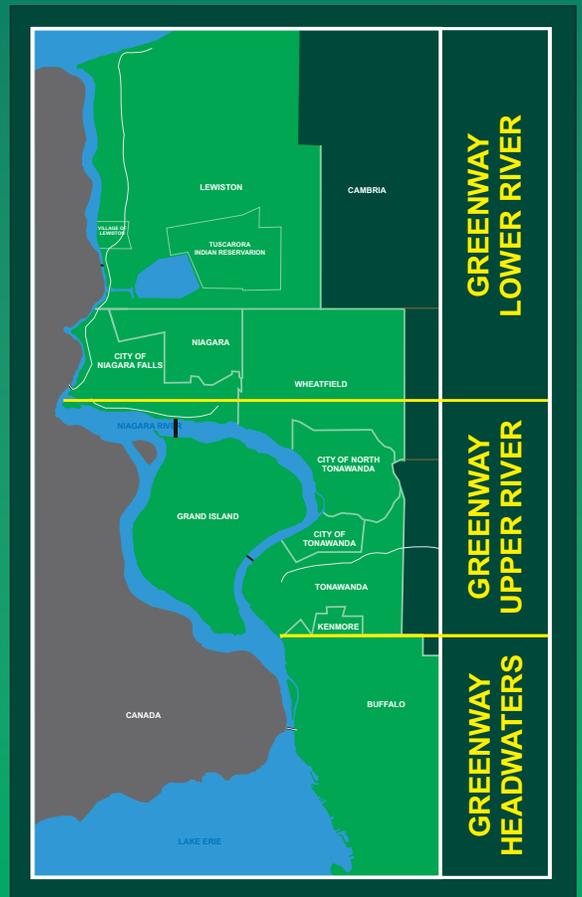




# Wayfinding Standards & Signage Maintenance Manual

November 2012

Erie County Department of Environment and Planning





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# Niagara River Greenway Wayfinding Standards & Signage Manual

## Overview

One of the fundamental objectives of the Niagara River Greenway (NRG) Master Plan is to clearly convey the identity and whereabouts of the attractions within the NRG. The Plan proposed to use signage in a consistent manner throughout the Greenway in order to guide visitors in a systematic fashion. This has the dual advantage of promoting the Greenway and the diverse attractions within it.

This **Wayfinding Standards and Signage Manual** documents the effort to provide a consistent wayfinding approach for municipalities and attractions within the NRG. The standards aim to promote a uniform approach to environmental communications – both in the visual image projected by signage and its content. It will provide options for developing customized signage that reflects a high degree of shared visual characteristics for each family of signage elements that may be specified. Although there is no obligation for stakeholders to utilize the design concepts and documentation contained in this Guideline, it can provide many advantages to those who may wish or need to specify and procure signage products. Users will find that this Manual provides:

- Three unique approaches to the design of a signage system,
- Instructions on how to specify signage products to address a multitude of communication needs,
- Usage Criteria for all manner of identification, orientation, directional, information, interpretive and commemorative signage,
- A checklist for assisting in the selection of colors, typefaces, and graphic motifs,
- Information on how to access a growing library of map graphics and legends to facilitate signage as well as print and electronic wayfinding,
- Recommendations for how to organize the purchase of a group of signs or procurement package, and
- Information on signage companies in the region that can produce these products.

The various options and customizations available in this Manual, in conjunction with its three primary format selections, can provide a high degree of distinction and visual autonomy to any system that may be specified. But, perhaps more importantly, the usage guidelines provide a structure for selecting the specific signage formats that are most applicable for the various types of information that need to be conveyed. Using these communication standards, visitors to the NRG will experience consistency and predictability in the ways that wayfinding information is presented to them. This will not only provide a safer environment but one in which the visitors' needs have been anticipated and reflected in the placement and content of signs in the visual environment.

In addition to the formal product documentation (i.e. detail drawings and written specifications), this Manual includes recommendations for standards and practices that aim to ensure the consistency of the messages being communicated to NRG visitors and prospective visitors. These include:

1. Usage recommendations for each signage category
2. Nomenclature standards and circulation recommendations
3. Recommendations for referencing destinations on orientation and directional signage
4. Electronic artwork for logos and map graphics
5. Recommendations for utilization of wayfinding references among print and electronic tools

Formally, the **Wayfinding Standards and Signage Manual** is comprised of the following sections:

1. History and Development
2. Strategy for Signage Implementation
3. Composition Guideline and Signage Documentation
4. Recommendations for Signage Content and Placement
5. Nomenclature Standards and Circulation Recommendations

6. Listing of Signage Categories
7. Signage Format Usage Criteria
8. Signage Detail Drawings
9. Options for Typography, Signage Colors and Color Combination Recommendations
10. Standards for Map Graphics, Legends and System Descriptions
11. Signage Fabrication and Installation Specifications
12. Listing of Signage Vendors
13. Maintenance Recommendations

# 1 History and Development

## The Niagara River Greenway

The Niagara River Greenway is a world-class corridor of places, parks and landscapes that celebrates and interprets our unique natural, cultural, recreational, scenic and heritage resources and provides access to and connections between these important resources while giving rise to economic opportunities for the region. It is a 36-mile long corridor that extends the length of the Niagara River in the counties of Niagara and Erie. Encompassing an area of 237 square miles, it features over 100 miles of shoreline as well as four major cities and several towns and villages.

The Niagara River Greenway features a world-renown waterfall and gorge, rivers, forests, wetlands and an array of wildlife. Greenway resources include passive and active recreation as well as cultural, educational and historical sites. It features a wealth of museums, architectural treasures, industrial heritage sites, forts and battlefields. The Greenway also encompasses the western terminus of the Erie Canal, a Presidential Inaugural site and numerous Underground Railroad venues. There is a vital and active visual and performing arts community. The region's diverse cultural heritage is celebrated through numerous summertime festivals and the bounty of nature evident in its many farmers' markets and viniculture. The Greenway's parklands and trail networks provide easy access to the natural environment and abundant waterfront recreational opportunities.

Primarily for the purposes of wayfinding and marketing the various NRG attractions, the Greenway has been divided into three segments. With general divisions running east-west, the segments are as follows:

1. Greenway Lower River – Fort Niagara south to Niagara Falls' Rainbow Bridge
2. Greenway Upper River – Rainbow Bridge south to Aqua Lane Park in Tonawanda
3. Greenway Headwaters – Aqua Lane Park in Tonawanda south to the Lackawanna/Buffalo border

The implications of this segmentation for signage and wayfinding involve the coordination of attractions and tourism destinations with mapping. These standards are reflected in the maps and legends developed for the Shoreline Trail orientation signs and the NRG Trail Guide developed in 2011. Artwork for this mapping is available to the municipalities and attractions in the NRG through Erie County's Environment and Planning Department.

## Signage and Wayfinding in the Greenway

A fundamental objective of the Greenway initiative is to steward the integrity and vitality of natural areas through continuing efforts of maintenance, improvement and preservation. It also serves to preserve historical and cultural treasures, revitalize urban areas, expand local economies and collaborate with municipal, state and federal agencies to promote Greenway objectives. Connecting residents and visitors to the landscape is an important aspect of this mission and involves efforts to brand the Greenway and communicate the whereabouts of its attractions.

The role of environmental graphics is to assist in the branding of the Niagara River Greenway and to articulate its many stories originally discussed in the Master Plan of 2006 developed by the Niagara River Greenway Commission. This effort outlined the development of an identity and wayfinding program for the Shoreline Trail as well as the articulation of more general signage goals for destinations within the Greenway beyond the needs of the trail. This discussion continued when Erie County received a NRG grant in 2009 to formalize wayfinding standards for the Shoreline Trail and develop a Demonstration Program along the trail segment between North Tonawanda and Buffalo. The design effort, led by Wendel and Synegraphics, brought to light many issues with respect to the identity of the Shoreline Trail and how it should relate to the Greenway and the attractions within it. With completion of the Standards Manual in 2011, the Shoreline Trail design standards were shared with the NRG municipalities and

attractions who wished to develop similar signage. Although the standards were appropriate for trails and some park applications, they did not include format or communication variations for site identification, vehicular direction and other specific formats that are needed non-trail attractions within the Greenway.

In 2012, using funding remaining from its Shoreline Trail grant, Erie County retained Wendel and Synegraphics to explore the feasibility of developing more comprehensive signage for Greenway Attractions. This project aimed to fill the needs identified for signage formats among the non-trail attractions. The goals for this work were to develop:

1. Material/design options for high-quality environmental graphics that NRG attractions could utilize in establishing their own branding within the Greenway,
2. Communication standards and practices that could streamline the content and formatting of information that appears on signage, and
3. Graphic standards for mapping and nomenclature standards that could provide a more consistent representation of the Greenway in print and on websites.

This effort involved the formulation of a Steering Committee that represented the Greenway municipalities and its major stakeholders. Throughout the design process, this group provided guidance and leadership in the development of the signage and wayfinding standards that addressed the multifaceted needs of the NRG attractions. This involved the creation of subtle methodologies that aim to reinforce consistent communication standards in the Greenway while allowing for flexibility in signage and identity development.

## The Signage Process

This Manual documents a process that can enable an individual with little or no experience in signage specification to assemble a package of signs for manufacture and installation. The various sign categories have been designed to be sturdy and long-lived and the size and quantity of graphic images and text have been laid out to maximize legibility. Although there is some flexibility for modifying the signage standards, the formats provided should suffice for the vast majority of communication needs.

The objectives for the Niagara River Greenway Signage System documented in this Standards Manual are to:

1. Provide design options for the utilization of **Visual Design Standards** as applicable to environmental graphics (signage) requirements,
2. Establish **Communication Standards and Practices** to create a consistent approach to signage throughout the Greenway, that could streamline the content and formatting of information that appears on signage, and
3. Provide **Graphic Standards** to establish and reinforce a consistent representation of the Greenway in print and on websites.

The signage design options produced by this effort allow the user to assemble signage formats that promote a consistent image or “family” relationship among sign category options. See **Section 2 – Strategy for Signage Implementation** for more information on the wayfinding approach and how to get started with composing formats and specifying signage products. The Manual also provides in-depth information and instructions on how to compose signage content and articulates the characteristics and limitations for the information they should convey. See **Section 4 – Recommendations for Signage Content and Placement** and **Section 7 – Signage Format Usage Criteria** for more information on how make category selections and compose the information that is applicable to the various signage format offerings.

The signage standards contained in this Manual can be utilized by municipalities, non-governmental organizations, environmental organizations and civic groups that wish to develop environmental graphic applications throughout the NRG. This Manual is available as a PDF from Erie County’s Environment and Planning Department.

## 2 Signage Implementation Strategies

This Standards Manual provides methodologies to guide the user through the process of planning and documenting signage requirements. It will also provide tools that will enable the user to complete the documentation of signage and purchase signage devices. Included in this section are the strategies and rationale for developing signage systems and contain the following subsections:

- Visual Design Standards
- Communication Standards and Practices
- Location Standards
- Getting Started

### Visual Design Standards

From an aesthetic perspective, the primary goal of every signage system is to render a consistent visual image. This is usually achieved by using consistent forms, materials, colors and graphics on as many signs about the site or building as possible. Not only does uniform signage enhance the image of a site or facility, it makes it easier for visitors to find information in the visual environment.

This Manual provides descriptions, usage criteria, detail drawings and fabrication/installation specifications for **three distinct formats** of signage. The descriptions of the basic formats are included in **Section 3 – COMPOSITION GUIDELINE AND SIGNAGE DOCUMENTATION**. The user is encouraged to select one of these three basic formats and make subsequent category selections for specific signs within that format. This approach is the best guarantee that a singular visual identity can be established for the attraction for which the signage package will be composed.

In order to maximize the visual consistency among the various signage categories that may be selected, the user is encouraged to select from the defined “categories” of signage that are included in this Manual. See **Section 6 – LISTING OF SIGNAGE CATEGORIES**. The documentation of the categories has included careful dimensioning to guarantee that the signs appear as one “family” despite differences in sign size or informational content. Another important consideration to guarantee visual consistency is the selection of colors and typefaces and the consistent usage of logos or symbols. See **Section 9- STANDARDS FOR COLORS, TYPOGRAPHY AND LOGO USAGE**. Beyond the overall form or shape of the signs, the choices made in this section have the most impact on the rendition of “system” characteristics. Section 9 will include recommendations for these selections that aim to reinforce a singular visual image.

### Communication Standards and Practices

The two important aspects of communication with respect to signage are the means used to convey information (graphics and text) and the information itself (content). The graphic information and text that is applied to signage must be able to be read by viewers in a variety of situations. This involves approach by visitors using motor vehicles, bicycles, roller blades, wheel chairs or as pedestrians. The speed and attention factors that accompany these varied approaches entail different viewing requirements that suggest different signage formats.

The signage categories represented in this Manual's three format options were developed to satisfy various communication needs with sizing and message fields that are consistent with the abilities of vehicular and/or pedestrian traffic to assimilate graphic information. Essentially, the size of signs, height of letters and amount of space allotted for graphics have been established around the information they need to convey. In some cases, they limit the amount of content in key formats so that the messages cannot become excessive and unable to be read by the viewer. In order to maintain communication

standards, it is recommended that the Manual user match the appropriate signage category to the communication requirements for each sign he or she will be ordering. **Section 7 – SIGNAGE FORMAT USAGE CRITERIA** provides guidelines to match the categories to their respective communication intent. It also includes recommendations for the number of messages or lines that are suitable for certain signage elements (e.g. vehicular site identification and directional signs).

With respect to content, the best way to establish effective communication in wayfinding is to render information consistently. This entails the uniform application of messages to the various signage categories. This requires that the names used for site entrances, buildings, access roads, facility entrances and site attractions or destinations be conveyed consistently. In addition to these nomenclature standards, the pathways used to guide visitors need to be reinforced as well. Essentially, the signs for any given site or facility should render information that is consistent from the first sign the visitor sees to the last one that identifies his or her destination. **Section 3 – COMPOSITION GUIDELINE AND SIGNAGE DOCUMENTATION** includes recommendations for establishing consistency in signage communications.

### Location Standards

The location of signage relative to entrances, roadway decision points and gathering areas is another important consideration in planning a signage system. Consistent placement of signage within a given site or facility can contribute to both the identity of the entity and the function of its signage to provide guidance. The “predictability” of signs at entrances and decision points not only reinforces the fact that visitors are on the site or facility but also conditions them to look for and use the information provided.

The location standards for signage placement in this Manual include guidelines and recommendations for several key categories:

1. It includes the MUTCD requirements for directional signage along state roadways.
2. Orientation signage location recommendations include placement along pathways and trails for predominant user approach paths such as from parking lots, playgrounds, boat launch sites, etc,
3. Directional Signage recommendations include placement of the signs in advance of decision points so that the viewer has time to make lane adjustments for turns.
4. Recommendations for Trailblazer signage include ideas for usage and placement in the streetscape.

### Getting Started

The foregoing considerations are fundamental precepts to signage system development. The Manual User is now able to prepare the rudimentary information that will be necessary to have in order to utilize these standards to select and compose signage formats and organize and plan the system components and characteristics. **The next section entails the step-by-step process in gathering and organizing the information necessary to specify and purchase the sign products.** To prepare for this endeavor, the following preliminary information should be collected or determined:

1. Schematic ideas for signage design or formatting
2. Preliminary ideas or recommendations for signage needs (functions)
3. Preliminary ideas for signage quantity and locations
4. Listing of destinations that need to be conveyed on identification, orientation, and/or directional signage
5. Confirmation of nomenclature for facility name, site/building entrances, roadways that will be referenced on signage and site attractions or destinations
6. Anticipated problems or constraints:
  - a. sight lines
  - b. visibility
  - c. confusing intersections
  - d. sign locations/positioning
  - e. known underground utilities

7. A site map that can be used to show general locations for signage about the site
8. Determination as to whether a logo or logotype will be utilized on key signs
9. Sources for Electronic artwork for logo or logotype
10. Determination of Purchasing Process (Purchase Order, Contract, Procurement, etc.)

## 3 Composition Guideline and Signage Documentation

This Section will provide instructions for “designing” the signage formats, composing their message content and developing the necessary documentation required to produce a signage system. The **COMPOSITION GUIDELINE** describes the process of making selections from the design options available in the Manual. This involves both general and specific decisions that will dictate what the form signs will take, what colors and typestyles will be utilized and how and where the signs will be installed. It also will guide the Manual user in the development of the content for signage. The **SIGNAGE DOCUMENTATION** segment will articulate the contents required for preparing a Signage Package as required for cost estimating and manufacture/installation.

### COMPOSITION GUIDELINE

This segment of the Manual provides a step-by-step guide for the User in making the selections required to create a cohesive and visually compatible signage system design and functional signage content. The determinations that are produced in this process of composition will dovetail into the production of documents required to obtain cost estimates and fabricate and install the signage package. The **Composition Guideline** is comprised of Functional Decision-Making Guideline and a Design Decision-Making Guideline.

### FUNCTIONAL DECISION-MAKING GUIDELINE

This following methodology aims to initially guide the Manual User through the decision-making that addresses the functional requirements of each sign in the package being assembled. This process will match the Project’s communication needs to the best format (or category) for each sign. Most sites/facilities require a variety of signs to address the specific needs of the visiting public. These can be generally categorized as follows:

#### Basic Functional Groups

1. Identification
2. Directional
3. Orientation
4. Interpretation/Commemoration
5. Information/Promotion
6. Regulatory/Warning

What is more, the categories within each of these groups can be further distinguished as to their fundamental communication characteristics, or viewing audiences:

#### Fundamental Distinctions Among Basic Functional Groups

1. Vehicular Traffic
2. Bicycle, roller-blade, wheel-chair and pedestrian traffic

The differences between vehicular and pedestrian signage are usually dramatic. For example, vehicular categories will typically entail larger formats (for longer-range visibility) as well as more substantial panels, posts or other mounting options. The pedestrian categories, on the other hand, are smaller but utilize graphics technologies that protect the surfaces from tampering and vandalism to a greater extent. Both the **Basic Functional Groupings** and **Signage Categories** for vehicular and pedestrian applications are illustrated in the matrix on the following page. The individual categories shown in this matrix relate directly to the categories and detail drawings included in this Manual.



## Niagara River Greenway Signage Categories

Functional Groups	Signage Categories	
	Vehicular	Pedestrian
<b>Identification</b>	<ol style="list-style-type: none"> <li>1. Facility ID, Stone/Brick Base</li> <li>2. Facility ID, Post &amp; Panel, Large format</li> <li>3. Facility ID, Post &amp; Panel, Small Format</li> <li>4. Building ID, Ground Mt.</li> <li>5. Building ID, Wall Mt.</li> <li>6. Facility ID, Ground Mt.</li> <li>7. Facility ID, Post &amp; Panel</li> <li>8. Facility ID, Wall Mt.</li> <li>9. Parking ID</li> </ol>	<ol style="list-style-type: none"> <li>1. Building ID, Ground Mt.</li> <li>2. Building ID, Wall Mt.</li> <li>3. Facility ID, Ground Mt.</li> <li>4. Facility ID, Wall Mt.</li> <li>5. Facility ID, Fence Mt.</li> <li>6. Restroom ID</li> </ol>
<b>Direction</b>	<ol style="list-style-type: none"> <li>1. Attraction Trailblazers</li> <li>2. Directional, Post &amp; Panel, MUTCD Formatted</li> <li>3. Primary Directional, Post &amp; Panel*</li> <li>4. Secondary Directional, Post &amp; Panel*</li> <li>5. Pole Mt. Directional*</li> </ol>	<ol style="list-style-type: none"> <li>1. Pedestrian Directional, Large Format, Post &amp; Panel</li> <li>2. Pedestrian Directional, Small Format, Post &amp; Panel</li> <li>3. Pedestrian Directional, Wall Mt.</li> </ol>
<b>Orientation</b>	<ol style="list-style-type: none"> <li>1. Pull-Off Vehicular Orientation</li> <li>2. Pull-Off Vehicular Map Graphic</li> </ol>	<ol style="list-style-type: none"> <li>1. Primary Pedestrian Orientation, Free-Standing</li> <li>2. Secondary Pedestrian Orientation, Free-Standing</li> <li>3. Secondary Pedestrian Orientation, Wall Mt.</li> <li>4. Map Graphic, Post &amp; Panel</li> <li>5. Map Graphic, Wall Mt.</li> </ol>

\* Directional Formats for parklands and interior site roadways

Functional Groups	Signage Categories	
	Vehicular	Pedestrian
<b>Interpretation/Commemoration</b>	<ol style="list-style-type: none"> <li>1. Roadway/Facility Commemorative</li> </ol>	<ol style="list-style-type: none"> <li>1. Interpretive, Free-Standing</li> <li>2. Interpretive, Wall Mt.</li> <li>3. Interpretive, Railing Mt.</li> <li>4. Story Board, Free-Standing</li> <li>5. Story Board, Wall Mt.</li> <li>6. Commemorative, Free Standing</li> <li>7. Commemorative, Wall Mt.</li> </ol>
<b>Information/Promotion</b>	<ol style="list-style-type: none"> <li>1. Rules &amp; Regs, Post &amp; Panel</li> <li>2. Rules &amp; Regs, Wall Mt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Information Kiosk, Free Standing</li> <li>2. Information Kiosk, Wall Mt.</li> <li>3. Education Kiosk, Free Standing</li> <li>4. Education Display, Wall Mt.</li> </ol>
<b>Regulatory/Warning</b>	<ol style="list-style-type: none"> <li>1. Parking ID</li> <li>2. Handicapped Parking</li> <li>3. Road Hazards</li> <li>4. Traffic Warning</li> <li>5. Traffic Control</li> <li>6. Facility Rules/ Regs</li> </ol>	<ol style="list-style-type: none"> <li>1. Site/ Facility Rules</li> <li>2. Trail Hazard Warning</li> <li>3. Safety Signs</li> <li>4. Trail Traffic Control</li> <li>5. Hours/Months of Operation/Maintenance</li> </ol>

As suggested at the end of the previous section, and in preparation for using this Guideline, the Manual User should have sufficient information on project requirements to provide a basic understanding of what the signs need to communicate and where on the site these elements may be used. Shown below is a simple Data Collection Table to help guide the decision-making process. IT SHOULD **NOT** BE USED IN THE FORMAL DOCUMENTATION FOR THE SIGNAGE PACKAGE. In this example, note that sign key numbers have been assigned to five signs considered for this site, basic communication needs identified and approximate sign locations determined. The process moving forward from this point will guide the selections for the remaining information in the table.

Key No.	What Sign Must Communicate	Approximate Location	Functional Grouping	Vehicular or Pedestrian	Content	Category
N.01	Identify Primary Site Entrance at Mill Street	Intersection of Mill Street and Site Entrance Drive				
N.02	Identify Secondary Entrance at Tracer Road	Intersection of Tracer Road and West Site Entrance				
N.03	Identify Visitor Center Entrance	Building Face above entrance				
N.04	Direct visitors at intersection of Site entrance drive and west entrance Drive	SW Corner of intersection				
N.05	Orient Visitors to Facility	Adjacent to sidewalk from Parking Lot to Visitor Center				

**STEP 1**

**TRANSLATE EACH SIGN FOR WHICH THE MANUAL USER HAS COLLECTED COMMUNICATION INFORMATION INTO ONE OF THE SIX FUNCTIONAL GROUPS. (See Previous page)**

There will be opportunities for determining the precise signage category for each sign later in this process. At this point, the Manual User need only determine what the **basic functional group** for each sign will be. If a sign seems to cross over two functional groupings (e.g. as identification sign that may contain a directional message), the Manual User should select the functional group that appears closest to the primary function of the sign. The listing of categories to the right of each Functional Group provides examples for the kinds of signs that comprise the groups and can assist the Manual User in making these fundamental choices. **Section 7 – Signage Format Usage Criteria** provides additional information regarding the specific functions of each signage category.

**STEP 2**

**DETERMINE IF THE PRIMARY FUNCTION FOR EACH SIGN WILL BE TO COMMUNICATE TO VEHICULAR OR PEDESTRIAN TRAFFIC.**

These decisions are usually pretty clear cut. If a sign is at the roadway entrance to a site, it is communicating to vehicular traffic on the roadway. If it is next to a building entrance off the sidewalk (and well removed from roadways) it is safe to say that its primary audience is pedestrian. In some cases, a sign will be positioned so as to communicate to both motorists and people approaching on foot (or wheelchair or bicycle). The rule of thumb is that if a sign needs to communicate to both vehicular and pedestrian traffic, it should be designed to address the functional needs of vehicular traffic.

Shown on the next page is the progression of decision-making that has taken place in Step 1 and Step 2.

Key No.	What Sign Must Communicate	Approximate Location	Functional Grouping	Vehicular or Pedestrian	Content	Category
N.01	Identify Primary Site Entrance at Mill Street	Intersection of Mill Street and Site Entrance Drive	Identification	VEH		
N.02	Identify Secondary Entrance at Tracer Road	Intersection of Tracer Road and West Site Entrance	Identification	VEH		
N.03	Identify Visitor Center Entrance	Building Face above entrance	Identification	PED		
N.04	Direct visitors at intersection of Site entrance drive and west entrance Drive	SW Corner of intersection	Directional	VEH		
N.05	Orient Visitors to Facility	Adjacent to sidewalk from Parking Lot to Visitor Center	Orientation	PED		

### STEP 3

#### DETERMINE THE PRECISE CONTENT FOR EACH FACE OF EACH SIGN.

With determinations made regarding the communication criteria, location, basic function and audience, the Manual User now needs to determine the precise content for each elevation of each sign in the package. This is necessary for making the correct selection of Category in Step 4. This step will first entail the determination of the orientation of each sign face (i.e. the direction to which the sign face is pointing). Next, the User should determine the information that should be applied to each face of each sign. This information should articulate all text in addition to arrows and logos. The Manual User may at this point benefit from consulting **Section 4 - Recommendations for Signage Content and Placement**. This section provides basic recommendations on what manner of information should, or should not, be used for various signage functional groupings.

### STEP 4

#### DETERMINE THE SIGNAGE CATEGORY FOR EACH SIGN.

The Manual User may now select the Signage Category that best fits the amount of information that he or she has entered into the "Content" column. **Section 6 - Listing of Signage Categories** contains the master list of each signage category documented in this Manual. The user should also consult **Section 7 - Signage Format Usage Criteria** to verify that the category selections made are compatible with the amount of information that can be conveyed on the sign. The corresponding detail drawing numbers can be found in **Section 8 – Detail Drawings**. It may be necessary to modify the category selection in some cases for a smaller or larger format, depending upon the amount of content the User has entered for a particular sign and the recommendations for content in the Usage Criteria.

Shown on the next page is the progression of the Data Collection Table and includes that addition of information for Step 3 and Step 4.

**NOTE:** The Detail Drawings shown in **Section 8 - Signage Detail Drawings** depict three different formatting options. The Manual User will be guided in the consideration and selection of one of these options in the next segment that addresses design-related decision-making.

Key No.	What Sign Must Communicate	Approximate Location	Functional Grouping	Vehicular or Pedestrian	Content	Category
N.01	Identify Primary Site Entrance at Mill Street	Intersection of Mill Street and Site Entrance Drive	Identification	VEH	(North Elevation) (Park Logo) GERINGER PARK  (South Elevation) (Park Logo) GERINGER PARK	A.2.3
N.02	Identify Secondary Entrance at Tracer Road	Intersection of Tracer Road and West Site Entrance	Identification	VEH	(East Elevation) (Park Logo) GERINGER PARK  (South Elevation) (Blank)	A.2.4
N.03	Identify Visitor Center Entrance	Building Face above entrance	Identification	PED	(North Elevation) (Park Logo) GERINGER PARK VISITORS CENTER	A.6.2
N.04	Direct visitors at intersection of Site entrance drive and west entrance Drive	SW Corner of intersection	Directional	VEH	(East Elevation) (Up Arrow) Visitor Center Drop-off (Right Arrow) Parking (West Elevation) (Left Arrow) Parking (Up Arrow) Mill Street Trailhead	B.2.2
N.05	Orient Visitors to Facility, Provide Interpretive information about park, park system and local ecology.	Adjacent to sidewalk from Parking Lot to Visitor Center	Orientation	PED	(North Elevation) (Park Logo) Welcome to GERINGER PARK (Map and Legend)  (South Elevation) (Park Logo) Welcome to GERINGER PARK (Interpretive Sign)	C.4.1

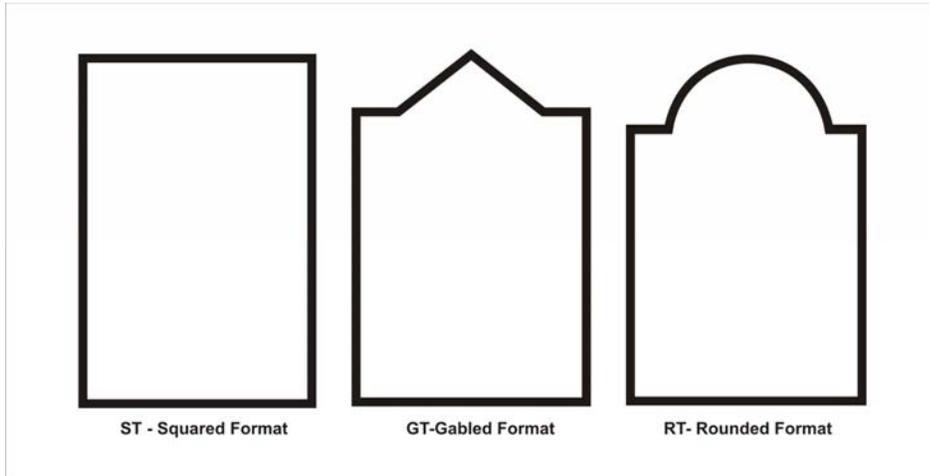
The development of signage content and selection of specific categories completes the functional decision-making segment of this process. The following section deals with the options available in this methodology that permit the Manual User to customize the design features of signage to reflect the image or identity of the institution or facility.

## DESIGN DECISION-MAKING GUIDELINE

This portion of the Composition Guideline will concentrate on those decisions required to create a cohesive and visually compatible signage system design. The recommendations that accompany the design options included here aim to provide a consistency of identity in the ways that the owner's overall graphic image is rendered in the various signage products selected. This methodology will guide the user in the selection of a basic signage format (or shape), signage and graphics colors, typography, layout and mounting. It will also provide guidance in the usage and preparation of custom graphics and logos.

**STEP 5**  
**SELECT SIGNAGE FORMAT GROUPING PREFERENCE.**

There are three options with respect to the overall shape or formatting available for the signage documented in this Manual. These are shown below.



The selection of overall form is usually driven by two factors. The first is the content of the signs and the need, or preference, to utilize a graphic mark, symbol or logotype in the signage compositions. The squared format can be used if there is no symbol or if the graphic is placed below the primary text. The other two formats can be utilized in the event that a graphic or symbol used at the top of most sign layouts lends itself to one shape or the other. Examples of these considerations are shown below.



The second consideration that may impact the format choice is the prevalence of any of these forms in site or landscape architecture. The gabled form, for instance, might be used where there are dramatic gabled roofs that characterize buildings on the site. The rounded form might relate to similar forms in architecture, topiary, arches or planting beds. In the event the Manual User wishes to utilize a form not offered as standard in this Manual, he or she may do so but will have to have to provide detail drawings that describe the forms for each sign category in the package. **The most important recommendation here is that the format should be consistent in as many signage categories as possible.** The form

of the signs has a large impact on the extent to which signs relate to one another on a given site and, as a result, can contribute much to the rendition of the owner's identity.

The form shown below provides the options available for the Manual User in the selection of the sign form. **It is recommended that the Manual User utilize one such form for each sign specified.**

**Niagara River Greenway**  
**General Signage Options**

Project	
Date	
Category	

**1. Format Grouping**

- GT- Gable Top 
- RT- Round Top 
- ST- Square Top 
- X - Other   
 (Provide Detail Drawings)

**2. Signage Field Color**

- C-1 White 
- C-2 PMS 293 
- C-3 PMS 349 
- C-4 PMS 209 
- C-5 PMS 499 
- C-6 PMS 309 
- C-7 Other (Specify) \_\_\_\_\_

**3. Type Style**

- Arial Bold
- Times Roman Bold
- Garamond Bold
- Optima Bold
- Other (Specify) \_\_\_\_\_

**4. Arrow/Symbol Color**

- C-1 White 
- C-2 PMS 129 
- C-3 PMS 349 
- C-4 Other (Specify) \_\_\_\_\_

**5. Type Color**

- C-1 White 
- C-2 PMS 129 
- C-3 Black 
- C-4 Other (Specify) \_\_\_\_\_

**6. Overall Graphic Layout**

- Flush Left
- Flush Right
- Centered
- Other - (Specify) \_\_\_\_\_

**7. Signage Base/ Mounting**

- Aluminum Pedestal Base
- Brick Pedestal Base
- Stone Pedestal Base
- Post and Panel
- Existing Pole Mount
- Projected Wall Mount  
 (Specify Wall material)

- Brick or Stone Base  
 (Specify Style of Brick or Stone or provide sample)

**NOTE:**

The sizing of all posts, panels, bases, fasteners and connections will be as indicated in detail drawings unless specified otherwise.

**STEP 6**  
DETERMINE SIGNAGE FIELD AND GRAPHICS COLORS.

The standard options for the signage field (background) and type colors are shown in Parts 2, 4 and 5 of the form above. The Manual User may also select other colors so long as the PMS (Pantone Matching System) notation is utilized. These selections are also critical to the creation of consistency in signage design and the projection of a consistent site identity. **It is recommended that the color selections be consistent in as many signage elements as possible.** The Arrow/Symbol Colors represent the potential to use contrasting colors for directional arrows or single-color symbols such as might be applied for the men's or women's pictograph on a restroom sign. Digital artwork must be provided for Logos and other custom graphic marks. Recommendations for combinations of the standard colors are included in **Section 9 - Options for Typography, Signage Colors and Color Combination Recommendations.** In the event the Manual User wishes to utilize colors different from the standards provided in this Manual, it will be necessary to enter the PMS code in the appropriate area of the form.

**STEP 7**  
DETERMINE TYPE STYLE AND OVERALL GRAPHIC LAYOUT.

The standard options for type styles and layout are included in sections 3 and 6 of the form shown on the previous page. The options for Overall Graphic Layout are illustrated below. Non-standard faces should be specified in the space provided on the form. Similarly, any non-standard graphic layouts should be described as well. These descriptions may require drawings to clearly convey the intent of the User. **It is recommended that the type style and graphic layout selections be consistent in as many signage elements as possible.**



**STEP 8**  
DETERMINE SIGNAGE BASE/MOUNTING STYLE.

The form on the previous page articulates the options for signage bases and/or the means by which the signs will be mounted. **It is recommended that the mounting style be consistent in as many signage elements as possible.** The aluminum, stone and brick bases are usually employed with pylon-style signs and are commonly used for site identification elements. The selection of stone or brick usually matches similar materials used elsewhere in the site either on buildings or landscaping features. The User should clearly specify the style of stone or brick. The best way to insure a match to existing materials is to provide the fabricator with a material example. Flush Bases are aligned with the bottom of the sign and Extended Bases extend beyond the sign's base in one or more dimensions. If the

configuration of extended bases are different from the standards available in this Manual, the User should furnish the fabricator with detail drawings depicting the base design and dimensions.

Flush wall-mounting can be specified where the wall is protected from the elements. Projection wall-mounting should be used anywhere there is a chance that rain, snow or sleet may find its way between the back of the sign and the wall. Examples of some of these mounting styles are shown below.



### **STEP 9** **DETERMINE SIGNAGE MOUNTING SURFACE.**

As the complexity and cost of mounting signage on different surfaces will vary, it is necessary to provide information pertaining to the surfaces on which signage will be installed. This is particularly important where a sign needs to be placed on such surfaces as asphalt, concrete, landscape pavers, brick or stone where the installation may require partial removal, cutting or replacement of existing materials. Part 9 of the form on the following page articulates the options for signage mounting surfaces and should be completed for each sign to be ordered.

The specifications that are included in this Manual include instructions and requirements for the fabricator/ installer to contact authorities to verify the location of any underground utilities in the vicinity of the sign locations. They will do so following a site review with the Owner's representative where paint blaze markings or stakes will be applied to illustrate the proposed sign locations to the utilities and other authorities. Should conflicts be determined with the proposed location of any signs and underground utilities, the Fabricator/Installer will meet with the Owner's Representative to determine options for relocation as required.

Signage that is applied to walls or roofs should be accompanied by wall sectional drawings that show the fabricator/ installer what structural elements exist behind or below the outer siding or roofing material that may be used to appropriately anchor the sign. Similarly, any signs applied to chain link or other fencing materials should include either photographs or drawings that depict the type of fence on which signs will be installed.

### **STEP 10** **PROVIDE DOCUMENTATION FOR CUSTOM GRAPHICS, TYPOGRAPHICS AND LAYOUTS.**

Part 9 of the form on the following page provides fields for entering the names of files that need to be provided for any custom graphics (logos, logotypes, symbols), typefaces, maps, photographs or illustrations. This information may also include entire layouts for such elements as interpretive signs. These files should be provided to the Fabricator on a Compact Data Disk as soon as possible after the project contract is established. This will enable the Fabricator to include these graphics in the project requirements for shop drawings and other submittals.

Part 10 of the Form requires the Manual User to provide drawings or graphics files for any other custom elements used on signage. These may include unique or customized typographic configurations, graphic motifs such as symbols, lines or combinations of lines used for separation of information on the signs, or fields of various shapes or sizes used at the top or bottom of signs. The placement of such elements should be depicted on a drawing and any custom graphic elements included on the CD.

**Niagara River Greenway**  
**Mounting and Custom Signage Options**

Project	
Date	
Category	

**8. Signage Mounting Surface**

<input type="checkbox"/> <b>Undisturbed Soil</b>	<input type="checkbox"/> <b>Building Surface</b> (Specify Surface Material)
<input type="checkbox"/> <b>Blacktop/ Pavement</b>	
<input type="checkbox"/> <b>Concrete Sidewalk/ Roadway</b>	<input type="checkbox"/> <b>Fence - Chain Link</b>
<input type="checkbox"/> <b>Brick/Concrete Pavers in Mortar</b>	<input type="checkbox"/> <b>Wall/Fence - Other</b> (Specify wall/fence surface material)
<input type="checkbox"/> <b>Brick/Concrete Pavers over sand</b>	
<input type="checkbox"/> <b>Fieldstone/ Patio Stone</b> (Specify Style of Stone)	<input type="checkbox"/> <b>Railing</b> (Specify Railing size and material)
<input type="checkbox"/> <b>Existing Utility or Light Pole</b> (Specify Pole Material and Diameter)	<input type="checkbox"/> <b>Roof</b> (Specify Roofing material and pitch)

**9. Custom Graphics & Symbols**

<input type="checkbox"/> <b>Logos/Logotypes</b> (List Files furnished and specify formats below)	<input type="checkbox"/> <b>Illustrations</b> (List Files furnished and specify formats below)	<input type="checkbox"/> <b>Map Graphics</b> (List Files furnished and specify formats below)
_____	_____	_____
_____	_____	_____
_____	_____	_____
<input type="checkbox"/> <b>Custom Typographics</b> (List Files furnished and specify formats below for all custom type fonts)		
_____		
_____		
_____		

**10. Custom Layouts and Graphics Motifs**

(Furnish Detail Drawings for all custom graphic layouts, spacing patterns and graphic motifs)

The 10-step process discussed in the **Composition Guideline** segment documents the process of determining the content of signage as well as the design-related options that dictates the appearance and mounting of each signage element in the package created by the Manual User. The following **Signage Documentation** segment will provide the necessary formatting of this information so that it may be used to solicit cost estimates and, ultimately, fabrication and installation of the signage package.

## SIGNAGE DOCUMENTATION

The formal documentation that will be assembled in this segment provides the information that is required for a Signage Manufacturer to prepare a cost quotation and fabricate and install the signs. The fundamental elements required for this documentation are as follows:

1. Project Description and Contact Information
2. Fabrication and Installation Specifications
3. Listing of Signage Categories
4. Signage Message Schedule that provides specific formation about the content of each sign in the project
5. Additional information pertaining to Signage Colors, type styles and specific graphic images
6. Detail Drawings for each category of signage required
7. Signage Location Plan

A description of each of these items is included below.

**IMPORTANT:** These elements refer only to the technical aspects of specifying signage. The Owner may require additional documentation that pertains to the qualifications of the manufacturer and aspects of setting up a fabrication/installation contract. Particularly if it is mandatory to obtain competitive bids for the project, it may also be necessary to include:

- specific technical information such as a detailed project schedule,
- supplementary terms and conditions,
- bidding requirements,
- insurance information and
- performance and bid bond forms.

The individual responsible for organizing this procurement should consult with the owner's Purchasing Office in order to determine what additional documentation is required and how to obtain the necessary components the estimating or procurement package.

### 1. Project Description and Contact Information

This should include the name of the project, its location, the name and address of the owner, the project's contact information (address, telephone, email) and a short description of what the work will entail. An example of this description is included below:

*"This project will entail the fabrication and installation of two aluminum identification pylons on stone bases and six post and panel signs of various sizes on a three-acre site at 112 Pine Avenue in the Village of Milford. The two pylons will be installed on concrete foundations in areas of undisturbed soil. Two of the post and panel signs will be in concrete anchors core-drilled through existing pavement and the remaining four post and panel signs will be in concrete anchors in undisturbed soil. The manufacturer will be responsible for manufacturing and installation, coordination of subcontractors, solicitation of any required permits and verification of underground utilities. The project will be completed no later than October 30, 2012."*

If this project is to be competitively bid, additional information in the Project Description (e.g. pre-bid conferences, bid due-date, etc.) may be necessary as required by the owner's Purchasing Officer.

### 2. Fabrication and Installation Specifications

This Section of the Program Documents includes the specific information the manufacturer needs to know in order to put together a cost quotation. The "specs" usually involve 3 sections that entail a description of general information, products and execution.

The GENERAL Section includes:

- Quality Assurance

- Reference Standards
- Submittal Requirements
- Submittal Review Process
- Responsibilities of Parties Involved
- Product Handling and Storage
- Job Conditions
- Product Guarantees

The PRODUCT Section includes:

- Listing of Acceptable Manufacturers (if necessary)
- Full Product Descriptions
- Full Descriptions of Support Materials and Foundation
- Fabrication Instructions
- Painting and Graphics Application Technologies
- Graphic Specifications
- Wind Load Requirements

The EXECUTION Section includes:

- Installation/ Mounting Specifications and Instructions
- Coordination Instructions
- Requirements for Permits
- Listing of Acceptable Manufacturers (if necessary)
- Manufacturer's Instructions

Multiple specifications are frequently used in larger signage projects. If more than one specification is required for the signage package, a table of contents should be provided on the first page of the section that lists all of the specs included in the project documentation. As various options are available for the signage products offered in this Manual, it will be necessary for the user to edit the specs in order to provide information on these choices. See **Section 11 – FABRICATION AND INSTALLATION SPECIFICATIONS** for a full description on the usage and editing required for inclusion of the specifications in the Signage Package.

**IMPORTANT:** If additional or supplemental documentation is required (as may be the case in a bid procurement), these sections may be placed in front of the technical specs adapted from Section 11. Also, the owner may wish to include specifications that articulate certain aspects of the project beyond the signage products themselves. These may include site preparation, restoration, cleanup or reseeding areas disturbed by the installation. Should these instructions be necessary, the preparer of the Signage Package should consult a Landscape Architect for specific documentation.

### 3. Listing of Signage Categories

This listing is provided to show the manufacturer the variety of signage categories that will be produced in this project. This listing should match the detail drawings selected for project inclusion from **Section 8 – DETAIL DRAWINGS**.

### 4. Signage Message Schedule

The Signage Message Schedule is a key component in the Signage Package that contains specific information about each sign that will be purchased. Each sign entry includes a distinct “key number”, its category, the messages or other content on each face of the sign and special instructions applicable to the manufacture or installation. An example of a Message Schedule is included on the following page.

The KEY NUMBER can be any sequence of letters and numbers that help to distinguish signs from one another. The Manual User may re-enter the key number information that was used in the Data Collection Table in STEP 4 from the previous segment. Letter prefixes are sometimes used to identify signs in a

particular portion of the site (e.g. “N” for north, “S” for south). Numbers are also utilized and are usually in a sequence that has some relevance to the placement of signs about the site. The CATEGORY is the classification of the sign and relates directly to the detail drawing that will be provided that describes how the sign will be fabricated and installed. The Manual User may enter the category information (last column) that was used in the Data Collection Table in STEP 4 from the previous segment. Similarly, the FORMAT GROUPING is the same designation as was determined in STEP 5.

The MESSAGE column of the schedule identifies the information that will appear on each face of the sign. The Manual User may re-enter the information that was used in the Data Collection Table in STEP 4 from the previous segment. The MESSAGE column should reference the content under each of the sign’s elevations or faces (i.e. the direction to which the face points). This content should include all text and graphic images. Anything that is not text should be rendered either in a different color or in parentheses. This includes references to logos and other graphics, arrows, and artwork for maps, legends and interpretive content provided separately as electronic art. Blank sign elevations graphics should be identified and confirmed to receive no content.

The REMARKS column is used to provide supplemental information relating to the location or positioning of the sign, the grade of the installation site, or information pertaining to existing signage in the vicinity.

Key Number	Category	Format Grouping	Message	Remarks
N.01	C.4.1	GT	(East Elevation) (Olmsted Parks Logo) Genesee Valley Park (Left Arrow) Genesee Riverway Trail (Map Graphic and Legend)  (West Elevation) (Olmsted Parks Logo) Genesee Valley Park (Right Arrow) Genesee Riverway Trail (Interpretive Sign)	Locate on lawn on West side of walkway leading to Roundhouse.
N.02	B.2.2.	GT	(North Elevation) (Olmsted Parks Logo) Genesee Valley Park (Right Arrow) Genesee Riverway Trail Playground Fieldhouse Rink & Pool  (South Elevation) (Blank)	Replace existing directional sign east of sidewalk that intersects Reservoir.
S.03	B.2.1	GT	(West Elevation) (Olmsted Parks Logo) Genesee Valley Park (Right Arrow) Genesee Riverway Trail Playground Fieldhouse Rink & Pool  (East Elevation) (Blank)	Grade drops markedly from north to south. Field measure sign location to ascertain the difference in post height.

A word file (docx) for this particular Message Schedule format is available through Erie County’s Environment and Planning Department.

## 5. Additional Information

This information includes a description of the design options from which the Manual User may select. He or she may include the forms used in the foregoing COMPOSITION GUIDELINE that were used to complete the selections for Steps 5-10 and document the choices made for format grouping, graphic layout, field and text colors, typestyle, and mounting options. These forms also include information on graphics files that will be provided by the owner later in the project for such elements as logos, custom graphics, maps and legends and interpretive content.

PDFs for these Options pages are available through Erie County's Environment and Planning Department.

## 6. Detail Drawings

**Section 8 – DETAIL DRAWINGS** includes a description of the detail drawings included in this Manual. The individual PDF files may be copied and added to the project documents as required.

## 7. Signage Location Plan

The Signage Location Plan graphically shows the general location of signage about the site on either an aerial photograph or site map. This provides the manufacturer/installer with a general overview of where the signs are on the site and the accessibility of these locations (via roadways, parking facilities and trails or walkways) for determining installation logistics. The coding of signs on the plan should match the key numbers in the Signage Message Schedule. An example of a general signage location plan is shown below.

Although not usually required for a cost estimate or procurement, more descriptive location photos or drawings that depict specific sign locations will be required later in the project. These convey precise location information relative to buildings, trails, landscaping elements, etc. and are used to site the signs in field and determine potential conflicts with underground utilities. An example of a specific location plan is included below.



**General Signage Location Plan**



**Specific Signage Location**

## 4 Recommendations for Signage Content & Placement

This section includes guidelines for the informational content and placement of the signage elements included in this Manual. It is recommended that the Manual User become familiar with these guidelines as many of the signage categories are applicable to vehicular traffic and it is vital to utilize messages and sign compositions that are both functionally appropriate and meet the requirements of local, state and federal regulations for sizing, content and location. These guidelines include the directional signage requirements as set forth in the MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

### Identification Signage

#### Recommendations for Identification Signage Content and Placement

There are several classifications for **Vehicular Identification Signage** for which this Manual includes several sizing formats. These include:

- Primary Site Identification (e.g. parks, trails, recreation facilities, entertainment venues)
- Secondary Facility Identification
- Building Identification
- Facility Identification (e.g. playing fields, boat launch areas)
- Parking Facility Identification

As the primary purpose of vehicular identification signage will be to **identify** these various facilities to moving traffic, the messages should be brief. The driver's attention is being divided among safe operation of his or her own vehicle, other vehicles and pedestrians in the vicinity, traffic controls and regulatory signage as well as possible distractions within the vehicle. Consequently, there will not be sufficient time to assimilate excessive signage content. For Primary Site ID, the content should entail the facility name and logo and simple subtext (such as "Brayton Street Entrance").

More specific content such as directional guidance or restrictions should be placed on subsequent signage further into the site. Similarly, Building Identification should simply identify the building with a simple subtext, if necessary, such as "Main Entrance from Parking Lot". Facility and Parking Identification signage is similarly terse with message such as "Parking Lot B" or "Soccer Field A". Whenever a letter or number is used to designate a facility, it should be large and prominent on the sign.

The placement of Vehicular Identification Signage should be in a spot that is unobstructed by visual obstacles (e.g. trees and branches, landscaping, utility/light poles, parked vehicles). The sign should be oriented perpendicular to the direction approached by the traffic to which it is intended to communicate providing that it is in close proximity to the roadway. If a sign is set back significantly, such as 60 feet or more, it may be positioned parallel to the street.

There are several classifications for **Pedestrian Identification Signage**. These include:

- Building Identification
- Facility Identification
- Restroom Identification

Building identification may include information about the building's content (basic directory), hours of access/operation or information about accessible entrances at entrances that are not handicapped accessible. Keep in mind that most buildings usually have directories within them that provide detailed information about the destinations on each level. As such, any directory information provided on exterior signage should be basic and not repeat what the visitor will find inside. These signs are usually located near the building entrance or approach sidewalk.

Facility Identification signs for pedestrians are usually similar in content to the vehicular facility ID signs but smaller. Restroom signs are ADA compliant and feature tactile text, Braille, appropriate pictographs and mounting adjacent to the doors at the prescribed height off the finished grade.

Several Identification Signage formats are shown below.



The drawing below depicts recommended placement of the Identification categories.



## Typical Identification Signage Usage

### Directional Signage

#### Recommendations for Directional Signage Content and Placement

There are several classifications for **Vehicular Directional Signage**. These include:

- Trailblazers (Offsite Directional Signage)
- MUTCD Community Directional Signage
- Primary Site Directional Post and Panel Signage
- Secondary Site Directional Post and Panel Signage
- Pole Mounted Directional Signage

Similar to the Vehicular Identification Signage, directional elements communicate to moving traffic and require the same degree of terseness in order that their content may be able to be read and utilized. In addition to brevity, there are several other recommendations that will help to make directional signage content more user-friendly and functional:

1. If a number of directional will be used on the site, their content could be grouped under directional arrows in a uniform sequence such as left, right and straight ahead. This would enable visitors to adapt to the sequencing and respond to content faster.
2. Under each directional arrow grouping, list the closer destinations at the top and the most distant at the bottom. Visitors will adapt to this technique and be able to ascertain the proximity of their destination with respect to others listed.

3. If possible, directional signage should be located in advance of the decision points so that viewers have time to read the messages before selecting a course. In a site or facility where the speed limit is 30 MPH or less, the signs may be between 40 to 60 feet in advance of the intersection. For roadways with 30-45 MPH limits, they should be located 60-100 feet from the decision point.
4. Should the content of site directional signage at any decision point exceed six items, it will be separated among two signage elements no closer to one another than 60 feet. If this approach is used, it would be helpful to identify left-hand turn destinations on the first sign so that the viewer may have time to adjust lane position if required. **NOTE:** There are limitations to the number of destinations that are applicable to MUTCD Community Directional Signage and the regulations should be consulted to determine the maximum allowable quantity of destinations.
5. Trailblazers are used off-site (between ¼ mile to 1 mile in advance of the site/facility) to provide reassurance to the visitor on the approach pathway. They should utilize the site/facility name, directional arrow and logo if applicable. These signs should identify only the primary site/facility and not destinations or attractions within the site/facility.

With respect to location, **Post and Panel** and **Pole-Mounted Directional** signage should be positioned as close to the roadway as possible and perpendicular to the traffic approach. Similar to Vehicular Identification Signage, the placement of Vehicular Directional Signage should be free of visual obstacles (e.g. trees and branches, landscaping, utility/light poles, parked vehicles). Pole-mounted signs are usually used only where there is not enough space in the right of way to accommodate a typical post and panel sign. Depending on the municipality and ownership of the utility or pole situation, it may be necessary to obtain special permits or permission to use existing poles as a signage standard.

**Trailblazer Signage** is usually placed on existing utility or light poles. A permit or approval for such signs from the Municipality will necessary. Should no existing utility or light poles be available for usage, a stand-alone single post may be specified.

The **MUTCD Community Directional Signage** regulations may apply to directional signs on a public street or highway. The Manual User should consult the MUTCD Version 2009 for Community Wayfinding Signage as well as the local signage ordinances to determine the allowable sizes for such signs as well as their positioning relative to curbs, sidewalk and right-of-way. Section 2D-50 of the Manual includes more information about reflective background colors, text styles and sizes, arrow types and spacing and overall size and mounting. This Manual also includes a listing of colors that are prohibited for usage on community signage. The MUTCD Regulations can be found at the New York State Department of Transportation, Municipal Highway departments or on line.

There are three classifications for **Pedestrian Directional Signage** for which this Manual includes several sizing formats. These include:

- Post and Panel Signage
- Building-Mounted Signage
- Trail Directional Signage

Although grouped under a “Pedestrian” heading, the content of these signs is also applicable to visitors on bicycles, roller-blades or wheelchairs. Post and Panel Directional signs are usually limited to no more than seven destinations. Should additional destinations be applicable at any one decision point, a second directional element is usually used no closer than 40 feet away.

**Pedestrian Directional** signs are usually located near parking lots or sidewalk approaches and decision points. They are often used in conjunction with orientation signage to reinforce circulation pathways to various destinations about a site or facility. Post and Panel signs should be at least 2 feet away from circulation pathways.

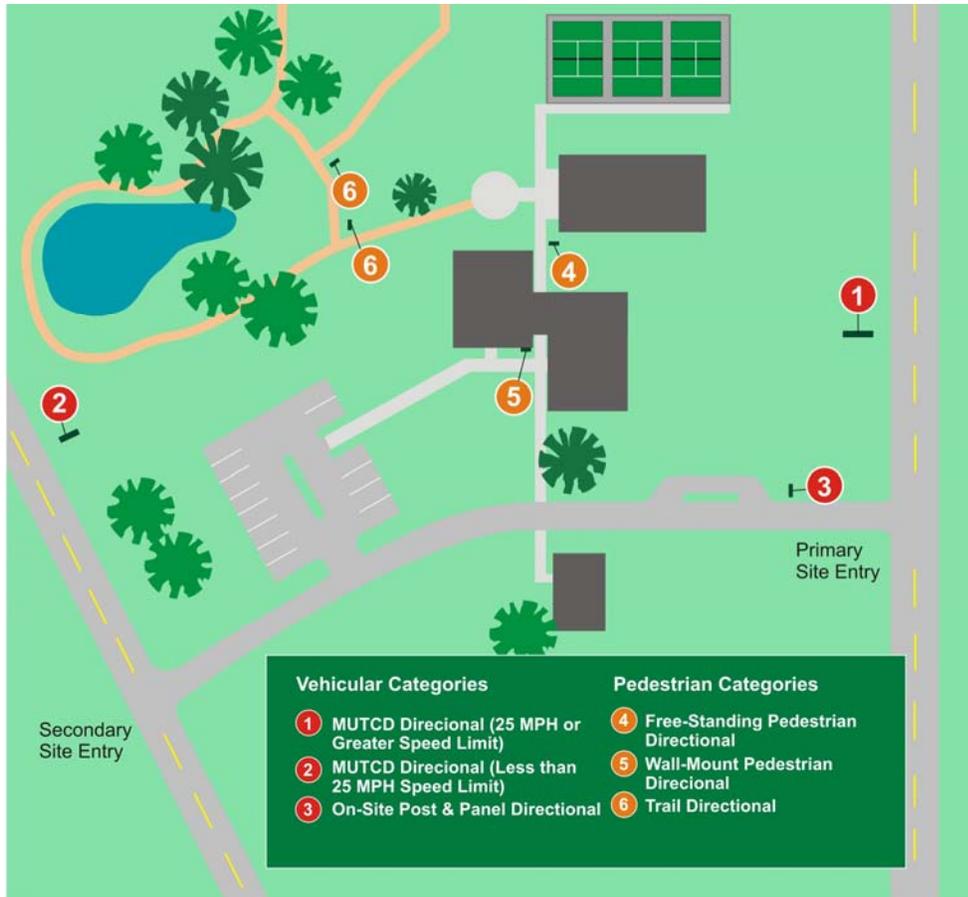
**Trail Directional Signage** represents a unique form of pedestrian signage. Many of the design characteristics and mounting specifications are articulated in the MUTCD regulations (See MUTCD Section 9 –TRAFFIC CONTROL FOR BICYCLE FACILITIES). This Manual **does not contain** documentation for these kinds of signs. However, drawings, specifications and usage criteria are provided

in the **Shoreline Trail Wayfinding Standards & Signage Maintenance Manual** available as a PDF from Erie County's Environment and Planning Department.

Several Directional Signage formats are shown below.



As mentioned previously, the careful placement of directional signage is a critical consideration in terms of maximizing their communication value. The drawing on the following page depicts recommended placement of the Directional Signage categories.



Typical Directional Signage Placement

## Orientation Signage

### Recommendations for Orientation Signage Content and Placement

There are several classifications for **Orientation Signage** for which this Manual includes several sizing formats. These include:

- Vehicular Site/Facility Orientation (Roadside)
- Primary Pedestrian Orientation
- Secondary Pedestrian Orientation
- Map Orientation

The purpose of Orientation Signage is to provide an overview of the site or facility and initiate the visitor along the pathway to his or her destination. **Vehicular Site/Facility Orientation** Signs are usually placed near a pull-off area adjacent to the roadway just beyond the entry to a large site or facility. They provide important “YOU ARE HERE” orientation information as they fix the visitor’s location on a map of the entire site or facility. Buildings, streets and roadways, and attractions are usually included on this map so that the visitor may visualize an approach path to the intended destination. Because this is usually a sign of fairly large scale and meant to be viewed from several feet, it is usually limited to a map and, sometimes, a legend of destinations.

**Primary Pedestrian Orientation** signs are usually more inclusive in terms of the information provided. In addition to a site map and legend, they may include multiple maps (e.g. as regional park map), directional guidance, safety information, interpretive content and acknowledgements. **Secondary Pedestrian**

**Orientation** signs are very similar but with somewhat less information. **Map Orientation** signs are simply maps and legends (with “YOU ARE HERE” orientation information) and serve to confirm the visitor’s location as he or she travels about the site and reinforce the intended circulation pathway.

The pedestrian orientation signs are usually located somewhat further off the pedestrian pathways than the pedestrian directional signs. This allows the visitor to step out of the pedestrian traffic flow and spend as much time as he or she wishes to digest the information provided. Included below are typical orientation signs and recommended locations.



Typical Orientation Signage Usage

## Interpretive and Commemorative Signage

### Recommendations for Interpretive and Commemorative Signage Content and Placement

These signage standards will provide formats for interpreting various historical or cultural aspects of a site/ facility or commemorate an individual or group.

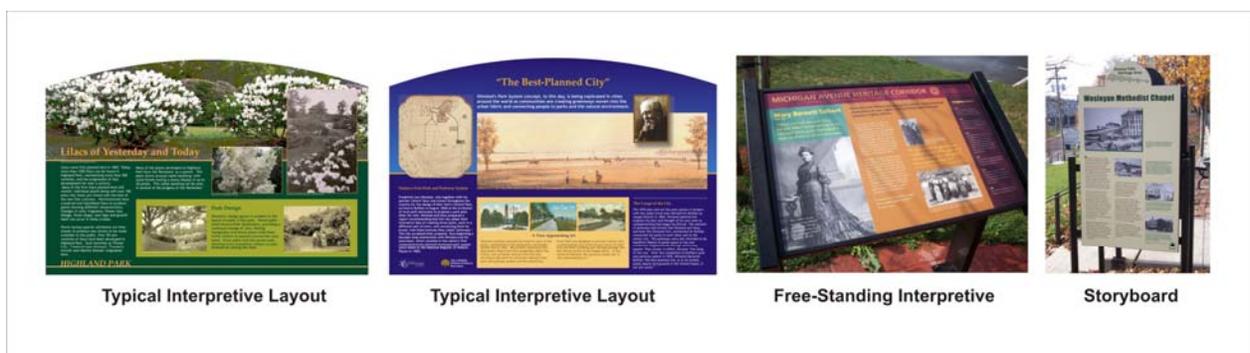
Two formats are provided for **Vehicular Commemorative Signage**. The primary distinction between these options is the size of the overall sign panels. They would likely be utilized along a roadway or at the access point to a portion of a site or facility that has been commemorated in the name of a particular individual, group or organization. The same rules would apply to the placement of this category as with previous vehicular categories to the extent that signage should be positioned free of any obstacles that would interfere with visibility.

Similarly, there are two formats for **Pedestrian Commemorative Signage** that provides opportunities for either a free-standing, post or wall mounting. As pedestrian elements, these signs will utilize phenolic resin panels to protect the graphics from vandalism and ultraviolet degradation.

There are two fundamental distinctions for **Interpretive Signage**. Conventional interpretive panel options include free-standing post and panel, railing and wall mounting. Interpretive signs are often placed strategically to help articulate a particular vista or vantage point. Similar to orientation signs, these should be placed slightly outside of the primary pedestrian pathways to afford viewers relief from passing traffic. These signs typically include headings, up to 200 words of text and a mix of photographs, charts, timelines or illustrations. **NOTE:** It is recommended that the Manual User remain within the recommended 200 word text limit as studies have shown that most viewers will not spend the time at any one sign to read extensive copy. To provide more detailed information for interested viewers, these signs often include references to websites or QR codes that can deliver smart-phone users directly to relevant websites.

The second type of Interpretive Sign is a **Storyboard**. These signs are larger, feature more text and frequently utilize multiple panels. These are used to convey more detailed information and may supplement information provided by teachers or docents in a teaching environment. As such, they are often placed in pavilions where groups may gather, be seated and conduct discussions around the storyboard content.

Interpretive Signage and Storyboards often involve a collaborative effort that may involve local municipalities, historical societies and educators to generate the content and images and a graphic designer to organize the text and imagery into a dynamic and attractive composition. Shown below are some examples of Interpretive Signage.



## Information and Promotional Signage

### Recommendations for Information and Promotional Signage Content and Placement

These signage standards will provide formats for providing special information about and promoting venues in the NRG. In terms of **Vehicular Informational Signage**, the standards provided in this Manual provide options for posting rules, regulations or special instructions regarding facility usage. These may communicate:

- Rules about hours, days or seasons of operation
- Rules regarding vehicle access, pets, refuse removal, etc.
- Regulations pertaining to site usage obligated by municipal codes or law enforcement
- Information pertaining to site use or parking associated with major events attracting large numbers of participants or audiences

The same categories of signage may be used to promote a facility, a particular event or aspects of a site/facility. Promotional signs may, for instance, communicate the dates of a particular event within a facility. These signs would likely be placed at or near site entry points and may use either permanent or temporary message panels or graphics.

**Pedestrian Informational and Promotional Signage** could be used to communicate similar content as the above but utilize smaller formats and be positioned appropriately for pedestrian traffic. Kiosks, post and panel signs and wall-mounted panels adapted for table-top displays may also be utilized to provide tourist information. These elements could be utilized in such venues as transportation terminals, hotels, municipal buildings or convention centers. These same signage elements may be utilized for educational displays.

## Regulatory and Warning Signage

### Recommendations for Regulatory and Warning Signage Content and Placement

For those facilities that are interested in extending their signage identity to include regulatory signage requirements, this Manual includes standards for posts and panels that permit a visual connection to other signs in the facility's system. The typical flat metal panels and U-channel posts used for stop or parking signs can be upgraded to include square aluminum posts and 1-inch thick fabricated aluminum box panels. These features provide a dimensional quality to these often overlooked signs. In addition to the post and panel coloration, certain signs may also include the arch or gable top to echo the form of other signs on site. This Manual contains standards for stop, yield, warning and parking signage.

All of the MUTCD requirements for size, materials and reflectivity are satisfied with application of code-compliant vinyl over the aluminum panels. The Manual User should review and confirm the MUTCD size and placement criteria for any such signs that will be included in the project package.



## 5 Nomenclature Standards and Circulation Recommendations

### Nomenclature Standards

To ensure consistency among the wayfinding elements used throughout a site or facility, it is recommended that consistent nomenclature be utilized for the various destinations referenced on signage. This involves formalizing the terms that will be used on all signage, as well as any print or website graphics that may be generated to convey wayfinding information. These terms should include:

1. Formal name of the facility as rendered on identification signage
2. Street numbers, if multiple addresses are used on the site
3. Names of Site Entrances (e.g. "West Entrance" or "Smith Street Entrance")
4. Names for all streets and roadways within the site
5. Names of attractions on the site
6. Names of buildings on the site
7. Names of entrances to the buildings if multiple entrances are utilized
8. Names of destinations within buildings

These terminologies will be applied to identification, orientation and directional signage elements as well as any print or electronic graphics developed to reinforce circulation or promote the site/facility.

Nomenclature standards should also be applied to any mapping created for the site and utilized on orientation signage.

In larger facilities, these terms will likely change and necessitate periodic modifications not only to signage but also various other communication media. Consequently, the larger and more complex the facility, the more important it will become to formalize nomenclature and the processes by which signs and other media are updated.

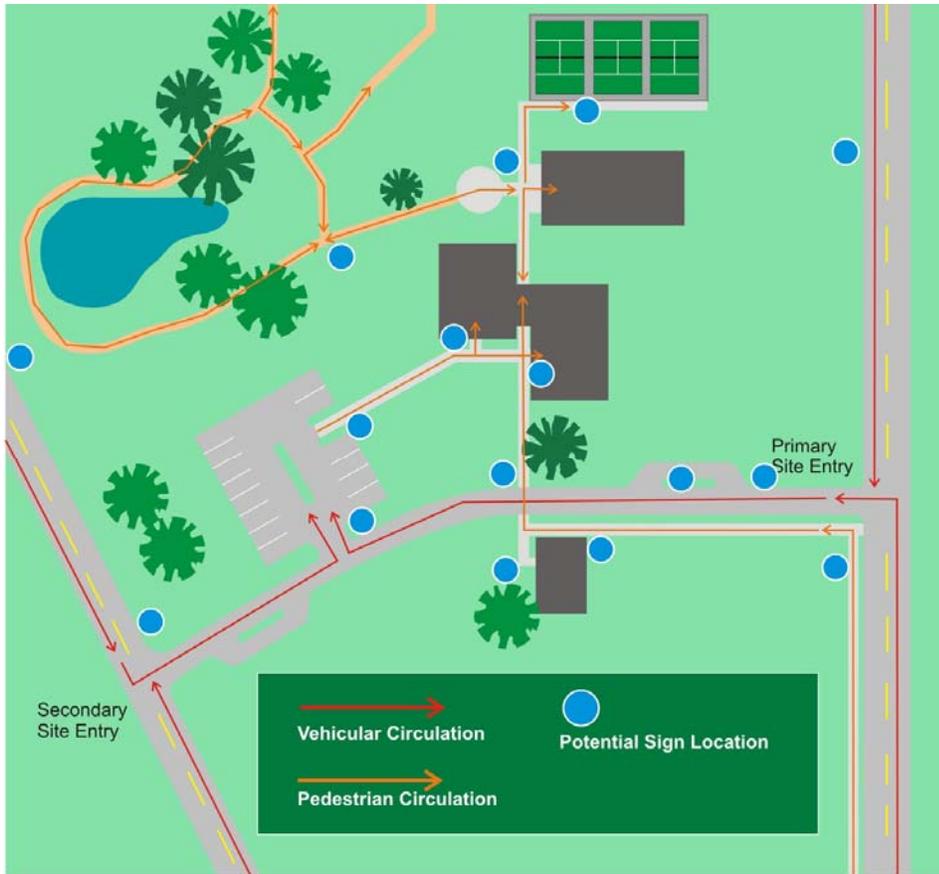
### Circulation Theory

The Circulation Theory is the strategy for moving visitors through an unfamiliar environment and the basis for the information that appears on signage. For simple sites with limited access points and few buildings, the circulation theory may be evident. However, numerous site access points, parking facilities, buildings or attractions within the site can provide a challenge for effective wayfinding. In such complex environments, it is recommended that vehicular approaches and pedestrian pathways are drawn over a site plan as the basis for initial signage planning. This should include identification of each building entrance or site attraction that constitutes a visitor "destination". This exercise will be valuable in identifying:

- Roadways delivering visitors to site access points,
- Intermediate destinations for vehicular traffic (e.g. parking facilities or building drop-off areas),
- Sidewalks and other paths used by pedestrians to access the site,
- Circulation pathways within the site used to deliver visitors to the array of destinations, and
- Decision points where information needs to be furnished.

The circulation pathways that are highlighted in this process suggest locations for a variety of identification, directional, orientation and informational signage. The starting points for circulation (such as parking lots) are usually opportunities for orientation signage. The decision points (where circulation choices need to be made at pathway junctions and intersections) suggest where directional signage is necessary. Working backward from each visitor destination to the points from which circulation originates will help to identify which destinations should be applied to each directional sign.

The drawing on the following page shows an example of a site plan that has been marked up to illustrate the vehicular and pedestrian approaches and pathways throughout a site. Also indicated are possible signage locations based on perceptions of informational needs at various points of the approach and circulation pathways.



**Vehicular and Pedestrian Circulation Strategies**

For most sites and facilities, the Circulation Theory should consider a much larger area than the neighborhood in which it is situated. This should include identification of the county, municipality and interstate routes and arterials that are used to bring visitors to the site. Although this information will not be represented on site signage, it may be necessary for print and electronic communications to provide wayfinding information to visitors approaching from out of state or other regions.

## 6 Listing of Signage Categories

This section provides a complete listing of the signage categories detailed and documented in this Manual. This index is intended to provide the Manual User with an overview of these offerings and to acquaint him or her with the nomenclature used to distinguish signage elements and their usage in the development of a signage package. Specific criteria for using each of these categories are included in **Section 7 - Signage Format Usage Criteria**. The fabrication and installation drawings for each sign category are included in **Section 8 – Detail Drawings**.

The category listing shown below is organized according to the FUNCTIONAL GROUPINGS identified in **Section 3 - Composition Guideline and Signage Documentation**. They are further subdivided to distinguish vehicular and pedestrian categories. Although some of the categories utilize a similar description (e.g. “Vehicular Facility Identification Post and Panel A” and “Vehicular Facility Identification Post and Panel B”), the formats for each sign listed will vary according to size and the amount of information that may be conveyed.

It is important to note here that the categories shown below are each represented in three different formats in Section 8. These represent the distinct FORMAT GROUPINGS that are described in STEP 5 in **Section 3 - Composition Guideline and Signage Documentation**. The categories are referenced similarly in each of the three FORMAT GROUPINGS. Please note that the individual detail drawing reference number (e.g. GT-1A) in the lower right-hand corner, however, is unique and reflects the category applied to one of the three specific FORMAT GROUPINGS. The only categories that do not reflect the three basic shapes are Regulatory and Warning Signage categories (e.g. stop signs, yield and diamond shapes) that cannot be placed within any other shape of sign.

### IDENTIFICATION SIGNAGE CATEGORIES

#### Vehicular Categories

Category	Description
A.1.1	Vehicular Facility Identification Pylon A
A.1.2	Vehicular Facility Identification Pylon B
A.1.3	Vehicular Facility Identification Pylon C
A.2.1	Vehicular Facility Identification Post and Panel A
A.2.2	Vehicular Facility Identification Post and Panel B
A.2.3	Vehicular Facility Identification Post and Panel C
A.2.4	Vehicular Facility Identification Post and Panel D
A.3.1	Vehicular Facility Identification Wall Mount A
A.3.2	Vehicular Facility Identification Wall Mount B

#### Pedestrian Categories

Category	Description
A.4.1	Pedestrian Facility Identification Pylon
A.5.1	Pedestrian Facility Identification Post and Panel A
A.5.2	Pedestrian Facility Identification Post and Panel B
A.5.3	Pedestrian Facility Identification Post and Panel C

- A.6.1 Pedestrian Facility Identification Wall Mount A
- A.6.2 Pedestrian Facility Identification Wall Mount B

**DIRECTIONAL SIGNAGE CATEGORIES**

**Vehicular Categories**

Category	Description
B.1.1	Vehicular Directional Pylon
B.2.1	Vehicular Directional Post and Panel A
B.2.2	Vehicular Directional Post and Panel B
B.2.3	Vehicular Directional Post and Panel C
B.3.1	MUTCD Directional Post and Panel A
B.3.2	MUTCD Directional Post and Panel B
B.3.3	MUTCD Directional Post and Panel C
B.3.4	MUTCD Directional Post and Panel D
B.4.1	Vehicular Directional Wall Mount
B.5.1	Off-site Trailblazer Existing Pole Mount
B.5.2	Off-site Trailblazer New Pole Mount

**Pedestrian Categories**

Category	Description
B.6.1	Pedestrian Directional Pylon
B.7.1	Pedestrian Directional Post and Panel A
B.7.2	Pedestrian Directional Post and Panel B
B.8.1	Pedestrian Directional Wall Mount A
B.8.2	Pedestrian Directional Wall Mount B

**NOTE:** Trail Directional Signage Categories can be found in the **Shoreline Trail Wayfinding Standards & Signage Maintenance Manual** available as a PDF from Erie County's Environment and Planning Department.

**ORIENTATION SIGNAGE CATEGORIES**

**Vehicular Categories**

Category	Description
C.1.1	Vehicular Orientation Pylon A
C.1.2	Vehicular Orientation Pylon B
C.2.1	Vehicular Orientation Post and Panel A
C.2.2	Vehicular Orientation Post and Panel B

**Pedestrian Categories**

Category	Description
C.3.1	Pedestrian Orientation Pylon A
C.3.2	Pedestrian Orientation Pylon B
C.4.1	Pedestrian Orientation Post and Panel A
C.4.2	Pedestrian Orientation Post and Panel B
C.5.1	Pedestrian Orientation Wall Mount

## **INTERPRETIVE AND COMMEMORATIVE SIGNAGE CATEGORIES**

### **Vehicular Categories**

Category	Description
D.1.1	Vehicular Commemorative Post and Panel A
D.1.2	Vehicular Commemorative Post and Panel B

### **Pedestrian Categories**

Category	Description
D.2.1	Interpretive/ Commemorative Post and Panel
D.3.1	Interpretive/ Commemorative Wall Mount
D.4.1	Interpretive/ Commemorative Railing Mount
D.5.1	Interpretive Storyboard Post and Panel
D.6.1	Interpretive Storyboard Wall Mount

## **INFORMATIONAL AND PROMOTIONAL SIGNAGE CATEGORIES**

### **Vehicular Categories**

Category	Description
E.1.1	Vehicular Informational Post and Panel A
E.1.2	Vehicular Informational Post and Panel B

### **Pedestrian Categories**

Category	Description
E.2.1	Informational/ Promotional Post and Panel
E.3.1	Informational/ Promotional Wall Mount
E.4.1	Informational/ Promotional Kiosk

## REGULATORY AND WARNING SIGNAGE CATEGORIES\*

### Vehicular Categories

Category	Description
F.1.1	Stop Sign
F.2.1	Yield Sign
F.3.1	Warning Signs
F.4.1	Parking Signs

\*The Regulatory and Warning Signage Categories are only shown in FORMAT GROUPING **ST** as they cannot be formatted in a gabled or rounded top format.

## 6A Interpretive Signage Recommendations

This Section identifies the objectives and recommended development process for interpretive signage along the Shoreline Trail. Similar to other such trail networks, the ST is intended primarily for transportation and recreation. Yet, it is a unique trail system in that it passes through a mix of urban, suburban and pastoral areas and alongside a major river, one of the Great Lakes and a world class tourism venue in Niagara Falls. Beyond the diversity of its environs, its path goes through areas where there has been significant political, social, cultural and industrial history.

### Specific Objectives for Interpretive Signage

The objective for Interpretive Signage along the ST is consistent with the goals of the Niagara River Greenway, through which a large segment of the ST passes. These signs are intended to stimulate the interest and imagination of trail users and promote the region by telling the stories associated with its rich heritage and wide-ranging environments. To this end, the implementation of interpretive signage has been an important consideration for the wayfinding standards developed to date for the ST.

The organization of the information that can be used to create interpretive signage is contingent upon collaboration with the communities through which the trail passes. Specifically, the objectives for this engagement are:

1. Identify each Community's potential interpretive themes
2. Utilize local resources that include historians, faculty, archivists, and private individuals who can provide accurate information, interpretive content and imagery relating to the interpretive themes
3. Establish partnerships with the communities that eventually transfers ownership of the interpretive content to them
4. Encourage sustained engagement to provide and maintain resources for additional information relating to interpretive themes

### Fundamental Principles for Interpretive Signage Development along the Shoreline Trail

This approach to interpretation is consistent with the current trends that aim to:

- Attract the viewer with an appealing and organized composition
- Focus on a single theme for each element
- Provide relevant content that stimulates an appetite for more information and
- Reference other sources for detail on thematic subjects.

The design of interpretive signage should utilize colors, photographs, graphic images and minimal text to attract and engage the trail user. These designs may take on a "localized" graphic organization or style to provide continuity or connection of themes within a specific neighborhood or community. The posterized images used as backgrounds for the Ohio Street interpretive layouts are one example of an effort to connect themes. Text should be minimized not to exceed 200 words and arranged in organized layouts that permit "white space" and which maximize readability standards in terms of paragraph length, line length and font size.

With respect to content, the interpretive signs must be relevant to some aspect of the viewer's personality or experience. The history of grain transshipment, for instance, was a key contributor to the growth of the City as a whole and is the reason why the grain elevators exist. But, this industry also had a profound impact on other industries that thrived in association with transshipment and who came to live in Buffalo – which may include the ancestors of many people who read these signs. With the appropriate message,

an interpretive sign may challenge the viewer to seek more information about his own family history or that of his or her nationality in the area, what industries (e.g. shipping, railroads, and cereal production) were related to grain transshipment or why this industry became less relevant in the local economy. The primary aim is not to provide information or instruction but rather provocation.

This approach minimizes the number of signs in the environment, reduces their budgetary impact and takes advantage of emerging technologies (e.g. QR codes) to provide easy access to more information.

### **Recommended Interpretive Signage Content**

There is no shortage of potential interpretive subjects along the ST. In addition to the Falls, river and gorge, there is great diversity in the other environs through which the trail passes that makes for interesting possibilities in terms of geological and environmental stories that may be told. Add to this a sundry of political, social, cultural and industrial history. The opportunities are so great that, in some cases, it may be necessary to prioritize interpretation to what is practical in the context of the trail's usage.

For instance, Ohio Street is rich in industrial history and the interpretive signage developed here will convey some of the stories associated with the development of the Buffalo Harbor and the importance of the improvements made to the Buffalo River which led to this port being selected as the terminus for the Erie Canal. These signs will also convey the importance of the railroads and terminals in the vicinity of Ohio Street, the Ohio Basin, the grain elevators and innovation in elevator design in the facilities along Ohio Street and the Ohio Street Bridge. Signage will also tell the story of the Seneca People who lived here before the westward migration, and something of the social and political heritage with elements telling the stories of the Harbor Inn and Fingy Connors.

### **Process for developing Interpretive Signage along the Shoreline Trail**

The process for developing content for interpretive signage will obligate the design team to cultivate partnerships with a team of municipal representatives, local historians, scientists and other informed specialists to determine fundamental themes in the communities through which the trail passes. This places the members of the design team responsible for developing interpretive content with individuals and groups who can provide accurate and relevant information relating to the themes that are identified at the project onset. As the design concepts take form, there is a review process that adjusts and fine-tunes the content and designs until the project team's learning, behavioral or emotional objectives are satisfied. The process is currently underway in the areas of Ohio Street in Buffalo and Evans in southern Erie County.

The interaction with local individuals and groups in developing interpretive signage is perceived as only the first step in a long-term collaboration. As the goal of these signs is to stimulate interest in a variety of subject areas, there needs to be sources to which inquiries may be made (museums, historical societies, websites). This interaction will ultimately transfer "ownership" of these stories to the communities and establish sustained engagement through the maintenance and enhancement of these information sources.

### **What are a reasonable number of interpretive signs to include along the Shoreline Trail?**

Given the variables that characterize any particular trail segment, it may not be possible or practical to arbitrarily identify a maximum number of such signs that may be utilized along the ST. A large number of signs of any purpose would not be desirable for reasons of safety, cost and practicality. What is more, too many signs can clutter the trail and possibly interfere with the observation of natural vistas or historic sites. Consequently, interpretive signs should be placed carefully in urban areas so as not to distract trail

users at points where attention needs to be directed to navigating the trail, interfacing with vehicular traffic and remaining aware of a large volume of opposing trail traffic. In more remote areas, where there are few decision points and roadway crossings, signs may be placed with greater frequency.

Recent trail development along Ohio Street may help to establish guidelines for interpretive elements in urban areas. With its multitude of theme opportunities, there is potential for a great many such signs. Yet, considering that the ST is primarily a transportation and recreational facility, there are reasonable limits to the number of signs that can or should be utilized. There are 12 interpretive signs programmed along the roughly 1.5 miles from Canalside to the Fuhrmann Boulevard underpass.

Three of these interpretive panels have been integrated onto orientation signs. As this category is intended to be placed somewhat further away from the trail and for longer viewing, it lends itself to interpretive content along with the general trail information provided. Wherever possible, interpretive content should utilize the orientation formats as they are utilized along the trail.

### **What costs are involved to develop, build and install interpretive signage?**

The cost of interpretive signage includes all labor associated with development as well as the construction materials, fabrication and installation. Development costs include design, copy-writing and in some cases, research. In those cases where public monies are applicable, there are also costs associated with formal procurement and construction management/ supervision. Also, the usage of certain images such as private or copy-righted photos may require fees. The costs for development, procurement and construction supervision may exceed that of fabrication and installation.

In terms of the physical products, much of the cost of interpretive signage has to do with the standards on which the message panels are placed. Free-standing elements are more costly than those affixed to buildings, walls or railings. What is more, the materials and complexity of the mounting standards may significantly impact the cost.

### **What are the possible conflicts in the approach to Interpretive Signage in the areas around the Shoreline Trail?**

There may be differences in philosophy and purpose between the interpretive elements developed in some neighborhoods and municipalities and the projected applications along the ST. Experiences thus far suggest that various groups have a different agenda for such signs that are characterized by the utilization of many signage elements and the communication of detailed information. Some of these interpretive programs are intended to be viewed as a series of experiences that, en masse, provide a comprehensive picture of social or industrial heritage. Yet, getting the “big picture” is somewhat dependent upon the viewer being able to view a significant number of these signs.

By contrast, there are markedly different objectives for interpretive signage along the ST as there are functional limitations for both signage quantity and content. The intent of ST interpretation is to convey aspects of each theme that is relevant to the specific local segments of the trail. This may include a mix of cultural, environmental, ecological, and historical significance and industrial heritage. Practicality is a major consideration given that the ST is primarily a recreation/transportation facility where signage needs to be minimal. Consequently, ST interpretive content should be more general in terms of what is conveyed; it should focus on relevance and provide consideration for the needs of those who are interested in learning more by providing sources for additional information.

## 7 Signage Format Usage Criteria

One of the objectives of this program is to establish and maintain wayfinding standards throughout the NRG. The Usage Criteria included below represents an effort to standardize the information that is communicated to NRG visitors by providing criteria and recommendations for utilization of the various signage formats included in this Manual. These guidelines aim to maximize communication and provide consistency in terms of where visitors approaching in vehicles or as pedestrians may find information in the visual environments.

### Vehicular Identification Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>A.1.1</b> <b>A.1.2</b> <b>A.1.3</b>	<b>Vehicular Facility Identification Pylons</b> These formats implement fabricated aluminum pylons and may be used along roadways to identify sites, facilities, and buildings. The individual categories vary in size and there are options in terms of the base materials upon which the pylons are installed (e.g. brick, stone, aluminum).  The content for these signs will generally be limited to the name of the facility, street address (if applicable) and logo or logotype. If there are distinctions among entrances on a site (e.g. East Entrance, North Entrance, etc.), this information may also be included on the sign content as secondary text.  Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings.	<p>The content for these categories should approximate that shown on the detail drawings. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which graphics may be seen by approaching traffic and restrict the communication potential.</p> <p>The Owner must furnish electronic artwork to the fabricator for any custom graphics and logos. Signage content should be furnished in the form of a Message Schedule as explained in Section 3 of this Manual.</p>
<b>A.2.1</b> <b>A.2.2</b> <b>A.2.3</b> <b>A.2.4</b>	<b>Vehicular Facility Identification Post and Panel</b> These formats implement fabricated aluminum panels and aluminum posts and may be used along roadways to identify sites, facilities, and buildings. The individual categories vary in size. It is recommended that only the first three formats listed here be utilized for site and facility identification along approach roadways. Due to its smaller format, A.2.4 should only be used to identify buildings or facilities on interior roadways within a site or complex where speed limits are 25 MPH or less.  The content for these signs should be limited to the name of the facility, street address (if applicable) and logo or logotype. If there are distinctions among entrances on a site (e.g. East Entrance, North Entrance, etc.), this information may also be included on the sign content as secondary text.	<p>The recommendations for these categories are the same as the previous group.</p>
<b>A.3.1</b> <b>A.3.2</b>	<b>Vehicular Facility Identification Wall Mount</b> These formats implement fabricated aluminum panels and are mounted directly to building or wall faces. Category A.3.1 should be utilized only where the building or other wall surface affords sufficient and unobstructed visibility to approaching traffic on roadways leading into the site or facility. Due to its smaller format, A.3.2 should be limited to the identification of buildings or facilities on interior roadways within a site or complex where speed limits are 25 MPH or less.  The content criteria for these sign categories is the same as the previous group.	<p>The recommendations for these categories are the same as the previous group.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>

## Pedestrian Identification Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>A.4.1</b>	<p><b>Pedestrian Facility Identification Pylon</b> This format implements a fabricated aluminum pylon and may be used along sidewalks and other walkways to identify facilities or buildings within a site to visitors approaching on foot, bicycle, roller blades or wheelchair. There are options in terms of the base materials upon which this format may be installed (e.g. brick, stone, aluminum).</p> <p>The content for these signs should generally be limited to the name of the facility or building, logo or logotype and brief outline of contents (e.g. Building Directory).</p> <p>Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings.</p>	<p>The content for this category should approximate that shown on the detail drawing. Content exceeding the examples shown on the drawings will require a reduction in text size and viewing distance.</p> <p>The Owner must furnish electronic artwork to the fabricator for any custom graphics and logos. Signage content should be furnished in the form of a Message Schedule. Customized directories should also be furnished to the fabricator in electronic format.</p> <p>The signs should be mounted no closer to the sidewalk or other walkway than 24 inches.</p>
<b>A.5.1</b> <b>A.5.2</b> <b>A.5.3</b>	<p><b>Pedestrian Facility Identification Post and Panel</b> This format implements fabricated aluminum panels and aluminum posts. The application and usage criteria for these categories is the same as the previous group. As these categories vary in size, the format selection should be determined by the amount of information that needs to be conveyed.</p> <p>The content recommendations for these signs is the same as the previous group.</p> <p>Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings for each format.</p>	<p>The requirements content and electronic artwork for custom graphics are the same as the previous group.</p> <p>Mounting/placement criteria are the same as the previous group.</p>
<b>A.6.1</b> <b>A.6.2</b>	<p><b>Pedestrian Facility Identification Wall Mount</b> This format implements fabricated aluminum panels mounted directly to building or wall faces. The application and usage criteria for these categories is the same as the previous group.</p> <p>The content and sizing recommendations for these signs is the same as the previous group.</p>	<p>The requirements content and electronic artwork for custom graphics are the same as the previous group.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>

## Vehicular Directional Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>B.1.1</b>	<p><b>Vehicular Directional Pylon</b> This format utilizes a fabricated aluminum pylon and may be used along roadways within sites to provide directional guidance to attractions, events and buildings via reflective vinyl graphics. There are options in terms of the base materials upon which the pylon is installed (e.g. brick, stone, aluminum).</p> <p>The content for these signs will generally include directional arrows and listings of destinations. Sizing of copy and graphics are applicable to vehicular traffic and should follow the general guidelines illustrated in the detail drawings.</p> <p>The content for vehicular directional signage within a site or complex should generally be limited to six destinations per sign face (assuming vehicle speeds 25 MPH or less).</p> <p><b>NOTE: See Categories B.3.1 and B.3.2 for directional signage applicable to Community Roadways.</b></p>	<p>The content for this category should approximate that shown on the detail drawing. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which graphics may be seen by approaching traffic and restrict the communication potential.</p> <p>Signage content should be furnished in the form of a Message Schedule. The relationship of directional arrows and accompanying text should be clearly indicated in the Message Schedule. Any custom graphics or arrows should be furnished to the fabricator in electronic format.</p>
<b>B.2.1</b> <b>B.2.2</b> <b>B.2.3</b>	<p><b>Vehicular Directional Post and Panel</b> These formats utilize fabricated aluminum panels and aluminum posts and may be used along roadways within sites to provide directional guidance to attractions, events and buildings.</p> <p>The fabrication, materials and content recommendations for these categories are the same as the previous group.</p> <p><b>NOTE: See Categories B.3.1 and B.3.2 for directional signage applicable to Community Roadways.</b></p>	<p>The recommendations for these categories are the same as the previous group.</p>
<b>B.3.1</b> <b>B.3.2</b> <b>B.3.2</b> <b>B.3.4</b>	<p><b>MUTCD Community Directional Post and Panel</b> These formats satisfy the material, sizing and reflectivity requirements of the Manual of Uniform Traffic Control Devices (MUTCD) Version 2009 for Community Wayfinding Signage adopted by the New York State Department of Transportation. Formats B.3.1 and B.3.2 are the preferred details for directing visitors to facilities, attractions or buildings where signage is desired on community roadways leading to site/facility entrances and posted vehicle speeds are in excess of 25 MPH. Format B.3.3 and B.3.4 are intended for usage in similar environments where vehicle speeds are 25 MPH or less.</p> <p>The MUTCD requirements of these formats include specific arrow configuration and spacing, typestyle, word and inter-letter spacing and graphics/ background reflectivity. The signage content is limited to three destinations per sign face. A divider must be utilized between the header and directional groupings and between directional groupings.</p> <p>Customization options for this category include the usage of a logo at the top of the sign and limited options for background coloration.</p>	<p>See MUTCD Section 2D-50 for more information about Community Wayfinding Guide Signage.</p> <p>Consult the vendor for graphic application options to achieve reflective background colors. Consult the MUTCD for description of colors that are prohibited for use on Community Directional Signage.</p>

Categories	Usage Criteria	Recommendations/ Restrictions
<b>B.4.1</b>	<p><b>Vehicular Directional Wall Mount</b> This format implements a fabricated aluminum panel mounted directly to building or wall faces. The application, usage criteria and content recommendations for this category is the same as Category B.1.1.</p> <p>Category B.4.1 should be utilized only where the building or other wall surface affords sufficient and unobstructed visibility to approaching traffic on roadways within a site or complex.</p> <p><b>NOTE: See Categories B.3.1 and B.3.2 for directional signage applicable to Community Roadways.</b></p>	<p>The recommendations for these categories are the same as Category B.1.1.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>

<b>B.5.1</b> <b>B.5.2</b>	<p><b>Vehicular Trailblazer</b> Category B.5.1 utilizes a fabricated aluminum panel and is mounted to existing light or utility poles. Category B.5.2 utilizes a fabricated aluminum panel and aluminum post. Both categories can be used along roadways on the approach to sites and facilities to provide off-site directional information to visitors. These signs are frequently used at or near key intersections one-quarter to one-half mile away from the facility.</p> <p>The content for these signs usually include a logo, name of the facility and directional arrow.</p> <p><b>NOTE: See Categories B.3.1 and B.3.2 for directional signage applicable to Community Roadways.</b></p>	<p>The content for this category should approximate that shown on the detail drawings. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which sign content may be read by approaching traffic and restrict the communication potential.</p> <p>Any custom graphics or arrows should be furnished to the fabricator in electronic format. The Owner should consult the local municipality for any restrictions on the usage/placement of trailblazer signage and the availability of light and utility poles for the purpose of mounting.</p> <p>Where no existing poles are available, the Owner is advised to pursue the usage of a new pole (Category B.5.2) in accordance with local regulations for trailblazer signage.</p>
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## Pedestrian Directional Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>B.6.1</b>	<p><b>Pedestrian Directional Pylon</b> This format utilizes a fabricated aluminum pylon and may be used along sidewalks and other walkways to provide directional guidance to attractions, events and buildings. There are options in terms of the base materials upon which the pylon is installed (e.g. brick, stone, aluminum).</p> <p>The content for these signs will generally include directional arrows and listings of destinations. Sizing of copy and graphics are applicable to pedestrian traffic and should follow the general guidelines illustrated in the detail drawings.</p> <p>The content for pedestrian directional signage should generally be limited to eight destinations per sign face.</p>	<p>The content for this category should approximate that shown on the detail drawing. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which graphics may be seen by approaching pedestrian traffic and restrict the communication potential.</p> <p>Signage content should be furnished in the form of a Message Schedule. The relationship of directional arrows and accompanying text should be clearly indicated in the Message Schedule. Any custom graphics or arrows should be furnished to the fabricator in electronic format.</p>

Categories	Usage Criteria	Recommendations/ Restrictions
<b>B.7.1</b> <b>B.7.2</b>	<p><b>Pedestrian Directional Post and Panel</b> This format implements fabricated aluminum panels and aluminum posts. The application and usage criteria for these categories is the same as the previous group. As these categories vary in size, the format selection should be determined by the amount of information that needs to be conveyed.</p> <p>The content recommendations for these signs is the same as the previous group.</p> <p>Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings for each format.</p>	<p>The requirements for content and electronic artwork for custom graphics are the same as the previous group.</p> <p>Mounting/placement criteria are the same as the previous group.</p> <p>The signs should be mounted no closer to the sidewalk or other walkway than 24 inches.</p>
<b>B.8.1</b> <b>B.8.2</b>	<p><b>Pedestrian Directional Wall Mount</b> This format implements fabricated aluminum panels mounted directly to building or wall faces. The application and usage criteria for these categories is the same as the previous group.</p> <p>The content and sizing recommendations for these signs is the same as the previous group.</p>	<p>The requirements for content and electronic artwork for custom graphics are the same as the previous group.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>

**NOTE:** Trail Directional Signage Categories can be found in the Shoreline Trail Wayfinding Standards & Signage Maintenance Manual available as a PDF from Erie County's Environment and Planning Department.

## Vehicular Orientation Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>C.1.1</b> <b>C.1.2</b>	<p><b>Vehicular Orientation Pylons</b> These categories utilize fabricated aluminum pylons on brick, stone or aluminum bases and are intended to be viewed a close range by a motorist pulling up to the sign. These formats can be used at entrances to trails, parks or other attractions where it is necessary to orient visitors with trail/facility identification, site mapping and regulatory information. The format is designed to receive two vandal-resistant phenolic resin panels and, in most cases will entail graphics only on one elevation. Format selection should be determined by the amount of information that needs to be conveyed.</p> <p>These categories may be located at the vehicular access to primary trailheads, park entrances or entrances to other kinds of tourism venues where it may be beneficial to provide an overview of the site or "YOU ARE HERE" orientation to the unfamiliar visitor. The map graphic may include paths, roadways and attractions within the site/facility, reference points adjacent to the site and services within the site (e.g. parking areas, restaurants, restrooms, docking areas &amp; playgrounds).</p>	<p>See Section 4 - RECOMMENDATIONS FOR SIGNAGE CONTENT &amp; PLACEMENT for recommendations on mapping and directional content.</p> <p>As only one motorist may access these formats at a time, the content should be limited to a map, legend and very general site usage or regulatory information.</p> <p>All mapping and legends should be furnished to the fabricator in electronic format.</p>

Categories	Usage Criteria	Recommendations/ Restrictions
<b>C.2.1</b> <b>C.2.2</b>	<p><b>Vehicular Orientation Post and Panel</b></p> <p>This format utilizes a fabricated aluminum panel and aluminum posts and are intended to be viewed at close range by a motorist pulling up to the sign. The usage criteria and placement is the same as the previous category. Format selection should be determined by the amount of information that needs to be conveyed.</p>	Recommendations are the same as for the previous listing.

## Pedestrian Orientation Signage

4 Recommendations for Signage Content & Placement

Categories	Usage Criteria	Recommendations/ Restrictions
<b>C.3.1</b> <b>C.3.2</b>	<p><b>Pedestrian Orientation Pylon</b></p> <p>These categories utilize fabricated aluminum pylons on brick, stone or aluminum bases and are intended to be viewed a close range by a pedestrians or bicyclists walking up to the sign. This format can be used on trails, in parks or other attractions where it is necessary to orient visitors trail/facility identification, directional, regulatory and interpretive information.</p> <p>The format is designed to receive changeable vandal-resistant phenolic resin panels on each elevation. The information conveyed may include identity graphics, directional information, site or trail map graphics &amp; legend of destinations and regulatory information pertaining to site usage, seasonal maintenance and accessibility. Interpretive and acknowledgments may also be incorporated.</p> <p>Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings. This category may be located at primary trailheads, parking areas or primary public gathering points (e.g. Restaurants, restrooms, docking areas, playgrounds) or junctions with major access streets and trails.</p>	<p>See Section 4 - RECOMMENDATIONS FOR SIGNAGE CONTENT &amp; PLACEMENT for recommendations on mapping and directional content.</p> <p>this format should be placed somewhat off the primary pedestrian traffic pathways to allow the viewer ample time to read contents and not interfere with pedestrian traffic flow. As per MUTCD Section 9 - TRAFFIC CONTROL FOR BICYCLE FACILITIES, no portion of this sign may be closer to a shared use path than 24".</p> <p>The Owner must furnish electronic artwork to the fabricator for any custom graphics such as maps, legends, logos, and interpretive information. Directional content may be furnished in the form of a message schedule. Regulatory content may be furnished on a message schedule providing typographic size, style and spacing information is specified.</p>
<b>C.4.1</b> <b>C.4.2</b>	<p><b>Pedestrian Orientation Post and Panel</b></p> <p>This format implements fabricated aluminum panels and aluminum posts. The application and usage criteria for these categories is the same as the previous group. As these categories vary in size, the format selection should be determined by the amount of information that needs to be conveyed.</p> <p>The content recommendations for these signs is the same as the previous group.</p> <p>Sizing of copy and graphics shall follow the general guidelines illustrated in the detail drawings for each format.</p>	<p>The requirements for content and electronic artwork for custom graphics are the same as the previous group.</p> <p>Mounting/placement criteria are the same as the previous group.</p> <p>The signs should be mounted no closer to the sidewalk or other walkway than 24 inches.</p>
<b>C.5.1</b>	<p><b>Pedestrian Map Graphic Wall Mount</b></p> <p>This format implements a fabricated aluminum panel and posts and utilizes a changeable vandal-resistant phenolic resin panel on each face. This category is used to convey orientation via a map graphic and legend.</p>	Recommendations are the same as for the previous listing.

## Vehicular Interpretive and Commemorative Signage

Categories	Usage Criteria	Recommendations/ Restrictions
D.1.1 D.1.2	<p><b>Vehicular Commemorative Post &amp; Panel</b></p> <p>This format utilizes a fabricated aluminum panel and posts and may be used along roadways within sites to commemorate a site, roadway, garden, trail or building to an individual or group. As this is a roadside sign, the content should generally be limited to a short heading that identifies the individual or group being commemorated. The sign will utilize reflective vinyl graphics and may include a photographic image of the individual or group providing a high-resolution image is provided to the fabricator. Format selection should be determined by the amount of information that needs to be conveyed.</p>	<p>The content for this category should approximate that shown on the detail drawing. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which graphics may be seen by approaching traffic and restrict the communication potential.</p> <p>Signage content should be furnished in the form of a Message Schedule. Any custom graphics should be furnished to the fabricator in electronic format.</p>

## Pedestrian Interpretive and Commemorative Signage

Categories	Usage Criteria	Recommendations/ Restrictions
D.2.1	<p><b>Pedestrian Interpretive/Commemorative Post &amp; Panel</b></p> <p>This format utilizes a fabricated aluminum panel and posts and may be placed along sidewalks, trails or at gathering areas to commemorate a site, roadway, garden, trail or building to an individual or group. The angled sign face will receive one vandal-resistant phenolic resin panel.</p> <p>For interpretive signage, the content may include headings, subheadings, photographs and illustrations. It is recommended that the a consistent graphic organizational grid be utilized for multiple interpretive signs placed on a site and that body text not exceed 200 words.</p> <p>Commemorative signage should utilize a similar organizational approach and body text limitations.</p>	<p>The artwork for all interpretive and commemorative signage should be furnished to the fabricator in electronic format.</p> <p>No portion of this sign may be closer to a shared use path than 24".</p>
D.2.2	<p><b>Pedestrian Interpretive/Commemorative Wall Mount</b></p> <p>This format utilizes a fabricated aluminum panel with vanda-resistant phenolic resin panel and is engineered to be installed directly to a wall surface.</p> <p>The applications and content are the same as the previous category.</p>	<p>The artwork for all interpretive and commemorative signage should be furnished to the fabricator in electronic format.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>
D.2.3	<p><b>Pedestrian Interpretive/Commemorative Railing Mount</b></p> <p>This format utilizes a fabricated aluminum panel with vanda-resistant phenolic resin panel and is engineered to be installed on the top round section of railing.</p> <p>The applications and content are the same as the previous categories.</p>	<p>The artwork for all interpretive and commemorative signage should be furnished to the fabricator in electronic format.</p> <p>Furnish fabricator with profiles and dimensions of all railings to be used for this signage format.</p>

Categories	Usage Criteria	Recommendations/ Restrictions
<b>D.3.1</b>	<p><b>Interpretive Story Board Post &amp; Panel</b>  This format utilizes a fabricated aluminum panel and posts and may be placed along sidewalks, trails or at gathering areas to provide detailed information relative to sites, geological information, waterways, the natural habitat or historical events. Each sign face will receive one vandal-resistant phenolic resin panel and graphics may be applied to both elevations. Use multiple units as required to convey story board content.</p> <p>The content may include headings, subheadings, photographs and illustrations. There are no limitations with respect to the amount of body text that can be used for this sign, but it is recommended that the text be no smaller than 24 point. A consistent graphic organizational grid should be utilized for multiple story board signs.</p>	<p>The artwork for all interpretive signage should be furnished to the fabricator in electronic format.</p> <p>No portion of this sign may be closer to a shared use path than 24".</p> <p>These signs are often placed within outdoor pavilions to facilitate their use by teachers and a group of students.</p>

<b>D.3.2</b>	<p><b>Interpretive Story Board Wall Mount</b>  Similar to the description above, this format uses a fabricated aluminum panel and one vandal-resistant phenolic resin panel and is intended to be mounted on a wall surface. The usage criteria and content is the same as above. Use multiple units as required to convey story board content.</p>	<p>The artwork for all interpretive signage should be furnished to the fabricator in electronic format.</p> <p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>
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## Vehicular Informational and Promotional Signage

Categories	Usage Criteria	Recommendations/ Restrictions
<b>E.1.1</b>	<p><b>Vehicular Informational/ Promotional Post &amp; Panel</b>  This format utilizes a fabricated aluminum panel and posts and may be used along roadways within sites to communicate brief messages regarding the use of or operations within a facility, applicable laws or municipal codes or special (short term) rules that may apply to a particular event or period. This sign may also be used to promote a special event and include the timing or schedule of facility usage or particular activities.</p> <p>As this is a roadside sign, the content needs to be as concise as possible. The sign will utilize reflective vinyl graphics that may be replaced as regulations are revised or special events within the facility are concluded.</p>	<p>The content for this category should approximate that shown on the detail drawing. Content exceeding the examples shown on the drawings will require a reduction in text size. This will limit the distance over which graphics may be seen by approaching traffic and restrict the communication potential.</p> <p>Extensive content should be placed on pedestrian signage in the vicinity of parking facilities or pedestrian approaches.</p>
<b>E.1.2</b>	<p><b>Vehicular Informational/ Promotional Wall Mount</b>  This format implements a fabricated aluminum panels mounted directly to building or wall faces. The application and usage criteria for this category is the same as the previous group.</p>	<p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p> <p>Extensive content should be placed on pedestrian signage in the vicinity of parking facilities or pedestrian approaches.</p>

## Pedestrian Informational and Promotional Signage

Categories	Usage Criteria	Recommendations/ Restrictions
E.2.1	<p><b>Pedestrian Informational/ Promotional Post &amp; Panel</b>            This format utilizes a fabricated aluminum panel and posts and may be used along pathways within sites to communicate messages regarding the use of or operations within a facility, applicable laws or municipal codes or special (short term) rules that may apply to a particular event or period. This sign may also be used to promote a special event and include the timing or schedule of facility usage or particular activities.</p> <p>As this is a changeable pedestrian sign, it will utilize one vandal-resistant phenolic resin panel.</p>	<p>This format It should be placed somewhat off the primary pedestrian traffic pathways to allow the viewer ample time to read contents and not interfere with pedestrian traffic flow.</p> <p>The Owner must furnish electronic artwork to the fabricator for any custom graphics.</p>
E.2.2	<p><b>Pedestrian Informational/ Promotional Wall Mount</b>            This format implements a fabricated aluminum panels mounted directly to building or wall faces. The application and usage criteria for this category is the same as the previous group.</p>	<p>Depending on the nature and complexity of the wall surface, it may be necessary for the Owner to provide detail drawings that depict the structure of the wall behind the surface upon which signage will be mounted.</p>
E.2.3	<p><b>Pedestrian Informational/ Promotional Kiosk</b>            This format implements one or more fabricated aluminum panels and framing elements and may be free-standing or anchored to walls or floors. Graphics, on one or both elevations, will utilize vandal-resistant phenolic resin panels.</p> <p>Although the primary application and usage criteria for this category is the same as the previous groups, it may have additional application as an educational display.</p>	<p>Free-standing displays should use not fewer than 3 kiosk sections to guarantee stability.</p>

## Warning and Regulatory Signage

Categories	Usage Criteria	Recommendations/ Restrictions
F.1.1	<p><b>Stop Sign</b>            This Stop Sign format utilizes a fabricated aluminum cabinet to provide a one-inch thickness to this sign. This provides a dimensional quality and, in conjunction with a 3" square aluminum post serves to elevate the typical appearance of this sign and provides a thematic relationship to other signage elements that may be selected from this Manual.</p> <p>The sign utilizes a reflective vinyl face that meets the requirements of the MUTCD. The format shown in the detail drawings is R1-1.</p>	<p>Vehicle speeds and other road conditions dictate different sizes for stop signs. Consult the MUTCD Sections 2B.04 to 2B-06 STOP AND YIELD SIGNS to review requirements for this signage.</p>

Categories	Usage Criteria	Recommendations/ Restrictions
F.1.2	<p><b>Yield Sign.</b> The Yield Sign format utilizes a fabricated aluminum cabinet to provide a one-inch thickness to this sign. This provides a dimensional quality and, in conjunction with a 3" square aluminum post serves to elevate the typical appearance of this sign and provides a thematic relationship to other signage elements that may be selected from this Manual.</p> <p>The sign utilizes a reflective vinyl face that meets the requirements of the MUTCD. The format shown in the detail drawings is R1-2.</p>	<p>Vehicle speeds and other road conditions dictate different sizes for yield signs. Consult the MUTCD Section 2B.08 YIELD SIGNS to review requirements for this signage.</p>
F.1.3	<p><b>Warning Signs</b> This format uses the 30" x 30" diamond format and provides the basic sign shape for a large number of warning applications. The materials and fabrication are the same as the previous categories.</p> <p>The format shown in the detail drawings is W2-1 from the MUTCD.</p>	<p>Consult the MUTCD - CHAPTER 2C WARNING SIGNS AND OBJECT MARKERS to review message offerings and requirements for this signage.</p> <p>Specify the specific signage format from the MUTCD that contains the information that the sign will communicate (e.g. W2-1).</p>
F.1.4	<p><b>Parking Signs</b> This format uses a 12" x 18" rectangular shape and provides the basic sign form and size for a large number of parking, stopping and standing related applications. Specific messages are shown for each of these signs in the MUTCD. The format shown in the detail drawings is R7-8.</p> <p>The materials and fabrication are the same as the previous categories.</p>	<p>Consult the MUTCD Section 2B.48 PLACEMENT OF PARKING, STANDING AND STOPPING SIGNS to review requirements for this signage.</p> <p>Specify the signage format from the MUTCD that contains the information that the sign will communicate (e.g. R7-8).</p>

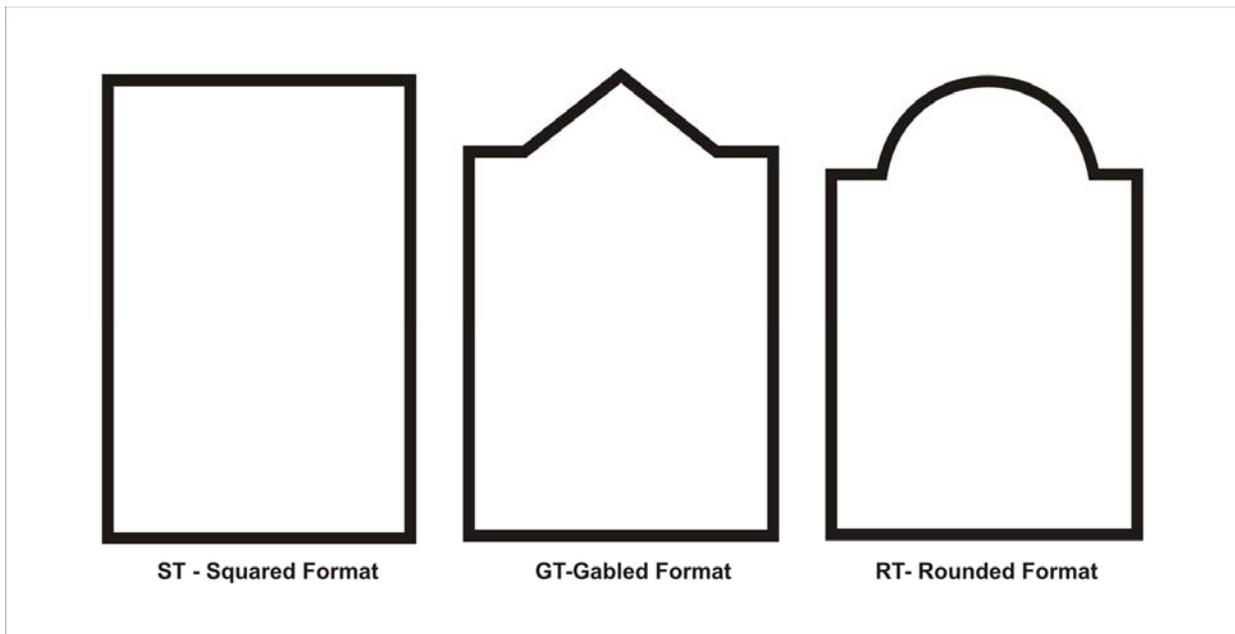
## 8 Signage Detail Drawings

This section provides a complete catalog of detail drawings for each category referenced in the previous Manual sections. Specific criteria for using each of these categories are included in **Section 7 - Signage Format Usage Criteria**.

The drawings in this section are organized initially by the FORMAT GROUPINGS. Within each group, they are further organized by FUNCTIONAL GROUPINGS. **See Section 3 - Composition Guideline and Signage Documentation** for a description of these terms. Within the FUNCTIONAL GROUPINGS, the categories are further subdivided to distinguish vehicular and pedestrian signage categories. Although some of the categories utilize a similar description (e.g. “Vehicular Facility Identification Post and Panel A” and “Vehicular Facility Identification Post and Panel B”), the formats for each sign listed will vary according to size and the amount of information that may be conveyed.

The selection of FORMAT GROUPING is a fundamental selection that governs the general shape or form of signage. Each of the formats, shown below, is consistently used within the family of detail drawings included. The most important recommendation here is that the format should be consistent in as many signage categories as possible. The form of the signs has a large impact on the extent to which signs relate to one another on a given site and, as a result, can contribute much to the rendition of the owner's environmental identity. As such, it is recommended that the Manual User make individual detail drawing selections within one of the FORMAT GROUPINGS.

The categories are referenced similarly in each of the three FORMAT GROUPINGS. However, please note that the individual detail drawing reference number (e.g. GT-1A) in the lower right-hand corner is unique and reflects the category applied to each one of the three specific FORMAT GROUPINGS. The only categories that are not represented in the three basic shapes are Regulatory and Warning Signage (e.g. stop signs, yield and diamond shapes) that cannot be placed within any other shape of sign. These formats are depicted only in FORMAT GROUPING “ST”.



### SIGNAGE FUNCTIONAL GROUPS

## **ADAPTATION AND CONFIRMATION OF DETAIL DRAWINGS**

The Signage Manual User is required to make selections of signage content, colors, typefaces, symbols and graphic motifs as instructed in **Section 3 - Composition Guideline and Signage Documentation**. The colors, graphics and text depicted on the Detail Drawings are for illustration purposes only. The determination of any particular signage category is fundamentally the choice of a function-related format that is sized for normal viewing conditions, setback from the roadway and reasonable quantity of content. These functions are articulated in **Section 7 - Signage Format Usage Criteria**.

The actual sizing of the signage content on vehicular signage is intended to be developed by the Signage Fabricators who have experience in the layout of such signs. They will essentially convert the Manual User's Message Schedule into shop drawing layouts for each sign ordered and utilize graphics that are sized to be read from moving vehicles. Shop Drawings will be furnished to the Manual User for review. Formal approval of these documents is required before manufacturing can commence.

All graphics that are custom, such as those utilized on interpretive elements or orientation signage maps and photos, will need to be furnished to the Signage Fabricator in the form of electronic artwork. These will also be rendered on shop drawings and sent to the Manual User for approval.

## **CUSTOM SIGNAGE FORMATS**

This Manual provides three fundamental FORMAT GROUPINGS to facilitate the process of designing and organizing a family of signage elements that reflect family characteristics and can render a unified environmental identity. However, if the Manual User wishes to produce signage that uses a different format from the three provided, he or she may do so in accordance with the General Signage Options Form shown in **Section 3 – Composition Guideline and Signage Documentation**. If a custom format is desired, the Manual User should include the detail drawings that represent the closest format to what is desired and also include renderings that depict the new form of signs that is preferred. He or she must also clearly indicate that the Signage Manufacturer will be responsible to produce production drawings that will meld the custom forms into the categories selected by the Manual User.

## **NIAGARA RIVER GREENWAY ACKNOWLEDGMENT**

An acknowledgement of the Niagara River Greenway is required on several categories of signage for grants received. This content will be rendered with the NRG logo and credit text as shown in **Section 10 – Standards for Map Graphics, Legends and System Descriptions**. Page 10-2 of this section includes the full list of categories that will require the acknowledgment.

## Square -Top(ST) Format Grouping

This section provides a complete catalog of detail drawings for **SQUARE TOP FORMAT GROUPING**. Included below is an index of the detail drawings included in this section. The Manual User should take particular note of the information included with each detail drawings as many of the details reference other drawings that provide additional relevant information pertaining to signage materials, fabrication or installation. It is important to include all of the detail drawings referenced in a particular category in order to provide all of the information necessary to provide cost estimates and to fabricate and install signage.

### Identification Signage

#### Vehicular Categories

Category	Description	Detail Drawing
A.1.1	Vehicular Facility Identification Pylon A	ST-1A
A.1.2	Vehicular Facility Identification Pylon B	ST-1B
A.1.3	Vehicular Facility Identification Pylon C	ST-1C
A.1	Pylon Base Construction Details	ST-1D
A.2.1	Vehicular Facility Identification Post and Panel A	ST-2A
A.2.2	Vehicular Facility Identification Post and Panel B	ST-2B
A.2.3	Vehicular Facility Identification Post and Panel C	ST-2C
A.2.4	Vehicular Facility Identification Post and Panel D	ST-2D
A.2	Post and Panel Construction Details	ST-2E
A.3.1	Vehicular Facility Identification Wall Mount A	ST-3A
A.3.2	Vehicular Facility Identification Wall Mount B	ST-3B

#### Pedestrian Categories

Category	Description	Detail Drawing
A.4.1	Pedestrian Facility Identification Pylon	ST-4A
A.4	Pylon Base Construction Details	ST-4B
A.4	Pylon Message Panel Construction Details	ST-4C
A.5.1	Pedestrian Facility Identification Post and Panel A	ST-5A
A.5.2	Pedestrian Facility Identification Post and Panel B	ST-5B
A.5.3	Pedestrian Facility Identification Post and Panel C	ST-5C
A.5	Post and Panel Installation Details	ST-5D
A.5	Post and Panel Construction Details	ST-5E
A.6.1	Pedestrian Facility Identification Wall Mount A	ST-6A
A.6.2	Pedestrian Facility Identification Wall Mount B	ST-6B
A.6	Pedestrian Wall-Mount Panel Construction Details	ST-6C

## Directional Signage

### Vehicular Categories

Category	Description	Detail Drawing
B.1.1	Vehicular Directional Pylon	ST-10A
B.1	Pylon Base Construction Details	ST-10B
B.2.1	Vehicular Directional Post and Panel A	ST-11A
B.2.2	Vehicular Directional Post and Panel B	ST-11B
B.2.3	Vehicular Directional Post and Panel C	ST-11C
B.2	Post and Panel Installation Details	ST-11D
B.3.1	MUTCD Directional Post and Panel A	ST-12A
B.3.2	MUTCD Directional Post and Panel B	ST-12B
B.3.3	MUTCD Directional Post and Panel C	ST-12C
B.3.4	MUTCD Directional Post and Panel D	ST-12D
B.3	Post and Panel Installation Details	ST-12E
B.4.1	Vehicular Directional Wall Mount	ST-13A
B.5.1	Off-site Trailblazer Existing Pole Mount	ST-14A
B.5.2	Off-site Trailblazer New Pole Mount	ST-14B
B.5	Post and Panel Installation Details	ST-14C

### Pedestrian Categories

Category	Description	Detail Drawing
B.6.1	Pedestrian Directional Pylon	ST-15A
B.6	Pylon Base Construction Details	ST-15B
B.6	Pylon Message Panel Construction Details	ST-15C
B.7.1	Pedestrian Directional Post and Panel A	ST-16A
B.7.2	Pedestrian Directional Post and Panel B	ST-16B
B.7	Post and Panel Installation Details	ST-16C
B.7	Post and Panel Construction Details	ST-16D
B.8.1	Pedestrian Directional Wall Mount A	ST-17A
B.8.2	Pedestrian Directional Wall Mount B	ST-17B
B.8	Pedestrian Wall-Mount Panel Construction Details	ST-17C

## Orientation Signage

### Vehicular Categories

Category	Description	Detail Drawing
C.1.1	Vehicular Orientation Pylon A	ST-20A
C.1.2	Vehicular Orientation Pylon B	ST-20B
C.1	Pylon Base Construction Details	ST-20C
C.1	Pylon Message Panel Construction Details	ST-20D
C.2.1	Vehicular Orientation Post and Panel A	ST-21A
C.2.2	Vehicular Orientation Post and Panel B	ST-21B
C.2	Post and Panel Installation Details	ST-21C
C.2	Post and Panel Construction Details	ST-21D

# Orientation Signage

## Pedestrian Categories

Category	Description	Detail Drawing
C.3.1	Pedestrian Orientation Pylon A	ST-22A
C.3.2	Pedestrian Orientation Pylon B	ST-22B
C.3	Pylon Base Construction Details	ST-22C
C.3	Pylon Message Panel Construction Details	ST-22D
C.4.1	Pedestrian Orientation Post and Panel A	ST-23A
C.4.2	Pedestrian Orientation Post and Panel B	ST-23B
C.4	Post and Panel Installation Details	ST-23C
C.4	Post and Panel Construction Details	ST-23D
C.5.1	Pedestrian Orientation Wall Mount	ST-24A
C.5	Pedestrian Wall-Mount Panel Construction Details	ST-24B

# Interpretive & Commemorative Signage

## Vehicular Categories

Category	Description	Detail Drawing
D.1.1	Vehicular Commemorative Post and Panel A	ST-30A
D.1.2	Vehicular Commemorative Post and Panel B	ST-30B
D.1	Post and Panel Installation Details	ST-30C
D.1	Post and Panel Construction Details	ST-30D

## Pedestrian Categories

Category	Description	Detail Drawing
D.2.1	Interpretive/ Commemorative Post and Panel	ST-31A
D.2	Post and Panel Construction Details	ST-31B
D.3.1	Interpretive/ Commemorative Wall Mount	ST-32A
D.3	Panel Construction Details	ST-32B
D.4.1	Interpretive/ Commemorative Railing Mount	ST-33A
D.4	Panel Construction Details	ST-33B
D.5.1	Interpretive Storyboard Post and Panel	ST-34A
D.5	Post and Panel Construction Details	ST-34B
D.5	Post and Panel Installation Details	ST-34C
D.6.1	Interpretive Storyboard Wall Mount	ST-35A
D.6	Panel Construction Details	ST-35B

## Informational & Promotional Signage

### Vehicular Categories

Category	Description	Detail Drawing
E.1.1	Vehicular Informational Post and Panel A	ST-40A
E.1.2	Vehicular Informational Post and Panel B	ST-40B
E.1	Post and Panel Installation Details	ST-40C

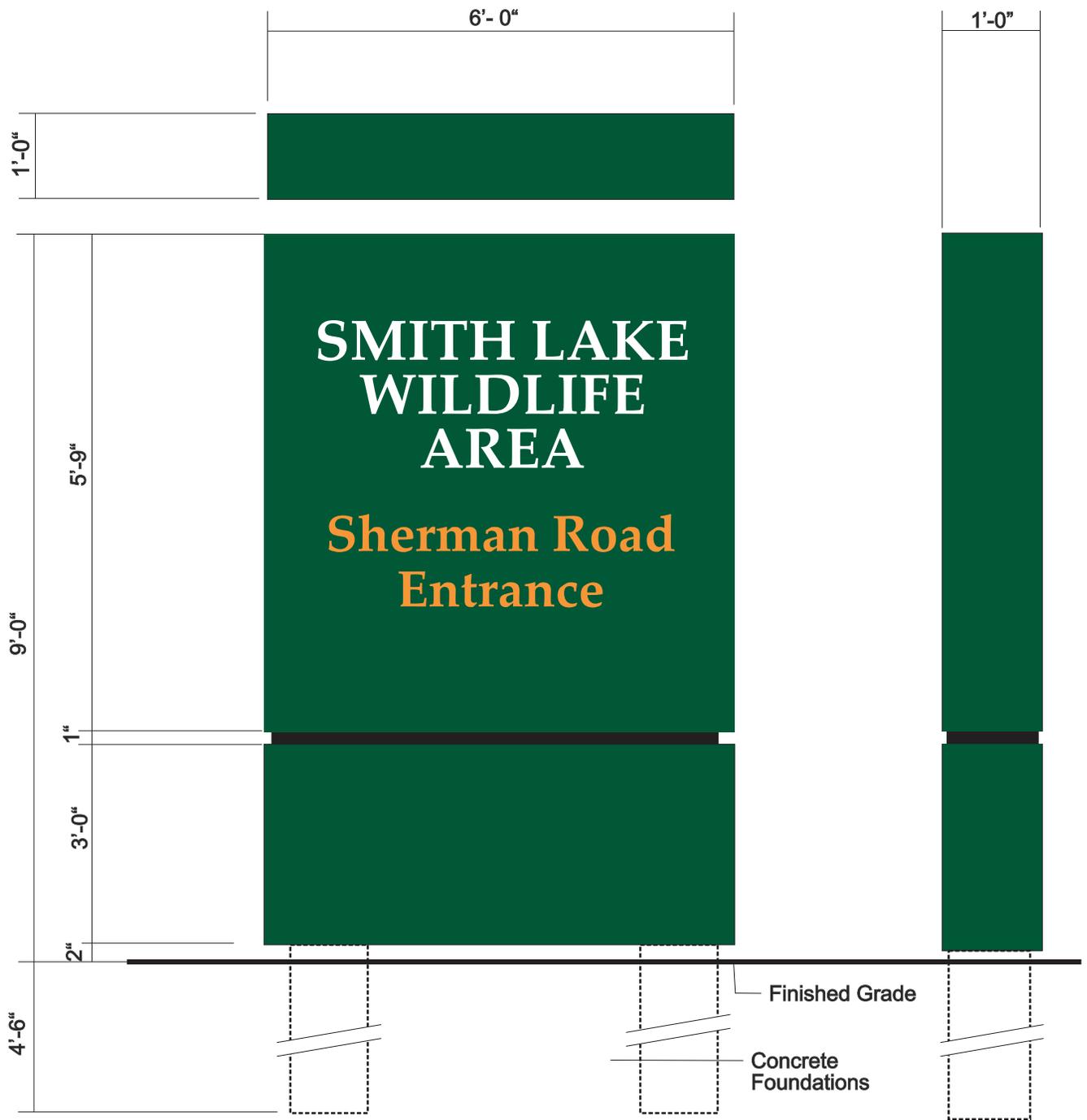
### Pedestrian Categories

Category	Description	Detail Drawing
E.2.1	Informational/ Promotional Post and Panel	ST-41A
E.2	Post and Panel Installation Details	ST-41B
E.2	Post and Panel Construction Details	ST-41C
E.3.1	Informational/ Promotional Wall Mount	ST-42A
E.3	Panel Construction Details	ST-42B
E.4.1	Informational/ Promotional Kiosk	ST-43A
E.4	Frame and Panel Construction Details	ST-43B

## Regulatory and Warning Signage

### Vehicular Categories

Category	Description	Detail Drawing
F.1.1	Vehicular Stop Sign	ST-50A
E.2.1	Vehicular Yield Sign	ST-51A
E.3.1	Vehicular Warning Signs	ST-52A
E.4.1	Vehicular Parking Signs	ST-53A



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing ST-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.1 Vehicular Facility Identification Pylon A</b>	
<b>Niagara River Greenway</b>	<b>ST-1A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing ST-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.2 Vehicular Facility Identification Pylon B</b>	
<b>Niagara River Greenway</b>	<b>ST-1B</b>



**NOTES:**

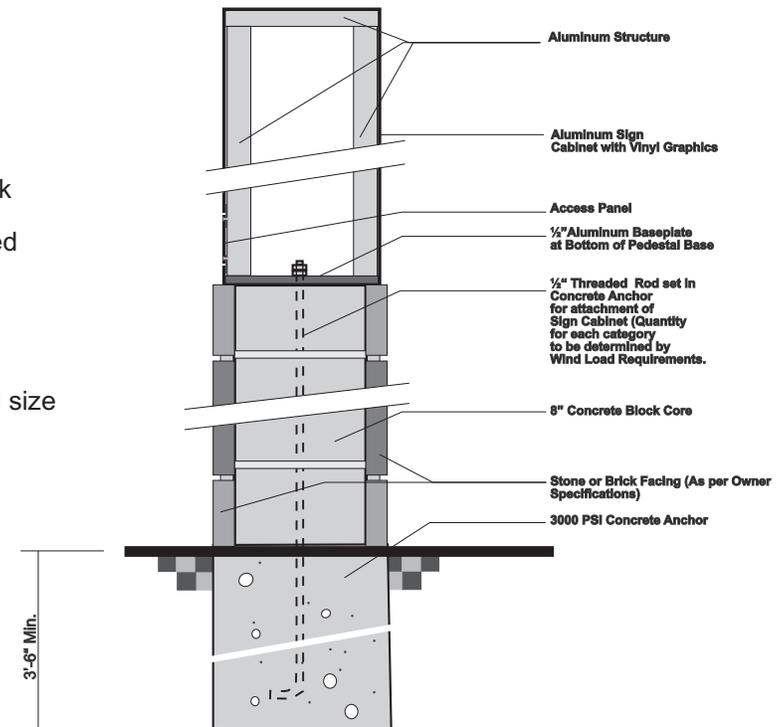
1. Sign panel to be fabricated aluminum box construction. See Drawing ST-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.3 Vehicular Facility Identification Pylon C</b>	
<b>Niagara River Greenway</b>	<b>ST-1C</b>

## Stone/Brick Pylon Base

### NOTES:

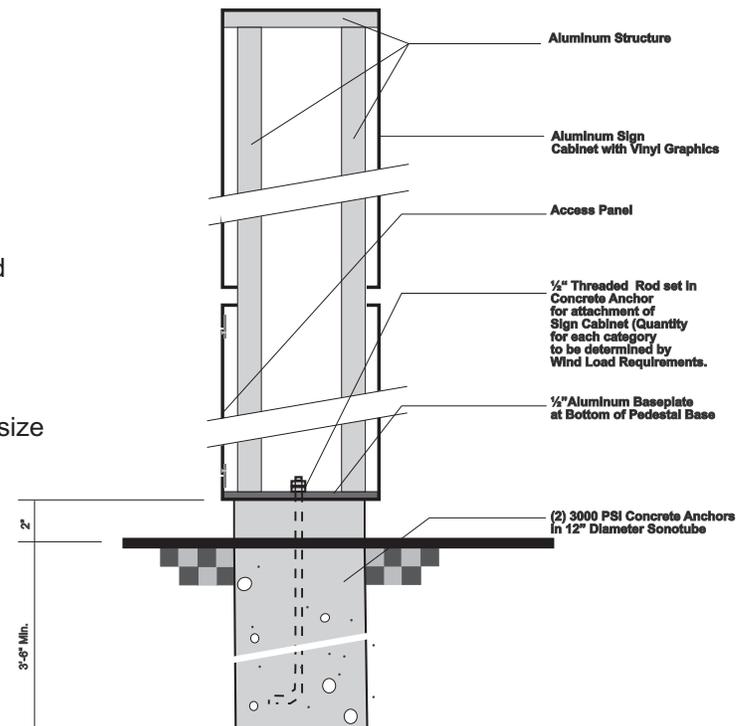
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



## Aluminum Pylon Base

### NOTES:

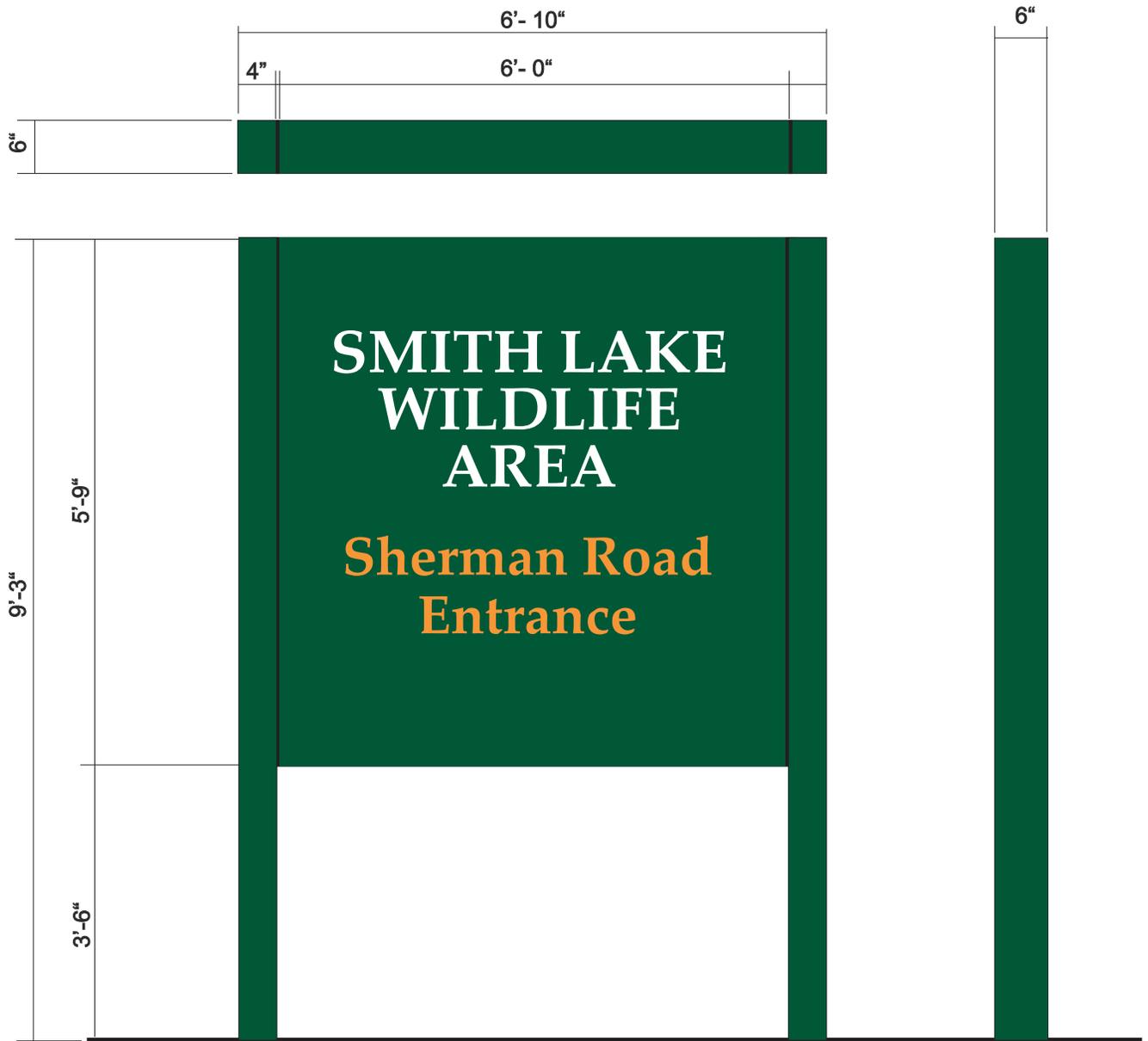
1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



**Type A.1 Pylon Base Construction Details**

**Niagara River Greenway**

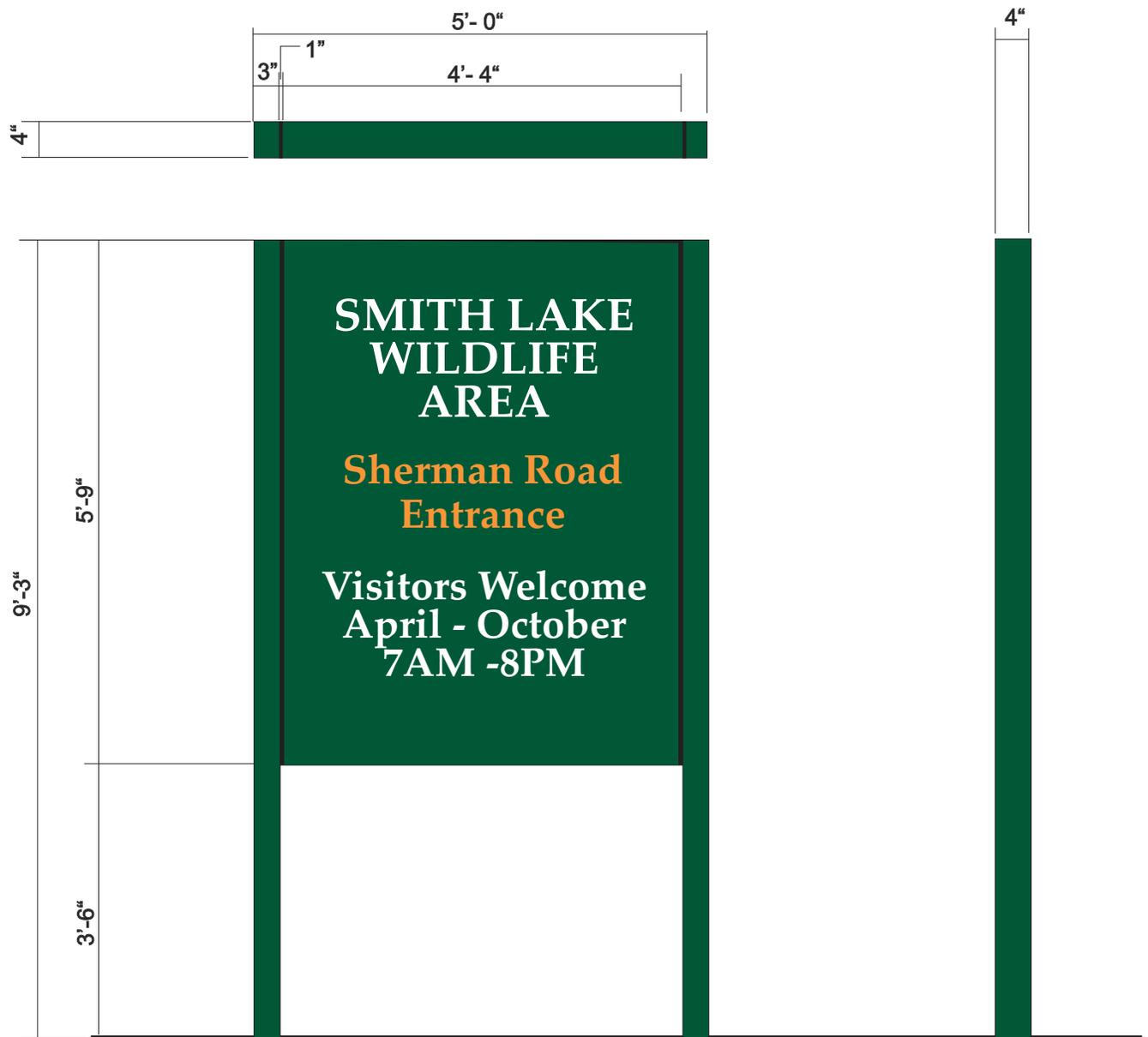
**ST-1D**



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-2E for construction and installation details.

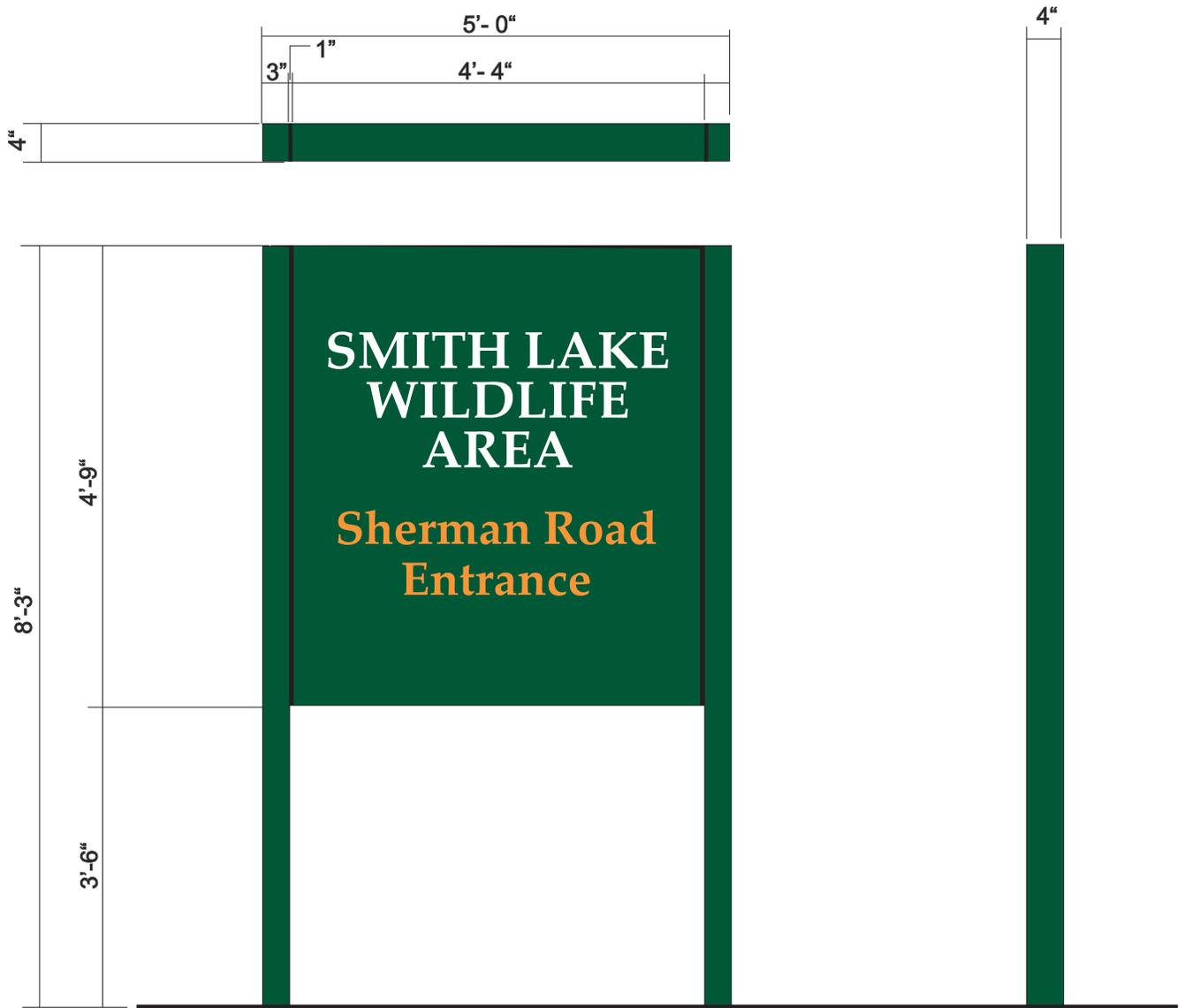
<b>Type A.2.1 Vehicular Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-2A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-2E for construction and installation details.

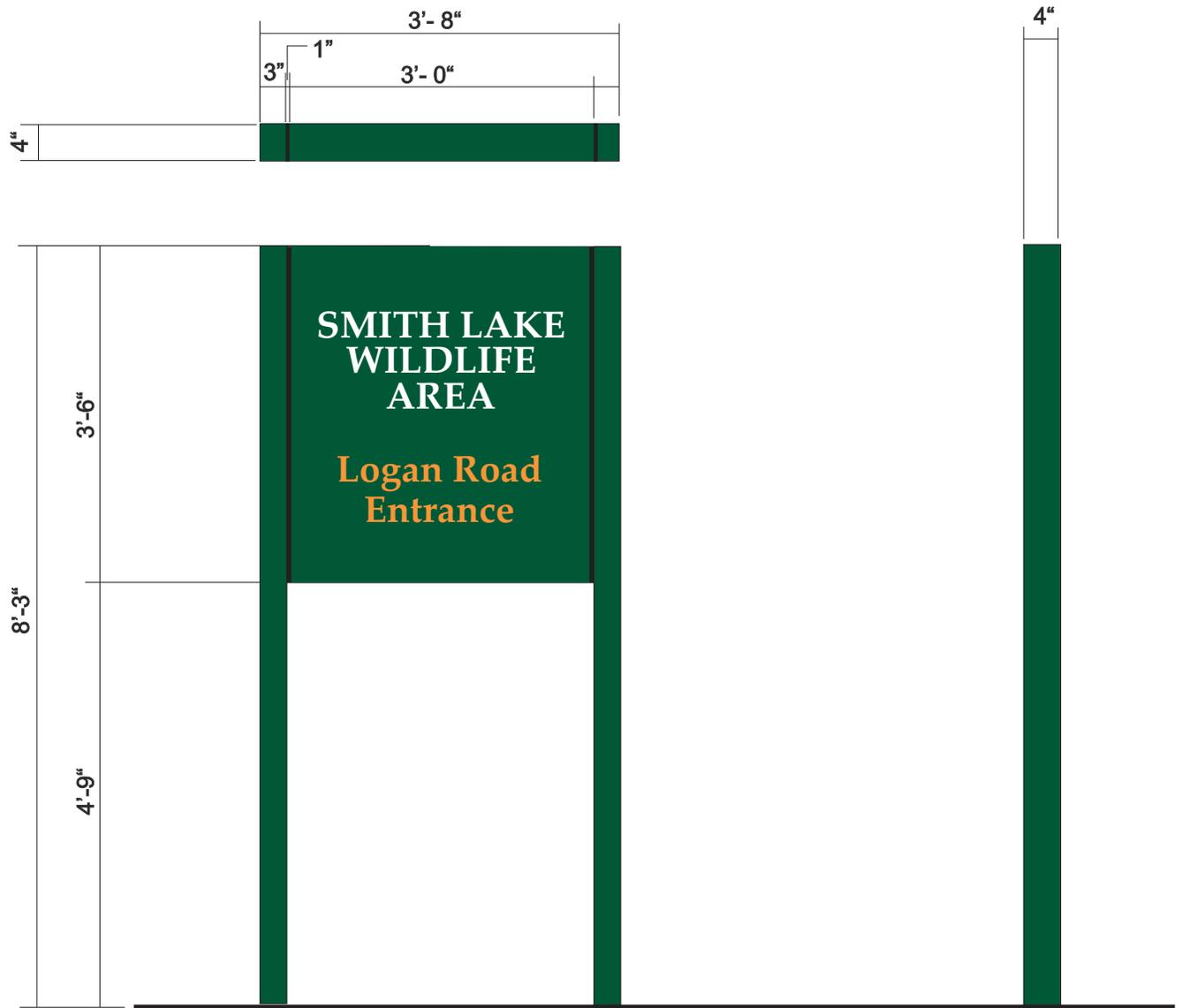
<b>Type A.2.2 Vehicular Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-2B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-2E for construction and installation details.

