Portsmouth, NH

Wayfinding and Signage System
City of Portsmouth, NH
Planning Department

100% DESIGN INTENT DRAWINGS

January 31, 2014

Rev: March 14, 2014



120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com

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SECTION 1 Sign System Standards

A Graphic Standards

Clearview Highway ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890 ''!@#\$%^

Amongst the several mechanical Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Downtown	Downtown	Downtown
acceptable	NOT acceptable	NOT acceptable
123A	123A	123A
acceptable	NOT acceptable	NOT acceptable

SPECIFICATIONS

All type shall be set exactly as specified. Substitutions will only be accepted, at the DESIGNER'S discretion, where they match the specified typeface in every detail. The FABRICATOR should be aware that different versions of typesetting equipment may not satisfactorily match specified typefaces and in such instances will not be acceptable.

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are examples of correct and incorrect apostrophe's for each typeface.

Clearview Highway



This apostrophe is CORRECT.

PARK'S



This apostrophe is INCORRECT.

PARK'S

NOTES

This typeface is the primary typeface for most of the vehicular signage.

NVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
BCONSULTANT		SHEET TITLE
TE 11/18/2013	DRAWN BY: LH, PR	Typography
se drawings are meant for DESIGN INTENT ONLY are not for construction. Contractor shall verify be responsible for all dimensions and conditions e job. Contractor shall be familiar with the site conditions it presents. This office must be noti-	REVISIONS	Specifications
of any variations from the dimensions and condi- s shown on this drawing. Shop drawings and		SHEET NO.
ils must be submitted to this office for approval to proceeding with fabrication. All copy shall be fread by client and legal requirements checked		A.1

Bookman Old Style Bold ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890 ''!@#\$%^

Amongst the several mechanical Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Downtown
acceptableDowntown
NOT acceptableDowntown
NOT acceptable

123A 123A 123A NOT acceptable NOT acceptable

MRS EAVES SMALL CAPS

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 ''!@#\$%^

Amongst the several mechanical Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

DOWNTOWN acceptable DOWNTOWN NOT acceptable NOT acceptable

I23A I23A I23A NOT acceptable NOT acceptable

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Bookman Old Style Bo

This apostrophe is CORRECT.

PARK'S

This apostrophe is INCORRECT.

FIITIIRA ROOK

This apostrophe is CORRECT.

PARK'S

This apostrophe is INCORRECT.

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are example of correct and incorrect apostrophe's for each typeface.

Mrs Esuas Small Cons

9 This apostrophe is CORRECT.
PARK'S



FUTURA CONDENSED MEDIUM

This apostrophe is CORRECT.

PARK'S



NOTES

These typefaces are primary typefaces and are used within the identity system.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Typography
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Specifications
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details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked		A.2

Myriad Pro Condensed
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 "!@#\$%^

Amongst the several mechanical Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

DowntownDowntownDowntownacceptableNOT acceptable

123A 123A 123A

acceptable NOT acceptable NOT acceptable

Myriad Pro Bold Condensed ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890 "!@#\$%^

Amongst the several mechanical Arts that have engaged my attention, there is no one which I have pursued with so much steadiness and pleasure, as that of Letter Founding.

Downtown
acceptableDowntown
NOT acceptableDowntown
NOT acceptable

123A 123A 123A NOT acceptable NOT acceptable

SPECIFICATIONS

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Myriad Pro Condense

This apostrophe is CORRECT.

PARK'S

This apostrophe is INCORRECT.

Sometimes the Foot mark is mistaken for an apostrophe and an inch mark is mistaken for quotations. Below are examples of correct and incorrect apostrophe's for each typeface.

Myriad Pro Bold Condense



NOTES

by legal departmen

This typeface is a secondary typeface and is used within the identity system

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Typography
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fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
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LETTER-SPACING

Inconsistencies in Letter Spacing

Corrected Letter Spacing

TYPEFACE 1

TYPEFACE 1

Portsmouth

Portsmouth

TYPEFACE 2

TYPEFACE 2

Portsmouth

Portsmouth

TYPEFACE 3

TYPEFACE 3

Portsmouth

Portsmouth

IMPORTANT: Individual spacing of each letter needs to be evaluated. See Examples Above. Kern all Copy so that **each character is optically centered** between the center of each of the surrounding characters.

SIGN TEXT STANDARDS

COPY HEIGHT

LINE SPACING

When measuring copy height, measure only the height of the Capital letters to determine your overall copy height (shown in illustration below as "X") Some of the other letters have an extended height beyond the average height of the letters.

When measuring line spacing, always measure from the baseline of the topmost text line to the baseline of the text line below (shown as "X")



	Ej	klt	l	<u>baseline</u>
× 	Ej	klt	l	baseline

SPECIFICAT	IONS
-------------------	------

Individual spacing of each letter needs to be evaluated. All copy shall be kerned so that each character is optically centered between the center of each of the surrounding characters.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Typography
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uoris snown of unis drawing, snop drawings amb details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked		A.4

PORTSMOUTH

MARKET SQUARE

WATERFRONT

SYMBOLS















ARROWS







Up-Left Arrow



Straight Arrow



Up-Right Arrow



Right Arrow



Straight-Left Arrow



Up-Straight-Left Arrow



Up-Straight-Right Arrow



Straight-Right Arrow

SPECIFICATIONS

All artwork pictured on this page will be provided to the sign fabricator by the designer and/or client. This artwork must be used for all sign applications in this provided documentation. Do NOT substitute with any other artwork!

USE of Arrows

When multiple directions are required on a sign, the following directional hierarchy shall take precedent. See Example below. Reference Message Schedule for individual Messages.







NOTES

CLIENT / PROJECT ENVIRONMENTS & EXPERIENCES 120 North Church Street PORTSMOUTH, NH Suite 208 Wayfinding and Signage System West Chester, PA 19380 T 484.266.0648 www.merjedesign.com PROJECT NO. SHEET TITLE SUBCONSULTANT 11/18/2013 LH. PR **Project Artwork** These drawings are meant for DESIGN INTENT ONLY REVISIONS and are not for construction. Contractor shall verify and be responsible for all dimensions and condition of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-SHEET NO. fied of any variations from the dimensions and cond tions shown on this drawing. Shop drawings and details must be submitted to this office for approval **A.5** prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.

R REFLECTIVE VINYL	NAME	SPECIFICATION	APPLICABLE	PROCESS
R1	White	3M High Intensity Prismatic Reflective Sheeting 3930 Color: White	Standard for System (typ.)	Knockout White: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.
R2	Navy	3M High Intensity Prismatic Reflective Sheeting 3930 Color Match: PMS 7545	Standard for System (typ.)	Custom Color: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.
R3	Green	3M High Intensity Prismatic Reflective Sheeting 3930 Color Match: PMS 5625	Standard for System (typ.)	Custom Color: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.
R4	Teal	3M High Intensity Prismatic Reflective Sheeting 3930 Color Match: PMS 5503	Standard for System (typ.)	Custom Color: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.
R5	Orange	3M High Intensity Prismatic Reflective Sheeting 3930 Color Match: 130	Standard for System (typ.)	Custom Color: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.
R6	Royal Blue	3M High Intensity Prismatic Reflective Sheeting 3930 Color Match: 2728	Standard for System (typ.)	Custom Color: Background and Characters 3M custom inks direct to 3930 with 3M approved Clear UV/Graffiti overlaminate. *Applied according to Manufacturers Spec to aluminum sheet.

* MUST comply with MUTCD section Table 2A-3 - Minimum maintained retroreflectivity levels. Approved process: Durst RHO 161 TS printer. Sherine Industries: (604) 513-1887. NOTE: All 3M products are to be processed and applied according to 3M specifications. The seaming of material is NOT preferred. If the height of a sign panel is greater then 48 inches, the 3M 3930 material should be oriented vertically with stripes at 0 degrees, to avoid the seaming of material. If seaming is required, it should occur at the rule line or between messages.

V VINYL	NAME	SPECIFICATION	APPLICABLE	PROCESS
V1	White	3M Schotchcal Opaque Vinyl Color: 180C-10 White	Standard for System (typ.)	Surface applied.
V2	Orange	3M Schotchcal Opaque Vinyl Color: PMS 130	Standard for System (typ.)	Surface applied.
V3	Teal	3M Schotchcal Opaque Vinyl Color: PMS 5503	Standard for System (typ.)	Surface applied.
V4	Royal Blue	3M Schotchcal Opaque Vinyl Color: 2728	Standard for System (typ.)	Surface applied.

P PAINTS	NAME	SPECIFICATION	APPLICABLE	PROCESS
P1	Navy	To match PMS 7545	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P2	Green	To match PMS 5625	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
Р3	Citron	To match PMS 604	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P4	Teal	To match PMS 5503	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P5	Brown	To match PMS 412	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P6	Black Hole Metallic	To match MP19952	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P7	Black is Back	To match MP59647	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P8	Light Teal	To match PMS 624	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P9	White	To match PMS White	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P10	Orange	To match PMS 130	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P11	Royal Blue	To match PMS 2728	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P12	Light Silver Metallic	To match MP18071	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.
P13	Yellow	To match PMS 129	Standard for System (typ.)	Surface applied, exterior sign paint and protective top coat: MATTHEWS Acrylic Polyurethane with Clear Coat Satin finish.

SPECIFICATIONS

The FABRICATOR must submit three (3) identical sets of each color specified for approval prior to any painting. Sample paint swatches must be produced on .080" aluminum sheet, approximately 3" x 6", including primer and free of defects. Sample material swatches should be the same approximate size. Samples MUST have project and color specifications attached to back side.

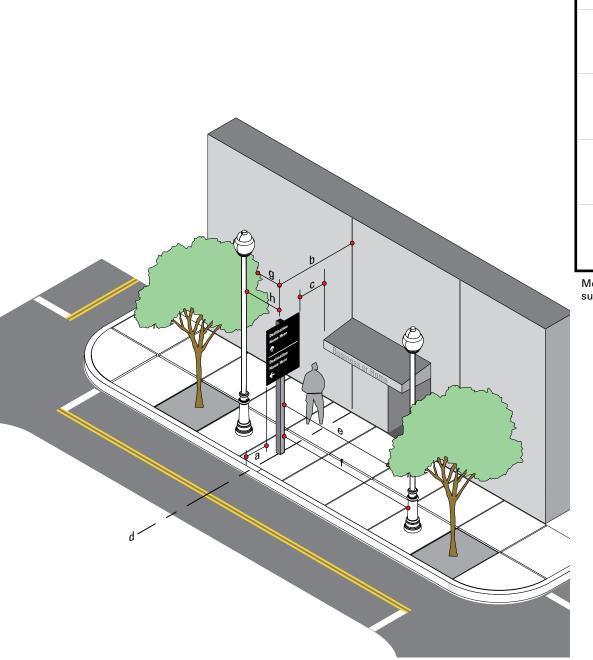
The colors must look exactly the same every time they are used so that people associate them with the Portsmouth New Hampshire Wayfinding Program. All media, vinyl, paint, and inks must be produced so that the colors match as specified on this

IOTES		
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JBCONSULTANT		SHEET TITLE
11/18/2013	DRAWN BY: LH, PR	Vinyl & Paint
ese drawings are meant for DESIGN INTENT ONLY d are not for construction. Contractor shall verify	REVISIONS	Color Chart
d be responsible for all dimensions and conditions the job. Contractor shall be familiar with the site d conditions it presents. This office must be noti-		
d of any variations from the dimensions and condi- ns shown on this drawing. Shop drawings and		SHEET NO.
tails must be submitted to this office for approval or to proceeding with fabrication. All copy shall be		A.6

prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked

by legal department.

B | Placement Guidelines



SIGN TYPE	MEASURE	PREFFERED DISTANCE N	/INIMUM DISTANCE
а	Distance from Edge of Sign Panel to Edge of Curb	2'-0" or more	1' - 0"
b	Distance from Sign Post to Nearest Obstruction	4' - 0" or more	3' - 0"
С	Distance from Edge of Sign Panel to Nearest Overhead Obst	4' - 0" or more ruction	1' - 0"
d	Sign Placement in Relation to Adjacent Building	align to building Edge	Do Not obstruct Entrance
е	Distance from Face of Sign to Nearest Tree Branch	20' - 0" or more	15' - 0"
f	Distance from Face of Sign to Nearest Utlity Pole	15' - 0" or more	10' - 0"
g	Distance from Back of Sign to Nearest Tree Branch	8' - 0" or more	3' - 0"
h	Distance from Back of Sign to Nearest Utility Pole	15' - 0" or more	10' - 0"

Measurements and Distances shown are guidelines only prevailing local and state codes shall supersede information presented.

SPECIFICATIONS

Lateral Clearance Guidelines

Within some of the Downtown areas of Portsmouth New Hampshire urban conditions and narrow sidewalks may cause deviation from the standards articulated in the previous figures. Conditions may include less lateral clearance for the 2'-0" or 5'-0" preferred distance from edge of sign panel to curb, or placement at 2'-0" or 5'-0" would create an obstacle (i.e. post positioned in middle of the side walk) or create situations of non-compliance to ADA clearances.

In these cases guidelines must be consistent with MUTCD Section 2A.19 options for urban areas.

Suggested recommendations for relocation of signs if placement is in conflict with guidelines.

OPTION A: Position the sign at a minimum of 2'-0" or 5'-0" (face of curb to edge of sign panel) as required.

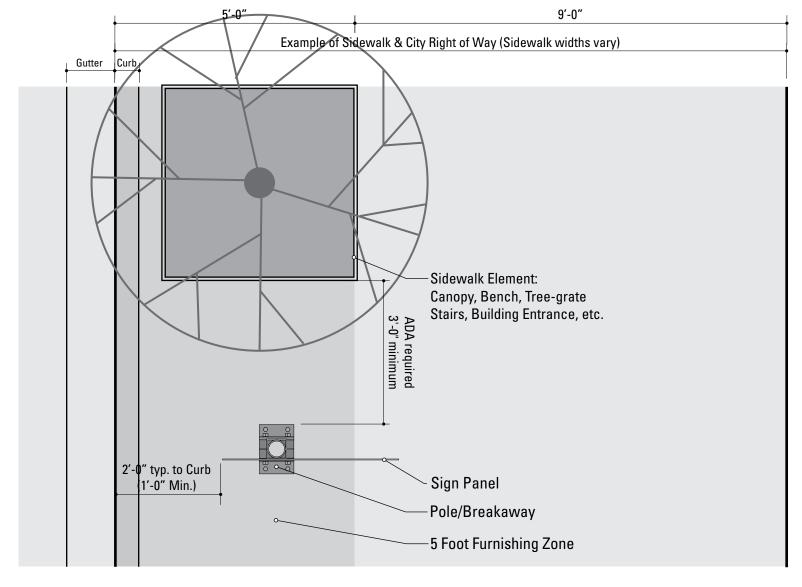
OPTION B: If the sign can be moved, without disrupting routing or sequencing, then it should be repositioned to achieve the 2'-0" or 5'-0" min.

If 2'-0" is not physically possible, then the following options should be allowed:

OPTION C: The sign set back should be position at 1'-6". If that is not possible then...

OPTION D: Utilize a minimum 1'- 0", in accordance with MUTCD, only as a final option.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Placement
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify	REVISIONS	Guidelines
and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-		
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by legal department.		



NOTE:

All locations shall be installed within the City ROW. If during the initial survey it is determined any part of the sign (pole or panel) extends outside of the City's Right of Way vertical plane and into private property, the installer must notify the city prior to fabrication/installation.

Reference View: Example - 5 foot Furnishing Zone / City Right of Way SCALE: Not To Scale

Note: Top View of VDIR.1-3 shown as example.

SPECIFICATIONS

Lateral Clearance Guidelines

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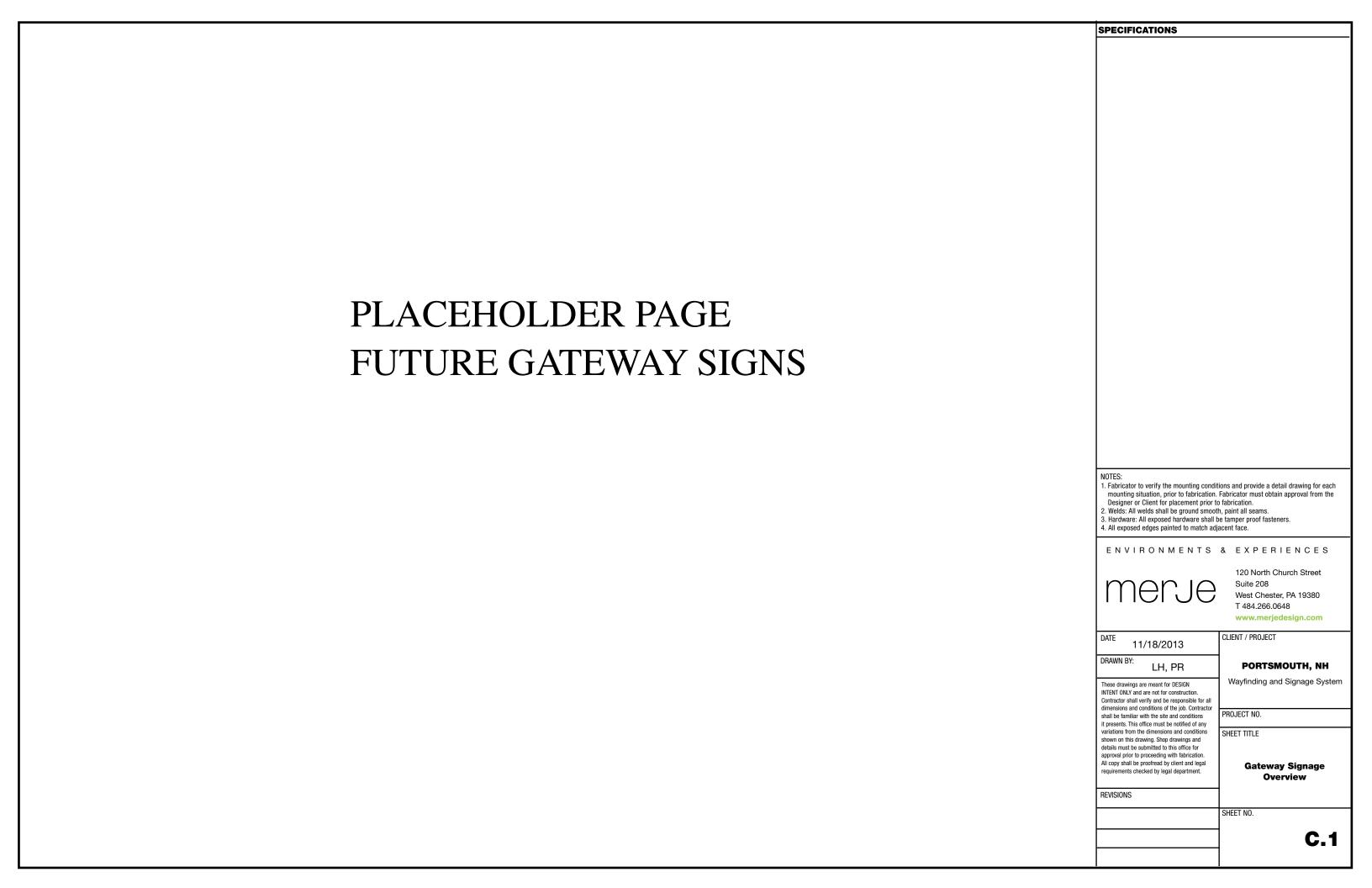
OPTION D: Utilize a minimum 1'- 0", in accordance with MUTCD, only as a final option.

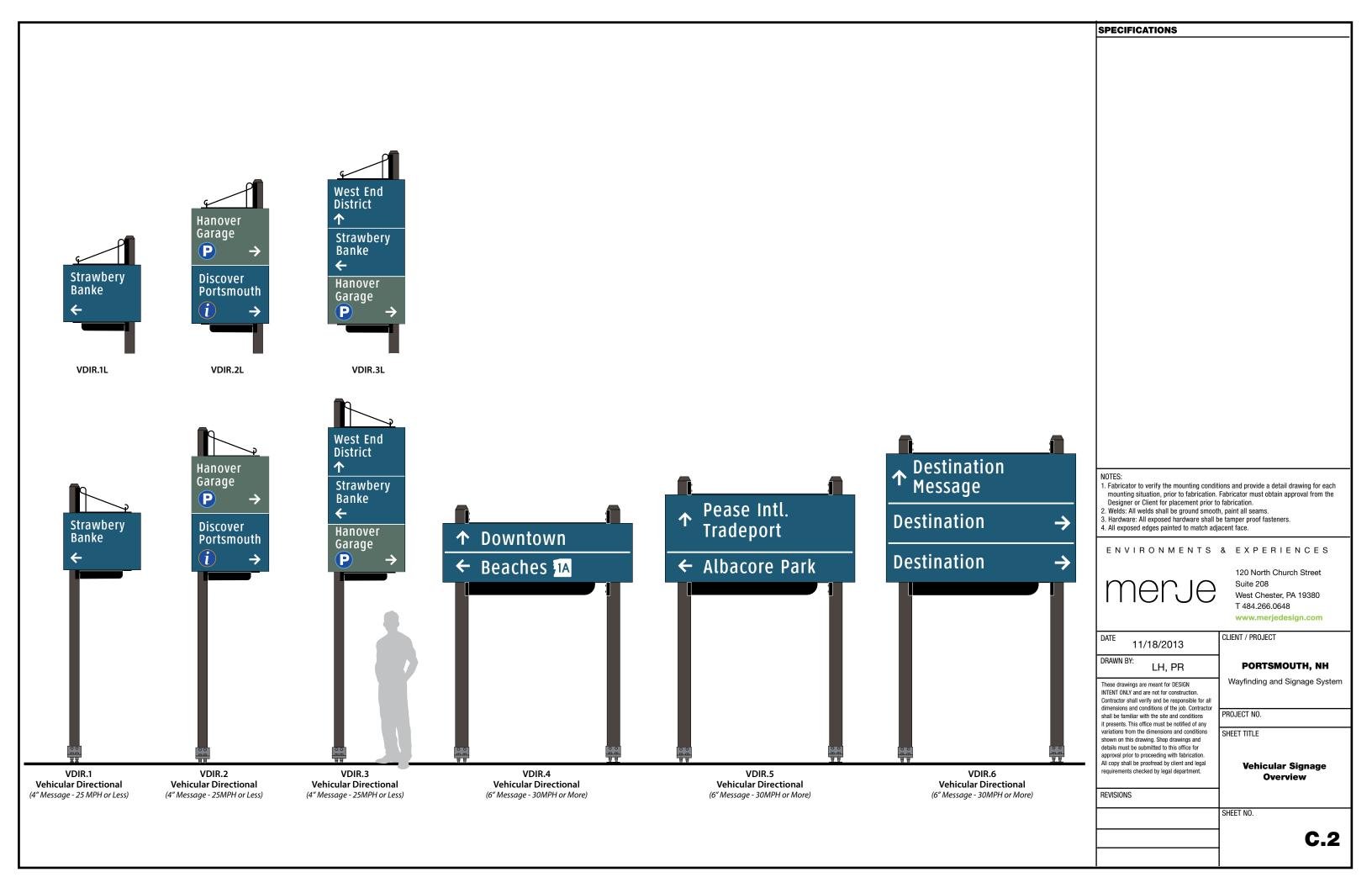
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M	^	_	EC	

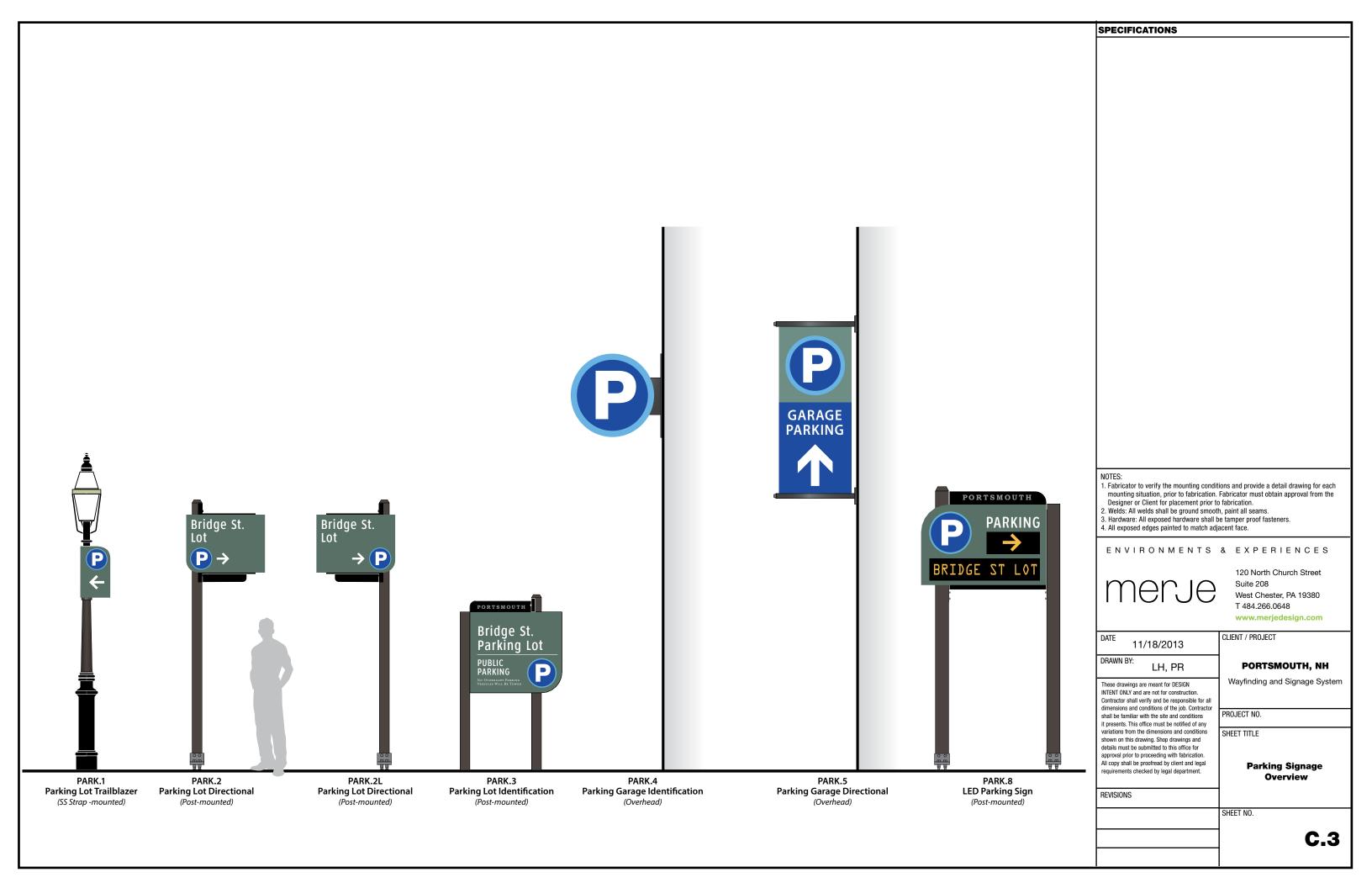
ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Placement
hese drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions if the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Guidelines
ied of any variations from the dimensions and condi- ions shown on this drawing. Shop drawings and		SHEET NO.
letails must be submitted to this office for approval rior to proceeding with fabrication. All copy shall be roofread by client and legal requirements checked we legal department		B.2

