quality and their various forms shall be straight and true. There shall be no scratches, scars, creases or buckles.
4. Where aluminum is shop fabricated, all joints, returns and the like shall be properly joined together and welded edges shall be ground smooth to proper aluminum finish.
5. Aluminum in contact with dissimilar metals shall have bituminous or other protective coating to prevent electrolytic action.

B. Stainless Steel

1. Stainless steel for all Signing shall be Type 304-18-8 alloy, bright cold-rolled stainless steel with no markings.

C. Welding

1. Welding materials and practices shall conform to the requirements of the latest edition of American Welding Society code for steel and aluminum. Shop welders shall be certified by AWS. Welding rods shall be of a composition compatible to the base metal being welded. Welding rods for structural steel shall be an E70 category. Welding of aluminum shall be the MIG process, using ER-5356 wire.
2. Fabrication shall be accomplished using the highest standards of workmanship. All pieces shall be saw cut and carefully fit together. All visible connections shall be full welded and ground flush and smooth. All visible surfaces and connections shall be without visible grounding marks, surface differentiation or variation.

D. Hardware

1. Anchor bolts shall conform to ASTM-A576 with a minimum yield strength of 50,000 PSI. Hexagonal nuts and washers shall be furnished with each bolt.
2. High strength bolts (other than anchor bolts), nuts and washers shall conform to ASTM-A325.

3. All hardware shall be galvanized per ASTM-A153 requirements.

Where mechanical fasteners and hardware are required, they shall be of adequate thickness, length and construction to properly secure the sign unit. Any visible portion of any mounting device shall be finished to match adjacent sign surface, unless otherwise specified.

Metal fasteners and hardware in contact with dissimilar metals shall have a protective coating or neoprene shields to prevent electrolytic action.

Lock cylinders shall be interchangeable core pin tumblers with nickel silver keys; all locks to be keyed alike. Locks to be flush with adjacent cabinetry as indicated in the Drawings. Painted finish to match color and finish of adjacent cabinetry. Provide five sets of keys.

E. Glass

1. Tempered glass shall be clear float glass conforming to Federal Specification DD-G-001403, Kind FT, Condition A, Type 1, Class as required, Quality 3. All tempered glass shall be stress tested in the factory prior to installation. Tempering shall be by Temp-Glass Co., Perrysburg, Ohio, or approved equal.

F. Reflective Sheeting

1. Reflective Sheeting shall conform to Federal Highway Administration Standard FP-79 Table IV [engineer grade] as manufactured by 3M Co., St. Paul, MN, or approved equal.
2. Sheeting shall have pressure sensitive adhesive backing and shall be applied without necessity of additional adhesive coats on either the backing or application surface. Surface shall be degreased and etched according to manufacturer's specification prior to application.

G. Large Format Digital Graphics

1. Output
 - a. Exterior Grade Inkjet
Exterior grade inkjet directly from a digital file. Minimum output resolution shall be 720 dpi. Inks and solvents shall be durable for outdoor use and provide a minimum of 5 years colorfastness without the use of protective coatings or laminates.

H. Custom Directory Case

1. Case shall be complete with frame, glass door, and all accessories and appurtenances required for complete installation. Door shall be 3/16" clear tempered glass with custom frame all sides and shall be provided with a lock. Locking devices shall be tumbler type and keyed alike. Each door shall have a continuous hinge along the left hand side of the door.
2. Provide (5) sets of keys for locking device.

I. Masking and Spraying

1. All masking shall be executed with pre-spaced vinyl legends prepared from typesetter's reproductions of the copy specified. Typesetter's reproductions shall be no smaller than 50% of the actual size specified. Graphic mask shall be assembled on sign panel or wall in a professional manner prior to spraying. No hand-cut masks shall be used.
2. Masking and spraying shall be done carefully so as not to leave bleeding or rough edges at painted surfaces. All edges and corners of the finished graphics shall be true and clean. Graphics with rounded positive or negative corners will not be accepted.
3. Spray guns used for artwork shall be airless type as approved. All graphic work shall receive at least two coats of paint.

J. Silk Screening

1. Screen printed text and symbols shall utilize photographically prepared screens and shall be printed in accordance with accepted industry standards. No hand-cut screens shall be accepted. All screen-printing shall be executed in such a manner that all edges and corners of letterforms are true and clean. Letterforms, color areas, or lines with rounded positive or negative corners, built-up edges, bleeding, spattering, etc. will not be accepted. All photoscreens shall be prepared from typesetter's reproduction of the text specified, or camera ready artwork. All artwork and typesetting shall be no less than 50% of actual specified size. All inks shall be applied evenly without show through, pinholes, scratches, orange peeling, etc. Back up with white to prevent show through if necessary.
2. All silk screening processes shall be approved by the Designer prior to fabrication.