<b>Type A.2.3 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>ST-2C</b>

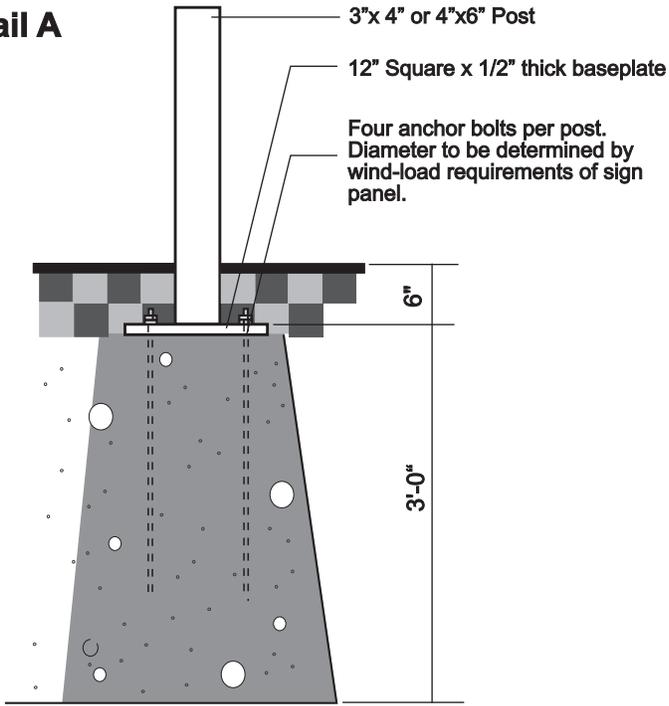


NOTES:

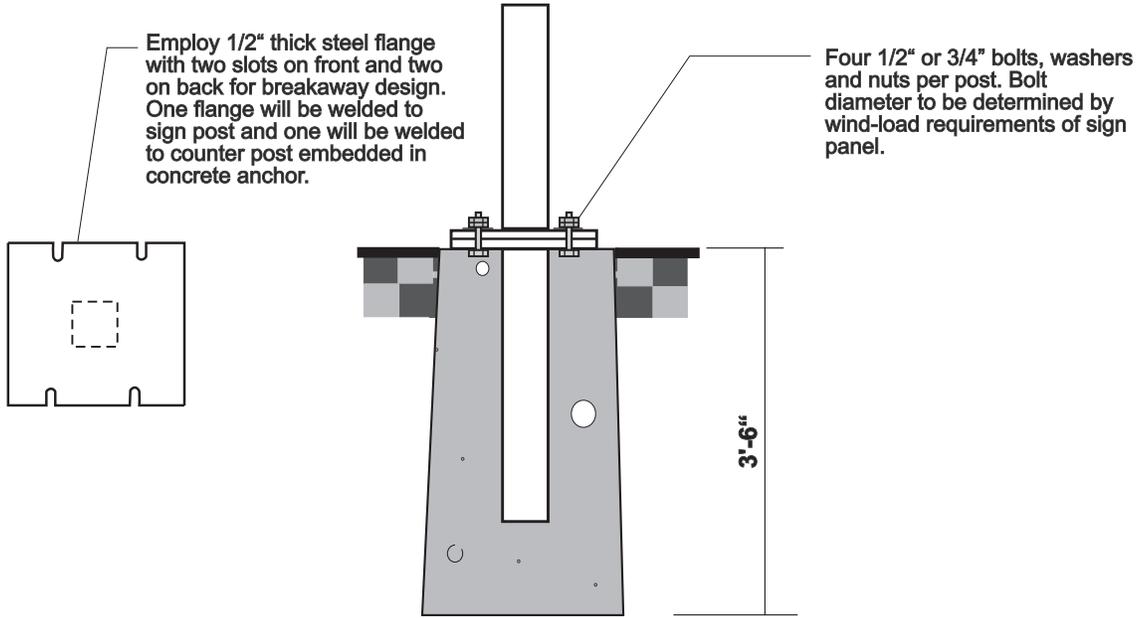
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-2E for construction and installation details.

<b>Type A.2.4 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>ST-2D</b>

**Installation Detail A**



**Installation Detail B**



**Foundation Detail**

**NOTES:**

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

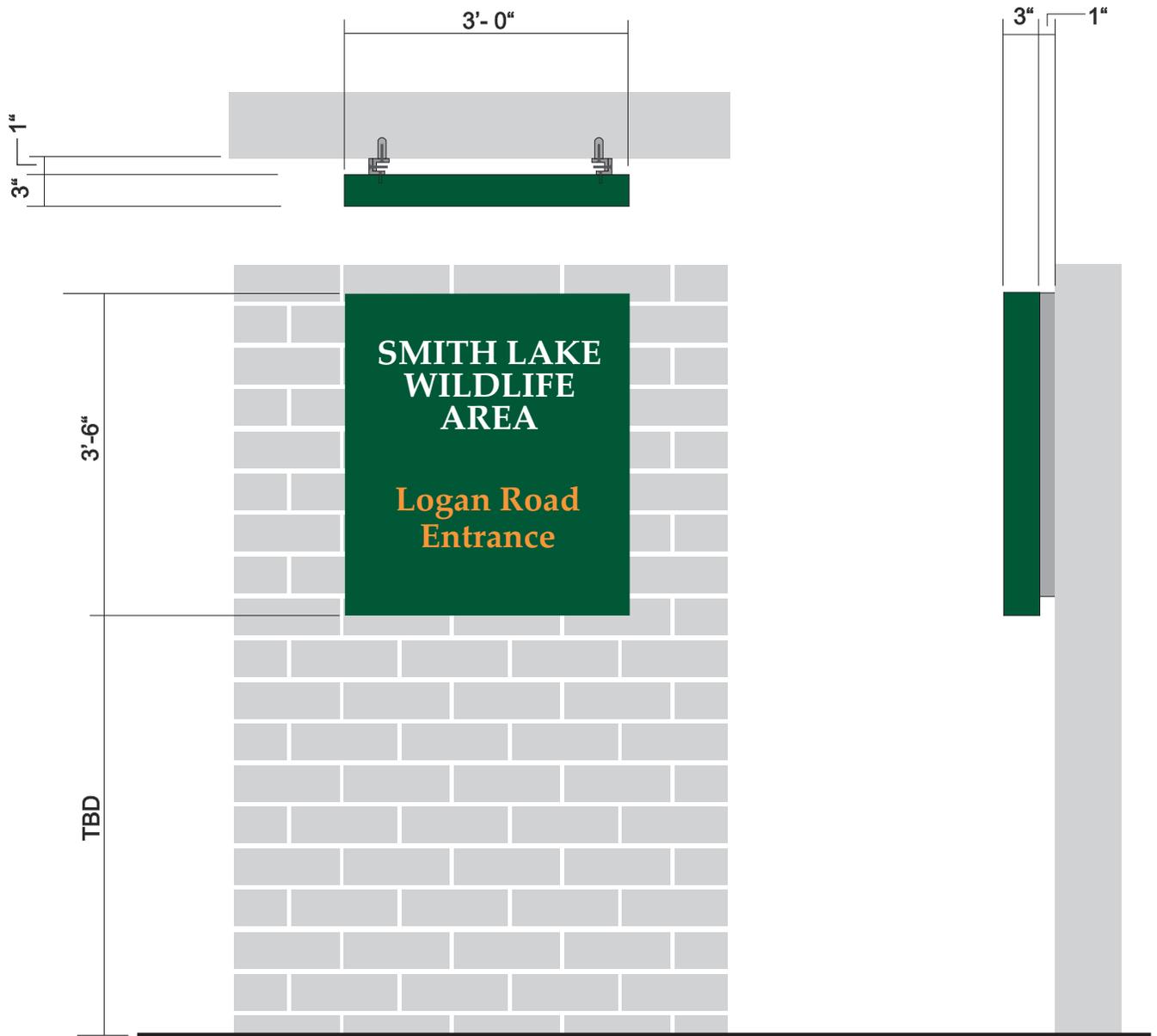
<b>Type A.2 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>ST-2E</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

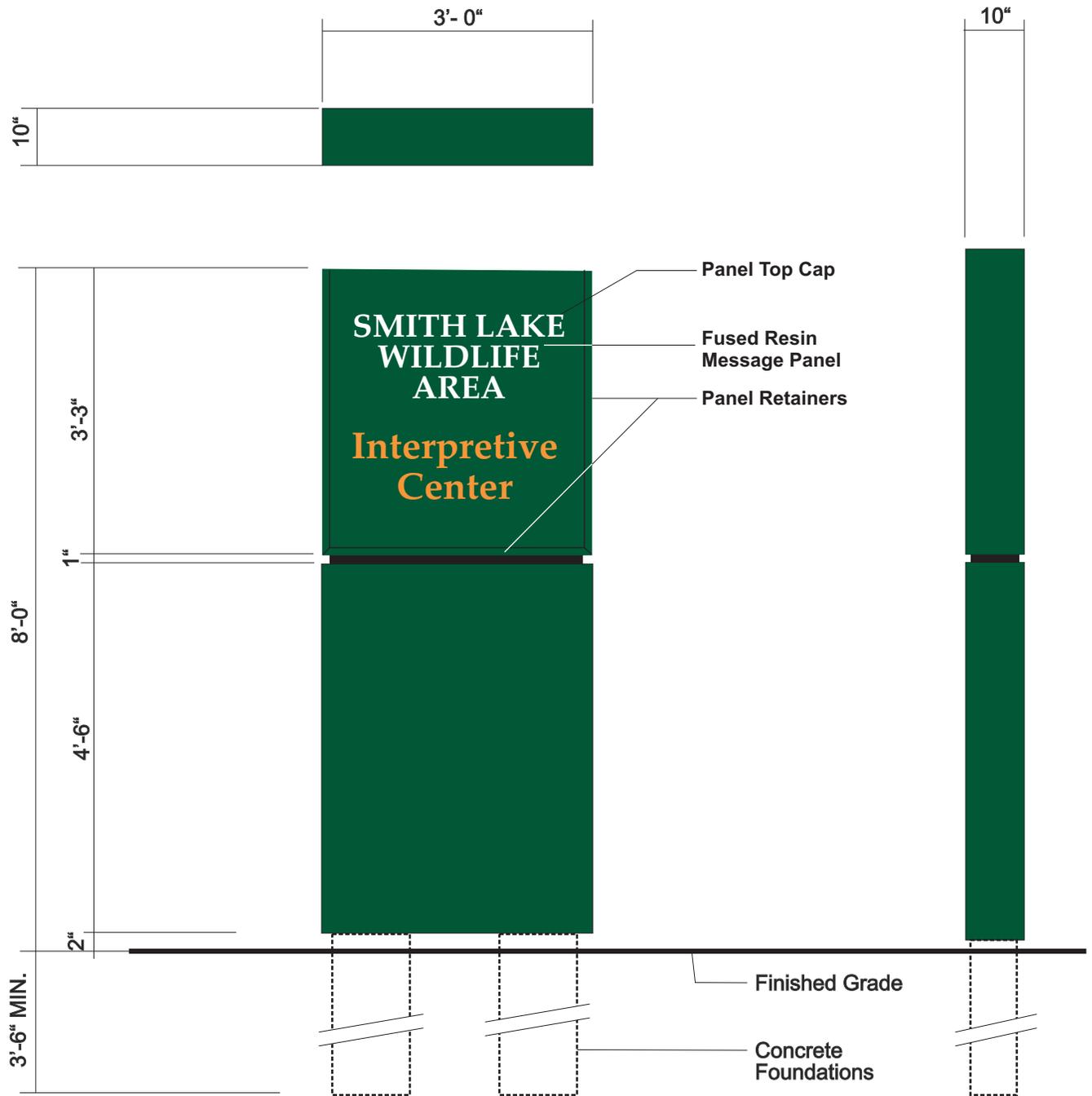
<b>Type A.3.1 Vehicular Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>ST-3A</b>



NOTES:

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

<b>Type A.3.2 Vehicular Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>ST-3B</b>



NOTES:

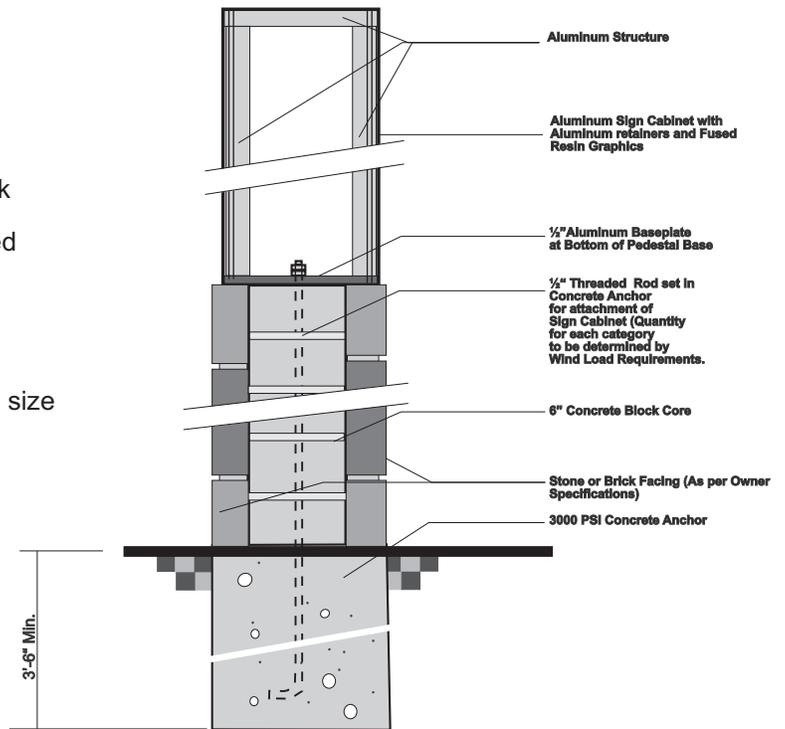
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-4B and ST-4C for Base Material and construction details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.4.1 Pedestrian Facility Identification Pylon</b>	
<b>Niagara River Greenway</b>	<b>ST-4A</b>

# Stone/Brick Pylon Base

**NOTES:**

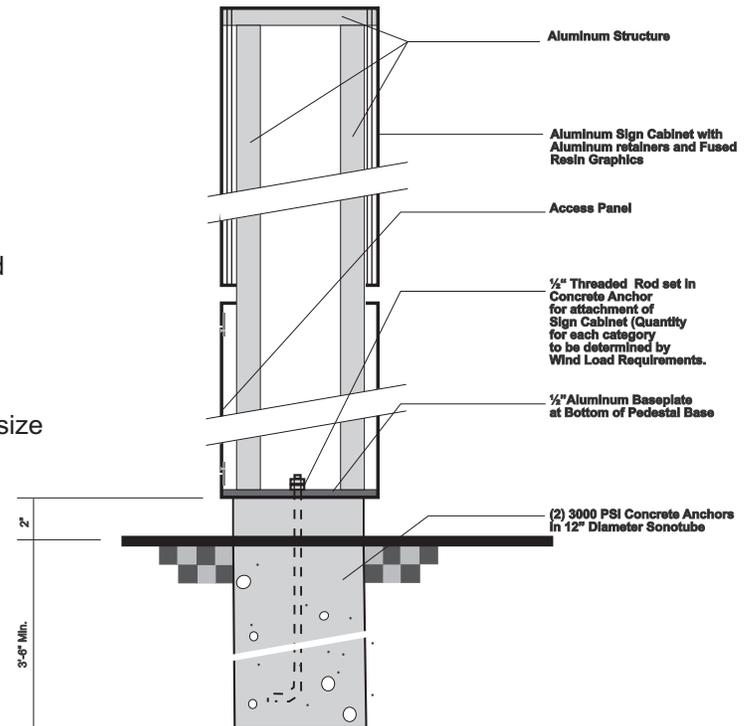
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-4C for panel construction details.



# Aluminum Pylon Base

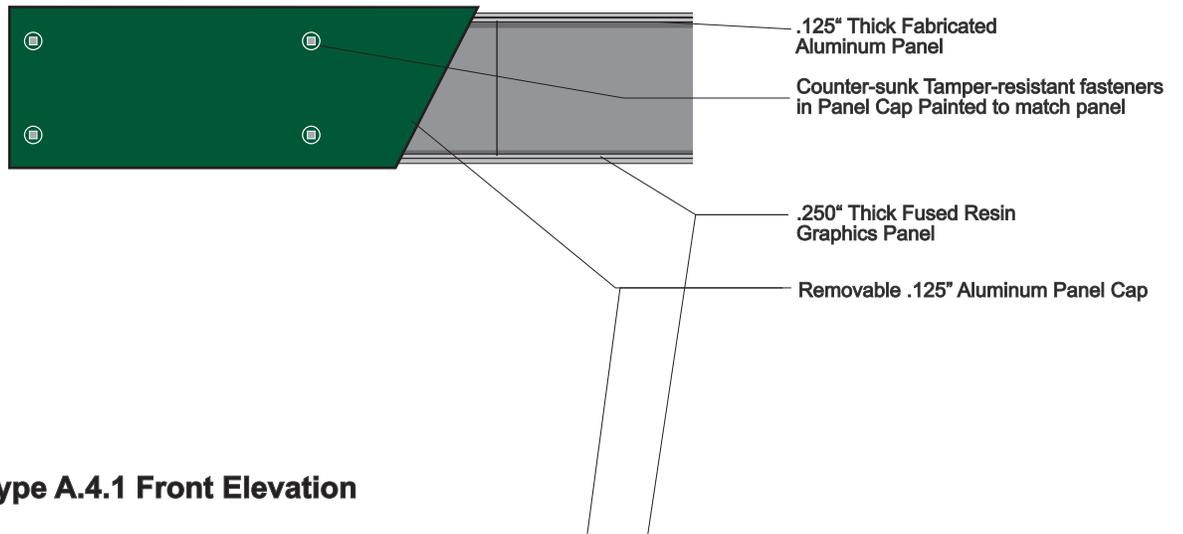
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-4C for panel construction details.

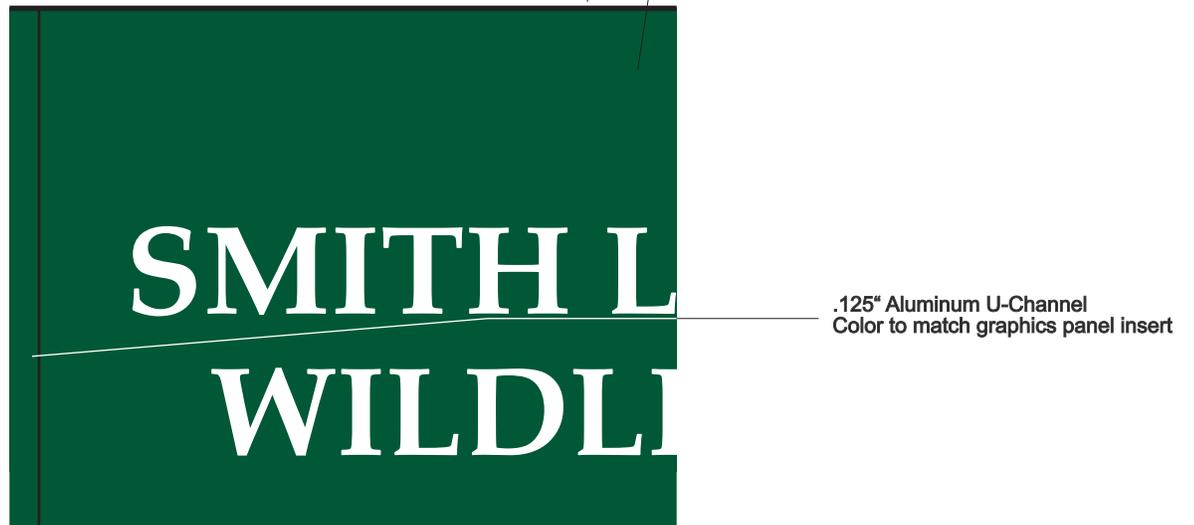


<b>Type A.4 Pylon Base Construction Details</b>	
<b>Niagara River Greenway</b>	<b>ST-4B</b>

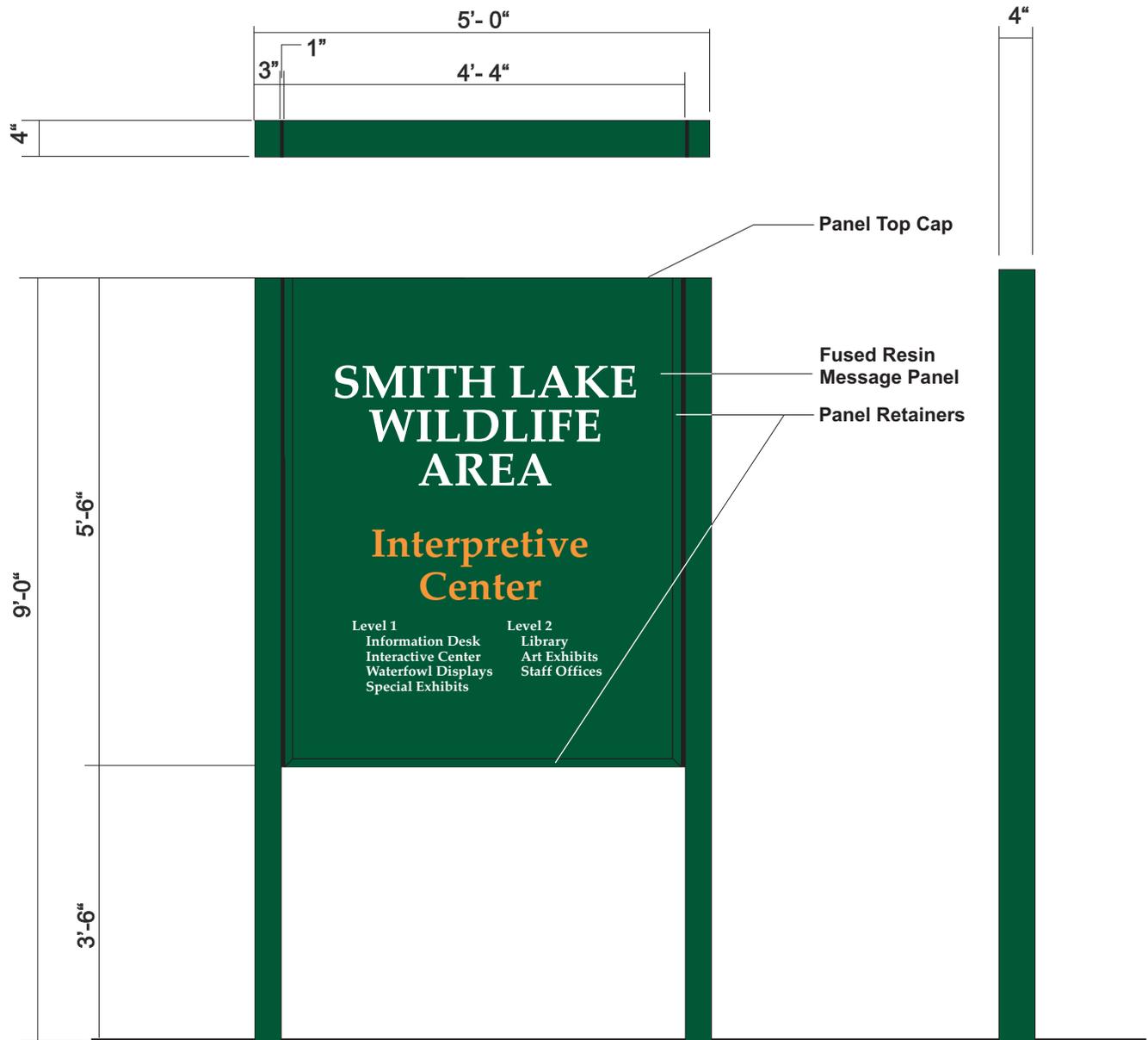
**Type A.4.1 Top View with  
Cut Away on Panel Cap**



**Type A.4.1 Front Elevation**



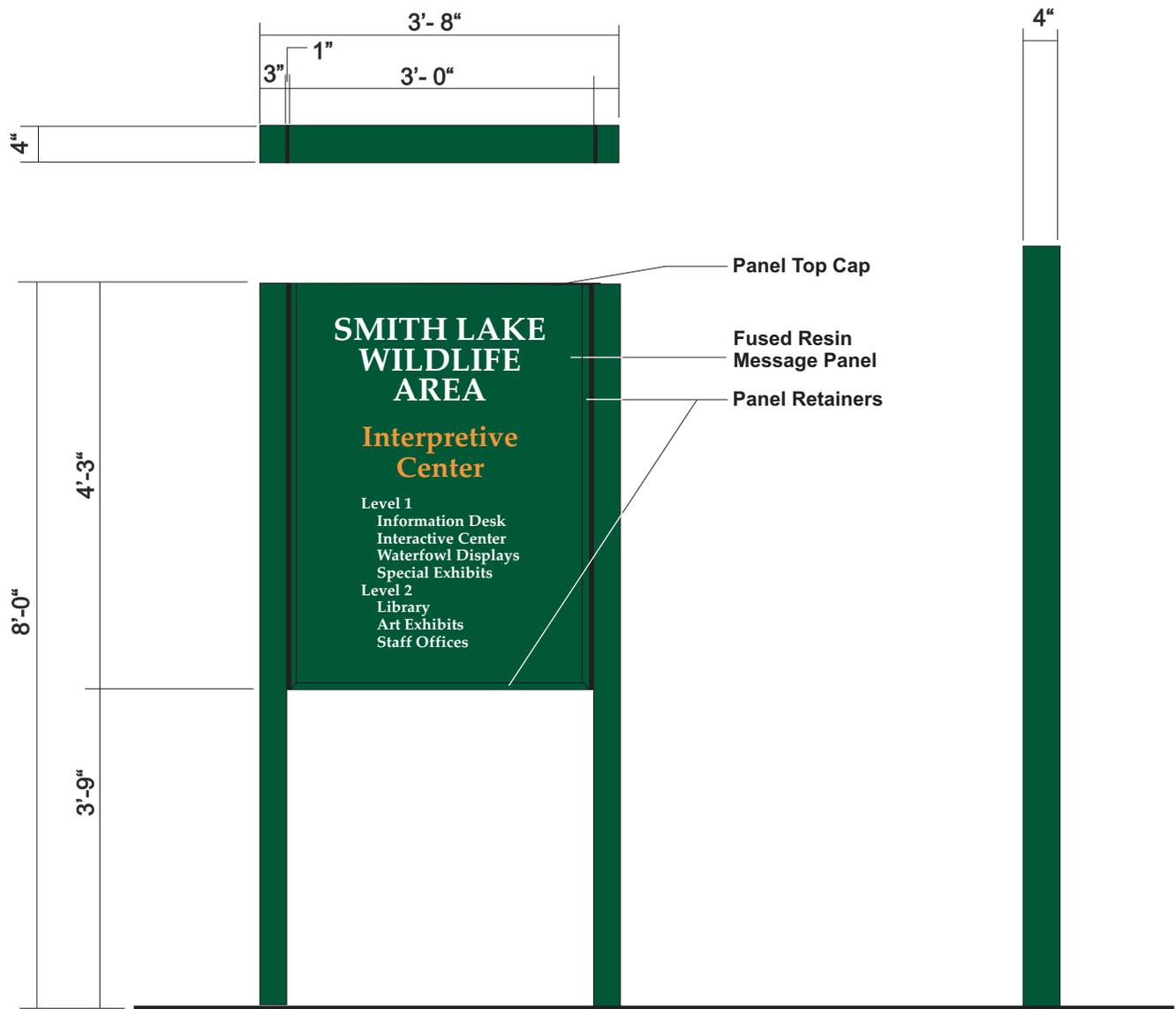
<p><b>Type A.4 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-4C</b></p>



NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings ST-5D and ST-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

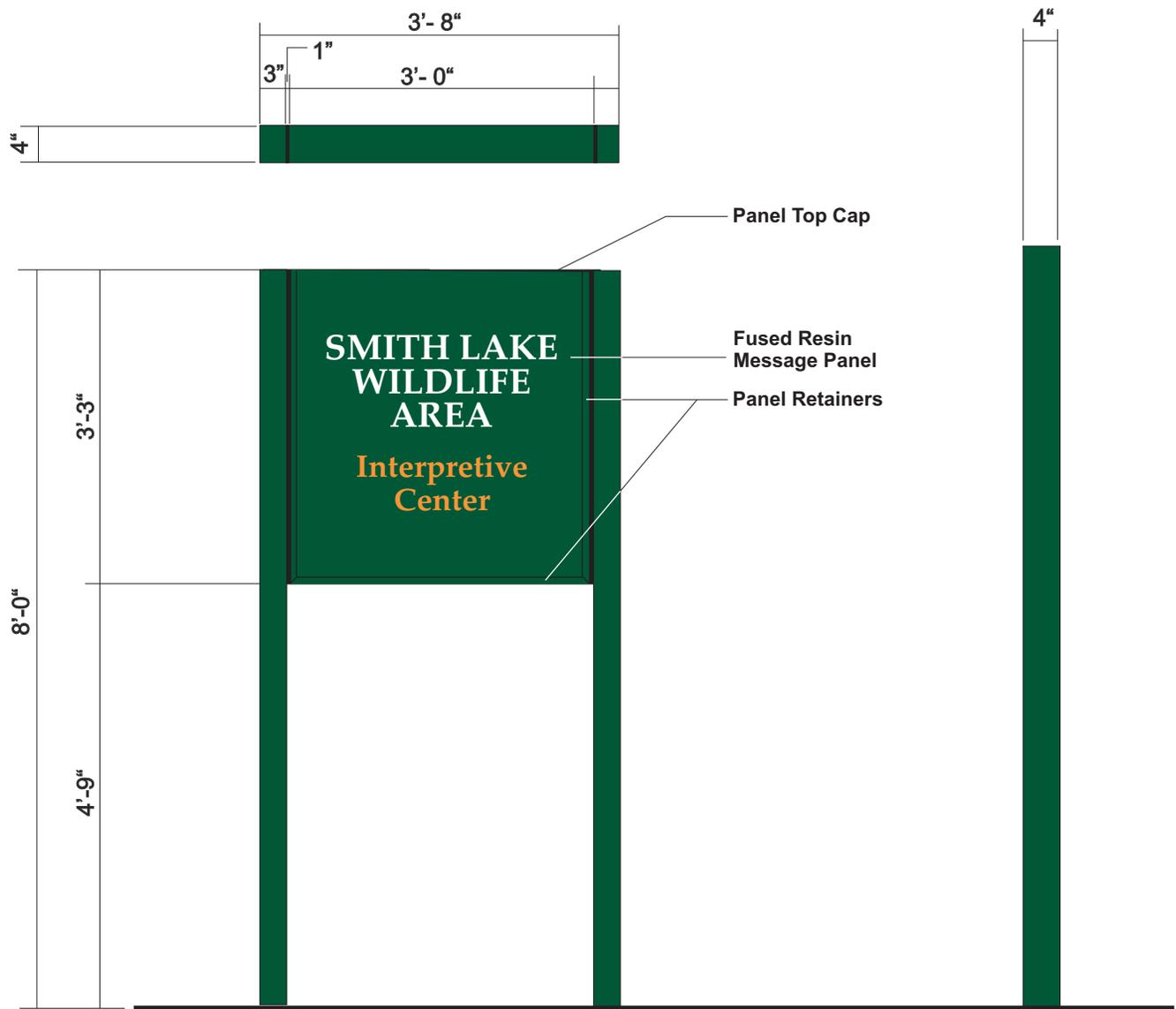
<b>Type A.5.1 Pedestrian Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-5A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings ST-5D and ST-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.2 Pedestrian Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-5B</b>

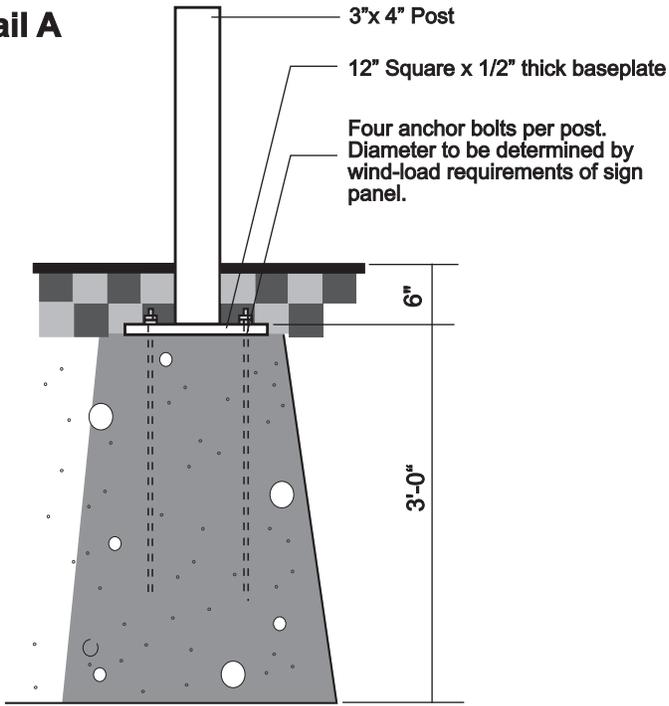


**NOTES:**

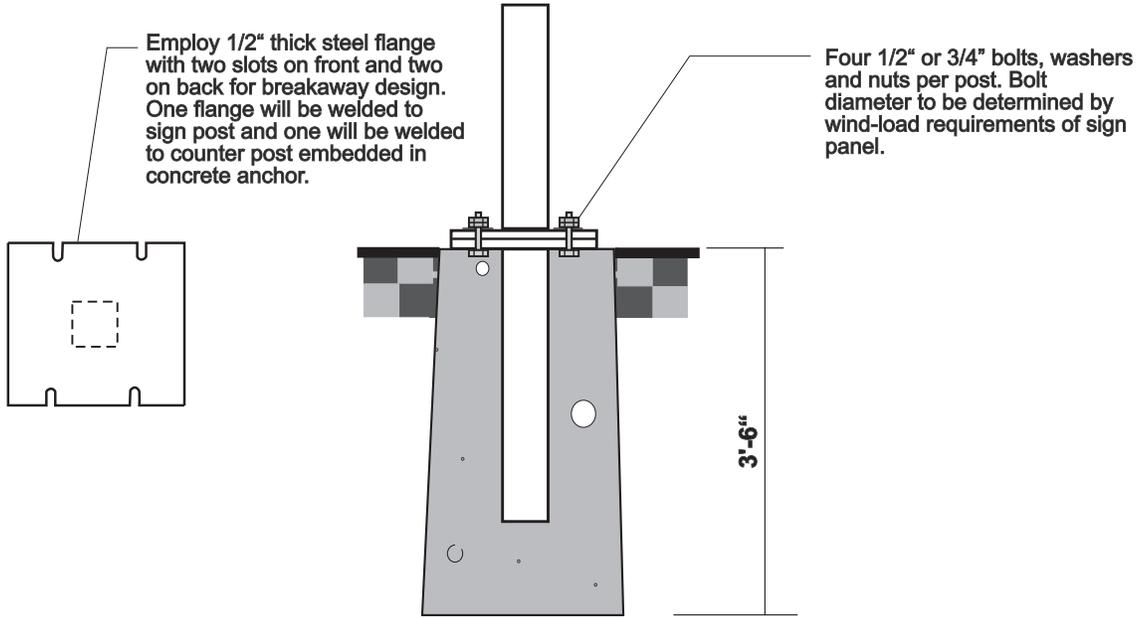
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings ST-5D and ST-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.3 Pedestrian Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>ST-5C</b>

**Installation Detail A**



**Installation Detail B**



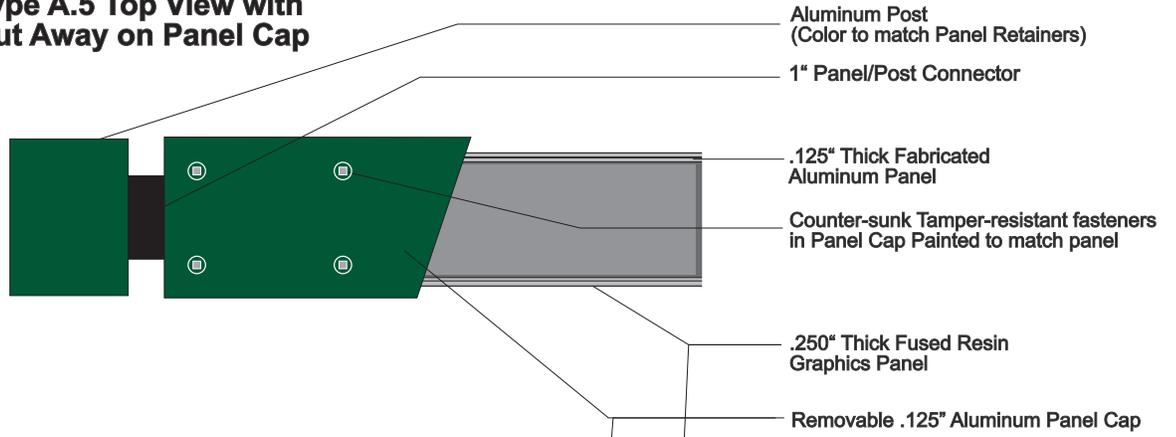
**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type A.5 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-5D</b>

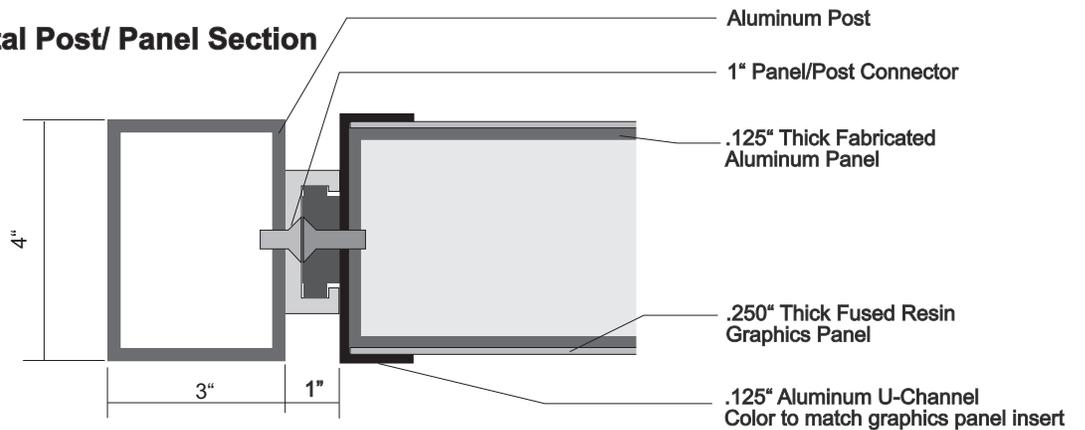
**Type A.5 Top View with Cut Away on Panel Cap**



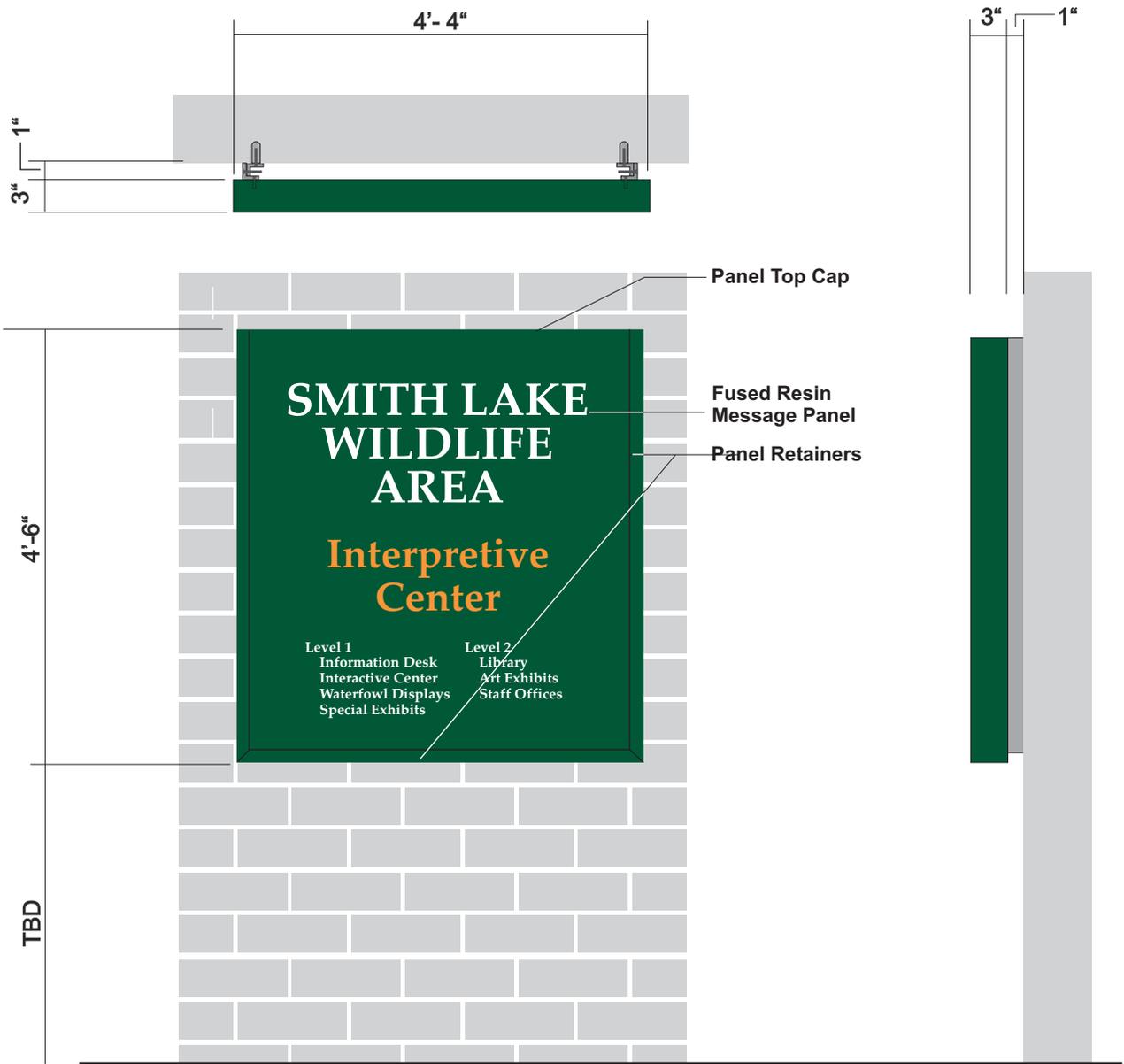
**Type A.5 Front Elevation**



**Horizontal Post/ Panel Section**



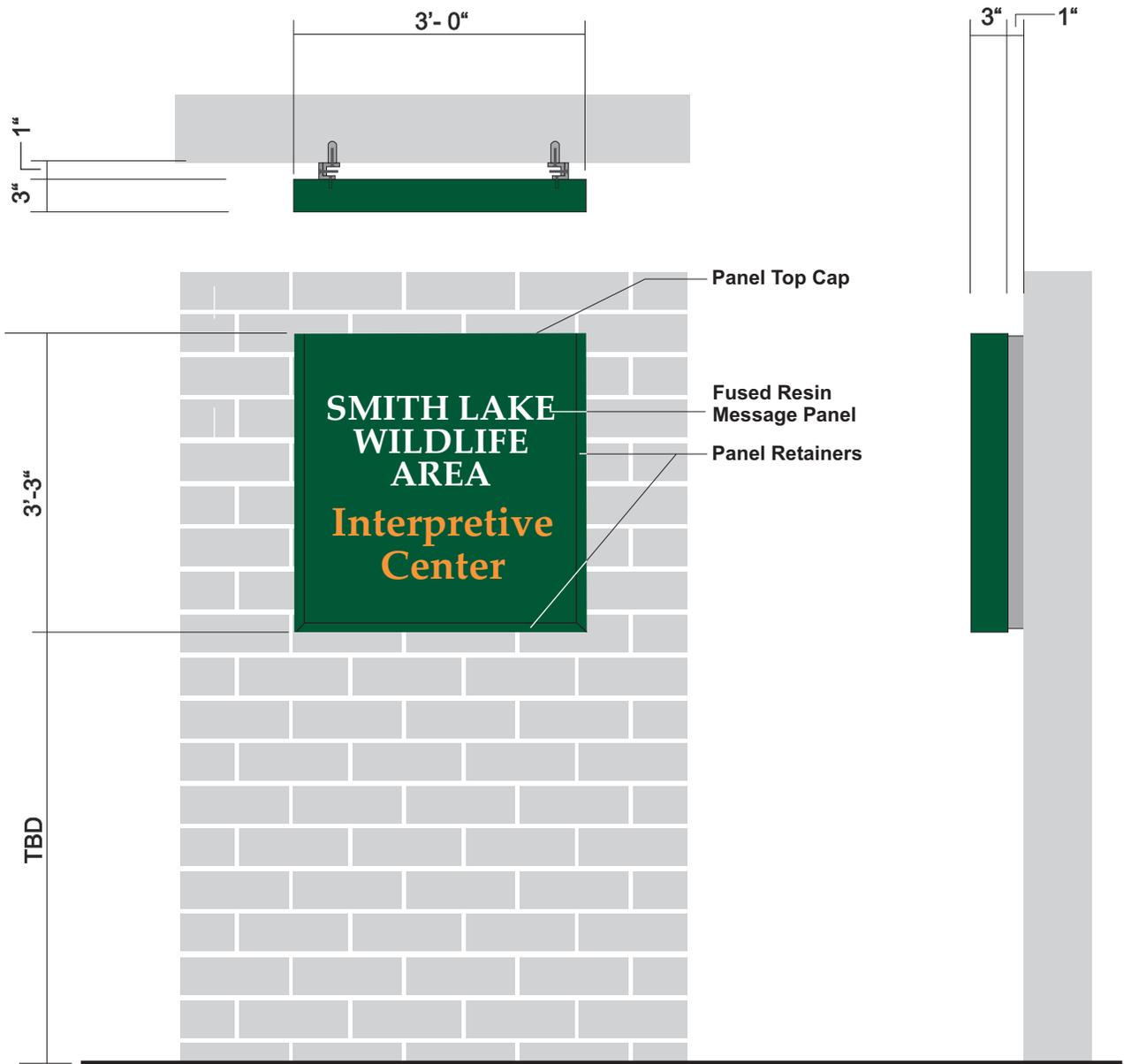
<p><b>Type A.5 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-5E</b></p>



NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount on existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.1 Pedestrian Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>ST-6A</b>

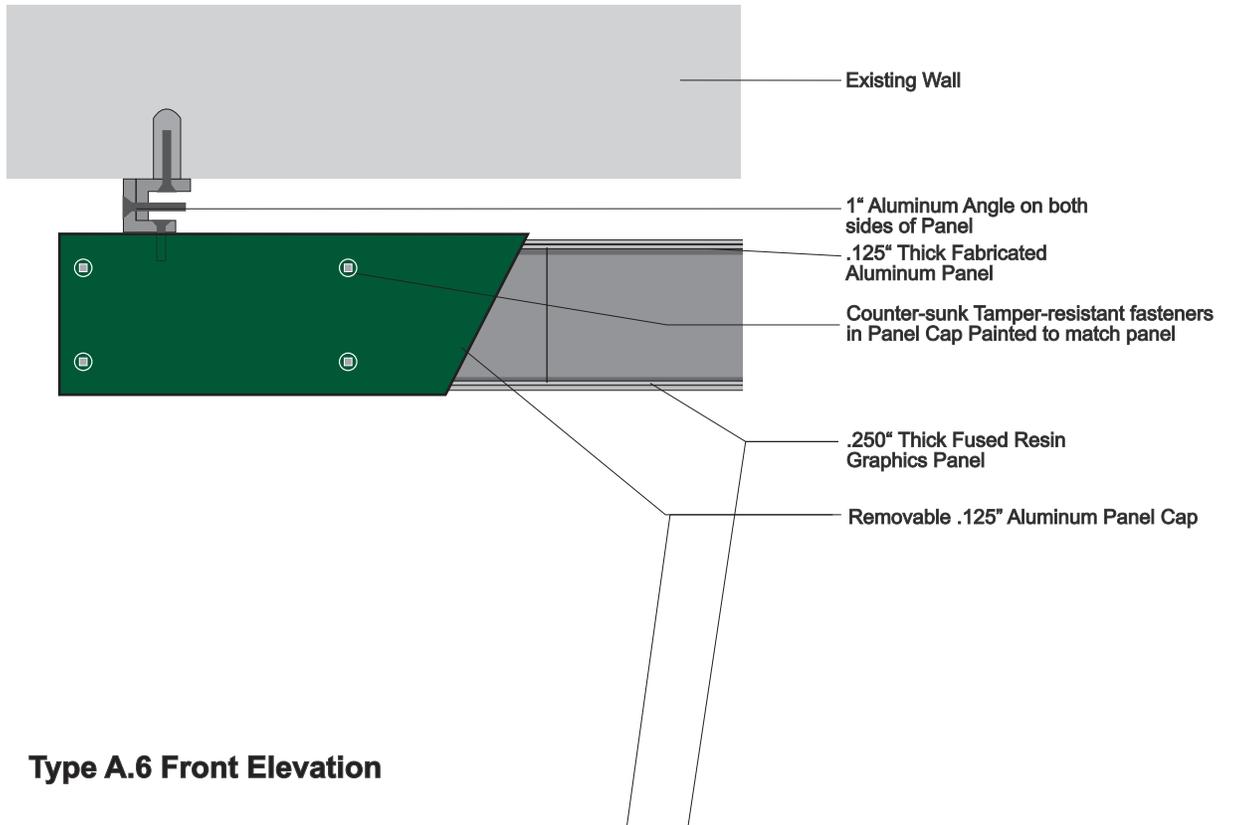


NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount on existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.2 Pedestrian Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>ST-6B</b>

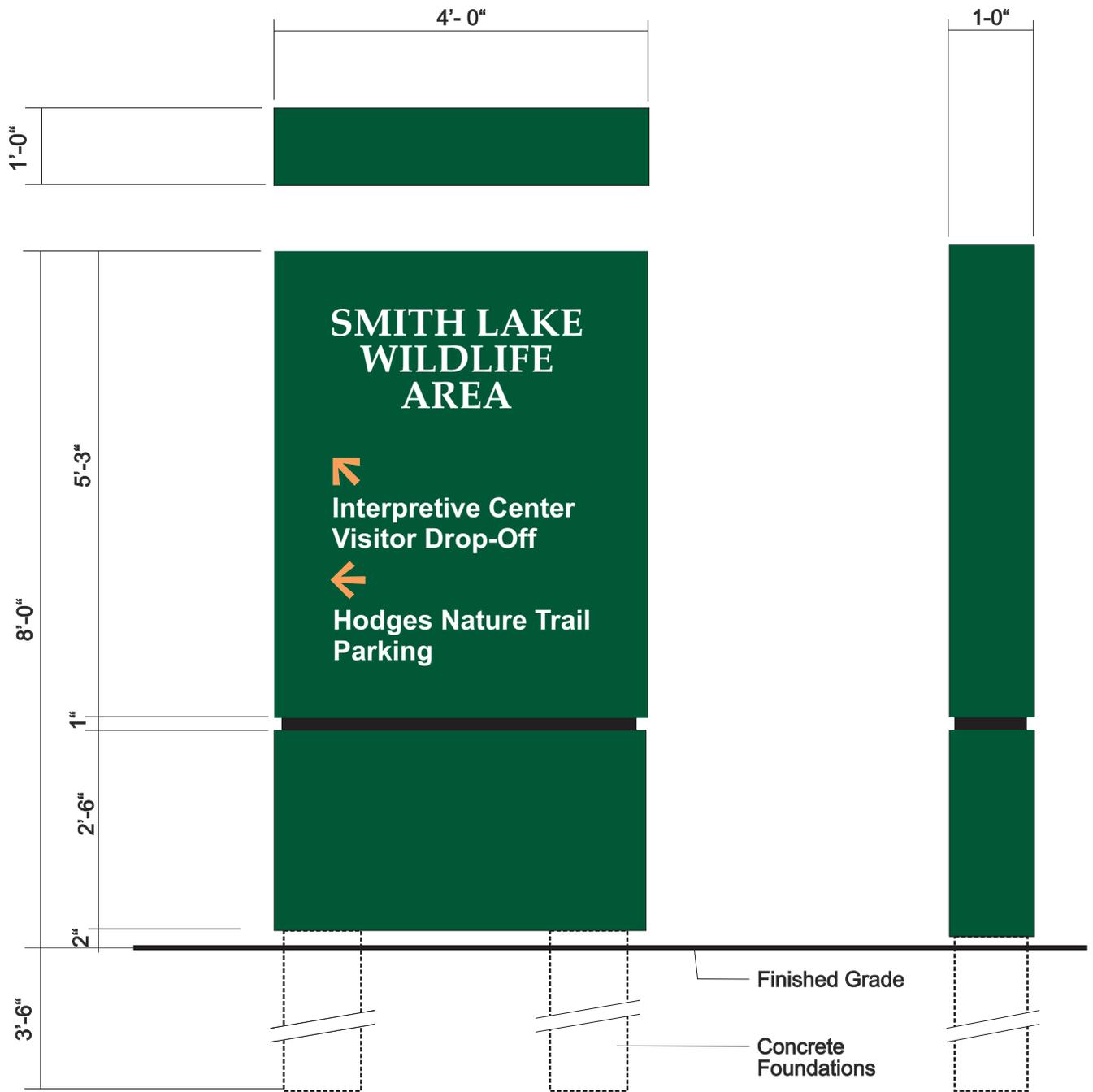
**Type A.6 Top View with  
Cut Away on Panel Cap**



**Type A.6 Front Elevation**



<p><b>Type A.6 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-6C</b></p>



**NOTES:**

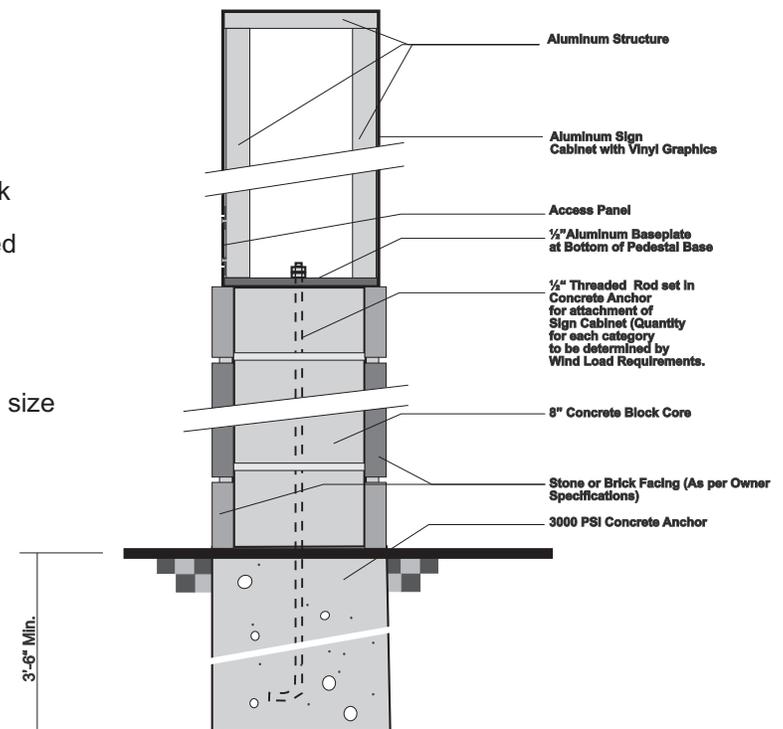
1. Sign panel to be fabricated aluminum box construction. See Drawing ST-10B for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type B.1.1 Vehicular Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>ST-10A</b>

# Stone/Brick Pylon Base

**NOTES:**

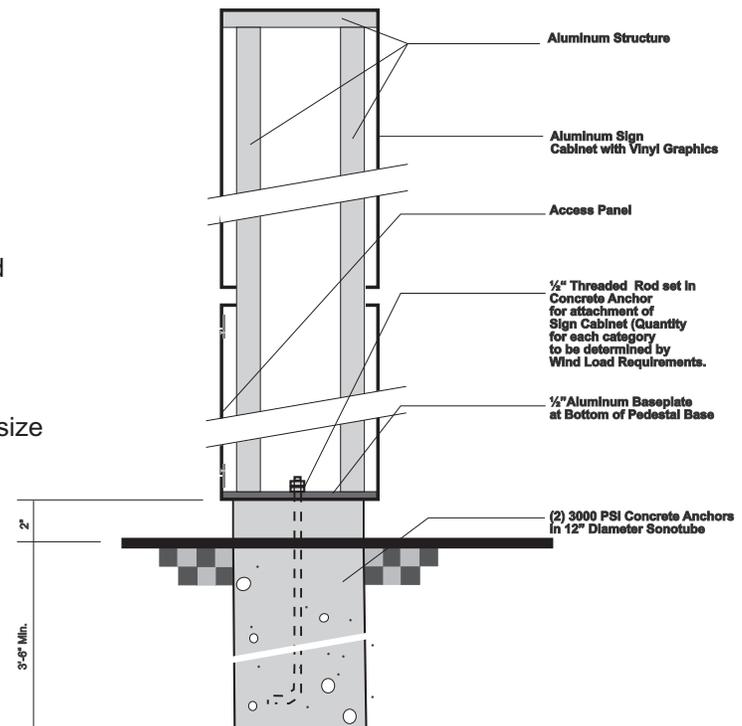
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



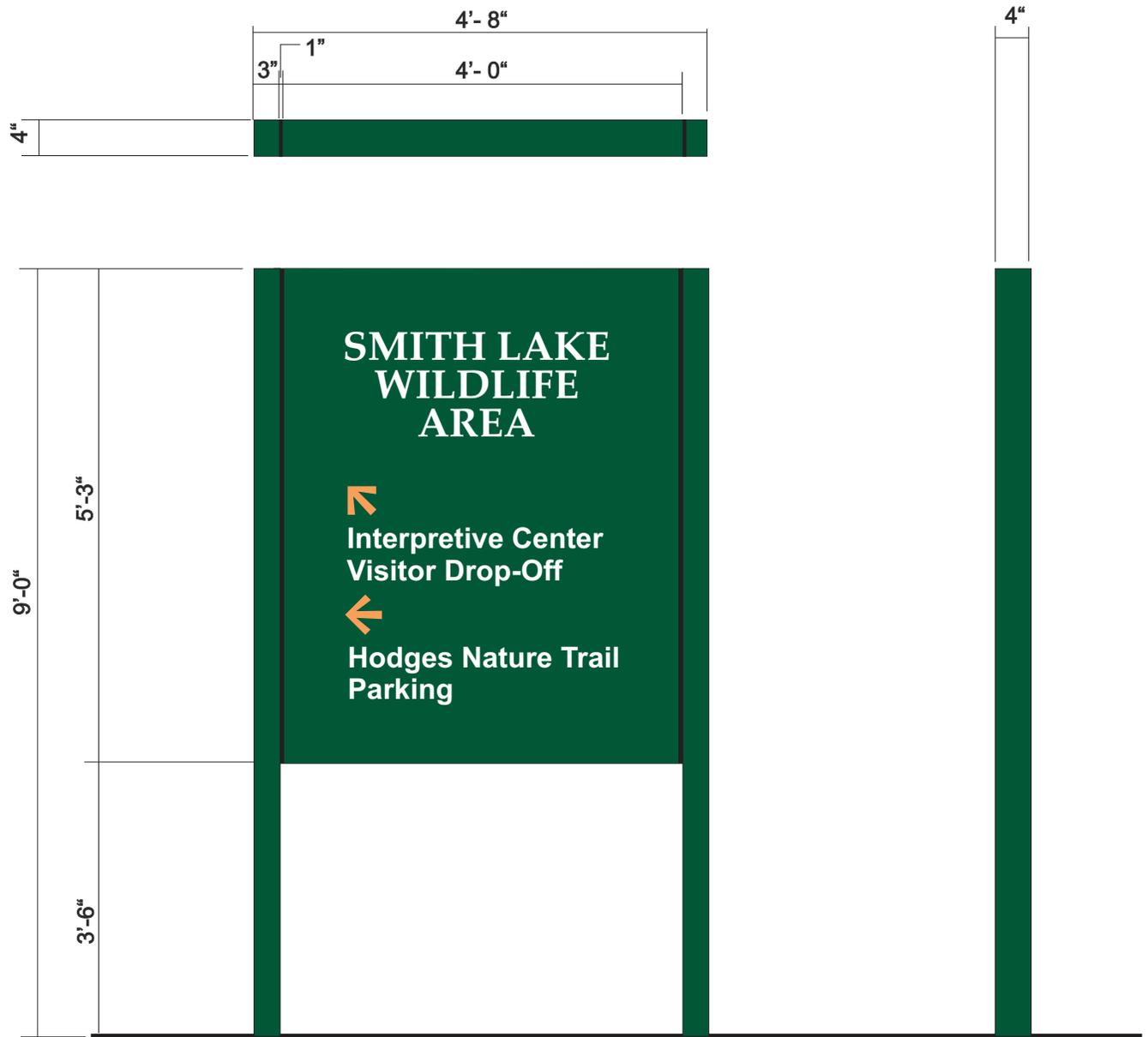
# Aluminum Pylon Base

**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



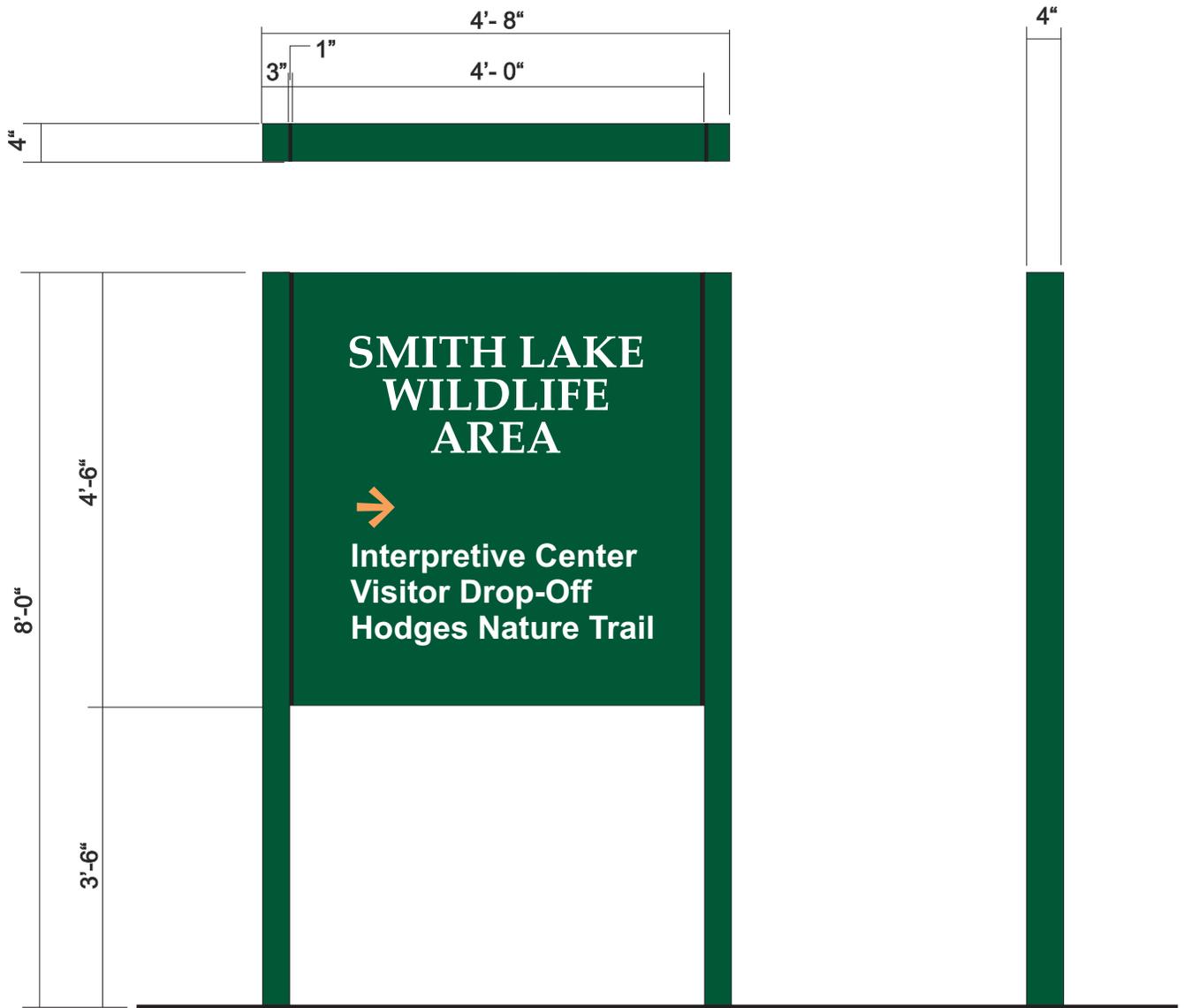
<b>Type B.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>ST-10B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-11E for construction and installation details.

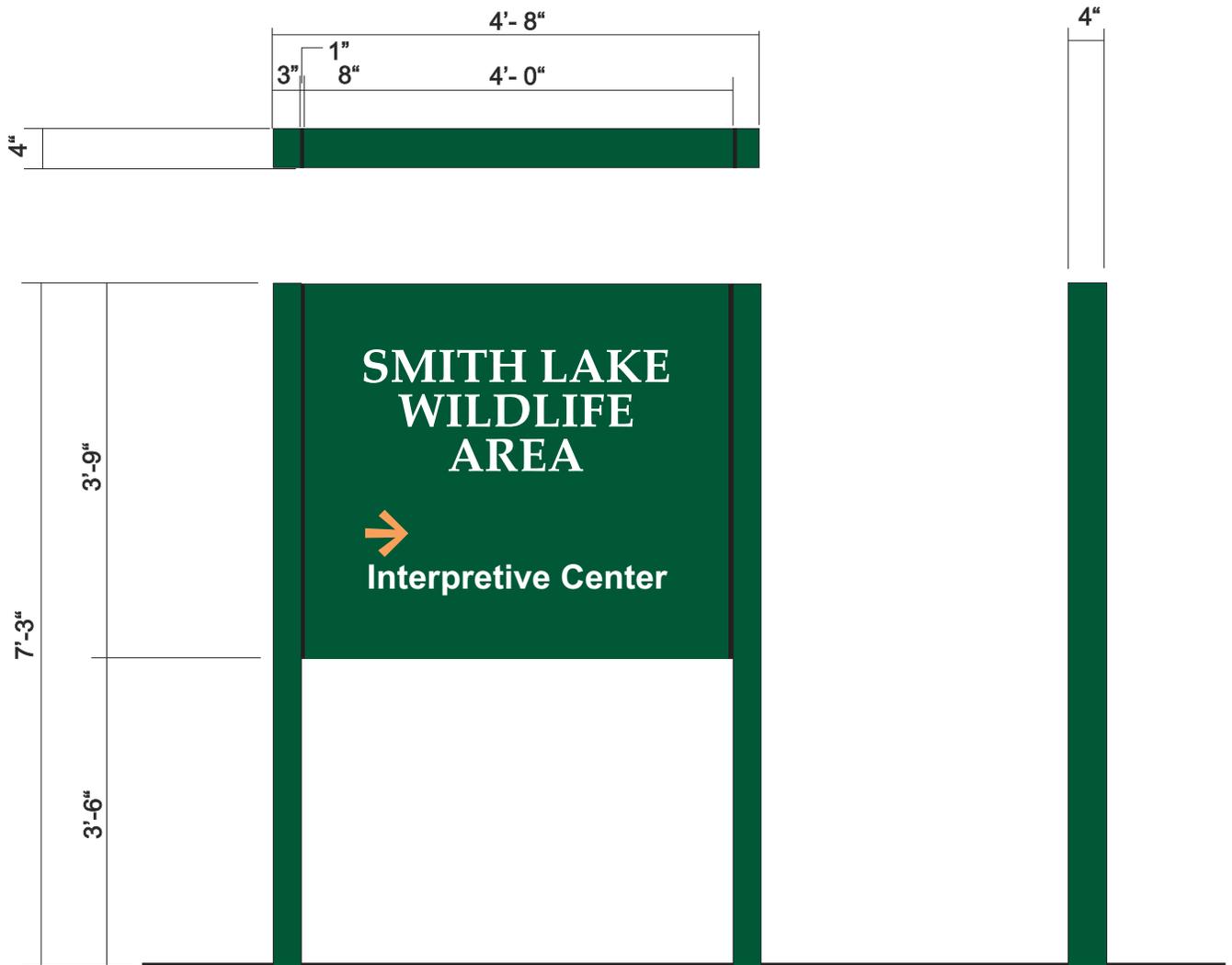
<b>Type B.2.1 Vehicular Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-11A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-11E for construction and installation details.

<b>Type B.2.2 Vehicular Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-11B</b>

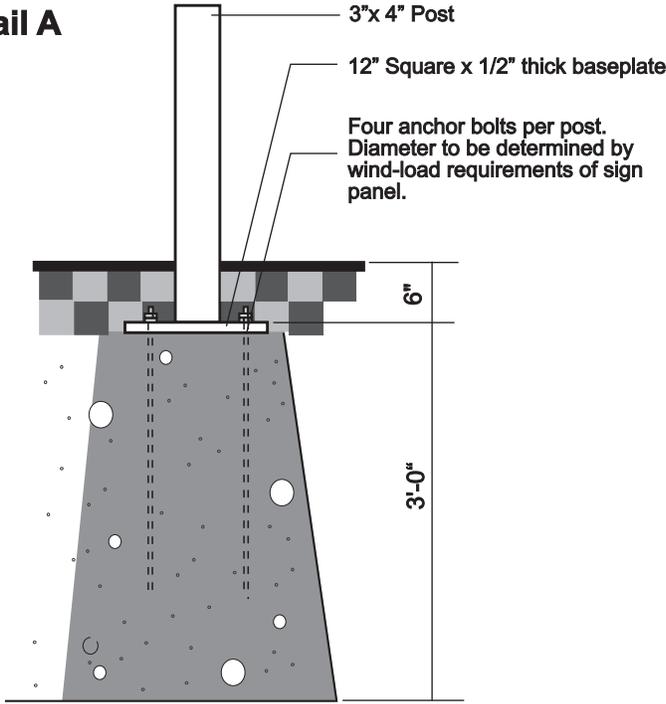


**NOTES:**

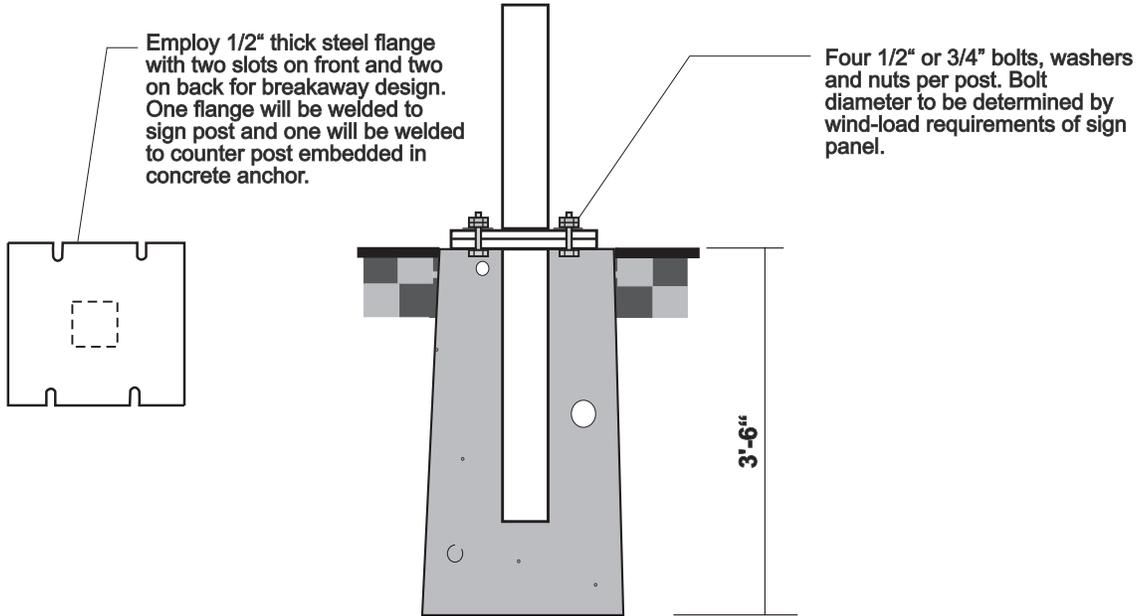
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy will utilize surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-11D for construction and installation details.

<b>Type B.2.3 Vehicular Directional Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>ST-11C</b>

**Installation Detail A**



**Installation Detail B**

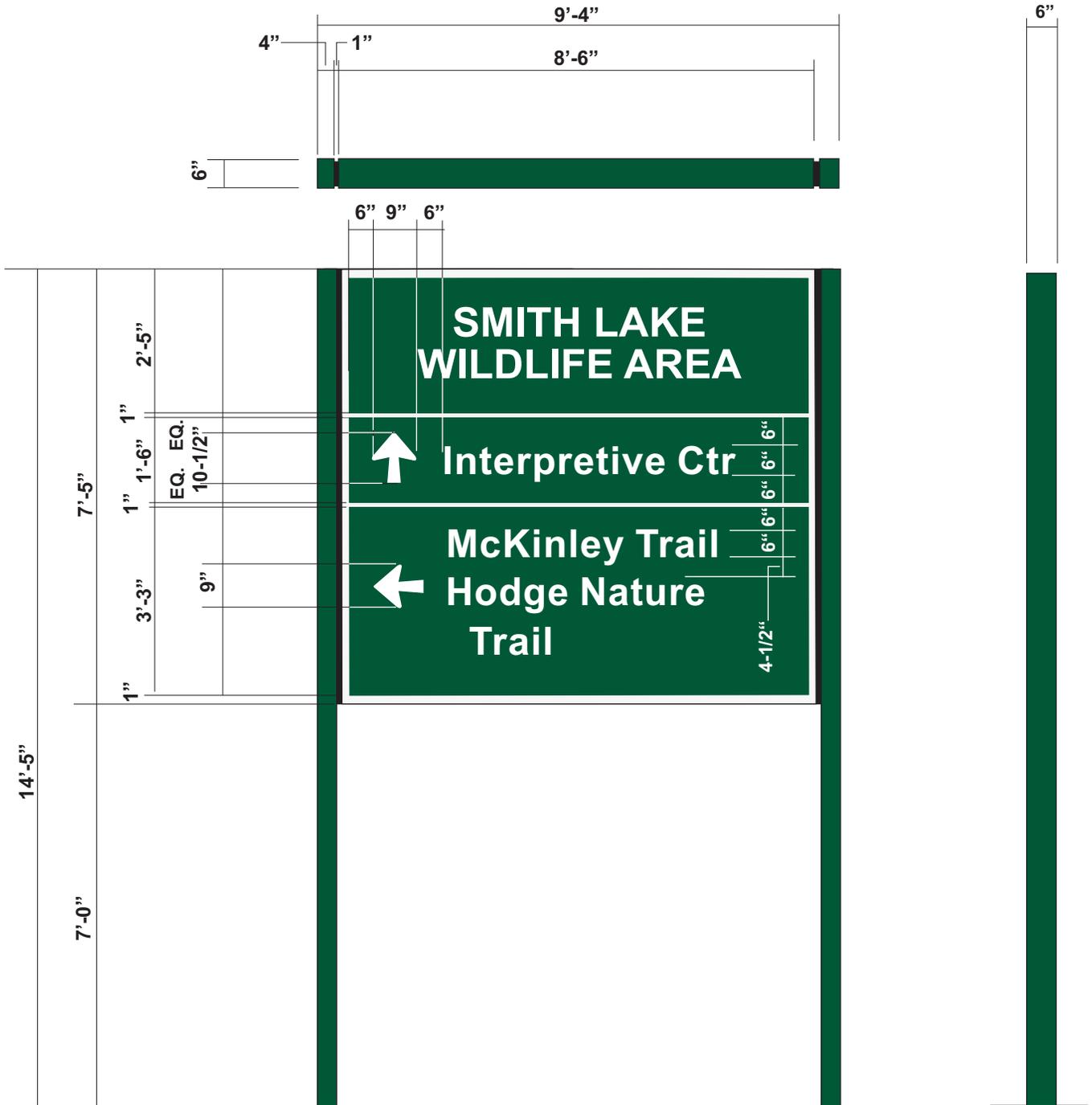


**Foundation Detail**

NOTES:

1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

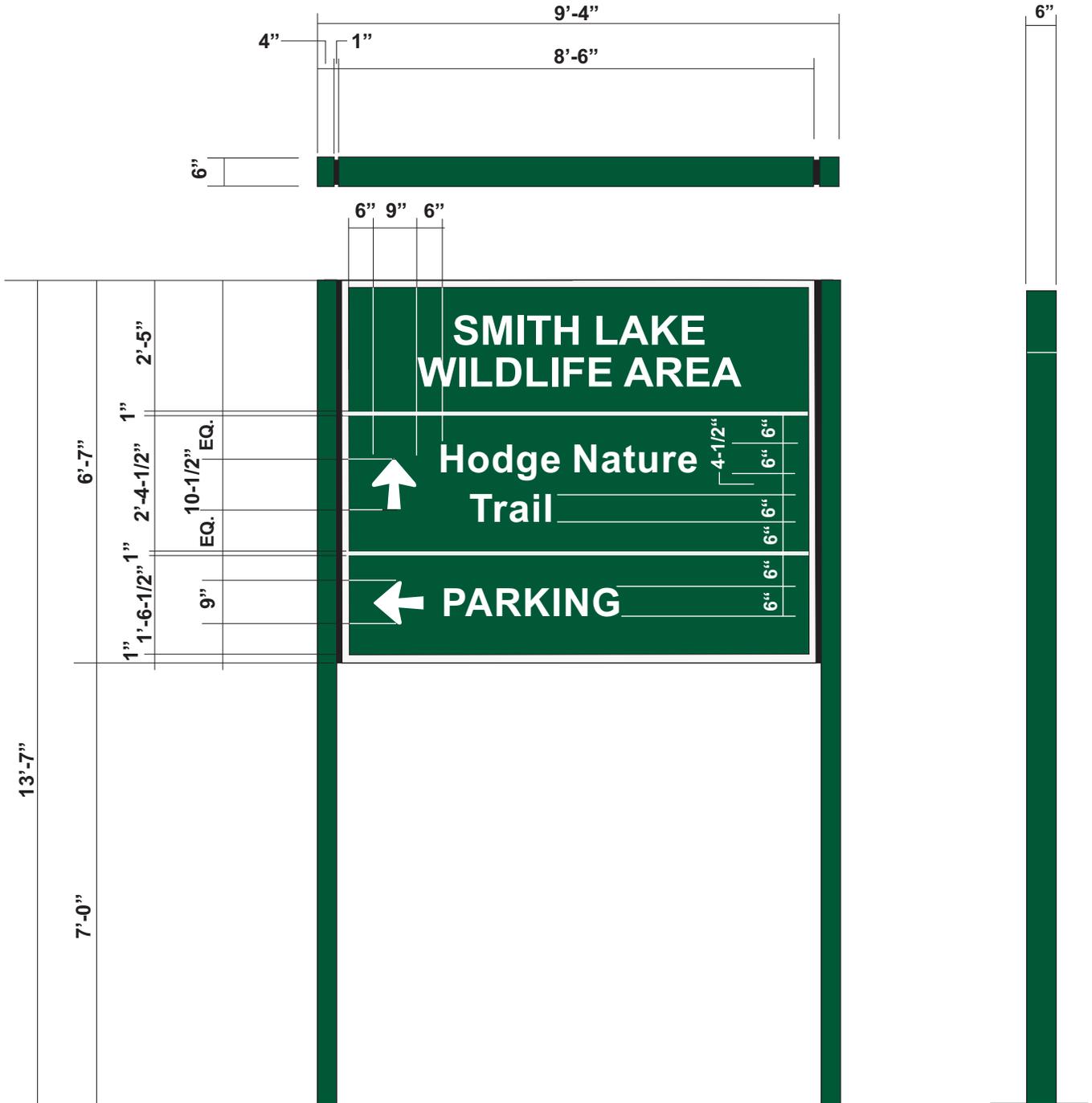
<b>Type B.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-11D</b>



NOTES:

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing ST-12E for construction and installation details.

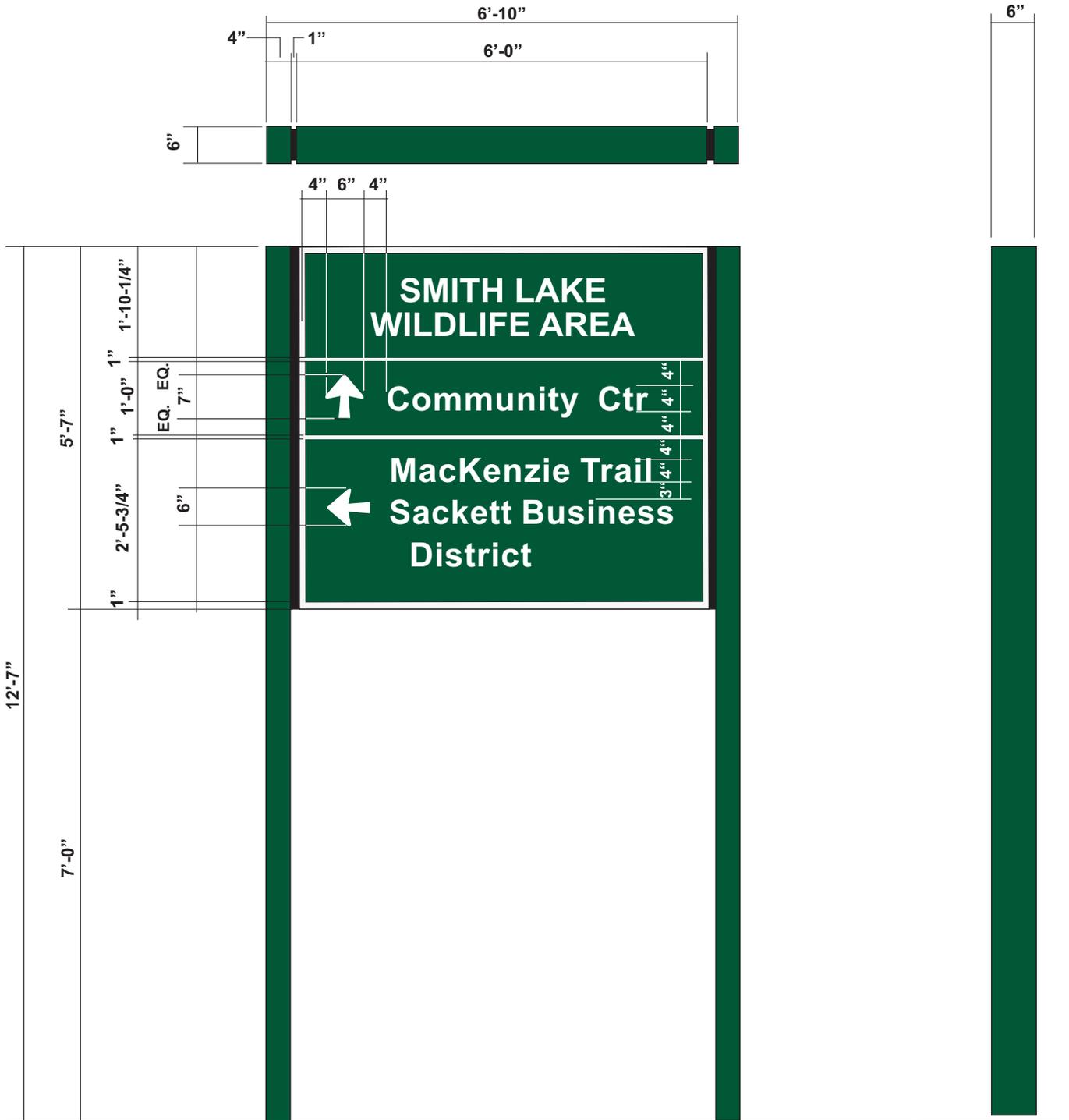
<b>Type B.3.1 MUTCD Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-12A</b>



NOTES:

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing ST-12E for construction and installation details.

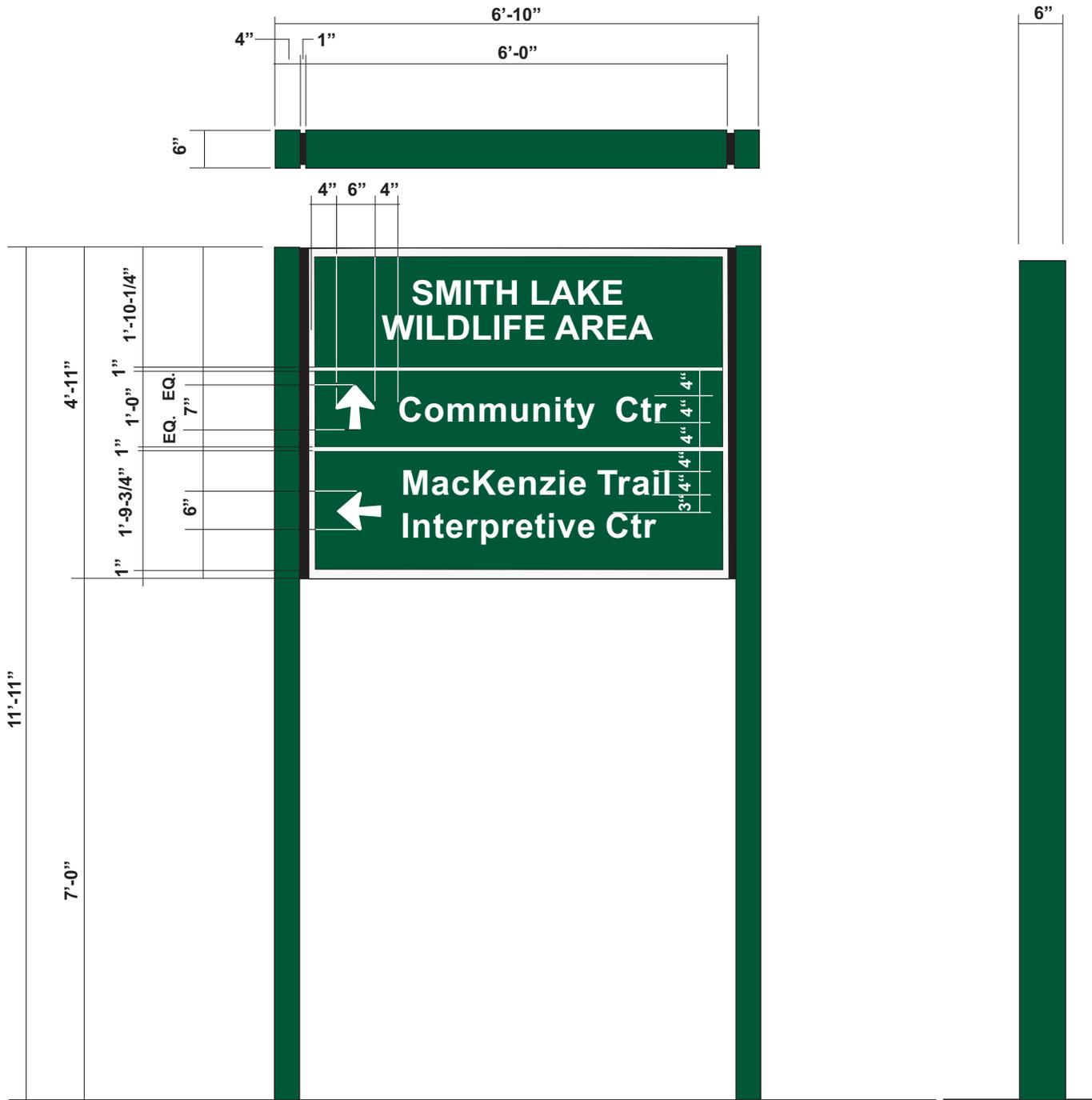
<b>Type B.3.2 MUTCD Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-12B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing ST-12E for construction and installation details.

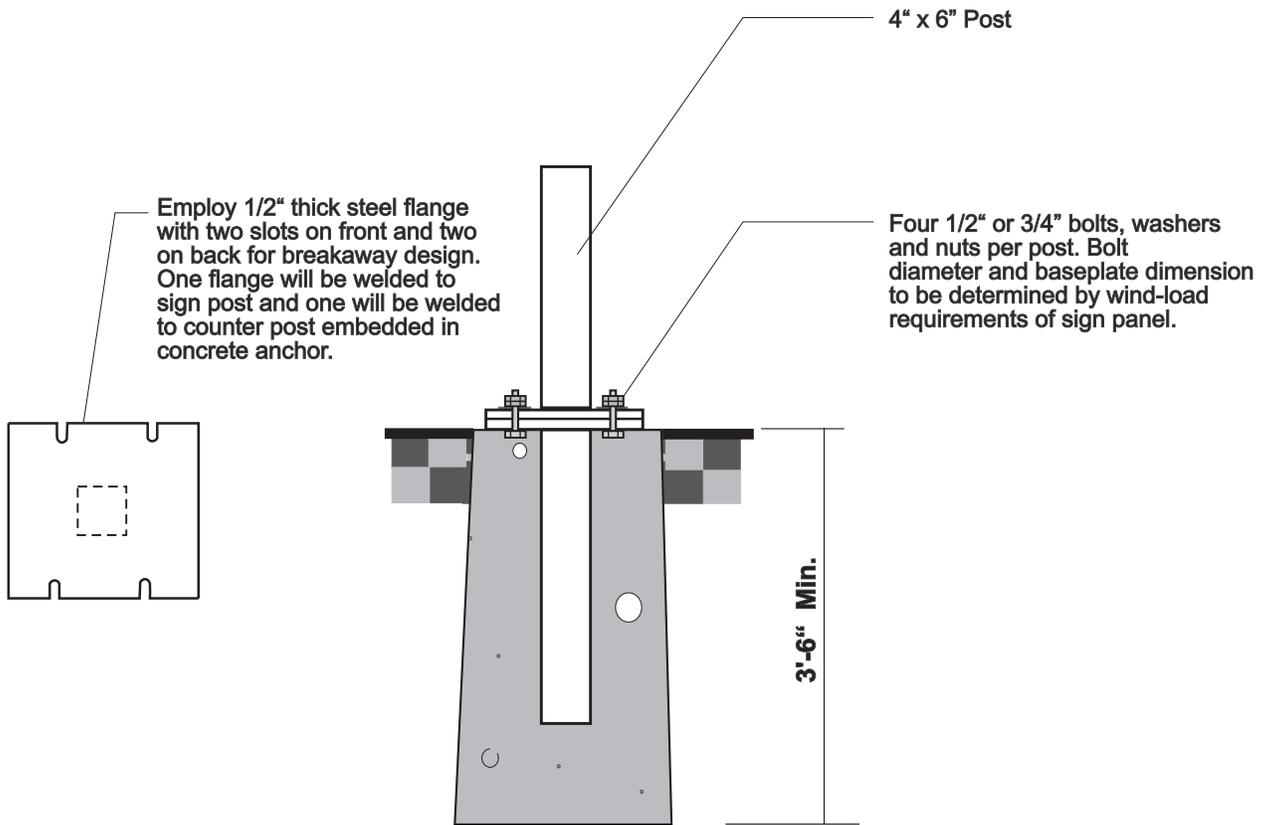
<b>Type B.3.3 MUTCD Directional Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>ST-12C</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing ST-12E for construction and installation details.

<b>Type B.3.4 MUTCD Directional Post and Panel D</b>	
<b>Niagara River Greenway</b>	<b>ST-12D</b>



**Foundation Detail**

**NOTES:**

1. Precise Concrete Anchor depth to be determined by sign wind load requirements.
2. Unless otherwise indicated in message schedule, assume mounting surfaces are undisturbed soil.

<b>Type B.3 Post and Panel Installation Details</b>	
<b>Niagara River Greenway</b>	<b>ST-12E</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

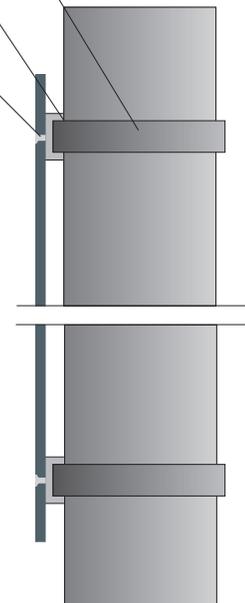
<b>Type B.4.1 Vehicular Directional Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-13A</b>



.020" x 3/4" Valustrap Plus™ Banding

.075" thick Stainless Steel Brack-It™

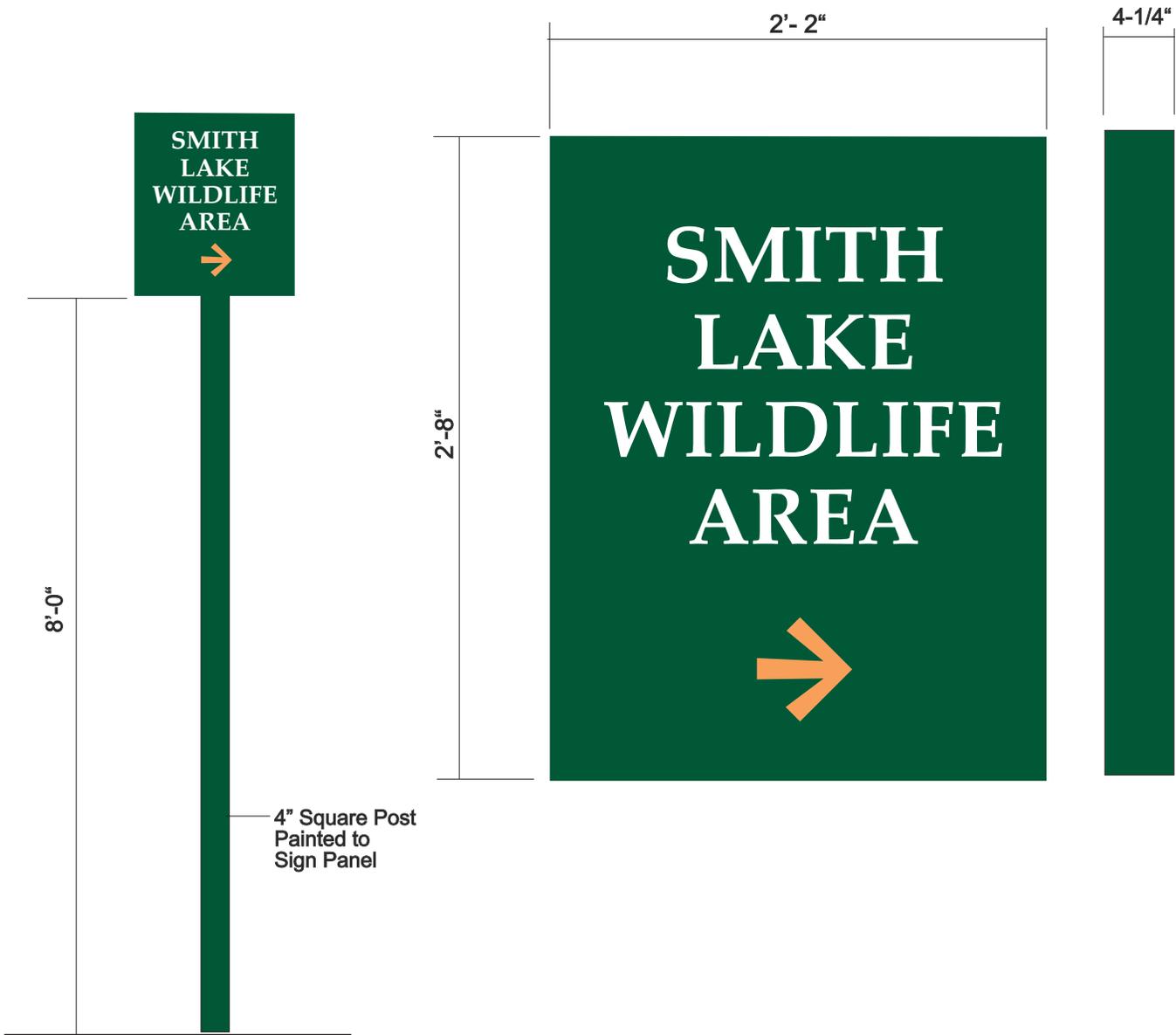
Flathead Stainless Steel Bolt



**NOTES:**

1. Sign panel to be fabricated from .125" thick aluminum with retroreflective graphics and background. Paint back and edges to match face.
2. Use Band-It brand Stainless Steel strapping for attachment to existing utility poles.

Type B.5.1 Off-Site Trailblazer Existing Pole Mount	
Niagara River Greenway	ST-14A

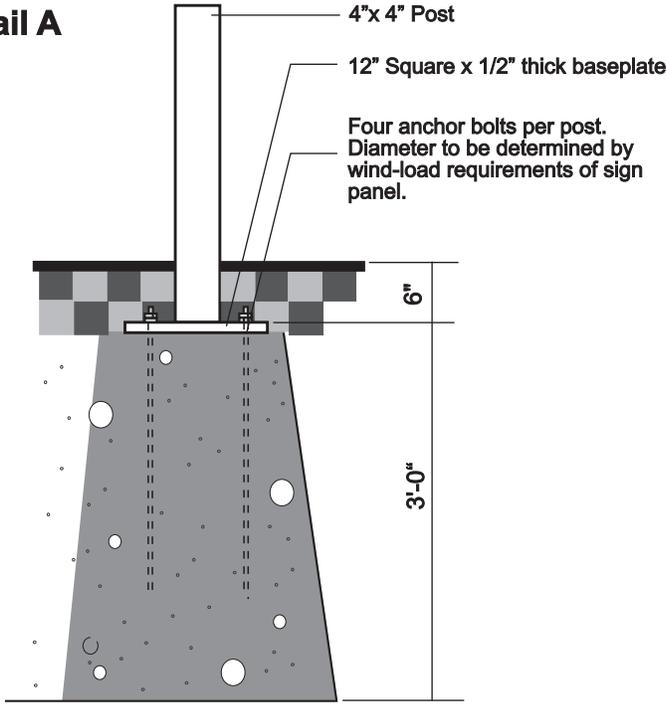


NOTES:

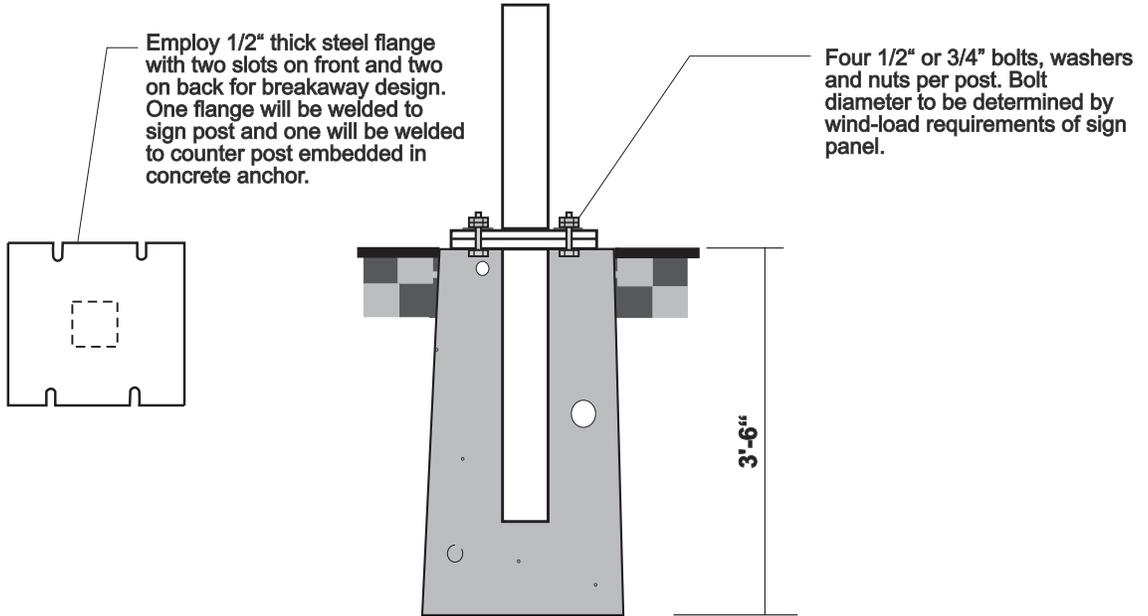
1. Panel to be fabricated aluminum seamless box panel construction. Post to be 4" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-14C installation details.

<b>Type B.5.2 Off-Site Trailblazer New Pole Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-14B</b>

**Installation Detail A**



**Installation Detail B**

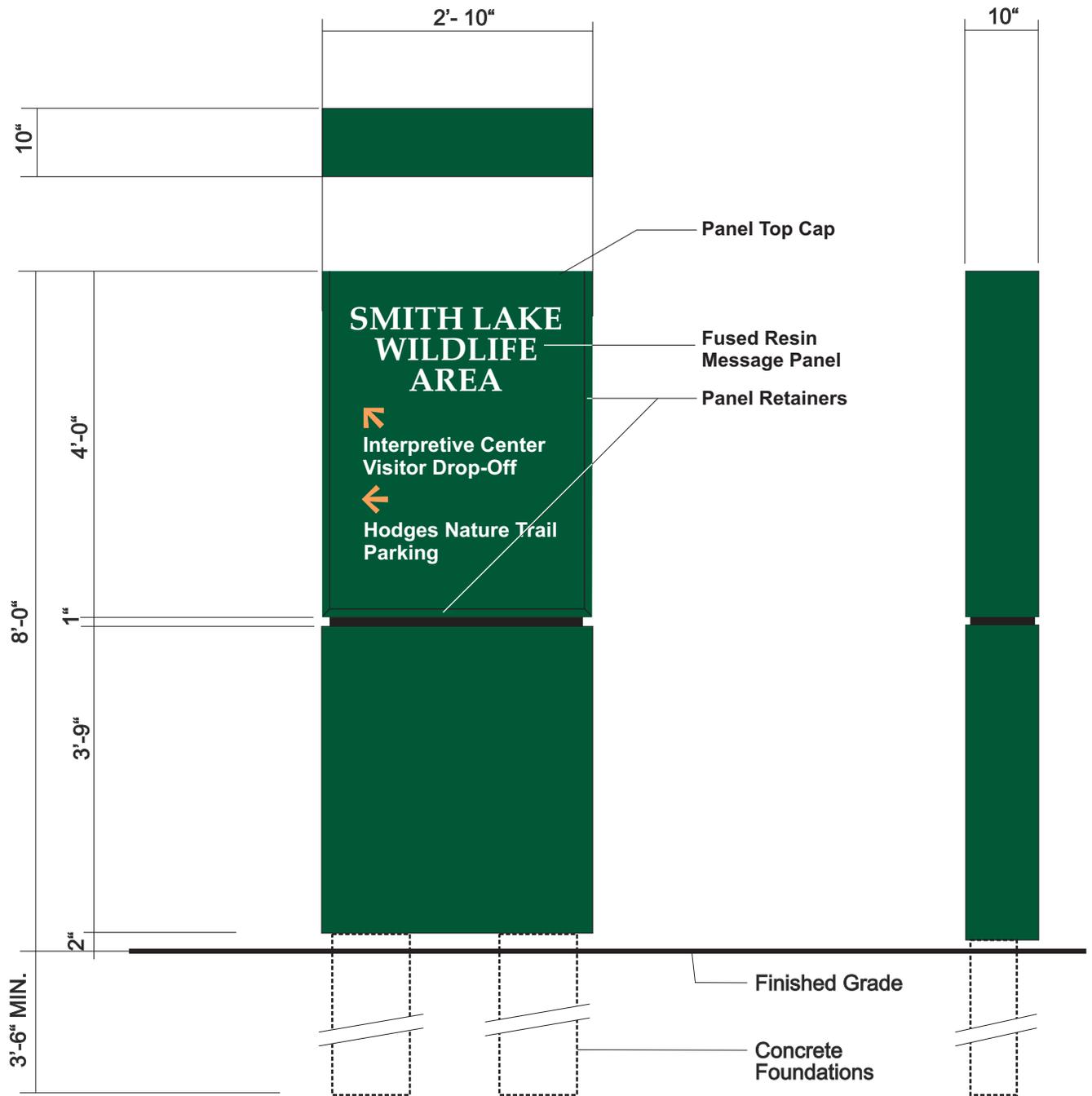


**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<p><b>Type B.5.2 Post and Panel Installation Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-14C</b></p>



**NOTES:**

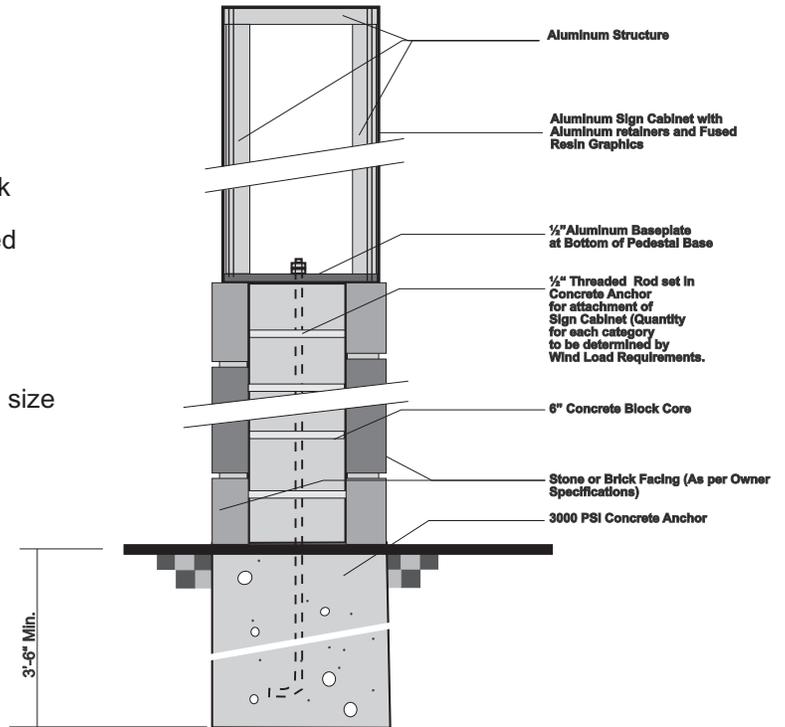
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-15B and ST-15C for Base Material and construction details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.6.1 Pedestrian Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>ST-15A</b>

# Stone/Brick Pylon Base

**NOTES:**

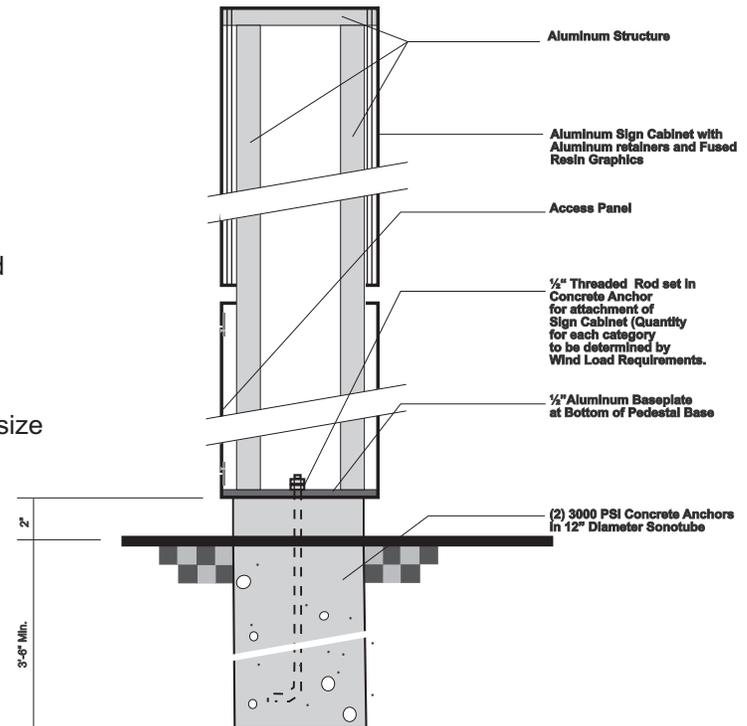
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-15C for panel construction details.



# Aluminum Pylon Base

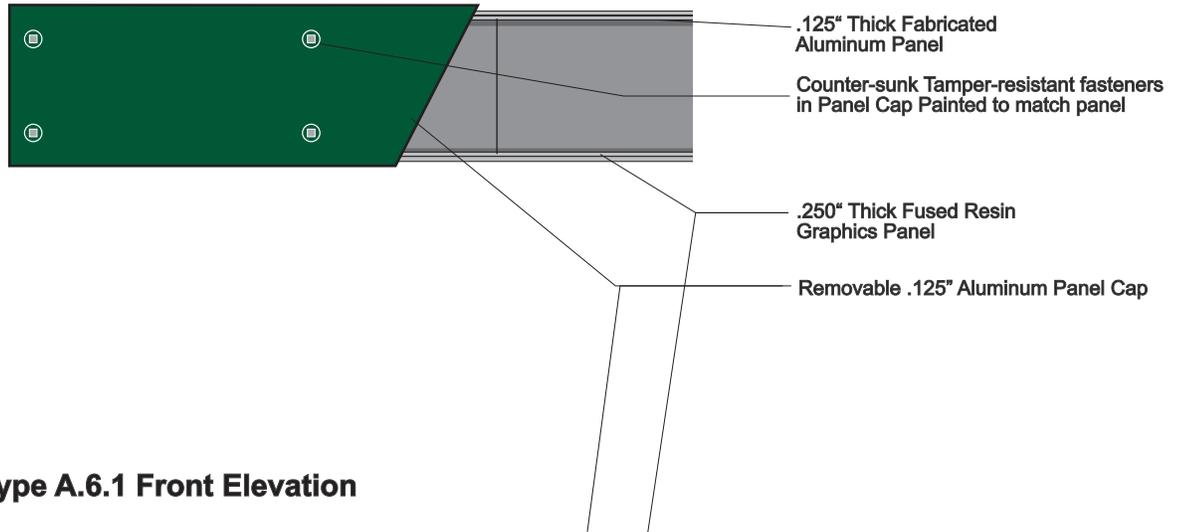
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-15C for panel construction details.

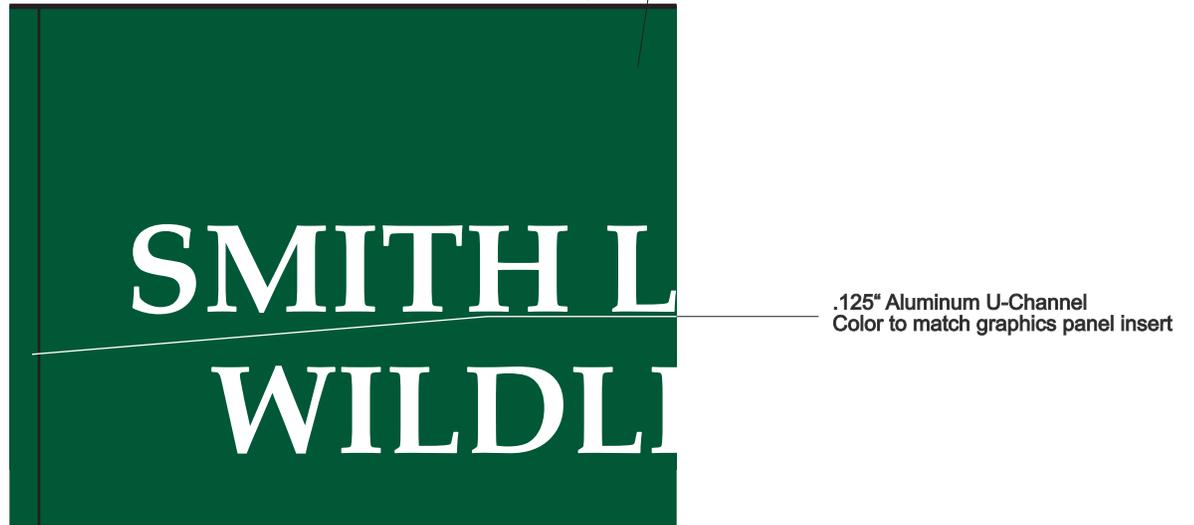


<b>Type B.6 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>ST-15B</b>

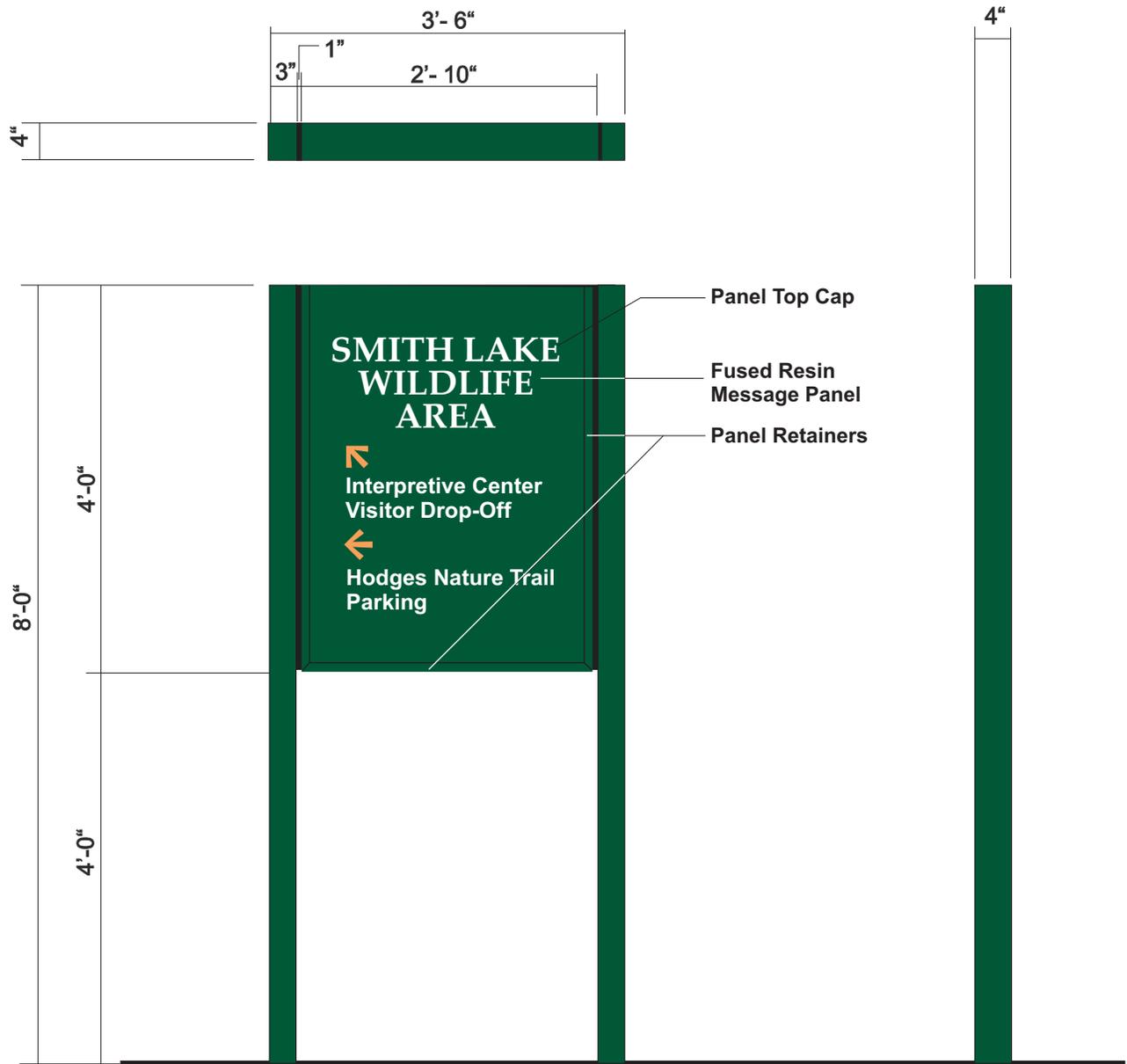
**Type A.6.1 Top View with  
Cut Away on Panel Cap**



**Type A.6.1 Front Elevation**



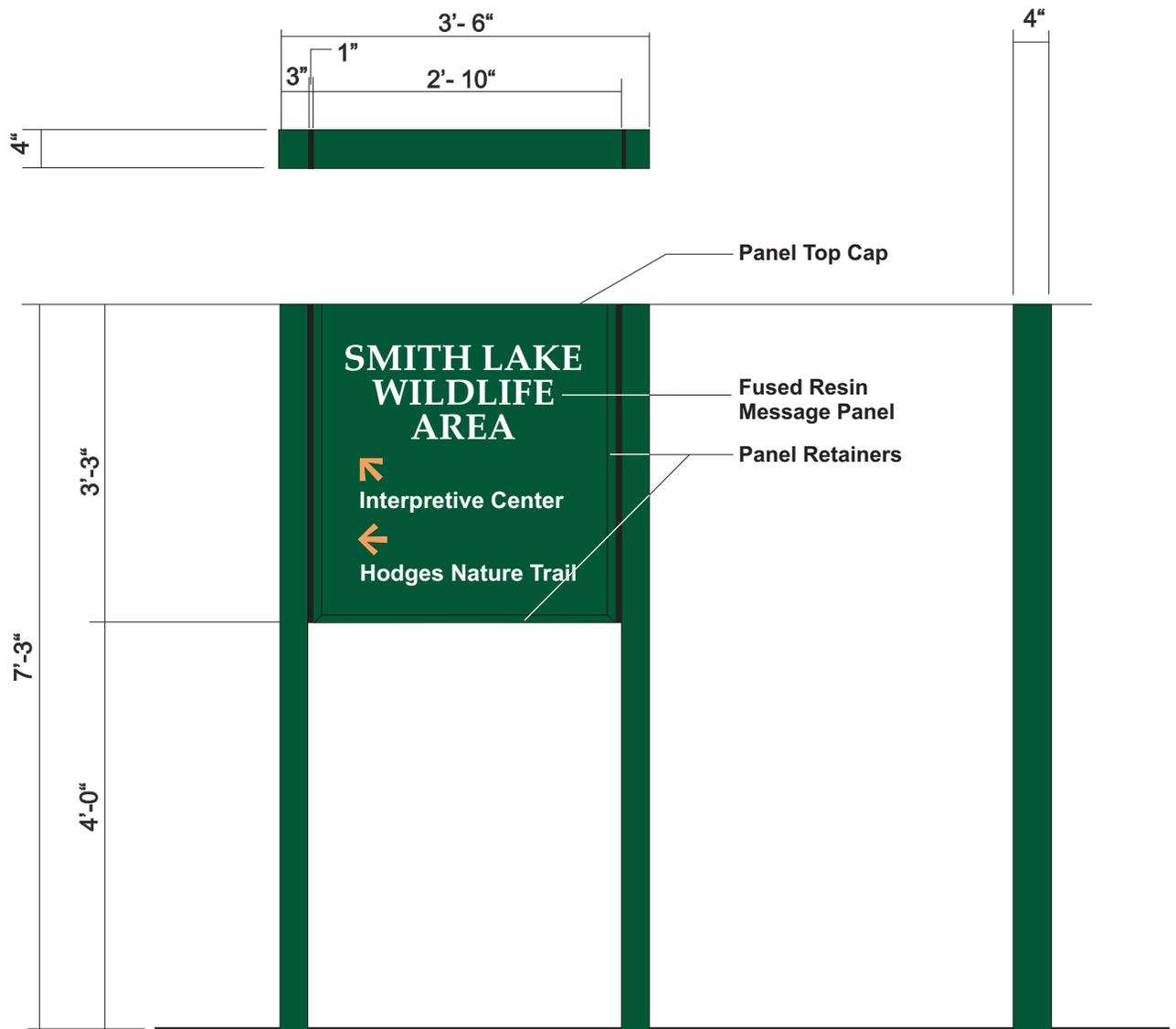
Type B.6 Pylon Message Panel Construction Details	
Niagara River Greenway	ST-15C



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-16C and ST-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.1 Pedestrian Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-16A</b>

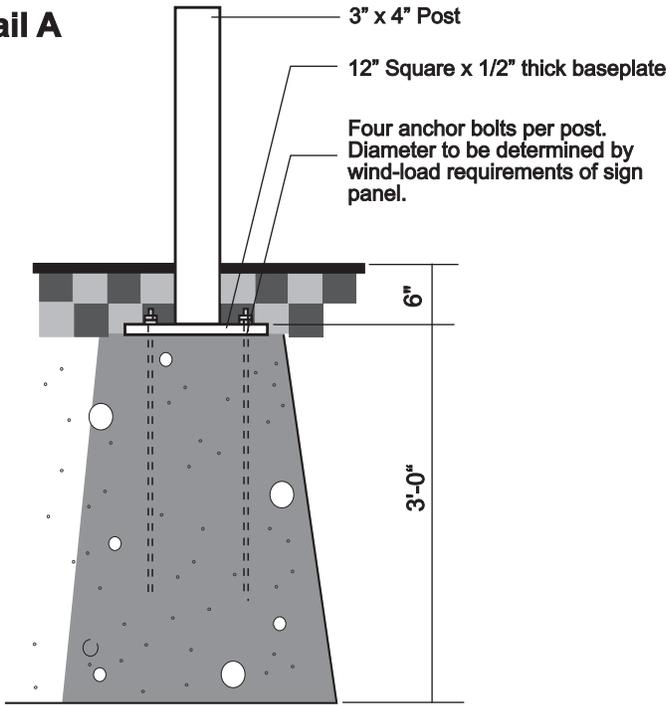


**NOTES:**

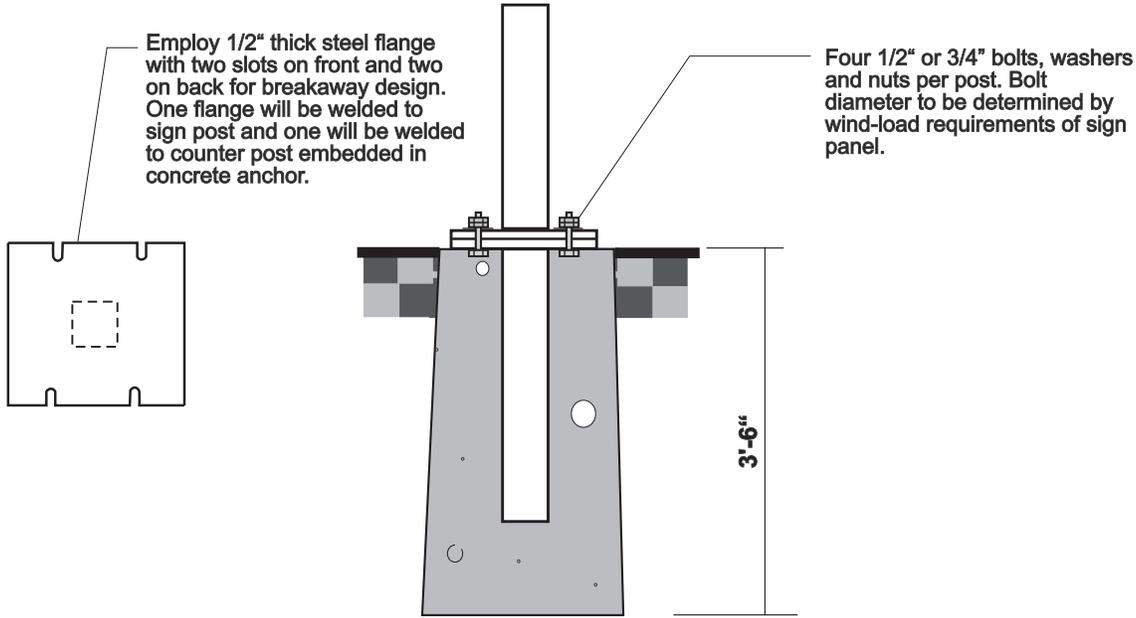
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-16C and ST-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.2 Pedestrian Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-16B</b>

**Installation Detail A**



**Installation Detail B**



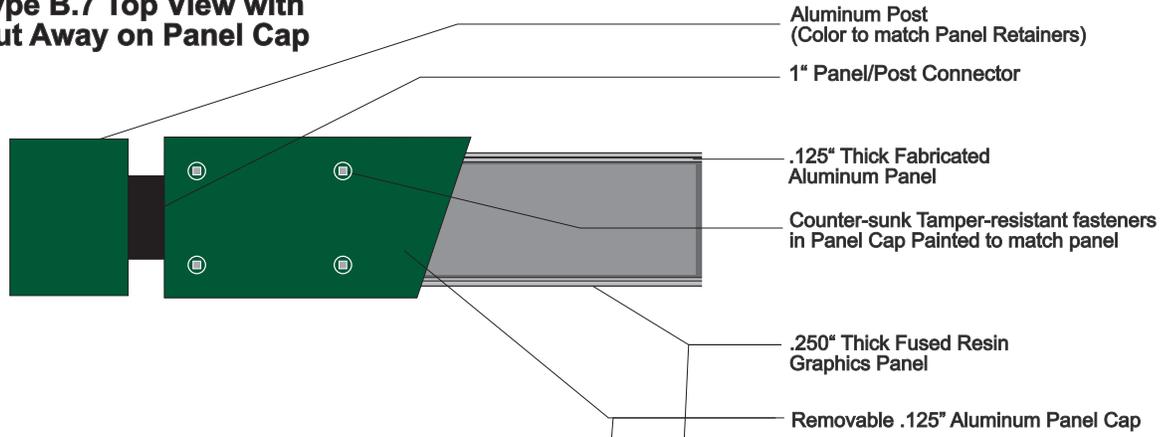
**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.7 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-16C</b>

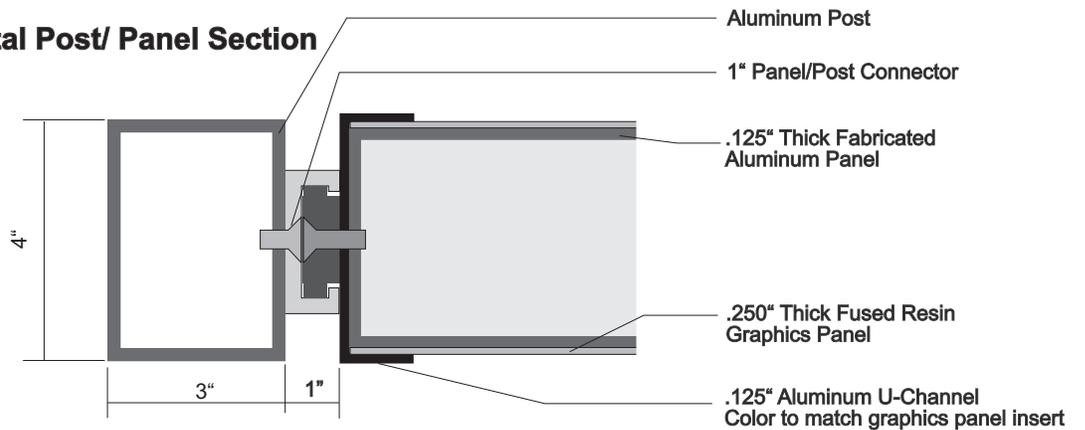
**Type B.7 Top View with Cut Away on Panel Cap**



**Type B.7 Front Elevation**



**Horizontal Post/ Panel Section**



<p><b>Type B.7 Post and Panel Construction Details</b></p>	
<p>Niagara River Greenway</p>	<p><b>ST-16D</b></p>



NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.1 Pedestrian Directional Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>ST-17A</b>

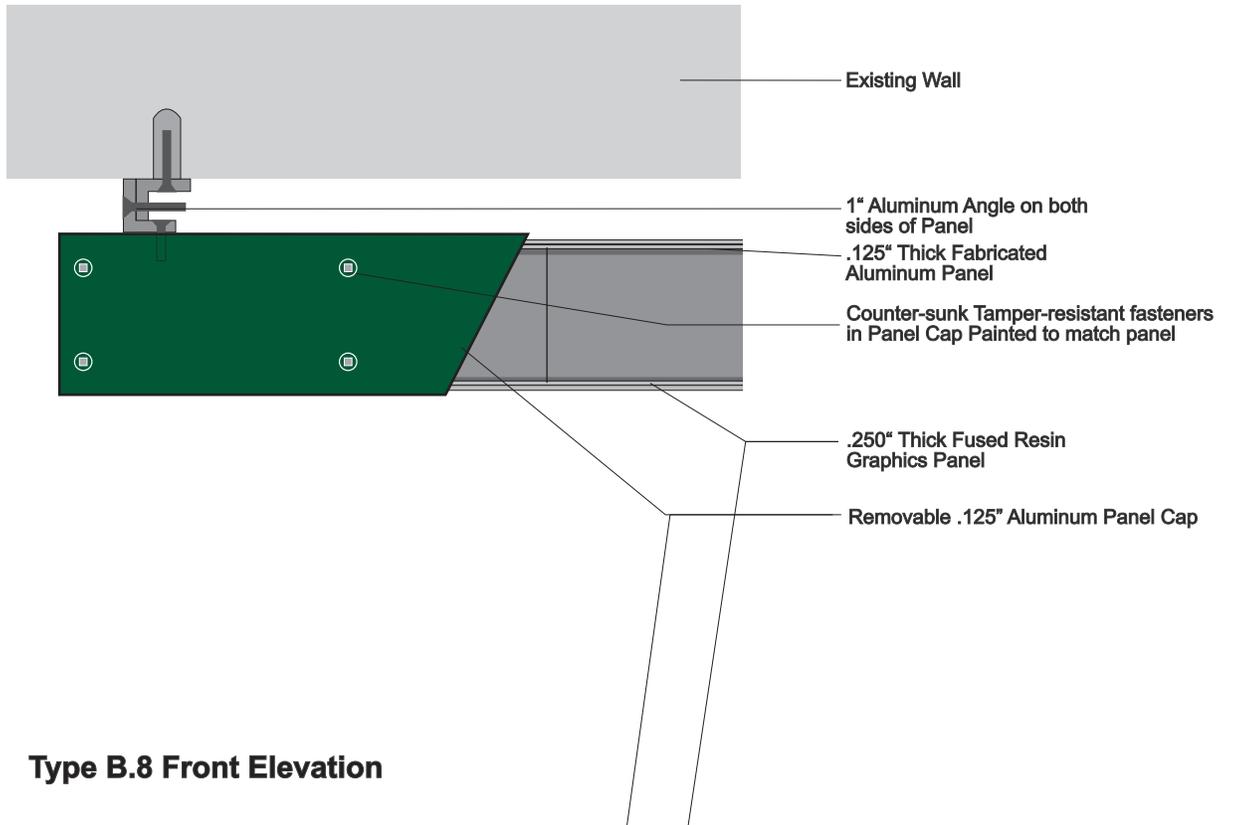


**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.2 Pedestrian Directional Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>ST-17B</b>

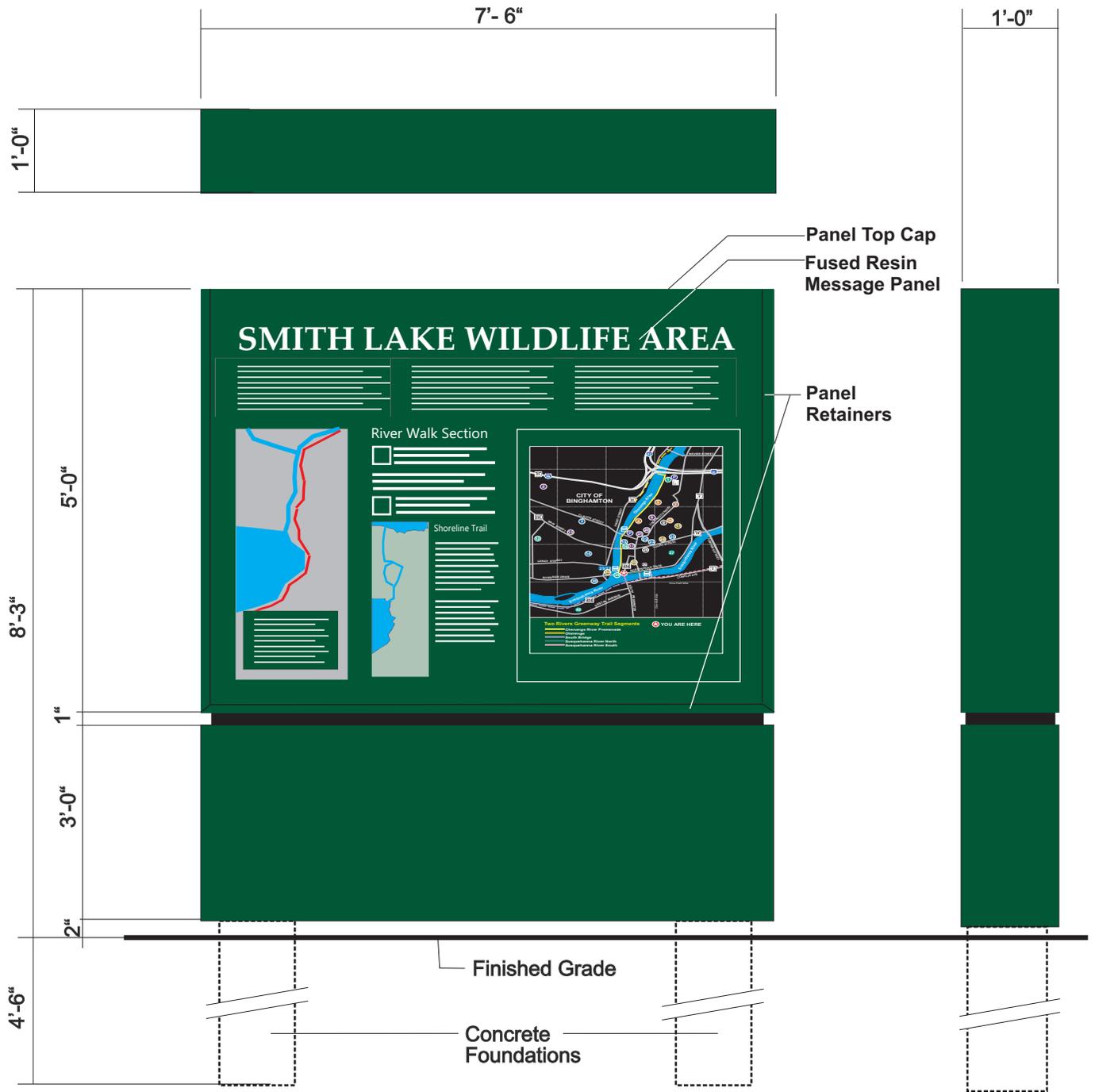
**Type B.8 Top View with  
Cut Away on Panel Cap**



**Type B.8 Front Elevation**



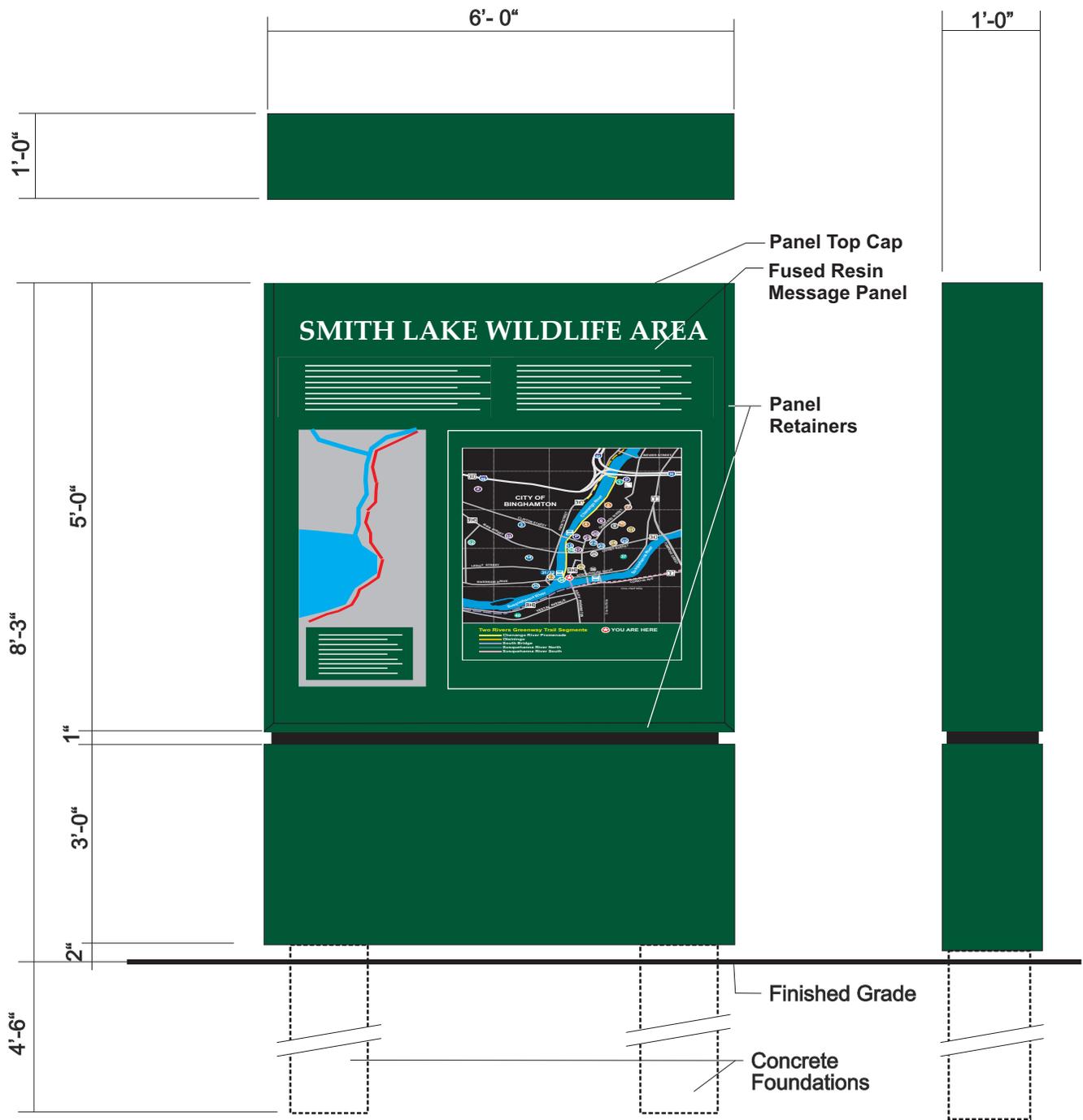
<p><b>Type B.8 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p>Niagara River Greenway</p>	<p><b>ST-17C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-20C and ST-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.1 Vehicular Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>ST-20A</b>



**NOTES:**

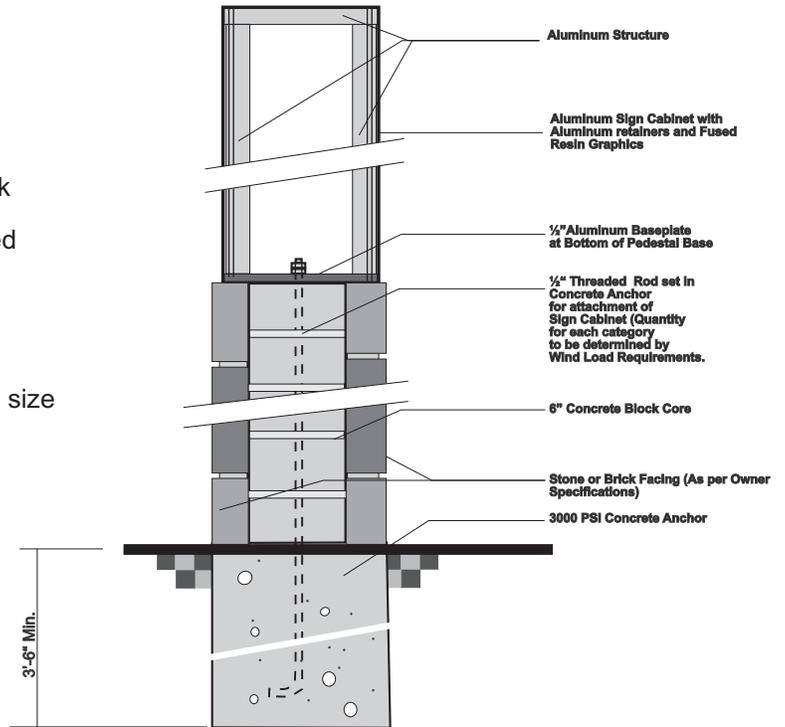
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-20C and ST-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.2 Vehicular Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>ST-20B</b>

# Stone/Brick Pylon Base

**NOTES:**

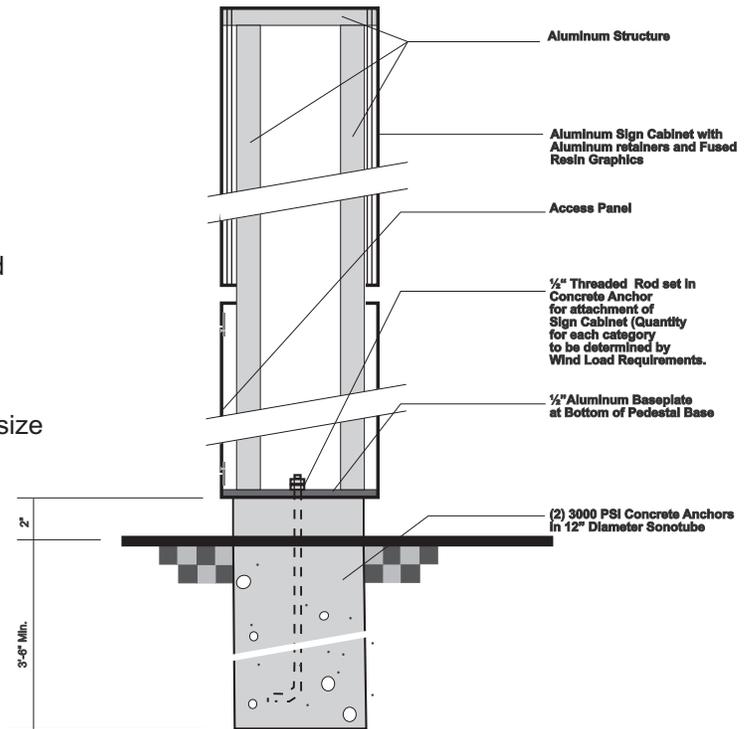
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-20D for panel construction details.



# Aluminum Pylon Base

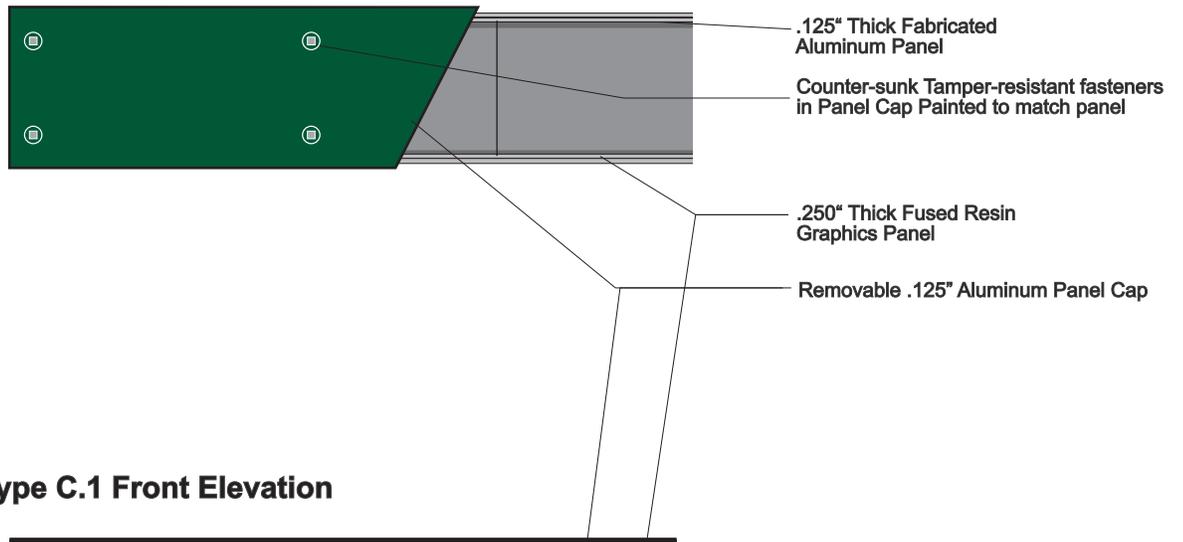
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-20D for panel construction details.