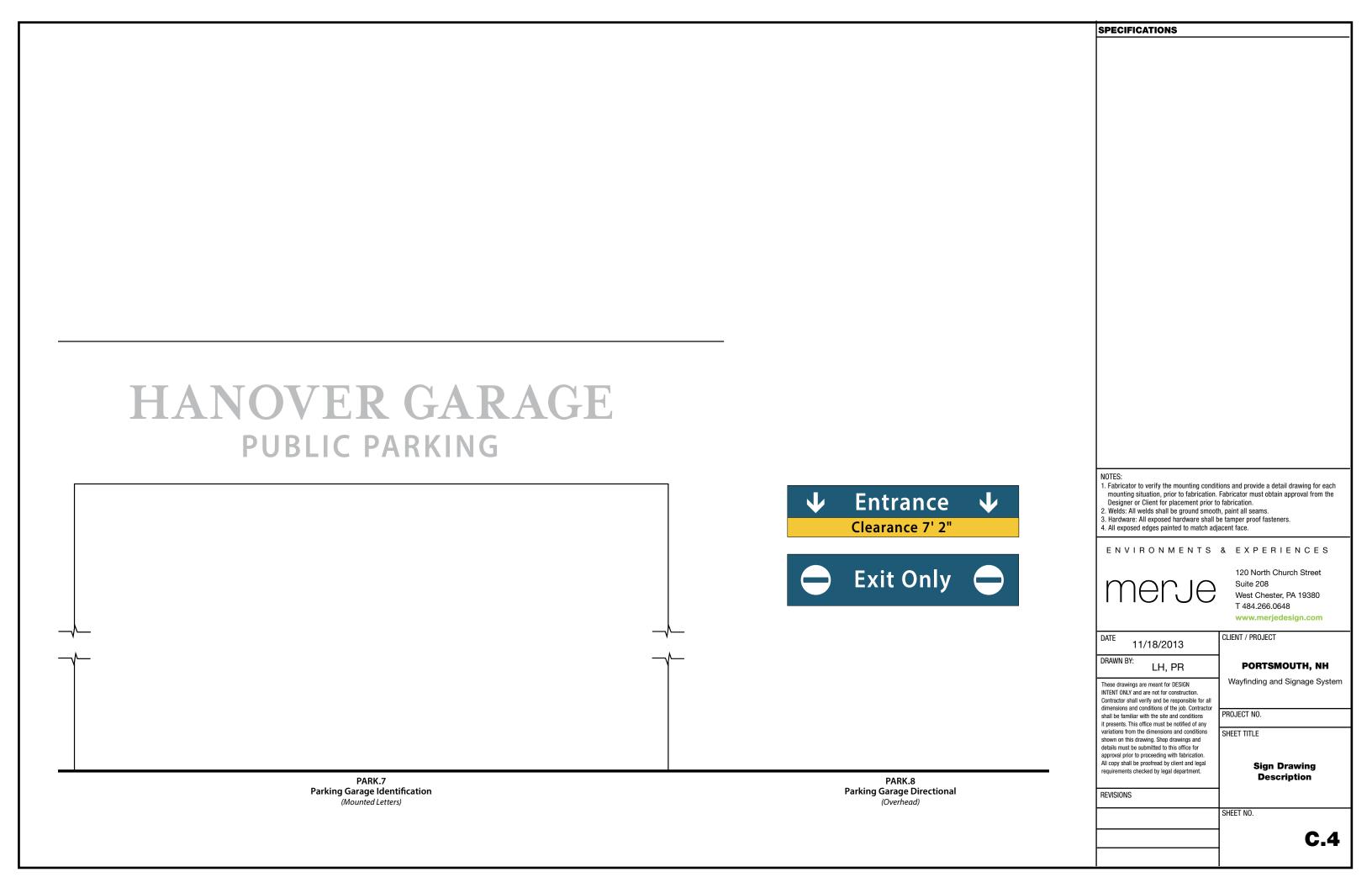
SECTION 2 | Signage Drawings

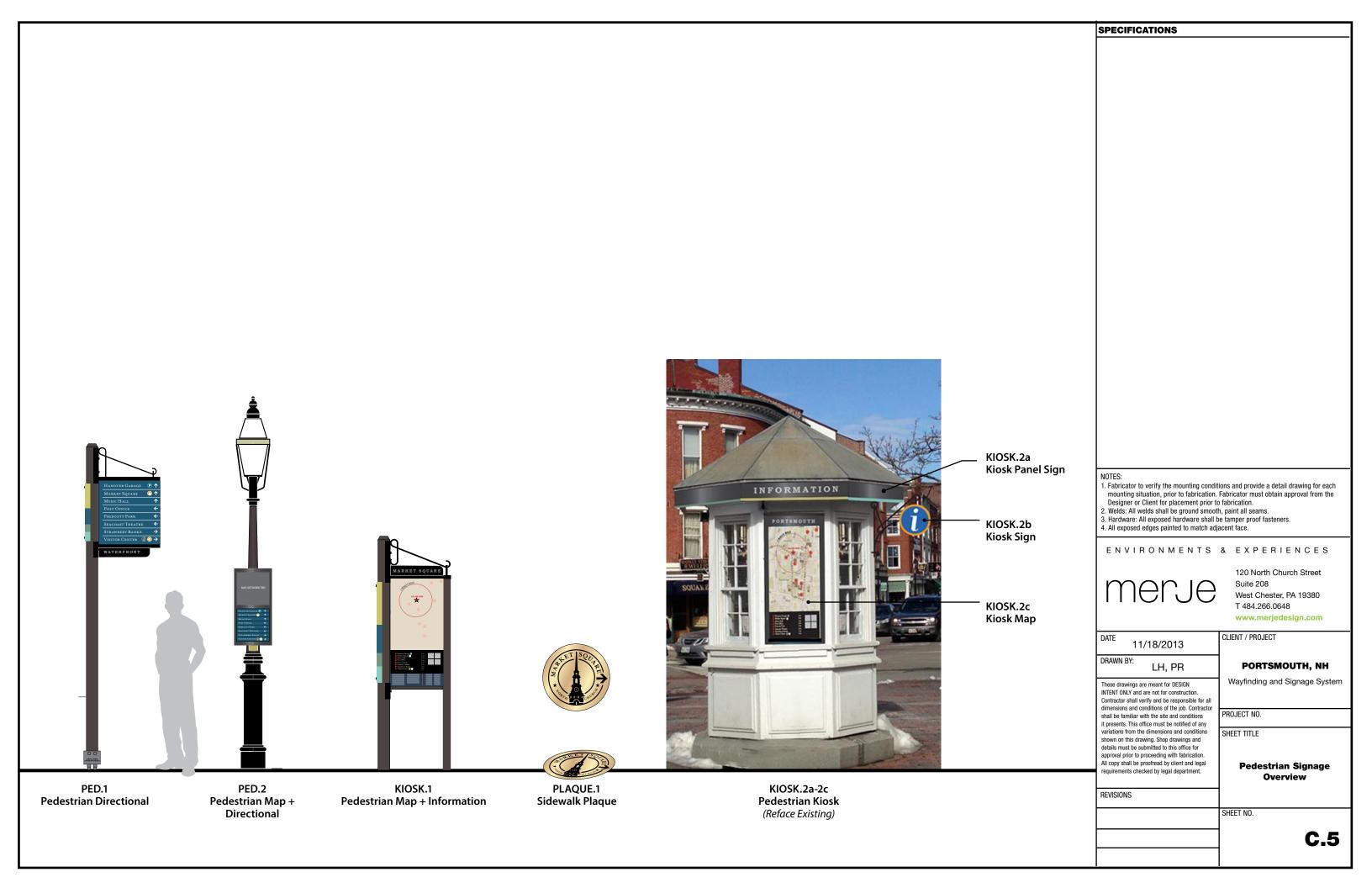
c Menu of Sign Types

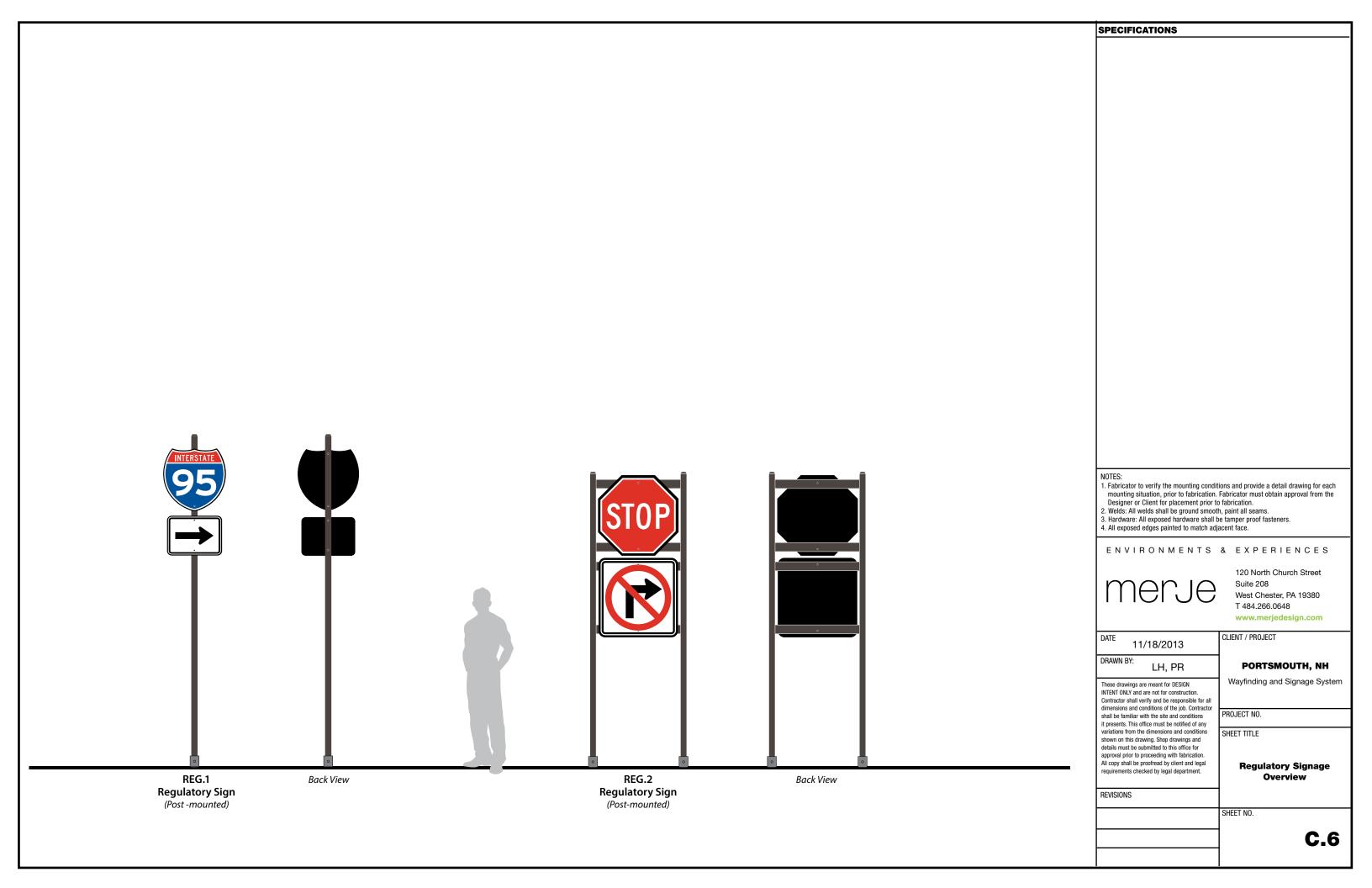


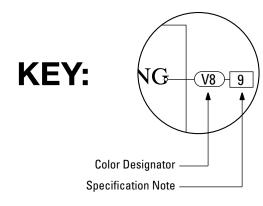










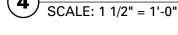


The Color Designator Chart is found in the Graphic Standards section.

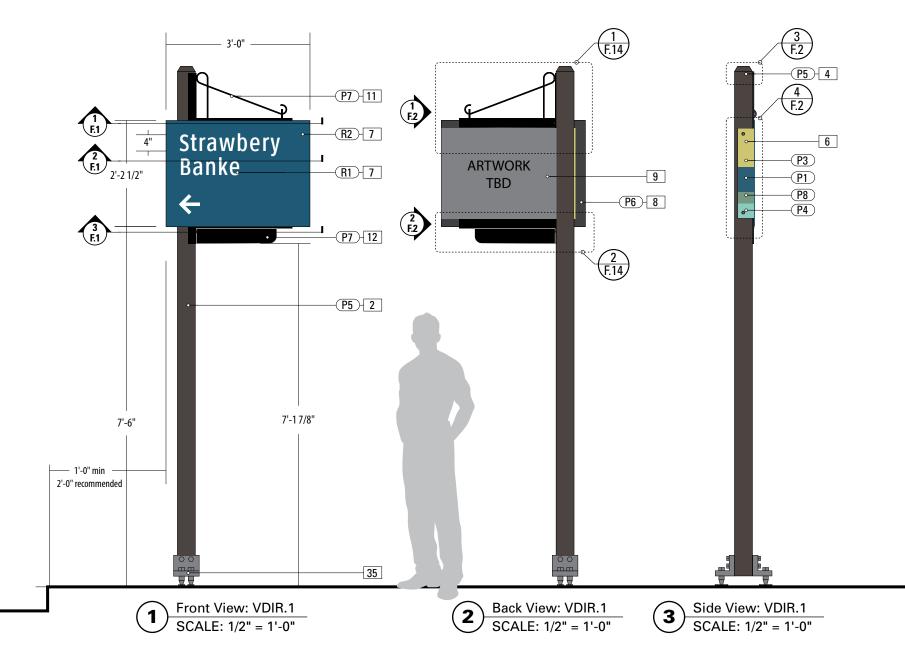
The Specification Notation is found on the same page as the drawings.

Design Intent Drawings





Top View: VDIR.1



SPECIFICATIONS SIGN TYPE: VDIR.1 FUNCTION: Vehicular Directional

2. 4.5" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 4.50" x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrolle Behausethage, with clear

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum
CORNERS: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear
coat satin finish.
FASTENER: Tamper-resistant mechanically
fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet
FABRICATION PROCESS: Router Cut
EDGES: Smooth
COLOR: custom, as noted
GRAPHIC BACKGROUND AND COPY PROCESS:
3M custom inks print direct to 3930 with
3M approved UV/Graffiti Vinyl Over-laminate.
(See Color Sheet for all color and material
specifications)
FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

9. ART PATTERN BACK PANEL

COLOR: custom
GRAPHICS APPLICATION: Applied Vinyl
SURFACE PROCESS: GRAPHIC BACKGROUND
AND COPY PROCESS: 3M custom inks print
direct to Vinyl with 3M approved UV/Graffiti Vinyl
Over-laminate.

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)
FABRICATION PROCESS: Router Cut, Rolled, Brake-formed
EDGS: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

35. BREAKAWAY FOOTER

coat satin finish.

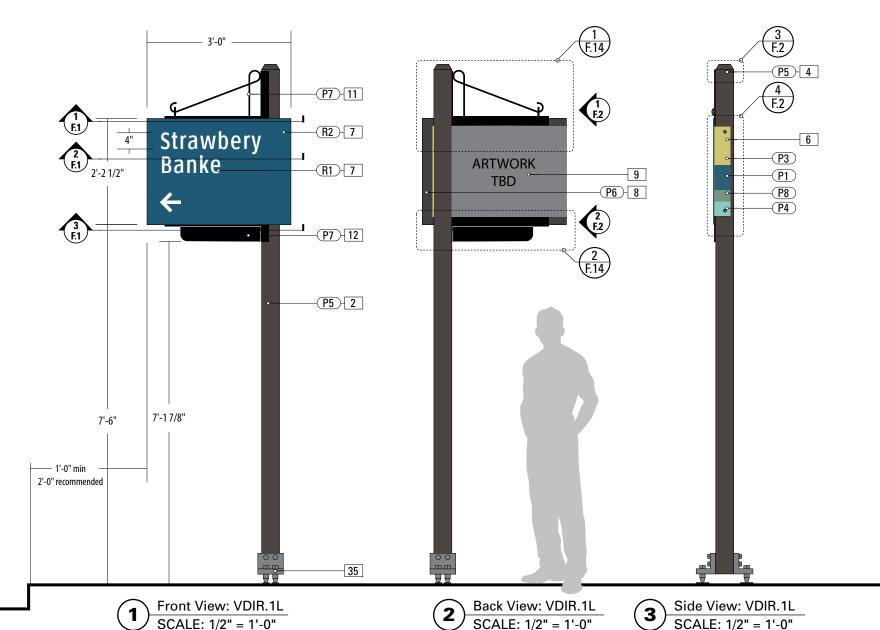
FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type VDIR.1
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Vehicular Directional
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
uois sirowii off disconting said details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.1



Top View: VDIR.1 LSCALE: 1 1/2" = 1'-0"



9. ART PATTERN BACK PANEL

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

FUNCTION: Vehicular Directional

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

with Matthews Acrylic Polyurethane, with clear

35. BREAKAWAY FOOTER

coat satin finish.

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

2. 4.5" SQUARE POST

SPECIFICATIONS

MATERIAL: Aluminum Square Tube 6061 - 4.50" x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces

with Matthews Acrylic Polyurethane, with clear

SIGN TYPE: VDIR.11

coat satin finish. FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

NOTES

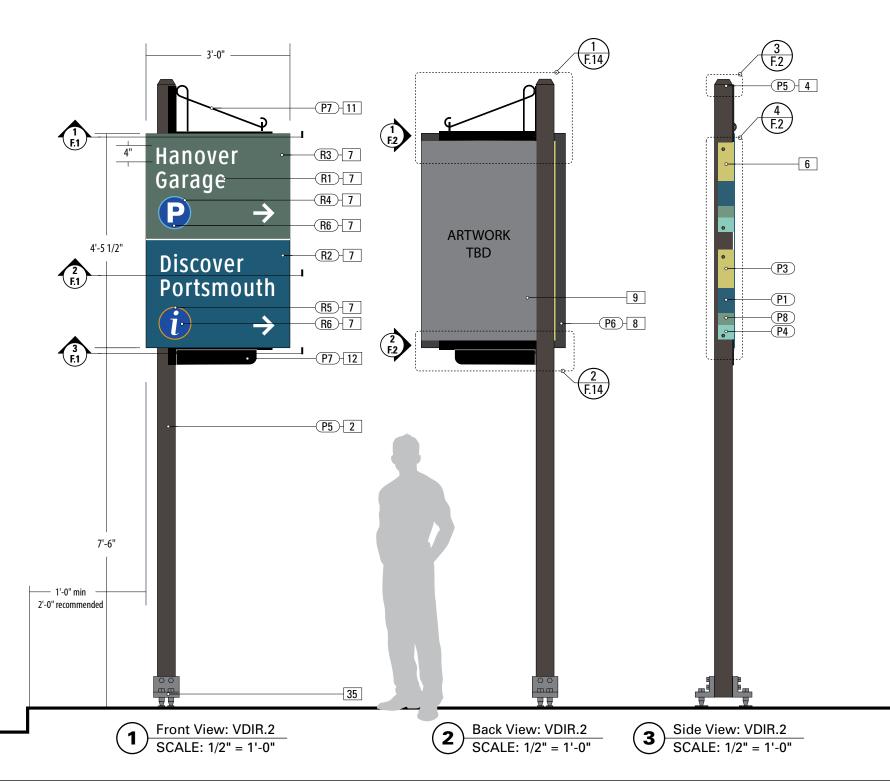
by legal department.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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ed of any variations from the dimensions and condi- ons shown on this drawing. Shop drawings and		SHEET NO.
trior to proceeding with fabrication. All copy shall be		D.2



Top View: VDIR.2 SCALE: 1 1/2" = 1'-0"



SPECIFICATIONS SIGN TYPE: VDIR.2 **FUNCTION:** Vehicular Directional

2. 4.5" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 4.50" 9. ART PATTERN BACK PANEL x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

11. DECORATIVE TOP BRACKET

wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

MATERIAL: Aluminum sheet - 1" wide x .1620"

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

35. BREAKAWAY FOOTER

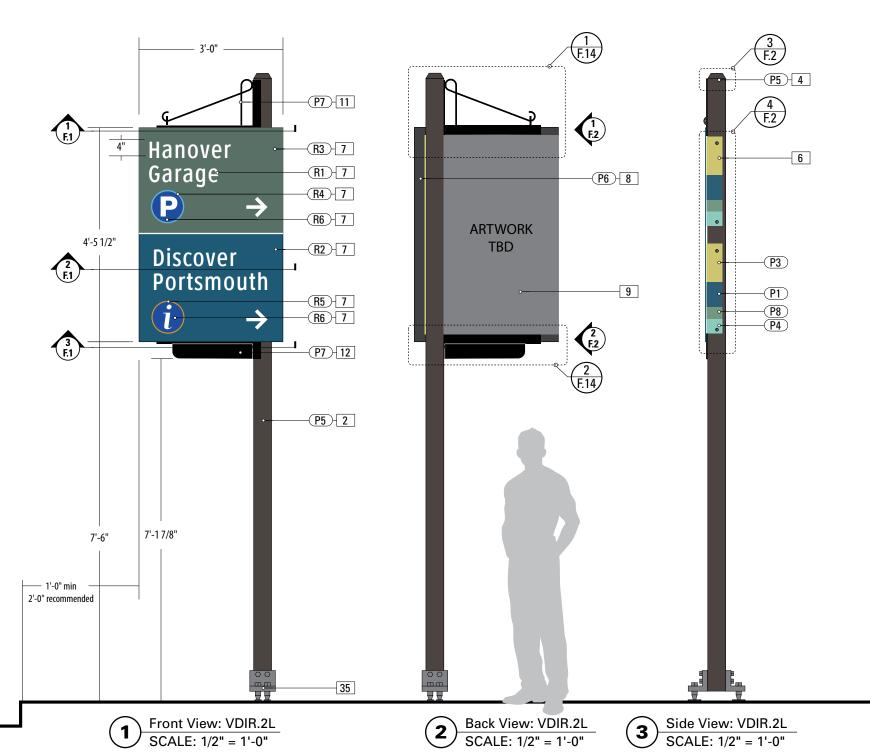
FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type VDIR.2
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fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department		D. 3



Top View: VDIR.2L SCALE: 1 1/2" = 1'-0"



SPECIFICATIONS SIGN TYPE: VDIR.2L **FUNCTION:** Vehicular Directional

2. 4.5" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 4.50" 9. ART PATTERN BACK PANEL x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

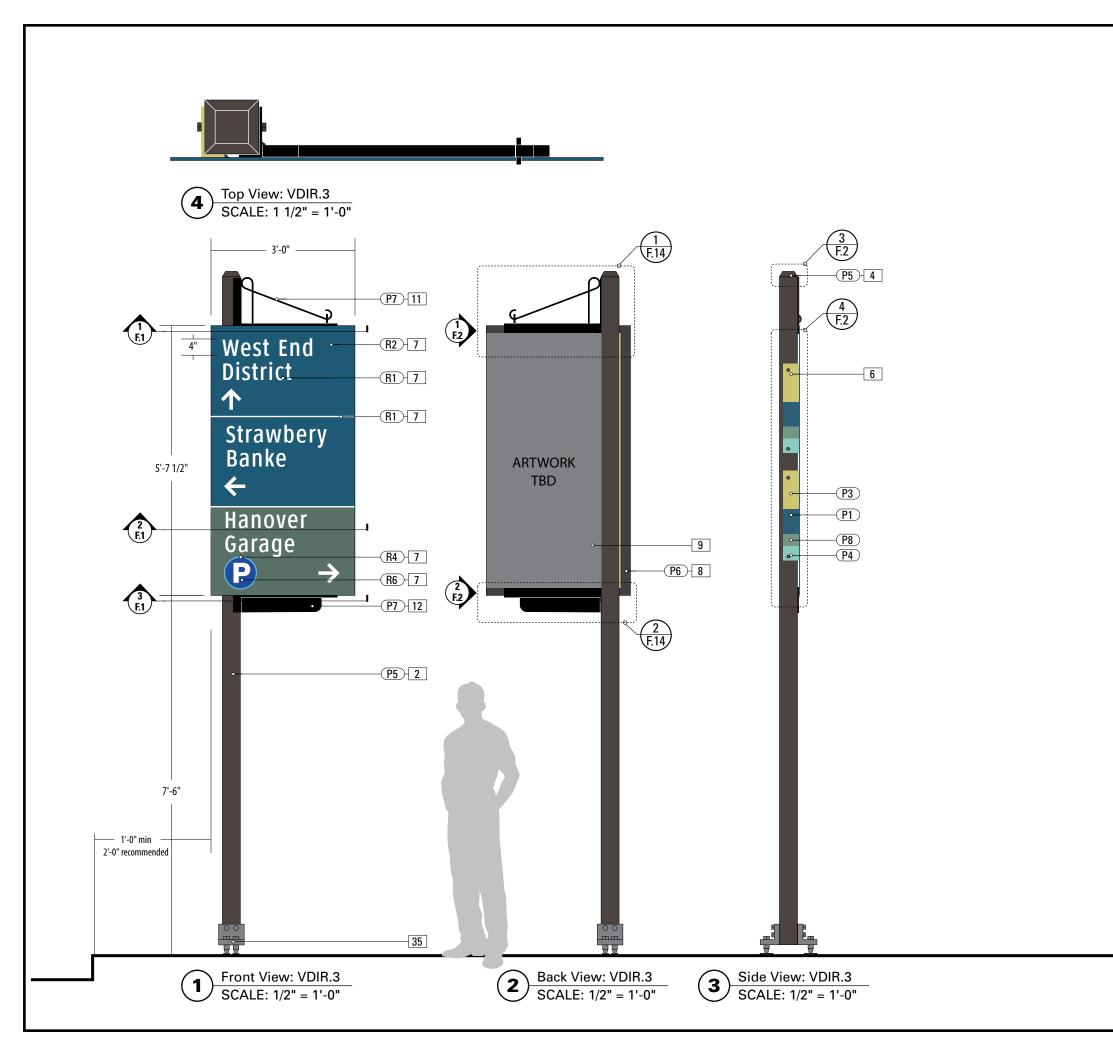
FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

35. BREAKAWAY FOOTER

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type VDIR.2L
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fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked		D.4
ny logal donartment		



SPECIFICATIONS SIGN TYPE: VDIR.3 FUNCTION: Vehicular Directional

2. 4.5" SQUARE POST MATERIAL: Aluminum Square Tube 6061 - 4.50"

x 4.50" x .250" wall
FABRICATION PROCESS: Extruded
CORNERS: Square, Smooth
COLOR: Custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear
coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum
CORNERS: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear
coat satin finish.
FASTENER: Tamper-resistant mechanically
fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet
FABRICATION PROCESS: Router Cut
EDGES: Smooth
COLOR: custom, as noted
GRAPHIC BACKGROUND AND COPY PROCESS:
3M custom inks print direct to 3930 with
3M approved UV/Graffiti Vinyl Over-laminate.
(See Color Sheet for all color and material
specifications)
FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces

coat satin finish.

9. ART PATTERN BACK PANEL

COLOR: custom
GRAPHICS APPLICATION: Applied Vinyl
SURFACE PROCESS: GRAPHIC BACKGROUND
AND COPY PROCESS: 3M custom inks print
direct to Vinyl with 3M approved UV/Graffiti Vinyl
Over-laminate.

with Matthews Acrylic Polyurethane, with clear

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)
FABRICATION PROCESS: Router Cut, Rolled, Brake-formed
EDGES: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

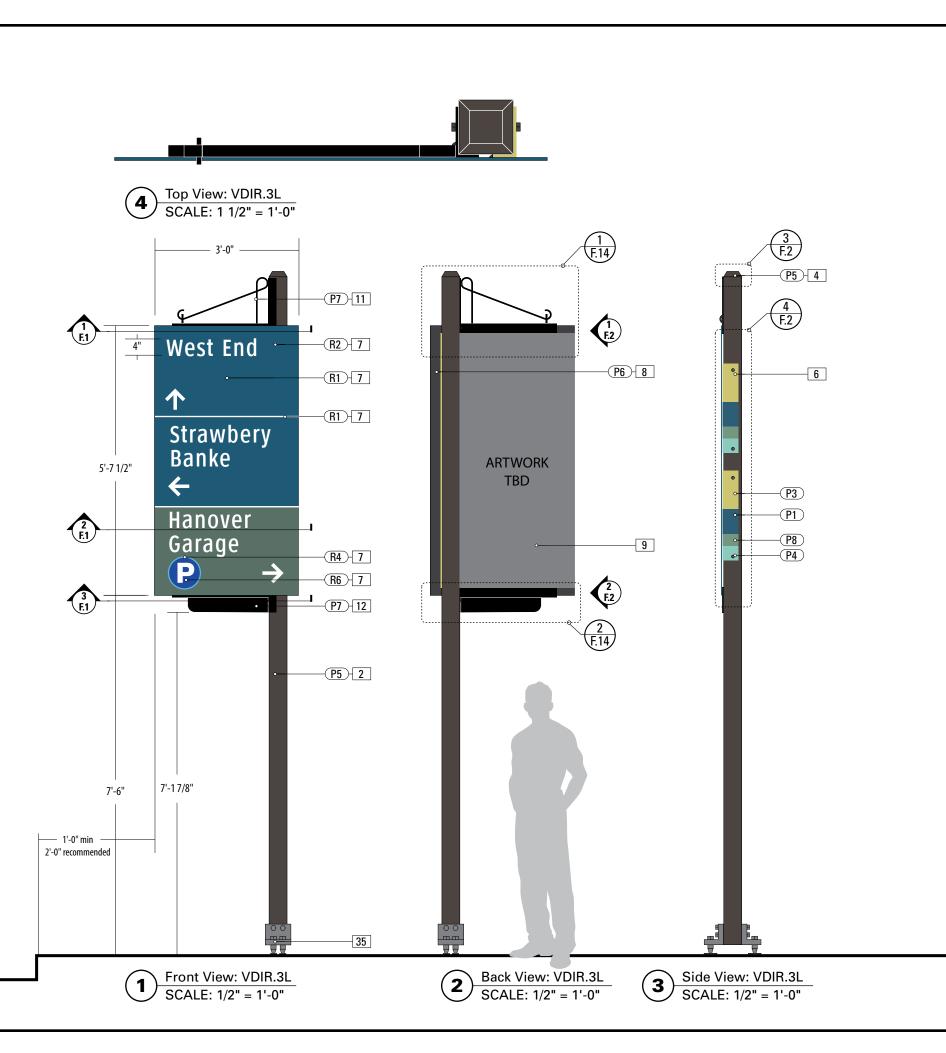
35. BREAKAWAY FOOTER

coat satin finish.

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type VDIR.3
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fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal descriptors.		D. 5



SPECIFICATIONS SIGN TYPE: VDIR.3L FUNCTION: Vehicular Directional

2. 4.5" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 4.50" x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.
FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum
CORNERS: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear
coat satin finish.
FASTENER: Tamper-resistant mechanically
fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet
FABRICATION PROCESS: Router Cut
EDGES: Smooth
COLOR: custom, as noted
GRAPHIC BACKGROUND AND COPY PROCESS:
3M custom inks print direct to 3930 with
3M approved UV/Graffiti Vinyl Over-laminate.
(See Color Sheet for all color and material
specifications)
FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces

9. ART PATTERN BACK PANEL

coat satin finish.

COLOR: custom
GRAPHICS APPLICATION: Applied Vinyl
SURFACE PROCESS: GRAPHIC BACKGROUND
AND COPY PROCESS: 3M custom inks print
direct to Vinyl with 3M approved UV/Graffiti Vinyl
Over-laminate.

with Matthews Acrylic Polyurethane, with clear

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)
FABRICATION PROCESS: Router Cut, Rolled, Brake-formed
EDGES: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

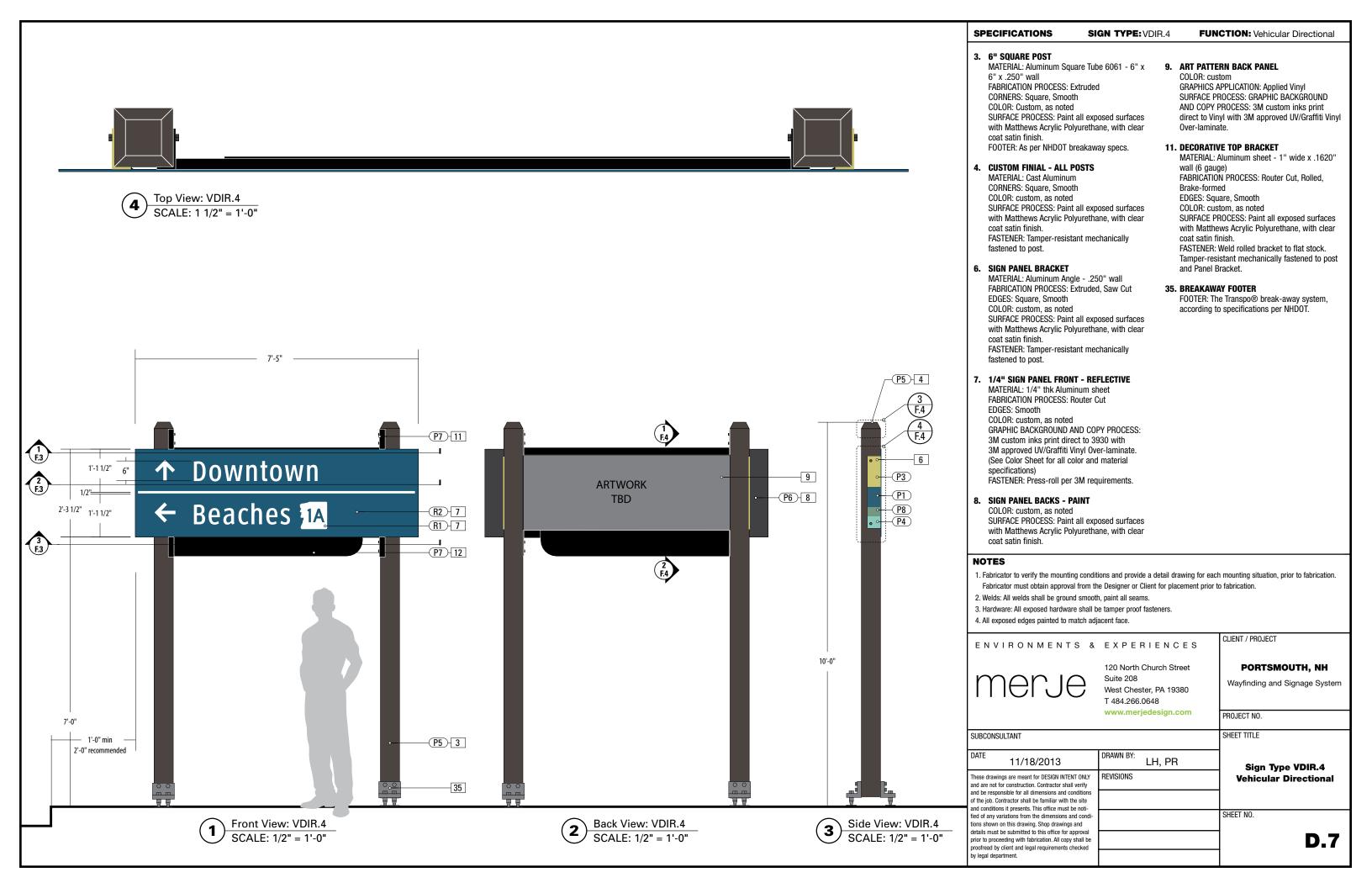
35. BREAKAWAY FOOTER

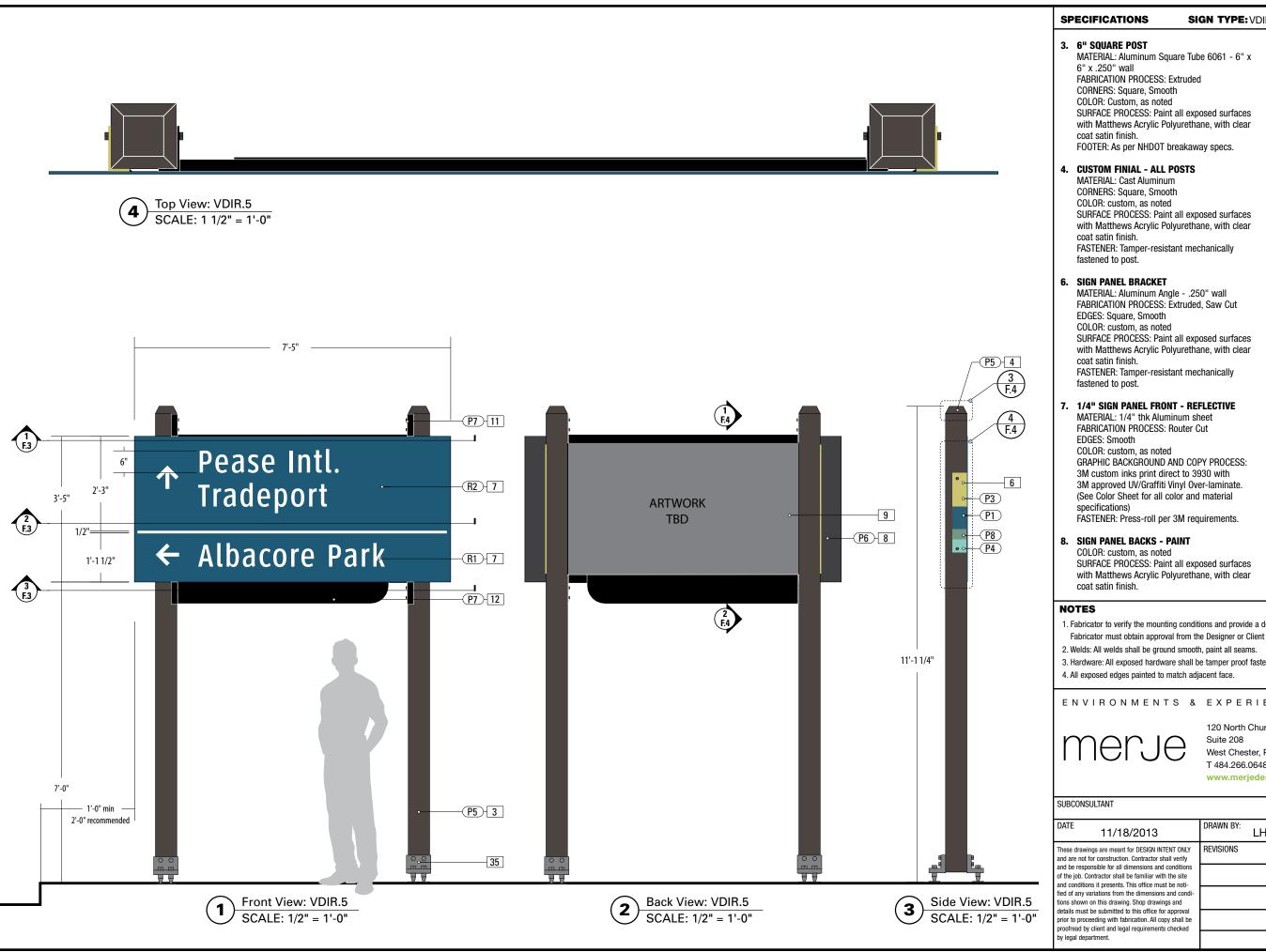
coat satin finish.