K. Typeface

1. All copy shall be in the typefaces: Adobe Garamond - Regular, Semibold, Small Caps and Oldstyle Figures (ref font manufacturer) to match the letterforms shown in the Detail Drawings.

2. All types of graphics - engraved, photo-polymer, saw-cut, vinyl, silk screened, etc. shall be made with the Adobe fonts by Adobe Inc., Mountainview, CA, specified using a PC or Mac link to the final graphic output device.
- L. Typesetting
1. All typeset messages shall be prepared on a Macintosh or IBM PC. Letterforms shall match the samples shown in the drawings. Output for photographic reproduction shall be 2400 dpi. No typesetters' proofs shall be enlarged more than three times for use as graphics.
 2. Standard letter spacing and standard word spacing shall be approved by Designer for all fonts before final manufacture.
 3. Typical type and symbol layout for each sign type is indicated on the Design Drawings. All type shall be placed according to the dimensions shown on the drawings. Should any design conflict occur in the fabrication of the signs; i.e., type not fitting, it shall be brought to the attention of the Designer.

2.02 FINISHES

A. Paints

1. Paints for metal signs shall be finished with acrylic polyurethane semi-gloss enamel as manufactured by Matthews Paint Co., Wheeling, Ill., or approved equal.
2. All surfaces shall be cleaned, primed and pre-treated according to manufacturer's specifications and noted in Shop Drawings as part of the finished surface work.

2.03 CONCRETE FOOTINGS

A. Site Preparation and Restoration

1. Within existing concrete sidewalks the Contractor shall demolish an area of concrete sidewalk sufficient to accomplish required construction for concrete footings. Disturbance to existing conditions shall be held to the absolute minimum necessary to accomplish the work. Areas disturbed shall be restored and finished flush with sidewalk

B. Materials and Construction

1. Air-entrained Class D cement concrete masonry shall comply with Section 901 of the Commonwealth of Massachusetts, Department of Public Works, "Standard Specifications for Highways and Bridges," 1973 and current amendments.
2. Concrete shall have a minimum compressive strength of 3,000 psi at 28 days.

3. Installation of Class D cement concrete including formwork, finishing, protection and curing of concrete shall conform to requirements of Section 901 of the "Standard Specifications".
4. Reinforcing bars shall be deformed bars rolled from new billet steel conforming to ASTM-A615, Grade 60. Include tie wire and accessories as required.
5. Grouting called for on the drawings shall be performed with Five Star Grout as manufactured by U.S. Grout Corporation or approved equal. The grout must show no shrinkage under ASTM C-827 and CRD-C-621, and must contain no expansive cements or metallic powders such as aluminum or iron filings. Preparation of surfaces, mixing, placing and curing of grout shall be in accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.01 PREPARATION AND INSPECTION

- A. All surfaces to receive work shall be prepared and finished by the respective trades. The Sign Contractor shall notify the Designer if surfaces or openings are not satisfactory to receive this work. Commencement of work by Sign Contractor shall constitute acceptance of conditions and surfaces. Subsequent work not accepted by the Designer shall be replaced at no additional cost to the Owner.
- B. Prior to installation of all sign types each type shall be verified in field as to meet field conditions. Sign Contractor shall notify Owner if corresponding if field conditions will require modifications to sign locations.
- C. All work shall be performed in accordance with a written schedule agreed on by Owner, Sign Contractor, Designer and Sign Installer. In any case where work cannot be completed on schedule, the Contractor shall supply temporary signs at no additional expense to the Owner.
- D. All work shall be subject to inspection and approval by the Designer in the shop or field at any reasonable time. Provide at least 72 hours notice for Designer's inspection of complete fabricated signs before delivery.

3.02 WORKMANSHIP, PERFORMANCE

- A. All work shall present clean, straight sharply defined lines, free from defects impairing strength or durability, and shall be performed in a shop where the grade of work is of a quality acceptable to the Designer. All work shall be installed plumb, straight, square, level and in proper elevation plane, location, and alignment with other work. All work shall be designed for adjustment to field variations, fitted with proper joints and intersections, and adequately anchored in place. All workmanship and finishes shall be of best quality in every particular, strictly in accordance with best practice. All work shall be complete in every detail. Finish work shall be subject to approval by the Designer.

3.03 INSTALLATION/APPLICATION/ERECTION

- A. Members shall be shop-fabricated, and where practical, all work shall be delivered to the site completely assembled. All joints of such fabricated work shall be completely smooth without apparent marks showing throughout the finish. All work "broken down" shall be erected so that all parts fit accurately with hairline joints.
- B. Unless otherwise shown on the Drawings, all members shall be continuous lengths without seams. Work shall be formed to profiles indicated on the Drawings.

- C. Where material lengths require joints, all joints shall be flush. Similar materials at joints shall be either bonded or welded together, or shall be lap jointed to provide for expansion. All joints to be lightproof.
- D. Protect adjacent or adjoining surfaces and work from damage during installation in this section.
- E. Work shall be designed and anchored so that work will neither be distorted nor the fasteners overstressed from expansion and contraction of metal or other materials as applicable.

