

Dakota
COUNTY

forever wild
PARKS

GREENWAYS WAYFINDING SIGNAGE

STANDARDS MANUAL

02.28.2023 - FINAL

CORBIN
DESIGN

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Prepared by

CORBIN
DESIGN

415 S Union, 2nd Floor
Traverse City, MI 49684
(231) 947-1236

SECTION 1

STANDARDS
FOR WAYFINDING

INTRODUCTION OVERVIEW

Through a collaborative effort between Dakota County and wayfinding consultant Corbin Design, a comprehensive wayfinding and signage manual has been created for the Dakota County Greenway System. This manual serves as a toolkit for the continued development of the wayfinding program as it expands across Dakota County, and possibly into municipalities and other trail systems. This Wayfinding and Signage Standards Manual provides guidance to Dakota County personnel and outside consultants who are involved in specifying, fabricating and installing greenway signage. It is designed to guide the use of the Dakota County Greenway signage design standard and to assure that it is correctly and consistently applied.

This manual is a County planning document intended to support internal discussions and maintain signage design consistency. It is important that staff members become familiar with this content, refer to it when

planning future Greenway updates, when signage issues arise, and support its use by others. The Dakota County Parks Department is responsible for overseeing ongoing implementation and adherence to the standards.

Project Team:

- Lil Leatham, Principal Planner
- Beth Landahl, Parks Visitor Services Manager
- Dylan Strand, Parks Grounds Maintenance Manager
- Jeff Bransford, Parks Administrative Manager
- Anna Ferris, Parks Outreach Coordinator
- Autumn Hubbell, Parks Outdoor Education Supervisor
- Christina Johnson, Senior Project Manager, Capital Projects Management
- Dave Brynestad, Senior Graphic Designer, Communications
- John Mertens, Principal Planner
- Kurt Chatfield, Planning Manager
- Beth Koch, GIS Specialist
- Randy Knippel, GIS Manager
- Niki Geisler, Parks Director
- Bryce LeBrun, Project Manager, Transportation

WHAT IS WAYFINDING?

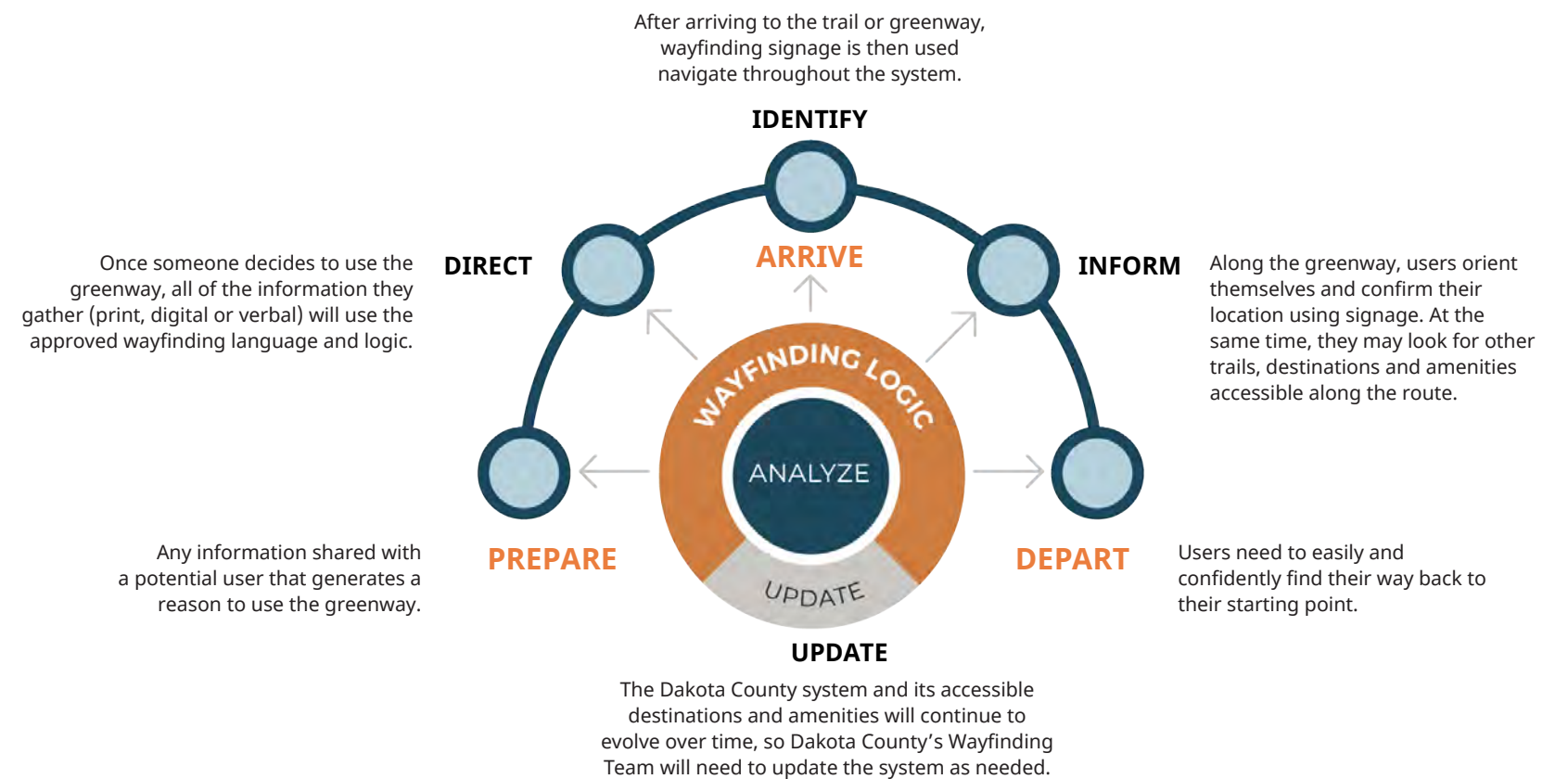
“Direction for people in motion.”

Wayfinding is unique in that it has an opportunity not only to move people along greenways but also to carry brand elements and integrate with the character of the Dakota County Parks & Greenways. Greenway users rely on many different resources to navigate throughout the County, so it is imperative that the logic and language is expressed consistently across all media. Web, broadcast, print and signage elements will all speak

in the same voice as the user explores the Dakota County network of greenways.

Through a well-developed wayfinding system, users will feel more confident and capable as they move toward their destination and are made aware of other opportunities as they explore the paths.

The **JOURNEY MAP** below depicts each potential point of contact with a given user.



SYSTEM DESIGN

The overall project goal was to develop wayfinding standards that: supports the user's locational awareness; identifies points of interest; increases awareness of greenway etiquette and safety; and creates a greenway design signature with branding.

When designing the system, a hierarchy of information was established to create an anticipatory value from sign to sign, location to location. That is, to create a

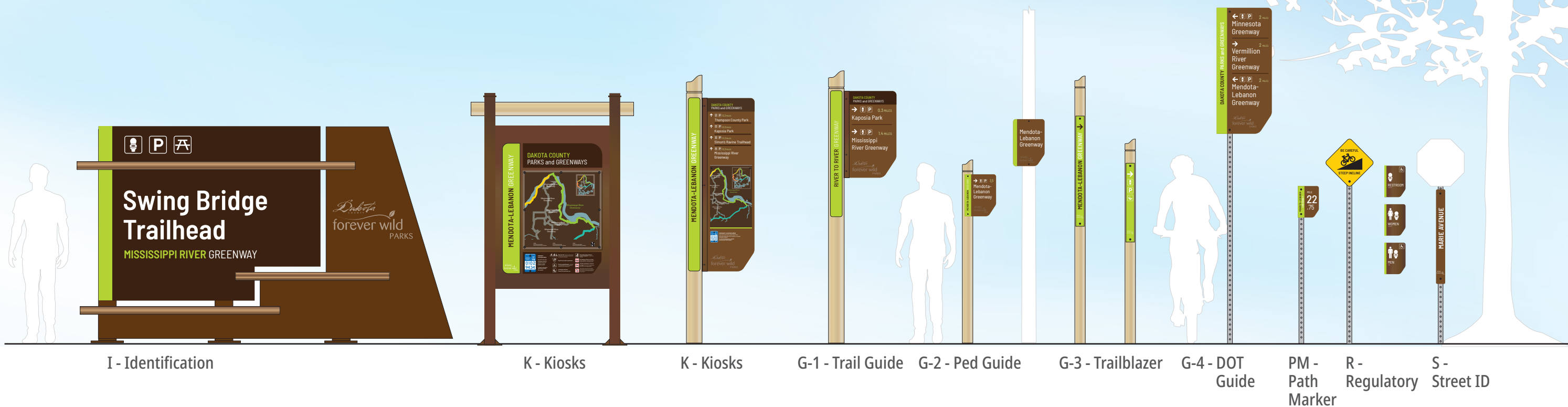
consistent way in which content and messaging is always presented to users no matter the sign type.

The most important piece of information for greenway users is the greenway name. In most instances this information appears on guide/directional signs in the bright green band. As users become familiar with the signage program, they will come to relate the green message field with the greenway name.

Once greenway users understand which greenway they are using, it is important to inform them of destinations and amenities that are accessible. On guide/directional signs, this information is the main focal point of the message panels and utilizes legible arrows and universal symbols when appropriate.

The final piece of the informational hierarchy is the Dakota County brand and name. The Dakota County Parks brand has been added as a decorative element to the signage standard but to ensure legibility and understanding that the greenways are a county amenity, a complementary County header has been added to the signs where space allows.

To further support this wayfinding system to vehicular traffic, it is recommended that brown MUTCD Recreational and Cultural Interest Area Guide Signs be used on Interstates, State Highways, County Roads, and Local Roads to direct to Greenway access points and/or trailheads by its name.



UNIVERSAL DESIGN

The Dakota County Greenway Wayfinding and Signage system strives to be accessible and inclusive. When developing the parameters of the logic, design and content, the design team used the principles of Universal Design as a guiding philosophy.

This program meets six of the seven principles of Universal Design including:

- Equitable Use
- Flexibility in Use
- Simple and Intuitive Use
- Perceptible Information
- Minimize Hazards
- Size and space for approach and use

These efforts include but are not limited to:

- The use of symbols, based on the US Park Services icons, has been incorporated as a part of the overall standard. These highly recognizable symbols help bridge the gap for Greenway users of various reading and language comprehension levels.
 - » To accommodate the specific expectations of the Greenway audience, a custom toilet symbol has been created.
 - » See Page 18 of this manual for the full list of recommended symbols.
- Kiosk signs are designed for user interaction with regulatory and interpretive information as well as Greenway maps. These signs are designed to meet ADA requirements for wheelchair access and path obstruction.
 - » When locating these kiosks, refer to Page 12 of this Manual.

- Kiosks are flexible in their use and designed with updateable and interchangeable panels. These panels can contain more detailed information that can reach a broader audience by linking to additional resources via QR codes.
 - » It is recommended that Dakota County create a single-source website that can be accessed through a QR code. This site should link users to multi-lingual maps, translation services or additional audio assistance.
 - » QR codes specific to maps should be located in lower right-hand corner of the map panel.
 - » Locations of additional QR codes to be determined as that content is developed.
- Fundamental design elements that improve the overall legibility include:
 - » Increased copy height
 - » Legible, non-decorative fonts
 - » High contrast between background and font colors
- A consistent hierarchy of information has been established through colors and text but does not solely rely on either of these elements for interpretation.
 - » Refer to the Graphic Standards for more detail.

The wayfinding signage is only one small part of the overall Greenway user experience. Creating alternative sensory experiences beyond the current built environment would enhance user experiences for a broader audience. Visual, auditory, tactile, olfactory and vestibular enhancements should be considered when planning new Greenway segments. The wayfinding and signage standard would then further support these efforts.



SIGN TYPE DESCRIPTIONS

SIGN TYPE I : IDENTIFICATION

I-1 VEHICULAR ID MONUMENT

I-1R RETRO-FIT MONUMENT ID

I-1Ra RETRO-FIT MONUMENT ID WITH STONE BASE

Designed to complement the existing system, the I-1 sign uses increased text height to identify the trailhead or park name and prominently display the Dakota County logo. A colored vertical band is used to differentiate location types: soft-blue for parks and green for greenway trailheads. The greenway name is also displayed in green with the word "greenway" in white. Symbols are also prominently displayed on signs to inform users of amenities and/

or activity areas available at each location. Existing sign structures may easily be retrofitted to match the new design features of the I-1 monument.

I-2a GREENWAY ID, FREESTANDING

I-2b GREENWAY ID, SUPPLEMENTAL

Throughout the County, greenway access points are located within city parks. To help create awareness of these access points, two signs types have been created to add to existing park signs. The freestanding I-2a sign, which should be installed perpendicular to vehicular traffic when possible, and the I-2b panel, added as space allows.

I-3 BRIDGE ID

The Bridge ID is as much an exercise in branding as it is in wayfinding. This sign is an opportunity to highlight the County greenway brand and greenway name from a distance.

For example, at Kaposia Landing, greenway trails intersect with park trails, with bridges that connect to both the River to River Greenway and the Mississippi River Greenway. By locating the I-3 on these bridges, intentional greenway users will have a better sense for the connectivity



I-3 Bridge Identification



I-4 Overhead Identification

I-4 OVERHEAD ID

of the intersecting greenways. Passive greenway or park users will be made aware of the greenway brand and greenway connectivity.

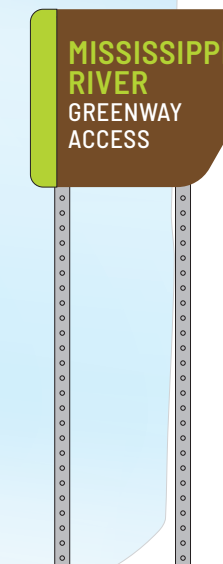
Designed to meet MUTCD standards and identify the greenway to vehicular traffic as they pass below a bridge or overpass structure of a designated greenway.



I-1 Vehicular Identification
I-1R Retrofit Vehicular Identification



I-1Ra Retrofit Vehicular Identification Stone Base



I-2a Supplemental Greenway ID



I-2b Supplemental Greenway ID

SIGN TYPE K : KIOSKS W/ MAPS

K-1 & K-2 TRAILHEAD KIOSK, LARGE (EXISTING) & MEDIUM

The trailhead kiosks serve as an opportunity to provide users with a greater wealth of information. Though content can be customizable by location, each kiosk should, at the very least, contain a greenway map and directional information. Additional content can include posting areas, interpretive information, greenway rules and guidelines.

Where possible, the map should be located so that it is easily accessible for users. The map should be oriented properly with how the user will experience the greenway. In order to ensure the sign structure is wheelchair accessible the sign face should be oriented parallel to the greenway. If the sign is not accessible from the greenway, an ADA-compliant path and pad should be installed in front and/or around the sign faces.

K-3 & K4 TRAILHEAD KIOSK SMALL, W/ GUIDE & ADA

The smaller Trailhead Kiosk/Guide contain a trail map and directional information. This sign type should be used at locations where users are accessing the greenway and need additional information but there is not space for a larger, two-post kiosk. Similar to the K-1/2, this sign should be located so that it is easily accessible for users. The map should be oriented properly with how the user will experience the greenway.

BACK SIDE OF KIOSK - OPTIONS

There are multiple options for the content of the backside of the sign.

If there is access to the back side of the sign, the content can be:

- Duplication of front
- Additional interpretive information
- A co-branded effort with local parks and municipalities.

If there is no access to the back of the sign or if the back side would better serve as branding and identification (for example, at Wentworth Ave. and

Livingston Ave) the Greenway and County brand should be used. See Design Intent for design options.

parks and municipalities.



Existing Trailhead Kiosk - Retrofit

Medium Trailhead Kiosk

Pedestrian Guide/
Small Trailhead Kiosk

ADA Accessible Guide/Trailhead Kiosk
with 360° access

SIGN TYPE G : GUIDE SIGNS

G-1 (a,b,c) ON-PATH GUIDES

These directional signs are intended to direct users on non-roadway greenways. Because these signs are to be located along dedicated greenways, there is more flexibility with their size and construction. The text height of the destination information is 1 5/8" tall with 2" arrows and symbols.

These signs highlight the specific greenway segment name as well as the Dakota County Parks brand. Installed at key decision points along the greenway, these signs direct users to amenities and destinations. They are mounted or installed two feet off the greenway and in the direct line of sight for bicyclists/pedestrians.

G-2a PEDESTRIAN GUIDES

This compact guide sign is intended to be installed along greenways and is pedestrian oriented, in more condensed locations, where there is not room for the larger G-1 guide. See G-2b specific use on page 10.

G-2c GREENWAY GUIDES

Compact guide sign typically be used in locations such as intersections and crosswalks where a decision is needed. The text height is slightly larger than on the G-2a in an effort to be seen from a distance, for example, across a street intersection.

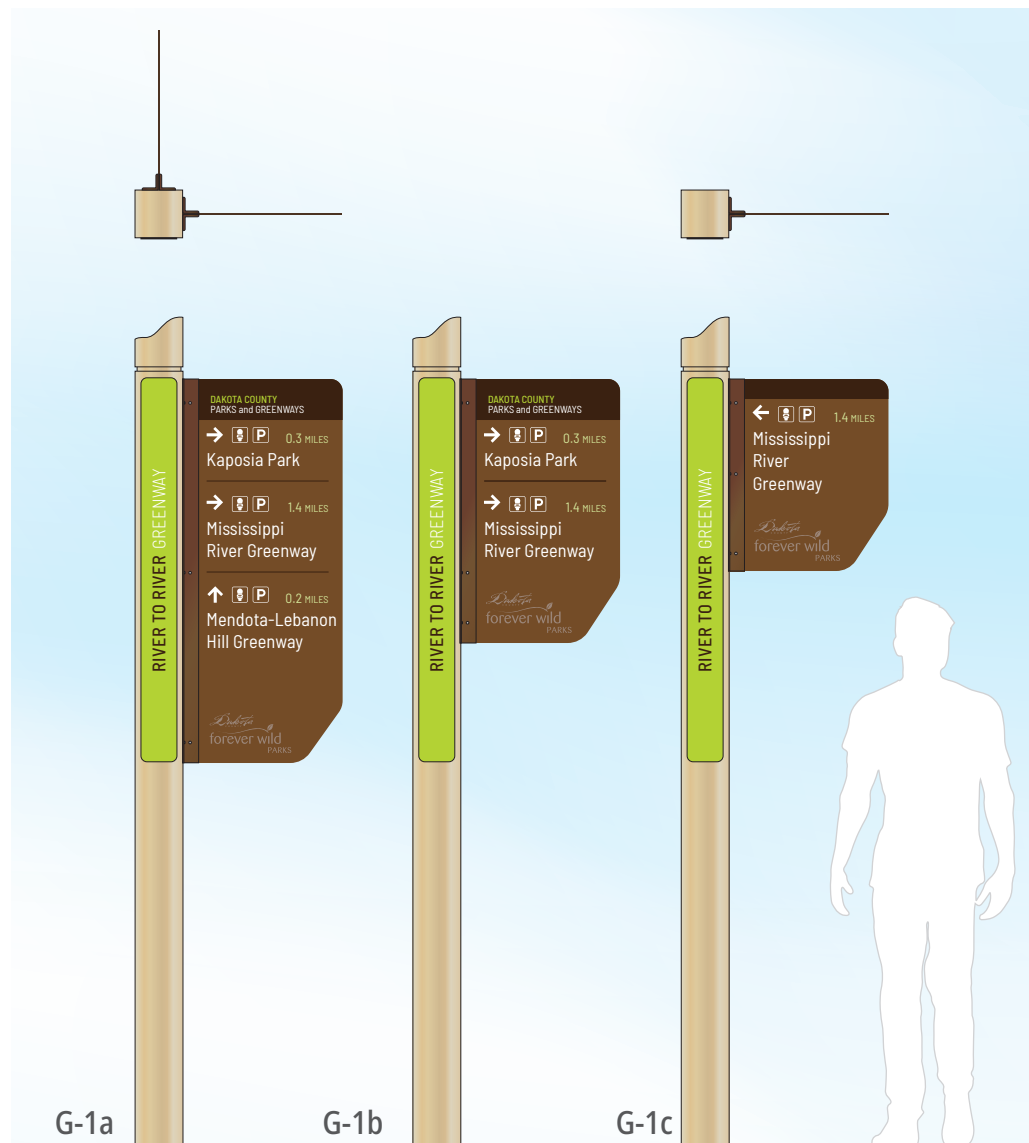
G-3 (a,b) TRAILBLAZER

Located at path junctions, this confirmation sign is intend to keep users on the main path/greenway or guide to off-path amenities, displayed only as a symbol(s).

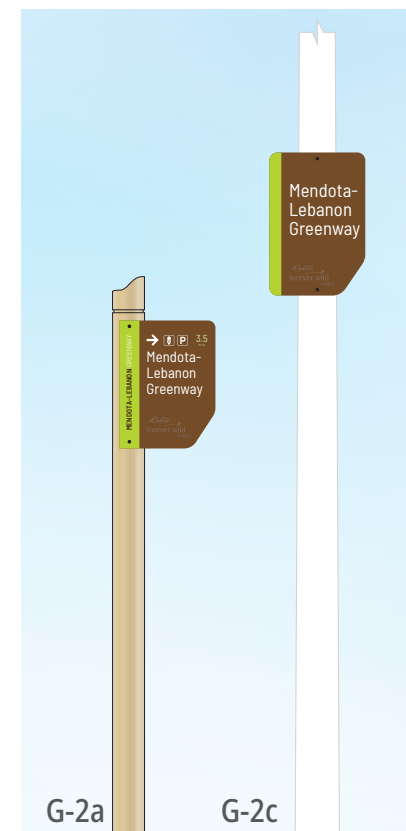
G-4 (a,b) ON-STREET GUIDES

This DOT-compliant sign is intended for bicycle traffic along roadways. The text height of the message is 2", fabricated using full-face reflective sheeting, and installed perpendicular to traffic as required by the Manual on Uniform Traffic Control Devices (MUTCD). Sign panels are mounted with seven feet

of overhead clearance and could be mounted to new breakaway posts or attached to existing poles. There are two size versions of this sign. G-4a can accommodate three to four destinations. G-4b can accommodate one to three destinations. The vertical green band contains the overall system name as a branding element, and does not identify a specific greenway or route name.



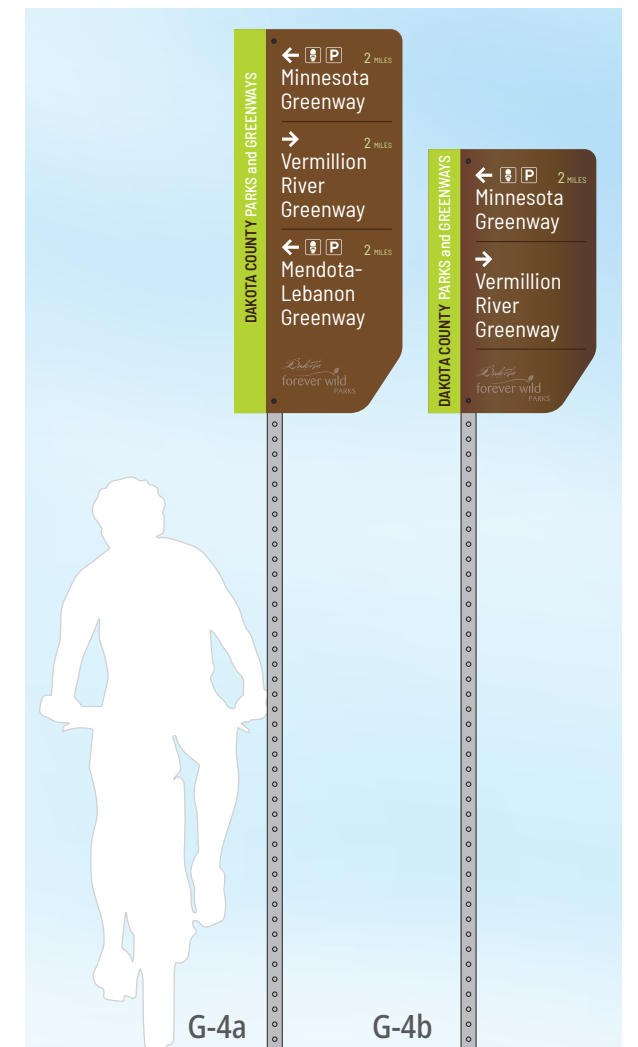
G-1a Bike/Pedestrian Multi-Destination Guide
G-1b Bike/Pedestrian Trailblazer Guide
G-1c Bike/Pedestrian Compact Trailblazer Guide



G-2a Pedestrian Trailblazer
G-2c Greenway Street Guide



G-3a Greenway Trailblazer
G-3b Amenity Trailblazer



G-4a On-Street Bike Guide 1
G-4b On-Street Bike Guide 2

SIGN TYPE A : AUXILIARY

A-1 EMERGENCY LOCATOR

The A-1 is an Emergency Location Marker that consistent with the design created by the U.S. National Grid. According to the USNGS, the ELM offers a way for communities to mark locations such trail intersections, camp sites, buildings, boat landings, and other response locations with a marker that works with GPS, is location specific, unique across jurisdictions, and is nationally consistent.

The A-1 should be installed on the side of guide sign posts parallel to the greenway.

A-2/A-2a ADOPT-A-GREENWAY

Custom medallions can be used to acknowledge organizations that participate in the County's Adopt-A-Greenway. These medallions should be installed on the front of the posts of guide signs under the greenway name panel, perpendicular to the greenway. The larger A-2a allows the medallion to be used as a freestanding element.

A-3 MUNICIPAL ID

The municipal ID is designed to indicate the boundaries of the municipality that the greenway runs through. These medallions should be installed on the front of the posts of guide signs under the greenway name panel, perpendicular to the greenway.

A-4 MRT/US BIKE ROUTE

The MRT medallion is intended to co-exist with the Dakota County signage by highlighting the segments of the county-system that are a part of the greater, 800-mile Mississippi River Trail. This is a confirmation sign that will allow users to understand that the current segment of the MRT they are using is part of the County system. This medallion should be installed on the guide sign posts perpendicular to the trail; because of the national significance of this denotation, this should be the top priority when installing and should appear above the other localized medallions.

SIGN TYPE PM : PATH MARKERS

PM-1 MILE MARKER

This sign carries mileage information. It should be located every .25, .5 or 1 mile depending on the density of traffic along individual trail segments

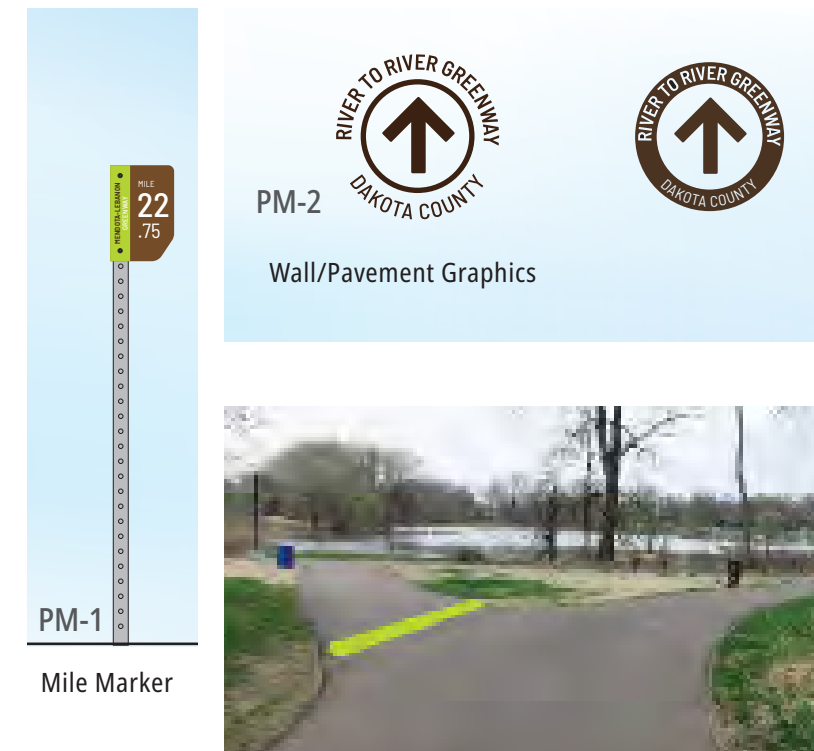
PM-2 PAVEMENT GUIDE

The wall/pavement guide is intended to serve as a confirmation marker for users to indicate the route of a designated greenway. Typically, this sign is used where additional reinforcement is needed. The PM-2 is a supporting sign and should not be used alone unless there is not an opportunity for a panel sign.

PM-3 PATH BORDER

Working in conjunction with the signage, pavement markings (or bumpers) can be used to help identify the continuation of the greenway in areas where multiple pathways or sidewalks connect into the greenway.

For example, at Simon's Ravine Trailhead, a sidewalk connects into the trail. However, for trail users traveling toward the trailhead, it is not intuitive as to which path to follow. The PM-3 will help users stay aligned with their intended greenway.



SIGN TYPE R : REGULATORY

R-1 WARNING

This sign type carries cautionary or safety information but is not intended to replace standard traffic caution signs such as stop or yield signs. These are supplemental signs to help in specific situations. This sign type can also be used to provide additional information regarding trail etiquette and amenity information. It should be located perpendicular to the trail.

R-2 RESTROOM, ADA

Designed to have a visual association with the Greenway system, the restroom identification is an ADA compliant regulatory information sign that should be located at the exterior entrance of County-maintained public restrooms.

SIGN TYPE G2-b : BOUNDARY ID

G-2b BOUNDARY ID, MUNICIPALITY/PARK

This sign is a version of the G-2 that is intended to be used along the Greenways to identify the boundaries of municipalities or parks.

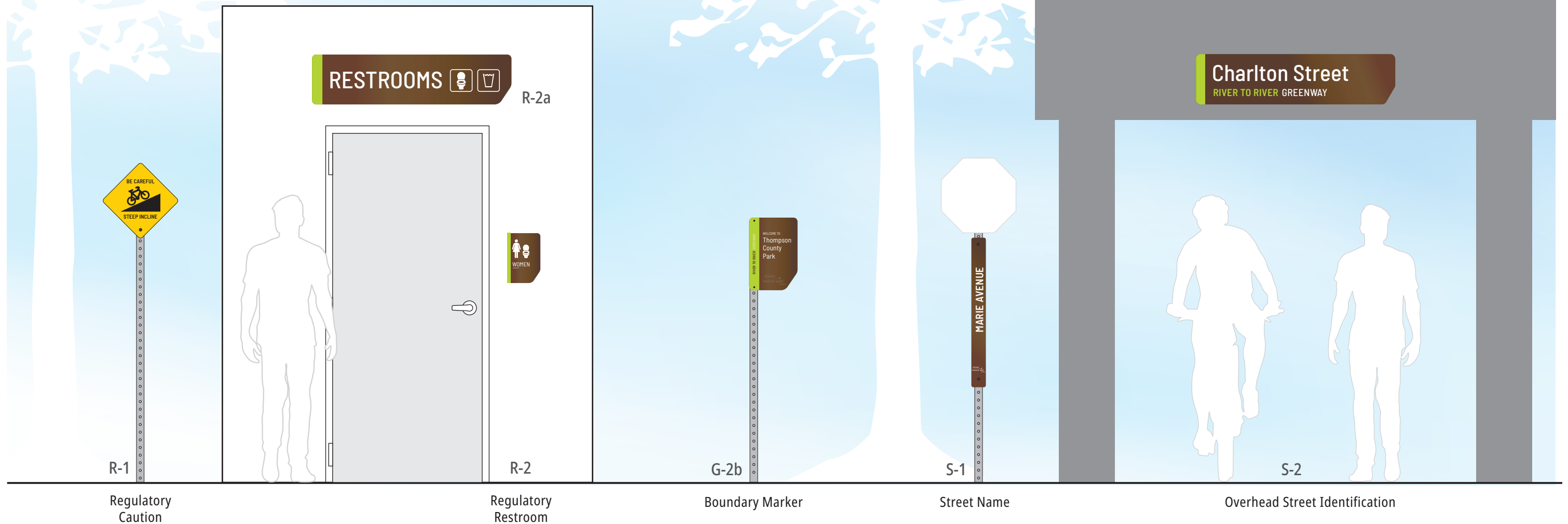
SIGN TYPE S : STREET ID

S-1 STREET NAME ID

This sign can be attached to posts at intersections to inform greenway users of the street they are crossing, and may be paired with other regulatory signs, such as stop signs.

S-2 OVERHEAD STREET NAME

Typically locate at tunnels or underpasses which run perpendicular under a roadway, these signs identify the roadway above.



DESTINATION PRIORITIES

INTRODUCTION

A wayfinding program is only as good as the information it contains. Therefore, it is important to have a well thought out plan when programming the messaging that will appear on each sign.

STEP 1:

It is important to consider destination names that are included on wayfinding signage for consistency, clarity and fit. In addition, when determining which destinations to include, consider the following criteria:

DESTINATIONS MUST:

- Be relevant for greenway users
- Consider amenities like restrooms, picnic areas, bike repair stations, etc.
- Be open year-round
- Be a public or not-for-profit destination

STEP 2:

After identifying which destinations to include in the program, the next step is to determine when and where to include them. The destination hierarchy diagram to the right should be used as a guideline. Confirm the distance to each location as this information should appear on directional signs.

STEP 3:

To determine the proper order of destinations on a sign, destinations should primarily be listed by proximity, with the closest destination being first. Secondly, destinations to the left should appear first, followed by destinations to the right, and then destinations straight ahead. Avoid directing to destinations that users have already passed.

DESTINATION PRIORITIES

PRIORITY 1:

Greenways within the County system

- We are using the Greenways as the anchors of the system. Through signage, we are orienting users to the Greenway they are on as well as the Greenways that are connected ahead.

PRIORITY 2:

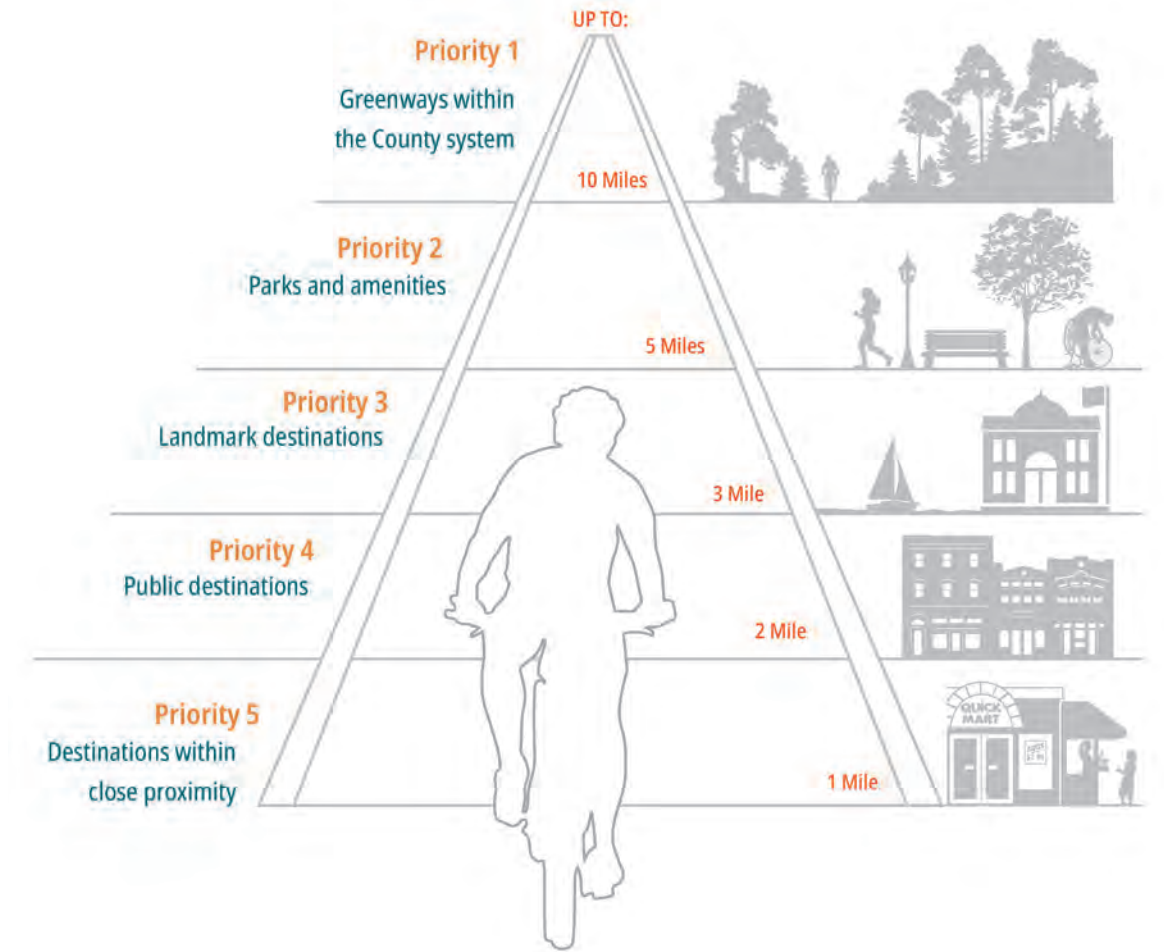
Greenway trailheads and parks accessible from the Greenways

- Greenway trailheads and parks that offer trail user amenities including restrooms and parking.

PRIORITY 3:

Landmark destinations accessible from the Greenways

- For Greenways like the Mississippi River, access to and from Downtown Saint Paul/Harriet Island and Hastings are incredibly important. These locations can act as points of orientation.



PRIORITY 4:

Public destinations accessible from the Greenways

- For example, Wentworth Library should be included. However, for destinations like Dodge Nature Center that have more limited hours and limited public access, it should only appear as you reach a decision point for that destination.

PRIORITY 5:

Destinations within close proximity to the destination and do not require additional wayfinding. Might only appear on a couple signs – at that decision point

- Neighborhoods, street access points, shopping & dining (use symbols), etc.

Refer to Appendix A for Trailhead List and Naming Guidelines.

SIGN TYPES & PLACEMENTS

SIGN SET BACKS & CLEARANCES

The setbacks and clearances for all sign installations should meet both MUTCD and ADA guidelines. The illustrations on this page reflect those guidelines.

No portion of a sign or its support shall be placed less than 24 inches (2'-0") laterally from the near edge of the path.

For on-street signage the vertical clearance, from the bottom edge of the sign to the elevation of the near edge of the path surface, shall be a minimum of 84 inches (7'-0"). ADA requires a minimum vertical clearance of 80" (6'-8") when a sign protrudes into the circulation path.

For on-path (ie: shared-use path) signage the vertical clearance, shall be a minimum of 48 inches (4'-0") feet.