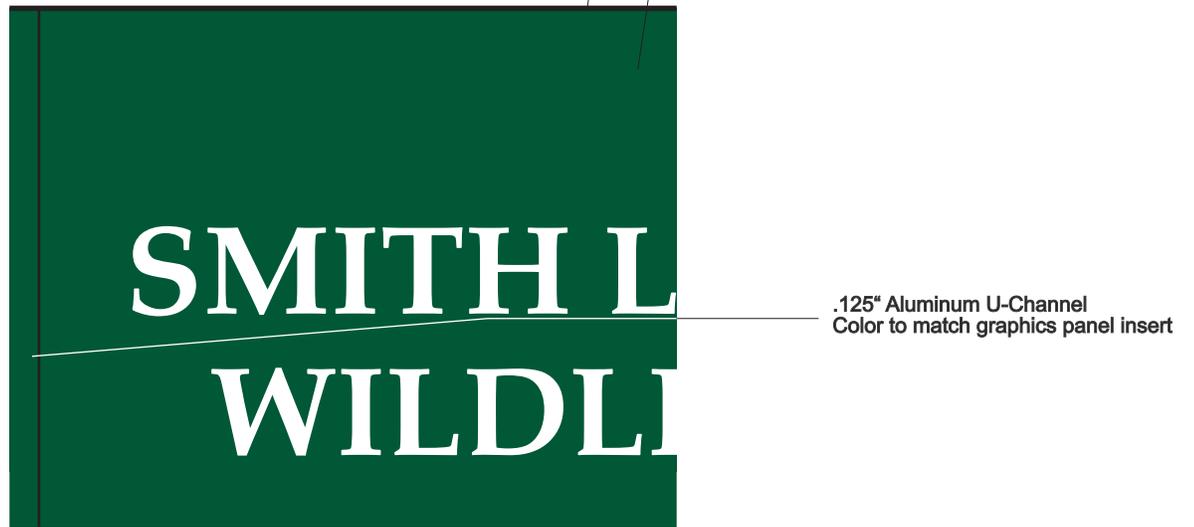


<b>Type C.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>ST-20C</b>

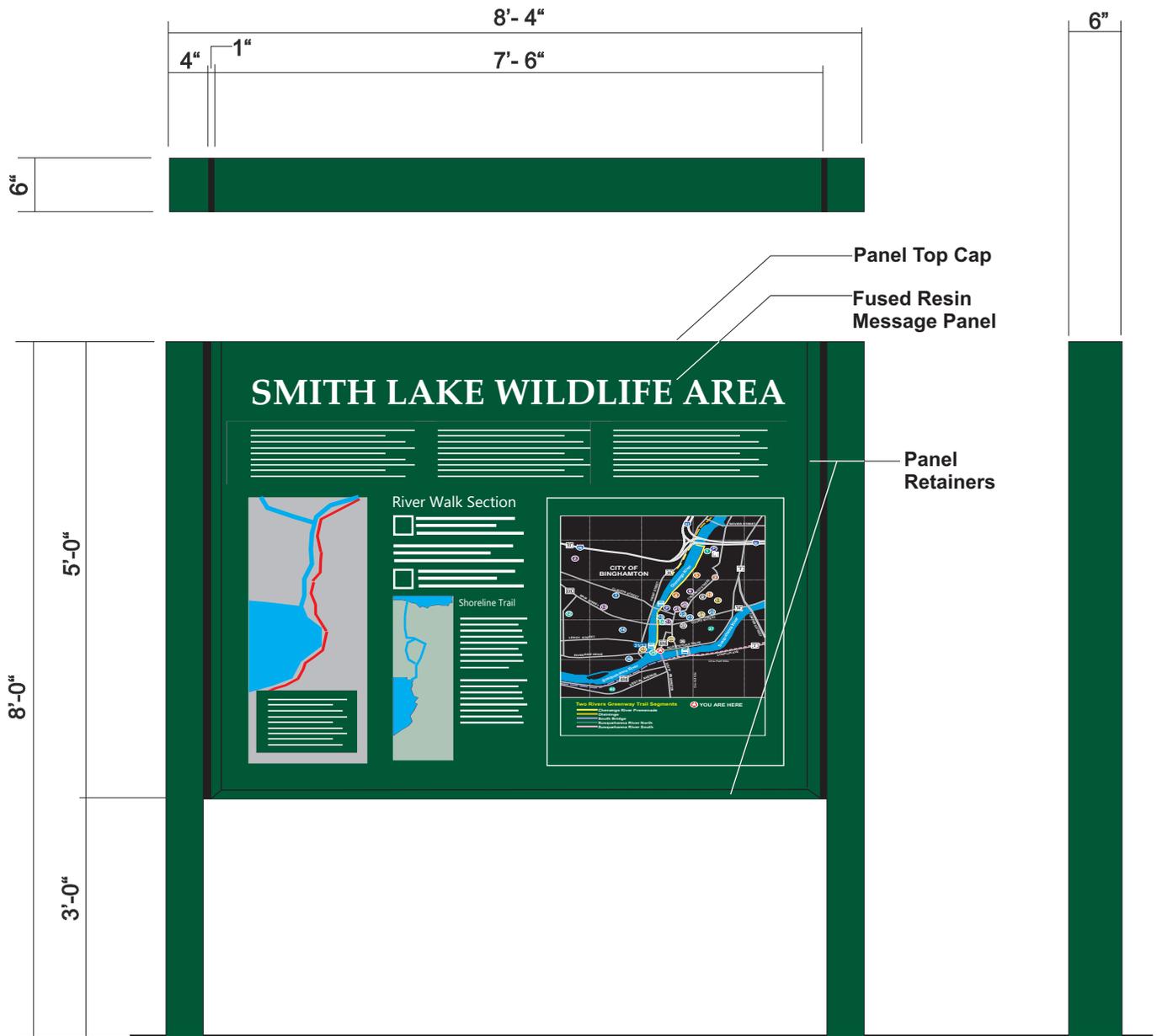
**Type C.1 Top View with  
Cut Away on Panel Cap**



**Type C.1 Front Elevation**



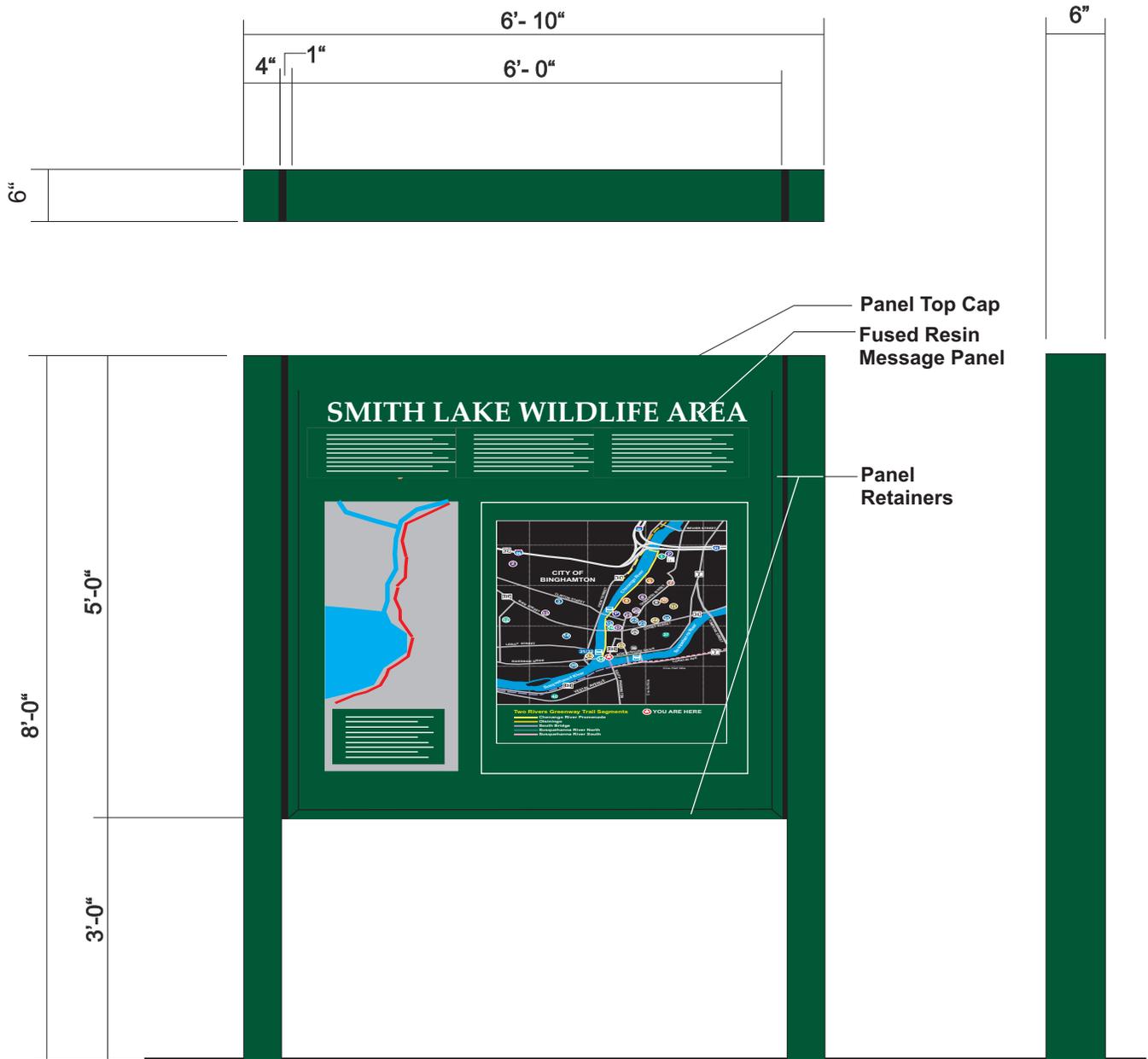
<p><b>Type C.1 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-20D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings ST-21C and ST-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.1 Vehicular Orientation Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-21A</b>

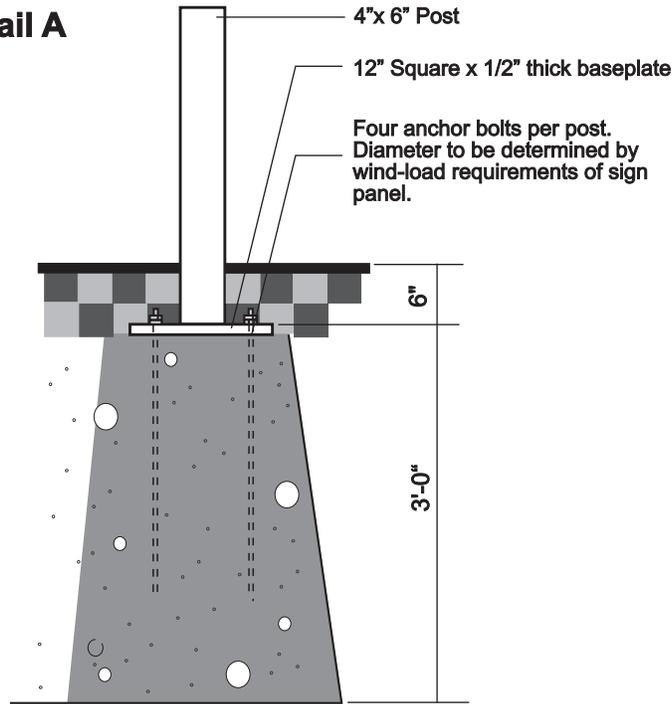


NOTES:

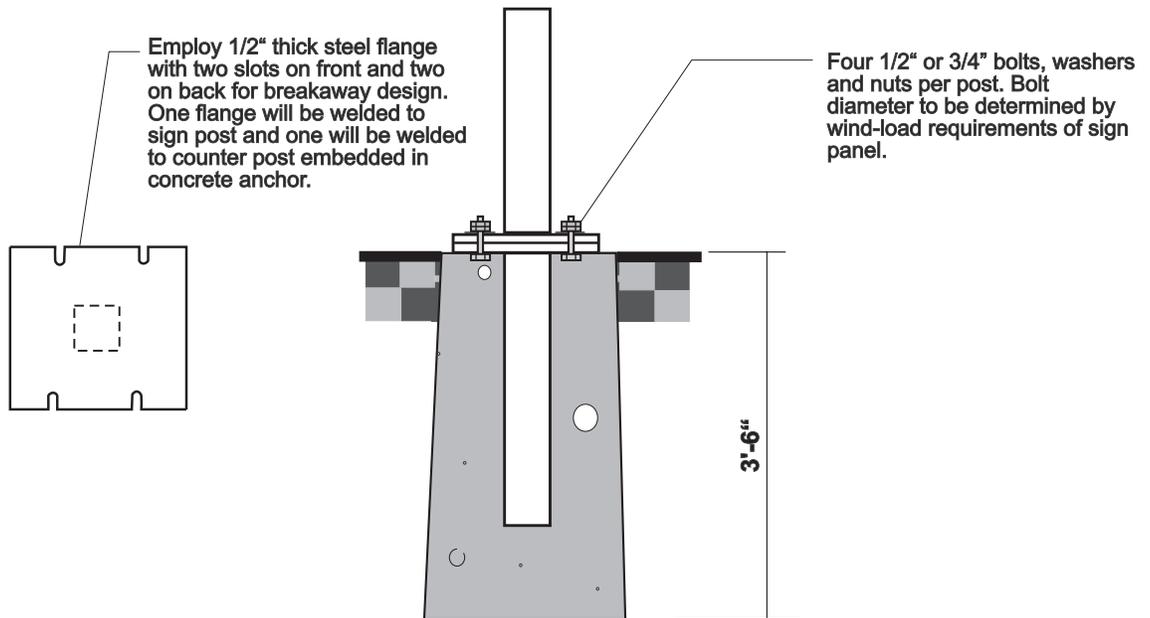
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings ST-21C and ST-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.2 Vehicular Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-21B</b>

### Installation Detail A



### Installation Detail B



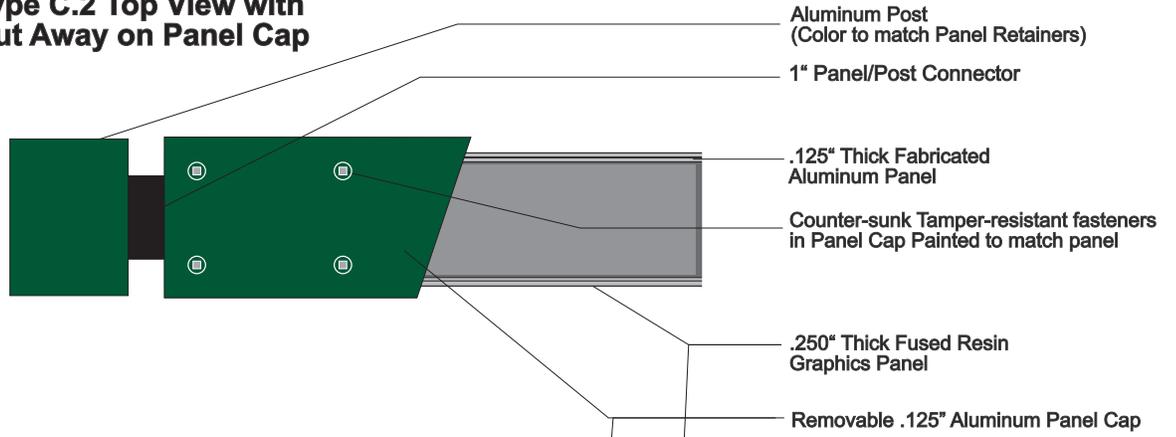
### Foundation Detail

NOTES:

1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-21C</b>

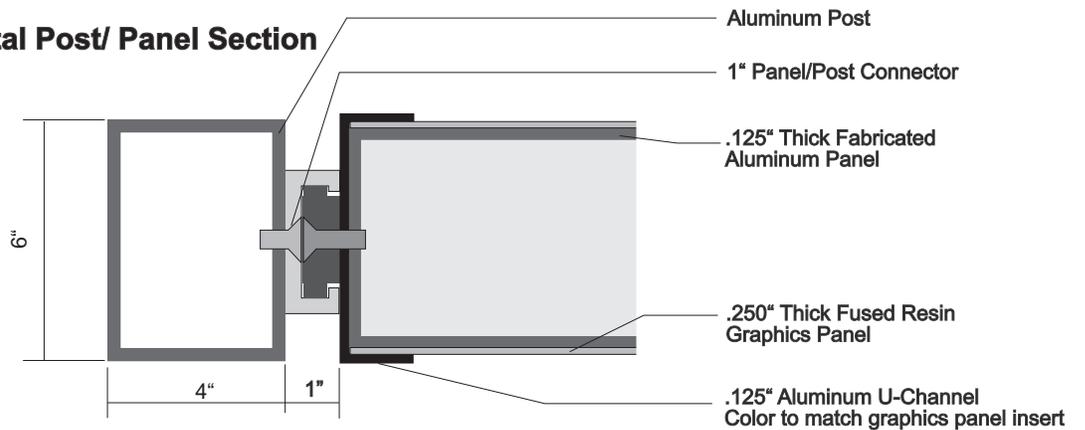
**Type C.2 Top View with Cut Away on Panel Cap**



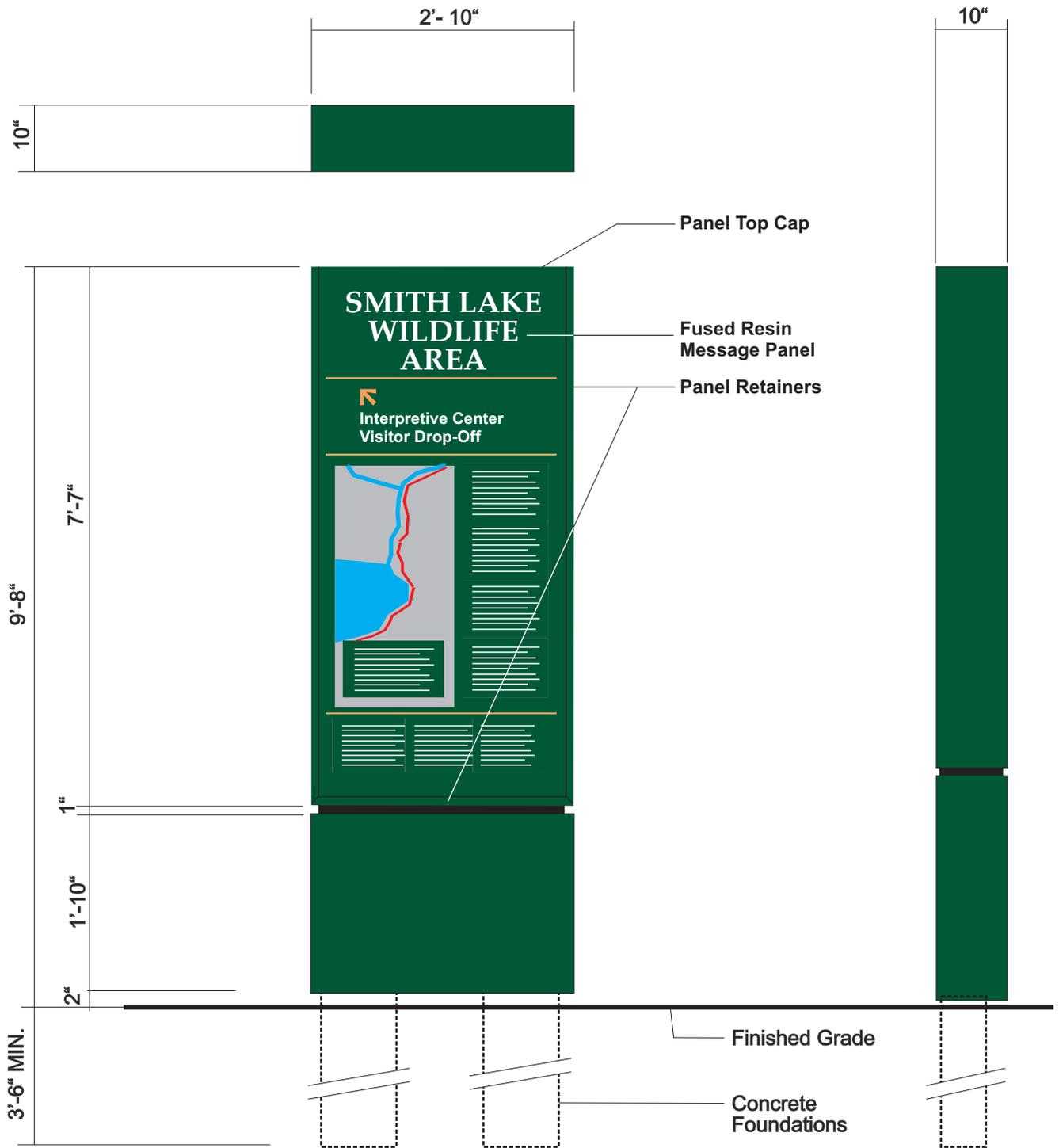
**Type C.2 Front Elevation**



**Horizontal Post/ Panel Section**



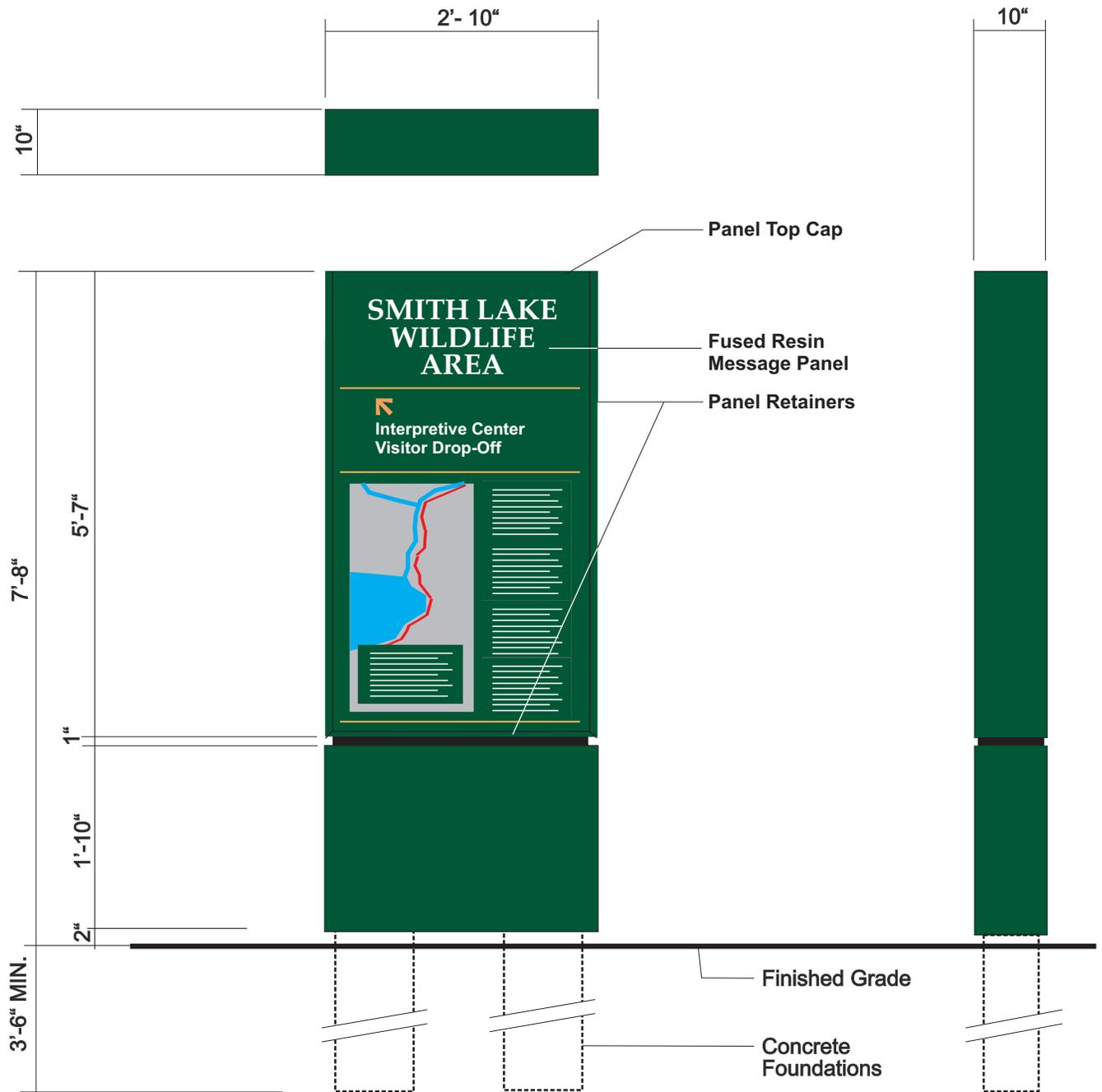
<b>Type C.2 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>ST-21D</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-22C and ST-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.1 Pedestrian Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>ST-22A</b>



**NOTES:**

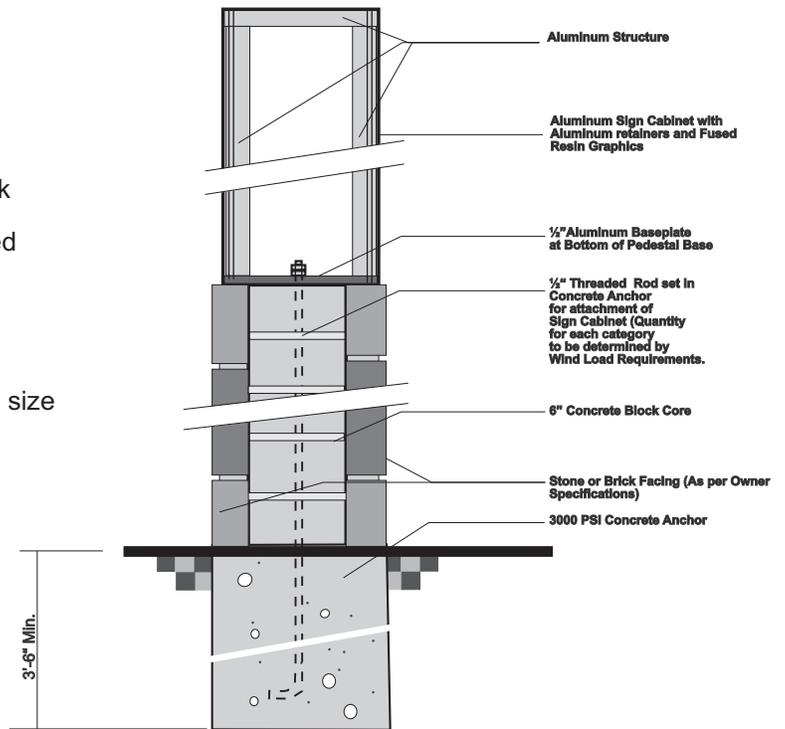
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings ST-22C and ST-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.2 Pedestrian Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>ST-22B</b>

# Stone/Brick Pylon Base

**NOTES:**

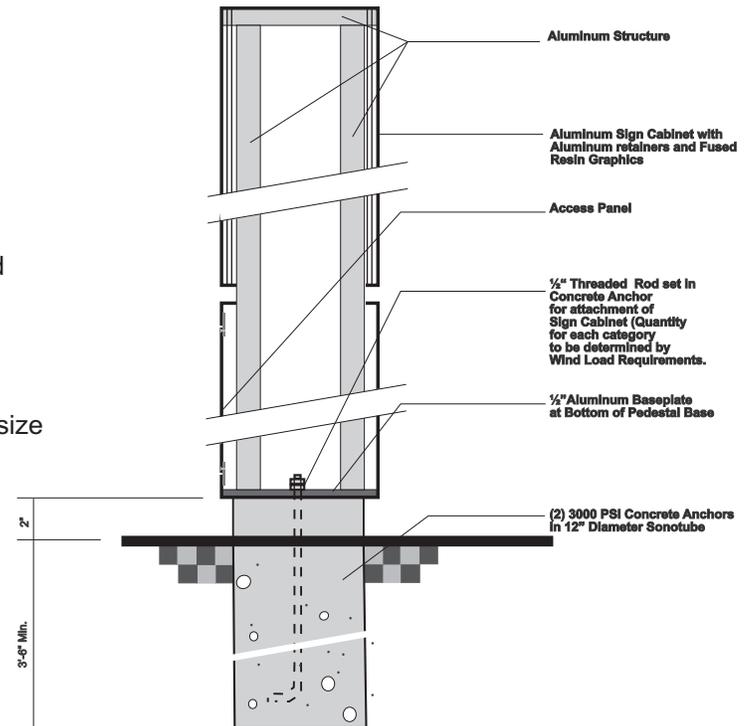
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-22D for panel construction details.



# Aluminum Pylon Base

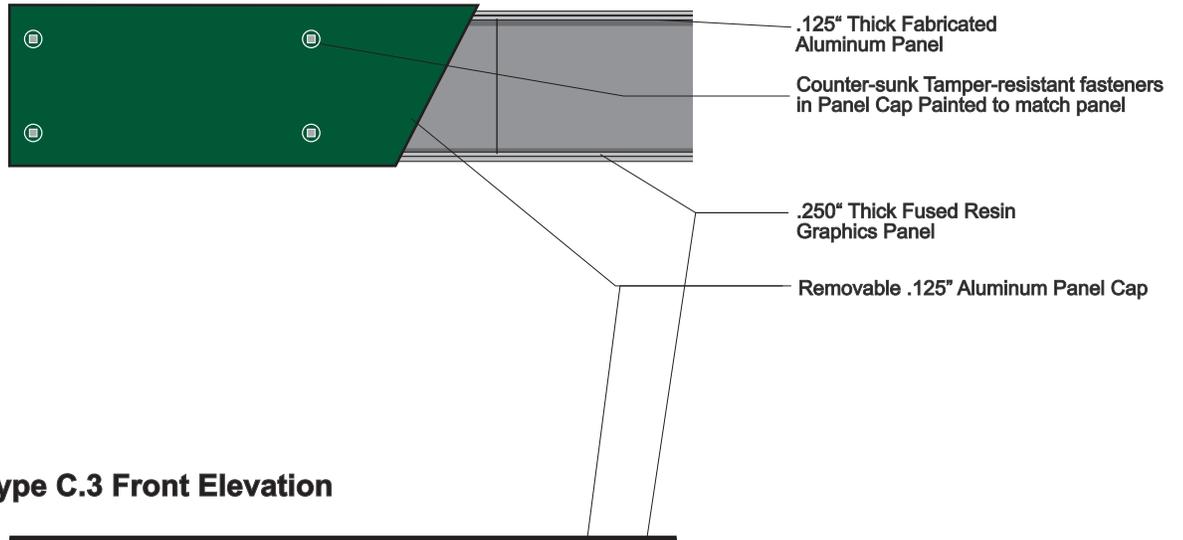
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing ST-22D for panel construction details.

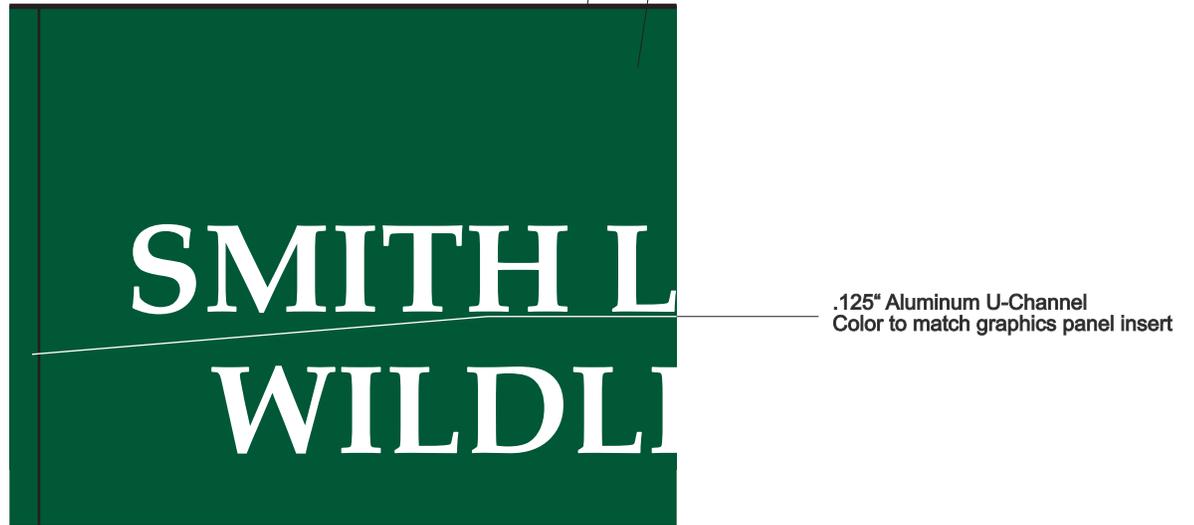


<b>Type C.3 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>ST-22C</b>

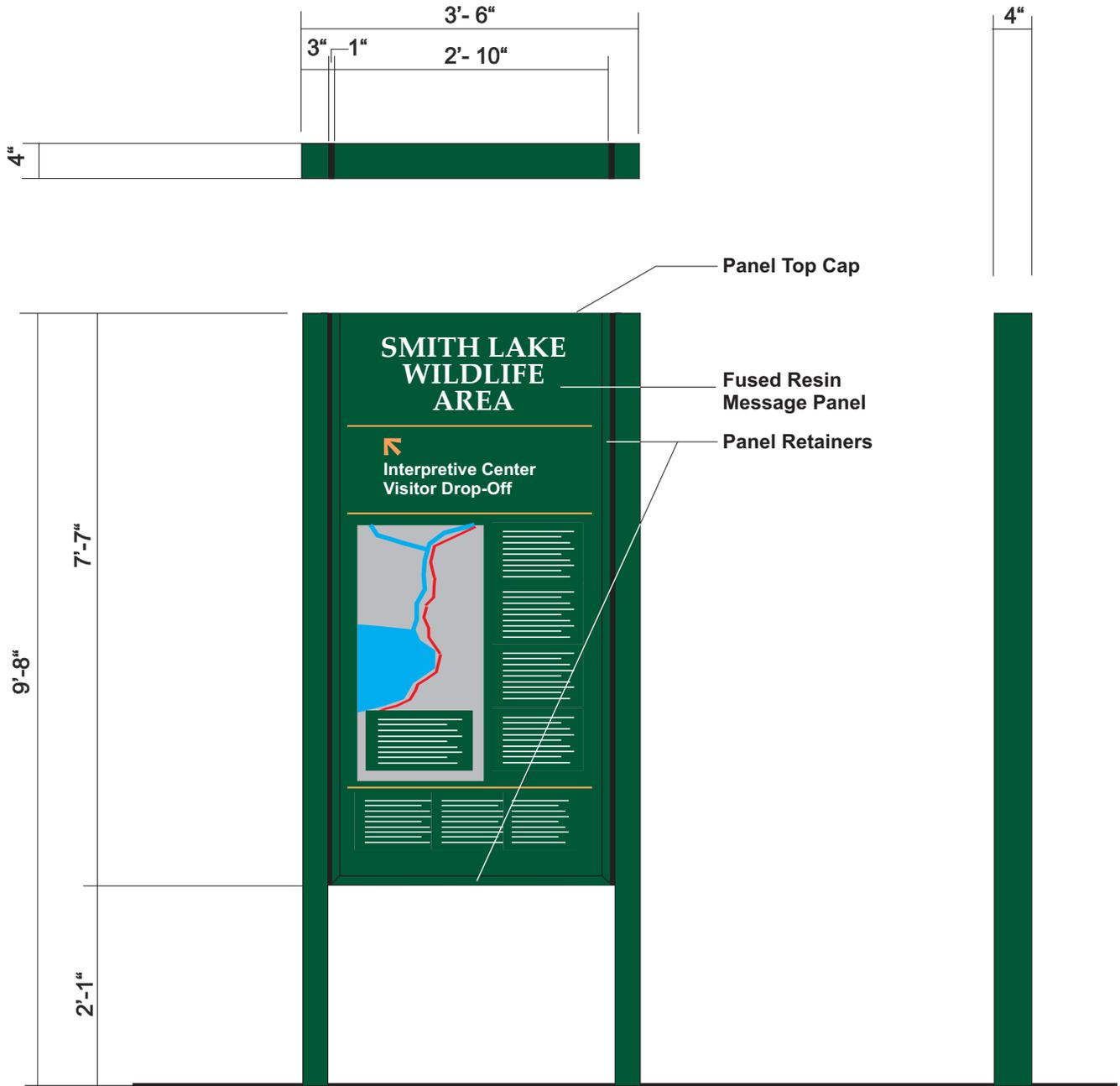
**Type C.3 Top View with  
Cut Away on Panel Cap**



**Type C.3 Front Elevation**



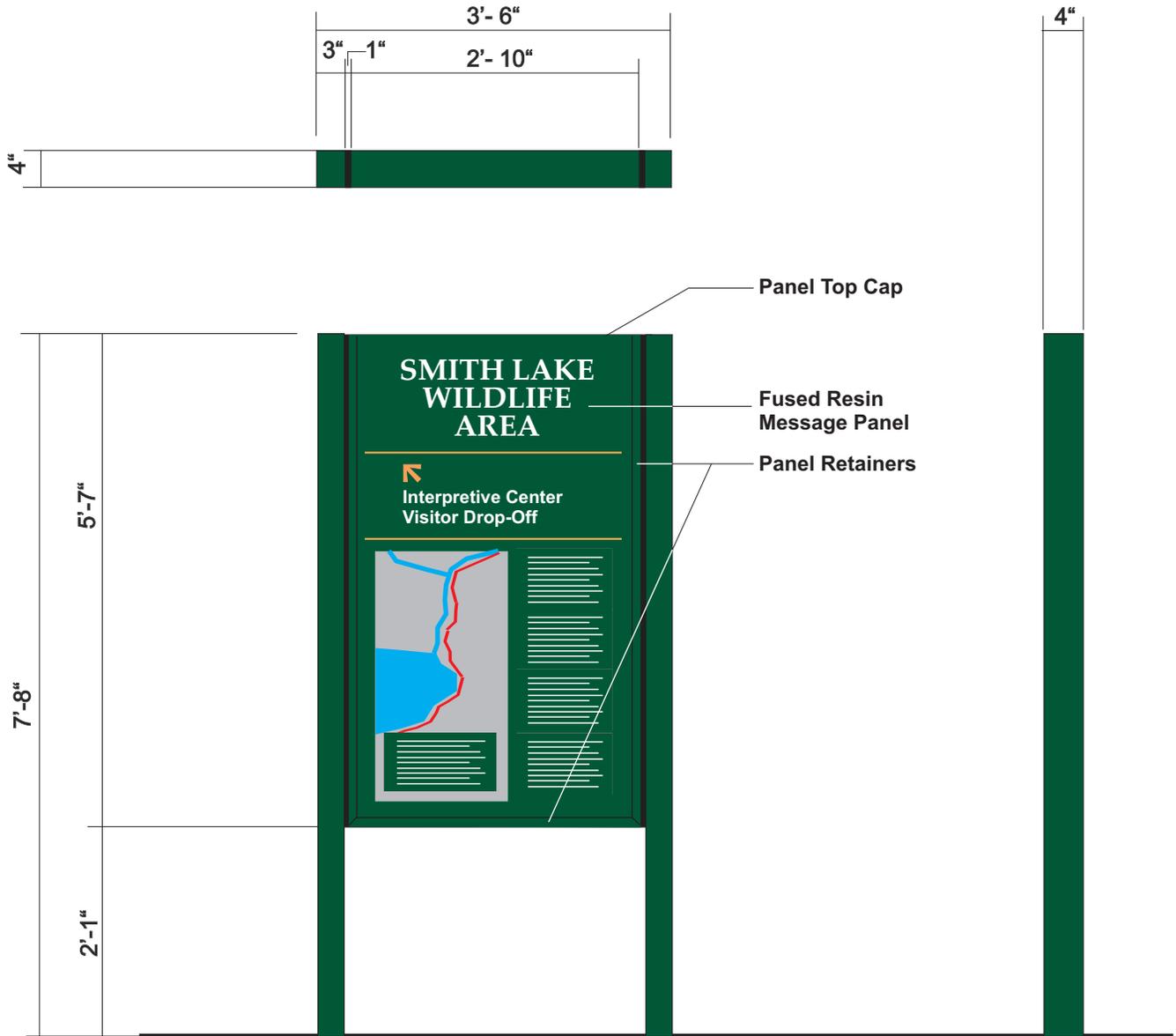
<p><b>Type C.3 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-22D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-23C and ST-23D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.4.1 Pedestrian Orientation Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-23A</b>

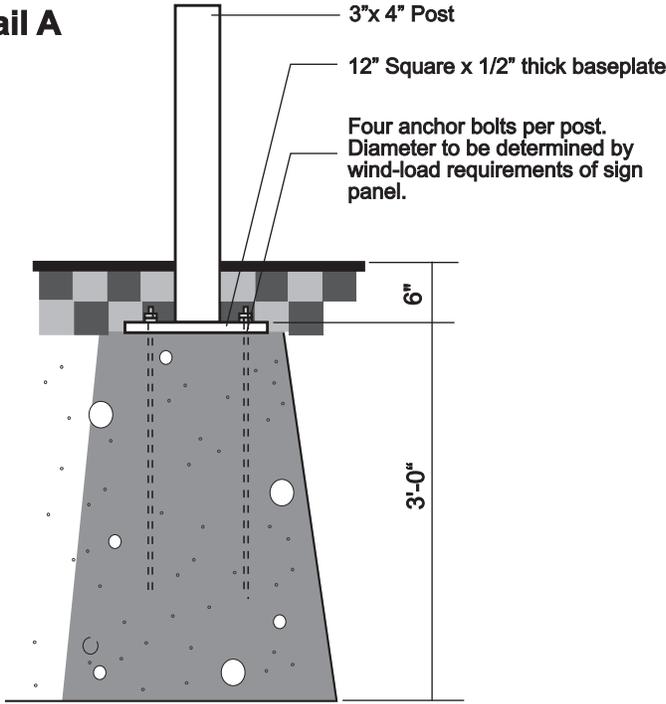


**NOTES:**

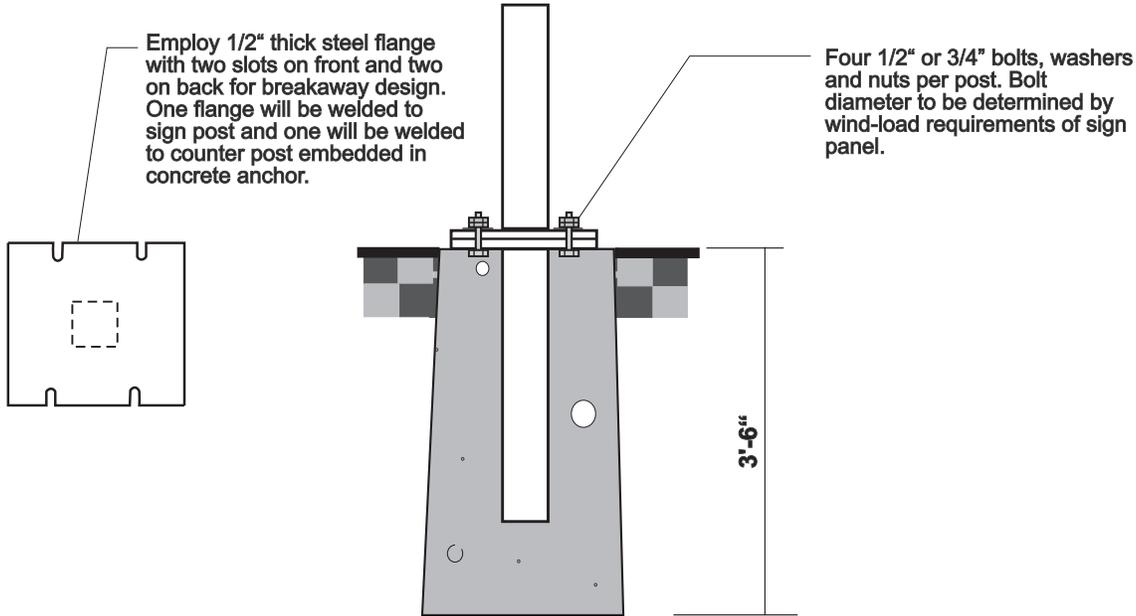
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-23C and ST-23D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.4.2 Pedestrian Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-23B</b>

**Installation Detail A**



**Installation Detail B**



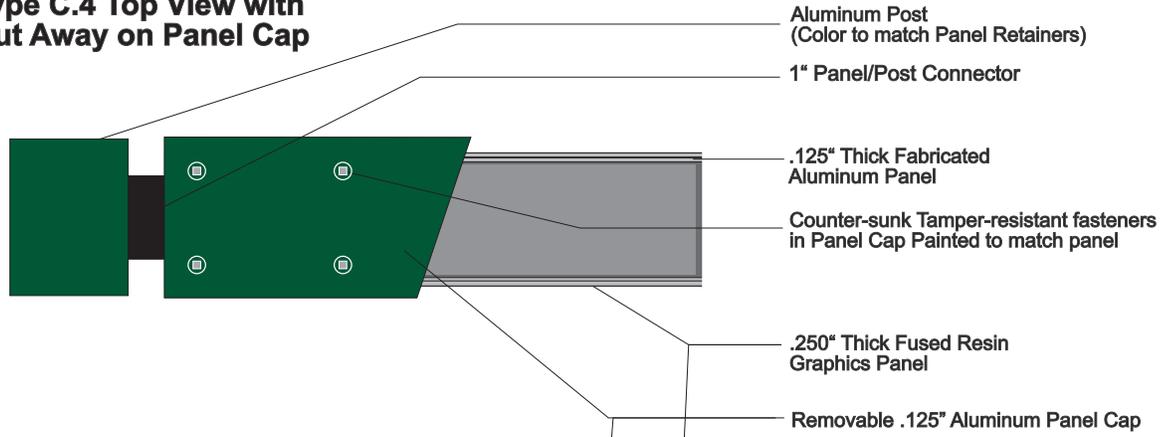
**Foundation Detail**

NOTES:

1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.4 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-23C</b>

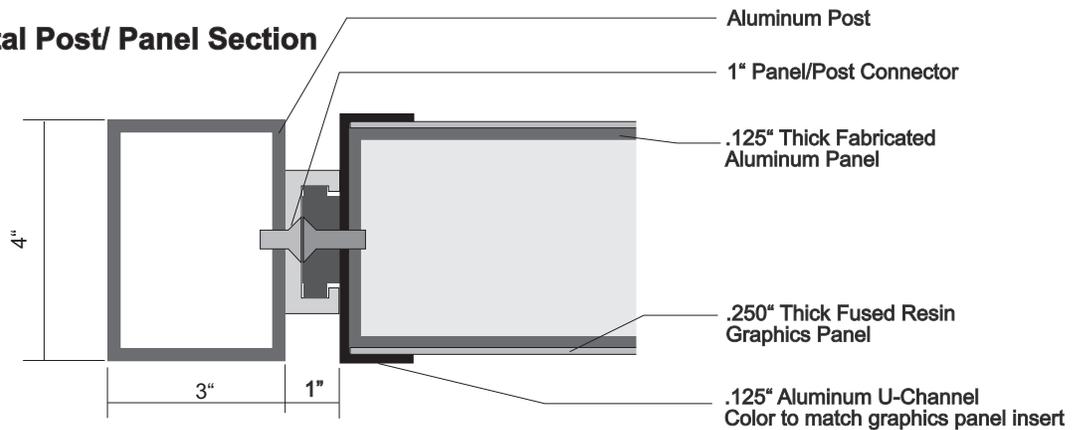
**Type C.4 Top View with Cut Away on Panel Cap**



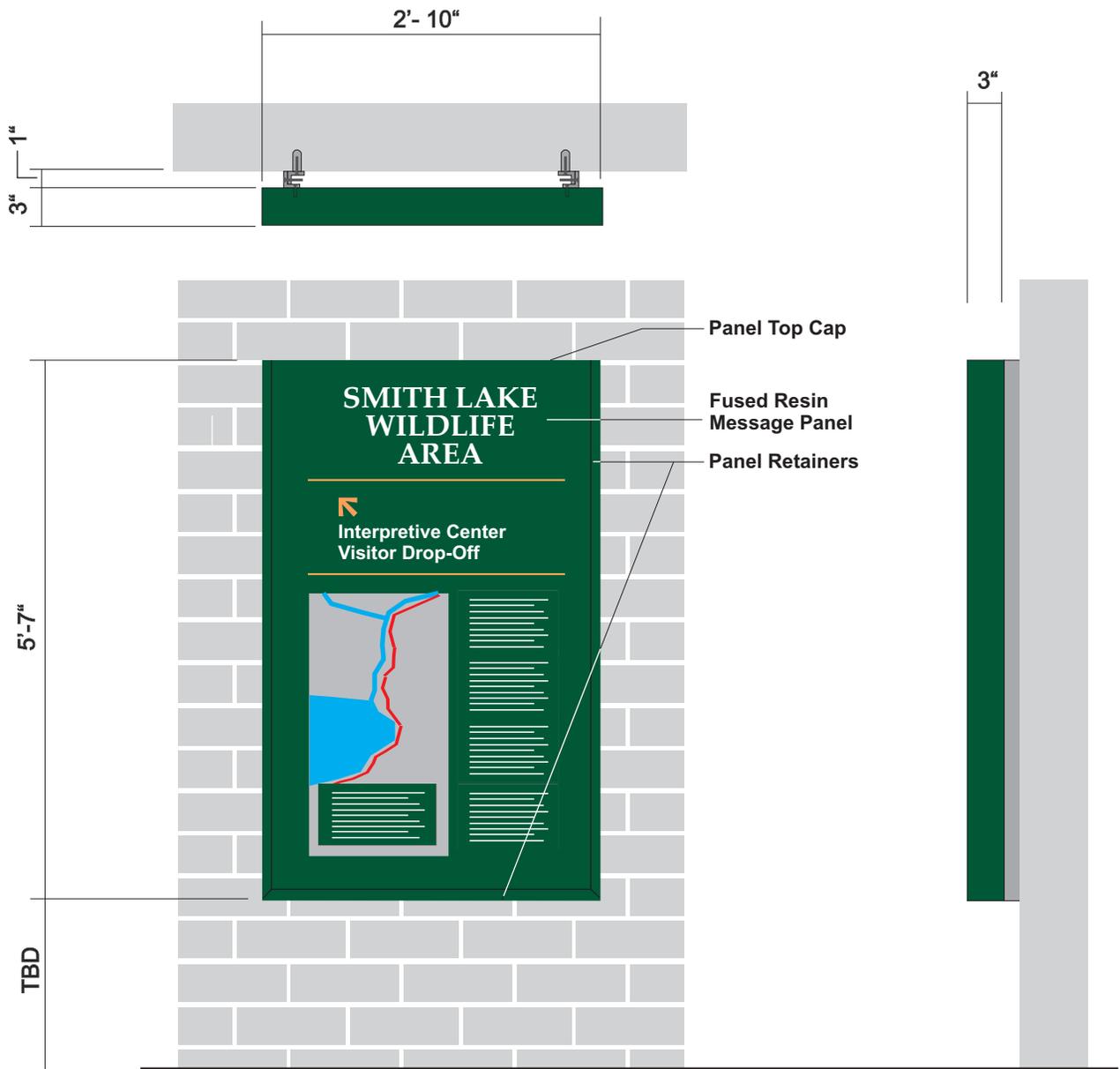
**Type C.4 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type C.4 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>ST-23D</b>

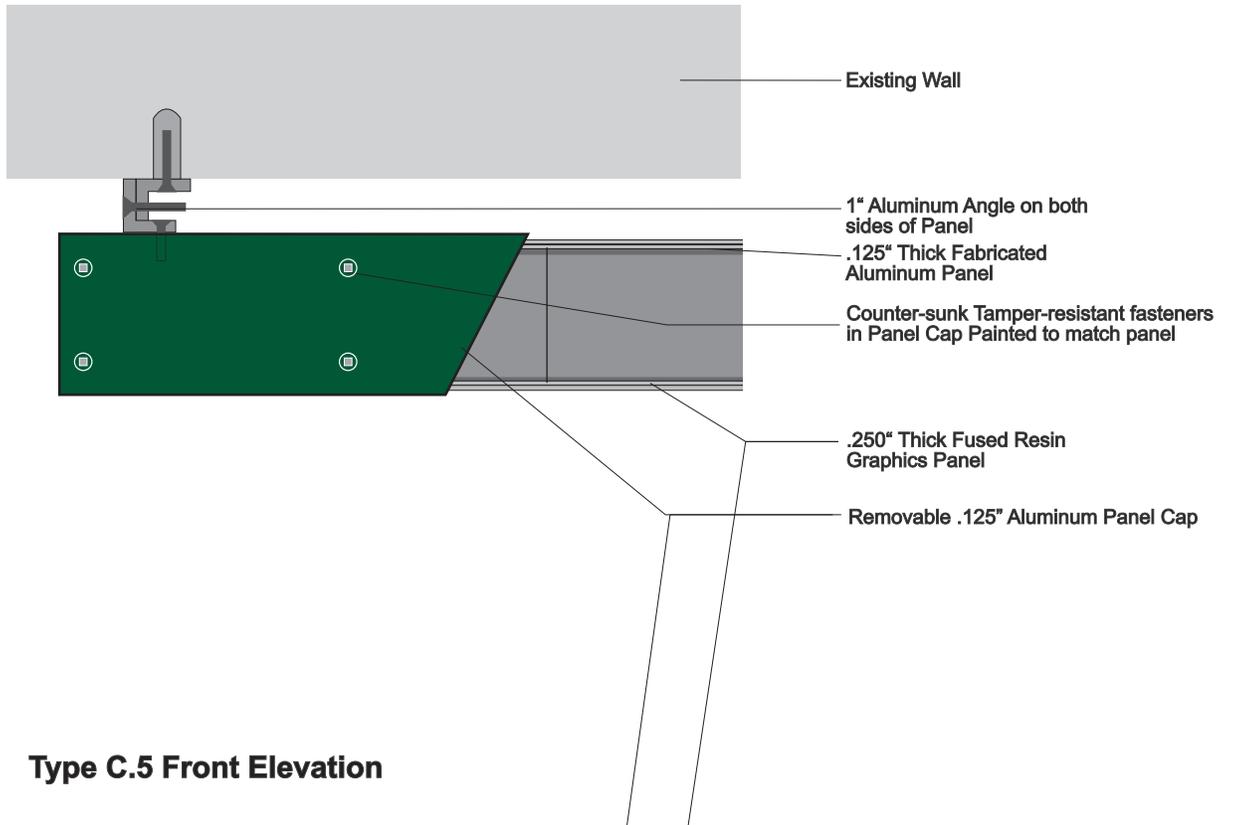


NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-24B for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type C.5.1 Pedestrian Orientation Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-24A</b>

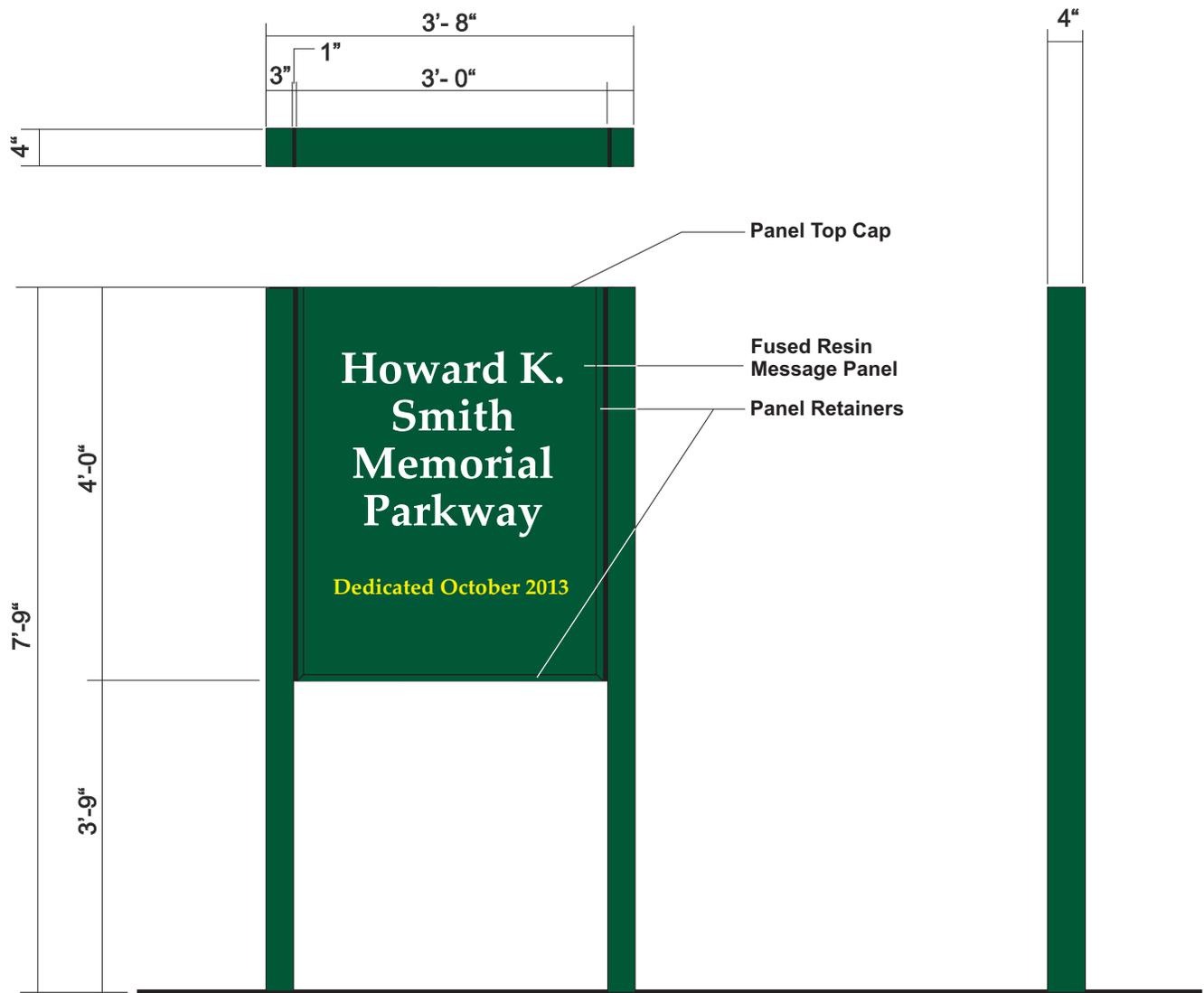
**Type C.5 Top View with  
Cut Away on Panel Cap**



**Type C.5 Front Elevation**



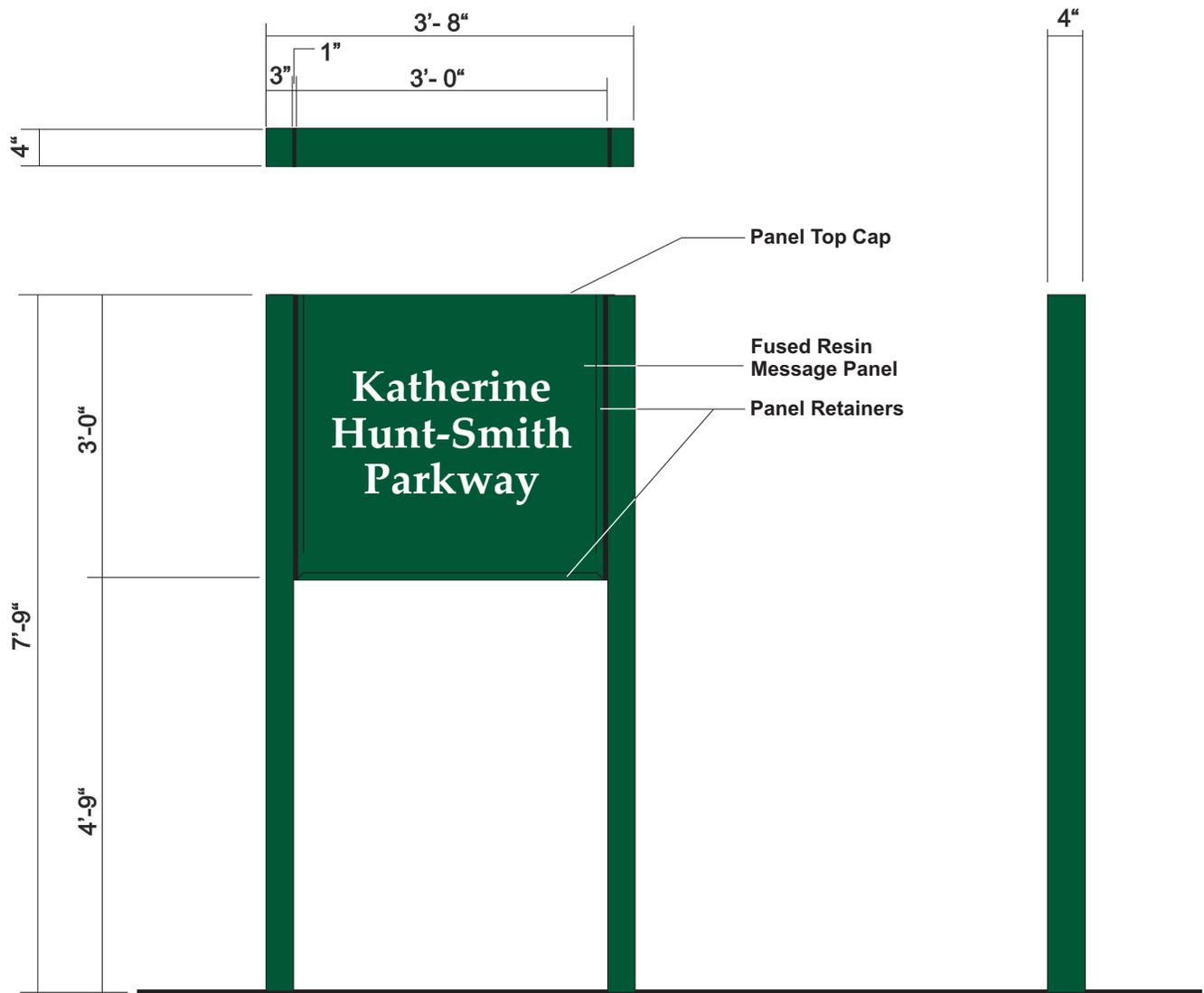
<p><b>Type C.5 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-24B</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings ST-30C and ST-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.1 Vehicular Commemorative Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-30A</b>

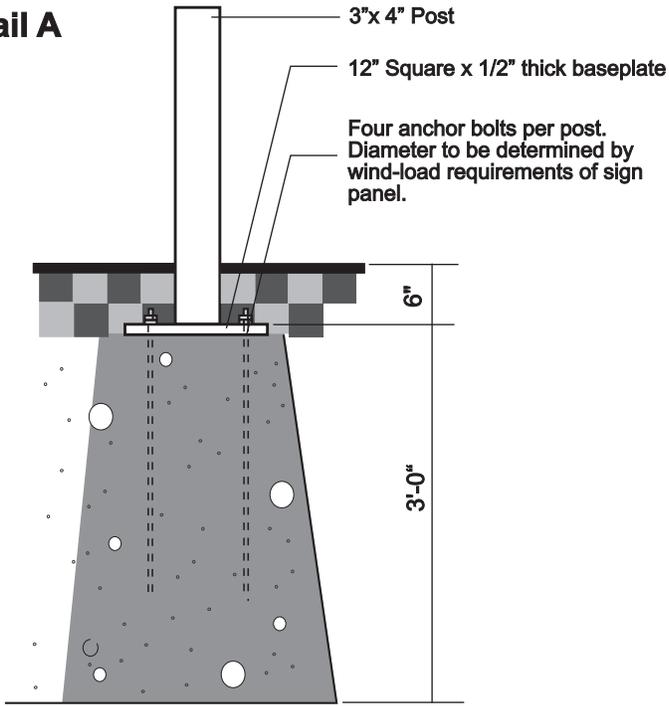


**NOTES:**

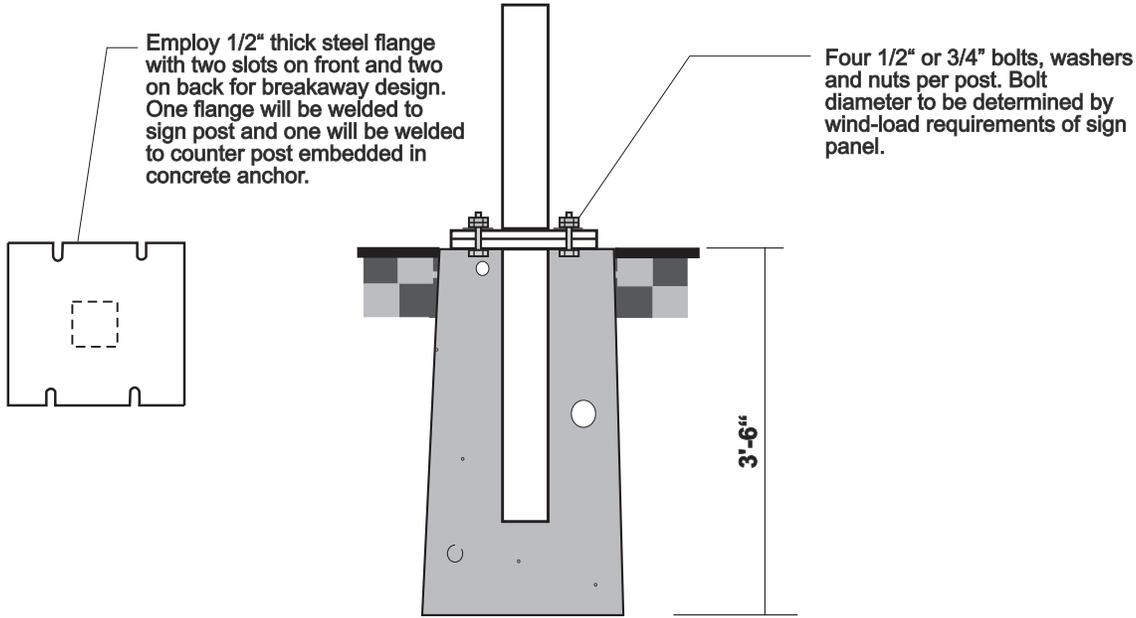
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings ST-30C and ST-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.2 Vehicular Commemorative Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-30B</b>

**Installation Detail A**



**Installation Detail B**



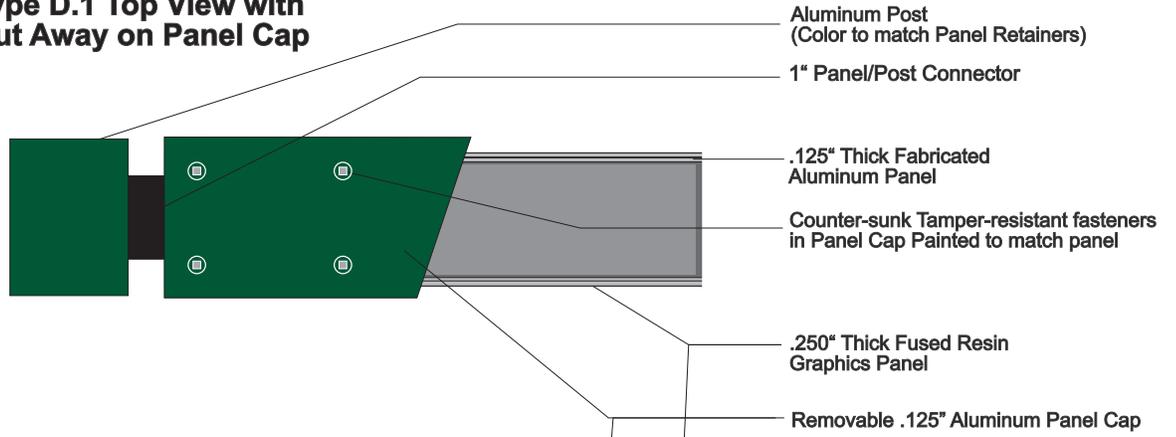
**Foundation Detail**

NOTES:

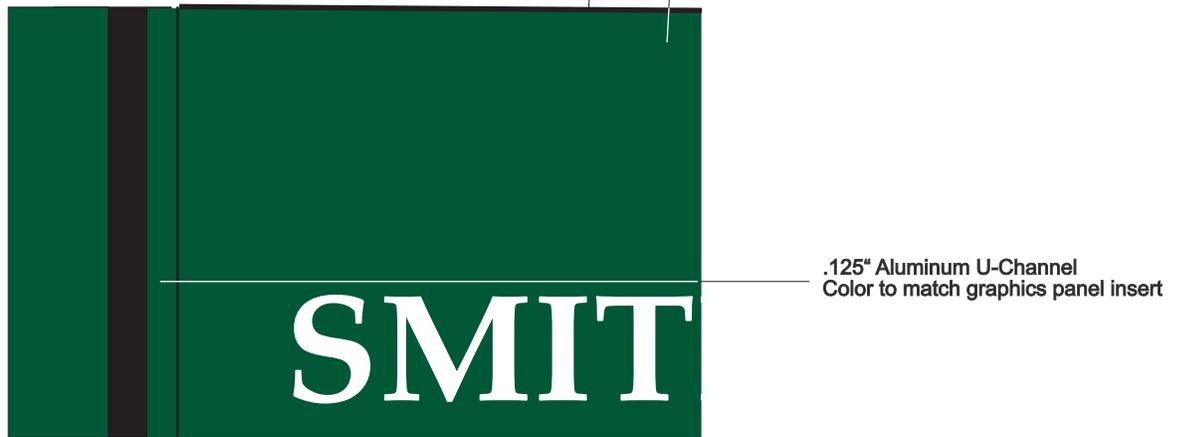
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.1 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-30C</b>

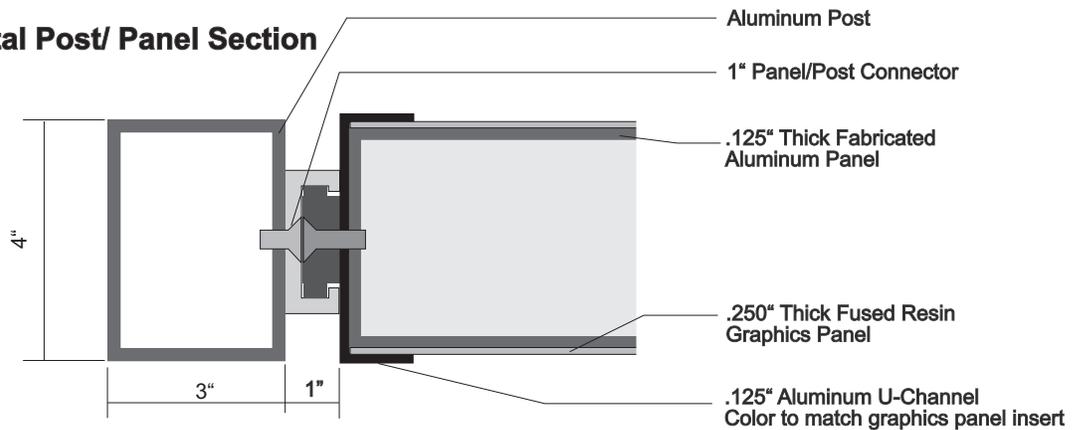
**Type D.1 Top View with Cut Away on Panel Cap**



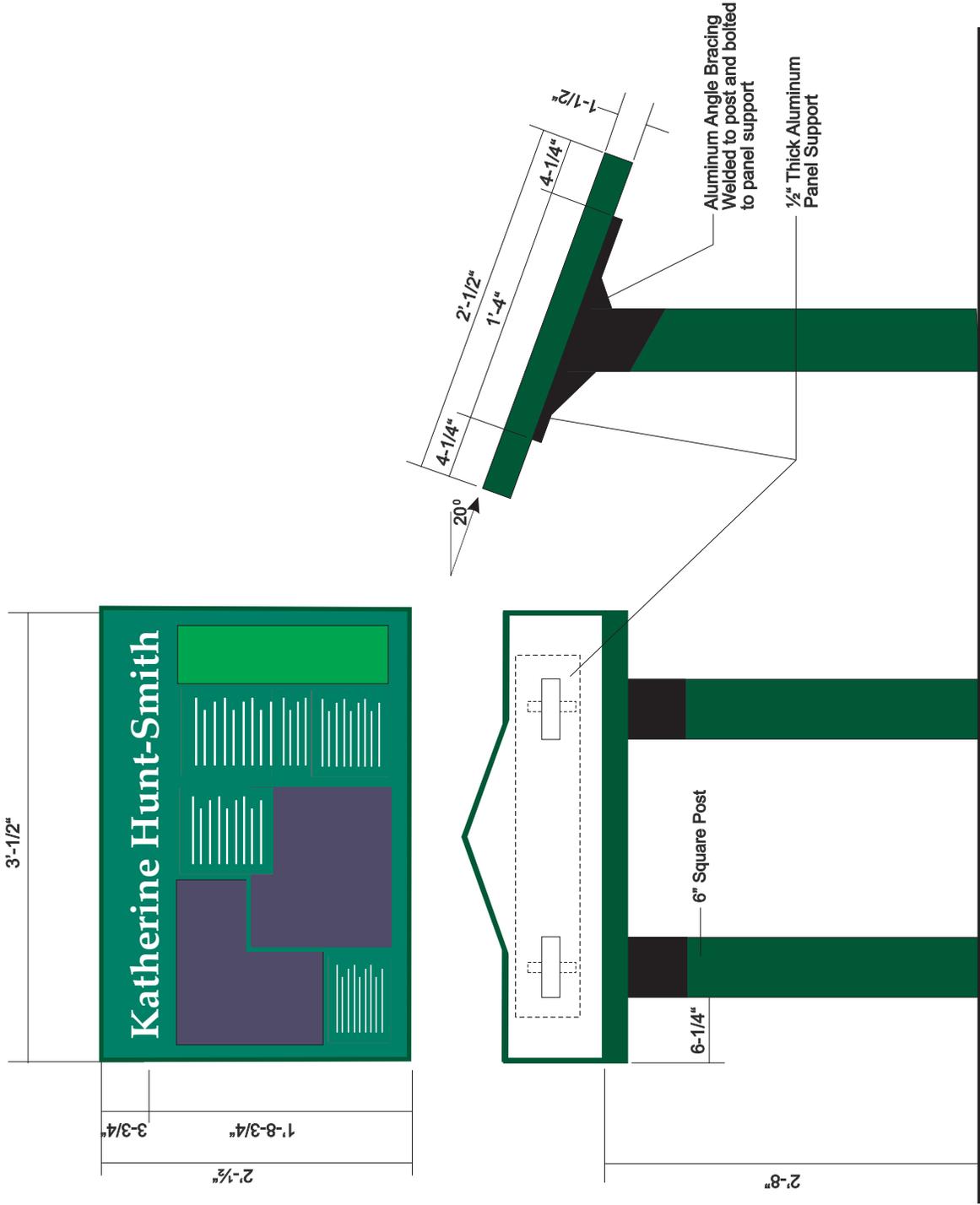
**Type D.1 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type D.1 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>ST-30D</b>

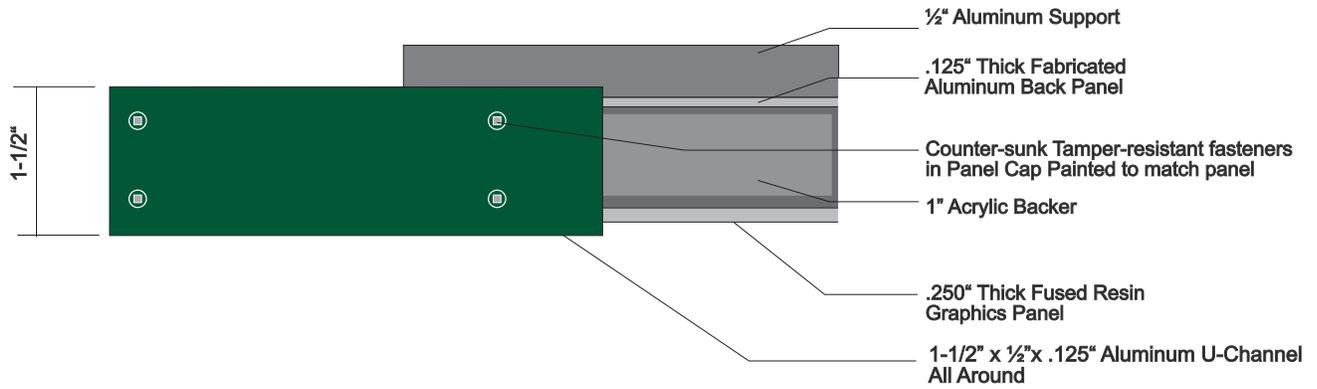


**NOTES:**

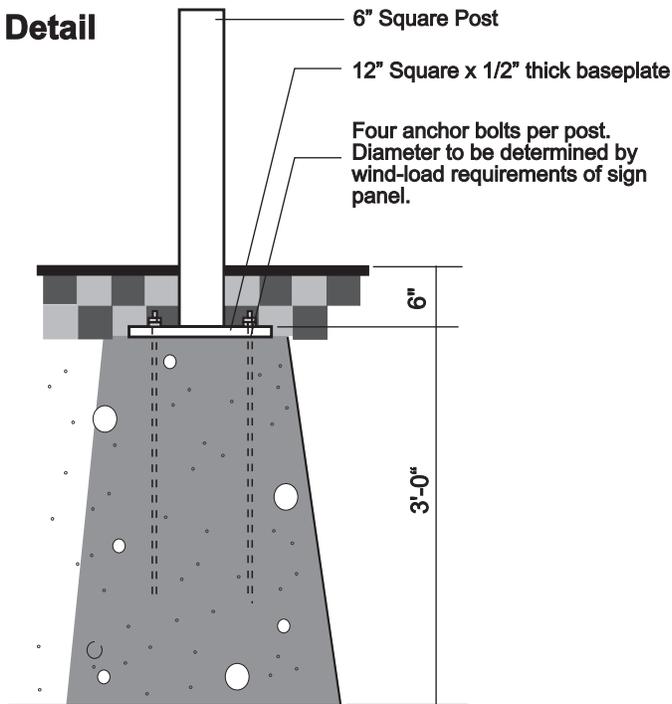
1. Fabrication will include aluminum box panel core, Fused Resin interpretive panels and aluminum posts.  
Art for graphics graphics will be furnished by Owner.
2. Fused Resin Graphics Panel to be 24" by 36".
3. See Drawing ST-31B for construction and installation details.

<p><b>Type D.2.1 Interpretive/ Commemorative Post and Panel</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-31A</b></p>

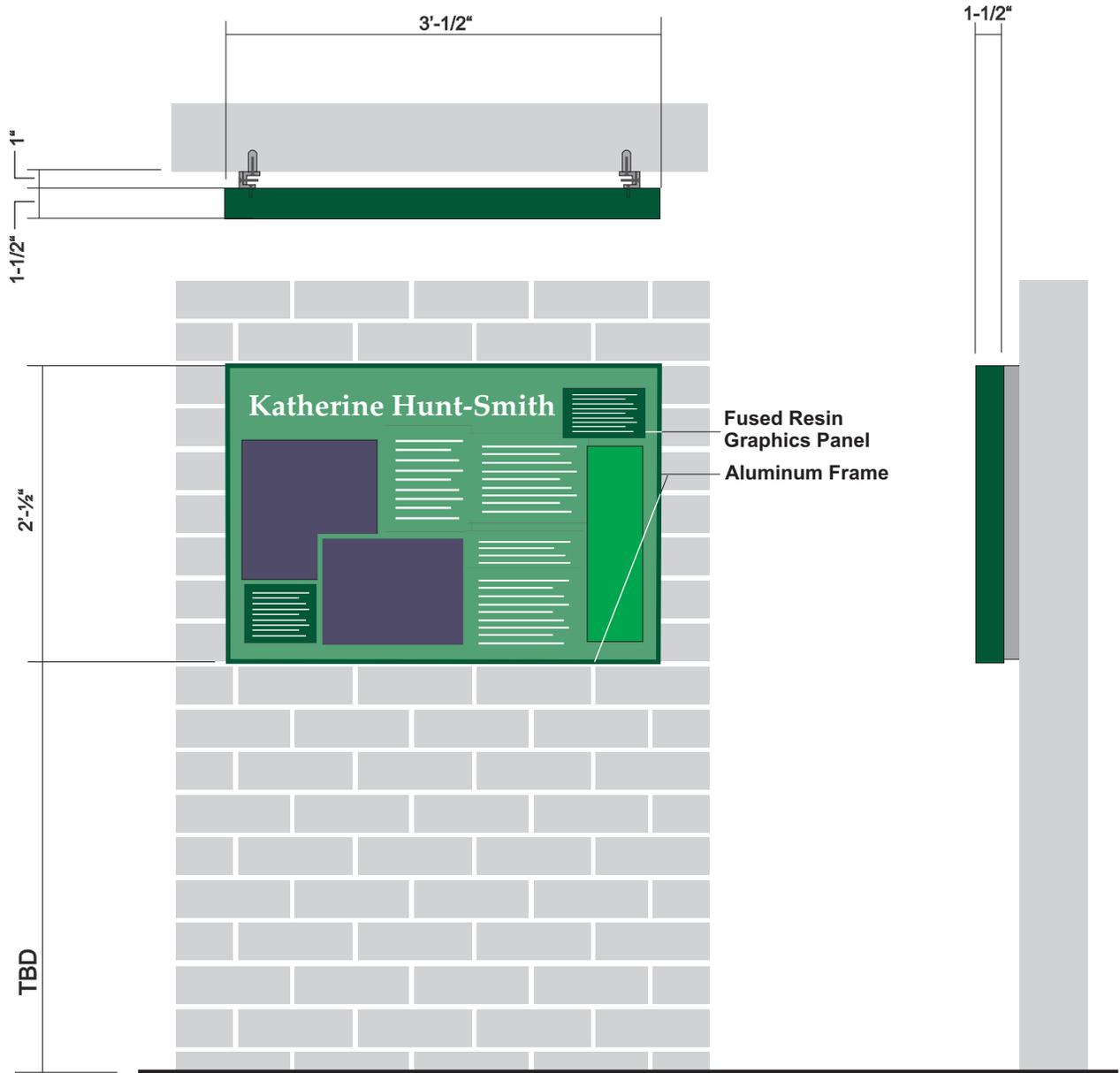
**Type D.2.1 Top View with  
Cut Away on Panel Cap**



**Installation Detail**



<p><b>Type D.2.1 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-31B</b></p>

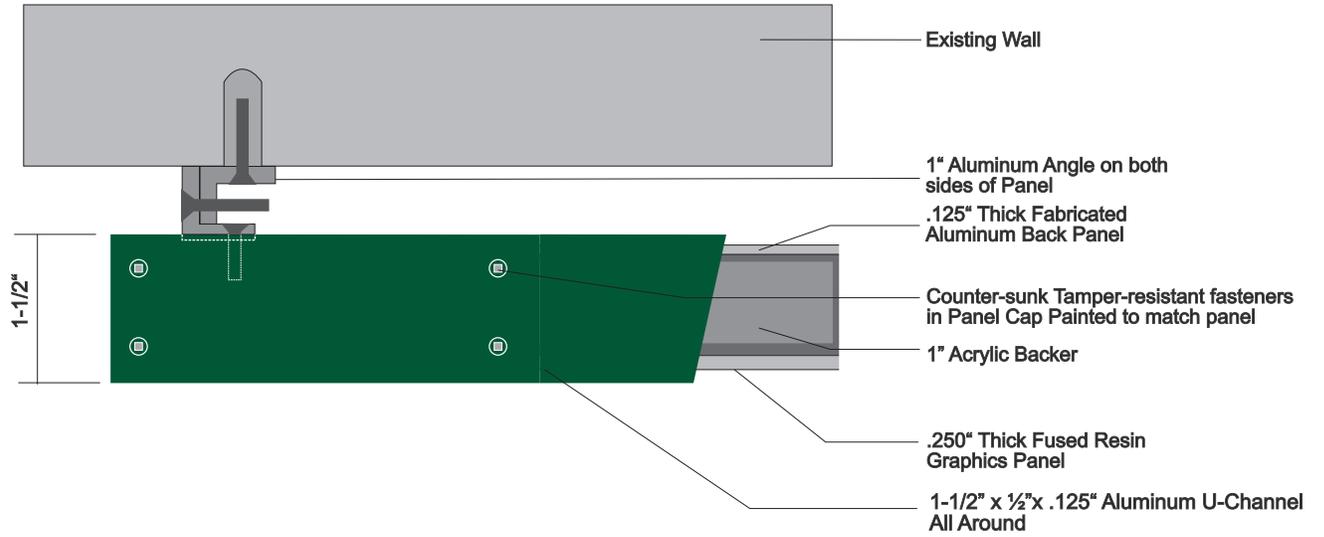


**NOTES:**

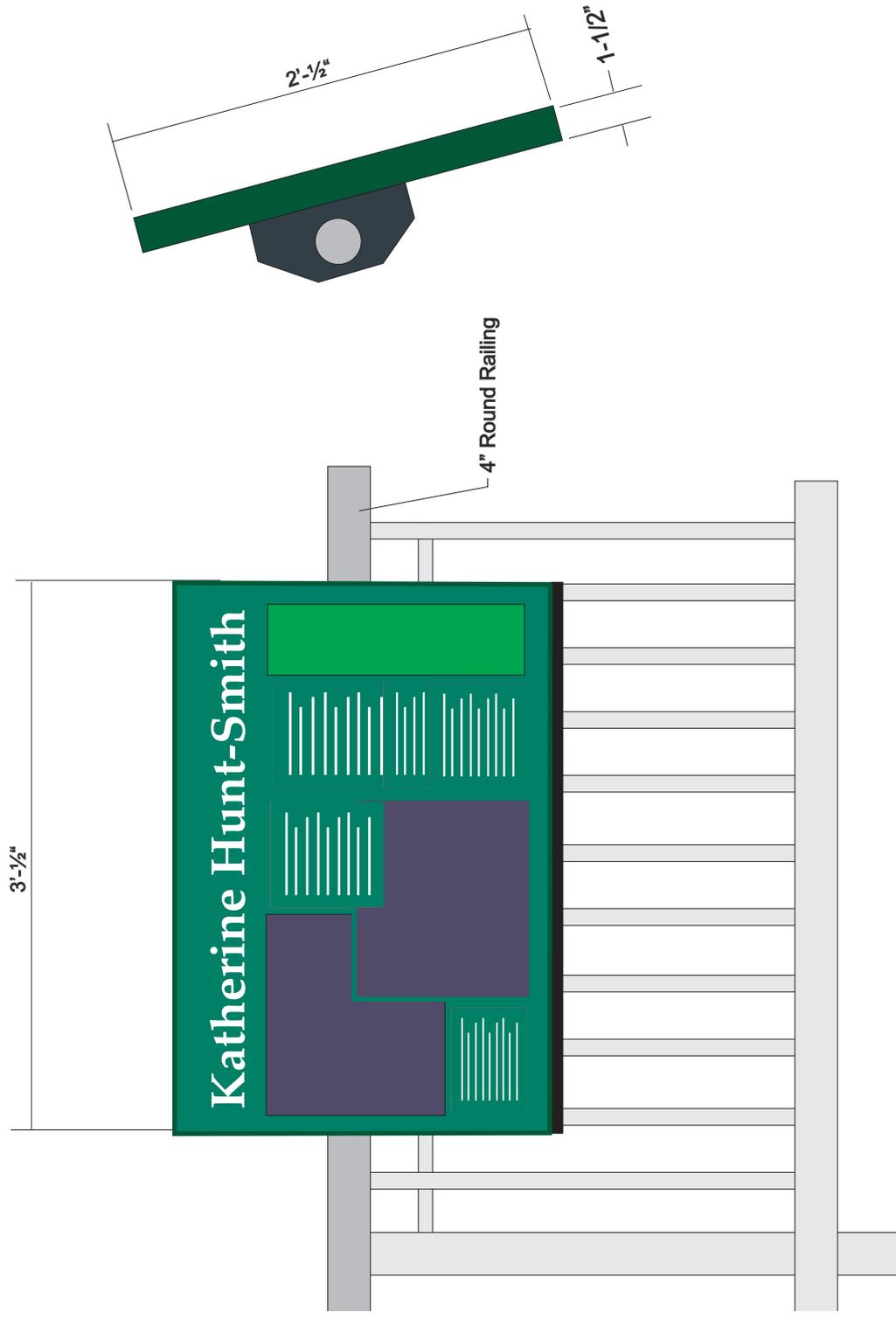
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with aluminum angle brackets on both sides of panel.
3. Fused Resin Graphics Panel to be 24" by 36".
4. See Drawing ST-32B for construction and installation details.
5. Art for graphics panel will be provided by Owner.

<b>Type D.3.1 Interpretive/ Commemorative Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-32A</b>

**Type D.3 Top View with  
Cut Away on Panel Cap**



<p><b>Type D.3 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-32B</b></p>

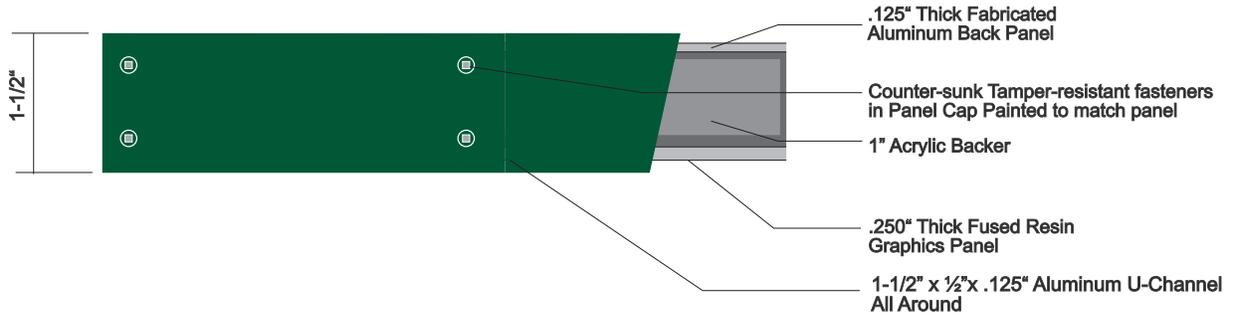


**NOTES:**

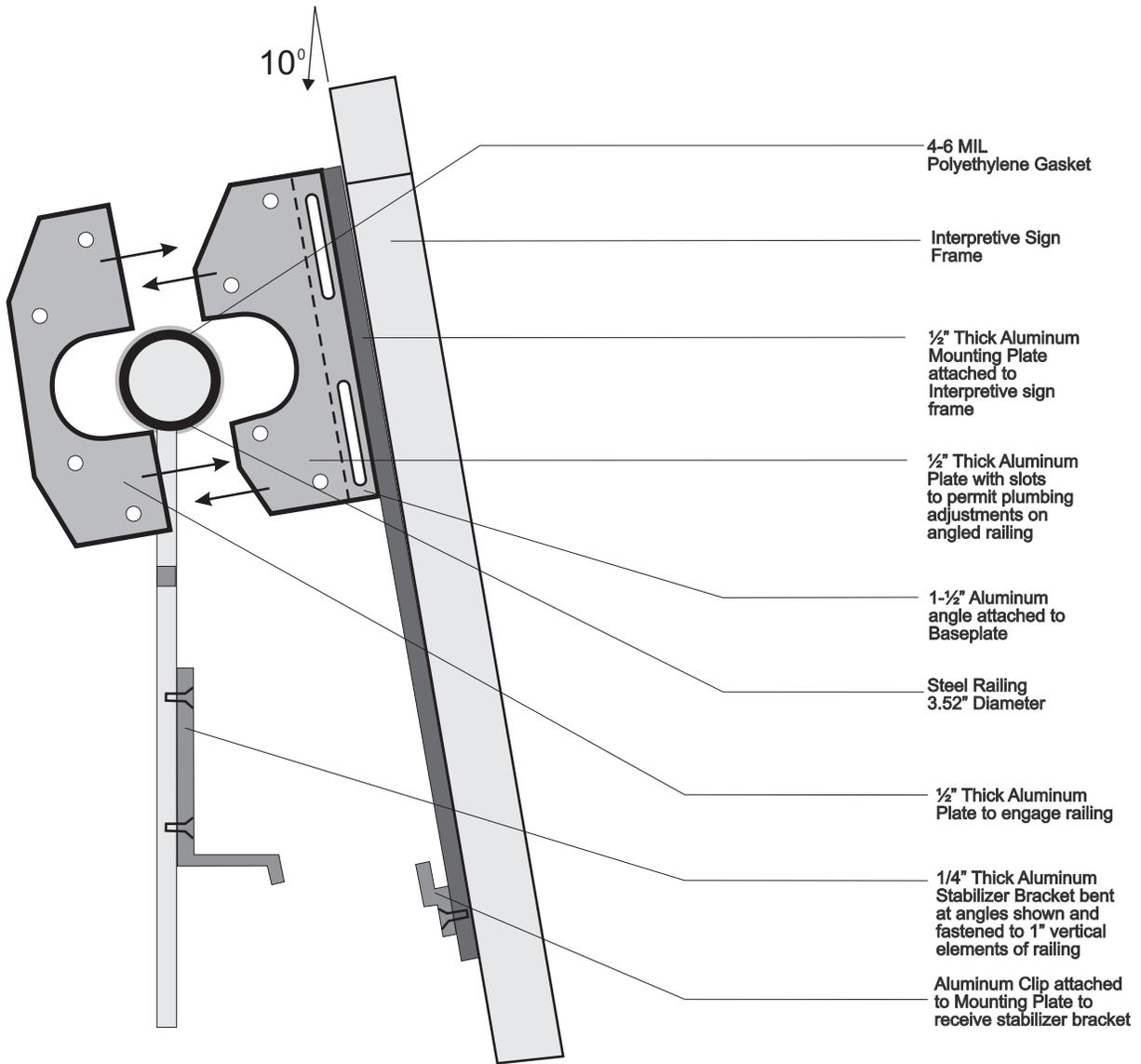
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with hardware as shown on Drawing ST-33B.
3. Fused Resin Graphics Panel to be 24" by 36".
4. All visible brackets and hardware to be painted to match frame
5. Art for graphics panel will be provided by Owner.

<p><b>Type D.4.1 Interpretive/ Commemorative Railing Mount</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-33A</b></p>

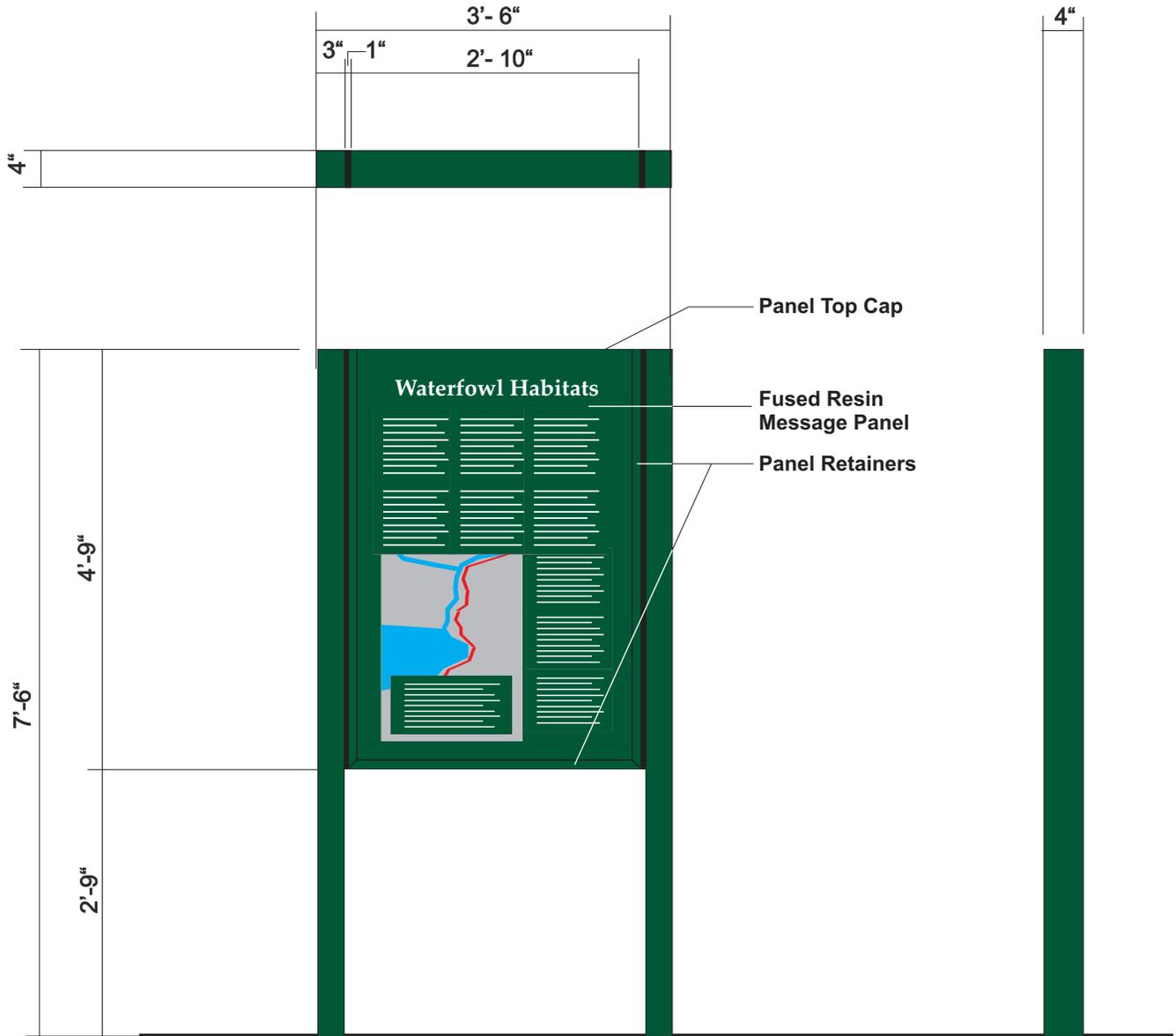
**Type D.4 Top View with  
Cut Away on Panel Cap**



**Type D.4 Section**



<p><b>Type D.4 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-33B</b></p>

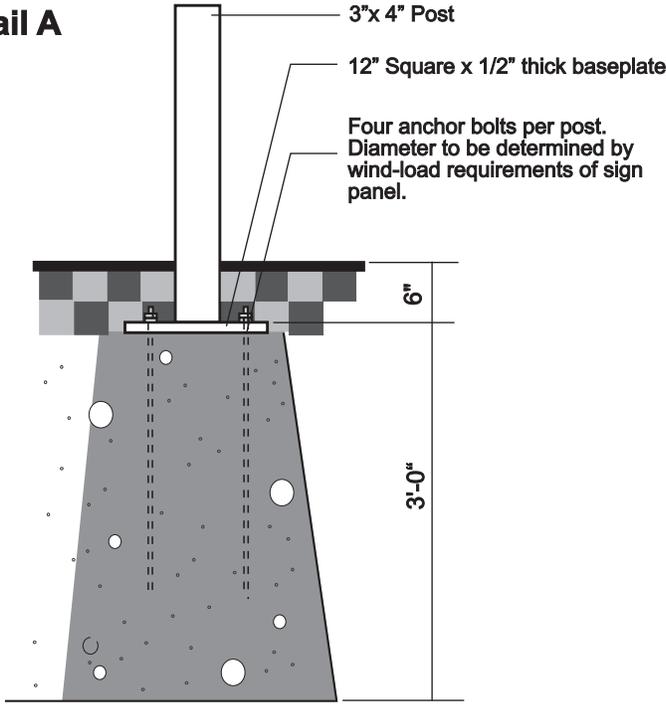


**NOTES:**

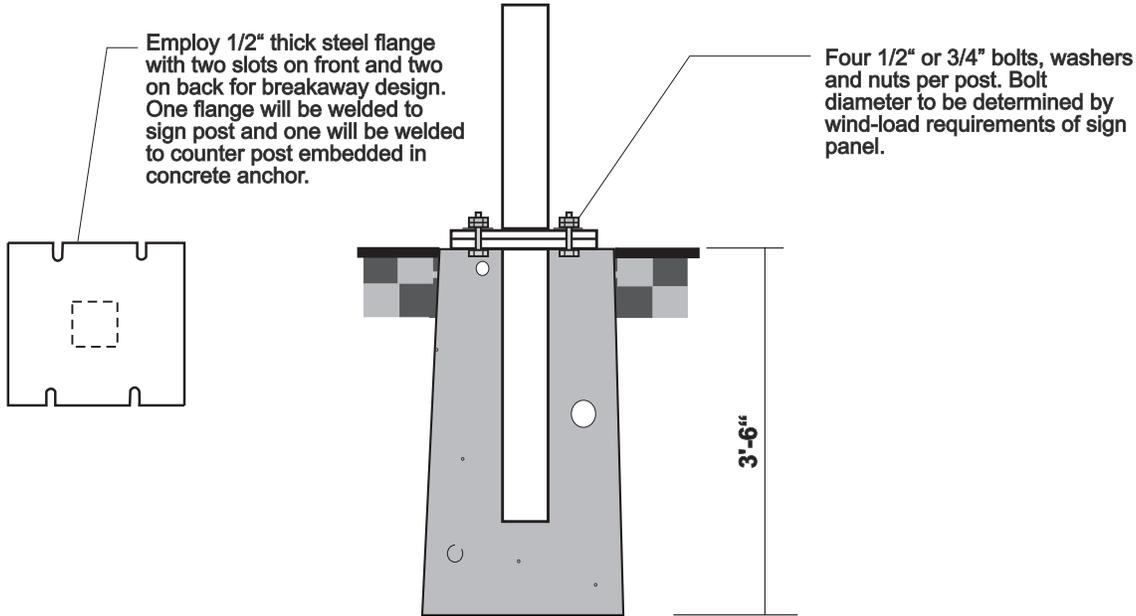
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-34B and ST-34C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type D.5.1 Interpretive Storyboard Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>ST-34A</b>

**Installation Detail A**



**Installation Detail B**



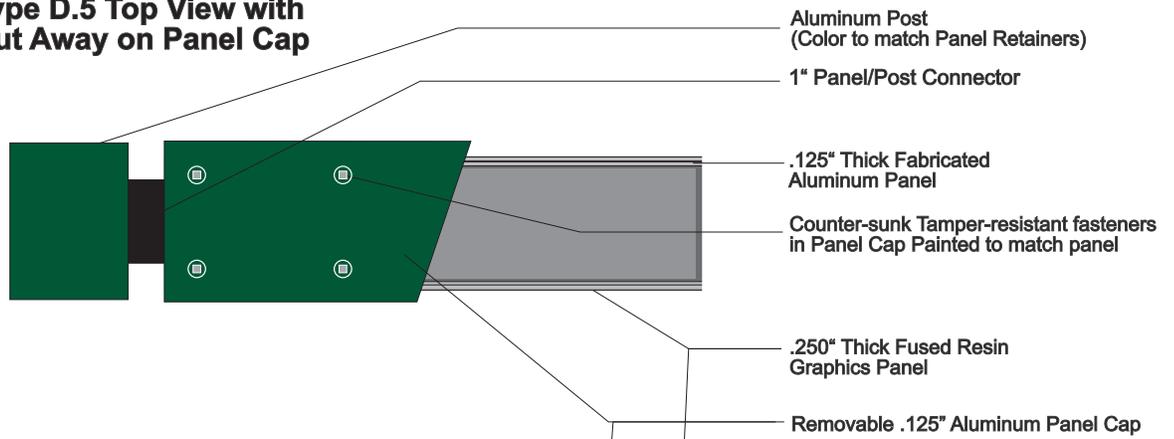
**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.5 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-34B</b>

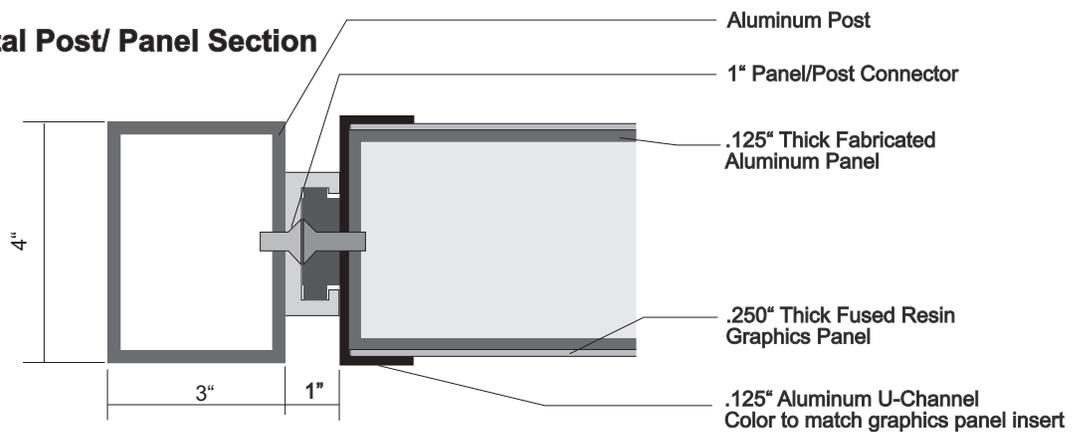
**Type D.5 Top View with Cut Away on Panel Cap**



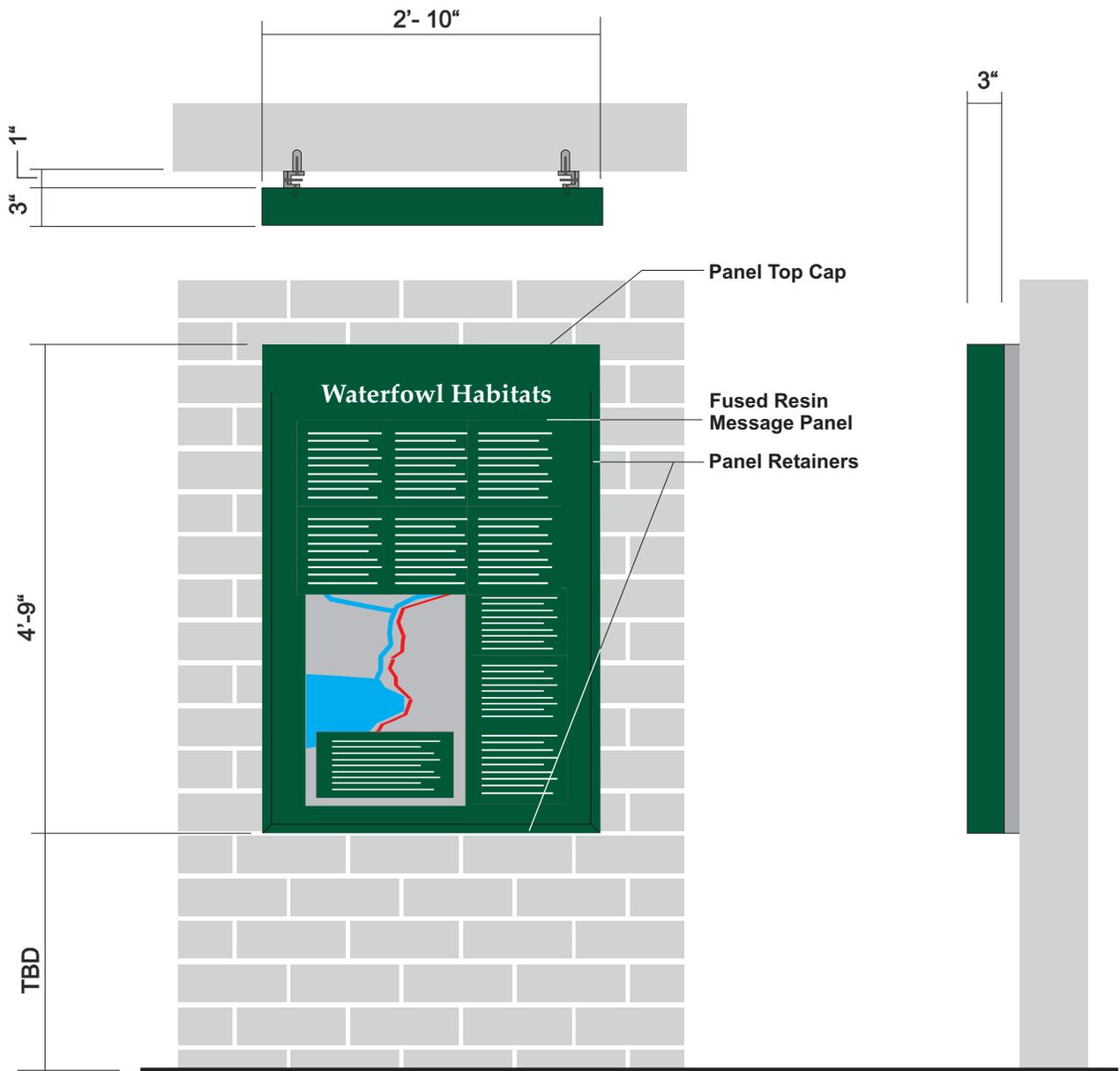
**Type D.5 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type D.5 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>ST-34C</b>

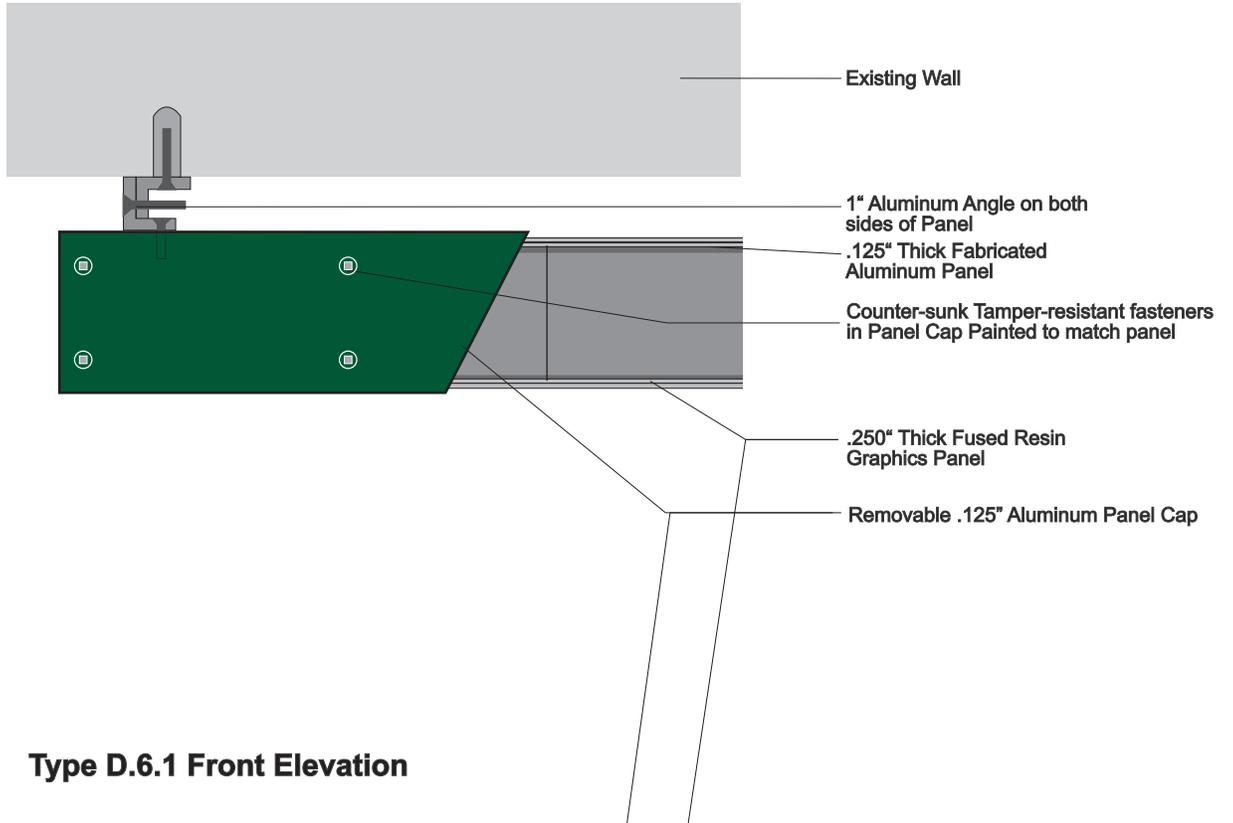


**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-35B for construction and installation details.
2. Owner will provide art on disk for graphics.
3. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type D.6.1 Interpretive Storyboard Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-35A</b>

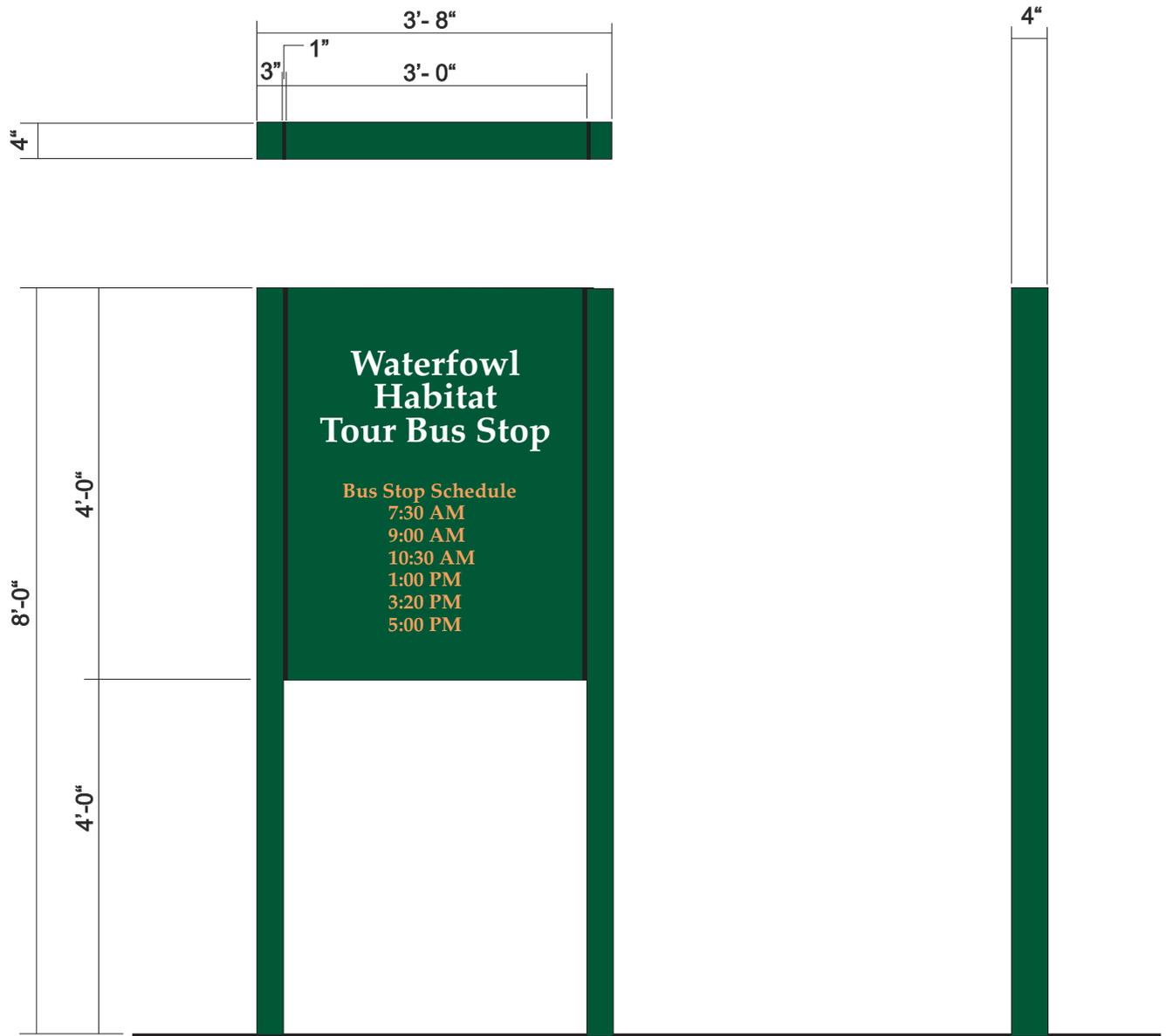
**Type D.6.1 Top View with  
Cut Away on Panel Cap**



**Type D.6.1 Front Elevation**



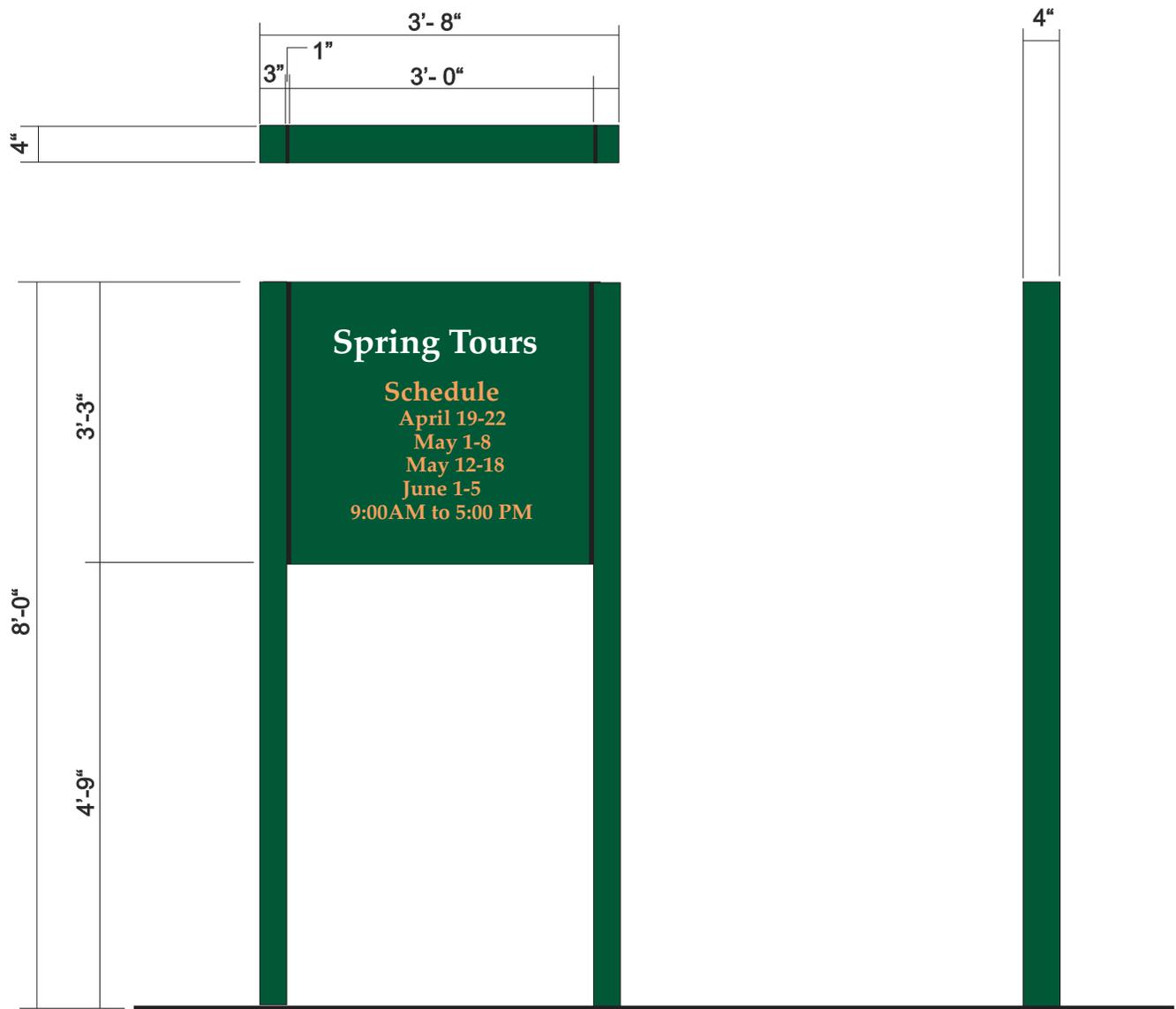
<p><b>Type D.6.1 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-35B</b></p>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-40C for construction and installation details.

<b>Type E.1.1 Vehicular Informational Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>ST-40A</b>

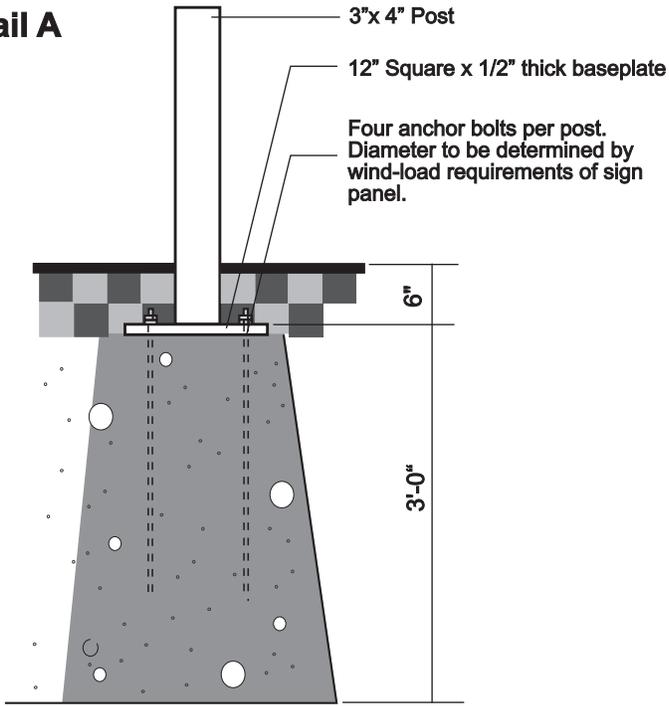


**NOTES:**

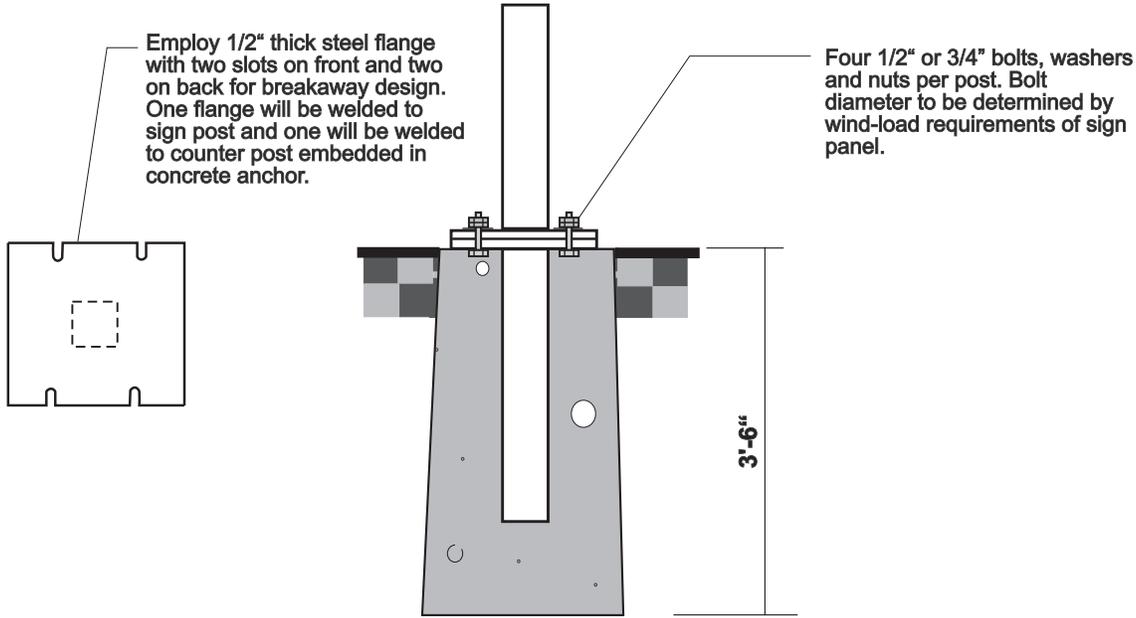
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing ST-40C for construction and installation details.

<b>Type E.1.2 Vehicular Informational Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>ST-40B</b>

**Installation Detail A**



**Installation Detail B**

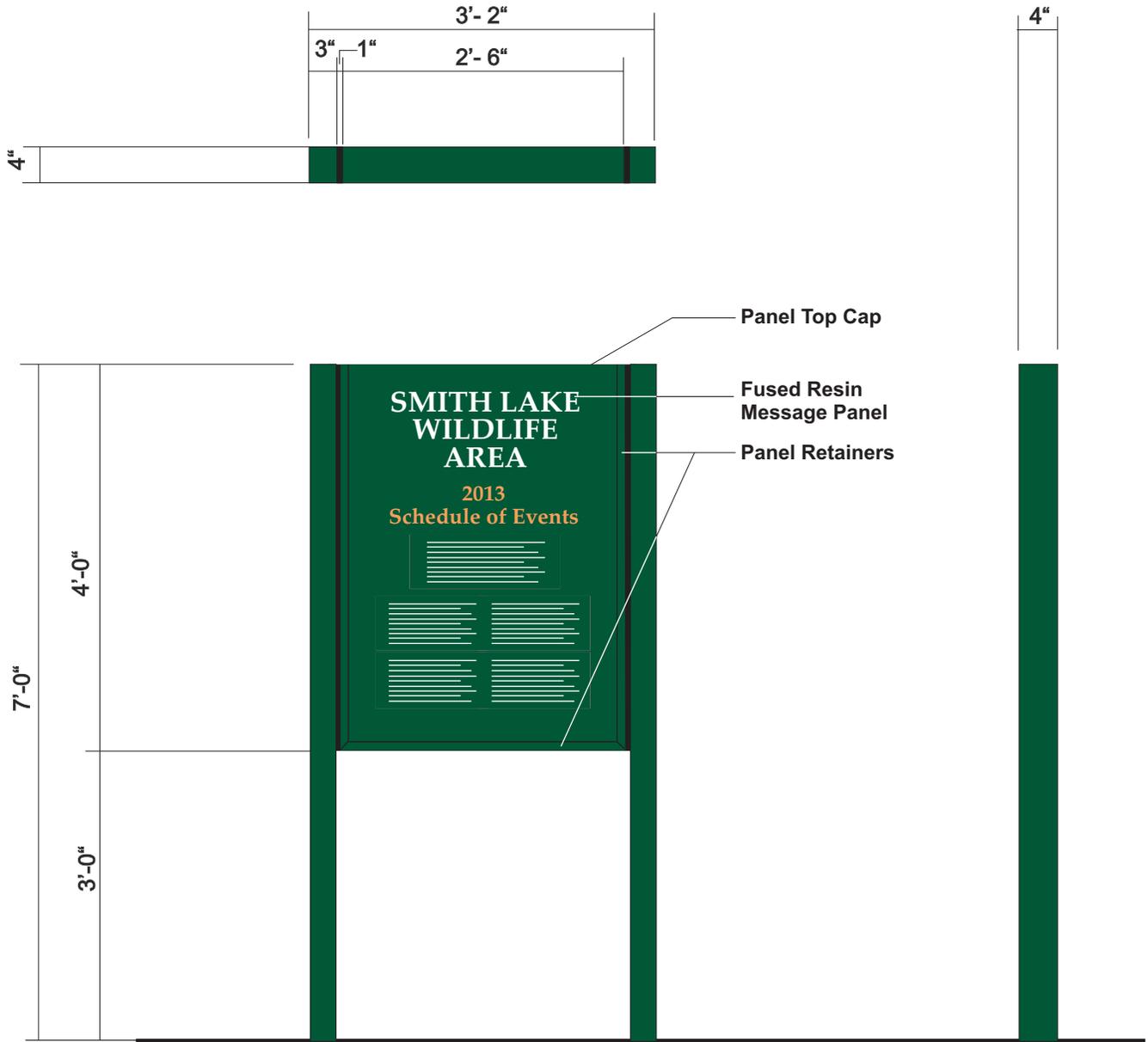


**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.1 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>ST-40C</b>

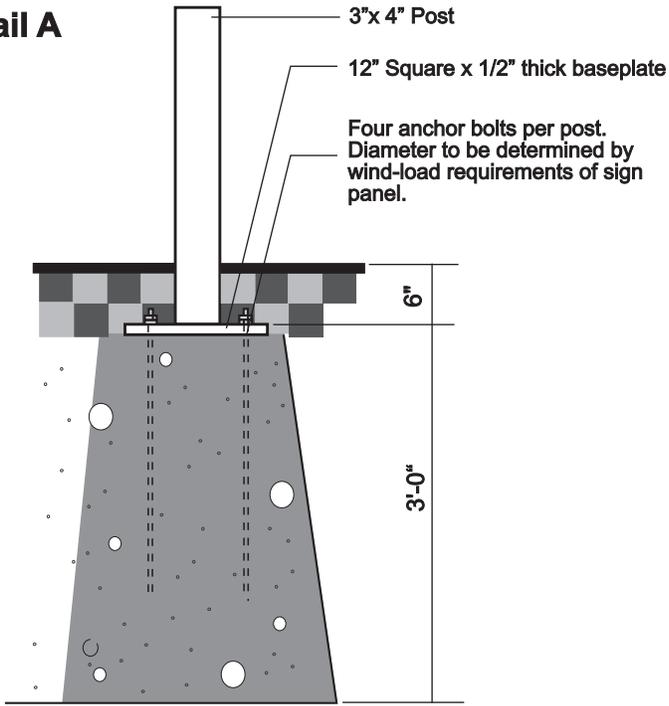


**NOTES:**

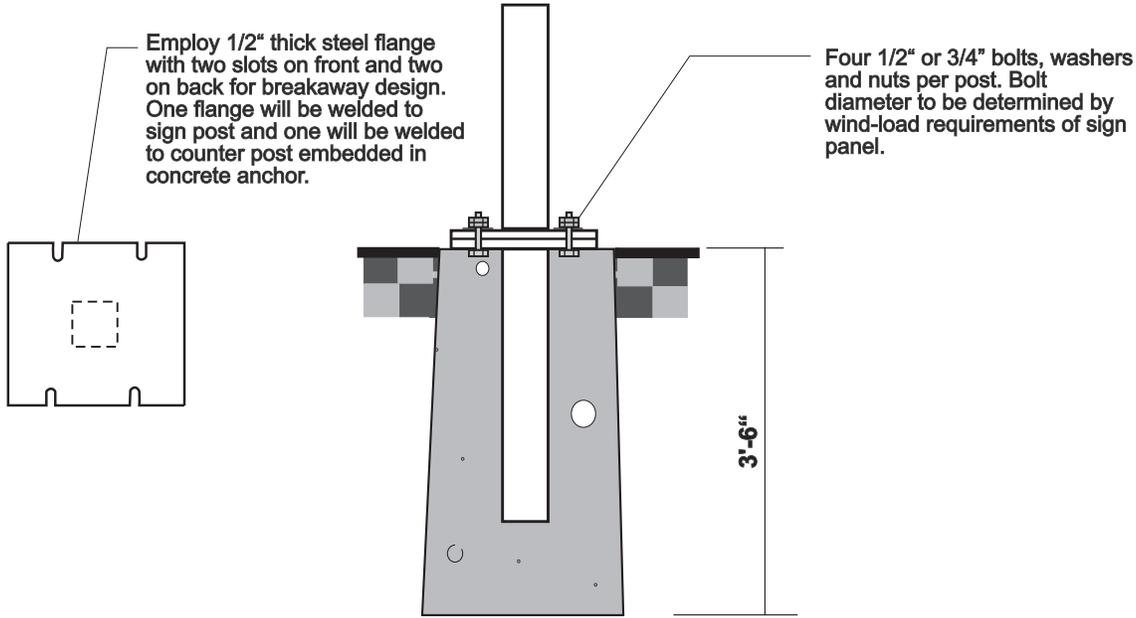
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings ST-41B and ST-41C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.2.1 Informational/ Promotional Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>ST-41A</b>

**Installation Detail A**



**Installation Detail B**



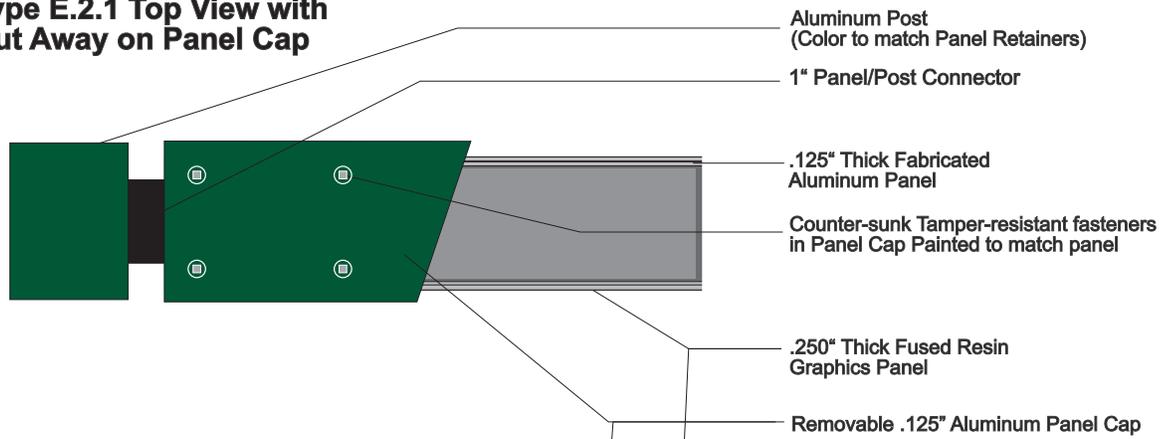
**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.2.1 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>ST-41B</b>

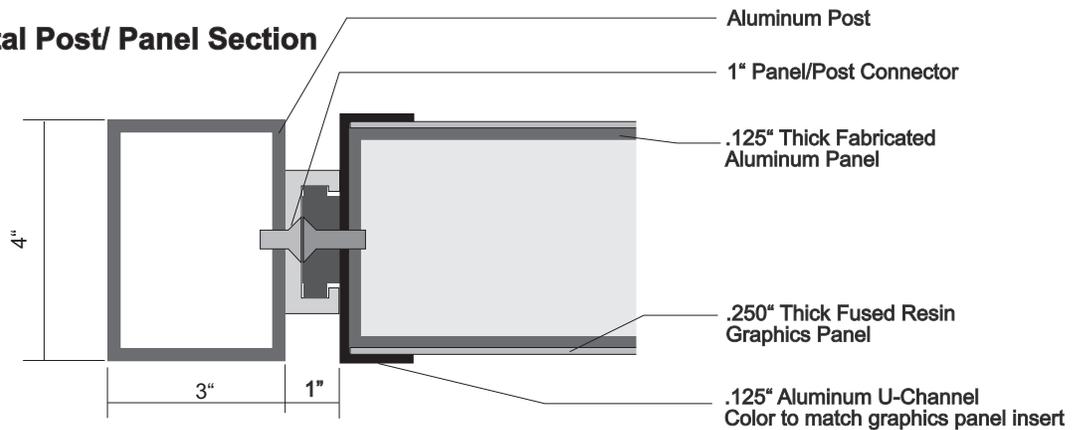
**Type E.2.1 Top View with Cut Away on Panel Cap**



**Type E.2.1 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type E.2.1 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>ST-41C</b>

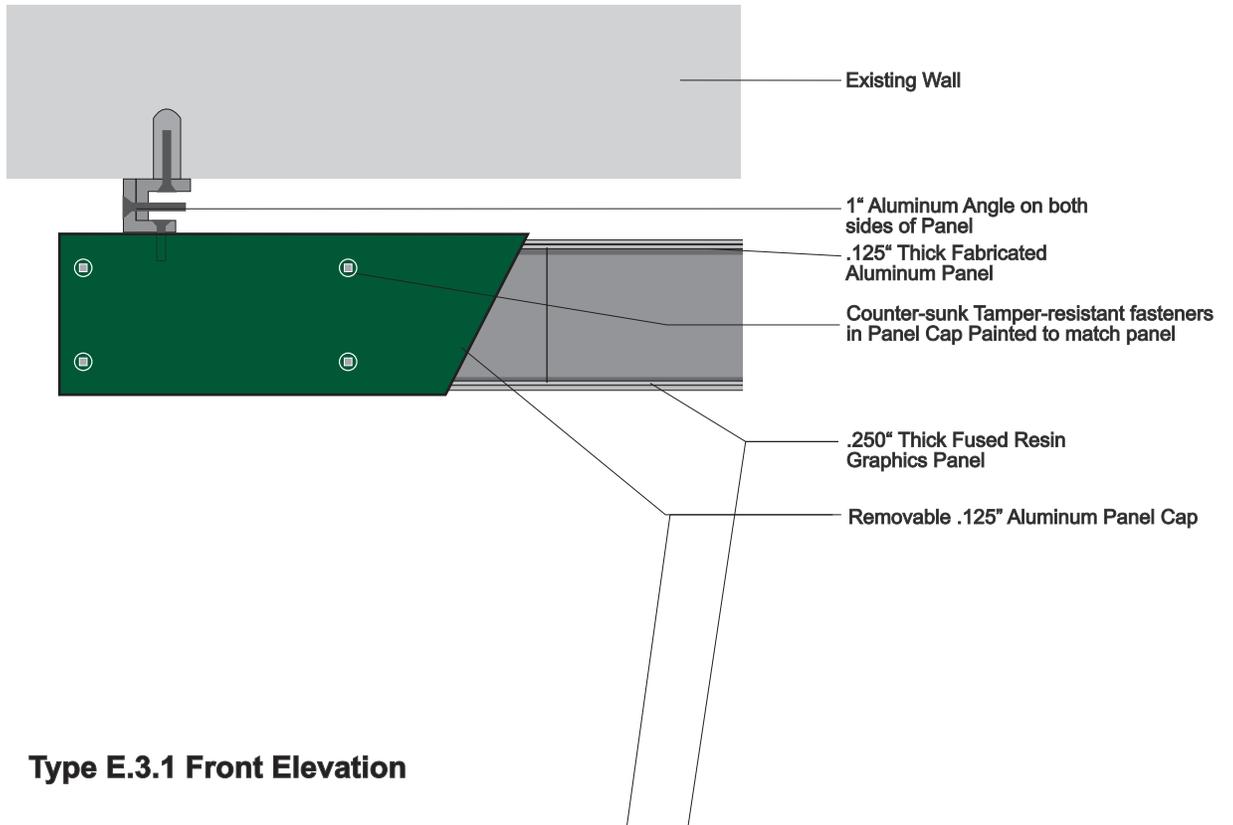


NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing ST-42B for construction and installation details.
2. Owner will provide art on disk for graphics.
3. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type E.3.1 Interpretive Storyboard Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>ST-42A</b>

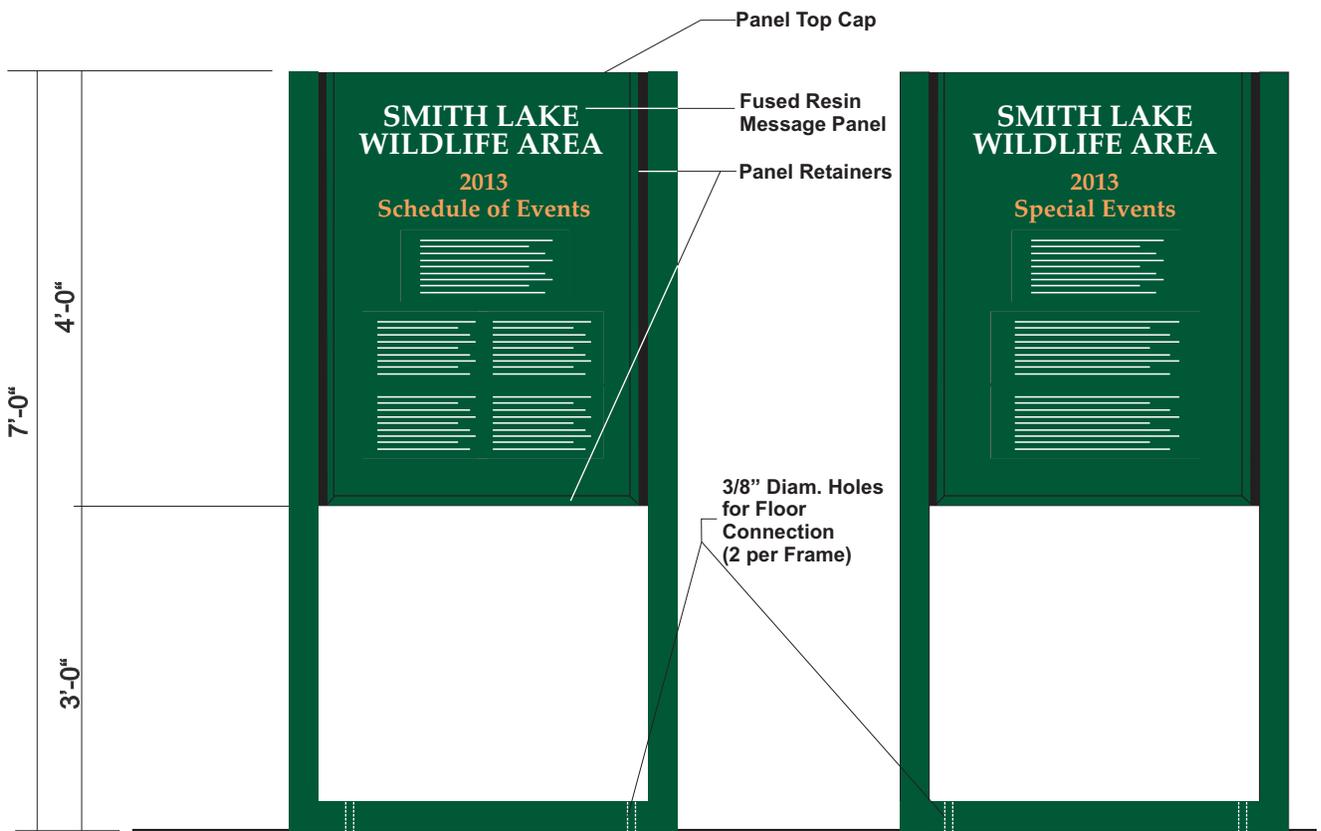
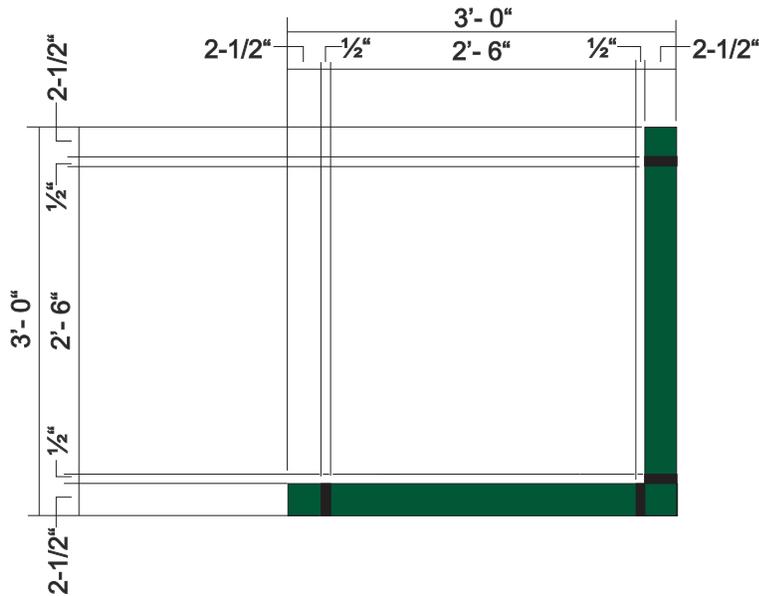
**Type E.3.1 Top View with  
Cut Away on Panel Cap**



**Type E.3.1 Front Elevation**



<p><b>Type E.3.1 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-42B</b></p>

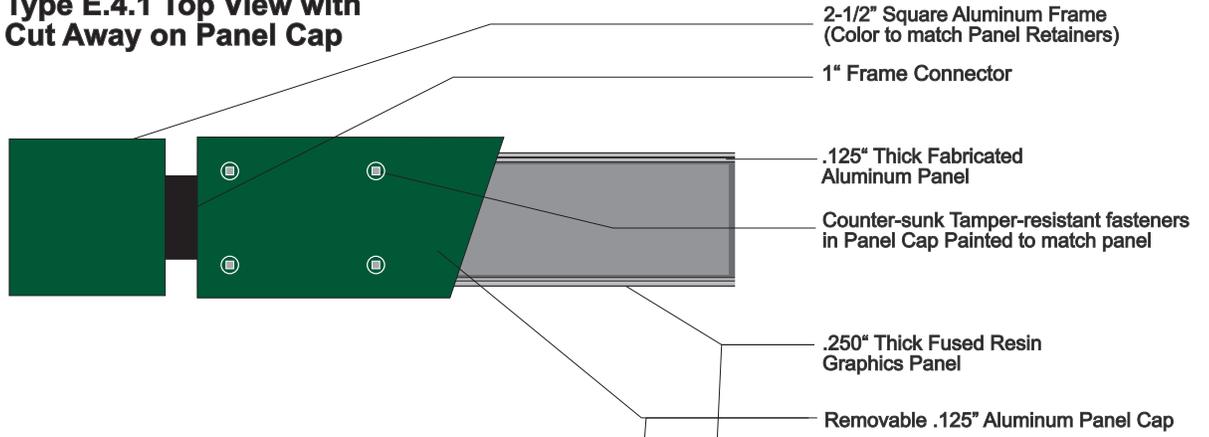


**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Frame to be 2-1/2" square Aluminum. See Drawings ST-43B for construction details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.4.1 Informational/ Promotional Kiosk</b>	
<b>Niagara River Greenway</b>	<b>ST-43A</b>

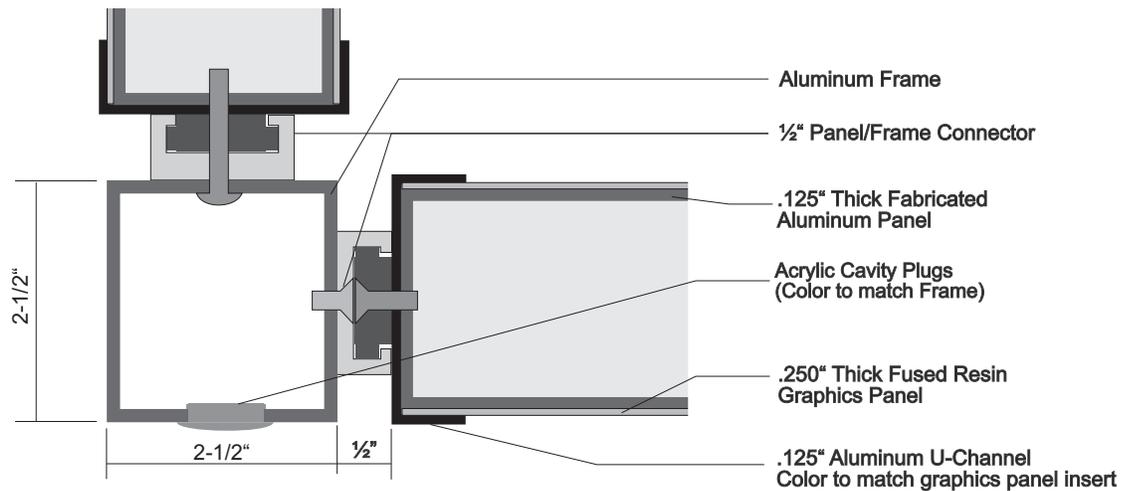
**Type E.4.1 Top View with Cut Away on Panel Cap**



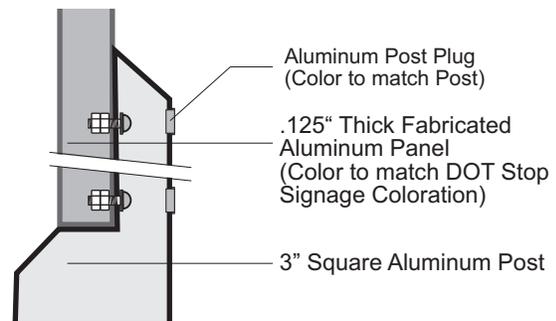
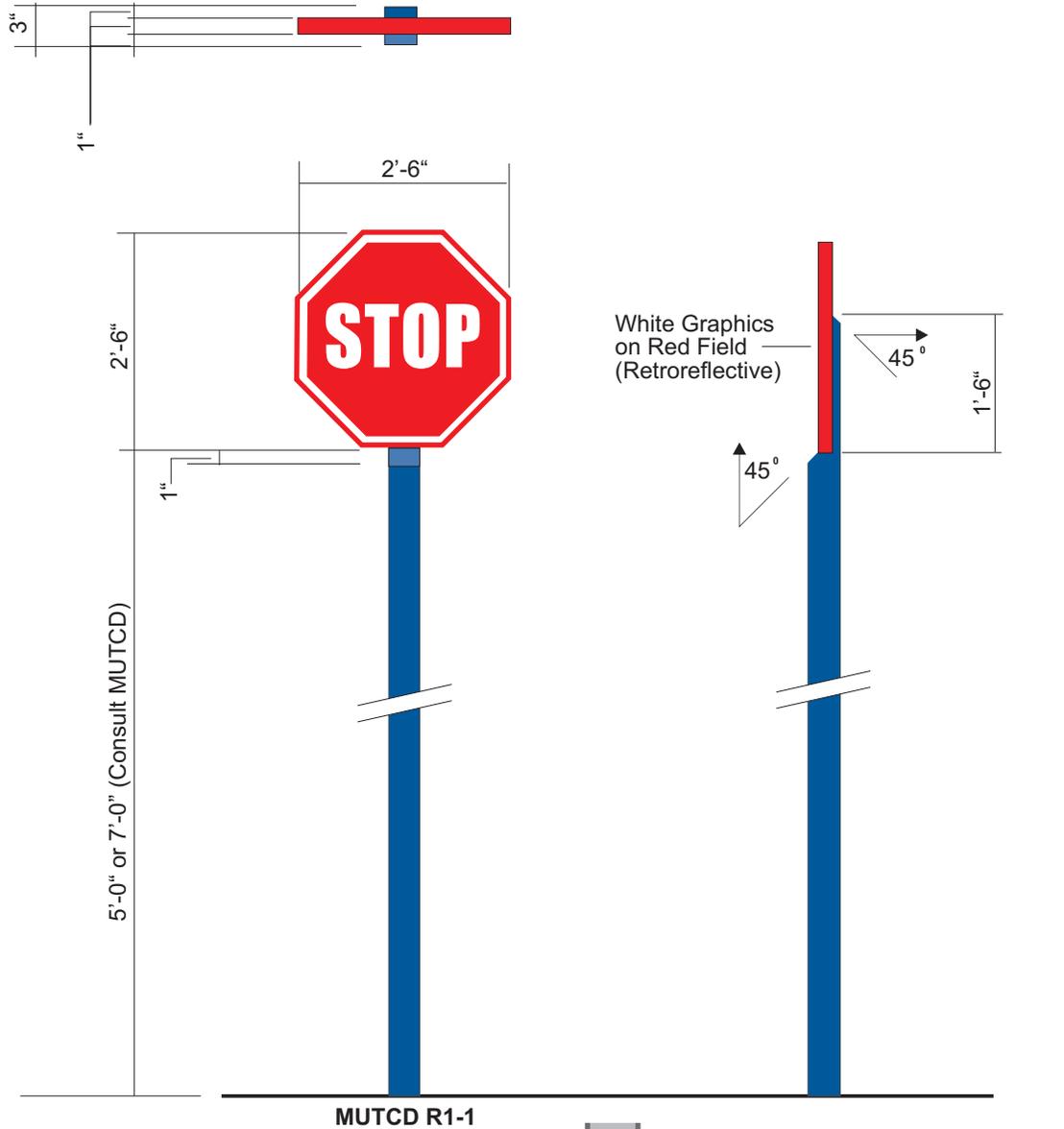
**Type E.4.1 Front Elevation**



**Horizontal Panel/Frame Section**



<p><b>Type E.4.1 Frame and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>ST-43B</b></p>

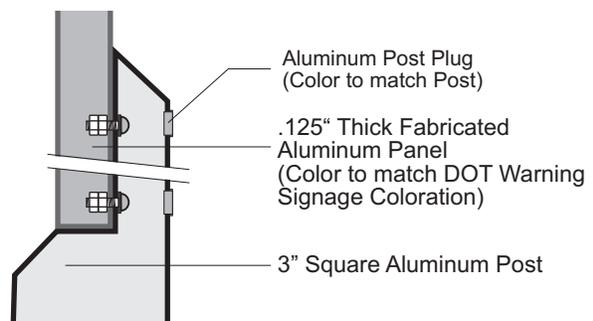
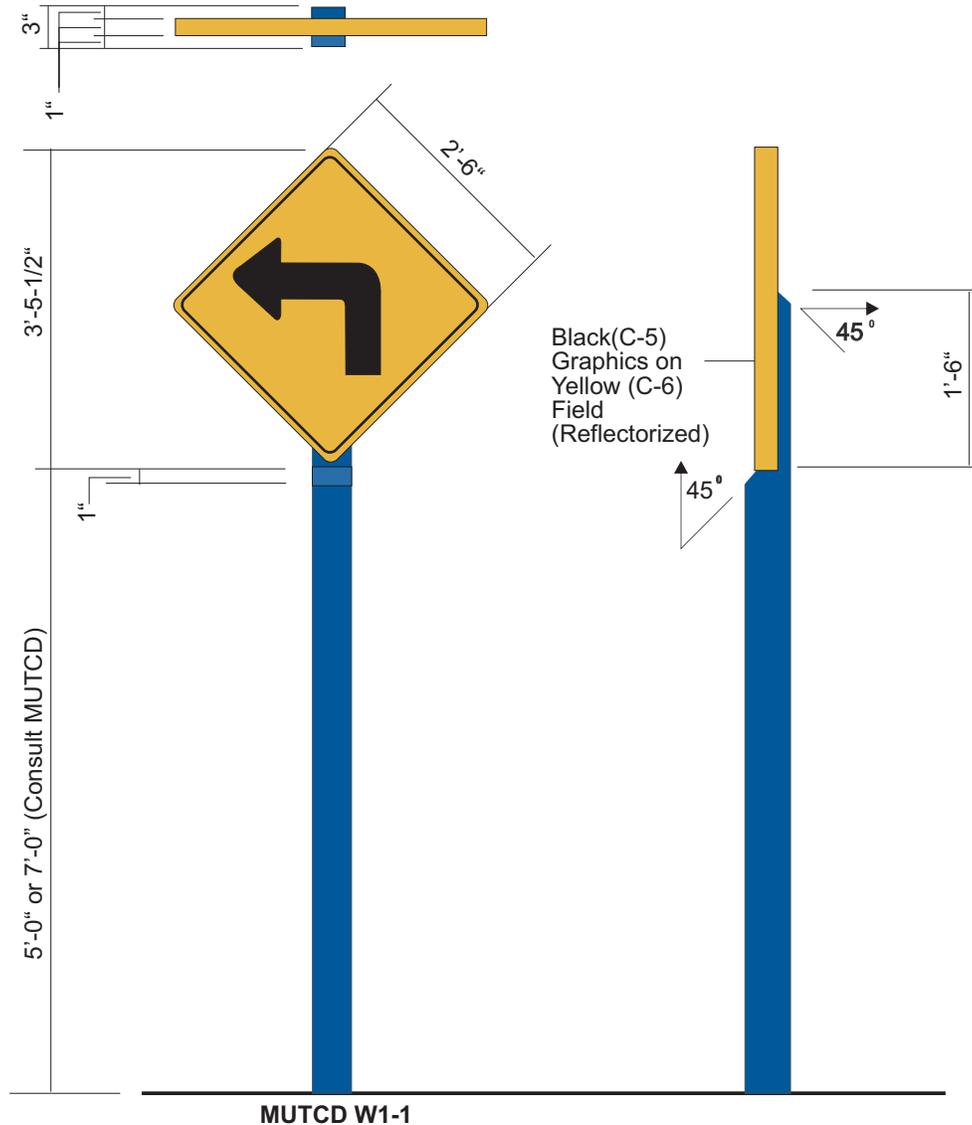


**NOTES:**

1. Sign Post to be 3" Square Aluminum with angled planes fabricated as shown above.
2. STOP Sign to be fabricated aluminum box panel with retroreflective graphics and background as per MUTCD.
3. Attach Sign Panel to post with fasteners and post plugs.
4. Consult MUTCD for Post height applicable to project requirements.
5. Post to be direct embedded into 36" concrete anchor with minimum 12" diameter.