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.6





SPECIFICATIONS SIGN TYPE: VDIR.5 **FUNCTION:** Vehicular Directional

3. 6" SQUARE POST

FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

9. ART PATTERN BACK PANEL

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

with Matthews Acrylic Polyurethane, with clear

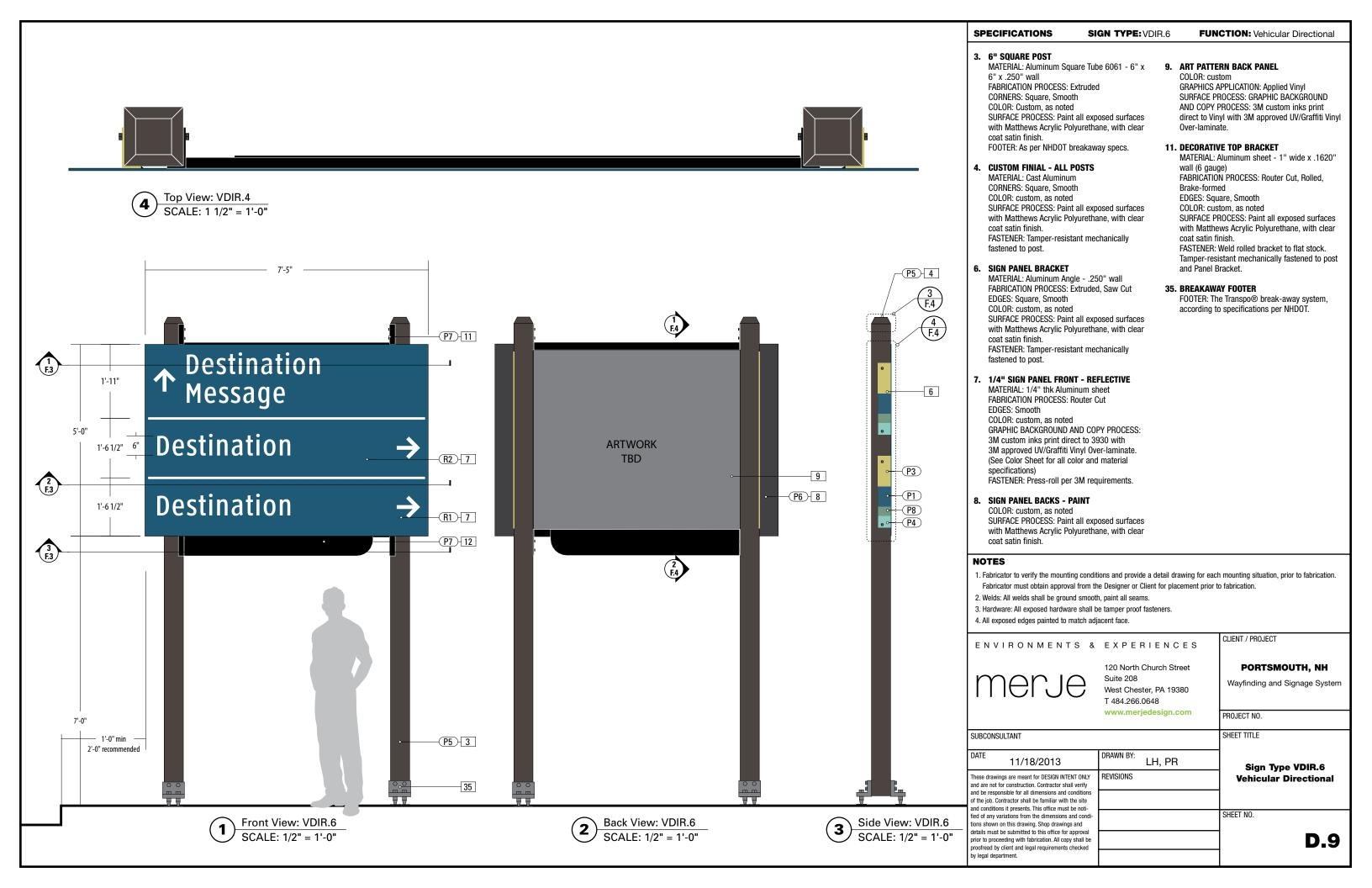
35. BREAKAWAY FOOTER

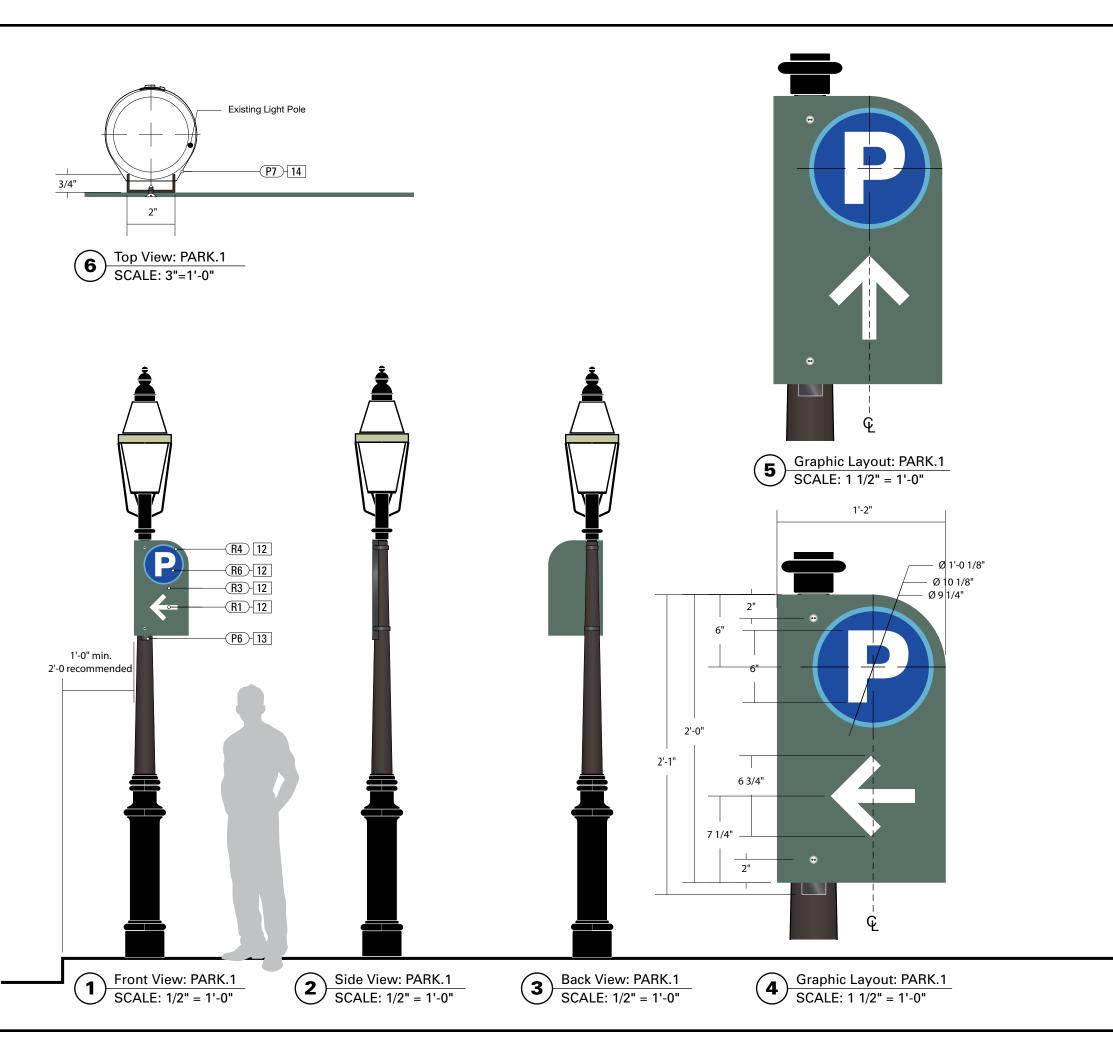
coat satin finish.

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
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DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type VDIR.5
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and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
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SPECIFICATIONS SIGN TYPE: PARK.1 **FUNCTION:** Parking Trailblazer

12. 1/8" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/8" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCE 3M custom inks print direct to 3930 with

GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications)

FASTENER: Press-roll per 3M requirements.

13. SLEEVE

MATERIAL: Aluminum U-channel (.1620" wall)
FABRICATION PROCESS: Extruded
EDGES: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear
coat satin finish.
FASTENER: Tamper-resistant mechanically
fastened to sign panel.

14. POLE STRAP ATTACHMENT

signs on poles, with the city.

PRODUCT: Band-It Band, or approved equal.

MATERIAL: Type 201 SS,
SIZE: 3/4 inch
FINISH: Finish is to match color of existing pole.
Utility pole-stainless steel
Historic black pole-black band (P900)
Cobrahead-stainless steel
FASTENER: Ultra-Lok® Free End clamps
NOTE: Sign Contractor to coordinate the
removal or movement of interfering existing

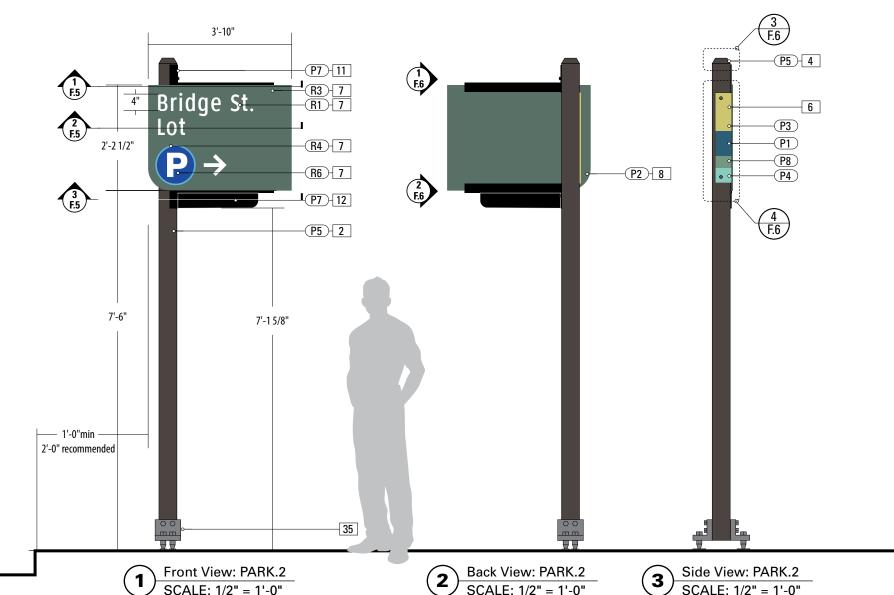
- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.1
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Parking Lot Trailblazer
and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi-		SHEET NO.
tions shown on this drawing. Shop drawings and details must be submitted to this office for approval		
prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.10





Top View: PARK.2 SCALE: 1 1/2" = 1'-0" Top View: PARK.2-DOUBLE SIDED SCALE: 1 1/2" = 1'-0"



2. 4.5" SQUARE POST

SPECIFICATIONS

MATERIAL: Aluminum Square Tube 6061 - 4.50" 9. ART PATTERN BACK PANEL x 4.50" x .250" wall FABRICATION PROCESS: Extruded

SIGN TYPE: PARK.2

CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

FUNCTION: Parking Directional

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

35. BREAKAWAY FOOTER

coat satin finish.

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.2
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Parking Lot Directional
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.11



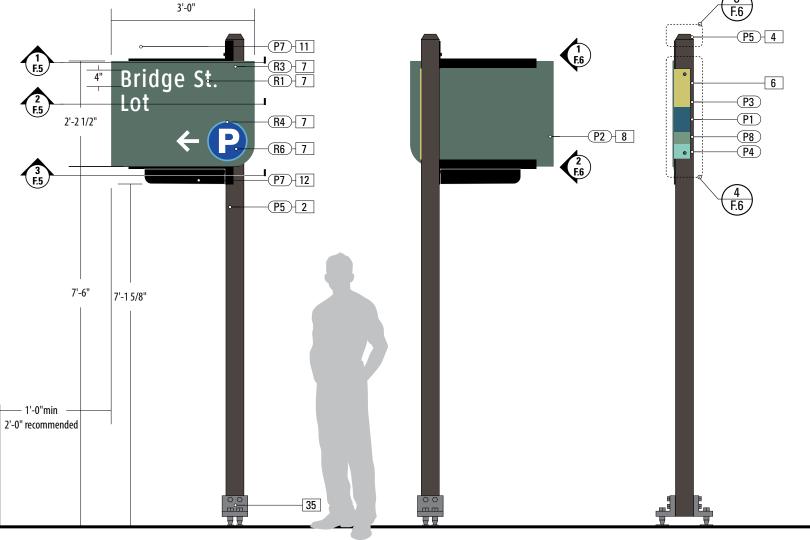


Top View: PARK.2L SCALE: 1 1/2" = 1'-0"

Front View: PARK.2L

SCALE: 1/2" = 1'-0"

Top View: PARK.2L-DOUBLE SIDED SCALE: 1 1/2" = 1'-0"



Back View: PARK.2L

SCALE: 1/2" = 1'-0"

Side View: PARK.2L SCALE: 1/2" = 1'-0"

SPECIFICATIONS SIGN TYPE: PARK.2L

2. 4.5" SQUARE POST

x 4.50" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

6. SIGN PANEL BRACKET

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FASTENER: Tamper-resistant mechanically fastened to post.

7. 1/4" SIGN PANEL FRONT - REFLECTIVE

MATERIAL: 1/4" thk Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Smooth COLOR: custom, as noted GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications) FASTENER: Press-roll per 3M requirements.

8. SIGN PANEL BACKS - PAINT

COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

MATERIAL: Aluminum Square Tube 6061 - 4.50" 9. ART PATTERN BACK PANEL

COLOR: custom GRAPHICS APPLICATION: Applied Vinyl SURFACE PROCESS: GRAPHIC BACKGROUND AND COPY PROCESS: 3M custom inks print direct to Vinyl with 3M approved UV/Graffiti Vinyl Over-laminate.

FUNCTION: Parking Directional

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge) FABRICATION PROCESS: Router Cut, Rolled, Brake-formed EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

coat satin finish. FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

35. BREAKAWAY FOOTER

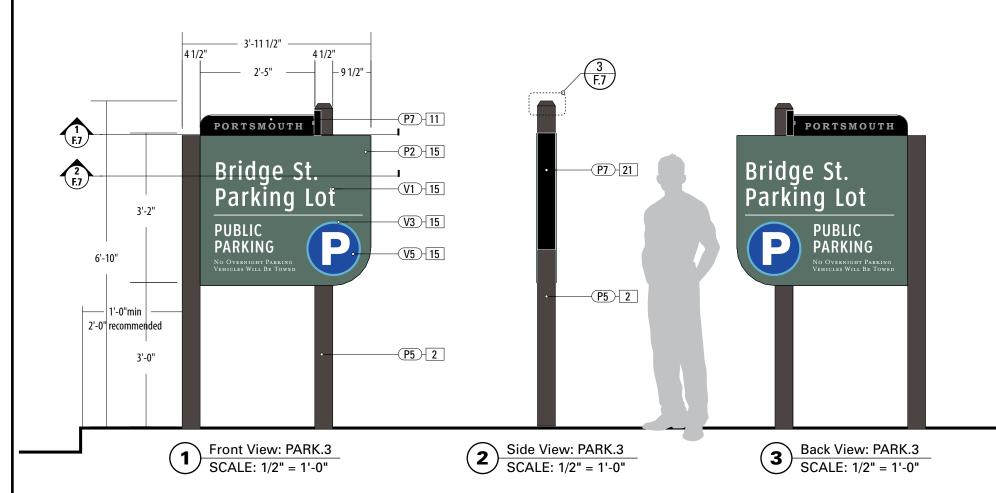
FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.2L
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it oresents. This office must be noti-	REVISIONS	Parking Directional
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
uous snown on one orawing, and prawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.12



Top View: PARK.3
SCALE: 1 1/2" = 1'-0"



SPECIFICATIONS SIGN TYPE: PARK.3 FUNCTION: Parking Lot ID

2. 4.5" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 4.50" x 4.50" x .250" wall FABRICATION PROCESS: Extruded

CORNERS: Square, Smooth
COLOR: Custom, as noted
SURFACE PROCESS: Paint all exposed surfaces

with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to post

fastened to post.

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)

FABRICATION PROCESS: Router Cut, Rolled,

Brake-formed

EDGES: Square, Smooth

COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

15. PARKING SIGN CABINET

MATERIAL: Aluminum sheet FABRICATION PROCESS: Extruded frame /

Fabricated

EDGES: Square, Smooth

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

INFO PANELS AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/

Graffiti Vinyl Over-laminate. (See Color Sheet for all color and material specifications)
FASTENER: Press-roll per 3M requirements.
TOP PANEL GRAPHICS: Screen-printed (No reflective or opaque vinyl applications).
CABINET FASTENERS: Hidden fasteners.

35. BREAKAWAY FOOTER

FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.3
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Parking Lot Identification
and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi-		SHEET NO.
tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D. 13









NOTES

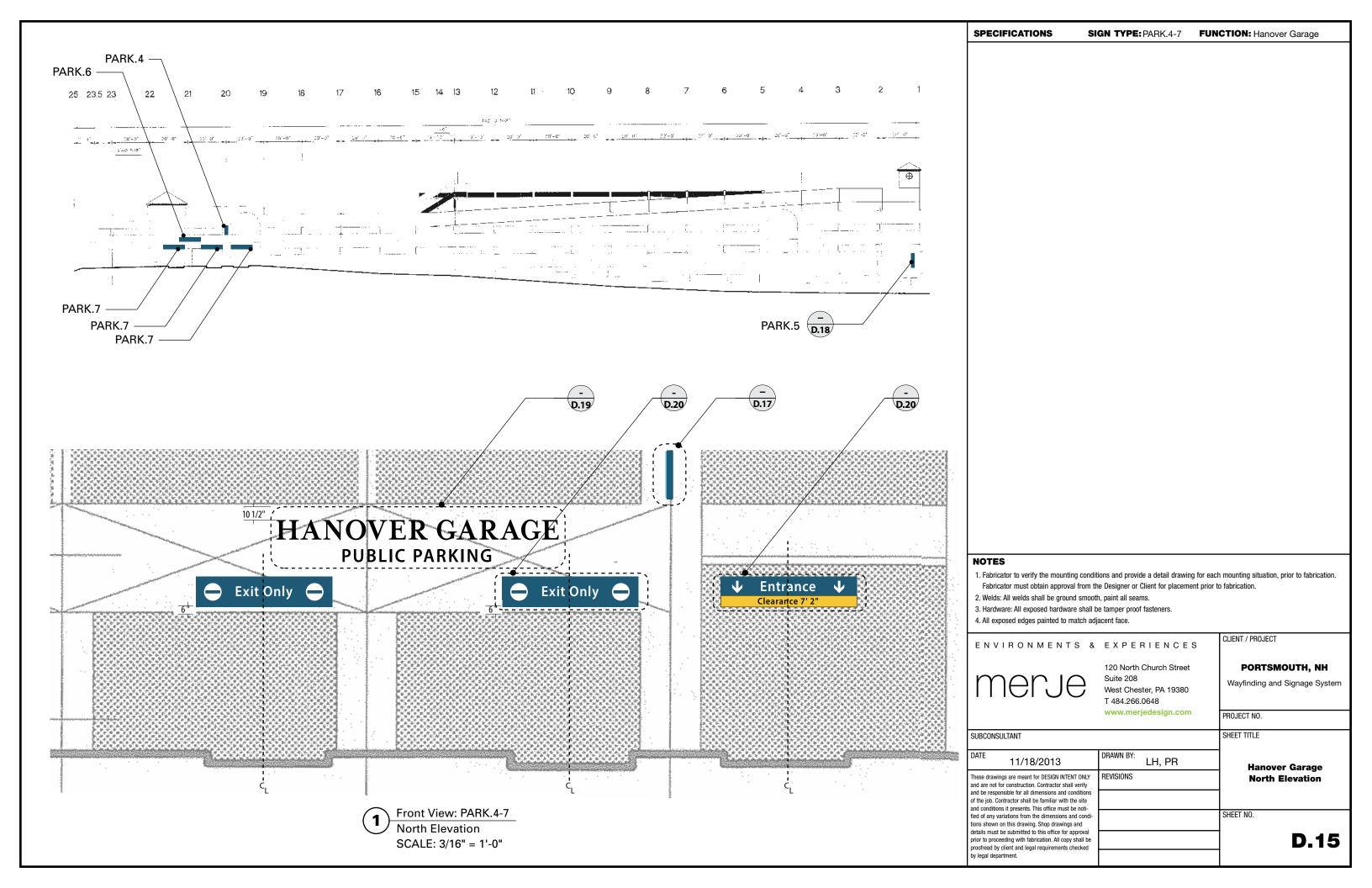
SPECIFICATIONS

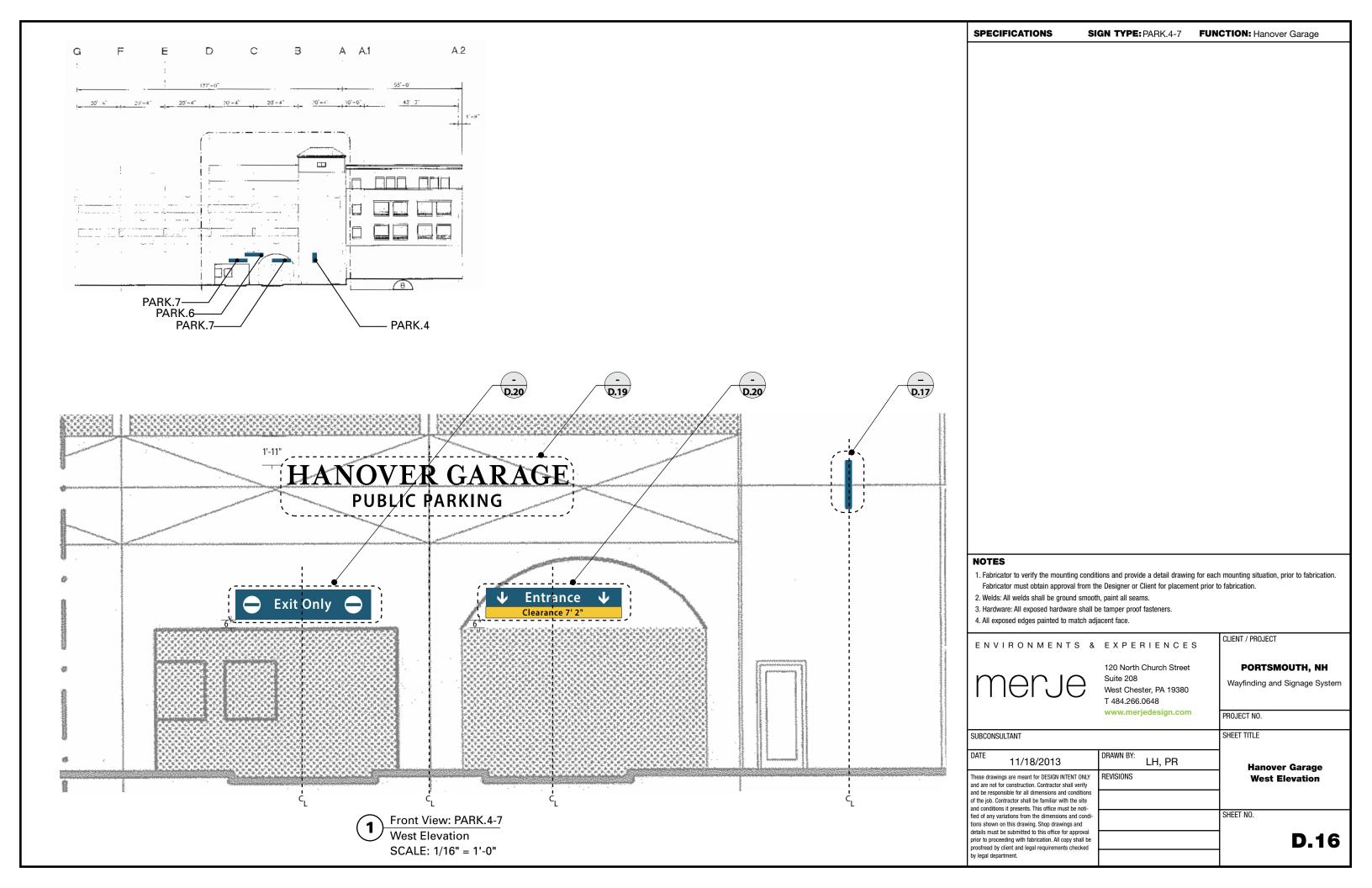
Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication.
 Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

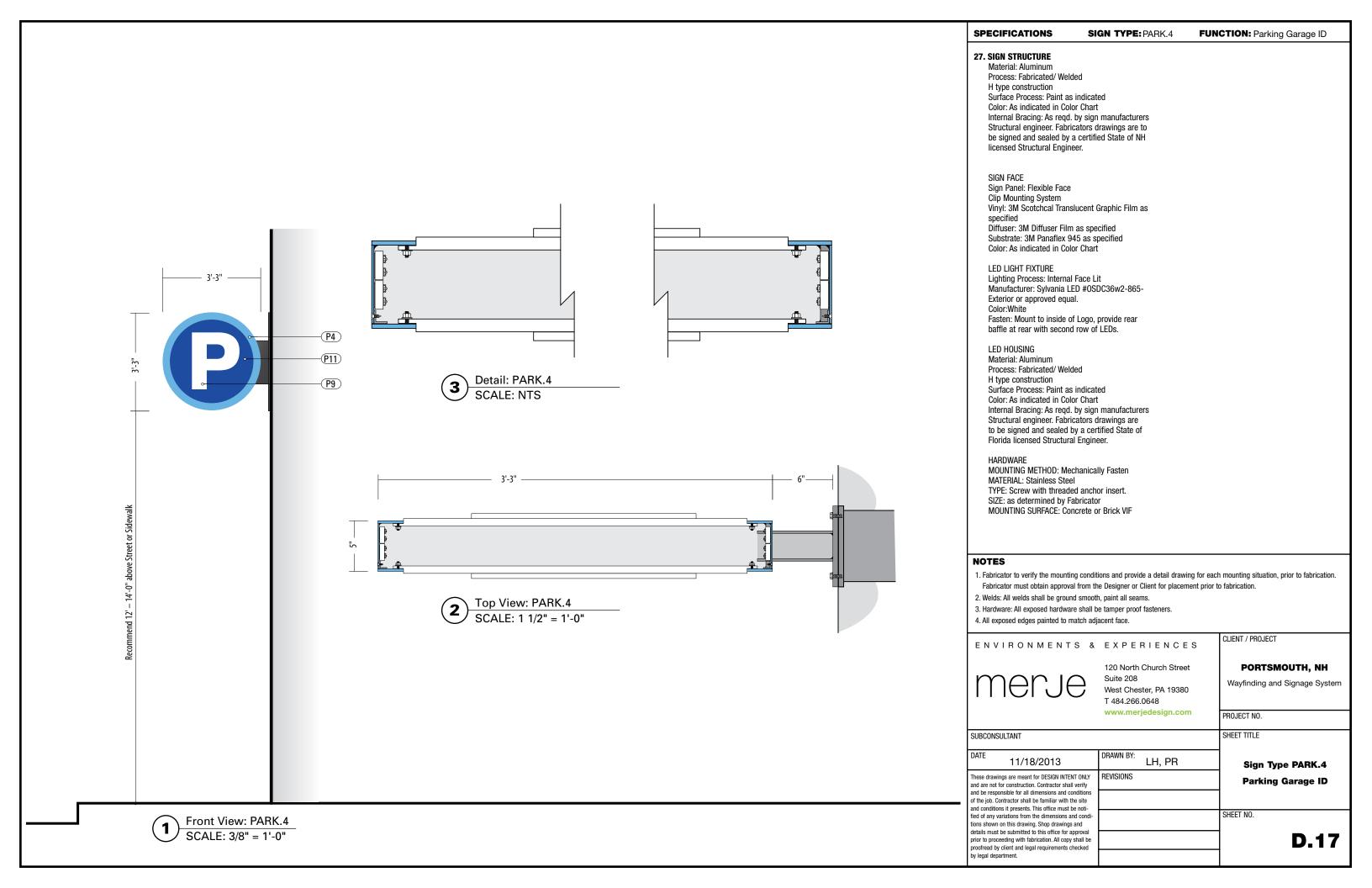
SIGN TYPE: PARK.4-7 **FUNCTION:** Parking Garage

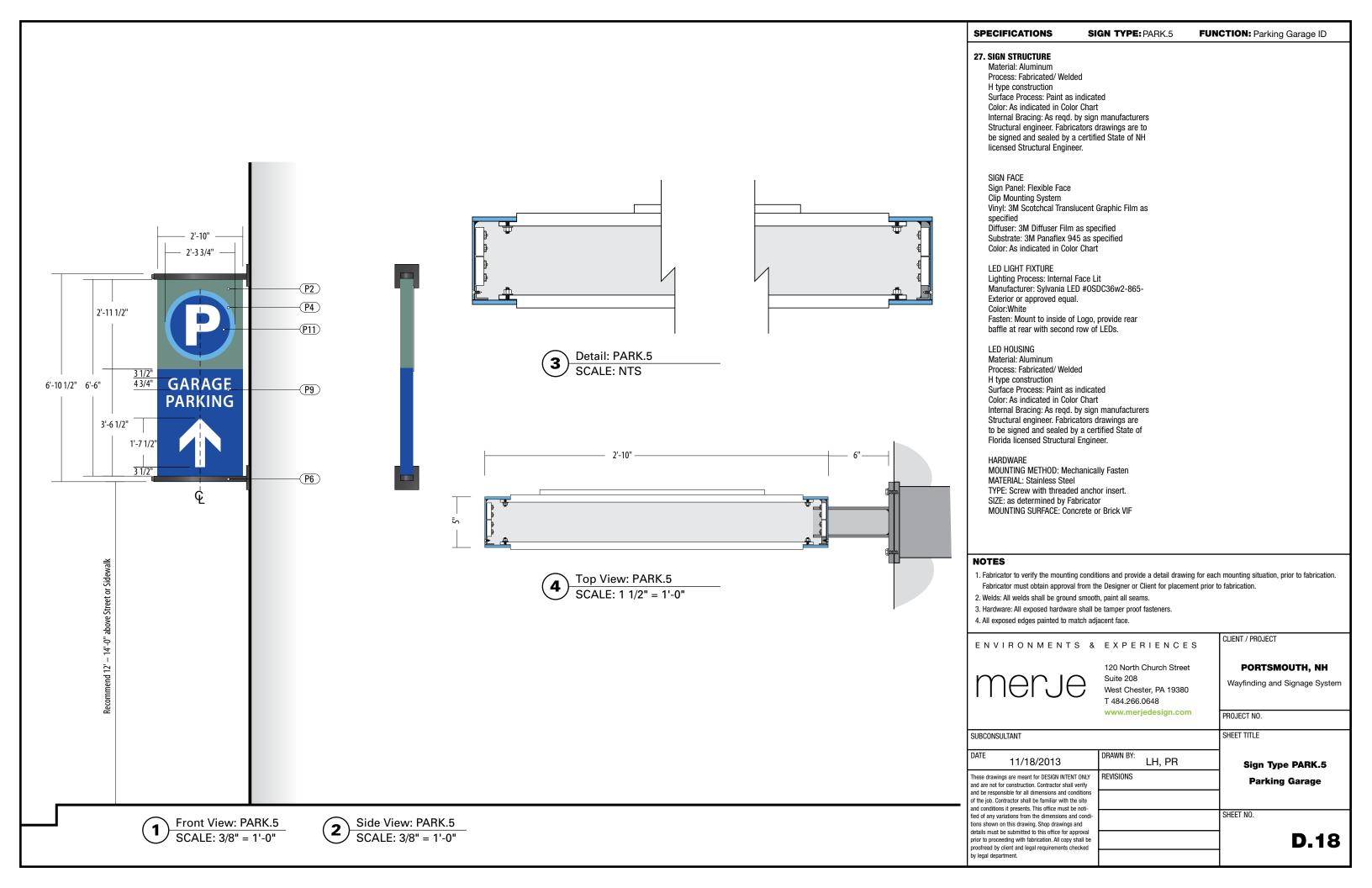
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.5-8
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Parking Garage
and conditions it presents. This office must be not- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		SHEET NO. D.14



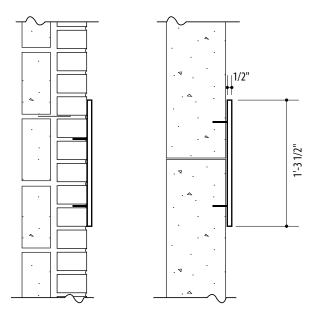








Graphic Layout: PARK.6
SCALE: 3/8" = 1'-0"



Section: PARK.6

SCALE: 1" = 1'-0"

SPECIFICATIONS SIGN TYPE: PARK.6 **FUNCTION:** Wall Mounted Letters

25. LETTERS

Size: 3/8" Thk.