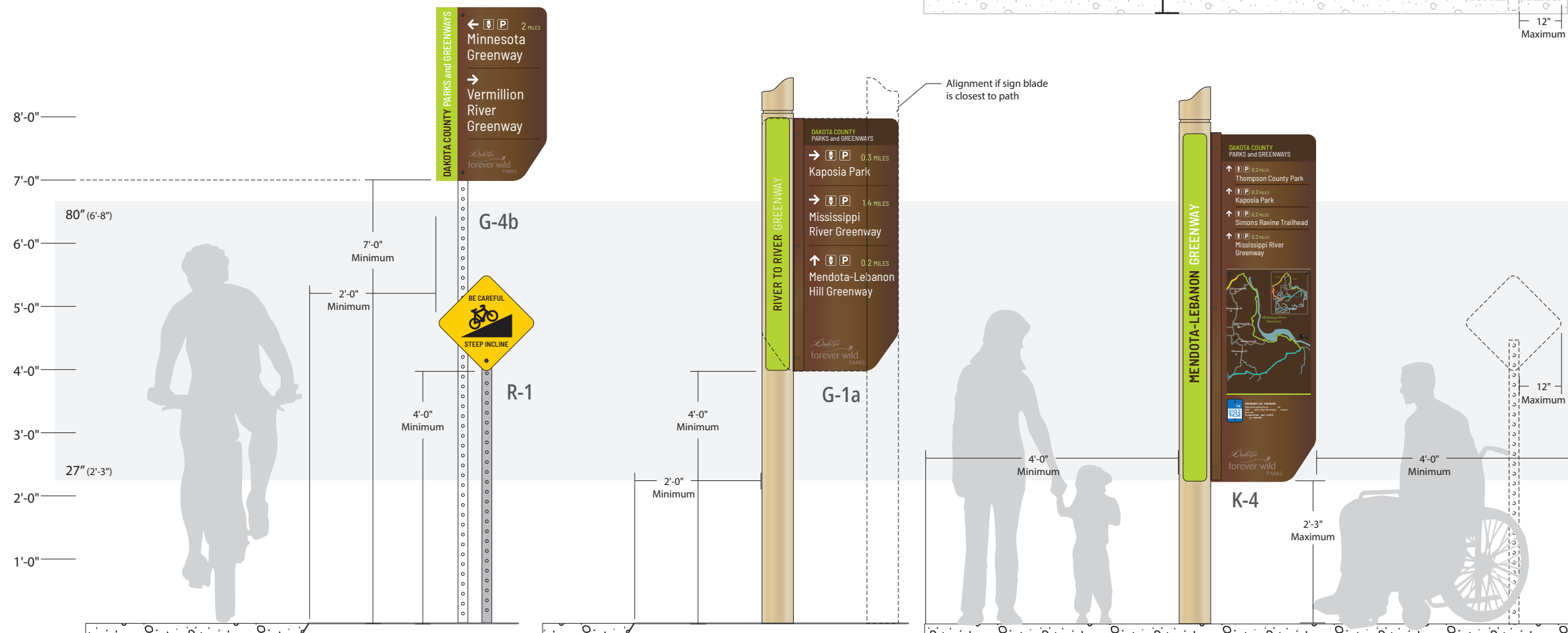
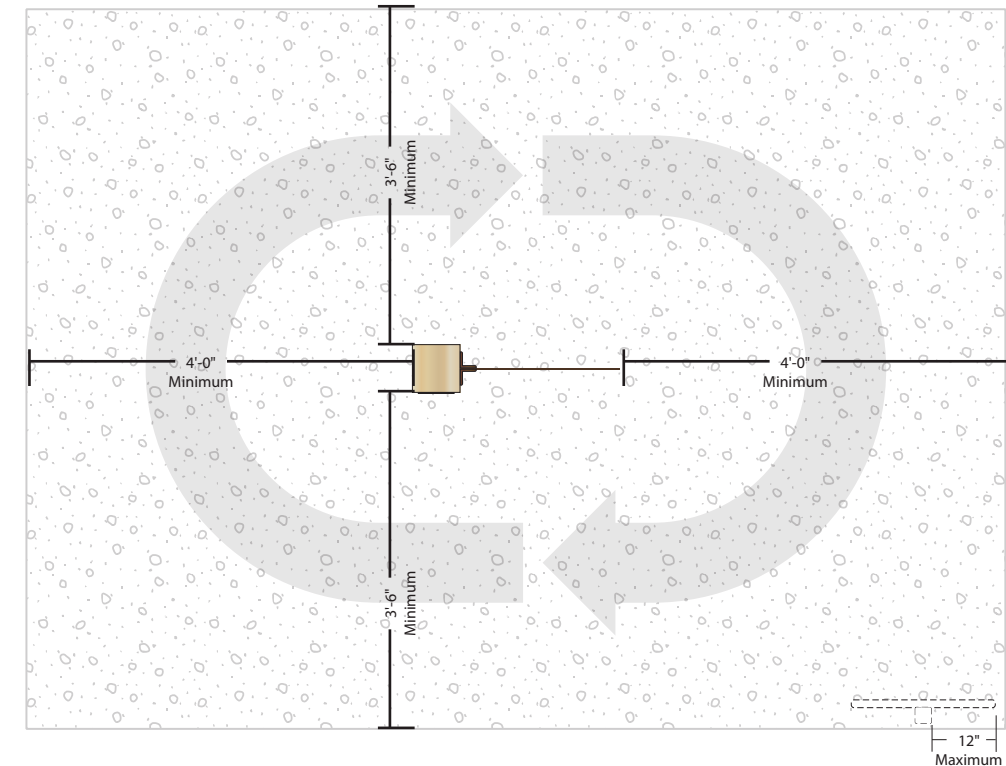
A pedestrian oriented sign, such as the K-4 kiosk, should have an accessible approach. If double-sided and intended to be viewed from two directions, in order to meet ADA guidelines for a

180 degree turn around a structure (less than 48 inches wide), clear widths shall be 42 inches (3'-6") minimum approaching the turn, 48 inches (4'-0") minimum at the turn and 42 inches (3'-6") minimum leaving the turn.

If a post mounted sign is located within a circulation area it may not project more than 12 inches (1'-0")

from the edge of the post. If it does project more than 12 inches, it must have a vertical clearance no greater than 27 (2'-6") inches from the ground.

All kiosks must be wheelchair accessible. If the sign is located further than the 3 ft from an accessible trail then an accessible path will be need to created to allow wheelchairs to approach



G1 GUIDE SIGNS AT ON-PATH INTERSECTION TYPES

The purpose of guide and wayfinding signs is to inform users of intersecting routes, direct them to important destinations, and generally to give information that will help them along their way in the most simple and direct manner.

The following illustrations show typical placements for the G1 sign type at on-path 3-way and 4-way intersections. It also shows variations depending on whether the sign is configured with one-panel or two-panels perpendicular to each-other, and whether those panels have double-sided or single-sided messaging.

It is preferred that signs be installed with the post positioned closest to the path so the blade facing away from the path. There must be at minimum two feet of clearance between the sign and the path.

The configuration of the sign and it's placement is dependent on the messaging needed and the environmental conditions of each sign location. Additional factors such as elevation, ground type, landscaping, visual obstacles, path width and configuration will need to be taken into consideration.

DOUBLE-SIDED:

The G1 sign panel may be single-sided or double-sided with messaging displayed for users traveling in opposite directions. This feature helps reduce the number

of sign posts installed, however should only be used when site conditions allow the user a clear view of both sign faces.

TWO-PANEL PERPENDICULAR:

The G1 sign type may also be configured with two-panels perpendicular to each other on a single post. This configuration, however, may not always accommodate double-sided messaging.

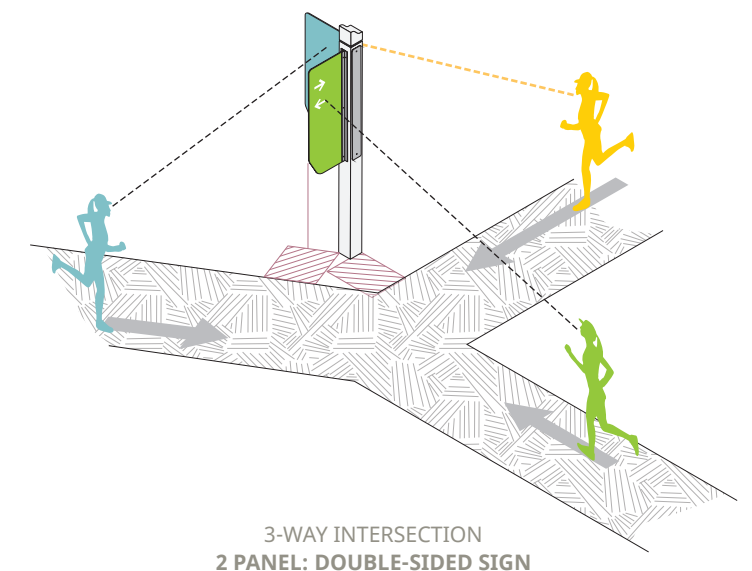
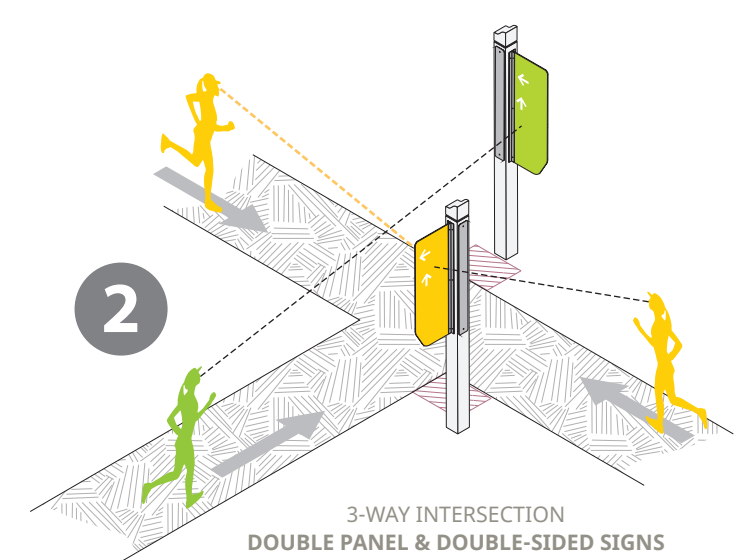
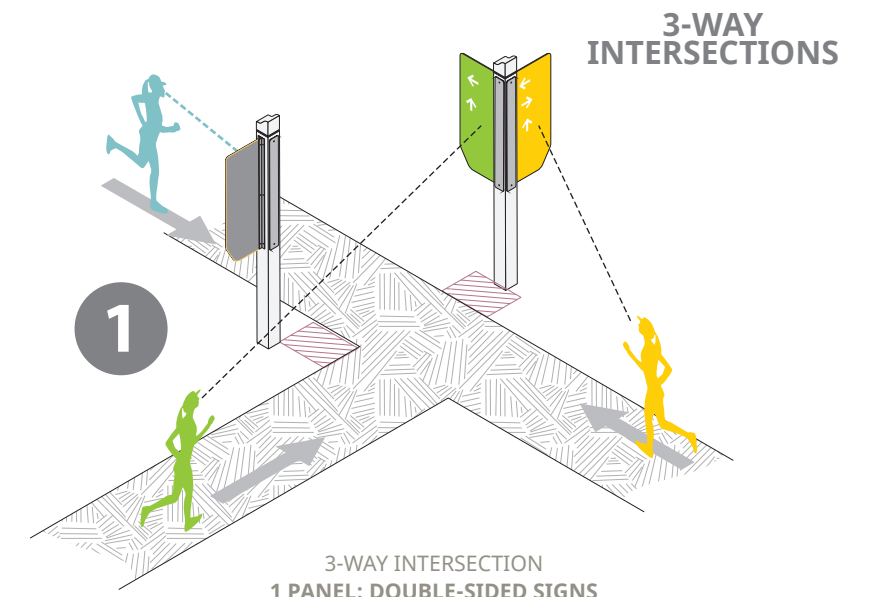
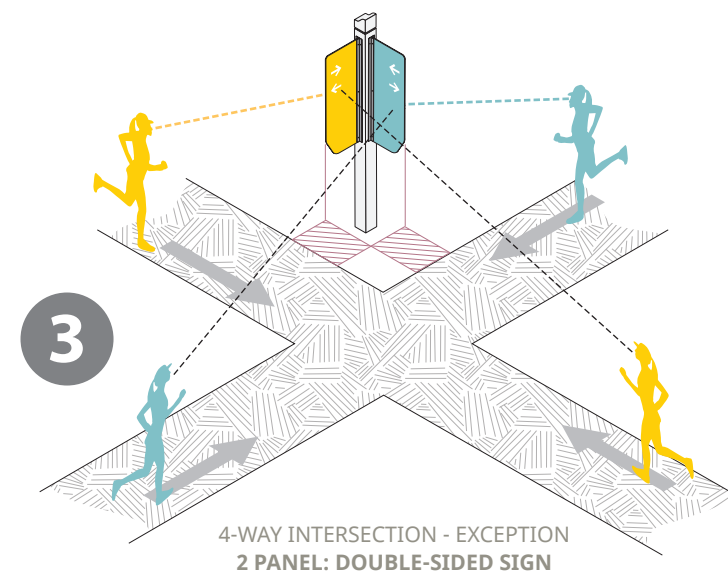
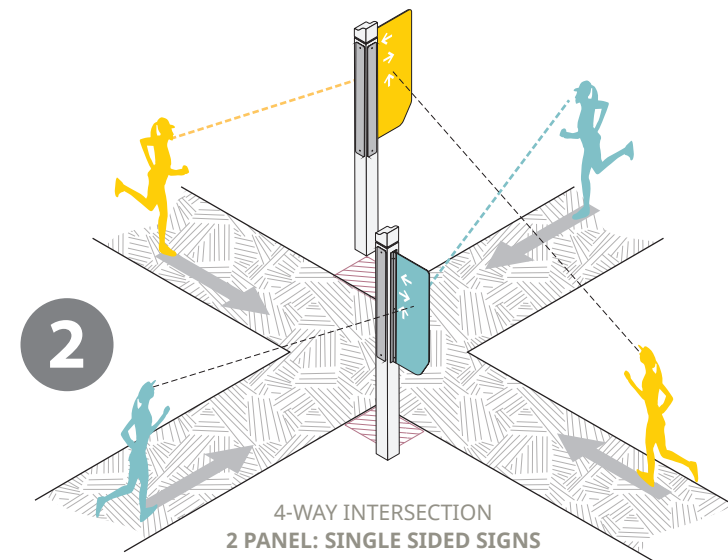
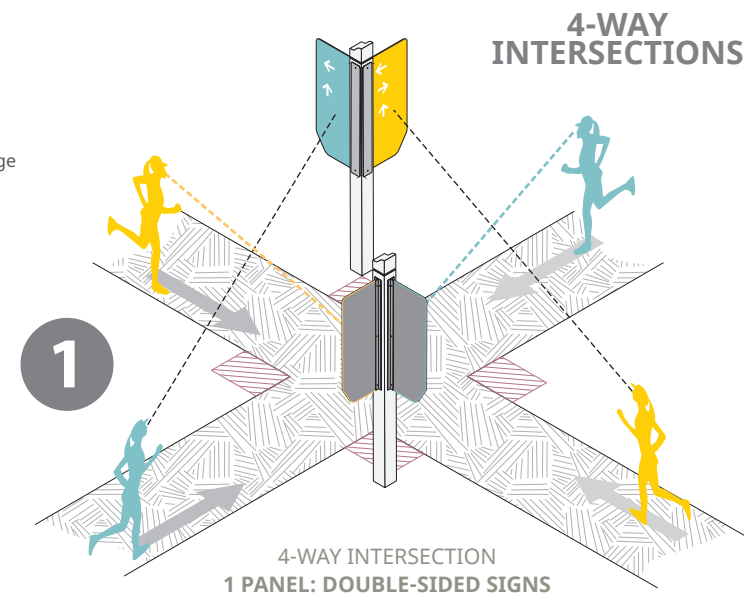
For example at a 4-way intersection, two signs with single-sided messaging at opposite corners will typically be needed, with the posts installed closest to the path.

As an exception, when conditions allow for only one sign post to be installed, a two-panel perpendicular sign may be utilized with the blades closest to the path, so it can accommodate double-sided messaging.

CHOOSING A CONFIGURATION

When programming signs, conditions and content need to be evaluated before determining which configuration to use. Option 1 in both instances is the typical for most locations. Options 2 or 3 are intended for less common instances where physically smaller trails or paths intersect with the Greenway or when providing direction to fewer or less prominent, tertiary destinations. The alternate options should also be explored when space for installation is an issue.

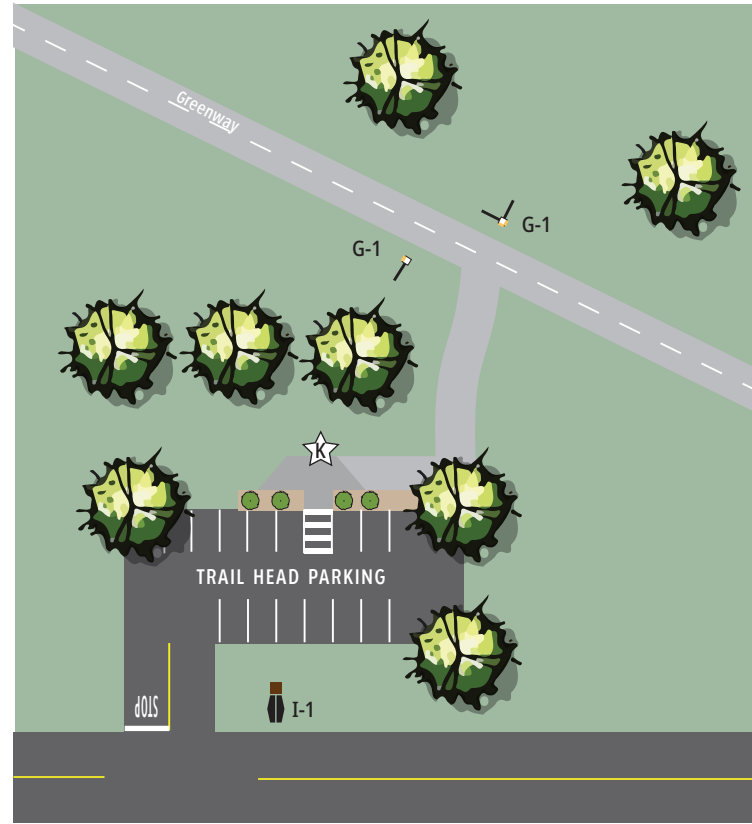
2'-0"
2'-0"
2 foot Minimum setback from edge of sign to edge of path



PLACEMENT STRATEGIES

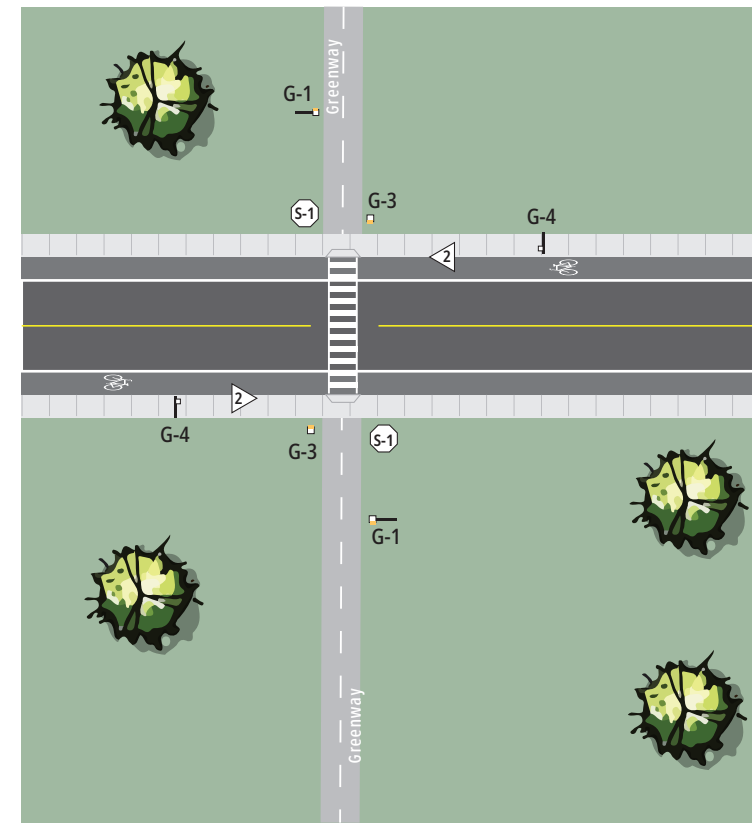
The following illustrations depict typical pathway scenarios and general placement for the sign types created for the Dakota County wayfinding system. These illustrations are not intended to show all signs and markings that may be necessary or advisable, or all types of design treatments that are possible at these locations. Nor do they show all minimum sight distances and setbacks. Please refer to AASHTO's *Guide for the Development of Bicycle Facilities* for further guidelines on the placement of control device (regulatory) signs and advance warning signs in Section 5.3.

TRAIL HEAD WITH PARKING



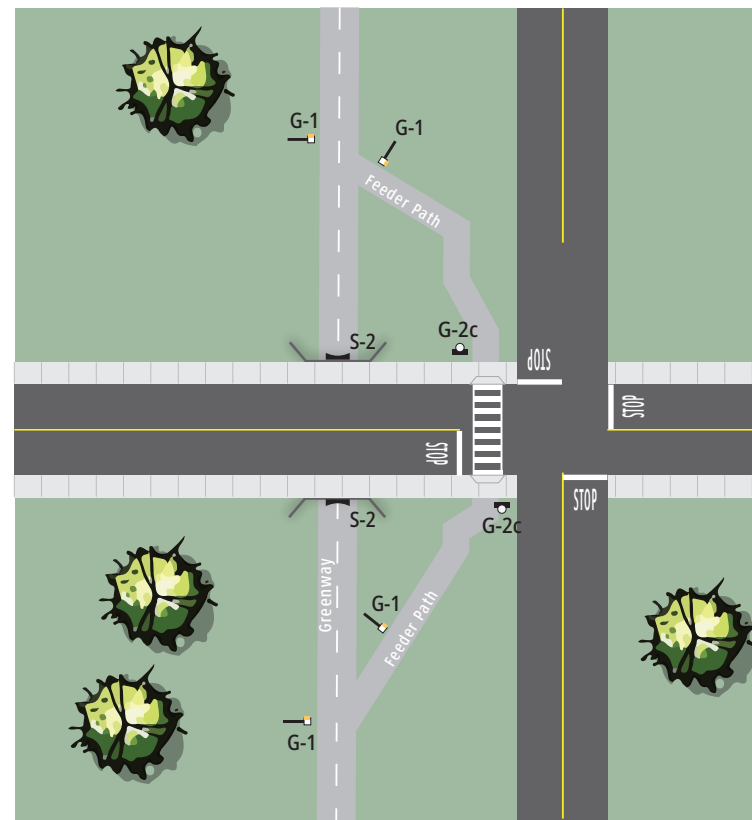
- G-1 - Guide Sign
- G-1 - Guide Double-Panel
- K1/K2 - Map Kiosk
- I-1 Vehicular Identification

STREET CROSSING



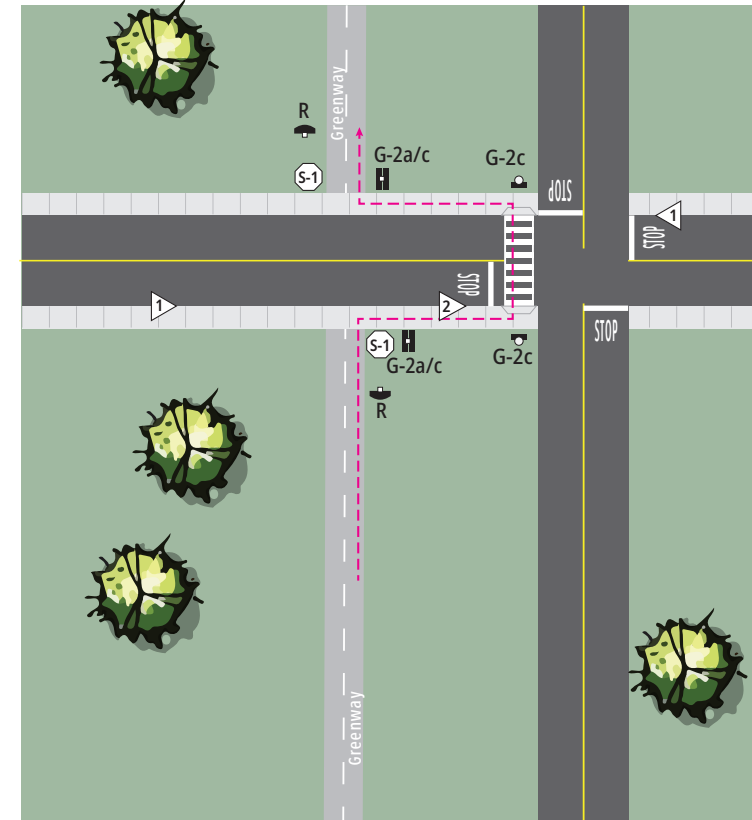
- G-1 - Guide Sign
- G-4 On Street Guide
- G-3a - Trailblazer, Greenway
- G-3b - Trailblazer, Amenities

UNDERPASS WITH STREET CONNECTION



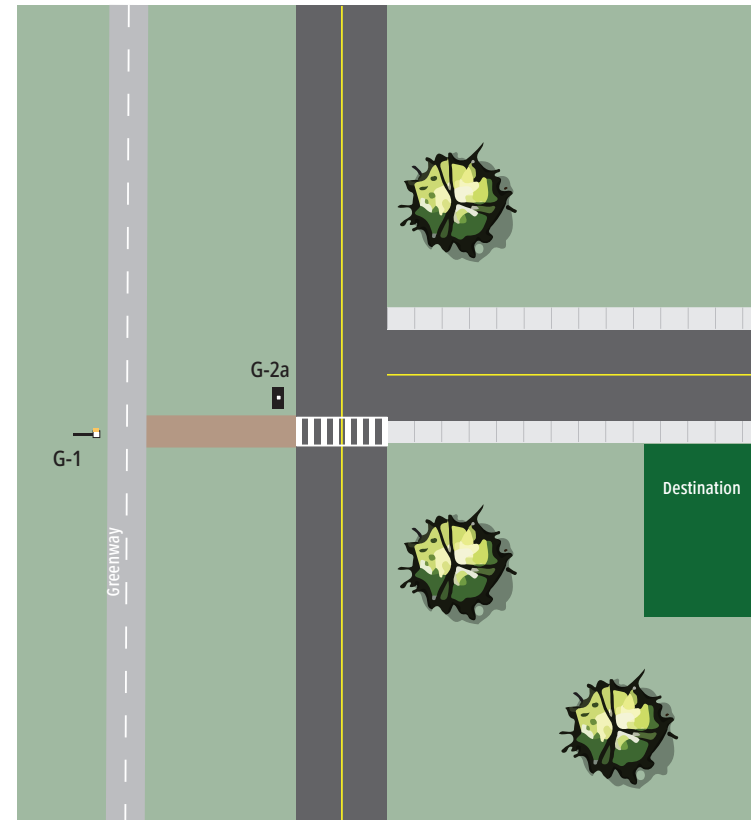
- G-1 - Guide Sign
- G-1 - Guide Double-Panel
- S-2 Underpass, street name
- G-2c Off Trail Guide

DIVERSION TO SIGNALLED CROSSING

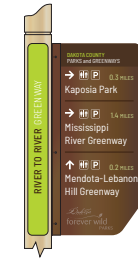


- G-2c Off Trail Guide
- G-2a Off Trail Guide
- S-1 Street Name ID & MUTCD - Stop Sign
- R-1 Do Not Cross, Regulatory
- MUTCD - Trail Crossing
- Optional: per MUTCD section 9B.18

OFF GREENWAY DESTINATION

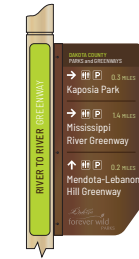
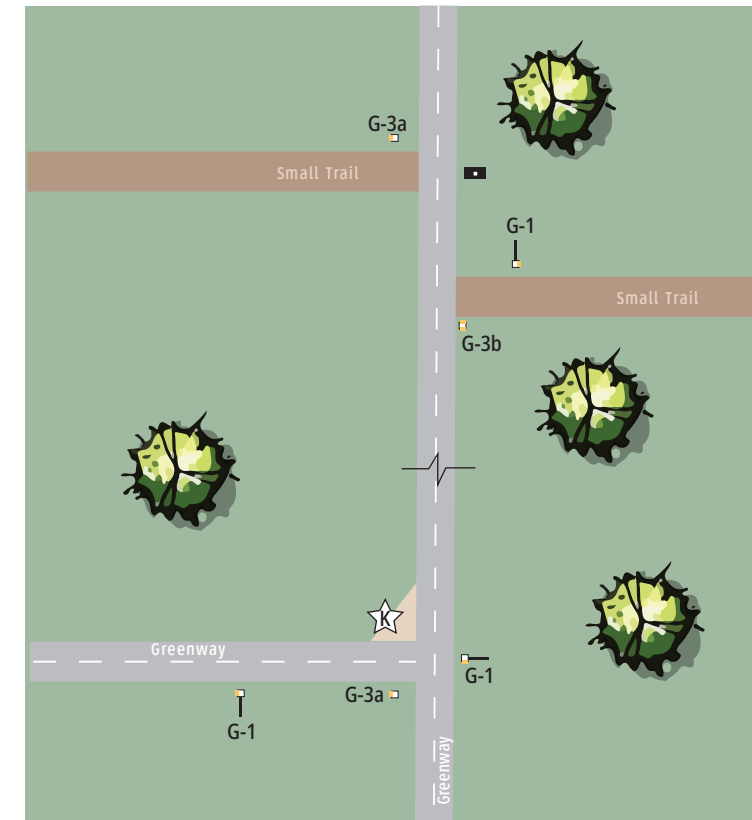


G-2a Off Trail Guide



G-1 Guide Sign

CONNECTING PATH



G-1 - Guide Sign



K1/K2 - Map Kiosk

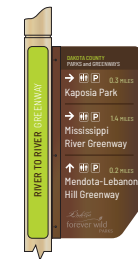
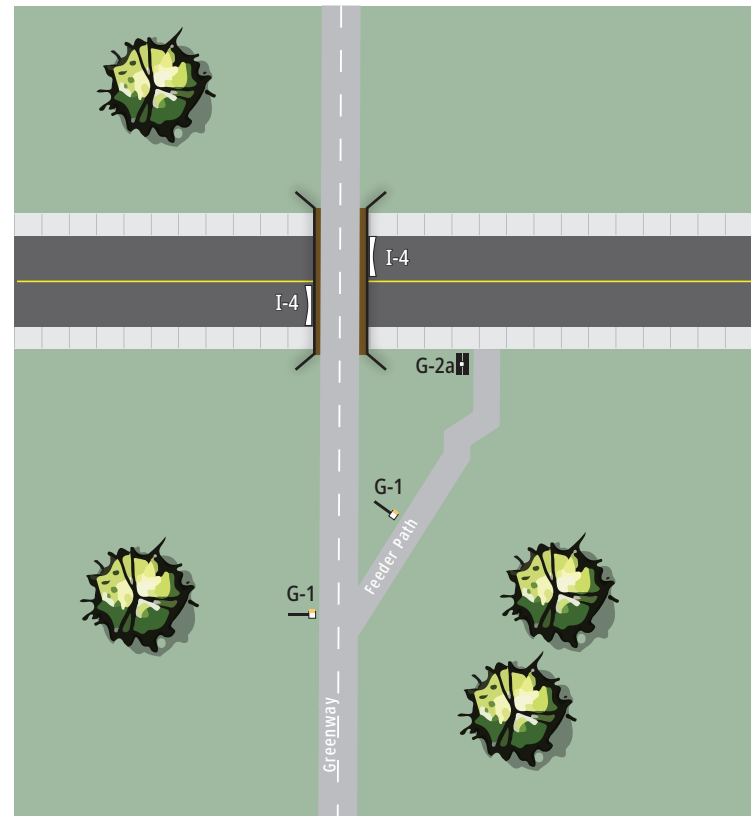
G-3a - Trailblazer, Greenway

G-3b - Trailblazer, Amenities

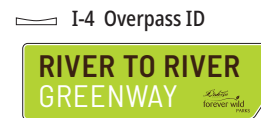


G-2a Off Trail Guide

OVERPASS WITH STREET CONNECTION



G-1 Guide Sign

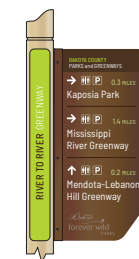


G-2a Off Trail Guide

PAVEMENT MARKINGS



K-4 (or K-3) Small Kiosk



G-1 Guide Sign

PM-3 Pavement Marking

SECTION 2

DESIGN INTENT DRAWINGS

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COLORS

1 White	2 Green	3 Light Green	4 Dark Brown	5 Cor-Ten Brown (Matthew's Faux Rust)	6 Light Brown	7 Tan	8 Soft Blue	9 Red, Regulatory	10 Blue, Regulatory	11 Yellow, Regulatory
Pantone®: White	2300 C	2282 C	7533 C	168 C	4272 C	4655 C	7458 C	200 C	2935 C	1235 C
Matthews Paint: ---	MP01514 Limette	---	MP00857 Cocoa Crispy	(to match existing)	MP02808 Cattail Brown	MP05622 Brown Bread	MP09965 Bayville Blue	---	---	---
Vinyl Sheeting: ---	---	---	---	---	---	---	---	---	---	---
CMYK:	35, 0, 100, 0	19, 0, 51, 0	0, 65, 78, 58	40, 65, 90, 35	44, 53, 66, 20	0, 23, 39, 25	55, 16, 15, 0	0, 100, 100, 0	100, 60, 0, 6	0, 27, 100, 6

TYPOGRAPHY The Barlow Semi Condensed family of fonts are used to typeset directional messaging, information signs, etc. See individual design drawings for details and specifications.

Barlow Semi Condensed - Regular

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo
Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789

Barlow Semi Condensed - Medium

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo
Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789

Barlow Semi Condensed - Semi-Bold

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo
Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789

Tracking: the horizontal spacing between a range of letters or characters.

Tracking: -100 TRACKING

Tracking: 0 TRACKING

Tracking: 100 TRACKING

Apostrophe Typesetting:

Correct: Visitor's

Incorrect: Visitor's

ATTENTION:
The fonts used for this project were selected specifically for this project by the Designer and Owner. No substitution of any other typefaces may be made. Under no circumstances are typefaces to be electronically distorted ("squeezed" or "extended") for purposes of fitting to the specified sign or general alteration of the sign face composition unless noted in the drawings. This includes (but is not limited to) stretching, squeezing, tilting, outlining or shadowing.

DIRECTIONAL MESSAGING

Maximum message width

Cap height

Path or

Leading

Destination

Leading

Name

Dashed lines for sizing and spacing purposes only. DO NOT PRINT

Messaging:
Type aligned left.
Tracking set to 5 for typical messaging.

Tracking may not be decreased lower than -10.
Tracking may not be increased.

ARROWS

Left Arrow

Ahead Arrow

Right Arrow

Veer Left Arrow

Veer Right Arrow

Proper orientation for sizing and rotation.

IDENTIFICATION / NAMING

Standard

DAKOTA COUNTY _____ 4 "Dakota County" - Medium
 PARKS and GREENWAYS _____ 1 "Parks and Greenway" - Regular

Lone Oak Trailhead _____ 1 Place Name - SemiBold

MINNESOTA RIVER GREENWAY _____ 1 "Greenway" - Regular
 _____ 2 Greenway Name - SemiBold

CAMP SPRING LAKE _____ 9 Supplemental Park Name/info. - SemiBold

LOGOS

Color

Black & White

Graphic Standards

Colors, Typography, Logos, Arrows

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.

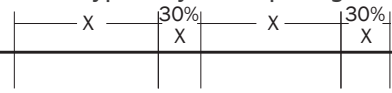
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SYMBOLS

Typical Symbol Spacing



REGULATORY

- No Motorized Vehicle [X MV]
- No All-Terrain Vehicles [X ATV]
- No Horses [X HORSE]
- No Smoking [X SMOKE]
- No Alcohol [X ALC]
- No Weapons [X WEP]
- Bike Yield to Peds [YIELD PED]
- Be Alert [ALERT]
- Mind your pets [MIND PET]
- Walk Bike [WALK BIKE]
- Electric Bike [EBIKE]
- Keep Right. Pass Left [KEEP RIGHT]
- Stand Aside [STAND]

AMENITIES Primary

- Vault/Portable Toilet [VT]
- Toilet, Flushing [T]
- Drinking Water [DW]
- Parking [P]
- Barrier Free [BF]
- Biking [BIKE]
- Walking [PED]
- Trail Access [TA]
- Swimming [SWIM]
- Shopping [SHOP]
- Food/Restaurant [FOOD]
- Charging Station [CHAR]
- Bike Repair Station [BRP]
- Information [INFO]

ACTIVITIES Secondary

- Library [LIB]
- School [SCH]
- Playground [PLAY]
- Nature Playground [PLAY 2]
- Adaptive Trails ADA [AT]
- Mountain Biking [MTBI]
- Hiking [HIKE]
- Pedestrian Crossing [PEDX]
- Interpretive Exhibit [IE]
- Overlook [OL]
- Shelter [SLT]
- Picnic Area [PIC]
- Picnic Shelter [PICS]
- Equipment Rental [RENT]
- Park [PARK]
- Dog On-Leash [DOG]
- Dog Off-Leash [DOGOL]
- Skijoring / Dogsledding [DS]
- Kick-sledding [KS]
- Sledding [SL]
- Ice Skating [IS]
- Classic Skiing / Skate Skiing [SKI]
- Snowshoeing [SS]
- Baseball [BB]
- Sand Volleyball [SVB]
- Archery [ARC]
- Roller/In-Line Skating [SKATE]
- Museum [MUSE]
- Portage [POR]
- Paddleboarding [PADDLE]
- Non-Motorized Launch [CANL]
- Canoe/Kayak [CANO]
- Boating [BOAT]
- Motorized Boat Launch [MBL]
- Camper / Boat Trailer Parking [TRLP]
- Fishing Pier [FP]
- Fishing [FISH]
- Ice Fishing [FI]
- Dam [DAM]
- Horseshoes [HS]
- Equestrian [EQ]
- Disk Golf [DISK]
- Historic/Cultural Site [HCS]
- Geocaching [GEO]
- Campground [CG]
- Group Campsite [GCG]
- Fire Ring [FRI]
- Wood Shed [WOOD]
- Camper Cabin [CABIN]
- Lodge [LODGE]
- Campground Office / Visitor's Center [COVC]
- Amphitheater/Inclement [AMP]
- Weather Shelter [IWS]
- Shower [SHOWER]
- Dump Station [DS]
- Vehicle Charging Station [EV]
- Trash [TR]
- Organics - Trash [TRO]
- Recycling [RE]
- Recycle - Trash [RET]
- Comm. Garden [GAR]

Graphic Standards

Symbols

- Colors**
- WHITE
 - GREEN
 - LIGHT GREEN
 - DARK BROWN
 - COR-TEN BROWN
 - LIGHT BROWN
 - TAN
 - SOFT BLUE
 - RED, REG
 - BLUE, REG
 - YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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forever wild PARKS

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US BIKE ROUTE

US BIKE Route

US BIKE Route #

Full Sign Type Array



I Identification



Design, size, and placement specifications for Recreational and Cultural Interest Area guide signs can be found in CHAPTER 2M, of the The Manual on Uniform Traffic Control Devices (MUTCD).