3.04 CLEANING AND PROTECTION

- A. At completion, all work shall be checked over, re-adjusted, and left in first class condition. Signs shall be cleaned with non-abrasive cleaning agents without damage to sign surfaces.
- B. Manufacturer shall provide Owner with information on cleaning and maintenance recommendations for all signs.
- C. Names, stamps and decals of manufacturers, installers or maintainers of signs shall not be visible in the finish work.

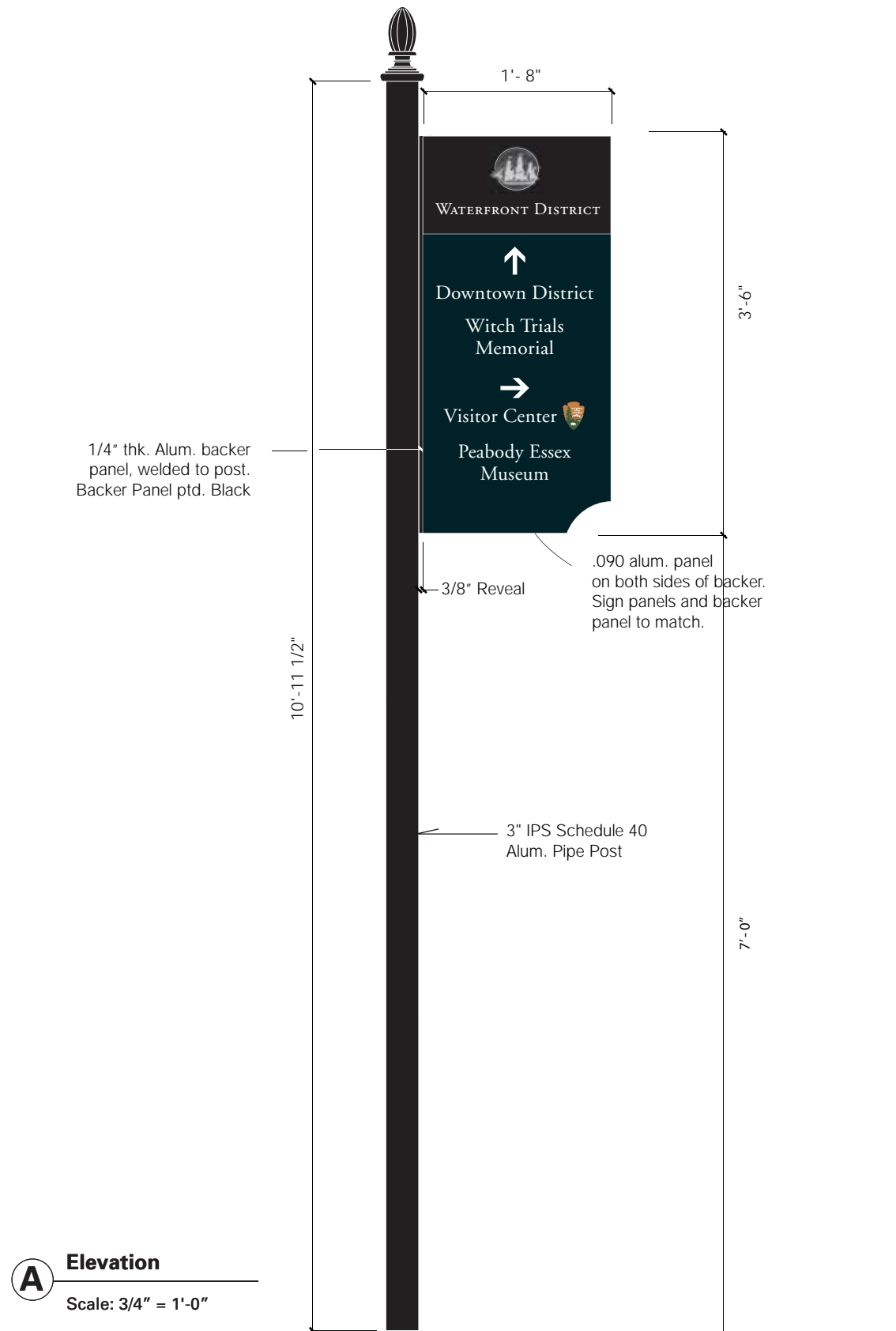
3.05 PERMITS

- A. The City will waive City permit fees for this project. No permits to erect the signs will be required and there will be no permit fees.

3.06 AS-BUILT DRAWINGS

- A. Sign Contractor to provide as-built drawings for building engineer/management use.