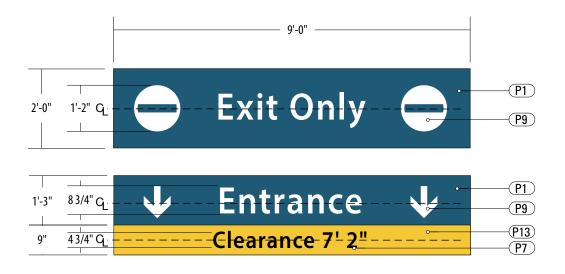
MATERIAL: Aluminum
FABRICATION PROCESS: Router Cut Fabricated
Edges
EDGES: Smooth
FINISH: Horizontal Brushed
SURFACE PROCESS: Satin Clearcoat
FASTENER: mechanically fasten to existing wall.
Anchor suitable for wall material Allowable

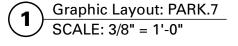
Anchor suitable for wall material. Allowable shear capacity of anchor = 10 lbs. (min). 3 Anchors per anchor, Stud Mount Flush to wall

surface.

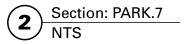
- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.6
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Wall Mounted Letters
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.19









9'-0"

SPECIFICATIONS SIGN TYPE: PARK.7 FUNCTION: Parking Garage Exit/Entry

26. SIGN PANEL

MATERIAL: 1/4" thk Aluminum FABRICATION PROCESS: Square Cut EDGES: Smooth

COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces FASTENER: Chemically Welded to Backer Panel BACKER PANEL

MATERIAL: 1/8" thk Aluminum

FABRICATION PROCESS: Square Cut to match

dimensions of sign panel

EDGES: Smooth COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces FASTENER: mechanically fasten to existing wall.

Anchor suitable for wall material. Allowable

shear capacity of anchor = 50 lbs. (min). 8

Anchors, with 1 anchor placed at each corner. Stud Mount Welded or countersunk to sign

COPY ARROW RULE BACKGROUND

PRODUCT: 3M 3930 Grade reflective sheeting

per color chart MATERIAL: vinyl

FABRICATION PROCESS: Digital Print direct to

3930 UV clear

COLOR: custom, as noted

NOTES

1/4" 1/8"

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.

Hardware: All exposed hardware shall b All exposed edges painted to match adjusted.	• •	
ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com	PORTSMOUTH, NH Wayfinding and Signage System PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.6
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Parking Garage Exit/Entry
and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.2 0



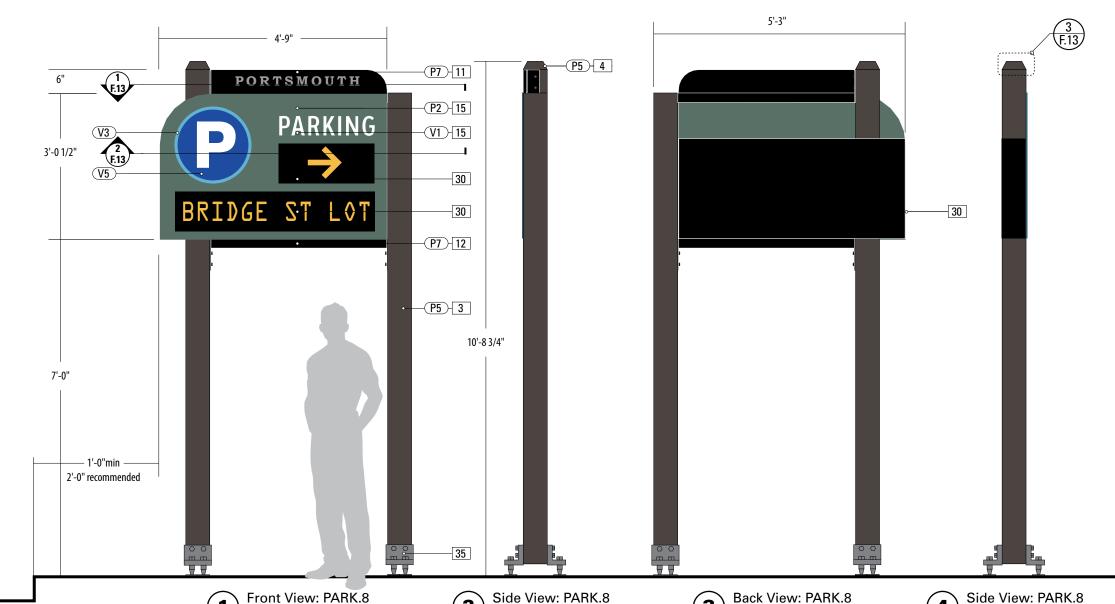


Top View: PARK.8 SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"

Alternate Message

SCALE: 1/2" = 1'-0"



SCALE: 1/2" = 1'-0"

SCALE: 1/2" = 1'-0"

FUNCTION: LED Parking Sign **SPECIFICATIONS** SIGN TYPE: PARK.8

3. 6" SQUARE POST

MATERIAL: Aluminum Square Tube 6061 - 6" x 6" x .250" wall

FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

4. CUSTOM FINIAL - ALL POSTS

MATERIAL: Cast Aluminum CORNERS: Square, Smooth COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to post.

11. DECORATIVE TOP BRACKET

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)

FABRICATION PROCESS: Router Cut, Rolled, Brake-formed

EDGES: Square, Smooth

COLOR: custom, as noted

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FASTENER: Weld rolled bracket to flat stock. Tamper-resistant mechanically fastened to post and Panel Bracket.

15. PARKING SIGN CABINET

MATERIAL: Aluminum sheet FABRICATION PROCESS: Extruded frame /

Fabricated

EDGES: Square, Smooth

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

INFO PANELS AND COPY PROCESS: 3M custom inks print direct to 3930 with 3M approved UV/ Graffiti Vinyl Over-laminate. (See Color Sheet for

all color and material specifications) FASTENER: Press-roll per 3M requirements. TOP PANEL GRAPHICS: Screen-printed (No reflective or opaque vinyl applications). CABINET FASTENERS: Hidden fasteners.

30. LED SIGN CABINET

MATERIAL: Aluminum sheet FABRICATION PROCESS: Extruded frame / Fabricated

EDGES: Square, Smooth

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

INFO PANELS AND COPY PROCESS: DAKTRONICS LED MODULE REF DETAILS SECTION FOR SPECIFICATIONS

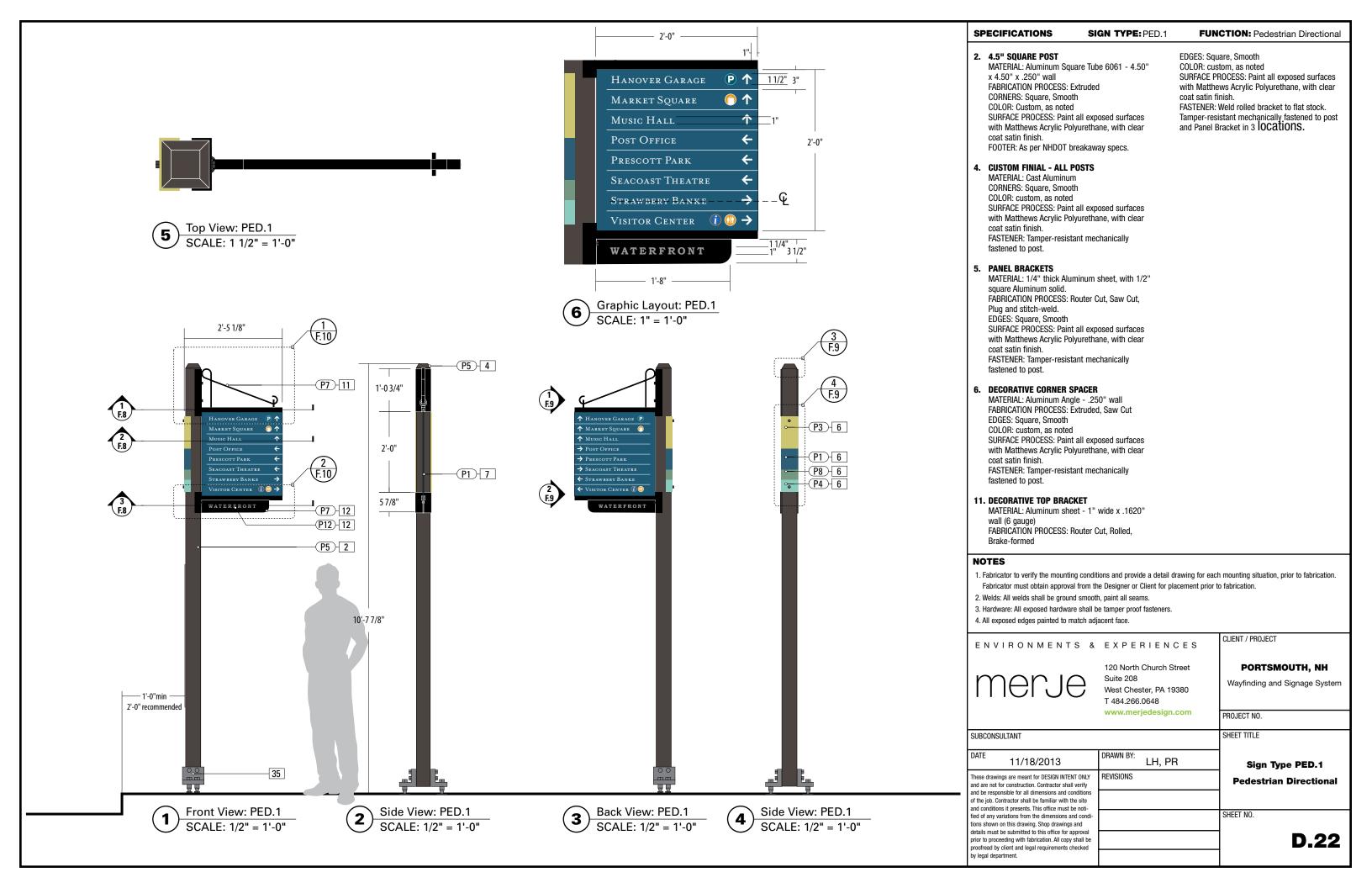
CABINET FASTENERS: Hidden fasteners.

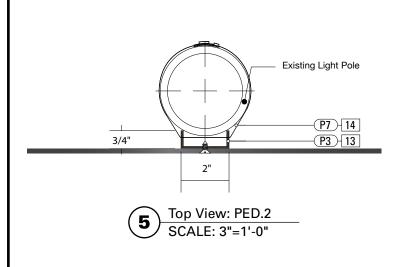
35. BREAKAWAY FOOTER

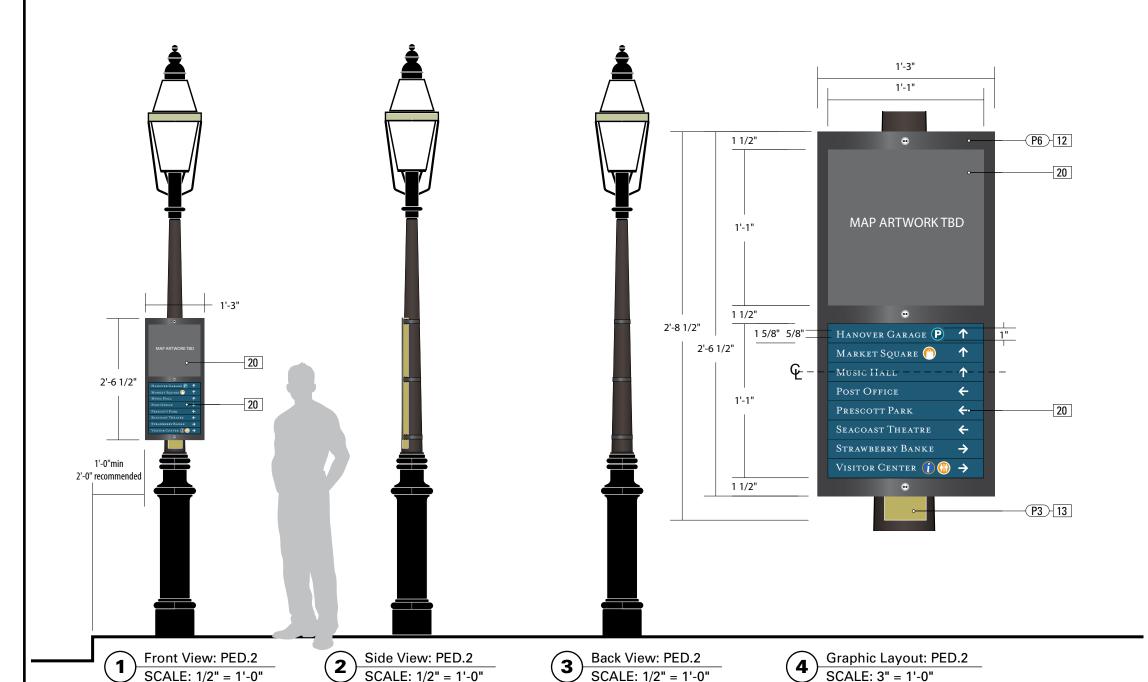
FOOTER: The Transpo® break-away system, according to specifications per NHDOT.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PARK.8
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it because the state.	REVISIONS	LED Parking Sign
and conditions it presents. This office must be not- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		SHEET NO. D.21







SPECIFICATIONS SIGN TYPE: PED.2 **FUNCTION:** Pedestrian Directional

13. SLEEVE

MATERIAL: Aluminum U-channel (.1620" wall) FABRICATION PROCESS: Extruded EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to sign panel.

14. POLE STRAP ATTACHMENT

PRODUCT: Band-It Band, or approved equal. MATERIAL: Type 201 SS SIZE: 3/4 inch FINISH: Stainless steel FASTENER: Ultra-Lok® Free End clamps NOTE: Sign Contractor to coordinate the removal or movement of interfering existing signs on poles, with the city.

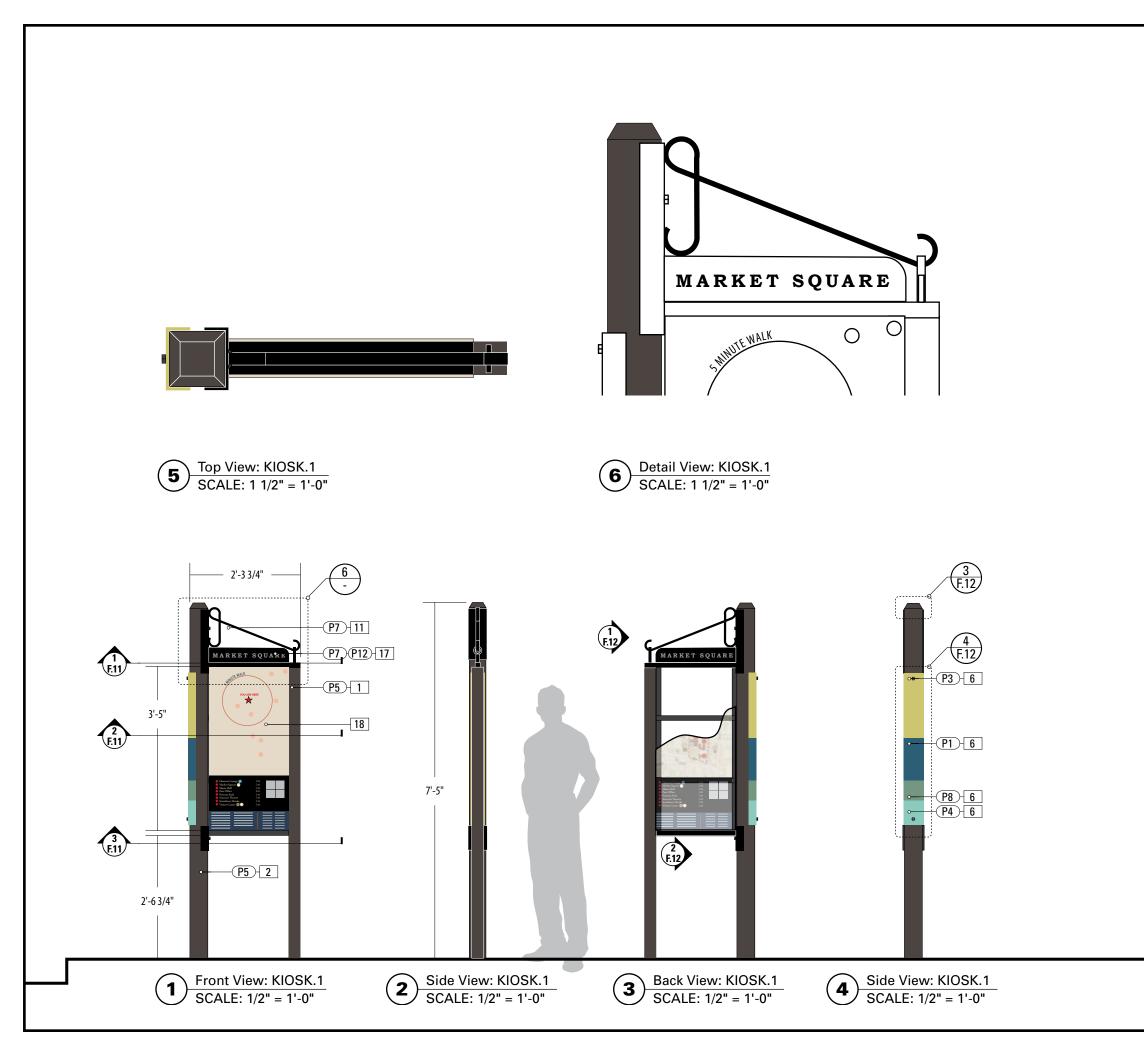
18. MAP GRAPHIC PANEL

PRODUCT NAME: iZone, 2526 Charter Oak Drive, Suite 100, Temple, Texas 76502 (888) 464-9663, www.izoneimaging.com, email: info@ izoneimaging.com PRODUCT: Digital high pressure phenolic laminate (dHPL) GRAPHIC APPROVAL PROCESS: Submit 12x12" sample section of typical project panel for image and color quality approval. WARRANTY PERIOD: Ten (10) years from product ship date.

THICKNESS: 1/4 inch FINISH: Satin, including UV inhibiting top layer. FASTENER: Tamper-resistant mechanically fastened to center panel, at 6 locations. Map panel fits within frame area, minimal doubleface tape across back to stop bowing of panel.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PED.2
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Pedestrian Directional
field of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		SHEET NO. D.23



SPECIFICATIONS SIGN TYPE: KIOSK.1 FUNCTION: Pedestrian Kiosk

1. 3" SQUARE POST

3" x .250" wall
FABRICATION PROCESS: Extruded
CORNERS: Square, Smooth
COLOR: Custom, as noted
SUBFACE PROCESS: Paint all exposed surface

MATERIAL: Aluminum Square Tube 6061 - 3" x

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FOOTER: As per NHDOT breakaway specs.

5. PANEL BRACKETS

MATERIAL: 1/4" thick Aluminum sheet, with 1/2" square Aluminum solid.

FABRICATION PROCESS: Router Cut, Saw Cut, Plug and stitch-weld.

EDGES: Square, Smooth

SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to post.

6. DECORATIVE CORNER SPACER

MATERIAL: Aluminum Angle - .250" wall FABRICATION PROCESS: Extruded, Saw Cut EDGES: Square, Smooth COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to post.

11. DECORATIVE TOP BRACKET

coat satin finish.

MATERIAL: Aluminum sheet - 1" wide x .1620" wall (6 gauge)
FABRICATION PROCESS: Router Cut, Rolled, Brake-formed
EDGES: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear

FASTENER: Weld rolled bracket to flat stock.

Tamper-resistant mechanically fastened to post and Panel Bracket in 3 locations.

17. KIOSK CENTER PANEL

MATERIAL: 1/4" thick Aluminum sheet FABRICATION PROCESS: Router Cut EDGES: Square, Smooth SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.
FASTENER: Plug-weld into posts.

18. MAP GRAPHIC PANEL

PRODUCT NAME: iZone, 2526 Charter Oak Drive, Suite 100, Temple, Texas 76502 (888) 464-9663, www.izoneimaging.com, email: info@ izoneimaging.com PRODUCT: Digital high pressure phenolic

laminate (dHPL)

GRAPHIC APPROVAL PROCESS: Submit 12x12" sample section of typical project panel for image and color quality approval.

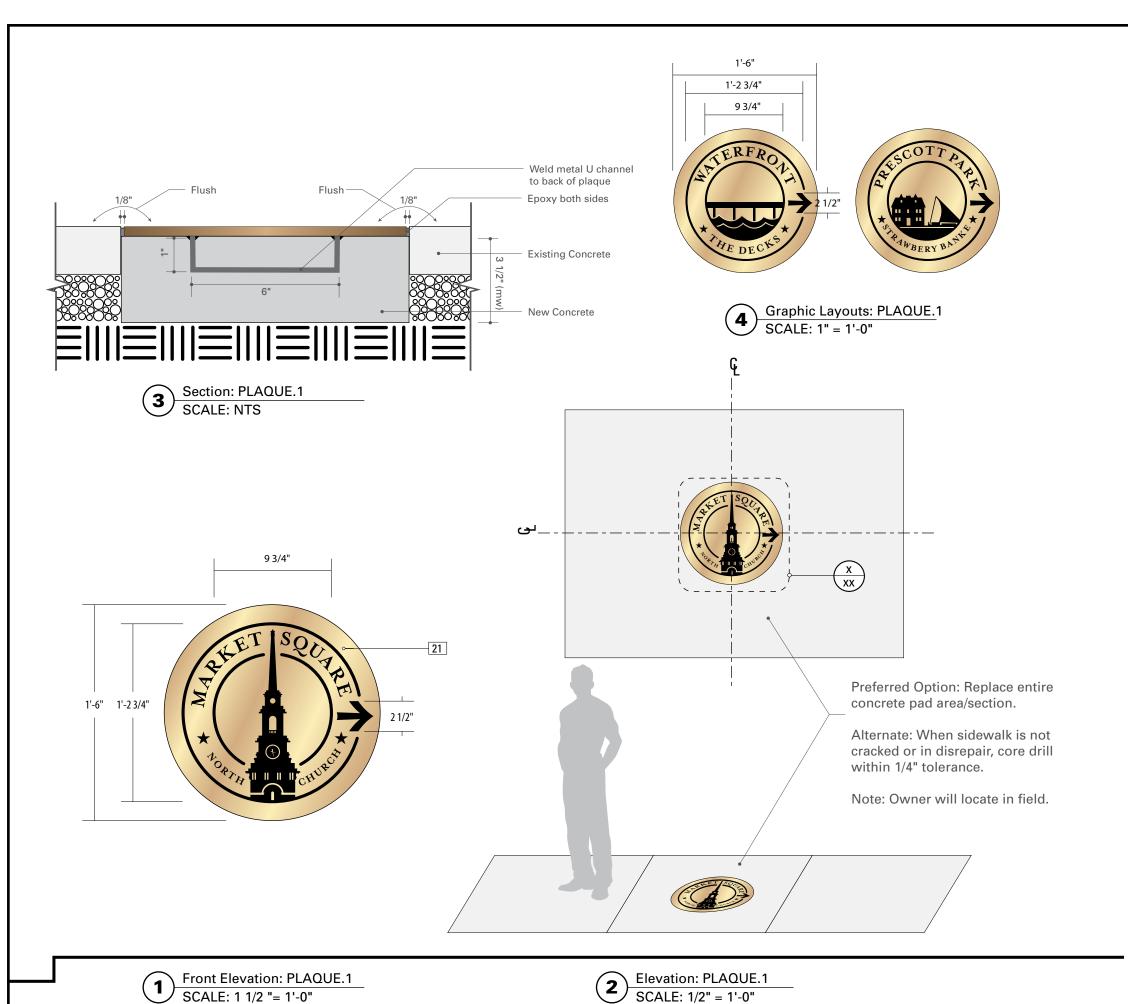
WARRANTY PERIOD: Ten (10) years from product ship date.

THICKNESS: 1/4 inch

FINISH: Satin, including UV inhibiting top layer. FASTENER: Tamper-resistant mechanically fastened to center panel, at 6 locations. Map panel fits within frame area, minimal double-face tape across back to stop bowing of panel.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type KIOSK.1
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it oresents. This office must be noti-	REVISIONS	Pedestrian Kiosk
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.24



SPECIFICATIONS

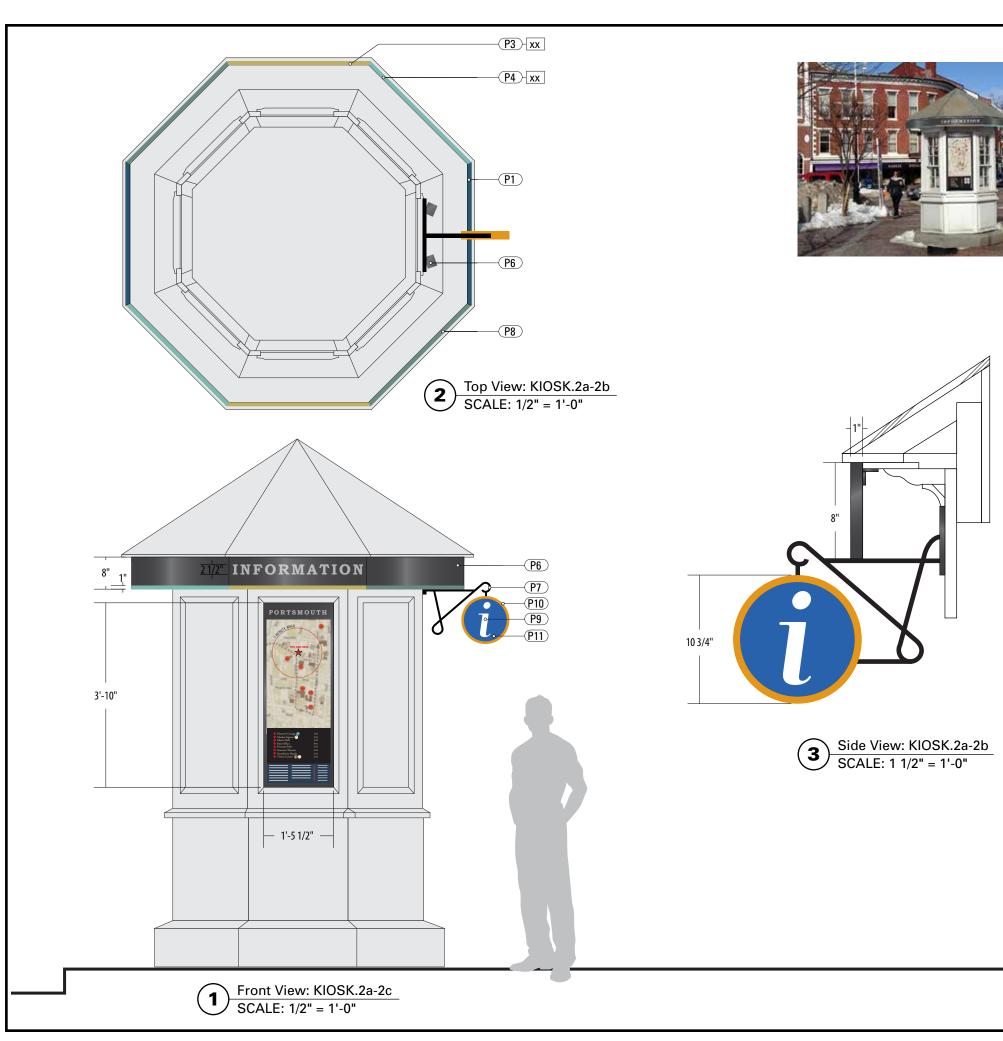
SIGN TYPE: PLAQUE.1 **FUNCTION:** Sidewalk Plaque

21. COMPASS PLAQUE

MATERIAL: 3/8" thick cast bronze FABRICATION PROCESS: Cast bronze COLOR: Natural. SURFACE PROCESS: None. NO clear coat. EDGES: Square and smooth. MOUNTING: Core drilled into existing concrete sidewalk or pavers. Top surface of plaque MUST BE flush with existing concrete surface. Weld metal U Channel to back of plaque. Epoxy both sides

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS &	EXPERIENCES	CLIENT / PROJECT
merje	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648	PORTSMOUTH, NH Wayfinding and Signage System
	www.merjedesign.com	PROJECT NO.
SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type PLAQUE.1
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Sidewalk Plaque
and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		SHEET NO. D.25



SPECIFICATIONS SIGN TYPE: KIOSK.2 FUNCTION: Market Square Kiosk

13. SLEEVE

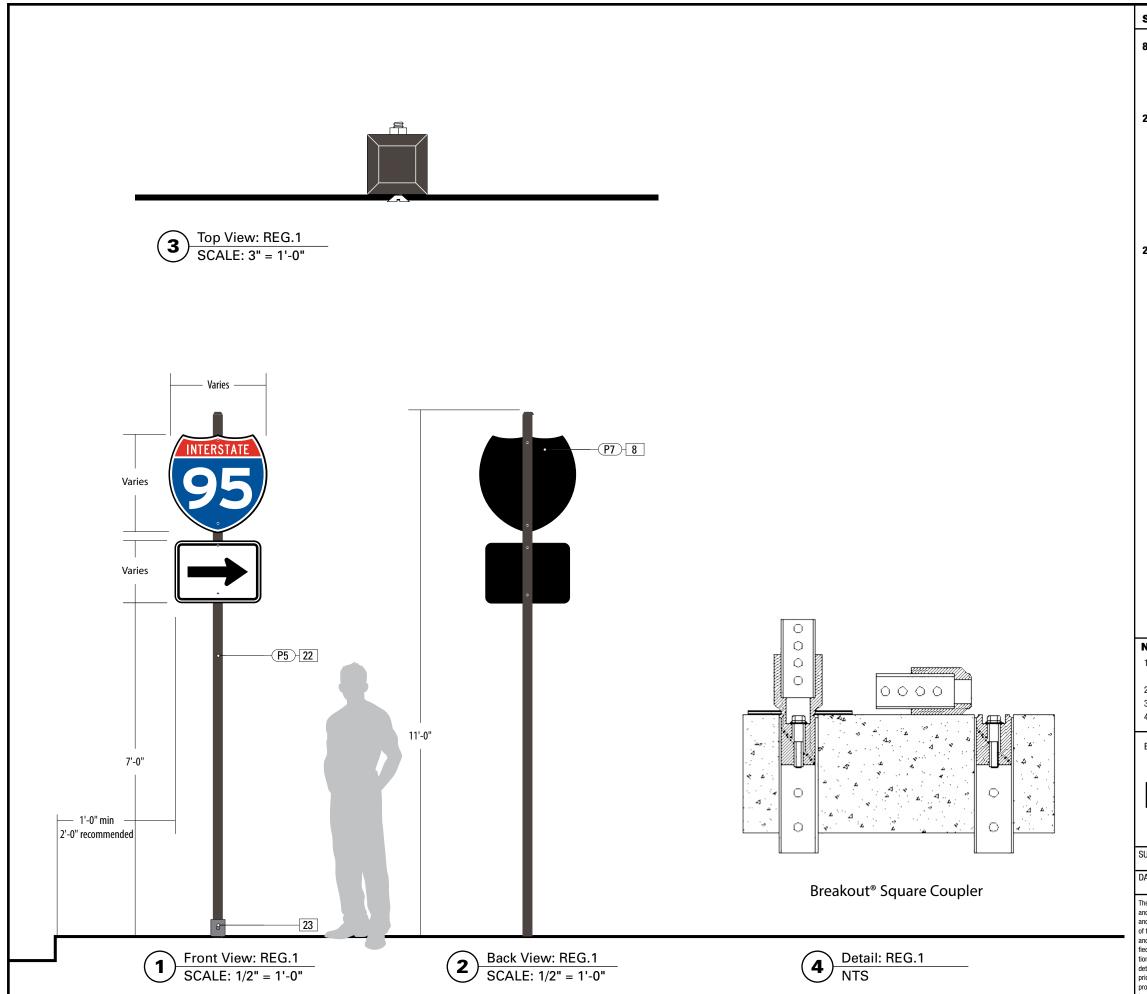
MATERIAL: Aluminum U-channel (.1620" wall) FABRICATION PROCESS: Extruded EDGES: Square, Smooth
COLOR: custom, as noted
SURFACE PROCESS: Paint all exposed surfaces
with Matthews Acrylic Polyurethane, with clear

coat satin finish.

FASTENER: Tamper-resistant mechanically fastened to sign panel.

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.