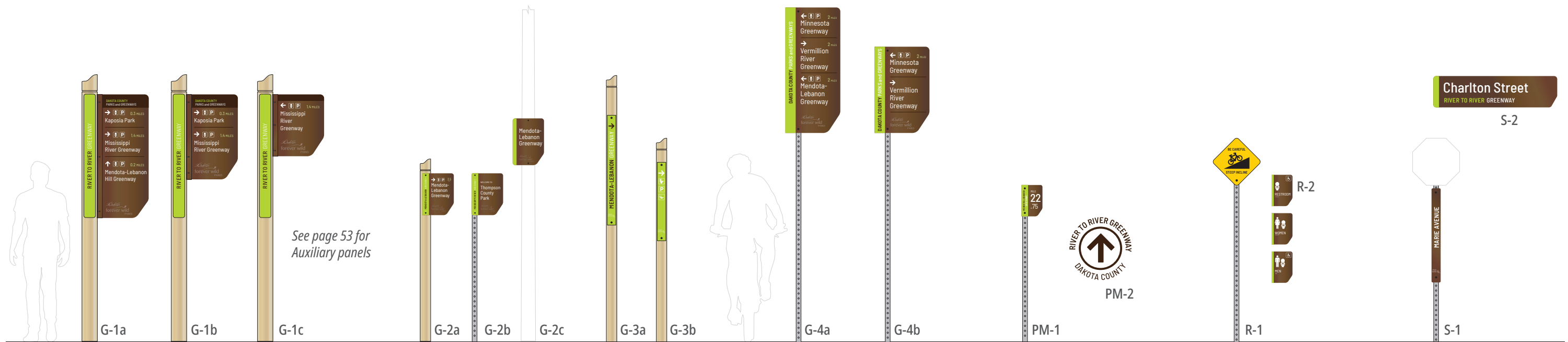
2M

2M Alternate Shape

2M - MUTCD Recreational and Cultural Interest Area, Vehicular Guide Signs



K Kiosks



G-1 On-Path Guide

G-2 Ped Guide

G-3 Trailblazer

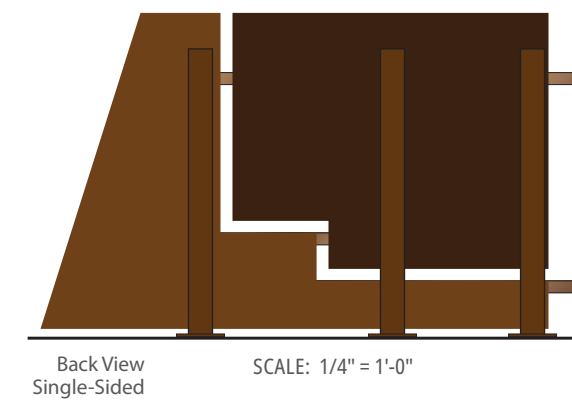
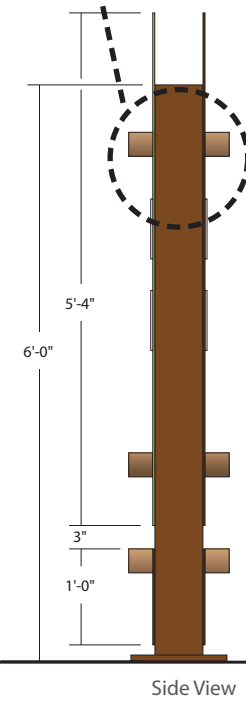
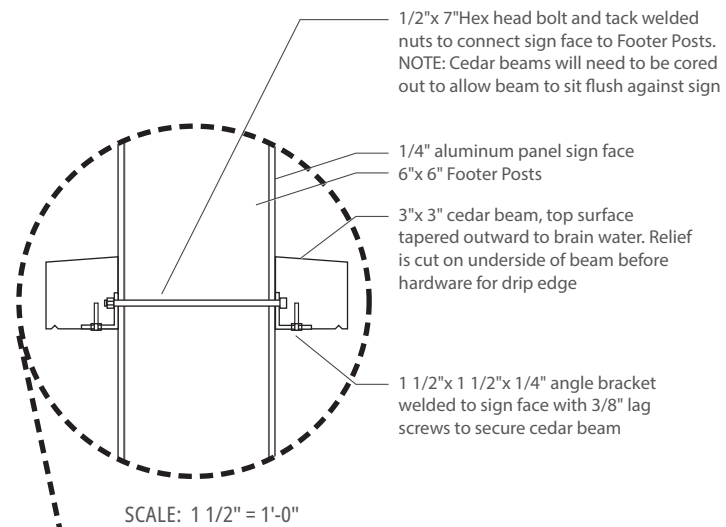
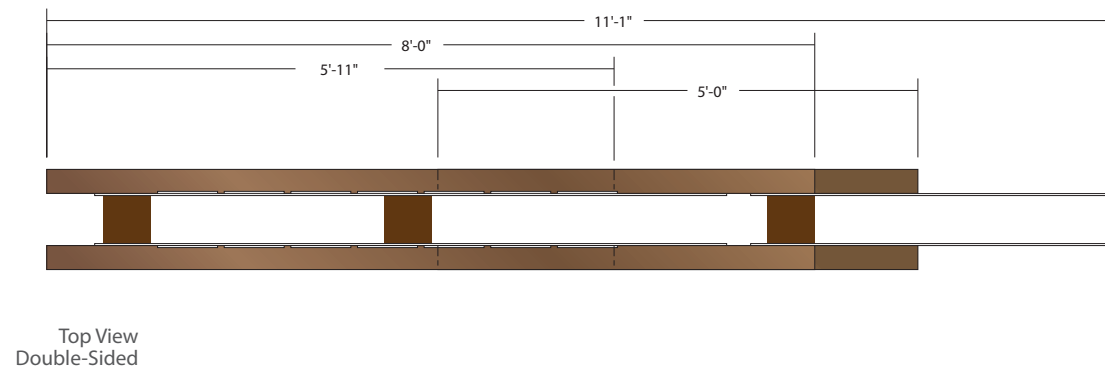
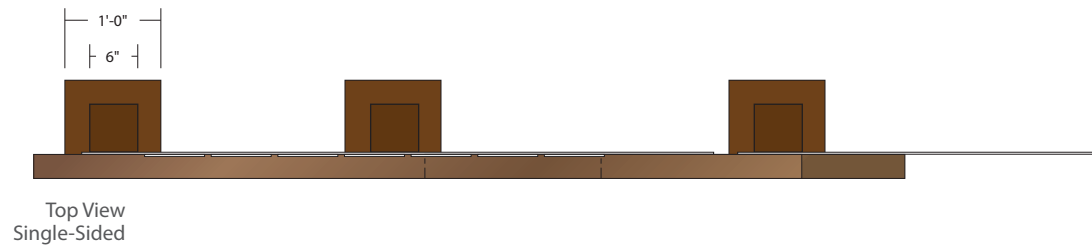
G-4 On-Street Guide

PM Path Markers

R Regulatory

S Street ID

See page 53 for Auxiliary panels



I-1

New Monument Identification

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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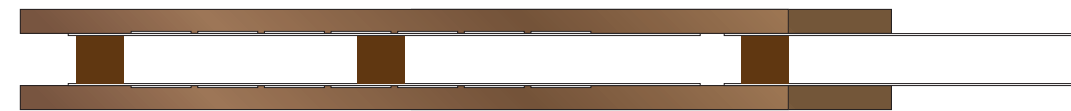
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I-1R

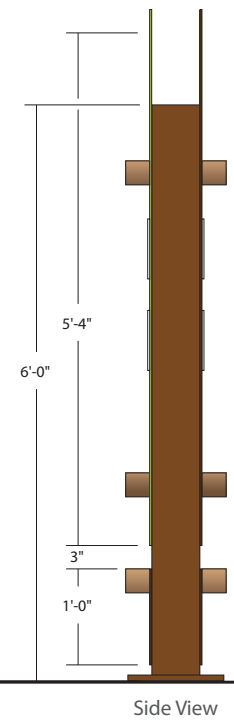
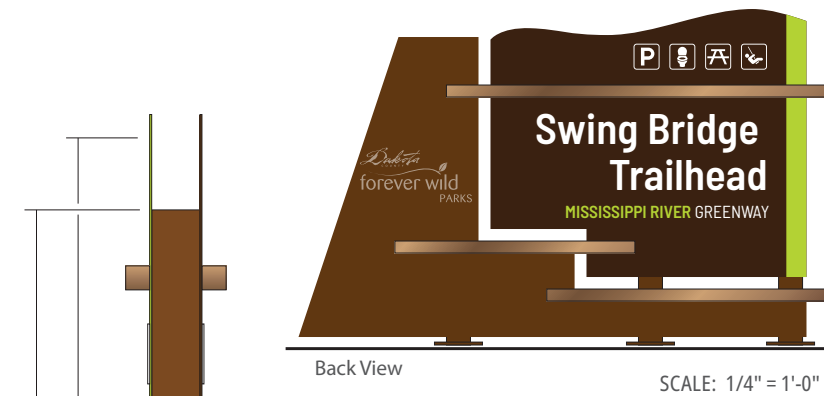
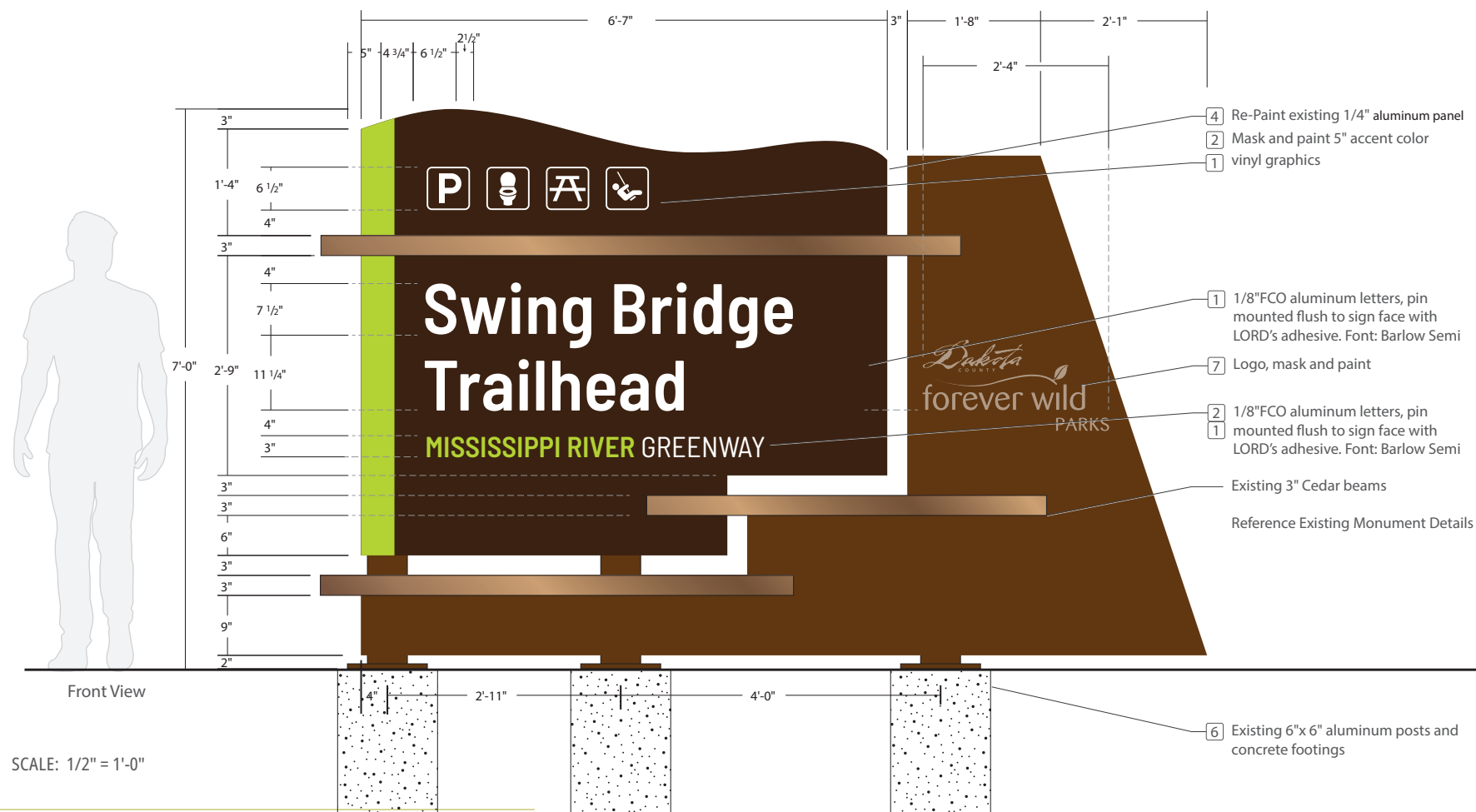
Monument Identification, Retro-fit



Example of existing sign



Top View



Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:

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Client: Dakota County



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I-1Ra

Monument Identification,
Retro-fit with stone base



Example of existing sign

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

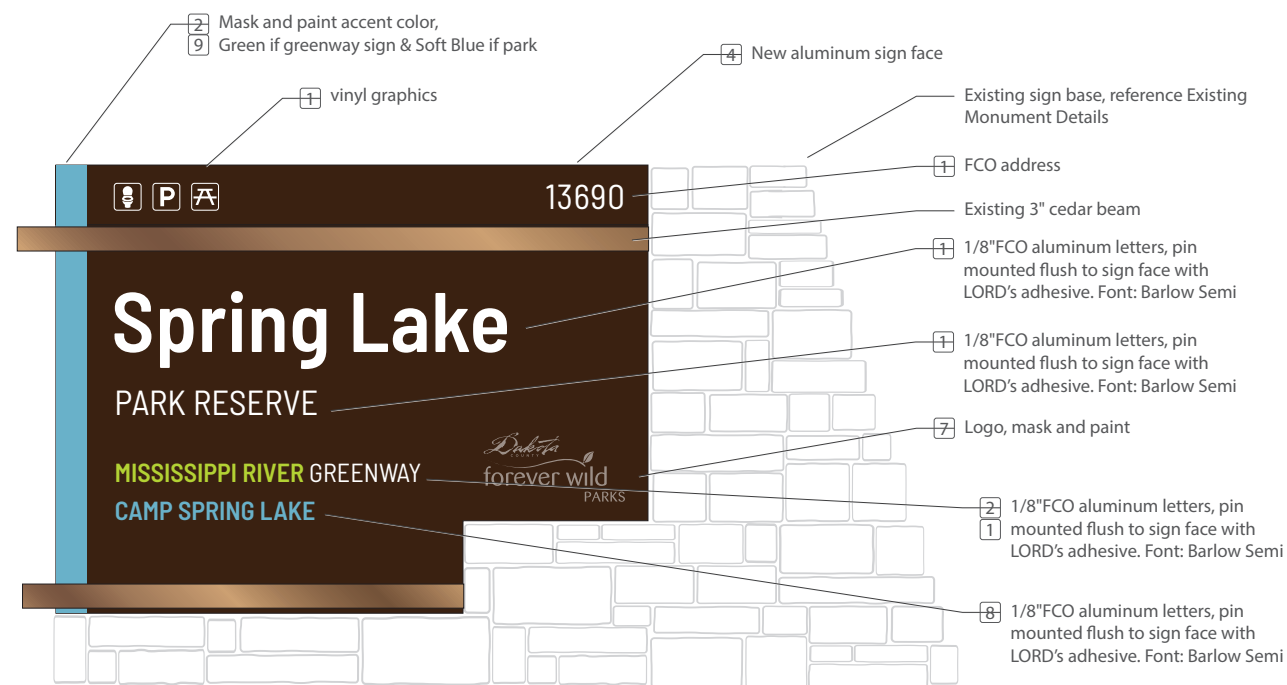
Note:
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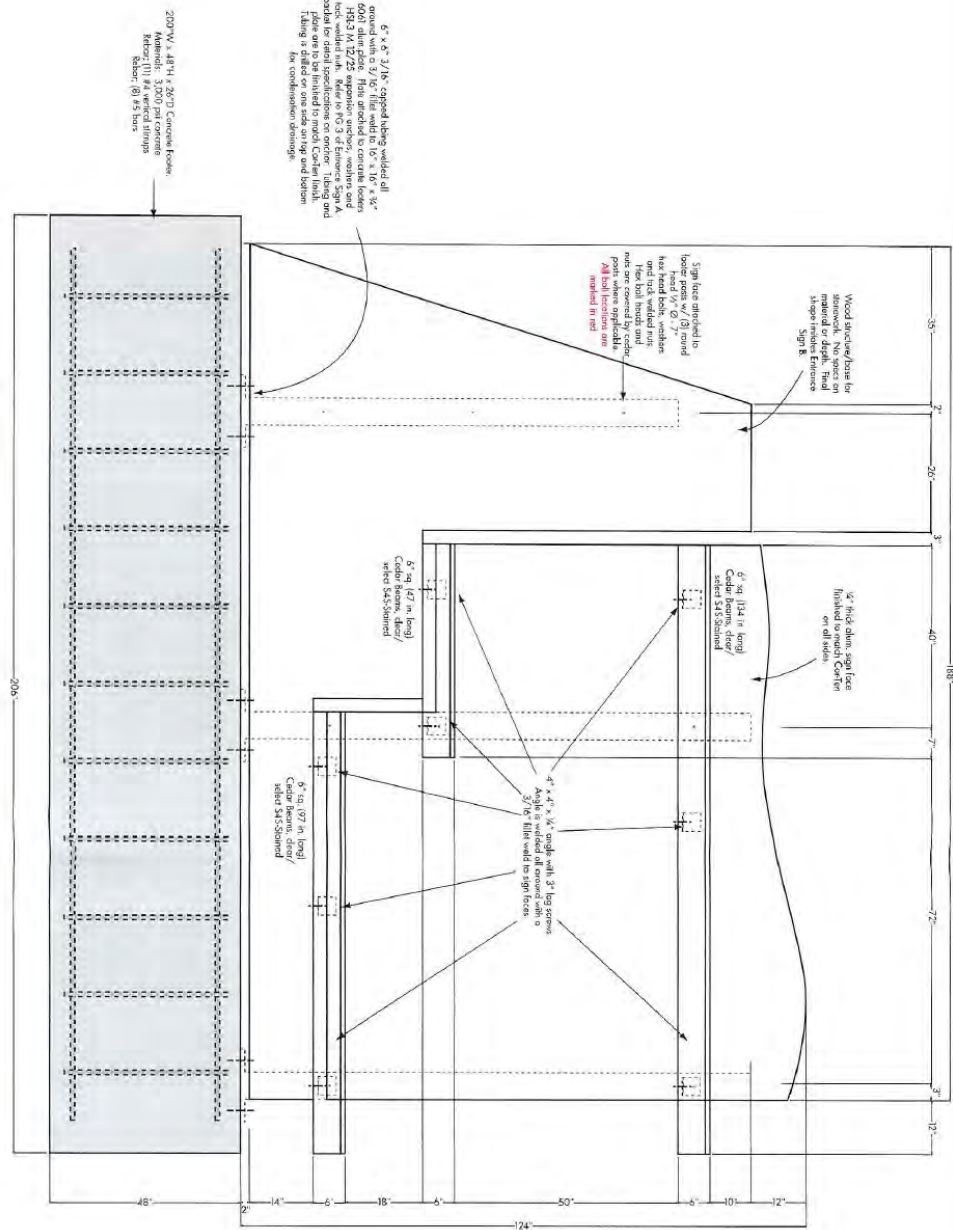
Front View



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

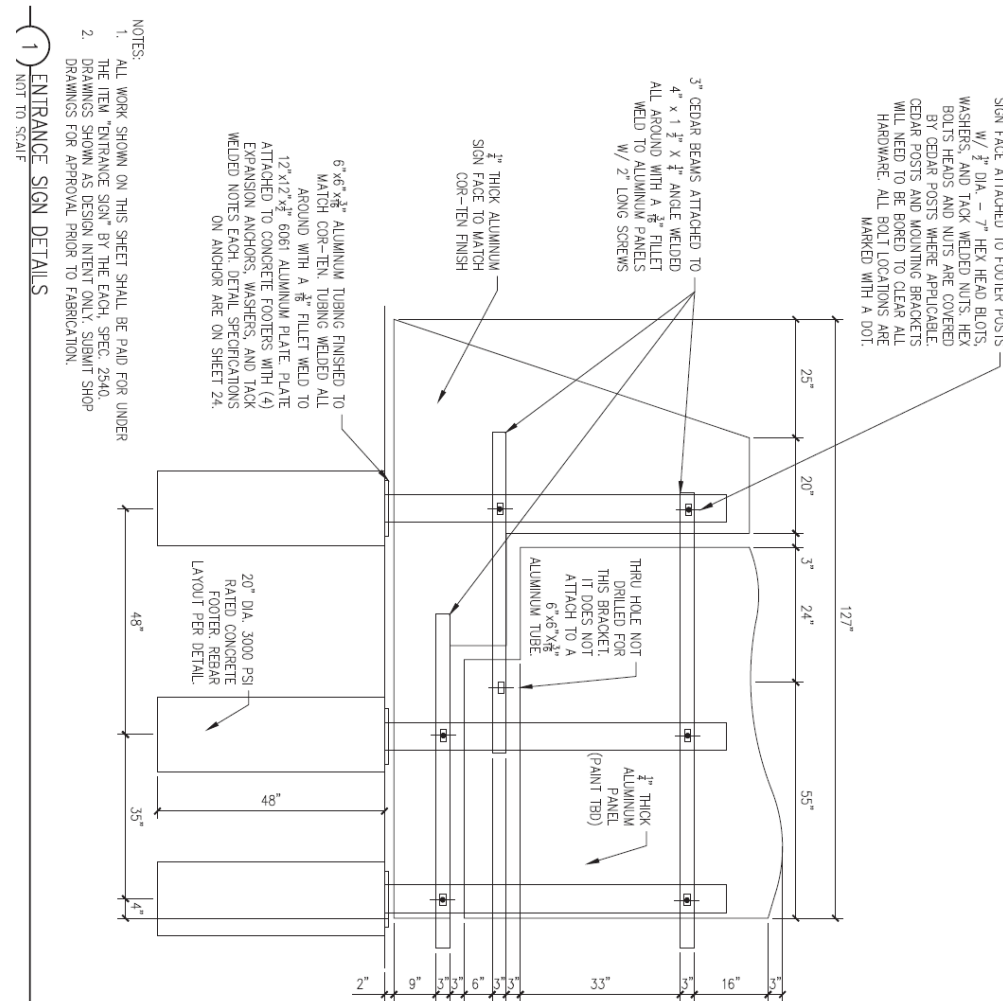
4.0 Structures

Figure 4.1.1 Monument Sign - Primary Entrance



4.0 Structures

Figure 4.1.2 Monument Sign - Secondary Entrance



- NOTES:
1. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER THE ITEM ENTRANCE SIGN BY THE EACH, SPEC. 2940.
 2. DRAWINGS SHOWN AS DESIGN INTENT ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.

1 ENTRANCE SIGN DETAILS
NOT TO SCALE

Details

Existing Monument Details

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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I-2a/b

Greenway ID, Freestanding

I-2c/d

Greenway ID, Supplemental

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
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12/02/22	Draft 2
02/28/23	Final

Note:
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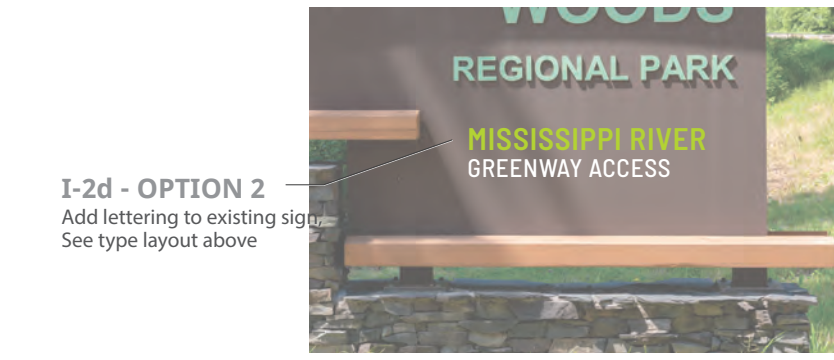
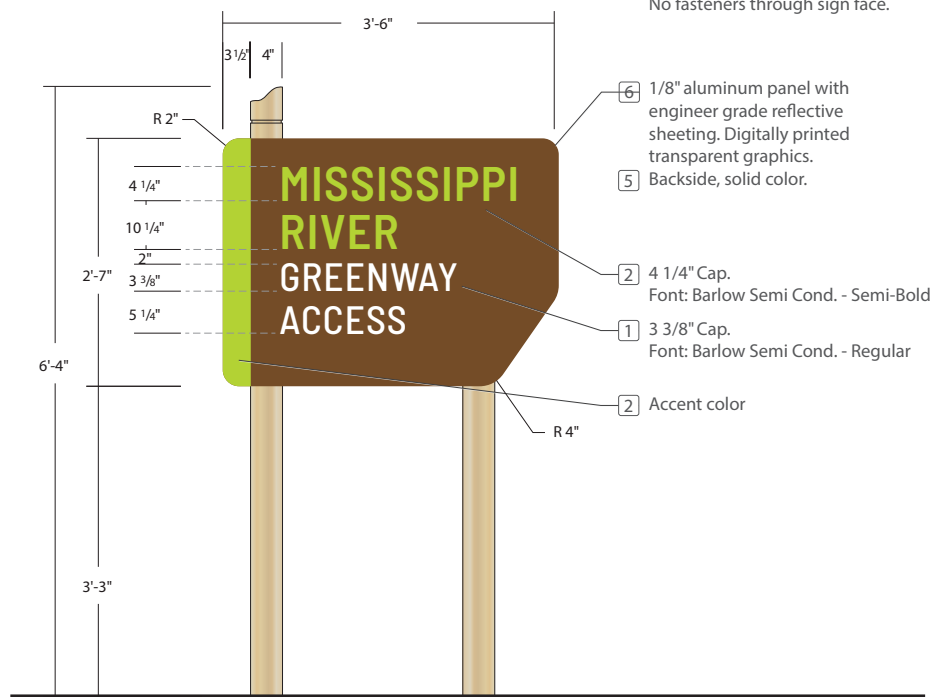
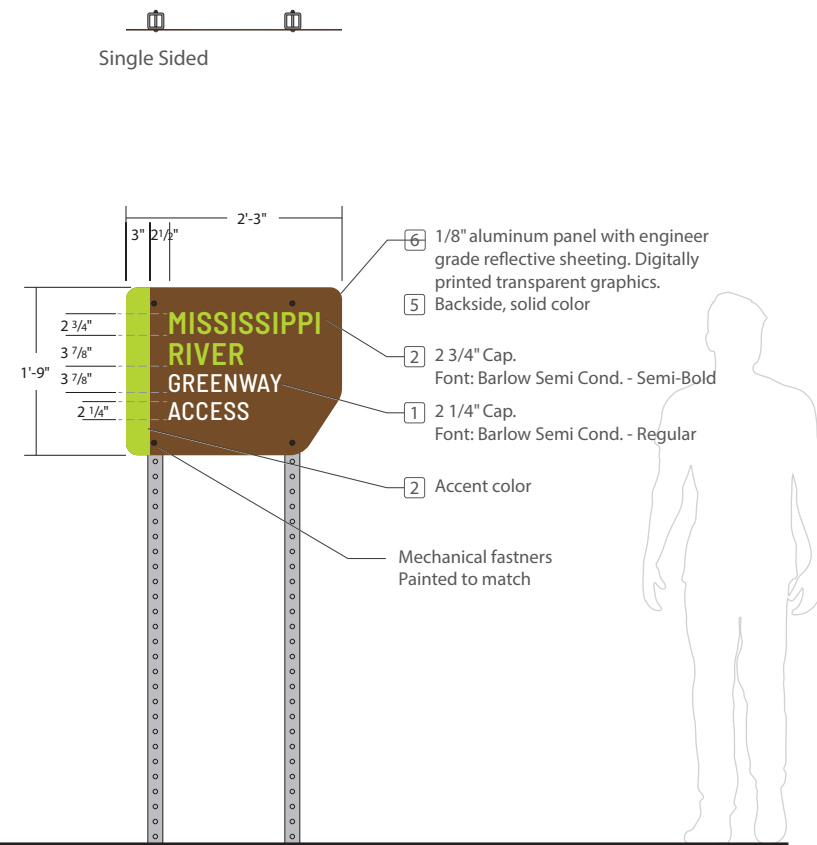
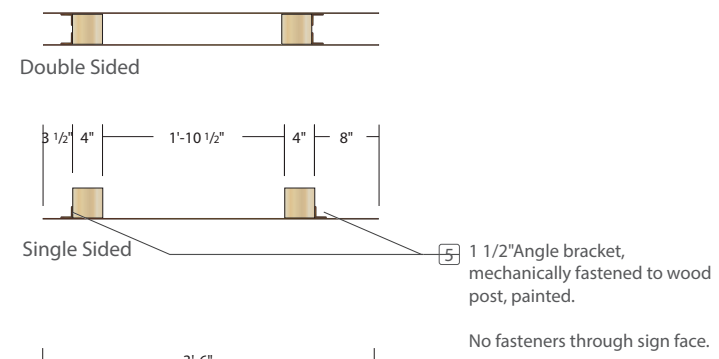
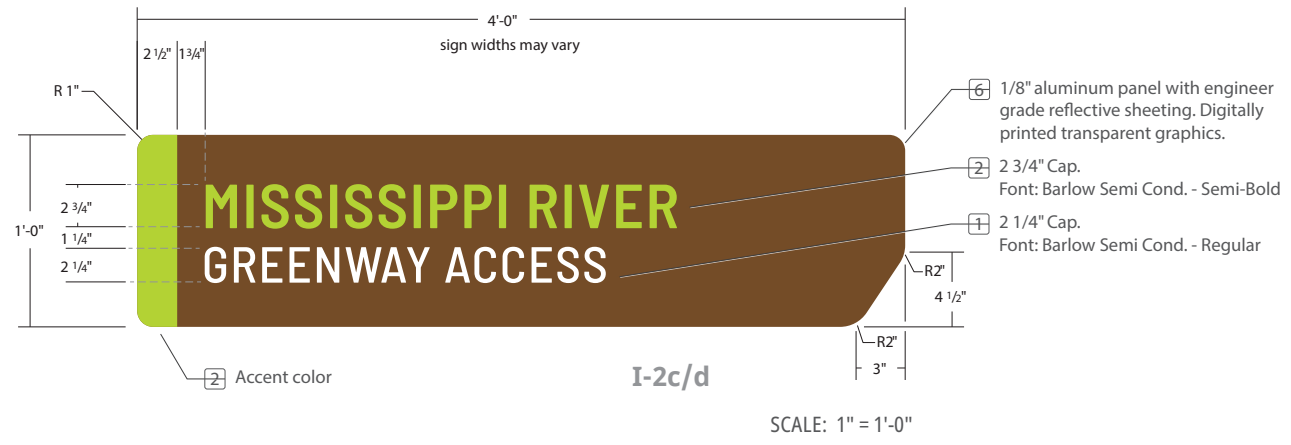
Client: Dakota County

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 PARKS

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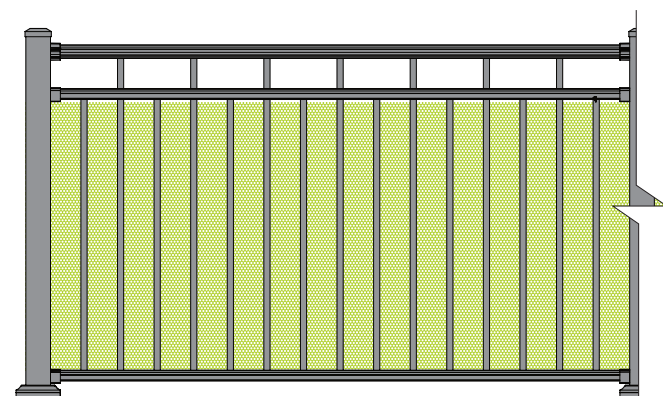
Example



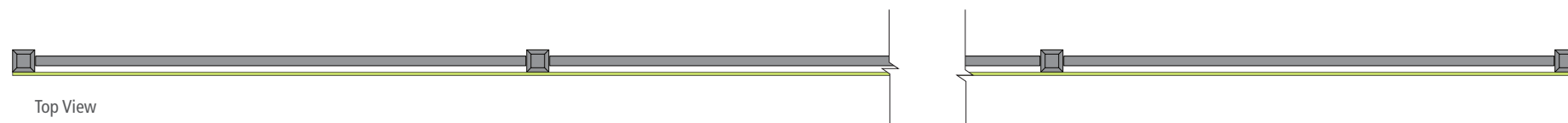
SCALE: 1/2" = 1'-0"

I-3

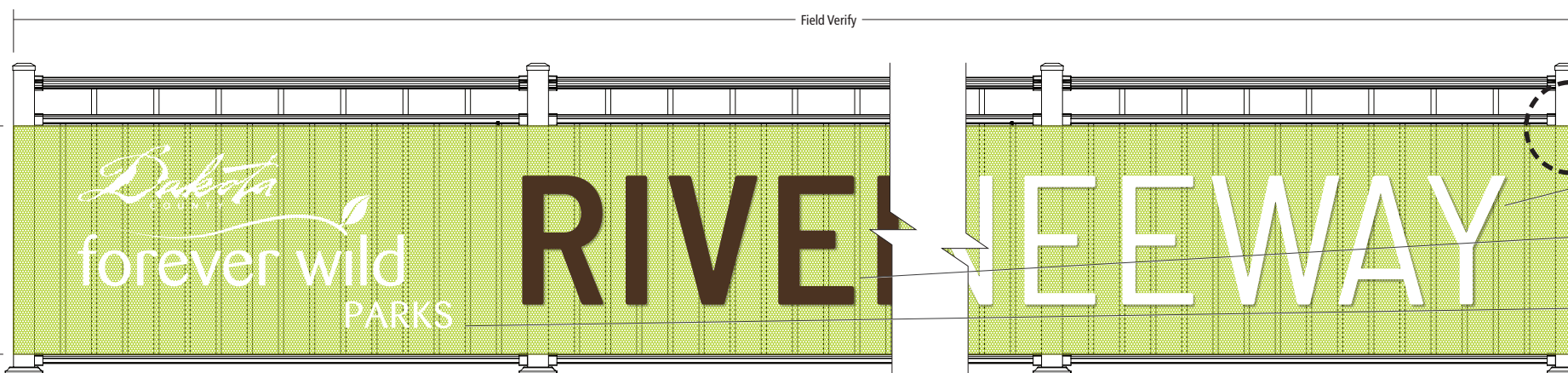
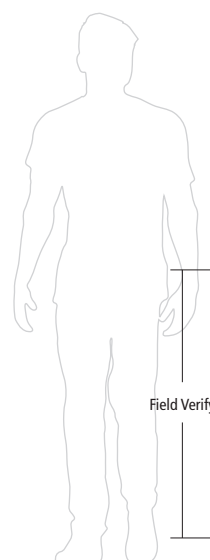
Bridge Identification



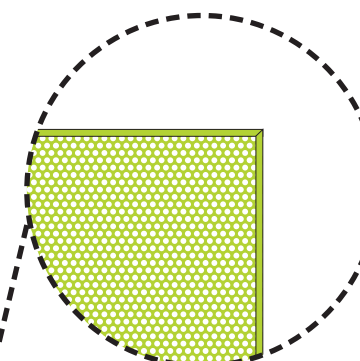
Back (inside) View



Top View



Front View



- 2 Perforated aluminum with Edge Frame mounted to existing railing. Fabricator to engineer mounting attachments. Seams as required.
- 1 1/8" FCO aluminum letters mounted flush to perforated aluminum. Font: Barlow Semi Condensed - Regular
- 4 1/8" FCO aluminum letters mounted flush to perforated aluminum. Font: Barlow Semi Condensed - Semi-Bold
- 1 Logo masked and painted directly to perforated aluminum.

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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

I-4

Overhead Identification



Example

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG



Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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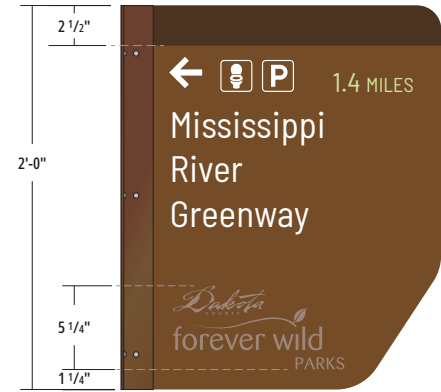
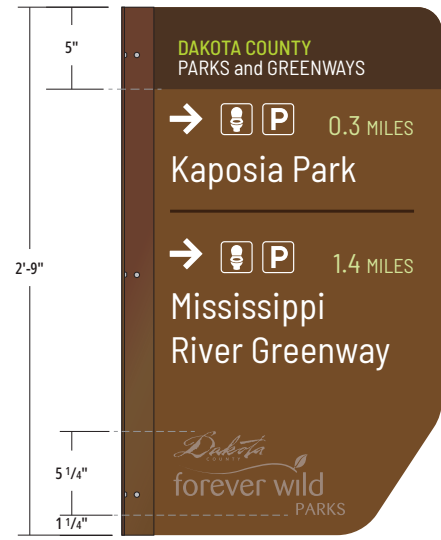
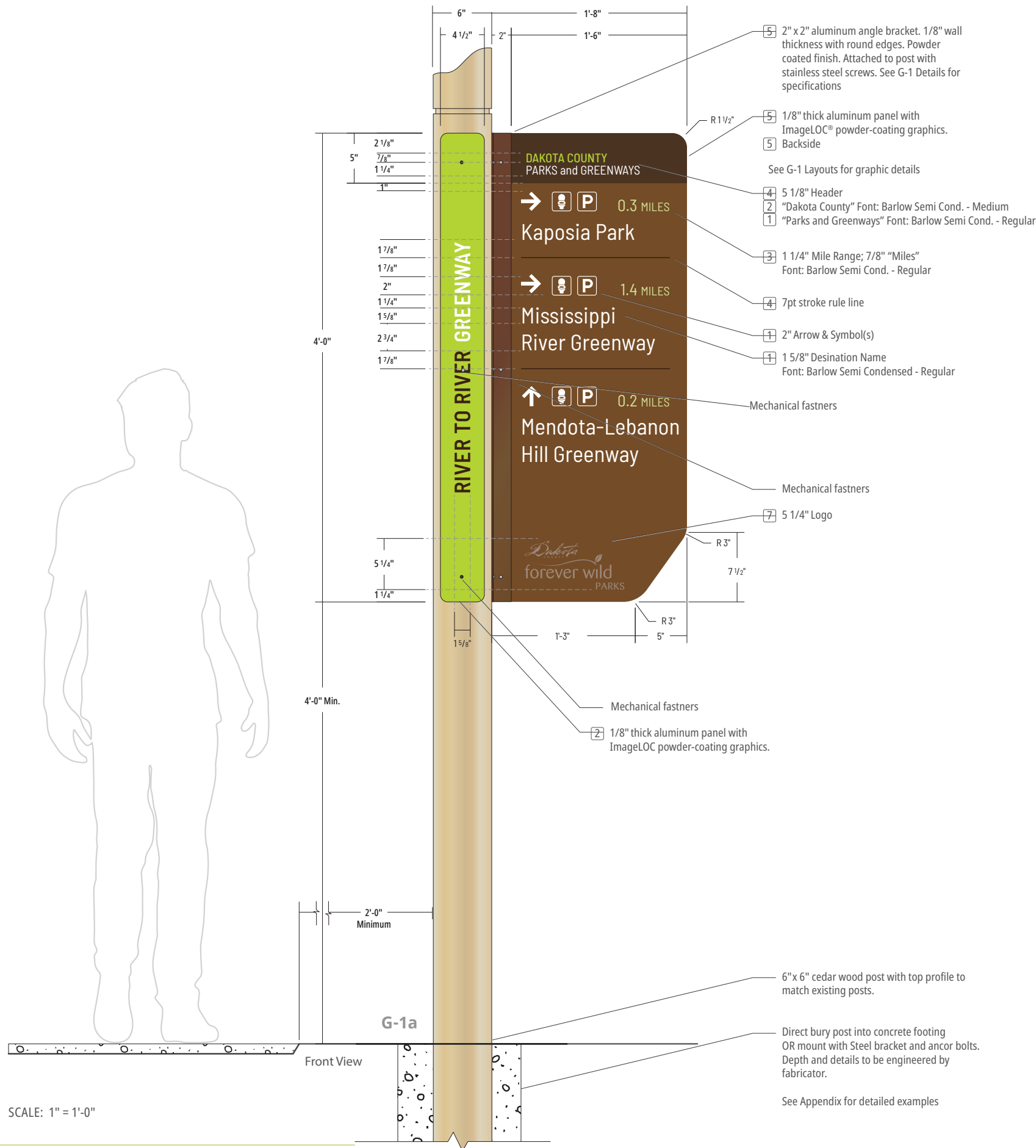
CORBIN
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SCALE: 1" = 1'-0"

G-1

Guide Signs



Graphic Process Options:

- 1) **Permanent Panel**
ImageLOC® - Direct to surface printed graphics heat fused to aluminum. 10 year warranty.
- 2) **Short Term/Temporary Panel**
Digitally printed vinyl graphics applied to aluminum substrate with UV/graffiti protecting laminate. 3 year warranty.
IF single-sided backside to be painted [5] brown to match.