Volume II –
Detail Drawings

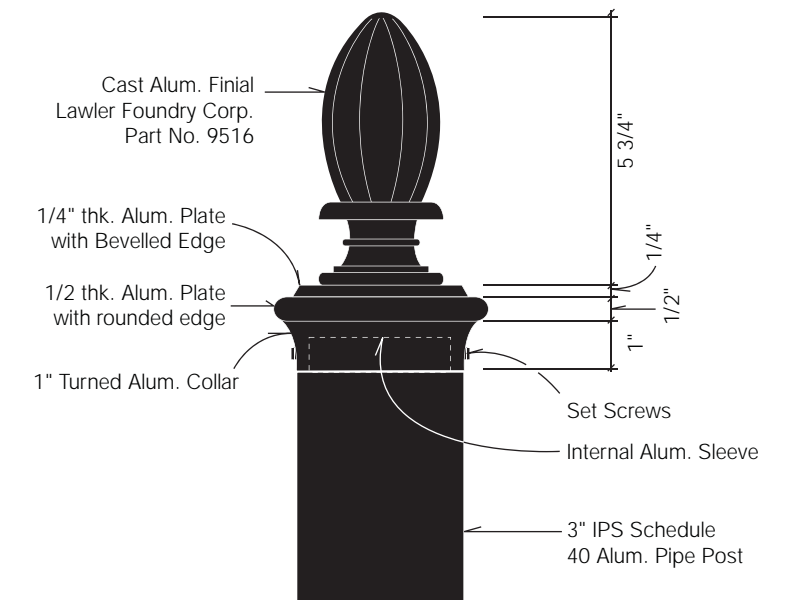
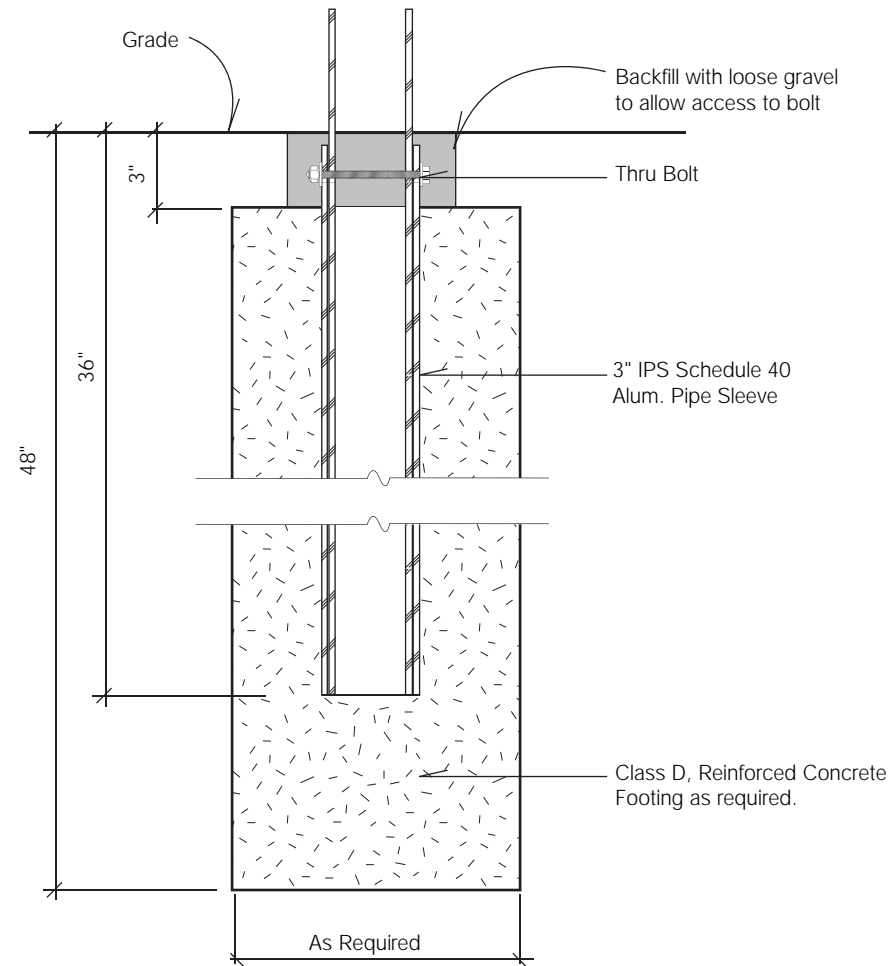
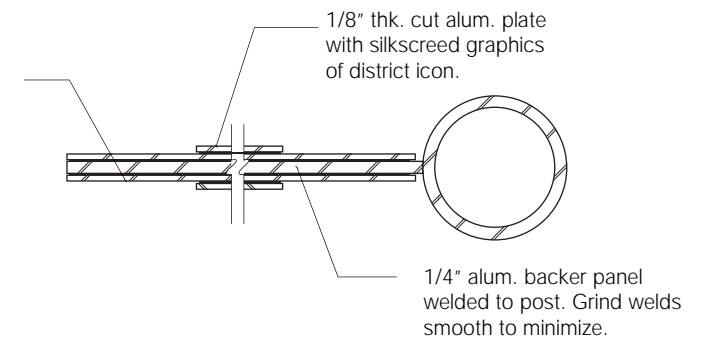