4. All exposed edges painted to match adj	acent face.	
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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type KIOSK.2
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be noti-	REVISIONS	Market Square Kiosk
fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and		SHEET NO.
details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		D.26



SPECIFICATIONS SIGN TYPE: REG.1 **FUNCTION:** Regulatory Sign

8. SIGN PANEL BACKS - PAINT

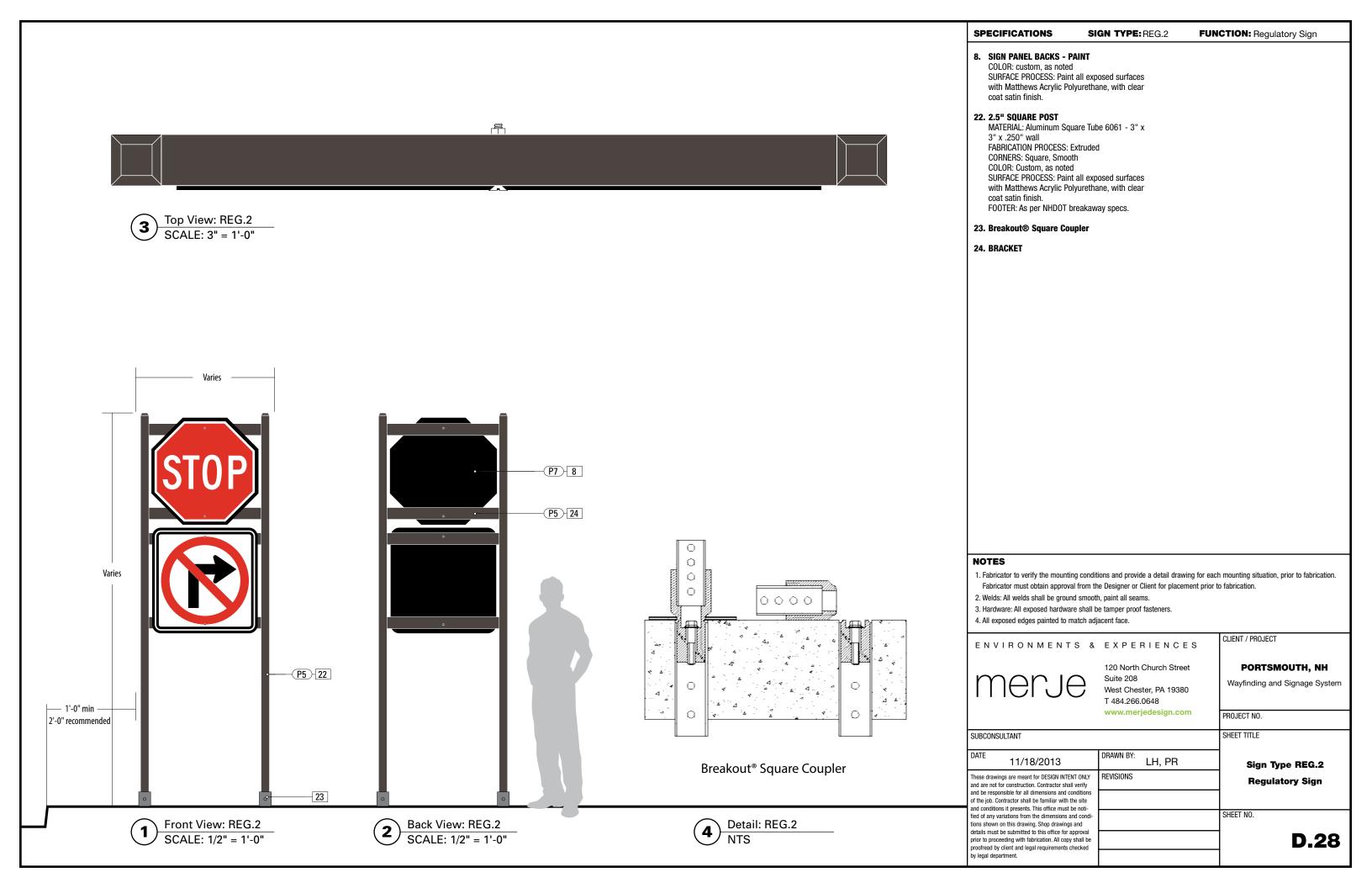
COLOR: custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish.

22. 2.5" SQUARE POSTMATERIAL: Aluminum Square Tube 6061 - 3" x 3" x .250" wall FABRICATION PROCESS: Extruded CORNERS: Square, Smooth COLOR: Custom, as noted SURFACE PROCESS: Paint all exposed surfaces with Matthews Acrylic Polyurethane, with clear coat satin finish. FOOTER: As per NHDOT breakaway specs.

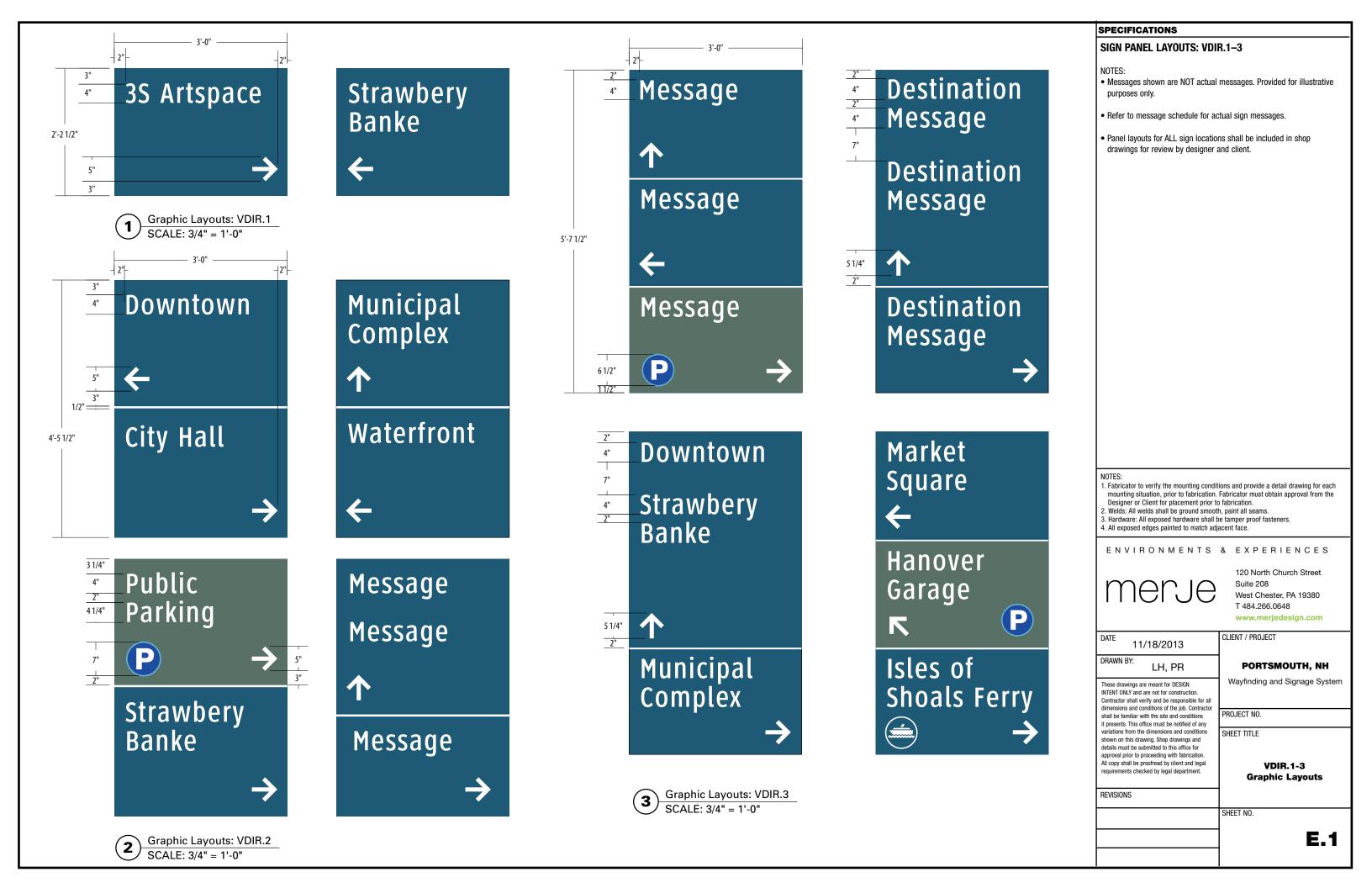
23. Breakout® Square Coupler

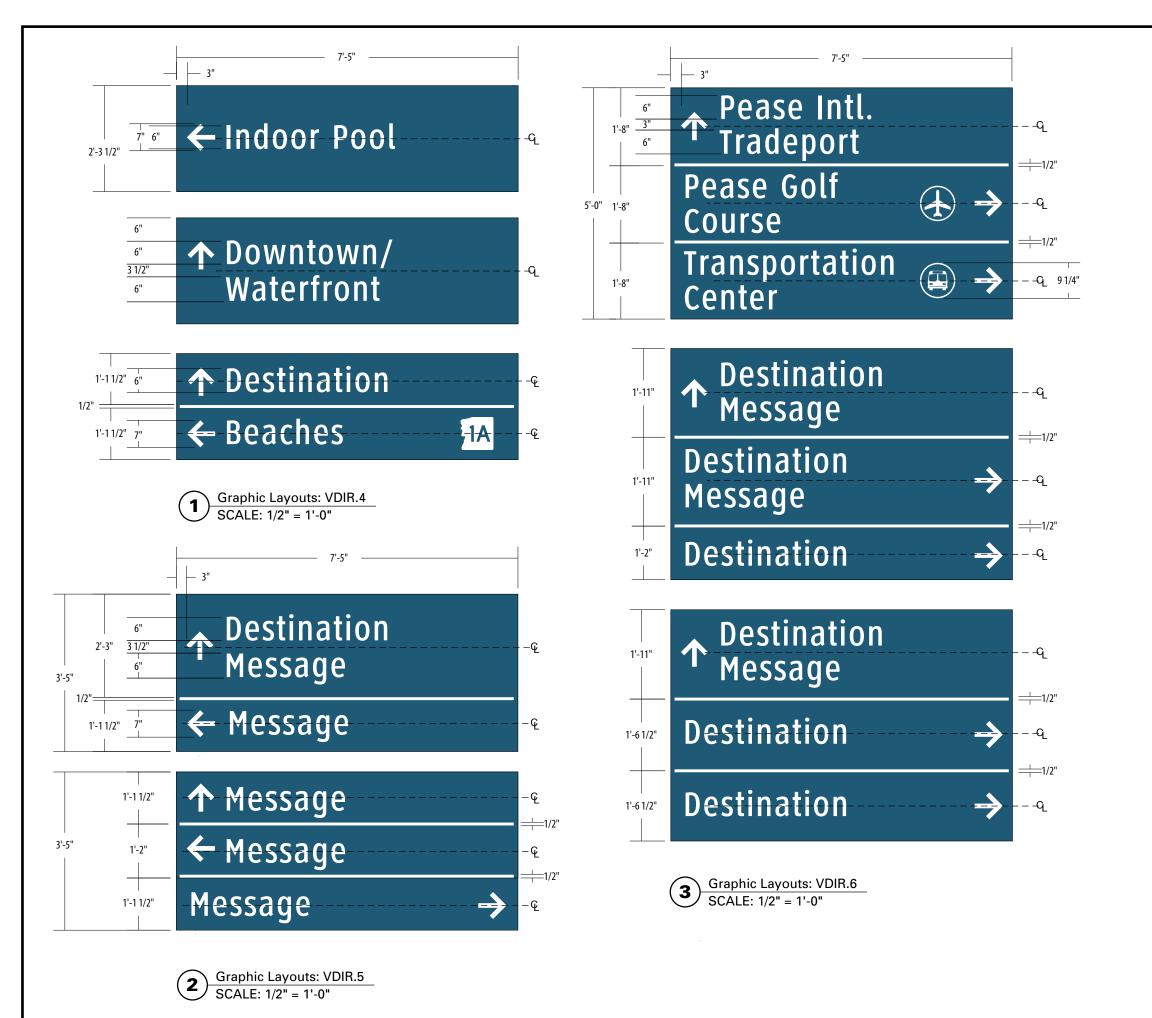
- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

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SUBCONSULTANT		SHEET TITLE
DATE 11/18/2013	DRAWN BY: LH, PR	Sign Type REG.1
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site	REVISIONS	Regulatory Sign
and conditions it presents. This office must be noti- fied of any variations from the dimensions and condi- tions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.		SHEET NO. D.27



E Graphic Layouts





SPECIFICATIONS

SIGN PANEL LAYOUTS: VDIR.4-6

NOTES

- Messages shown are NOT actual messages. Provided for illustrative purposes only.
- · Refer to message schedule for actual sign messages.
- Panel layouts for ALL sign locations shall be included in shop drawings for review by designer and client.

NOTE

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- 3. Hardware: All exposed hardware shall be tamper proof fasteners
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ENVIRONMENTS & EXPERIENCES

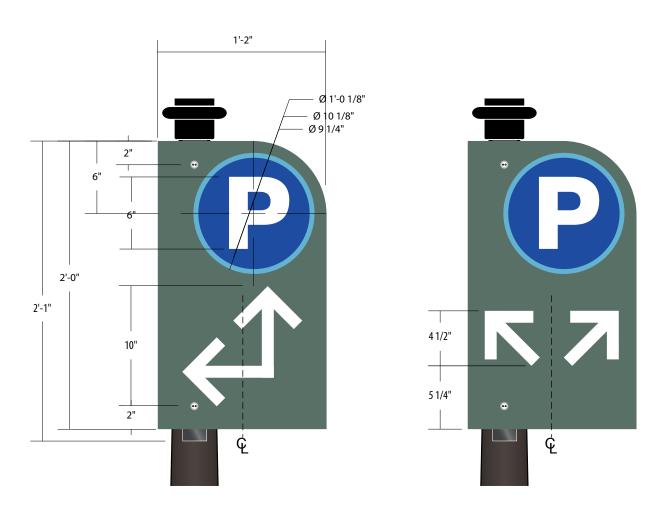


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E.2

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shall be familiar with the site and conditions it presents. This office must be notified of any	PROJECT NO.
variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	VDIR.4-6 Graphic Layouts
REVISIONS	
	SHEET NO



Graphic Layouts: PARK.1 SCALE: 1 1/2" = 1'-0"

SPECIFICATIONS

SIGN PANEL LAYOUTS: PARK.1

- Messages shown are NOT actual messages. Provided for illustrative purposes only.
- Refer to message schedule for actual sign messages.
- Panel layouts for ALL sign locations shall be included in shop drawings for review by designer and client.

- NOTES:

 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

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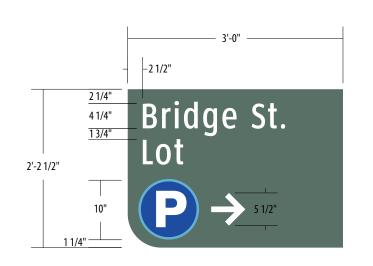
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variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal	SHEET TITLE PARK.1
requirements checked by legal department.	PARK.1

Graphic Layouts

REVISIONS SHEET NO.

E.3



Market Hanover Lot



South Mill **Pond Lot**



City Hall Lower Lot



Market St. Church Lot



Vaughan St.



City Hall Upper Lot



Memorial **Bridge Lot**



Worth Lot



Court St. Parking Area



Parrott Ave.



Hanover Garage



Alternate Layout

SPECIFICATIONS

purposes only.

SIGN PANEL LAYOUTS: PARK.2

• Messages shown are NOT actual messages. Provided for illustrative

· Refer to message schedule for actual sign messages.

drawings for review by designer and client.

Panel layouts for ALL sign locations shall be included in shop

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
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ENVIRONMENTS & EXPERIENCES



All copy shall be proofread by client and legal

requirements checked by legal department.

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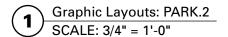
11/18/2013	CLIENT / PROJECT
RAWN BY: LH, PR	PORTSMOUTH, NH
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ariations from the dimensions and conditions hown on this drawing. Shop drawings and etails must be submitted to this office for proval prior to proceeding with fabrication.	SHEET TITLE

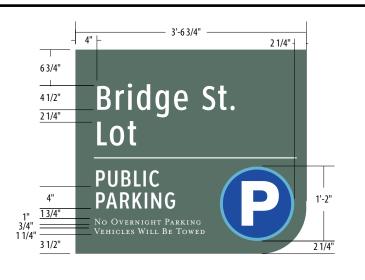
PARK.2 **Graphic Layouts**

REVISIONS

SHEET NO.

E.4

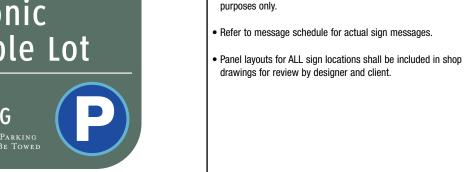












SPECIFICATIONS

SIGN PANEL LAYOUTS: PARK.3

• Messages shown are NOT actual messages. Provided for illustrative





















Reverse Layout

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
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- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
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ENVIRONMENTS & EXPERIENCES



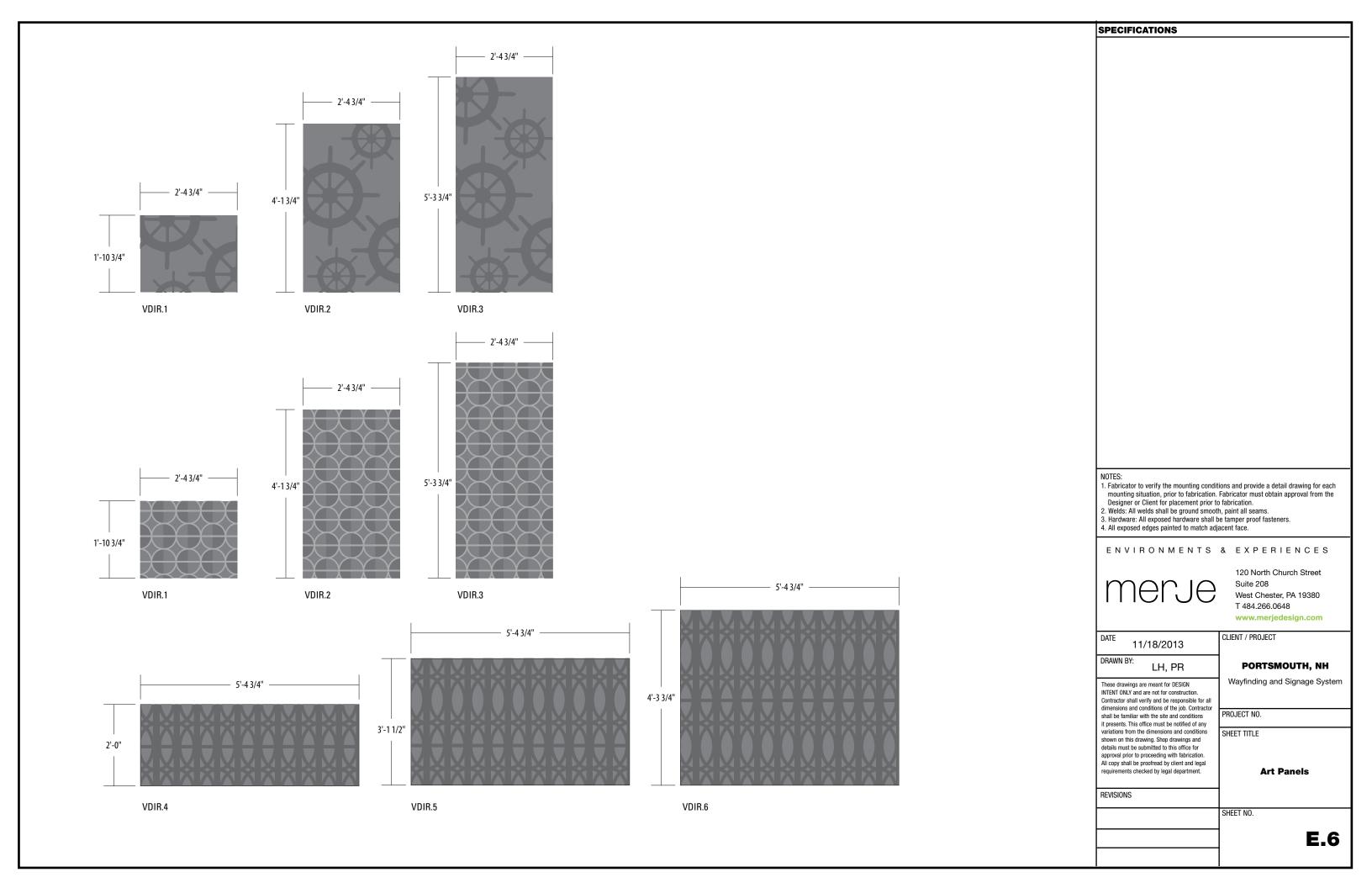
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SHEET NO.

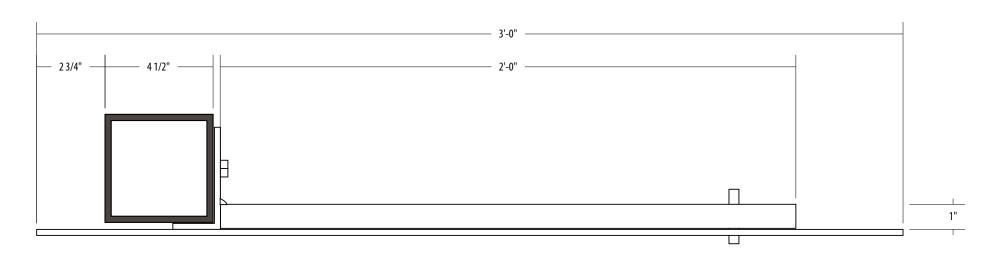
11/18/2013	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor	Wayfinding and Signage System
shall be familiar with the site and conditions it presents. This office must be notified of any	PROJECT NO.
variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	PARK.3 Graphic Layouts
REVISIONS	

Graphic Layouts: PARK.3 SCALE: 3/4" = 1'-0"

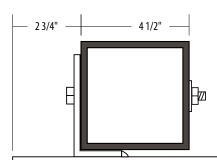
E.5



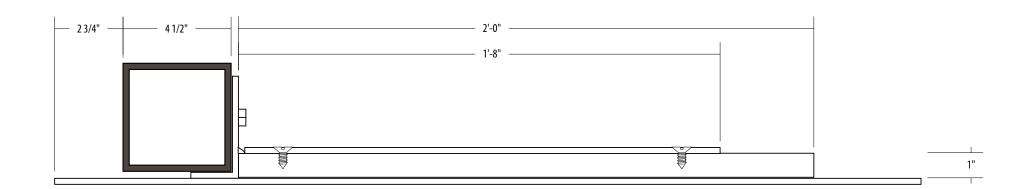
F Construction Details



Section View: Vehicular Directional SCALE: 3" = 1"



Section View: Vehicular Directional SCALE: 3" = 1"



Section View: Vehicular Directional SCALE: 3" = 1"

NOTES: 1. Fabricator to v mounting situa Designer or Cli 2. Welds: All weld 3. Hardware: All 4. All exposed ed
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SPECIFICATIONS For sign types:

VDIR.1 VDIR.2 VDIR.3

- verify the mounting conditions and provide a detail drawing for each uation, prior to fabrication. Fabricator must obtain approval from the lient for placement prior to fabrication.
- elds shall be ground smooth, paint all seams.
 Il exposed hardware shall be tamper proof fasteners.
- dges painted to match adjacent face.

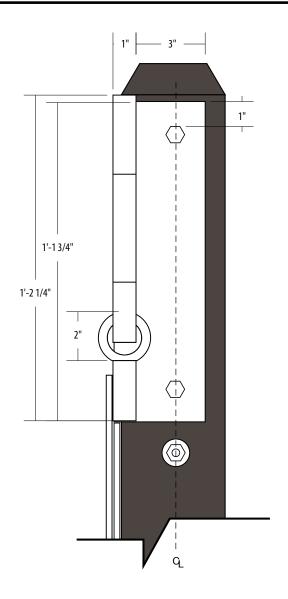
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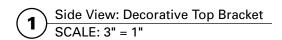


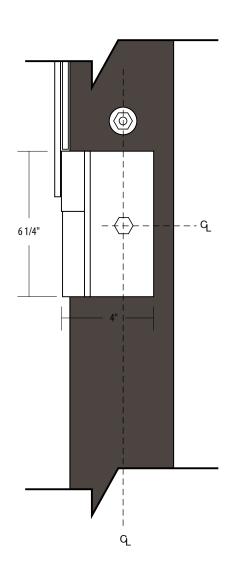
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	F.1
3	SHEET NO.
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riations from the dimensions and conditions own on this drawing. Shop drawings and tails must be submitted to this office for proval prior to proceeding with fabrication. copy shall be proofread by client and legal juirements checked by legal department.	SHEET TITLE Sign Drawing Description
all be familiar with the site and conditions oresents. This office must be notified of any	PROJECT NO.
ese drawings are meant for DESIGN FENT ONLY and are not for construction. ntractor shall verify and be responsible for all nensions and conditions of the job. Contractor	Wayfinding and Signage System
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11/18/2013	CLIENT / PROJECT

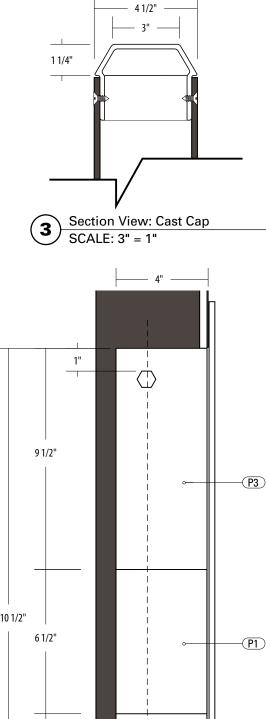


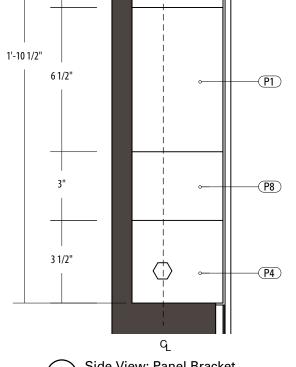




Side View: Decorative Bottom Bracket

SCALE: 3" = 1"





Side View: Panel Bracket
SCALE: 3" = 1"

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For sign types: VDIR.1 VDIR.2 VDIR.3

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

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 3. Hardware: All exposed hardware shall be tamper proof fasteners.

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ENVIRONMENTS & EXPERIENCES



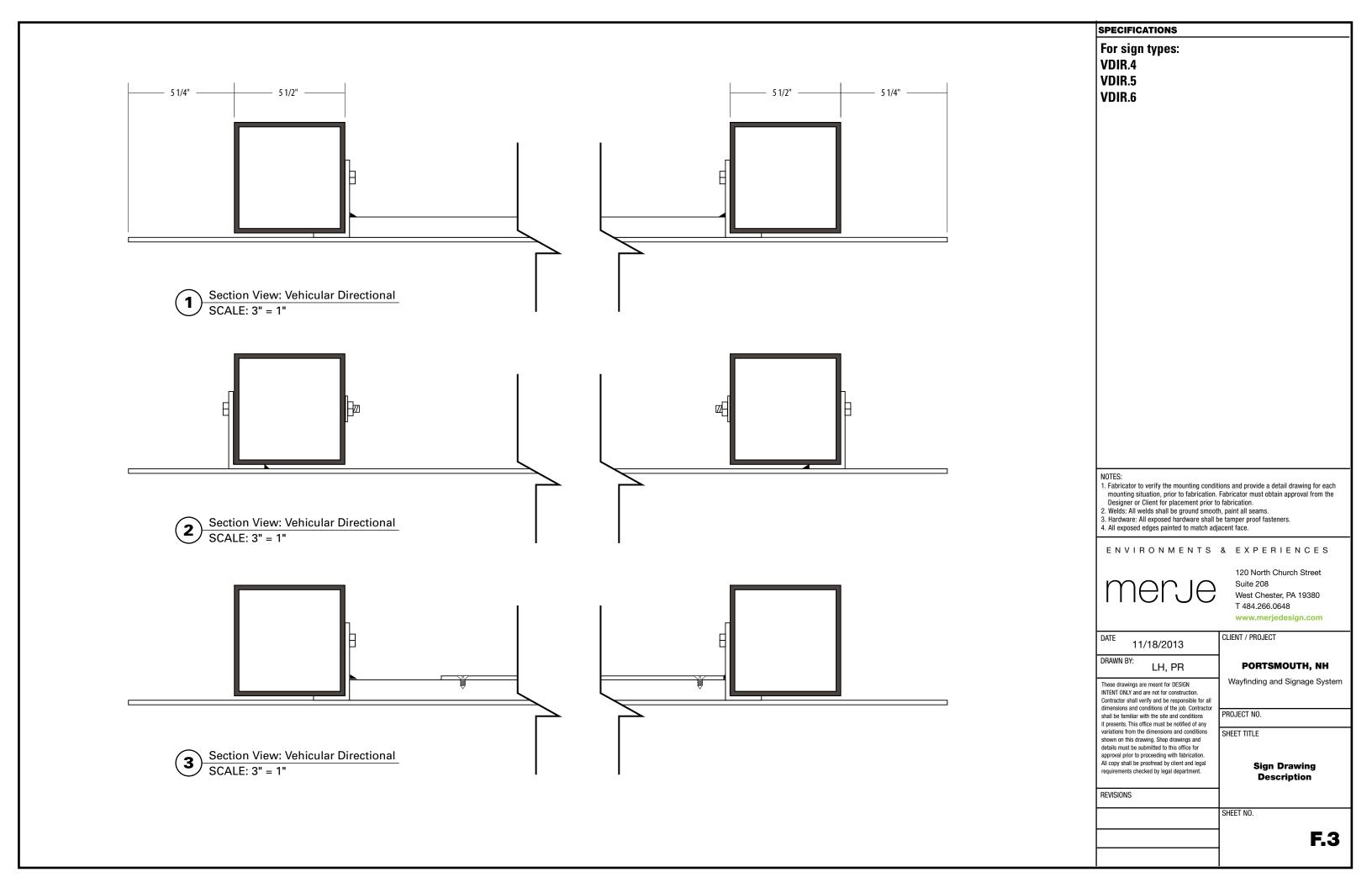
120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648

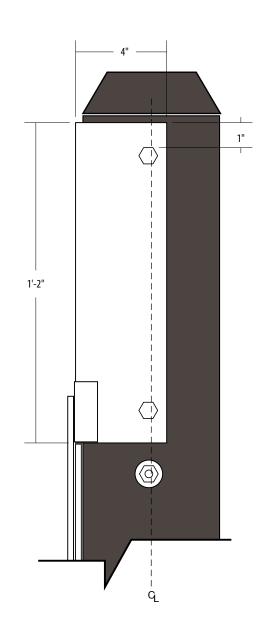
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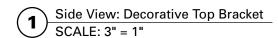
DATE 11/18/2013	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor	Wayfinding and Signage System
shall be familiar with the site and conditions it presents. This office must be notified of any	PROJECT NO.
variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	SHEET TITLE Sign Drawing Description
REVISIONS	

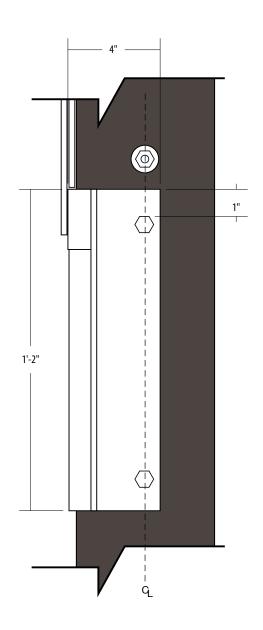
SHEET NO.

F.2

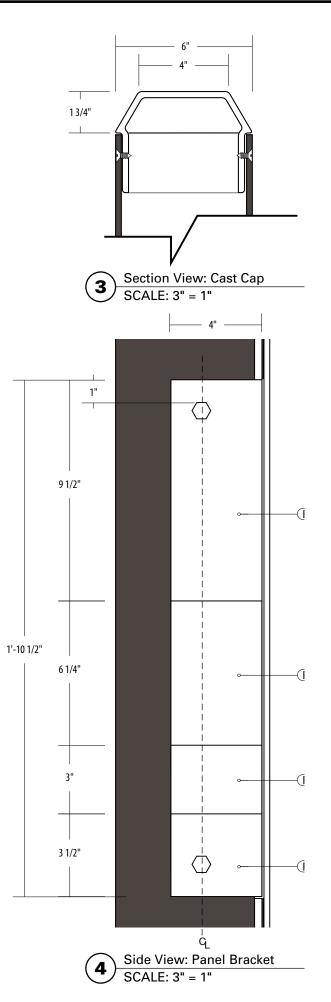








Side View: Decorative Bottom Bracket SCALE: 3" = 1"



SPECIFICATIONS

For sign types: VDIR.4 VDIR.5 VDIR.6

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

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 3. Hardware: All exposed hardware shall be tamper proof fasteners.