Colors

1	WHITE
2	GREEN
3	LIGHT GREEN
4	DARK BROWN
5	COR-TEN BROWN
6	LIGHT BROWN
7	TAN
8	SOFT BLUE
9	RED, REG
10	BLUE, REG
11	YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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Traverse City, MI 49684
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SCALE: 1" = 1'-0"

G-1 Details

Single Panel
Double Panel

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

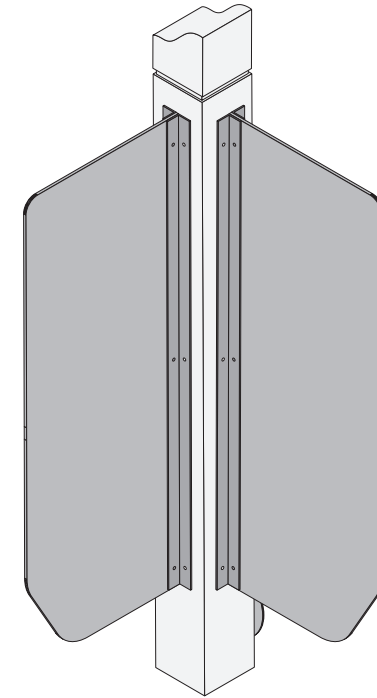
Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.

Client: Dakota County

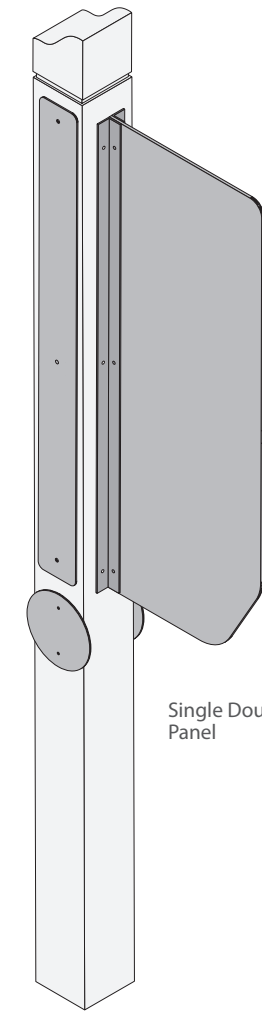


CORBIN
DESIGN

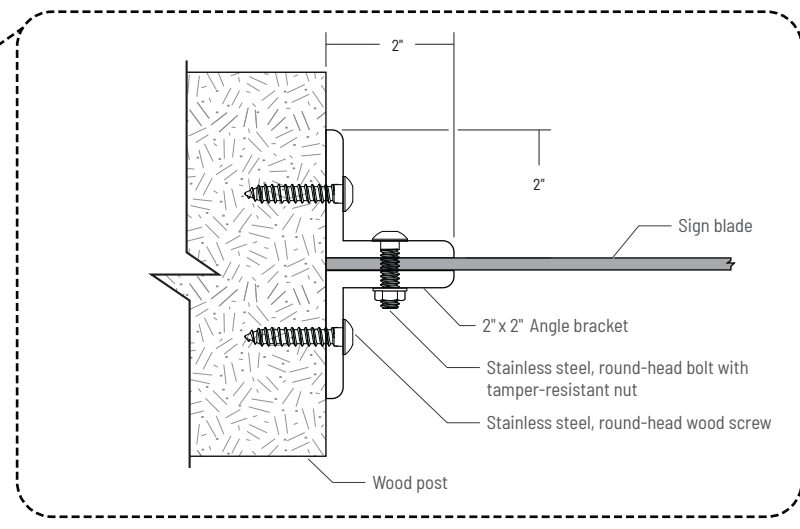
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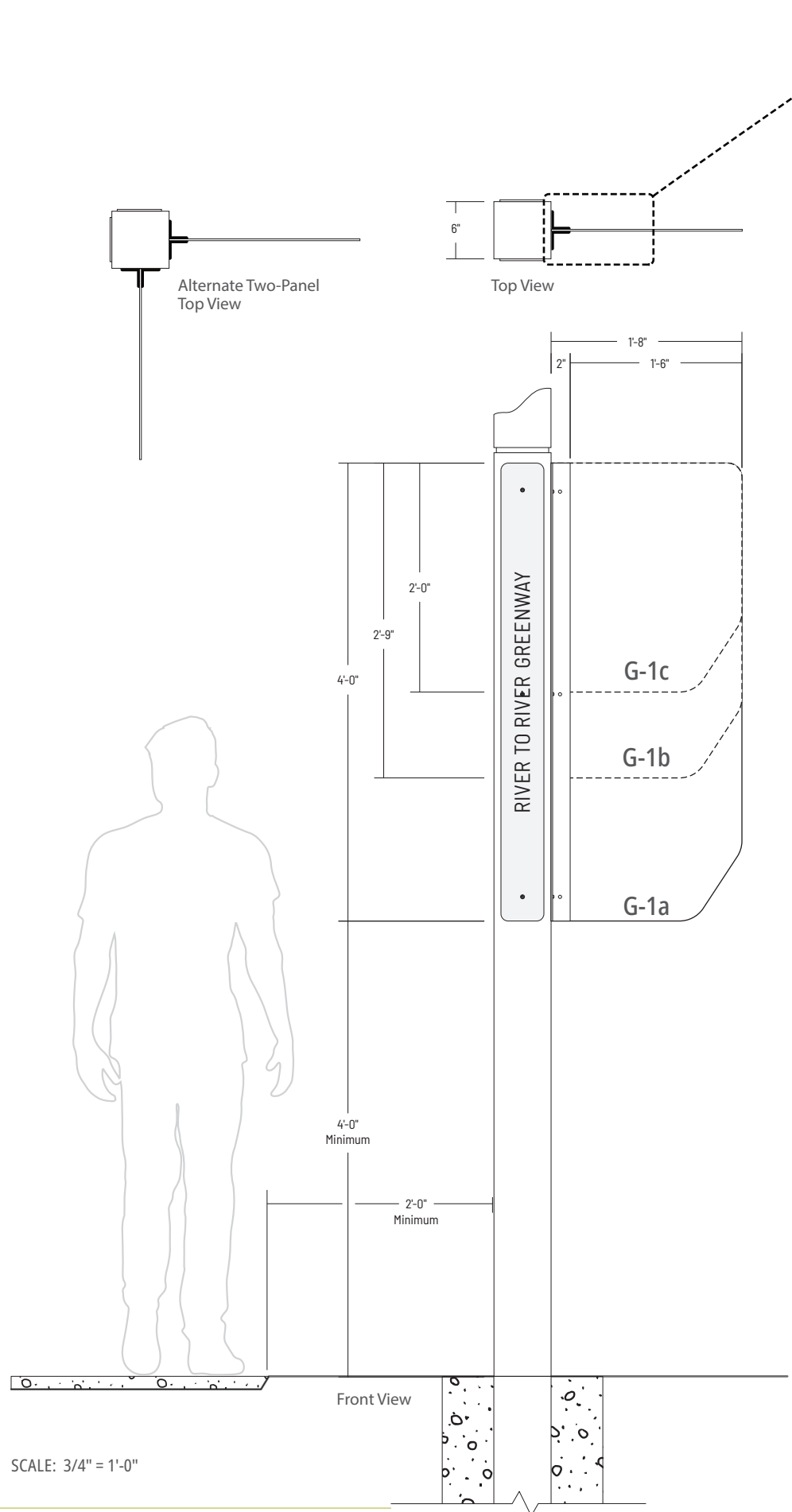
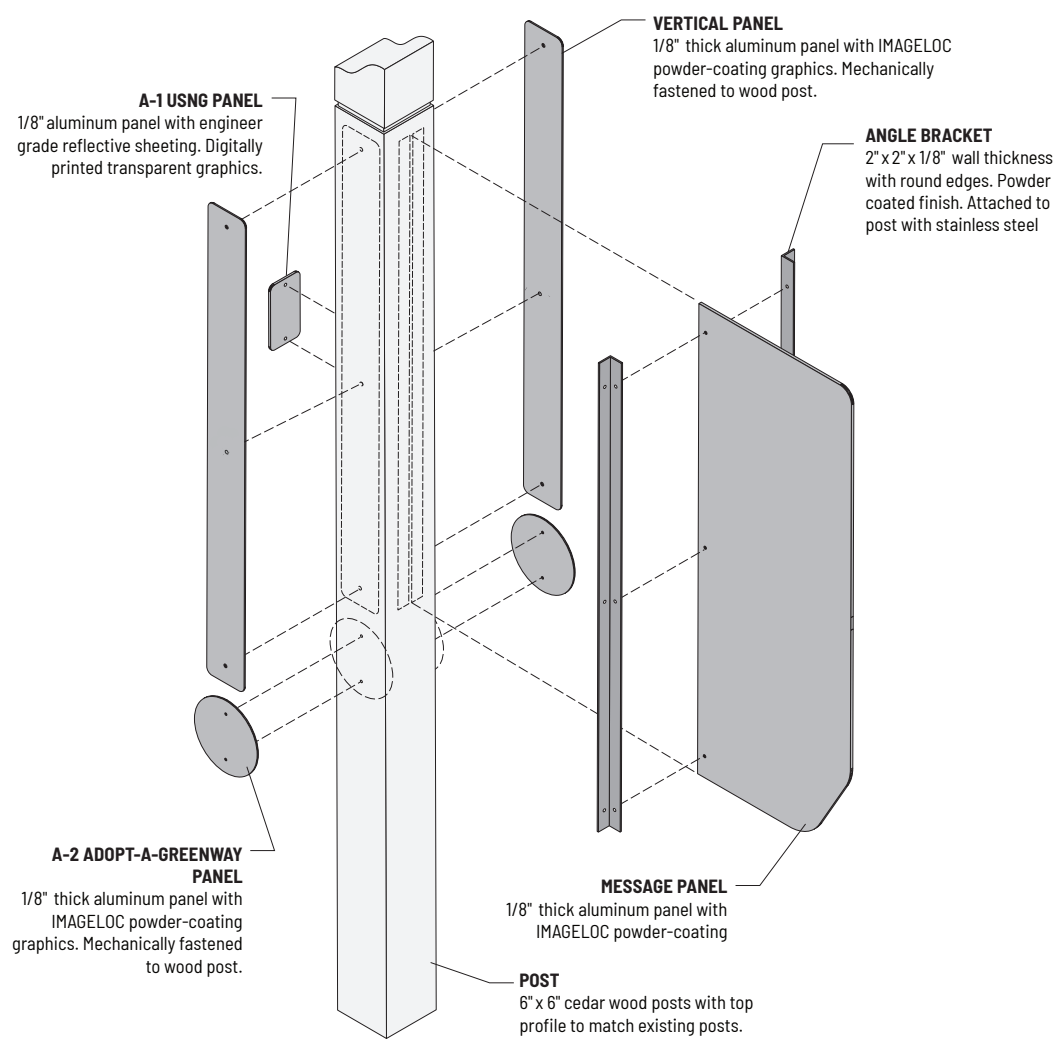
Alternate Two-Panel Configuration



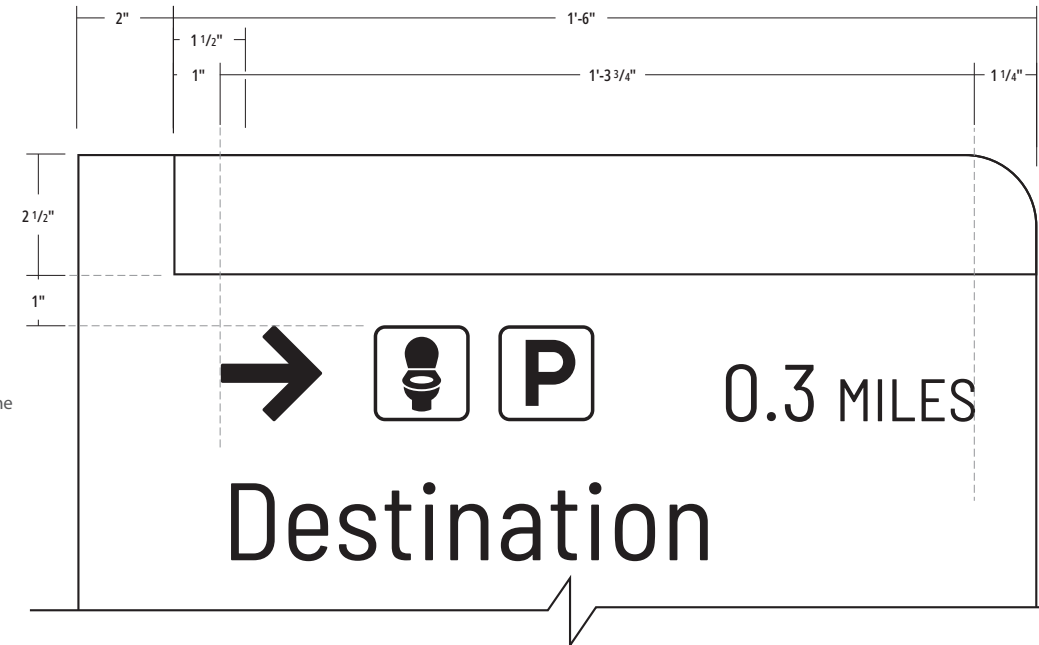
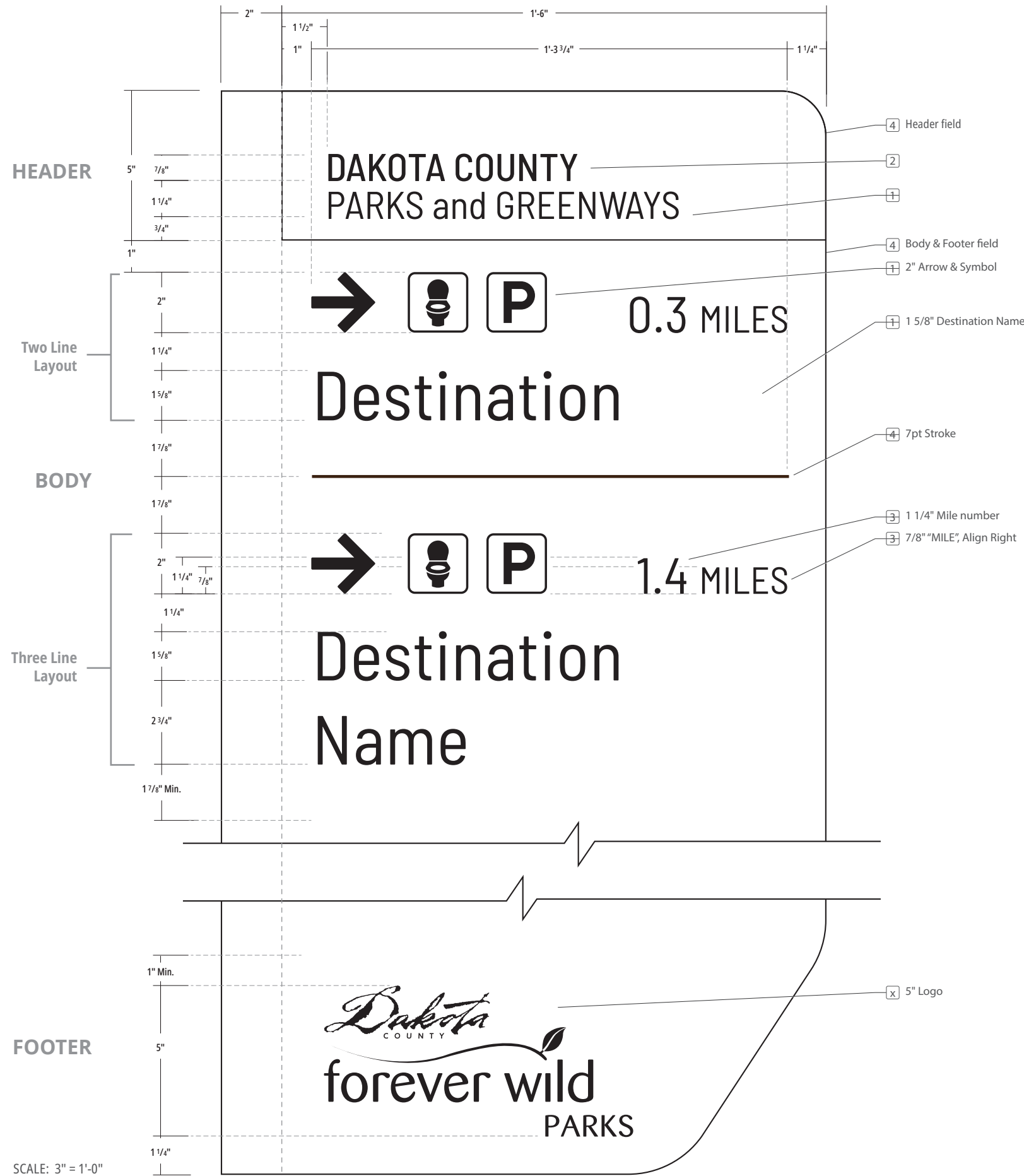
Single Double-sided Panel



Connection Detail
SCALE: 1:3



SCALE: 3/4" = 1'-0"



G-1 Layouts Graphic Details

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

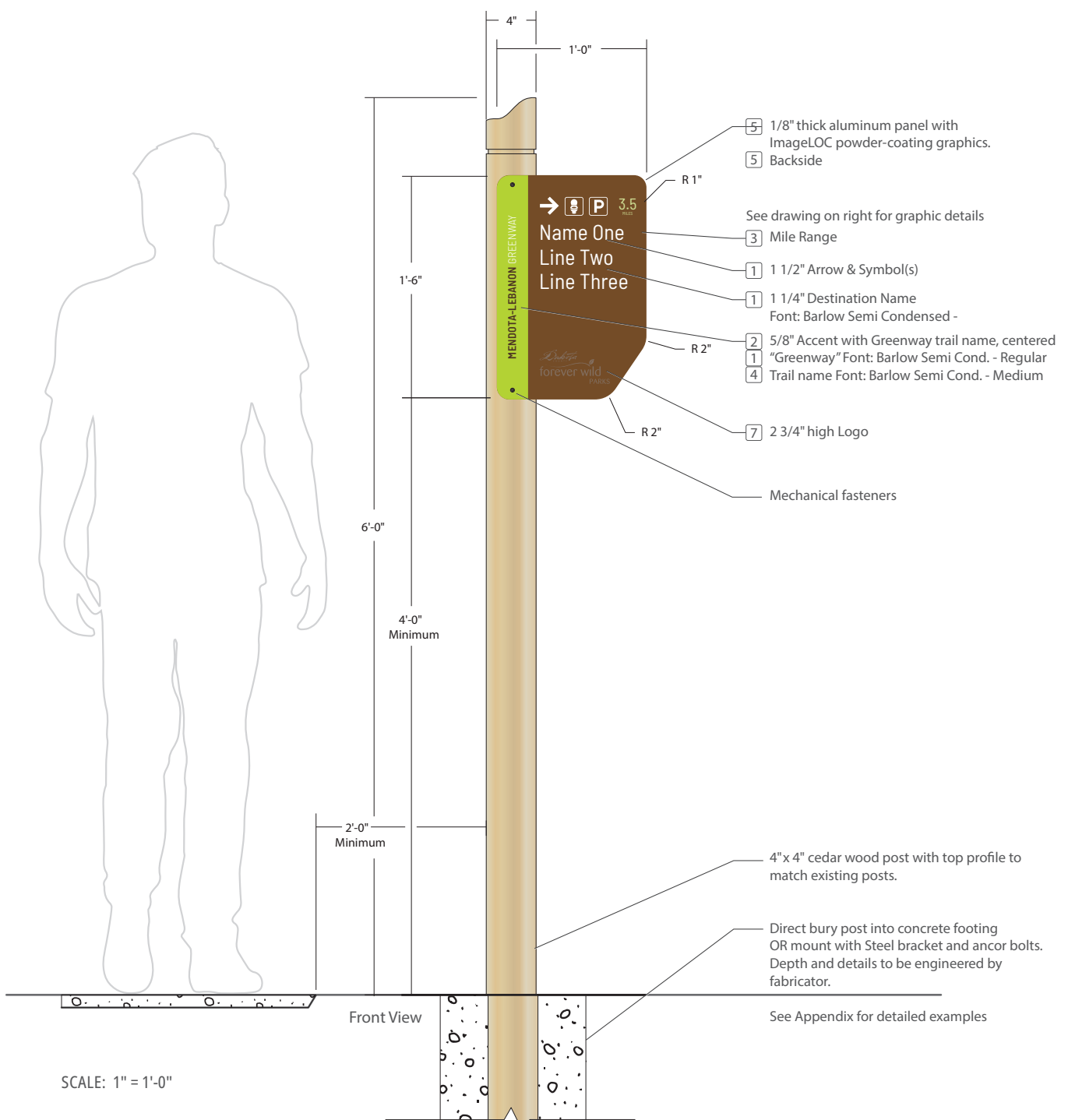
Note:
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Client: Dakota County

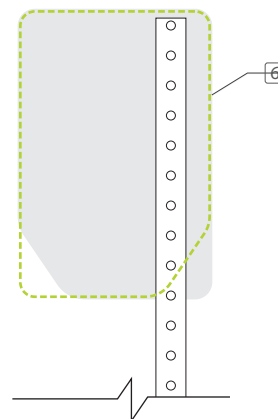


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Final artwork and messaging to be coordinated with Dakota County.



SCALE: 1" = 1'-0"

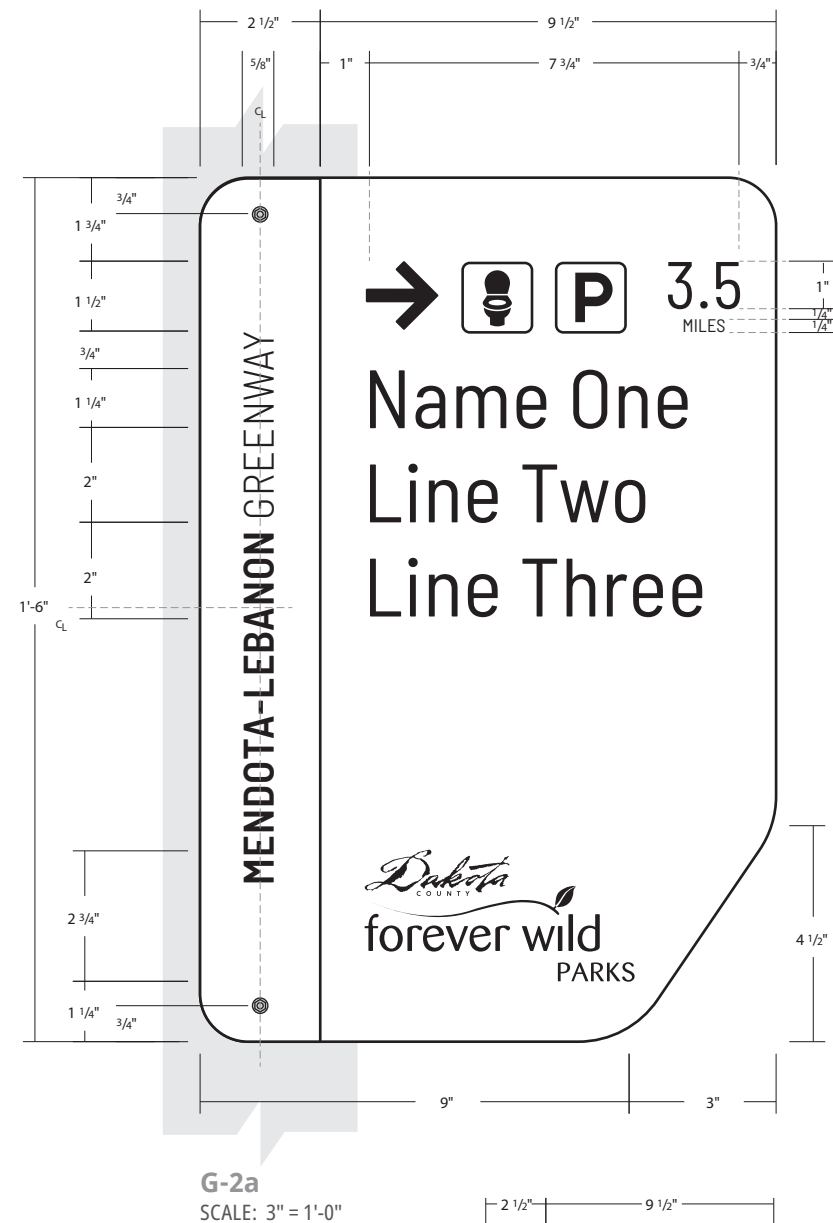


Option:
G-2a, G-2b or G-2c may be installed on a 2" square perforated galvanized steel post. Mechanical fasteners should not cover graphic messaging. Sign may also be double faced.

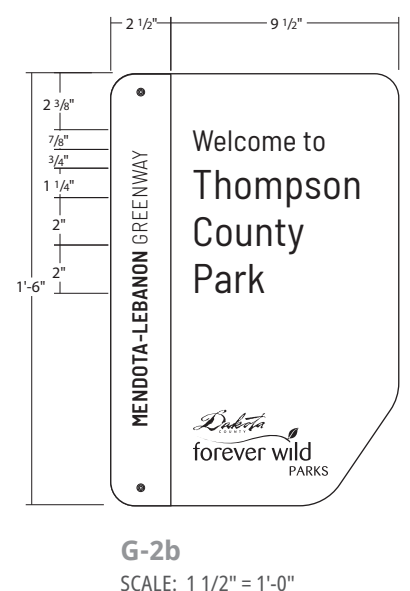
Post footings and installation per MUTCD and Manufacturer's specifications

Graphic Process Options:

- 1) **Permanent Panel**
ImageLOC® - Direct to surface printed graphics heat fused to aluminum. 10 year warranty.
- 2) **Short Term/Temporary Panel**
Digitally printed vinyl graphics applied to aluminum substrate with UV/graffiti protecting laminate. 3 year warranty.
IF single-sided backside to be painted [5] brown to match.



G-2a
SCALE: 3" = 1'-0"



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

G-2a
Pedestrian Guide
G-2b
Boundary Guide

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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Client: Dakota County

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G-2c

Greenway Guide

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

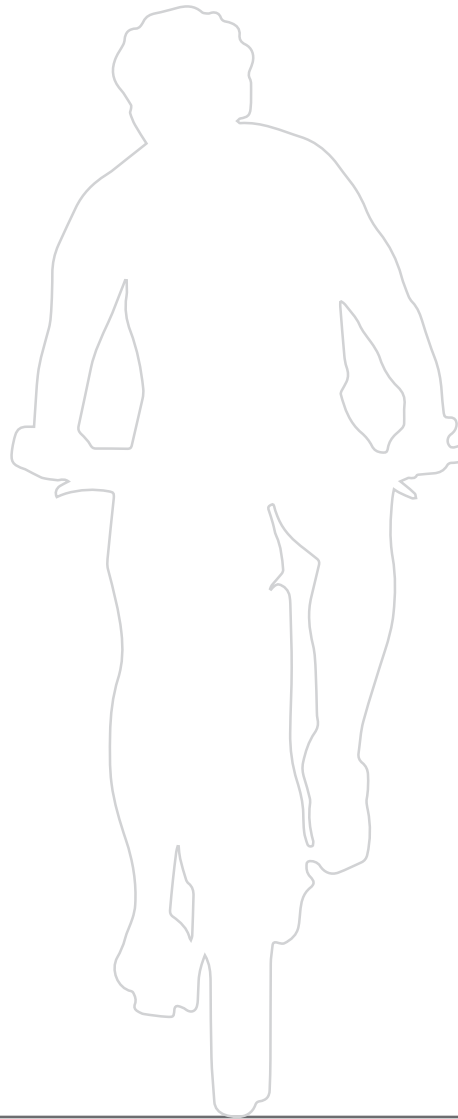
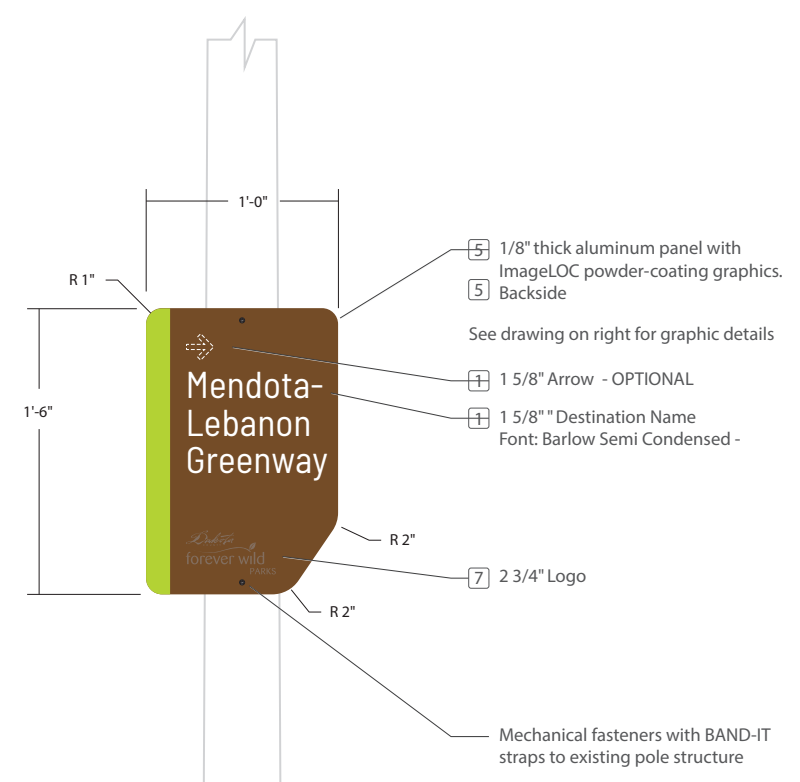
Note:
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Client: Dakota County



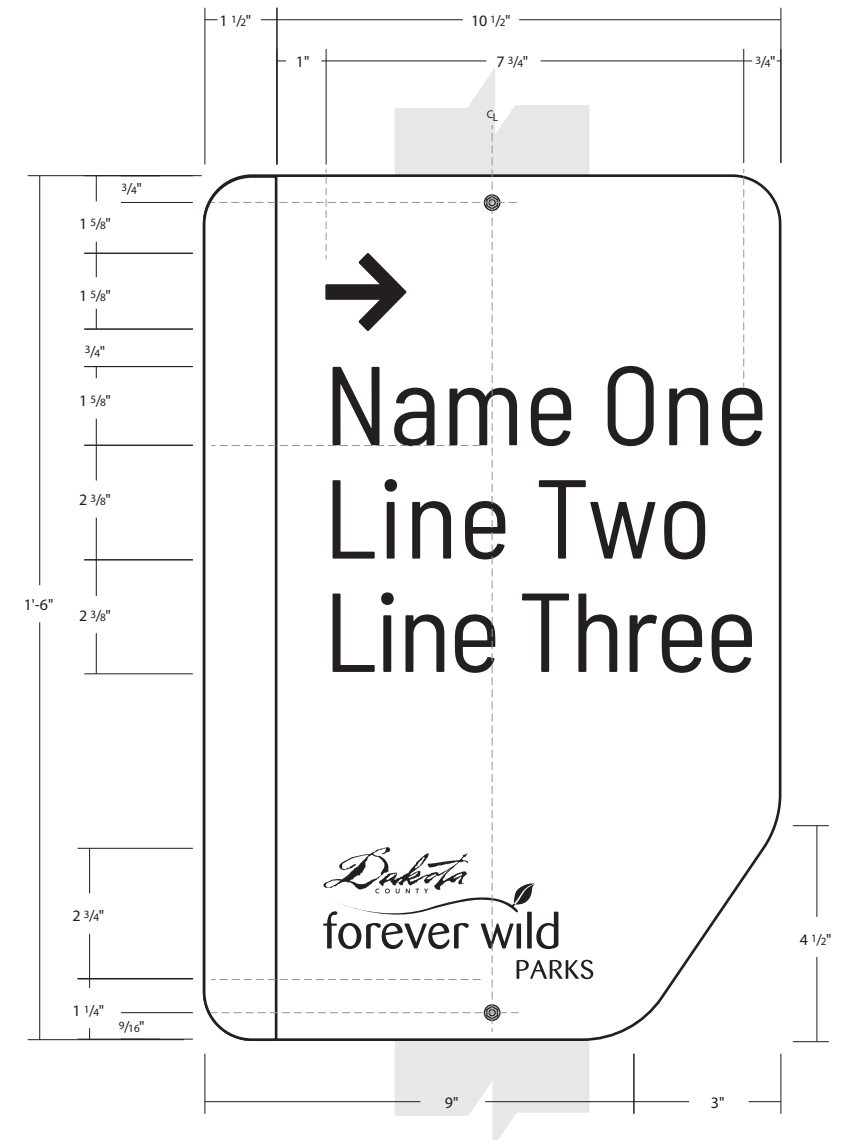
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Front View

SCALE: 1" = 1'-0"



SCALE: 3" = 1'-0"

Graphic Process Options:

1) **Permanent Panel**
ImageLOC® - Direct to surface printed graphics heat fused to aluminum. 10 year warranty.

2) **Short Term/Temporary Panel**
Digitally printed vinyl graphics applied to aluminum substrate with UV/graffiti protecting laminate. 3 year warranty. IF single-sided backside to be painted [5] brown to match.

G-3a

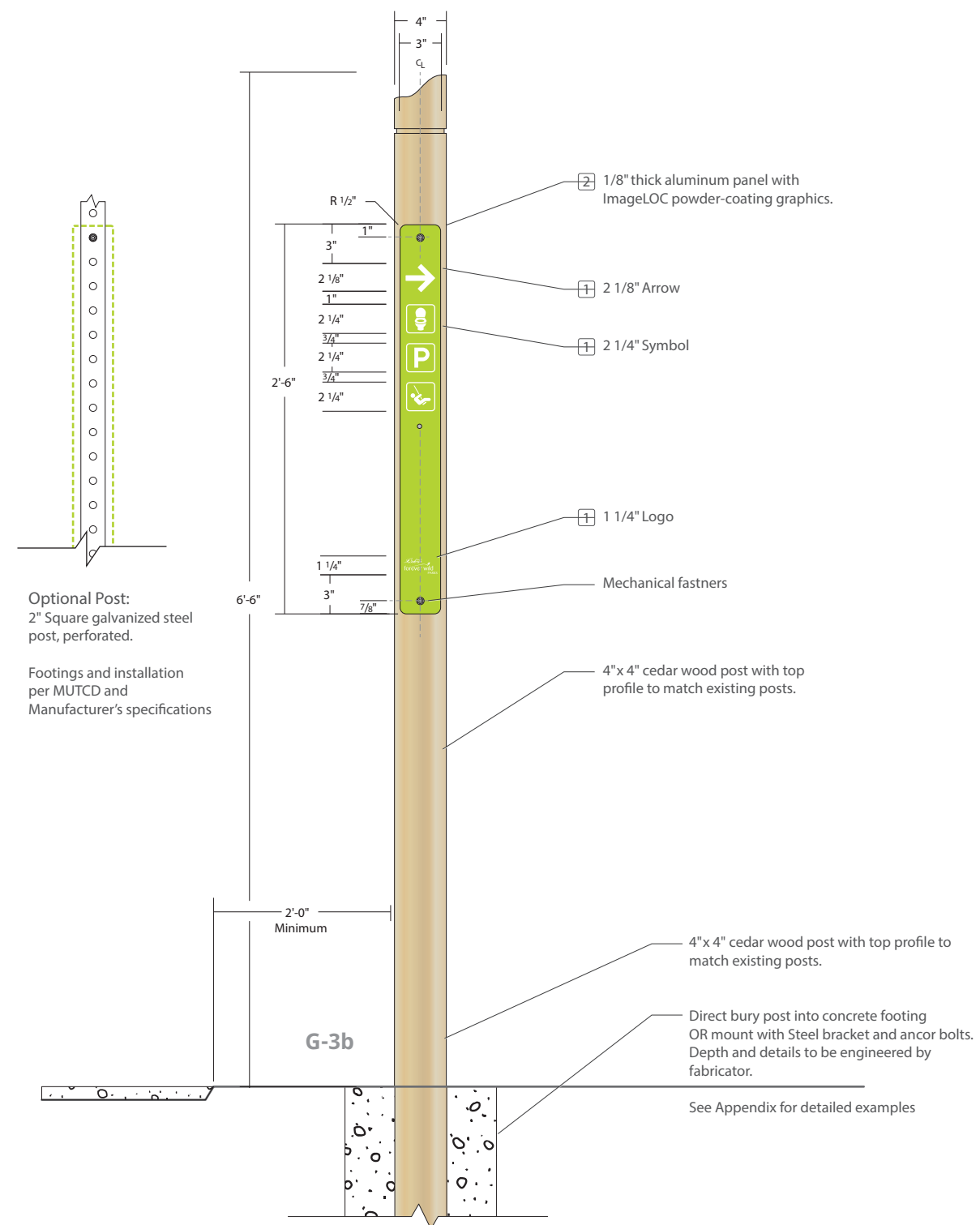
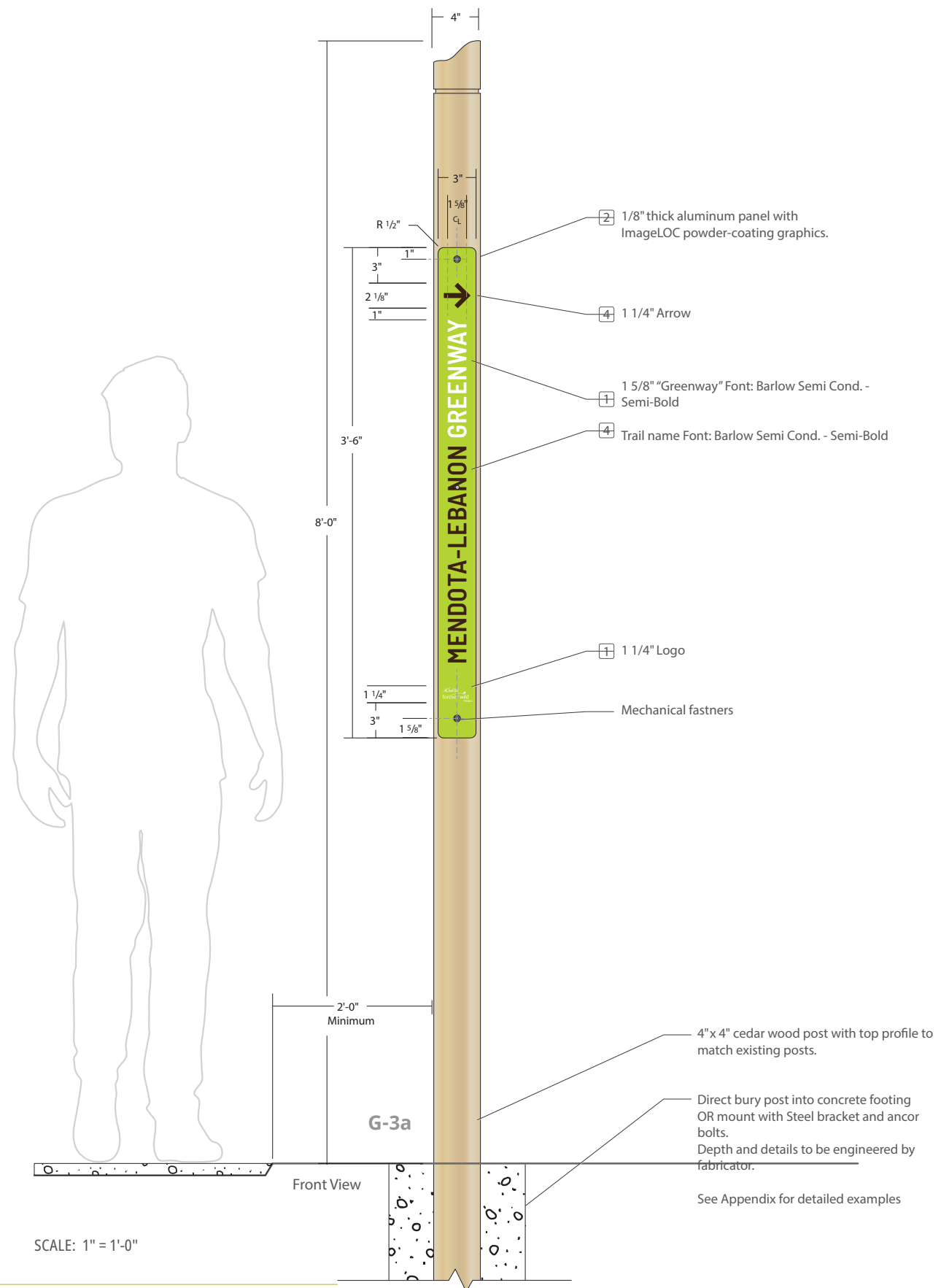
Trailblazer, Greenway

G-3b

Trailblazer, Amenity

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG



Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.