<b>Type F.1.1 Vehicular Stop Sign</b>	
<b>Niagara River Greenway</b>	<b>ST-50A</b>

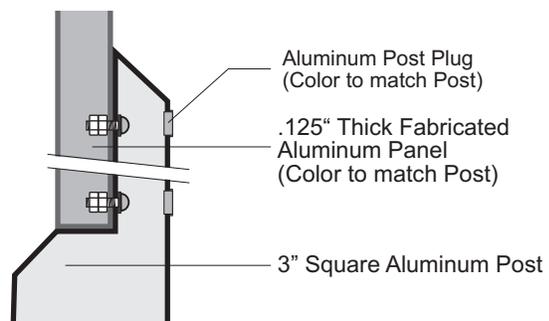
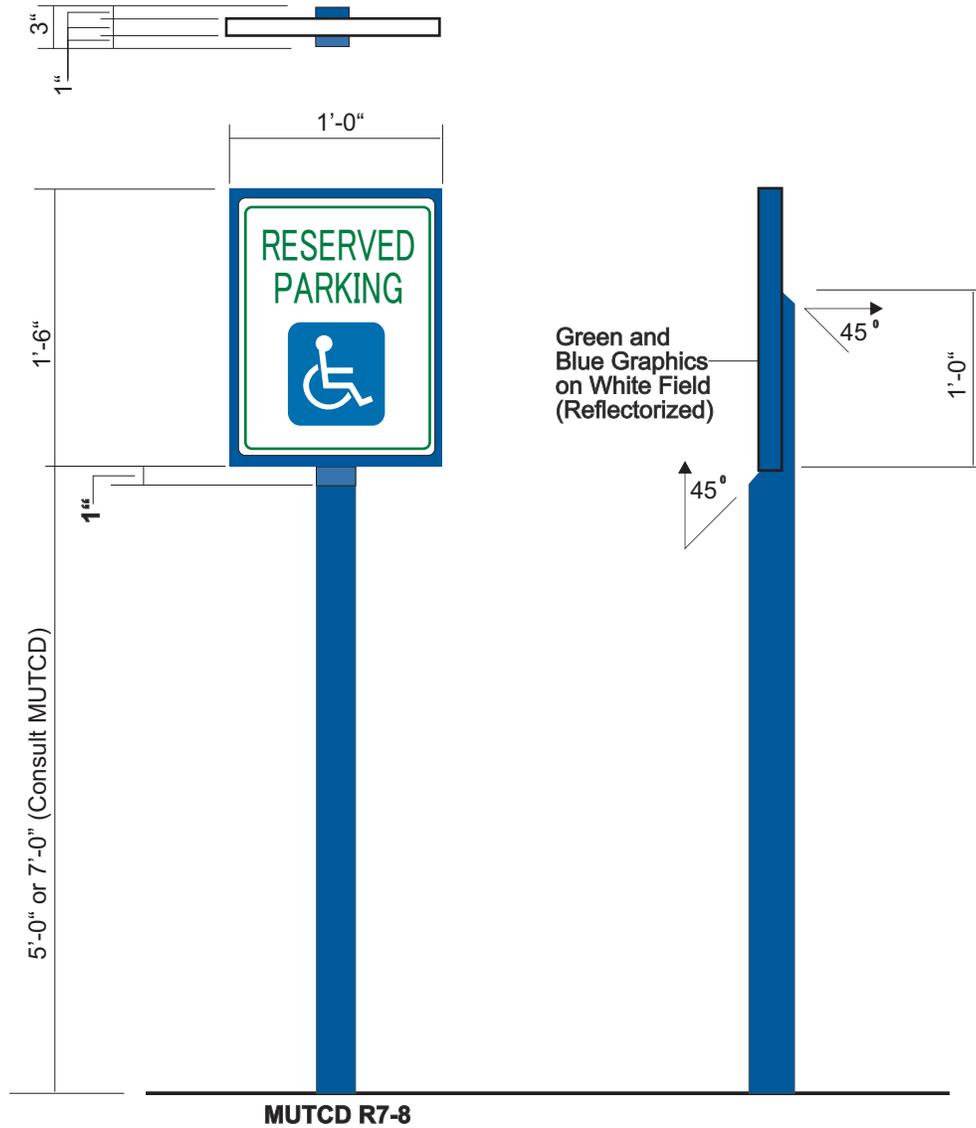




**NOTES:**

1. Sign Post to be 3" Square Aluminum with angled planes fabricated as shown above.
2. Warning Signage to be fabricated aluminum box panel with retroreflective graphics and background as per MUTCD.
3. Attach Sign Panel to post with fasteners and post plugs.
4. Consult MUTCD for Post height applicable to project requirements.
5. Drawing above depicts one of many Warning sign formats available. Consult MUTCD for full Warning signage options.
6. Post to be direct embedded into 36" concrete anchor with minimum 12" diameter.

<b>Type F.3.1 Vehicular Warning Sign</b>	
<b>Niagara River Greenway</b>	<b>ST-52A</b>



**NOTES:**

1. Sign Post to be 3" Square Aluminum with angled planes fabricated as shown above.
2. Parking Signage to be fabricated aluminum box panel with retroreflective graphics and background as per MUTCD.
3. Attach Sign Panel to post with fasteners and post plugs.
4. Consult MUTCD for Post height applicable to project requirements.
5. Drawing above depicts one of many Parking sign formats available. Consult MUTCD for full Parking signage options.
6. Post to be direct embedded into 36" concrete anchor with minimum 12" diameter.

<b>Type F.4.1 Vehicular Parking Sign</b>	
<b>Niagara River Greenway</b>	<b>ST-53A</b>

## Gable-Top (GT) Format Grouping

This section provides a complete catalog of detail drawings for **GABLE TOP FORMAT GROUPING**. Included below is an index of the detail drawings included in this section. The Manual User should take particular note of the information included with each detail drawings as many of the details reference other drawings that provide additional relevant information pertaining to signage materials, fabrication or installation. It is important to include all of the detail drawings referenced in a particular category in order to provide all of the information necessary to provide cost estimates and to fabricate and install signage.

### Identification Signage

#### Vehicular Categories

Category	Description	Detail Drawing
A.1.1	Vehicular Facility Identification Pylon A	GT-1A
A.1.2	Vehicular Facility Identification Pylon B	GT-1B
A.1.3	Vehicular Facility Identification Pylon C	GT-1C
A.1	Pylon Base Construction Details	GT-1D
A.2.1	Vehicular Facility Identification Post and Panel A	GT-2A
A.2.2	Vehicular Facility Identification Post and Panel B	GT-2B
A.2.3	Vehicular Facility Identification Post and Panel C	GT-2C
A.2.4	Vehicular Facility Identification Post and Panel D	GT-2D
A.2	Post and Panel Construction Details	GT-2E
A.3.1	Vehicular Facility Identification Wall Mount A	GT-3A
A.3.2	Vehicular Facility Identification Wall Mount B	GT-3B

#### Pedestrian Categories

Category	Description	Detail Drawing
A.4.1	Pedestrian Facility Identification Pylon	GT-4A
A.4	Pylon Base Construction Details	GT-4B
A.4	Pylon Message Panel Construction Details	GT-4C
A.5.1	Pedestrian Facility Identification Post and Panel A	GT-5A
A.5.2	Pedestrian Facility Identification Post and Panel B	GT-5B
A.5.3	Pedestrian Facility Identification Post and Panel C	GT-5C
A.5	Post and Panel Installation Details	GT-5D
A.5	Post and Panel Construction Details	GT-5E
A.6.1	Pedestrian Facility Identification Wall Mount A	GT-6A
A.6.2	Pedestrian Facility Identification Wall Mount B	GT-6B
A.6	Pedestrian Wall-Mount Panel Construction Details	GT-6C

## Directional Signage

### Vehicular Categories

Category	Description	Detail Drawing
B.1.1	Vehicular Directional Pylon	GT-10A
B.1	Pylon Base Construction Details	GT-10B
B.2.1	Vehicular Directional Post and Panel A	GT-11A
B.2.2	Vehicular Directional Post and Panel B	GT-11B
B.2.3	Vehicular Directional Post and Panel C	GT-11C
B.2	Post and Panel Installation Details	GT-11D
B.3.1	MUTCD Directional Post and Panel A	GT-12A
B.3.2	MUTCD Directional Post and Panel B	GT-12B
B.3.3	MUTCD Directional Post and Panel C	GT-12C
B.3.4	MUTCD Directional Post and Panel D	GT-12D
B.3	Post and Panel Installation Details	GT-12E
B.4.1	Vehicular Directional Wall Mount	GT-13A
B.5.1	Off-site Trailblazer Existing Pole Mount	GT-14A
B.5.2	Off-site Trailblazer New Pole Mount	GT-14B
B.5	Post and Panel Installation Details	GT-14C

### Pedestrian Categories

Category	Description	Detail Drawing
B.6.1	Pedestrian Directional Pylon	GT-15A
B.6	Pylon Base Construction Details	GT-15B
B.6	Pylon Message Panel Construction Details	GT-15C
B.7.1	Pedestrian Directional Post and Panel A	GT-16A
B.7.2	Pedestrian Directional Post and Panel B	GT-16B
B.7	Post and Panel Installation Details	GT-16C
B.7	Post and Panel Construction Details	GT-16D
B.8.1	Pedestrian Directional Wall Mount A	GT-17A
B.8.2	Pedestrian Directional Wall Mount B	GT-17B
B.8	Pedestrian Wall-Mount Panel Construction Details	GT-17C

## Orientation Signage

### Vehicular Categories

Category	Description	Detail Drawing
C.1.1	Vehicular Orientation Pylon A	GT-20A
C.1.2	Vehicular Orientation Pylon B	GT-20B
C.1	Pylon Base Construction Details	GT-20C
C.1	Pylon Message Panel Construction Details	GT-20D
C.2.1	Vehicular Orientation Post and Panel A	GT-21A
C.2.2	Vehicular Orientation Post and Panel B	GT-21B
C.2	Post and Panel Installation Details	GT-21C
C.2	Post and Panel Construction Details	GT-21D

# Orientation Signage

## Pedestrian Categories

Category	Description	Detail Drawing
C.3.1	Pedestrian Orientation Pylon A	GT-22A
C.3.2	Pedestrian Orientation Pylon B	GT-22B
C.3	Pylon Base Construction Details	GT-22C
C.3	Pylon Message Panel Construction Details	GT-22D
C.4.1	Pedestrian Orientation Post and Panel A	GT-23A
C.4.2	Pedestrian Orientation Post and Panel B	GT-23B
C.4	Post and Panel Installation Details	GT-23C
C.4	Post and Panel Construction Details	GT-23D
C.5.1	Pedestrian Orientation Wall Mount	GT-24A
C.5	Pedestrian Wall-Mount Panel Construction Details	GT-24B

# Interpretive & Commemorative Signage

## Vehicular Categories

Category	Description	Detail Drawing
D.1.1	Vehicular Commemorative Post and Panel A	GT-30A
D.1.2	Vehicular Commemorative Post and Panel B	GT-30B
D.1	Post and Panel Installation Details	GT-30C
D.1	Post and Panel Construction Details	GT-30D

## Pedestrian Categories

Category	Description	Detail Drawing
D.2.1	Interpretive/ Commemorative Post and Panel	GT-31A
D.2	Post and Panel Construction Details	GT-31B
D.3.1	Interpretive/ Commemorative Wall Mount	GT-32A
D.3	Panel Construction Details	GT-32B
D.4.1	Interpretive/ Commemorative Railing Mount	GT-33A
D.4	Panel Construction Details	GT-33B
D.5.1	Interpretive Storyboard Post and Panel	GT-34A
D.5	Post and Panel Construction Details	GT-34B
D.5	Post and Panel Installation Details	GT-34C
D.6.1	Interpretive Storyboard Wall Mount	GT-35A
D.6	Panel Construction Details	GT-35B

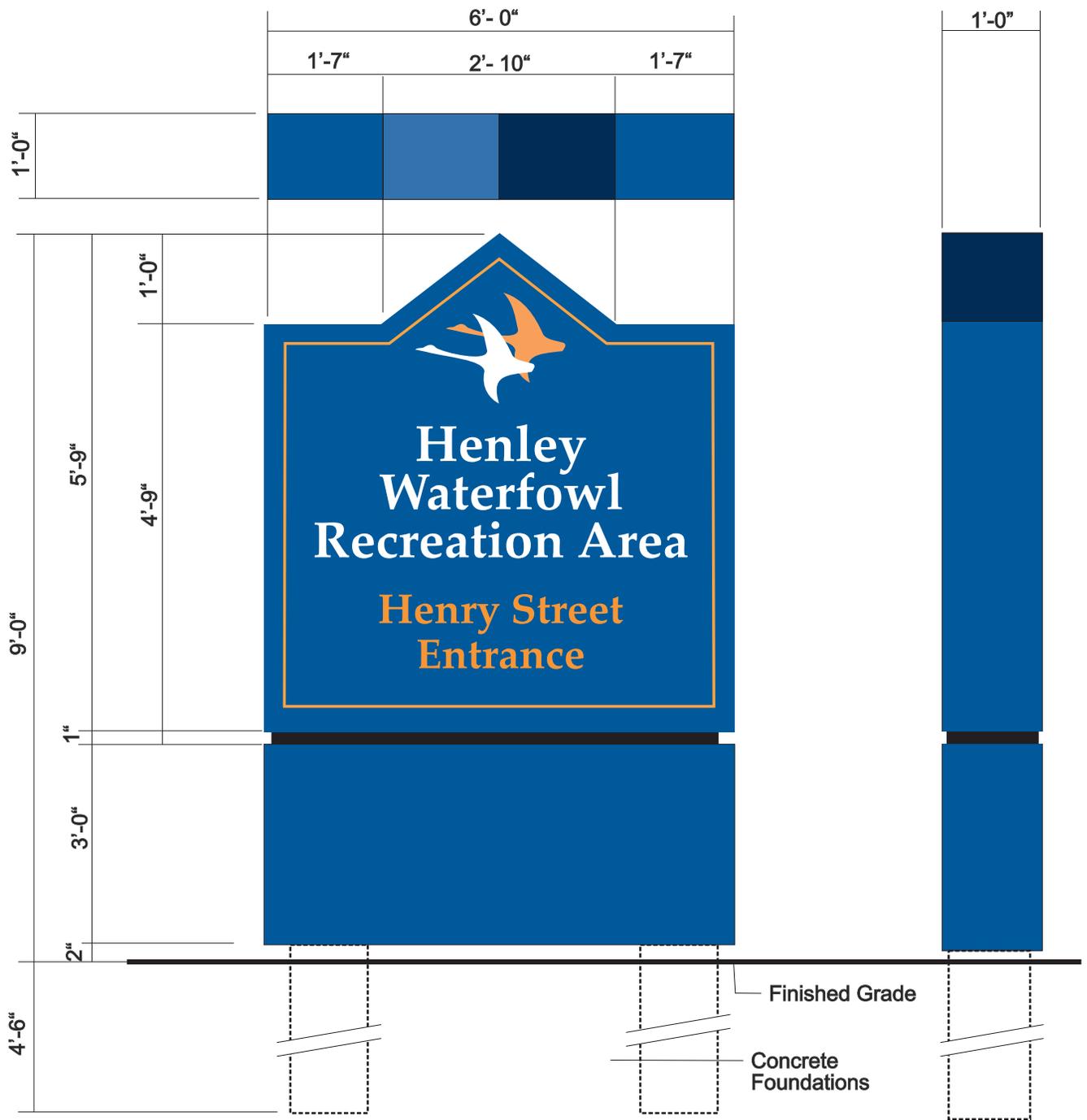
# Informational & Promotional Signage

## Vehicular Categories

Category	Description	Detail Drawing
E.1.1	Vehicular Informational Post and Panel A	GT-40A
E.1.2	Vehicular Informational Post and Panel B	GT-40B
E.1	Post and Panel Installation Details	GT-40C

## Pedestrian Categories

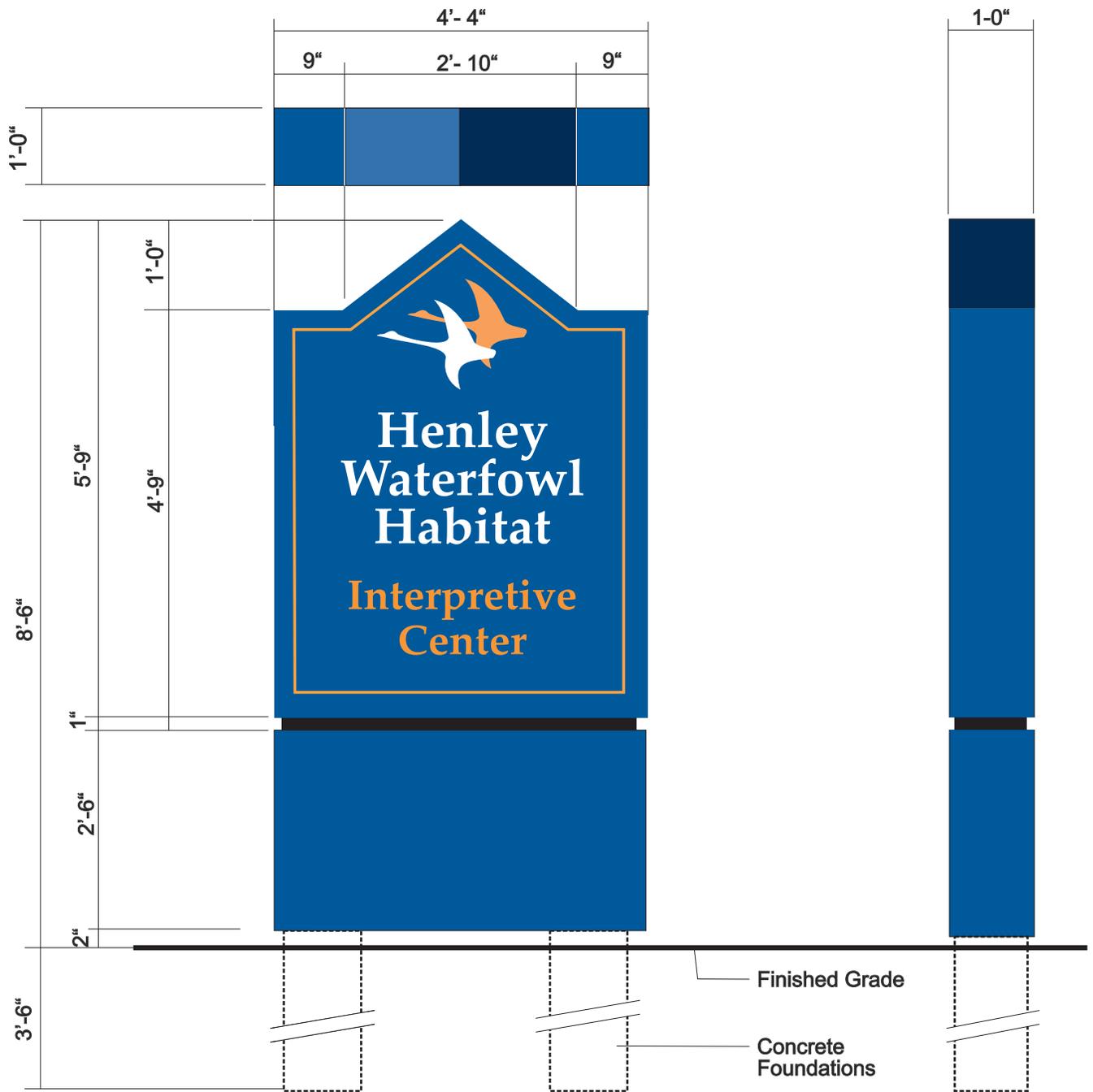
Category	Description	Detail Drawing
E.2.1	Informational/ Promotional Post and Panel	GT-41A
E.2	Post and Panel Installation Details	GT-41B
E.2	Post and Panel Construction Details	GT-41C
E.3.1	Informational/ Promotional Wall Mount	GT-42A
E.3	Panel Construction Details	GT-42B
E.4.1	Informational/ Promotional Kiosk	GT-43A
E.4	Frame and Panel Construction Details	GT-43B



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing GT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.1 Vehicular Facility Identification Pylon A</b>	
<b>Niagara River Greenway</b>	<b>GT-1A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing GT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.2 Vehicular Facility Identification Pylon B</b>	
<b>Niagara River Greenway</b>	<b>GT-1B</b>



**NOTES:**

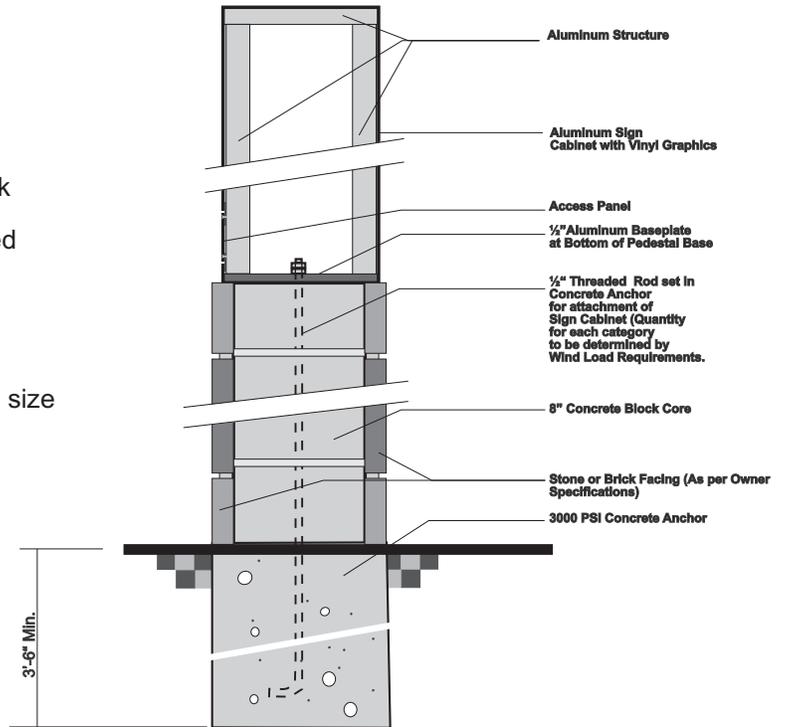
1. Sign panel to be fabricated aluminum box construction. See Drawing GT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.3 Vehicular Facility Identification Pylon C</b>	
<b>Niagara River Greenway</b>	<b>GT-1C</b>

# Stone/Brick Pylon Base

**NOTES:**

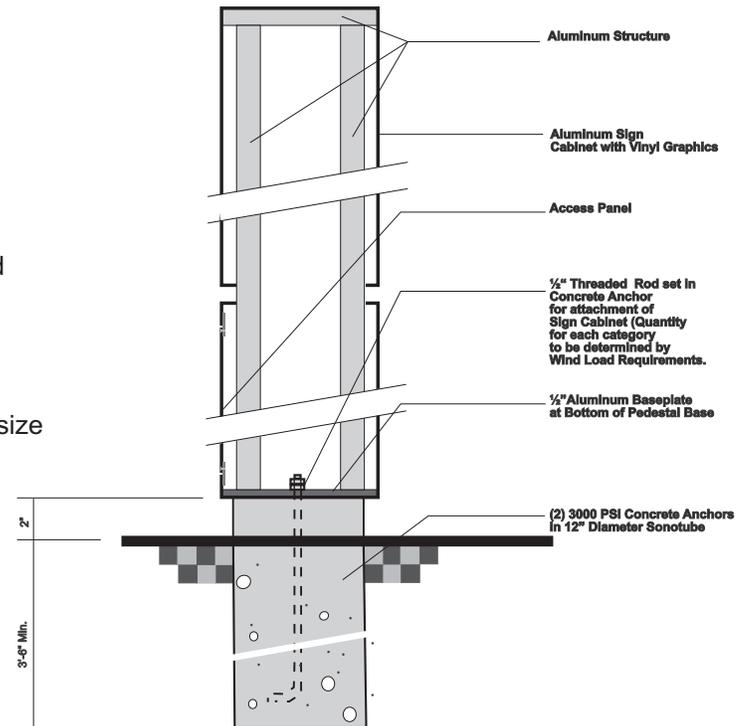
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



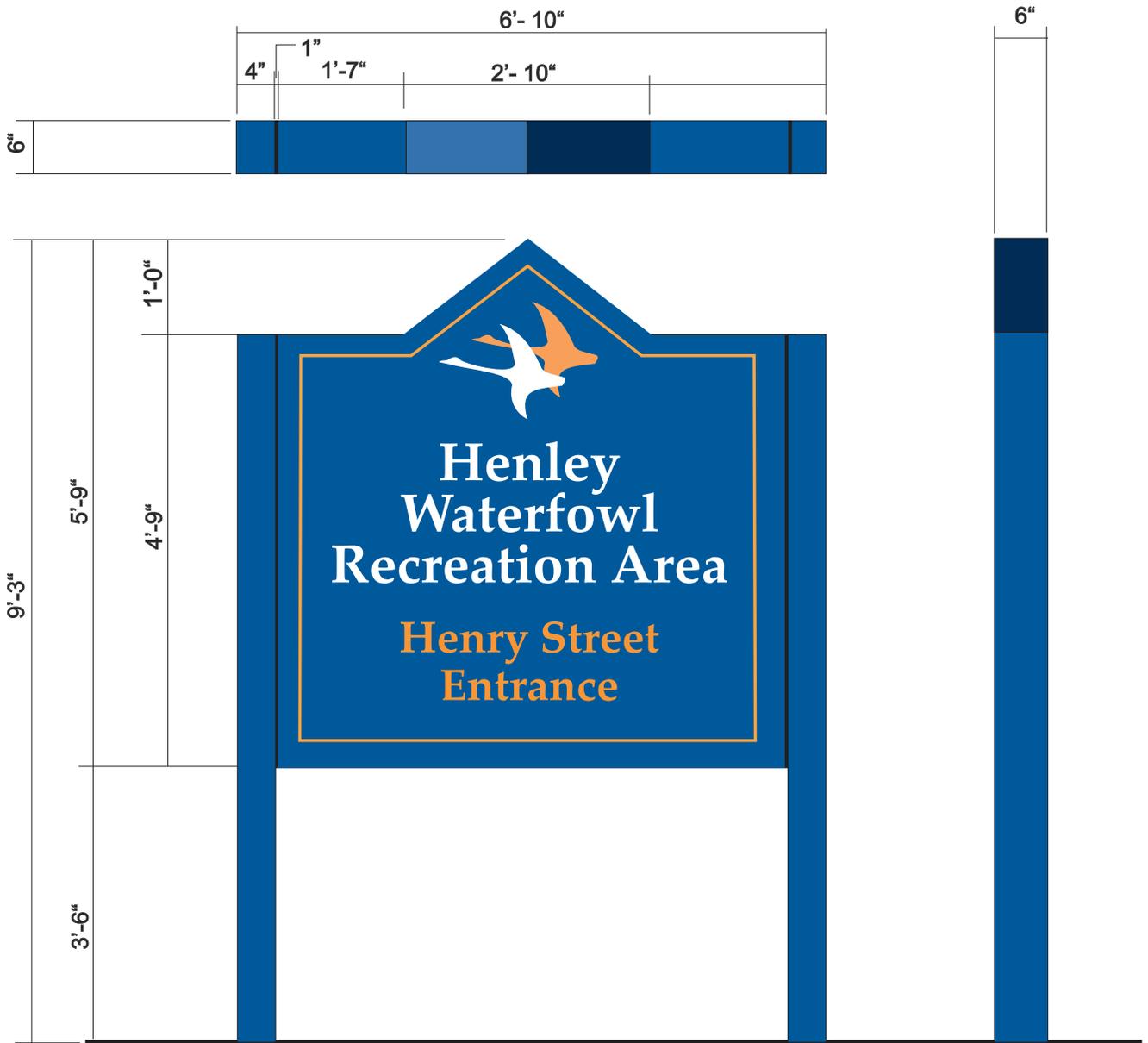
# Aluminum Pylon Base

**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



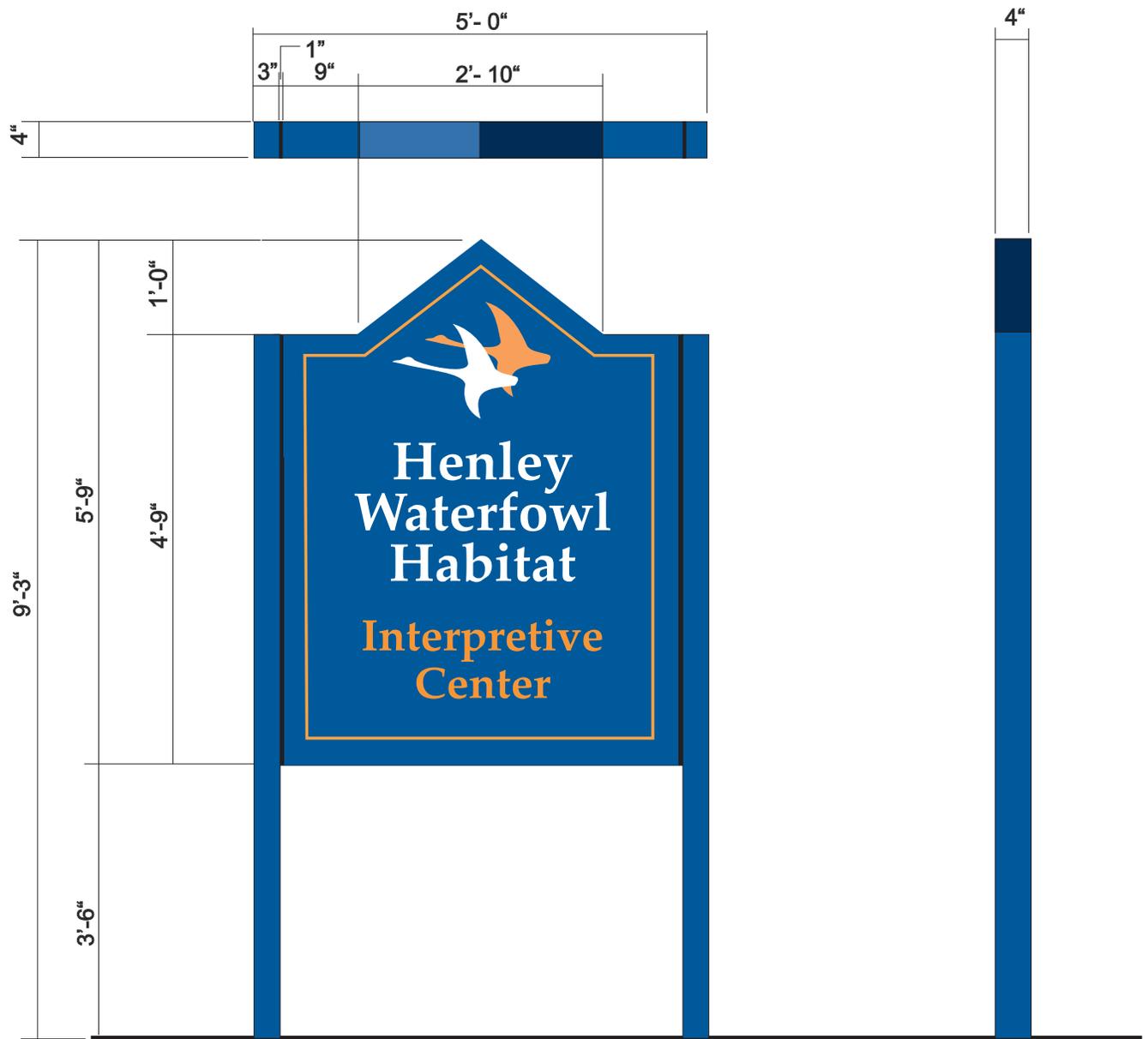
<b>Type A.1 Pylon Base Construction Details</b>	
<b>Niagara River Greenway</b>	<b>GT-1D</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-2E for construction and installation details.

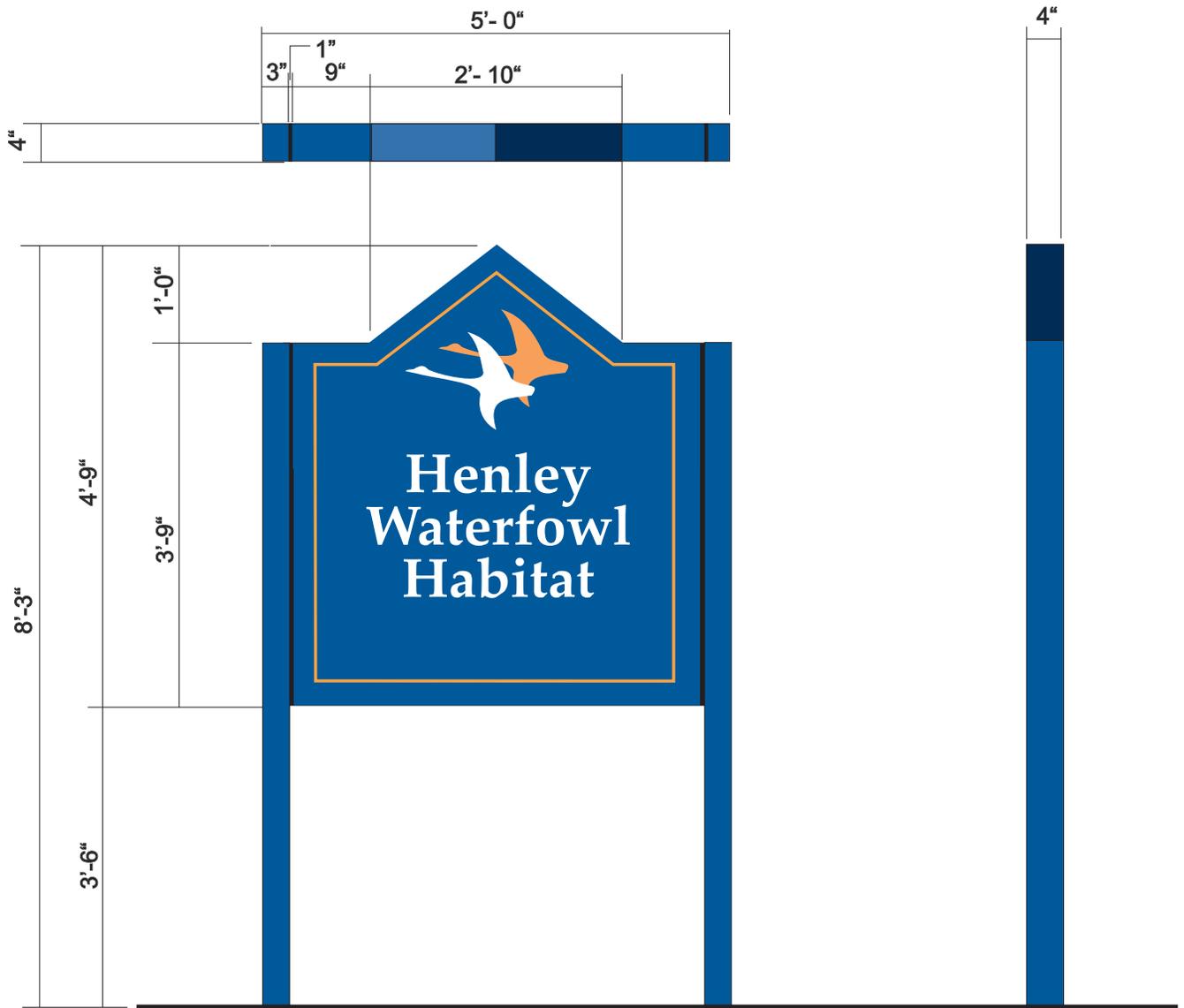
<b>Type A.2.1 Vehicular Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-2A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-2E for construction and installation details.

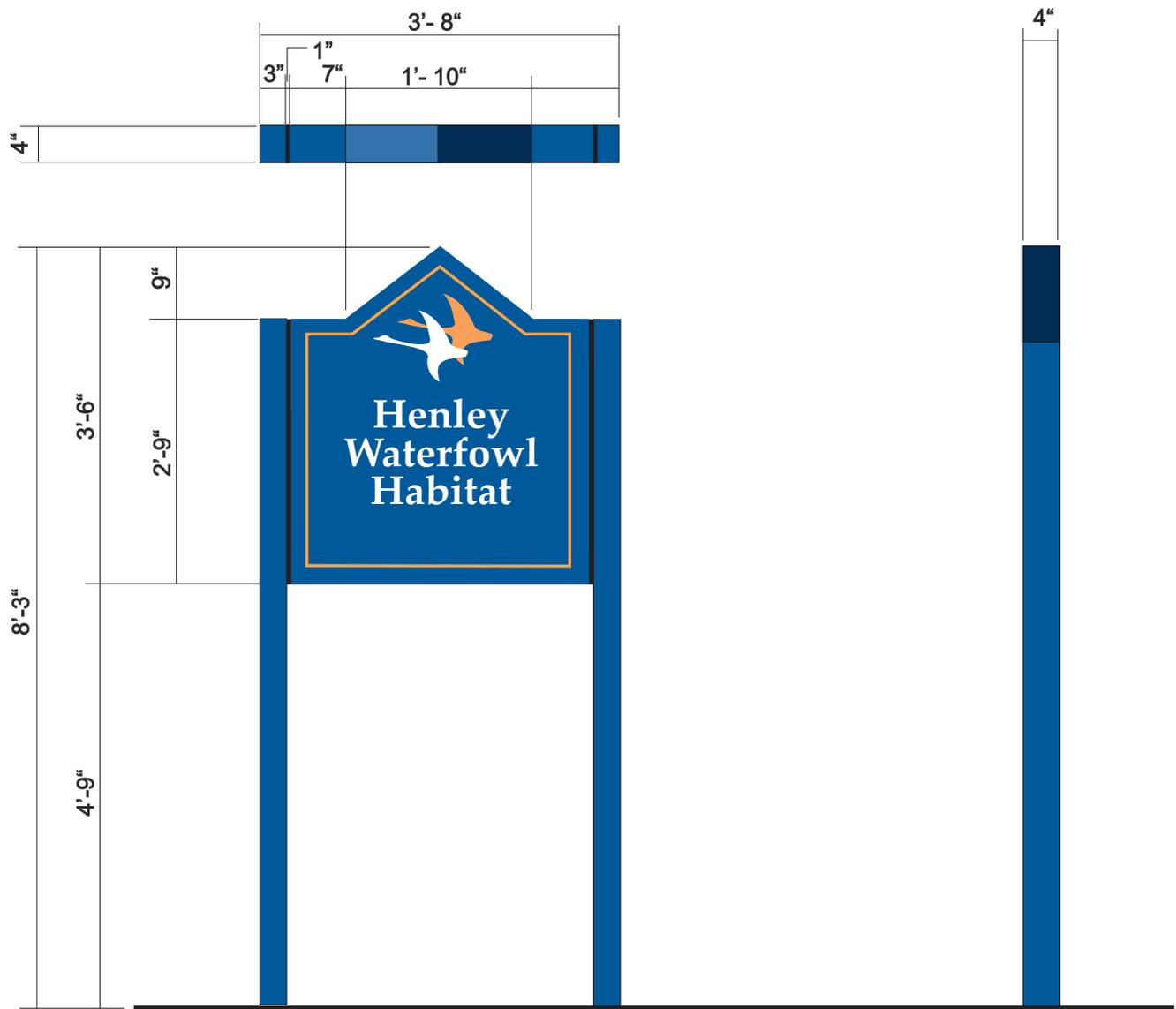
<b>Type A.2.2 Vehicular Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-2B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-2E for construction and installation details.

<b>Type A.2.3 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>GT-2C</b>

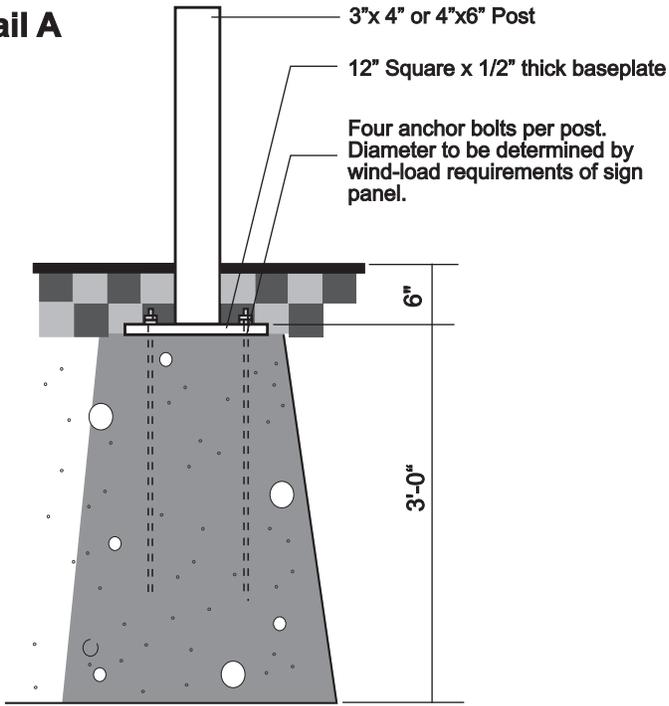


**NOTES:**

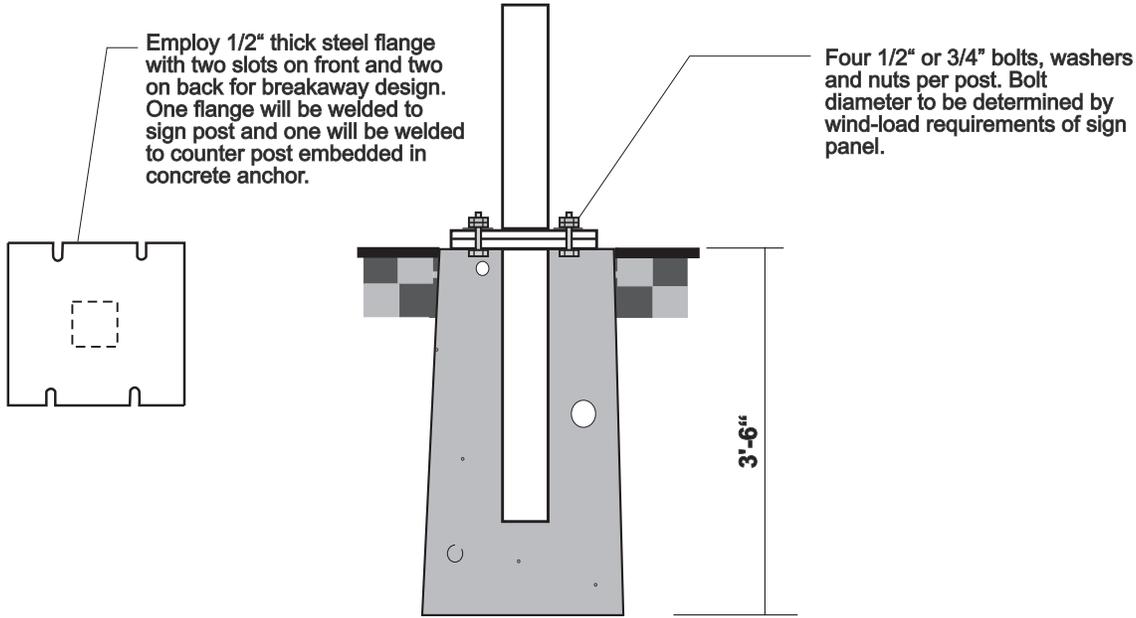
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-2E for construction and installation details.

<b>Type A.2.4 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>GT-2D</b>

**Installation Detail A**



**Installation Detail B**



**Foundation Detail**

**NOTES:**

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

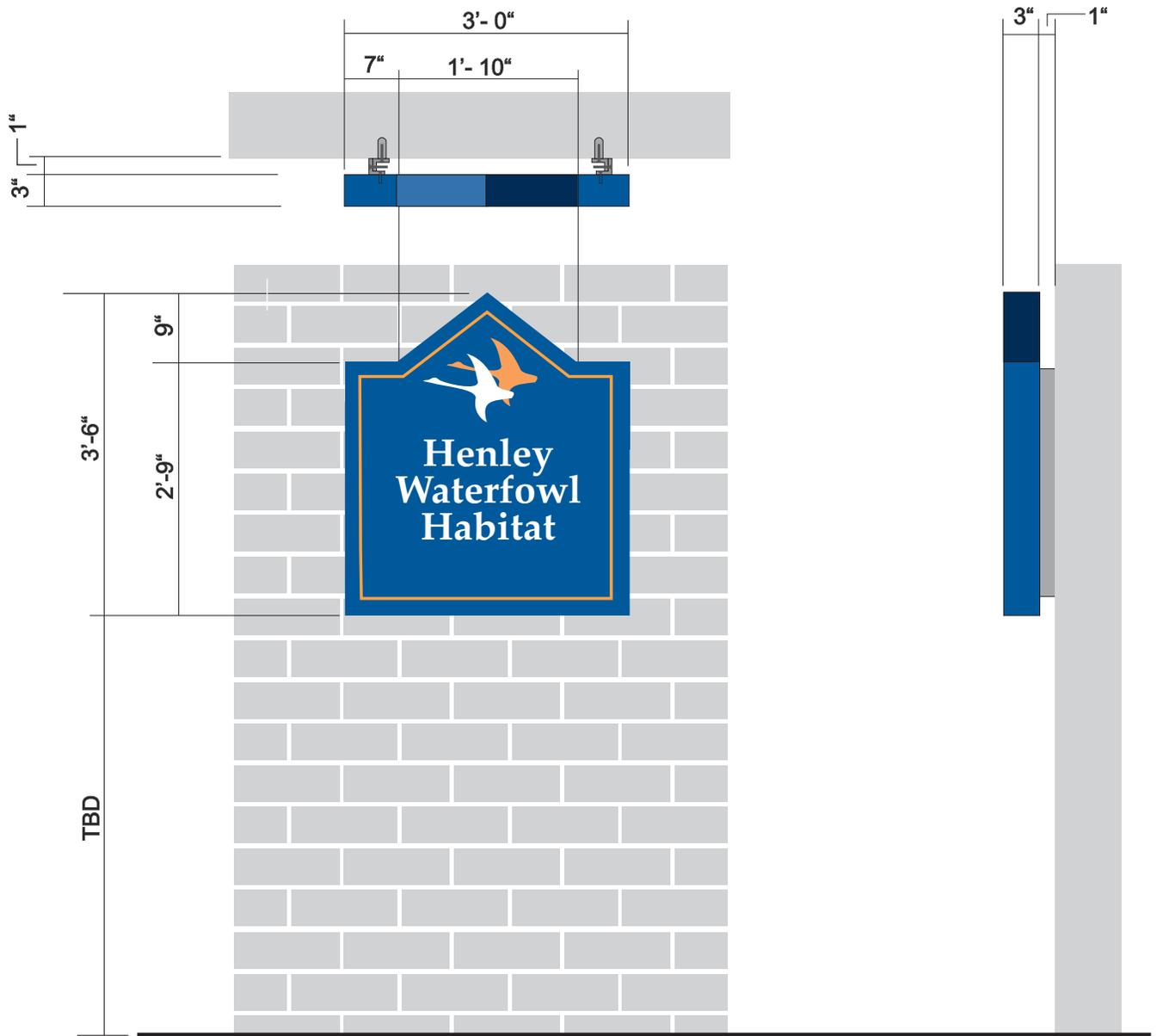
<b>Type A.2 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>GT-2E</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

<b>Type A.3.1 Vehicular Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>GT-3A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

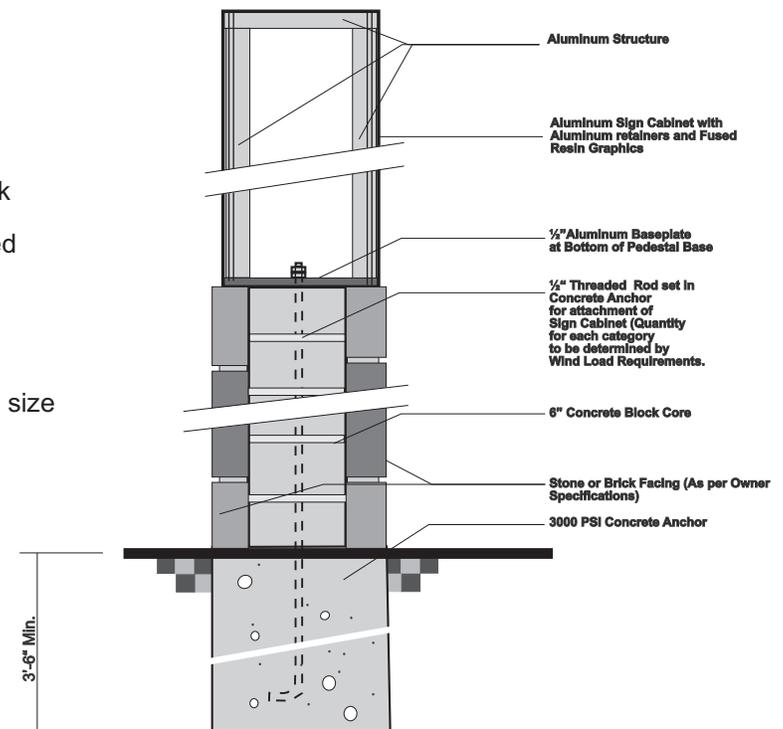
<b>Type A.3.2 Vehicular Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>GT-3B</b>



# Stone/Brick Pylon Base

**NOTES:**

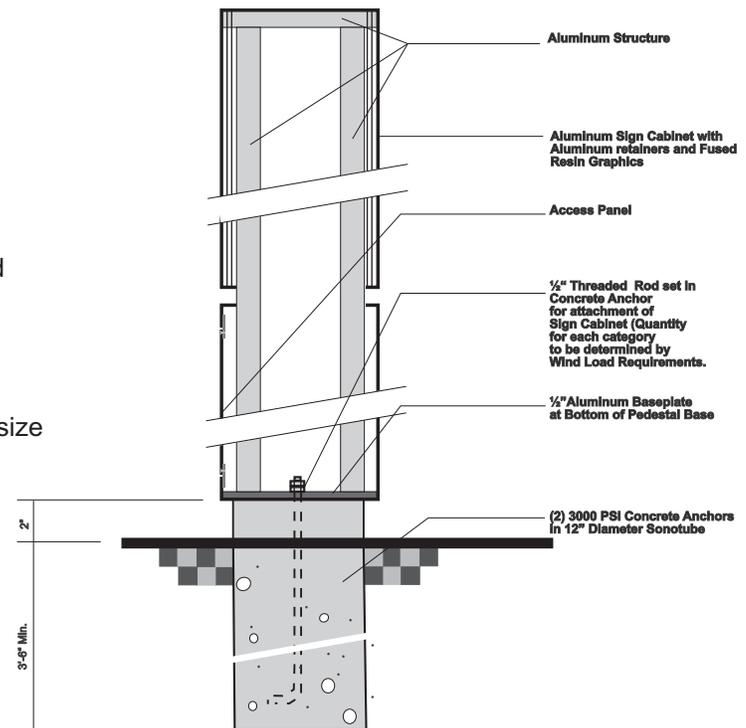
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-4C for panel construction details.



# Aluminum Pylon Base

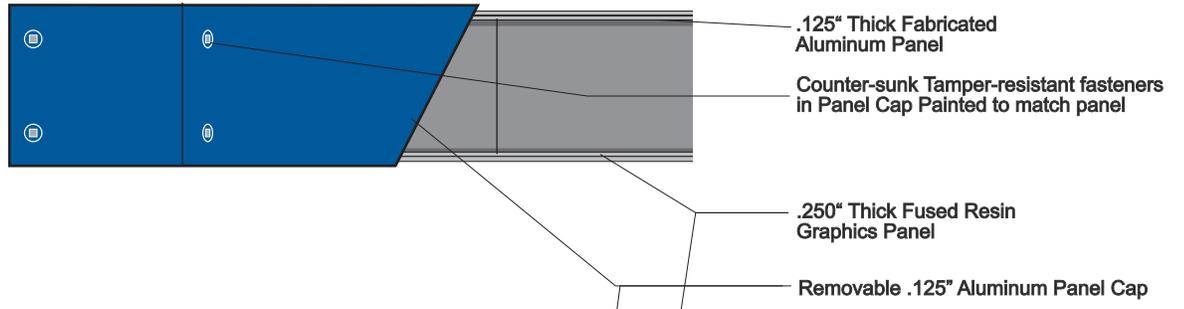
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-4C for panel construction details.

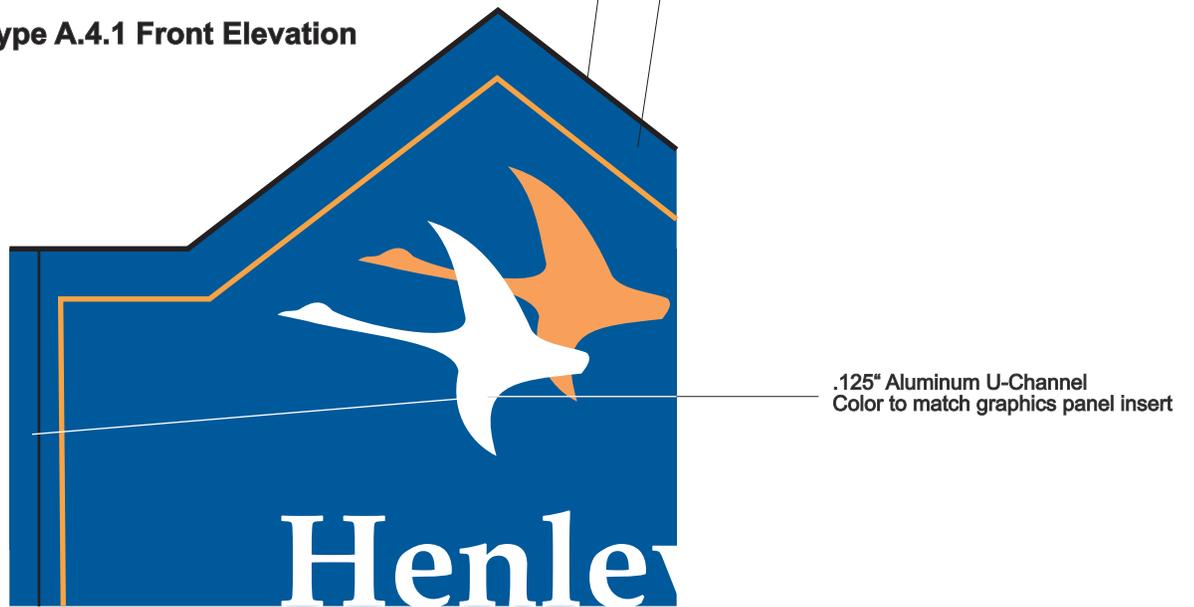


<b>Type A.4 Pylon Base Construction Details</b>	
<b>Niagara River Greenway</b>	<b>GT-4B</b>

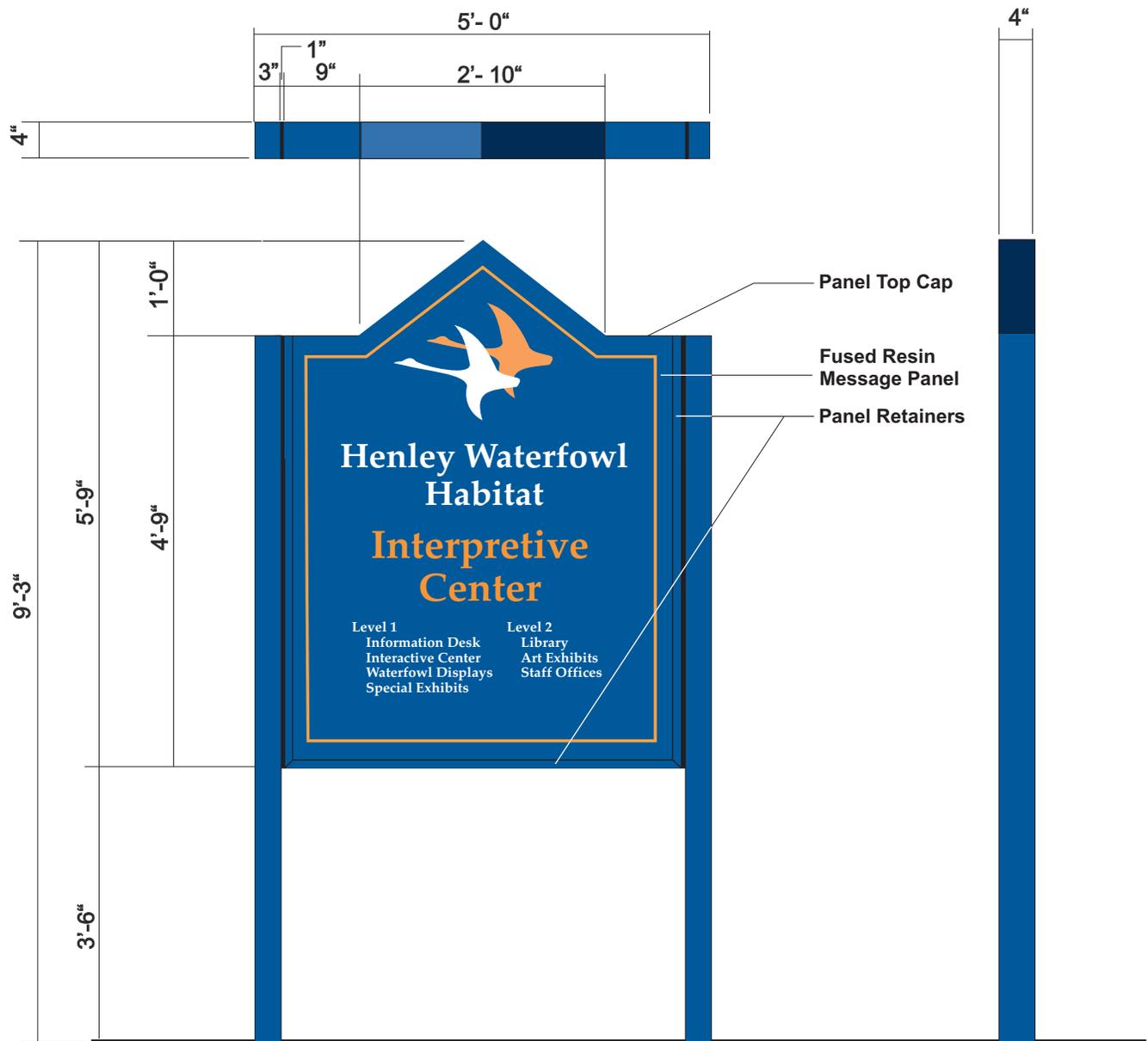
**Type A.4.1 Top View with  
Cut Away on Panel Cap**



**Type A.4.1 Front Elevation**



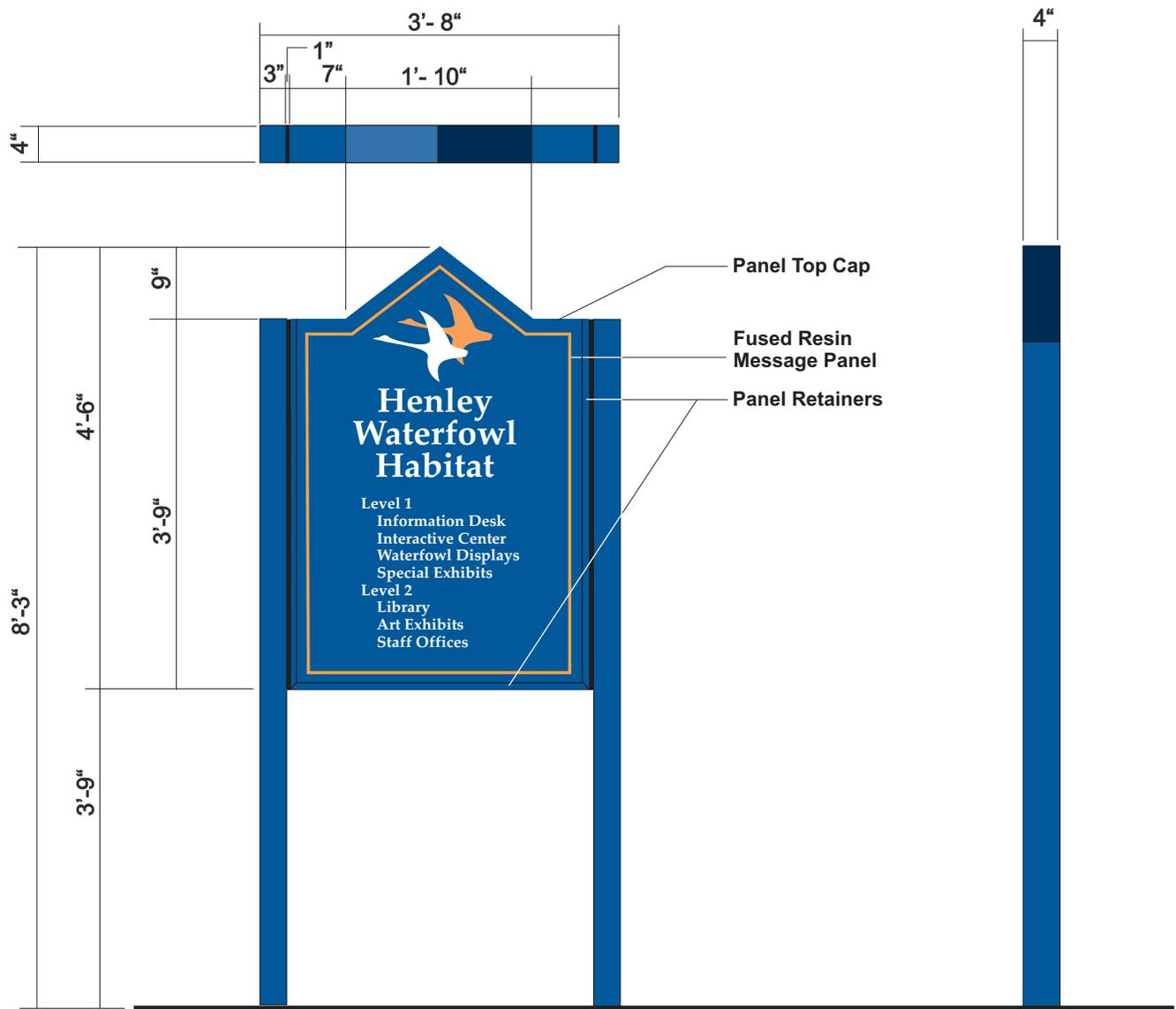
<p><b>Type A.4 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-4C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings GT-5D and GT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

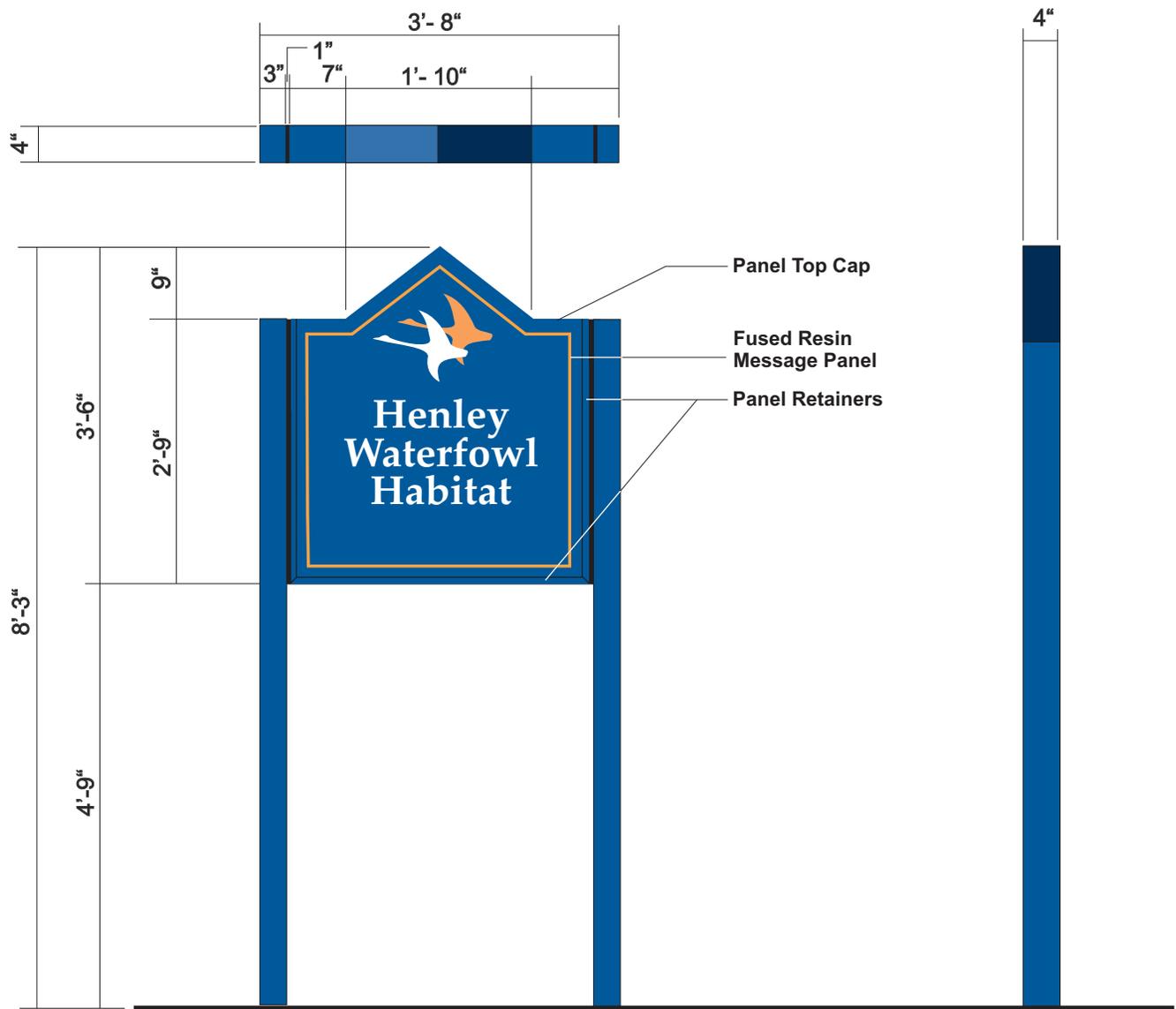
<b>Type A.5.1 Pedestrian Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-5A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings GT-5D and GT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.2 Pedestrian Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-5B</b>

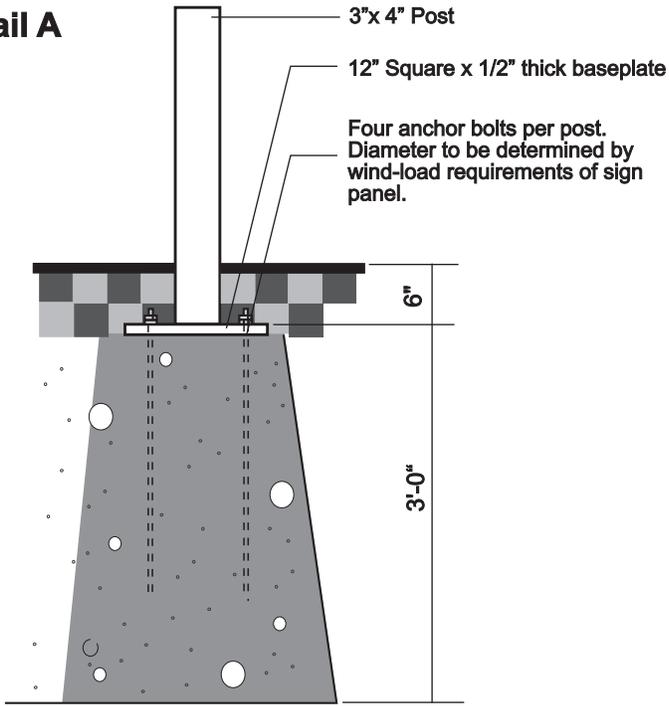


**NOTES:**

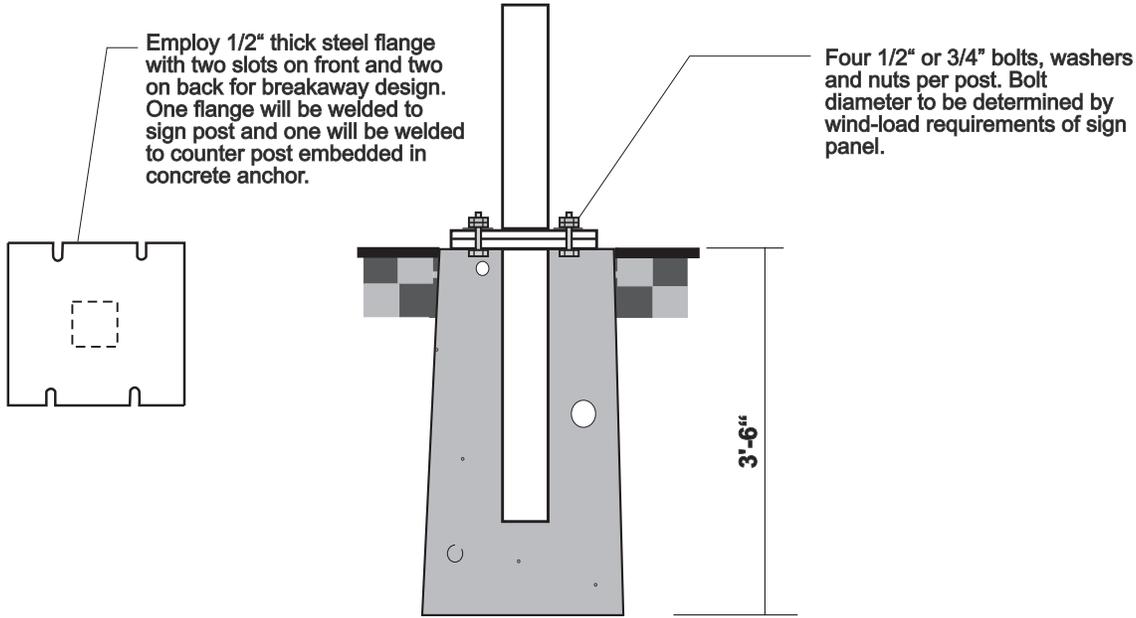
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings GT-5D and GT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.3 Pedestrian Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>GT-5C</b>

**Installation Detail A**



**Installation Detail B**



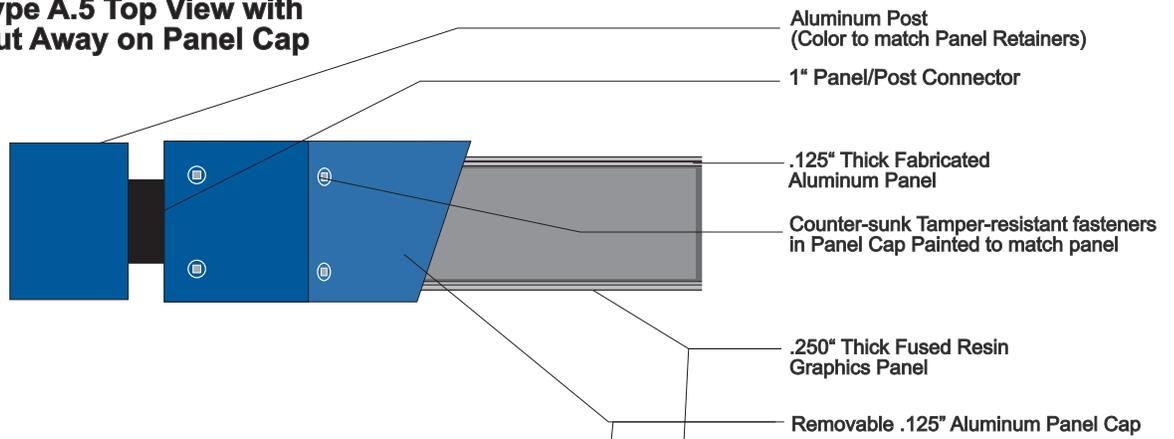
**Foundation Detail**

NOTES:

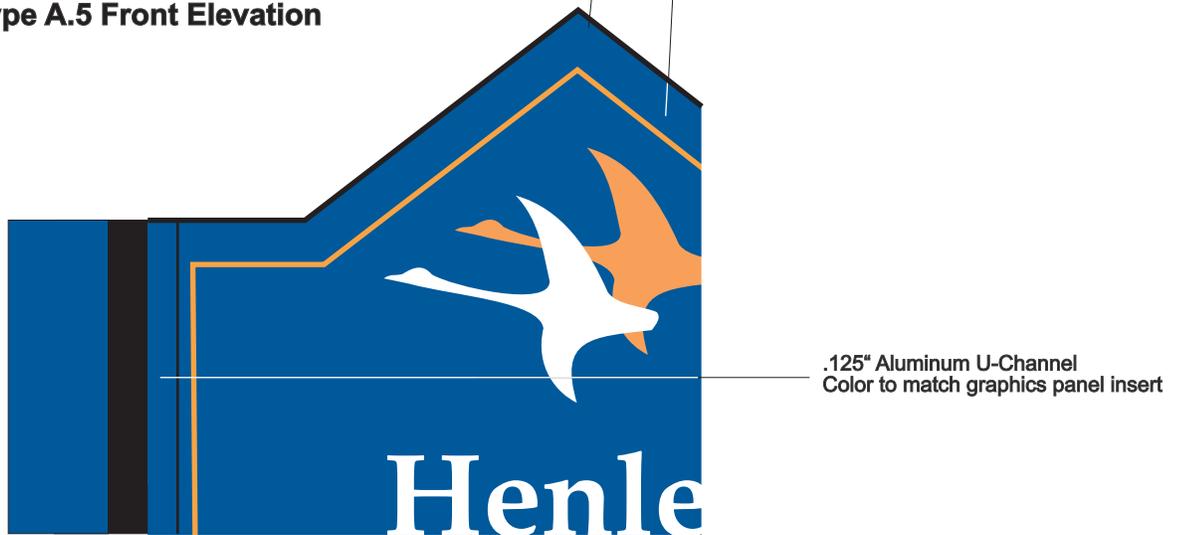
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type A.5 Post and Panel Installation Details</b>	
<b>Niagara River Greenway</b>	<b>GT-5D</b>

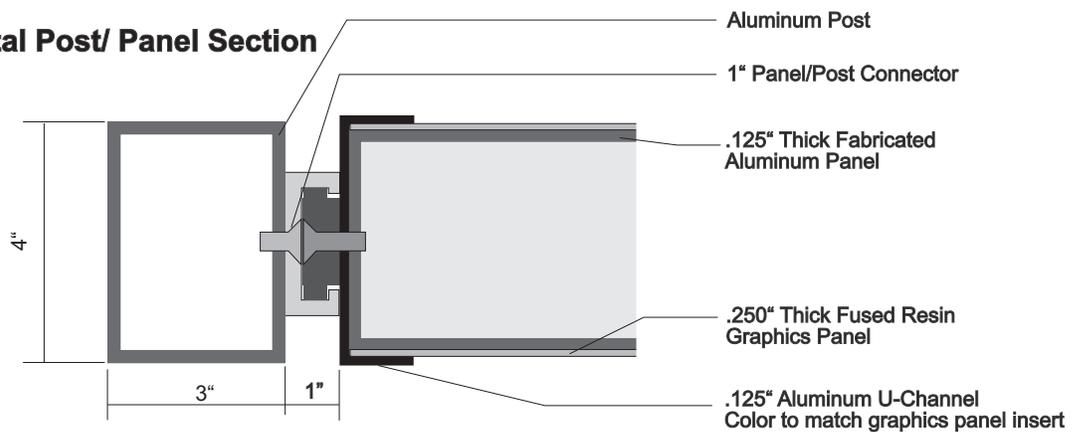
**Type A.5 Top View with Cut Away on Panel Cap**



**Type A.5 Front Elevation**



**Horizontal Post/ Panel Section**



<p><b>Type A.5 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-5E</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.1 Pedestrian Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>GT-6A</b>

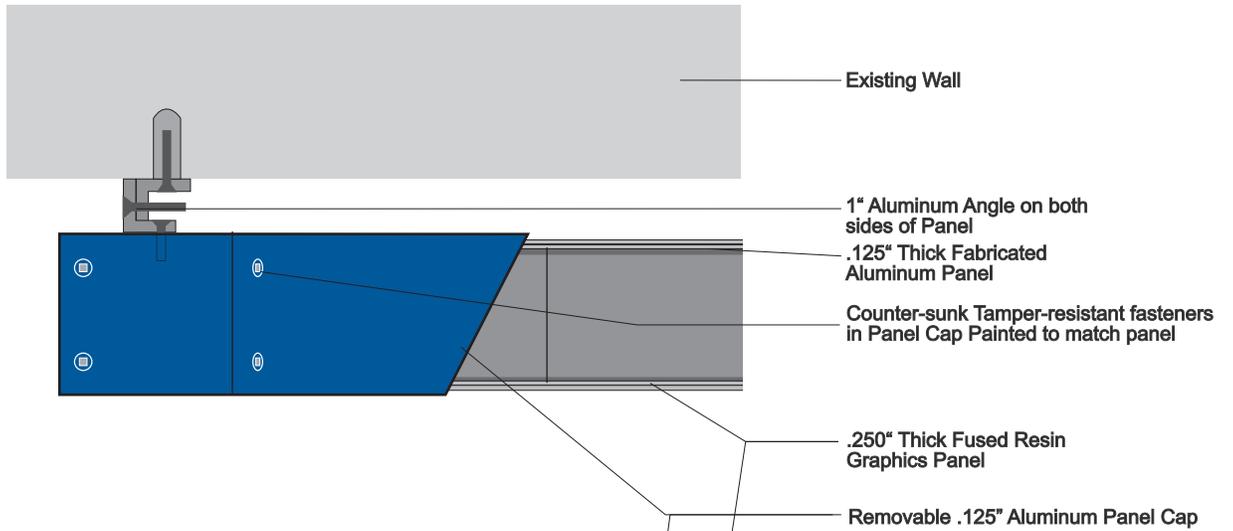


**NOTES:**

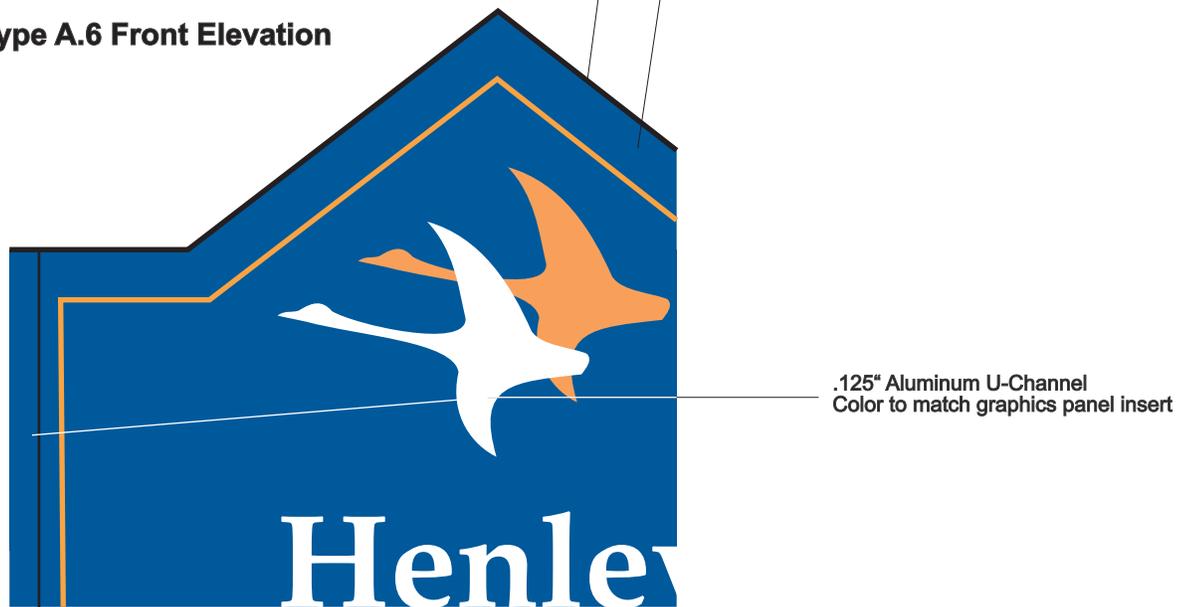
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.2 Pedestrian Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>GT-6B</b>

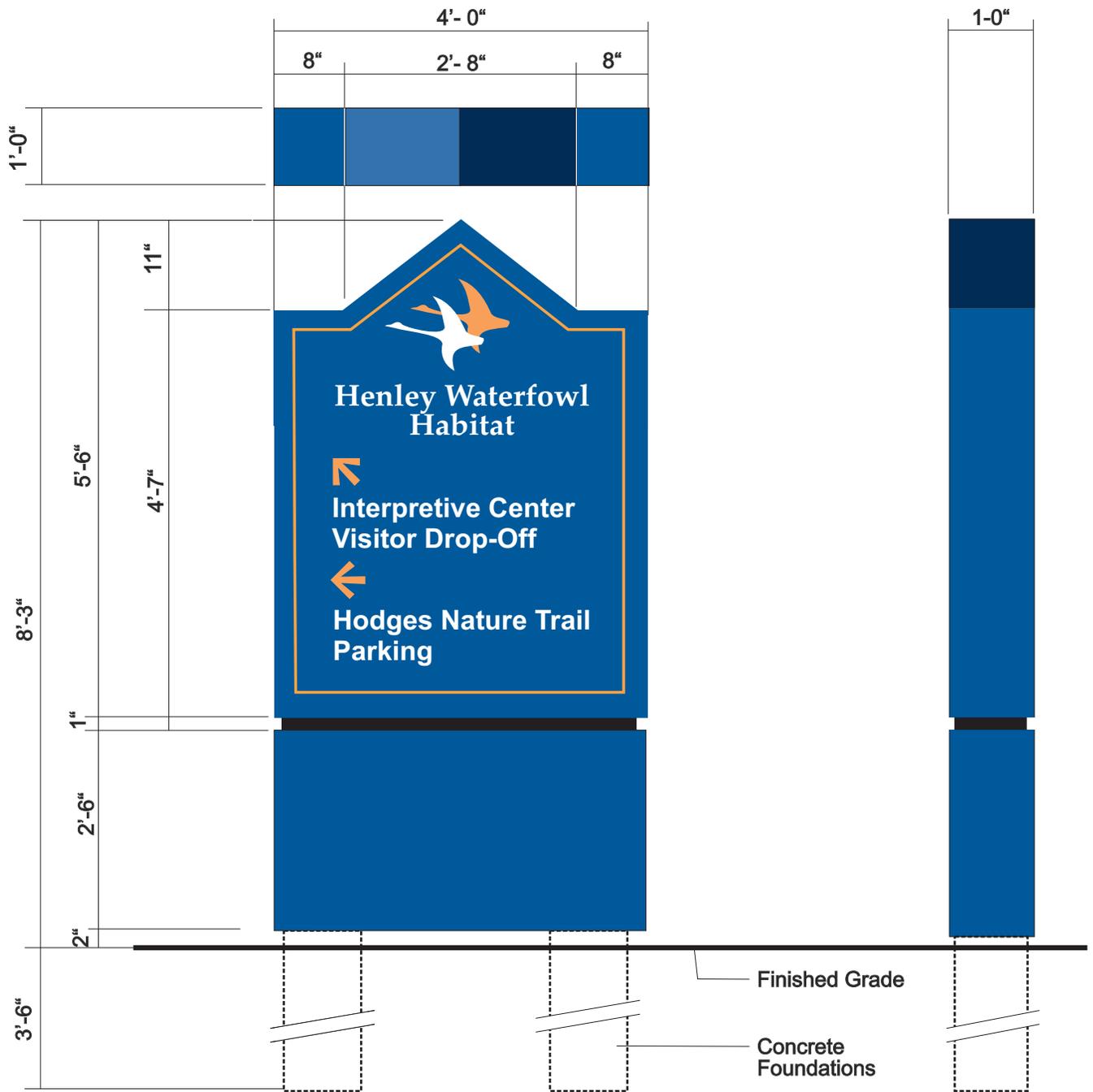
**Type A.6 Top View with  
Cut Away on Panel Cap**



**Type A.6 Front Elevation**



<p><b>Type A.6 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-6C</b></p>



**NOTES:**

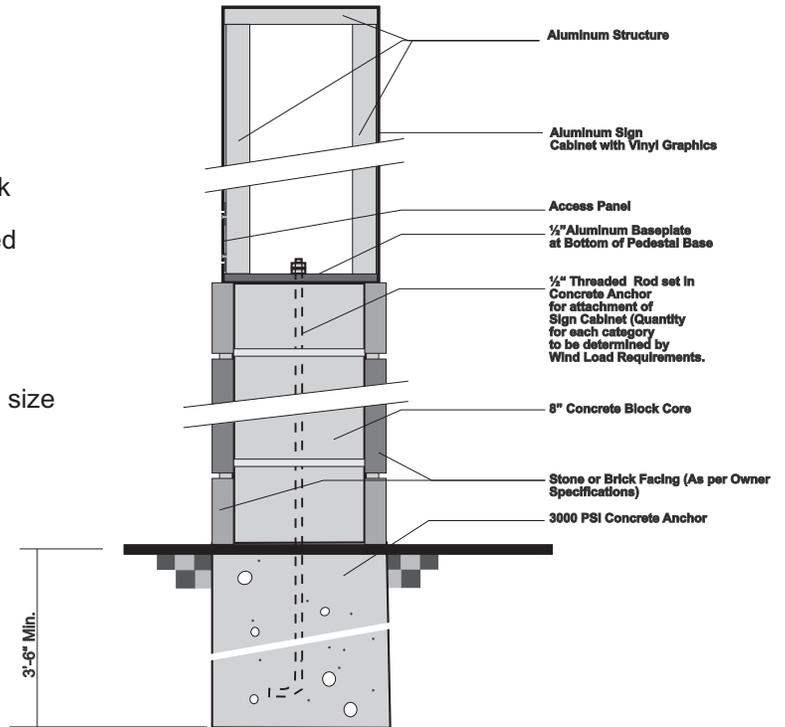
1. Sign panel to be fabricated aluminum box construction. See Drawing GT-10B for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type B.1.1 Vehicular Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>GT-10A</b>

# Stone/Brick Pylon Base

**NOTES:**

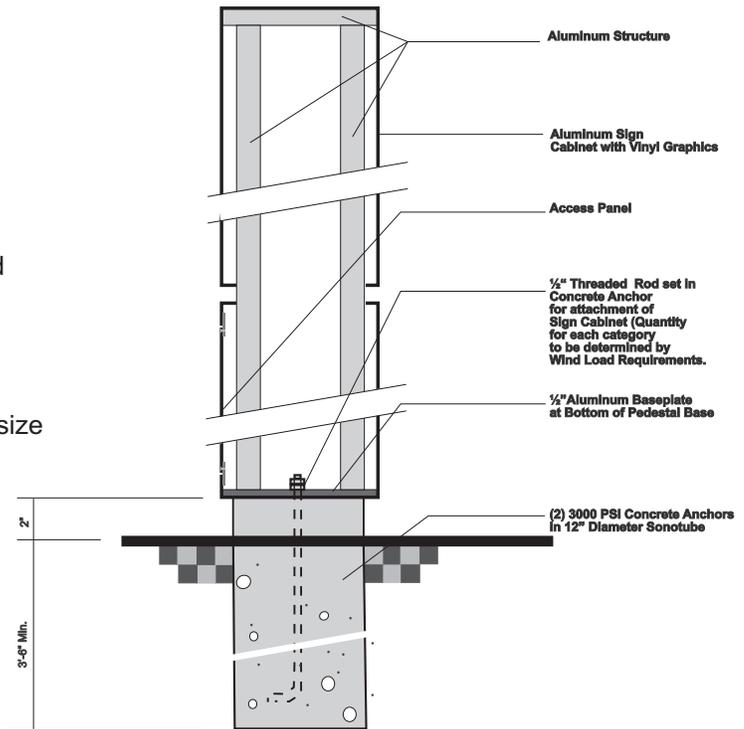
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



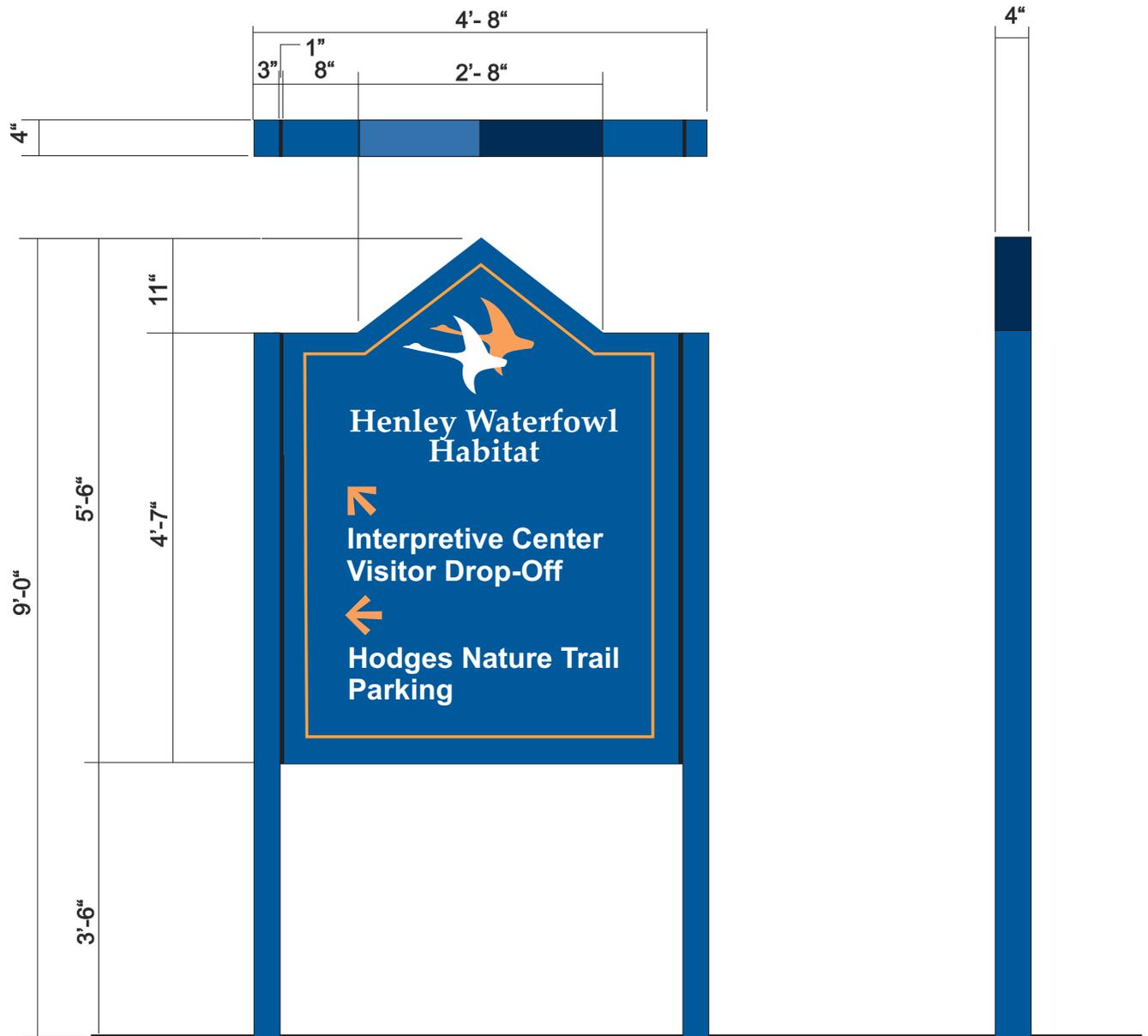
# Aluminum Pylon Base

**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



<b>Type B.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>GT-10B</b>

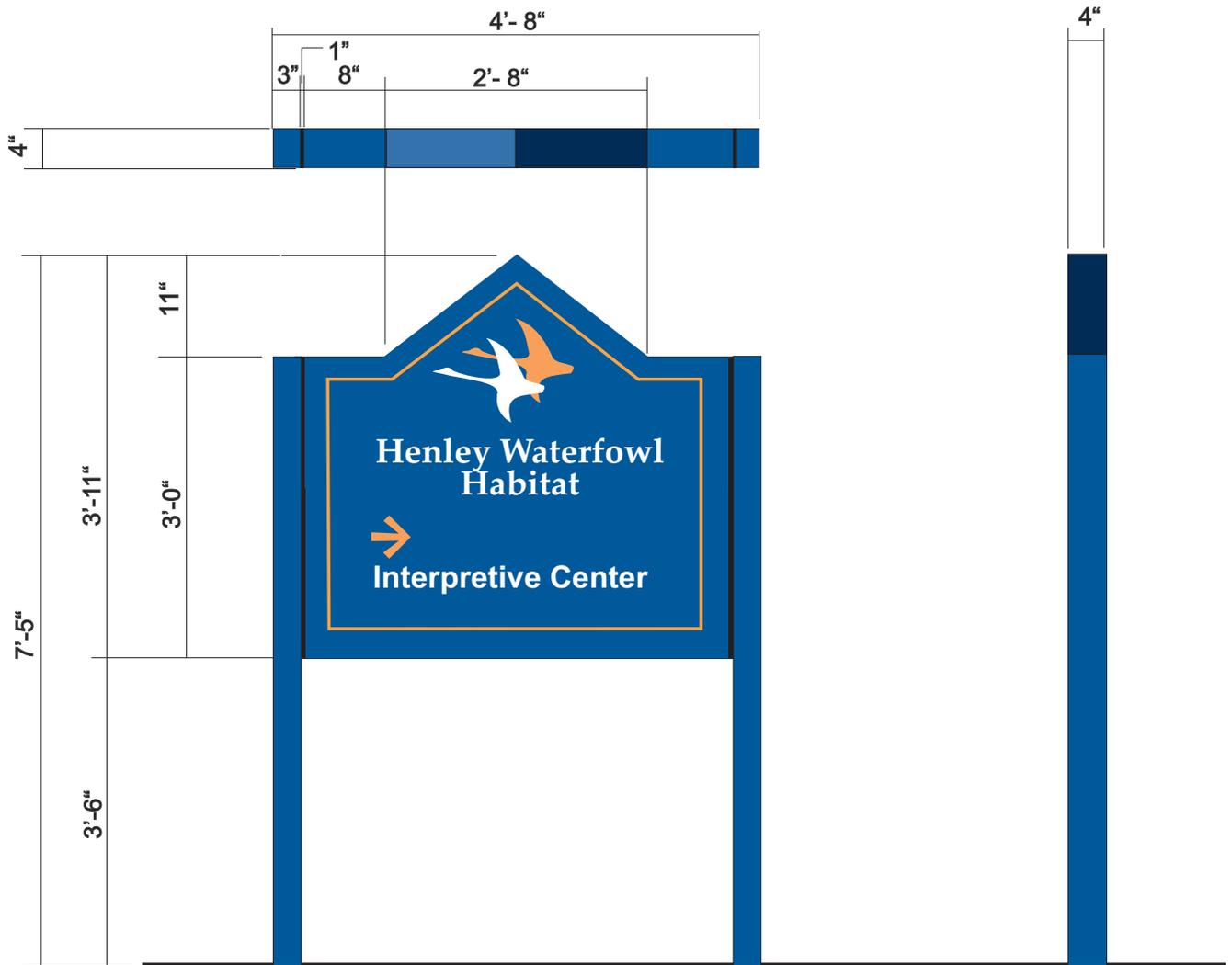


**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-11E for construction and installation details.

<b>Type B.2.1 Vehicular Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-11A</b>



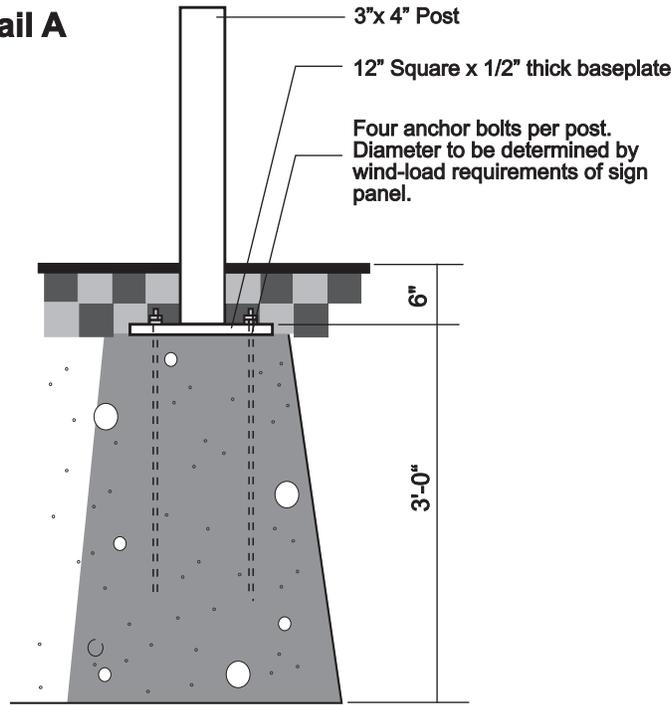


**NOTES:**

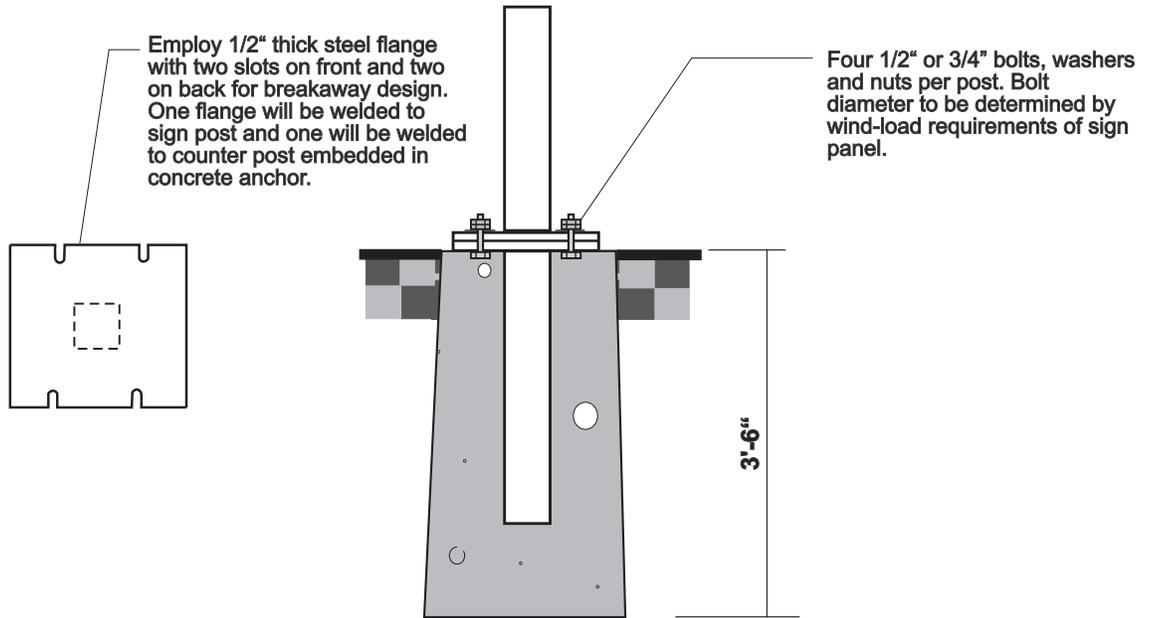
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy will utilize surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-11D for construction and installation details.

<b>Type B.2.3 Vehicular Directional Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>GT-11C</b>

### Installation Detail A



### Installation Detail B



### Foundation Detail

NOTES:

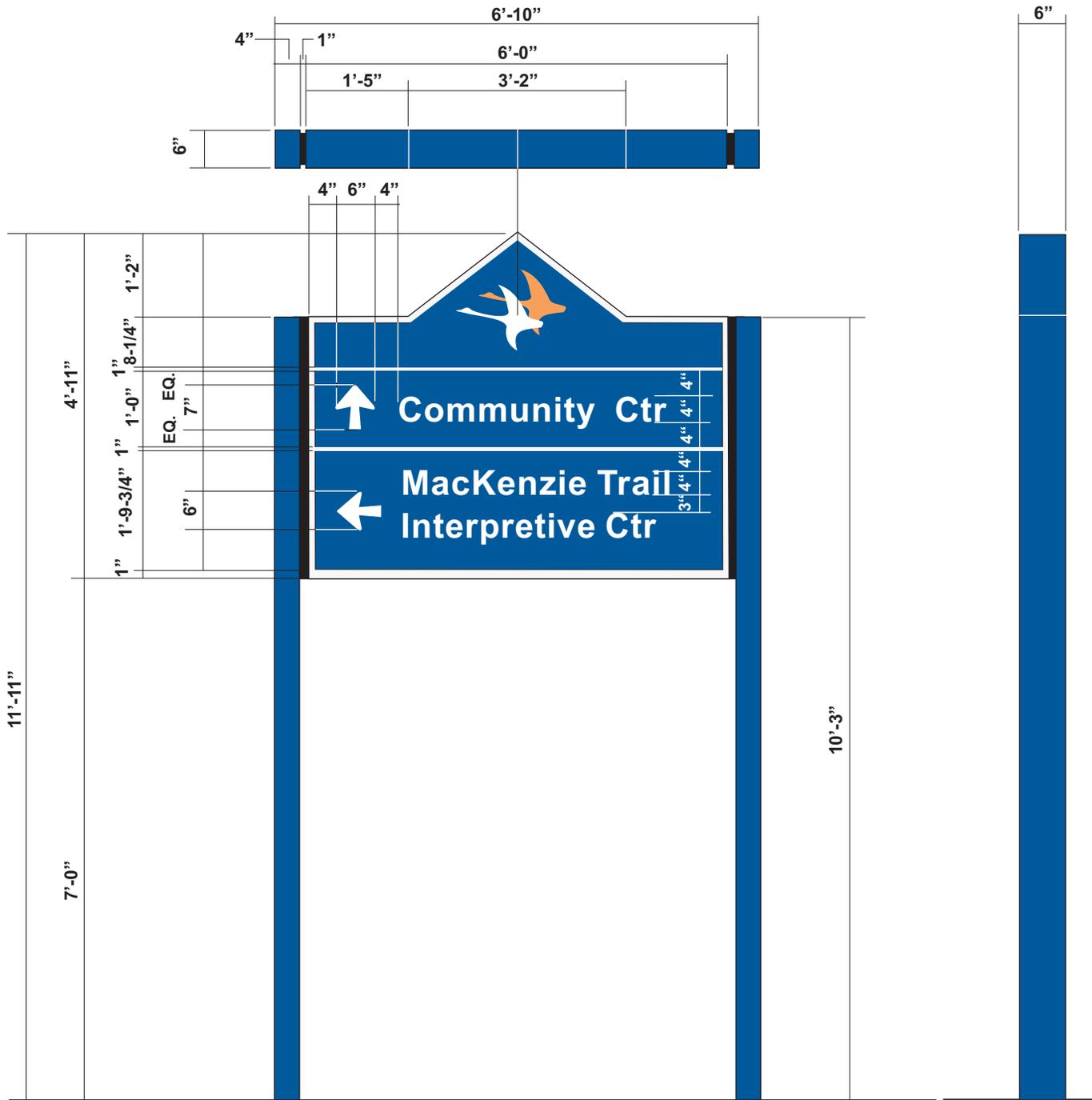
1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-11D</b>





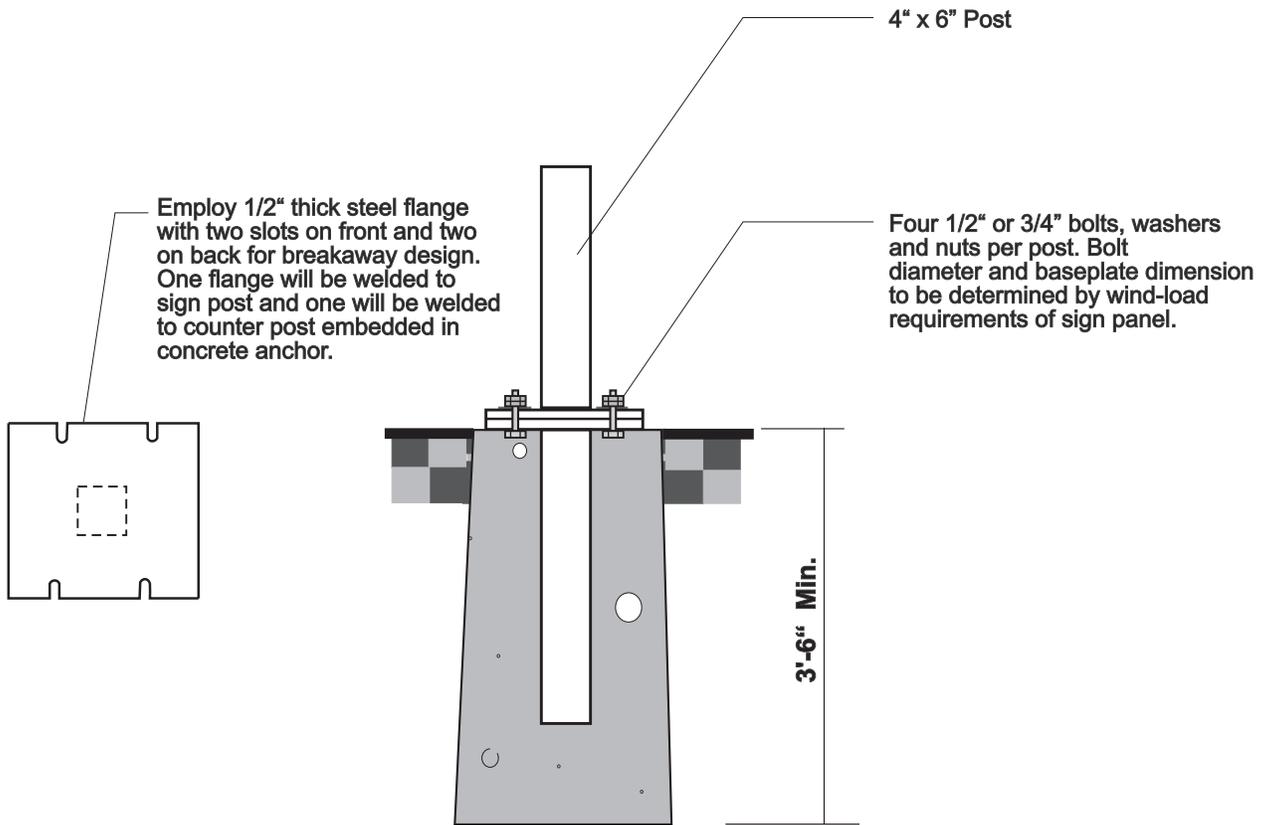




**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.creen-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing GT-12E for construction and installation details.

<b>Type B.3.4 MUTCD Directional Post and Panel D</b>	
<b>Niagara River Greenway</b>	<b>GT-12D</b>



**Foundation Detail**

**NOTES:**

1. Precise Concrete Anchor depth to be determined by sign wind load requirements.
2. Unless otherwise indicated in message schedule, assume mounting surfaces are undisturbed soil.

<b>Type B.3 Post and Panel Installation Details</b>	
<b>Niagara River Greenway</b>	<b>GT-12E</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

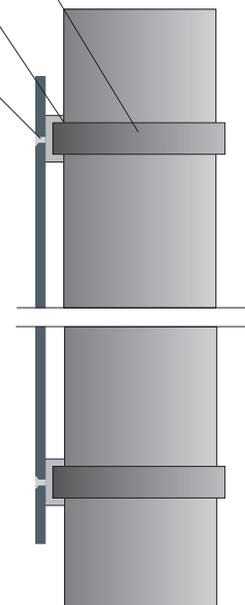
<b>Type B.4.1 Vehicular Directional Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-13A</b>



.020" x 3/4" Valustrap Plus™ Banding

.075" thick Stainless Steel Brack-It™

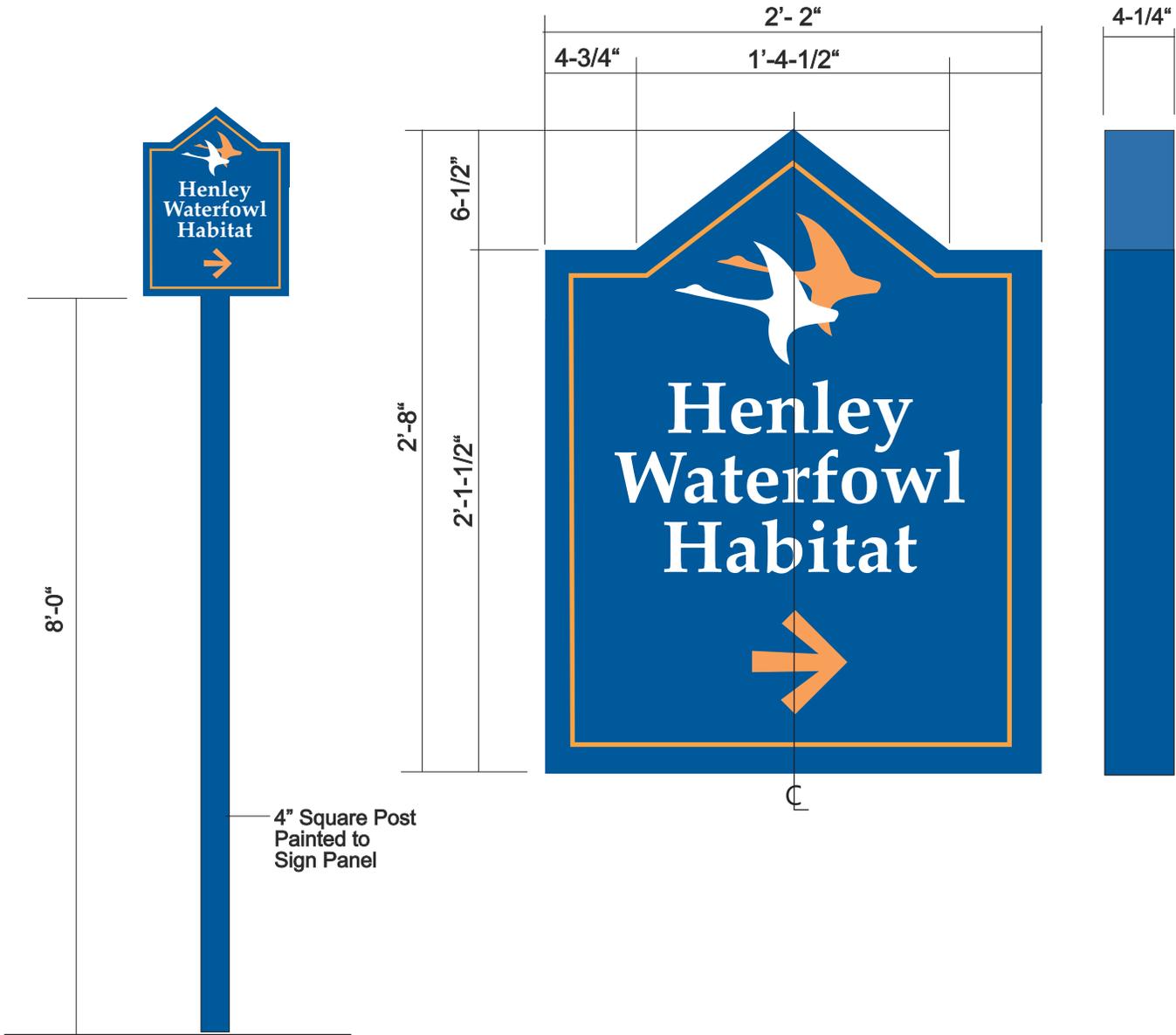
Flathead Stainless Steel Bolt



**NOTES:**

1. Sign panel to be fabricated from .125" thick aluminum with retroreflective graphics and background. Paint back and edges to match face.
2. Use Band-It brand Stainless Steel strapping for attachment to existing utility poles.

Type B.5.1 Off-Site Trailblazer Existing Pole Mount	
Niagara River Greenway	GT-14A

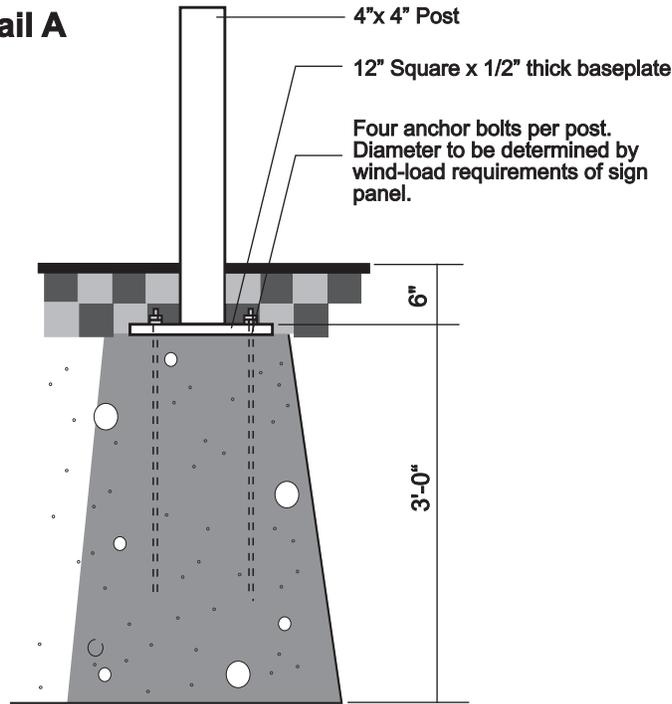


NOTES:

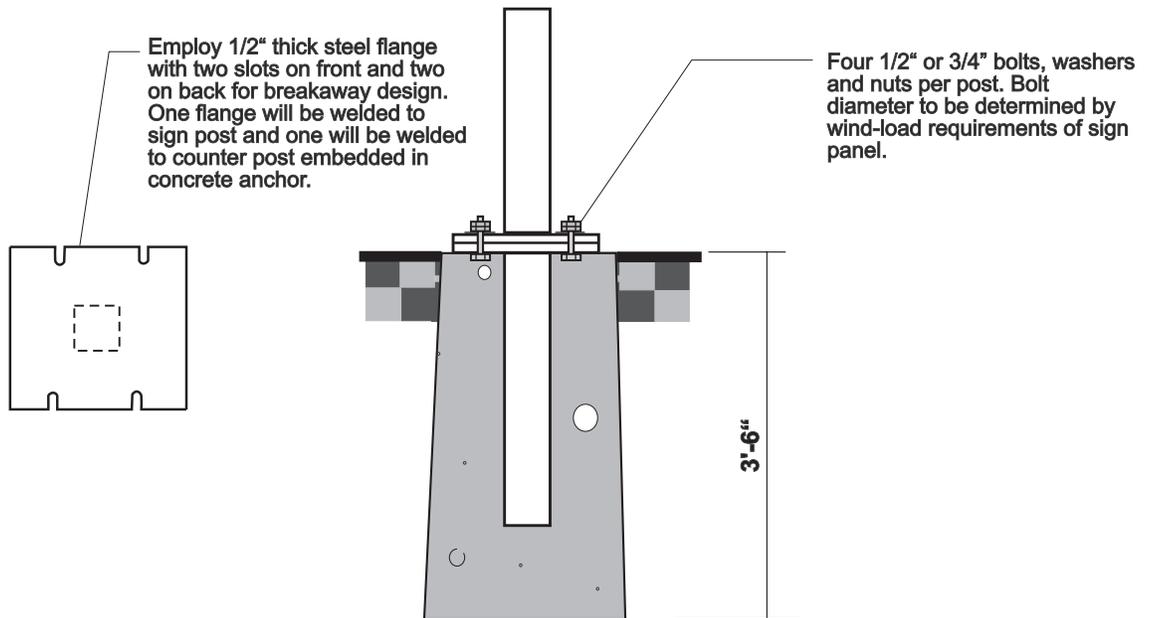
1. Panel to be fabricated aluminum seamless box panel construction. Post to be 4" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-14C installation details.

<b>Type B.5.2 Off-Site Trailblazer New Pole Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-14B</b>

### Installation Detail A



### Installation Detail B

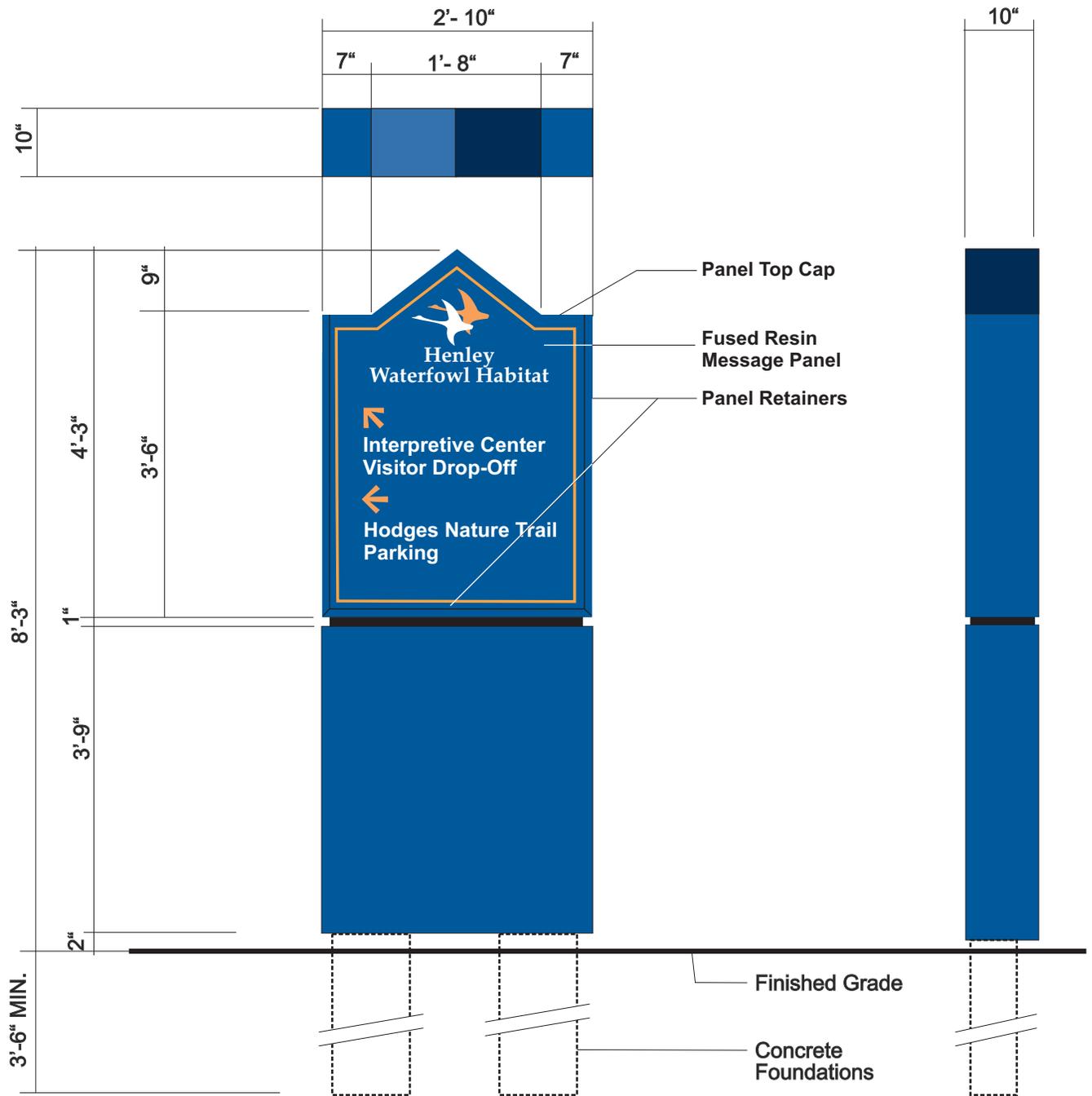


### Foundation Detail

NOTES:

1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.5.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-14C</b>



NOTES:

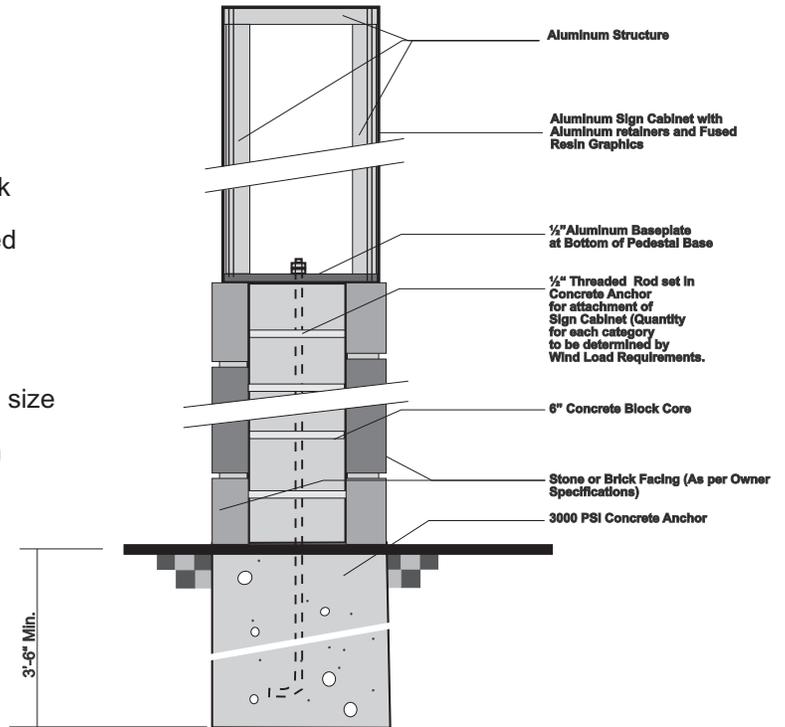
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings GT-15B and GT-15C for Base Material and construction details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.6.1 Pedestrian Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>GT-15A</b>

# Stone/Brick Pylon Base

**NOTES:**

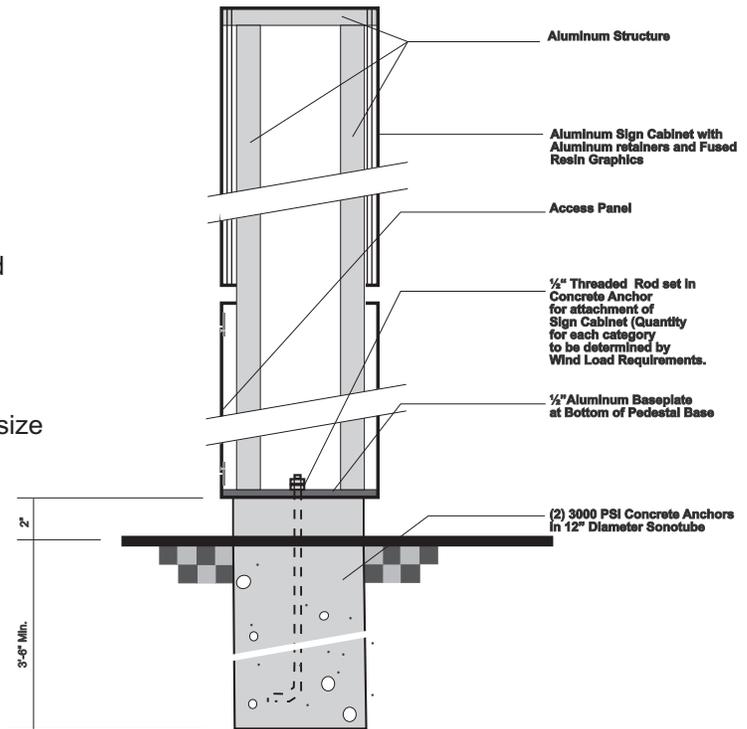
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-15C for panel construction details.



# Aluminum Pylon Base

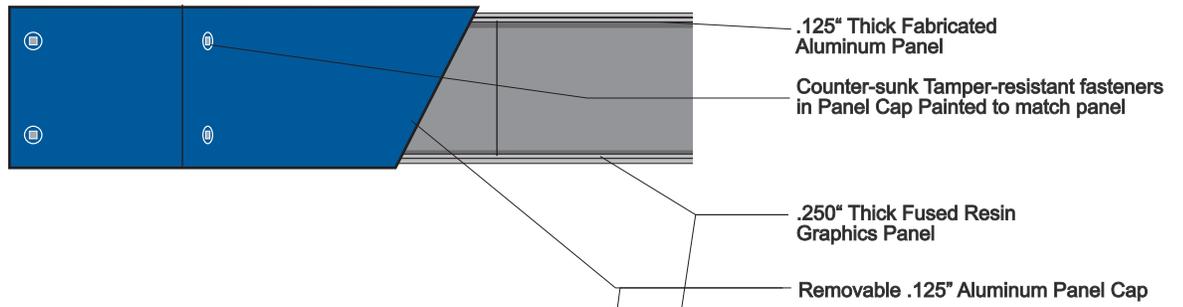
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-15C for panel construction details.