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ENVIRONMENTS & EXPERIENCES



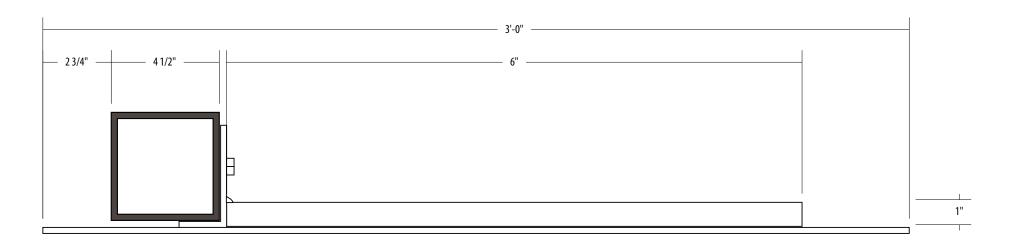
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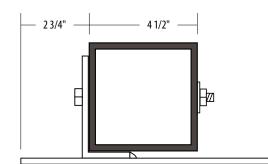
DATE 11/18/2013	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor	Wayfinding and Signage System
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REVISIONS	

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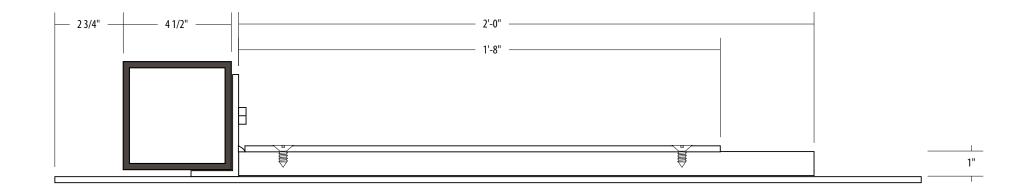
F.4



Section View: Parking Directional
SCALE: 3" = 1"

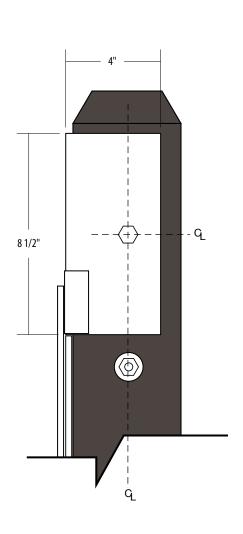


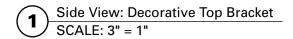
Section View: Parking Directional
SCALE: 3" = 1"

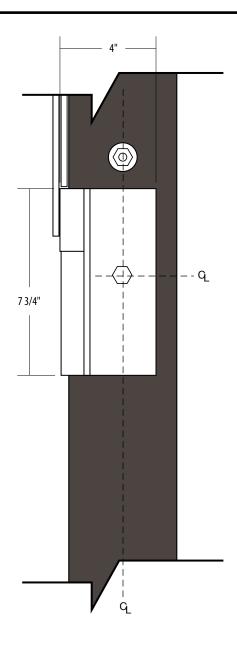


Section View: Parking Directional
SCALE: 3" = 1"

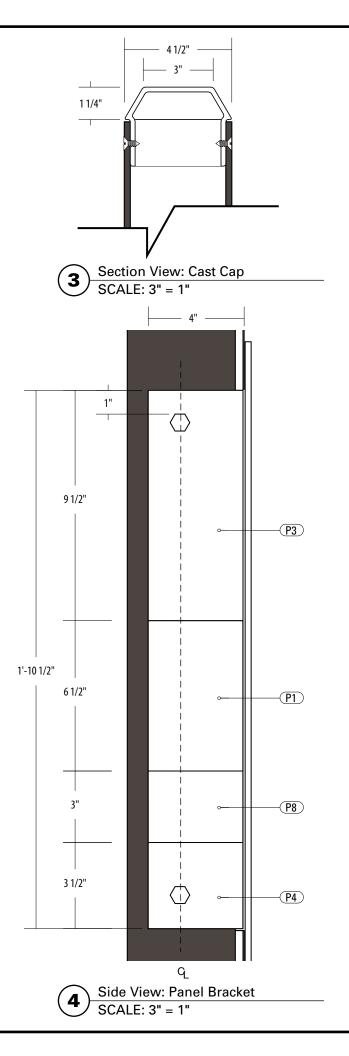
PECIFICATIONS	
or sign types: PARK.2	
	n, paint all seams. e tamper proof fasteners.
ENVIRONMENTS	& EXPERIENCES
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	West Chester, PA 19380 T 484.266.0648 www.merjedesign.com
ATE 11/18/2013	CLIENT / PROJECT
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hese drawings are meant for DESIGN ITENT ONLY and are not for construction. ontractor shall verify and be responsible for all	Wayfinding and Signage Systen
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ariations from the dimensions and conditions hown on this drawing. Shop drawings and etails must be submitted to this office for pproval prior to proceeding with fabrication.	SHEET TITLE
Il copy shall be proofread by client and legal equirements checked by legal department.	Sign Drawing Description
EVISIONS	SHEET NO.
	F.5
	1.5







Side View: Decorative Bottom Bracket SCALE: 3" = 1"



SPECIFICATIONS

For sign types: PARK.2

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

 2. Welds: All welds shall be ground smooth, paint all seams.

 3. Hardware: All exposed hardware shall be tamper proof fasteners.

 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS & EXPERIENCES

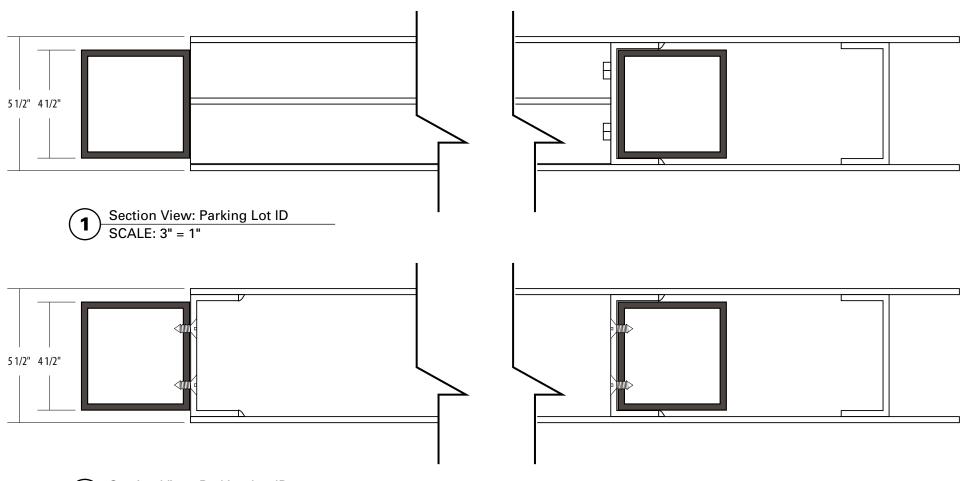


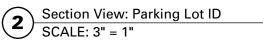
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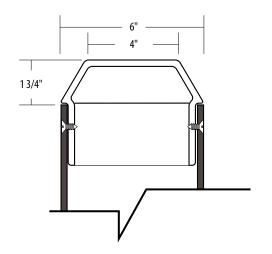
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11/18/2013	
DRAWN BY: LH, PR	PORTSMOUTH, NH
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	PROJECT NO.
variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	SHEET TITLE Sign Drawing Description
REVISIONS	
	SHEET NO.
	F.6







Section View: 4 1/2" CAP SCALE: 3" = 1"

SPECIFICATIONS For sign types:

PARK.3

- NOTES:

 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

 2. Welds: All welds shall be ground smooth, paint all seams.

 3. Hardware: All exposed hardware shall be tamper proof fasteners.

 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS & EXPERIENCES

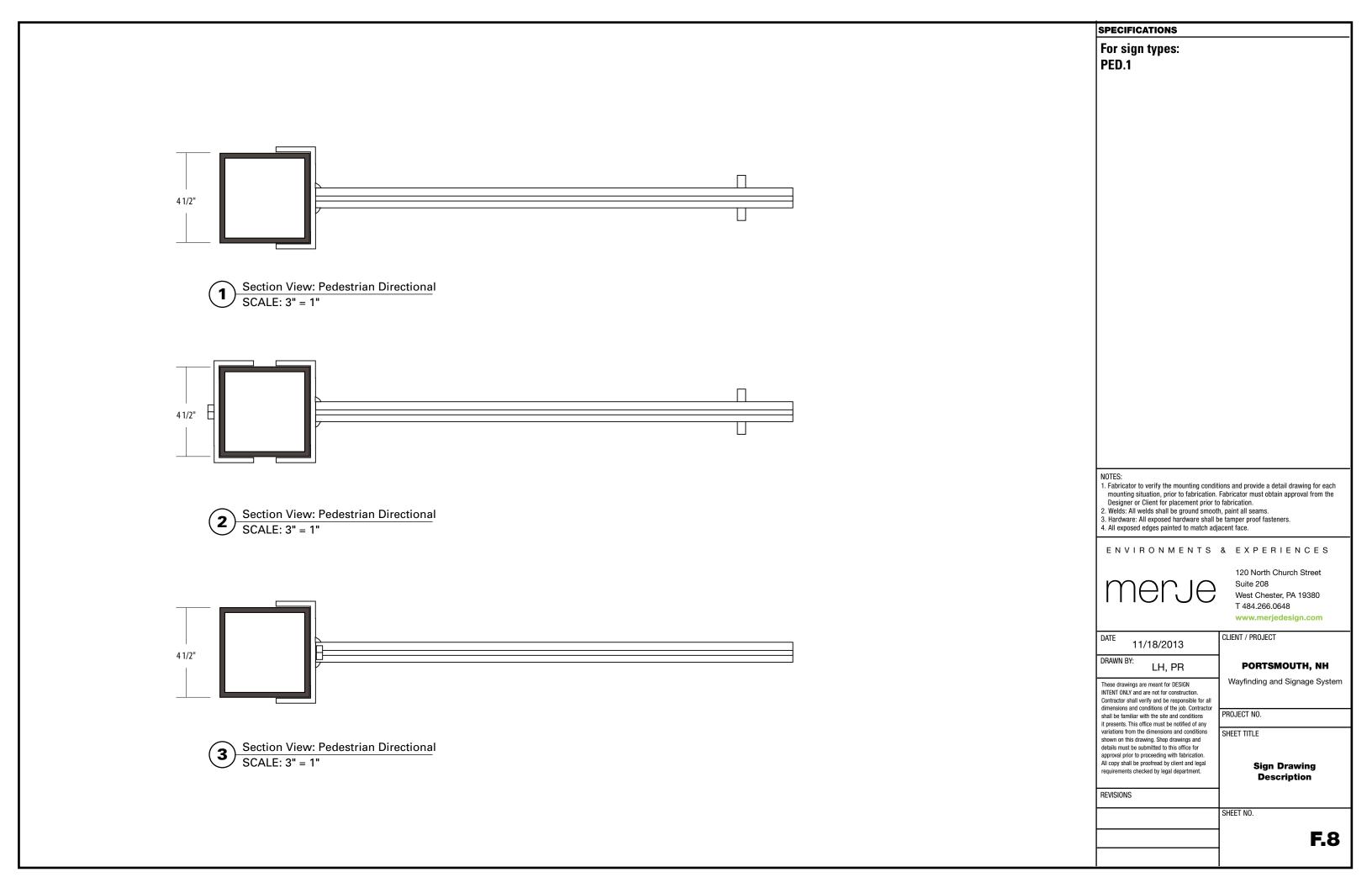


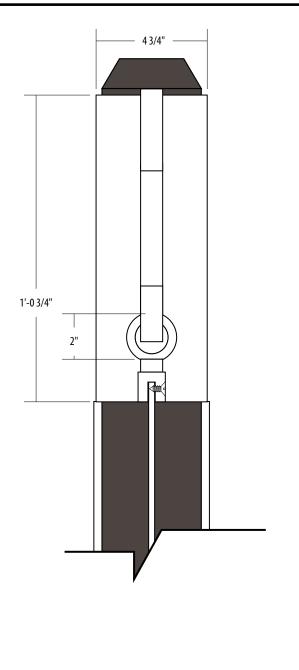
120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648

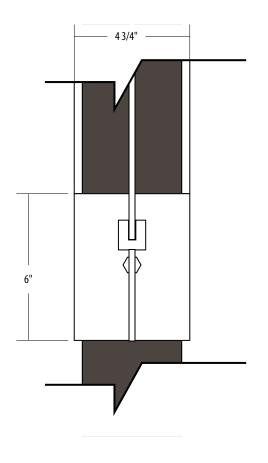
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F.7

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hese drawings are meant for DESIGN VTENT ONLY and are not for construction. Contractor shall verify and be responsible for all imensions and conditions of the job. Contractor	Wayfinding and Signage System
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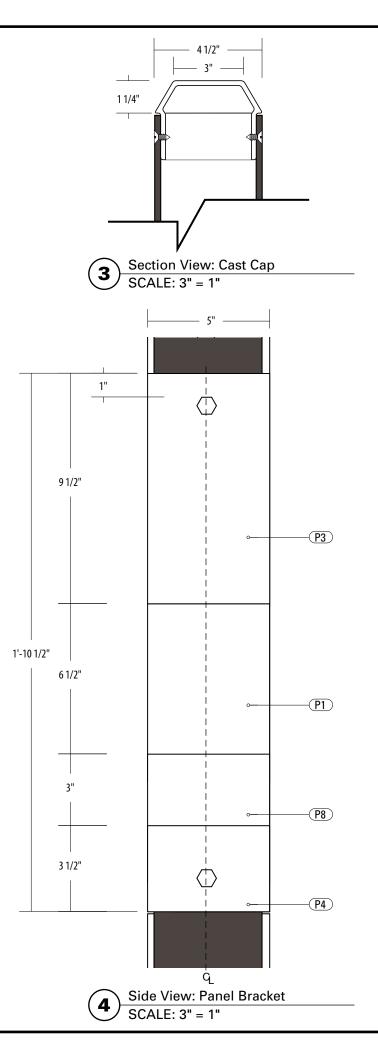






Side View: Decorative Top Bracket
SCALE: 3" = 1"

Side View: Decorative Bottom Bracket SCALE: 3" = 1"



SPECIFICATIONS

For sign types: PED.1

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

 2. Welds: All welds shall be ground smooth, paint all seams.

 3. Hardware: All exposed hardware shall be tamper proof fasteners.

 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS & EXPERIENCES



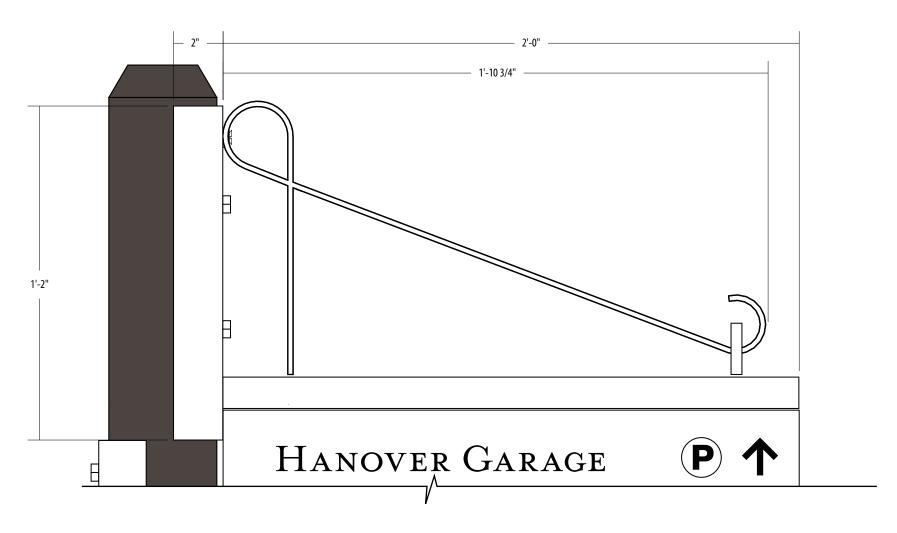
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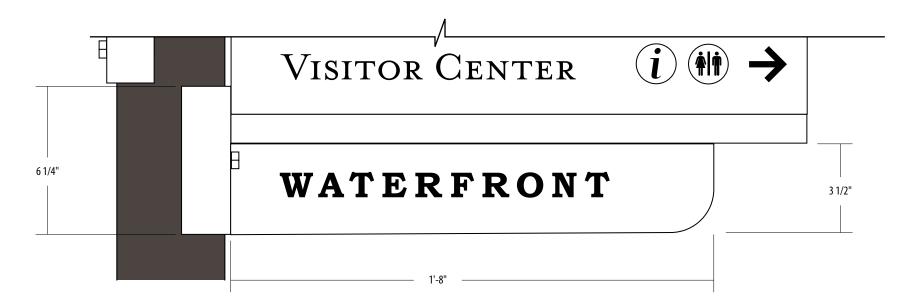
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REVISIONS	
	SHEET NO.
	F.9



Front View: Decorative Top Bracket

SCALE: 3" = 1"

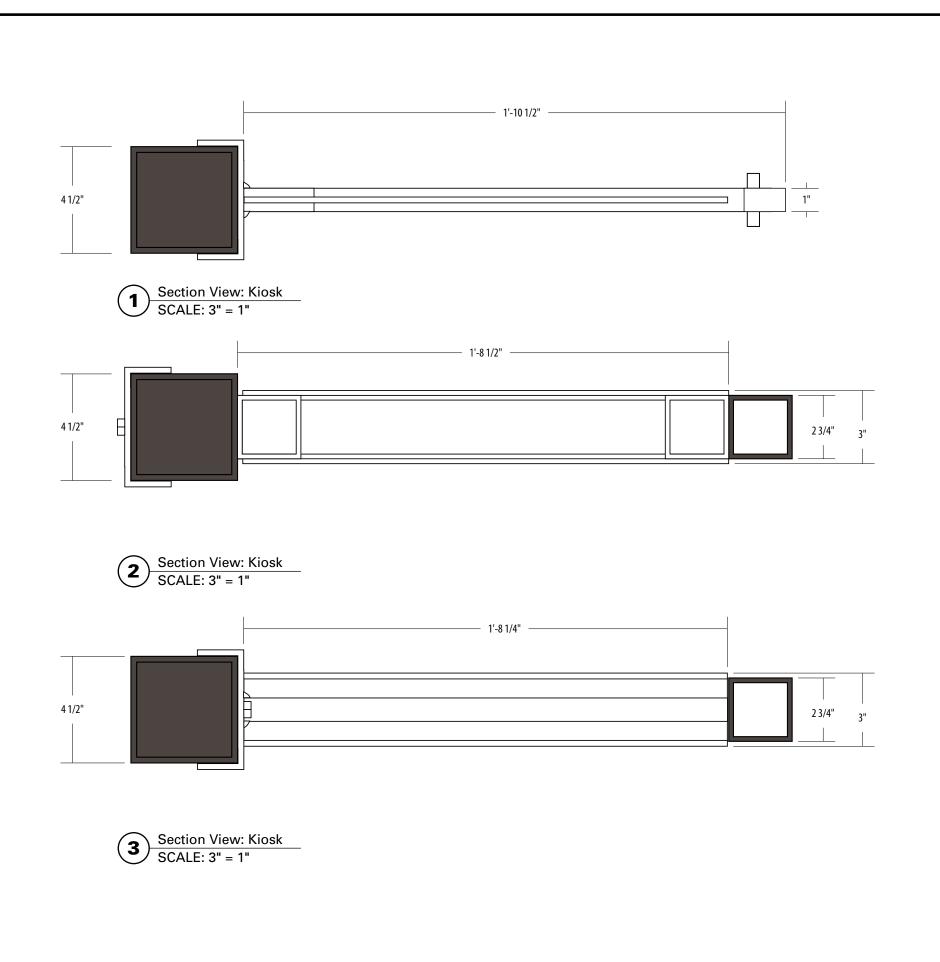


Side View: Decorative Bottom Bracket
SCALE: 3" = 1"

ED.1	
ES:	ions and provide a datail drawing for occ
	n, paint all seams. e tamper proof fasteners.
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E 11/18/2013	www.merjedesign.com CLIENT / PROJECT
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SIONS	
	SHEET NO.

F.10

For sign types:

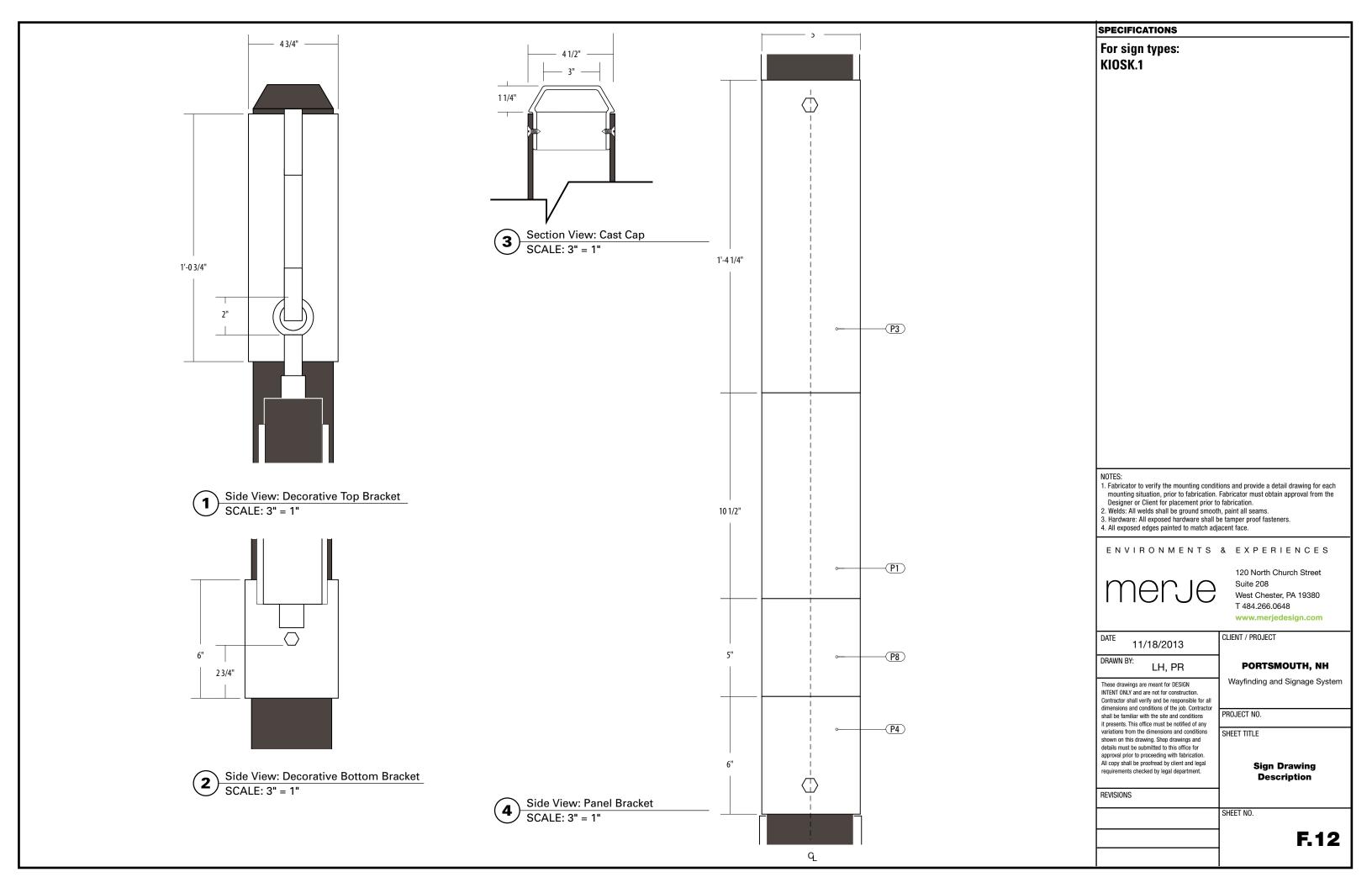


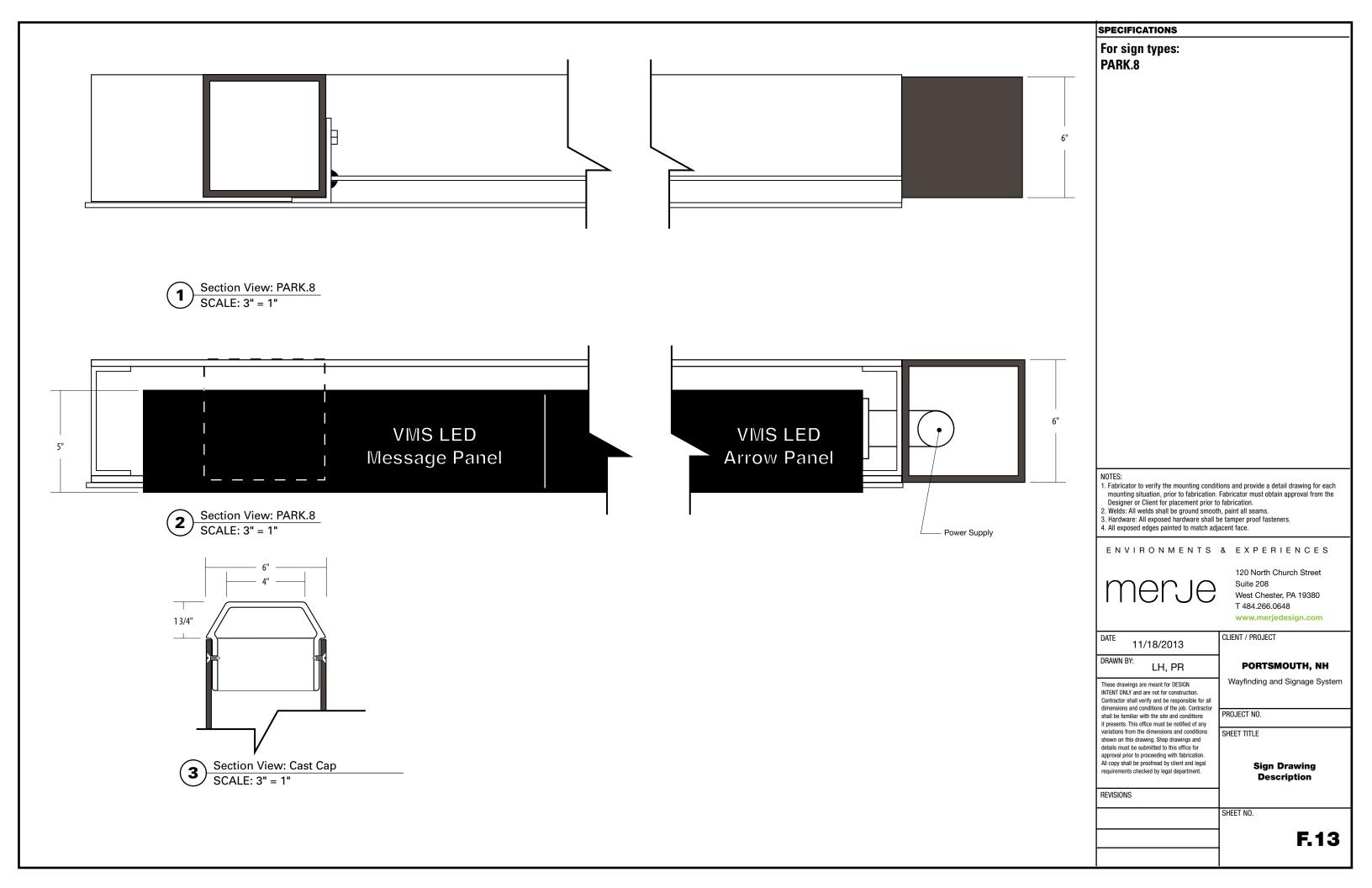
SPECIFICATIONS For sign types: KIOSK.1 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

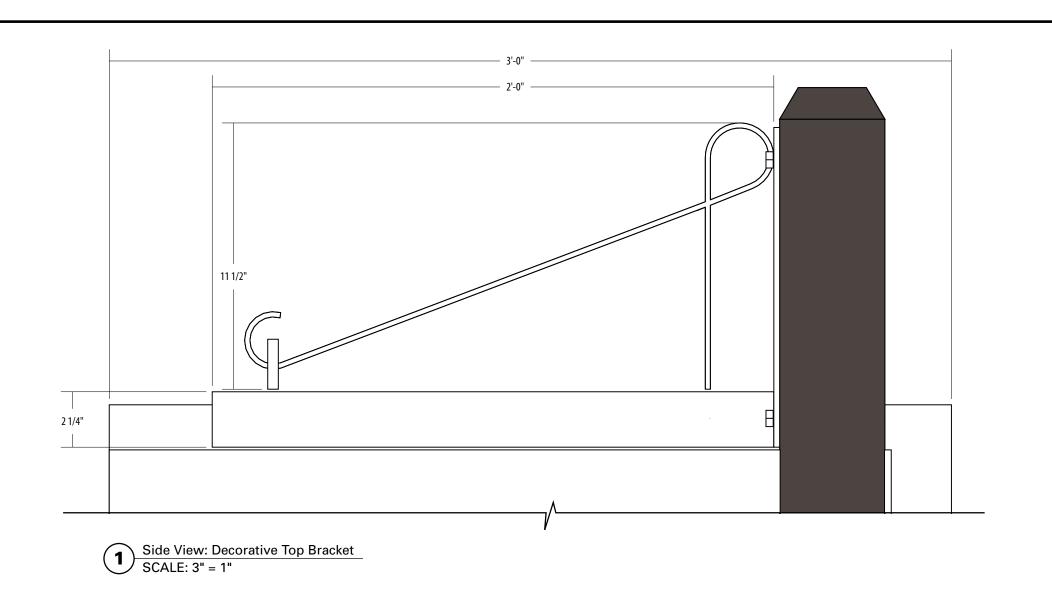
2. Welds: All welds shall be ground smooth, paint all seams.

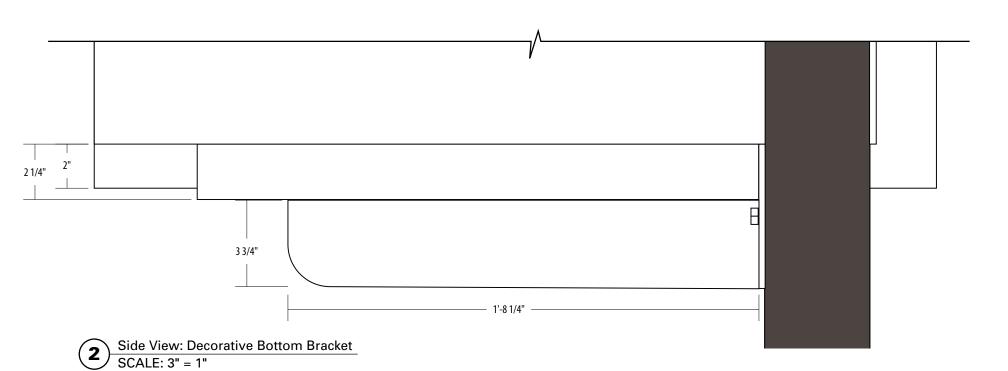
3. Hardware: All exposed hardware shall be tamper proof fasteners.

4. All exposed edges painted to match adjacent face. ENVIRONMENTS & EXPERIENCES 120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com CLIENT / PROJECT 11/18/2013 DRAWN BY: PORTSMOUTH, NH LH, PR Wayfinding and Signage System These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. This office must be notified of any variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department. PROJECT NO. SHEET TITLE Sign Drawing Description REVISIONS SHEET NO. F.11









REVISIONS

SPECIFICATIONS

- NOTES:

 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

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Il copy shall be proofread by client and legal equirements checked by legal department.	Sign Drawing Description

SHEET NO.

F.14



GALAXY® DISPLAY AF-3200 SERIES

Galaxy® AF-3200 series displays provide instant control of the traffic/pedestrian flow in your facility. Small outdoor character displays minimize customer confusion with dynamic text, graphics, logos and animation visible at up to 250 feet.

Customers will notice and use your convenient network of displays. The AF-3200 increases revenue in parking garages, airports, convention centers, and many other locations by:

- Directing traffic flow and offering payment instructions at entrances and exit plazas
- Providing way finding in all parts of parking lots and any facility
- Diminishing vehicle circulation congestion
- Displaying courtesy messages and advertising

FEATURES AND BENEFITS

- 30° viewing angle and a range of character sizes from 2.1" to 14.4" supports ADA requirements and provides readability and flexible content
- Reduces glare and improves contrast and legibility with contrast enhancing polycarbonate

Communication

- RS-232, RS-422, or Ethernet (wired or fiber) communication options allow for flexible installation
- Venus® 1500 controller easily integrates with existing software used by most system integrators
- Ask about our Software Developers Kit (SDK).