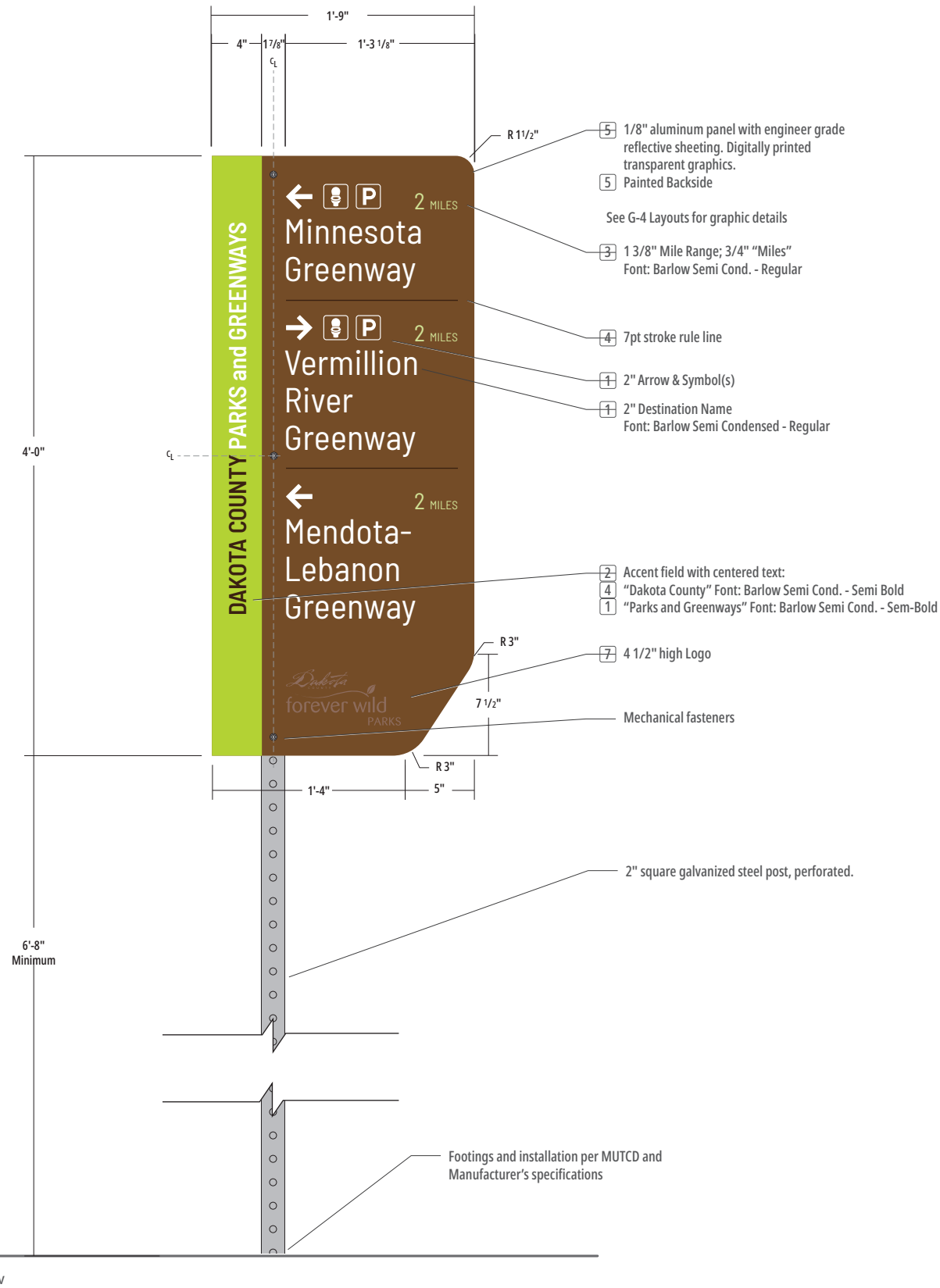
CORBIN
DESIGN

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Traverse City, MI 49684
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SCALE: 1" = 1'-0"

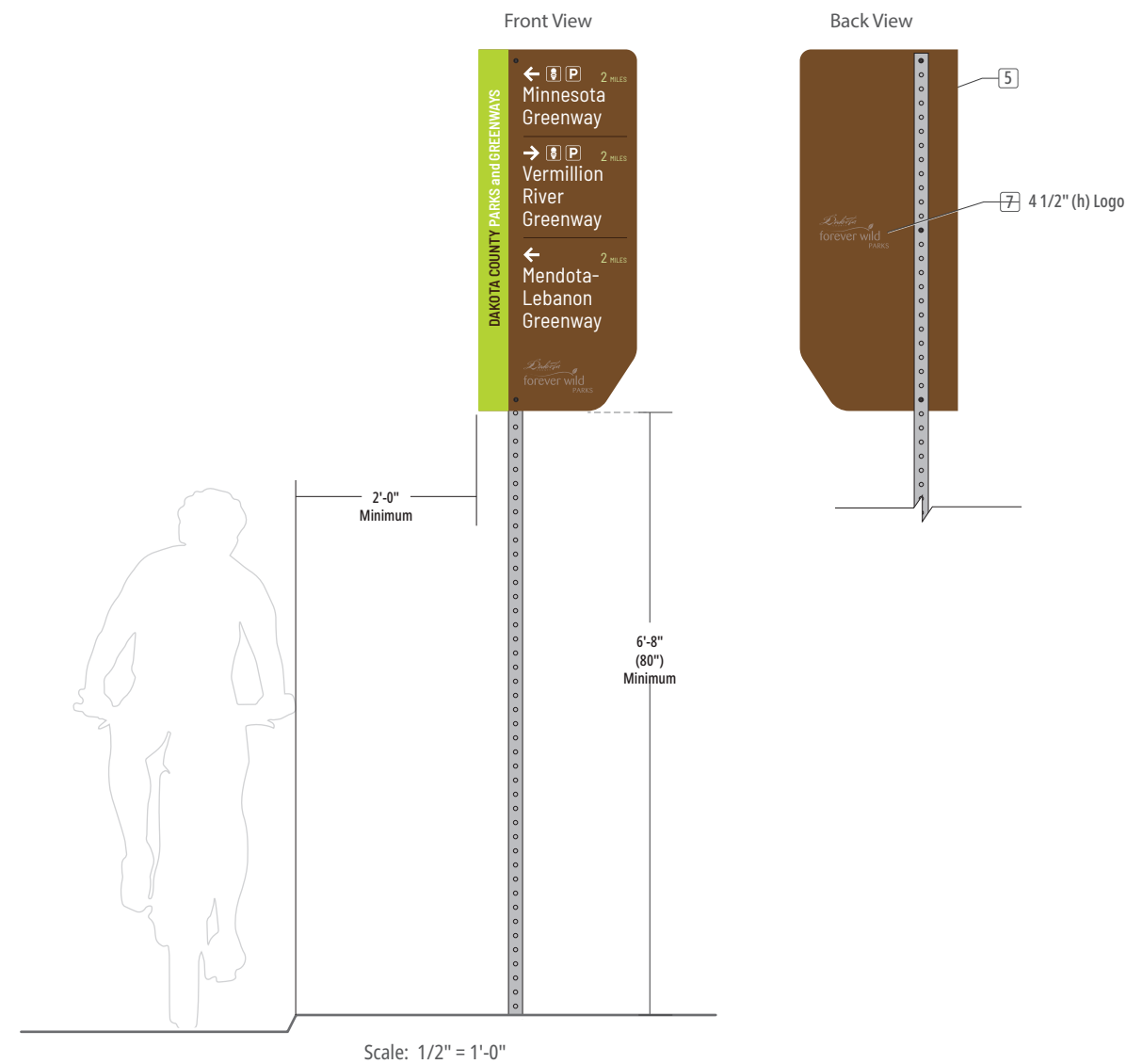
G-4a

On-Street Guide, Large



Front View

SCALE: 1" = 1'-0"



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

NOTE: Maps, graphics, and destination listings are for placeholders only. Final artwork and messaging to be coordinated with Dakota County.

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:

All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.

Client: Dakota County

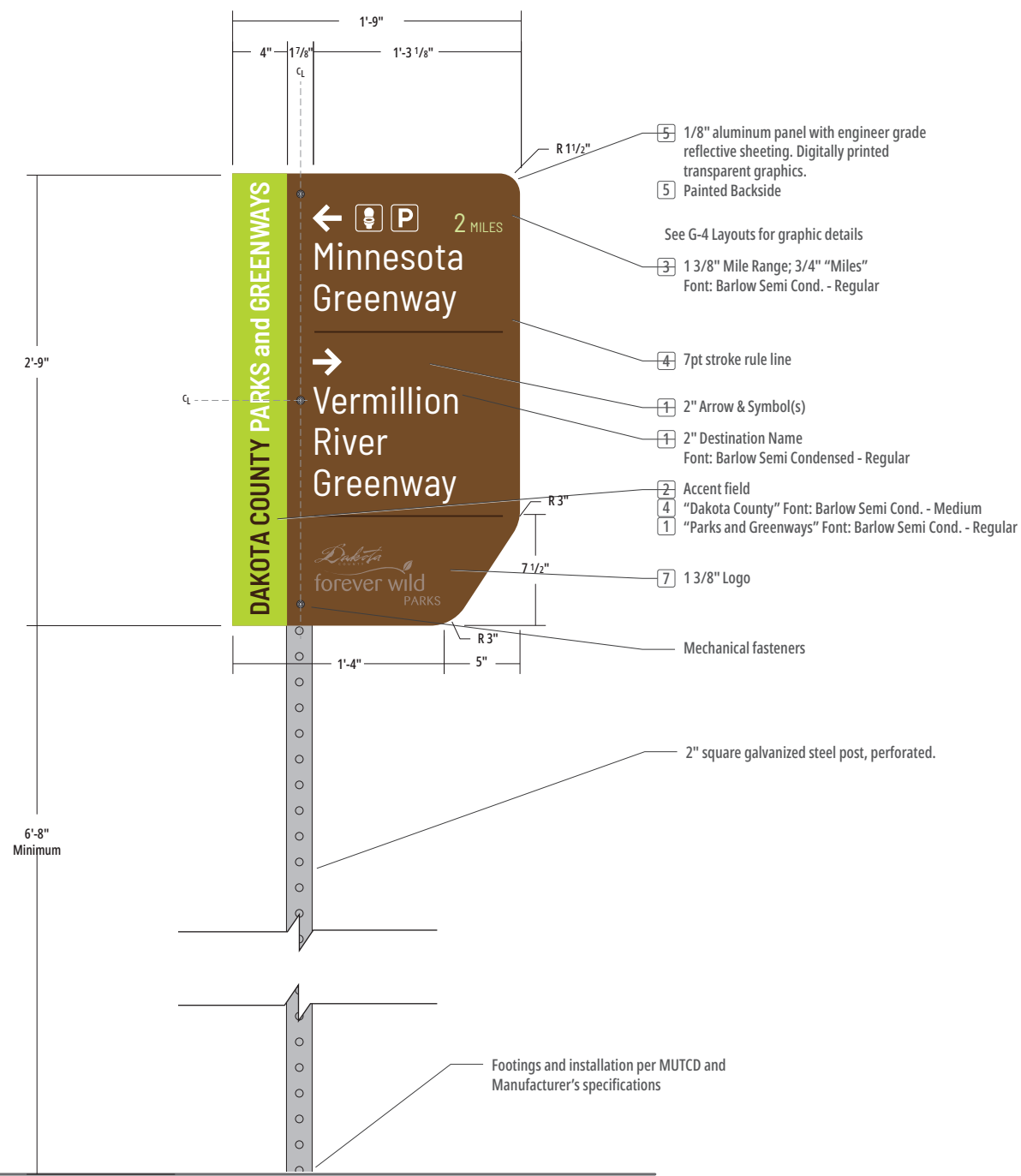


CORBIN
DESIGN

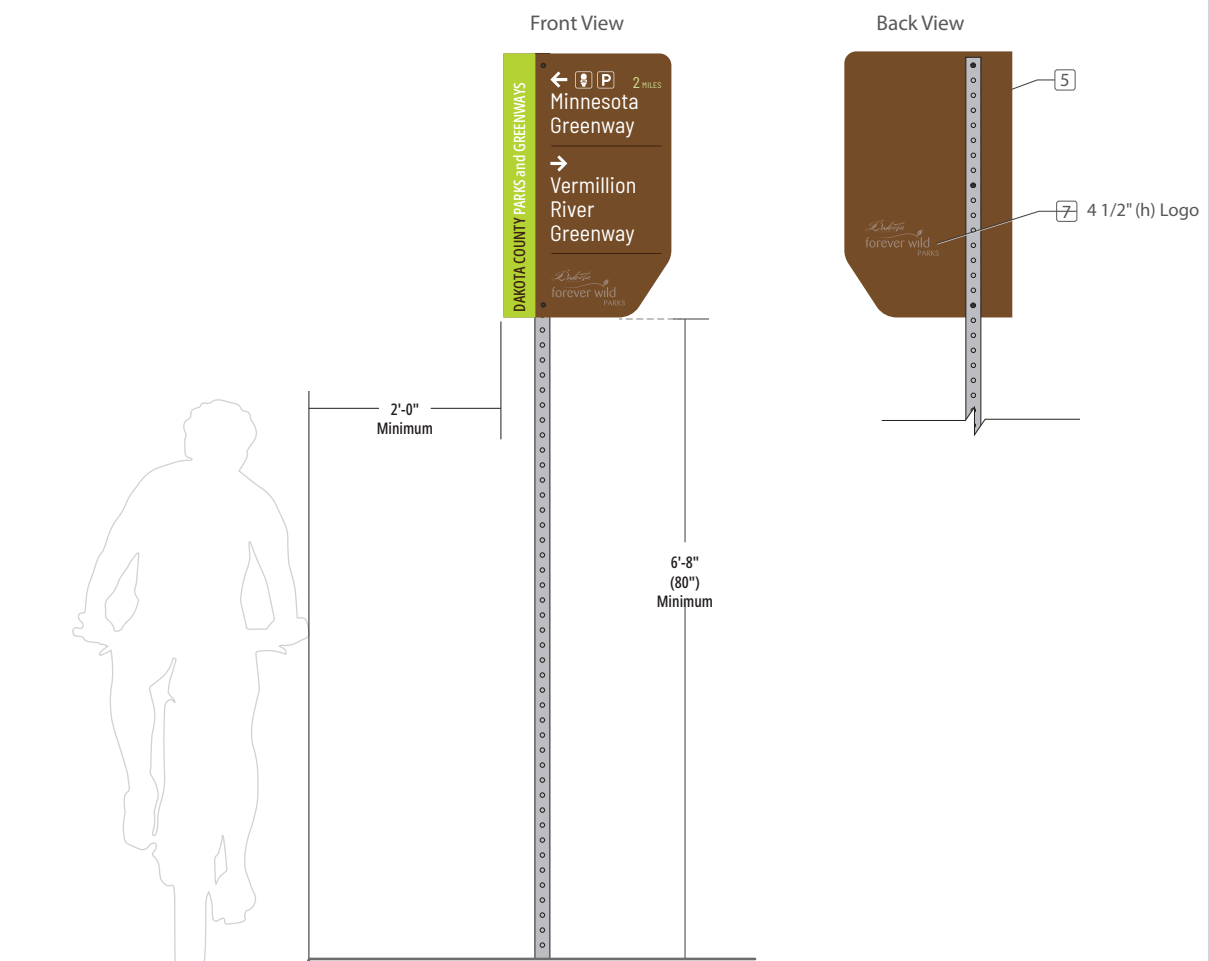
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G-4b

On-Street Guide Small



Front View



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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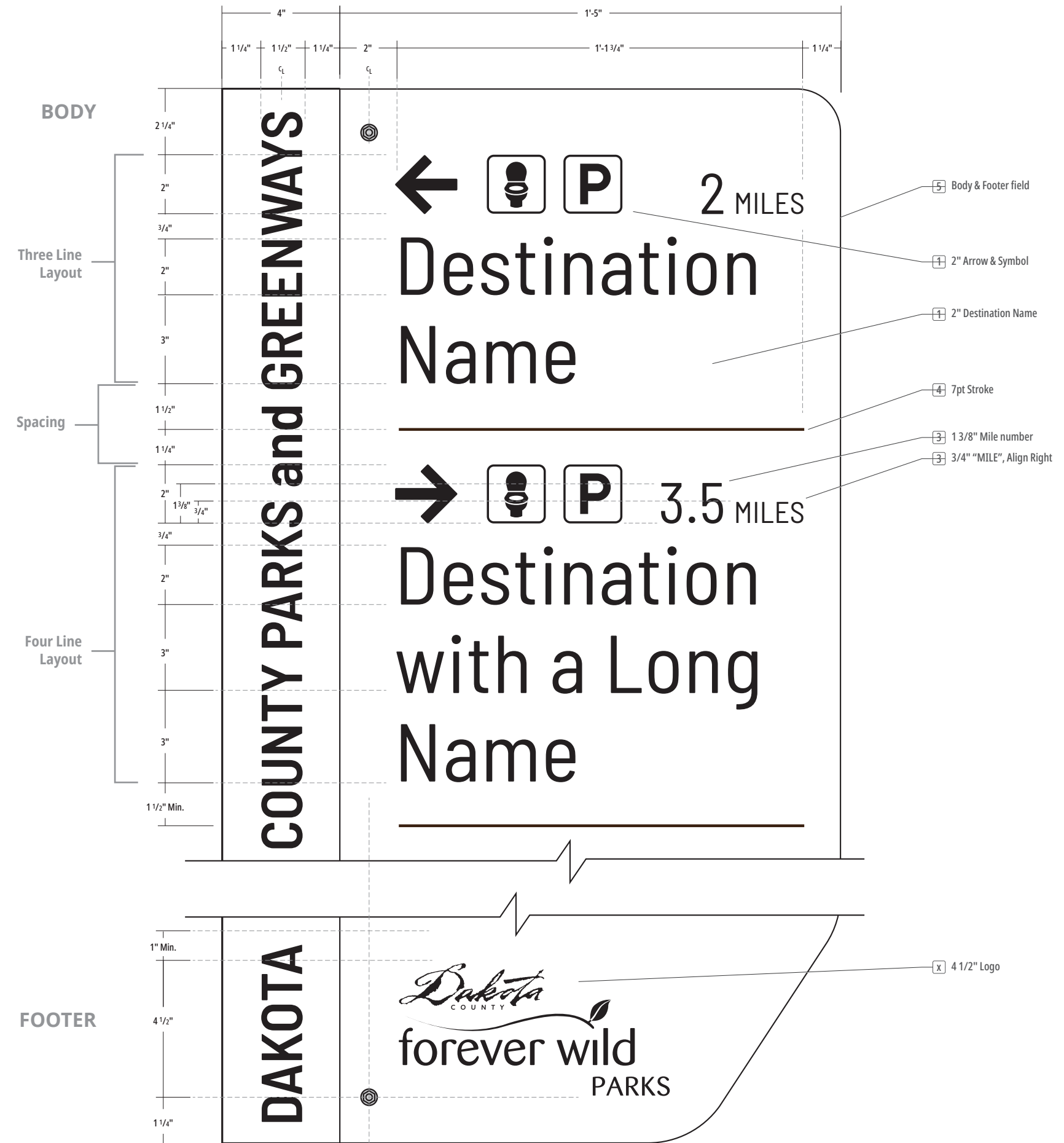
CORBIN
DESIGN

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SCALE: 1" = 1'-0"

G-4 Layouts

Graphic details



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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K-1

Kiosk - Large



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

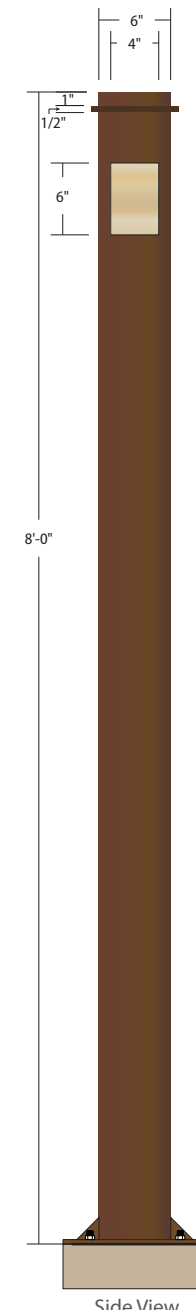
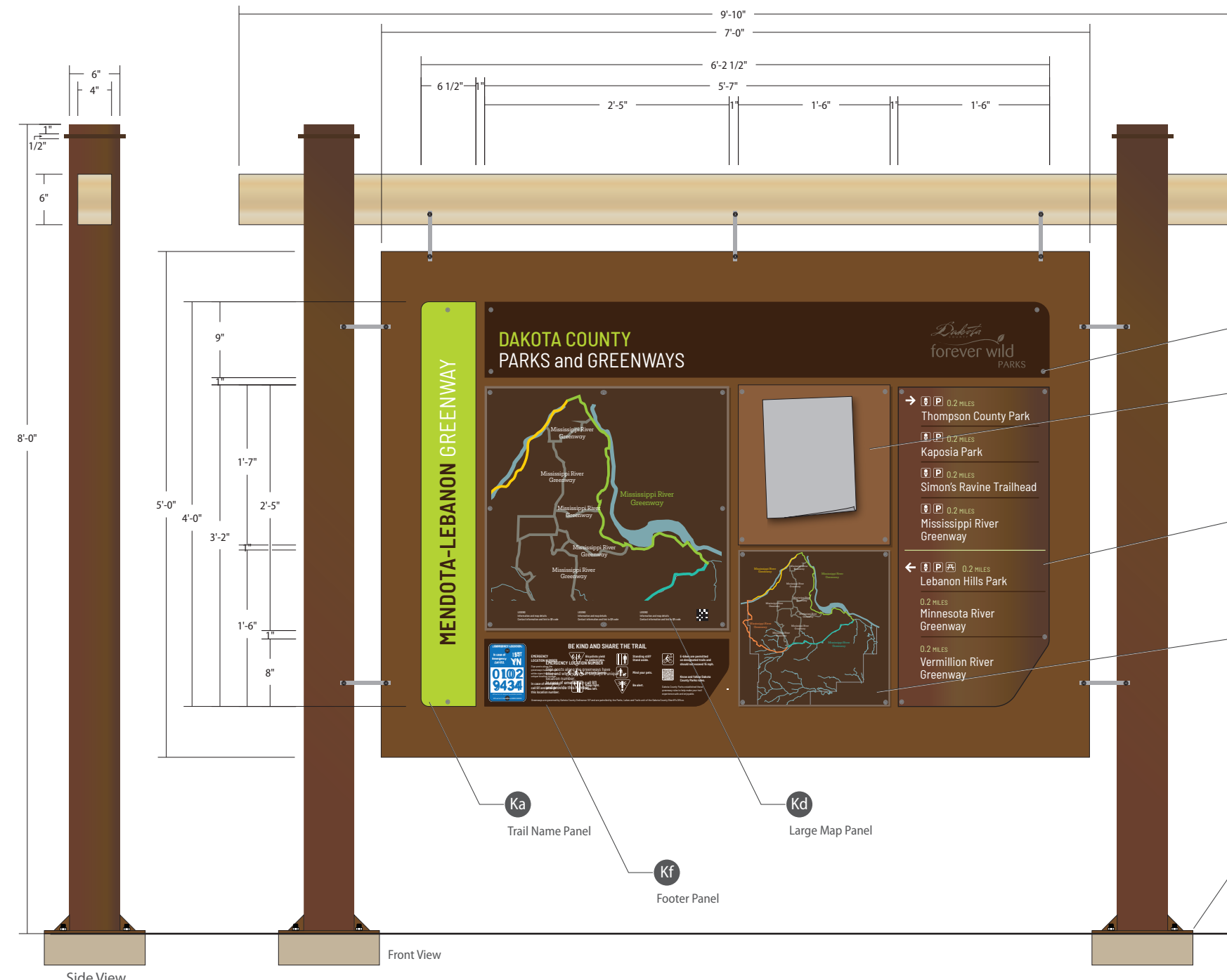
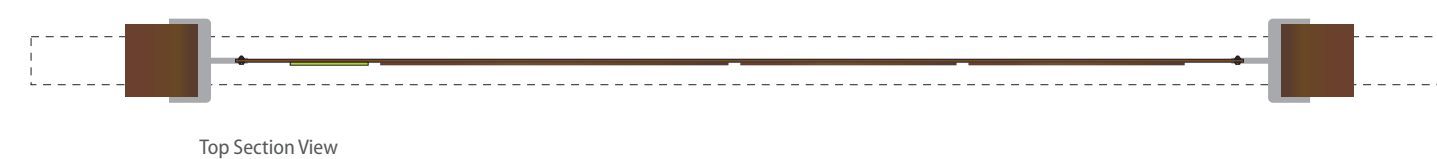
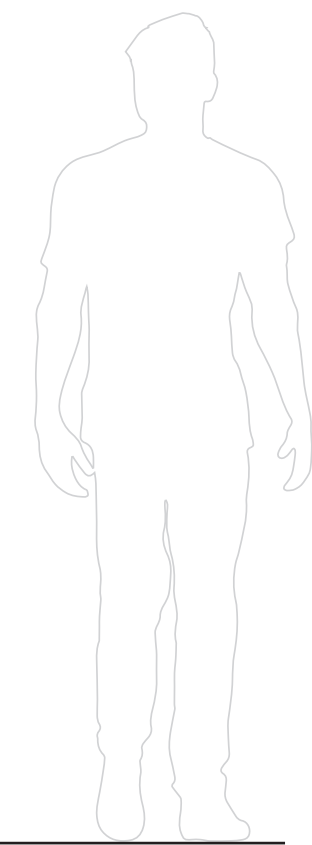
See K Panel Parts drawings for panel size details
All panels mechanically fastened with tamper resistant screws and nuts.

- Kb Large Header Panel
- Kg Posting board
- Kh Destination Panel
- Ke Small Map Panel

NOTE: Kg, Kh, & Ke are flexible spaces that can contain customized graphic information such as: interpretation, natural resource information, destination information, etc.

12" x 12" x 1/2" thick aluminum mounting plate with gussets welded to 24" diameter x 60" deep concrete footing with embedded 1/2" J-bolts.

Fabricator to provide engineering details.



Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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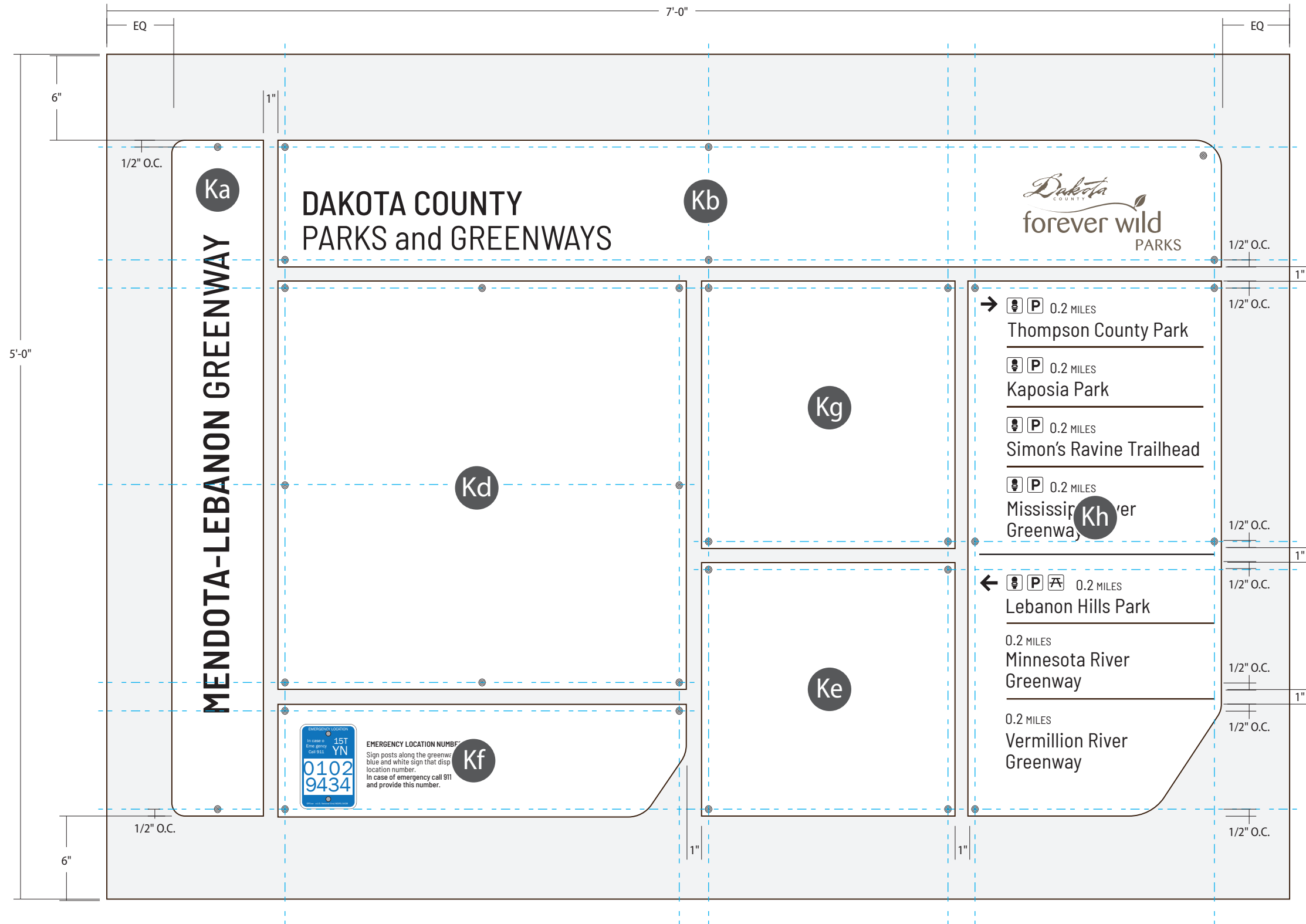


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SCALE: 3/4" = 1'-0"

K-1

Panel Configuration



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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

K-2

Kiosk - Medium



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.



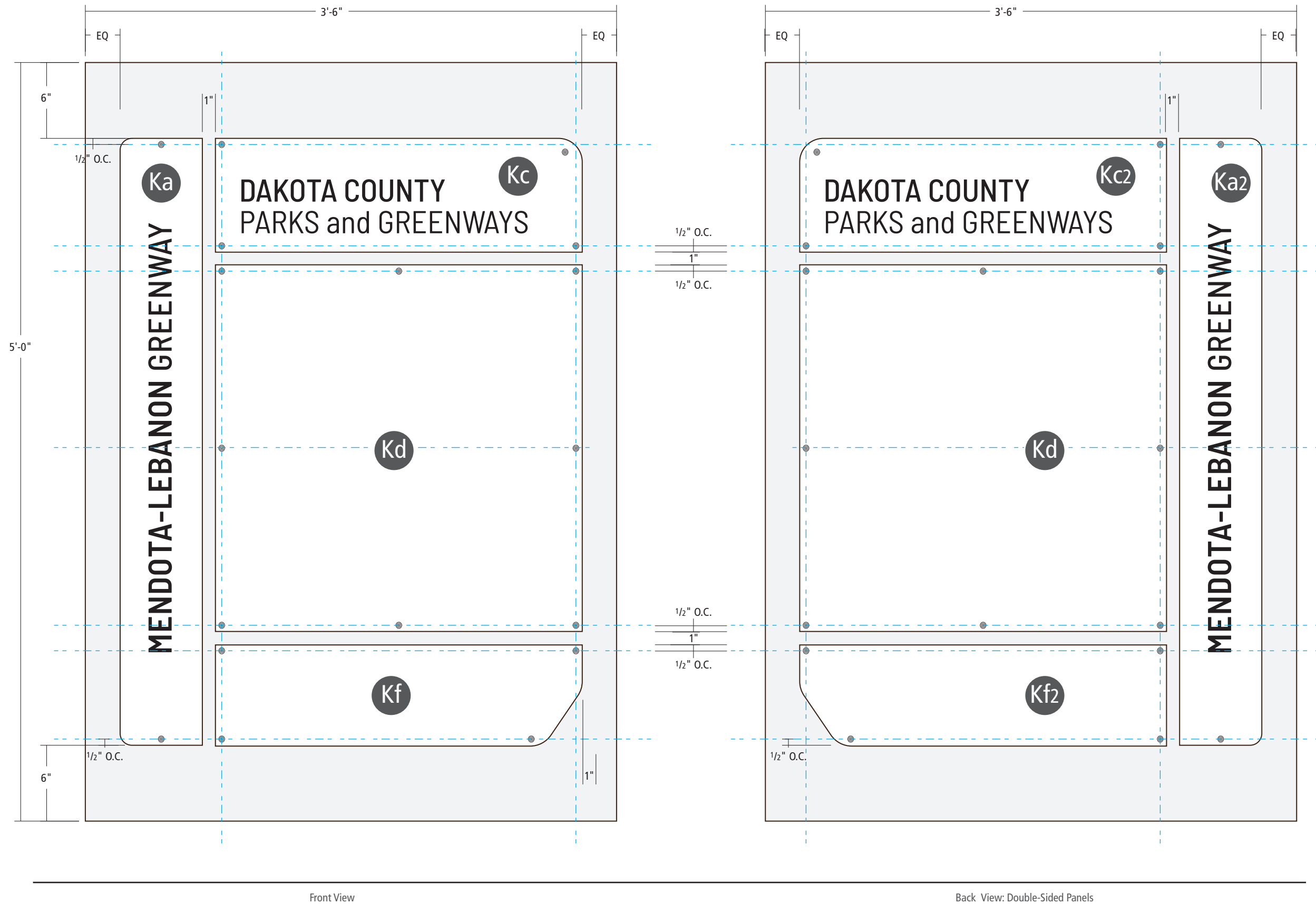
415 S Union, 2nd Floor
Traverse City, MI 49684
(231) 947-1236

SCALE: 1" = 1'-0"

See Double-Sided-Panel layout on next page

K-2

Panel Configuration



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.