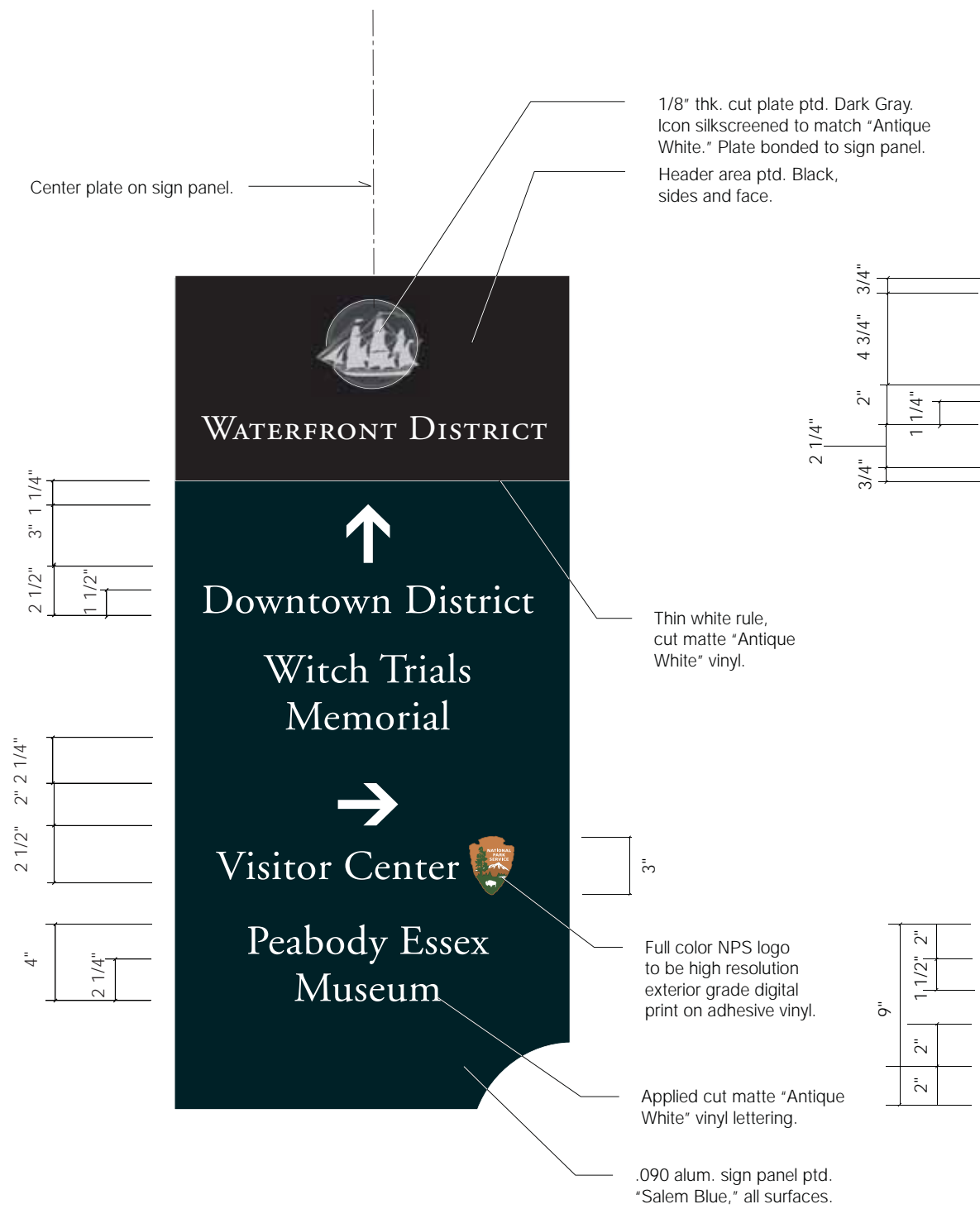
Description:
Double sided aluminum post and panel sign with painted finish, masked and sprayed lettering and arrows, with silkscreened dimensional icon.