Protection and Maintenance Vandal and tamper resistant cabinet

- An application of conformal coating to all electronic components grants protection from harsh environmental conditions and dust
- Easy access and trouble-free maintenance of all components; modules are mounted to the inner side of a swing down, front access door



117 Prince Drive PO Box 5120 Brookings, SD 57006-5120 tel 888-325-8726 605-692-0200 x57060 fax 605-697-4700 www.daktronics.com email transportation@daktronics.com Copyright © 2013 Daktronics DD1389389 Rev 03 090413

DAKTRONICS

MODEL NUMBER GUIDE

AF-3200-16x96-8-RG

GALAXY® DISPLAY AF-3200 SERIES

TECHNICAL SPECIFICATIONS

Pixel pitch: 8 mm (0.3") center-to-center; 1,600 pixels per sq ft

12 mm (0.47") center-to-center; 646 pixels per sq ft

Color capability: 1 color (amber or red) tricolor (red, amber, green)(8mm only)

LEDs per pixel: 2-in-1

Estimated LED lifetime: 100,000 + hours

30° horizontal x 30° vertical Viewing angle:

Contrast enhancement: Contrast enhancing polycarbonate face

Service access: Front access

Graphic capability: Text, graphics, logos, basic animation, multiple font styles and sizes Venus® 1500 software or third-party integrators using Venus® 1500 SDK Control software:

120 or 240 VAC single phase Power:

Display dimming: 64 levels (automatic or manual control) RS232, RS422 and Ethernet (wired or fiber) Communication options:

UL listed, NEMA 3R cabinet Compliance information:

MODEL SPECIFICATIONS

MODEL NUMBER	CABINET (HXWXD)	LINES/ CHAR. PER LINE	CHARACTER HEIGHT	WEIGHT (LBS)	POWER (WATTS)	AMPS @ 120 VAC
AF-3200-16x96-8-A, R, or RG	10" x 2'10" x 5"	2/16	2.1"-4.8"	25	81	0.33
AF-3200-16x144-8-A, R, or RG	10" x 4'2" x 5"	2/24	2.1"-4.8"	32	101	0.46
AF-3200-16x192-8-A, R, or RG	10" x 5'2" x 5"	2/32	2.1"-4.8"	40	121	0.54
AF-3200-16x240-8-A, R, or RG	10" x 6'5" x 5"	2/40	2.1"-4.8"	50	141	0.63
AF-3200-32x96-8-A, R, or RG	1'2" x 2'10" x 5"	4/16	2.1"-9.6"	32	121	0.54
AF-3200-32x144-8-A, R, or RG	1'2" x 4'2" x 5"	4/24	2.1"-9.6"	45	162	0.75
AF-3200-32x192-8-A, R, or RG	1'2" x 5'2" x 5"	4/32	2.1"-9.6"	55	202	0.96
AF-3200-32x240-8-A, R, or RG	1'2" x 6'5" x 5"	4/40	2.1"-9.6"	70	242	1.17
AF-3200-48x96-8-A, R, or RG	1'7" x 2'10" x 5"	6/16	2.1"-14.4"	40	162	0.75
AF-3200-48x144-8-A, R, or RG	1'7" x 4'2" x 5"	6/24	2.1"-14.4"	55	222	1.04
AF-3200-48x192-8-A, R, or RG	1'7" x 5'2" x 5"	6/32	2.1"-14.4"	70	283	1.38
AF-3200-48x240-8-A, R, or RG	1'7" x 6'5" x 5"	6/40	2.1"-14.4"	85	344	1.67
AF-3200-8x96-12-A or R	9" x 4'2" x 5"	1/16	3.3"	30	87	0.42
AF-3200-8x144-12-A or R	9" x 6'1" x 5"	1/24	3.3"	40	101	0.54
AF-3200-16x96-12-A or R	1' x 4'2" x 5"	2/16	3.3"-7.6"	35	121	0.71
AF-3200-16x144-12-A or R	1' x 6'1" x 5"	2/24	3.3"-7.6"	48	162	1.00

- 1. Nominal character heights and number of lines that fit on each display are calculated using 7-pixel-high fonts. Many other font sizes are available. Contact Daktronics for details about other fonts.

 2. The number of characters per line is calculated using a fixed-width 7-pixel-high by 5-pixel-wide font and one pixel separator between characters.

NOTES:

SPECIFICATIONS

- 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS & EXPERIENCES

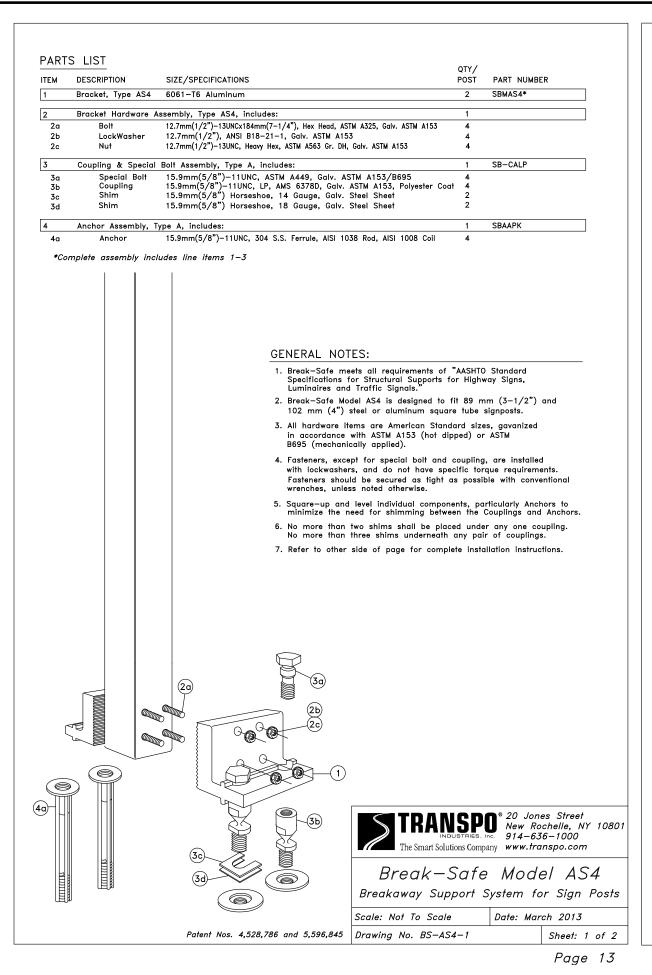


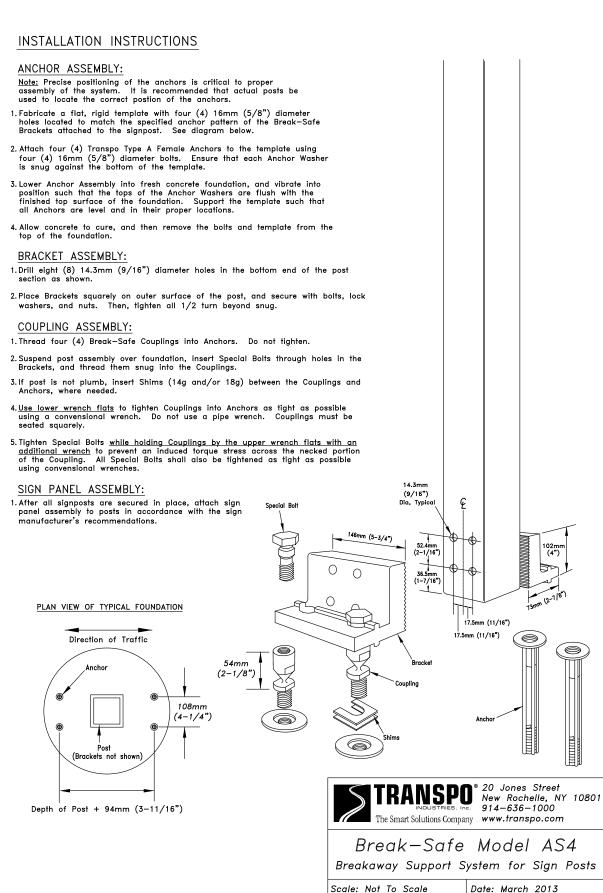
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DATE 11/18/2013	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
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variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	SHEET TITLE PARK.8 LED Details
REVISIONS	

SHEET NO.





Patent Nos. 4,528,786 and 5,596,845 | Drawing No. BS-AS4-2

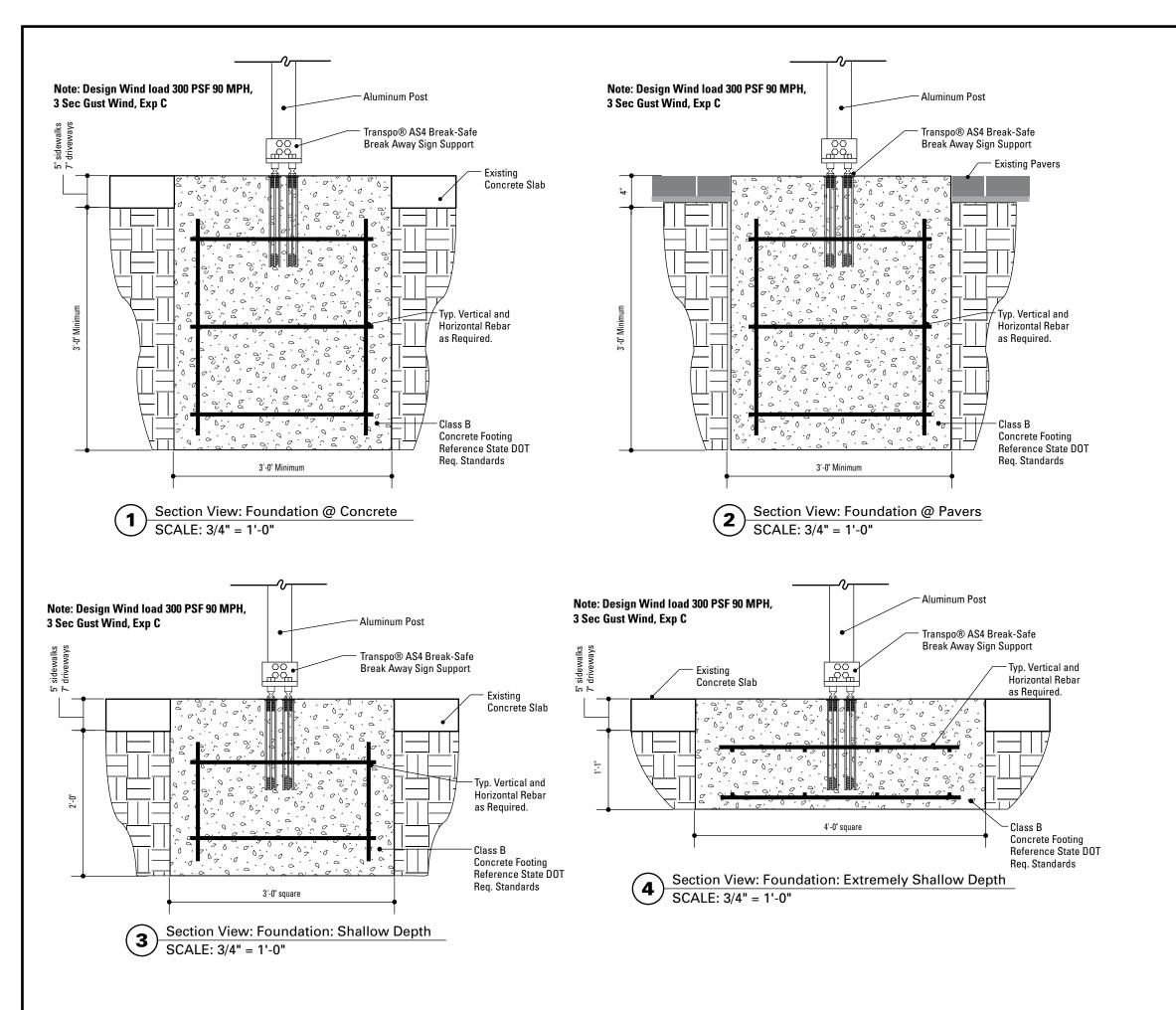
SPECIFICATIONS For sign types: VDIR.1 VDIR.2 VDIR.3 PARK.2 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication. . Welds: All welds shall be ground smooth, paint all seams. 3. Hardware: All exposed hardware shall be tamper proof fasteners. 4. All exposed edges painted to match adjacent face. ENVIRONMENTS & EXPERIENCES 120 North Church Street mer je Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com CLIENT / PROJECT 11/18/2013 DRAWN BY: LH. PR Wayfinding and Signage System These drawings are meant for DESIGN INTENT ONLY and are not for construction Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor PROJECT NO. shall be familiar with the site and conditions it presents. This office must be notified of any variations from the dimensions and conditions SHEET TITLE shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication All copy shall be proofread by client and legal requirements checked by legal department. REVISIONS SHEET NO

Sheet: 2 of 2 Page 14

F.16

PORTSMOUTH, NH

Break Away Footer



SPECIFICATIONS

The FABRICATOR shall be familiar with all site conditions and shall be responsible for all underground utility checks.

The FABRICATOR shall be familiar with all basement/vault locations by obtaining plans from the local municipality Department of Public Works.

Where a basement/vault interferes with a proposed location. The sign shall be relocated to a location deemed appropriate by the municipalities Department of Public Works

Where relocation is not an option the FABRICATOR will develop the appropriate mounting solution. The solution shall meet all engineering criteria as established by the standard footings. (i.e. windloads)

FINAL DESIGNS AND SHOP DRAWINGS SHALL BE SUPPLIED BY THE FABRICATOR FOR EACH OF THE BREAK-AWAY POLES IDENTIFIED AND A NEW HAMPSHIRE REGISTERED PROFESSIONAL ENGINEER IS REQUIRED TO SIGN AND SEAL THE SUBMITTAL OF SHOP DRAWINGS.

NOTE:

- 1) SOIL IS AVERAGE WITH MAXIMUM
 ALLOWABLE SOIL PRESSURE OF 3,000
 POUNDS PER SQUARE FOOT. SOIL UNIT
 WEIGHT OF 125 PCF AND FRICTION ANGLE OF
 30 DEGREES (ASSUMED).
- 2) CONCRETE STRENGTH AT 28 DAYS F'C=4,000 PSI REINFORCEMENT SHALL BE ASTM 36 FY=60,000 PSI
- 3) FOLLOW 2008 AHTD DESIGN STANDARDS FOR MATERIAL AND CONSTRUCTION INFORMATION FOR THE SIGN POST BASES AND FOUNDATIONS NOT OTHERWISE SPECIFIED IN THESE CONTRACT DRAWINGS
- 4) FOR SIGN POST SIZES REFER TO THE DESIGN INTENT DRAWING SHEETS

NOTES:

- Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.
- 2. Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.
- 4. All exposed edges painted to match adjacent face.

ENVIRONMENTS & EXPERIENCES



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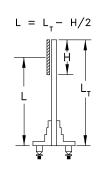
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REVISIONS	

SHEET NO.

PARTS LIST DESCRIPTION SIZE/SPECIFICATIONS POST PART NUMBER SBM525 -1,-2,&-3* Bracket, Type B525 6061-T6 Aluminum (see Bracket Selection Table for -Number Bracket Hardware Assembly, Type B525, includes: 2a 12.7mm(1/2")-13UNCx63.5mm(2-1/2"), Hex Head, ASTM A325, Galv. ASTM A153 2b Bolt 12.7mm(1/2")-13UNCx69.8mm(2-3/4"), Hex Head, ASTM A325, Galv. ASTM A153 2c 12.7mm(1/2")-13UNCx76.2mm(3"), Hex Head, ASTM A325, Galv. ASTM A153 12.7mm(1/2")-13UNCx31.7mm(1-1/4"), Hex Head, ASTM A307, Galv. ASTM A153 12.7mm(1/2"), ANSI B18-21-1, Galv. ASTM A153 2d Cap Screw LockWasher 12.7mm(1/2")-13UNC, Heavy Hex, ASTM A563 Gr. DH, Galv. ASTM A1531 3 SB-CBLP Coupling & Special Bolt Assembly, Type B, includes: Special Bolt 25.4mm(1")-8UNC, ASTM A449, Galv. ASTM A153/B695 3a 25.4mm(1")-8UNC, LP, AMS 6378D, Galv. ASTM A153, Polyester Coat 25.4mm(1") Horseshoe, 14 Gauge, Galv. Steel Sheet Coupling 25.4mm(1") Horseshoe, 18 Gauge, Galv. Steel Sheet 3d Anchor Assembly, Type B, includes: SBARPK 25.4mm(1")-8UNC, 304 S.S. Ferrule, AISI 1038 Rod, AISI 1008 Coil 4a

^{*}Complete assembly includes line items 1-3



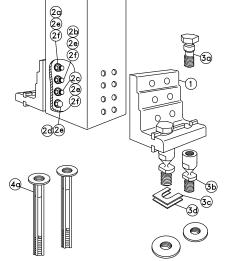
BRACKET SELECTION TABLE

Select correct Break-Safe bracket number from table, using 'L' value from the longest post. Use figure to the left to determine 'L'.

	BRACKET No. 1		BRACKET No. 2		BRACKET No. 3	
POST SIZE	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'	Min. 'L'	Max. 'L'
127mm (5")	3.4m(11')	8.8m(29')	2.4m(8')	3.4m(11')	0	2.4m(8')
152mm (6")	3.6m(12')	8.8m(29')	2.7m(9')	3.6m(12')	0	2.7m(9')

GENERAL NOTES:

- 1. Break-Safe meets all requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals."
- 2. Break-Safe Model B525 is designed to fit 127mm (5") and 152mm (6") Square Tube sign posts.
- 3. Select proper Bracket Number by referring to Bracket Selection Table.
- 4. All hardware items are American Standard sizes, gavanized in accordance with ASTM A153 (hot dipped) or ASTM B695 (mechanically applied). 5. Fasteners, except for special bolt and coupling, are installed
- with lockwashers, and do not have specific torque requirements. Fasteners should be secured as tight as possible with conventional wrenches, unless noted otherwise.
- 6. Square—up and level individual components, particularly Anchors to minimize the need for shimming between the Couplings and Anchors.
- 7. No more than two shims shall be placed under any one coupling. No more than three shims underneath any pair of couplings.
- 8. Refer to other side of page for complete installation instructions.





Break-Safe Model B525 Breakaway Support System for Sign Posts

5" & 6" Square Tube, Single Post

Date: March 2013 Scale: Not To Scale

Patent Nos. 4,528,786 and 5,596,845 | Drawing No. BS-B525-STSP

Sheet: 1 of 2 Page 19

INSTALLATION INSTRUCTIONS ANCHOR ASSEMBLY: Note: Precise positioning of the anchors is critical to proper assembly of the system. It is recommended that actual posts be used to locate the correct postion of the anchors. 1. Determine proper Break-Safe Bracket Number from the Bracket Selection Table. All posts within a sign structure shall use the same Bracket Number, determined by the length of the <u>longest</u> post. Fabricate a flat, rigid template with four (4) 25mm (1") diameter holes located to match the specified anchor pattern of the Break-Safe Brackets attached to the signpost. See diagram below. 3. Attach four (4) Transpo Type B Female Anchors to the template using four (4) 25mm (1") diameter bolts. Ensure that each Anchor Washer is snug against the bottom of the template. 4. Lower Anchor Assembly into fresh concrete foundation, and vibrate into position such that the tops of the Anchor Washers are flush with the finished top surface of the foundation. Support the template such that all Anchors are level and in their proper locations 5. Allow concrete to cure, and then remove the bolts and template from the BRACKET ASSEMBLY: 1. Drill sixteen (16) 14.3mm (9/16") diameter holes in the front & back of the bottom 2. Place Brackets squarely on outer surface of the post, and secure with bolts, lock washers, nuts, and cap screws. Then, tighten all 1/2 turn beyond snug. COUPLING ASSEMBLY: 1. Thread four (4) Break-Safe Couplings into Anchors. Do not tighten. 2. Suspend post assembly over foundation, insert Special Bolts through holes in the Brackets, and thread them snug into the Couplings. 3. If post is not plumb, insert Shims (14g and/or 18g) 4. <u>Use lower wrench flats</u> to tighten Couplings into Anchors as tight as possible using a convensional wrench. Do not use a pipe wrench. Couplings must be seated 14.3mn (9/16") Dia, Typical 5. Tighten Special Bolts while holding Couplings by the upper wrench flats with an additional wrench to prevent an induced torque stress across the necked portion of the Coupling. All Special Bolts shall also be tightened 134mm (5-1/4") as tight as possible using convensional wrenches. 0 SIGN PANEL ASSEMBLY: 0 10 1. After all signposts are secured in place, attach sign 0 44.5mm (1-3/4") panel assembly to posts in accordance with the sign \bigcirc manufacturer's recommendations. \circ PLAN VIEW OF TYPICAL FOUNDATION 28.6mm (1-1/8") 28.6mm (1-1/8") Direction of Traffic (2-1/2")A = 76mm(3") Post (Brackets not shown 20 Jones Street New Rochelle, NY 10801 914-636-1000 B (Bracket No. 1) = Depth of Post + 202mm (8") The Smart Solutions Company www.transpo.com B (Bracket No. 2) = Depth of Post + 205mm (8-1/8")B (Bracket No. 3) = Depth of Post + 207mm (8-3/16")Break-Safe Model B525

SPECIFICATIONS For sign types: VDIR.4 VDIR.5 VDIR.6 Designer or Client for placement prior to fabrication. 4. All exposed edges painted to match adjacent face.

Square Tube

Date: March 2013

5" & 6" Square Tube, Single Post

Scale: Not To Scale

Patent Nos. 4,528,786 and 5,596,845 | Drawing No. BS-B525-STSP

Post Section

- . Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the
- . Welds: All welds shall be ground smooth, paint all seams.
- 3. Hardware: All exposed hardware shall be tamper proof fasteners.

ENVIRONMENTS & EXPERIENCES

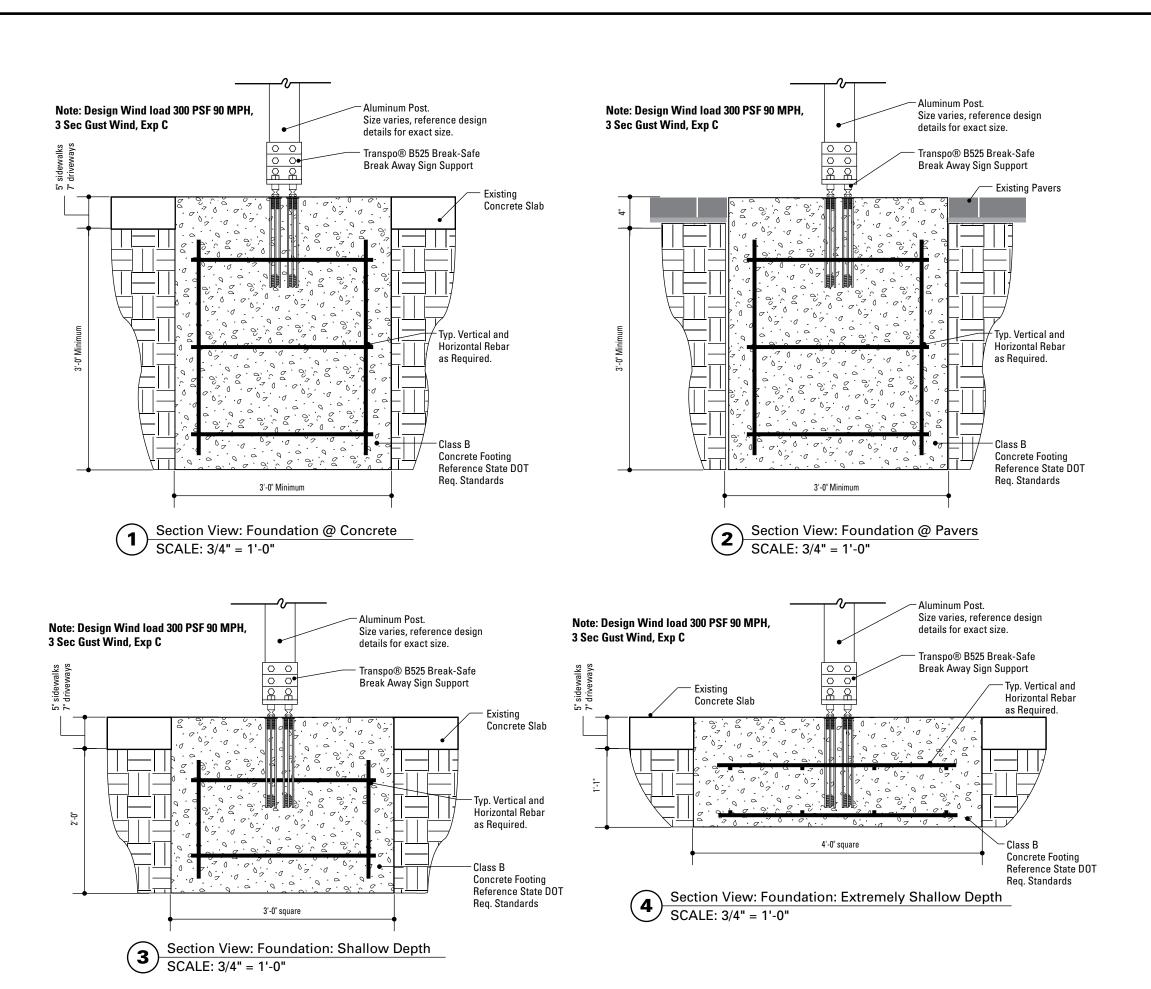


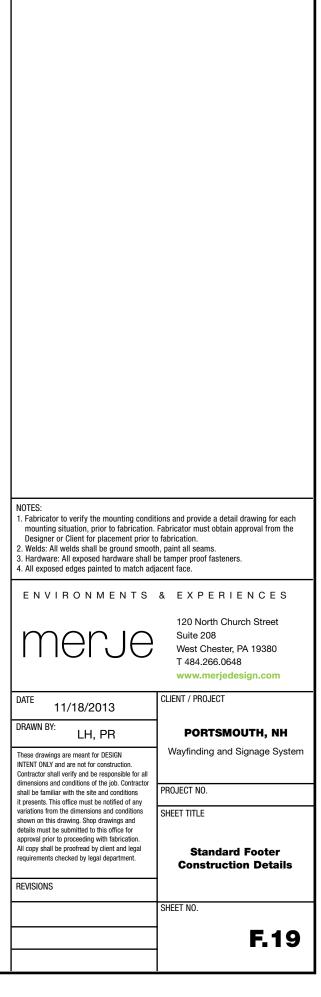
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DATE 11/18/2013	CLIENT / PROJECT
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variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	SHEET TITLE Break Away Footer
REVISIONS	

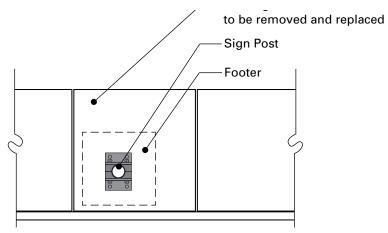
SHEET NO.

Sheet: 2 of 2 Page 20



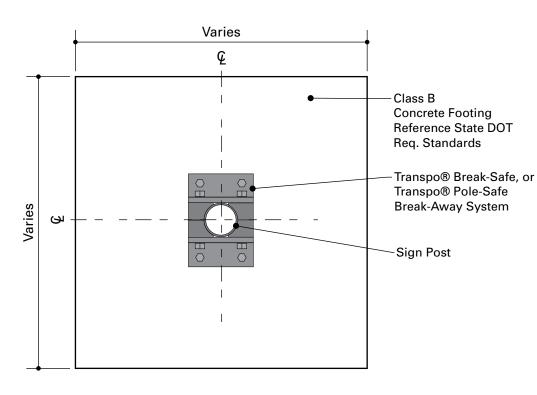


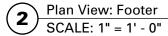
SPECIFICATIONS

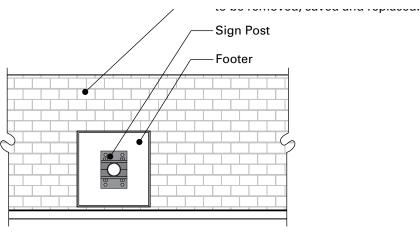


NOTE: When locating a footer within a single pavement block adjacent to at least 2 expansion joints, the entire block of pavement shall be removed and replaced with the same materials and finish of adjacent sidewalk areas.









NOTE: The pattern of bricks need to be removed, stored and replaced in the order they were removed. Marking the Specialty Pavers sidewalk with spray paint will NOT be allowed.

Plan: Specialty Pavers Footer Placement SCALE: NTS



Preferred Footer Detail



Preferred Footer Detail



Preferred Footer Detail



BAD Footer Detail



BAD Footer Detail



BAD Footer Detail

SPECIFICATIONS

- NUTES:

 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication.

 2. Welds: All welds shall be ground smooth, paint all seams.

 3. Hardware: All exposed hardware shall be tamper proof fasteners.

 4. All exposed edges painted to match adjacent face.

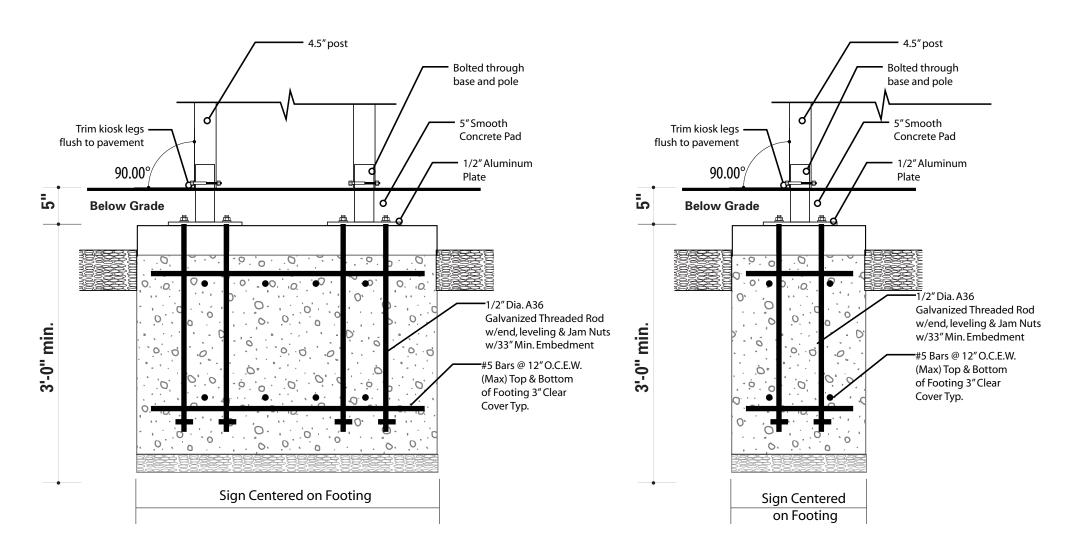
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REVISIONS	1

SHEET NO.



Section: MOUNTING – KIOSK.1
SCALE: NTS

Section: MOUNTING – PED.1
SCALE: NTS

SPECIFICATIONS For sign types: KIOSK.1 PED.1 1. Fabricator to verify the mounting conditions and provide a detail drawing for each mounting situation, prior to fabrication. Fabricator must obtain approval from the Designer or Client for placement prior to fabrication. Welds: All welds shall be ground smooth, paint all seams.
 Hardware: All exposed hardware shall be tamper proof fasteners. 4. All exposed edges painted to match adjacent face. ENVIRONMENTS & EXPERIENCES 120 North Church Street merje Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com CLIENT / PROJECT 11/18/2013 DRAWN BY: PORTSMOUTH, NH LH, PR Wayfinding and Signage System These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor PROJECT NO. shall be familiar with the site and conditions it presents. This office must be notified of any variations from the dimensions and conditions SHEET TITLE shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal **Direct Bury Footer** requirements checked by legal department. REVISIONS SHEET NO. **F.21**

SECTION 3 Performance Specifications

PART 1 – GENERAL

1.01 WORK RELATED

- A Labor, materials, equipment and services necessary for the fabrication, delivery and installation of signage as described in the detail design intent drawings.
- **B** Refer to the message schedule for a complete list of sign types and quantities.
 - Signs listed on message schedule should match those indicated on sign location plans. Contractor to notify owner of any discrepancies in sign quantities by doing take-offs before manufacturing signs.
- **C** Signage is located in the City of Portsmouth, NH.
- D For all signs, all fasteners, support structures required for installation.

1.02 RELATED WORK

- A General carpentry and painting requirements: all work to be done in a professional manner and to the highest trade standards.
- **B** Use OSHA safety requirements if necessary for pedestrian and/ or vehicular safety.

1.03 REGULATORY REQUIREMENTS

Observe applicable codes, sign ordinances and ADA guidelines for handicapped and fire/life safety signing. All exterior signs located in the public right-of-way, including local city, county and state roadways, shall comply with the 2009 MUTCD standards, including Revisions.

1.04 REFERENCE STANDARDS

Refer to current editions of the following:

- **A** MUTCD standards manual, 2009 edition, including Revisions.
- **B** Federal ADAAG, 2010 standards.
- **C** ASTM B 209–Aluminum sheet and plate.
- **D** ASTM B 221–Aluminum-alloy extruded bars, rods, wire, shapes and tubes.
- **E** ASTM D 822–Light and water exposure apparatus (carbon-arc type) for testing paint, varnish, lacquer and related products.
- **F** ASTM E 84–Surface burning characteristics of building materials.
- **G** ASTM C 143-74–Concrete slump test.
- **H** FS L-P-391–Plastic sheet, rods and tubing, rigid and cast materials.
- I FS L-P-387–Plastic sheet, laminated, thermosetting.
- **J** ASTM C 880–Stone, granite flexural strength testing.
- **K** PEI_Porcelain Enamel Institute
- L UL 943-Fluorescent lamp ballasts.