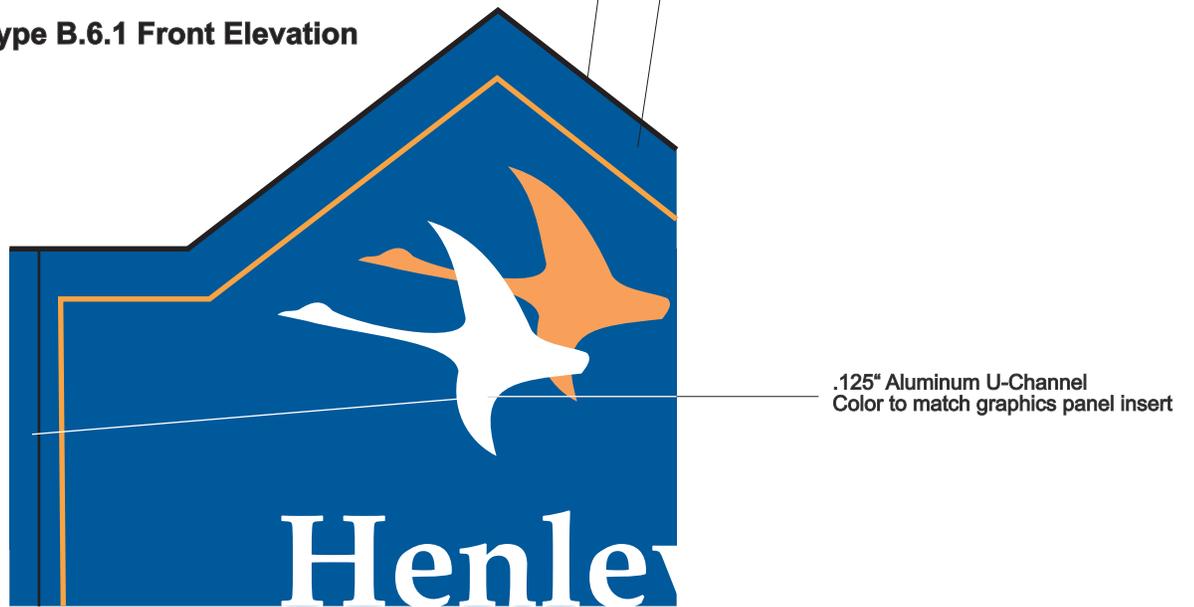


<b>Type B.6 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>GT-15B</b>

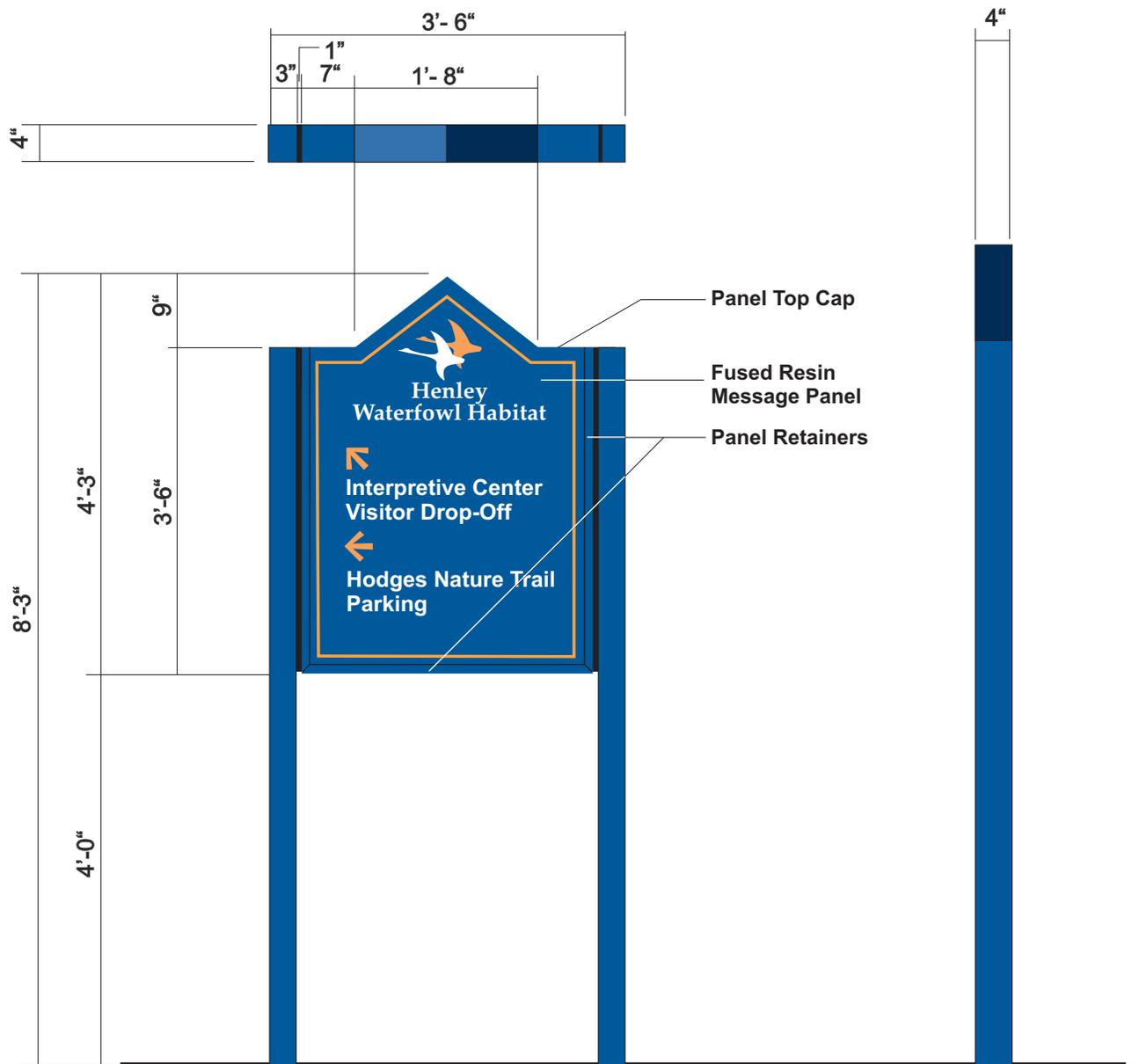
**Type B.6.1 Top View with  
Cut Away on Panel Cap**



**Type B.6.1 Front Elevation**



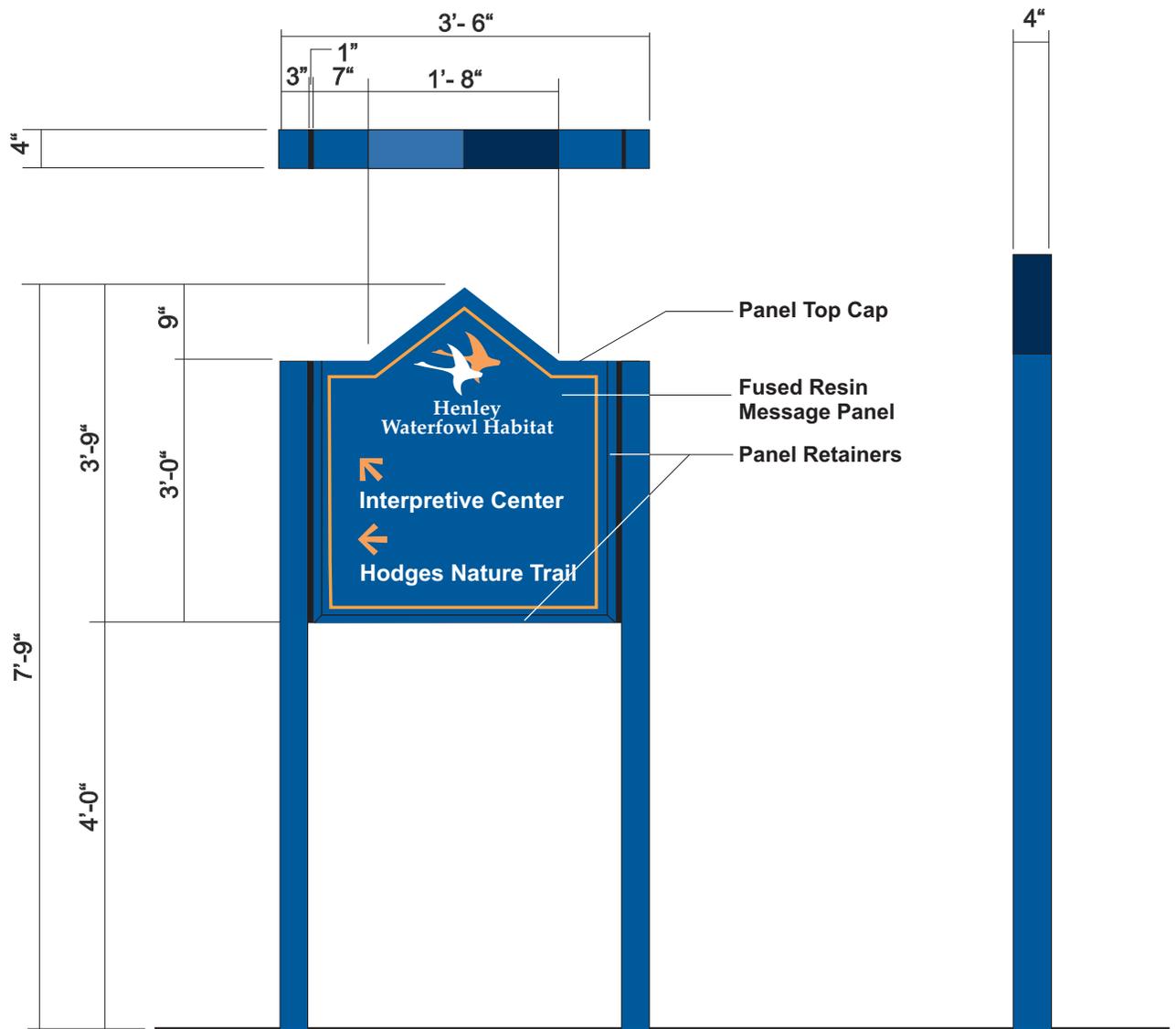
<p><b>Type B.6 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-15C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-16C and GT-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.1 Pedestrian Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-16A</b>

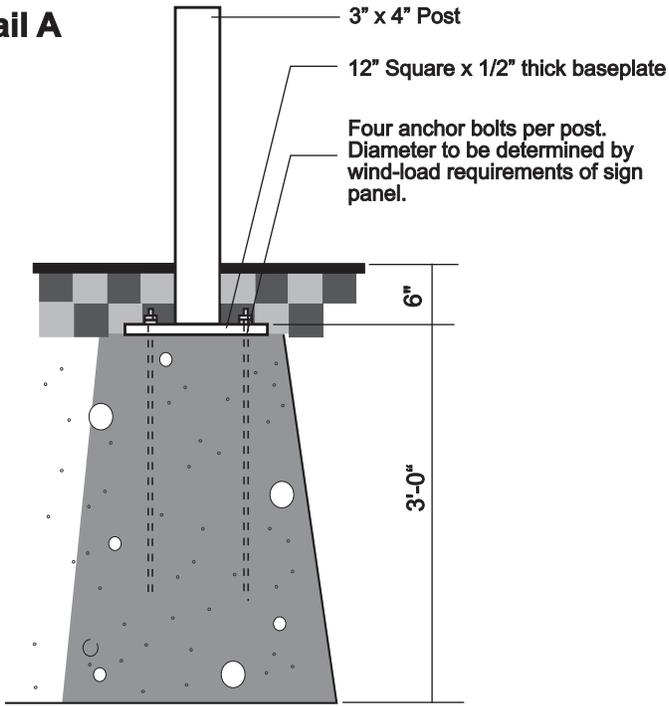


**NOTES:**

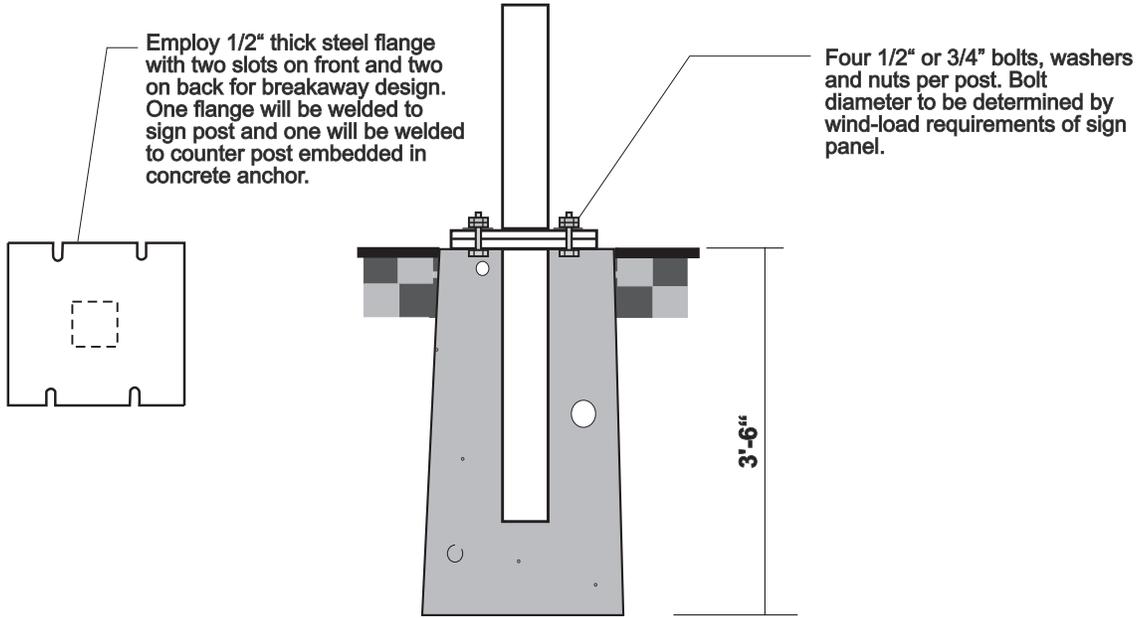
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-16C and GT-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.2 Pedestrian Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-16B</b>

**Installation Detail A**



**Installation Detail B**



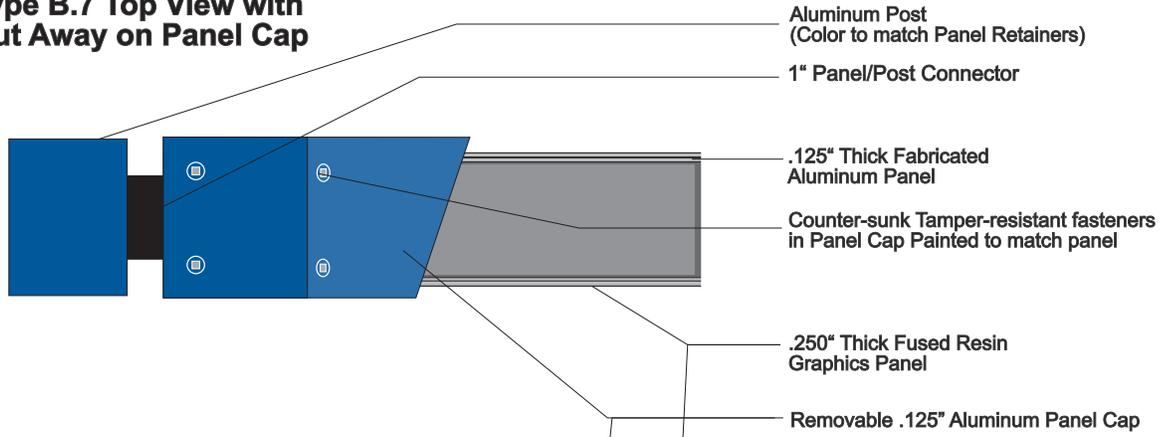
**Foundation Detail**

NOTES:

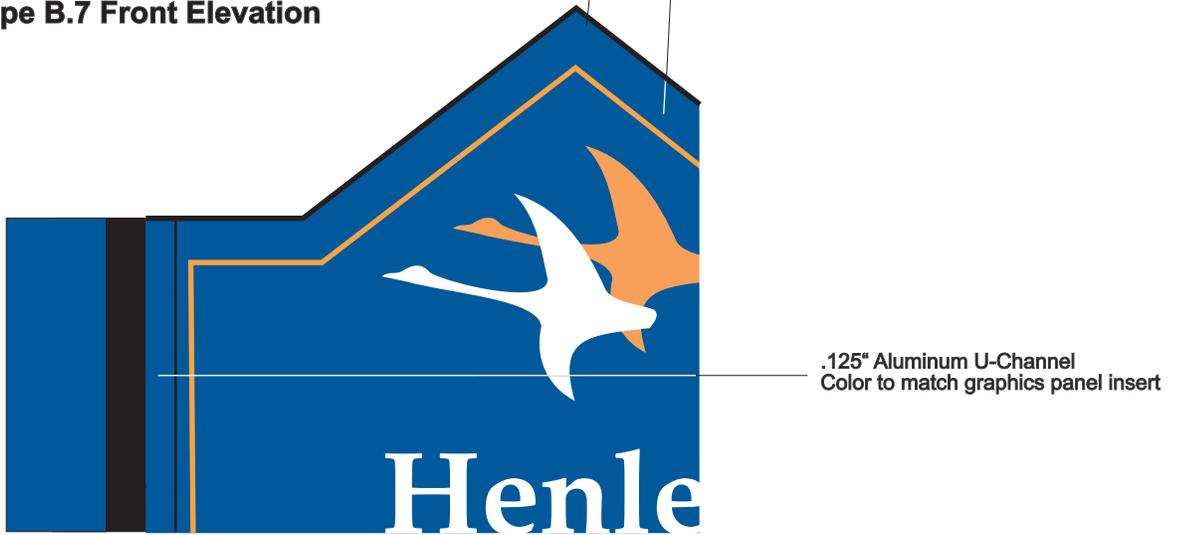
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.7 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-16C</b>

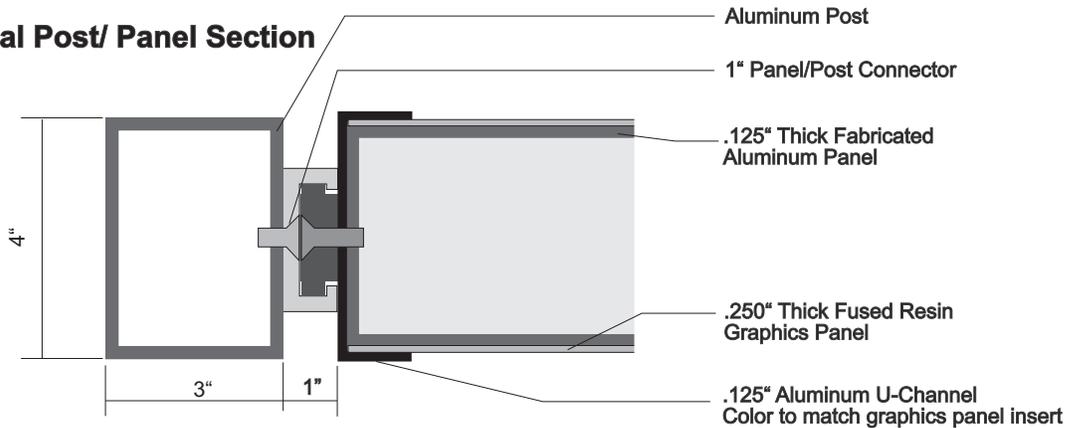
**Type B.7 Top View with Cut Away on Panel Cap**



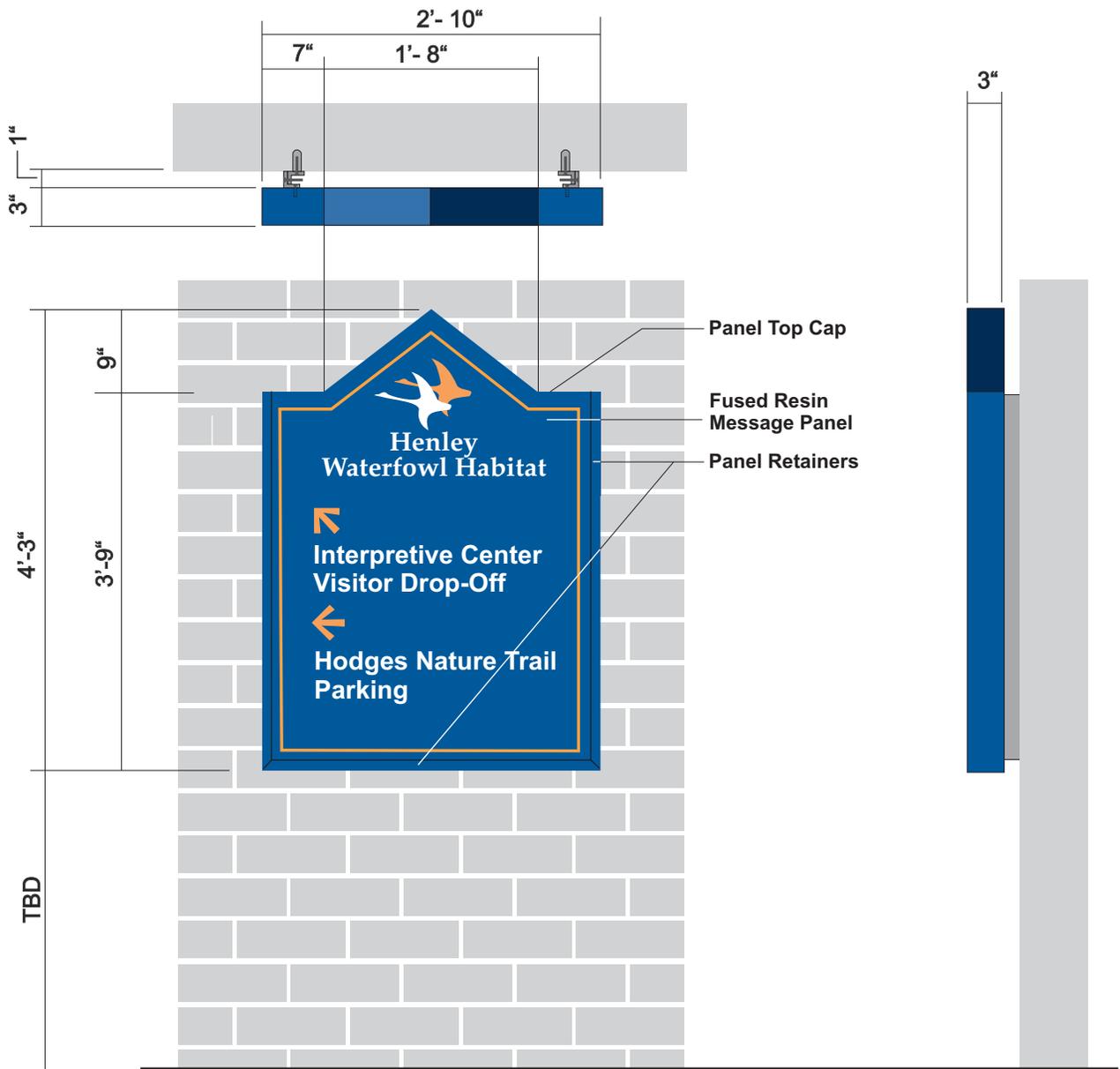
**Type B.7 Front Elevation**



**Horizontal Post/ Panel Section**



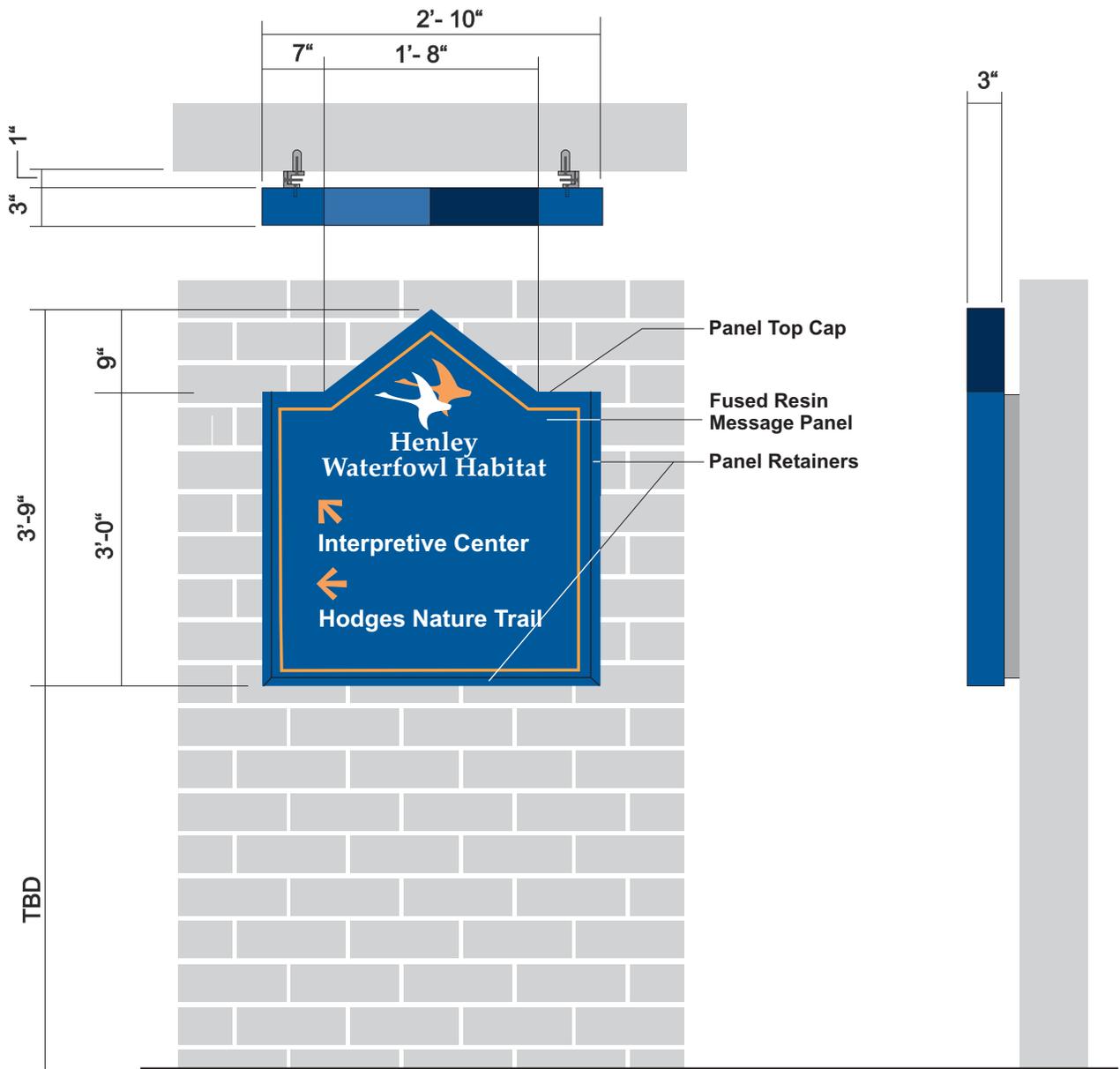
<p><b>Type B.7 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-16D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.1 Pedestrian Directional Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>GT-17A</b>

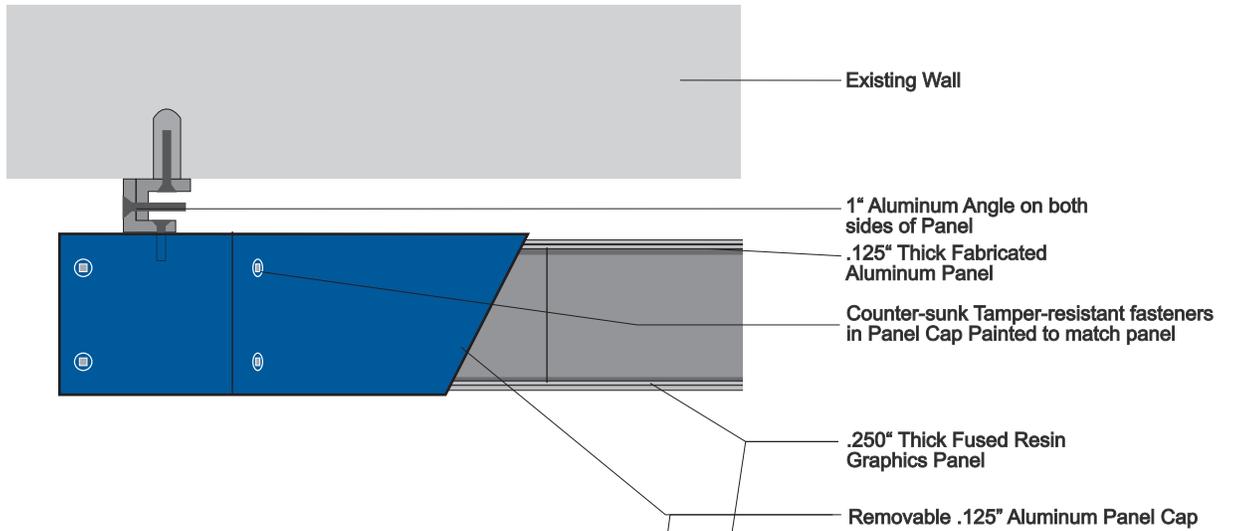


NOTES:

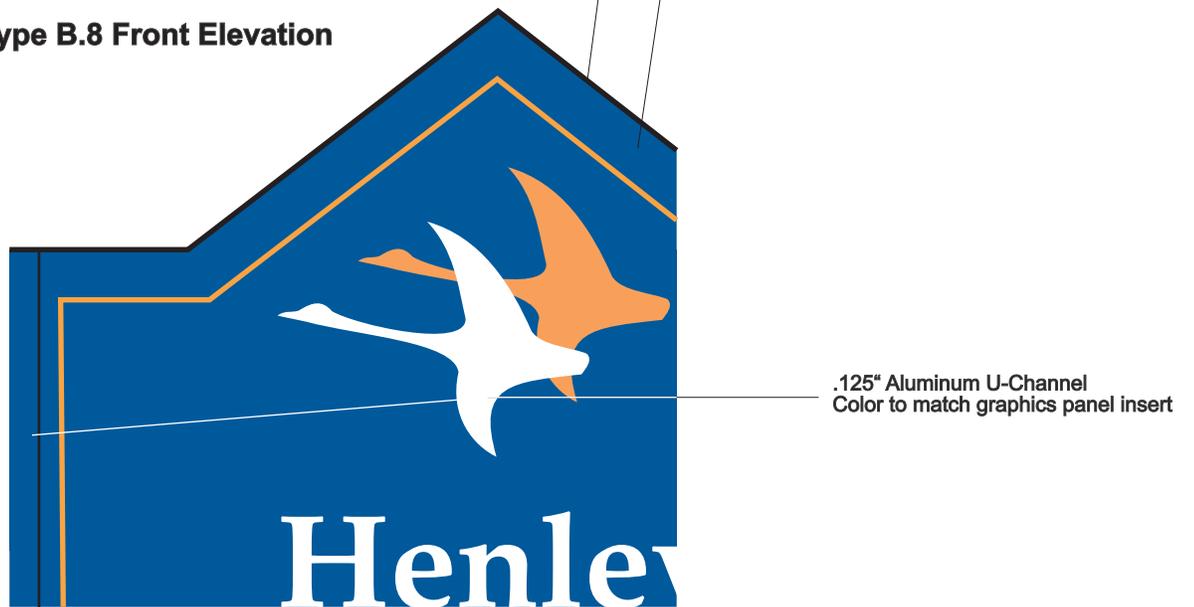
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.2 Pedestrian Directional Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>GT-17B</b>

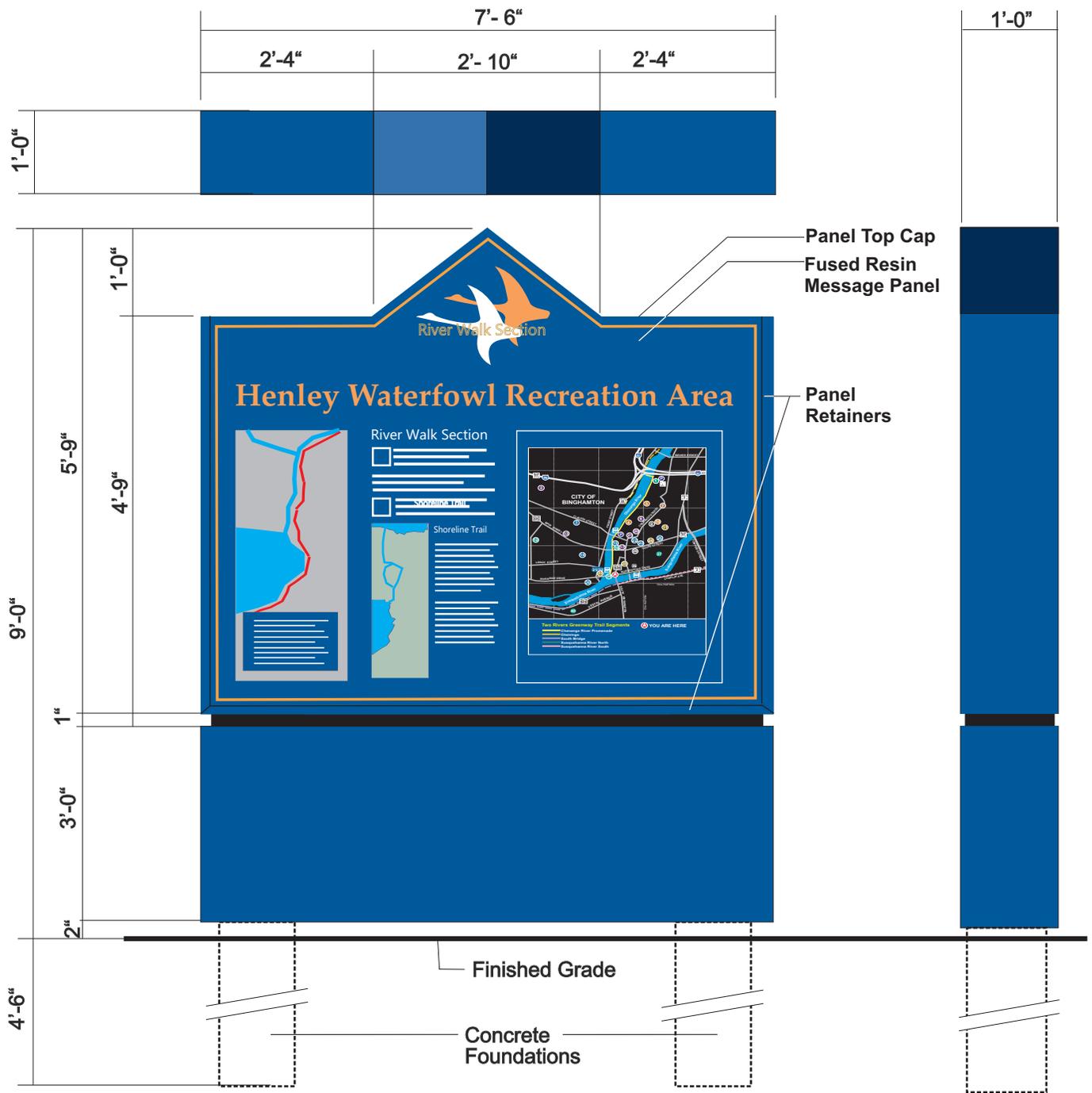
**Type B.8 Top View with  
Cut Away on Panel Cap**



**Type B.8 Front Elevation**



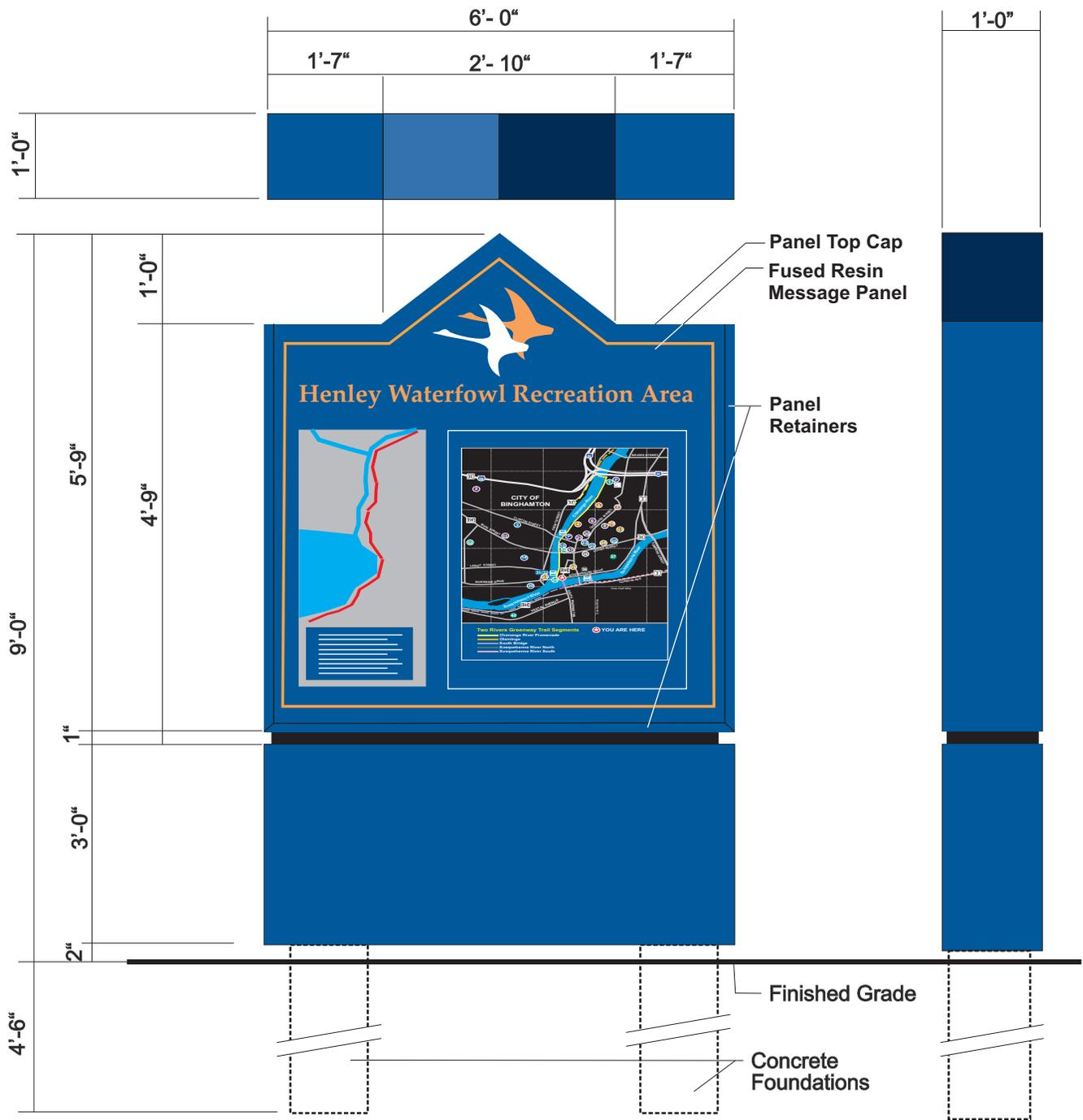
<p><b>Type B.8 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-17C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings GT-20C and GT-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.1 Vehicular Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>GT-20A</b>



**NOTES:**

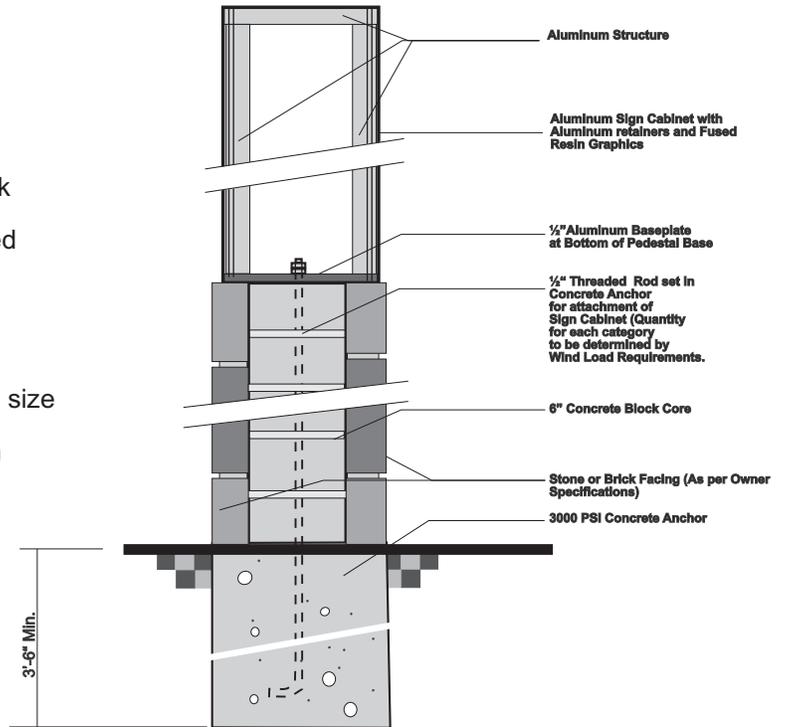
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings GT-20C and GT-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.2 Vehicular Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>GT-20B</b>

# Stone/Brick Pylon Base

**NOTES:**

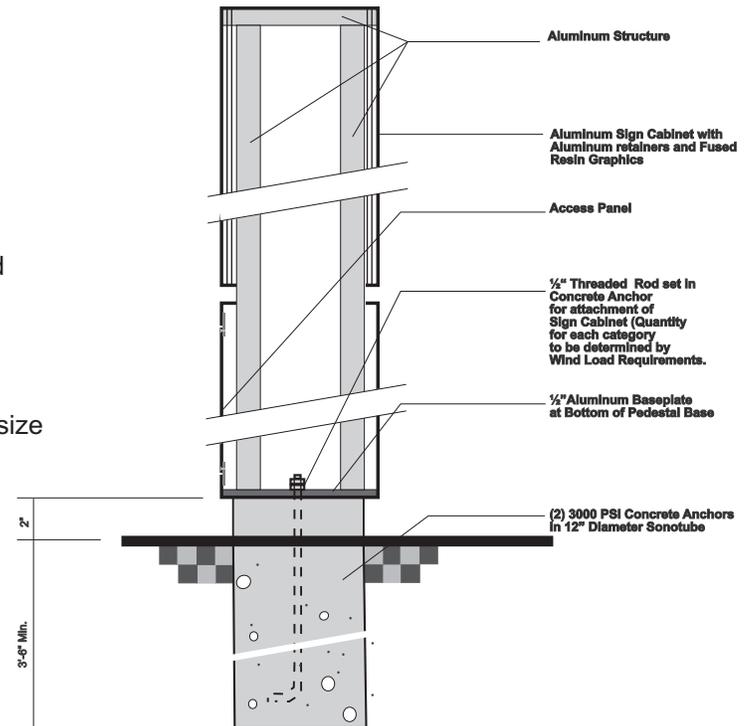
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-20D for panel construction details.



# Aluminum Pylon Base

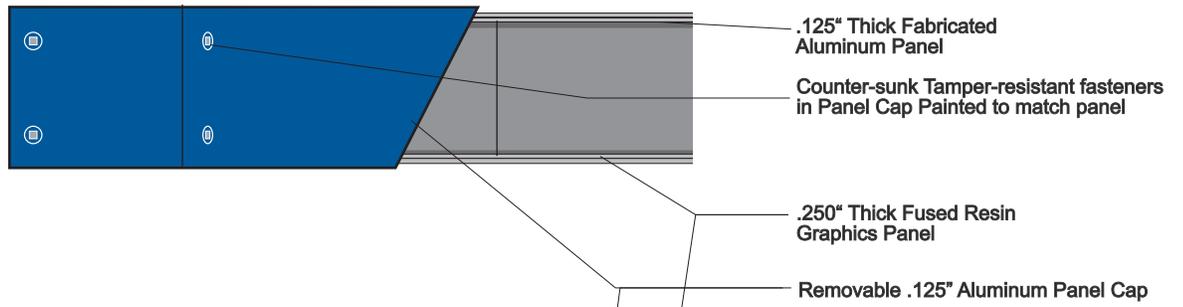
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-20D for panel construction details.

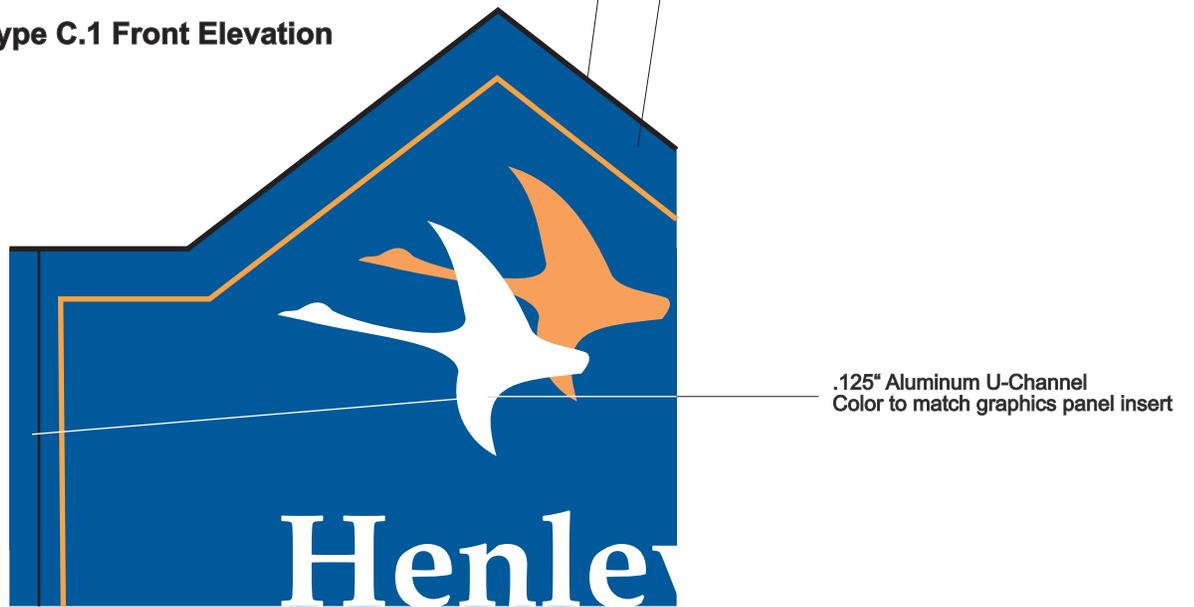


<b>Type C.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>GT-20C</b>

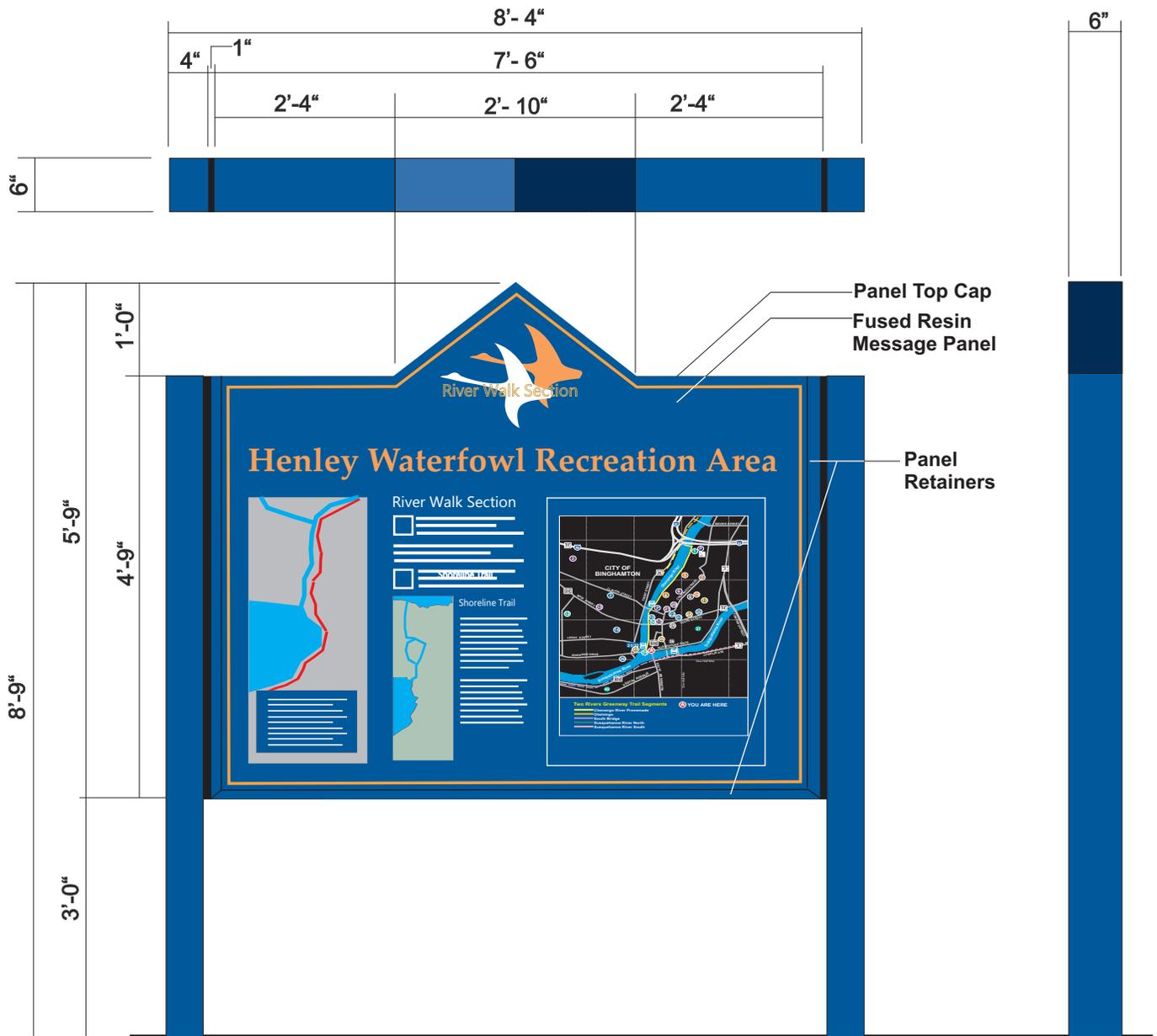
**Type C.1 Top View with  
Cut Away on Panel Cap**



**Type C.1 Front Elevation**



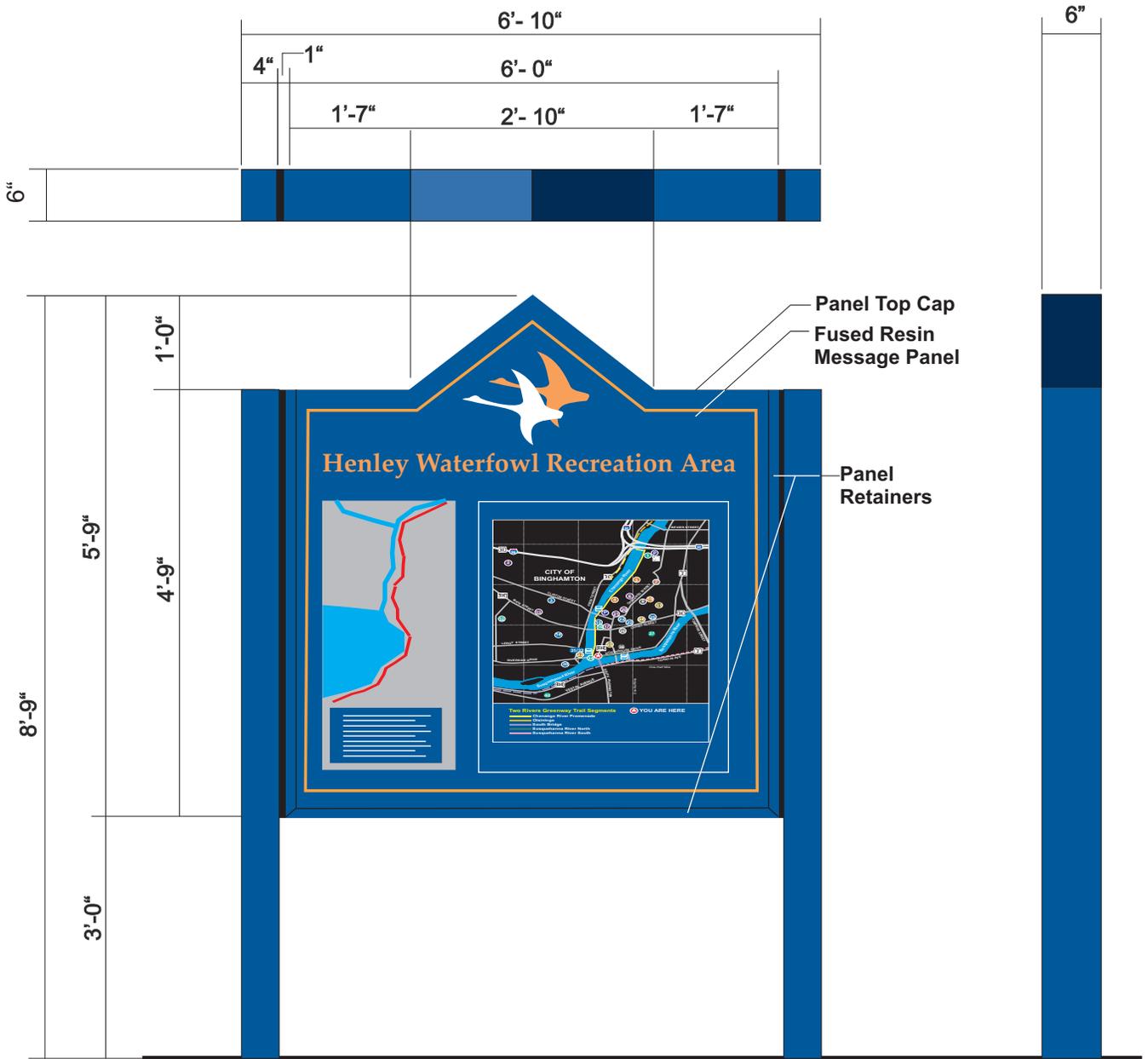
<p><b>Type C.1 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-20D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings GT-21C and GT-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.1 Vehicular Orientation Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-21A</b>

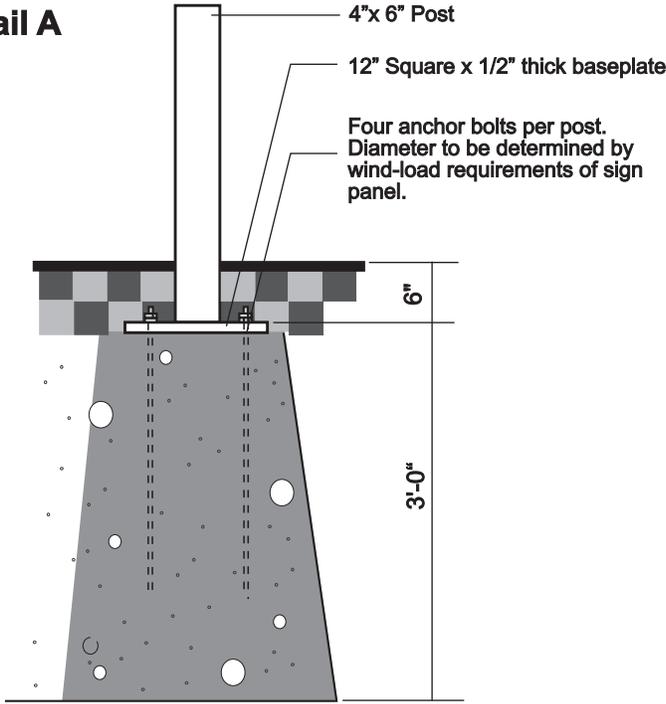


**NOTES:**

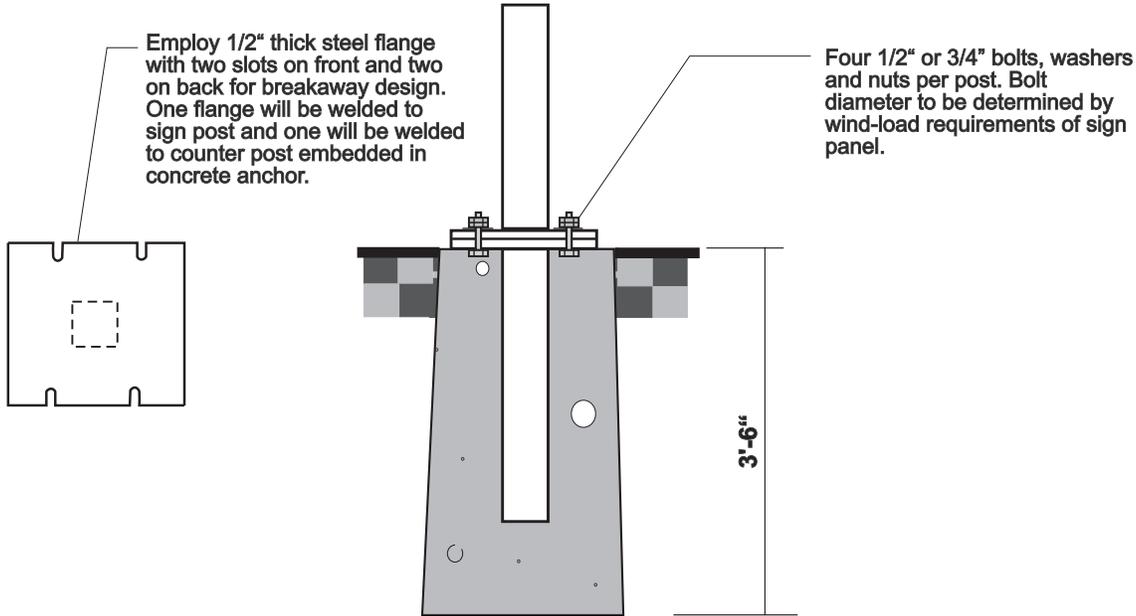
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings GT-21C and GT-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.2 Vehicular Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-21B</b>

**Installation Detail A**



**Installation Detail B**



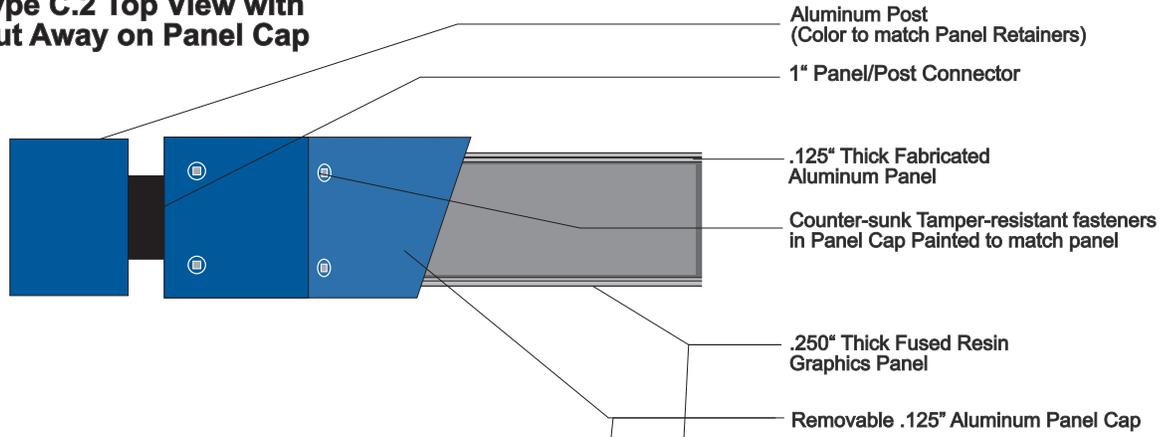
**Foundation Detail**

NOTES:

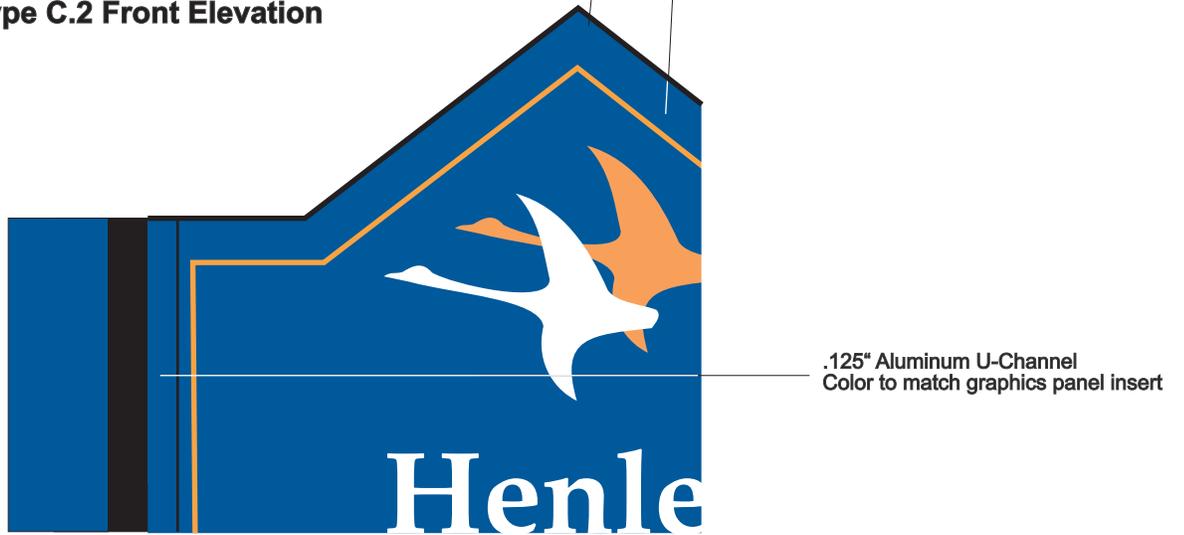
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-21C</b>

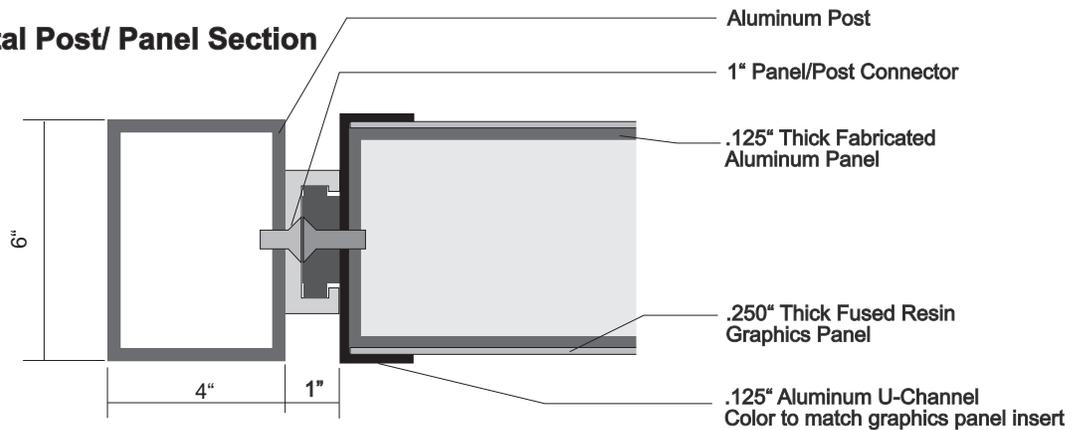
**Type C.2 Top View with Cut Away on Panel Cap**



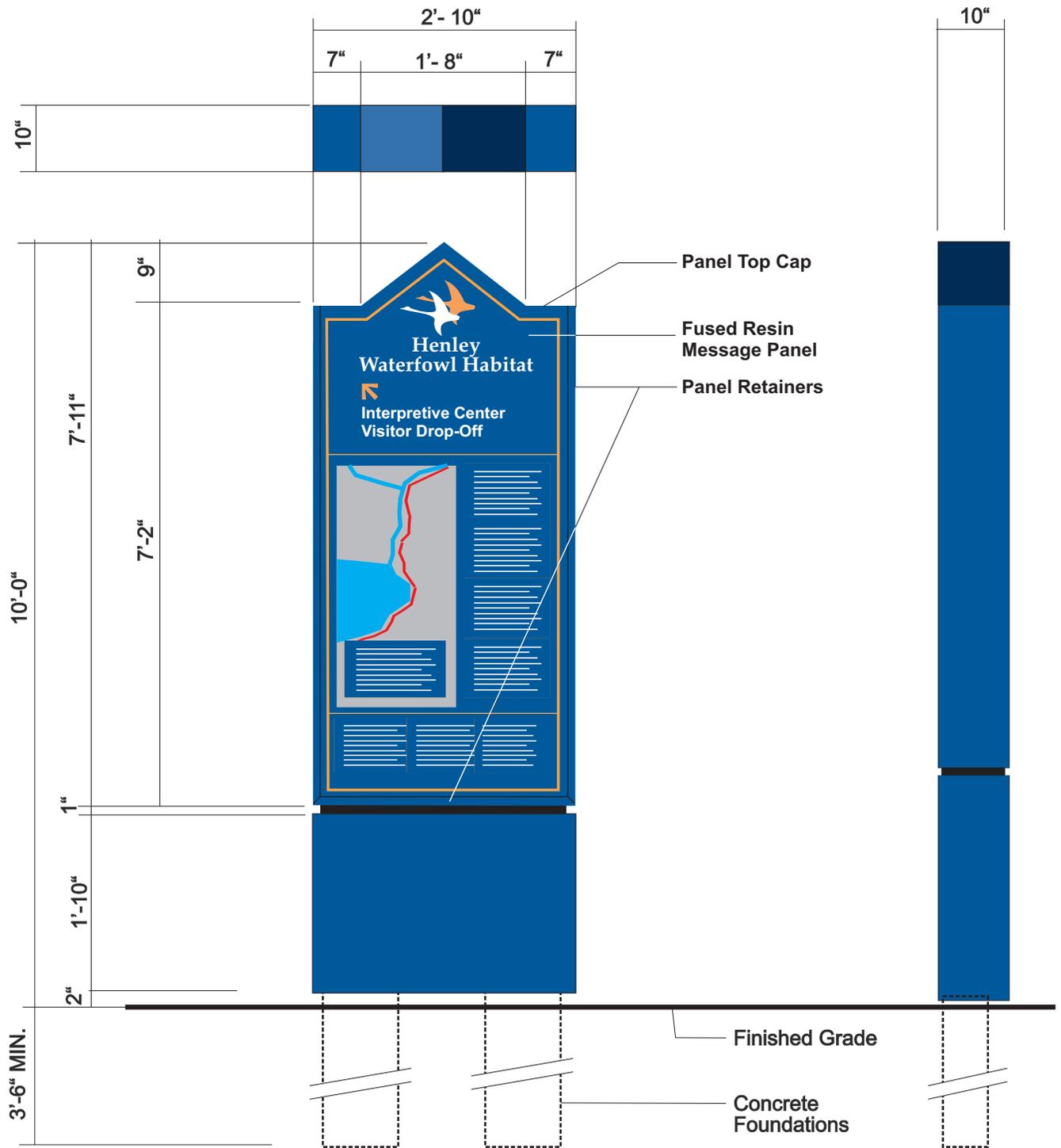
**Type C.2 Front Elevation**



**Horizontal Post/ Panel Section**



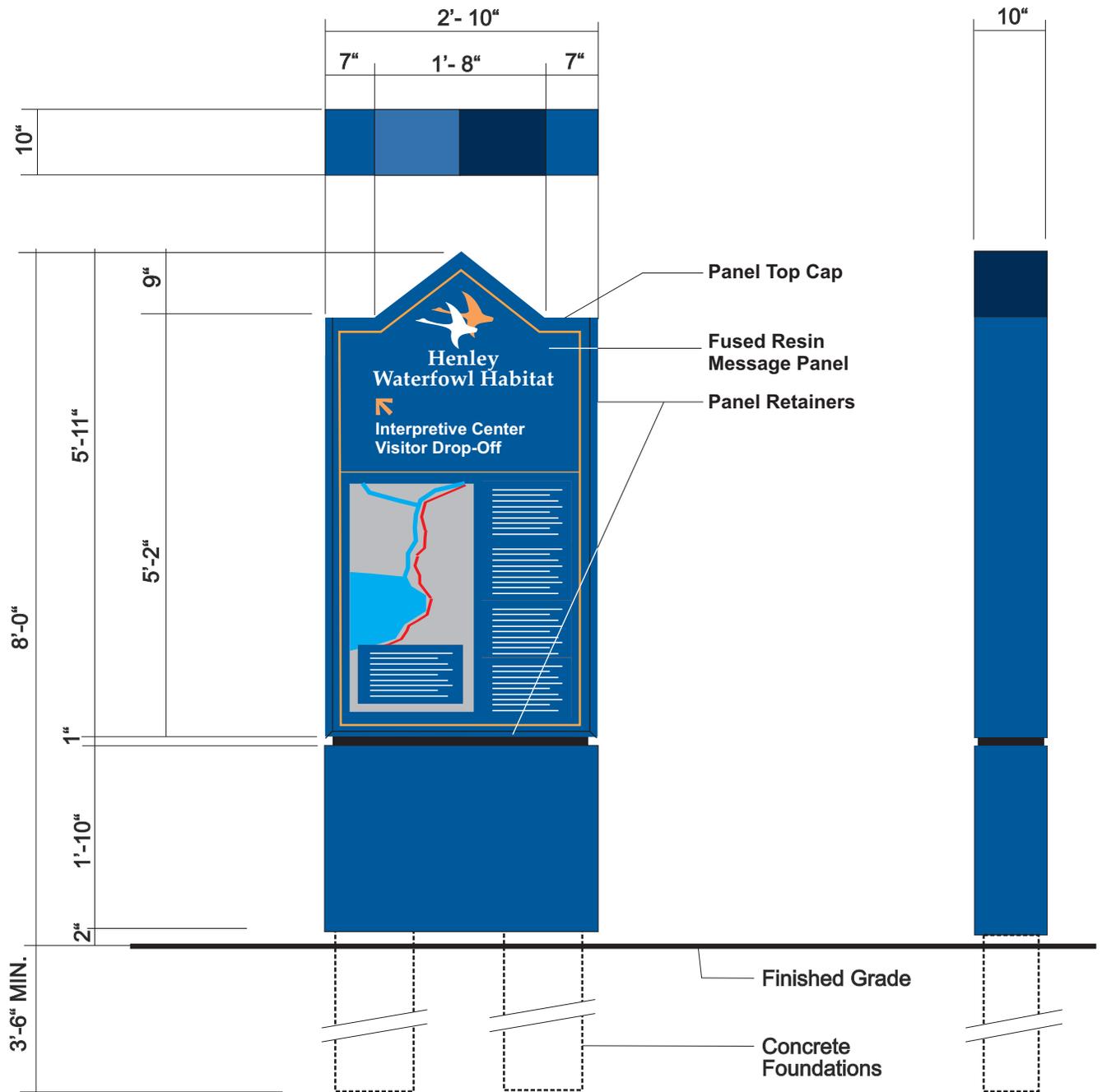
<b>Type C.2 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>GT-21D</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings GT-22C and GT-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.1 Pedestrian Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>GT-22A</b>



**NOTES:**

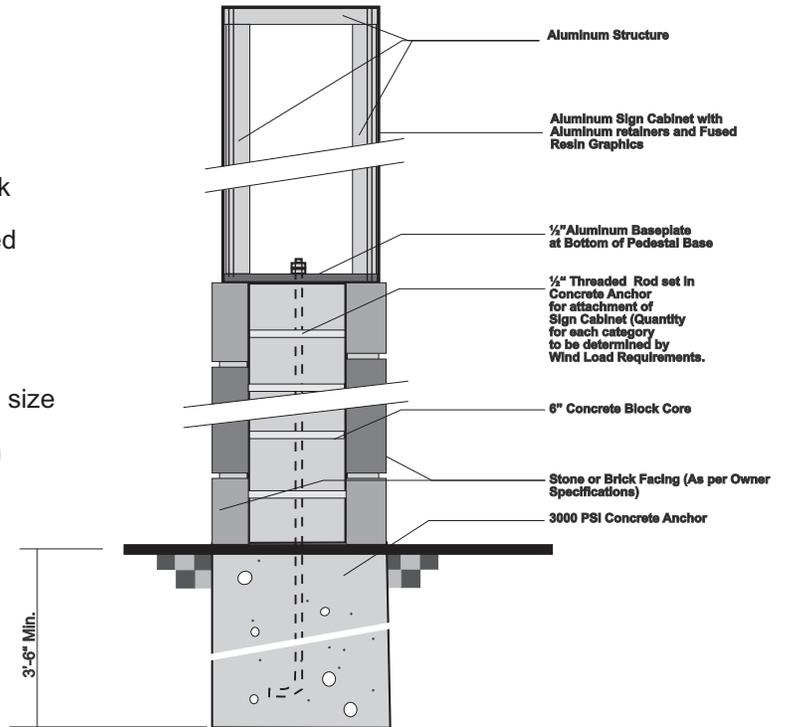
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings GT-22C and GT-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.2 Pedestrian Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>GT-22B</b>

# Stone/Brick Pylon Base

**NOTES:**

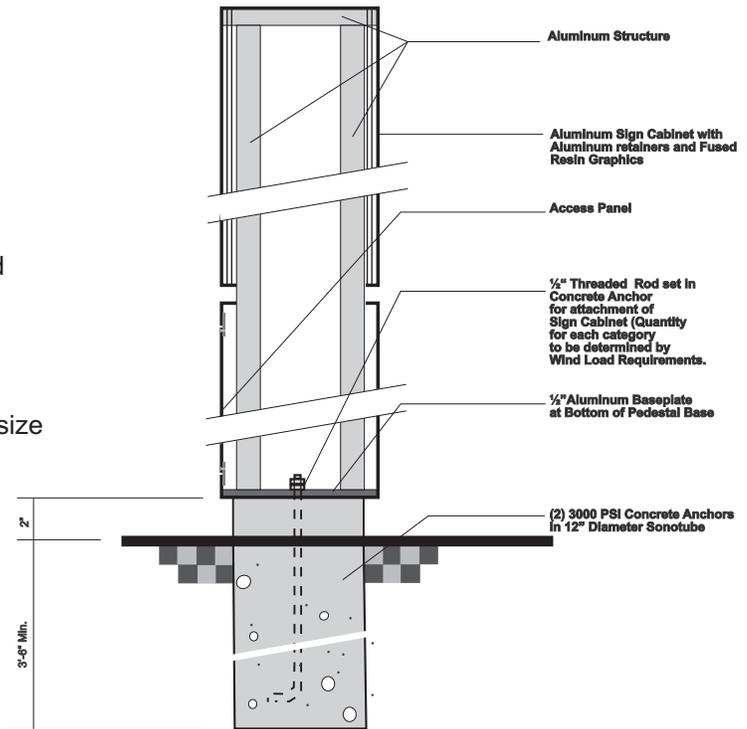
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-22D for panel construction details.



# Aluminum Pylon Base

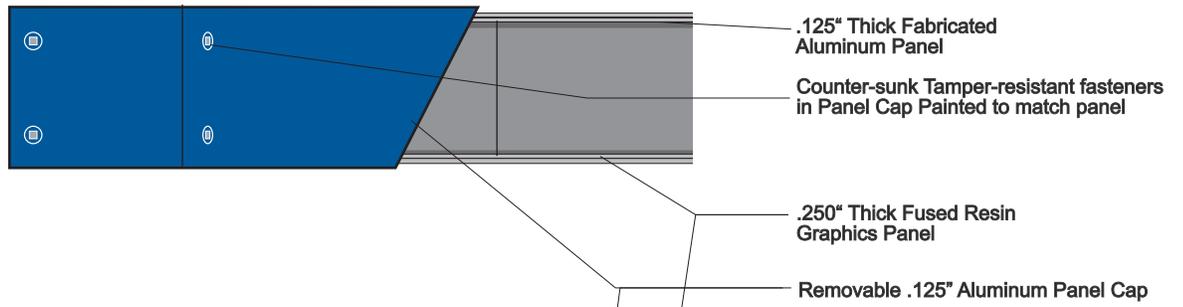
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing GT-22D for panel construction details.

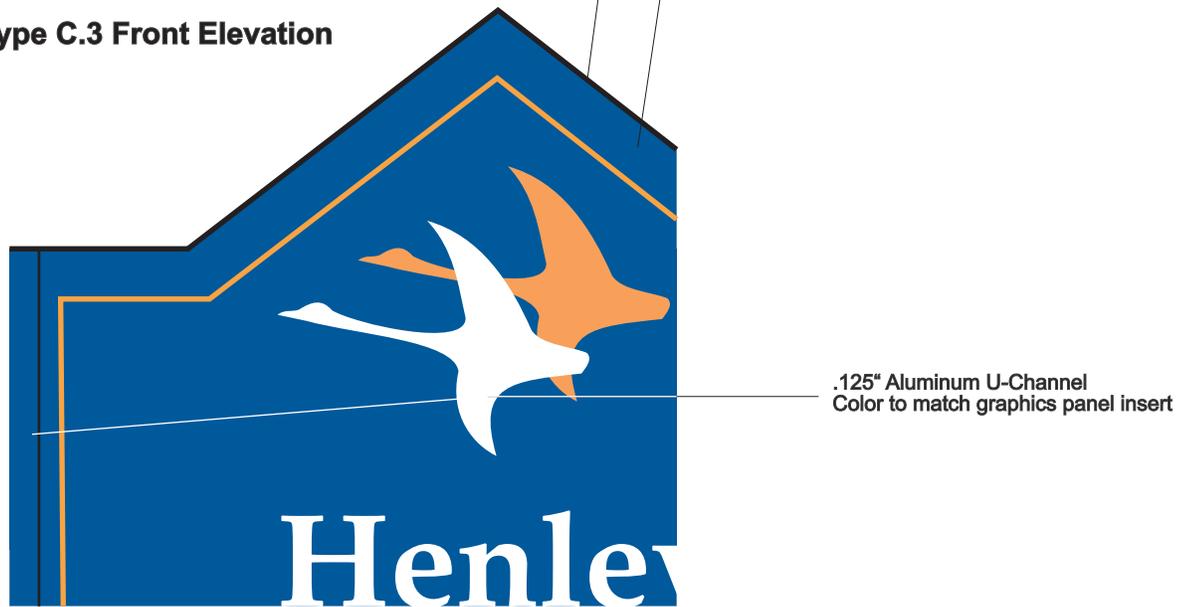


<b>Type C.3 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>GT-22C</b>

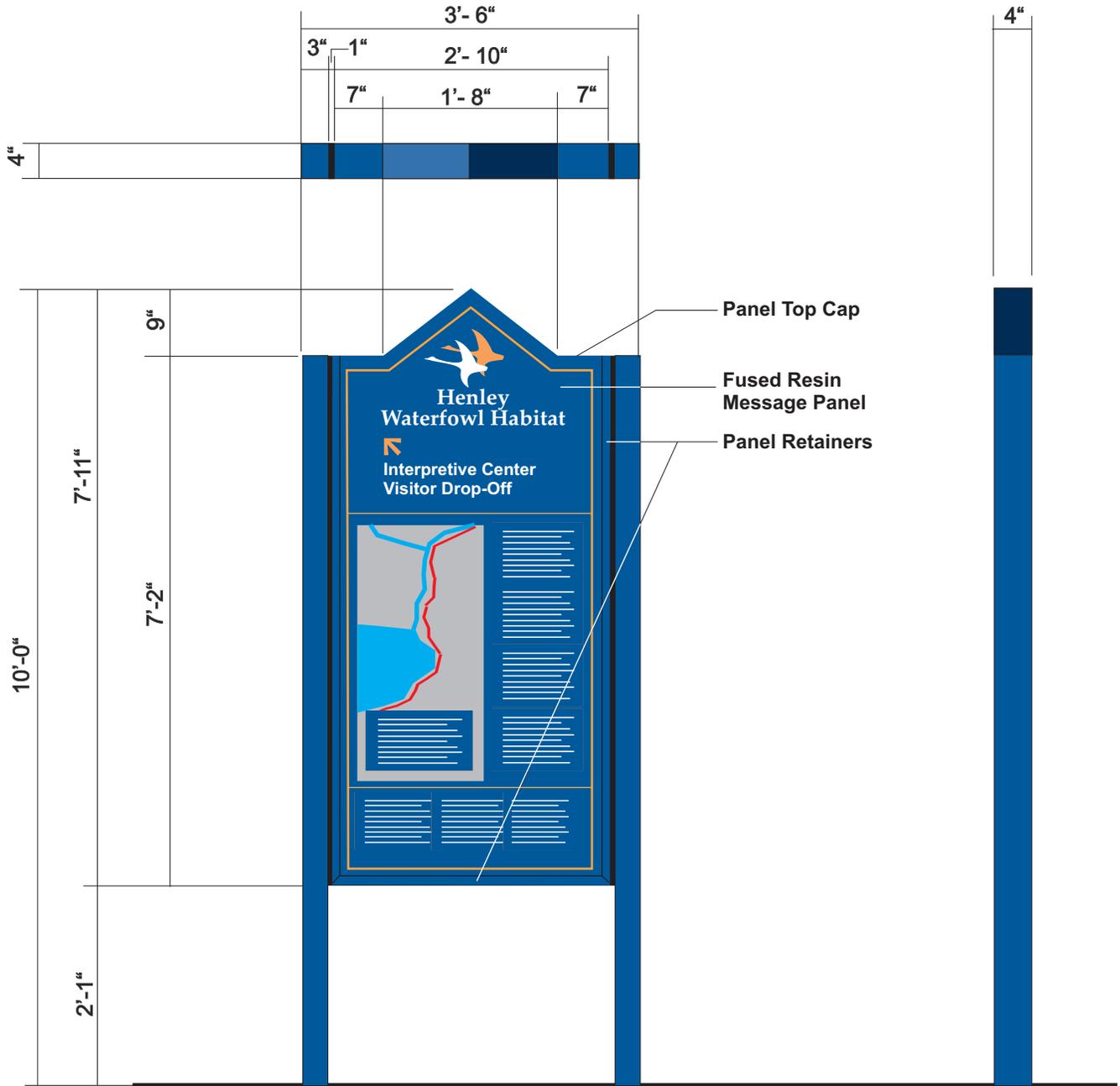
**Type C.3 Top View with  
Cut Away on Panel Cap**



**Type C.3 Front Elevation**



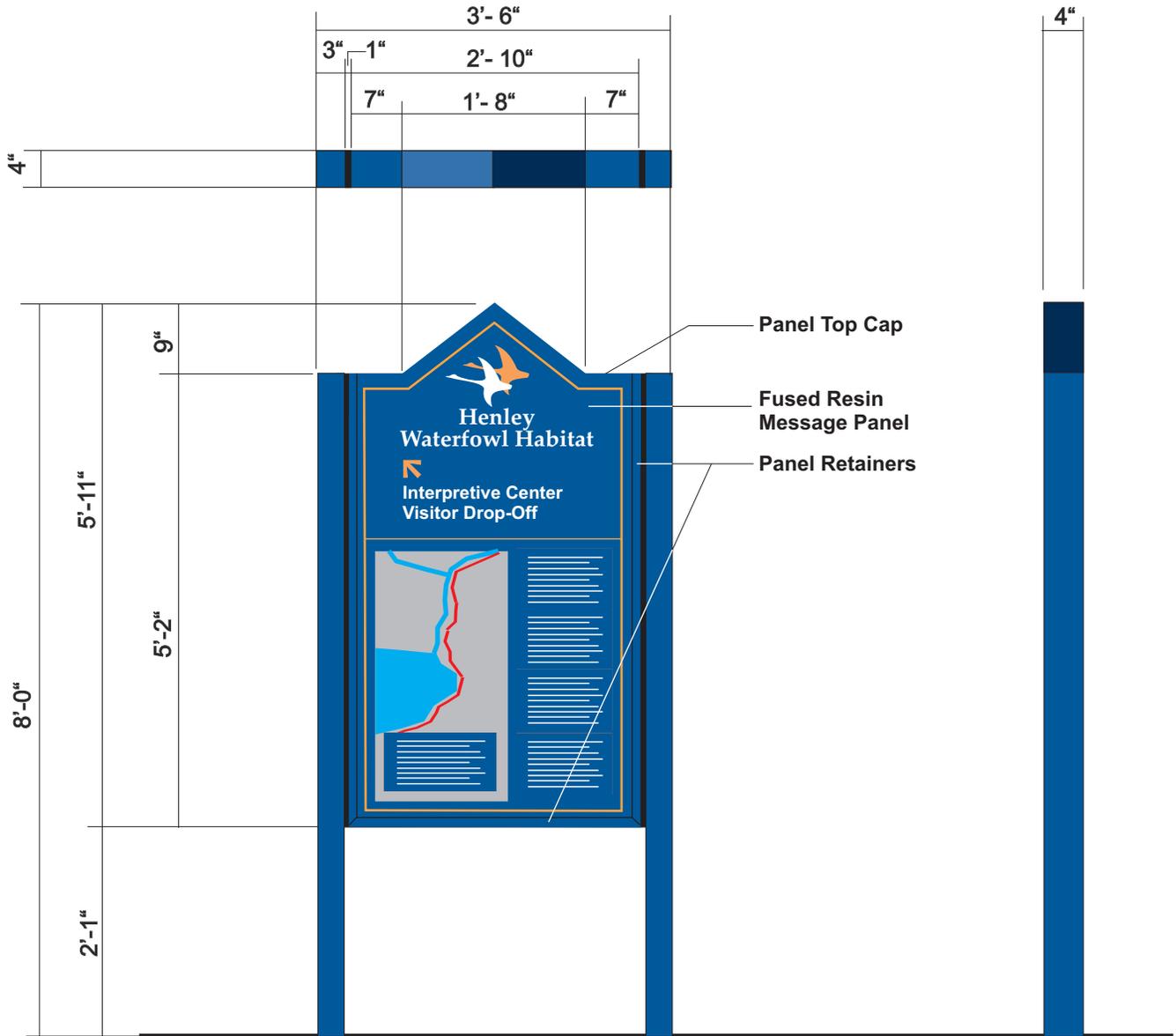
<p><b>Type C.3 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-22D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-23C and GT-23D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.4.1 Pedestrian Orientation Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-23A</b>

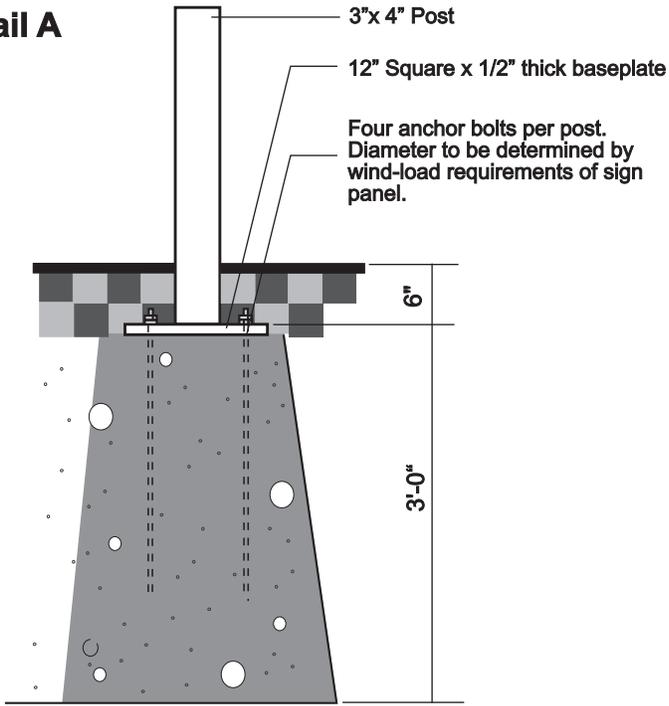


**NOTES:**

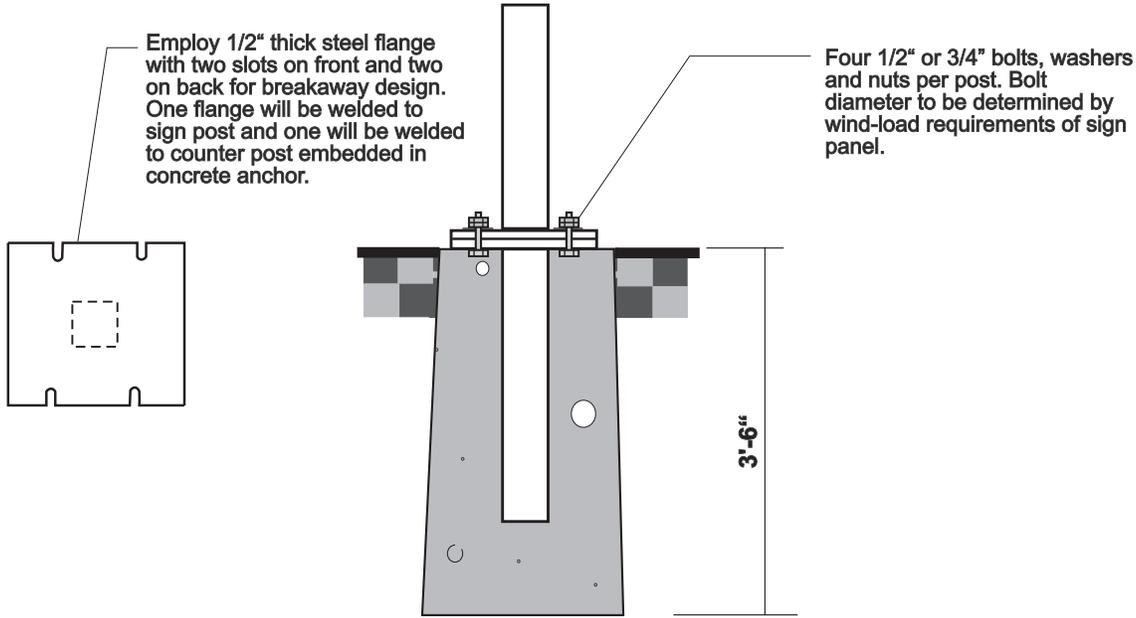
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-23C and GT-23D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.4.2 Pedestrian Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-23B</b>

**Installation Detail A**



**Installation Detail B**



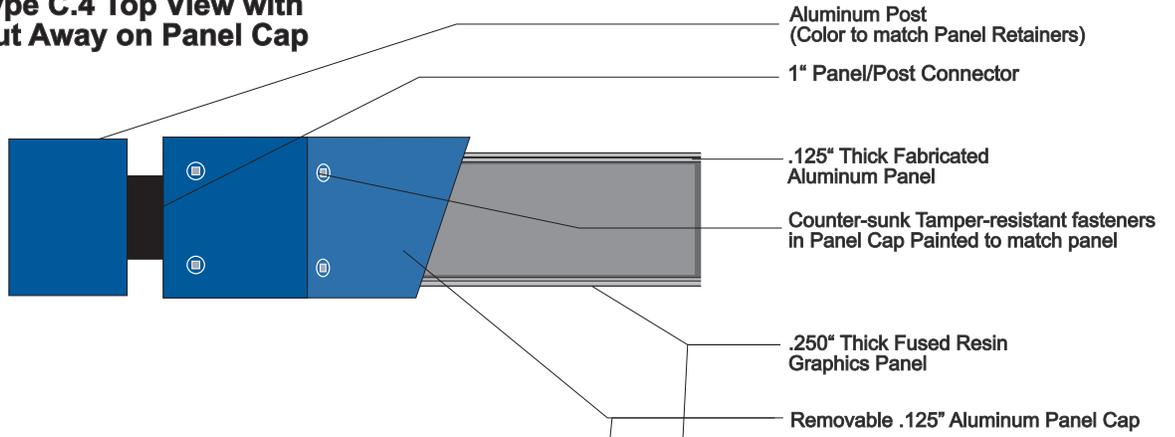
**Foundation Detail**

NOTES:

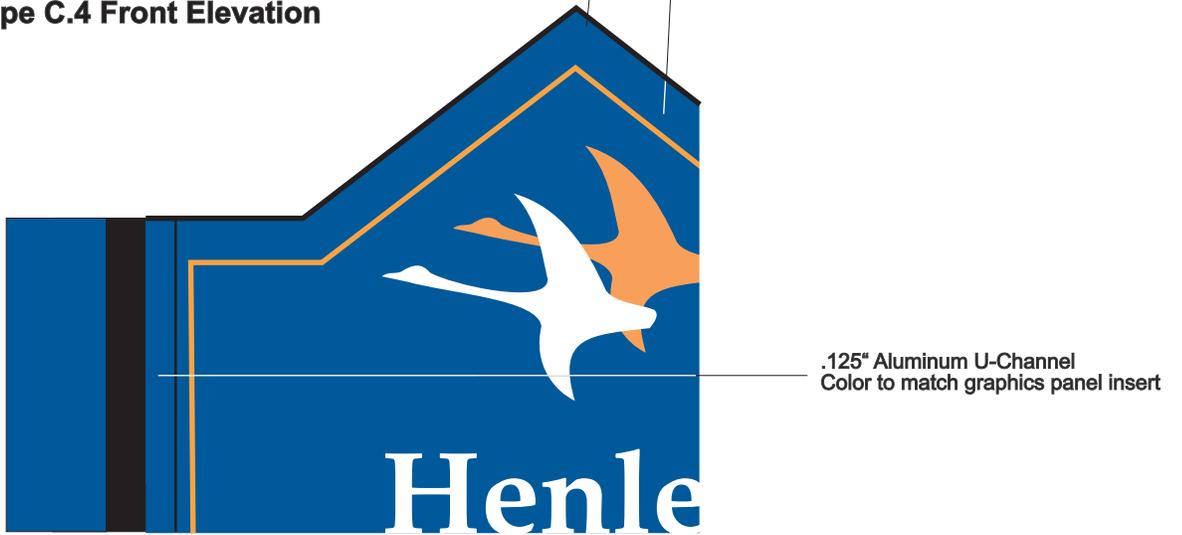
1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.4 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-23C</b>

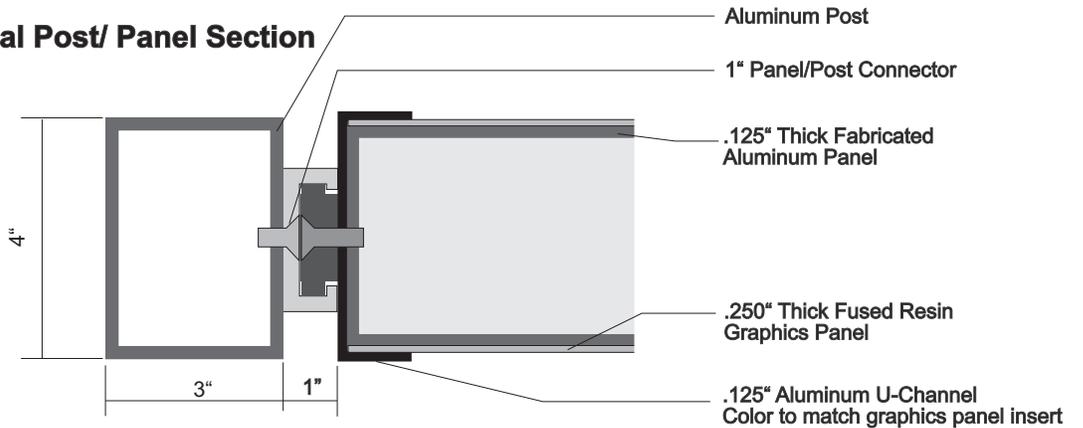
**Type C.4 Top View with Cut Away on Panel Cap**



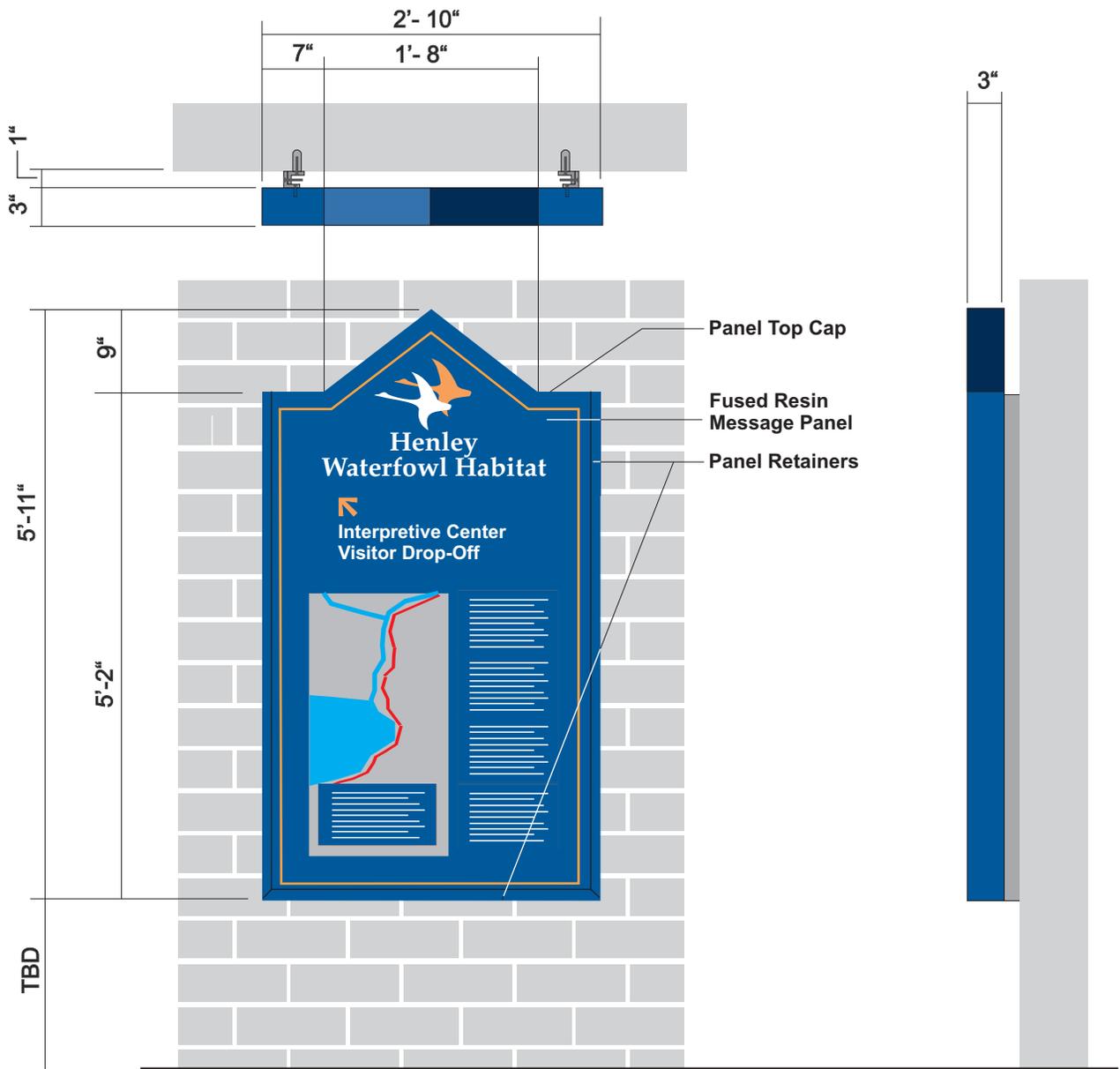
**Type C.4 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type C.4 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>GT-23D</b>

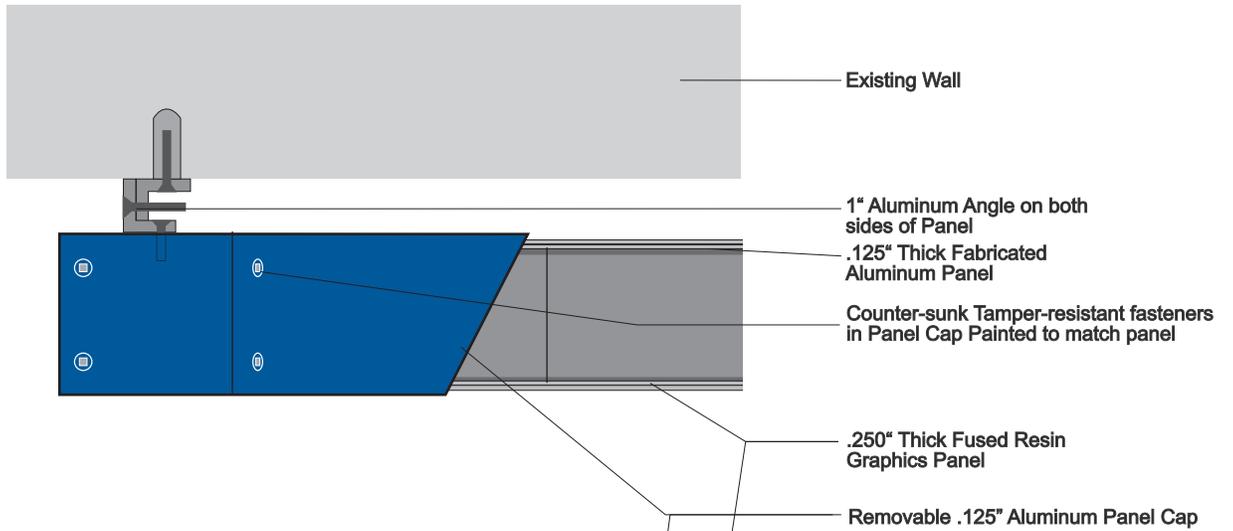


**NOTES:**

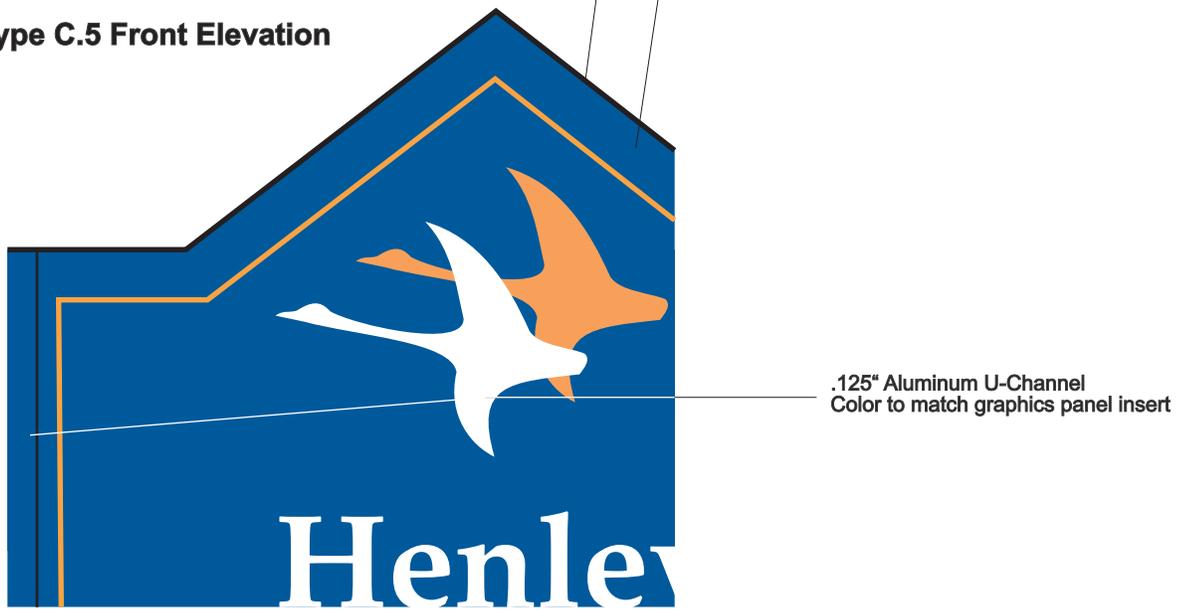
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-24B for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type C.5.1 Pedestrian Orientation Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-24A</b>

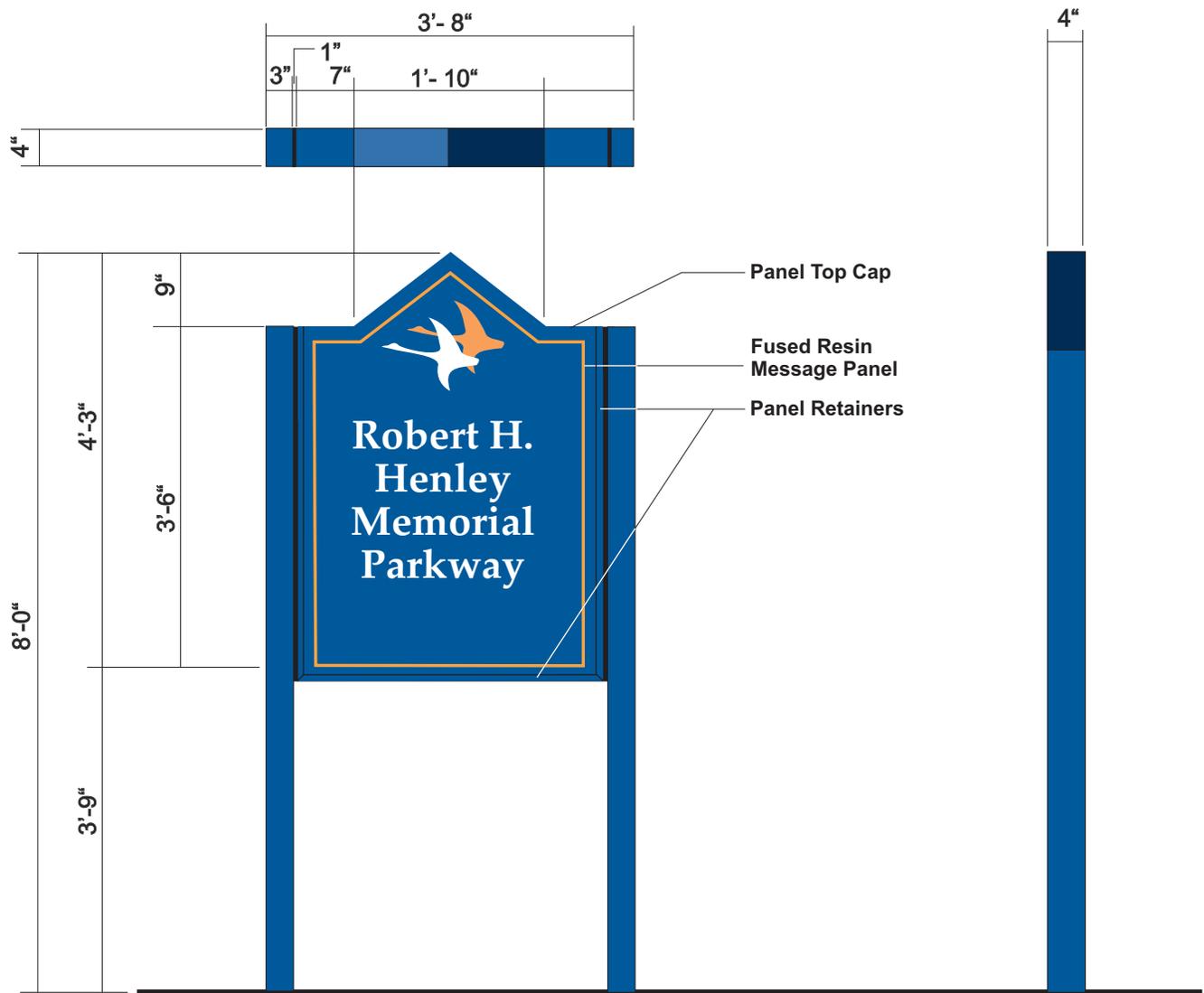
**Type C.5 Top View with  
Cut Away on Panel Cap**



**Type C.5 Front Elevation**



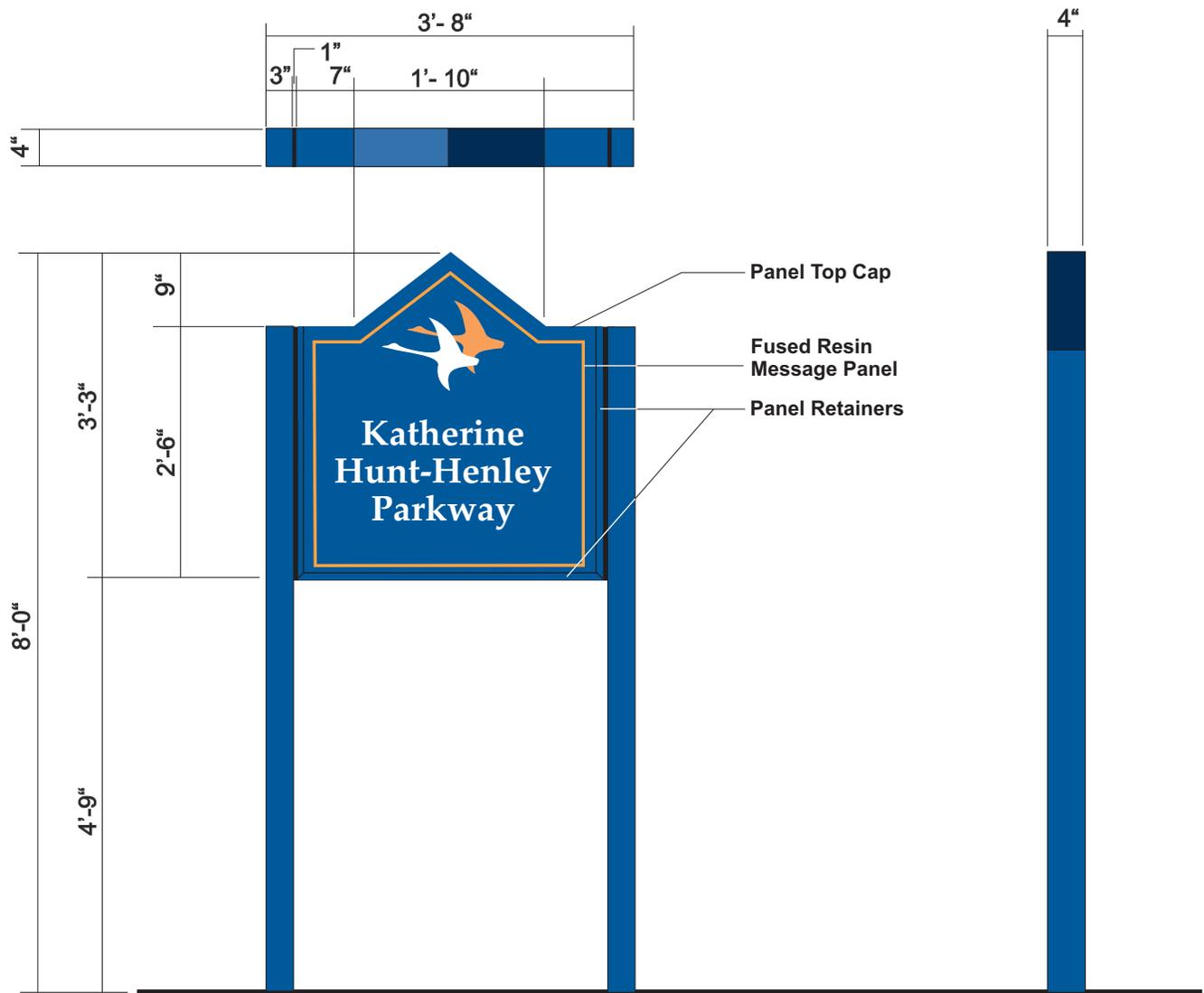
<p><b>Type C.5 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-24B</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings GT-30C and GT-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.1 Vehicular Commemorative Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-30A</b>

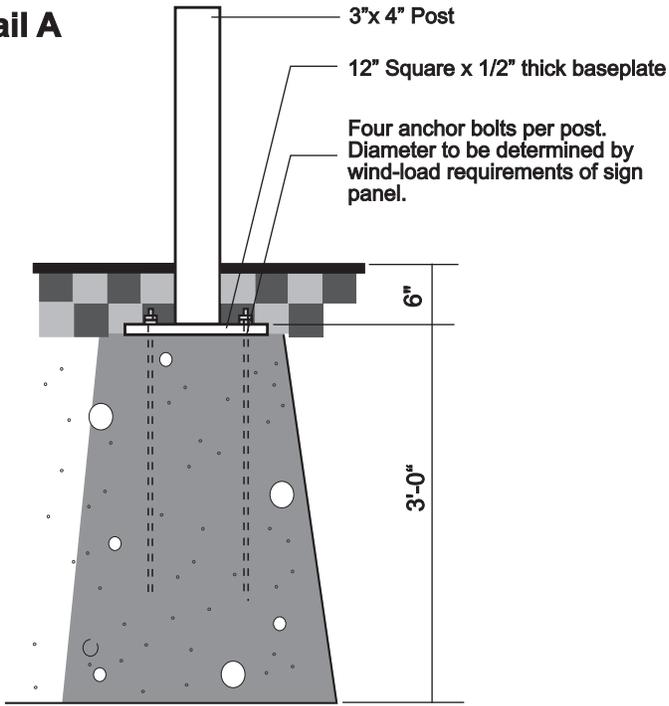


NOTES:

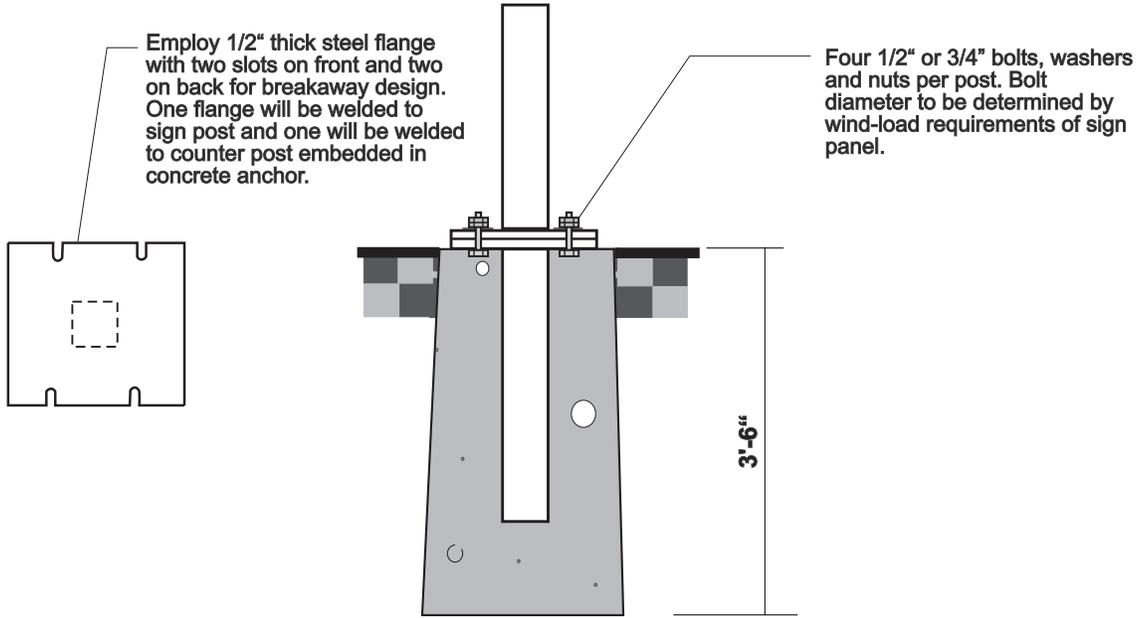
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings GT-30C and GT-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.2 Vehicular Commemorative Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-30B</b>

**Installation Detail A**



**Installation Detail B**



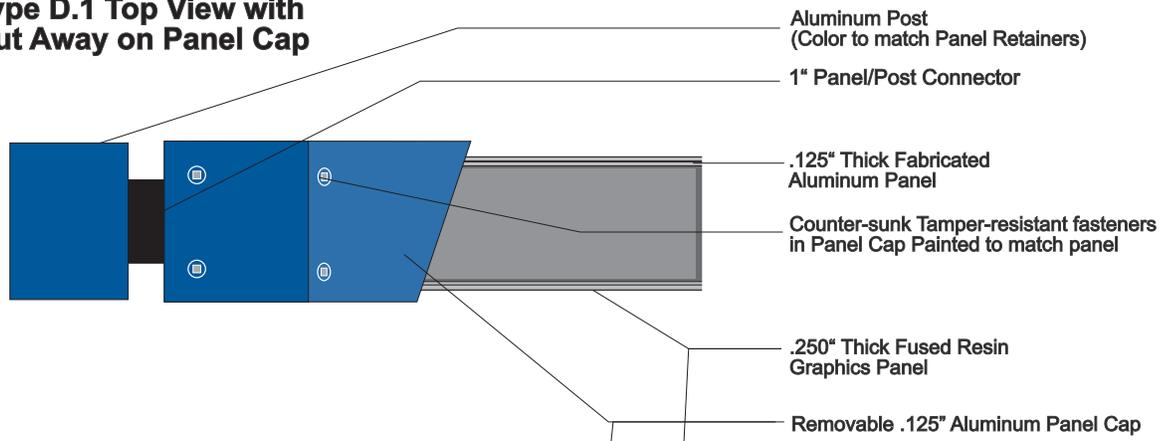
**Foundation Detail**

NOTES:

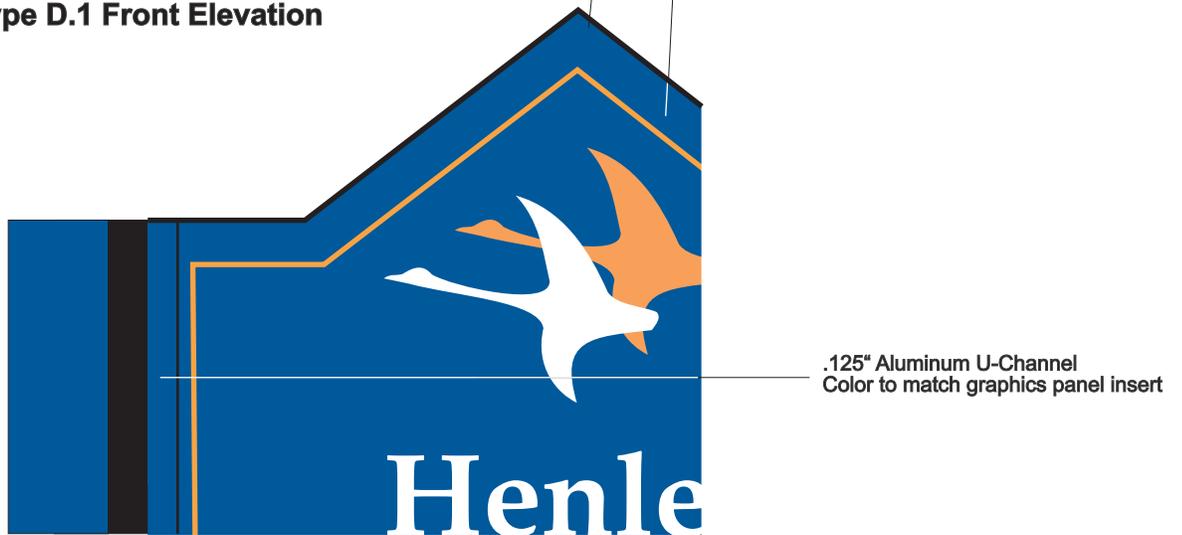
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.1 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-30C</b>

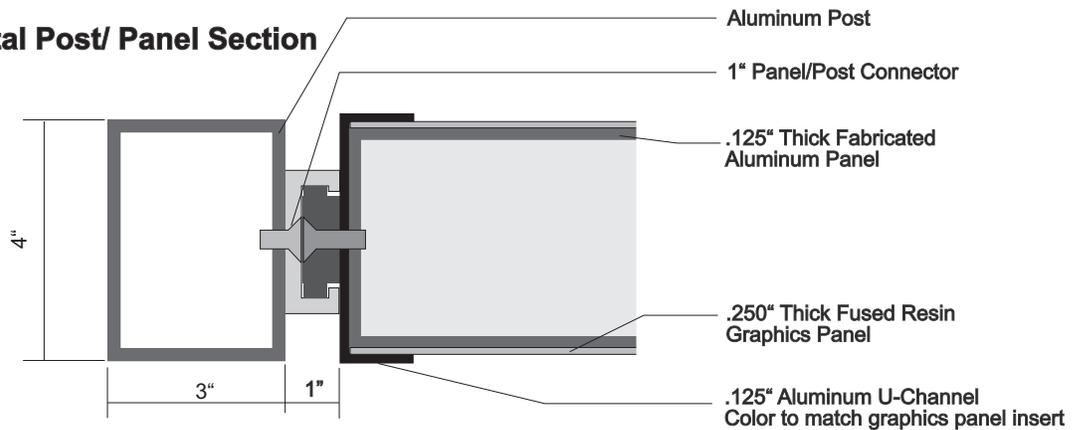
**Type D.1 Top View with Cut Away on Panel Cap**



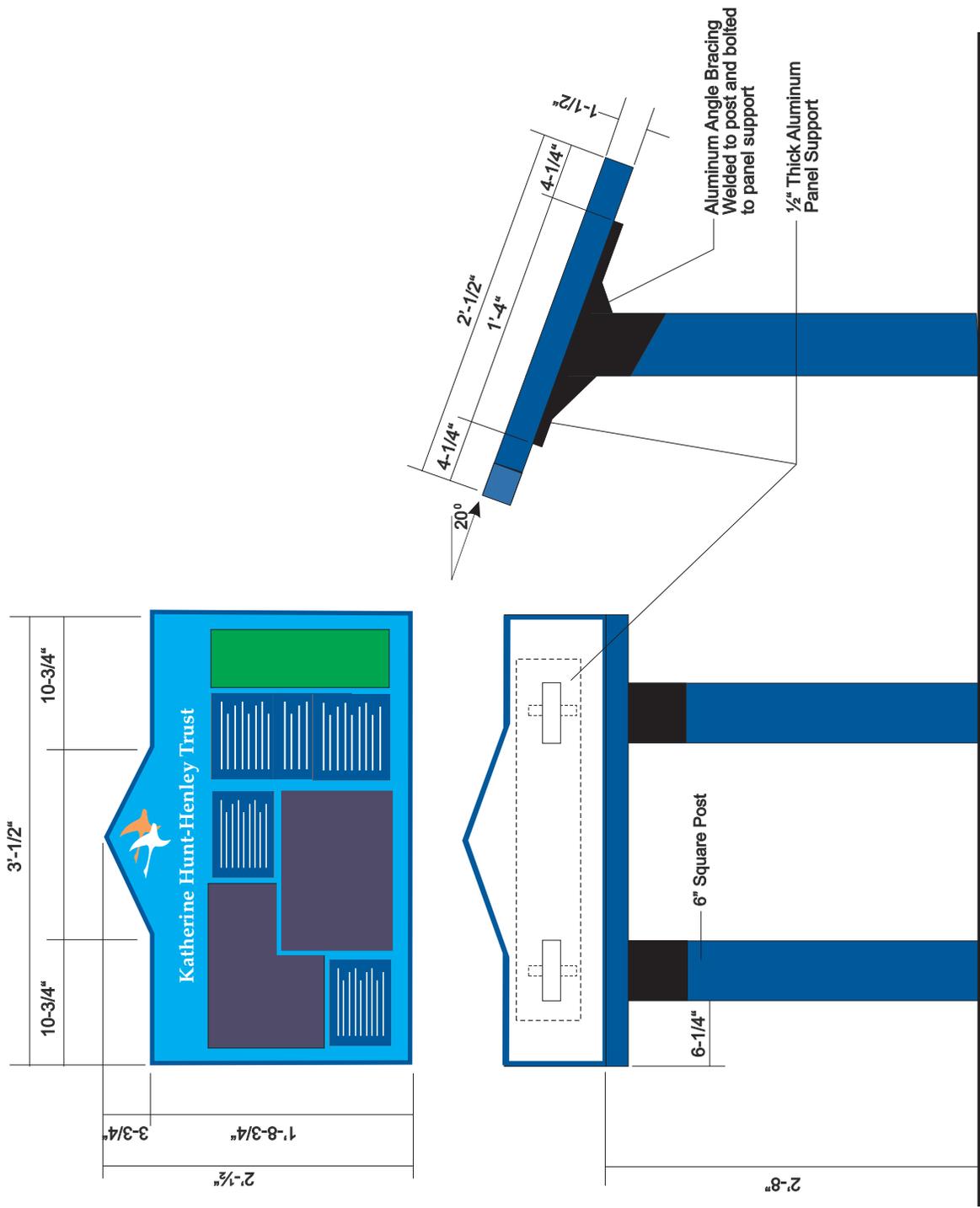
**Type D.1 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type D.1 Post and Panel Construction Details</b>		
<b>Niagara River Greenway</b>		<b>GT-30D</b>

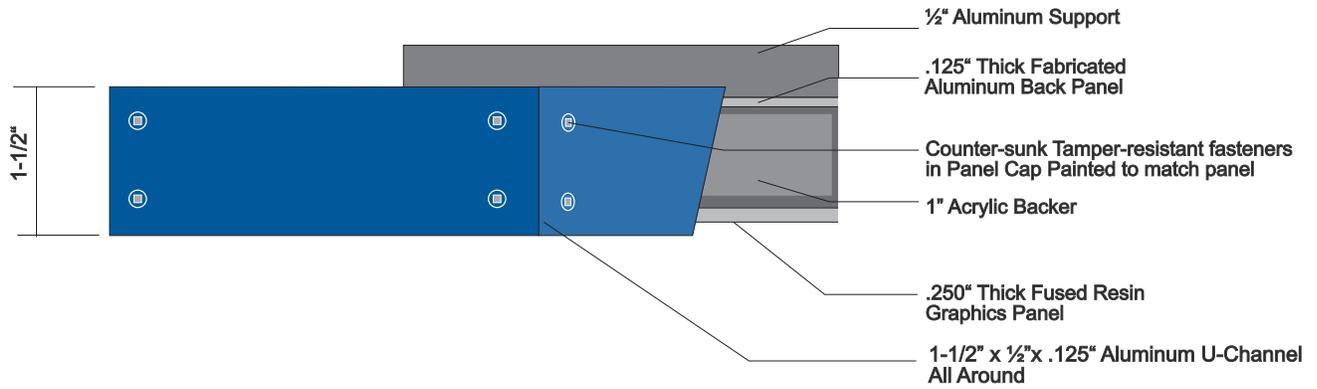


**NOTES:**

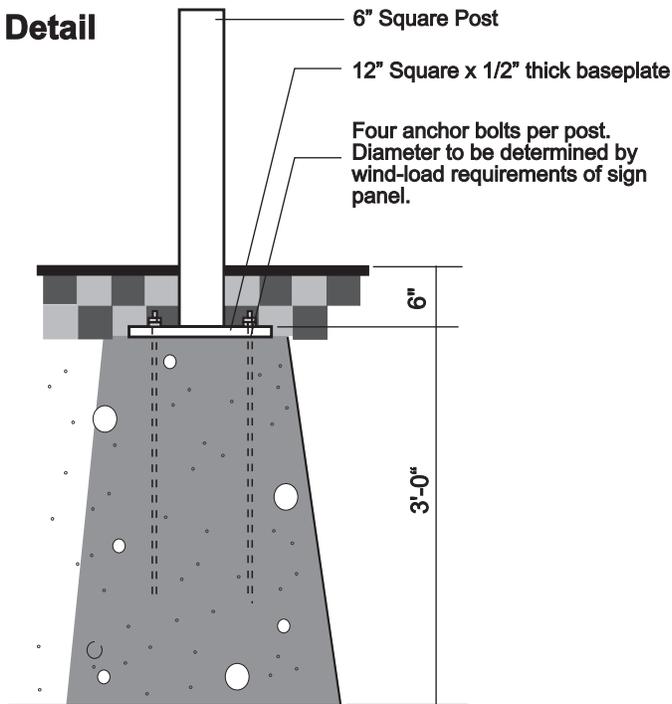
1. Fabrication will include aluminum box panel core, Fused Resin interpretive panels and aluminum posts.  
Art for graphics graphics will be furnished by Owner.
2. Fused Resin Graphics Panel to be 24" by 36".
3. See Drawing GT-31B for construction and installation details.

<p><b>Type D.2.1 Interpretive/ Commemorative Post and Panel</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-31A</b></p>

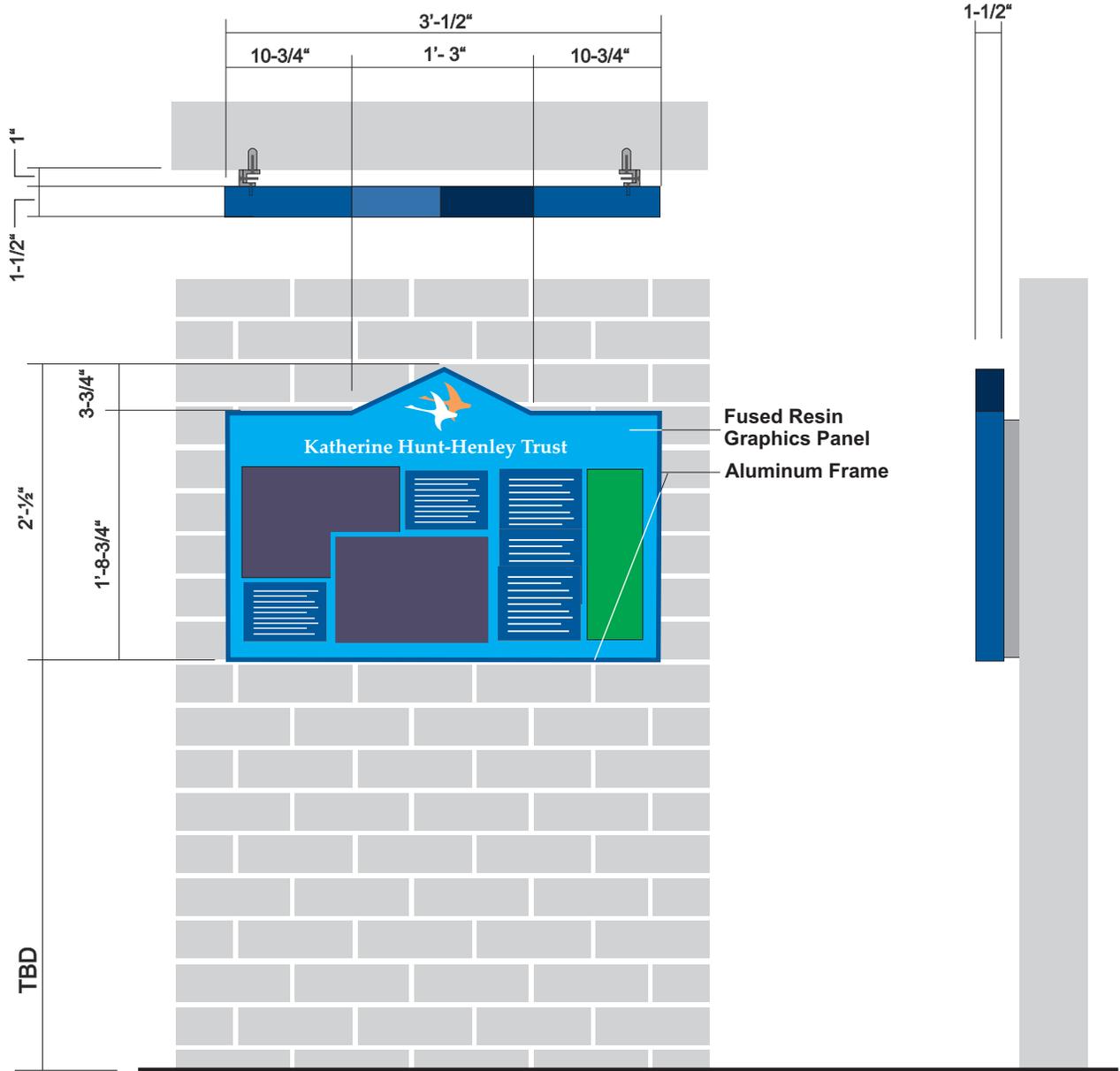
**Type D.2.1 Top View with  
Cut Away on Panel Cap**



**Installation Detail**



<p><b>Type D.2.1 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-31B</b></p>

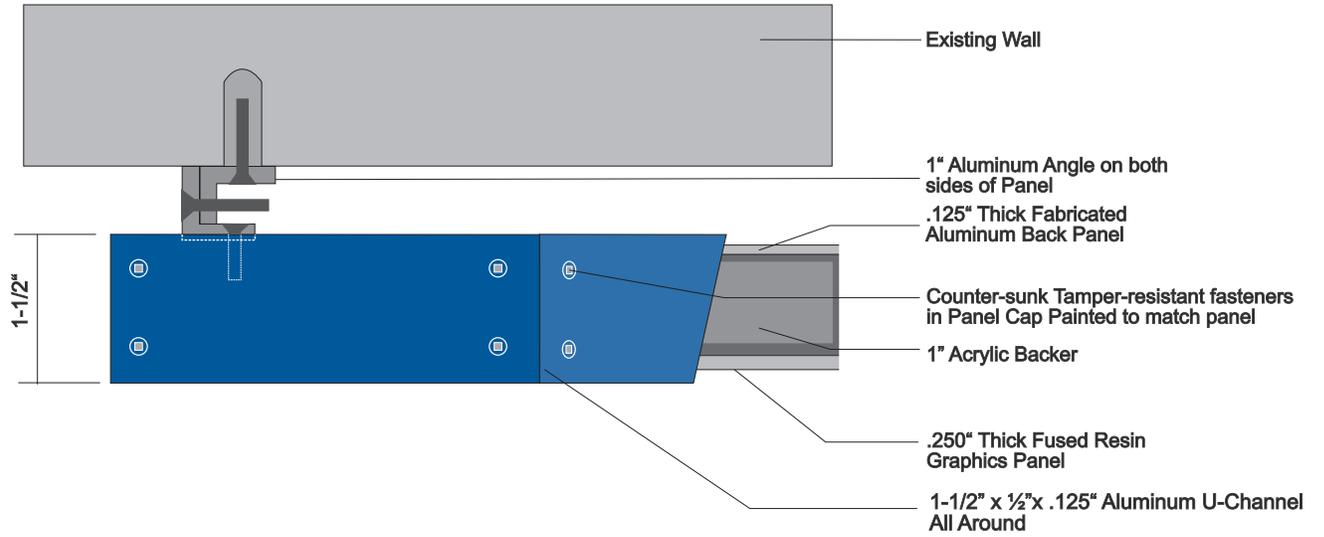


**NOTES:**

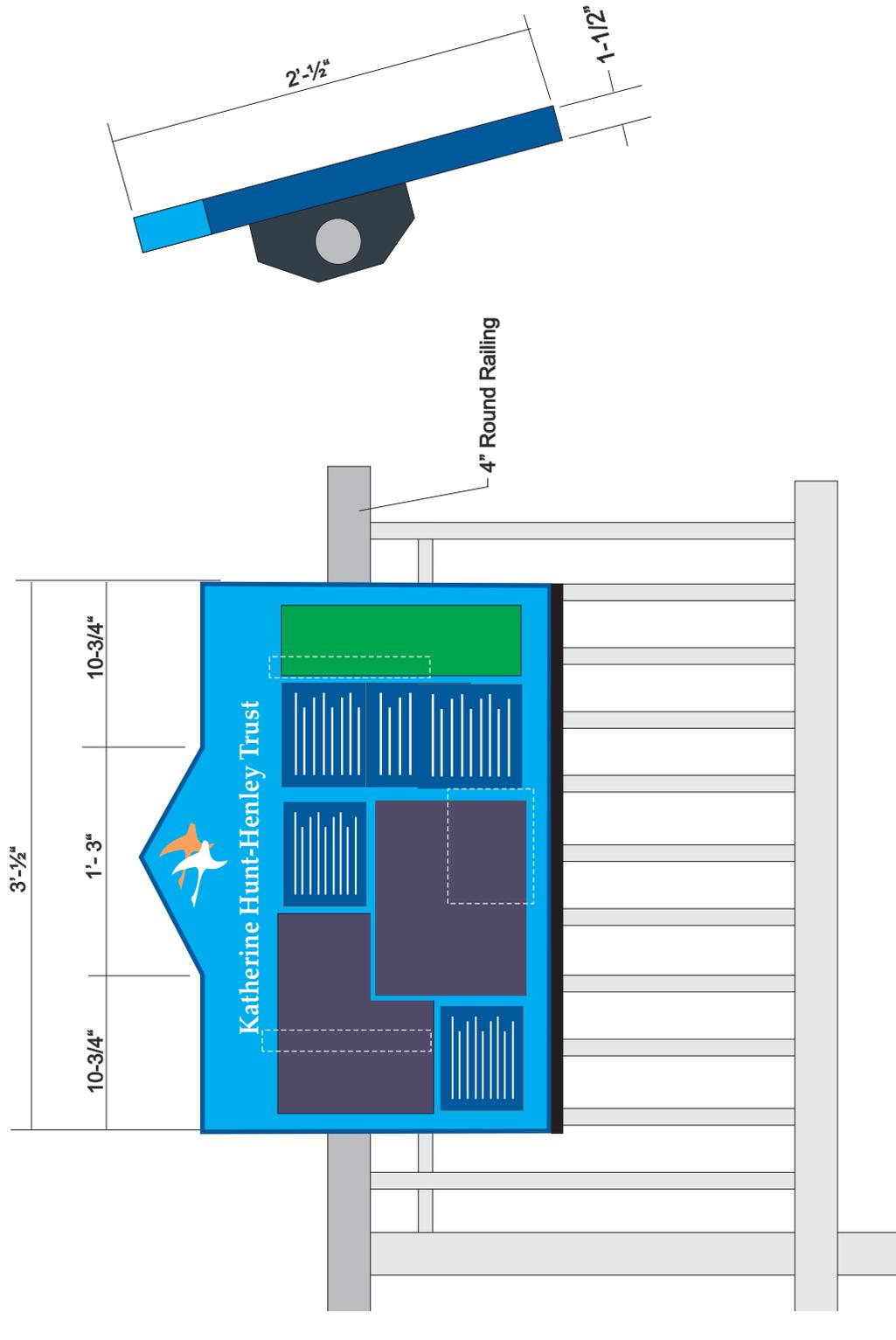
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with aluminum angle brackets on both sides of panel.
3. Fused Resin Graphics Panel to be 24" by 36".
4. See Drawing GT-32B for construction and installation details.
5. Art for graphics panel will be provided by Owner.

<b>Type D.3.1 Interpretive/ Commemorative Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-32A</b>

**Type D.3 Top View with  
Cut Away on Panel Cap**



<p><b>Type D.3 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-32B</b></p>

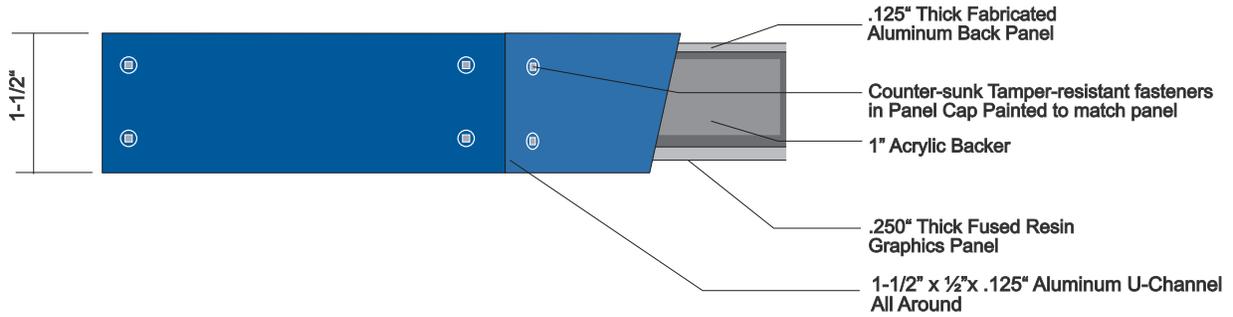


**NOTES:**

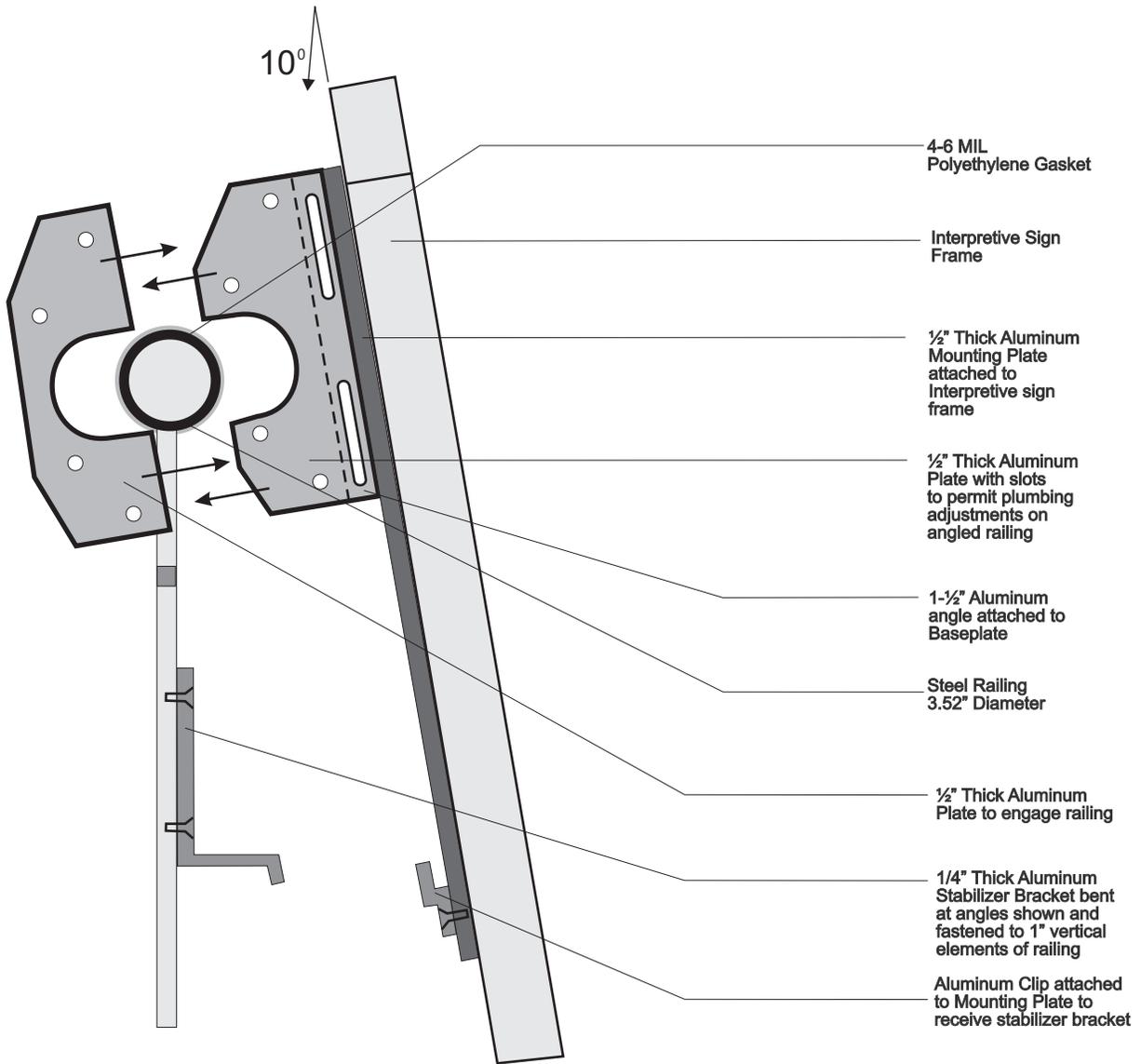
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with hardware as shown on Drawing GT-33B.
3. Fused Resin Graphics Panel to be 24" by 36".
4. All visible brackets and hardware to be painted to match frame
5. Art for graphics panel will be provided by Owner.