Finish:
Mathews Acrylic Polyurethane

Colors:
Post and Backer Panel - Black
Sign Panels - Salem Blue and Black Header
Lettering and Graphics - Antique White

.090 alum, sign panel both sides, bonded to backer panel with VHB Tape & Silicone

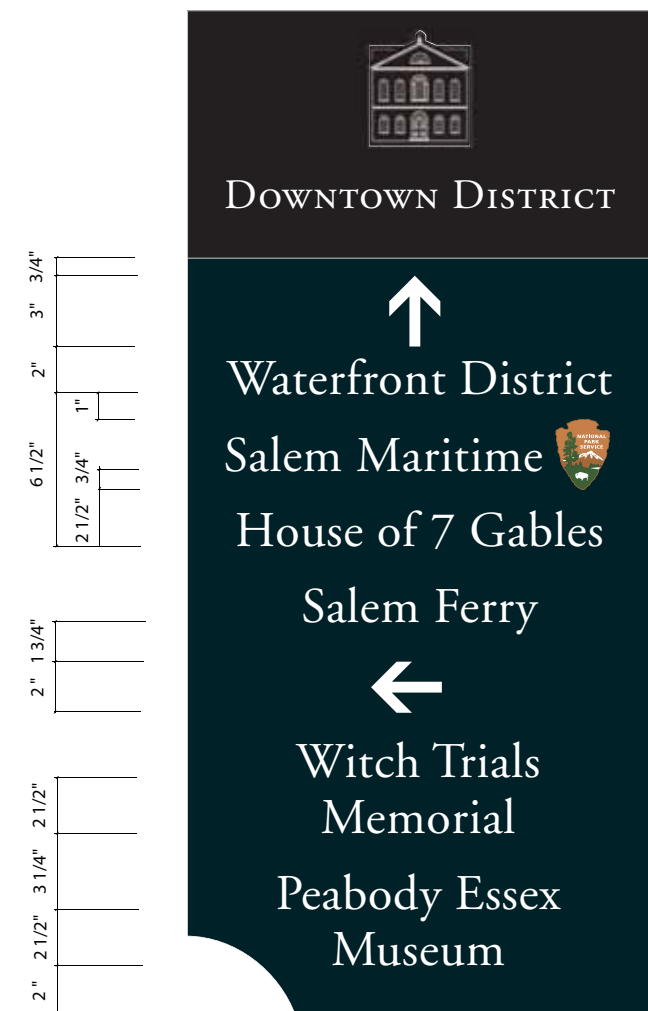




A Typical Layout 1
Scale: 1 1/2" = 1'-0"



B Typical Layout 2
Scale: 1 1/2" = 1'-0"



C Typical Layout 3
Scale: 1 1/2" = 1'-0"

Description:
Freestanding, double-sided glass enclosed display case with aluminum post supports.