1.05 SUBMITTALS

A Bid submittal requirements

- All of the inclusive bid submittals must be provided to be considered a gualified bid.
- 2 All proprietary contractual paperwork provided by the client filled out accurately, including all requested bonding and insurance information.
- 3 Submit completed spreadsheet (form and/or file provided) with all requested line item prices. Ensure that all row and column totals add up properly. Use the provided format, do NOT use a different spreadsheet format.
- Submit a projected project schedule. Schedule will show major milestones such as sample submittals, fabrication, and installation. The payment schedule will be tied to reaching these milestones. Schedule will be updated regularly throughout the project.

B Requirements

- 1 Schedule shop drawings, product data and sample submittals for delivery at the same time.
- 2 The owner may hold shop drawings, product data and samples in cases where a partial submittal cannot be reviewed until associated items have been received.
- 3 Allocate not less than four weeks, plus mailing time, for processing by the owner.

C Schedule

- Submit Gantt-style schedule with all pertinent dates and milestones for the project.
- 2 Include all lead times for materials, processes and third party products or components.
- 3 Include submittal delivery dates, fabrication and installation dates.
- 4 Allow several weeks in schedule for review and revision time for all submittals.
- 5 Revise schedule regularly as project details dictate.
- 6 Contractor shall pay \$1,000 a day for each day past the agreed upon project deadline, unless otherwise stated in the owner-contractor agreement.

D Shop Drawings

NOTE: All final shop drawings must have an engineering stamp from a state licensed engineer before being approved for fabrication.

- 1 Submit three (3) sets of shop drawings as outlined below.
- 2 Include plans, elevations, sections and large scale details of sign wording and lettering layout. Show anchorages and accessory items. Provide mounting templates.
- 3 Show fabrication and installation details, including all sign components such as extrusions, brackets, bracing, hardware, internal framing, foundations, etc.
- 4 Provide engineering data to confirm viability of signs and supports, including structural stability of all signs, fasteners and foundation design.
- Structural details must be reviewed and stamped by a state certified structural engineer, ensuring structural integrity and safety.

E Sub Contractor Qualifications Information

- 1 The total percentage of subcontracted work on this project is not to exceed 49% including installation.
- 2 Fabricator must submit credentials for any subcontractor selected to execute any portion of this contract. This must be submitted with proposal or bid. Demonstrate subs qualifications for doing specified work.

F Samples

- 1 Submit three (3) sets of each sample required.
- Owner reserves the right to reject any samples that do not satisfy the construction, finish or color requirements. Submit additional samples as required to obtain final approval.
- 3 Samples shall be labeled on the back, designating item number, name of manufacturer, name of project.
- 4 The following sample submittals are required for this project:

The following samples MUST be submitted and approved PRIOR to the fabrication of the signs.

- a) 3 sets of all color samples, including paint and vinyl samples on thin aluminum plates (approx. 3" x 6").
- b) 2 sets of material samples.
- Sample fasteners, hardware and mounting hardware sufficient to obtain clear ideas of how signs are fabricated, made changeable and installed.
- d) One (1) full size PARK.1 sign panel including mounting harware, NOT to be job used. To be installed in field for sample review.
- e) One (1) full size letter PARK.6 for field contrast verification.
- f) One (1) Decorative Bottom Bracket (for a PED.1 sign), NOT to be job used: NIS (Not in Scope)
- 5 Samples should represent extreme variations in color and texture that might occur during fabrication.

G Maintenance Data

- Submit two (2) copies of each manufacturer's recommendations for maintenance of all items.
- The instructions shall cover cleaning, repair, repainting and maintenance of signs, including data on cleaning solutions or methods of application which should be avoided.

1.06 DELIVERY OF ATTIC STOCK (IF ANY)

A For any attic stock ordered, package separately or in like groups labeled as to contents. Include installation hardware, adhesives and installation instructions; include a reasonable array of alternative adhesives, fasteners or materials to be able to respond effectively to varying field conditions.

1.07 PROTECTION

A Store and protect assemblies from injury at the shop, in transit to the job and until erected in place, completed, inspected and

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PORTSMOUTH, NH

Wayfinding and Signage System

Specifications

3.1

CLIENT / PROJECT

PROJECT NO.

SHEET TITLE

SHEET NO.

DATE

DRAWN BY:

REVISIONS

12/5/13

These drawings are meant for DESIGN

INTENT ONLY and are not for construction.

Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor

shall be familiar with the site and conditions

it presents. This office must be notified of any

variations from the dimensions and conditions

shown on this drawing. Shop drawings and

details must be submitted to this office for

approval prior to proceeding with fabrication.
All copy shall be proofread by client and legal

requirements checked by legal department.

LH. PR

SPECIFICATIONS
PART 1 – GENERAL

PART 1 – GENERAL continued

accepted.

B Take special precautions to prevent pilferage both prior to and after installation. Be prepared to provide replacements for any material so removed from the site.

1.08 INSPECTION

- A Materials, colors and fabricated or partially fabricated items shall be available for inspection at the factory or elsewhere, by the owner or designer during the process of manufacture and until final delivery, installation and acceptance, to determine whether or not there is compliance with the requirements of these specifications.
- **B** Approval prior to the time of final acceptance shall not preclude rejection of delivered items which do not satisfy these specifications.

1.09 REORDERING

All items specified herein shall be available to the owner in additional quantities for a period of 10 years after completion of all work called for in this specification.

1.10 WARRANTY

All warranties on fabricator's standard contract forms must be modified to match warranty criteria mentioned herewith. Any changes in warranty length or criteria must be negotiated prior to contract signing. Any discrepancies from fabricator's contract are superseded by this performance specification.

ALL PAINT FINISH WARRANTIES MUST BE ACCOMPANIED BY SIGNED WARRANTY AGREEMENTS WITH THE PAINT MANUFACTURER AND FINISHER.

- A Warrant all products (including, but not limited to, materials, hardware and finishes) against any and all defects for a minimum period of five (5) years from date of installation.
- **B** Correct any and all defects in material and/or workmanship which may appear during the warranty period by restoring defective work to the standard of the contract documents at no cost to the owner and to the owner's satisfaction.
- C Custom color background and characters printed with 3M inks direct to 3M High Intensity Prismatic Reflective Sheeting Series 3930, with 3M ElectroCut Film 1170 overlaminate (applied according to 3M specifications to aluminum sheet), must be warranted for a period of eight (8) years and shall not excessively fade, discolor, crack, craze, peel, blister or lose reflectivity such that the signs become visually unsuitable for their intended purpose.
- **D** Vinyl die-cut letters shall be warranted for five (5) years against delamination from substrate.
- **E** Correct any and all paint finish defects which may appear during the warranty period by restoring defective work to the standard of the contract documents at no cost to the owner and to the owner's satisfaction.
- **F** Additional corrections shall include, but not be limited to, the following:
- 1 Peeling, bubbling, crazing, chalking, rusting or other

disintegration of the sign face or of the messages or of the edge finish of the sign inserts or panel.

- 2 Corrosion developing beneath paint surfaces of the support systems (except when it is the result of obvious vandalism or other external damage to the paint surfaces).
- 3 Corrosion of the fastenings.
- 4 The signs not remaining true or plumb on their supports.
- 5 Fading of the colors when matched against a sample of the original color and material.
- 6 Discoloration of metal finishes.

1.11 ALTERNATE FABRICATION

A The drawings show design intent only. The fabricator is responsible for fabrication and overall level of quality. Any changes in design, materials, fabrication techniques or details necessary to the successful completion of this project should be communicated to the designer and the owner in a timely fashion

Further development and engineering of designer's details (for fabrication and installation) is expected and should be shown in the shop drawings.

- **B** The designer recognizes that manufacturers may have shop fabrication techniques that differ from details shown. Suggested changes in fabrication that do not alter the design intent nor reduce the quality will be considered by the designer provided they are submitted in sketch from as soon as possible prior to shop drawing preparation.
- **C** Any value engineering changes during fabrication shall be split evenly between the contractor and owner.

PART 1 – GENERAL	
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ENVIRONMENTS DATE 12/5/13 DRAWN BY: LH, PR	120 North Church Street Suite 208 West Chester, PA 19380 T 484.266.0648 www.merjedesign.com CLIENT / PROJECT PORTSMOUTH, NH
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SPECIFICATIONS

PART 2 – PRODUCTS

2.01 QUALITY ASSURANCE

- A Materials used for this project shall be new and not reconditioned or re-purposed.
- **B** Fabricator shall be familiar with the site and all conditions related to the fabrication and installation of the project.
- **C** Use only personnel thoroughly skilled and experienced with the products and method for fabrication and installation of signage specified.
- **D** The owner shall reserve the right to reject any shop drawings, samples or other submittals, as well as any finished product or installation, than cannot meet the standard of quality established. Any such decision will be considered final and not subject to recourse.
- **E** The intent of the contract documents is to provide everything necessary for a complete contract. In the event of conflict or omission, the fabricator shall consult the owner for resolution.
- **F** Materials and hardware not specified, but necessary to the complete functioning of the sign, shall conform to the quality level established.

2.02 PREFERRED MATERIAL SUPPLIERS

Vendors and products listed below are specified for this product. These products have either been tested on prior projects and have delivered proven results, or have properties unique to this project. Any suggested substitutions must have documentation demonstrating the same level of quality and warranty PRIOR to bidding. Bids are subject to disqualification if unauthorized substitutions are used.

A Acrylic Polyurethane paint

Matthews Paint (a division of PPG), Delaware, OH 43015

Phone: 800-323-6593 www.matthewspaint.com

B All vinyl and vinyl coatings

3M Commercial Graphics Division, St.Paul, MN 55144

Phone: 888-364-3577 www. solutions.3m.com

C Acrylic sheeting

ACRYLITE® Sheet

Evonick Cyro LLC, Parsippany, NJ 07054

Phone: 855-202-7467 www.acrylite-shop.com

D Map and Interpretive panels

Digital High Pressure Laminate (dHPL)

iZone, Temple, TX 76502

Phone: 888-464-9663

www.izoneimaging.com

Fossil Industries, Deer Park, NY 11729

Phone: 631-254-9200 www.fossilgraphics.com

2.03 DESIGN REQUIREMENTS

A Typeface specifications

- Typeface (or fonts) are purchased from respective font websites, licensed to the designer, and will not be shared with the fabricator. Fabricators will be responsible for purchasing matching licensed fonts for project usage. See the Graphics Standards section of the design intent drawings for the specific fonts utilized within the project.
- 2 Size: all letter heights specified are based on the cap height of the capital letter.
- Alignment: When setting type or installing cut letters, ensure that letters are perfectly straight and even, with no characters set crooked or "popping up."
- Spacing
 - a) See the Graphics Standards section of the design intent drawings for the samples of letterspacing programs. The proper letter and word spacing is of extreme importance to the desired look of the signs.
 - b) Contractor is responsible for visual corrections to the typesetting that might be necessary. Any problems in spacing or copyfitting should be brought to the attention of the designer for solution.

B Visual justification

Display type may align mechanically but not optically. When flushing copy message left, a visual adjustment shall be made compensating for arrows and those letter forms that must be extended into the left hand margin to appear flush. For example, S and O must extend beyond the left margin slightly.

C Arrow and symbol specifications

- Symbols: Symbols and pictographs shall conform to the symbol signs issued by the Department of Transportation and the American Institute of Graphic Arts. To obtain more information and digitized Macintosh (EPS) compatible AIGA symbols, contact: Society for Environmental Graphic Design (SEGD), 1000 Vermont Ave., NW, Suite 400, Washington, DC 20005, Phone: 202-638-5555.
- Arrows: Arrows on all signs shall use the arrow files which will be provided by the owner to the successful bidder.
 - a) Arrow size will be dimensioned by height as shown in the design intent drawings.

D Artwork

The contractor shall be provided electronic Adobe InDesign and Illustrator files with the project artwork and templates. The final output quality of the artwork for finished signage shall be the responsibility of the contractor. The owner's representative reserves the right to reject artwork if it fails to meet the standard of quality established.

2.04 MATERIALS

- A Aluminum extrusions: For mounting plates and structural frames shall conform to ASTM B-221, alloy 6063-T6. Shapes, sizes and weights of members shall be as required for structural stability. All connections of aluminum members shall be heli-arc welded, continuous fillets, ground smooth on all exposed surfaces, unless specifically detailed otherwise. Aluminum finishes shall be hereinafter specified.
- **B** Aluminum sheet and plate: Type 5052-H-32 alloy aluminum, thickness as indicated. For painted finish, faces shall be etched to give an even stain finish and remove oxidation, then conversion coated to improve paint adhesion and inhibit corrosion. Surface shall be belt-sanded for a smooth finish, edges filed and ground then immersed in hot alkaline cleaner to remove contamination. For anodized finish, prepare for finish AA-M31-C21-A31. Aluminum should have consistency of color and finish throughout the project.
- C Stainless Steel sheet: Chromium stainless steel sheet. Use type 304 or type 316 austenitic stainless steel with 16% chromium and 10% nickel.
- **D** Hangers, brackets and accessories: Shall be of the type and size indicated. Where such items are not specifically called for, provide hangers, brackets and accessories as required for the proper execution of the work, as approved by the owner.
- **E** Paint for aluminum: All coating to protect aluminum by uniformly penetrating, filling, and sealing surface pores. Coating should provide an invisible barrier to weathering, airborne contaminants, graffiti, industrial air pollution, mildew, and salt air. Coating should not yellow, peel or flake. Coating should be guaranteed in conformance with Warranty Section 1.10-E. Sign panels shall be pre-drilled in proper locations before any priming, painting or coating processes. Aluminum should have consistency of color and finish throughout the project.

1 Matthews Acrylic Polyurethane (PPG)

- MAP® is a superior two-component catalyzed coating system that provides a high degree of ultraviolet, chemical and weather protection for signage and architectural metals. When used as a a complete system, primer through topcoat, MAP provides a high performance finish that lasts for years.
- a) Pretreatment: Mechanically clean and chemically pretreat fabricated items in accordance with coating manufacturer's requirements and AAMA requirements for finish indicated.
- 1) Pretreatment: One coat 74-734 and 74-735 metal pre-treat at .25 mils DFT or one coat 74-793 spray bond at .15 to .25 mils DFT.
- b) Apply primer and finish coats in accordance with coating manufacturer's requirements for finish indicated.
 - 1) Finish coat: One coat Matthews Acrylic Polyurethane 2 mils DFT. As a final step, spray one coat of satin clear Matthews Acrylic Polyurethane 2 mils DFT for a protective top coat.

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SPECIFICATIONS PART 2 – PRODUCTS

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REVISIONS	
	SHEET NO.

PART 2 – PRODUCTS continued

2 TIGER Drylac® Series 38 Powdercoating

The TIGER Drylac SHIELD System is a two-coat process combining optimum corrosion protection with highest weatherability. The basis for the excellent corrosion resistance is either TIGER Drylac Zinc Rich Primer 69/90500, TIGER Drylac Dryprotective Primer 69/70000, or TIGER Drylac 09/73841 Out-gassing Forgiving Primer. This two coat system warrants an optimum non-porous film as well as excellent UV protection through the use of high quality polyester powder coatings.

All specified project applications here-in MUST be the TIGER Drylac two-coat process. The TIGER Drylac Series 38 Super Durable Polyester single powder coating is NOT acceptable, unless specifically identified within the sign drawing(s).

- a) Pretreatment: Mechanically clean and chemically pretreat fabricated items in accordance with coating manufacturer's requirements and AAMA 2604–05 requirements for finish indicated.
- b) Powdercoating shall be applied by a Tigerapproved applicator ONLY. Apply primer and finish coats in accordance with coating manufacturer's requirements for finish indicated.
 - Theoretical Coverage: at 1.5 specific gravity and 2.5 mils (60 um) film thickness: 30.2 ft²/lb (9.8 m²/kg).
 - Refer also to the latest edition of "Theoretic Powder Coating Coverage Chart". Version 00-1001 (imperial).

F Pressure Sensitive Vinyl Legends

- Use 3M High Intensity Prismatic Reflective Sheeting Series 3930, with 3M ElectroCut Film 1170 overlaminate.
 - Custom color background and characters printed with 3M inks directly.
 - b) Series 3930 sheeting incorporates a pressure sensitive adhesive and should be applied to the sign substrate at temperature of 65°F/18°C or higher by any of the following methods:
 - Mechanical squeeze roll applicator refer to 3M Information Folder (IF) 1.4 for more details.
 - Hand squeeze roll applicator refer to 3M IF 1.6 for more details.
 - c) Splices: Series 3930 sheeting must be butt spliced when more than one piece of sheeting is used on one piece of substrate. The sheeting pieces should not touch each other. This is to prevent buckling as the sheet expands in extreme temperature and humidity exposure.
 - for traffic sign use, substrates found to be most reliable and durable are properly prepared aluminum sheets and extrusions. Plastic substrates are NOT acceptable.
 - High intensity prismatic sheeting may be processed into traffic signs by any of the imaging methods describe below:

- Screen Processing: Series 3930 sheeting may be screen processed into traffic signs before or after mounting on a sign substrate, using 3M Process Colors Series 880I or Series 880N. Refer to 3M IF 1.8 for more details.
- 2) Thermal Transfer Printing: Series 3930 sheeting may be imaged with 3M Thermal Transfer Ribbon Series TTR2300 in conjunction with the Matan SprinG3 or Matan Spot4 thermal transfer printers. Additionally, series 3930 sheeting may be imaged by the Durst RHO 161 TS printer, by Sherine Industries: (604) 513-1887. All applications utilizing the above printers must be covered with 3M ElectroCut Film 1170 Clear UV/Anti-Graffiti overlaminate.
- 3) 3M ElectroCut Film Series 1170 may be used to provide transparent colored background copy for traffic control signs on high intensity prismatic sheeting. Both materials then must be covered with 3M ElectroCut Film 1170 Clear UV/Anti-Graffiti overlaminate. Refer to Product Bulleting 1170 for fabrication procedures.
- 4) Vinyl Graphic Films: Scotchcal Vinyl Series 7720 and Series 7725 may be used to provide copy for traffic control signs on high intensity prismatic sheeting. Both materials then must be covered with 3M ElectroCut Film 1170 Clear UV/Anti-Graffiti overlaminate. Refer to Scotchcal product literature for more information.
- f) All of the above methods utilizing series 3930 reflective sheeting must be warranted for a period of eight (8) years and shall not excessively fade, discolor, crack, craze, peel, blister or lose reflectivity such that the signs become visually unsuitable for their intended purpose.
- 2 Use 3M Scotchcal brand graphic film. Material shall consist of a tough, flexible, and pigmented vinyl film and shall be processed with compatible screen printing inks and clear coatings as recommended by the film manufacturer. The film shall be precoated with pressure-sensitive adhesive. The adhesive shall be protected by a treated paper liner which shall be easily removable without soaking in water or other solvents. The sheeting shall be guaranteed against delamination for a period of 5 years.
- 3 Use **3M Scotchlite brand reflective graphic film.**Material shall consist of transparent plastic having a smooth, flat outer surface embedded with spherical lens elements. Material shall be capable to being processed with compatible screen printing inks and clear coatings as recommended by the film manufacturer. The film shall be precoated with pressure-sensitive adhesive. The adhesive shall be protected by a treated paper liner which shall be easily removable without soaking in water or other solvents. The sheeting shall be guaranteed against delamination for a period of 5 years.

G Concrete

1 All concrete footers are to be poured in place.

- 2 All concrete footers are to be poured from thoroughly mixed and agitated concrete in order to prevent unreasonable voids in the finished casting.
- 3 Concrete to meet specified "PSI testing" for strength: 3500 PSI minimum.
- 4 Concrete to meet specified "slump test" before pouring footing.
- 5 All footings to extend past the frost line.
- 6 Any footers or posts for signs will be placed in wet concrete and allowed to fully cure in place before any signage is attached or mounted to it in any way.
- 7 All exposed surfaces of concrete shall receive a finish to match existing, adjacent surfaces.
- 8 Do NOT chamfer corners or edges of concrete, unless specifically identified, or called out in the sign drawings.
- 9 Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 - a) Plywood, metal, or other approved panel materials.
 - b) Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1.
- H Breakaway post: Manufacturer shall provide breakaway posts for the sign types and locations indicated in the documentation drawings. Final designs and shop drawings shall be supplied by the fabricator for each of the poles identified. A Professional Engineer shall sign and seal the submittal of shop drawings. The breakaway post shall meet or exceed the following criteria:
 - Most Current policy on Geometric Design of Highway and Streets.
 - 2 Most Current Standard Specification for Structural supports for Highway Signs, Luminaries and Traffic Signals.
 - 3 Most Current AASHTO Roadside Design Guide.
- I Adhesive tape: Use closed-cell foam type tape with adhesive surfaces on both faces. Thicknesses and widths of tapes shall be as required to safely secure signs to various wall finishes, but in no case shall be less than 1/16 inch thick and 1/2 inch wide. Adhesive tape shall be equal to Norton Sealant Tape No. 1001 Series.
- **J Liquid adhesive:** Use Silicone Silastic 732 RTV adhesive sealant as manufactured by Dow Corning.

2.05 FABRICATION

- A Report any discrepancies between drawings, specifications and owner requirements, and request direction from owner before proceeding.
- **B** Verify measurements in field as required for work fabricated to fit job conditions. Before starting work, examine adjoining work on which work of this section is in any way dependent for perfect workmanship and fit.

	NOTES:		
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	ENVIKUNWENIS		120 North Church Street
ı	mon 10		Suite 208



SPECIFICATIONS
PART 2 – PRODUCTS

120 North Church Street
Suite 208
West Chester, PA 19380
T 484.266.0648
www.merjedesign.com

DATE 12/5/13	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor	Wayfinding and Signage System
shall be familiar with the site and conditions it presents. This office must be notified of any	PROJECT NO.
variations from the dimensions and conditions shown on this drawing. Shop drawings and details must be submitted to this office for approval prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.	SHEET TITLE Specifications
REVISIONS	
	SHEET NO.

PART 2 – PRODUCTS continued

- C Make work in ample time not to delay job progress and deliver to job at such time as required for proper coordination. Fabricate work true to line and detail with clean, sharply defined profiles. Finish surfaces smooth unless otherwise specified.
- D Do cutting, punching, drilling and tapping required for attachment or other work coming in contact with signage work where indicated.
- **E** Changeability: Fabricate signs in such a manner that each of the major mounting components may be removed and replaced with similar components by maintenance personnel, but not by unauthorized personnel.
- **F** Construction: Fabricate all joints, corners, miters, etc., with work accurately machined, filed and fitted, rigidly framed together at joints and contact points. Carefully match all work to provide a perfect continuity of lines and design, with metal in contact having hairline joints. Make joints of such character and assembly to be strong and as rigid as adjoining sections. Make exposed joints where joint is least conspicuous. Corners shall be square as indicated. All edges shall be finished and free of saw marks.

Allow for expansion and contraction of materials from temperature changes, especially when two materials with different coefficients of expansion are used together.

Detail signs to minimize deflection from snow, ice, water and their own weight.

- **G** Engineering: The system shall be engineered to eliminate buckling of any members, failure at any points, distortions or other damage. The system shall be engineered to be rigid with minimum deflection and rotation under stress and shall be able to withstand movement, shear and torsional loads. Exposed areas of signs shall not oil can. Signs shall be designed as structurally self-supporting units. The suspension systems and substructure shall be designed by the sign manufacturer to perform in accordance with the contract documents.
- **H** Connections and accessories: Weights of connections and accessories shall be adequate to sustain and withstand stresses and strains to which they will be normally subjected.

I Sign panels - General

- Surface finish: Provide surface finishes that are free from lines, mottling, ridges, variations in color, peeling, orange peel, bubbles, pinholes, mottling, crazing, grit and coarse particles. This applies to all methods of fabrication and finishing. Use clear coatings for durability, surface protection, appearance and maintenance.
- Material: Sign panel material is stated in the schedules under "Notes" and/or "Specifications" and/or on drawings.
- Opacity: All signs shall have opaque background and opaque graphics, unless specifically noted otherwise.

J Anchors and fastenings

- Mechanical
 - Provide anchors and fasteners required to secure work in place.
 - Surface finish: Do NOT expose fastenings on surface of sign panels unless specifically noted otherwise. Do

- NOT deform, distort or discolor sign face surfaces by attachment of concealed fastenings.
- Corrosion resistance: all fastenings shall be noncorrosive and resistant to oxidation or other corrosive action, of the same composition completely through their cross sections, particularly when used below grade. Use highest quality stainless steel hardware and fasteners.
- Anchors, inserts or fasteners shall be compatible with sign materials, shall not result in galvanic action or chemical interaction of adhesives and shall have demonstrable and sufficient strength for intended
- e) Steel anchors and fastenings for exterior use shall be galvanized in accordance with ASTM A153.
- Stability: Fabricate and install signs with fastenings to withstand all actions imposed by use; 90 mph wind perpendicular to surfaces, water, ice, snow loads and similar forces.
- g) Anchor bolts in concrete shall be cast in place. Manufacturer shall furnish instructions for the setting of anchors and bearing plates. Manufacturer shall ascertain that the items are properly set during the process of the work.
- h) Color: Secure work with fastenings of same color and finish as the components they secure where they are exposed to view, unless noted otherwise.
- Security: All exposed fasteners must be vandal resistant and have vandal-proof "spanner" type slots to be removed only with the special driver head.

K Messages

The fabricator is responsible for the message layout of all directional messages panels. Fabricator must produce scale drawings of message layouts for review prior to fabrication. Layout spacing and letterheights to be based on typical layout guideline drawing pages.

- Layout: Typical sign panel layouts are illustrated in the design intent drawings. All messages including braille shall be flush left, unless noted otherwise. Correct line breaks are indicated in the "message" column of the schedule and should be followed exactly. Braille line breaks shall match those of the raised copy.
 - Any problems in the message layout shall be brought to the attention of the designer for a solution.
- Fabrication: Execute all signs such that letter forms are true and clean. Letter forms with rounded corners, or chipped, nicked, cut or ragged edges, will not be accepted. This applies to all methods of fabrication and copy application.
- 3 Copy: Message copy on detail drawings is for layout purposes only. Actual copy is listed in the "message" column of the schedule. Certain copy may be provided later by the owner.
- Capitalization: Directions for upper and lower case are found in the "message" column of the schedule must be followed exactly.

5 Single- or double-faces: All signs that are double-faced will be noted as such in the drawings and message schedule. For double-faced signs, the message will be indicated as "Side A" and "Side B" or "Side C" and Side D".

L Surface-applied messages

- 1 Reflectivity and specular gloss
 - a) Non-reflectorized message: 60 degree specular in accordance with ASTM Test D523.
- 2 Thickness: as indicated in specifications herein.
- Color and color fastness
 - a) Exposed surfaces and finishes shall show no discernible color change or chalking when exposed for 1,000 hours in an Atlas Twin Arc Weathermaster Model HCDL-X, or equivalent, when tested in accordance with ASTM D822.
- Inter letter spacing: Follow examples in drawings. Show sample inter-letter and inter-word spacing in sample submissions as specified.
- 5 Layout: Positions for all messages, symbols, arrows, lines, etc., for all signs are clearly indicated on the drawings and shall be complied with.
- Artwork: Contractor shall be responsible for all final reproduction artwork for all messages, symbols, arrows, lines, and location plan and/or floor plan drawings.

7 Fabrication

- a) Screened messages: Execute all silk screen printing in such a manner that all edges and corners of finished letter forms are true and clean. Letter forms, color areas or lines with rounded corners, edge buildup or bleeding, sawtoothing, etc., will not be accepted. Execute all silk screening from photo-screens prepared from typesetter's reproduction of the copy specified. All above work is included is this contract. Hand cut screens will not be acceptable.
- b) Die-cut messages: Die-cut, pre-spaced, prealigned messages (numbers, words, phrases, and arrows) from 3.0 MIL flexible film coated with continuous adhesive pressure sensitive backing to meet characteristics specified for surface-applied messages. Execute die-cutting in such a manner that all edges and corners of finished letter forms are true and clean. Letter forms with round positive or negative corners, nicked, cut or ragged edges, etc., will not be acceptable.
- M Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

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NOTES:	
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merje	120 North Church Street Suite 208 West Chester, PA 19380



SPECIFICATIONS PART 2 – PRODUCTS

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12/5/13	CLIENT / PROJECT
DRAWN BY: LH, PR	PORTSMOUTH, NH
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REVISIONS	1

SHEET NO.

PART 3 – EXECUTION

3.01 INSPECTION

A Examine the substrates and conditions under which the signs are to be installed and notify the owner in writing of conditions detrimental to the proper and timely **completion of the work.** Do not proceed with the work until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A Install sign units and components with concealed fasteners, unless otherwise shown. Refer to detail drawings for general method. Verify each surface in field to determine specific, appropriate hardware.

Drawings in this package may not indicate any below-ground or in-wall structural tie-ins or connections that may be necessary to assure stable and secure installation of signs. Sign fabricator is responsible for determining where such connections are necessary and for coordinating with related trades to make them.

B Locations: Refer to drawings for approximate locations. Any discrepancies or apparent deviations from drawing locations because of different site conditions shall be brought to the attention of the owner for solution. The owner must be present for field placement of the sign.

It shall be the responsibility of the Contractor to determine location of underground structures and utilities by the use of test pit excavation prior to excavation operations. Test pits shall be the size, depth and location as approved by the Engineer. Each pit shall be tamp-back-filled. Test pit excavation will be measured on the basis of the volume of material actually removed from within the limits specified. Tamped backfill will not be measured but shall be included in the price bid for test pit excavation.

Price provided shall include all excavation, tamped backfill, labor, tools, equipment and incidentals necessary to complete the installation of each sign.

- C For ground-mounted signs, provide whatever replacement concrete, pavers, bricks, etc., are necessary to match adjacent surfaces exactly. Seams should be parallel or perpendicular to sign face and be symmetrical around post(s).
- D Note that this area experiences heavy public use. Strong environmental conditions such as weather and vandalism may be routine problems. Signs must be securely mounted. Contractor is responsible for suggesting alternative fabrication or installation methods if required to prevent theft or
- E Install signs to be level, plumb and at the proper height. Cooperate with other trades for installation of sign units.
- F Clean and polish, remove excess adhesive.
- **G** Fixture installation
 - Install lighting fixtures with seals and gaskets. Conceal all wiring in or within the construction.

2 Lamp installation

- a) Do not install lamps for permanent use until operating voltage is verified and established.
- Install lamps in accordance with lamp and fixture manufacturer's instructions.

Ballast installation

a) Install ballasts at factory unless specifically indicated otherwise. Mount on rubber grommets or sound isolating details to reduce noise transmission.

3.03 TREE TRIMMING AND PROTECTION

- A Include the protection and trimming of trees that interfere with, or are affected by, execution of the Work, whether temporary or new construction.
 - 1 Quality Assurance:
 - a) Tree Service Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site on a full-time basis during execution of the Work.
 - Arborist Qualifications: An arborist certified by the International Society of Arboriculture or licensed in the jurisdiction where Project is located.

2 Preparation:

- a) Install temporary fencing located as indicated or outside the drip line of trees to protect remaining vegetation from construction damage.
- b) Protect tree root systems from damage due to noxious materials caused by runoff or spillage while mixing, placing, or storing construction materials. Protect root systems from flooding, eroding, or excessive wetting caused by dewatering operations.
- Do not store construction materials, debris, or excavated material within the drip line of remaining trees. Do not permit vehicles or foot traffic within the drip line; prevent soil compaction over root systems.
- d) Do not allow fires under or adjacent to remaining trees or other plants.

3 Excavation

- a) Install shoring or other protective support systems to minimize sloping or benching of excavations.
- b) Do not excavate within drip line of trees, unless otherwise indicated.
- Where excavation for new construction is required within drip line of trees, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.

- 1) Relocate roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and relocate them without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical, cut roots approximately 3 inches back from new construction.
- Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
- 4 Tree repair and replacement
 - a) Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to written instructions of the qualified arborist.
 - Remove and replace dead and damaged trees that the qualified arborist determines to be incapable of restoring to a normal growth pattern.
 - 1) Provide new trees of 6-inch caliper size and of a species selected by Designer when trees more than 6 inches in caliper size, measured 12 inches above grade, are required to be replaced.
- Disposal of waste materials
 - a) Burning is not permitted.
 - Remove excess excavated material, displaced trees, and excess chips from Owner's property.

3.04 CLEANUP

A Periodically (at least daily) and upon completion of the installation, remove all waste, dirt, wrappings and excess materials, tools and equipment, and carefully and thoroughly clean all surfaces to the satisfaction of the owner.

3.05 PROPERTY DAMAGE

A Protect all adjacent surfaces from damage and pay the cost of repairing any damage to the property caused by delivery or installation of materials. In all cases, match existing surfaces.

NOTES: ENVIRONMENTS & EXPERIENCES 120 North Church Street Suite 208 merje West Chester, PA 19380

SPECIFICATIONS PART 3 - EXECUTION

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REVISIONS	CHEET NO
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