Type D.4.1 Interpretive/ Commemorative Railing Mount	
Niagara River Greenway	GT-33A

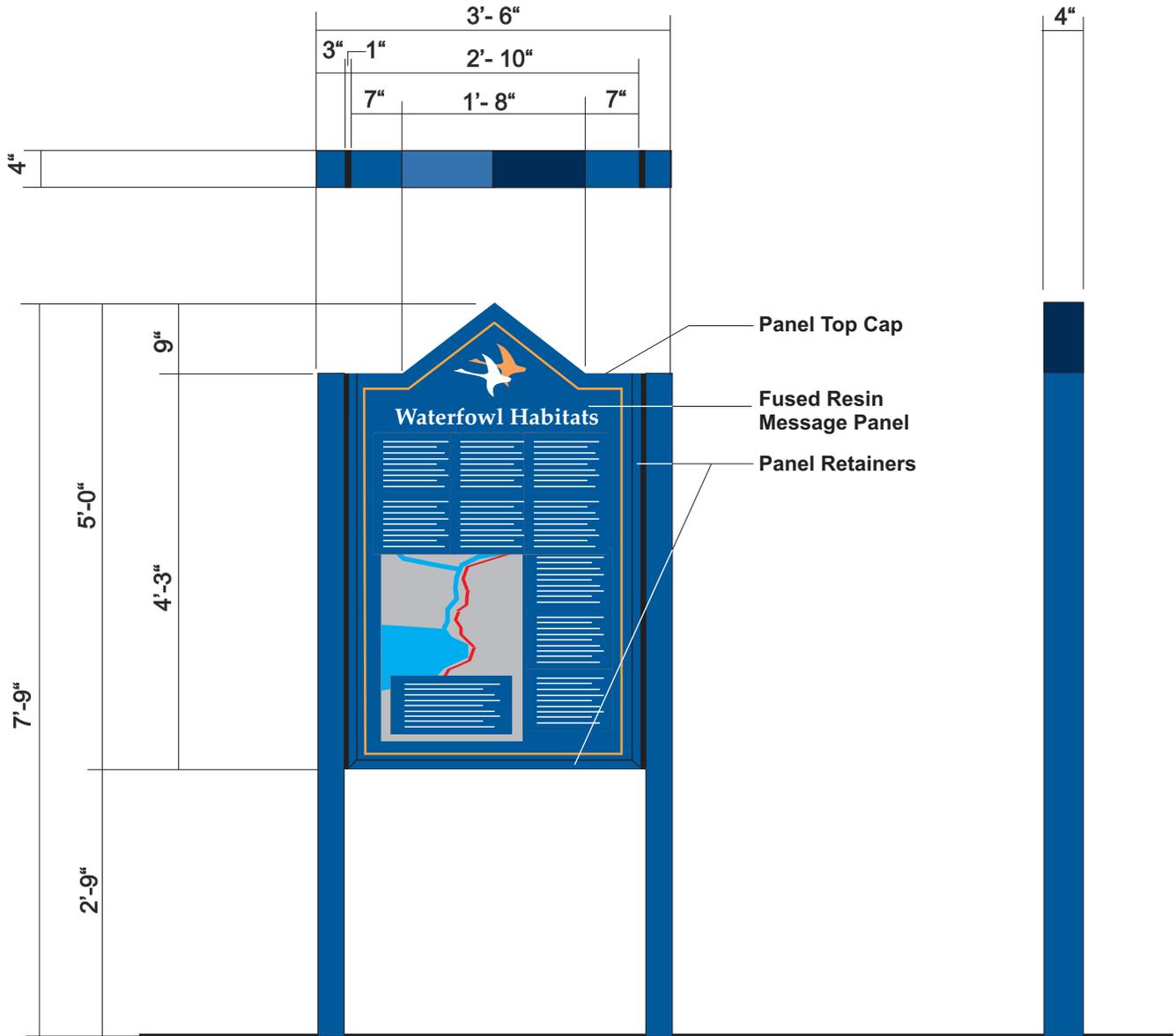
**Type D.4 Top View with  
Cut Away on Panel Cap**



**Type D.4 Section**



<p><b>Type D.4 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-33B</b></p>

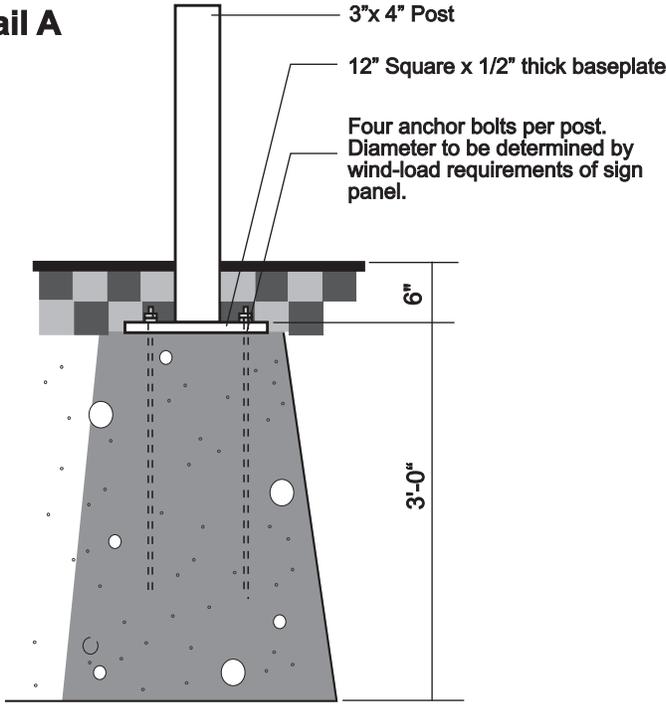


**NOTES:**

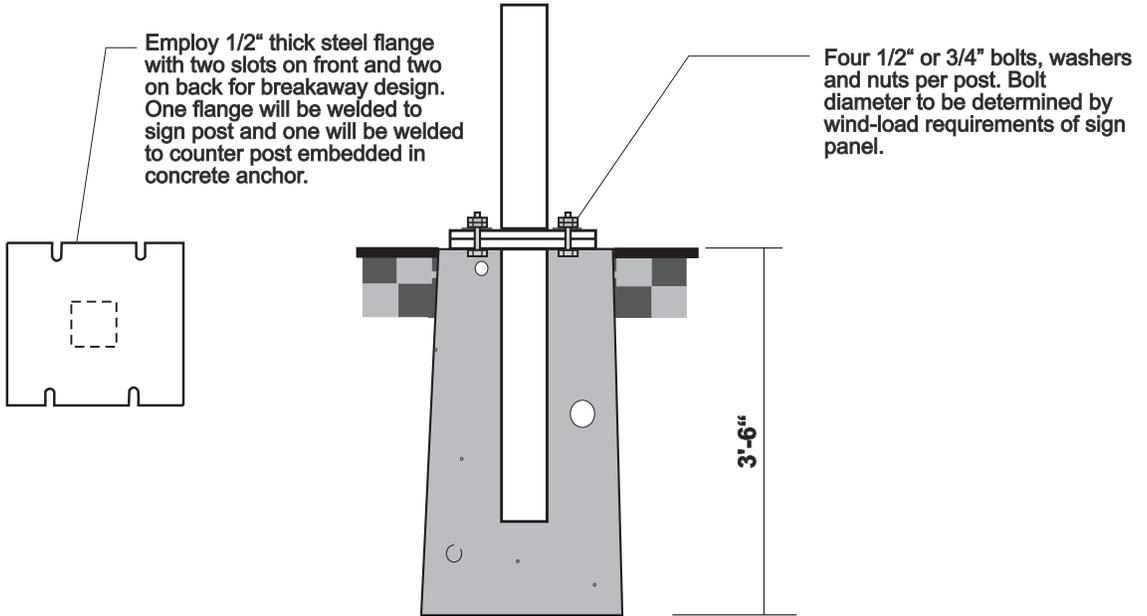
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-34B and GT-34C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type D.5.1 Interpretive Storyboard Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>GT-34A</b>

**Installation Detail A**



**Installation Detail B**



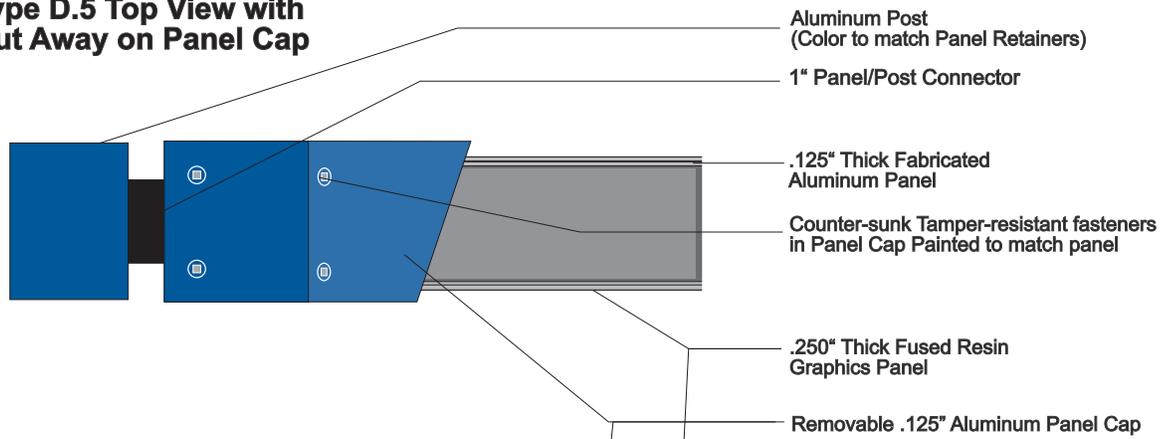
**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.5 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-34B</b>

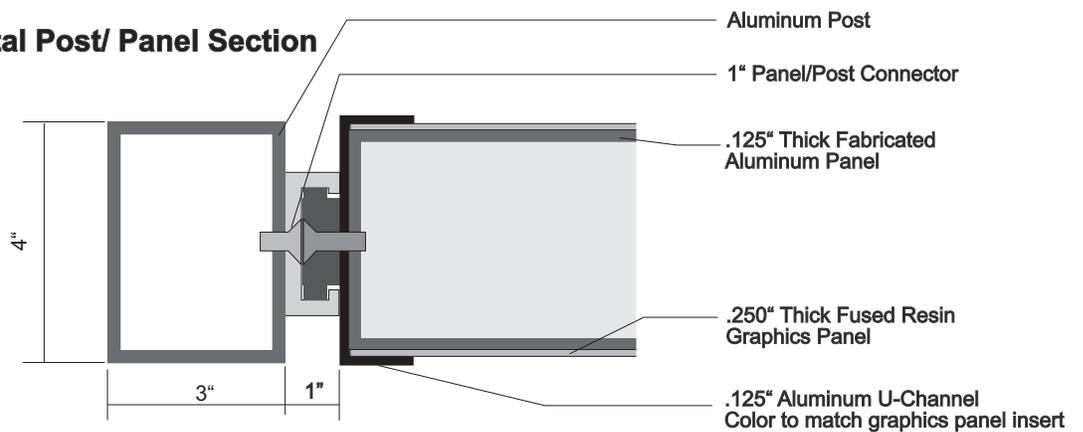
**Type D.5 Top View with Cut Away on Panel Cap**



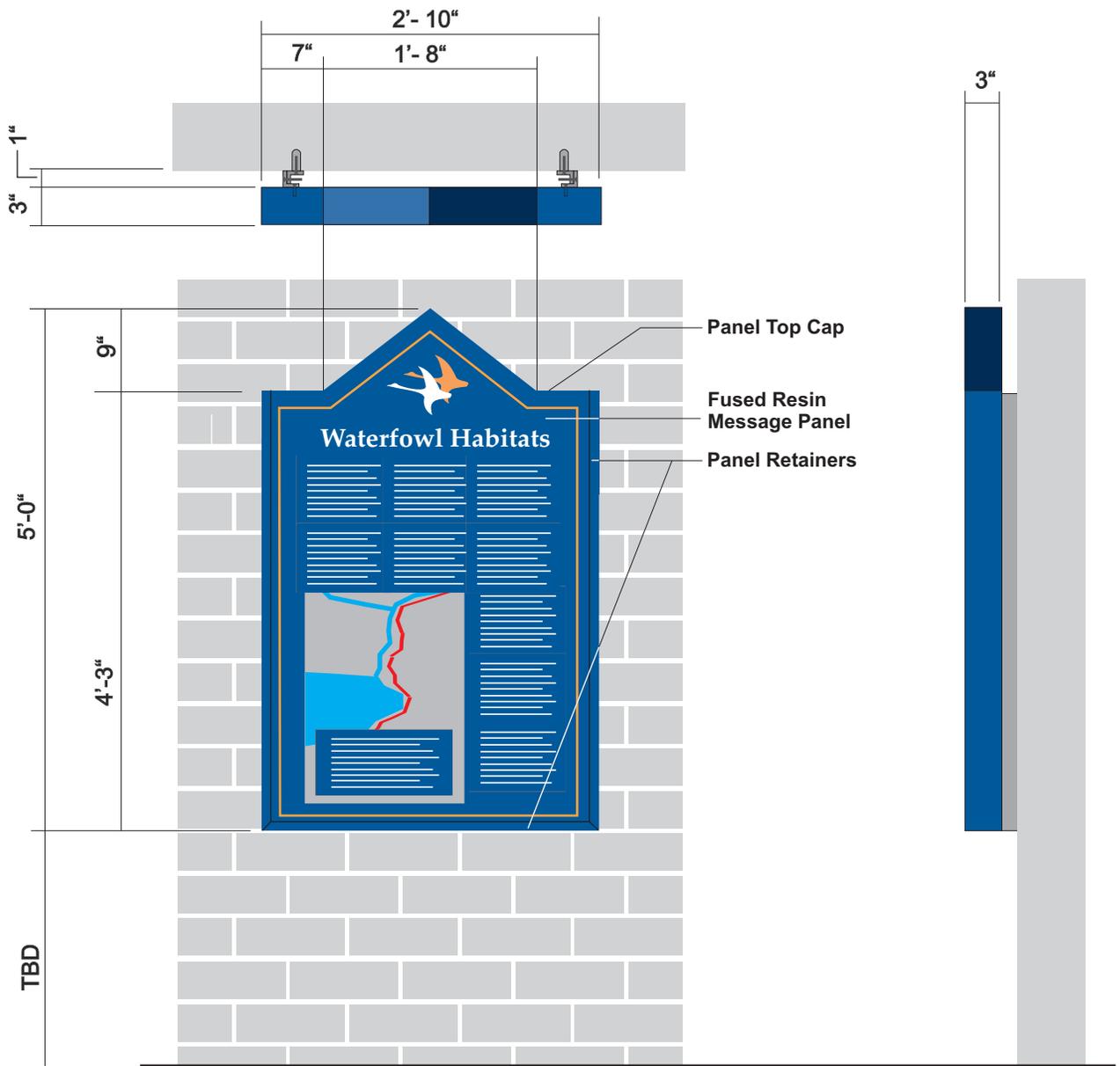
**Type D.5 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type D.5 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>GT-34C</b>

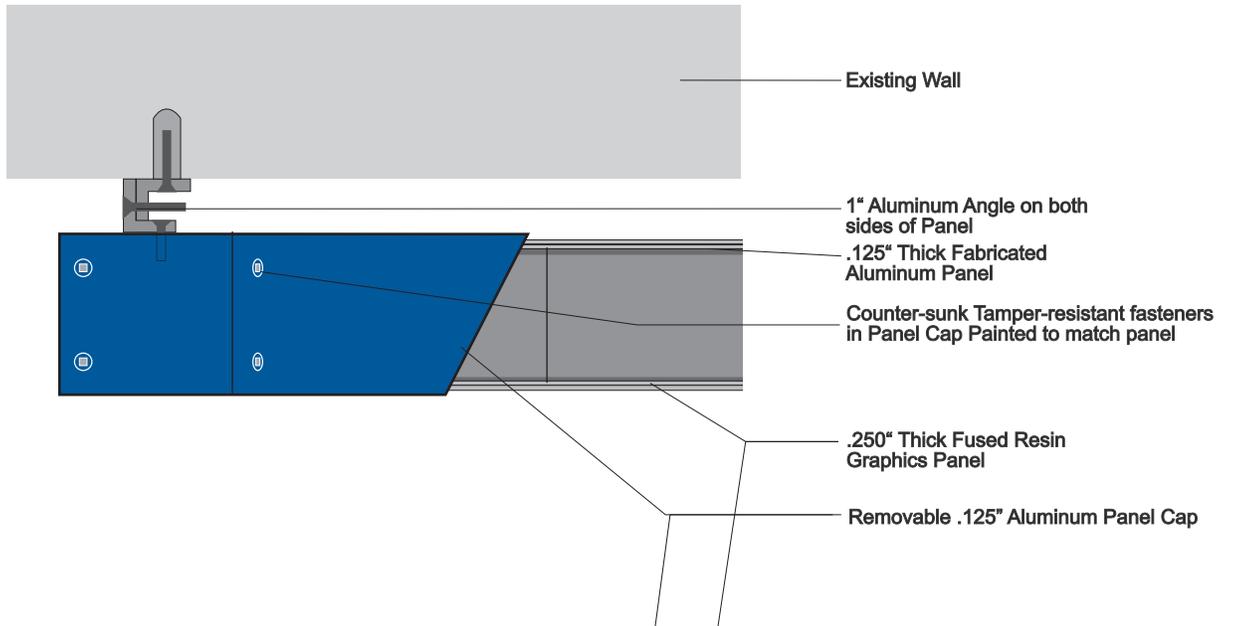


**NOTES:**

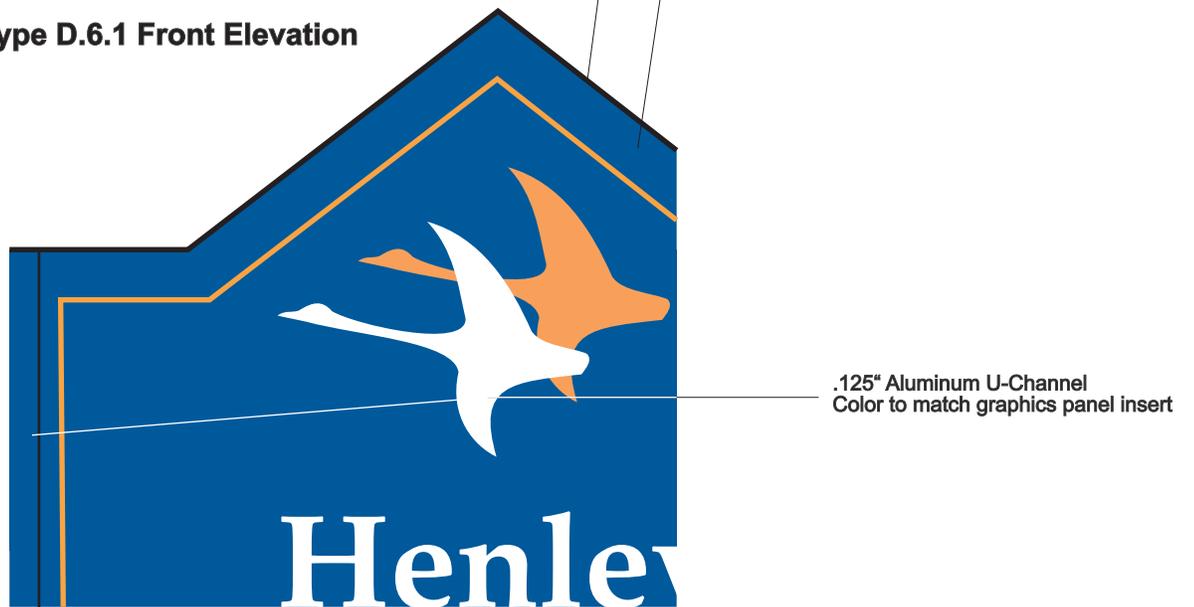
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-35B for construction and installation details.
2. Owner will provide art on disk for graphics.
3. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type D.6.1 Interpretive Storyboard Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-35A</b>

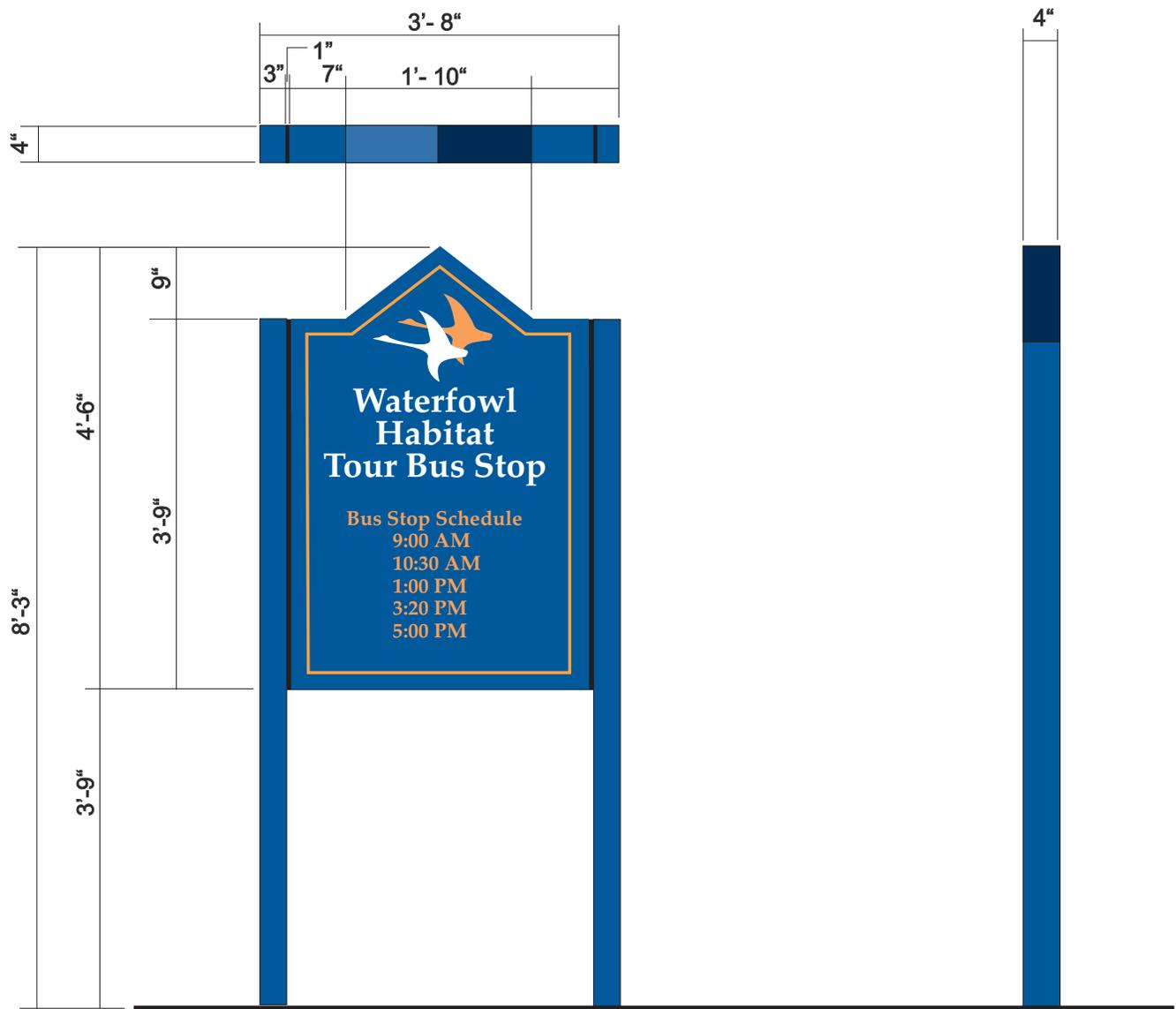
**Type D.6.1 Top View with  
Cut Away on Panel Cap**



**Type D.6.1 Front Elevation**



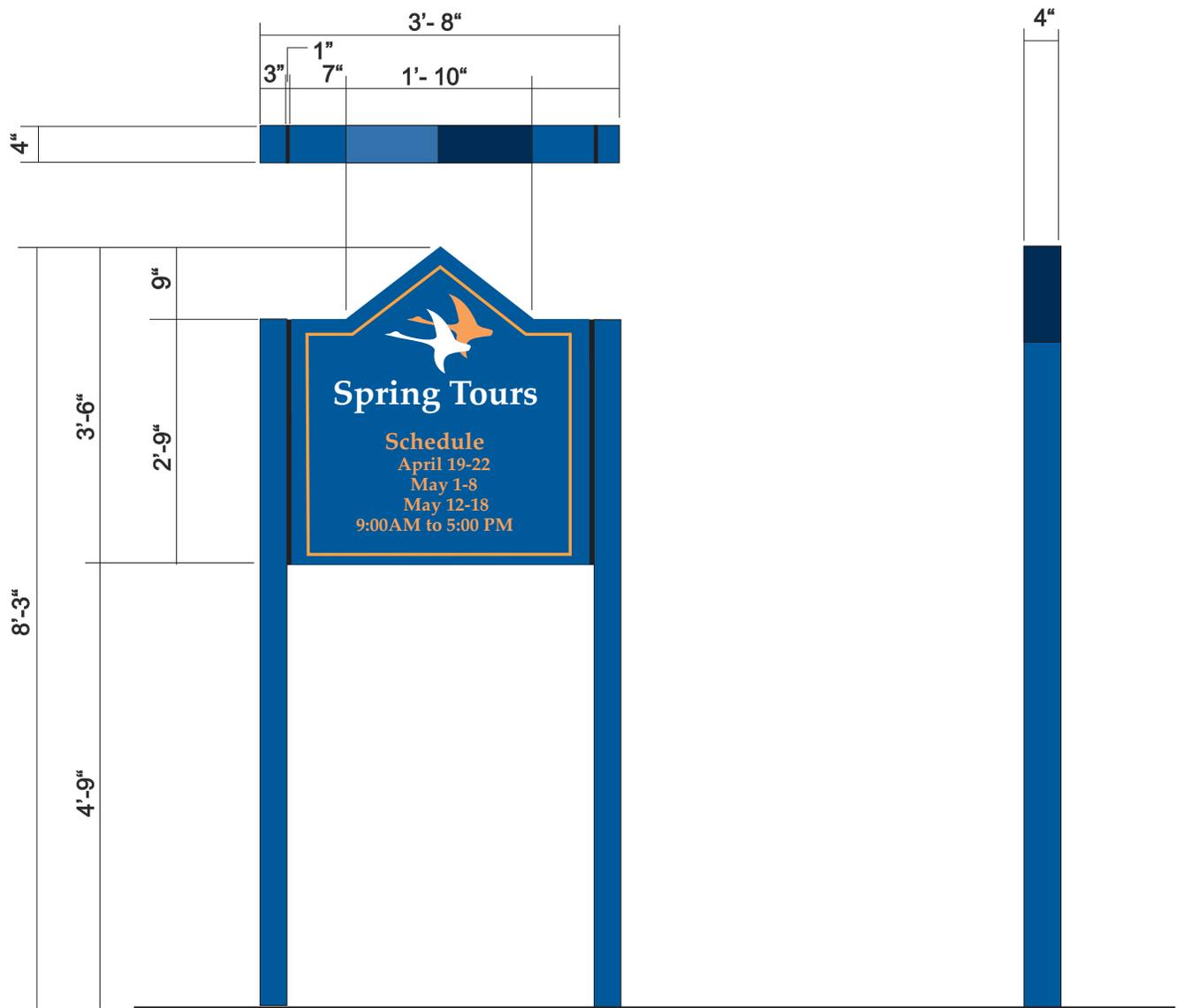
<p><b>Type D.6.1 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-35B</b></p>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-40C for construction and installation details.

<b>Type E.1.1 Vehicular Informational Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>GT-40A</b>

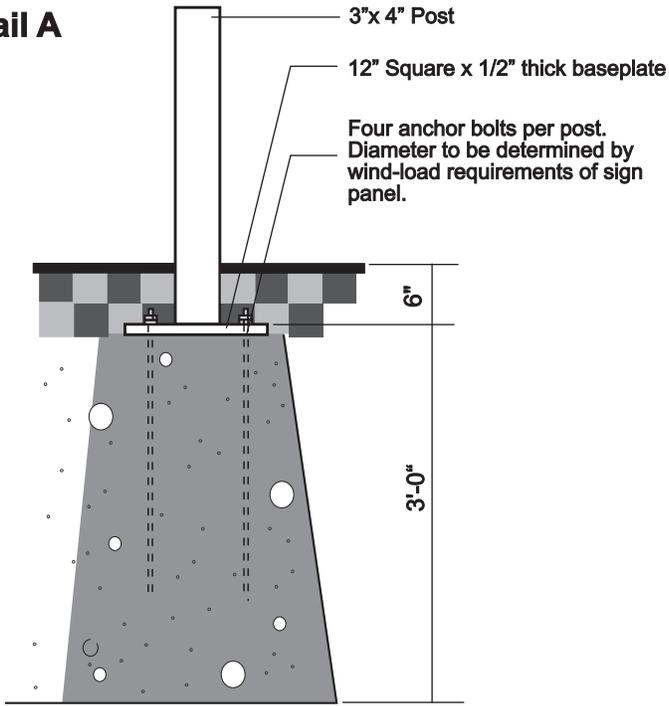


**NOTES:**

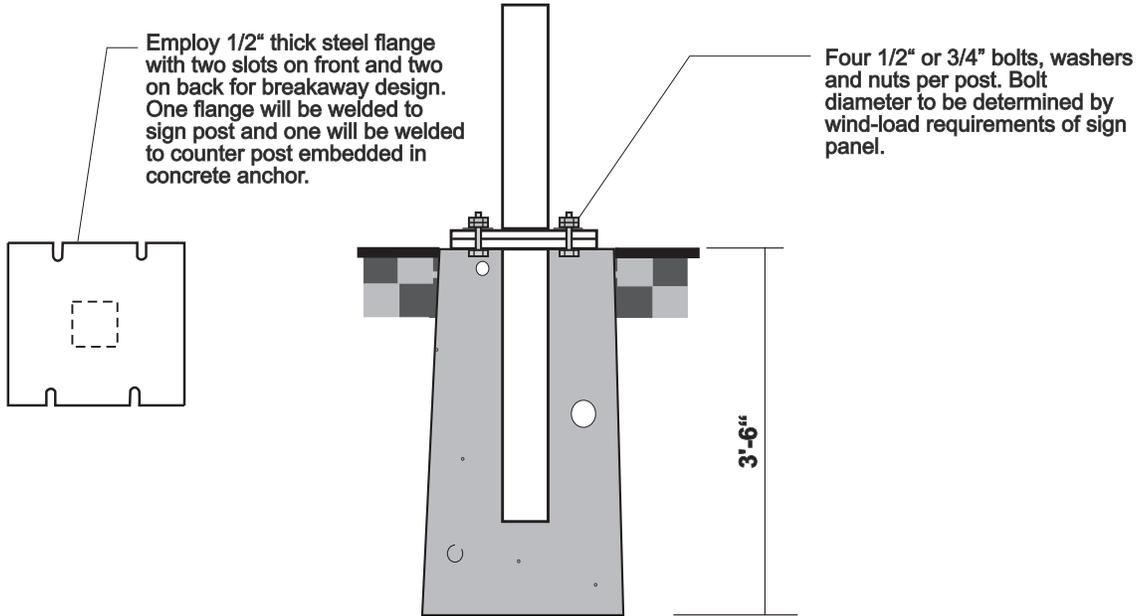
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing GT-40C for construction and installation details.

<b>Type E.1.2 Vehicular Informational Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>GT-40B</b>

**Installation Detail A**



**Installation Detail B**

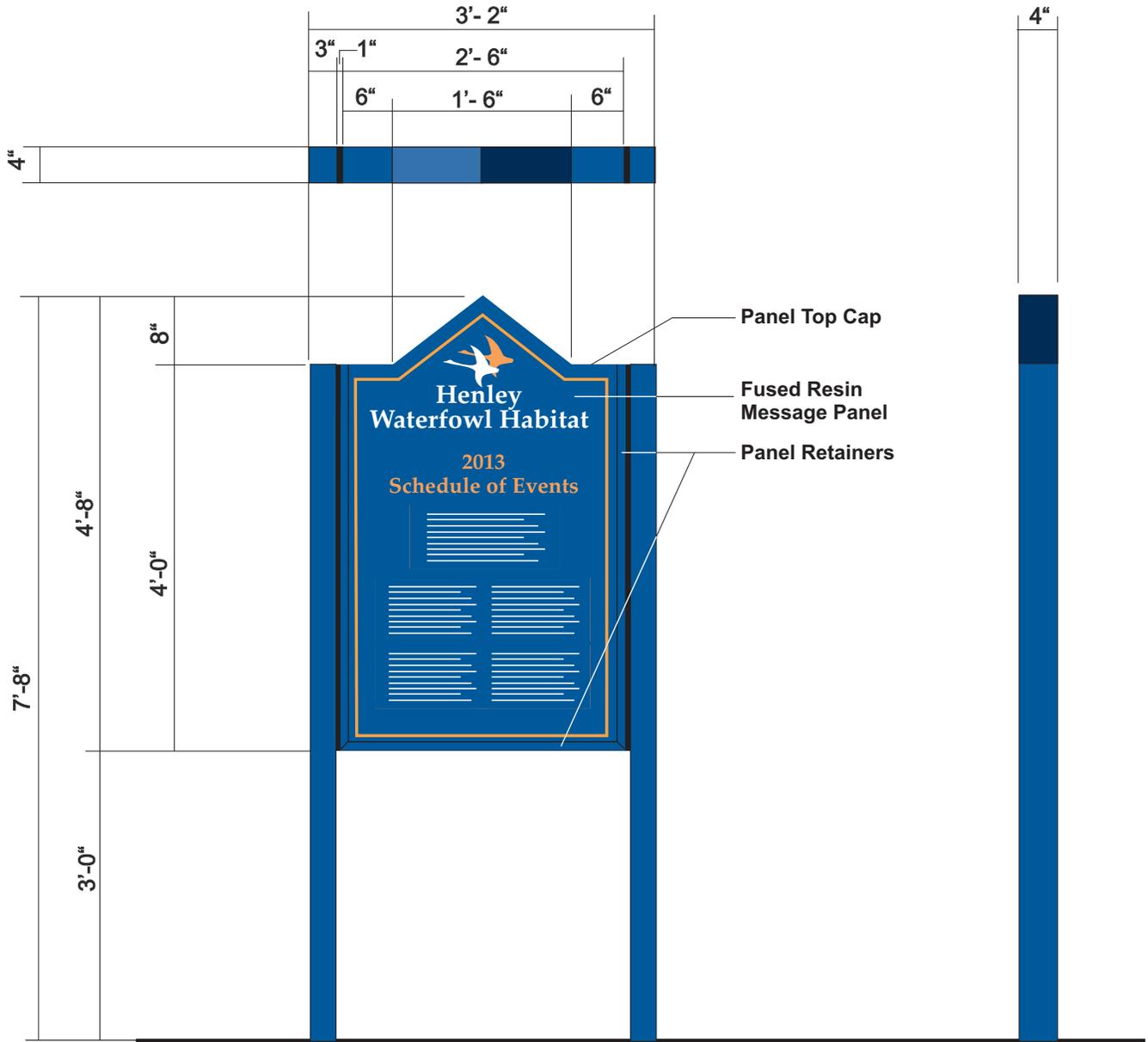


**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.1 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>GT-40C</b>

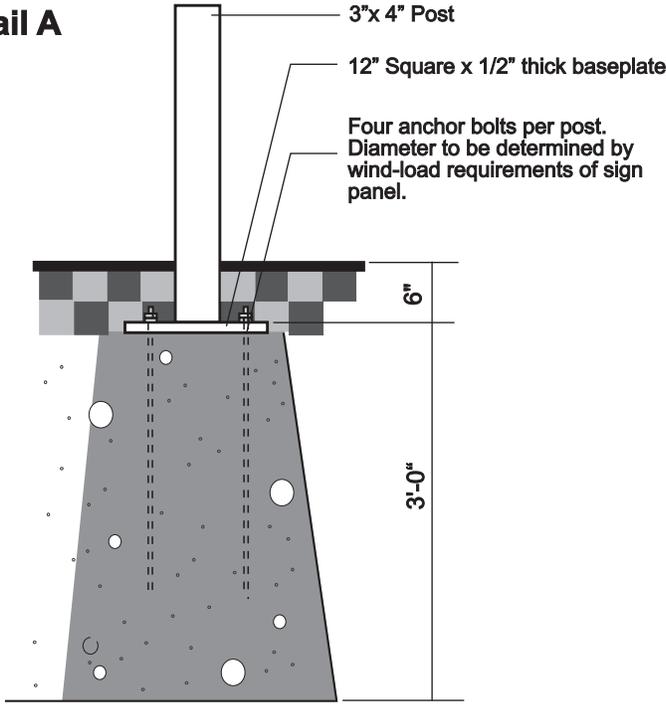


**NOTES:**

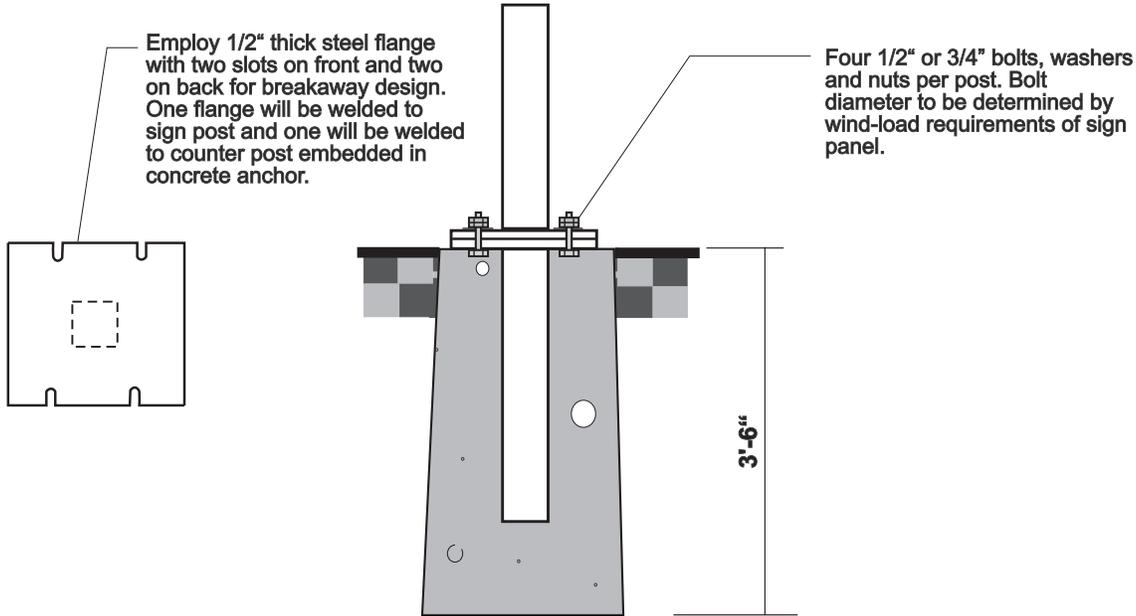
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings GT-41B and GT-41C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.2.1 Informational/ Promotional Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>GT-41A</b>

**Installation Detail A**



**Installation Detail B**



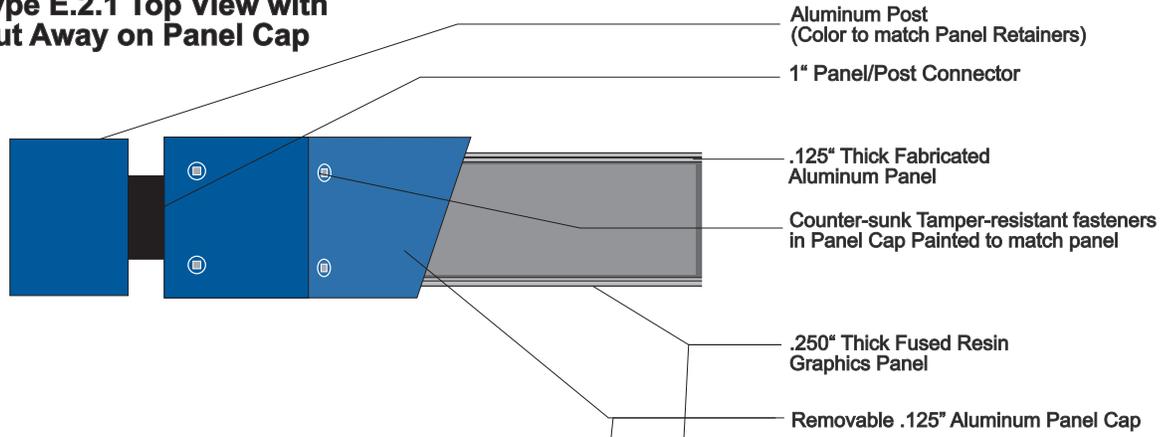
**Foundation Detail**

NOTES:

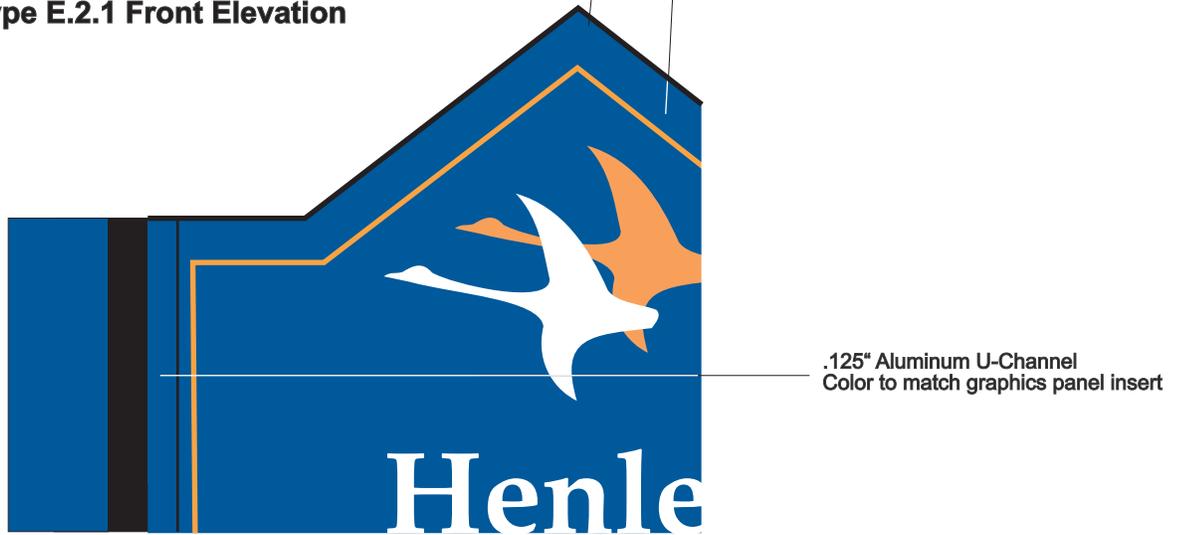
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>GT-41B</b>

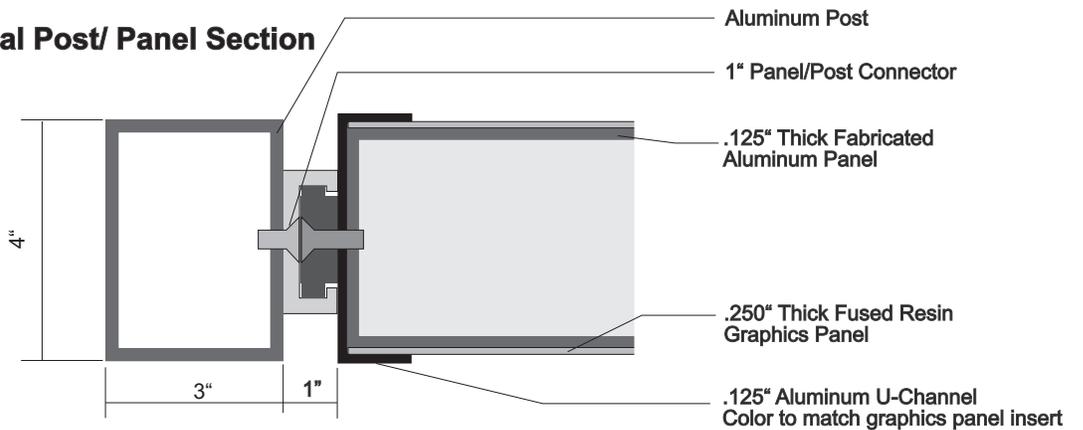
**Type E.2.1 Top View with Cut Away on Panel Cap**



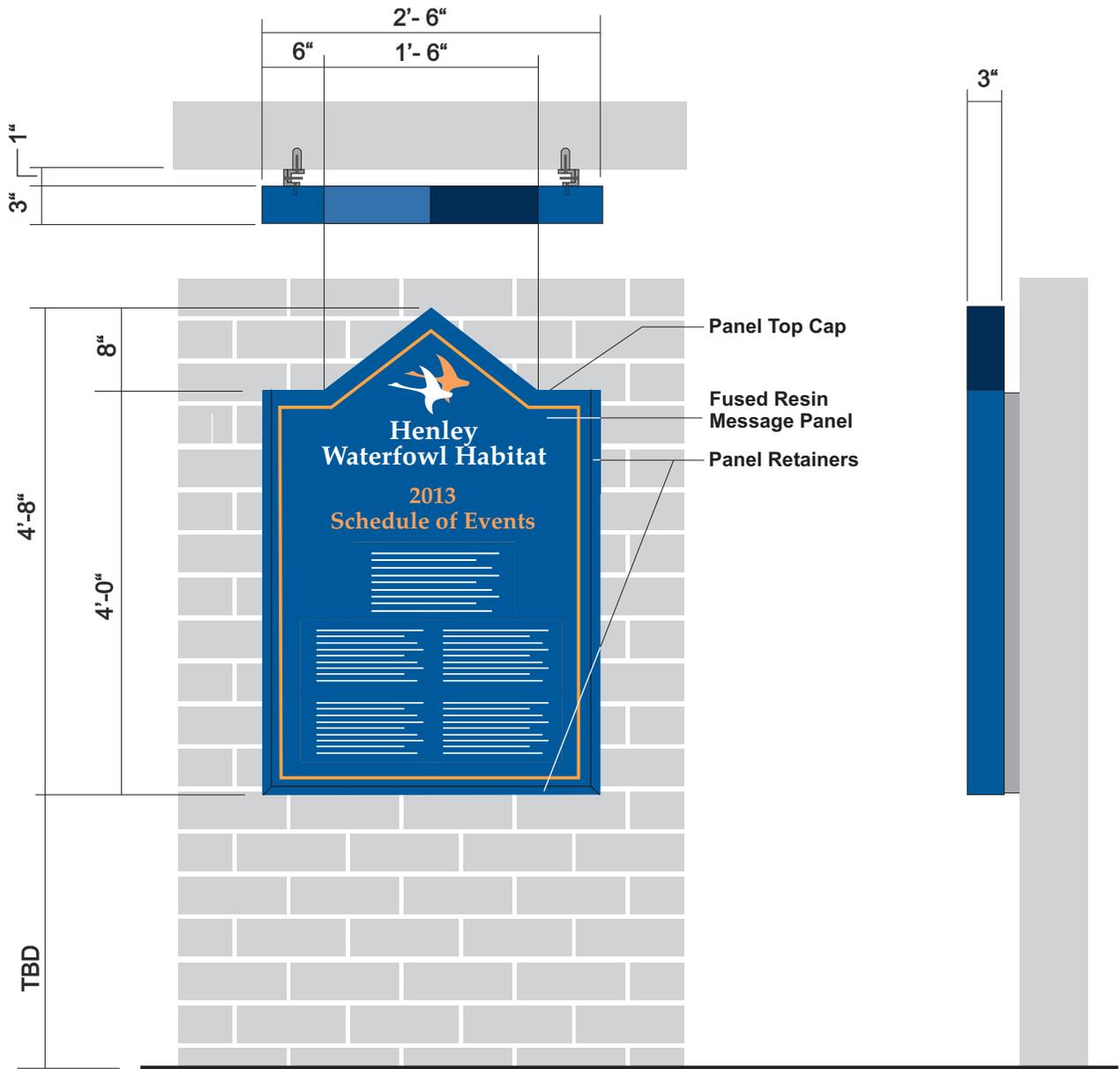
**Type E.2.1 Front Elevation**



**Horizontal Post/ Panel Section**



<p><b>Type E.2 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-41C</b></p>

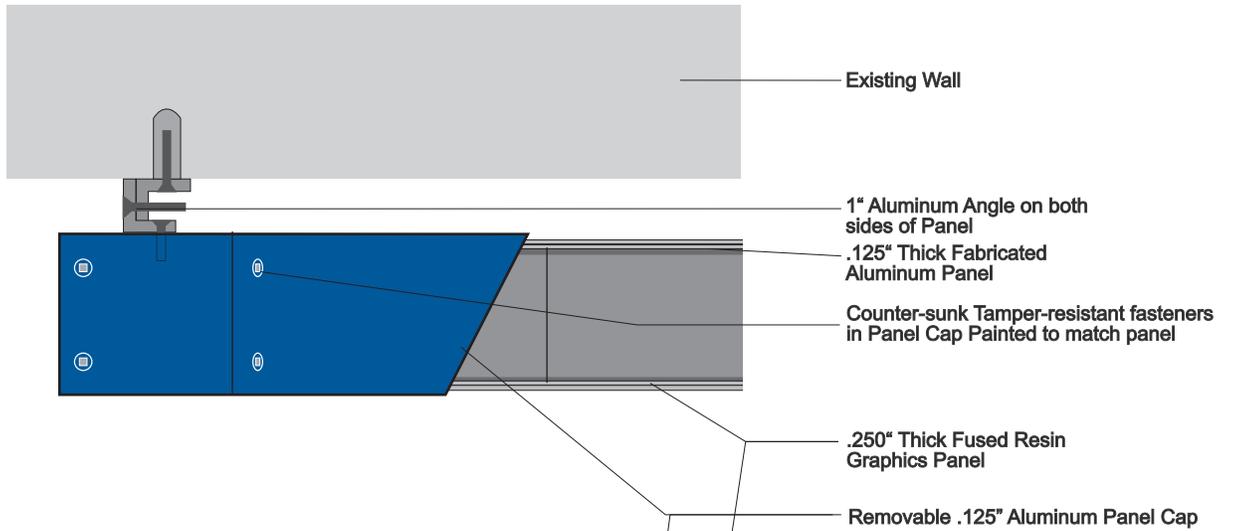


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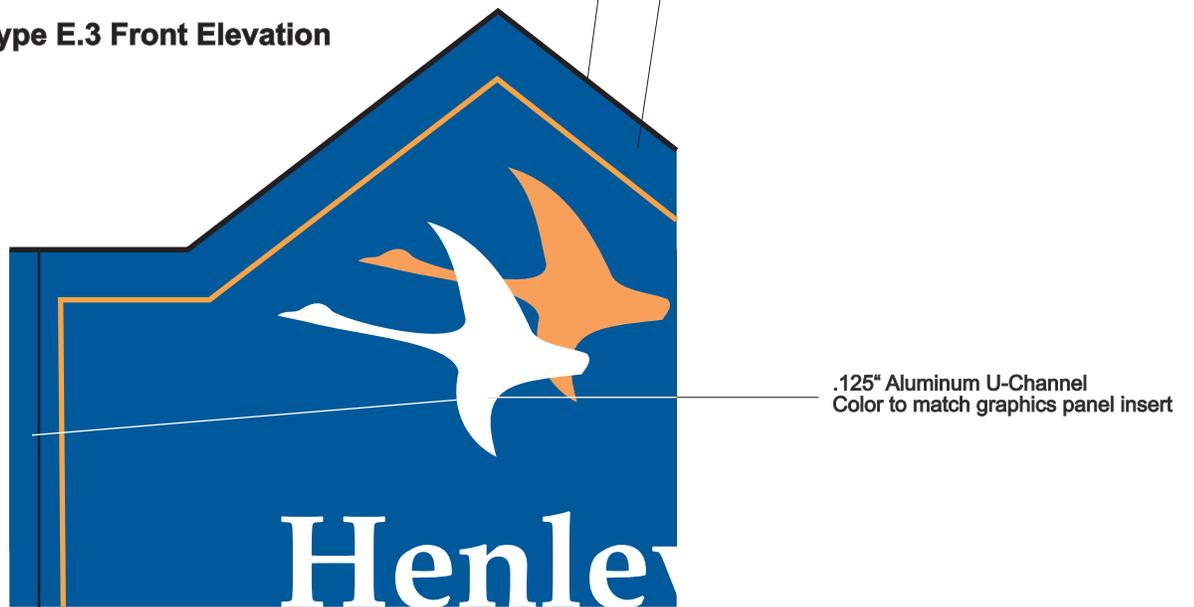
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing GT-42B for construction and installation details.
2. Owner will provide art on disk for graphics.
3. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type E.3.1 Interpretive Storyboard Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>GT-42A</b>

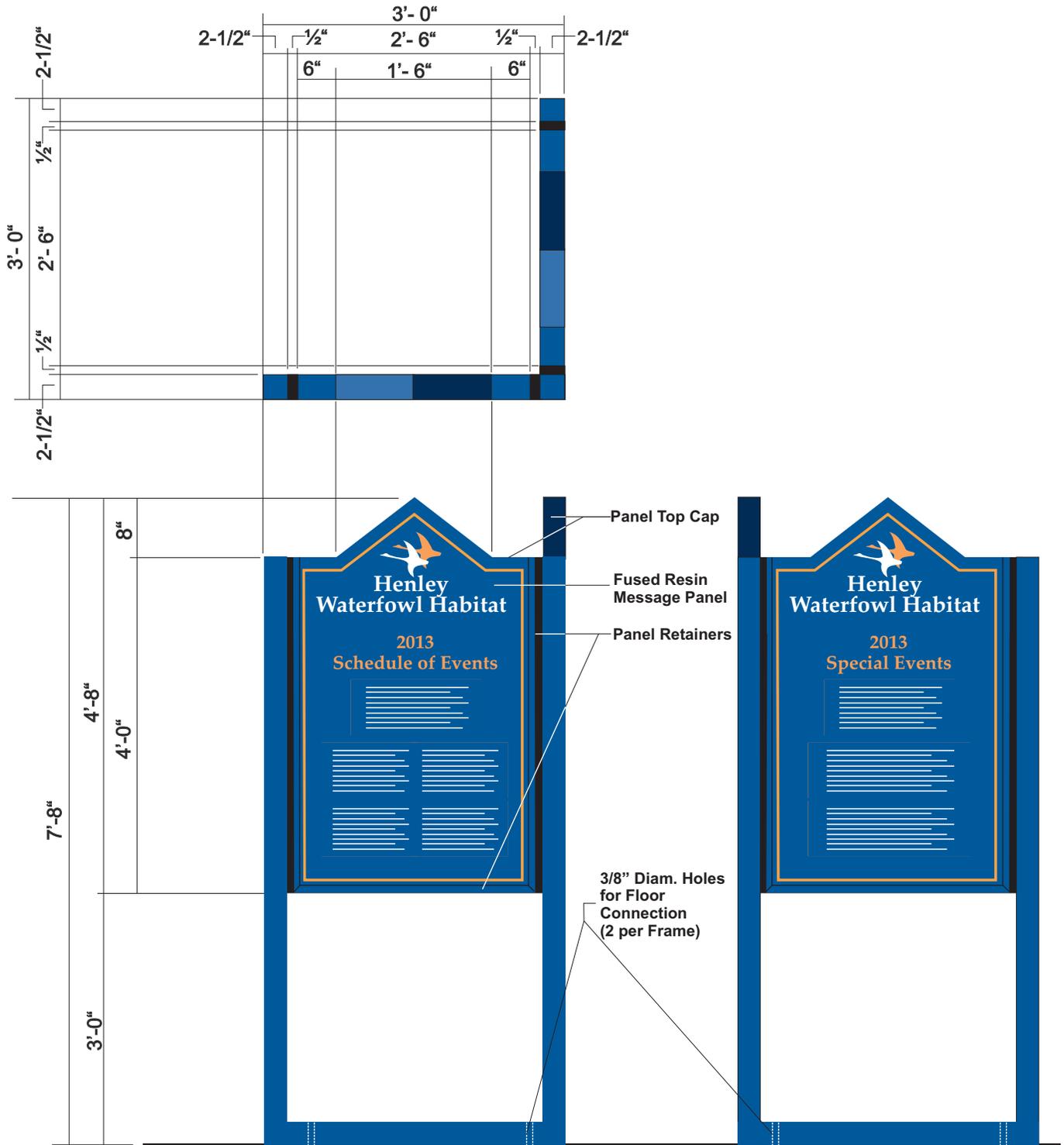
**Type E.3 Top View with  
Cut Away on Panel Cap**



**Type E.3 Front Elevation**



<p><b>Type E.3 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-42B</b></p>

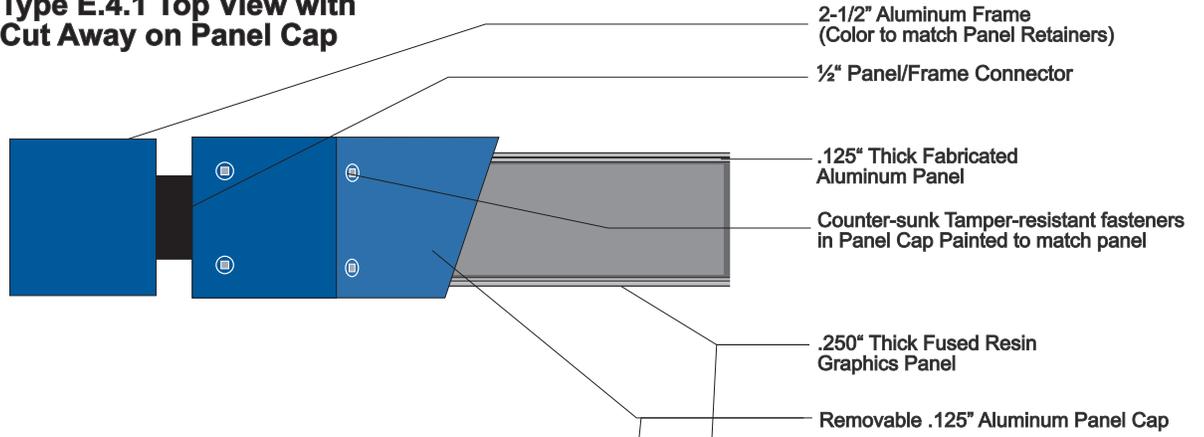


**NOTES:**

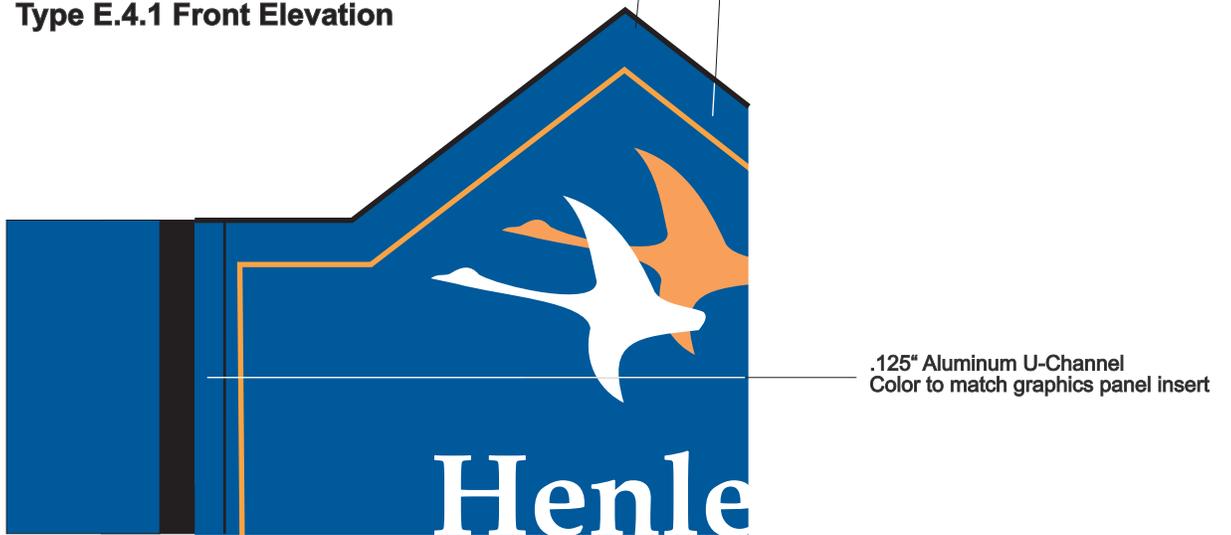
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Frame to be 2-1/2" square Aluminum. See Drawings GT-43B for construction details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.4.1 Informational/ Promotional Kiosk</b>	
<b>Niagara River Greenway</b>	<b>GT-43A</b>

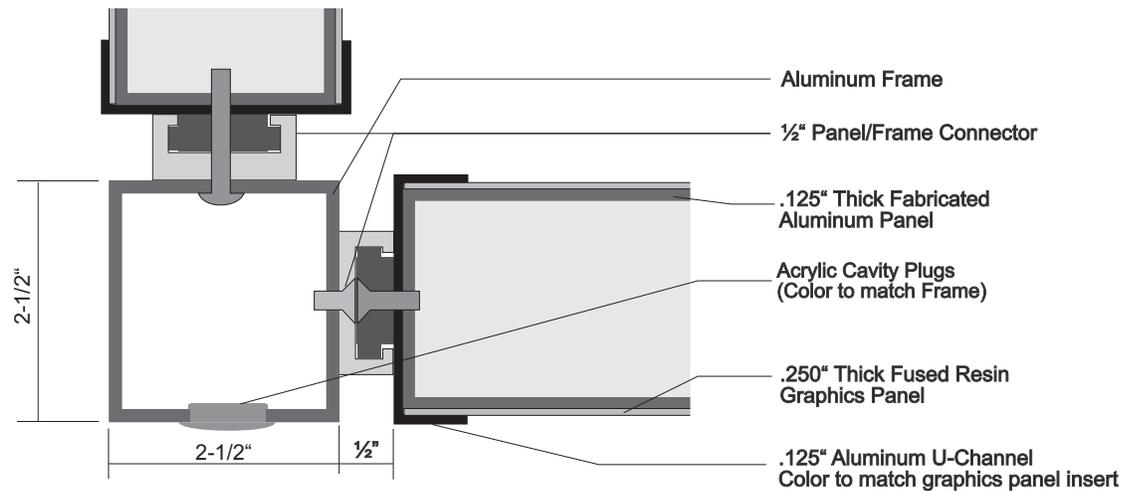
**Type E.4.1 Top View with Cut Away on Panel Cap**



**Type E.4.1 Front Elevation**



**Horizontal Panel/Frame Section**



<p><b>Type E.4.1 Frame and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-43B</b></p>

## Round-Top (RT) Format Grouping

This section provides a complete catalog of detail drawings for **ROUND TOP FORMAT GROUPING**. Included below is an index of the detail drawings included in this section. The Manual User should take particular note of the information included with each detail drawings as many of the details reference other drawings that provide additional relevant information pertaining to signage materials, fabrication or installation. It is important to include all of the detail drawings referenced in a particular category in order to provide all of the information necessary to provide cost estimates and to fabricate and install signage.

### Identification Signage

#### Vehicular Categories

Category	Description	Detail Drawing
A.1.1	Vehicular Facility Identification Pylon A	RT-1A
A.1.2	Vehicular Facility Identification Pylon B	RT-1B
A.1.3	Vehicular Facility Identification Pylon C	RT-1C
A.1	Pylon Base Construction Details	RT-1D
A.2.1	Vehicular Facility Identification Post and Panel A	RT-2A
A.2.2	Vehicular Facility Identification Post and Panel B	RT-2B
A.2.3	Vehicular Facility Identification Post and Panel C	RT-2C
A.2.4	Vehicular Facility Identification Post and Panel D	RT-2D
A.2	Post and Panel Construction Details	RT-2E
A.3.1	Vehicular Facility Identification Wall Mount A	RT-3A
A.3.2	Vehicular Facility Identification Wall Mount B	RT-3B

#### Pedestrian Categories

Category	Description	Detail Drawing
A.4.1	Pedestrian Facility Identification Pylon	RT-4A
A.4	Pylon Base Construction Details	RT-4C
A.5.1	Pedestrian Facility Identification Post and Panel A	RT-5A
A.5.2	Pedestrian Facility Identification Post and Panel B	RT-5B
A.5.3	Pedestrian Facility Identification Post and Panel C	RT-5C
A.5	Post and Panel Installation Details	RT-5D
A.5	Post and Panel Construction Details	RT-5E
A.6.1	Pedestrian Facility Identification Wall Mount A	RT-6A
A.6.2	Pedestrian Facility Identification Wall Mount B	RT-6B
A.6	Pedestrian Wall-Mount Panel Construction Details	RT-6C

## Directional Signage

### Vehicular Categories

Category	Description	Detail Drawing
B.1.1	Vehicular Directional Pylon	RT-10A
B.1	Pylon Base Construction Details	RT-10B
B.2.1	Vehicular Directional Post and Panel A	RT-11A
B.2.2	Vehicular Directional Post and Panel B	RT-11B
B.2.3	Vehicular Directional Post and Panel C	RT-11C
B.2	Post and Panel Installation Details	RT-11D
B.3.1	MUTCD Directional Post and Panel A	RT-12A
B.3.2	MUTCD Directional Post and Panel B	RT-12B
B.3.3	MUTCD Directional Post and Panel C	RT-12C
B.3.4	MUTCD Directional Post and Panel D	RT-12D
B.3	Post and Panel Installation Details	RT-12E
B.4.1	Vehicular Directional Wall Mount	RT-13A
B.5.1	Off-site Trailblazer Existing Pole Mount	RT-14A
B.5.2	Off-site Trailblazer New Pole Mount	RT-14B
B.5	Post and Panel Installation Details	RT-14C

### Pedestrian Categories

Category	Description	Detail Drawing
B.6.1	Pedestrian Directional Pylon	RT-15A
B.6	Pylon Base Construction Details	RT-15B
B.6	Pylon Message Panel Construction Details	RT-15C
B.7.1	Pedestrian Directional Post and Panel A	RT-16A
B.7.2	Pedestrian Directional Post and Panel B	RT-16B
B.7	Post and Panel Installation Details	RT-16C
B.7	Post and Panel Construction Details	RT-16D
B.8.1	Pedestrian Directional Wall Mount A	RT-17A
B.8.2	Pedestrian Directional Wall Mount B	RT-17B
B.8	Pedestrian Wall-Mount Panel Construction Details	RT-17C

## Orientation Signage

### Vehicular Categories

Category	Description	Detail Drawing
C.1.1	Vehicular Orientation Pylon A	RT-20A
C.1.2	Vehicular Orientation Pylon B	RT-20B
C.1	Pylon Base Construction Details	RT-20C
C.1	Pylon Message Panel Construction Details	RT-20D
C.2.1	Vehicular Orientation Post and Panel A	RT-21A
C.2.2	Vehicular Orientation Post and Panel B	RT-21B
C.2	Post and Panel Installation Details	RT-21C
C.2	Post and Panel Construction Details	RT-21D

# Orientation Signage

## Pedestrian Categories

Category	Description	Detail Drawing
C.3.1	Pedestrian Orientation Pylon A	RT-22A
C.3.2	Pedestrian Orientation Pylon B	RT-22B
C.3	Pylon Base Construction Details	RT-22C
C.3	Pylon Message Panel Construction Details	RT-22D
C.4.1	Pedestrian Orientation Post and Panel A	RT-23A
C.4.2	Pedestrian Orientation Post and Panel B	RT-23B
C.4	Post and Panel Installation Details	RT-23C
C.4	Post and Panel Construction Details	RT-23D
C.5.1	Pedestrian Orientation Wall Mount	RT-24A
C.5	Pedestrian Wall-Mount Panel Construction Details	RT-24B

# Interpretive & Commemorative Signage

## Vehicular Categories

Category	Description	Detail Drawing
D.1.1	Vehicular Commemorative Post and Panel A	RT-30A
D.1.2	Vehicular Commemorative Post and Panel B	RT-30B
D.1	Post and Panel Installation Details	RT-30C
D.1	Post and Panel Construction Details	RT-30D

## Pedestrian Categories

Category	Description	Detail Drawing
D.2.1	Interpretive/ Commemorative Post and Panel	RT-31A
D.2	Post and Panel Construction Details	RT-31B
D.3.1	Interpretive/ Commemorative Wall Mount	RT-32A
D.3	Panel Construction Details	RT-32B
D.4.1	Interpretive/ Commemorative Railing Mount	RT-33A
D.4	Panel Construction Details	RT-33B
D.5.1	Interpretive Storyboard Post and Panel	RT-34A
D.5	Post and Panel Construction Details	RT-34B
D.5	Post and Panel Installation Details	RT-34C
D.6.1	Interpretive Storyboard Wall Mount	RT-35A
D.6	Panel Construction Details	RT-35B

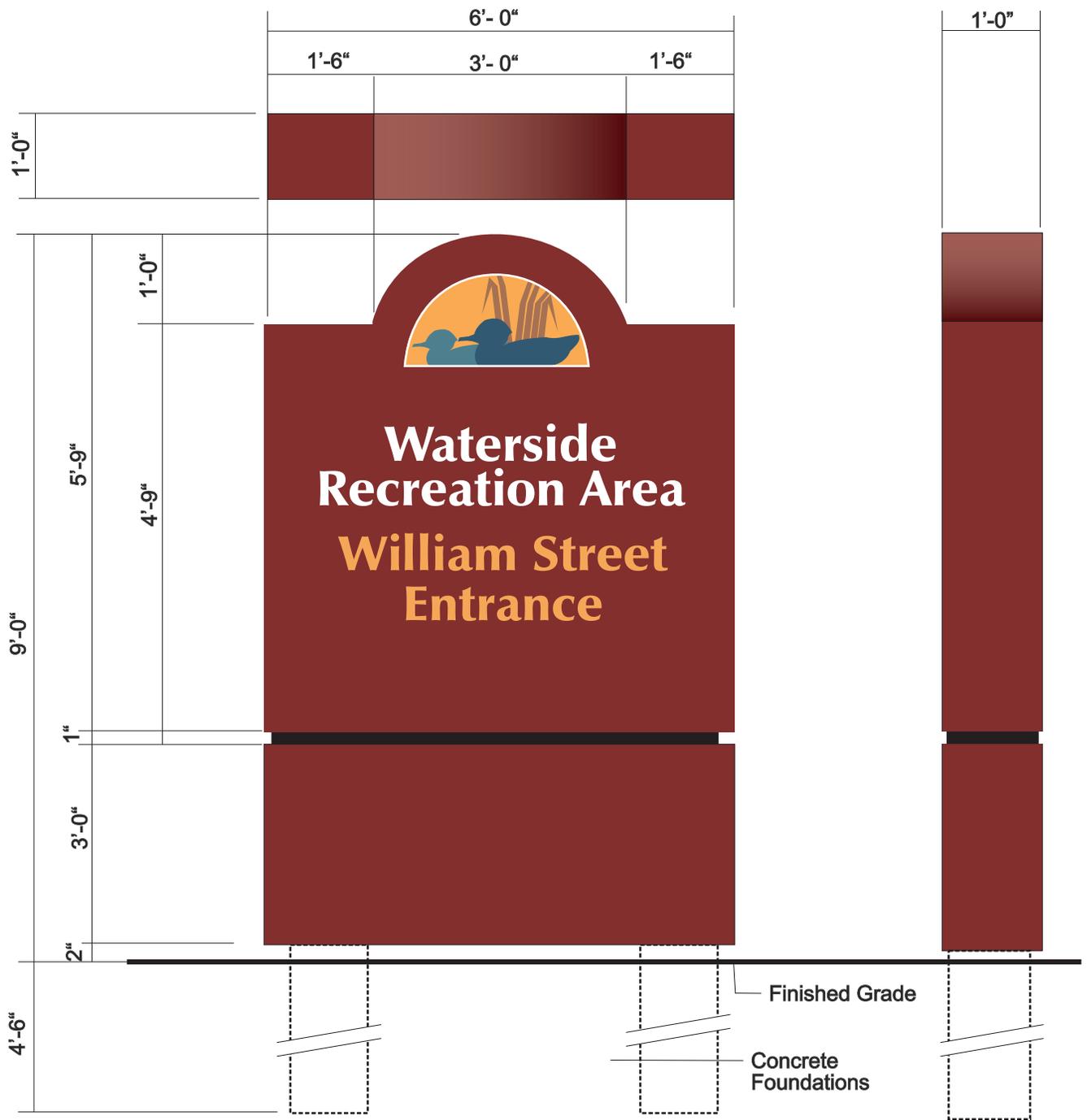
# Informational & Promotional Signage

## Vehicular Categories

Category	Description	Detail Drawing
E.1.1	Vehicular Informational Post and Panel A	RT-40A
E.1.2	Vehicular Informational Post and Panel B	RT-40B
E.1	Post and Panel Installation Details	RT-40C

## Pedestrian Categories

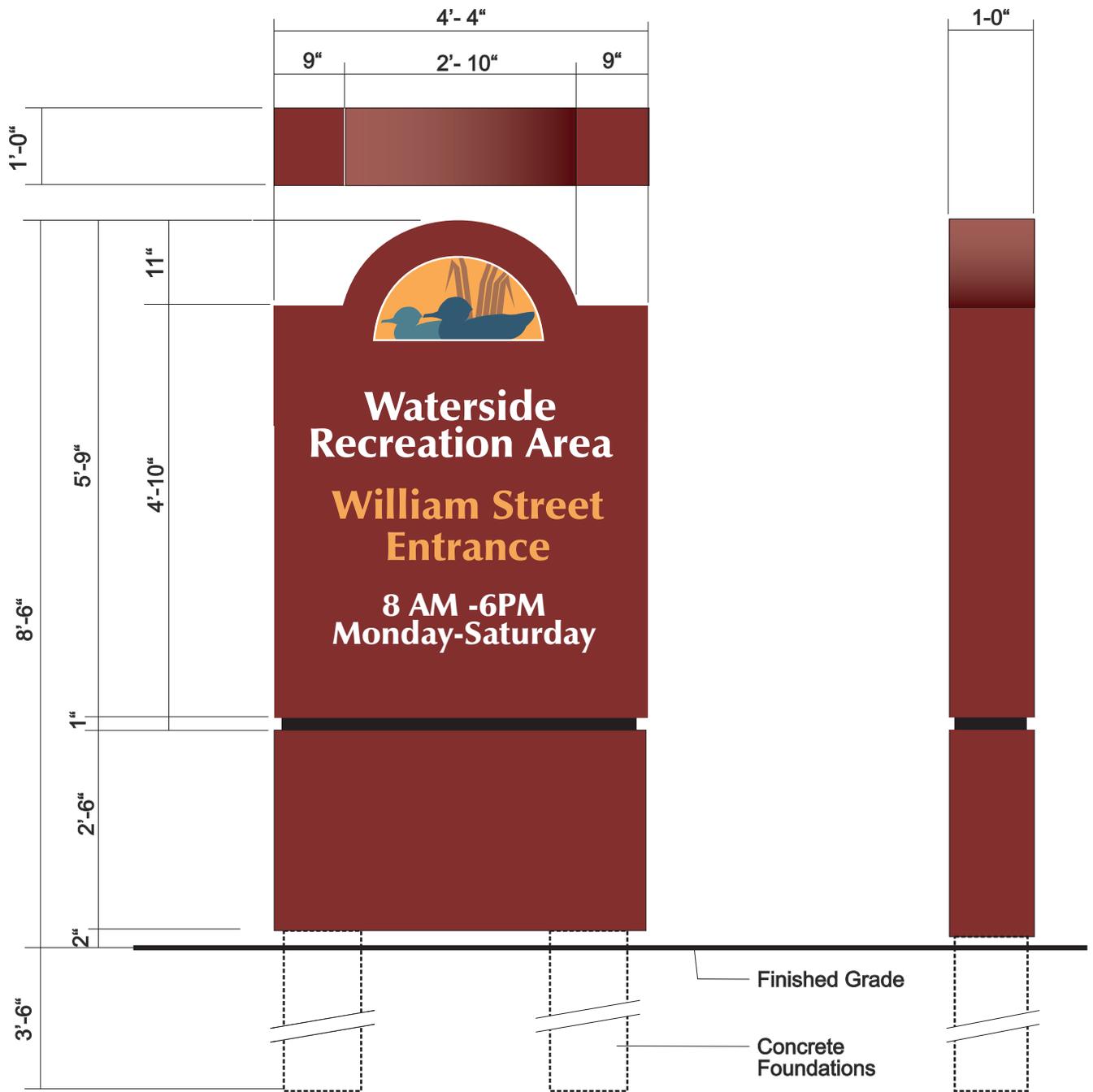
Category	Description	Detail Drawing
E.2.1	Informational/ Promotional Post and Panel	RT-41A
E.2	Post and Panel Installation Details	RT-41B
E.2	Post and Panel Construction Details	RT-41C
E.3.1	Informational/ Promotional Wall Mount	RT-42A
E.3	Panel Construction Details	RT-42B
E.4.1	Informational/ Promotional Kiosk	RT-43A
E.4	Frame and Panel Construction Details	RT-43B



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing RT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

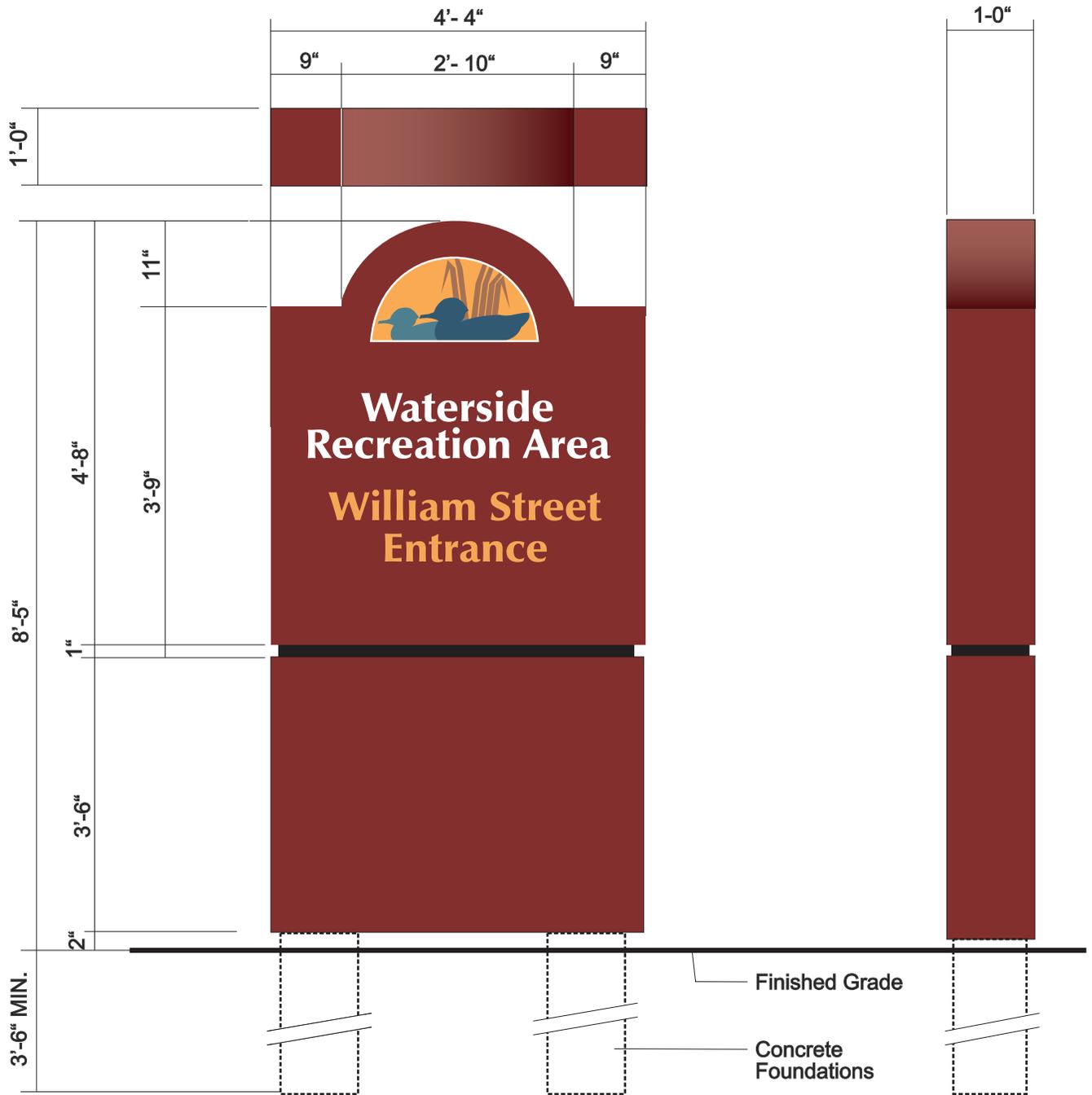
<b>Type A.1.1 Vehicular Facility Identification Pylon A</b>	
<b>Niagara River Greenway</b>	<b>RT-1A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction. See Drawing RT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.2 Vehicular Facility Identification Pylon B</b>	
<b>Niagara River Greenway</b>	<b>RT-1B</b>



**NOTES:**

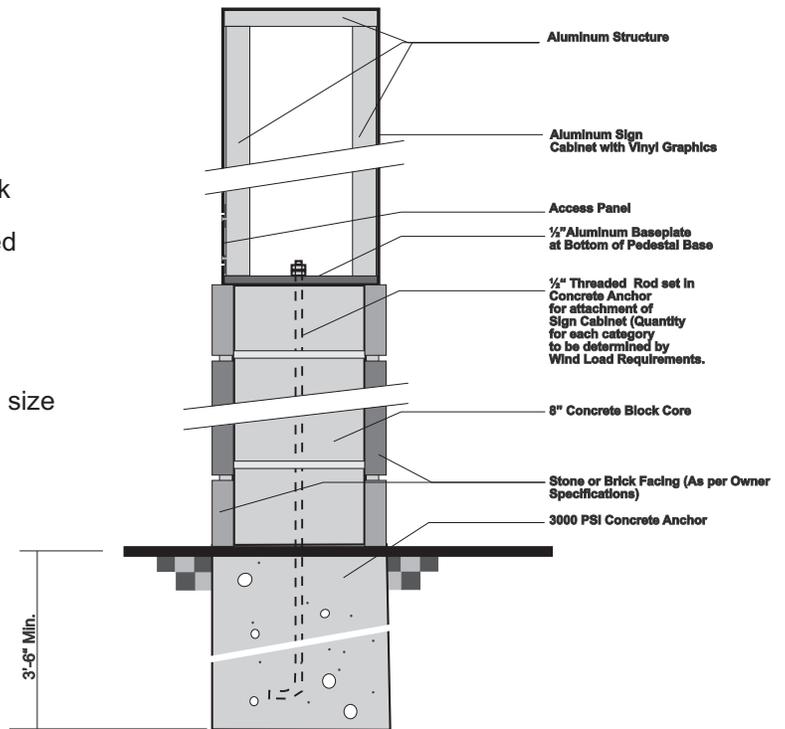
1. Sign panel to be fabricated aluminum box construction. See Drawing RT-1D for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type A.1.3 Vehicular Facility Identification Pylon C</b>	
<b>Niagara River Greenway</b>	<b>RT-1C</b>

# Stone/Brick Pylon Base

**NOTES:**

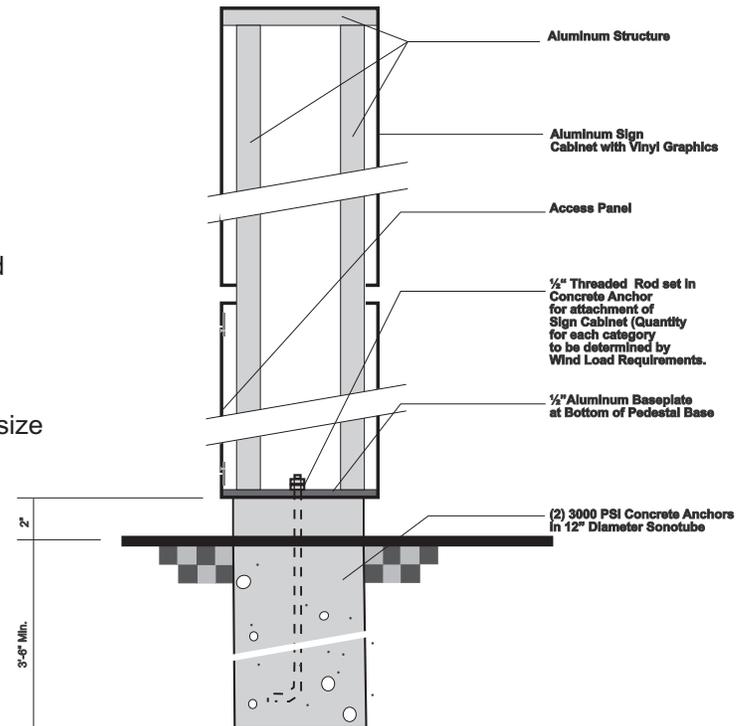
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



# Aluminum Pylon Base

**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



<b>Type A.1 Pylon Base Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-1D</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-2E for construction and installation details.

<b>Type A.2.1 Vehicular Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-2A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-2E for construction and installation details.

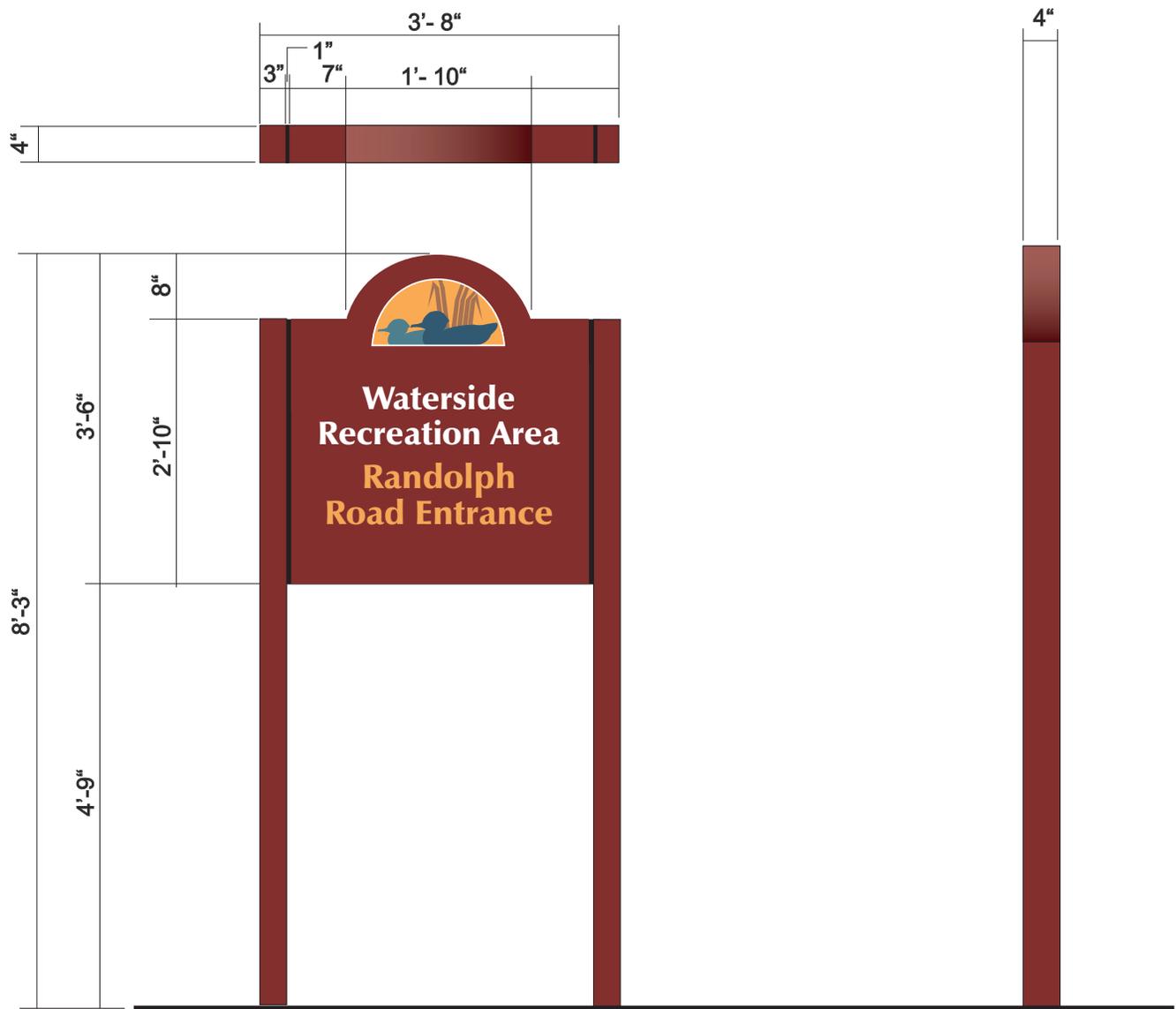
<b>Type A.2.2 Vehicular Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-2B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-2E for construction and installation details.

<b>Type A.2.3 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>RT-2C</b>

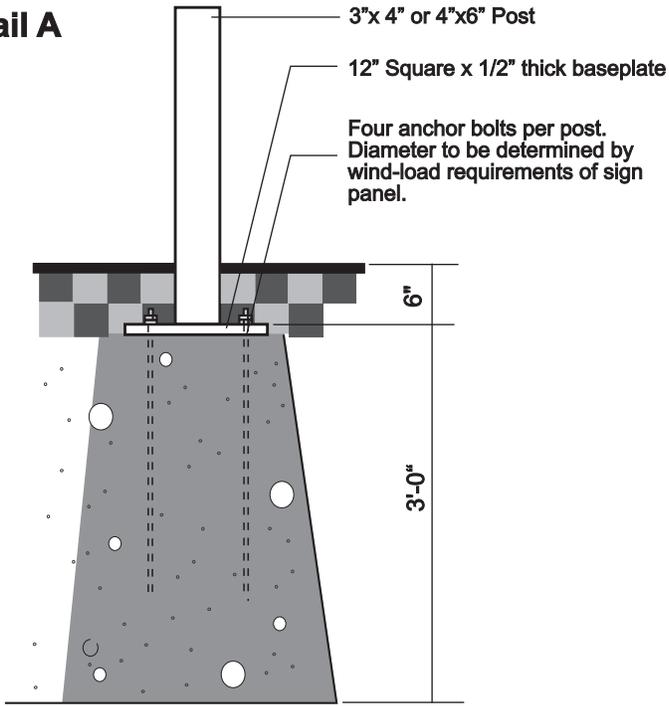


**NOTES:**

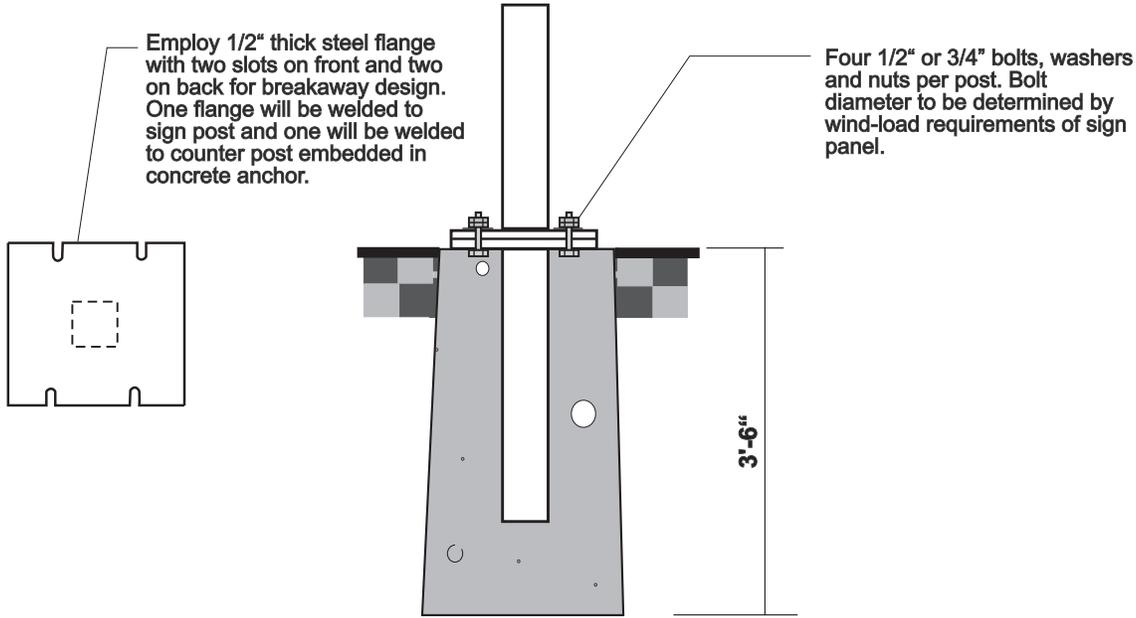
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-2E for construction and installation details.

<b>Type A.2.4 Vehicular Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>RT-2D</b>

**Installation Detail A**



**Installation Detail B**



**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type A.2 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-2E</b>



NOTES:

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

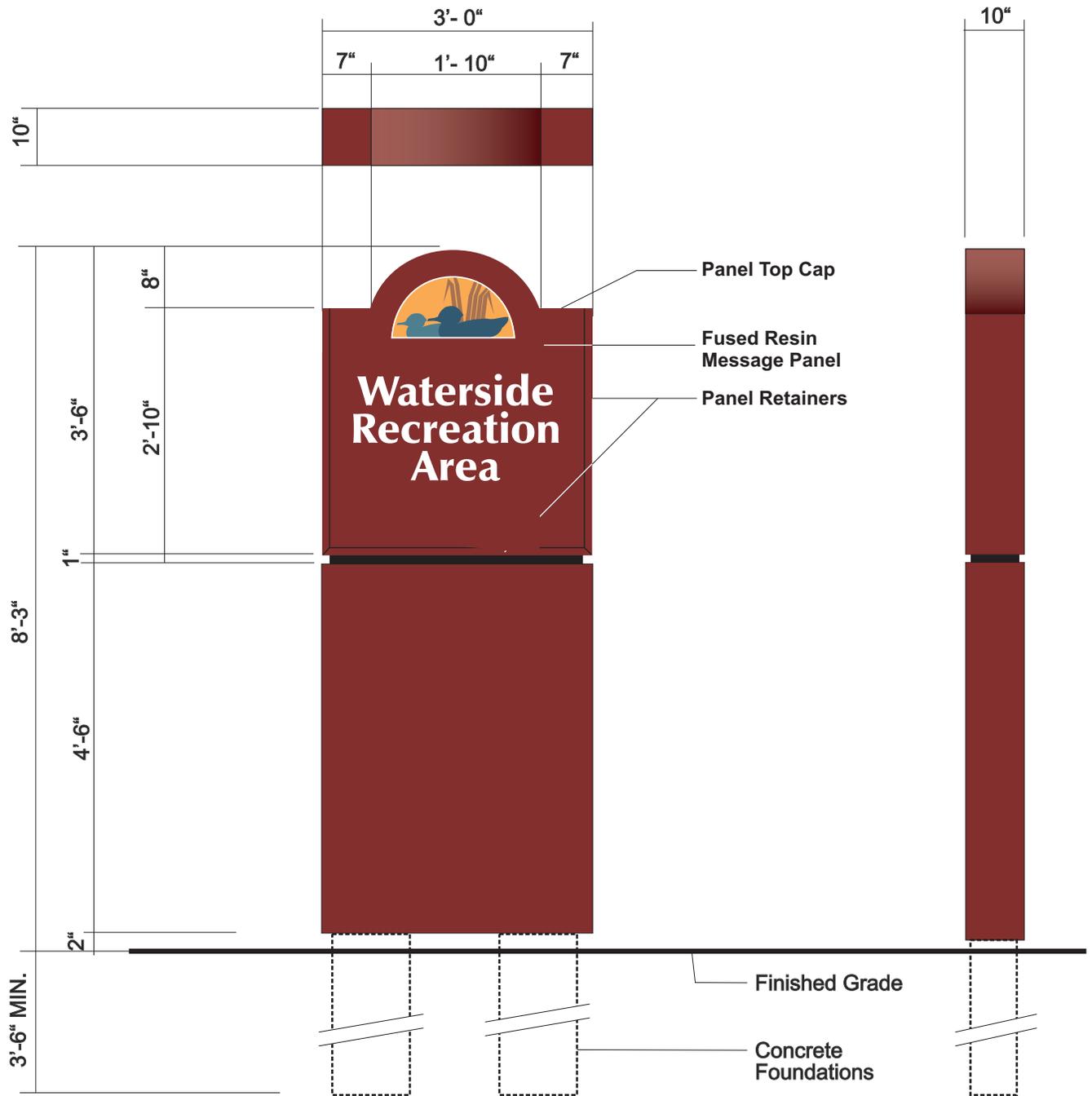
<b>Type A.3.1 Vehicular Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>RT-3A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

<b>Type A.3.2 Vehicular Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>RT-3B</b>



**NOTES:**

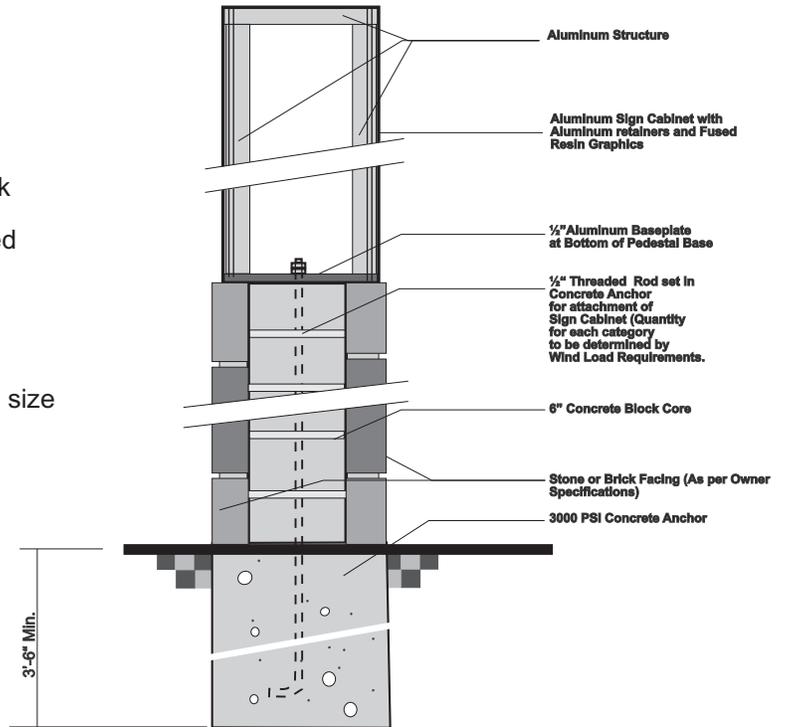
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-4B and RT-4C for Base Material and construction details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.4.1 Pedestrian Facility Identification Pylon</b>	
<b>Niagara River Greenway</b>	<b>RT-4A</b>

# Stone/Brick Pylon Base

**NOTES:**

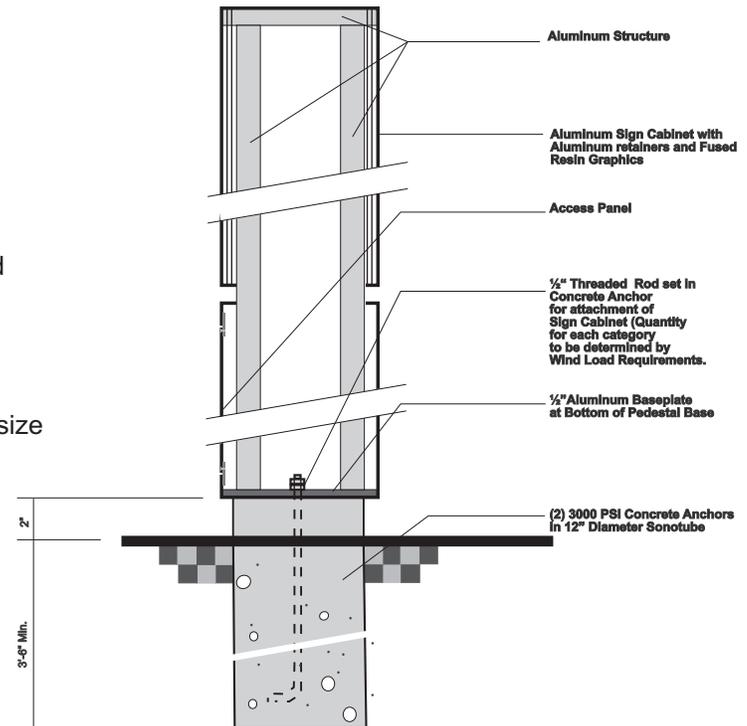
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-4C for panel construction details.



# Aluminum Pylon Base

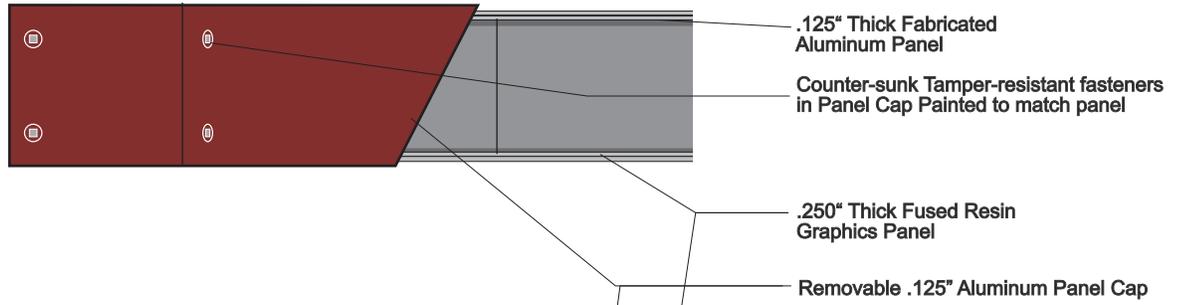
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-4C for panel construction details.

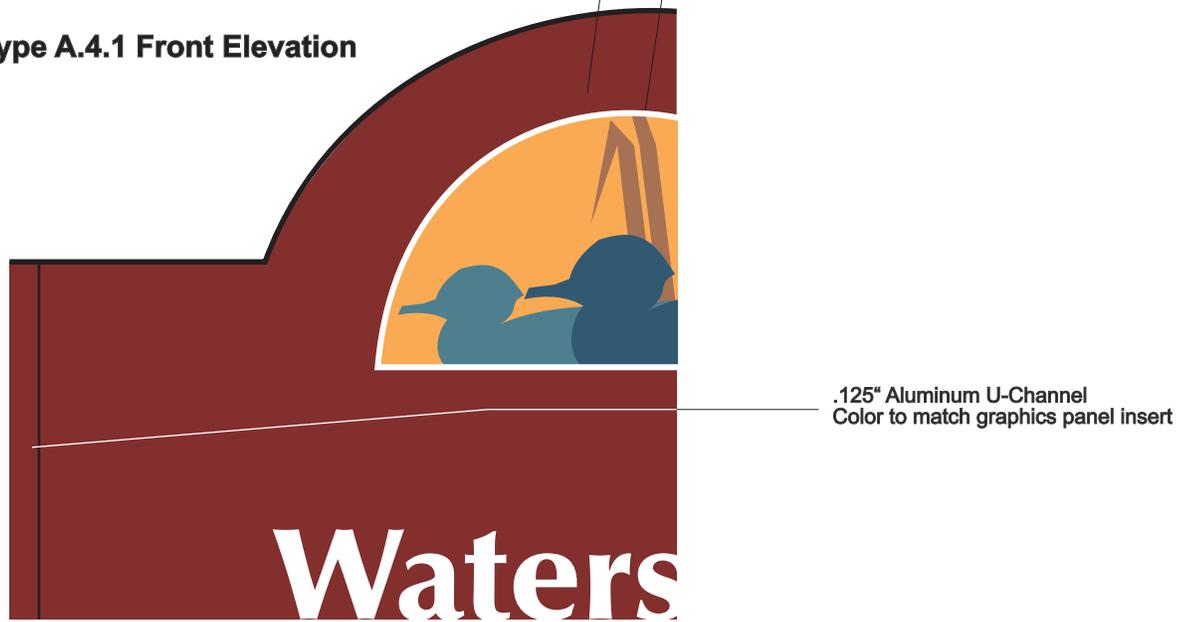


<b>Type A.4 Pylon Base Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-4B</b>

**Type A.4.1 Top View with  
Cut Away on Panel Cap**



**Type A.4.1 Front Elevation**



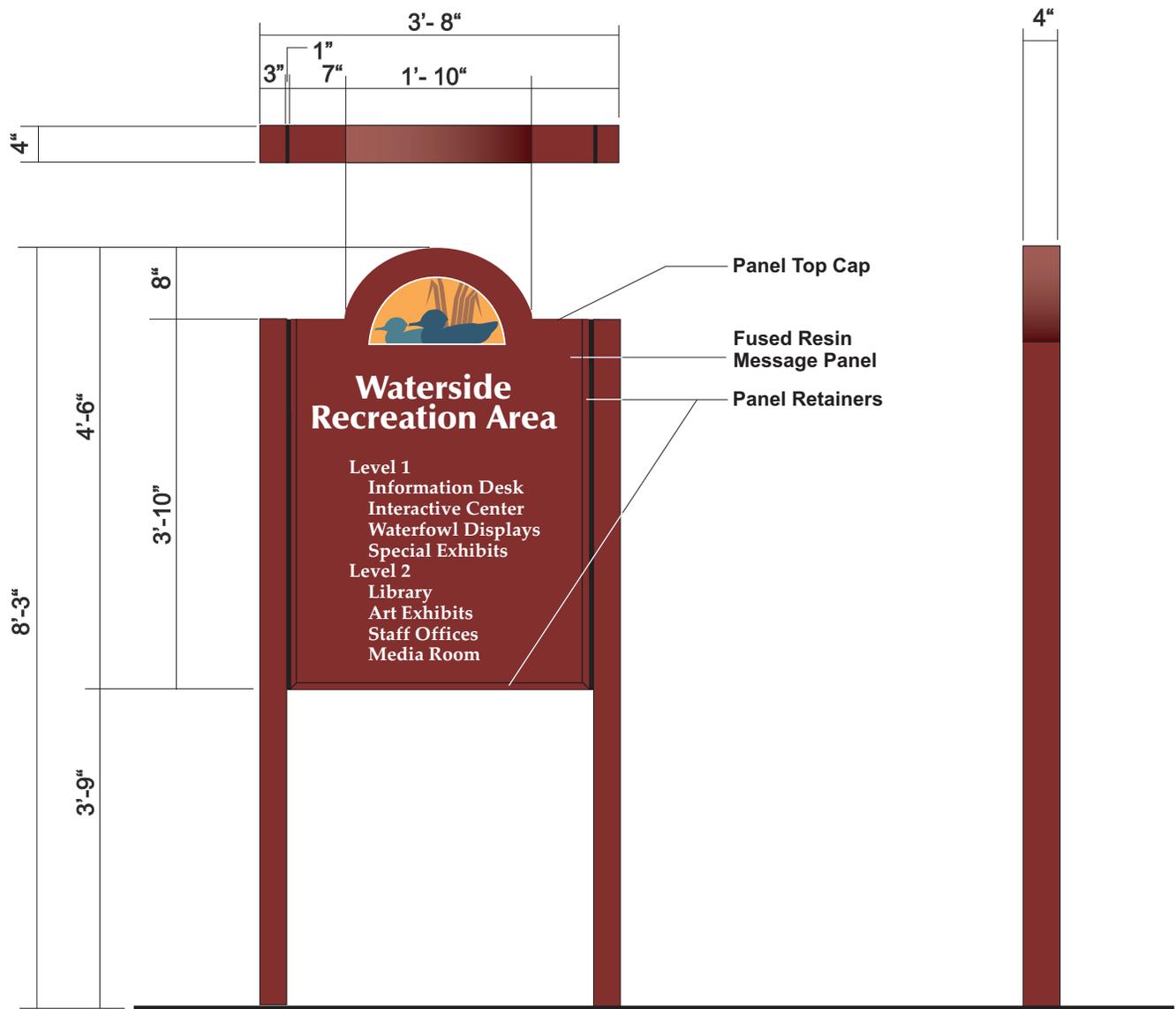
<p><b>Type A.4 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-4C</b></p>



NOTES:

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings RT-5D and RT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

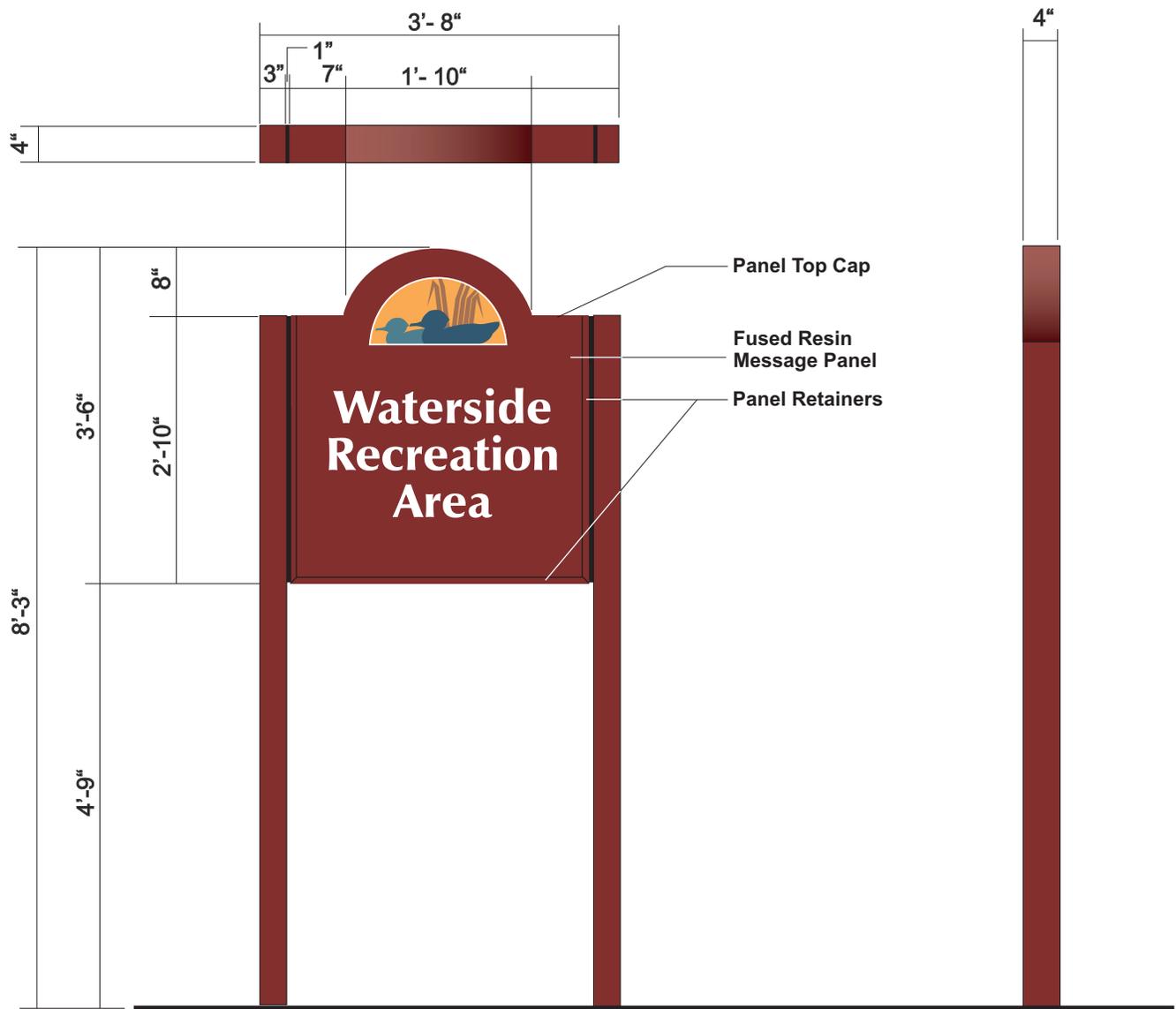
<b>Type A.5.1 Pedestrian Facility Identification Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-5A</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings RT-5D and RT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.2 Pedestrian Facility Identification Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-5B</b>

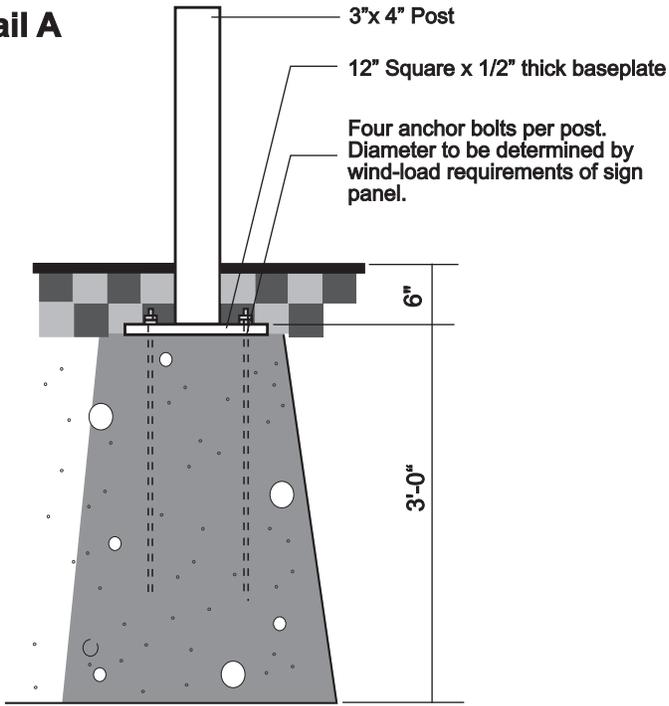


**NOTES:**

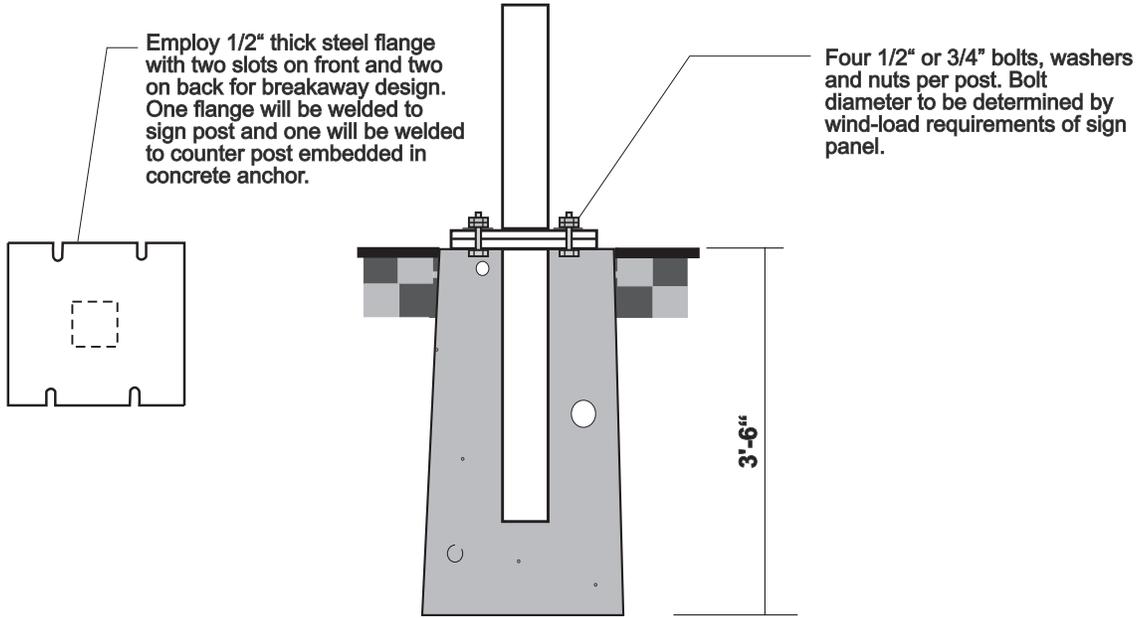
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings RT-5D and RT-5E for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type A.5.3 Pedestrian Facility Identification Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>RT-5C</b>

**Installation Detail A**



**Installation Detail B**



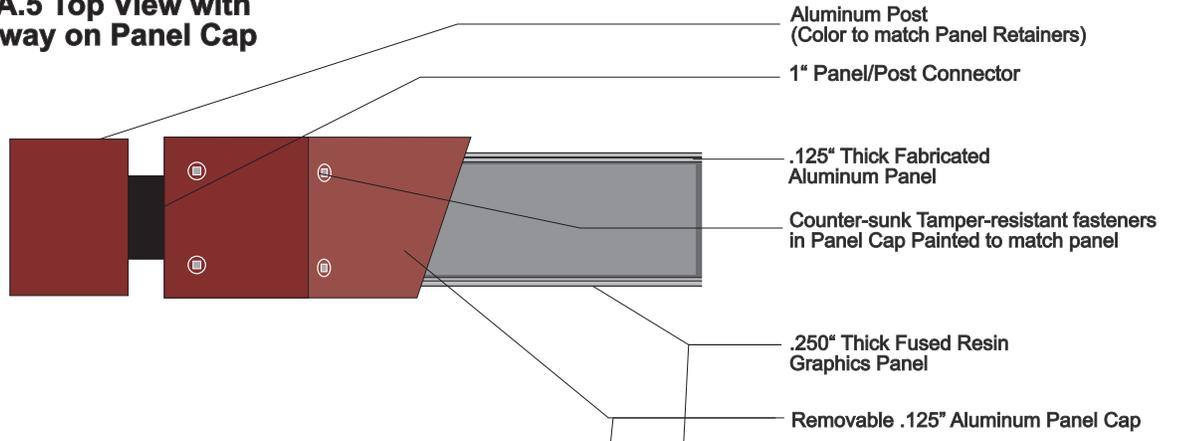
**Foundation Detail**

NOTES:

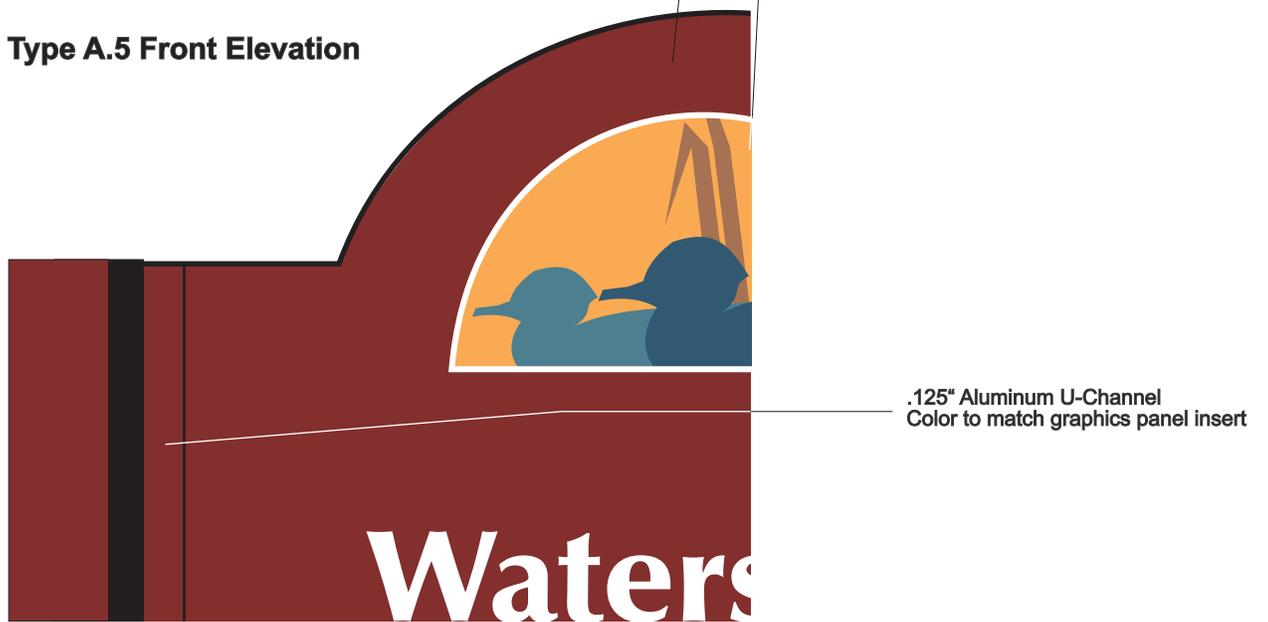
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type A.5 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-5D</b>

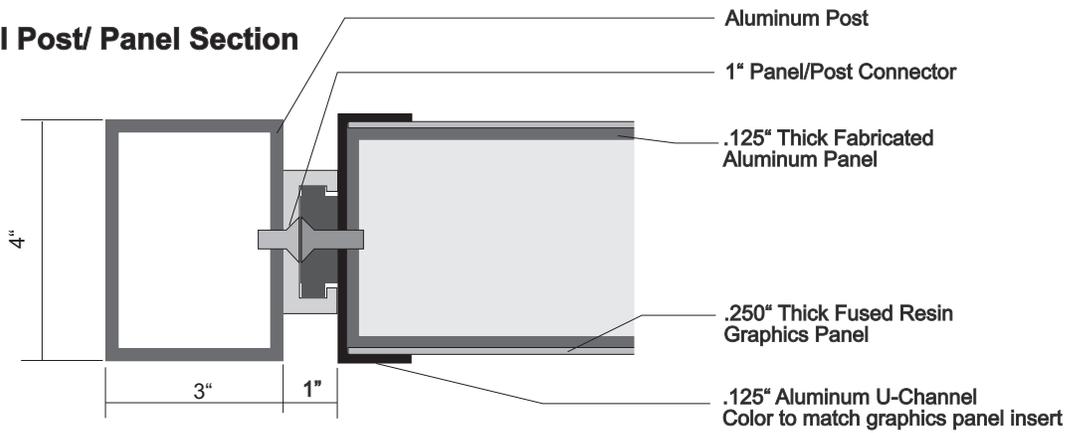
**Type A.5 Top View with Cut Away on Panel Cap**



**Type A.5 Front Elevation**



**Horizontal Post/ Panel Section**



<p><b>Type A.5 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-5E</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.1 Pedestrian Facility Identification Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>RT-6A</b>

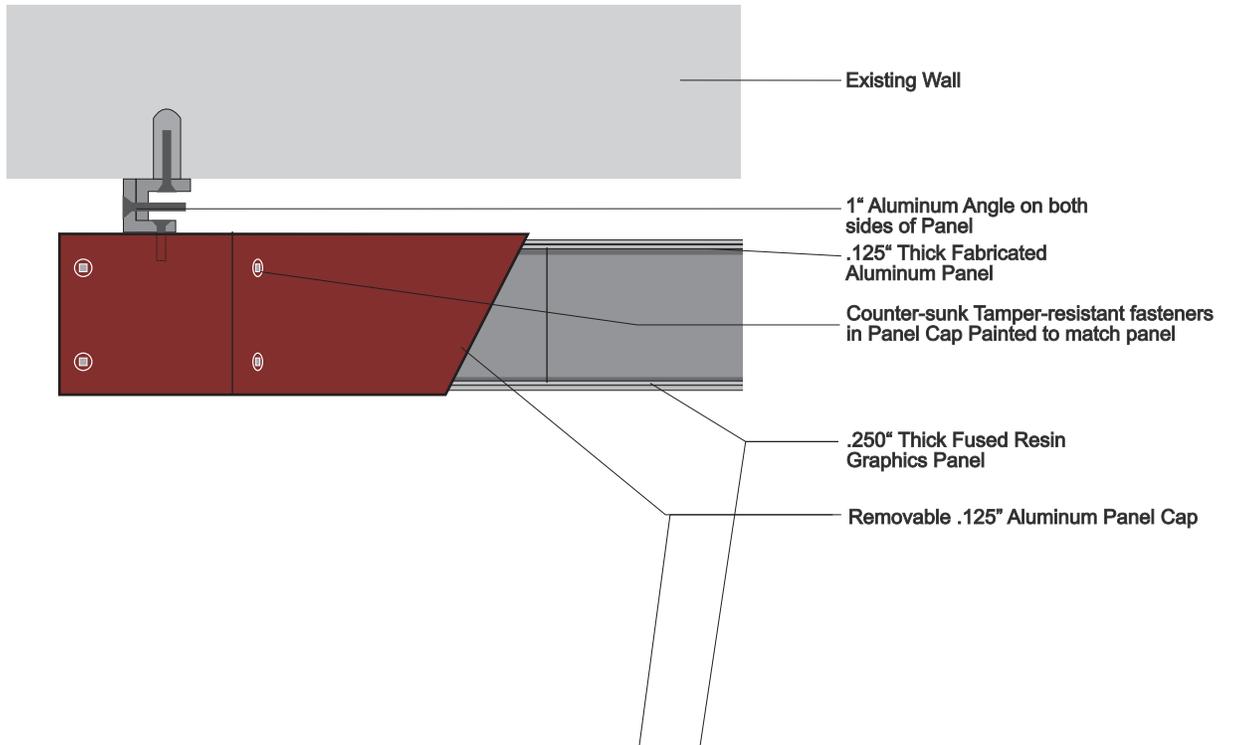


NOTES:

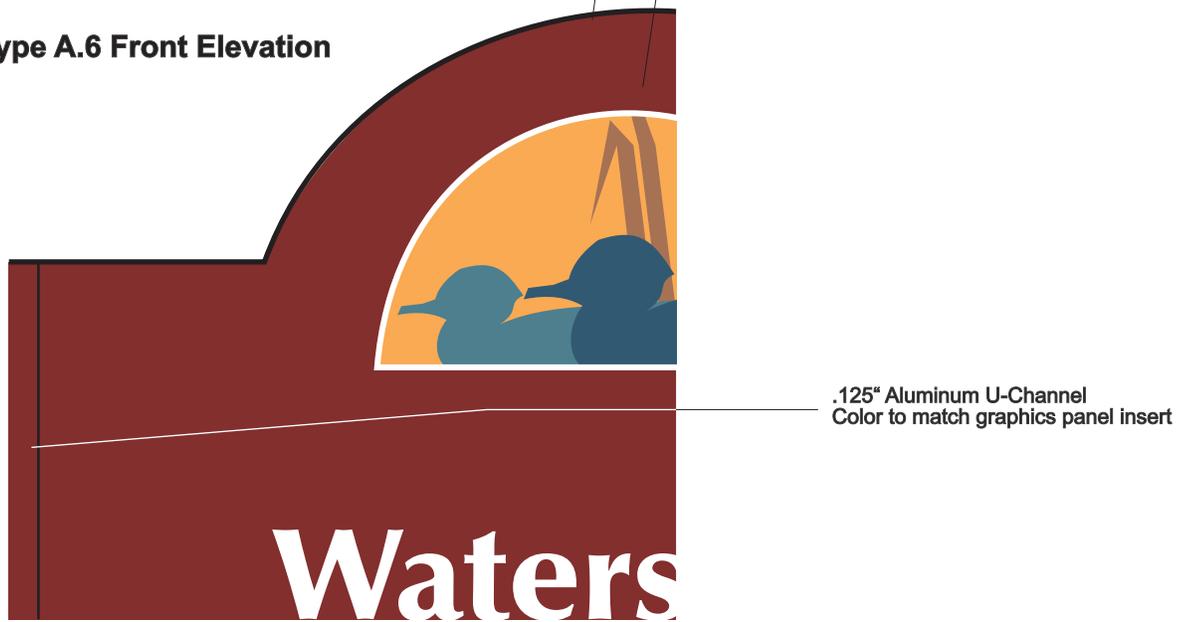
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-6C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type A.6.2 Pedestrian Facility Identification Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>RT-6B</b>

**Type A.6 Top View with Cut Away on Panel Cap**



**Type A.6 Front Elevation**



<p><b>Type A.6 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-6C</b></p>



**NOTES:**

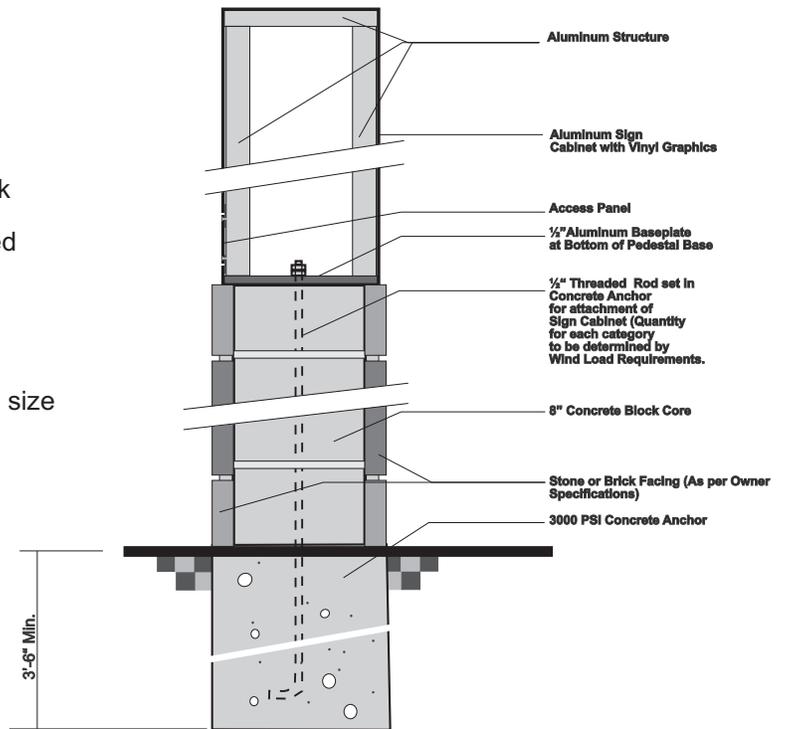
1. Sign panel to be fabricated aluminum box construction. See Drawing RT-10B for Base Material and construction details.
2. Structural framing and aluminum skin application to provide a seamless surface all around.
3. Panel to receive surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.
5. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided.

<b>Type B.1.1 Vehicular Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>RT-10A</b>

# Stone/Brick Pylon Base

**NOTES:**

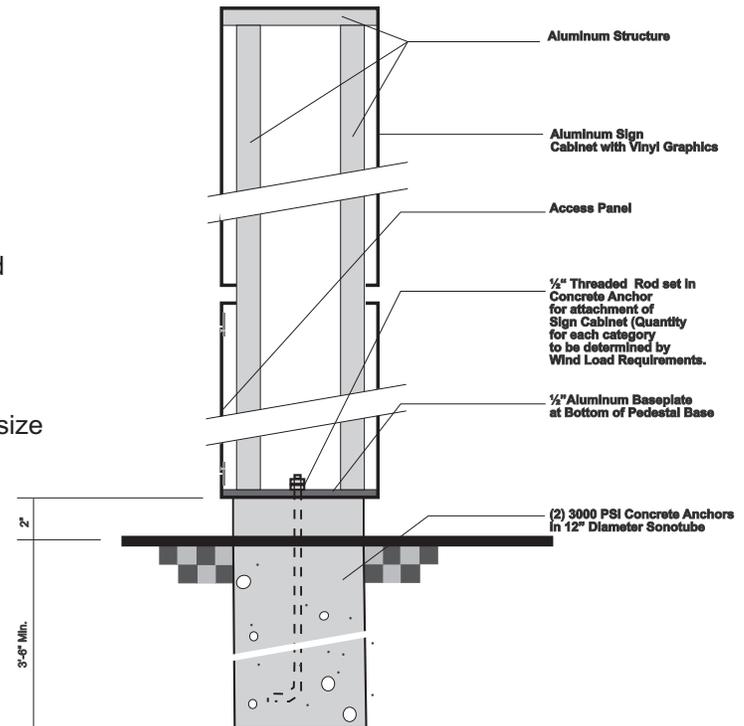
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



# Aluminum Pylon Base

**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.



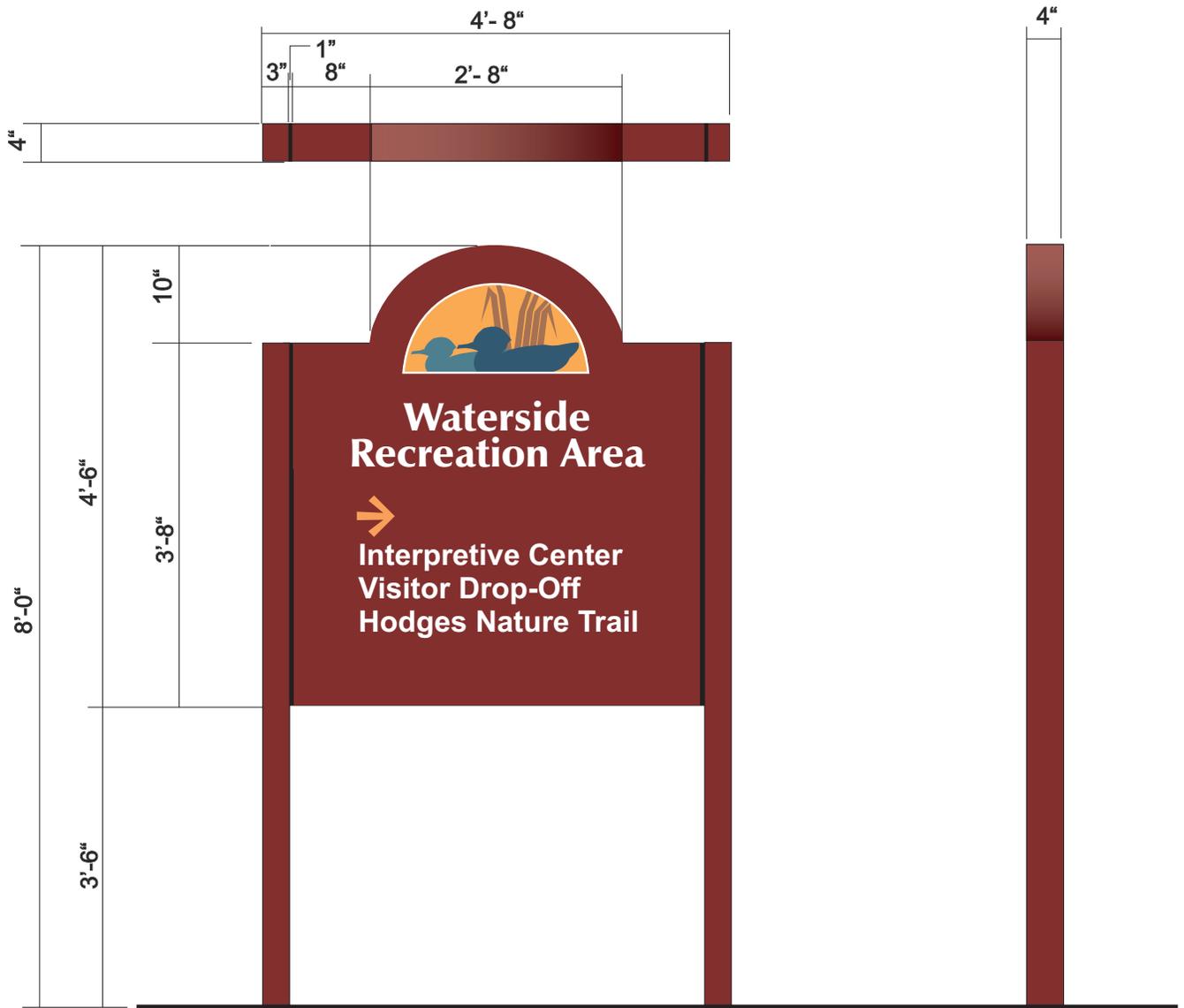
<b>Type B.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>RT-10B</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-11E for construction and installation details.

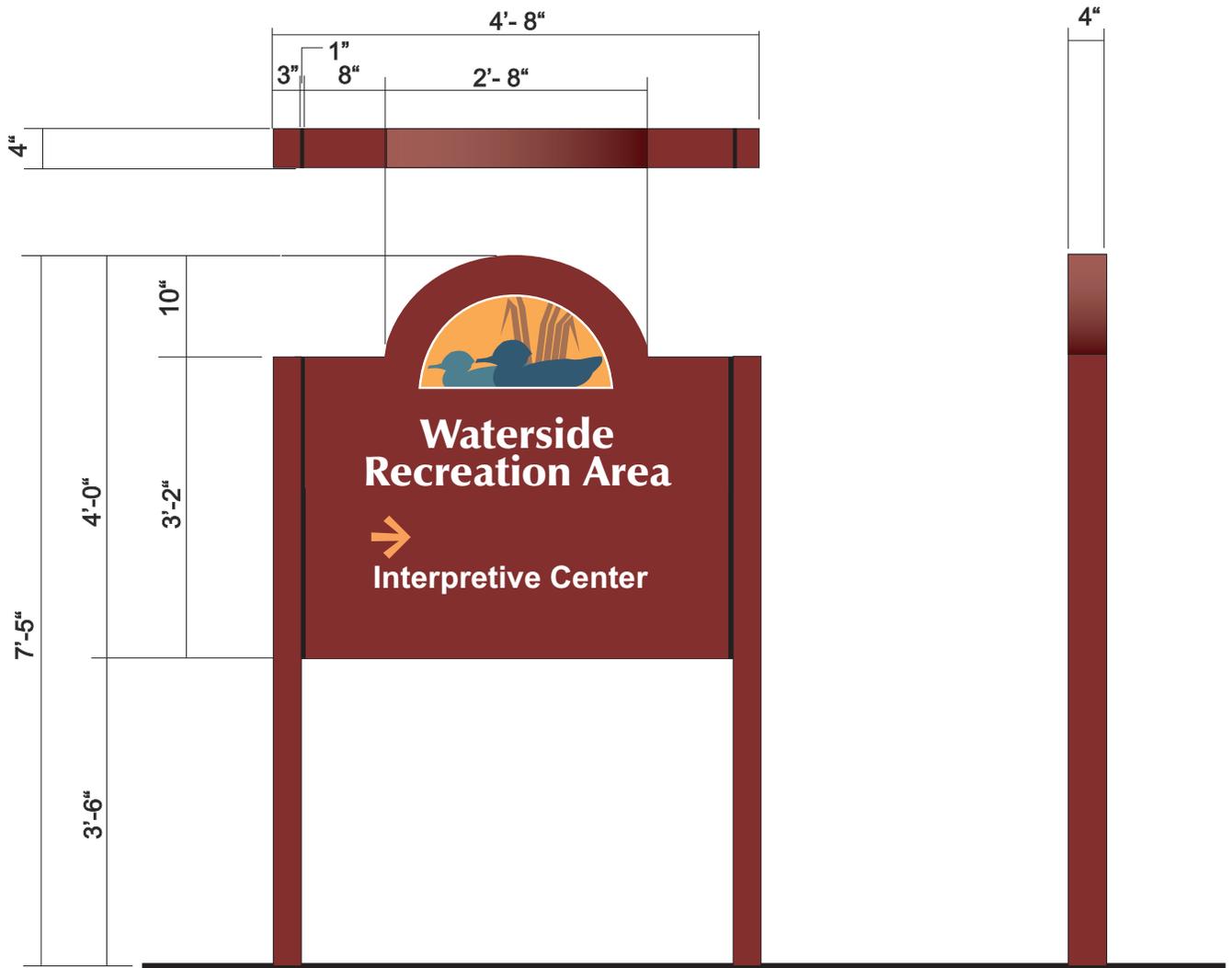
<b>Type B.2.1 Vehicular Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-11A</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-11E for construction and installation details.

<b>Type B.2.2 Vehicular Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-11B</b>

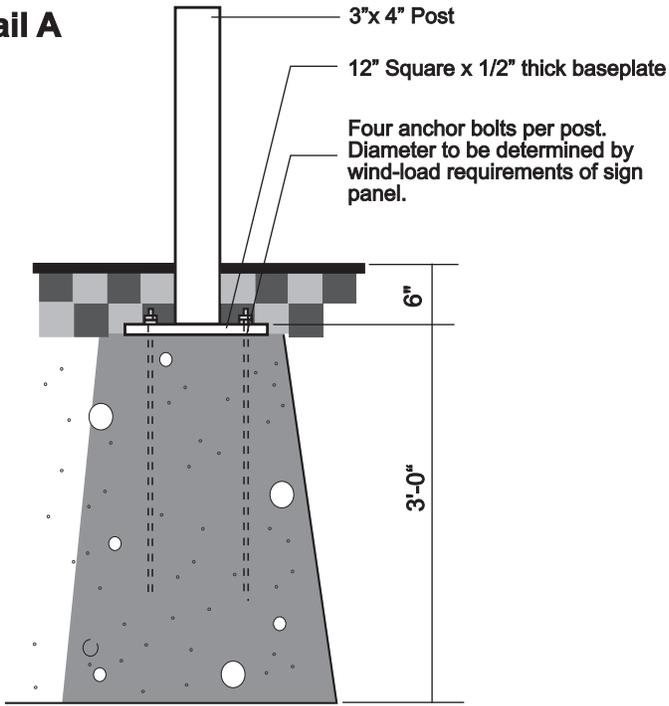


**NOTES:**

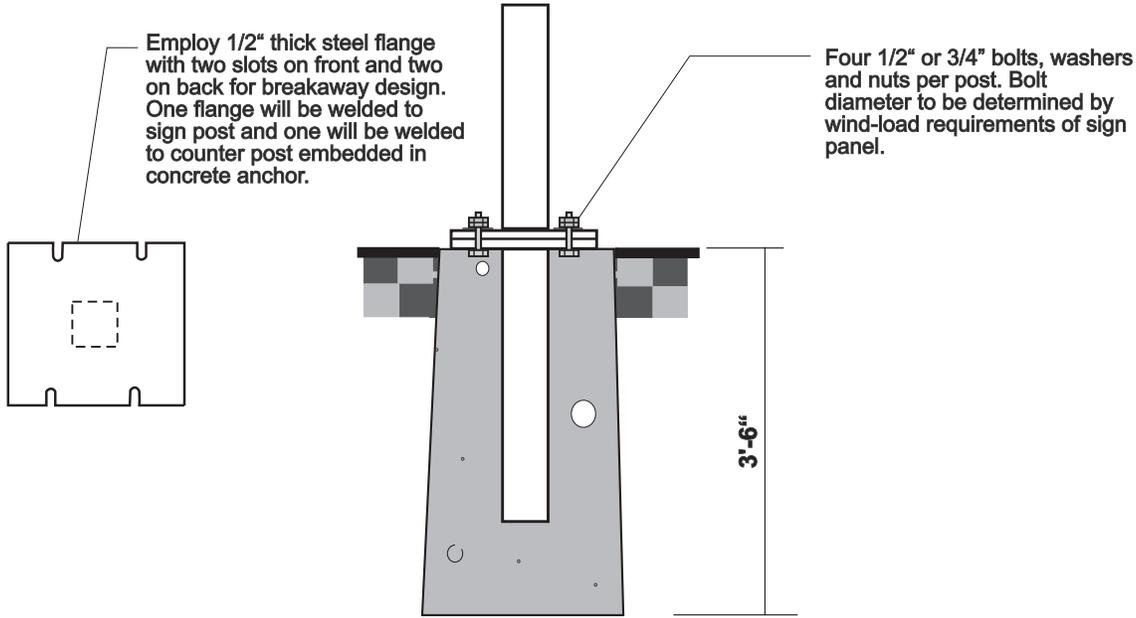
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy will utilize surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-11D for construction and installation details.

<b>Type B.2.3 Vehicular Directional Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>RT-11C</b>

**Installation Detail A**



**Installation Detail B**

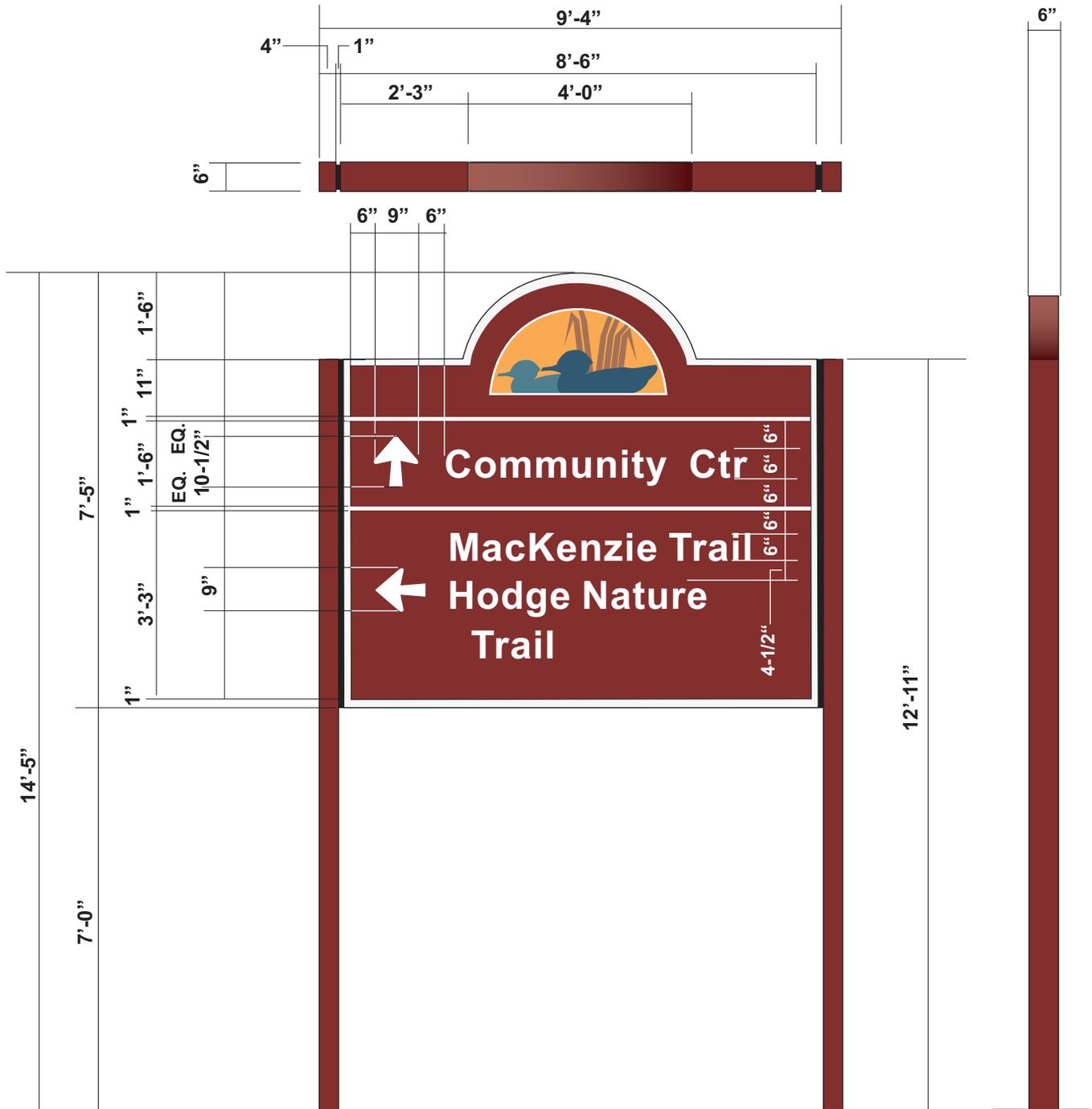


**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-11D</b>

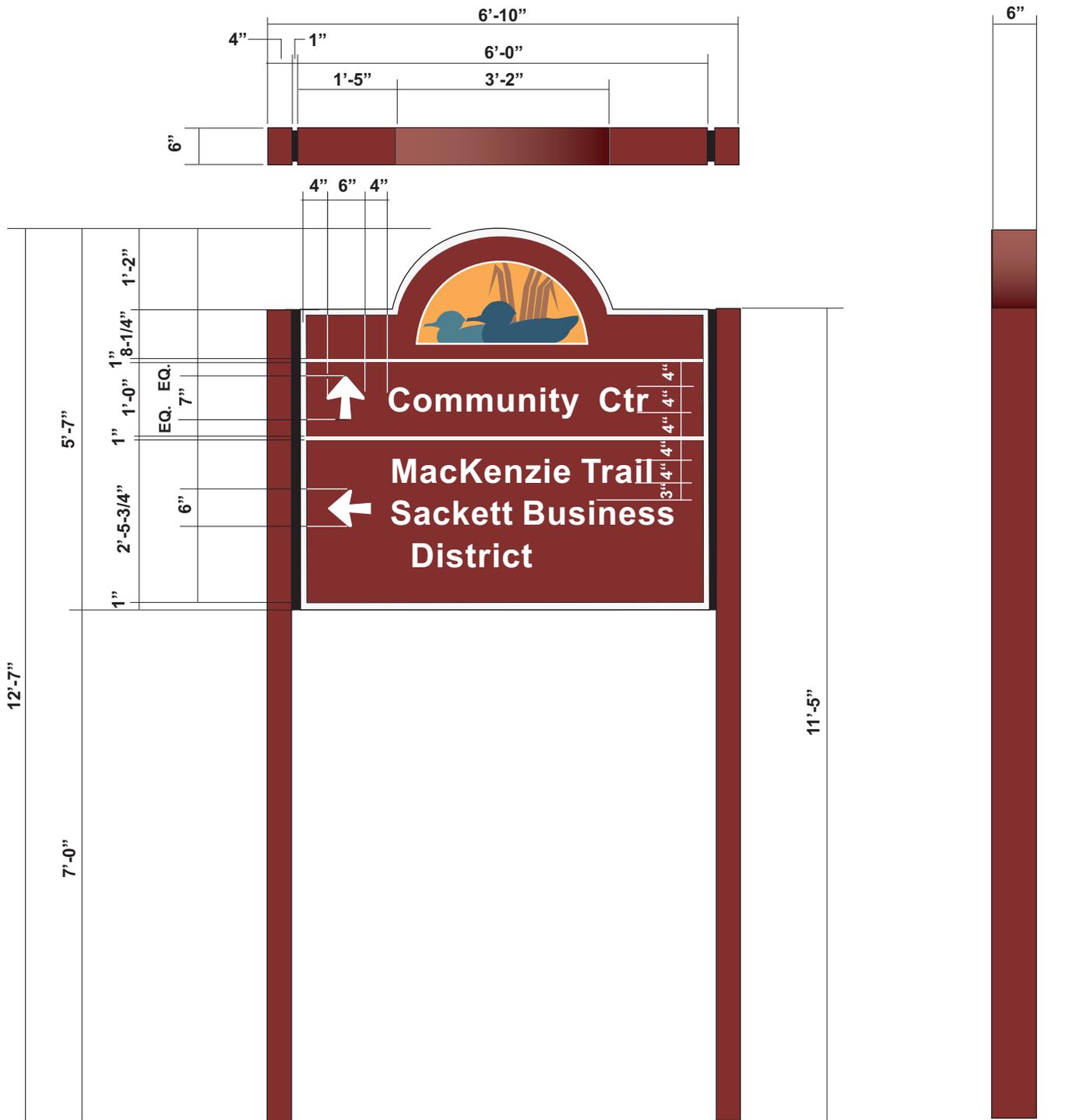


NOTES:

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing RT-12E for construction and installation details.

<b>Type B.3.1 MUTCD Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-12A</b>

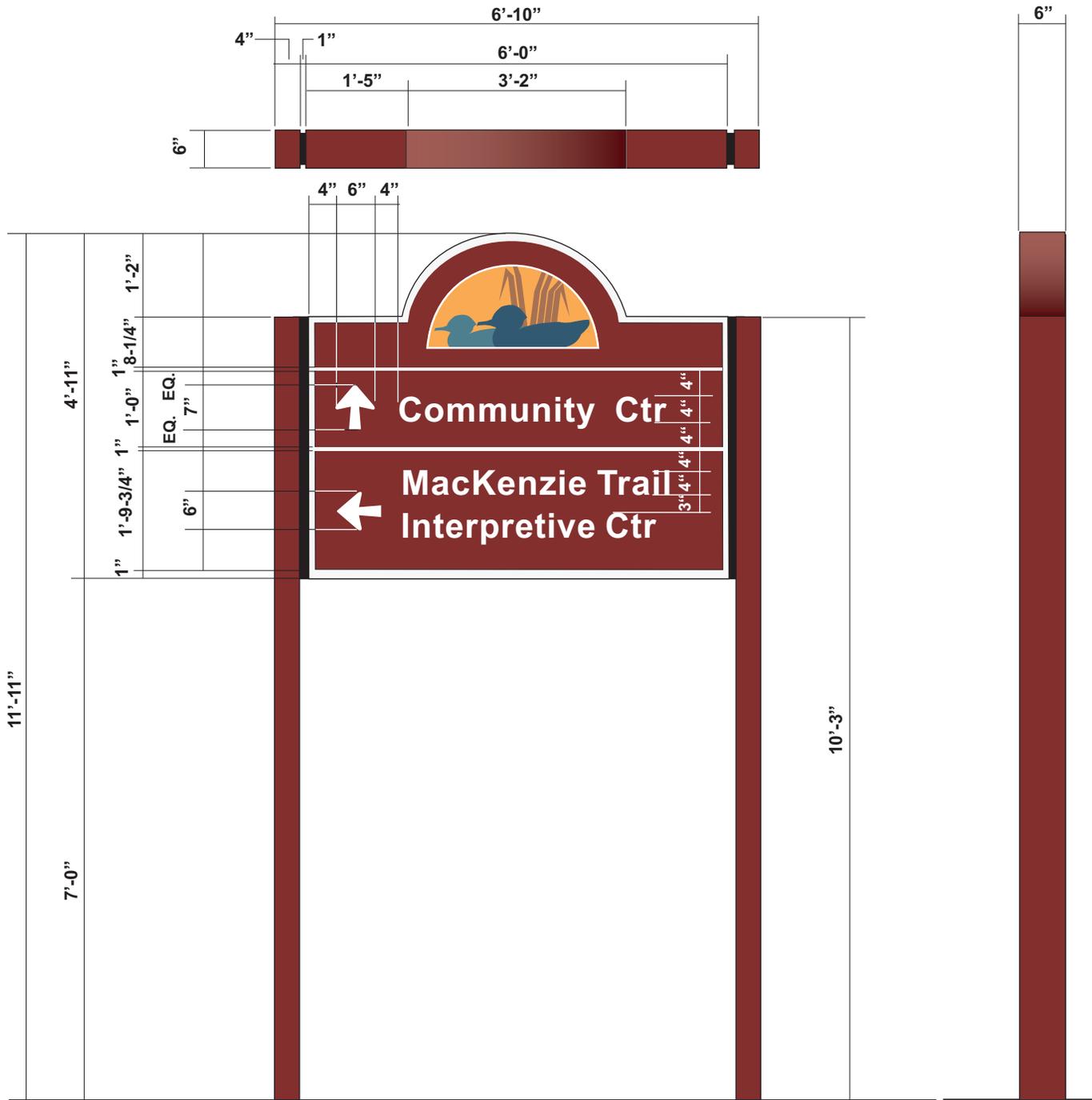




**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo.green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing RT-12E for construction and installation details.