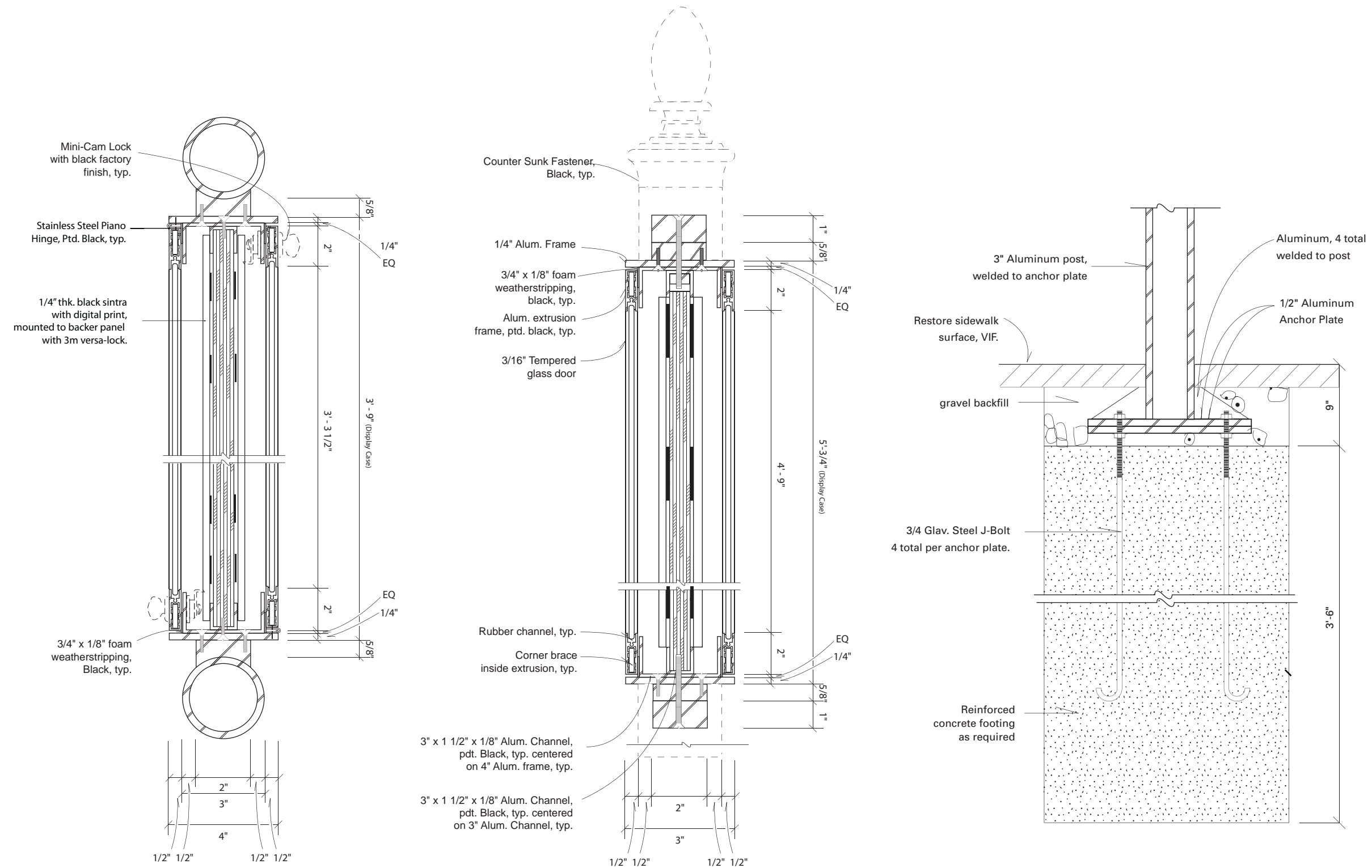
Finish:
Mathews Acrylic Polyurethane

Colors:
Display case and structure - Black

Digital Print Graphics:
720dpi Exterior Grade Digital Print with UV lamination mounted to 1/4" thk. black sintra and set into display case against backer panel.



A Elevation
Scale: 3/4" = 1'-0"



A Horizontal Section
3" = 1' - 0"

B Vertical Section
3" = 1' - 0"

C Footing Detail
1 1/2" = 1' - 0"

Volume III –
Sign Text Schedule

Sign Loc	Sign Type	Message	Notes
05.01	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Right Arrow) McIntire Historic District (Left Arrow) Peabody Essex Museum Visitor Center (arrowhead) Waterfront District	Refer to Typical Layout 1
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) MBTA Train Station (Right Arrow) Peabody Essex Museum Visitor Center (arrowhead) (Left Arrow) McIntire Historic District	Refer to Typical Layout 1

Sign Loc	Sign Type	Message	Notes
05.02	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) Peabody Essex Museum Visitor Center (arrowhead) (Left Arrow) McIntire Historic District (Right Arrow) Waterfront District	Refer to Typical Layout 1
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Right Arrow) McIntire Historic District (Left Arrow) Waterfront District Salem Maritime (arrowhead) House of 7 Gables (Rule) Restaurants & Shops (Left Arrow)	Refer to Typical Layout 2

Sign Loc	Sign Type	Message	Notes
05.09	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) McIntire Historic District (Right Arrow) Witch Trials Memorial Peabody Essex Museum	Refer to Typical Layout 1
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) Waterfront District Salem Maritime (arrowhead) House of 7 Gables Salem Ferry (Left Arrow) Witch Trials Memorial Peabody Essex Museum	Refer to Typical Layout 3

Sign Loc	Sign Type	Message	Notes
05.10	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Left Arrow) Visitor Center (arrowhead) Peabody Essex Museum McIntire Historic District (Rule) Restaurants & Shops (Left Arrow)	Refer to Typical Layout 2
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) Waterfront District Salem Maritime (arrowhead) House of 7 Gables Salem Ferry (Right Arrow) Visitor Center (arrowhead) Peabody Essex Museum	Refer to Typical Layout 3

Sign Loc	Sign Type	Message	Notes
05.12	05	[Side A] Waterfront District Icon WATERFRONT DISTRICT (Up Arrow) Salem Maritime (arrowhead) Tall Ship <i>Friendship</i> House of the Seven Gables Salem Ferry (Left Arrow) Visitor Center (arrowhead) Salem Common	Refer to Typical Layout 3
		[Side B] (Waterfront District Icon) WATERFRONT DISTRICT (Up Arrow) Downtown District Witch Trials Memorial (Right Arrow) Visitor Center (arrowhead) Peabody Essex Museum	Refer to Typical Layout 1