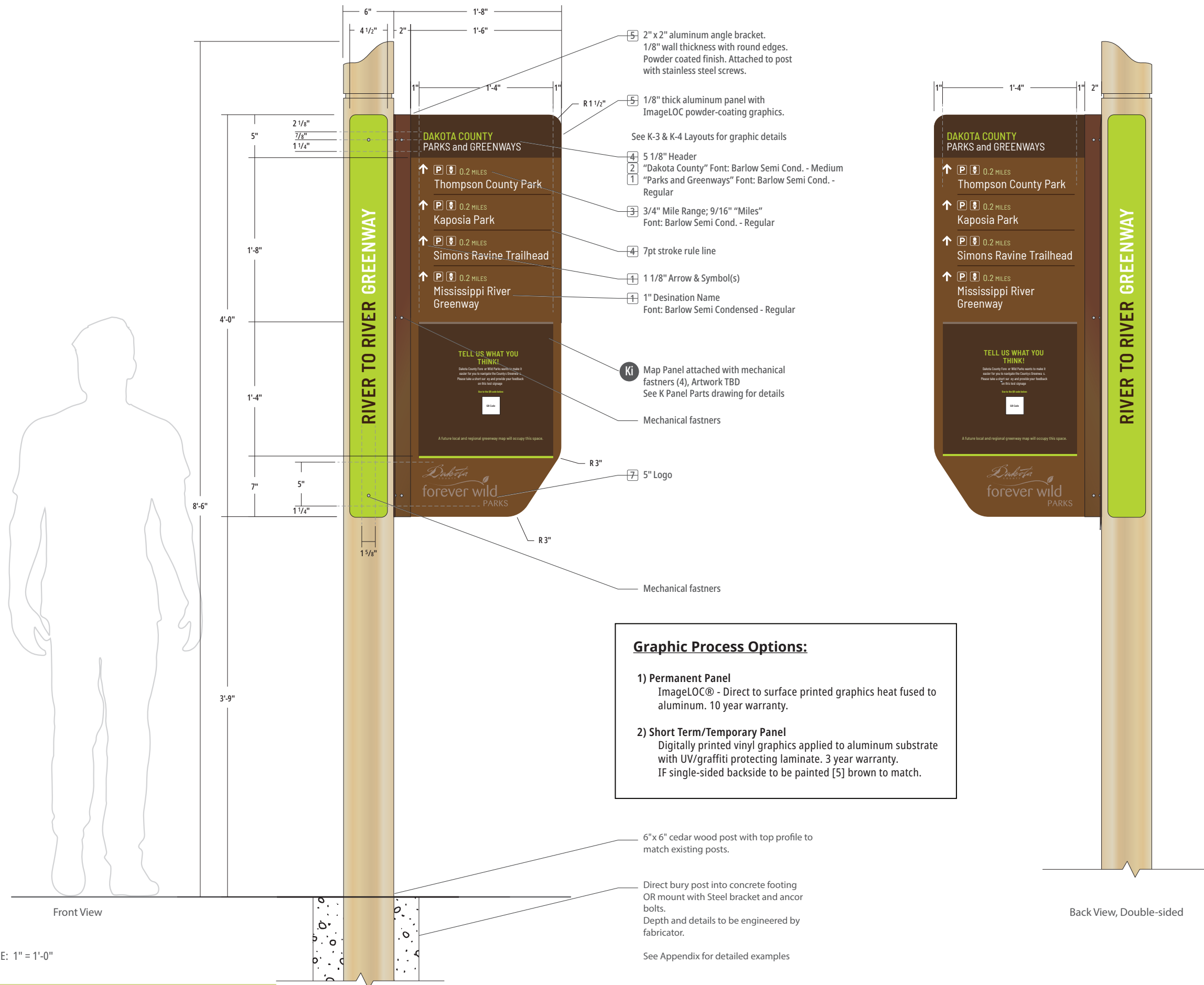


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SCALE: 1 1/2" = 1'-0"

K-3

Kiosk - Small



Colors

1	WHITE
2	GREEN
3	LIGHT GREEN
4	DARK BROWN
5	COR-TEN BROWN
6	LIGHT BROWN
7	TAN
8	SOFT BLUE
9	RED, REG
10	BLUE, REG
11	YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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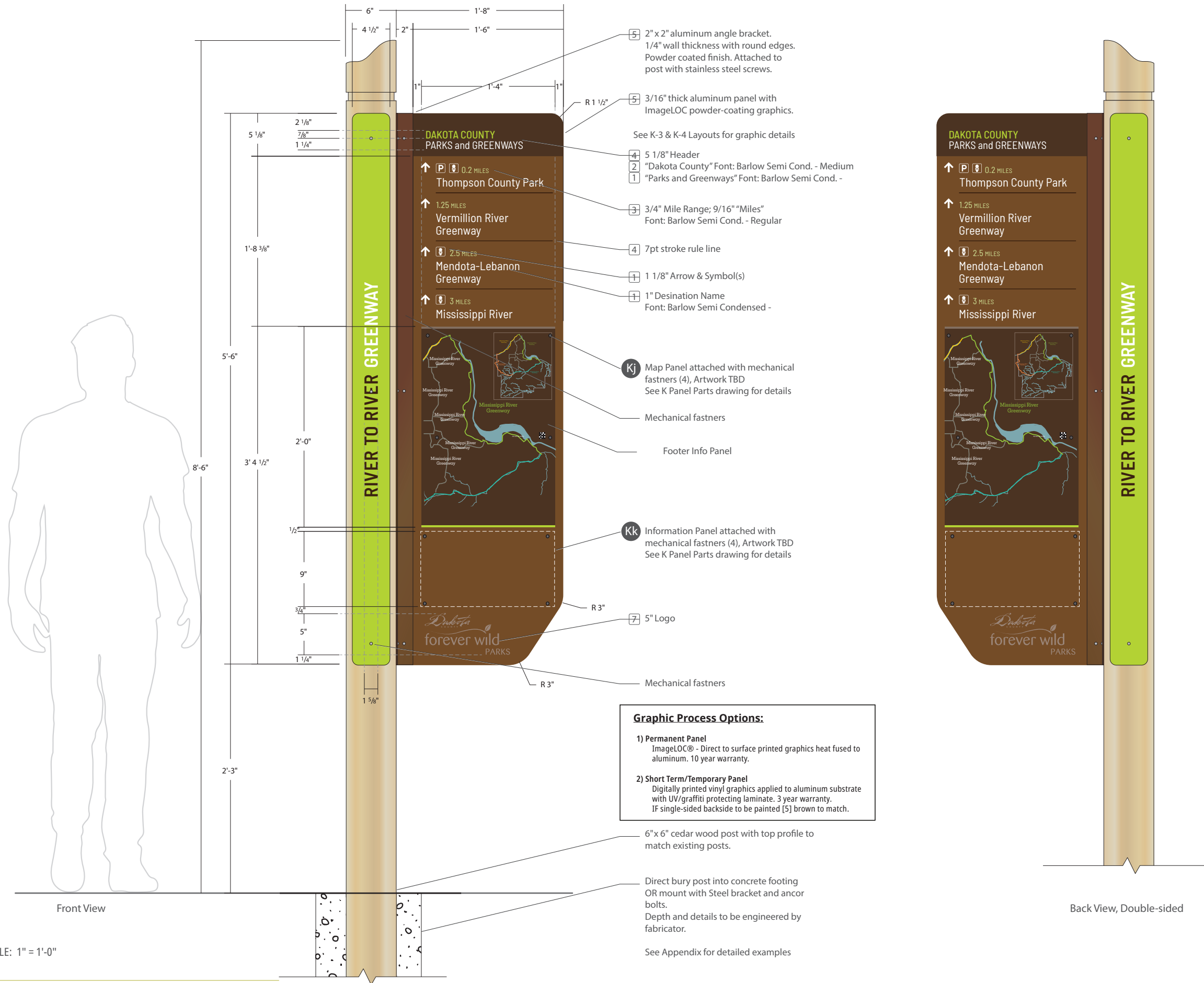
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SCALE: 1" = 1'-0"

K-4

Kiosk - Small, ADA



Colors

[1]	WHITE
[2]	GREEN
[3]	LIGHT GREEN
[4]	DARK BROWN
[5]	COR-TEN BROWN
[6]	LIGHT BROWN
[7]	TAN
[8]	SOFT BLUE
[9]	RED, REG
[10]	BLUE, REG
[11]	YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.



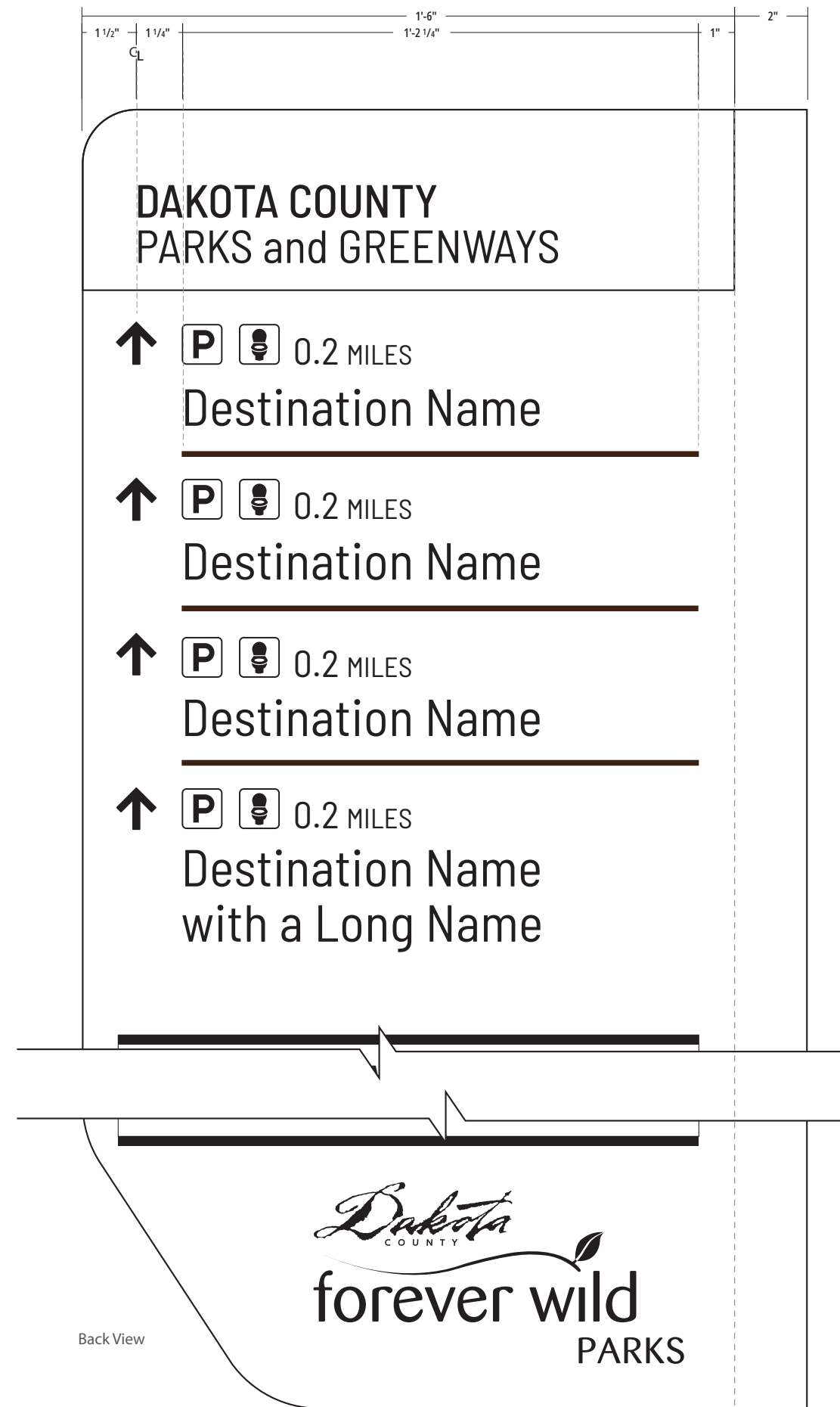
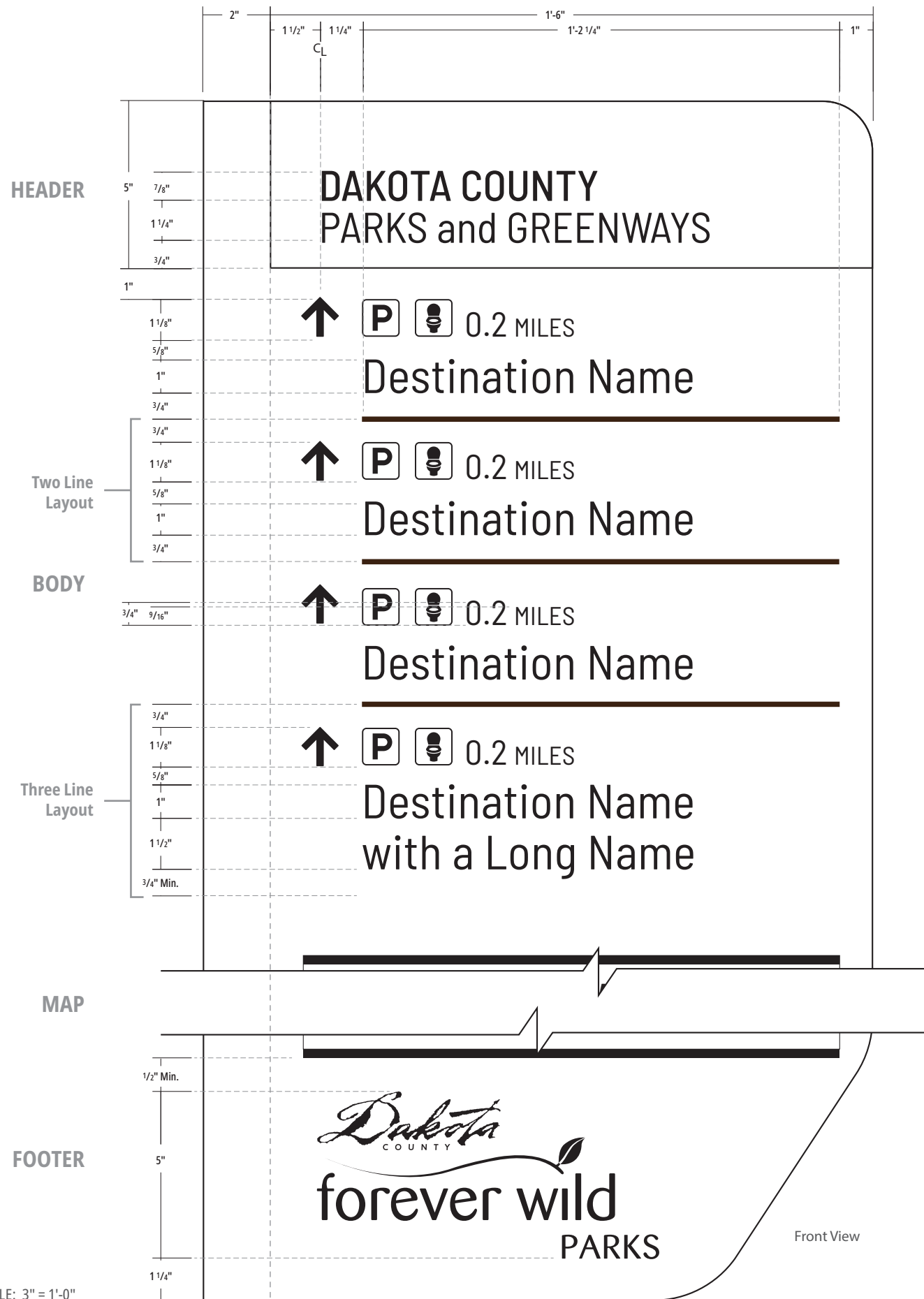
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SCALE: 1" = 1'-0"

K-3 & K-4 Layouts

Graphic details



- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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Client: Dakota County

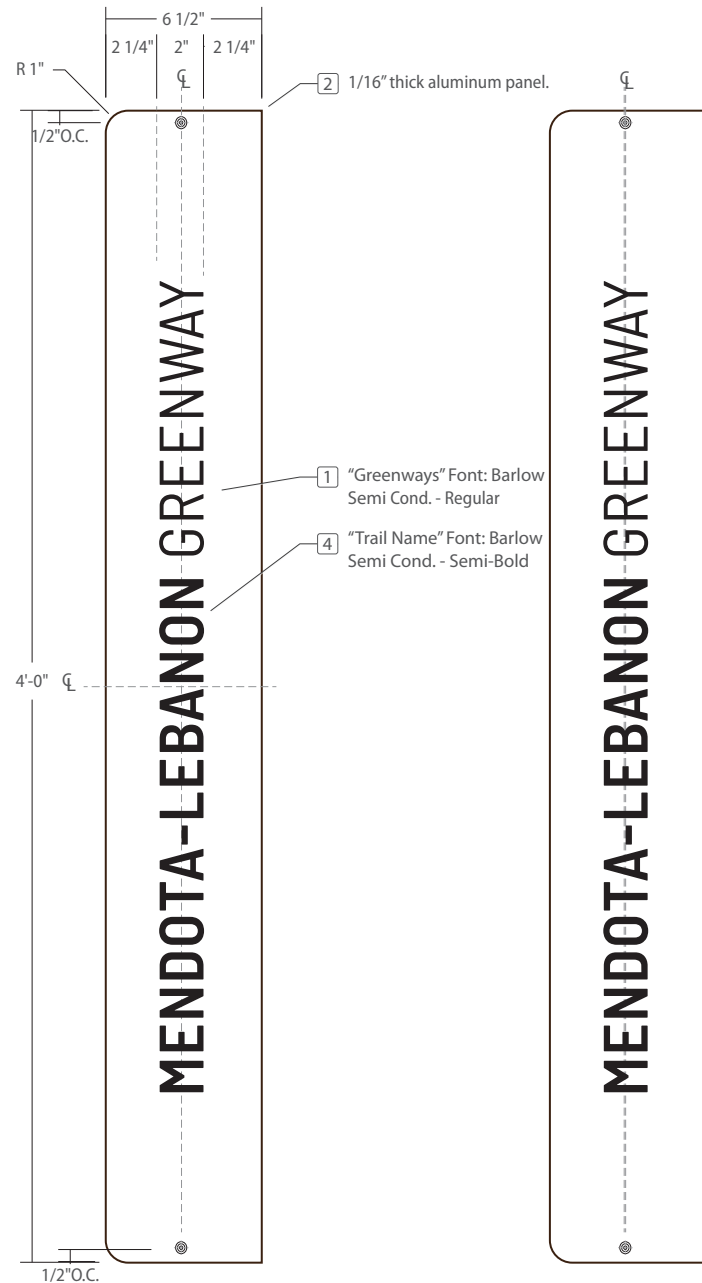


forever wild
PARKS

**CORBIN
DESIGN**

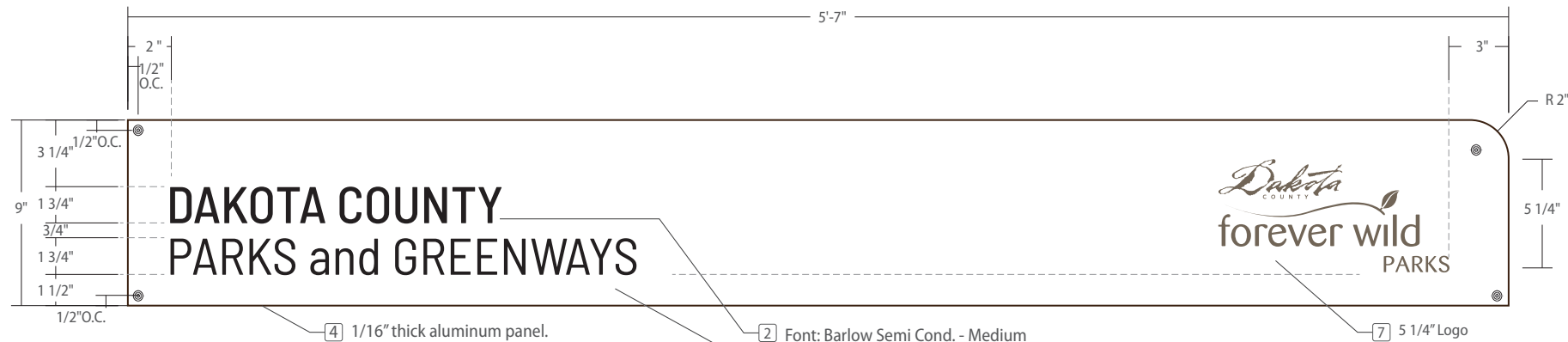
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SCALE: 3" = 1'-0"

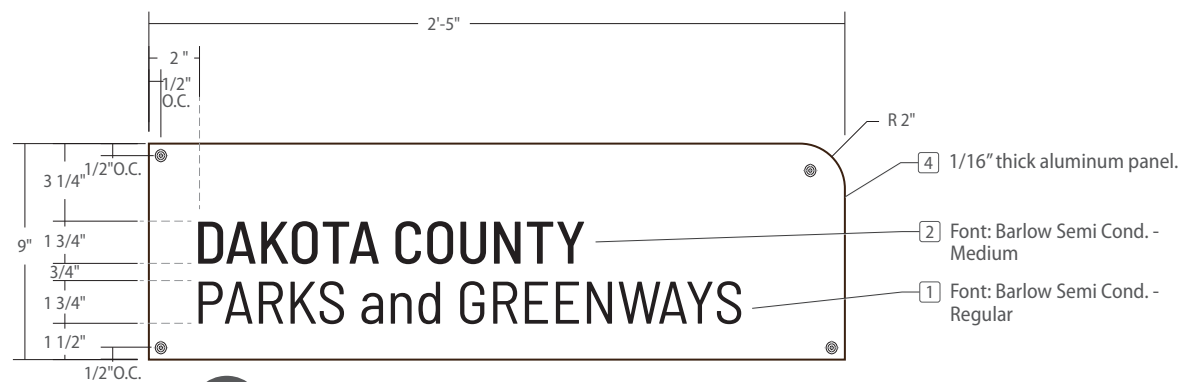


Ka

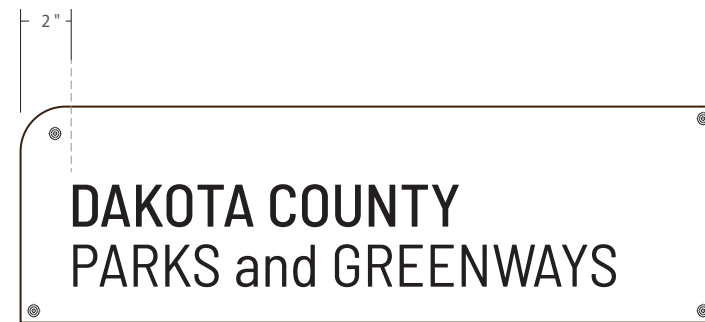
Ka2 Reversed panel ONLY for K-2 Double-Sided Kiosk



Kb



Kc

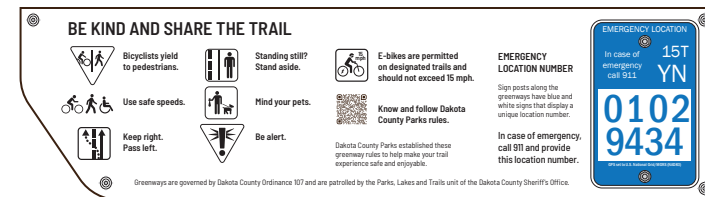


Kc2 Reversed panel ONLY for K-2 Double-Sided Kiosk



Kf

Note: Content may change based on location



Kf2

Reversed panel ONLY for K-2 Double-Sided Kiosk
Note: Content may change based on location

K Panel Parts

Ka - Greenway Name
Kb, Kc - Header
Kf - Footer Info panel

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
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Note:
All, maps, graphics, symbols, and destination listings are for placeholder only. Final artwork be coordinated with Dakota County. Reference the Message Schedule for messaging.

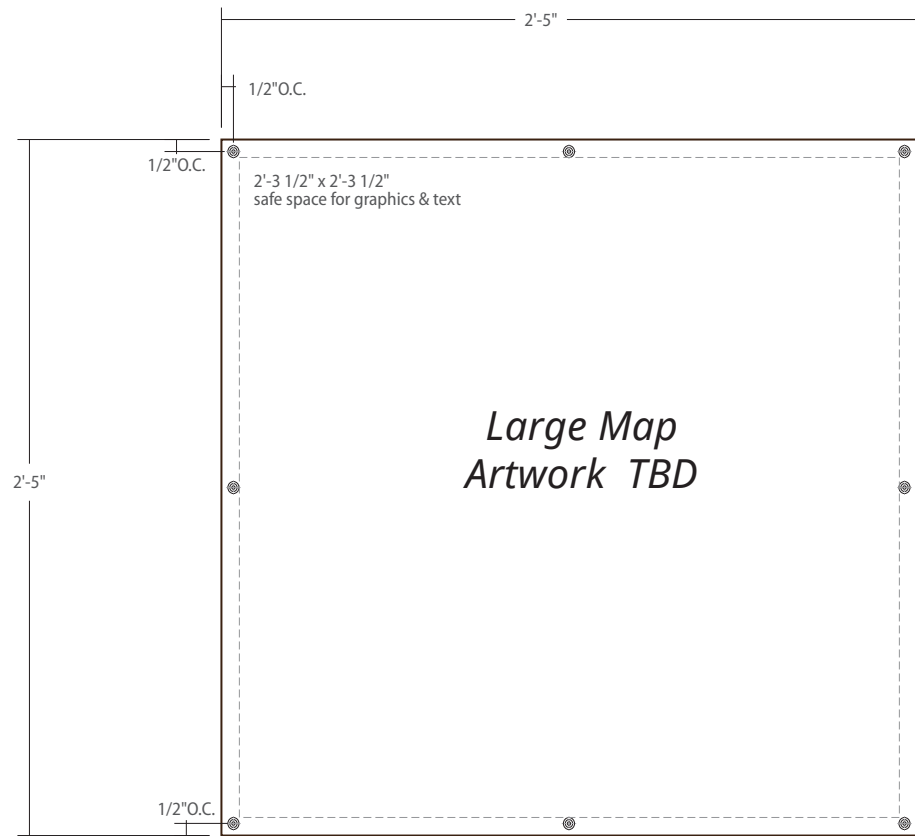
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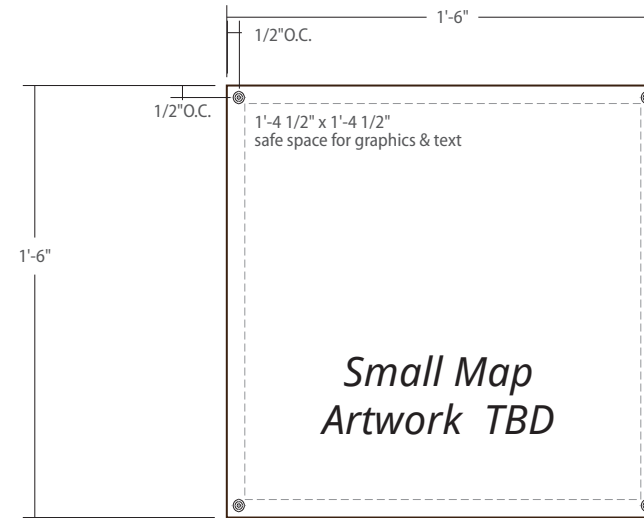
SCALE: 1 1/2" = 1'-0"



Large Map
Artwork TBD

Kd

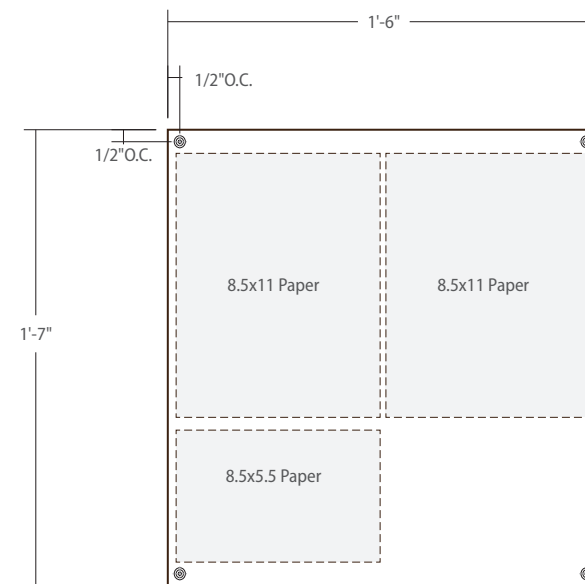
1/8" thick aluminum panel digitally printed with UV and Anti-Graffiti Laminate



Small Map
Artwork TBD

Ke

1/8" thick aluminum panel digitally printed with UV and Anti-Graffiti Laminate



Kg

Exterior grade cork board.

K Panel Parts

Kd - Large Map
Ke - Small Map
Kg - Message Board

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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Client: Dakota County



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SCALE: 3/4" = 1'-0"

K Panel Parts

Kh

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

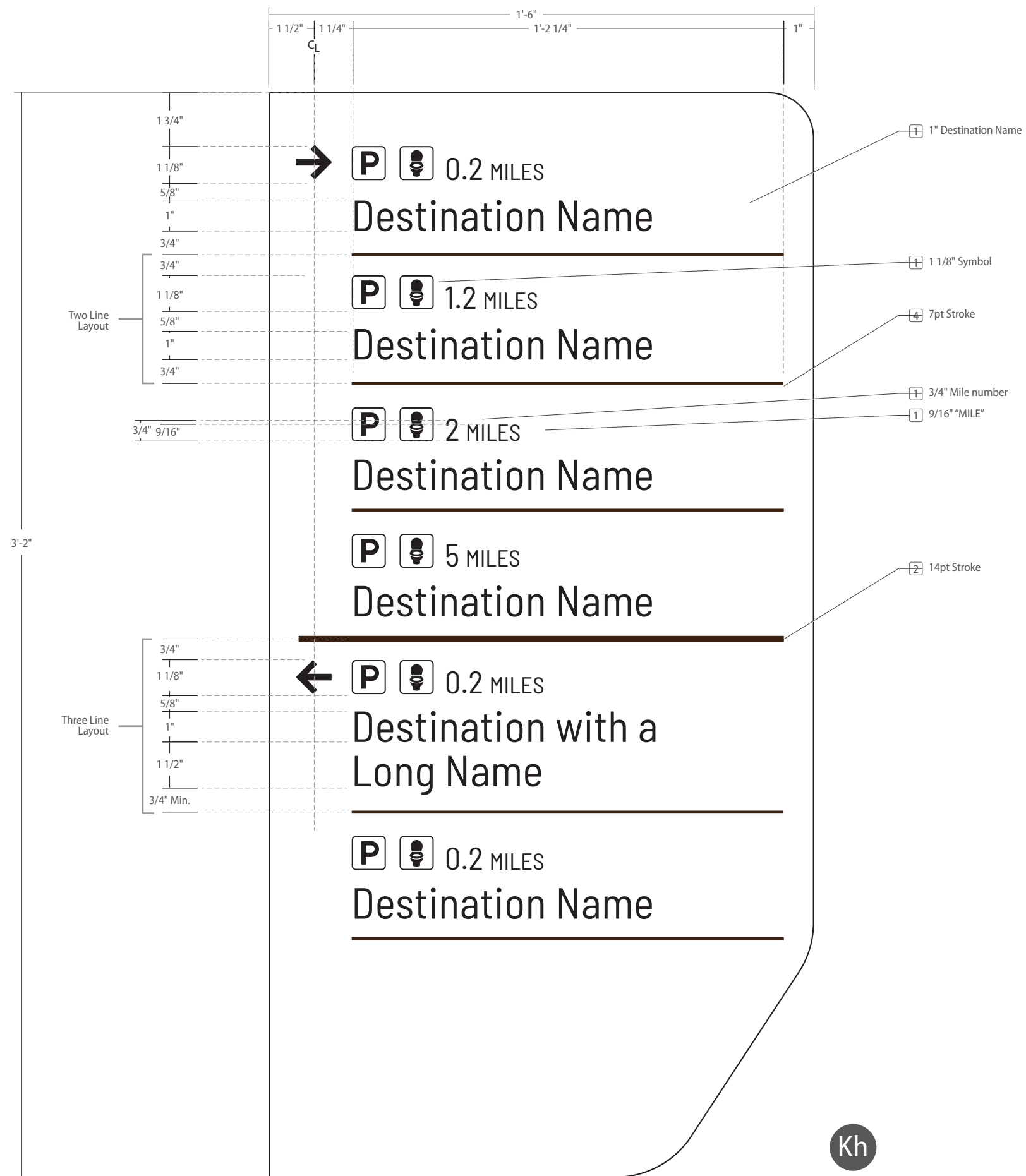
Note:
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Client: Dakota County

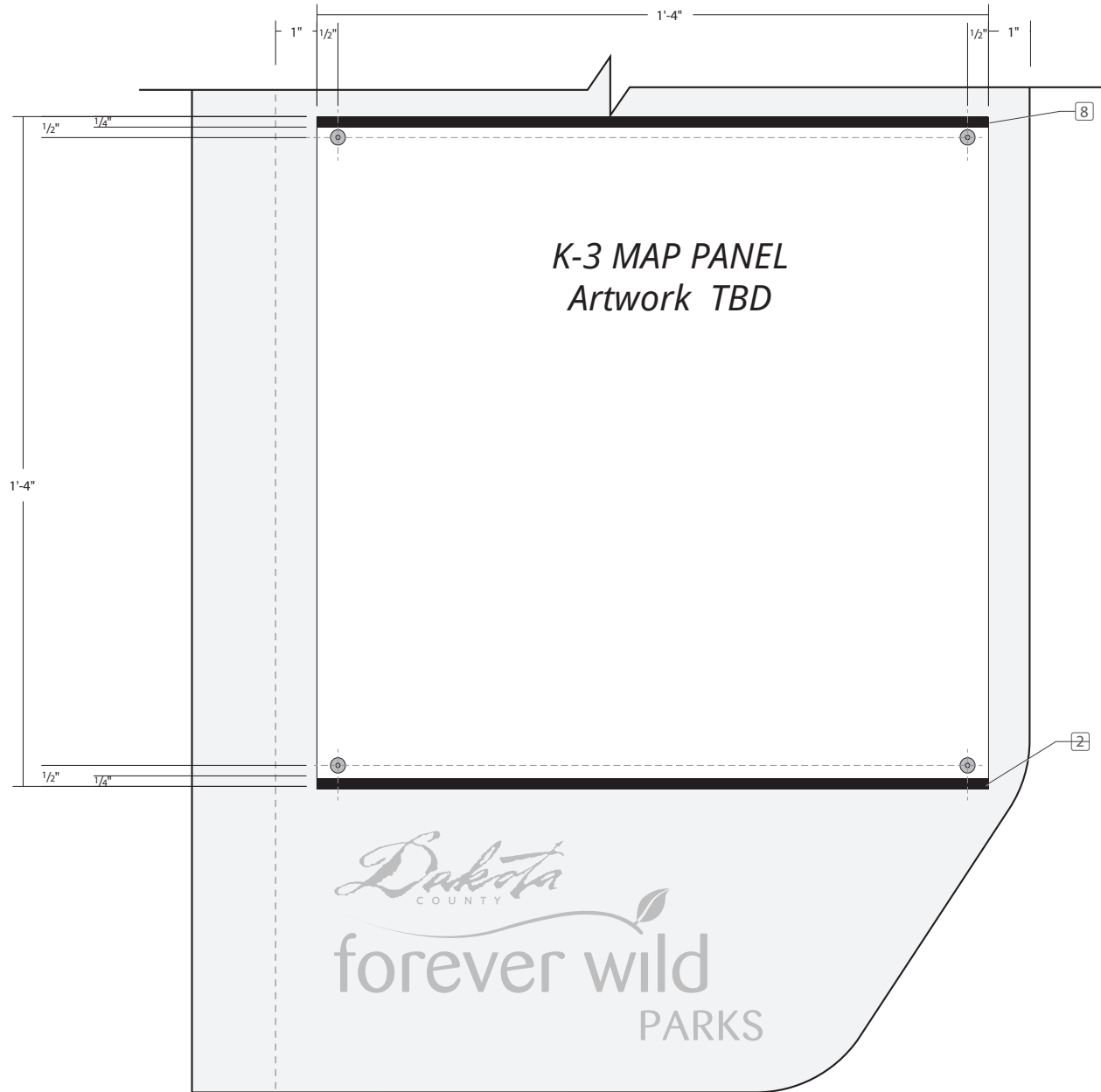


CORBIN
DESIGN

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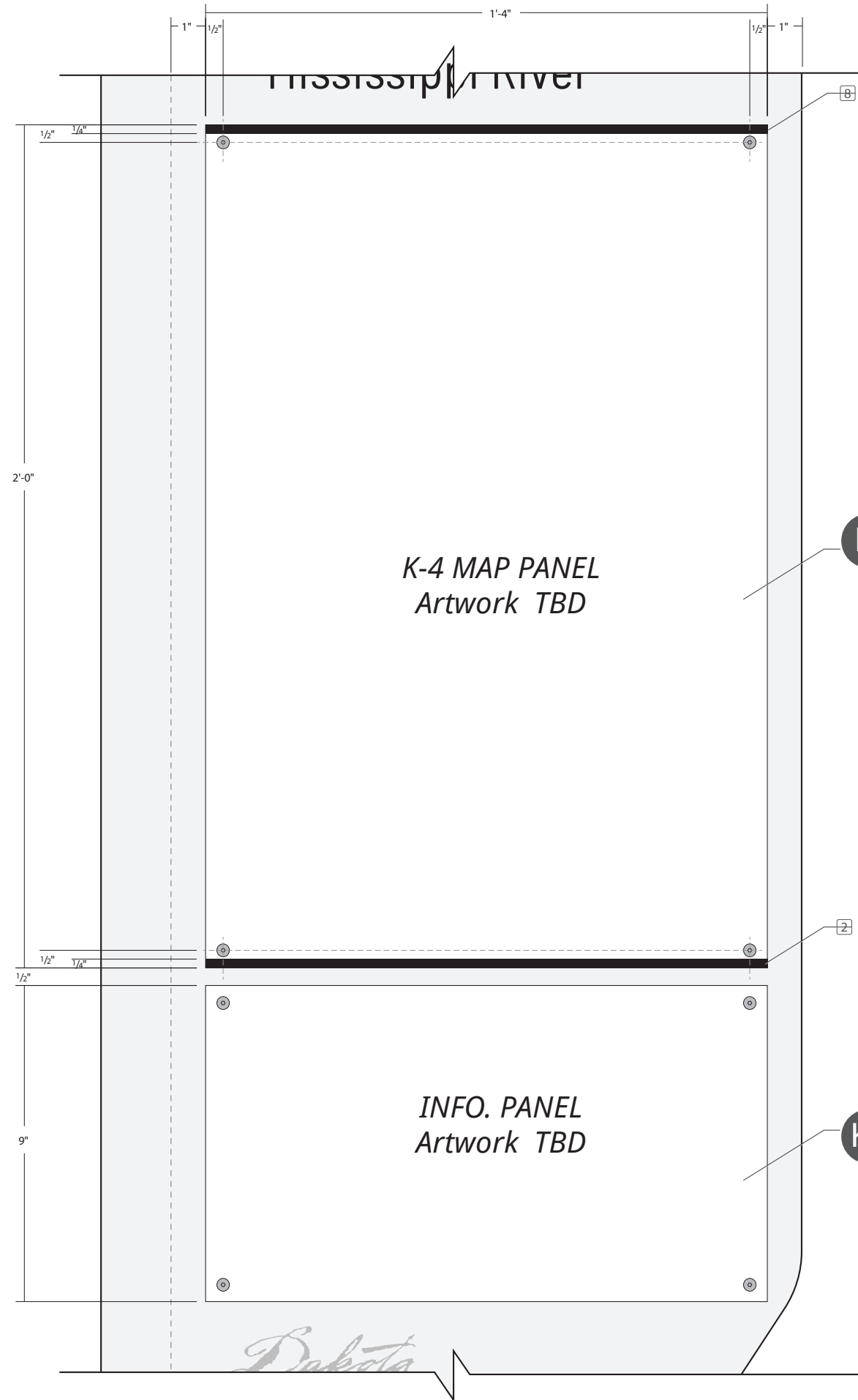


SCALE: 3" = 1'-0"



Ki

SCALE: 3" = 1'-0"



Kj

Kk

K Panel Parts

Ki - (K-3) Map 16"x16"

Kj - (K-4) Map 16"x24"

Kk - Info. Panel

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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PM-1

Mile Marker

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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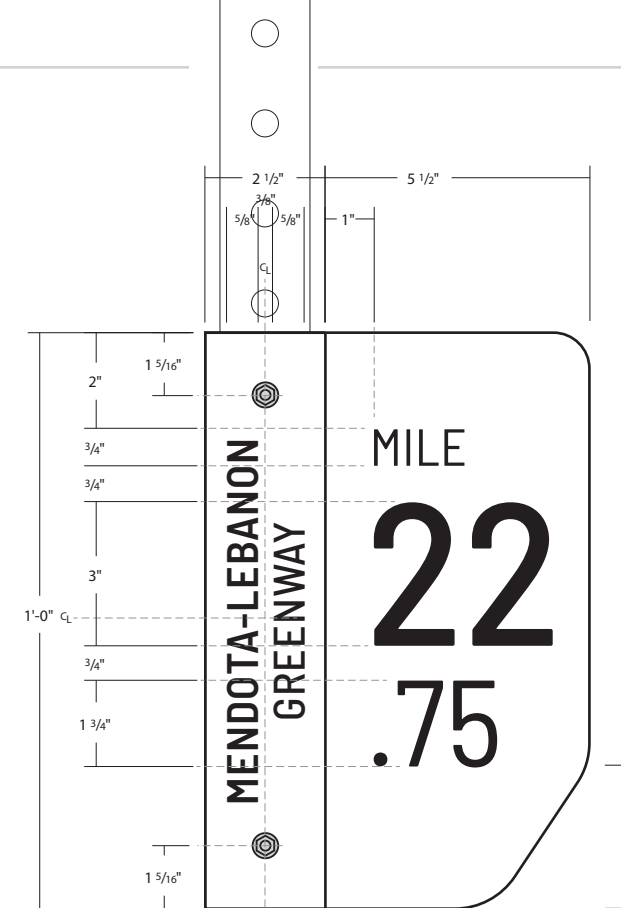
Client: Dakota County