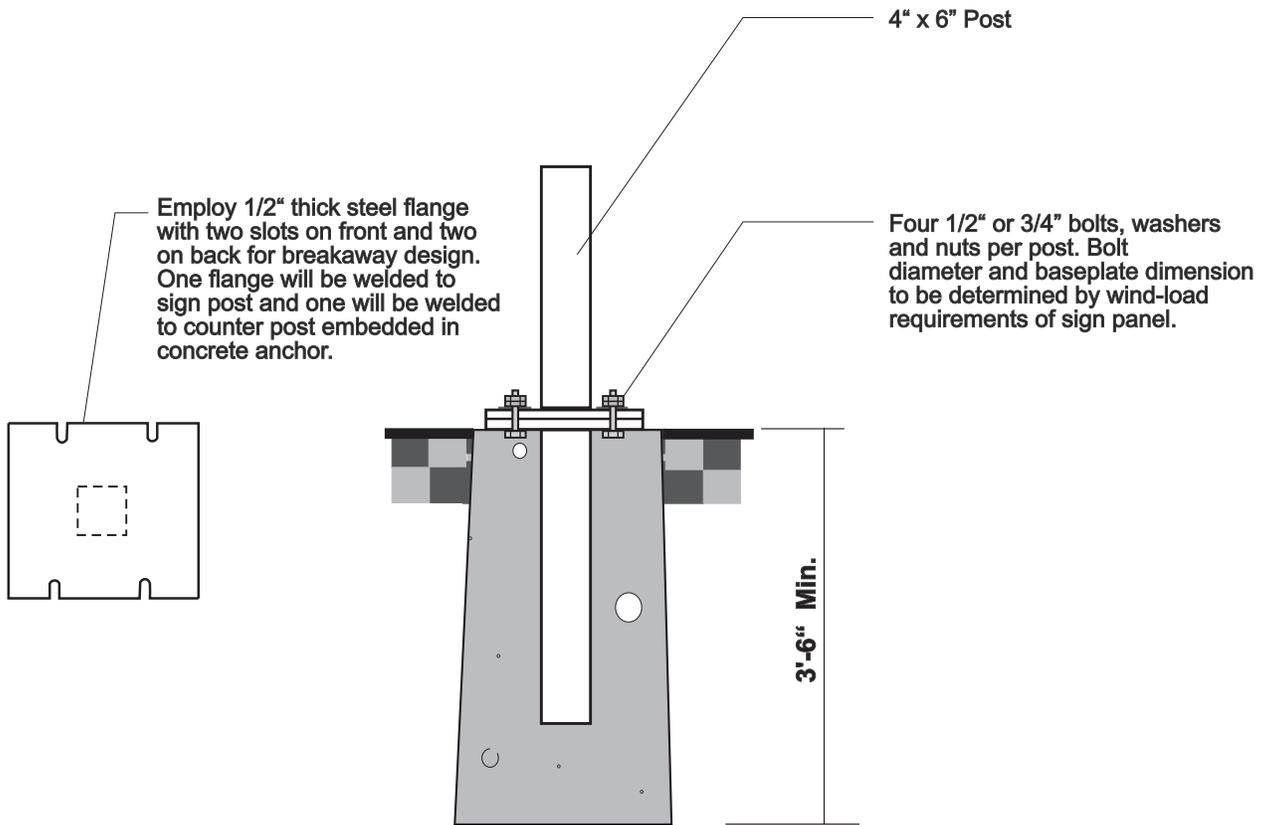
<b>Type B.3.3 MUTCD Directional Post and Panel C</b>	
<b>Niagara River Greenway</b>	<b>RT-12C</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 4" x 6" aluminum.
2. Copy and arrows to subscribe to the style (Standard Alphabet Series C), line-spacing and letter spacing standards in the MUTCD version 2009 and Standard Highway Signs and Marking (FHWA).
3. All panel graphics, borders, dividers and background shall be retroreflective. Copy to be 4" upper case and 3" lower case.
4. Arrows to be 6" x 7" and centered vertically on copy block.
5. Owner will provide art on disk for Seneca Falls logo. Green-printed with transparent ink onto reflective sheeting material.
6. Owner will provide art on disk for all logos.
7. See Drawing RT-12E for construction and installation details.

<b>Type B.3.4 MUTCD Directional Post and Panel D</b>	
<b>Niagara River Greenway</b>	<b>RT-12D</b>



**Foundation Detail**

**NOTES:**

1. Precise Concrete Anchor depth to be determined by sign wind load requirements.
2. Unless otherwise indicated in message schedule, assume mounting surfaces are undisturbed soil.

<b>Type B.3 Post and Panel Installation Details</b>	
<b>Niagara River Greenway</b>	<b>RT-12E</b>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction.
2. Mount to existing wall with 1" aluminum angle on both sides of panel.
3. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
4. Owner will provide art on disk for all logos.

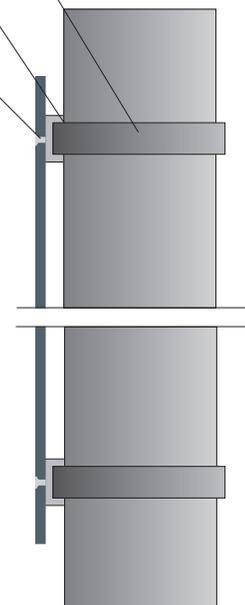
<b>Type B.4.1 Vehicular Directional Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>RT-13A</b>



.020" x 3/4" Valustrap Plus™ Banding

.075" thick Stainless Steel Brack-It™

Flathead Stainless Steel Bolt



**NOTES:**

1. Sign panel to be fabricated from .125" thick aluminum with retroreflective graphics and background. Paint back and edges to match face.
2. Use Band-It brand Stainless Steel strapping for attachment to existing utility poles.

Type B.5.1 Off-Site Trailblazer Existing Pole Mount	
Niagara River Greenway	RT-14A

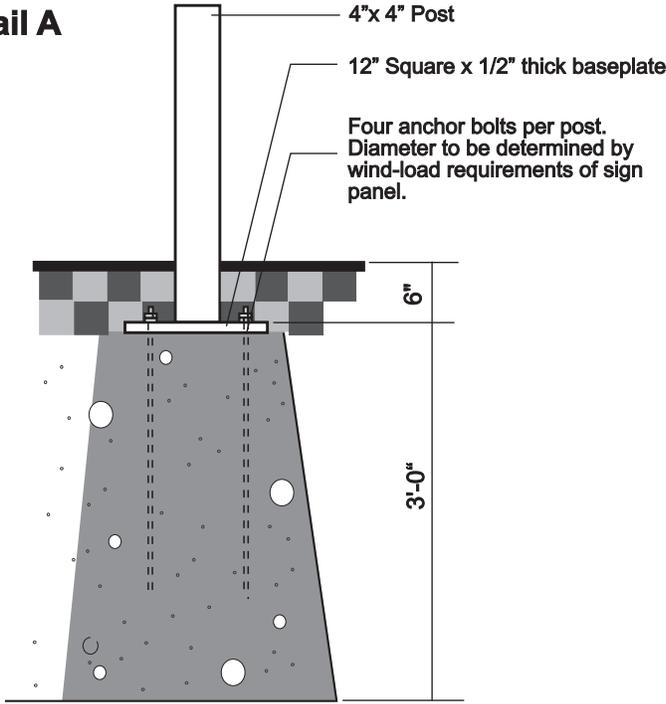


NOTES:

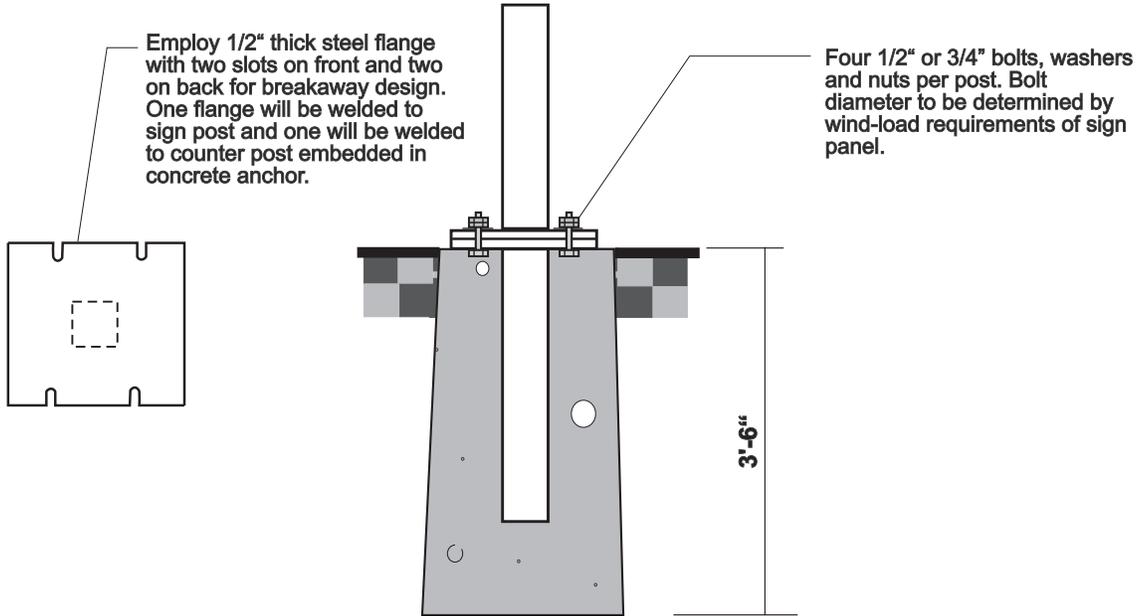
1. Panel to be fabricated aluminum seamless box panel construction. Post to be 4" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-14C installation details.

<b>Type B.5.2 Off-Site Trailblazer New Pole Mount</b>	
<b>Niagara River Greenway</b>	<b>RT-14B</b>

**Installation Detail A**



**Installation Detail B**

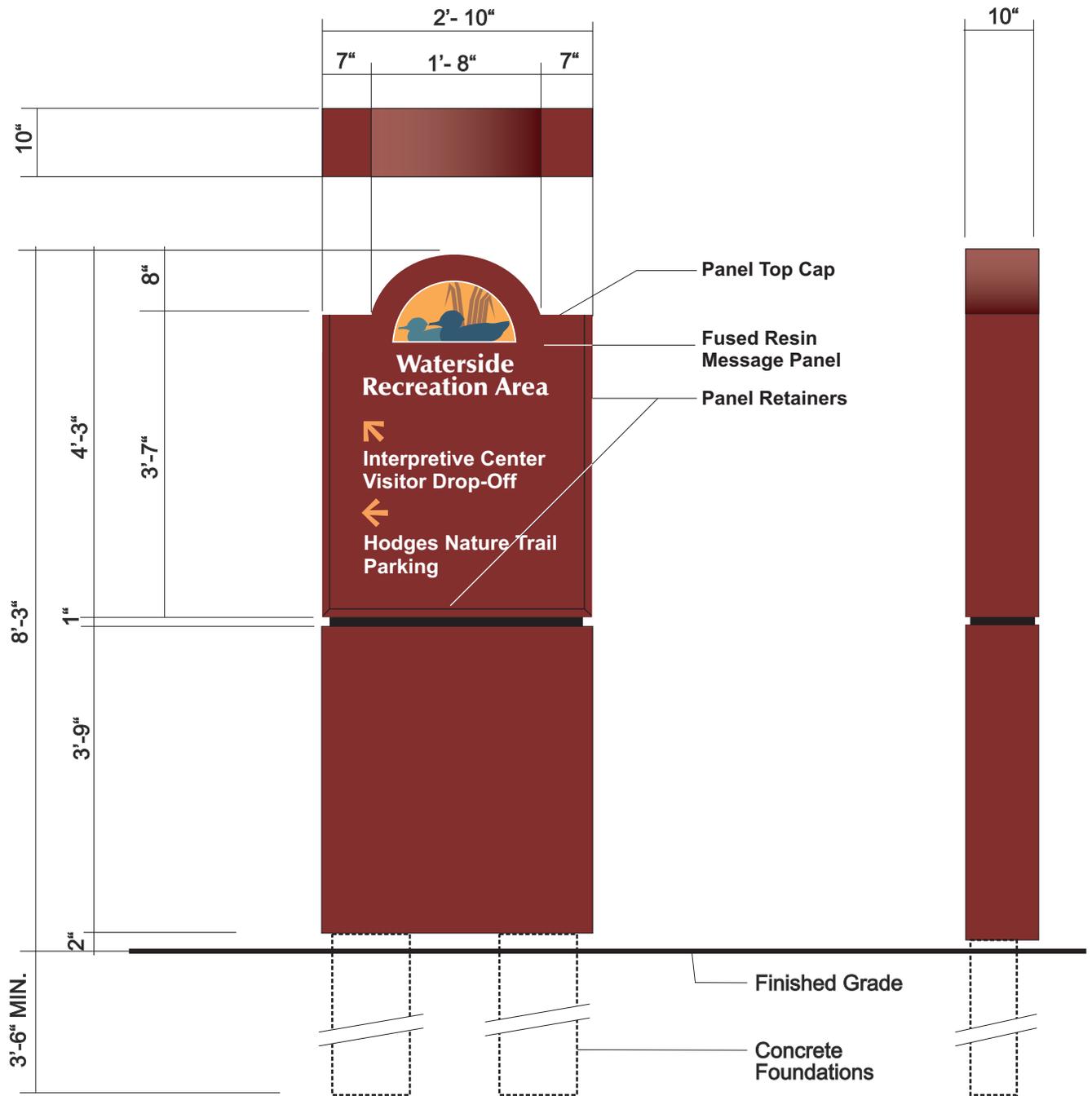


**Foundation Detail**

NOTES:

1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<p><b>Type B.5.2 Post and Panel Installation Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-14C</b></p>



**NOTES:**

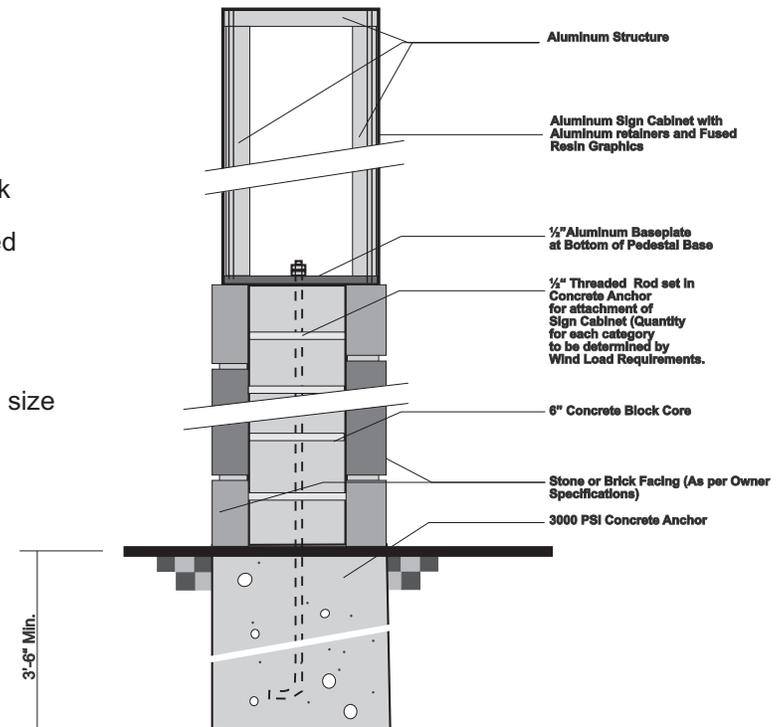
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-15B and RT-15C for Base Material and construction details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.6.1 Pedestrian Directional Pylon</b>	
<b>Niagara River Greenway</b>	<b>RT-15A</b>

# Stone/Brick Pylon Base

**NOTES:**

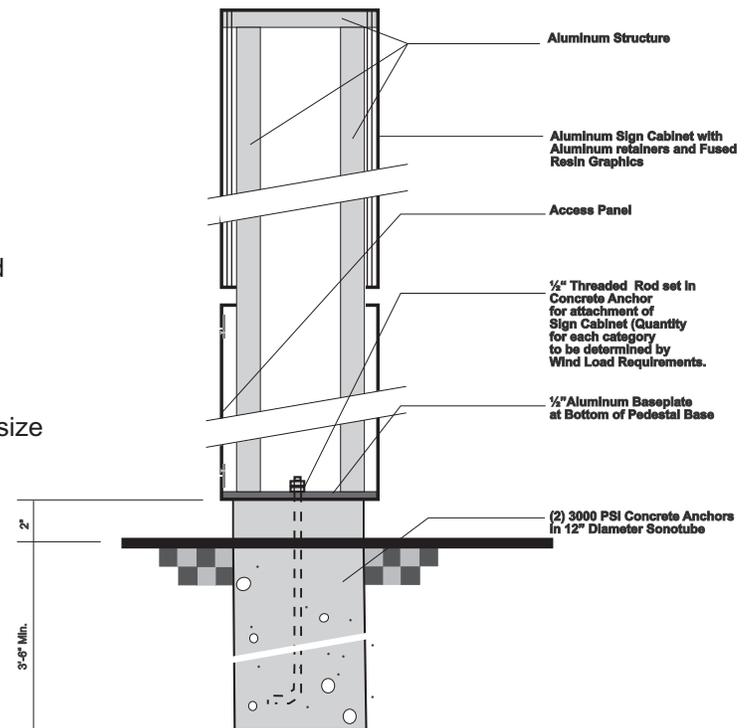
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-15C for panel construction details.



# Aluminum Pylon Base

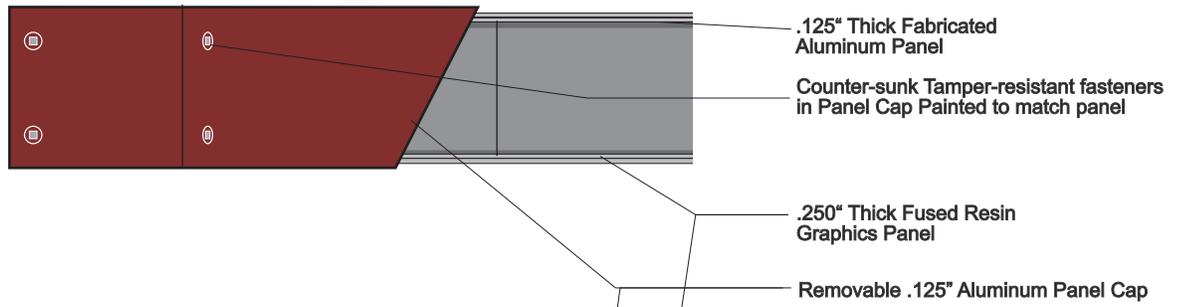
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-15C for panel construction details.

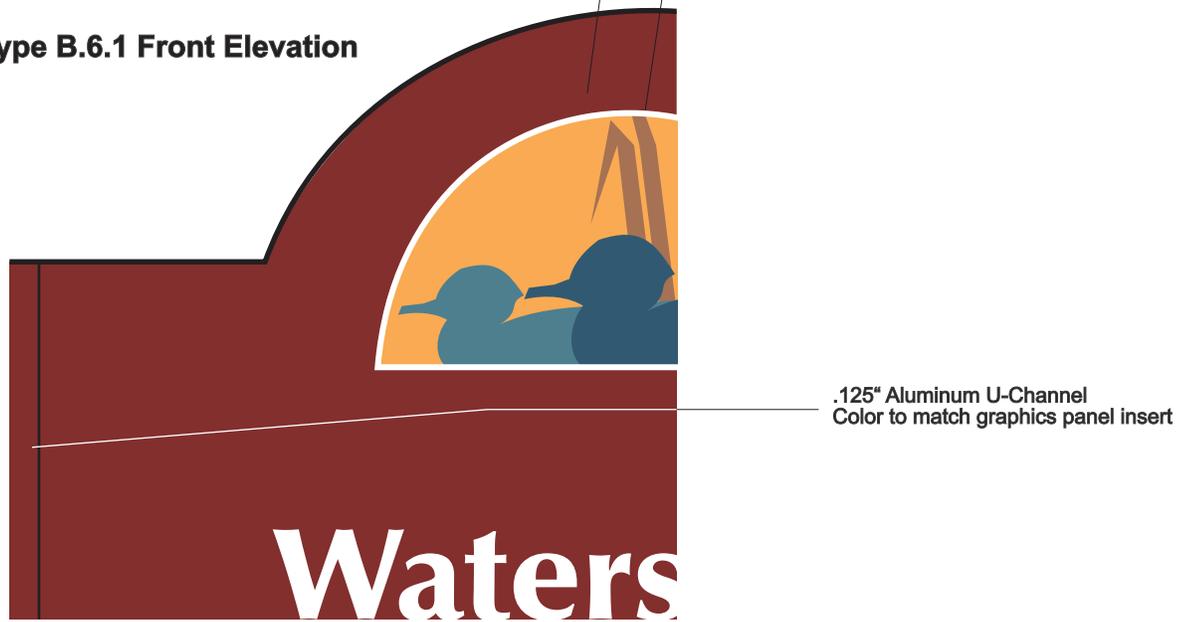


<b>Type B.6 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>RT-15B</b>

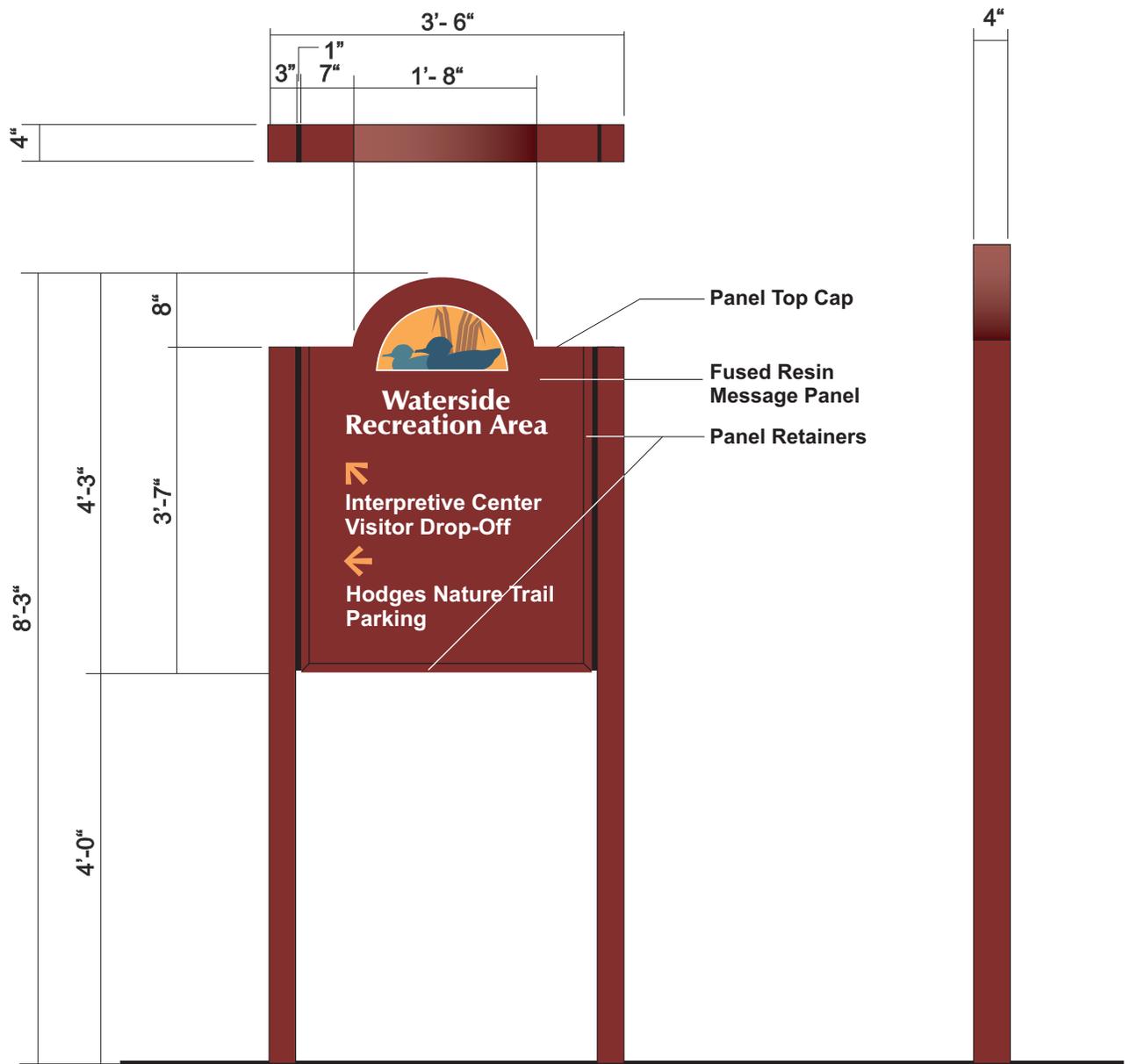
**Type B.6.1 Top View with  
Cut Away on Panel Cap**



**Type B.6.1 Front Elevation**



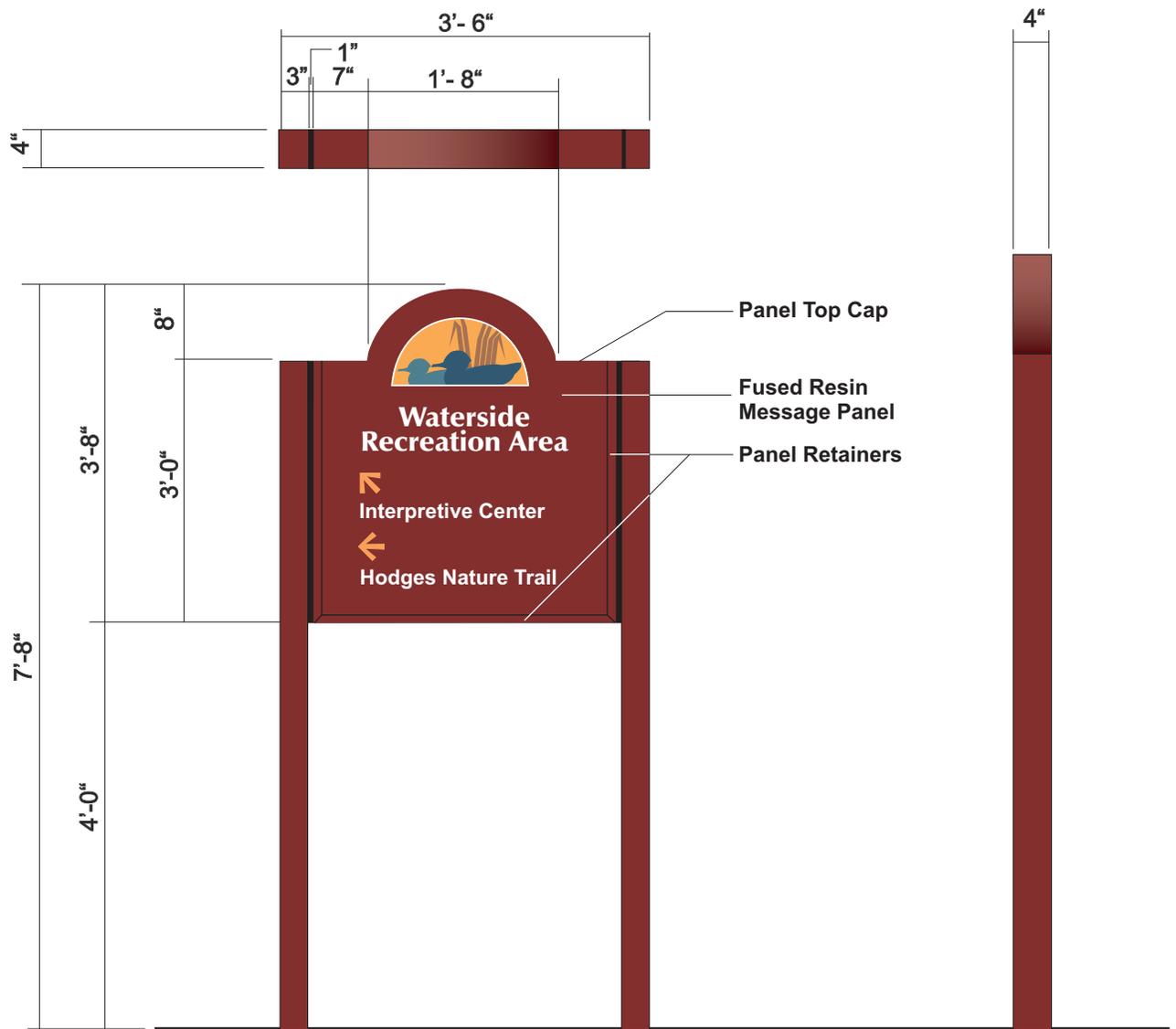
<p><b>Type B.6 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-15C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings RT-16C and RT-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.1 Pedestrian Directional Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-16A</b>

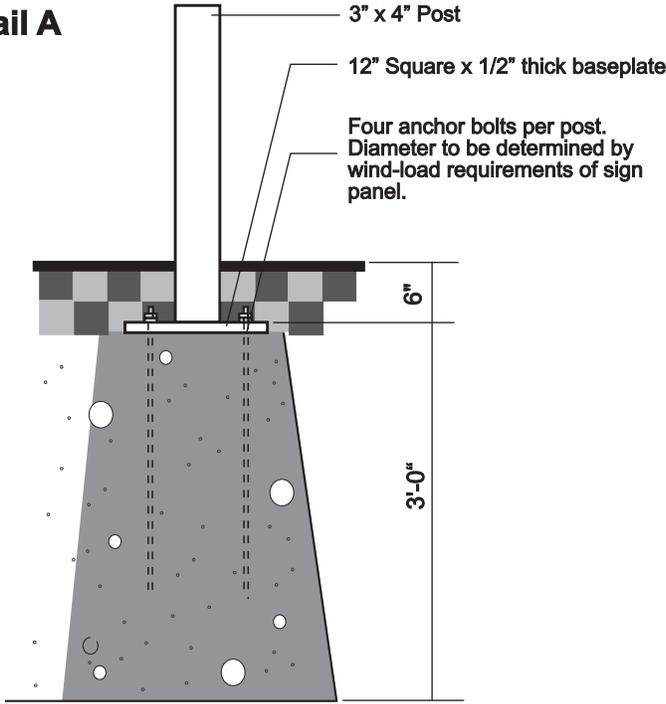


**NOTES:**

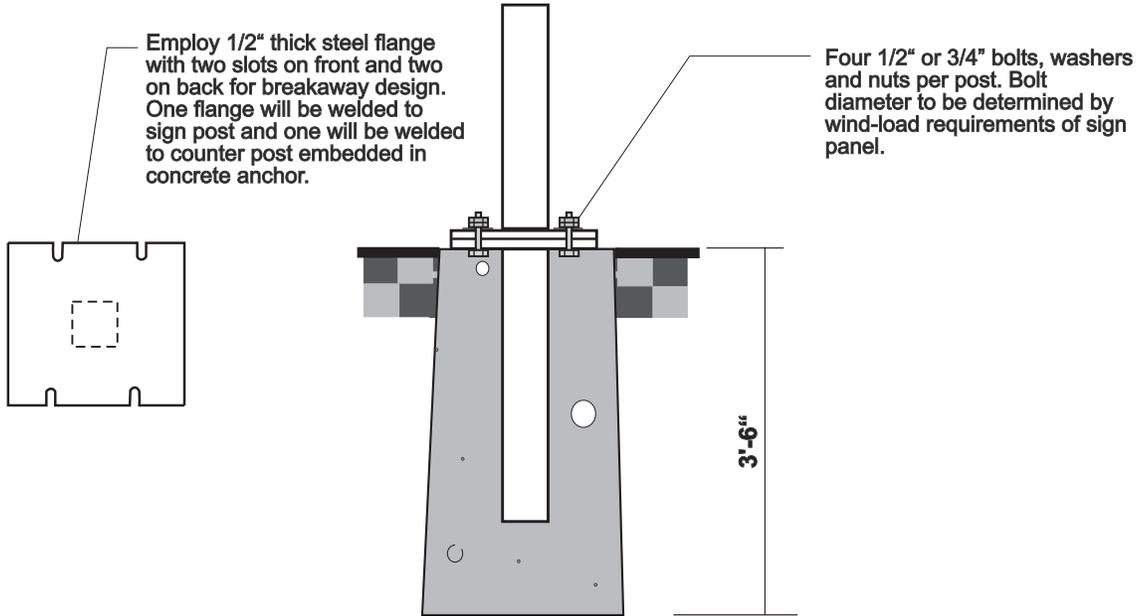
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings RT-16C and RT-16D for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type B.7.2 Pedestrian Directional Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-16B</b>

**Installation Detail A**



**Installation Detail B**



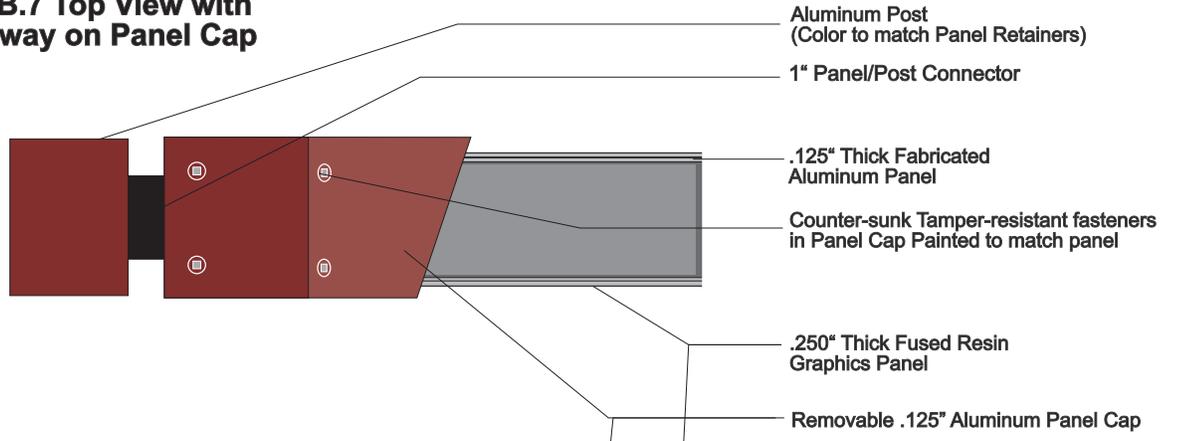
**Foundation Detail**

NOTES:

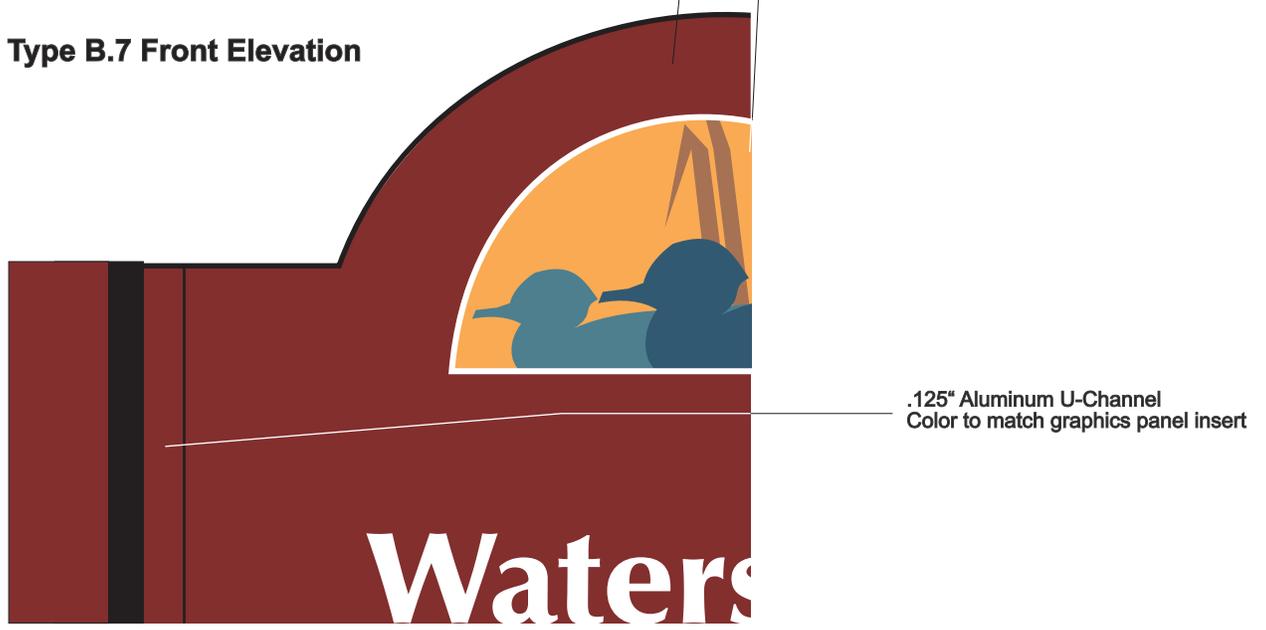
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type B.7 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-16C</b>

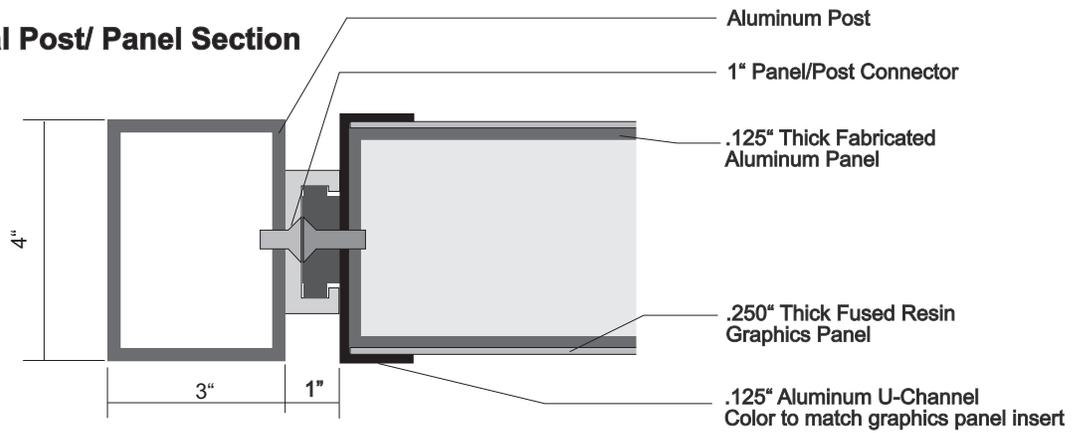
**Type B.7 Top View with Cut Away on Panel Cap**



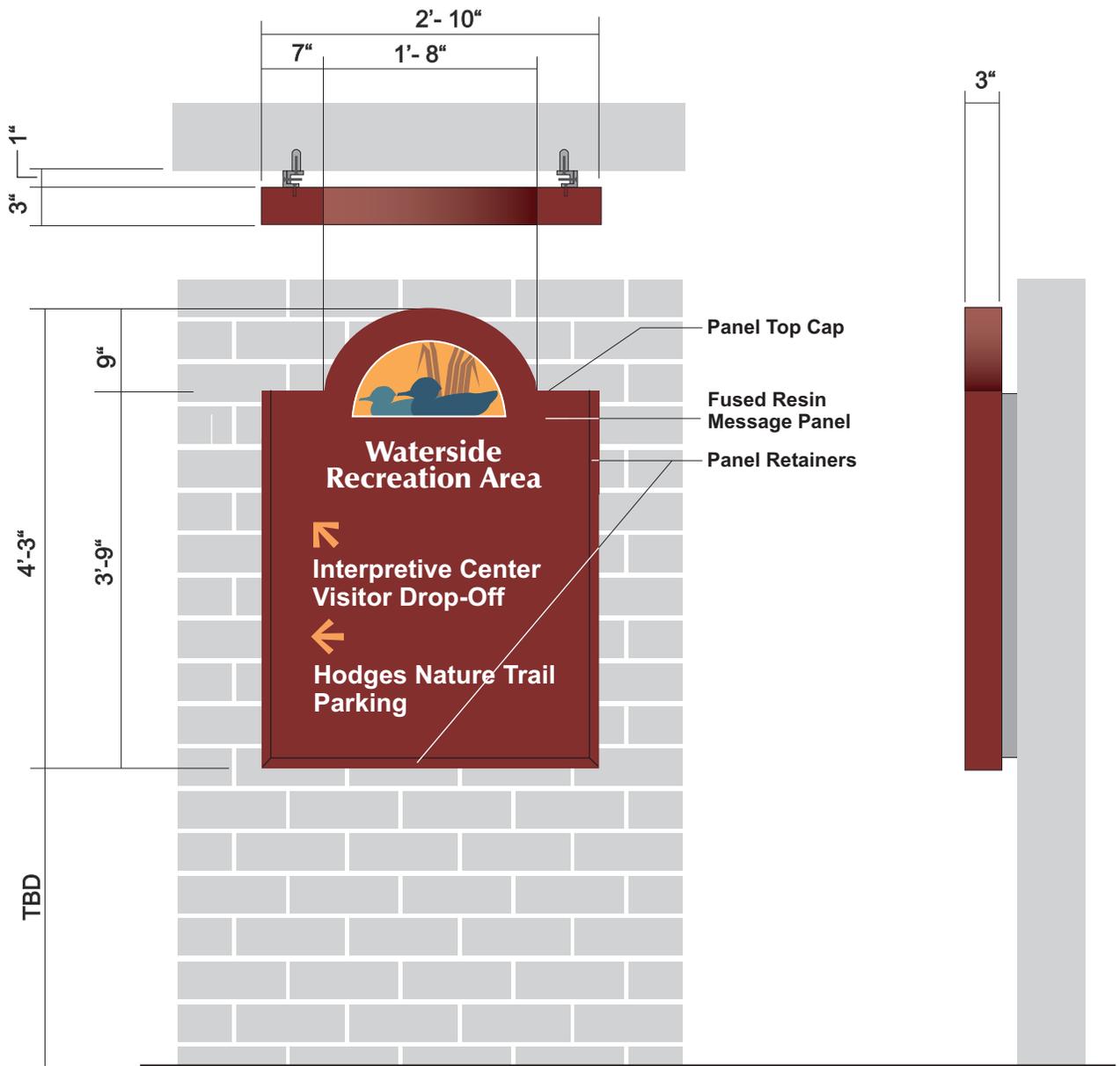
**Type B.7 Front Elevation**



**Horizontal Post/ Panel Section**



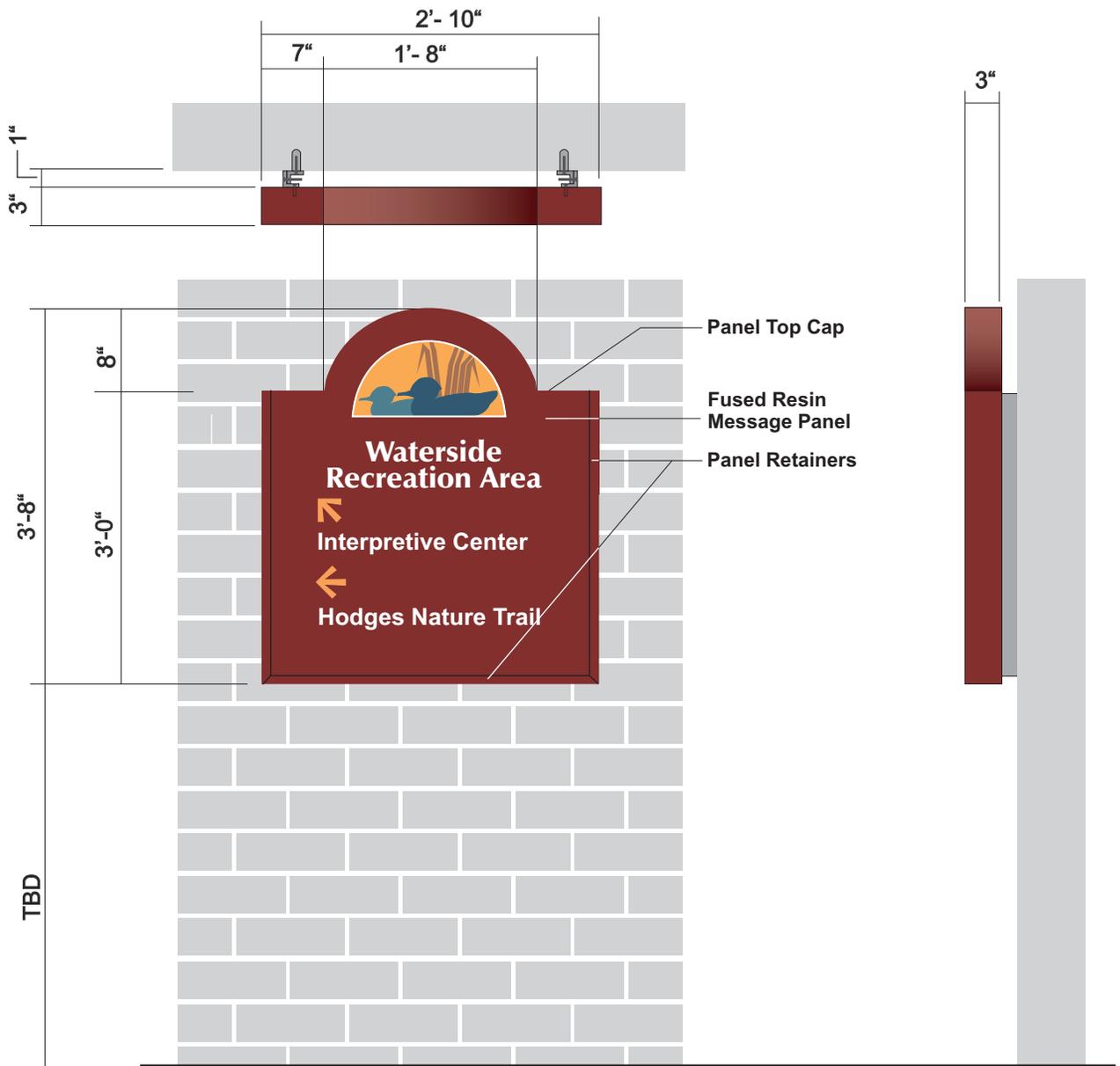
<p><b>Type B.7 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>GT-16D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.1 Pedestrian Directional Wall Mount A</b>	
<b>Niagara River Greenway</b>	<b>RT-17A</b>

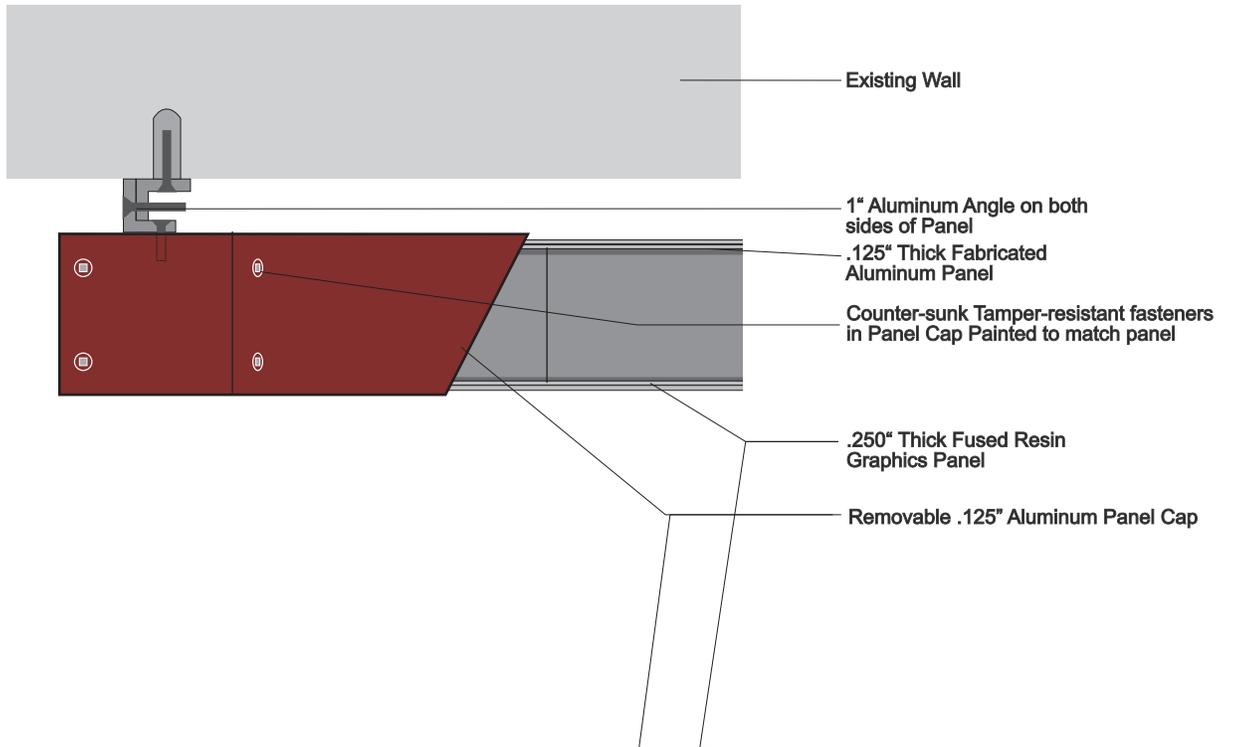


**NOTES:**

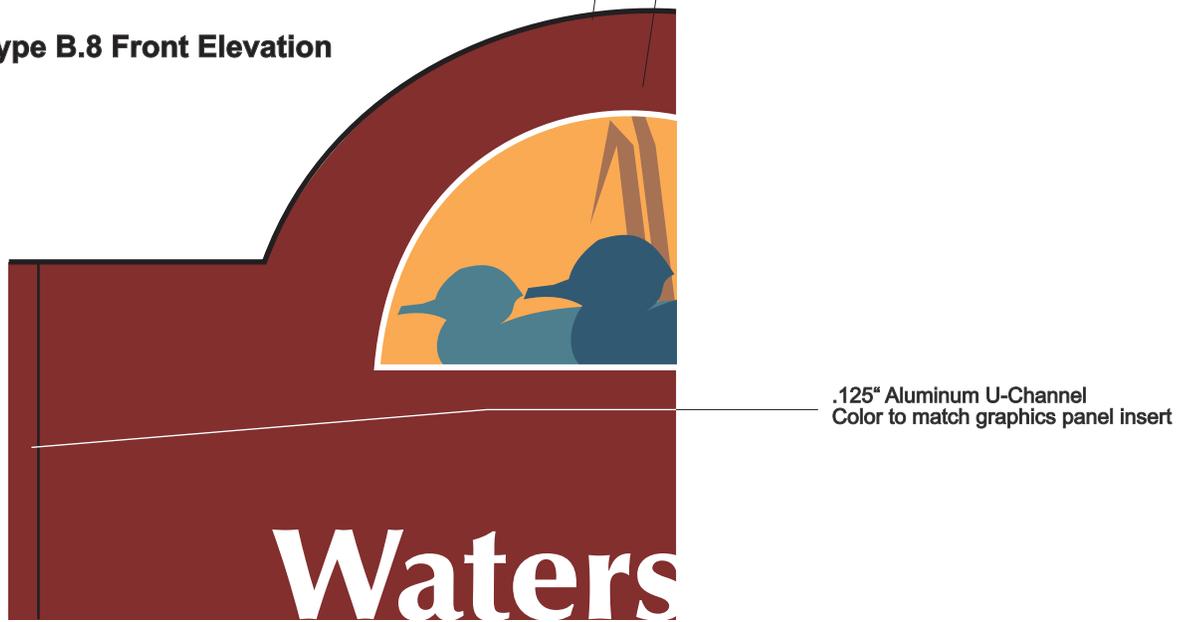
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-17C for construction and installation details.
2. Owner will provide art on disk for all logos.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type B.8.2 Pedestrian Directional Wall Mount B</b>	
<b>Niagara River Greenway</b>	<b>RT-17B</b>

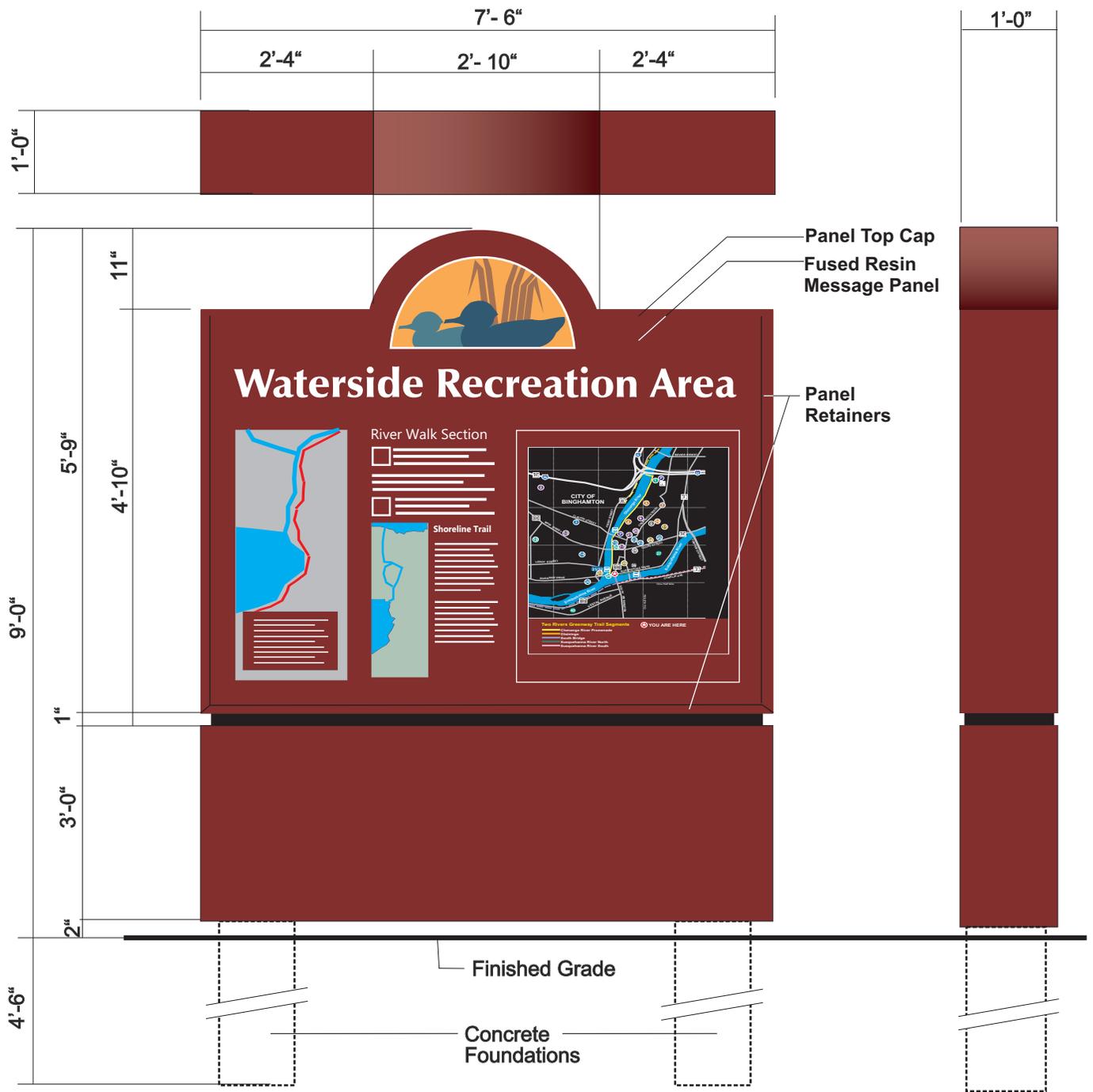
**Type B.8 Top View with  
Cut Away on Panel Cap**



**Type B.8 Front Elevation**



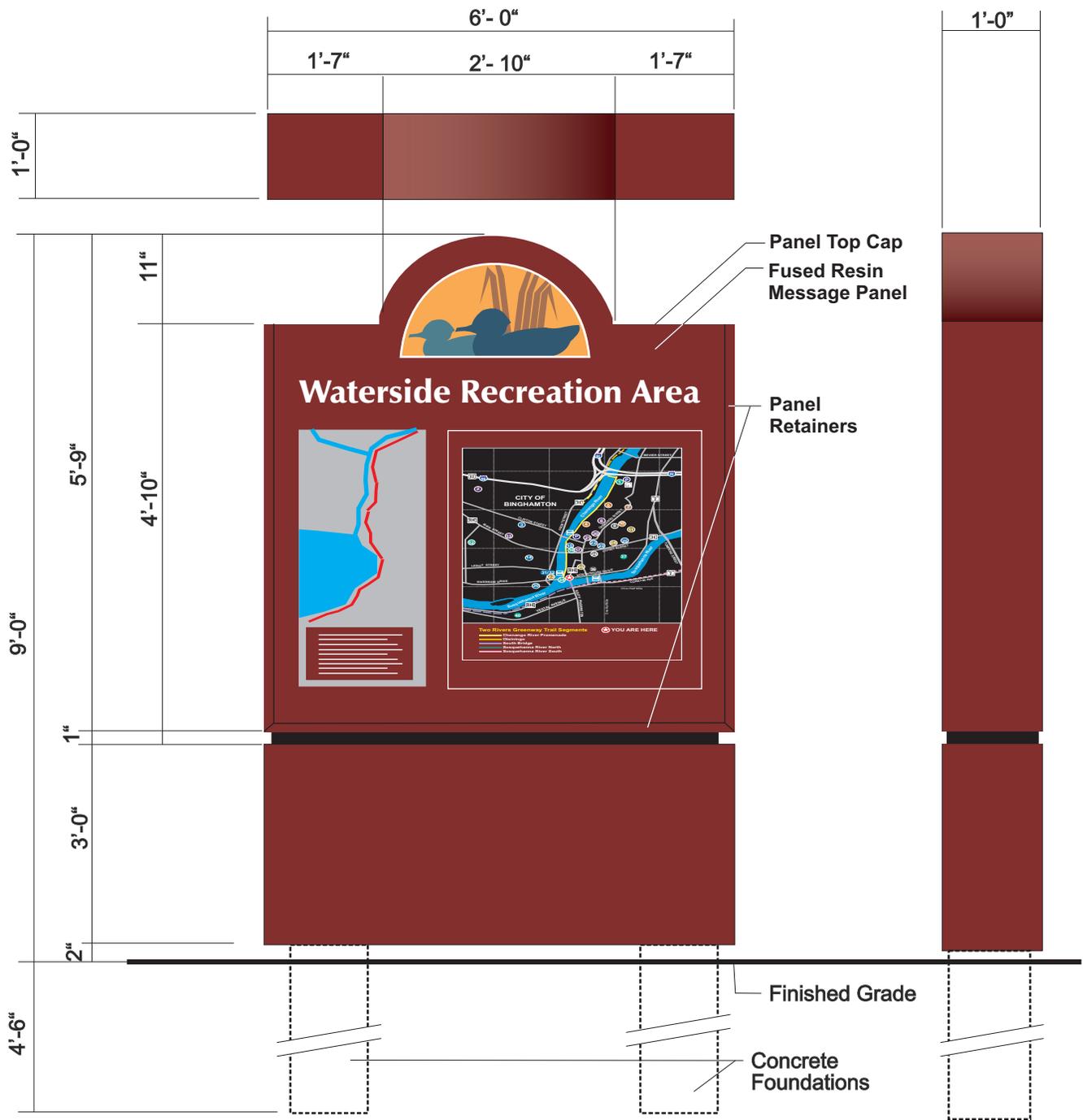
<p><b>Type B.8 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-17C</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-20C and RT-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.1 Vehicular Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>RT-20A</b>



**NOTES:**

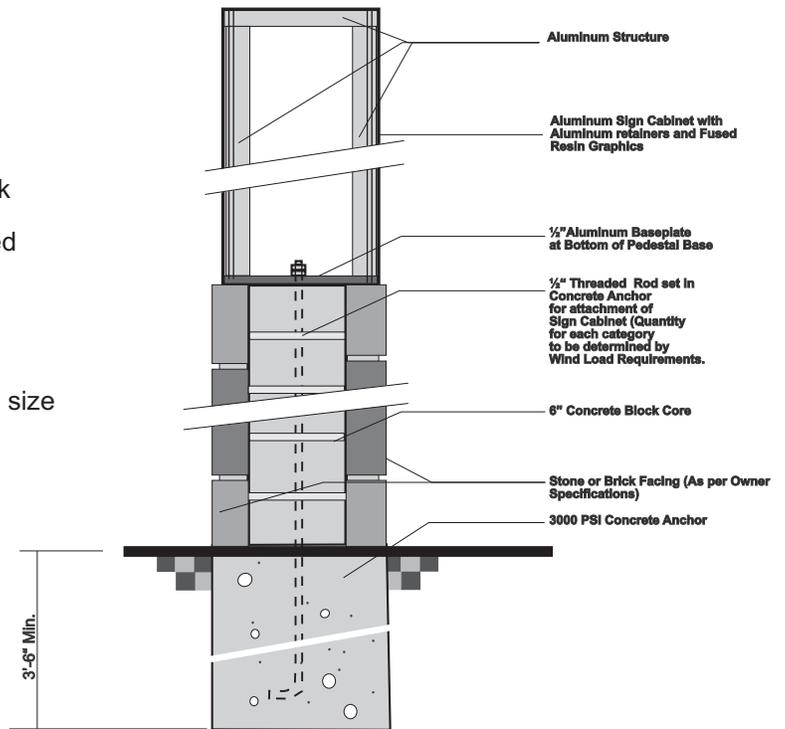
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-20C and RT-20D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.1.2 Vehicular Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>RT-20B</b>

# Stone/Brick Pylon Base

**NOTES:**

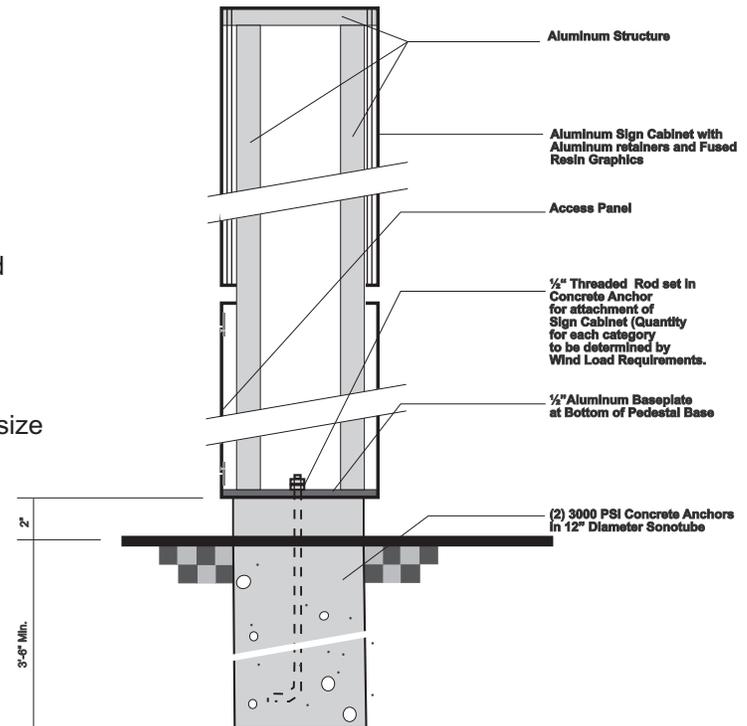
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-20D for panel construction details.



# Aluminum Pylon Base

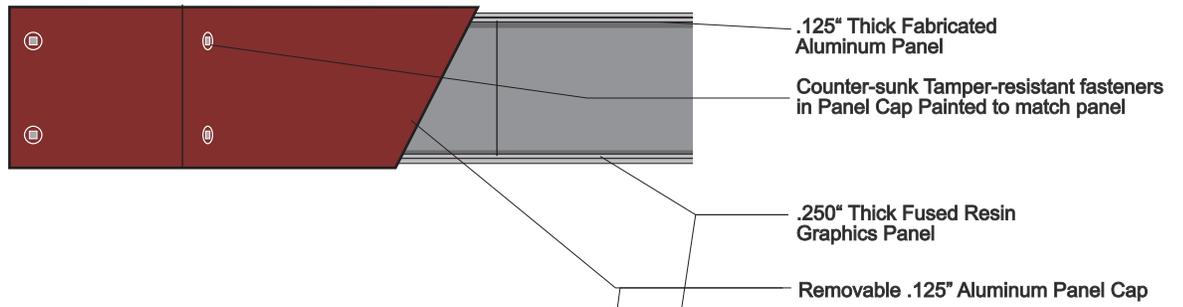
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-20D for panel construction details.

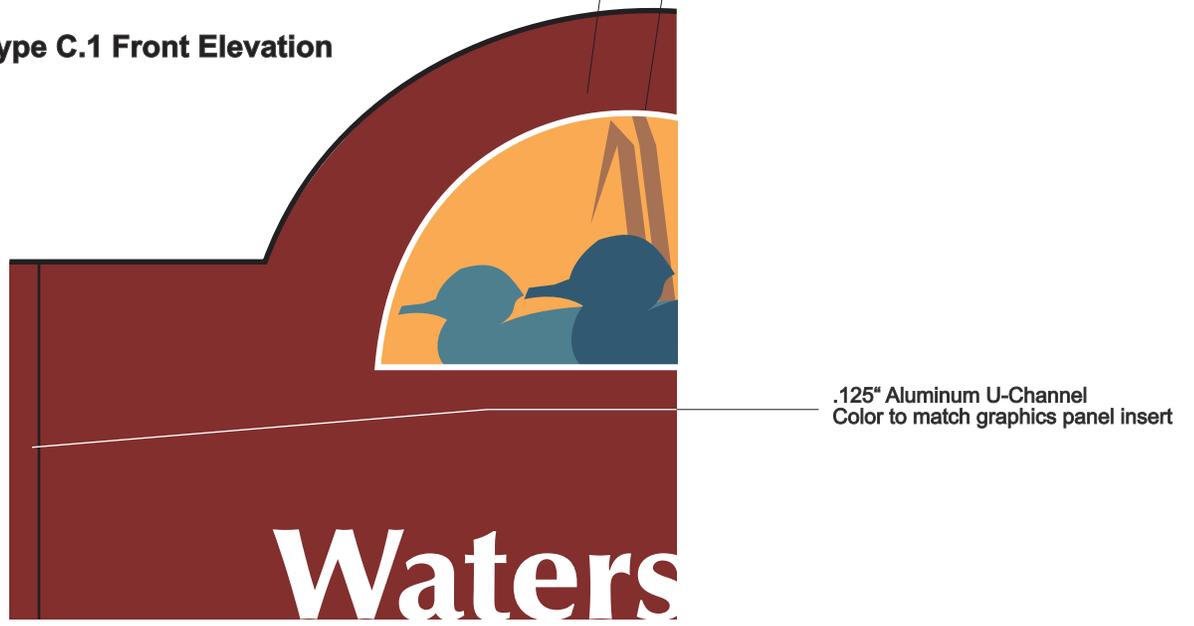


<b>Type C.1 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>RT-20C</b>

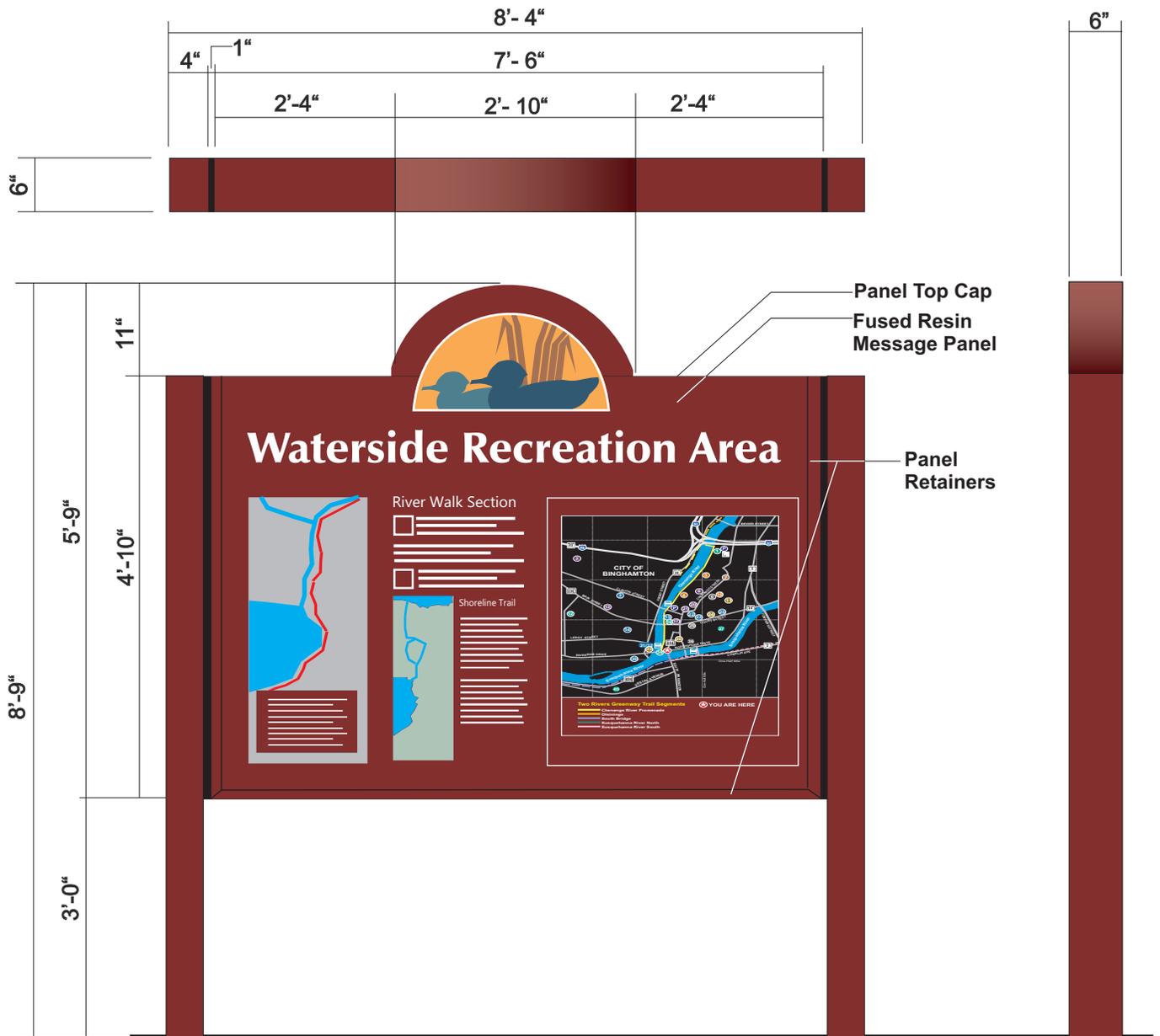
**Type C.1 Top View with  
Cut Away on Panel Cap**



**Type C.1 Front Elevation**



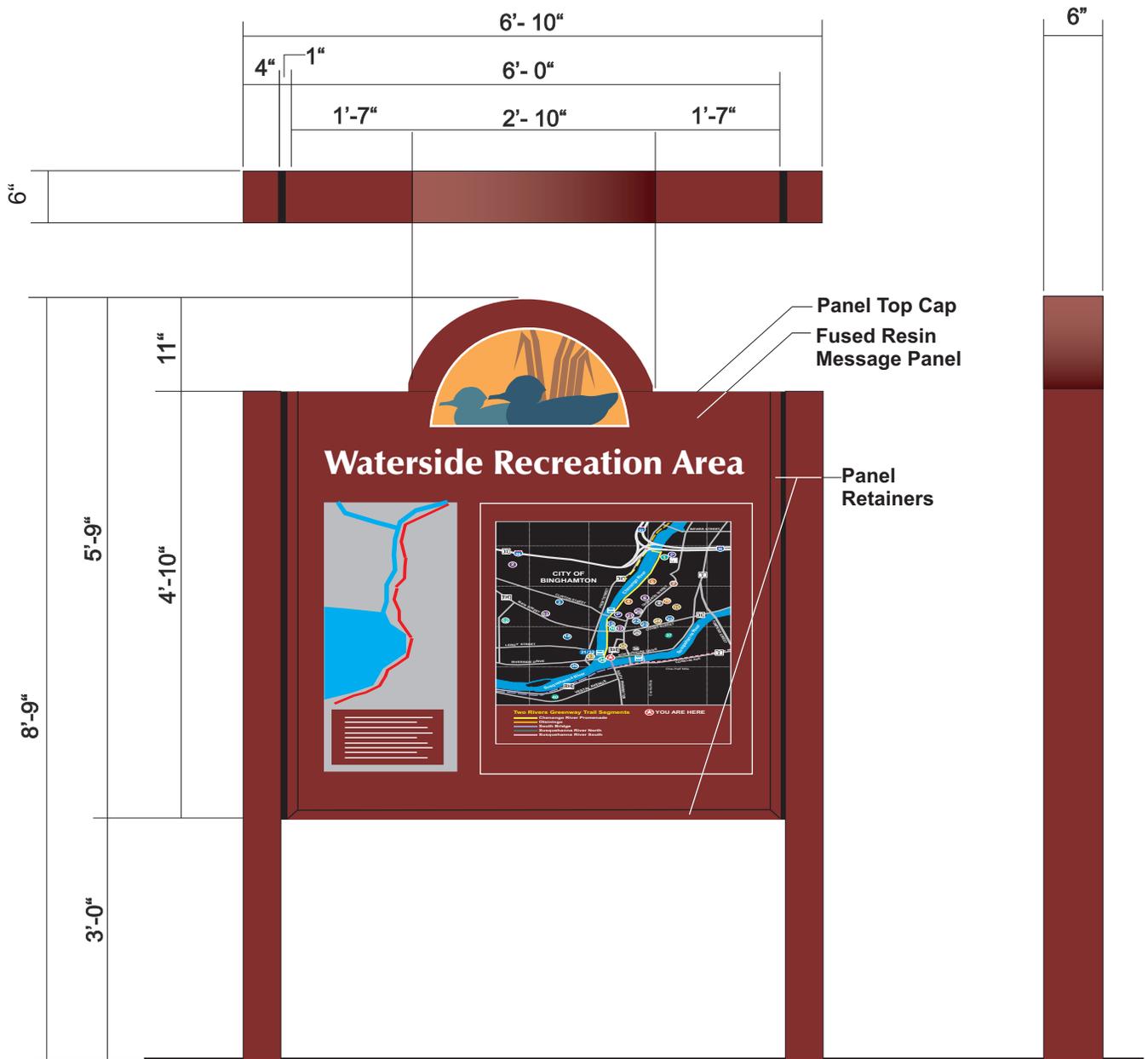
<p><b>Type C.1 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-20D</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings RT-21C and RT-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.1 Vehicular Orientation Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-21A</b>

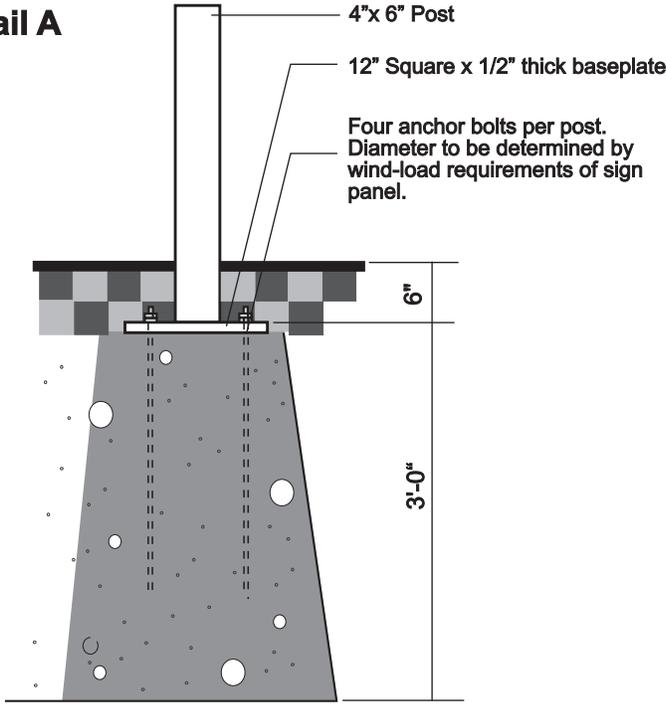


**NOTES:**

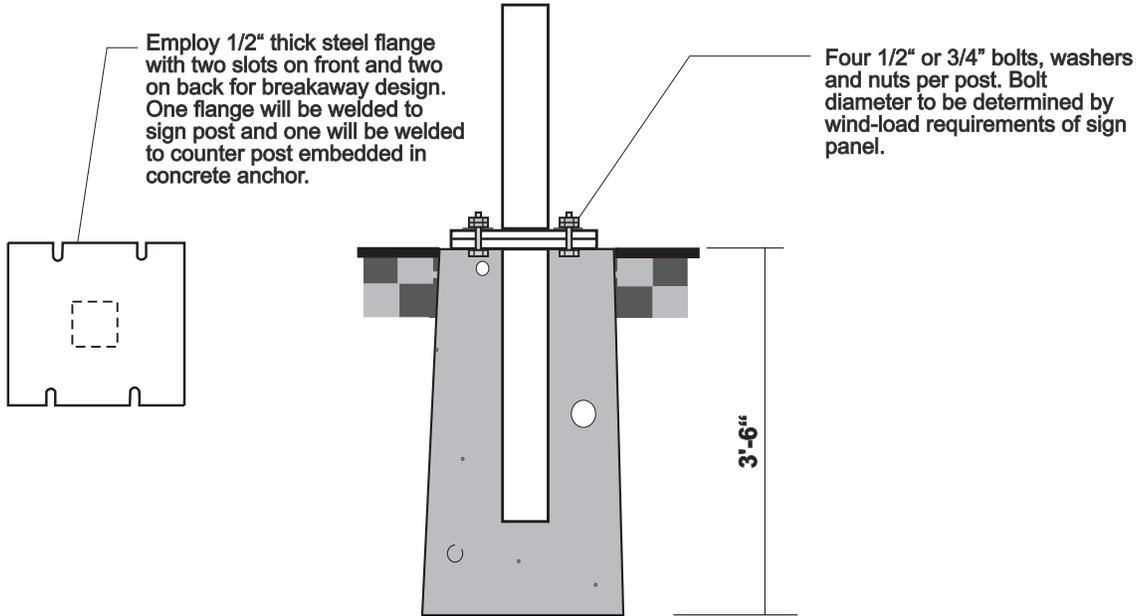
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 4" x 6" Aluminum. See Drawings RT-21C and RT-21D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.2.2 Vehicular Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-21B</b>

**Installation Detail A**



**Installation Detail B**



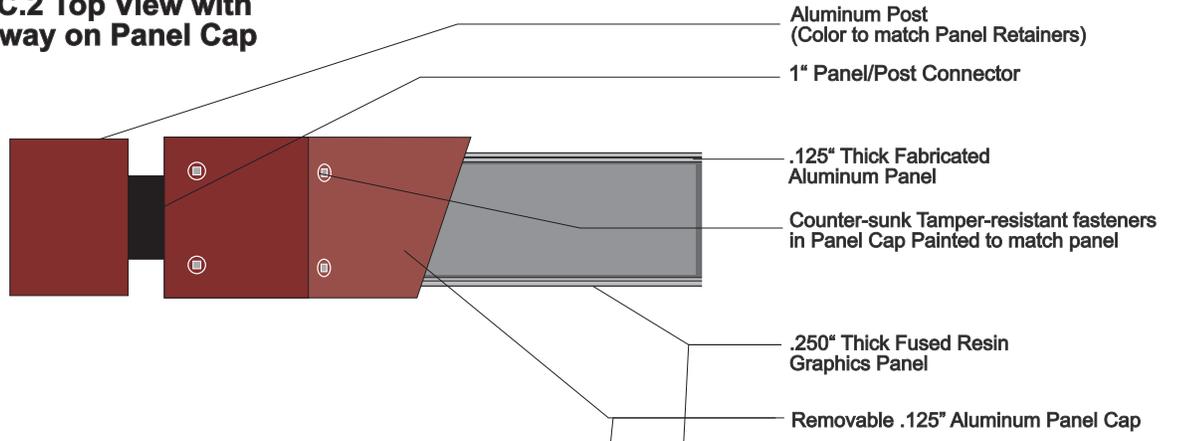
**Foundation Detail**

NOTES:

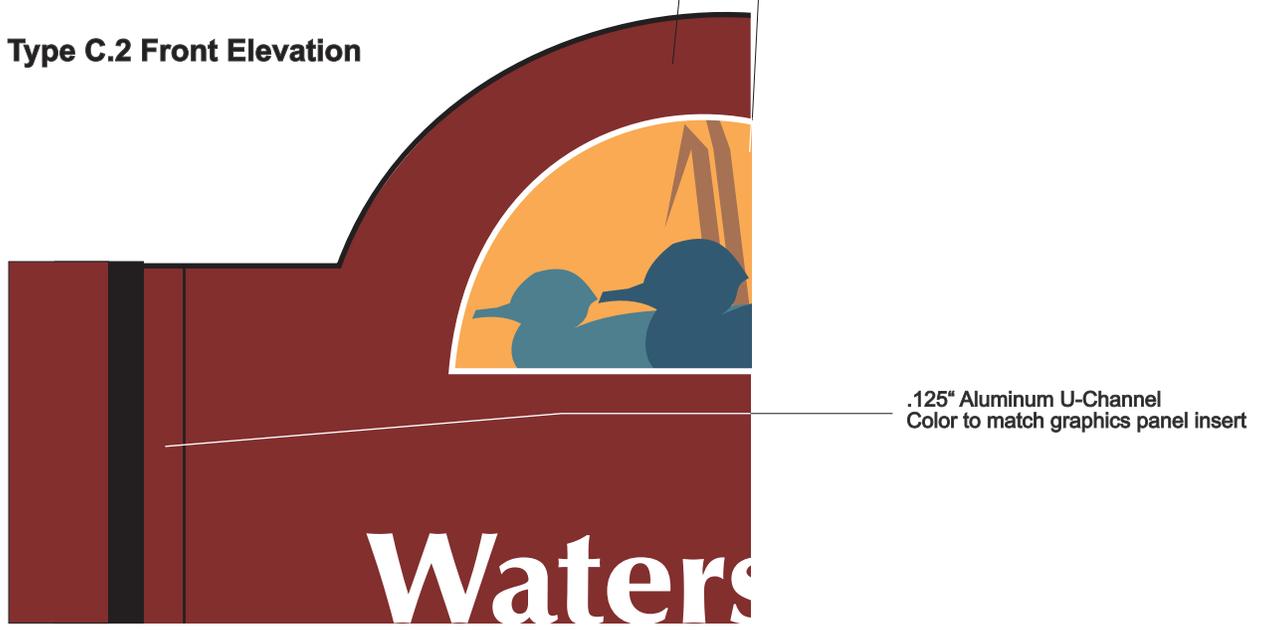
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-21C</b>

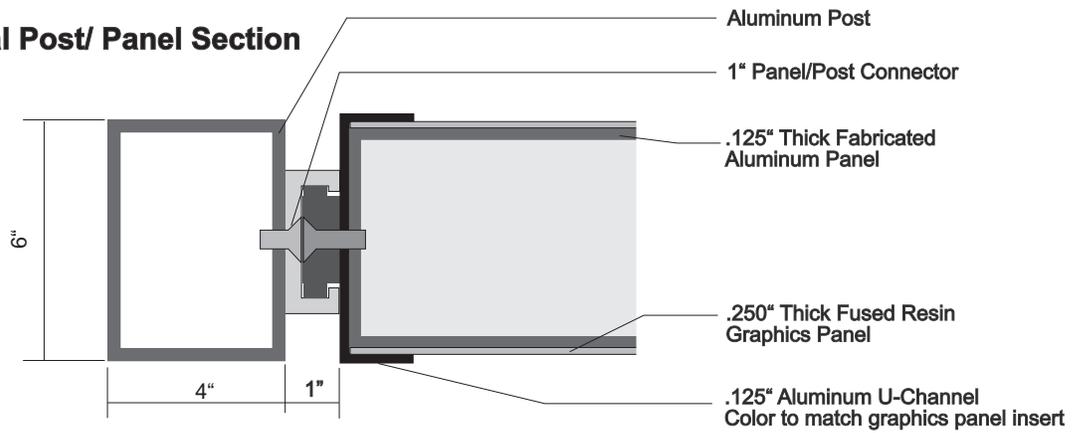
**Type C.2 Top View with Cut Away on Panel Cap**



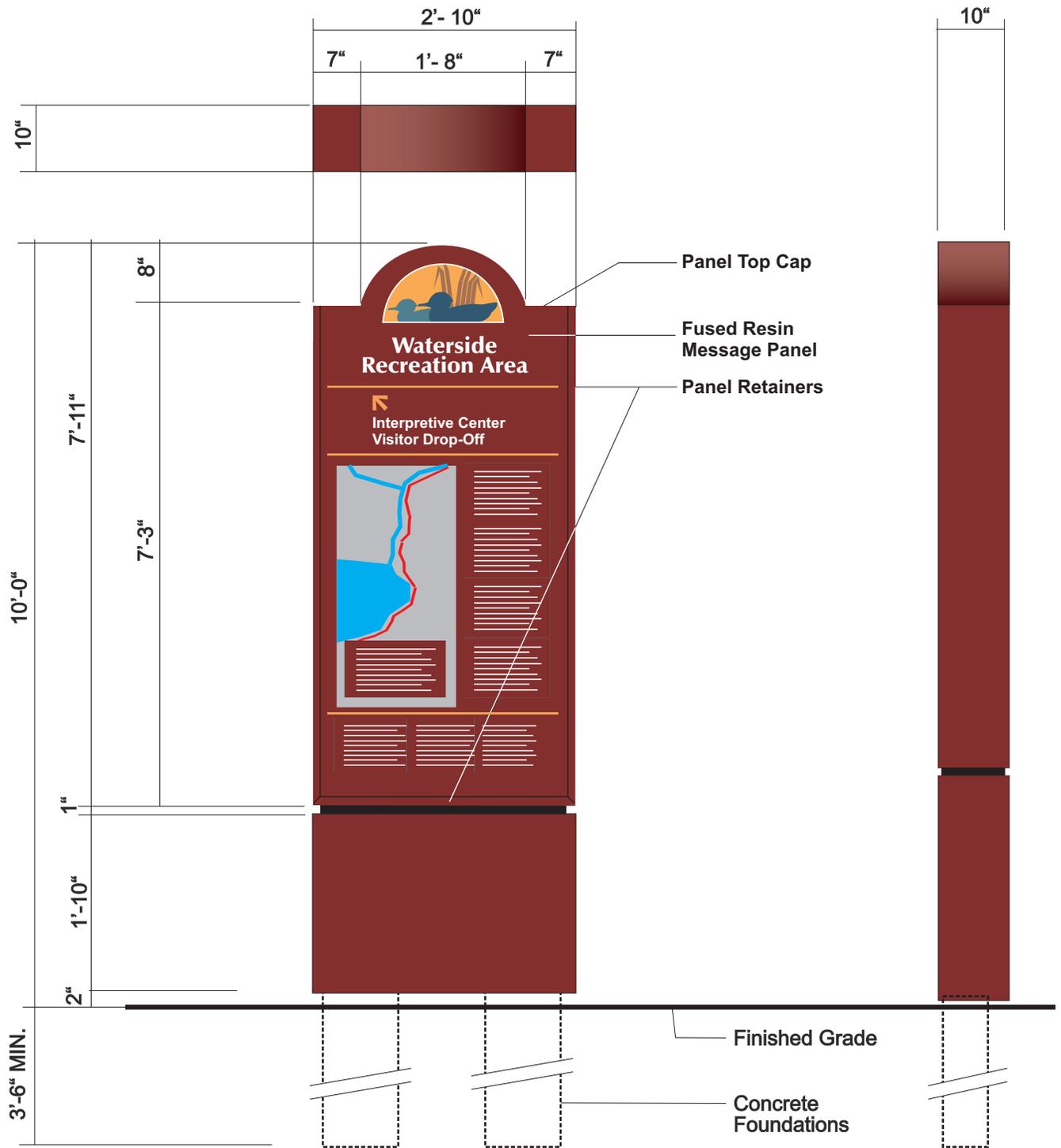
**Type C.2 Front Elevation**



**Horizontal Post/ Panel Section**



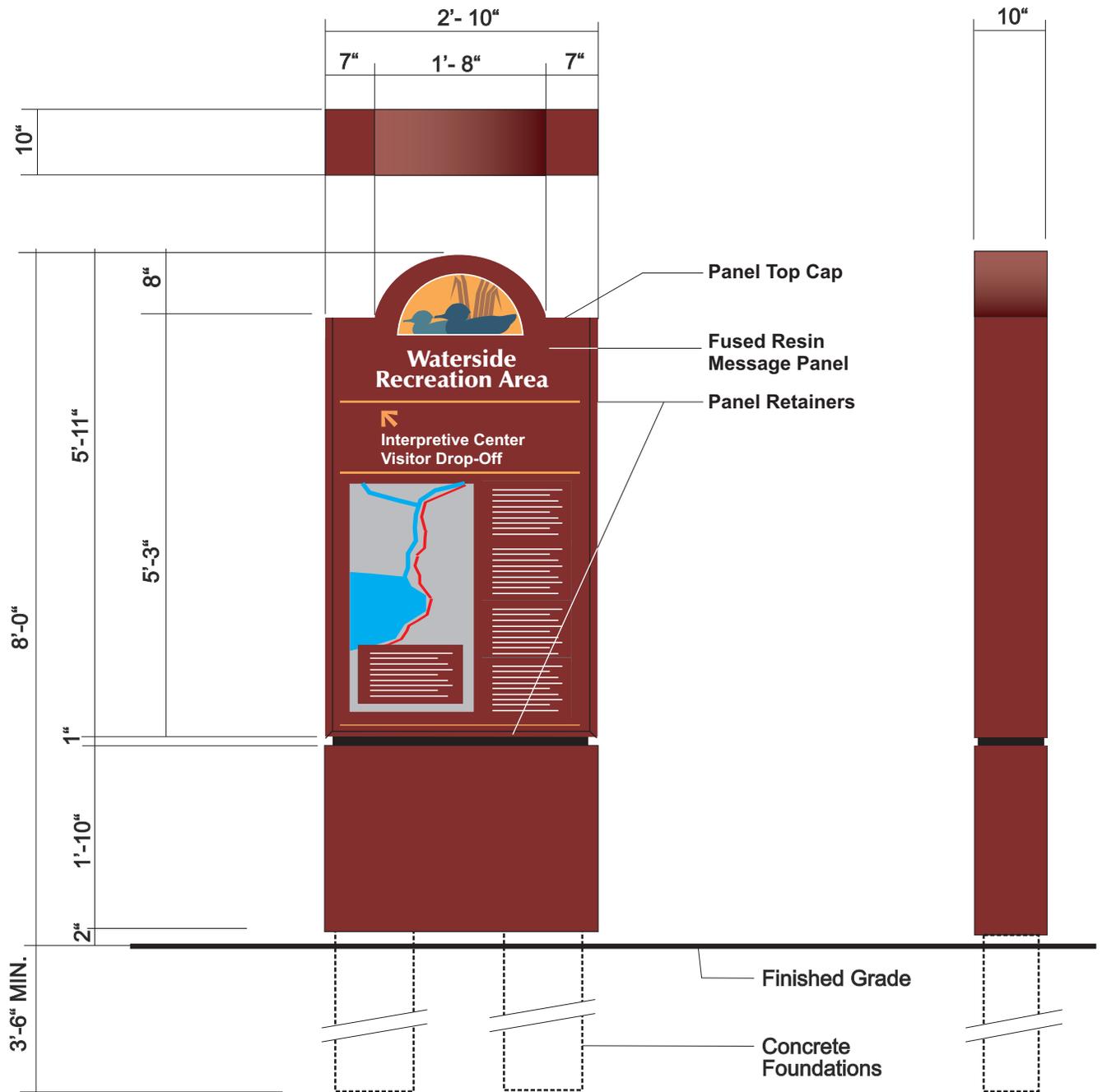
<b>Type C.2 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>RT-21D</b>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-22C and RT-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.1 Pedestrian Orientation Pylon A</b>	
<b>Niagara River Greenway</b>	<b>RT-22A</b>



**NOTES:**

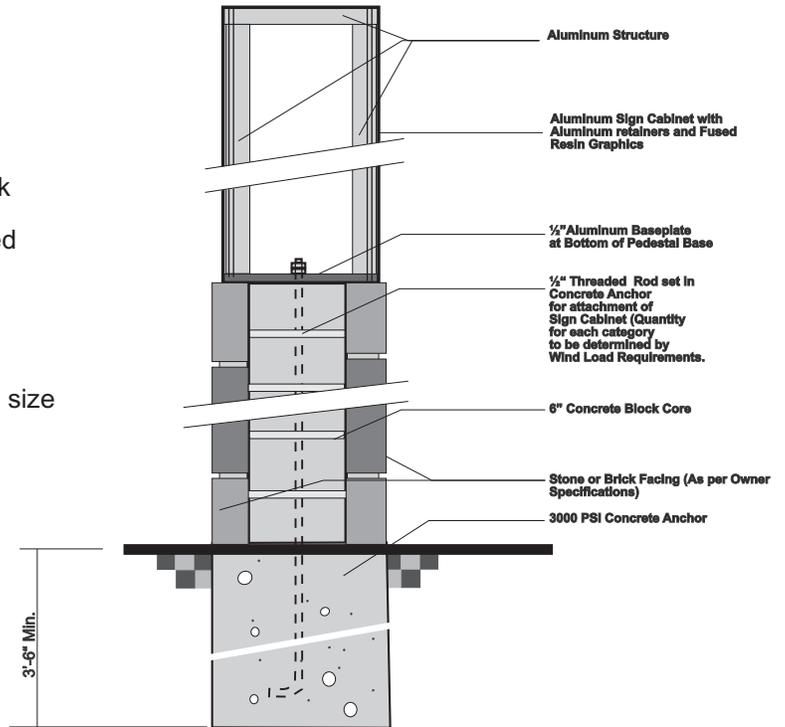
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawings RT-22C and RT-22D for Base Material and construction details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.3.2 Pedestrian Orientation Pylon B</b>	
<b>Niagara River Greenway</b>	<b>RT-22B</b>

# Stone/Brick Pylon Base

**NOTES:**

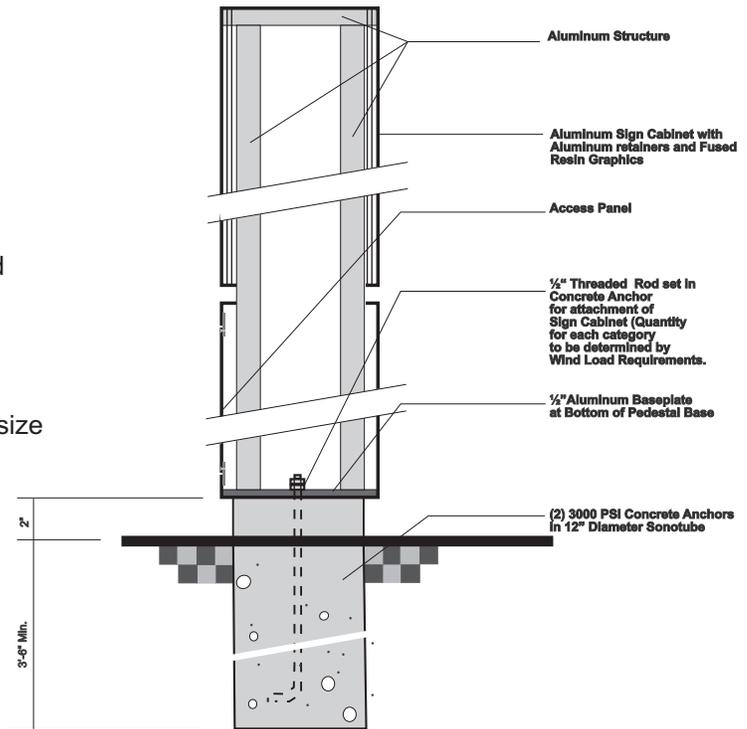
1. Aluminum sign cabinet to be anchored to concrete block base faced with stone or brick as per Owner specifications.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing under all portions of block and stone base.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-22D for panel construction details.



# Aluminum Pylon Base

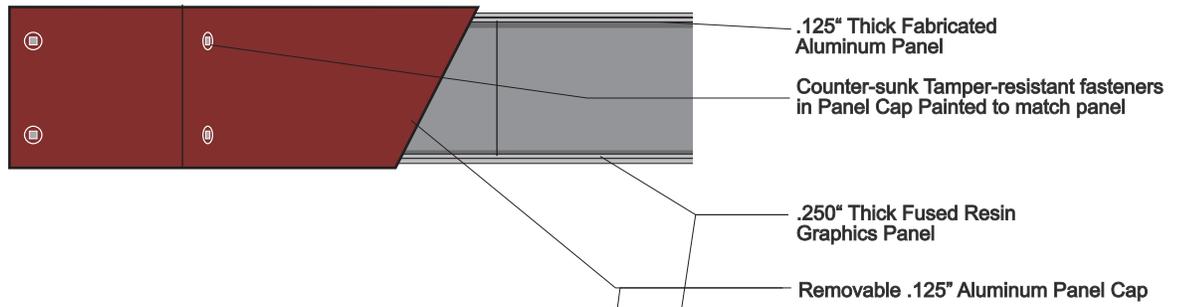
**NOTES:**

1. Fabricate Aluminum sign cabinet on two concrete anchors as shown above for signs to receive fabricated aluminum base.
2. Employ reflective vinyl graphics as described in Technical specifications.
3. Use 3000 PSI Concrete footing for concrete anchors.
4. Contract will include excavation, foundation and site restoration.
5. Anchor depth may vary depending on panel size and load requirements.
6. See Drawing RT-22D for panel construction details.

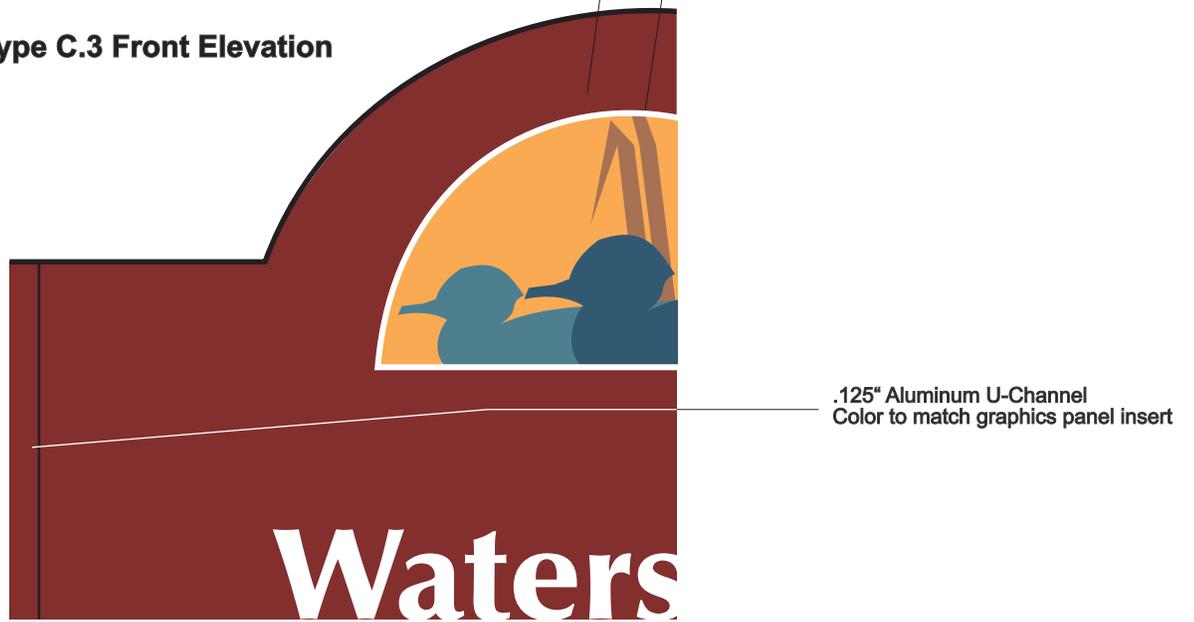


<b>Type C.3 Pylon Base Construction Details</b>		
<b>Niagara River Greenway</b>		<b>RT-22C</b>

**Type C.3 Top View with  
Cut Away on Panel Cap**

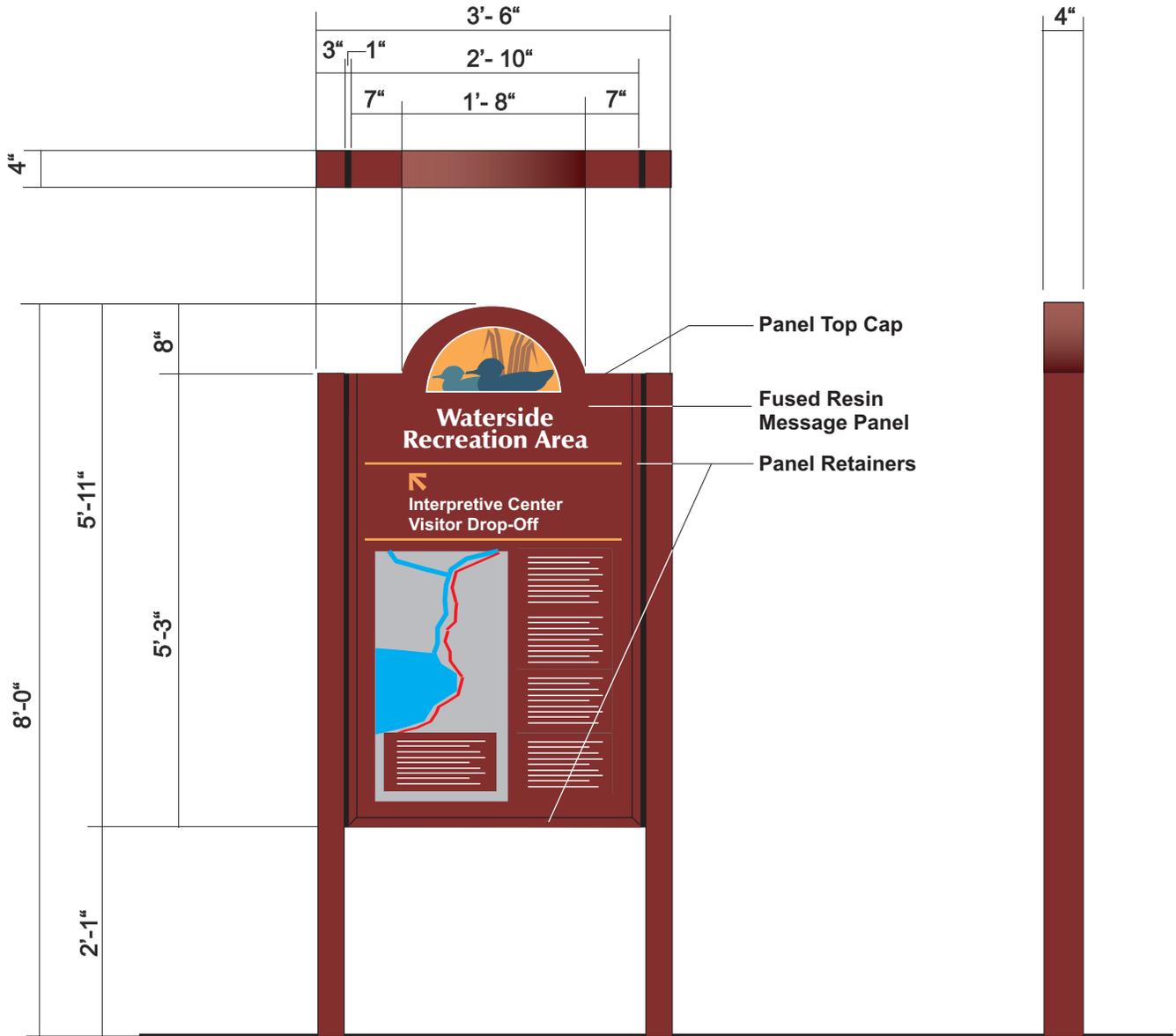


**Type C.3 Front Elevation**



<p><b>Type C.3 Pylon Message Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-22D</b></p>



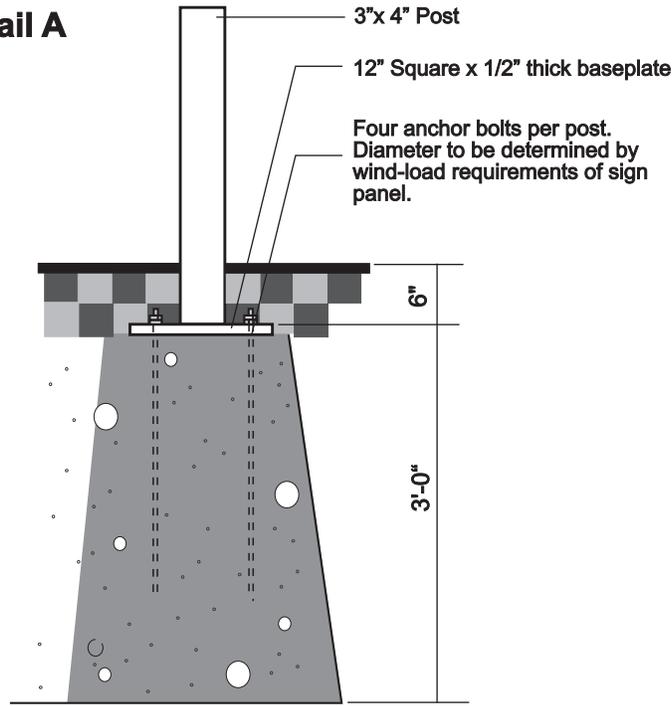


**NOTES:**

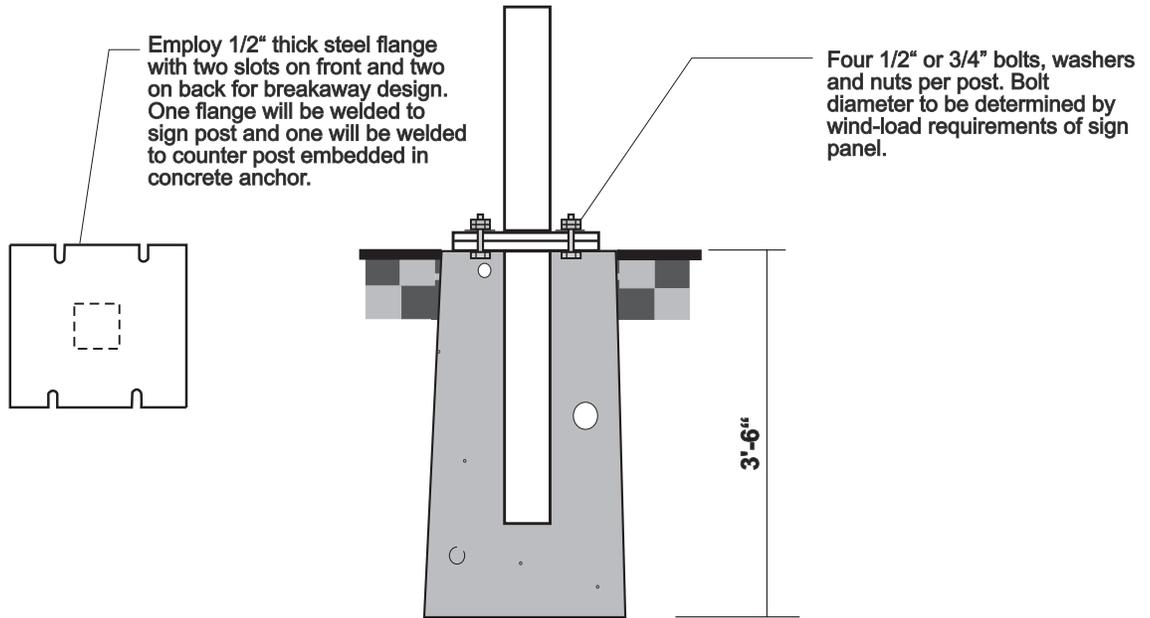
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings RT-23C and RT-23D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type C.4.2 Pedestrian Orientation Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-23B</b>

### Installation Detail A



### Installation Detail B



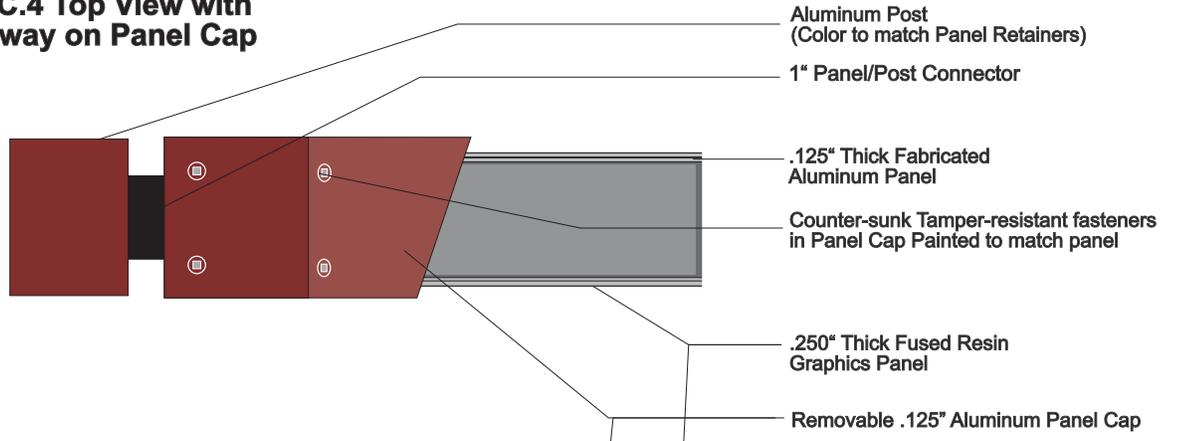
### Foundation Detail

NOTES:

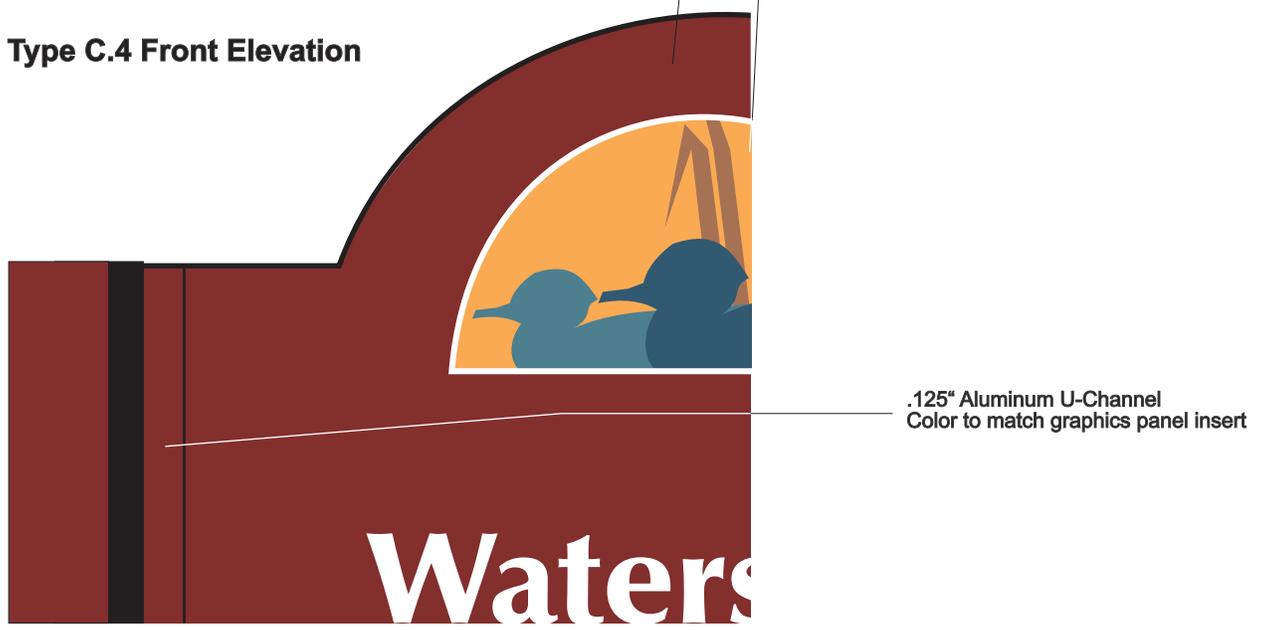
1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type C.4 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-23C</b>

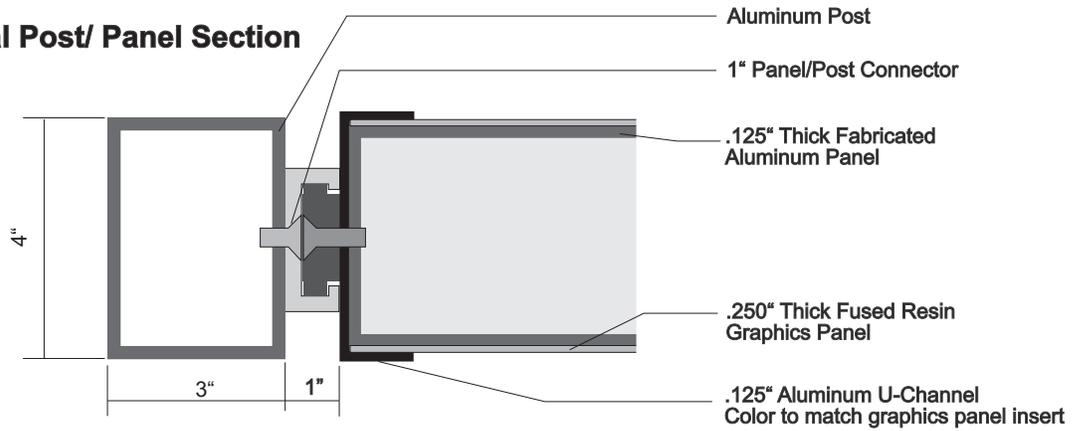
**Type C.4 Top View with Cut Away on Panel Cap**



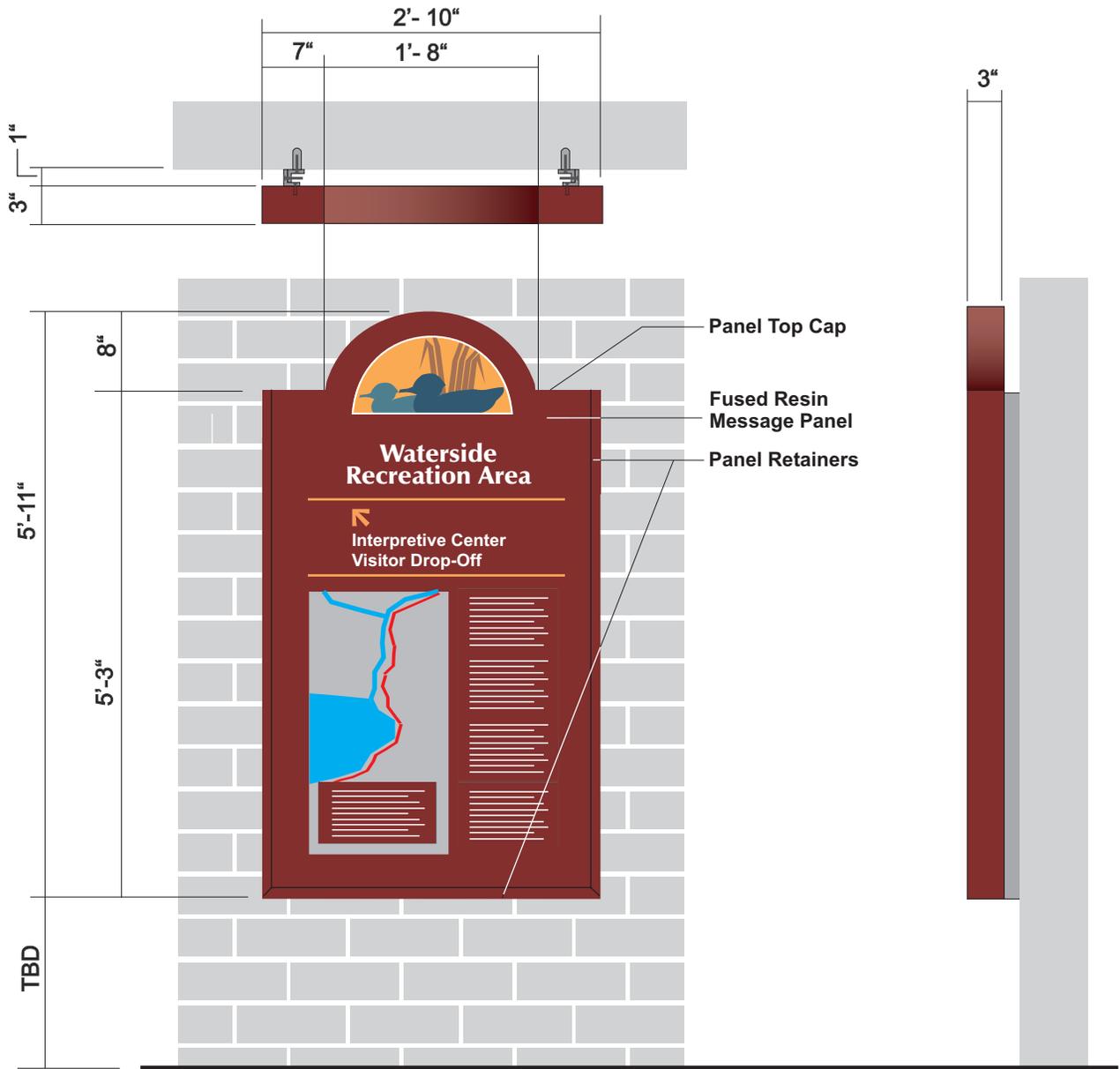
**Type C.4 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type C.4 Post and Panel Construction Details</b>	
Niagara River Greenway	<b>RT-23D</b>

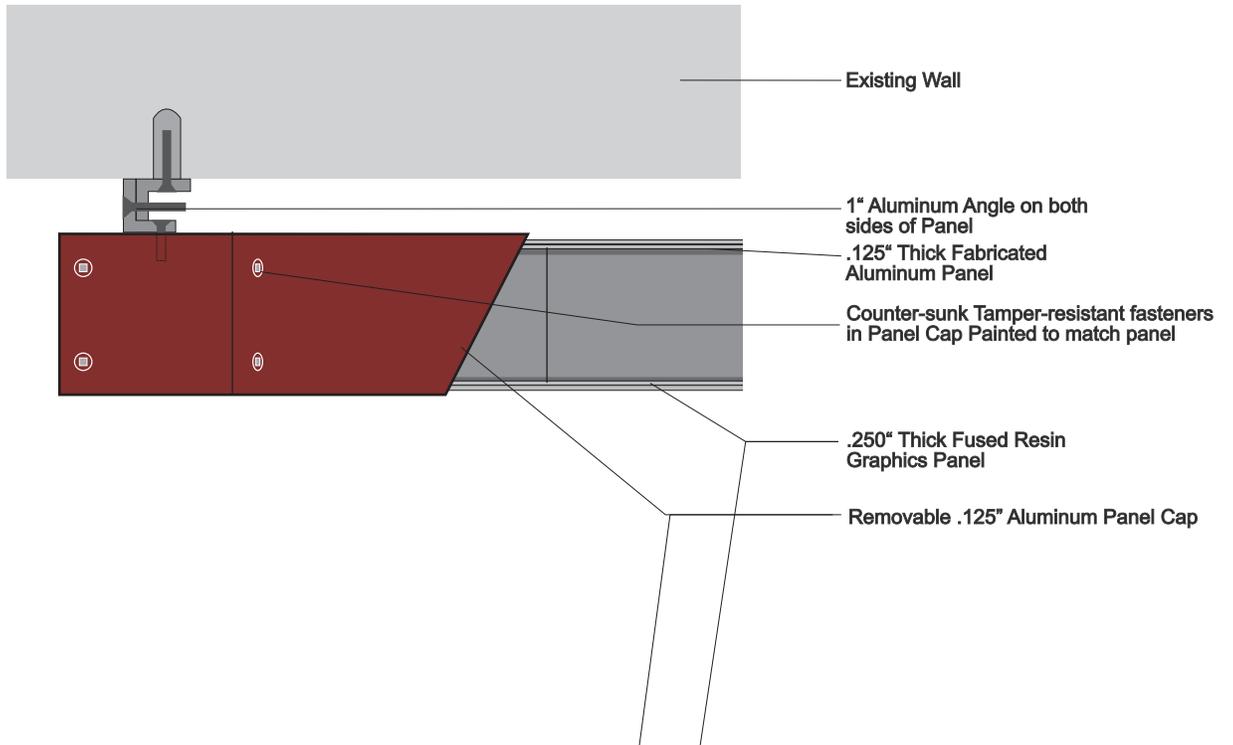


**NOTES:**

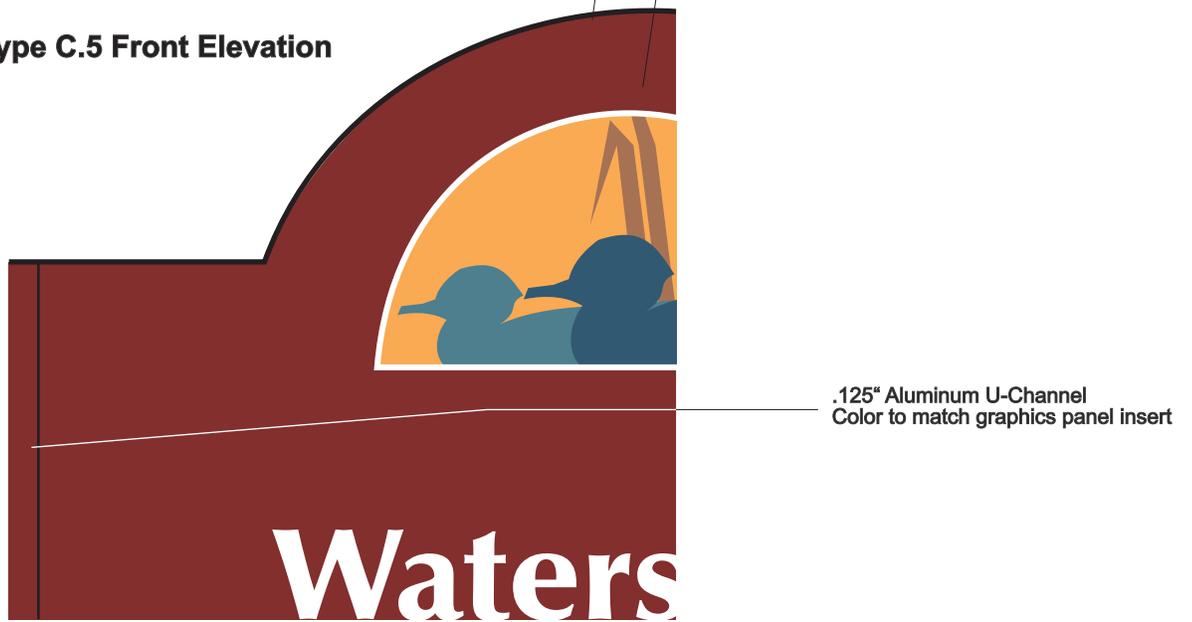
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-24B for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.
4. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type C.5.1 Pedestrian Orientation Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>RT-24A</b>

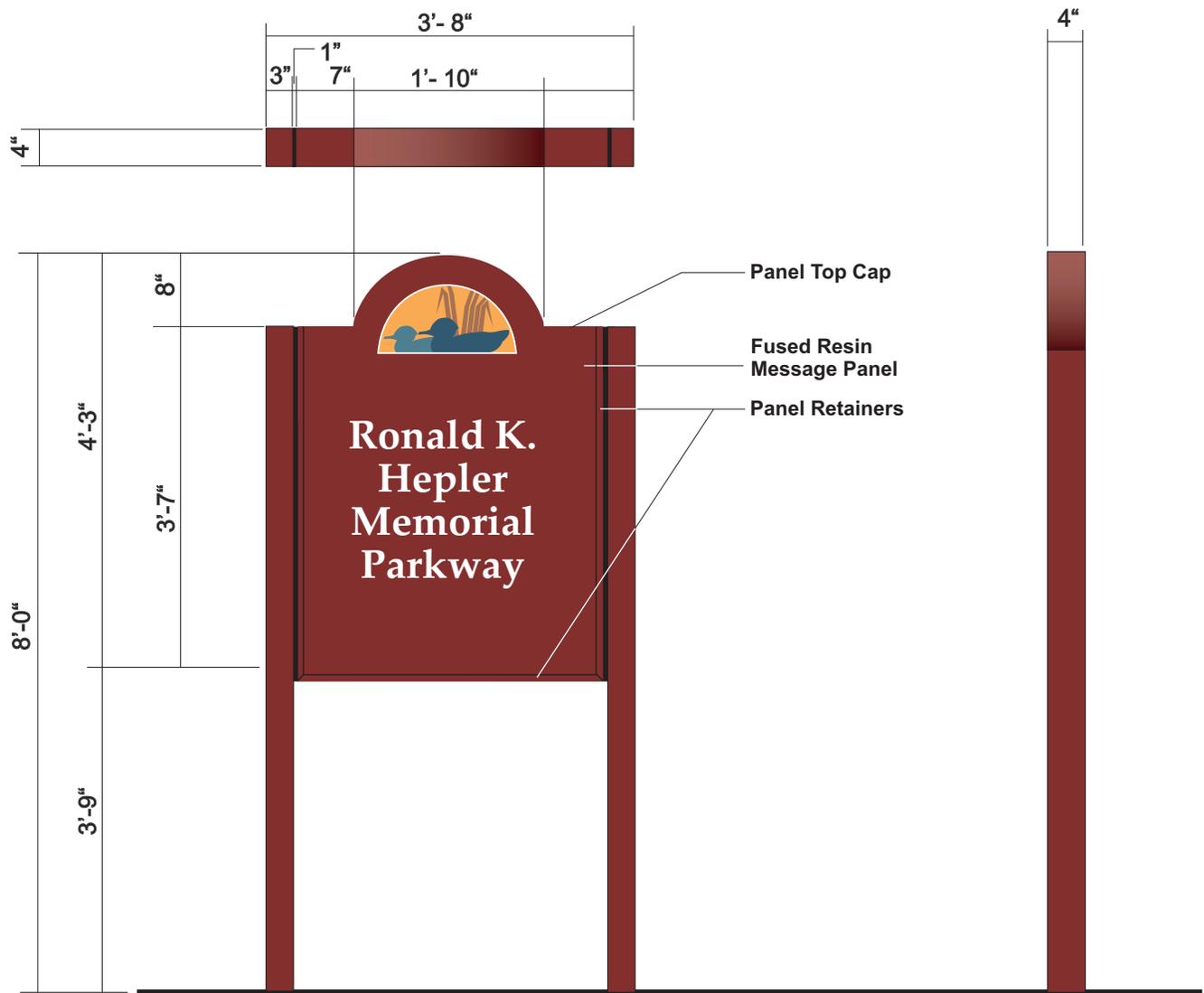
**Type C.5 Top View with Cut Away on Panel Cap**



**Type C.5 Front Elevation**



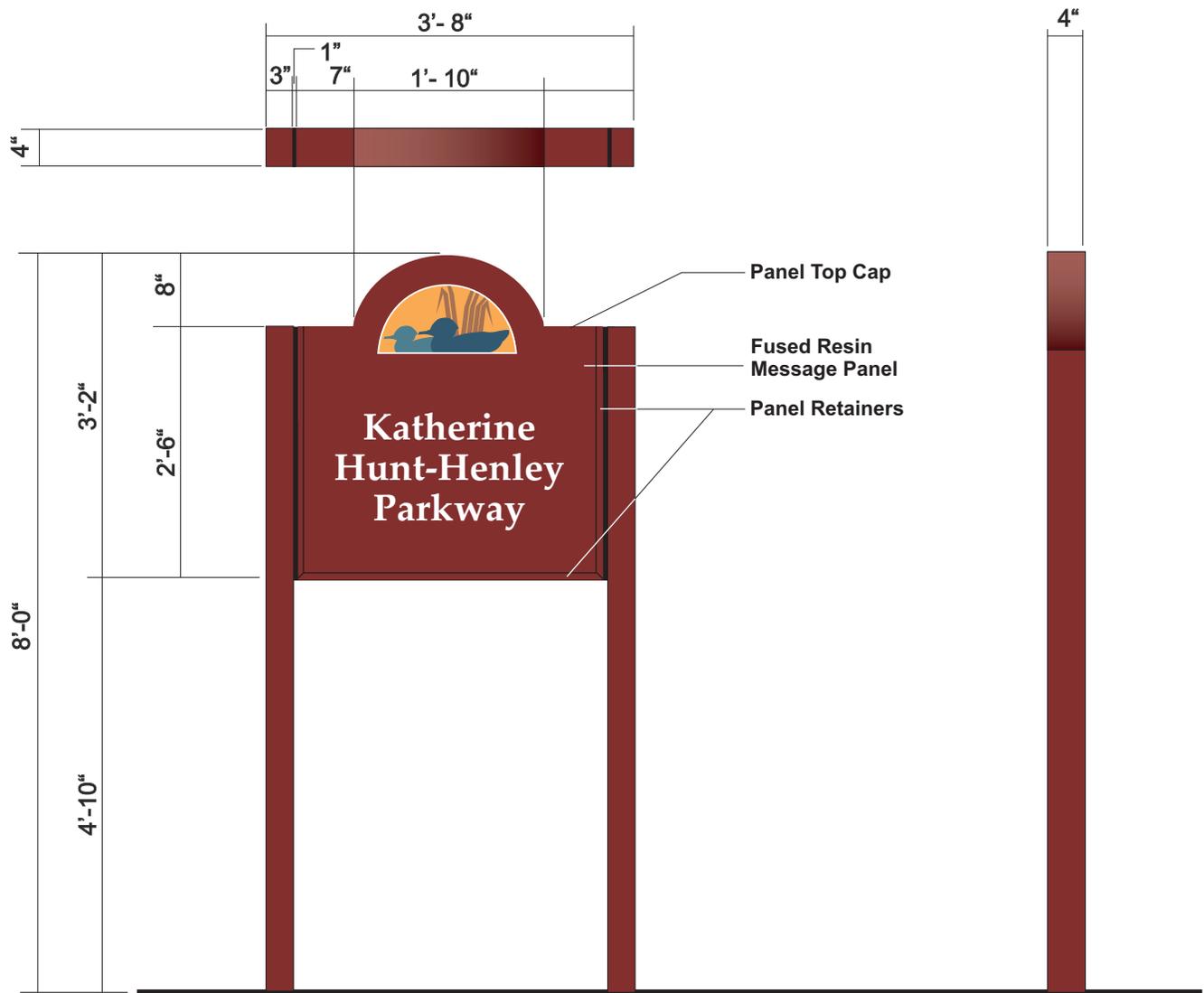
<p><b>Type C.5 Pedestrian Wall Mount Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-24B</b></p>



**NOTES:**

1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings RT-30C and RT-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.1 Vehicular Commemorative Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-30A</b>

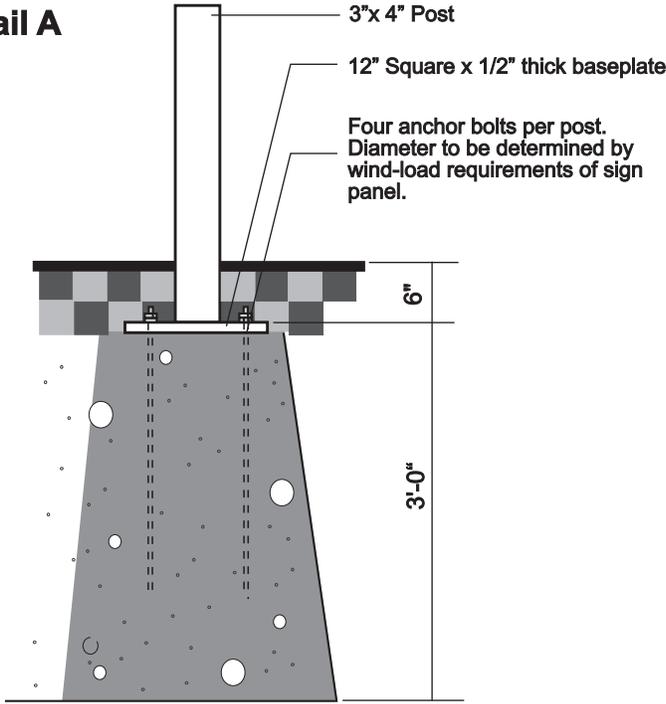


**NOTES:**

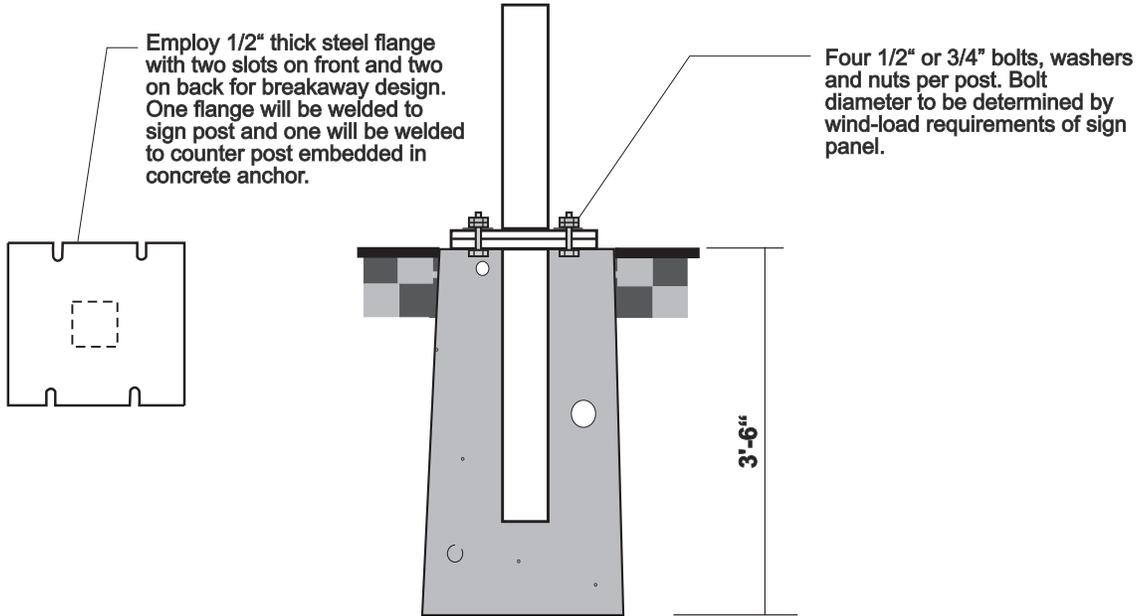
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" aluminum. See Drawings RT-30C and RT-30D for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.
3. Signage fabricator will produce sign layout submittal based on copy and graphics requirements provided by Owner.

<b>Type D.1.2 Vehicular Commemorative Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-30B</b>

**Installation Detail A**



**Installation Detail B**



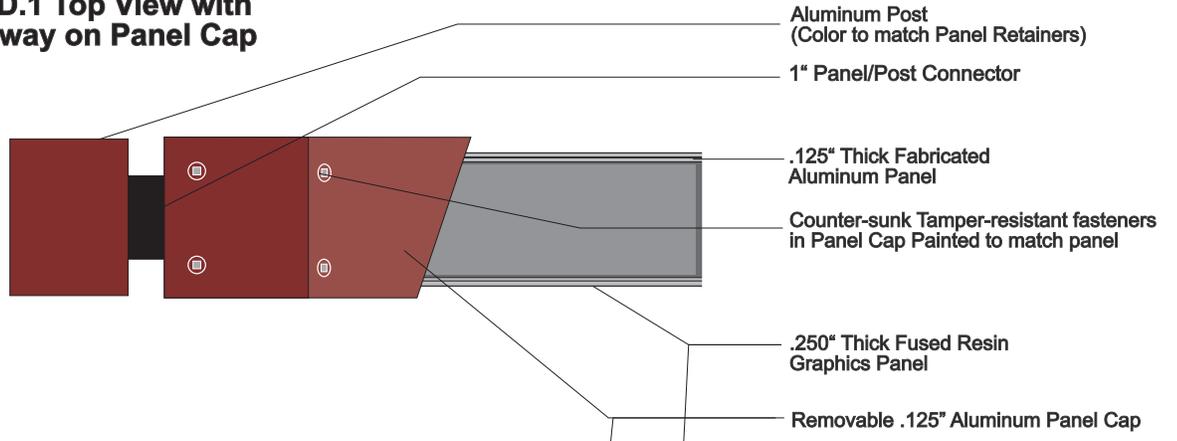
**Foundation Detail**

NOTES:

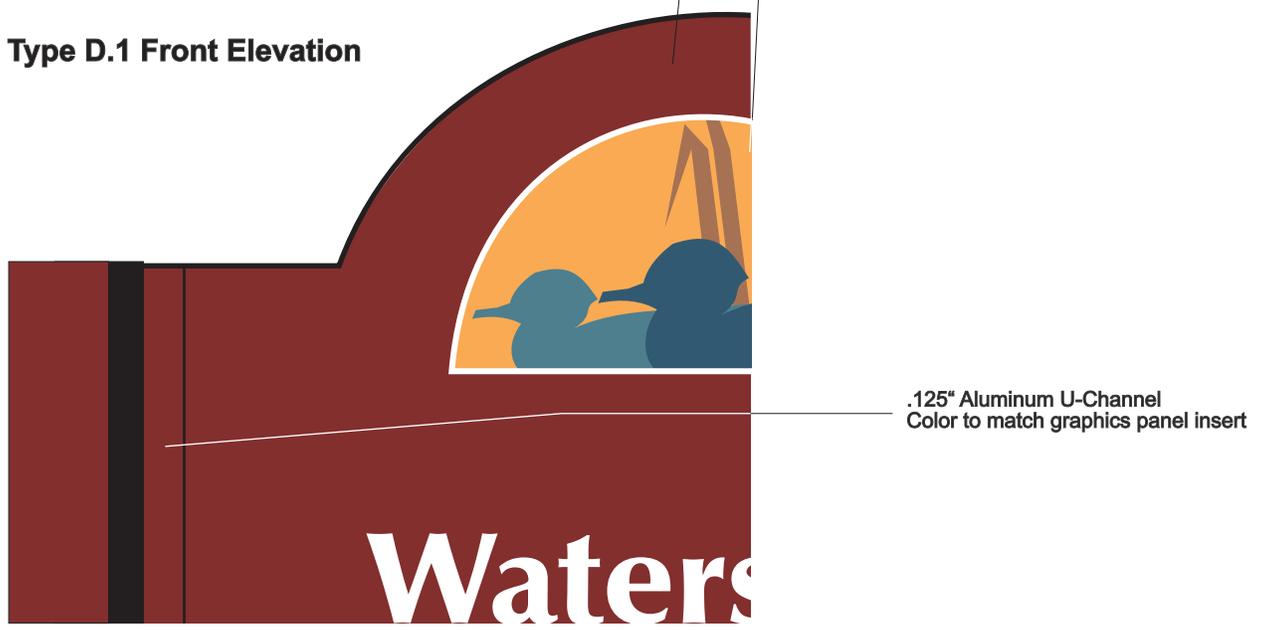
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.1 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-30C</b>

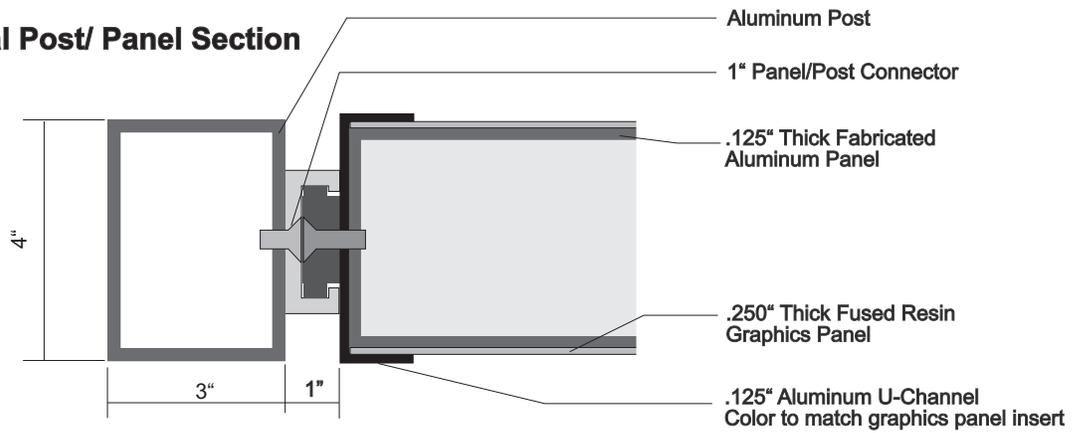
**Type D.1 Top View with Cut Away on Panel Cap**



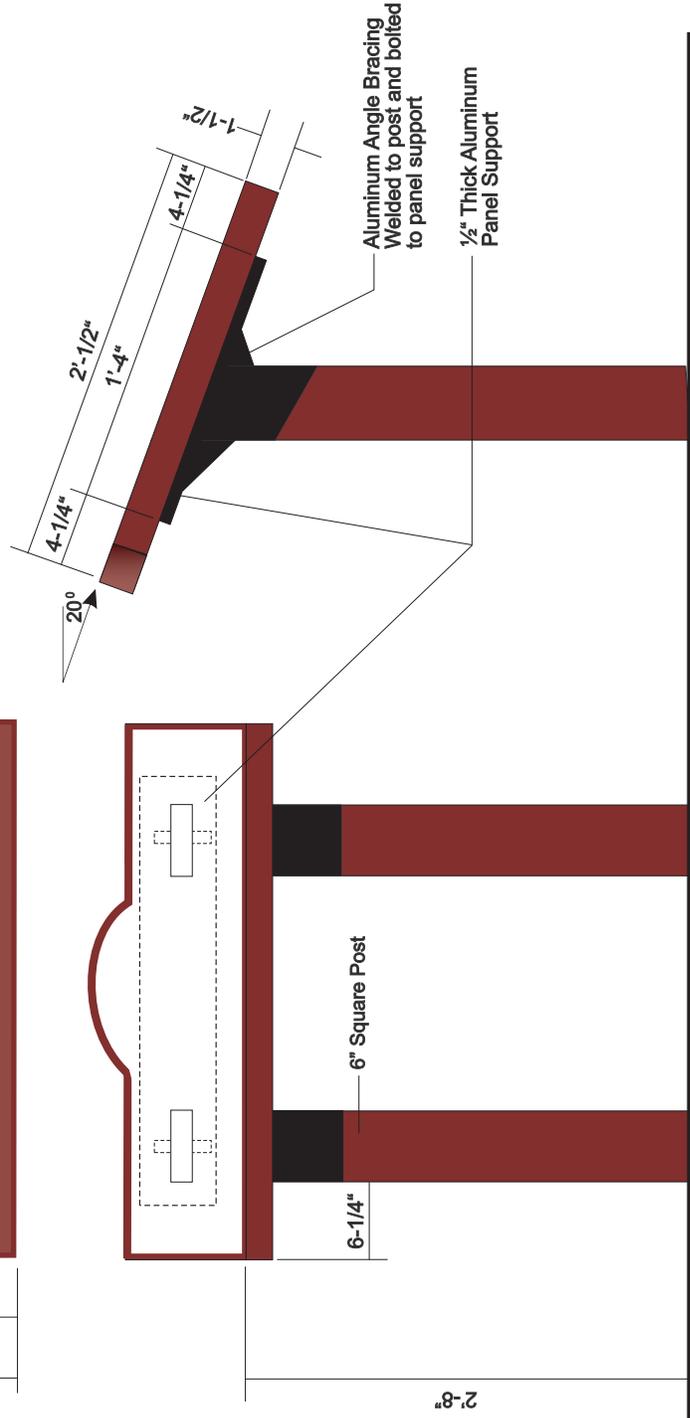
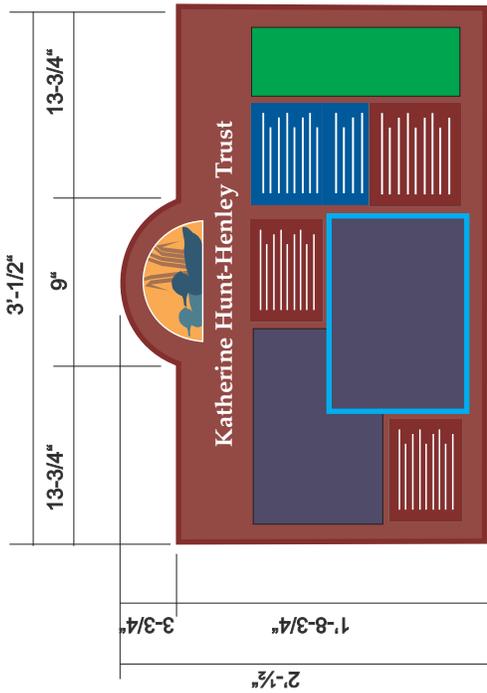
**Type D.1 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type D.1 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-30D</b>

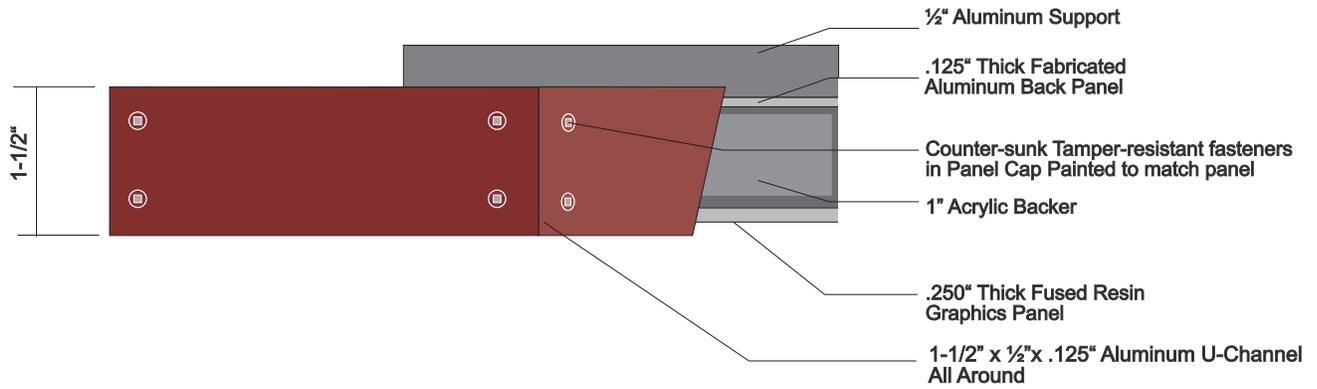


**NOTES:**

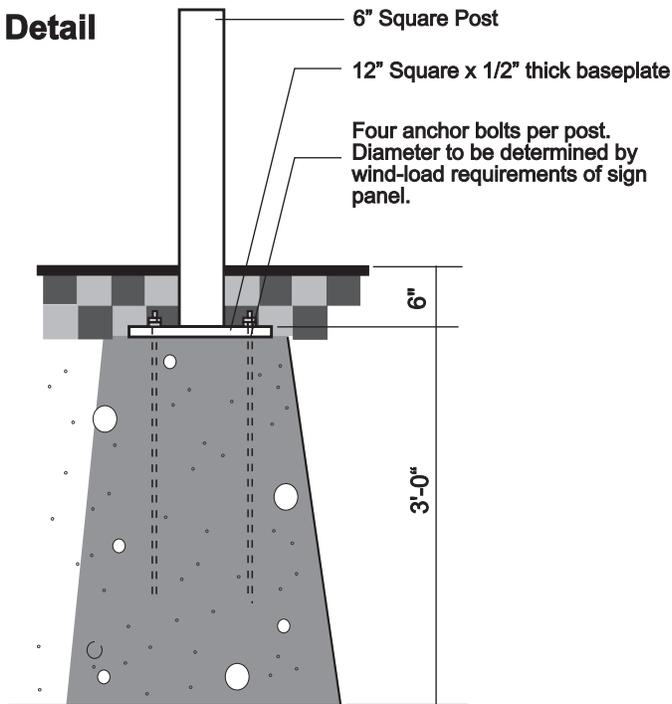
1. Fabrication will include aluminum box panel core, Fused Resin interpretive panels and aluminum posts.  
Art for graphics graphics will be furnished by Owner.
2. Fused Resin Graphics Panel to be 24" by 36"
3. See Drawing RT-31B for construction and installation details.