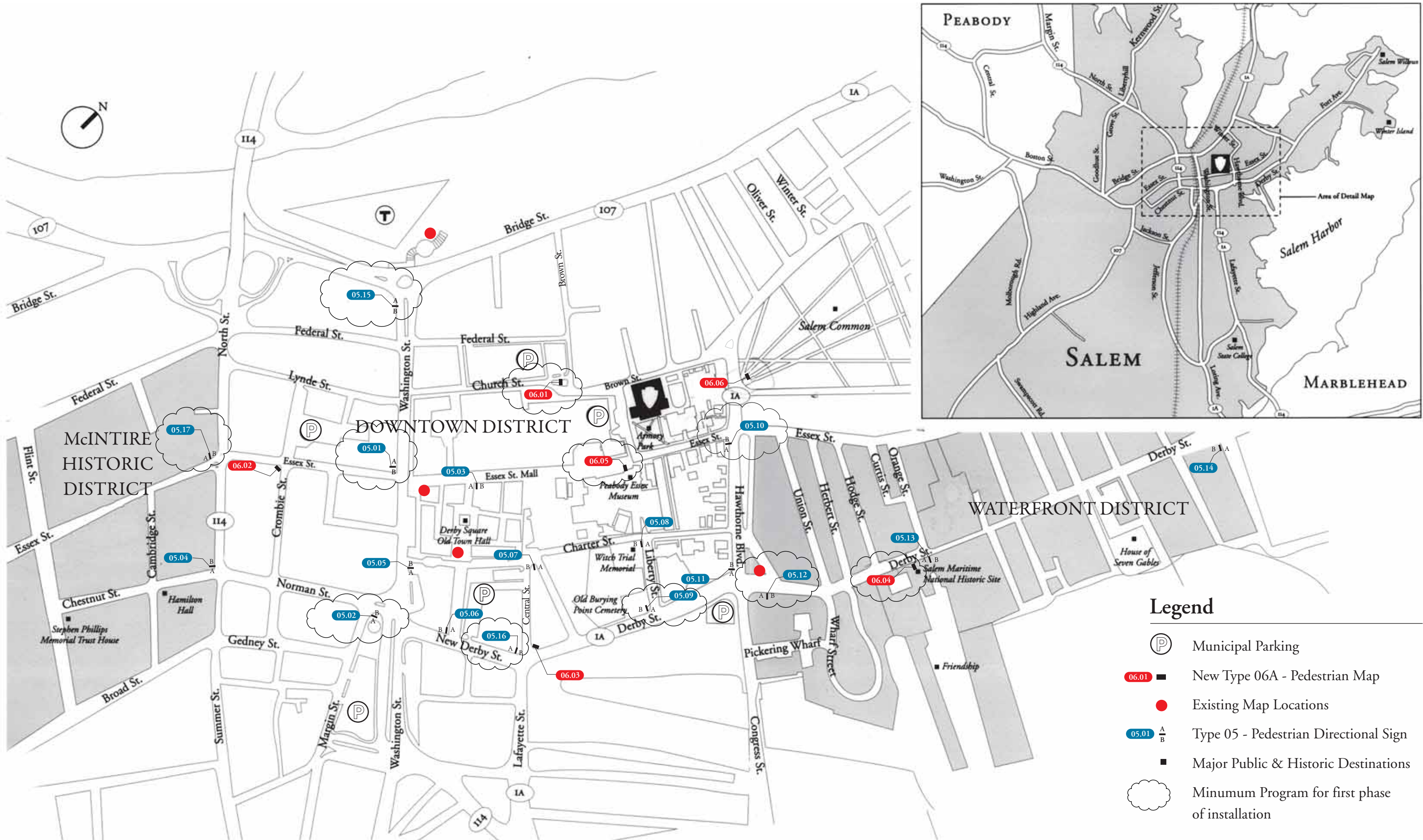
Sign Loc	Sign Type	Message	Notes
05.15	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) Peabody Essex Museum Visitor Center (arrowhead) McIntire Historic District Waterfront District (Rule) Restaurants & Shops (Up Arrow)	Refer to Typical Layout 2
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) MBTA Train Station <i>Thank you for</i> <i>visiting Salem</i>	Refer to Typical Layout 1

Sign Loc	Sign Type	Message	Notes
05.16	05	[Side A] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) Waterfront District Salem Maritime (arrowhead) House of the Seven Gables Salem Ferry (Left Arrow) Visitor Center (arrowhead)	Refer to Typical Layout 1
		[Side B] (Downtown District Icon) DOWNTOWN DISTRICT (Up Arrow) McIntire Historic District (Right Arrow) Visitor Center (arrowhead) Peabody Essex Museum	Refer to Typical Layout 1

Sign Loc	Sign Type	Message	Notes
05.17	05	[Side A] (McIntire District Icon) McINTIRE HISTORIC DISTRICT (Up Arrow) Downtown District Waterfront District Peabody Essex Museum Visitor Center (arrowhead) (Rule) Restaurants & Shops (Up Arrow)	Refer to Typical Layout 1
		[Side B] (McIntire District Icon) McINTIRE HISTORIC DISTRICT (Up Arrow) Salem Public Library (Left Arrow) Chestnut Street Hamilton Hall	Refer to Typical Layout 2

Sign Loc	Sign Type	Message	Notes
06.01	06A	[Map Graphic]	Church St. Lot
06.04	06A	[Map Graphic]	Salem Maritime NHS
06.05	06A	[Map Graphic]	Essex St. at PEM

Volume IV –
Sign Location Plan



- ### Legend
- Municipal Parking
 - New Type 06A - Pedestrian Map
 - Existing Map Locations
 - Type 05 - Pedestrian Directional Sign
 - Major Public & Historic Destinations
 - Minimum Program for first phase of installation