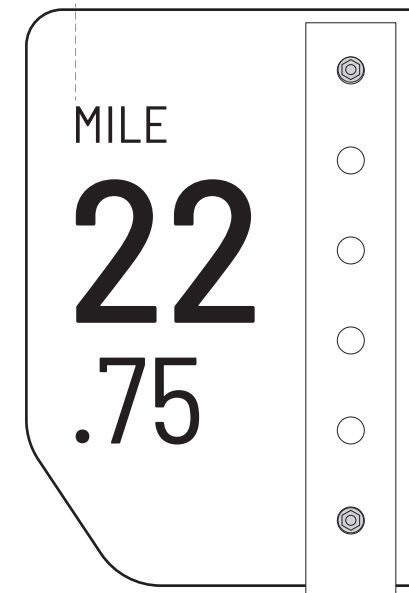
forever wild
PARKS

CORBIN
DESIGN

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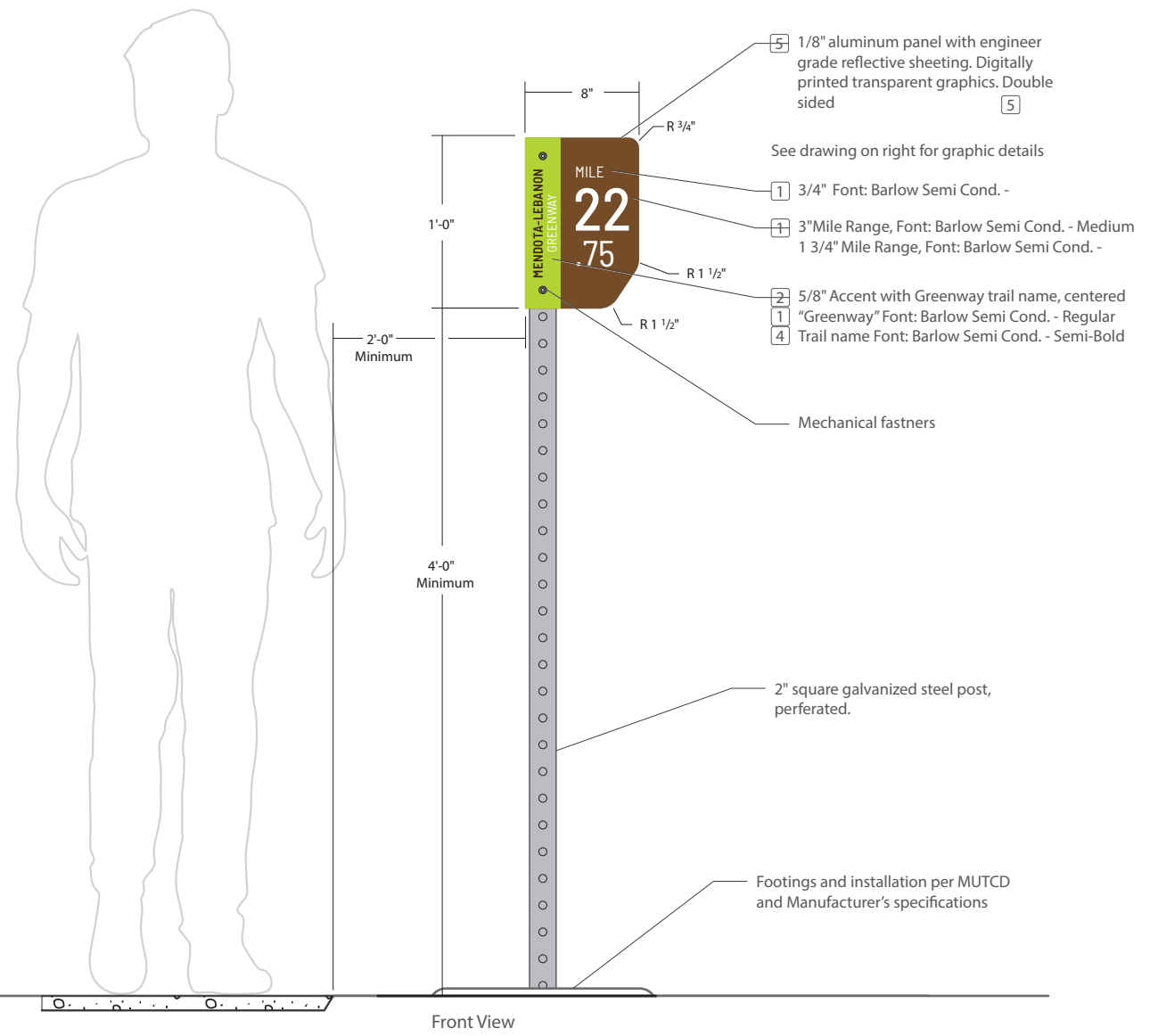


Front View

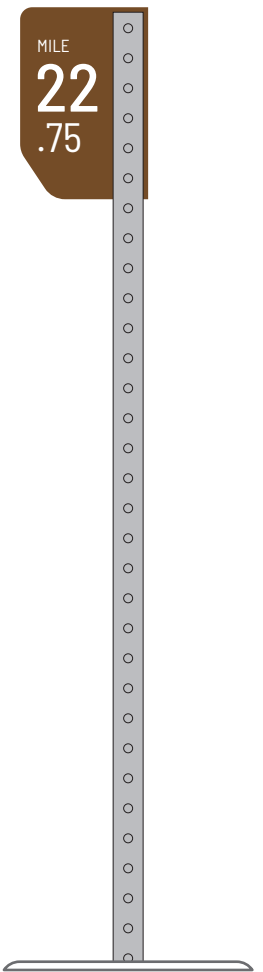


Back View

SCALE: 3" = 1'-0"



Front View



Back View

SCALE: 1" = 1'-0"

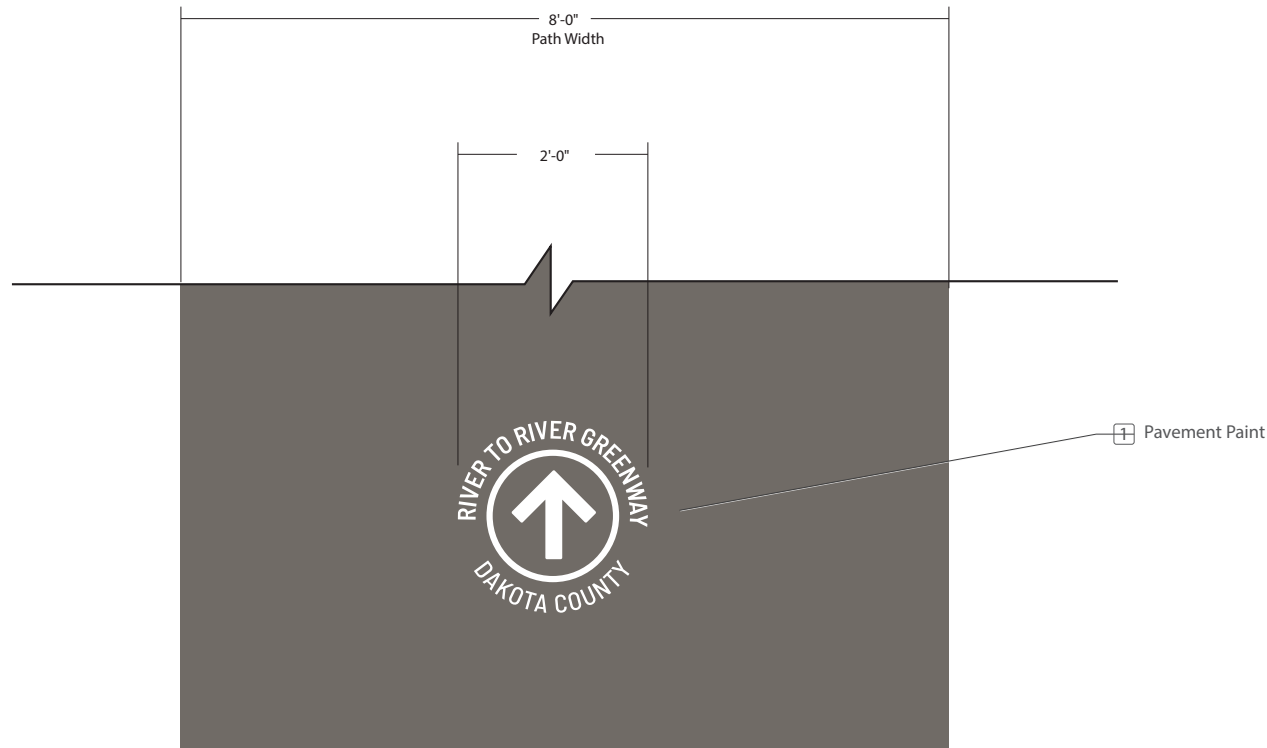


PM-2

Pavement Marker

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG



Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

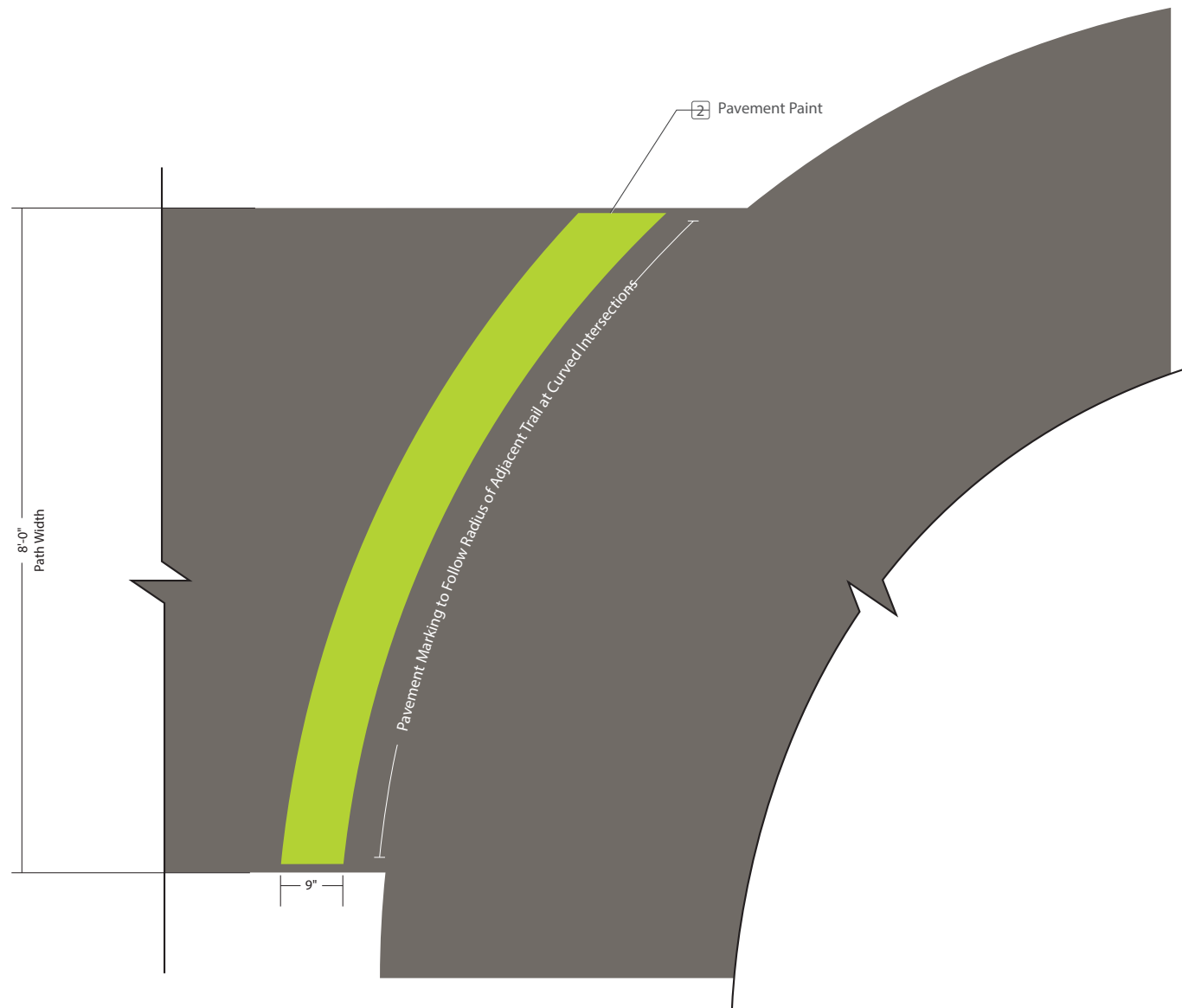
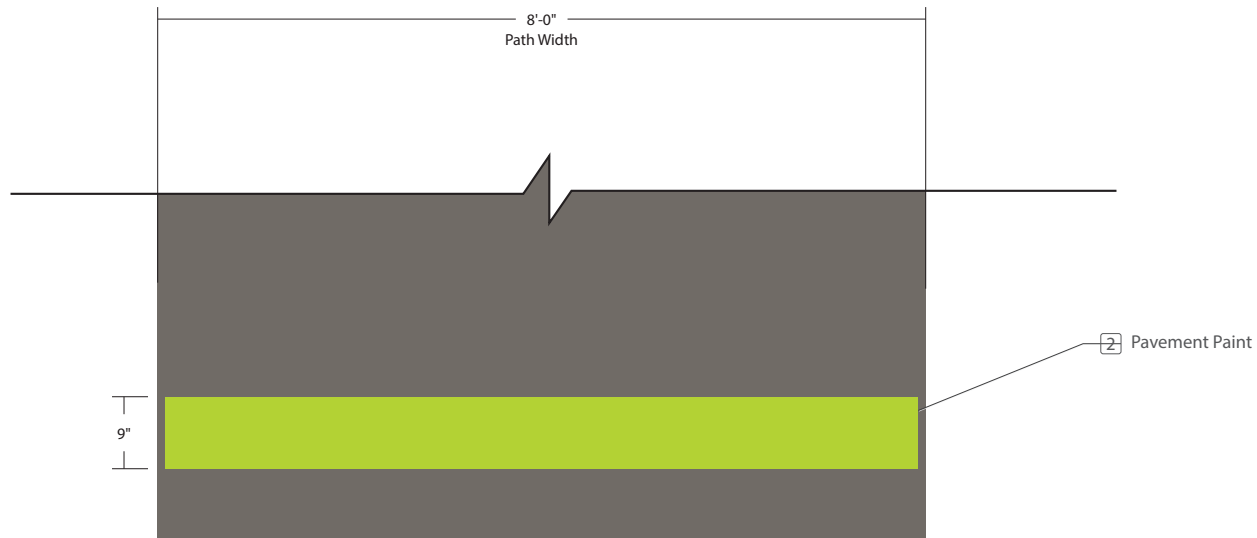
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SCALE: 1/2" = 1'-0"



PM-3

Pavement Boundary

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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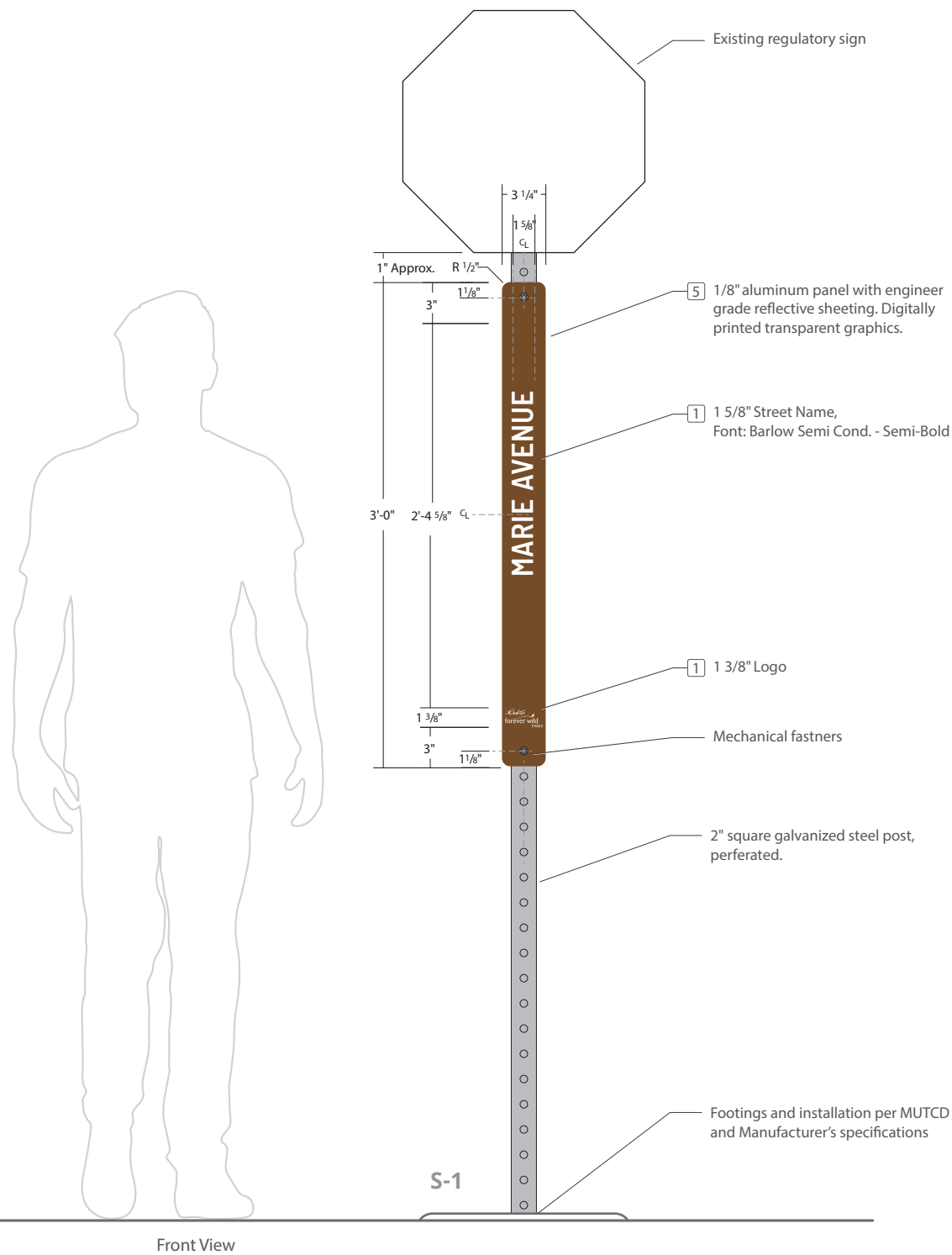
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SCALE: 1/2" = 1'-0"



Front View



R-2a Non-Reflective, Restroom layout



Example - Not to Scale

S-1

Street Name Identification

S-2

Street Name Identification, Overhead

- Colors**
- 1 WHITE
 - 2 GREEN
 - 3 LIGHT GREEN
 - 4 DARK BROWN
 - 5 COR-TEN BROWN
 - 6 LIGHT BROWN
 - 7 TAN
 - 8 SOFT BLUE
 - 9 RED, REG
 - 10 BLUE, REG
 - 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
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SCALE: 1" = 1'-0"

R-1

Regulatory:
Warning & Etiquette

Colors

- 1 WHITE
- 2 GREEN
- 3 LIGHT GREEN
- 4 DARK BROWN
- 5 COR-TEN BROWN
- 6 LIGHT BROWN
- 7 TAN
- 8 SOFT BLUE
- 9 RED, REG
- 10 BLUE, REG
- 11 YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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Client: Dakota County



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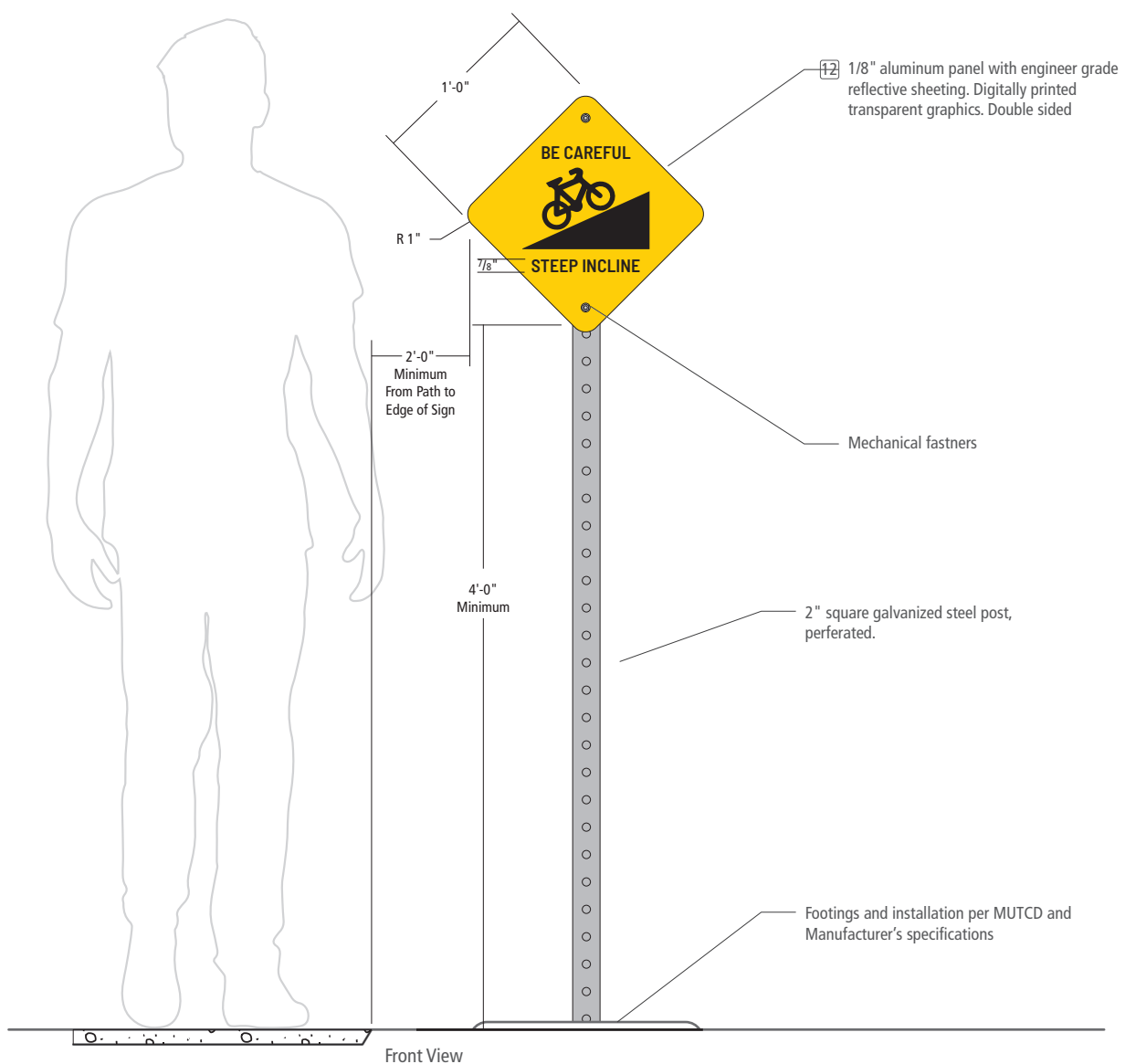
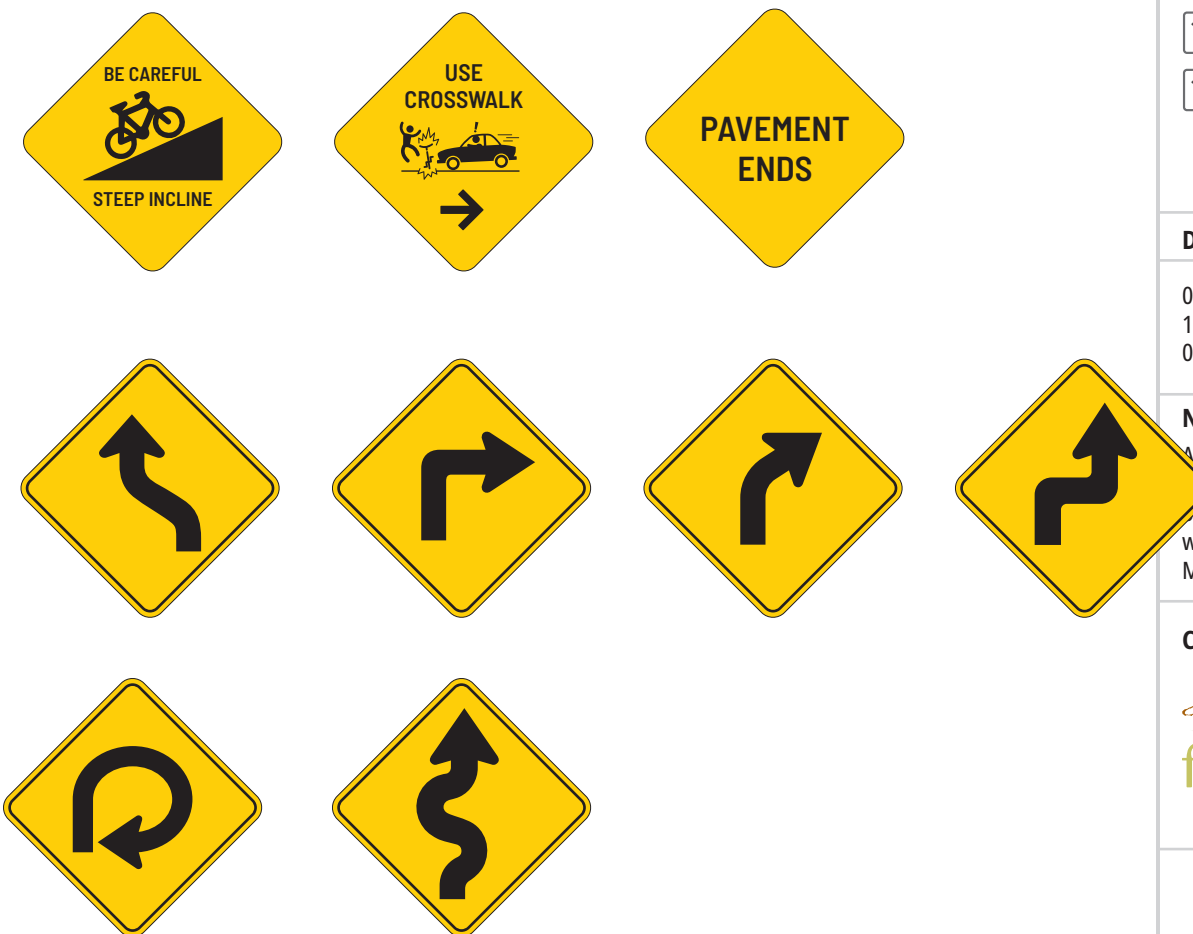
Etiquette R-1b



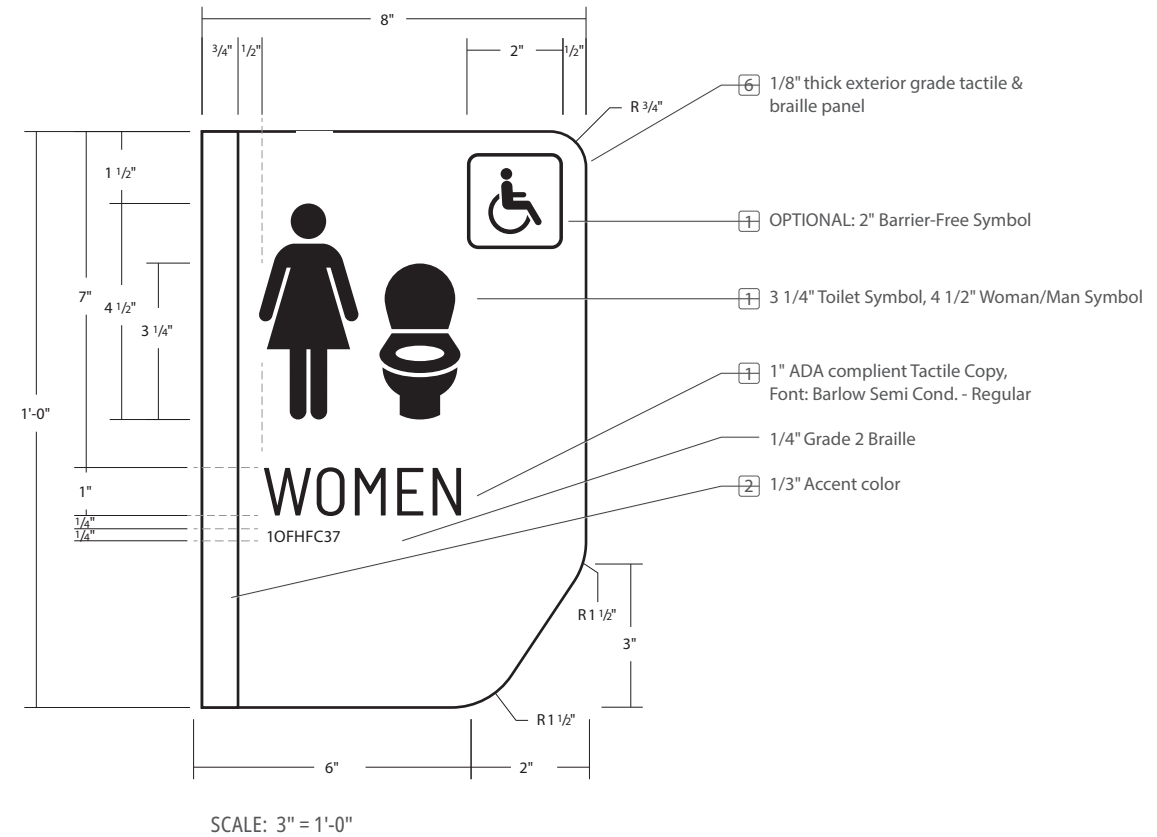
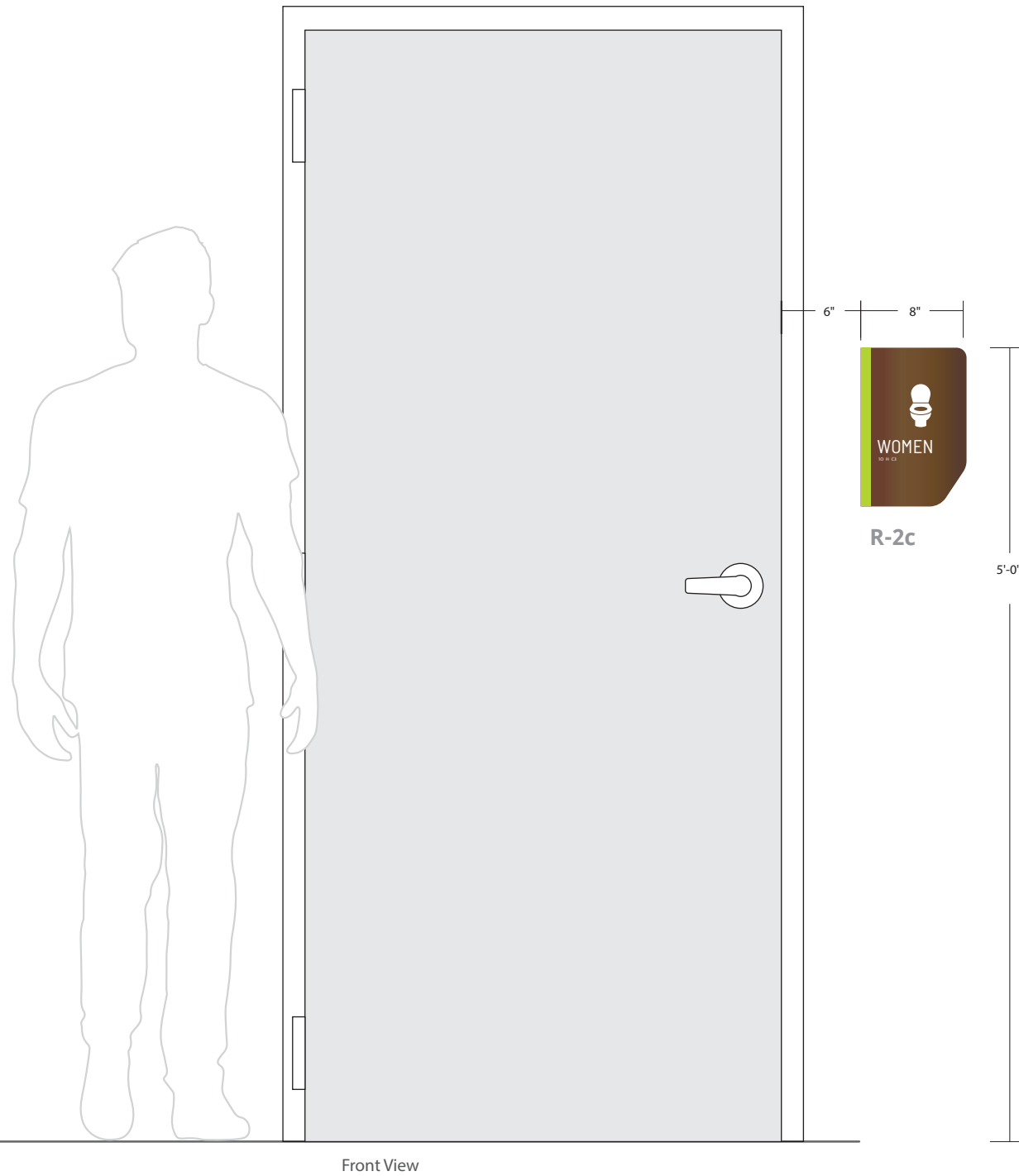
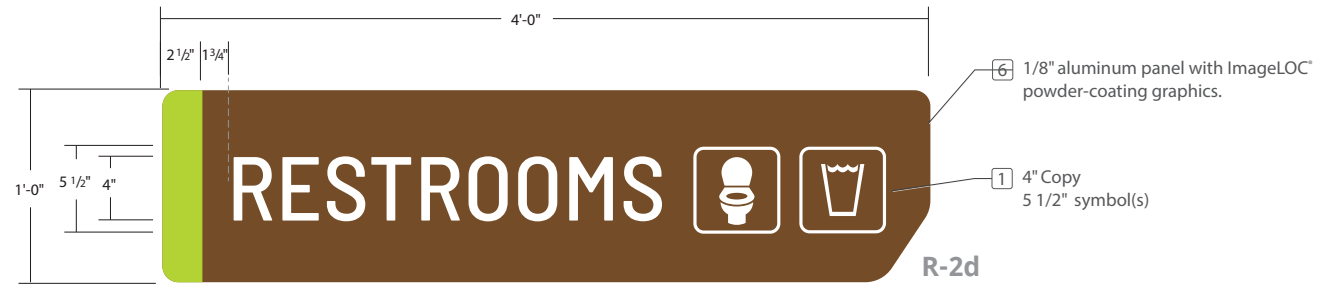
R-1c



Warning R-1a



SCALE: 1" = 1'-0"



R-2

Regulatory, Restroom Identification

Colors

1	WHITE
2	GREEN
3	LIGHT GREEN
4	DARK BROWN
5	COR-TEN BROWN
6	LIGHT BROWN
7	TAN
8	SOFT BLUE
9	RED, REG
10	BLUE, REG
11	YELLOW, REG

Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

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Client: Dakota County



CORBIN
DESIGN

415 S Union, 2nd Floor
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SCALE: 1" = 1'-0"

A

Auxiliary Panels

Colors

1	WHITE
2	GREEN
3	LIGHT GREEN
4	DARK BROWN
5	COR-TEN BROWN
6	LIGHT BROWN
7	TAN
8	SOFT BLUE
9	RED, REG
10	BLUE, REG
11	YELLOW, REG

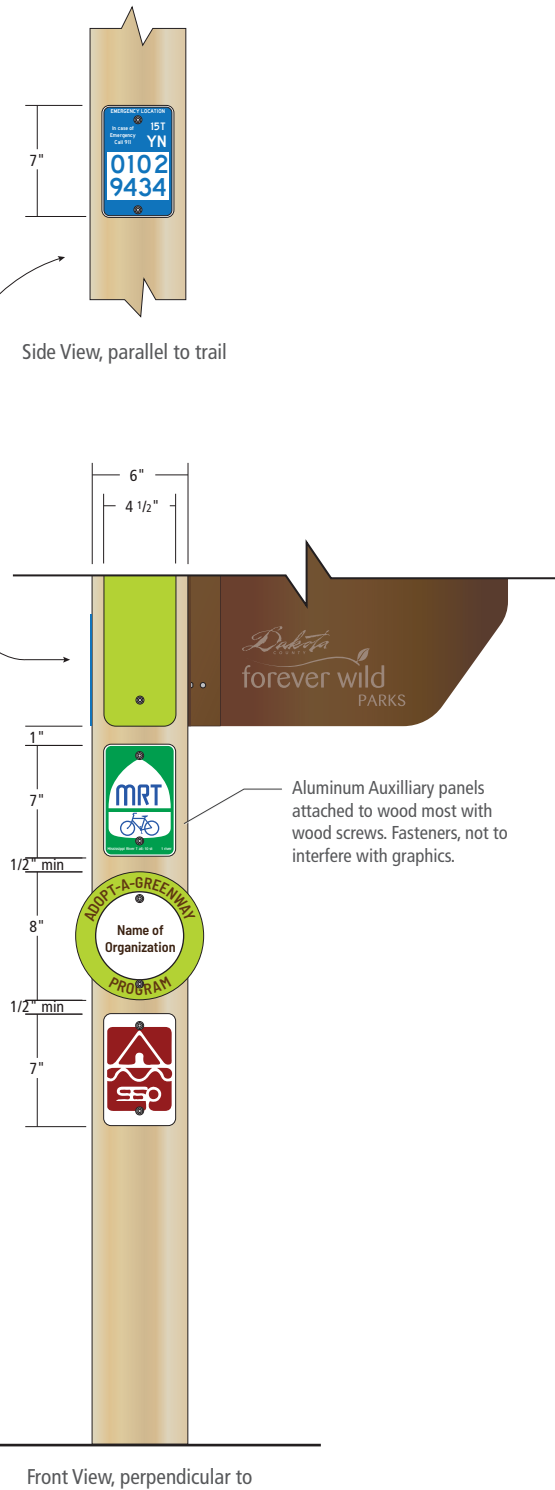
Date	Description
07/13/22	Draft 1
12/02/22	Draft 2
02/28/23	Final

Note:
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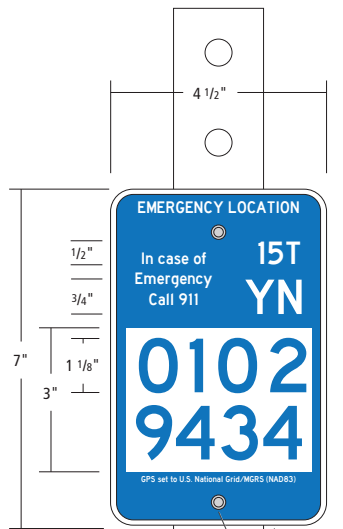


CORBIN DESIGN

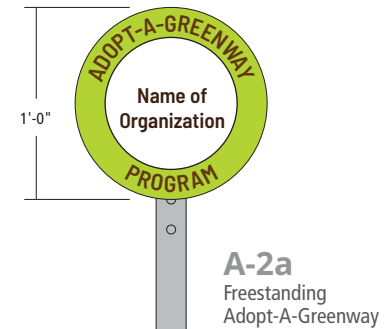
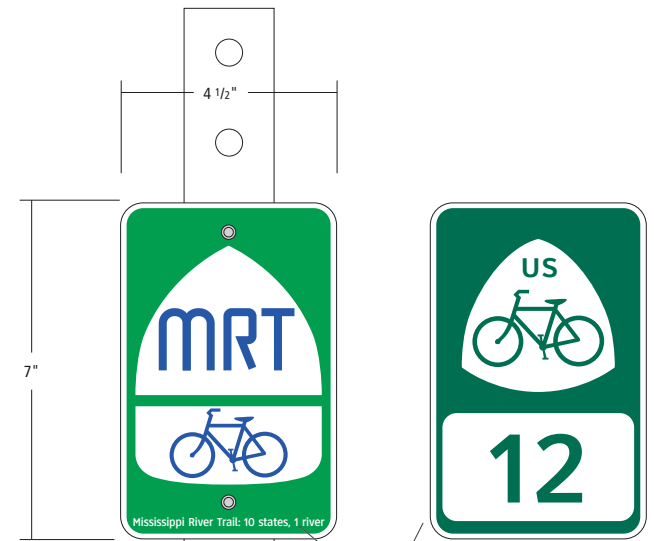
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A-1
USNG Emergency Locator plaque



A-4
MRT (Mississippi River Trail) & DOT US Bike Route Panel



A-2
Adopt-A-Greenway



A-3
Municipal ID



SCALE: 3" = 1'-0"

SCALE: 1" = 1'-0"

Fabrication Specifications

EXTERIOR SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes specifications related to fabrication and installation of exterior project signage.
 - 1. Sign type details are listed in the Design Intent Drawings. Design drawings are provided to the Fabricator in PDF format, or in Adobe Illustrator 2020.
 - 2. Sign Location Plans are general in nature and not to scale. They reflect locations deemed desirable for the effectiveness of the overall wayfinding plan. Sign location plans are provided to the Fabricator in PDF format
 - 3. The Sign Message Schedule includes sign type, exact messaging, layout details, and provides additional installation or graphic layout information specific to each sign location. Fabricator will be provided information electronically
 - 4. The materials, products, equipment and performance specifications within these documents describe the standard of required function, dimension, appearance, performance and quality to be met by the Fabricator.
- B. Fabricator's responsibilities:
 - 1. Engineer, fabricate and install all signage and graphics per the final documents provided at contract award.
 - 2. Be knowledgeable of relevant federal, state and local code requirements, and be responsible for ensuring that all signs meet current local, state and federal codes, especially, but not limited to, ADA and Fire/Life Safety codes.
 - 3. Perform complete structural design and engineering of the signs and incorporate all the safety features necessary to adequately support the sign for its intended use and purpose, as required for approvals and permits, and to protect the Owner. All signs shall meet local, state and federal codes. Engineered shop drawings for project signage shall be reviewed, stamped and signed by a registered engineer. Shop drawings are to be provided for all sign elements.
 - 4. Engineer all signs, banners and mounting devices, unless otherwise indicated, to withstand the required wind load (normal to the sign, in addition to the weight of the sign) as specified by ASCE, American Society of Civil Engineers, or greater as per local, state or federal code.