Type D.2.1 Interpretive/ Commemorative Post and Panel	
Niagara River Greenway	RT-31A

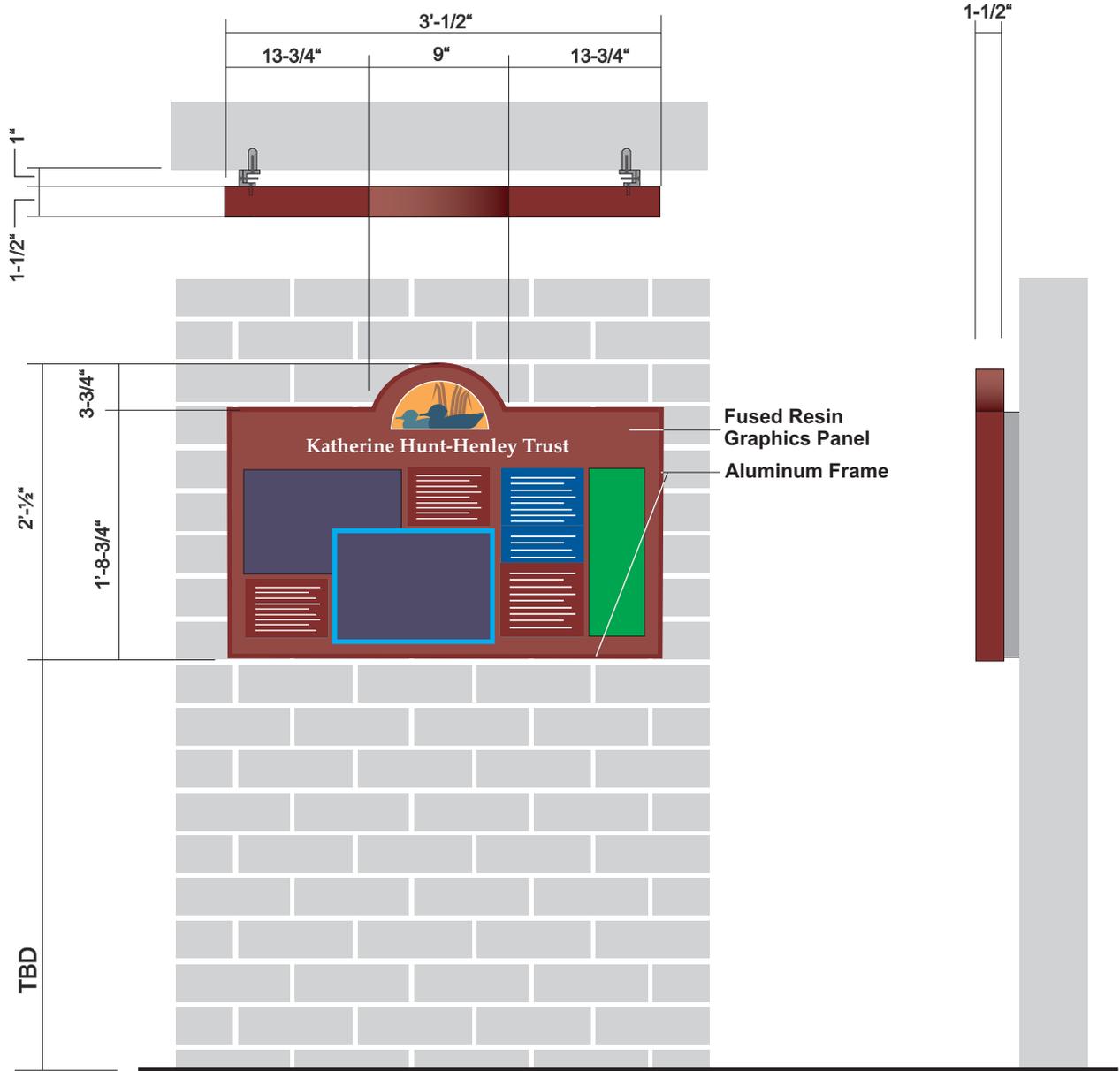
**Type D.2.1 Top View with  
Cut Away on Panel Cap**



**Installation Detail**



<p><b>Type D.2.1 Post and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-31B</b></p>

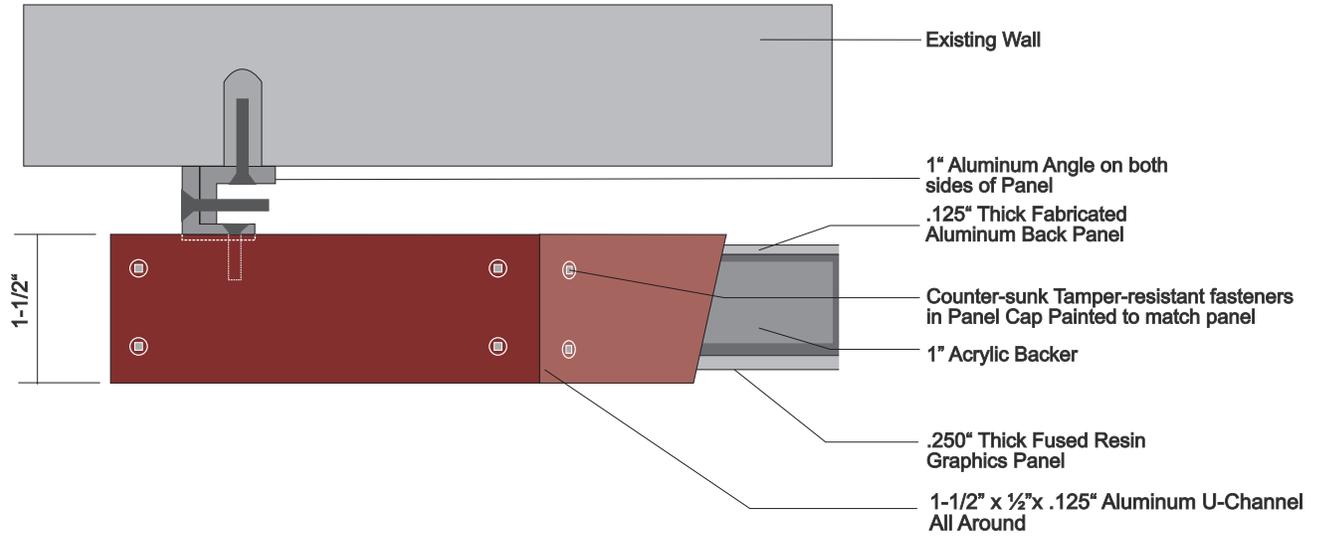


**NOTES:**

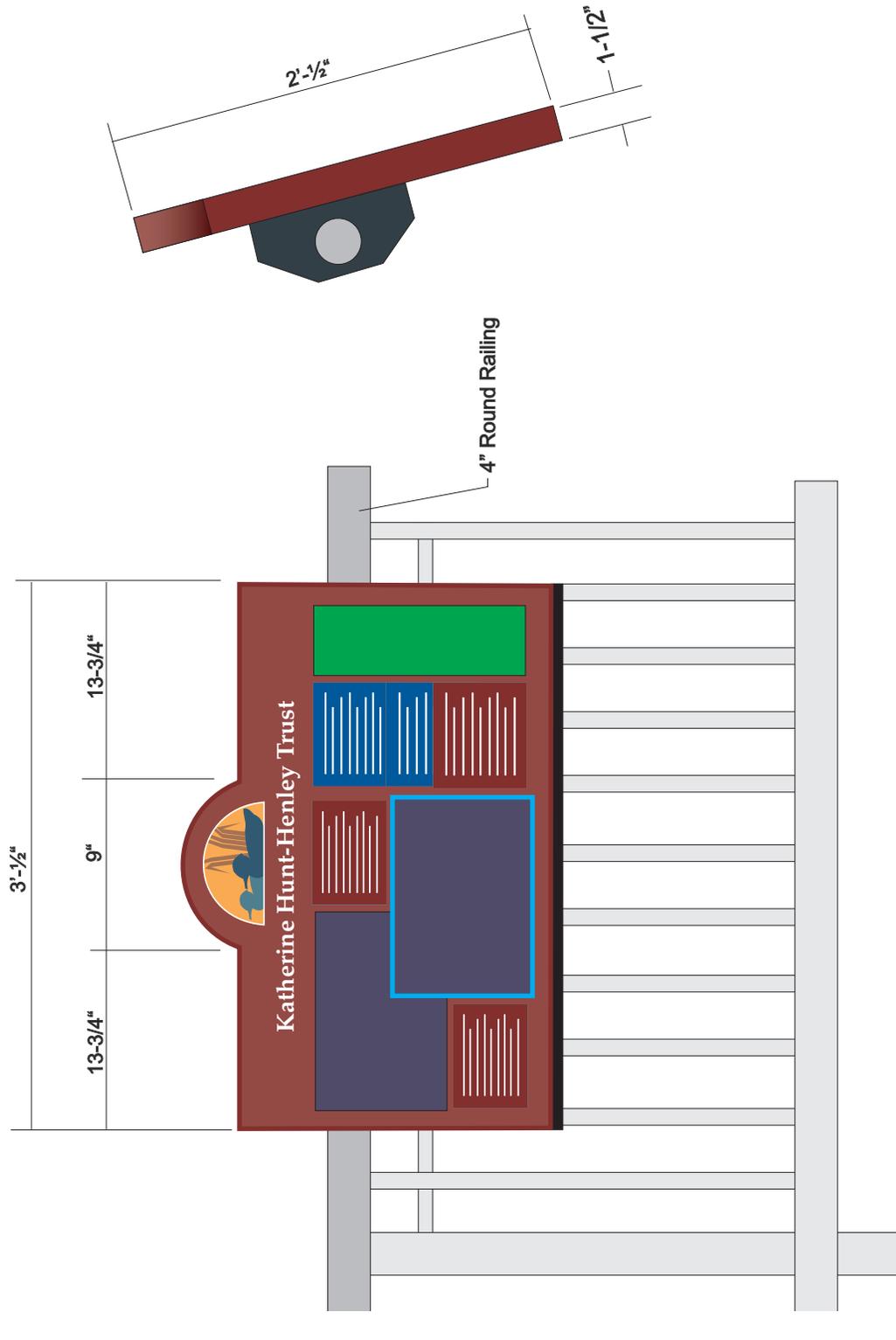
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with aluminum angle brackets on both sides of panel.
3. Fused Resin Graphics Panel to be 24" by 36".
4. See Drawing RT-32B for construction and installation details.
5. Art for graphics panel will be provided by Owner.

<b>Type D.3.1 Interpretive/ Commemorative Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>RT-32A</b>

**Type D.3 Top View with  
Cut Away on Panel Cap**



<p><b>Type D.3 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-32B</b></p>

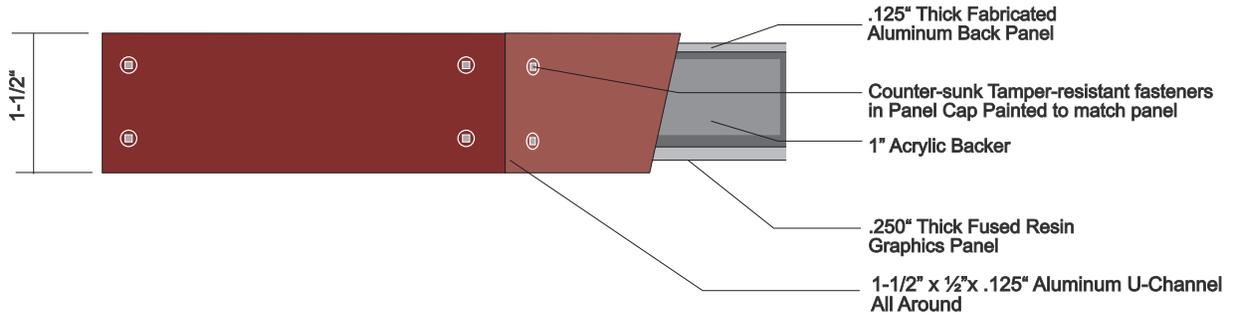


**NOTES:**

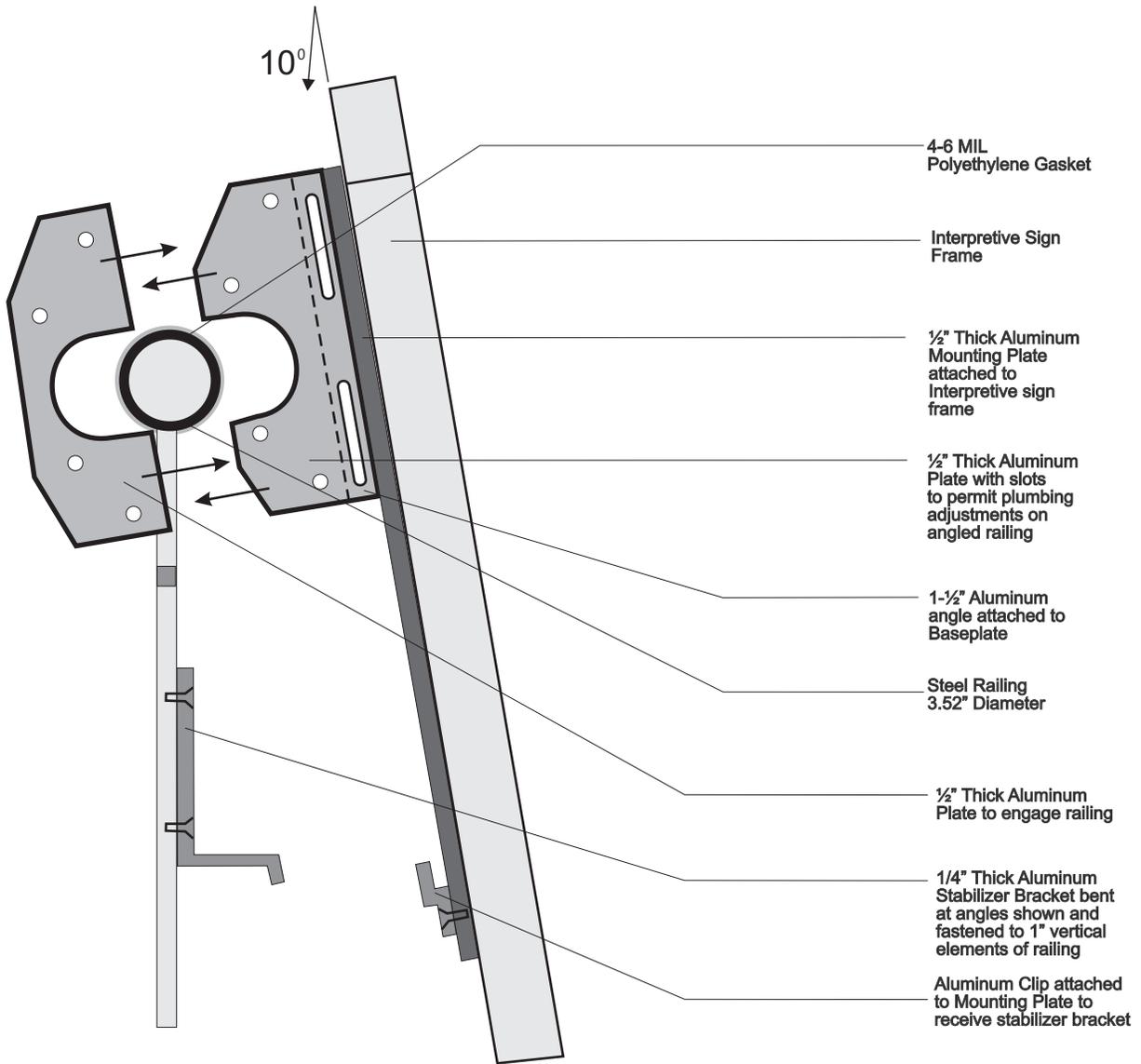
1. Sign Panel will include aluminum frame, acrylic support, and Fused Resin interpretive panels.
2. Install panel with hardware as shown on Drawing RT-33B.
3. Fused Resin Graphics Panel to be 24" by 36".
4. All visible brackets and hardware to be painted to match frame
5. Art for graphics panel will be provided by Owner.

<p><b>Type D.4.1 Interpretive/ Commemorative Railing Mount</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-33A</b></p>

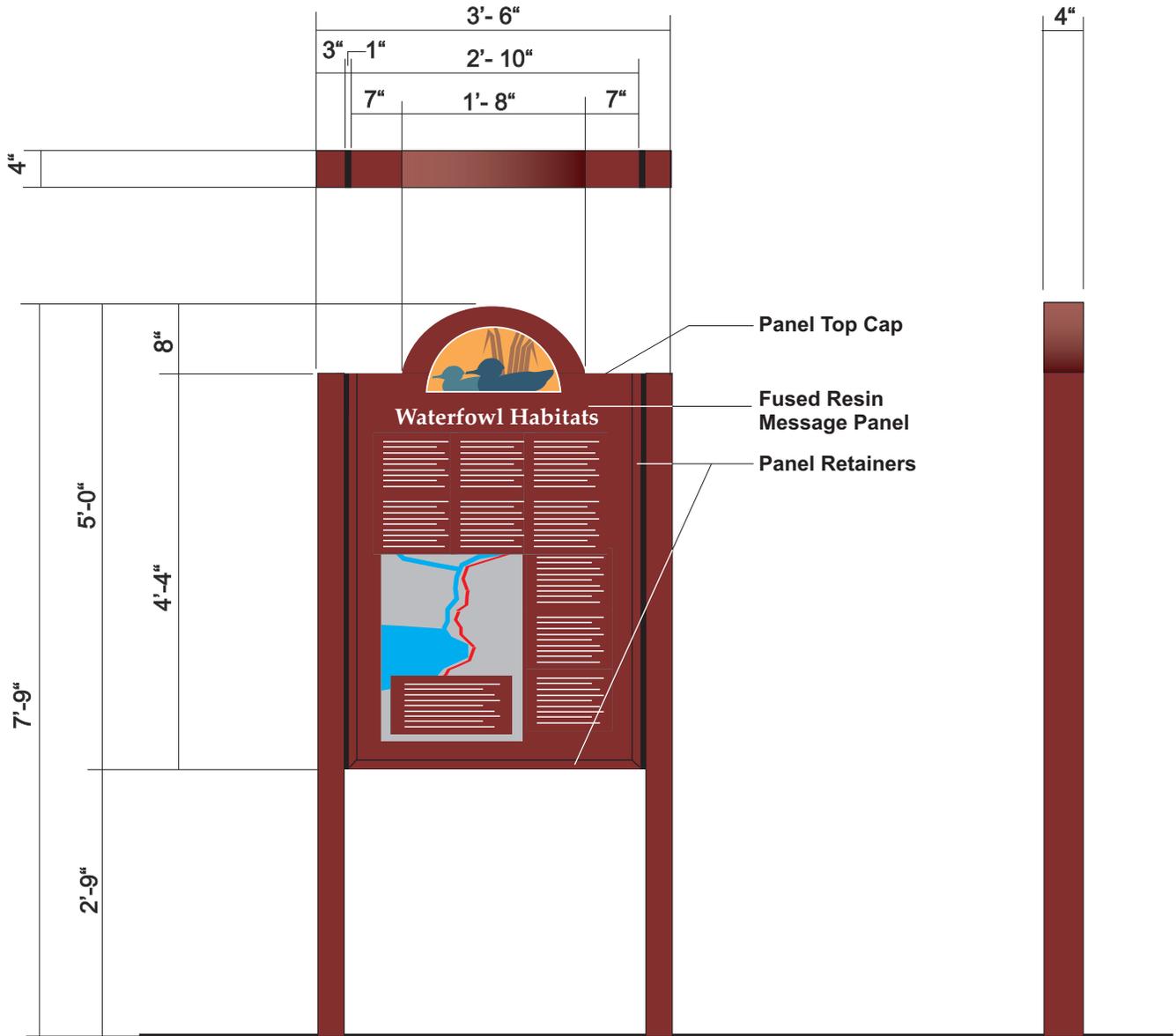
**Type D.4 Top View with Cut Away on Panel Cap**



**Type D.4 Section**



<p><b>Type D.4 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-33B</b></p>

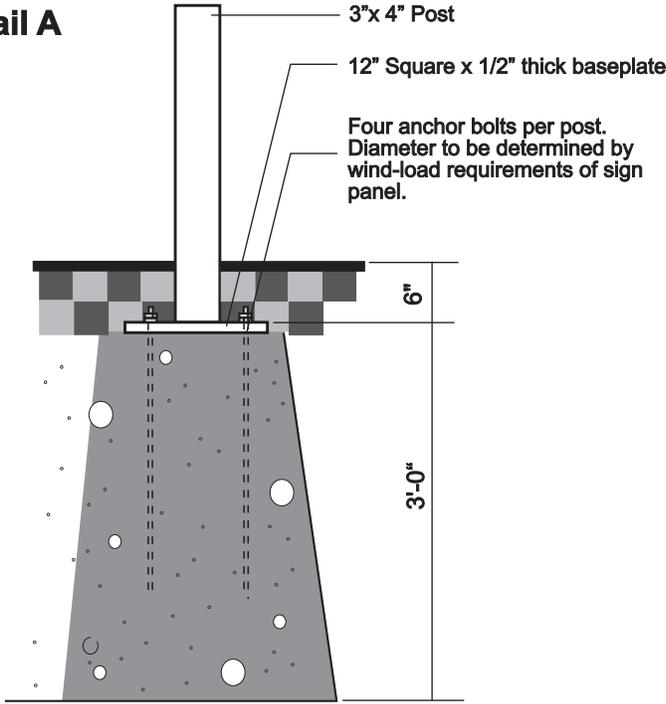


**NOTES:**

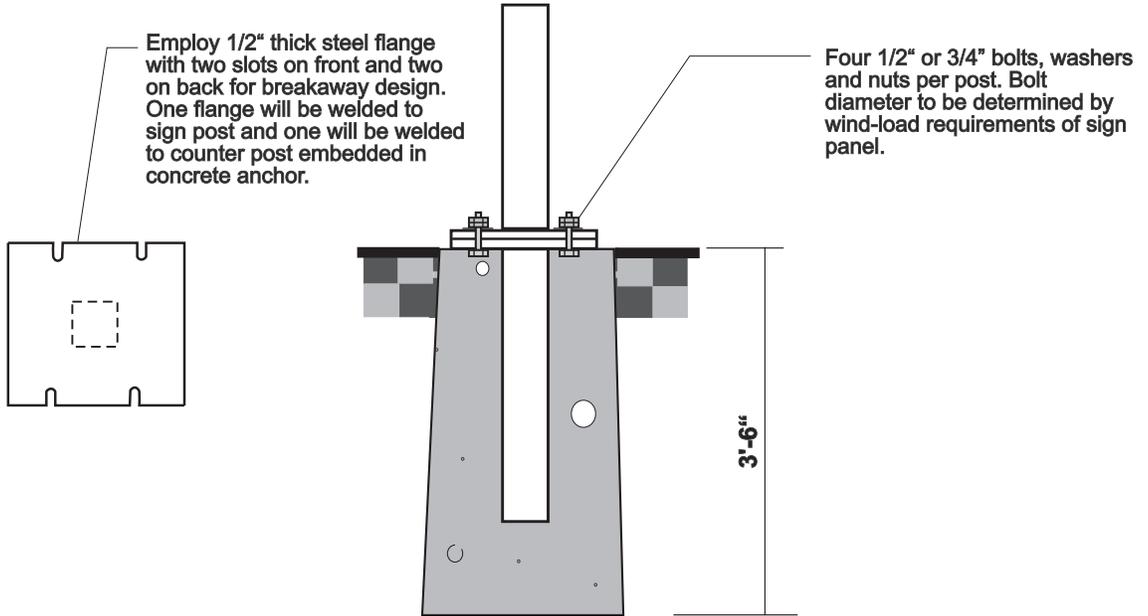
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings RT-34B and RT-34C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type D.5.1 Interpretive Storyboard Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>RT-34A</b>

**Installation Detail A**



**Installation Detail B**



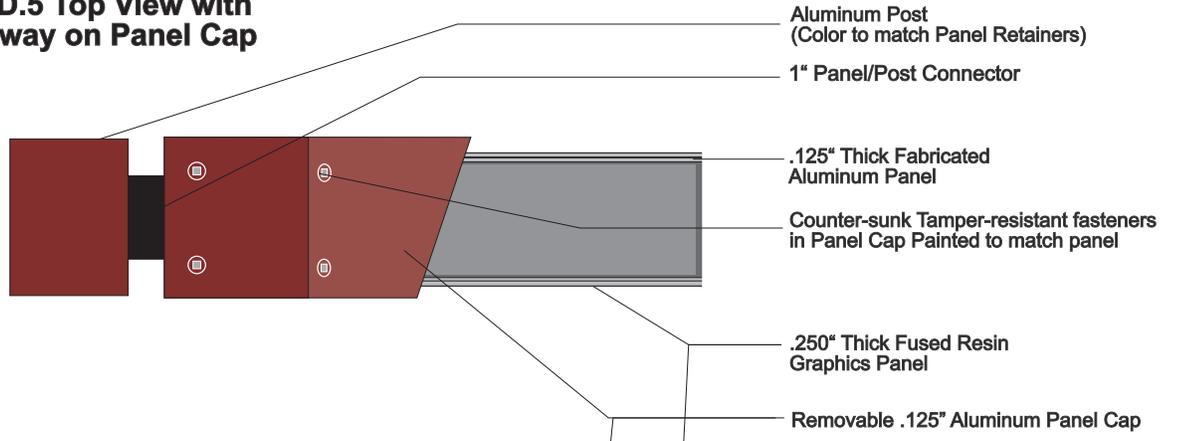
**Foundation Detail**

NOTES:

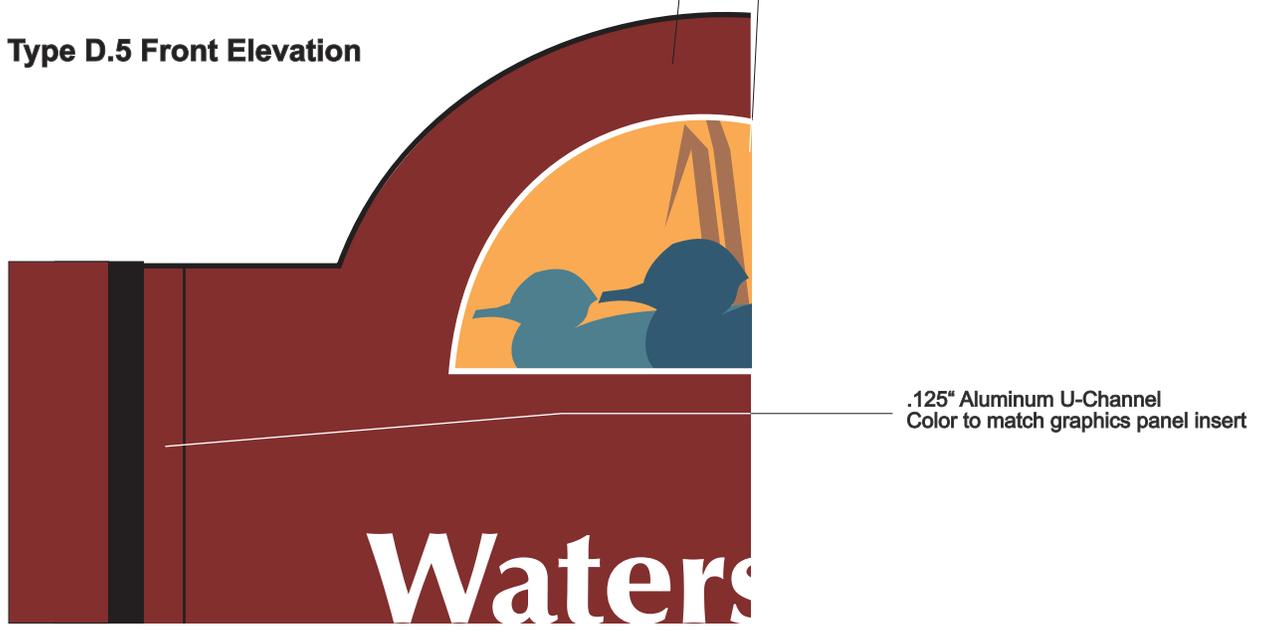
1. Use Foundation Detail A for installations in soil and away from roadways.
2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type D.5 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-34B</b>

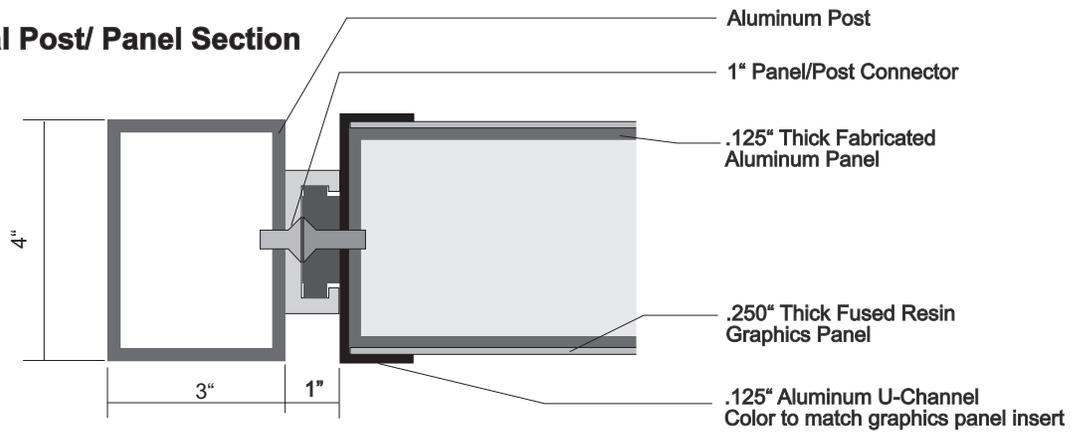
**Type D.5 Top View with Cut Away on Panel Cap**



**Type D.5 Front Elevation**



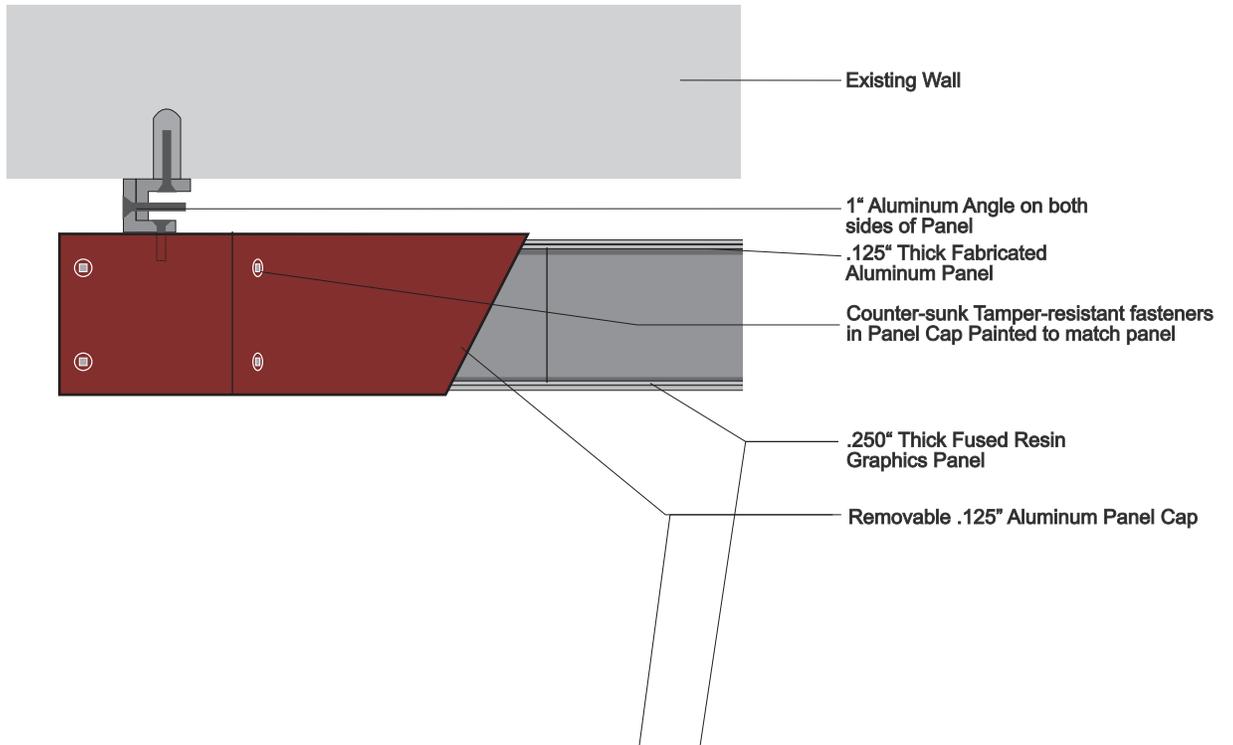
**Horizontal Post/ Panel Section**



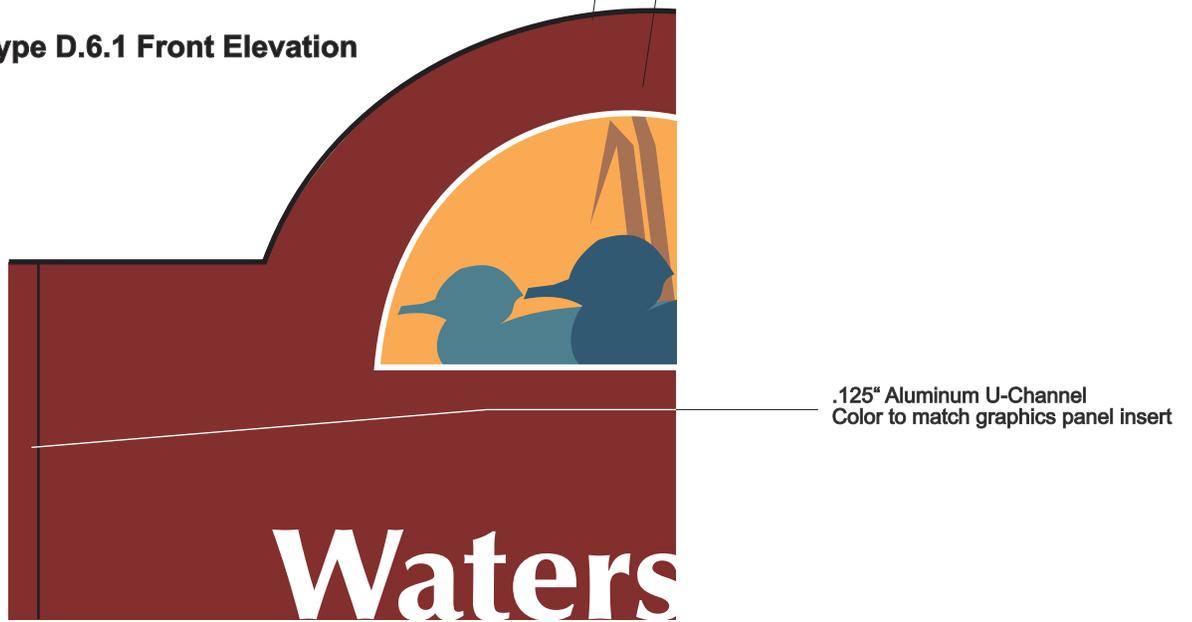
<b>Type D.5 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-34C</b>



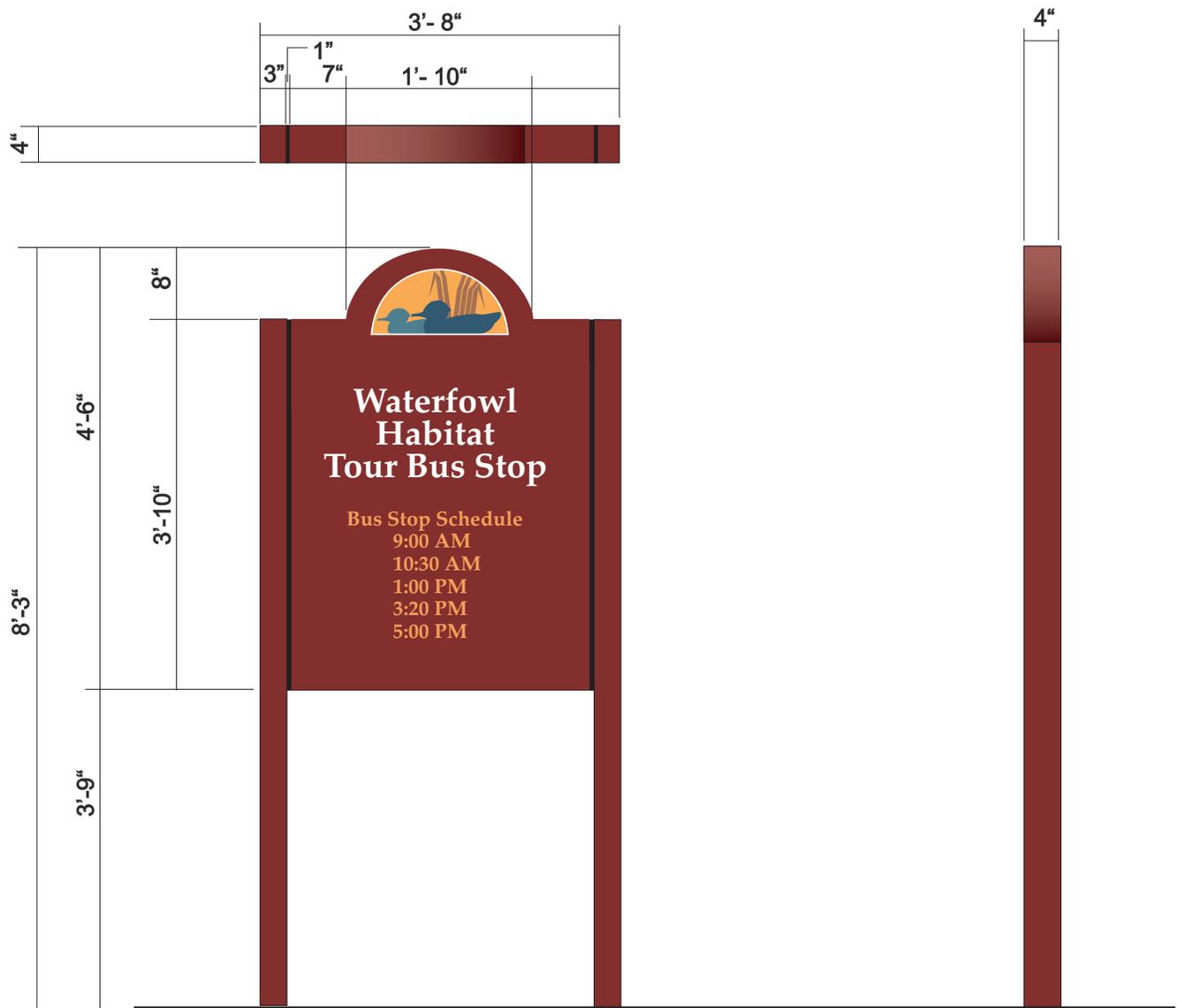
**Type D.6.1 Top View with  
Cut Away on Panel Cap**



**Type D.6.1 Front Elevation**



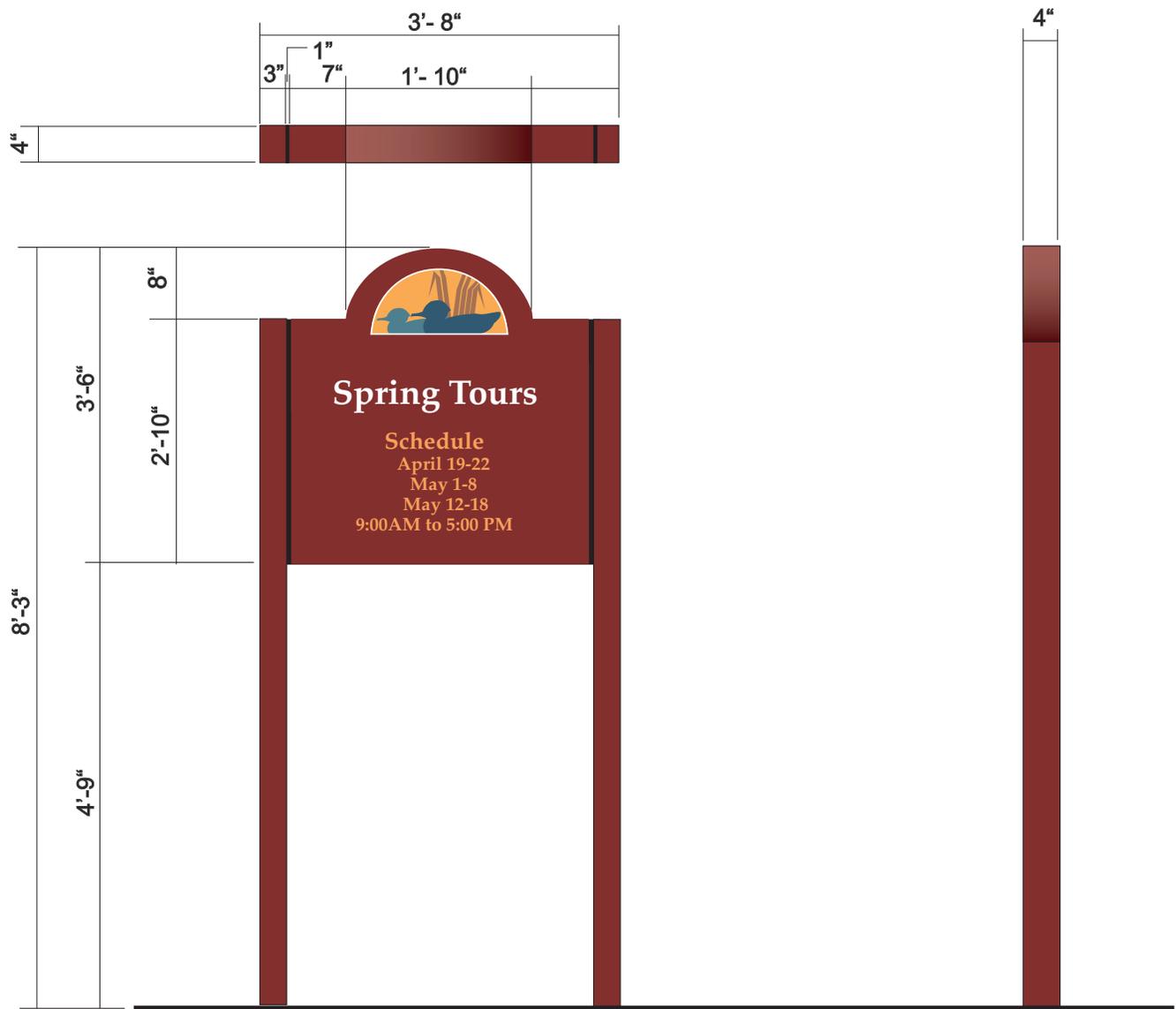
<p><b>Type D.6.1 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-35B</b></p>



**NOTES:**

1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-40C for construction and installation details.

<b>Type E.1.1 Vehicular Informational Post and Panel A</b>	
<b>Niagara River Greenway</b>	<b>RT-40A</b>

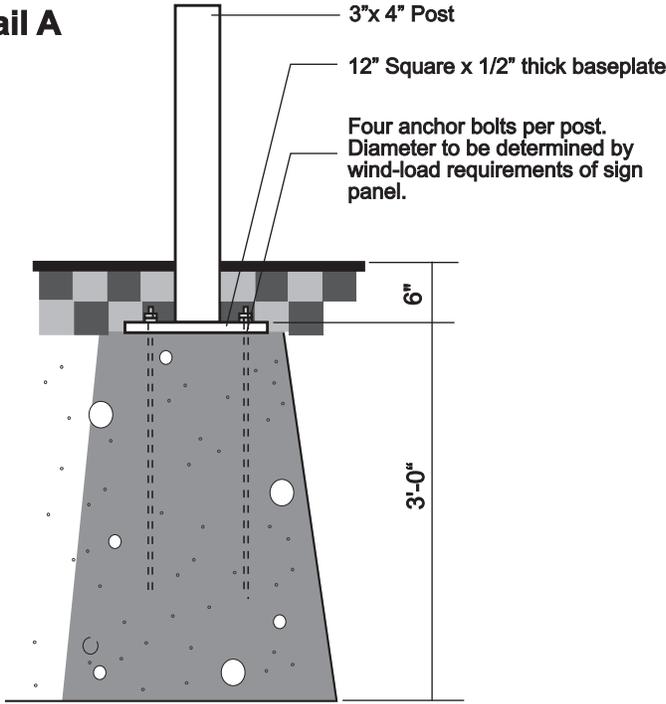


**NOTES:**

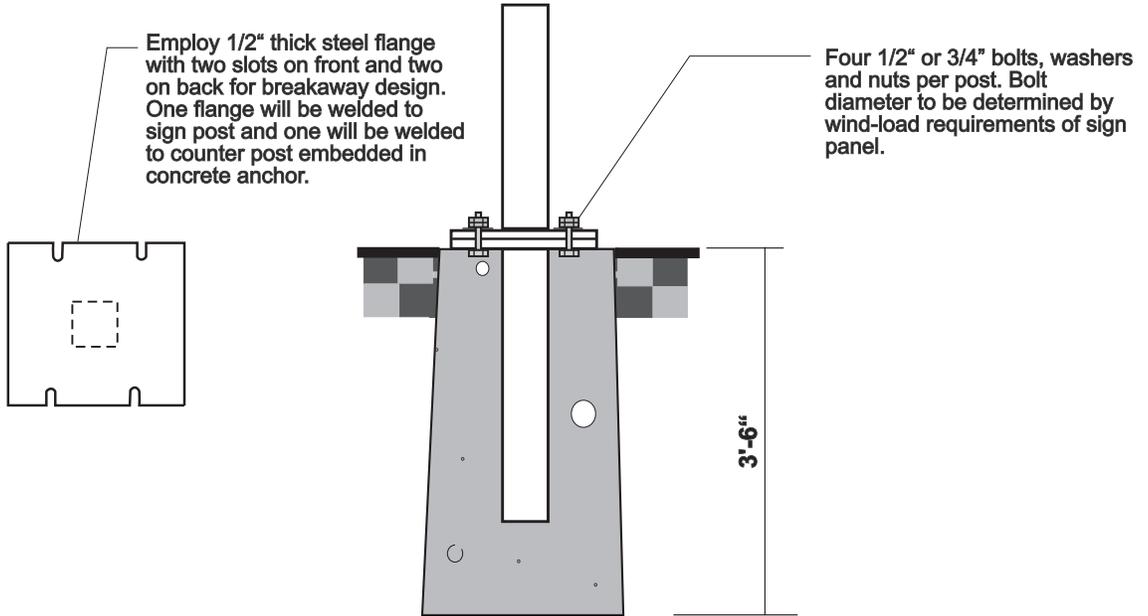
1. Panel to be fabricated aluminum seamless box panel construction. Posts to be 3" x 4" aluminum.
2. Copy to be surface-applied Scotchlite reflective graphics. Logo to be screen-printed with transparent ink onto reflective sheeting material.
3. Owner will provide art on disk for all logos.
4. See Drawing RT-40C for construction and installation details.

<b>Type E.1.2 Vehicular Informational Post and Panel B</b>	
<b>Niagara River Greenway</b>	<b>RT-40B</b>

**Installation Detail A**



**Installation Detail B**

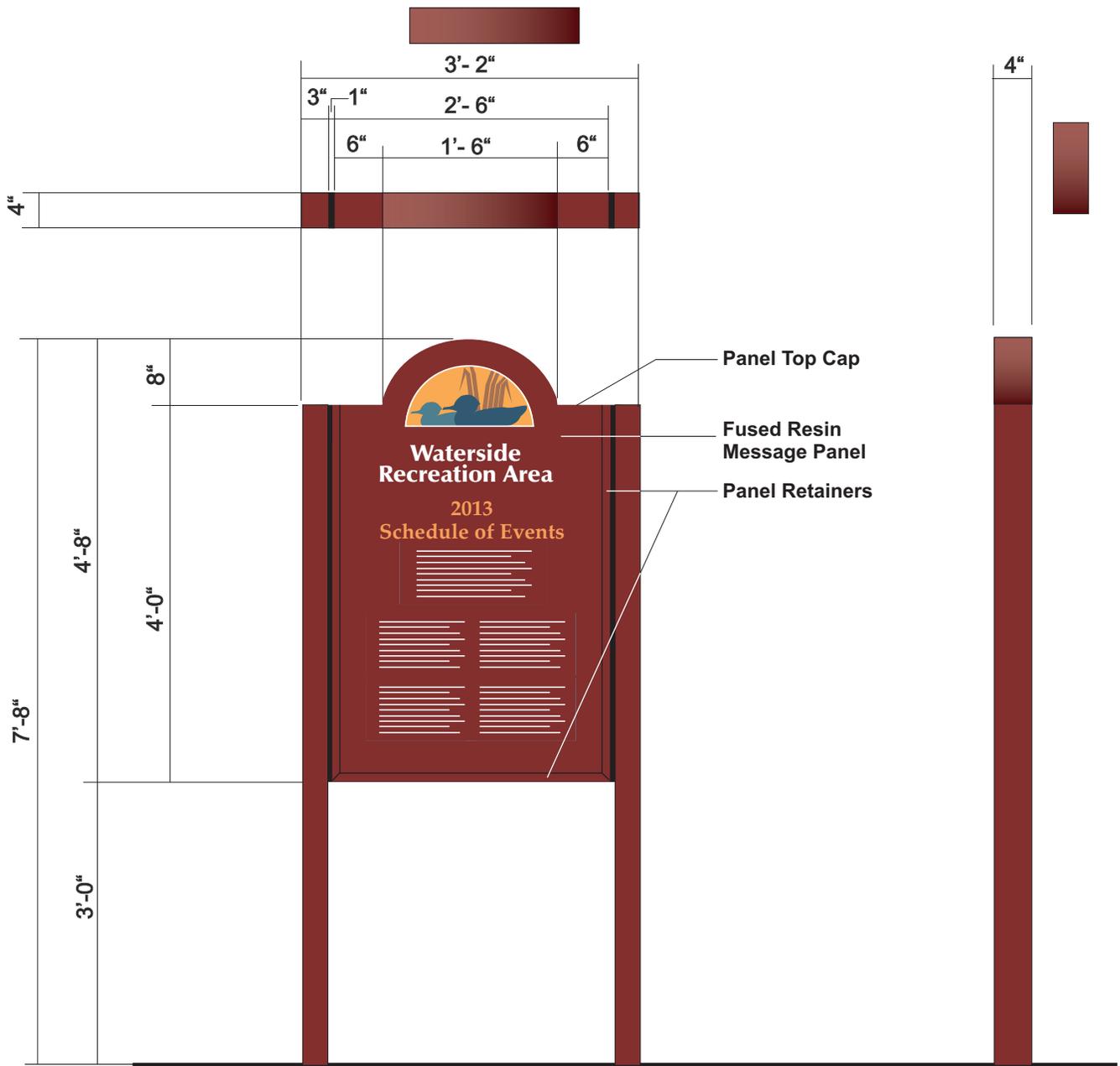


**Foundation Detail**

NOTES:

- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.1 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-40C</b>

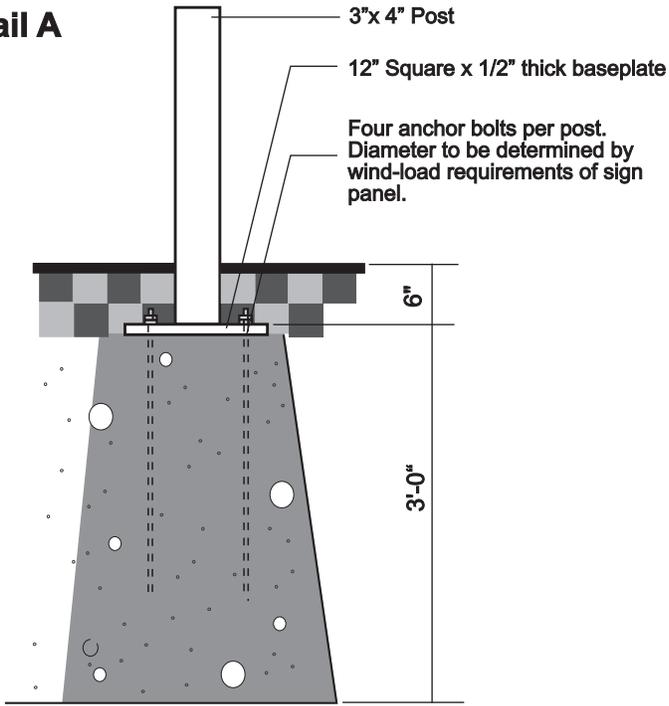


**NOTES:**

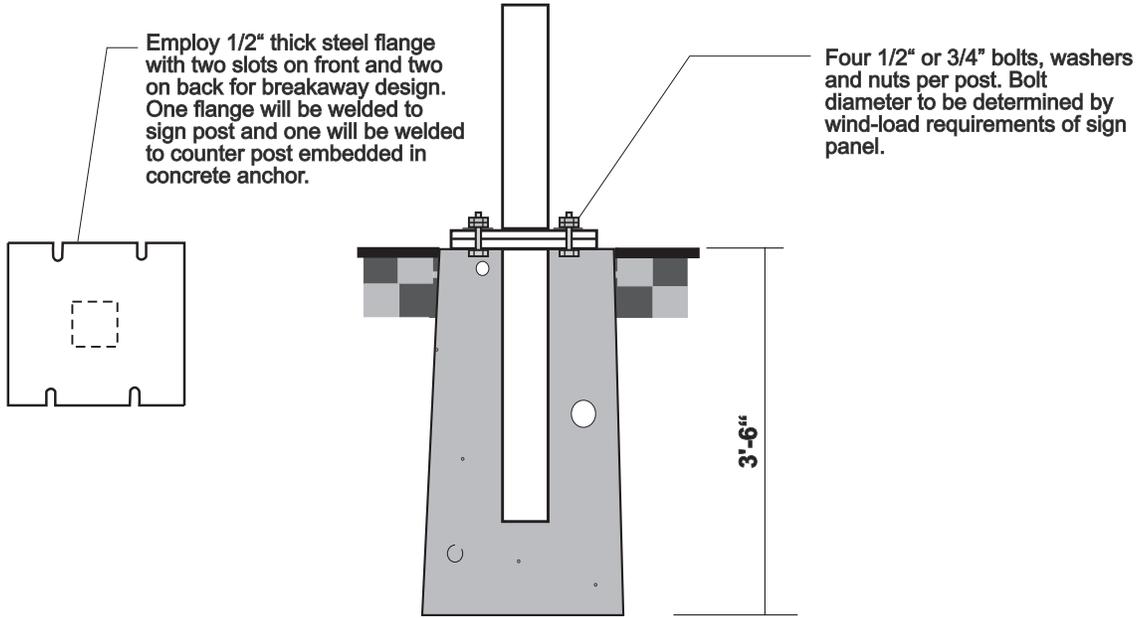
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Posts to be 3" x 4" Aluminum. See Drawings RT-41B and RT-41C for construction and installation details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.2.1 Informational/ Promotional Post and Panel</b>	
<b>Niagara River Greenway</b>	<b>RT-41A</b>

**Installation Detail A**



**Installation Detail B**



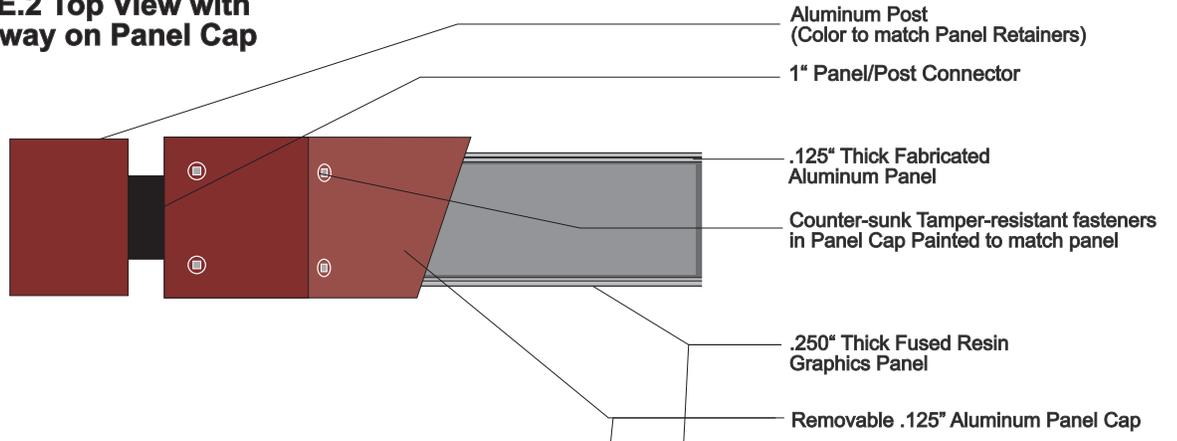
**Foundation Detail**

NOTES:

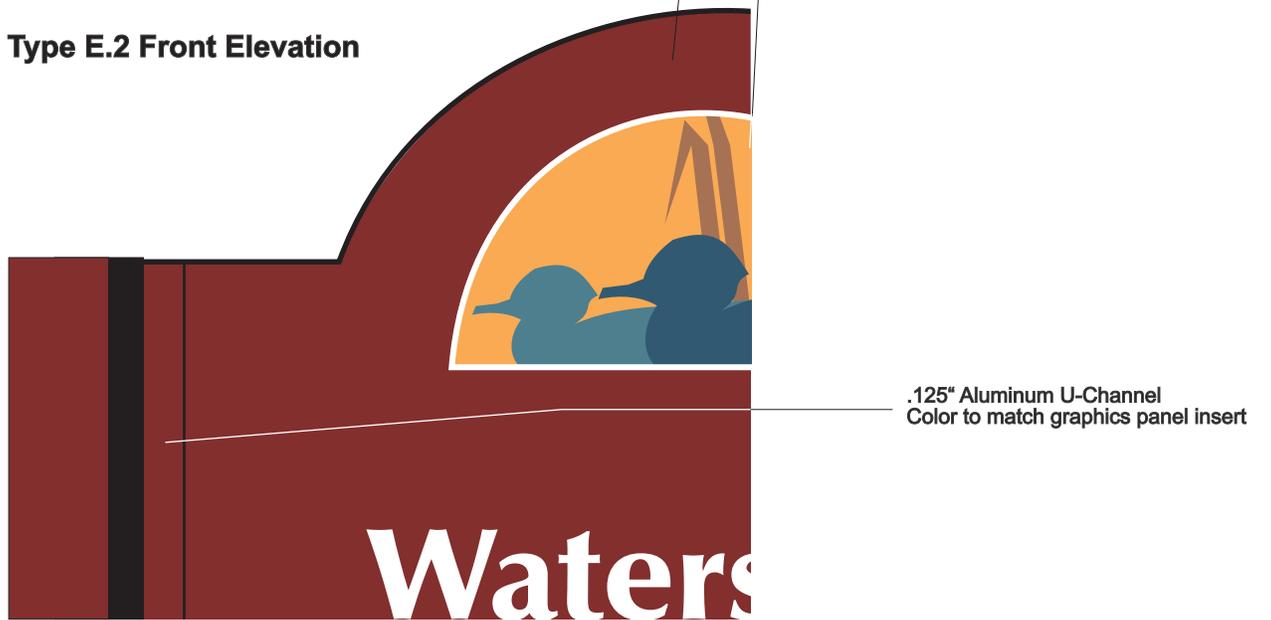
- 1. Use Foundation Detail A for installations in soil and away from roadways.
- 2. Use Foundation Detail B for installations along roadways where breakaway design is required.

<b>Type E.2 Post and Panel Installation Details</b>		
<b>Niagara River Greenway</b>		<b>RT-41B</b>

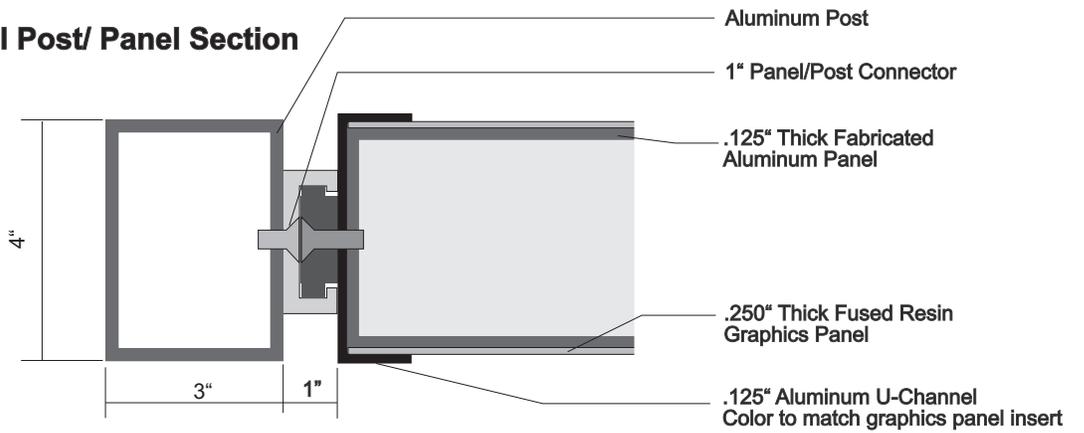
**Type E.2 Top View with Cut Away on Panel Cap**



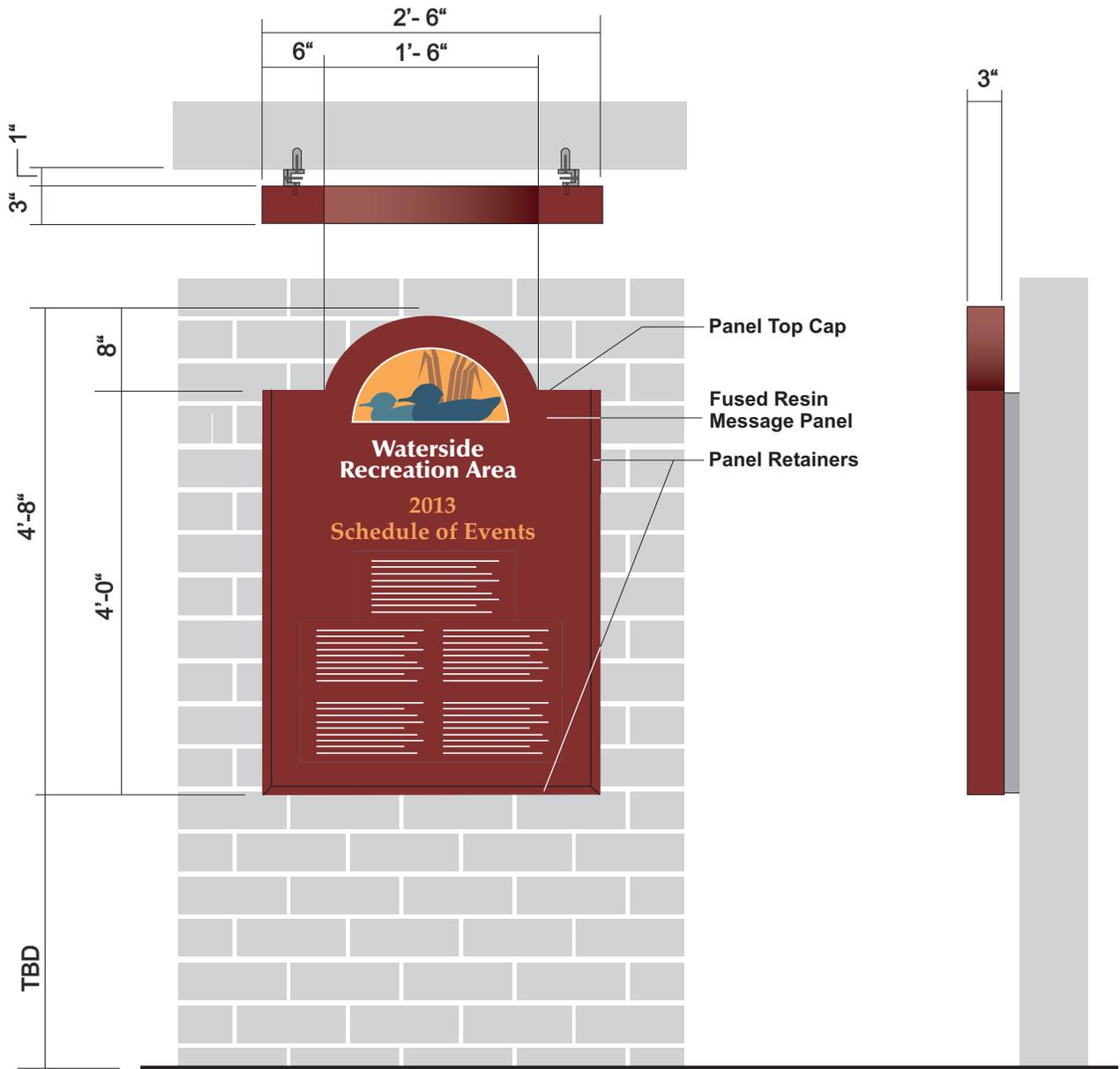
**Type E.2 Front Elevation**



**Horizontal Post/ Panel Section**



<b>Type E.2 Post and Panel Construction Details</b>	
<b>Niagara River Greenway</b>	<b>RT-41C</b>

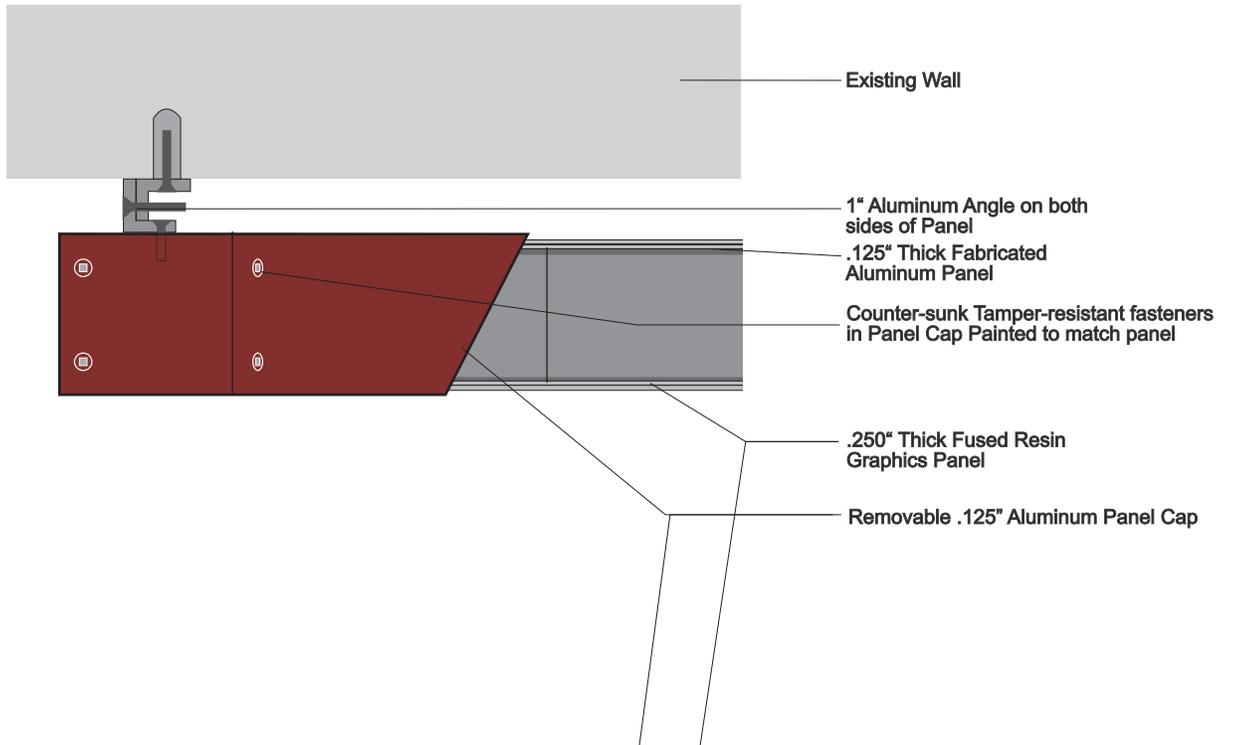


**NOTES:**

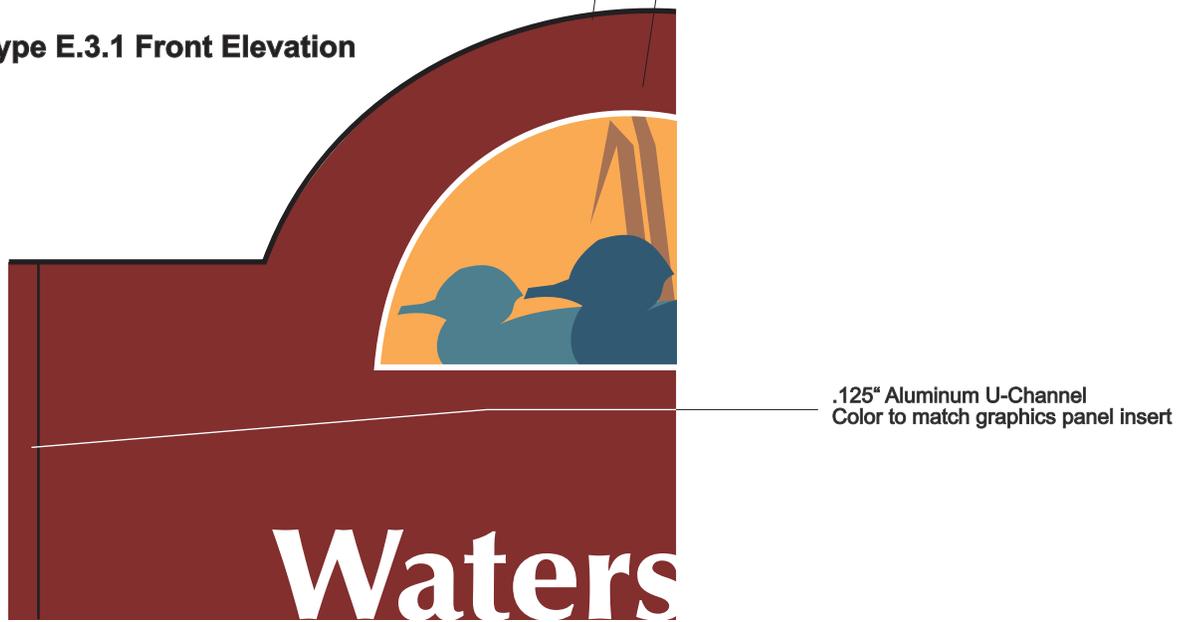
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. See Drawing RT-42B for construction and installation details.
2. Owner will provide art on disk for graphics.
3. Mount to existing wall with 1" aluminum angle on both sides of panel.

<b>Type E.3.1 Interpretive Storyboard Wall Mount</b>	
<b>Niagara River Greenway</b>	<b>RT-42A</b>

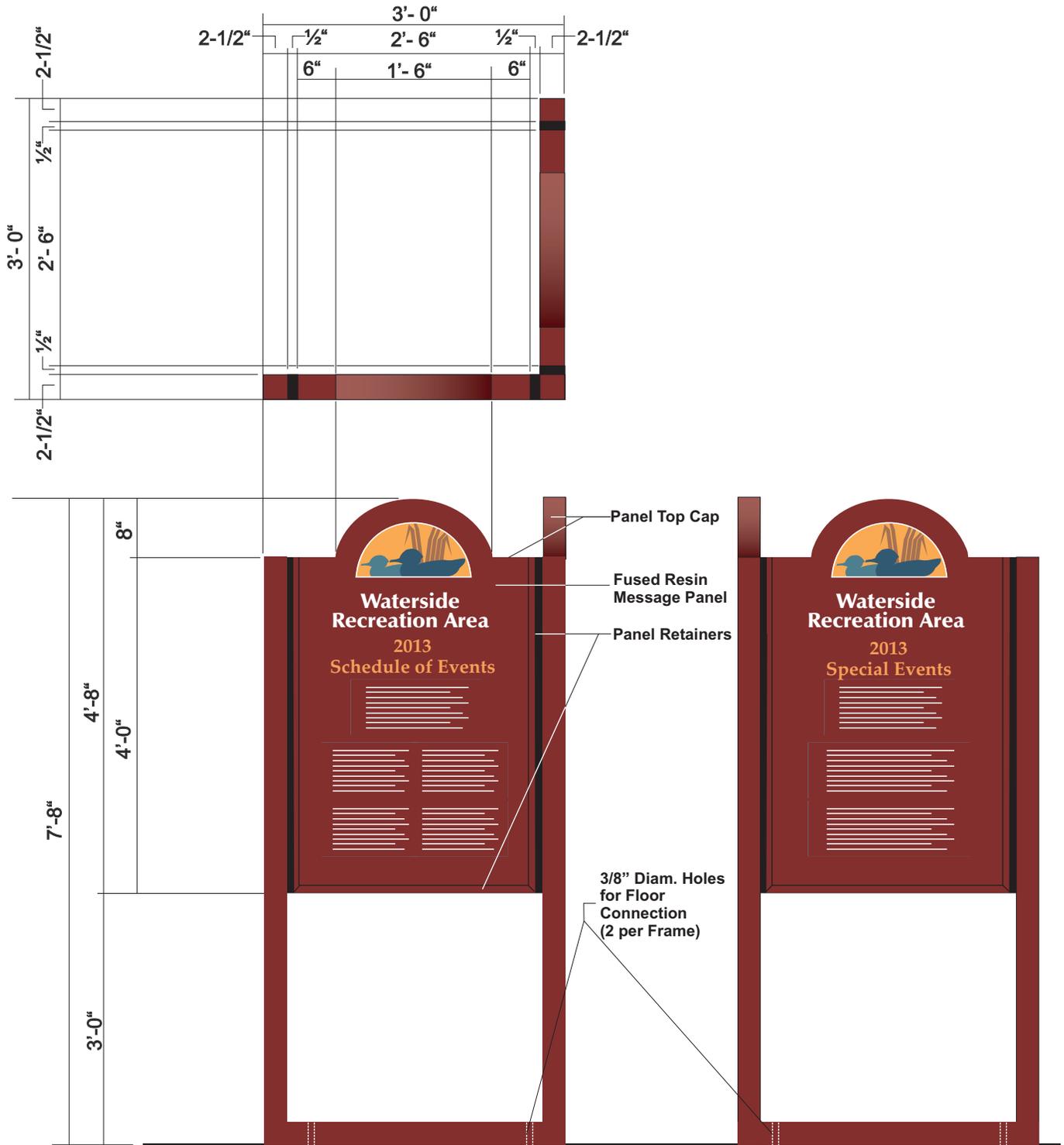
**Type E.3.1 Top View with  
Cut Away on Panel Cap**



**Type E.3.1 Front Elevation**



<p><b>Type E.3 Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-42B</b></p>

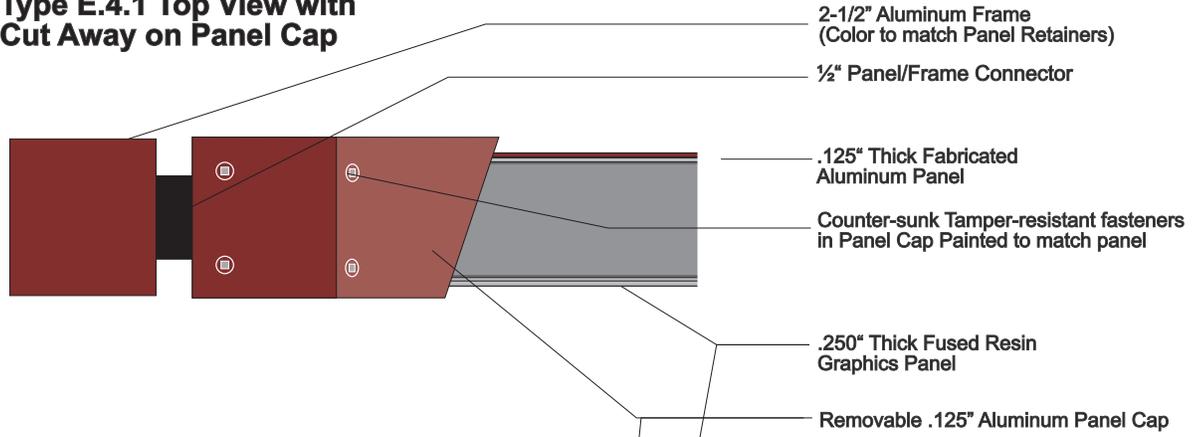


**NOTES:**

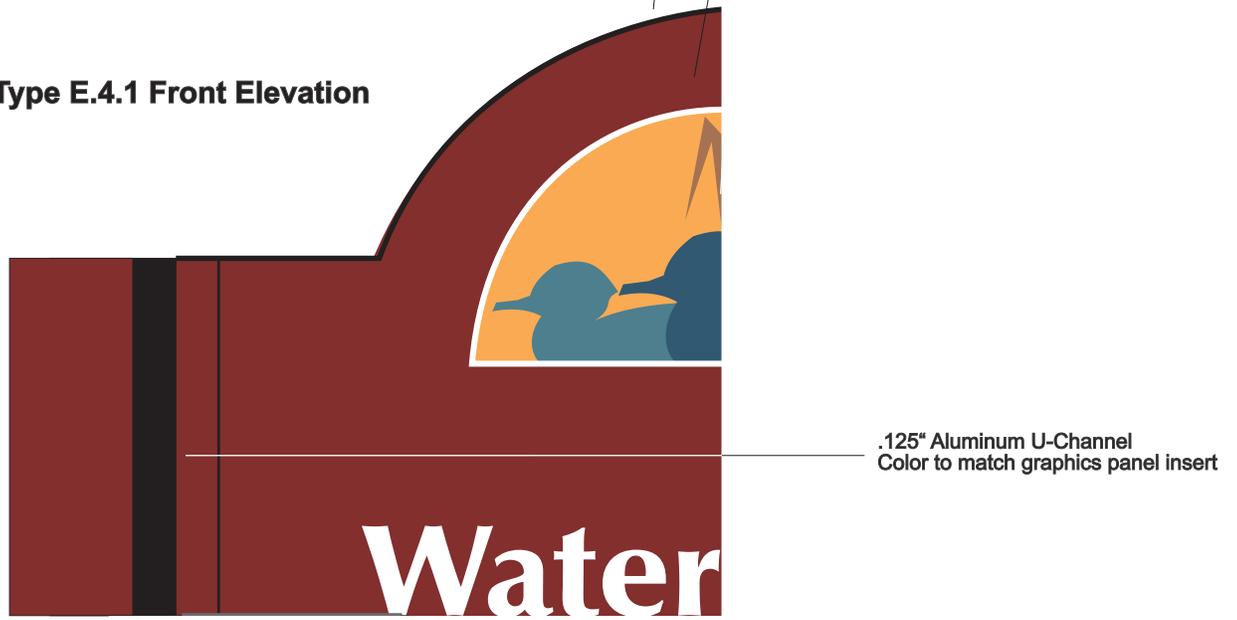
1. Sign panel to be fabricated aluminum box construction, with aluminum retainers bottom and sides and fused resin graphic panels. Frame to be 2-1/2" square Aluminum. See Drawings RT-43B for construction details.
2. Owner will provide art on disk for all logos and custom graphics.

<b>Type E.4.1 Informational/ Promotional Kiosk</b>	
<b>Niagara River Greenway</b>	<b>RT-43A</b>

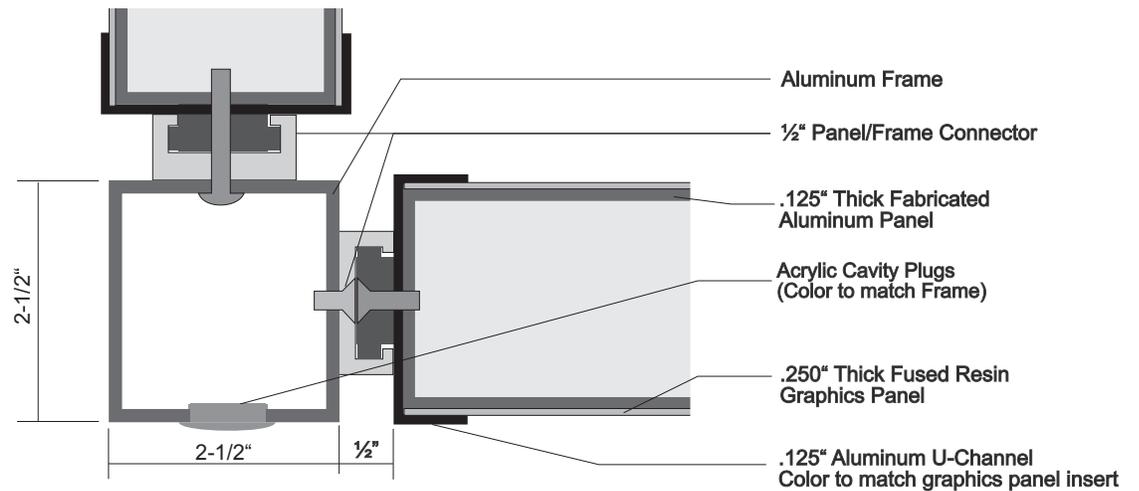
**Type E.4.1 Top View with Cut Away on Panel Cap**



**Type E.4.1 Front Elevation**



**Horizontal Panel/Frame Section**



<p><b>Type E.4.1 Frame and Panel Construction Details</b></p>	
<p><b>Niagara River Greenway</b></p>	<p><b>RT-43B</b></p>

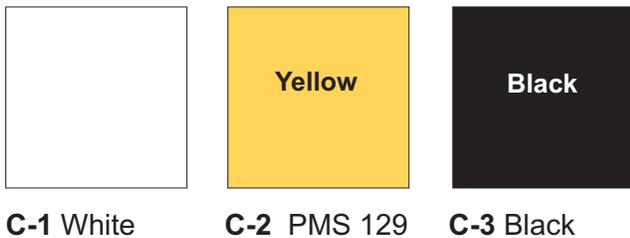
## 9 Typography, Signage Colors and Color Combination Recommendations Graphic Standards

Included in this section are the available options for typography, colors and recommended color combinations, as well as a catalog of graphic standards for maps and Niagara River Greenway wayfinding nomenclature. Included with this Manual is a CD that contains jpegs of logos that are applicable to this project and should accompany any request for new signage. In the event the Manual User wishes to utilize type styles, colors or other custom graphics, he or she should follow instructions on the GENERAL SIGNAGE OPTIONS form in **Section 3 – Composition Guideline and Signage Documentation**.

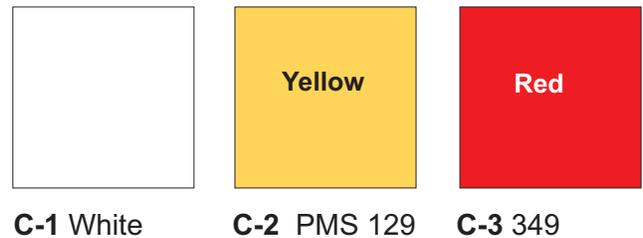
### Standard Signage Colors



### Standard Typography Colors



### Standard Arrow/ Symbol Colors



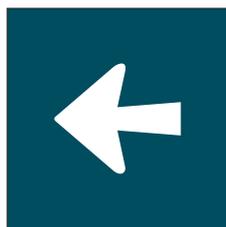
### Standard Typography Colors

<b>ABCDEFGHIJKL MNOPQRSTUVWXYZ XYZabcdefghijkl mnopqrstuvwxyz 1234567890.,!/?/ ()+=&amp;\$</b>	<b>ABCDEFGHIJKL MNOPQRSTUVWXYZ WXYZabcdefghijkl lmnopqrstuvwxyz 1234567890.,!/?/ ()+=&amp;\$</b>	<b>ABCDEFGHIJKL MNOPQRSTUVWXYZ XYZabcdefghijklm nopqrstuvwxyz 1234567890.,!/?/ ()+=&amp;\$</b>	<b>ABCDEFGHIJKLM NOPQRSTUVWXYZ Zabcdefghijklmn opqrstuvwxyz 1234567890.,!/?/ ()+=&amp;\$</b>
Arial Bold	Times Roman Bold	Garamond Bold	Optima Bold

### Standard Symbols and Logos



Niagara River  
Greenway

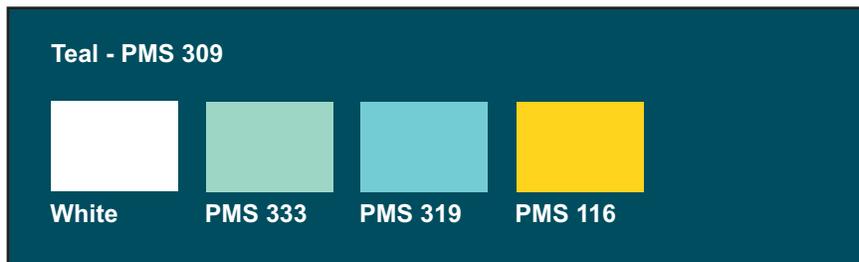
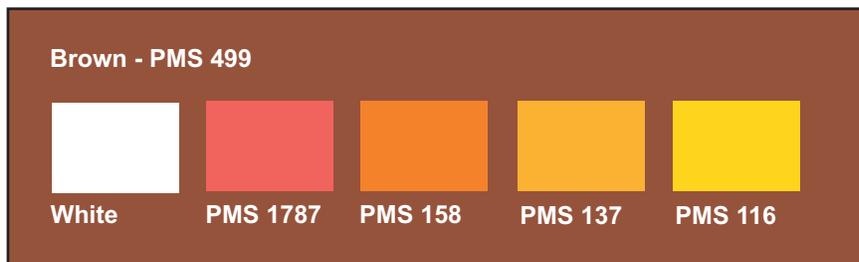
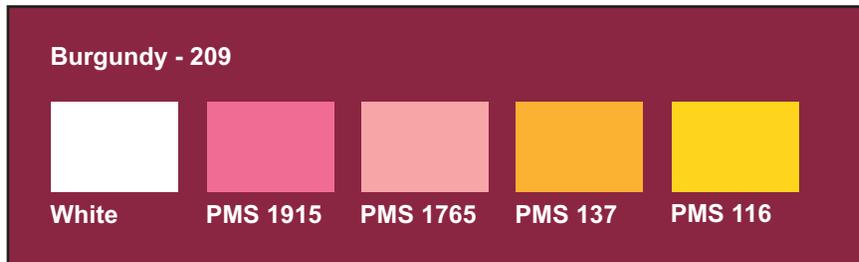
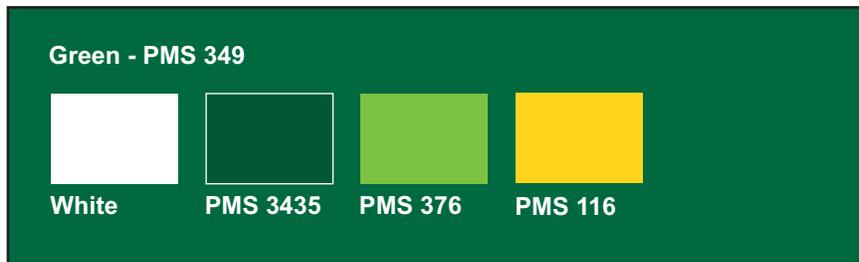
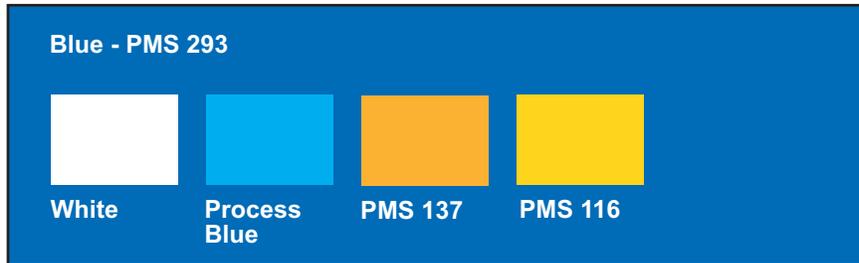


Directional Arrow

# Niagara River Greenway

## Accent Color Recommendations

Shown below are recommendations for typography and graphic accent colors to accompany the standard Signage Field Colors.



## 10 Standards for Map Graphics, Legends and System Descriptions

Included in this section are reduced illustrations of the maps, legends and descriptions of the Niagara River Greenway. These graphics are currently utilized in Niagara River Greenway print graphics and Orientation Signage. Should the Manual User wish to develop similar graphics, a CD that contains Corel Draw files of these graphics is included in this Manual. These graphics may be used as a basis for the Manual User's own map graphics and/or references to portions of the Niagara River Greenway.

**IMPORTANT:** Please take particular note of the acknowledgement content that is required on several categories of signage for grants received from the Niagara River Greenway. This acknowledgement will be rendered with the NRG logo and credit text as shown below.



There will be three general sizing formats for the Acknowledgement as follows:

1. Full width of sign panel (with respect to margins established by other graphics and text)
2. Minimum 16" width
3. Minimum 8" width

The sizing of the acknowledgement will vary depending upon the size of the signage element and its application to either vehicular or pedestrian categories. The full listing of categories on which the acknowledgement must be applied is included on the following page. Shown below are some typical applications.



Full-Width Acknowledgment applied to Type A.2.2 Facility Identification Post & Panel



16 Inch Acknowledgment applied to Type C.3.1 Orientation Pylon



8 Inch Acknowledgment applied to Type D.2.1 Interpretive

The positioning of the Acknowledgment within the message composition will be at the discretion of the Manual User. For vehicular and pedestrian Facility Identification categories, the Acknowledgment must be applied to all elevations on which other content is applied. On the remaining categories with multiple elevations (e.g. Orientation Signage), the Acknowledgment may be applied to either elevation at the discretion of the Manual User.

The NRG Acknowledgment content is required for the following signage categories. Unless noted with asterisks, the full-width sizing format will be applicable.

#### Vehicular Categories

A.1.1	Vehicular Facility Identification Pylon A
A.1.2	Vehicular Facility Identification Pylon B
A.1.3	Vehicular Facility Identification Pylon C
A.2.1	Vehicular Facility Identification Post and Panel A
A.2.2	Vehicular Facility Identification Post and Panel B
A.2.3	Vehicular Facility Identification Post and Panel C
A.3.1	Vehicular Facility Identification Wall Mount A
C.1.1	Vehicular Orientation Pylon A*
C.1.2	Vehicular Orientation Pylon B*
C.2.1	Vehicular Orientation Post and Panel A*
C.2.2	Vehicular Orientation Post and Panel B*

#### Pedestrian Categories

A.4.1	Pedestrian Facility Identification Pylon*
A.5.1	Pedestrian Facility Identification Post and Panel A*
A.5.2	Pedestrian Facility Identification Post and Panel B*
A.6.1	Pedestrian Facility Identification Wall Mount A*
C.3.1	Pedestrian Orientation Pylon A*
C.3.2	Pedestrian Orientation Pylon B*
C.4.1	Pedestrian Orientation Post and Panel A*
C.4.2	Pedestrian Orientation Post and Panel B*
C.5.1	Pedestrian Orientation Wall Mount*
D.2.1	Interpretive/ Commemorative Post and Panel**
D.3.1	Interpretive/ Commemorative Wall Mount **
D.4.1	Interpretive/ Commemorative Railing Mount**
D.5.1	Interpretive Storyboard Post and Panel**
D.6.1	Interpretive Storyboard Wall Mount**

\*Use Minimum 16 inch wide Acknowledgment

\*\*Use Minimum 8 inch wide Acknowledgment

# 11 Signage Fabrication and Installation Specifications

This section provides the written fabrication and installation specifications for each signage category referenced in the previous Manual sections.

The technical specifications in this section include:

Section 10400 - Post and Panel Signage  
Section 10401 - Pylon Signage  
Section 10402 - Wall-Mounted Signage  
Section 10403 - Regulatory and Warning Signage

The Manual User must include the appropriate specification sections for those signage categories included in his or her package. Each specification section is available on the CD in word format so that they may be adapted according to the specific signage formats, materials, application technologies and mounting requirements applicable to the package being assembled.

## SPECIFICATION EDITING

Each specification section is provided in "draft" form. These include queues **highlighted in red** that direct the Manual User to those portions of the specifications that require selections or customization. First, the Manual User should enter the project name into the appropriate area of the Header. Next, the User must customize the Specifications in each of two ways. Certain sections will require filling in applicable information (e.g. the categories that are applicable to a given specification). In others, the User may select from an array of statements that specify a particular option (e.g. the selection of an application technology that may apply to a given group of signs). In those cases where multiple options are available in the specification draft, the User should delete all portions of the specification that do not apply to the signage products specified.

In the event the signage package includes multiple specification sections, the User may wish to reference duplicative portions of subsequent specification sections by referencing the first specification used (e.g. See Section 10400 for Acceptable Manufacturers). The sections which may be referenced in this manner include:

1.01 QUALITY ASSURANCE, Paragraph A - Manufacturers and Installers Qualifications  
1.02 SUBMITTAL REQUIREMENTS, Paragraph A, B and D-K  
2.01 ACCEPTABLE MANUFACTURERS  
3.01 INSTALLATION, Paragraph A - Manufacturers Directions and Paragraph C - Permits

In the event that this Manual's available options do not include specific signage materials, application technologies or mounting standards that the Manual User may wish to specify, he or she should articulate those items in the appropriate areas of the specification document. Should these additions or adjustments be necessary, the preparer of the Signage Package may wish to consult an Architect, Signage Designer or Signage company for assistance in preparing specific documentation.

**IMPORTANT:** If additional or supplemental documentation is required (as may be the case in a bid procurement), these sections may be placed in front of the technical specs in this portion of the Manual. This information may include proposal/bid forms, project schedule, MBE/WBE requirements, supplementary specifications, prevailing rate schedules, warranties, bid bonds and insurance requirements. Also, the owner may wish to include specifications that articulate certain aspects of the project beyond the signage products themselves. These may include site preparation, restoration, cleanup or re-seeding areas disturbed by the installation. Should these instructions be necessary, the preparer of the Signage Package should consult a Landscape Architect for specific documentation.

POST AND PANEL SIGNAGE

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**PART 1 - GENERAL**

**1.01 QUALITY ASSURANCE**

- A. Manufacturers and Installers Qualifications
  - 1. The signage manufacturer shall have a minimum of five consecutive years in the manufacturing of signage of the particular type specified and shall have been responsible for manufacturing signage for projects of similar scope.
  - 2. The signage installer shall have a minimum of three consecutive years of installing signage of similar types specified on projects of similar scope.
  - 3. The signage manufacturer shall include references for three projects utilizing similar materials, fabrication technologies and installation practices. The references shall include the name of the project, general description of work performed, location, date and client contact information.
  
- B. Reference Standards
  - 1. American Society of Testing and Materials (ASTM)
    - a. ASTM B 221-75, Aluminum alloy extruded bars, rods, wires, shapes and tubes.

**1.02 SUBMITTAL REQUIREMENTS**

- A. Shop Drawings
  - 1. Indicate details of fabrication and installation or all materials including colors.
  
- B. Product Data
  - 1. Submit complete technical data for all sign types.
  
- C. Samples:
  - 1. Submit samples of the following
    - a. Type (Fill in category) Post and Panel Section
    - b. Type (Fill in category) Phenolic Graphic Panel sample minimum 8" x 8" to include predominant panel field color and sampling of graphics/text from project signage. (Use sentence above only if Phenolic panels are specified)
    - c. Full size samples of typography in style specified on Detail Drawings. Provide three blue-line prints from original drawings. Do not use alphanet, lettraset or similar typesetting methods.

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- d. Sample of each color indicated in Color Code
- e. Full-scale prints of all graphic elements or artwork to be used on signage. Designs shall be optically correct and enlarged prior to submission.

D. Contractor's Responsibilities

- 1. Review Shop Drawings, product data, and samples prior to submission and stamp with approval.
- 2. Submittals without Contractor's stamp of approval will not be considered and will be returned for resubmission.
- 3. Verify:
  - a. Field measurements
  - b. Field construction criteria
  - c. Catalog Numbers and similar data
  - d. Quantities
- 4. Coordinate each submittal with requirements of work and of Contract Documents.
- 5. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
- 6. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Owner's review of submittals, unless Owner gives written acceptance of specific deviations.
- 7. Notify Owner, in writing at the time of submission, of deviations in submittals from requirements of Contract Documents.
  - a. If Submittals deviate from the Contract Documents and Owner is not notified in writing of such deviation, then review is invalid.
  - b. When work is directly related and involves more than one trade, Shop Drawings shall be coordinated by the Contractor and submitted under one cover.
  - c. After a Shop Drawing base has been submitted for review, no changes may be made to that Drawing other than changes resulting from corrections made by the Owner unless such changes are clearly identified and circled before being resubmitted to the Owner. Any failure to comply with this requirement shall nullify and invalidate the Owner's review.

E. Submission Requirements:

- 1. Quantity:
  - a. Shop Drawings: 1 sepia transparency and 2 blue line Prints

POST AND PANEL SIGNAGE

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- b. Product Data: 6 copies
  - c. Samples: 2 each unless otherwise indicated in Specification Sections
  - 2. Accompany submittals with transmittal letter, in duplicate, containing:
    - a. Date
    - b. Project Title and Number
    - c. Contractor's Name and Address
    - d. The number of each Shop Drawing, product data, and sample submitted
    - e. Notification of deviations from Contract Documents
    - f. Other pertinent data
  - 3. Submittals shall include:
    - a. Date and Revision Dates
    - b. Project Title and Number
    - c. The Names of Owner, Contractor, Subcontractor, Supplier, and Manufacturer
    - d. Identification of Product or Material
    - e. Relation to Adjacent Structure or Materials
    - f. Field Dimensions, clearly identified as such
    - g. Specification Section Number
    - h. Applicable standards, such as ASTM number or Federal Specification
    - i. A blank space, 4" x 4" for the Owner's stamp
    - j. Identification of Deviations from Contract Documents
    - k. Contractor's stamp, initialed or signed, certifying review of submittal, verification of field measurements, and compliance with Contract Documents
- F. Review Procedure:
- 1. Stamped **No Exception Taken**.
    - a. No corrections or resubmissions required, fabrication may proceed.
  - 1. Stamped **Make Corrections Noted**.
    - a. If Contractor complies with noted corrections, fabrication may proceed. Submit corrected print for final review.
    - b. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit, following procedures outlined hereinbefore.
  - 3. Stamped **Revise and Resubmit or Rejected**
    - a. Contractor shall revise and resubmit for review, fabrication shall not proceed.
- G. Resubmission Requirements:

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1. Shop Drawings
    - a. Revise initial drawings as required and resubmit as specified for initial submittal.
    - b. Indicate on Drawings any changes which have been made.
  2. Product Data and Samples:
    - a. Submit new data and samples as required for initial submittal.
- H. Distribution of Submittals after Review by Contractor:
1. Distribute copies of Shop Drawings and product data which carry Owner's stamp, to:
    - a. Contractor's File
    - b. Job-Site File (Record Copy)
    - c. Other Contractors
    - d. Subcontractors
    - e. Supplier
  2. Distribute Samples as Directed
    - a. Shop drawings, product data, and samples which do not have the Owner's stamp **No Exceptions Taken** or **Make Corrections Noted** will not be permitted on the project site.
- I. Owner's Duties:
1. Review submittals with reasonable promptness.
  2. Review for:
    - a. Design concept of project.
    - b. Information given in Contract Documents.
  3. Review of separate item does not constitute review of an assembly in which item functions.
  4. Affix stamp and initials or signature certifying review of submittal.
  5. Return submittals to Contractor for distribution.
- J. Delivery, Storage, and Handling
1. Exterior signage components will be accepted under the following conditions:
    - a. Deliver materials with manufacturers tags and labels intact. Store in original packaging, off the ground, and under protective covers.
    - b. Handle so as to prevent damage.
- K. Job Conditions
1. Examination of Base Surfaces
    - a. Examine the base surfaces and conditions under which their materials are to be installed and verify all dimensions in the field.
    - b. Notify the General Contractor in writing, with copy to Owner, if conditions are detrimental to the proper and timely

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completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected. Commencement of installation constitutes acceptance of base surfaces and the cost of any corrective work due to faulty base surfaces shall be born by the Contractor.

2. Protection
  - a. Preserve and protect all existing site features, including by not limited to pavements, curbs, lawn, plantings. Preserve and protect all portions of the existing building(s).
3. Restoration
  - a. If damage is caused to interior finishes or buildings as a result of the work under this Contract, it shall be corrected to the satisfaction of the Owner at the expense of the Contractor. Correction shall be by restoration or replacement, as determined by the Owner.

**PART 2 - PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

- A. SignArt
- B. Architectural Graphics Inc.
- C. ASI Sign Systems
- D. Park Place Inc.
- E. Signmatic Systems Inc.

**2.02 MATERIALS**

- A. Aluminum Post and Panel Signs
  1. Sign Panels to be fabricated from 5052H38 sheet aluminum around aluminum framing to form smooth non-lipped finish.
  2. Posts to be 4" or 6" square or as specified on the Detail Drawings. Post wall thickness to be as required to meet wind load specification.
  3. Aluminum panels will be degreased, immersed in a chromate conversion solution and hot water rinse.
  4. Size, finish, color and typeface will be as shown on Detail Drawings. The minimum thickness for all sign panel faces, corners and edges and aluminum posts will be .125" throughout.

(Use the section below only if phenolic graphic panels are used on the post and panel signs being specified)

- B. Tourist Information, Directional and Map Graphics

POST AND PANEL SIGNAGE

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1. The solid composite phenolic graphic panels on sign types (Fill in categories specified) shall meet the following material and manufacturing specifications:

Thickness: 1/8" (0.125" / 3mm)  
Approx. Weight/SF: 0.91 lbs.  
Surface Finish: Textured semi-matte or semi-gloss outdoor finish  
Compressive Strength: M.D. 193,064 Kpa (31,000 PSI)  
C.D. 172,378 Kpa (25,000 PSI)  
Tensile Strength: M.D. 151,693 Kpa (22,000 PSI)  
C.D. 110,322 Kpa (16,000 PSI)  
Flexural Strength: M.D. 158,588 Kpa (23,000 PSI)  
C.D. 103,427 Kpa (15,000 PSI)  
Impact (Edgewise): M.D. 0.6 FT/LBS/IN  
C.D. 0.5 FT/LBS/IN  
Rockwell Hardness M Scale: 95 to 115  
Flammability ASTM E-162: Flame propagation index of 10  
Radiant Panel: to 15 without drip of flame; 1/10" to 1/2" thickness  
Water Absorbtion: 1/4":0.9% - 1/2":-0.6% - 1":0.35%  
Toxicity Test: LC50 Pittsburgh Protocol Toxicity test. Equal to and no more toxic than wood or paper.  
UV Resistance: Exterior Grade with 20 year warranty: based on ASTM G26/A, no changes after 3000 hrs.  
Frost Resistance: No change after 15 cycles (16 hrs ice at -20o C and 8 hrs thawing in air)  
Pollution Resistance: DIN 50018 No change after 20 cycles  
Coefficient of Thermal Expansion:  
DIN 51045 (-20oC to +80oC temp. Range) Longitudinal 9x10-6 per oC Transverse 16x10-6 per oC

## 2.03 FABRICATION

- A. Panel Fabrication
  1. Aluminum panels to be attached to internal aluminum framing with structural adhesive to form shapes as shown on detail drawings. Structural adhesive to be as manufactured by:
    - a. Lord Corporation  
111 Lord Drive  
Cary, NC 27512-7923
    - b. 3M Corporation  
3M Center  
St. Paul MN 55144-1000
    - c. Master Bond Inc.  
154 Hobart Street

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Hackensack, NJ 07601

2. All seams will be filled, ground smooth and painted.

B. Graphics Application

(Use the sentence below if phenolic graphic panels are being specified)

1. Pedestrian categories (fill in categories used) will utilize .125" thick digitally-printed solid composite phenolic graphics panels. Electronic art for all standard graphics, including maps, timelines and tourist information will be provided to fabricator in Corel Draw Version 10 format.

(Use the sentence below if MUTCD Directional Signage is being specified)

2. Vehicular and regulatory categories (fill in categories used) will utilize retroreflective graphics, fields, borders and dividers in accordance with MUTCD Version 2009 Section 2D-50. Typography shall be four inch upper case and 3 inch lower case copy. Line spacing, letter spacing, and dimensioning between graphic components shall be as per MUTCD Version 2009 and Standard Highway Signs and Marking (FHWA). Logos will developed from electronic art furnished by Owner.

(Use the sentence below if MUTCD Directional Signage is being specified)

3. Categories (Fill in Categories specified) Typography to be Standard Alphabet Series C in accordance with MUTCD Version 2009 and Standard Highway Signs and Marking (FHWA).

(Use the sentence below if Vehicular categories are specified and will utilize reflective vinyl graphics)

4. Categories (Fill in Categories specified) to utilize reflective SCOTCHLITE vinyl graphics.

C. Post and Panel Painting

1. Prime aluminum posts and panels with primer coat as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS

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- b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
- c. PPG  
One PPG Place  
Pittsburg, PA 15272
- 2. Paint aluminum posts and panels with two-part acrylic urethane enamel in semi-gloss finish as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
  - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
  - c. PPG  
One PPG Place  
Pittsburg, PA 15272
- D. Wind Load Requirements:
  - 1. Fabricate signs to withstand a wind load of 35 pounds per square foot or a direct wind force of 90 miles per hour.
  - 2. Signage manufacturer will provide engineering specifications that identifies the sizing of all footings and hardware, to confirm that anchor depths and connections satisfy wind load requirements. This information will include engineering calculations that support the wind load specifications.
- E. Proof-Reading
  - 1. Fabricator will be responsible for proof-reading all completed signs for message accuracy.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Manufacturers Directions
  - 1. All work will be installed in accordance with manufacturer's printed instructions and the approved shop drawings.
  - 2. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned, as directed by the manufacturer, unless otherwise specified.

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B. Mounting

1. Signage contractor will be responsible to for development of concrete signage anchors and coordination of all hardware requirements for installation of signs.
2. The signage in this package will include the following installation surfaces:  
(Fill in all that apply)
  - a. (Quantity and categories) Ground Mount in undisturbed soil
  - b. (Quantity and categories) Ground Mount on asphalt
  - c. (Quantity and categories) Ground Mount on concrete
  - d. (Quantity and categories) Ground Mount on pavers
  - e. (Quantity and categories) Mount on existing stone or brick wall)
3. See Detail Drawings for determination of installation methods for all post and panel signs.
3. The Owner will meet with the Signage Contractor in the field to confirm the precise location of each sign. The Signage Contractor will be responsible to confirm that sign locations are free and clear of underground utilities by consulting with local authorities prior to excavating for signage anchors. Should there be any conflicts with preferred signs locations, the Owner will identify and document alternate locations and convey these to the Signage Contractor.
4. All work will be installed plumb, level and in true alignment.
5. All components will be securely attached.
6. All above-grade connections of separate or moveable components will be water-tight.

C. Permits

1. Sign Permits for all components in this program will be procured by the Owner and forwarded to the Installer.
2. The installer will be responsible to obtain any Registration or Licenses necessary to install signage in the municipalities involved in this contract.

END OF SECTION

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**PART 1 - GENERAL**

**1.01 QUALITY ASSURANCE**

- A. Manufacturers and Installers Qualifications
  - 1. The signage manufacturer shall have a minimum of five consecutive years in the manufacturing of signage of the particular type specified and shall have been responsible for manufacturing signage for projects of similar scope.
  - 2. The signage installer shall have a minimum of three consecutive years of installing signage of similar types specified on projects of similar scope.
  - 3. The signage manufacturer shall include references for three projects utilizing similar materials, fabrication technologies and installation practices. The references shall include the name of the project, general description of work performed, location, date and client contact information.
  
- B. Reference Standards
  - 1. American Society of Testing and Materials (ASTM)
    - a. ASTM B 221-75, Aluminum alloy extruded bars, rods, wires, shapes and tubes.

**1.02 SUBMITTAL REQUIREMENTS**

- A. Shop Drawings
  - 1. Indicate details of fabrication and installation or all materials including colors.
  
- B. Product Data
  - 1. Submit complete technical data for all sign types.
  
- C. Samples:
  - 1. Submit samples of the following
    - a. Type (Fill in category) Pylon Panel Section
    - b. (Fill in category) Brick Sample
    - c. (Fill in category) Stone Sample
    - d. Type (Fill in category) Phenolic Graphic Panel sample minimum 8" x 8" to include predominant panel field color and sampling of graphics/text from project signage. (Use sentence above only if Phenolic panels are specified)
    - e. Full size samples of typography in style specified on Detail Drawings. Provide three blue-line prints from

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original drawings. Do not use alphatype, letraset or similar typesetting methods.

- f. Sample of each color indicated in Color Code
- g. Full-scale prints of all graphic elements or artwork to be used on signage. Designs shall be optically correct and enlarged prior to submission.

D. Contractor's Responsibilities

- 1. Review Shop Drawings, product data, and samples prior to submission and stamp with approval.
- 2. Submittals without Contractor's stamp of approval will not be considered and will be returned for resubmission.
- 3. Verify:
  - a. Field measurements
  - b. Field construction criteria
  - c. Catalog Numbers and similar data
  - d. Quantities
- 4. Coordinate each submittal with requirements of work and of Contract Documents.
- 5. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
- 6. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Owner's review of submittals, unless Owner gives written acceptance of specific deviations.
- 7. Notify Owner, in writing at the time of submission, of deviations in submittals from requirements of Contract Documents.
  - a. If Submittals deviate from the Contract Documents and Owner is not notified in writing of such deviation, then review is invalid.
  - b. When work is directly related and involves more than one trade, Shop Drawings shall be coordinated by the Contractor and submitted under one cover.
  - c. After a Shop Drawing base has been submitted for review, no changes may be made to that Drawing other than changes resulting from corrections made by the Owner unless such changes are clearly identified and circled before being resubmitted to the Owner. Any failure to comply with this requirement shall nullify and invalidate the Owner's review.

E. Submission Requirements:

- 1. Quantity:

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- a. Shop Drawings: 1 sepia transparency and 2 blue line Prints
- b. Product Data: 6 copies
- c. Samples: 2 each unless otherwise indicated in Specification Sections
2. Accompany submittals with transmittal letter, in duplicate, containing:
  - a. Date
  - b. Project Title and Number
  - c. Contractor's Name and Address
  - d. The number of each Shop Drawing, product data, and sample submitted
  - e. Notification of deviations from Contract Documents
  - f. Other pertinent data
3. Submittals shall include:
  - a. Date and Revision Dates
  - b. Project Title and Number
  - c. The Names of Owner, Contractor, Subcontractor, Supplier, and Manufacturer
  - d. Identification of Product or Material
  - e. Relation to Adjacent Structure or Materials
  - f. Field Dimensions, clearly identified as such
  - g. Specification Section Number
  - h. Applicable standards, such as ASTM number or Federal Specification
  - i. A blank space, 4" x 4" for the Owner's stamp
  - j. Identification of Deviations from Contract Documents
  - k. Contractor's stamp, initialed or signed, certifying review of submittal, verification of field measurements, and compliance with Contract Documents

F. Review Procedure:

1. Stamped **No Exception Taken.**
  - a. No corrections or resubmissions required, fabrication may proceed.
1. Stamped **Make Corrections Noted.**
  - a. If Contractor complies with noted corrections, fabrication may proceed. Submit corrected print for final review.
  - b. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit, following procedures outlined hereinbefore.
3. Stamped **Revise and Resubmit or Rejected**
  - a. Contractor shall revise and resubmit for review, fabrication shall not proceed.

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- G. Resubmission Requirements:
  - 1. Shop Drawings
    - a. Revise initial drawings as required and resubmit as specified for initial submittal.
    - b. Indicate on Drawings any changes which have been made.
  - 2. Product Data and Samples:
    - a. Submit new data and samples as required for initial submittal.
  
- H. Distribution of Submittals after Review by Contractor:
  - 1. Distribute copies of Shop Drawings and product data which carry Owner's stamp, to:
    - a. Contractor's File
    - b. Job-Site File (Record Copy)
    - c. Other Contractors
    - d. Subcontractors
    - e. Supplier
  - 2. Distribute Samples as Directed
    - a. Shop drawings, product data, and samples which do not have the Owner's stamp **No Exceptions Taken** or **Make Corrections Noted** will not be permitted on the project site.
  
- I. Owner's Duties:
  - 1. Review submittals with reasonable promptness.
  - 2. Review for:
    - a. Design concept of project.
    - b. Information given in Contract Documents.
  - 3. Review of separate item does not constitute review of an assembly in which item functions.
  - 4. Affix stamp and initials or signature certifying review of submittal.
  - 5. Return submittals to Contractor for distribution.
  
- J. Delivery, Storage, and Handling
  - 1. Exterior signage components will be accepted under the following conditions:
    - a. Deliver materials with manufacturers tags and labels intact. Store in original packaging, off the ground, and under protective covers.
    - b. Handle so as to prevent damage.
  
- K. Job Conditions
  - 1. Examination of Base Surfaces
    - a. Examine the base surfaces and conditions under which their materials are to be installed and verify all dimensions in the field.

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- b. Notify the General Contractor in writing, with copy to Owner, if conditions are detrimental to the proper and timely completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected. Commencement of installation constitutes acceptance of base surfaces and the cost of any corrective work due to faulty base surfaces shall be born by the Contractor.
  2. Protection
    - a. Preserve and protect all existing site features, including by not limited to pavements, curbs, lawn, plantings. Preserve and protect all portions of the existing building(s).
  3. Restoration
    - a. If damage is caused to interior finishes or buildings as a result of the work under this Contract, it shall be corrected to the satisfaction of the Owner at the expense of the Contractor. Correction shall be by restoration or replacement, as determined by the Owner.

**PART 2 - PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

- A. SignArt
- B. Architectural Graphics Inc.
- C. ASI Sign Systems
- D. Park Place Inc.
- E. Signmatic Systems Inc.

**2.02 MATERIALS**

- A. Aluminum Pylons
  1. Aluminum panels will be degreased, immersed in a chromate conversion solution and hot water rinse.
  2. Size, finish, color and typeface will be as shown on Detail Drawings. The minimum thickness for all sign panel faces, corners and edges will be .125" throughout.

(Use the section below only if phenolic graphic panels are used on the pylon signs being specified)

- B. Tourist Information, Directional and Map Graphics
  1. The solid composite phenolic graphic panels on sign types (Fill in categories specified) shall meet the following material and manufacturing specifications:

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Thickness: 1/8" (0.125" / 3mm)  
Approx. Weight/SF: 0.91 lbs.  
Surface Finish: Textured semi-matte or semi-gloss outdoor finish  
Compressive Strength: M.D. 193,064 Kpa (31,000 PSI)  
C.D. 172,378 Kpa (25,000 PSI)  
Tensile Strength: M.D. 151,693 Kpa (22,000 PSI)  
C.D. 110,322 Kpa (16,000 PSI)  
Flexural Strength: M.D. 158,588 Kpa (23,000 PSI)  
C.D. 103,427 Kpa (15,000 PSI)  
Impact (Edgewise): M.D. 0.6 FT/LBS/IN  
C.D. 0.5 FT/LBS/IN  
Rockwell Hardness M Scale: 95 to 115  
Flammability ASTM E-162: Flame propagation index of 10  
Radiant Panel: to 15 without drip of flame; 1/10" to 1/2" thickness  
Water Absorbtion: 1/4":0.9% - 1/2":-0.6% - 1":0.35%  
Toxicity Test: LC50 Pittsburgh Protocol Toxicity test. Equal to and no more toxic than wood or paper.  
UV Resistance: Exterior Grade with 20 year warranty: based on ASTM G26/A, no changes after 3000 hrs.  
Frost Resistance: No change after 15 cycles (16 hrs ice at -20o C and 8 hrs thawing in air)  
Pollution Resistance: DIN 50018 No change after 20 cycles  
Coefficient of Thermal Expansion:  
DIN 51045 (-20oC to +80oC temp. Range) Longitudinal 9x10-6 per oC Transverse 16x10-6 per oC

**2.03 FABRICATION**

- A. Panel Fabrication
  - 1. Aluminum panels to be attached to internal aluminum framing with structural adhesive to form shapes as shown on detail drawings. Structural adhesive to be as manufactured by:
    - a. Lord Corporation  
111 Lord Drive  
Cary, NC 27512-7923
    - b. 3M Corporation  
3M Center  
St. Paul MN 55144-1000
    - c. Master Bond Inc.  
154 Hobart Street  
Hackensack, NJ 07601
  - 2. All seams will be filled, ground smooth and painted.
- B. Graphics Application

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(Use the sentence below if phenolic graphic panels are being specified)

1. Pedestrian categories (fill in categories used) will utilize .125" thick digitally-printed solid composite phenolic graphics panels. Electronic art for all standard graphics, including maps, timelines and tourist information will be provided to fabricator in Corel Draw Version 10 format.

(Use the sentence below if Vehicular categories are specified and will utilize reflective vinyl graphics)

2. Categories (Fill in Categories specified) to utilize reflective SCOTCHLITE vinyl graphics.

C. Post and Panel Painting

1. Prime aluminum panels with primer coat as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
  - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
  - c. PPG  
One PPG Place  
Pittsburg, PA 15272
2. Paint aluminum panels with two-part acrylic urethane enamel in semi-gloss finish as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
  - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
  - c. PPG  
One PPG Place  
Pittsburg, PA 15272

D. Wind Load Requirements:

1. Fabricate signs to withstand a wind load of 35 pounds per square foot or a direct wind force of 90 miles per hour.

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2. Signage manufacturer will provide engineering specifications that identifies the sizing of all footings and hardware to confirm that anchor depths and connections satisfy wind load requirements. This information will include engineering calculations that support the wind load specifications.
- E. Proof-Reading
1. Fabricator will be responsible for proof-reading all completed signs for message accuracy.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Manufacturers Directions
1. All work will be installed in accordance with manufacturer's printed instructions and the approved shop drawings.
  2. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned, as directed by the manufacturer, unless otherwise specified.
- B. Mounting
1. Signage contractor will be responsible to for development of concrete signage anchors and coordination of all hardware requirements for installation of signs.
  2. The signage in this package will include the following installation surfaces:  
(Fill in all that apply)
    - a. (Quantity and categories) Ground Mount in undisturbed soil
    - b. (Quantity and categories) Ground Mount on asphalt
    - c. (Quantity and categories) Ground Mount on concrete
    - d. (Quantity and categories) Ground Mount on pavers
    - e. (Quantity and categories) Mount on existing stone or brick wall)
  3. See Detail Drawings for determination of installation methods for all pylon signs.
  3. The Owner will meet with the Signage Contractor in the field to confirm the precise location of each sign. The Signage Contractor will be responsible to confirm that sign locations are free and clear of underground utilities by consulting with local authorities prior to excavating for

PYLON SIGNAGE

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signage anchors. Should there be any conflicts with preferred signs locations, the Owner will identify and document alternate locations and convey these to the Signage Contractor.

4. All work will be installed plumb, level and in true alignment.
5. All components will be securely attached.
6. All above-grade connections of separate or moveable components will be water-tight.

C. Permits

1. Sign Permits for all components in this program will be procured by the Owner and forwarded to the Installer.
2. The installer will be responsible to obtain any Registration or Licenses necessary to install signage in the municipalities involved in this contract.

END OF SECTION

WALL-MOUNTED SIGNAGE

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**PART 1 - GENERAL**

**1.01 QUALITY ASSURANCE**

- A. Manufacturers and Installers Qualifications
  - 1. The signage manufacturer shall have a minimum of five consecutive years in the manufacturing of signage of the particular type specified and shall have been responsible for manufacturing signage for projects of similar scope.
  - 2. The signage installer shall have a minimum of three consecutive years of installing signage of similar types specified on projects of similar scope.
  - 3. The signage manufacturer shall include references for three projects utilizing similar materials, fabrication technologies and installation practices. The references shall include the name of the project, general description of work performed, location, date and client contact information.
  
- B. Reference Standards
  - 1. American Society of Testing and Materials (ASTM)
    - a. ASTM B 221-75, Aluminum alloy extruded bars, rods, wires, shapes and tubes.

**1.02 SUBMITTAL REQUIREMENTS**

- A. Shop Drawings
  - 1. Indicate details of fabrication and installation or all materials including colors.
  
- B. Product Data
  - 1. Submit complete technical data for all sign types.
  
- C. Samples:
  - 1. Submit samples of the following
    - a. Type (Fill in category) Panel Section
    - b. Type (Fill in category) Aluminum Angles for Installation
    - c. Type (Fill in category) Phenolic Graphic Panel sample minimum 8" x 8" to include predominant panel field color and sampling of graphics/text from project signage. (Use sentence above only if Phenolic panels are specified)
    - d. Full size samples of typography in style specified on Detail Drawings. Provide three blue-line prints from original drawings. Do not use alphanet, lettraset or similar

WALL-MOUNTED SIGNAGE

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typesetting methods.

- e. Sample of each color indicated in Color Code
- f. Full-scale prints of all graphic elements or artwork to be used on signage. Designs shall be optically correct and enlarged prior to submission.

D. Contractor's Responsibilities

- 1. Review Shop Drawings, product data, and samples prior to submission and stamp with approval.
- 2. Submittals without Contractor's stamp of approval will not be considered and will be returned for resubmission.
- 3. Verify:
  - a. Field measurements
  - b. Field construction criteria
  - c. Catalog Numbers and similar data
  - d. Quantities
- 4. Coordinate each submittal with requirements of work and of Contract Documents.
- 5. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
- 6. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Owner's review of submittals, unless Owner gives written acceptance of specific deviations.
- 7. Notify Owner, in writing at the time of submission, of deviations in submittals from requirements of Contract Documents.
  - a. If Submittals deviate from the Contract Documents and Owner is not notified in writing of such deviation, then review is invalid.
  - b. When work is directly related and involves more than one trade, Shop Drawings shall be coordinated by the Contractor and submitted under one cover.
  - c. After a Shop Drawing base has been submitted for review, no changes may be made to that Drawing other than changes resulting from corrections made by the Owner unless such changes are clearly identified and circled before being resubmitted to the Owner. Any failure to comply with this requirement shall nullify and invalidate the Owner's review.

E. Submission Requirements:

- 1. Quantity:
  - a. Shop Drawings: 1 sepia transparency and 2 blue line

WALL-MOUNTED SIGNAGE

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Prints

- b. Product Data: 6 copies
- c. Samples: 2 each unless otherwise indicated in Specification Sections
- 2. Accompany submittals with transmittal letter, in duplicate, containing:
  - a. Date
  - b. Project Title and Number
  - c. Contractor's Name and Address
  - d. The number of each Shop Drawing, product data, and sample submitted
  - e. Notification of deviations from Contract Documents
  - f. Other pertinent data
- 3. Submittals shall include:
  - a. Date and Revision Dates
  - b. Project Title and Number
  - c. The Names of Owner, Contractor, Subcontractor, Supplier, and Manufacturer
  - d. Identification of Product or Material
  - e. Relation to Adjacent Structure or Materials
  - f. Field Dimensions, clearly identified as such
  - g. Specification Section Number
  - h. Applicable standards, such as ASTM number or Federal Specification
  - i. A blank space, 4" x 4" for the Owner's stamp
  - j. Identification of Deviations from Contract Documents
  - k. Contractor's stamp, initialed or signed, certifying review of submittal, verification of field measurements, and compliance with Contract Documents

F. Review Procedure:

- 1. **Stamped No Exception Taken.**
  - a. No corrections or resubmissions required, fabrication may proceed.
- 1. **Stamped Make Corrections Noted.**
  - a. If Contractor complies with noted corrections, fabrication may proceed. Submit corrected print for final review.
  - b. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit, following procedures outlined hereinbefore.
- 3. **Stamped Revise and Resubmit or Rejected**
  - a. Contractor shall revise and resubmit for review, fabrication shall not proceed.

WALL-MOUNTED SIGNAGE

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- G. Resubmission Requirements:
  - 1. Shop Drawings
    - a. Revise initial drawings as required and resubmit as specified for initial submittal.
    - b. Indicate on Drawings any changes which have been made.
  - 2. Product Data and Samples:
    - a. Submit new data and samples as required for initial submittal.
  
- H. Distribution of Submittals after Review by Contractor:
  - 1. Distribute copies of Shop Drawings and product data which carry Owner's stamp, to:
    - a. Contractor's File
    - b. Job-Site File (Record Copy)
    - c. Other Contractors
    - d. Subcontractors
    - e. Supplier
  - 2. Distribute Samples as Directed
    - a. Shop drawings, product data, and samples which do not have the Owner's stamp **No Exceptions Taken** or **Make Corrections Noted** will not be permitted on the project site.
  
- I. Owner's Duties:
  - 1. Review submittals with reasonable promptness.
  - 2. Review for:
    - a. Design concept of project.
    - b. Information given in Contract Documents.
  - 3. Review of separate item does not constitute review of an assembly in which item functions.
  - 4. Affix stamp and initials or signature certifying review of submittal.
  - 5. Return submittals to Contractor for distribution.
  
- J. Delivery, Storage, and Handling
  - 1. Exterior signage components will be accepted under the following conditions:
    - a. Deliver materials with manufacturers tags and labels intact. Store in original packaging, off the ground, and under protective covers.
    - b. Handle so as to prevent damage.
  
- K. Job Conditions
  - 1. Examination of Base Surfaces
    - a. Examine the base surfaces and conditions under which their materials are to be installed and verify all dimensions in the field.
    - b. Notify the General Contractor in writing, with copy to Owner,

WALL-MOUNTED SIGNAGE

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if conditions are detrimental to the proper and timely completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected. Commencement of installation constitutes acceptance of base surfaces and the cost of any corrective work due to faulty base surfaces shall be born by the Contractor.

2. Protection
  - a. Preserve and protect all existing site features, including by not limited to pavements, curbs, lawn, plantings. Preserve and protect all portions of the existing building(s).
3. Restoration
  - a. If damage is caused to interior finishes or buildings as a result of the work under this Contract, it shall be corrected to the satisfaction of the Owner at the expense of the Contractor. Correction shall be by restoration or replacement, as determined by the Owner.

**PART 2 - PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

- A. SignArt
- B. Architectural Graphics Inc.
- C. ASI Sign Systems
- D. Park Place Inc.
- E. Signmatic Systems Inc.

**2.02 MATERIALS**

- A. Wall-Mounted Aluminum Panel Signs
  1. Sign Panels to be fabricated from 5052H38 sheet aluminum around aluminum framing to form smooth non-lipped finish.
  2. Aluminum panels will be degreased, immersed in a chromate conversion solution and hot water rinse.
  3. Size, finish, color and typeface will be as shown on Detail Drawings. The minimum thickness for all sign panel faces, corners and edges and aluminum posts will be .125" throughout.

(Use the section below only if phenolic graphic panels are used on the wall-mounted panel signs being specified)

- B. Tourist Information, Directional and Map Graphics
  1. The solid composite phenolic graphic panels on sign types (Fill in categories specified) shall meet the following material and manufacturing specifications:

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Thickness: 1/8" (0.125" / 3mm)  
Approx. Weight/SF: 0.91 lbs.  
Surface Finish: Textured semi-matte or semi-gloss outdoor finish  
Compressive Strength: M.D. 193,064 Kpa (31,000 PSI)  
C.D. 172,378 Kpa (25,000 PSI)  
Tensile Strength: M.D. 151,693 Kpa (22,000 PSI)  
C.D. 110,322 Kpa (16,000 PSI)  
Flexural Strength: M.D. 158,588 Kpa (23,000 PSI)  
C.D. 103,427 Kpa (15,000 PSI)  
Impact (Edgewise): M.D. 0.6 FT/LBS/IN  
C.D. 0.5 FT/LBS/IN  
Rockwell Hardness M Scale: 95 to 115  
Flammability ASTM E-162: Flame propagation index of 10  
Radiant Panel: to 15 without drip of flame; 1/10" to 1/2" thickness  
Water Absorbtion: 1/4":0.9% - 1/2":-0.6% - 1":0.35%  
Toxicity Test: LC50 Pittsburgh Protocol Toxicity test. Equal to and no more toxic than wood or paper.  
UV Resistance: Exterior Grade with 20 year warranty: based on ASTM G26/A, no changes after 3000 hrs.  
Frost Resistance: No change after 15 cycles (16 hrs ice at -20o C and 8 hrs thawing in air)  
Pollution Resistance: DIN 50018 No change after 20 cycles  
Coefficient of Thermal Expansion:  
DIN 51045 (-20oC to +80oC temp. Range) Longitudinal 9x10-6 per oC Transverse 16x10-6 per oC

**2.03 FABRICATION**

- A. Panel Fabrication
  - 1. Aluminum panels to be attached to internal aluminum framing with structural adhesive to form shapes as shown on detail drawings. Structural adhesive to be as manufactured by:
    - a. Lord Corporation  
111 Lord Drive  
Cary, NC 27512-7923
    - b. 3M Corporation  
3M Center  
St. Paul MN 55144-1000
    - c. Master Bond Inc.  
154 Hobart Street  
Hackensack, NJ 07601
  - 2. All seams will be filled, ground smooth and painted.

WALL-MOUNTED SIGNAGE

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B. Graphics Application

(Use the sentence below only if phenolic graphic panels are being specified)

1. Pedestrian categories (fill in categories used) will utilize .125" thick digitally-printed solid composite phenolic graphics panels. Electronic art for all standard graphics, including maps, timelines and tourist information will be provided to fabricator in Corel Draw Version 10 format.

(Use the sentence below if Vehicular categories are specified and will utilize reflective vinyl graphics)

2. Categories (Fill in Categories specified) to utilize reflective SCOTCHLITE vinyl graphics.

C. Post and Panel Painting

1. Prime aluminum posts and panels with primer coat as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
  - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
  - c. PPG  
One PPG Place  
Pittsburg, PA 15272
2. Paint aluminum panels and connection hardware with two-part acrylic urethane enamel in semi-gloss as manufactured by:
  - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
  - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
  - c. PPG  
One PPG Place  
Pittsburg, PA 15272

D. Wind Load Requirements:

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1. Fabricate signs to withstand a wind load of 35 pounds per square foot or a direct wind force of 90 miles per hour.
  2. Signage manufacturer will provide engineering specifications that identifies the sizing of all hardware and connections to confirm that installation will satisfy wind load requirements. This information will include engineering calculations that support the wind load specifications.
- E. Proof-Reading
1. Fabricator will be responsible for proof-reading all completed signs for message accuracy.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Manufacturers Directions
1. All work will be installed in accordance with manufacturer's printed instructions and the approved shop drawings.
  2. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned, as directed by the manufacturer, unless otherwise specified.
- B. Mounting
1. Signage contractor will be responsible to for development of all hardware and connection requirements for installation of signs.
  3. The signage in this package will include the following installation surfaces:  
(Fill in all that apply)
    - a. (Quantity and categories) Wall Mount on brick wall
    - b. (Quantity and categories) Wall Mount on stone wall
    - c. (Quantity and categories) Wall Mount on wood-clad wall
    - d. (Quantity and categories) Wall Mount on stucco/dryvit
  4. See Detail Drawings for determination of installation methods for all wall-mounted panel signs.
  3. The Owner will meet with the Signage Contractor in the field to confirm the precise location of each sign. The Signage Contractor will be responsible to confirm that sign locations are free and clear of utilities by consulting with local authorities prior to mounting signage. Should there be any conflicts with preferred signs locations, the Owner

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will identify and document alternate locations and convey these to the Signage Contractor.

4. All work will be installed plumb, level and in true alignment.
5. All components will be securely attached.
6. All separate or moveable components will be water-tight.

C. Permits

1. Sign Permits for all components in this program will be procured by the Owner and forwarded to the Installer.
2. The installer will be responsible to obtain any Registration or Licenses necessary to install signage in the municipalities involved in this contract.

END OF SECTION

REGULATORY AND WARNING SIGNAGE

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**PART 1 - GENERAL**

**1.01 QUALITY ASSURANCE**

- A. Manufacturers and Installers Qualifications
  - 1. The signage manufacturer shall have a minimum of five consecutive years in the manufacturing of signage of the particular type specified and shall have been responsible for manufacturing signage for projects of similar scope.
  - 2. The signage installer shall have a minimum of three consecutive years of installing signage of similar types specified on projects of similar scope.
  - 3. The signage manufacturer shall include references for three projects utilizing similar materials, fabrication technologies and installation practices. The references shall include the name of the project, general description of work performed, location, date and client contact information.
  
- B. Reference Standards
  - 1. American Society of Testing and Materials (ASTM)
    - a. ASTM B 221-75, Aluminum alloy extruded bars, rods, wires, shapes and tubes.

**1.02 SUBMITTAL REQUIREMENTS**

- A. Shop Drawings
  - 1. Indicate details of fabrication and installation or all materials including colors.
  
- B. Product Data
  - 1. Submit complete technical data for all sign types.
  
- C. Samples:
  - 1. Submit samples of the following
    - a. Type **(Fill in category)** Post and Panel Section
    - b. Full size samples of typography in style specified on Detail Drawings. Provide three blue-line prints from original drawings. Do not use alphanotype, lettraset or similar typesetting methods.
    - c. Sample of each color indicated in Color Code
    - d. Full-scale prints of all graphic elements or artwork to be used on signage. Designs shall be optically correct and enlarged prior to submission.

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- D. Contractor's Responsibilities
1. Review Shop Drawings, product data, and samples prior to submission and stamp with approval.
  2. Submittals without Contractor's stamp of approval will not be considered and will be returned for resubmission.
  3. Verify:
    - a. Field measurements
    - b. Field construction criteria
    - c. Catalog Numbers and similar data
    - d. Quantities
  4. Coordinate each submittal with requirements of work and of Contract Documents.
  5. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
  6. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Owner's review of submittals, unless Owner gives written acceptance of specific deviations.
  7. Notify Owner, in writing at the time of submission, of deviations in submittals from requirements of Contract Documents.
    - a. If Submittals deviate from the Contract Documents and Owner is not notified in writing of such deviation, then review is invalid.
    - b. When work is directly related and involves more than one trade, Shop Drawings shall be coordinated by the Contractor and submitted under one cover.
    - c. After a Shop Drawing base has been submitted for review, no changes may be made to that Drawing other than changes resulting from corrections made by the Owner unless such changes are clearly identified and circled before being resubmitted to the Owner. Any failure to comply with this requirement shall nullify and invalidate the Owner's review.
- E. Submission Requirements:
1. Quantity:
    - a. Shop Drawings: 1 sepia transparency and 2 blue line Prints
    - b. Product Data: 6 copies
    - c. Samples: 2 each unless otherwise indicated in Specification Sections
  2. Accompany submittals with transmittal letter, in duplicate,

REGULATORY AND WARNING SIGNAGE

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containing:

- a. Date
  - b. Project Title and Number
  - c. Contractor's Name and Address
  - d. The number of each Shop Drawing, product data, and sample submitted
  - e. Notification of deviations from Contract Documents
  - f. Other pertinent data
3. Submittals shall include:
- a. Date and Revision Dates
  - b. Project Title and Number
  - c. The Names of Owner, Contractor, Subcontractor, Supplier, and Manufacturer
  - d. Identification of Product or Material
  - e. Relation to Adjacent Structure or Materials
  - f. Field Dimensions, clearly identified as such
  - g. Specification Section Number
  - h. Applicable standards, such as ASTM number or Federal Specification
  - i. A blank space, 4" x 4" for the Owner's stamp
  - j. Identification of Deviations from Contract Documents
  - k. Contractor's stamp, initialed or signed, certifying review of submittal, verification of field measurements, and compliance with Contract Documents

F. Review Procedure:

1. **Stamped No Exception Taken.**
  - a. No corrections or resubmissions required, fabrication may proceed.
1. **Stamped Make Corrections Noted.**
  - a. If Contractor complies with noted corrections, fabrication may proceed. Submit corrected print for final review.
  - b. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit, following procedures outlined hereinbefore.
3. **Stamped Revise and Resubmit or Rejected**
  - a. Contractor shall revise and resubmit for review, fabrication shall not proceed.

G. Resubmission Requirements:

1. Shop Drawings
  - a. Revise initial drawings as required and resubmit as specified for initial submittal.
  - b. Indicate on Drawings any changes which have been made.

REGULATORY AND WARNING SIGNAGE

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2. Product Data and Samples:
  - a. Submit new data and samples as required for initial submittal.
  
- H. Distribution of Submittals after Review by Contractor:
  1. Distribute copies of Shop Drawings and product data which carry Owner's stamp, to:
    - a. Contractor's File
    - b. Job-Site File (Record Copy)
    - c. Other Contractors
    - d. Subcontractors
    - e. Supplier
  2. Distribute Samples as Directed
    - a. Shop drawings, product data, and samples which do not have the Owner's stamp **No Exceptions Taken** or **Make Corrections Noted** will not be permitted on the project site.
  
- I. Owner's Duties:
  1. Review submittals with reasonable promptness.
  2. Review for:
    - a. Design concept of project.
    - b. Information given in Contract Documents.
  3. Review of separate item does not constitute review of an assembly in which item functions.
  4. Affix stamp and initials or signature certifying review of submittal.
  5. Return submittals to Contractor for distribution.
  
- J. Delivery, Storage, and Handling
  1. Exterior signage components will be accepted under the following conditions:
    - a. Deliver materials with manufacturers tags and labels intact. Store in original packaging, off the ground, and under protective covers.
    - b. Handle so as to prevent damage.
  
- K. Job Conditions
  1. Examination of Base Surfaces
    - a. Examine the base surfaces and conditions under which their materials are to be installed and verify all dimensions in the field.
    - b. Notify the General Contractor in writing, with copy to Owner, if conditions are detrimental to the proper and timely completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected. Commencement of installation constitutes acceptance of base surfaces and the cost of any corrective work due to faulty base surfaces shall be

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- born by the Contractor.
- 2. Protection
  - a. Preserve and protect all existing site features, including by not limited to pavements, curbs, lawn, plantings. Preserve and protect all portions of the existing building(s).
- 3. Restoration
  - a. If damage is caused to interior finishes or buildings as a result of the work under this Contract, it shall be corrected to the satisfaction of the Owner at the expense of the Contractor. Correction shall be by restoration or replacement, as determined by the Owner.

**PART 2 - PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

- A. SignArt
- B. Architectural Graphics Inc.
- C. ASI Sign Systems
- D. Park Place Inc.
- E. Signmatic Systems Inc.

**2.02 MATERIALS**

- A. Aluminum Post and Panel Signs
  - 1. Sign Panels to be fabricated from 5052H38 sheet aluminum around aluminum framing to form smooth non-lipped finish.
  - 2. Posts to be 4" or 6" square or as specified on the Detail Drawings. Post wall thickness to be as required to meet wind load specification.
  - 3. Aluminum panels will be degreased, immersed in a chromate conversion solution and hot water rinse.
  - 4. Size, finish, color and typeface will be as shown on Detail Drawings. The minimum thickness for all sign panel faces, corners and edges and aluminum posts will be .125" throughout.

**2.03 FABRICATION**

- A. Panel Fabrication
  - 1. Aluminum panels to be attached to internal aluminum framing with structural adhesive to form shapes as shown on detail drawings. Structural adhesive to be as manufactured by:
    - a. Lord Corporation  
111 Lord Drive

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- Cary, NC 27512-7923
    - b. 3M Corporation  
3M Center  
St. Paul MN 55144-1000
    - c. Master Bond Inc.  
154 Hobart Street  
Hackensack, NJ 07601
  - 2. All seams will be filled, ground smooth and painted.
- B. Graphics Application
  - 1. Vehicular regulatory and warning signage categories (**fill in categories used**) will utilize retroreflective graphics, fields, borders and dividers in accordance with MUTCD Version 2009. Typography, line spacing, letter spacing, and dimensioning between graphic components shall be as per MUTCD Version 2009.
- C. Post and Panel Painting
  - 1. Prime aluminum posts and panels with primer coat as manufactured by:
    - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
    - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
    - c. PPG  
One PPG Place  
Pittsburg, PA 15272
  - 2. Paint aluminum posts and panels with two-part acrylic urethane enamel in semi-gloss finish as manufactured by:
    - a. Akzo Nobel Decorative Coatings Ltd.  
Rijksstraatweg 31  
Sassenheim, 2171 AJ  
NETHERLANDS
    - b. Matthews Paint Company  
760 Pittsburg Drive  
Delaware, Ohio 43015
    - c. PPG  
One PPG Place

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- D. Wind Load Requirements:
  - 1. Fabricate signs to withstand a wind load of 35 pounds per square foot or a direct wind force of 90 miles per hour.
  - 2. Signage manufacturer will provide engineering specifications that identifies the sizing of all footings and hardware, to confirm that anchor depths and connections satisfy wind load requirements. This information will include engineering calculations that support the wind load specifications.
  
- E. Proof-Reading
  - 1. Fabricator will be responsible for proof-reading all completed signs for message accuracy.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Manufacturers Directions
  - 1. All work will be installed in accordance with manufacturer's printed instructions and the approved shop drawings.
  - 2. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned, as directed by the manufacturer, unless otherwise specified.
  
- B. Mounting
  - 1. Signage contractor will be responsible to for development of concrete signage anchors and coordination of all hardware requirements for installation of signs.
  - 2. The signage in this package will include the following installation surfaces:  
(Fill in all that apply)
    - a. (Quantity and categories) Ground Mount in undisturbed soil
    - b. (Quantity and categories) Ground Mount on asphalt
    - c. (Quantity and categories) Ground Mount on concrete
    - d. (Quantity and categories) Ground Mount on pavers
    - e. (Quantity and categories) Mount on existing stone or brick wall)
  - 3. See Detail Drawings for determination of installation methods for all post and panel signs.

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3. The Owner will meet with the Signage Contractor in the field to confirm the precise location of each sign. The Signage Contractor will be responsible to confirm that sign locations are free and clear of underground utilities by consulting with local authorities prior to excavating for signage anchors. Should there be any conflicts with preferred signs locations, the Owner will identify and document alternate locations and convey these to the Signage Contractor.
4. All work will be installed plumb, level and in true alignment.
5. All components will be securely attached.
6. All above-grade connections of separate or moveable components will be water-tight.

C. Permits

1. Sign Permits for all components in this program will be procured by the Owner and forwarded to the Installer.
2. The installer will be responsible to obtain any Registration or Licenses necessary to install signage in the municipalities involved in this contract.

END OF SECTION

## 12 Signage Vendors Listing

Included below is a listing of signage companies that have demonstrated an understanding of products specified in this Manual:

ASI  
2957 Alt Road  
Grand Island, New York 14072  
Contact: Andy Bernatovicz 716-775-0104  
[andy.bernatovicz@asisignage.com](mailto:andy.bernatovicz@asisignage.com)

SignArt  
289 Whisper Lake Road  
New London, North Carolina 28127  
Contact: Frank Perry 336-461-3138  
[badinboy@rtmc.net](mailto:badinboy@rtmc.net)

Park Place Inc.  
2019 30<sup>th</sup> Street  
Hannibal, Missouri 63401  
Contact: Bill Baker 800-650-7275  
[bill@parkplacesign.com](mailto:bill@parkplacesign.com)

Design Concepts  
8438 Ridge Road  
Gasport, New York 14067  
Contact: Arnie Wolfe 716-514-4311  
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## **13 Maintenance Recommendations**

Each organization that uses this Manual to create and implement signage will have its own practices and protocols for maintaining such products. Included below is a general outline for recommended maintenance that Manual Users may find helpful.

### **Bimonthly (March – November)**

1. Order all new or replacement signage components.
2. Remove unauthorized signage.
3. Inspect all existing signage for wear and vandalism.
4. Repair or replace damaged signage.

### **Semi-Annually (April and October)**

1. Update orientation and directional signage with respect to changes to nomenclature or circulation theory.
2. Review wayfinding standards to evaluate any needs identified for adjusting signage standards.
3. Review existing or planned projects to expand or upgrade signage and confirm that allowances are made to add or modify components as required.