1.2 WARRANTY

- 5. Signs listed in the sign message schedule should match those on the sign location plan. Fabricator to notify the Designer and Owner's Representative of any discrepancies before manufacturing the signage.
- 6. Visit the site to observe existing conditions, verify mounting conditions and space availability, take field measurements and verify all signage locations with Owner's Representative prior to starting fabrication.
- 7. Develop graphic proofs of all sign faces using messaging from Sign Message Schedule and submit to owner for approval prior to production.
- 8. Secure any and all necessary permits for signage installation.
- 9. Work with the Owner's Representative to secure any necessary variances.
- 10. Notify the Owner's Representative immediately if any discrepancies exist within the Construction Documents or field conditions.
- 11. Provide all submittals outlined in the specifications in a timely fashion and according to the agreed upon contract schedule.
- 12. Work with the Owner's Representative to coordinate with other trades performing work on site.
- 13. Maintain all project related files such that the Owner may reorder additional signs for a minimum of 10 years after the completion of the work.

- A. Extend in writing all manufacturers' warranties.
- B. Obtain a minimum five (5) year extended warranty on all paint and powder coat applications.
- C. Obtain a minimum eight (8) year warranty on all custom color vinyl applications. Vinyl shall not fade excessively, discolor, crack, peel, blister, or loose reflectivity.
- D. Obtain a minimum five (5) year warranty on all applied vinyl applications. Vinyl shall not fade, discolor, delaminate, crack or curl.
- E. Provide a written full replacement warranty for five (5) years starting from the completion of installation that all signs will be free of defects due to craft work and materials including, but not limited to:
 - 1. Bubbling, chalking, rusting or other disintegration of the sign panel, graphics or of the edges.
 - 2. Corrosion appearing beneath paint surfaces of panels, brackets, posts or other support assemblies (except as an obvious result of vandalism or other external damage).

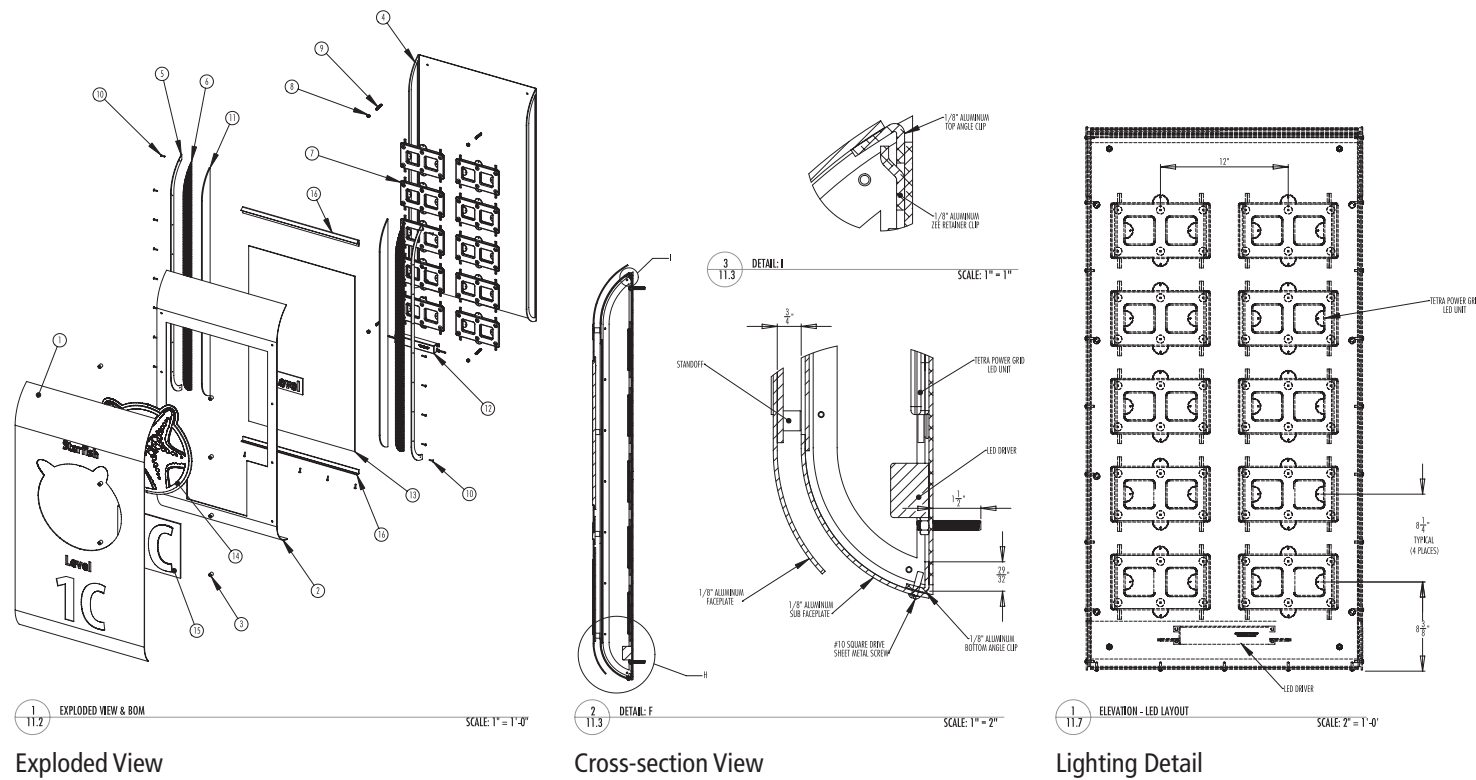
1.3 DESIGN RIGHTS

- 3. Corrosion of fasteners.
- 4. The assemblies not remaining true and plumb on their supports.
- 5. Fading, chalking and discoloration of the colors and finishes within the vinyl and paint manufacturer's stated warranty period.
- 6. Peeling, delamination or warping ("oil canning").
- 7. Repair and reinstallation of signage due to failed mountings.
- F. Repair or replace, including installation, any defective signs or hardware, which develop during the warranty period and repair any damage to other work due to such imperfections at no charge to the Owner and to the Owner's satisfaction.
- G. The Fabricator will be required to fully replace all signs that are in error relative to the working documents (sign message schedule and sign type drawings) that were submitted to the Fabricator upon award of contract.

1.4 SUBMITTALS

- A. Pre-Fabrication Submittals: Submit the following to the Owner's Representatives and Designer for review and approval prior to commencing with signage fabrication.
 - 1. Shop Drawings: Detailed engineered shop drawings for each sign type are to be submitted as electronic PDF no larger than 11" x 17". Final Shop Drawings are to be stamped by an Engineer licensed in the state to ensure structural integrity and safety. The shop drawings for each sign type shall illustrate/describe the following:
 - a. Elevations and cross sections – front, sides, top and back; side sections; internal structure section/details; enlarged details such as of extrusions, push-through letter mounting, mounting plate; and access panel, etc.; with all final dimensions and call-outs for:
 - b. Components – construction details/information related to individual elements
 - c. Materials – color, type, gauge, and thickness (including substrates and overlays)

- d. Finishes – color, type of product, manufacturer, and sheen
- e. Fonts, graphics specifications and message fields
- f. Exploded view, unless otherwise indicated – isometric view with components, materials, and finishes.
- g. Cross-section of corners – one illustration for each corner condition. Items to be illustrated: seams, joints, layers, internal support and fasteners.
- h. Mounting/installation details – provide foundation cross-sections (including hardware), bracket/post details, elevations, materials, finishes and fasteners.
- i. Electrical details are to be provided for all elements that require electricity. Specific items to be listed are:
 - 1) Light source and/or fixture type and manufacturer
 - 2) Power supply (transformer)
 - 3) Amperage and voltage per sign
 - 4) Electrical service required (source)
 - 5) Electric Eye and Timer
- j. Lighting detail – provide an internal view of light fixtures, LED layout, transformers, external cut-off switch, light sensor, and timer.
- k. Foundation details – provide detailed foundation details including all concrete and reinforcement specifications.
- l. Engineering for wind load
- m. Removable panels (where applicable)
- n. Identify any dimensional or other changes in the overall sign required by virtue of the fabrication materials, techniques and/or engineering.



1
11.2 EXPLODED VIEW & BOM
SCALE: 1" = 1'-0"

2
11.3
SCALE: 1" = 1'-0"

3
11.7
ELEVATION - LED LAYOUT
SCALE: 2" = 1'-0"

2. Samples: Submit three (3) 5" x 5" samples of each material listed in the design intent material specifications using actual substrate materials for review and approval. One will be returned, one kept by the Owner's Representative and one kept in the records.
 - a. Label the back of every sample with the project name, sample designation and fabricator name.
 - b. The Owner's Representative reserve the right to reject any sample and require additional samples as necessary to obtain final approval.
3. Keystroke Proofs: Provide a proofing document of final production keystroke output for all sign messages to verify line breaks, character and word spacing, and interline spacing.
 - a. The proofs are to be scaled production art files, not full sized.
 - b. Layouts are to be organized by sign type and by sign number within each sign type group.
 - c. Each layout is to be identified with the corresponding sign number.

4. Schedule: Provide a detailed fabrication and installation schedule.
 - a. Include all pertinent dates and milestones such as submittal delivery dates, required approval dates, fabrication dates and installation dates.
 - b. Include all lead times for materials and third-party supplied items.
 - c. Allow a minimum of 15 business days for Owner Representative and Designer review with one round of revisions built in unless otherwise noted within the bid schedule.
 - d. Include submittal delivery dates.

- B. During Fabrication Submittals:
1. Fabricator is required to maintain the detailed fabrication and installation schedule, submitting weekly updates as changes occur.
 2. Upon request, Fabricator is to submit photo documentation of signage at various stages of fabrication and installation. Review of these photos does not rule out rejection of the sign during the punch list if they do not meet fabrication requirements.

- C. Post-Fabrication Submittals: Upon completion of the initial installation, the following are to be submitted to the Owner's Representatives.
1. Maintenance instructions and manuals for all sign components (lighting, paint, etc.), along with final amended shop drawings, as-installed sign location plans and approved keystroke documents.
 2. Instructions for maintenance and waxing of painted, powder coated and fiberglass elements.
 3. Templates for all insert based signs, utilizing standard software for the Owner's use in printing replacement inserts.
 4. One (1) pint of each finish paint color for touch-up purposes.
 5. Labeled, spare keys to master keyed locks on directory or kiosk signage.
 6. Warranty documentation, as outlined above.

1.5 QUALITY ASSURANCE

- A. The materials, products, equipment and performance specifications described within, establish a high quality standard of required function, dimension, appearance, performance and quality to be met by the Fabricator.
- B. Materials used for this project shall be new materials, not reconditioned.
- C. Fabricator shall only use workforce skilled and experienced with the products, fabrication methods, and installation requirements outlined for this project.
- D. Fabrication and installation is to withstand severe abuse and souvenir theft vandalism, but not less than the equivalent of resisting simple hand implements and tools (screwdrivers, knives, coins, keys, and similar items), and adult physical force. It is the fabricator's responsibility to suggest alternate fabrication or installation methods, should they be deemed necessary to hinder theft or vandalism.
- E. Regulatory Requirements: Signage shall meet or exceed requirements of all current applicable local, state and federal codes, including, but not limited to:
 1. MUTCD standards manual, 2009 edition with the 2012 revisions;
 2. 2010 Americans with Disabilities Act Standards for Accessible Design, including local modifications and amendments; and
 3. Local and State Building and Fire Codes.

1.6 DELIVERIES, STORAGE AND MATERIAL HANDLING

- A. Pack, wrap, crate, bundle, box, bag, or otherwise package, handle, transport, and store all fabricated work as necessary to provide protection from damage.
- B. Provide clear and legible identifying information on all product packaging to ensure proper on-site identification and installation.
- C. Recommend covering all sign faces with a low-tack protective vinyl cover, to be removed after installation. This is to help minimize minor scratches and nicks that happen during unpacking and installation.
- D. Coordinate the delivery and secure storage of signs with the Owner's Representative to meet deadlines.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Substitution:
 - 1. No substitution will be considered unless the Owner's Representative and Designer have received written request for approval.
 - 2. Equal or better equipment or method may be recommended, but fabricator will be required to provide full documentation, upon request, establishing such a substitution's equality or superiority as measured in: compliance with the visual design intent, cost, ease of maintenance, and performance.
 - 3. The Owner's Representative and Designer's decision of approval or disapproval of a proposed substitution shall be final.
- B. Approved manufacturers include:
 - 1. Acrylic Polyurethane Paint: Matthews Paint Company or Akzo Nobel
 - 2. Powder Coating: PPG Duranar or Akzo Nobel Interpon
 - 3. Exterior Vinyl: 3M
 - 4. Exterior Perforated Vinyl: 3M
 - 5. Acrylic Sheets: Rohm and Hass Co, Acrylite or equal.
 - 6. Panaflex: 3M or equivalent
 - 7. LED lighting system: General Electric, SloanLED, Philips, US LED or equivalent
 - 8. Exterior Extrusions: SignComp, Charleston Industries or equivalent
 - 9. Exterior Tactile signs: Gravoply or equivalent
 - 10. Stainless Steel Strapping System: Band-It or equivalent
 - 11. Banner Hanging System: Banner Saver
 - 12. High Pressure Laminate: Fossil Industries, i-Zone, Trespa
 - 13. Fiberglass Embedded Panel: Pannier Graphics
 - 14. Electronic Message Centers: Daktronics, Firewatch, Vantage LED
 - 15. Adhesive Silicone: Dow Corning or equivalent
 - 16. Adhesive Tape: Polyfoam or "Isotac" by 3M or equivalent
 - 17. Industrial Adhesive: Lords Adhesive
 - 18. Direct-Embed Coated Graphic transfer: ImageLOC®

2.2 Materials

- A. Aluminum: suitable for ornamental work. Finish to be smooth and free of imperfections. Alloy based upon structural requirements of the signage design.
- B. Aluminum sheet: .125" minimum thickness unless otherwise specified.
- C. Aluminum plate: .25" minimum thickness unless otherwise specified.
- D. Structural Steel: galvanized rolled steel or equal as required to meet structural requirements.
- E. Acrylic sheet: varying colors and thicknesses as noted on design intent drawings, 2447 is standard for use in LED illuminated sign types, 7328 is standard for use in Fluorescent illuminated sign types.
- F. Illumination: per design drawings as LED or high-output fluorescent lamps with 800 MA, exterior UL rated electronic ballasts per specifications. Specifications for T-8 lamps are specific to the 60,000 hour T-8 lamp.
- G. Day/Night perforated vinyl: 3M custom color vinyl; flood-coating perforated vinyl is not an acceptable solution unless noted within the design intent drawings.
- H. Adhesive vinyl: opaque color, reflective color, translucent color and transparent color.
- I. Electric Eye and Timer as indicated by the Owner's Representative.
- J. Exterior grade paint: acrylic polyurethane paint in solid and metallic colors with primer and Super Satin Clearcoat finish.
- K. Matthew's Paint reflective white paint or 3M Matte White Light Enhancement Film.
- L. Miscellaneous mounting hardware: including but not limited to, screws, bolts, stainless steel cable, hinges, and adhesives.
- M. Labels: Only labels required by law are permitted on the exterior of the sign face.
 - 1. Labels shall not be on the primary messaging faces of the sign, unless dictated so by the local ordinance.
 - 2. Labels shall be located in a position as discreet as possible.
 - 3. No other labels are permitted on the signs.

- 4. Fabricator contact information may be placed inside the sign on the access panel.

- N. Fiberglass panels with embedded artwork are to be fabricated using 1/8" thick fiberglass panel with permanently embedded digital graphics. The panel must be a solid, one-piece panel with all graphic elements inseparable from the fiberglass in which they are embedded.
- O. All printed graphics shall be printed at a minimum of 1200 DPI using exterior grade UV inks.
- P. High pressure laminate: Digital graphic surface papers encapsulated with melamine resins are pressed over a portion of recycled post-consumer kraft paper core sheets impregnated with phenolic resin. These sheets are bonded under pressures greater than 1200 pounds per square inch and at temperatures approaching 300°F (149°C). The 0.040" backs are sanded to facilitate bonding to other substrates.
- Q. Direct embed coated graphic transfer: Direct print to surface coating fused to heat-treated aluminum, exterior grade. Clear topcoat applied to provide UV, water, graffiti and vandal protection.

2.3 FABRICATION

- A. Details on design drawings indicate a design approach for sign structure but do not necessarily include all fabrication details required for the complete structural integrity of the signs, including consideration for static, dynamic and erection loads during handling, erecting, and service at the installed locations.
- B. Site-verify all locations to determine special installation requirements, uneven footing needs based on sloped grades. Field verify measurements for wall mounted and glass mounted signage, etc. prior to fabrication.
- C. Fabricate signage such that major components of the sign can be removed and replaced with similar components. Incorporate this changeability such that it does not promote vandalism, but can be done by a qualified maintenance crew.
- D. Within fabrication tolerances, allow for expansion and contraction of materials due to temperature changes as appropriate to the project location.
- E. Construction Methodology:
 - 1. The drawings call for a variety of fabrication techniques.
 - 2. Sign faces are to be fabricated using aluminum plate of varying thicknesses, as specified on design drawings, with a minimum thickness of .125 inches unless otherwise noted.

- 3. Push-through copy:
 - a. Routed push-through copy from a single sheet of white acrylic.
 - b. Acrylic to have a minimum thickness of 3/8".
 - c. Acrylic to be pushed through 1/16" unless otherwise noted on design drawing.
 - d. Letters and shapes that are routed out and bonded to a separate acrylic sheet are not acceptable.
 - e. Acrylic is to be attached to the interior of the sign using mechanical fasteners.
 - f. All letter knock-outs (interior of letter forms) are to be stud mounted through the acrylic.
 - g. Acceptable spacing between the push-through acrylic and the cutout aluminum is 1/32" for copy 12" or smaller. Copy larger than 12" may have alternate spacing to allow for the change in material expansion.
 - h. The edges and corners of routed letterforms shall be sharp and true. Letterforms with nicked, cut, ragged, rounded (positive or negative) corners, and similar disfigurements will not be acceptable.
- 4. Conceal all fasteners except for access panels or where approved otherwise by Owner's Representative and Designer. Access panel fasteners are to be stainless steel, tamper resistant, counter-sunk flush screws, painted to match adjacent finish.
- 5. All hardware and fasteners within reach shall be vandal resistant.
- 6. Any sign faces smaller than 8' by 20' are to be fabricated from 1 piece of seamless material.
- 7. To prevent electrolysis, separate all ferrous and non-ferrous materials with a non-conductive gasket or barrier and utilize stainless steel fasteners as required.
- 8. Welded joints:
 - a. Exposed welded joints must be filled and ground smooth so that there is no seam visible when painted.
 - b. Dimensional and structural welding defects will not be accepted, including but not limited to: poor weld contours, including excessive bead convexity and reinforcement, and considerable concavity or undersized welds; cracks; undercutting; porosity; incomplete fusion; inadequate penetration; spatter; and non-metallic inclusions.
 - c. Welding is to be performed by AWS (or similar) certified personnel, following AWS Standard Welding Procedure Specifications (SWPSs) for steel, aluminum, and stainless steel as appropriate.
- 9. Non-welded joints between various portions of signs must have a tight, hairline-type appearance, without

- gaps. Provide sufficient fastenings to preclude looseness, racking, or similar movement.
10. Exposed acrylic edges are to be finished such that no saw marks are visible.
 11. Drain holes:
 - a. Provide drain holes as needed to prevent accumulation of water within signs.
 - b. Holes must be inconspicuous and located such that drainage does not occur onto signs, or other surfaces subject to staining.
 - c. Provide internal system of baffles to prevent "light leaks" through drain holes of illuminated signs.
 - d. Use color-coordinated stainless steel bug mesh screen over drain holes or vents.
 12. Non-illuminated sign faces are to have lettering and graphics created as surface-applied vinyl typography unless otherwise noted in the design drawings.
 13. Visible metal joints must adhere to a fit tolerance of .01".
 14. Channel letters:
 - a. Non-illuminated faces must be .125" aluminum.
 - b. Channel letter returns must be a minimum of .080" aluminum.
 - c. Face-lit channel letters mounted on the first or second story of a building shall be trimless.
 - d. Face-lit channel letters installed on the third floor or higher of a building may use a low-profile trim cap.
 - e. Jewel trim is not acceptable.
 - f. Raceways are not acceptable unless specifically noted on the design intent drawing or if approved by the Owner. Approved raceways must be painted the same color as the wall on which the raceway will be mounted.
 - g. Acrylic must fit snugly into the letter return.
 15. Sign panels shall be appropriately pre-drilled/pre-cut before priming and painting or coating.
- F. Painting:
1. Metal surfaces are to be painted per the most recent Matthews Paint or Akzo Nobel product bulletins.
 2. Paint preparation of all metal surfaces of the sign to include removal of all scratches and imperfections, sanding and chemical etching.
 3. Substrate cleaning, preparation, paint application and paint thickness to be in strict compliance with Matthews Paint or Akzo Nobel published recommendations.
 4. Aluminum and Steel surfaces to be properly covered with a primer.
 5. Acceleration of the drying process is not allowed.
 6. All paint and powder coat finishes to be a satin finish unless otherwise noted in the design drawings.
 7. All painted surfaces to have a clearcoat finish to add UV protection and protection from the elements.
- G. Illumination & Electrical:
1. Perform the complete electrical design for illuminated signs.
 - a. Illuminated signs shall be designed by an electrical engineer.
 - b. Illuminated signs shall be fabricated and wired to be compliant with current UL® listing requirements.
 - c. Illuminated signs shall be UL® Certified.
 2. The disconnect switch is to be located in an inconspicuous location, not visible from the primary face(s) of the sign.
 3. Fabricator to verify location of power and electrical feed with the Owner's Representative prior to sign fabrication.
 4. All internally illuminated signs and channel letters shall be painted white on the interior using Matthews' reflective white paint, or shall be lined with 3M's Matte White Light Enhancement Film, to enhance and evenly distribute light.
 5. Provide concealed access panel in an accessible location on all internally illuminated sign cabinets. Panels are to be flush, lightproof and watertight.
 6. Internally illuminated signs are to have adequate internal system of ventilation to assure a uniform dissipation of heat from electrical components of electrically powered and illuminated signs, heat (solar) absorption by sign and other sources.
 7. Any openings in exterior surfaces must be internally baffled to prevent light leaks and prevent entry of rain, snow, wind-blown debris, and other foreign matter, and are to be covered with color-coordinated insect screen on the interior of the face.
 8. House all electrical components within sign cabinets, except for remote transformers as dictated by the Owner's Representative. All wiring and raceways within the sign are to be completely enclosed.
 9. Transformers for channel letters shall be remote transformers wherever possible. If remote transformers are not applicable, then all electrical components shall be contained within the channel letter itself.
 10. Internal illumination by lamps is required to provide adequate and even illumination over the face of the sign without hot spots or shadows.
 11. Illumination to be provided by LED or Fluorescent lamps as specified on design drawings.
 - a. Signs wired with high output lamps are to include spring-loaded static strips between each lamp.
 - b. Internally illuminated channel letters shall be illuminated using LED, unless otherwise noted on the design drawings.
 12. LED, lamps or other internal hardware must not be visible through the translucent letterforms and graphics.
 13. All internally illuminated signs are to have a master timer with photoelectric eye on/off control to turn the sign on at night and off in the morning, and on during dark conditions. Location of timer to be approved by the Owner's Representative.
 14. Test and verify all illumination within the shop environment prior to shipping signs to site.
- H. Fonts/Typefaces:
1. Fonts used within the Designer's programs were purchased by and are licensed to the Designer. It is the responsibility of the fabricator to purchase the specified licensed fonts for use within this program. See the design intent typography page for the specific fonts.
 2. The fabricator is responsible for spacing the letters (Kerning) to meet ADA code requirements.
 3. Letter height/cap height is based upon the height of the capital letter "E" or any capital character that has a flat top and base.
 4. Under no circumstances are typefaces to be electronically distorted ("squeezed" or "extended") for purposes of fitting to the specified sign or general alteration of the sign face composition unless noted in the drawings. This includes (but is not limited to) stretching, squeezing, tilting, outlining or shadowing.
 5. Ligatures are to be turned off.
 6. Apostrophes and quotation marks are to be used, not footmarks and inches. Note that there is a difference in most fonts.
 7. Fabricator to reference spacing within the Design Intent Drawing package. Layout of copy is critical for the proper function of the wayfinding signage. Any typesetting concerns or issues are to be brought to the Designer for resolution recommendations.
 8. Fabricator is responsible for correcting any typesetting errors that may be necessary.
- I. Silk-screen, digital printing and vinyl copy:
1. All letterforms, symbols or graphics shall be reproduced either by photographic or computer-generated means.
 2. Cutting shall be done such that edges and corners of finished letterforms will be straight, sharp and true.
 3. Letterforms with nicked, cut, ragged, rounded corners, and similar disfigurements will not be acceptable.
 4. Copy is to match the sheen of the copy panel background (satin).
 5. Surface of letters shall be uniform in color finish, and free from pinholes and other imperfections.
 6. Silk-screened images shall be executed with photo-processed screens prepared from original electronic art.
 7. Use only weather-resistant coating materials that are compatible with substrates.
 8. Silk-screening shall be highest quality, with sharp lines and no sawtooths or uneven ink coverage.
 9. Images shall be uniform in color and ink thickness.

PART 3 - EXECUTION

3.1 DEMOLITION

- A. The fabricator is required to remove all existing signs as identified in the bidding documents. OR the fabricator may be required to remove all existing signs noted in the Demolition plan, if provided.
- B. Fabricator is to remove below-grade footings and foundations to a minimum depth of 8" below grade and repair landscaping. OR if required, the fabricator is to remove all below grade footings and foundations completely and fill with compacted soil.
- C. For individual letters, Fabricator is to remove the sign, fill holes, power wash the façade and touch-up paint as required.
- D. If there are electrical connections, they must be properly terminated.
- E. Fabricator is responsible for disposal of existing signage. Recycling is recommended. Open dumping is prohibited. Coordinate with Owner's Representative.
- F. Fabricator is to repair and bring to consistent look with surrounding area, any areas damaged or left exposed in an unfinished condition due to the removal of a sign.

3.2 INSTALLATION

- A. Permits and Variances:
 - 1. Research relevant local code requirements and honor the same in fabrication and installation.
 - 2. Secure any and all necessary permits for signage installation. Coordinate with the Owner to secure variances, should any be required.
 - 3. Coordinate with the Owner to have all underground utilities properly located and marked. Any damage to below-grade utilities or structures for which the Owner or Owner's Representative has provided adequate location information is the responsibility of the Fabricator.
- B. Site Visit:
 - 1. Ensure that every building-mounted sign location has the necessary blocking for safe and secure mounting. Where additional blocking is needed, recommend changes and additional associated costs, and receive approval prior to beginning installation.

- 2. The final Sign Message Schedule and Sign Location Plan shall be consulted together and shall be approved by the Owner to determine the precise location for each sign. Any necessary adjustments will be made with the approval of the Owner.
- C. If installation subcontractors are utilized, the Fabricator must provide a company representative to act as on-site supervisor through the duration of the installation process to oversee any subcontracted installation work.
- D. Fabricator to maintain current signage and directional information during installation in order to continue to provide proper wayfinding. This can be done through the use of temporary signs, or vinyl over existing sign faces.
- E. Fabricator to coordinate delivery of signage with the Owner's Representative.
- F. Fabricator to provide a site logistics plan indicating the work areas, proposed equipment and power sources, extent and duration of street closures, and schedule time/dates of the respective sign installations. This schedule is to be updated on a weekly basis if changes occur.
- G. Electrical:
 - 1. The Owner or Owner's Representative will be responsible for providing a power source to within 10 feet of the base of each sign requiring power (either at grade or below grade). OR The Fabricator is responsible for subcontracting an electrician to pull power from the source to the sign location. The Owner will work with the Fabricator to identify the preferred junction location.
 - 2. Power is to be 120 or 277 (LED illumination should be 120) volts at 60 cycles unless otherwise noted by the Owner's Representative. Fabricator to confirm based upon location source with the Owner's Representative.
 - 3. Manipulate the existing conduit to its proper location, install an external disconnect, extend the conduit through the concrete base (or posts) to align with the point of hookup, and run the power supply through it.
 - 4. Conduit running from the disconnect to the sign shall travel within the concrete base, not on its surface.
 - 5. Perform final hook-up. This may not be an excluded service from the bid return.

- H. Masonry/Footings:
 - 1. All concrete bases for signage are to be poured in place from thoroughly mixed and agitated concrete.
 - 2. Footings are to extend beneath the frost line, or deeper to meet local code.
 - 3. All footings or bases should be poured within a form and level with grade unless otherwise specified in the design drawings or as specified by state or local code.
 - 4. Foundation/footings should not extend above grade more than 2" and exposed edges should be finished with a bevel to prevent chipping, unless otherwise indicated in Design Intent Drawings.
 - 5. It's recommended that the concrete be floated by machine or hand before finishing in order to embed larger aggregates especially when part of the footing or base extends above ground.
 - 6. Concrete surface should have a smooth or brushed finish grade appearance. Match the finish appearance of connecting concrete surfaces when applicable.
 - 7. All concrete bases and footings should be edged to break any bond with the form and create a neat appearance. All forms should be removed once the concrete has properly cured.
 - 8. Provide the necessary templates, mounting plates and hardware for concrete and masonry bases.
 - 9. All masonry (concrete block, poured concrete, brick, slab, veneer, mortar, etc.) is to be properly treated and protected to maintain the structural integrity of the masonry work with exposure to all environmental conditions found at the site. For exposed or visible masonry, this shall include the application of protective sealers or similar finishes to diminish the effects of close-proximity sprinkling or irrigation systems.
 - 10. Wet concrete with footers and posts must fully cure in place before signage is installed on the footers or mounted to the posts.

- I. Mounting:
 - 1. Signs are to be mounted on J-bolt footings or breakaway bases, centered on the concrete base or footing, and engineered per code, unless otherwise specified in the design drawings or required by code.
 - 2. For all bolts, nuts, washers and other fasteners, Fabricator to match material and finish as used in sign. When fastening dissimilar materials, use stainless steel 300 series. OR It is preferred that all bolts, nuts, washers, or other fasteners be stainless steel. However galvanized steel is acceptable, so long as all exposed surfaces are sealed.

- 3. Fabricator is required to specify mounting hardware and anchoring per the engineering of the signage. The visual appearance of the sign is not to be compromised from that shown in the design drawings.
- 4. Install all signage products such that there are no misalignments between visible components. Sign elements intended to be removable or changeable after installation must function as intended without binding, sticking or blocking.
- 5. All signs to be mounted level and true, and within the guidelines of applicable local, state and federal codes including, but not limited to, the 2010 Standards for Accessible Design (ADA) and fire/life safety codes, where applicable.
 - a. If signs are to be installed in a parking garage where the structural elements are not level due to the grade of the garage, the Owner is to decide whether the sign should be mounted level or aligned with the structural elements.

- J. Locating Signs:
 - 1. Fabricator's installers must have applicable understanding of the 2010 Standards for Accessible Design (ADA) mounting guidelines, city zoning and other applicable federal, state and local codes, general sign locating practices, and any particular unique installations.
 - 2. Installers are to follow the regulations, noted guidelines, and architectural details around an installation location for the best visual placement.
 - 3. Keep a reasonable distance from protruding objects.
 - 4. Any signage that is improperly located is to be moved to the proper location, and all repairs to wall surfaces and signage are to be handled by the Fabricator.
 - 5. If the installers are unable to make a decision about any sign locations, they can contact the Designer, providing a graphic representation of the questionable area, or contact the Owner's Representative for on-site options. If there is a code requirement regarding the sign location, the installer must notify the Owner's Representative of the requirement.

- K. Landscaping:
 - 1. A landscaping bed, minimum 1' wide from each direction around a sign, 6" deep, filled with material to match the surrounding landscaping materials. This does not apply to regulatory sign posts.

- L. Upon completion of installation, Fabricator is to remove any protective covering, tape, or installation hardware. Fabricator is then to clean the sign per the manufacturer recommendations, ensuring that sign is clean from dirt, stains, fingerprints, tape residue, etc.
- M. All exposed hardware is to be touch-up painted on site as required immediately following installation prior to punch list.
- N. All minor blemishes or marring are to be repaired such that the repairs are imperceptible. Components having permanent, non-removable scratches or defects are to be replaced completely.
- O. Site Safety and Restoration:
 1. Fabricators are responsible for their own safety during the installation period.
 2. Maintain a safe environment for pedestrians and vehicular traffic during the installation period, following OSHA safety standards as necessary.
 3. Keep the Owner's premises and the adjoining premises, driveways and streets clean and clear.
 4. Job site shall be left safe, neat and clean at the completion of each day's operation.
 5. In addition to maintaining old or temporary signs for their directional or informational purposes, Fabricator is to maintain signage that meets or exceeds MUTCD and local standards during the installation period.
 6. At the completion of work, remove all rubbish, tools, equipment, and surplus materials, from and about the premises, and leave the site as originally found.
 7. Repair or correct damage to other contractors' work resulting from signage installation work.

3.2 PUNCH LIST

- A. The Fabricator's onsite representative is to complete a walk through with the Owner's Representative immediately following installation to identify any errors, such as construction or installation issues. Such errors are to be corrected in a timely manner, and to the satisfaction of the Owner's Representative.
- B. Fully replace all signs that are in error relative to the working documents (final sign message schedule and design drawings).
- C. Correct any installation misalignments at no charge.
- D. If the Fabricator agrees to a timeline for the Designer's punch list trip, and then does not complete their scope of work in time for the site visit, requiring the trip to be delayed, the Fabricator will be responsible for associated charges in rescheduling.

END OF SECTION

APPENDIX

Trailhead Names & Naming Guidelines	A
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Sign Post Footing Details	D

TRAILHEAD NAMES & NAMING GUIDELINES

Minnesota River Greenway - Trailhead Names			
Trailhead Name	Location	Partner Agency	Overview/Notes
Minnesota Riverfront Trailhead	Riverfront Park	Burnsville – Riverfront Park	Google Minnesota River Greenway Blackdog Trailhead
Nicols Trailhead	Nicols Road	MN DNR – Casperson Landing (north), Fort Snelling State Park USFWS - Minnesota Valley National Wildlife Refuge, Blackdog unit	Other options include: “Blackdog” or “Casperson” DC Map needs to be updated
Lone Oak Trailhead	Lone Oak Road	MN DNR - Fort Snelling State Park	
Big Rivers Trailhead	Confluence of MN and Miss Rivers, CCC overlook	MNDOT, long-term lease	.
Lilydale Trailhead	Lilydale Pool and Yacht Club	None	Also referred to as the “Lilydale Yacht Club” trailhead
Mississippi River Greenway - Trailhead Names			
Trailhead Name	Location	Partner Agency	Overview/Notes
Kaposia Landing Trailhead	Kaposia Landing	South St. Paul -Kaposia Landing Park	Not currently a County Trailhead but likely to be in the master plan update. Not supported consistently – restrooms not open in winter
Wakota Bridge Trailhead	Wakota Bridge Verderosa Road	DNR – Public Water Access South St. Paul Community Garden	May be developed into a city waterfront park in the future
Swing Bridge Trailhead	Rock Island Swing Bridge	Inver Grove Heights – Swing Bridge Park	
Pine Bend Bluffs Trailhead	Pine Bend Bluffs SNA	MN DNR – Pine Bend Bluffs SNA	
Spring Lake Park Reserve Fahey Trailhead	Fahey Ave. Archery Lot	None	Alternately could be called the “West” trailhead, Lower Trailhead
Spring Lake Park Reserve Fischer Trailhead	Fischer Ave	None	Alternately could be called the “Bison” trailhead, or “Central” trailhead
Spring Lake Park Reserve Schaar’s Bluff Trailhead	Schaar’s Bluff	None	
Hastings Riverfront Trailhead	Downtown Hastings, Levy Park	City of Hastings – Levy Park, and RiverWalk	
River to River Greenway - Trailhead Names			
Trailhead Name	Location	Partner Agency	Overview/Notes
Lilydale Trailhead	Lilydale Yacht Club	None	
Marthaler Park Trailhead	Marthaler Park	West St. Paul - Marthaler Park	
Thompson County Park Trailhead	None	None	Butler Trailhead (?)

Simon’s Ravine Trailhead	Simon’s Ravine	South St. Paul – Simon’s Ravine Park	
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Trailhead Naming Guidelines

1st option: Trailhead name is based on either park Name, place name, prominent feature, or geographic location

2nd option: Trailhead is named after adjacent road name (the road that the trailhead is on, not some other nearby road)

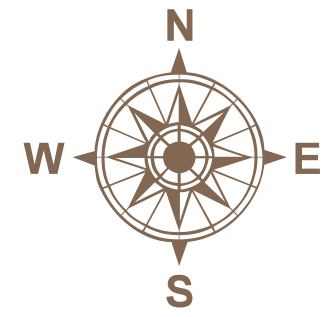
MAPPING



Map Layout Example

Map Assets:

<p>Icon PMS: 7533C CMYK: 50, 65, 78, 58</p>	<p>Light Gray Background PMS: 7539 @60% CMYK: 28, 22, 25, 2</p>
<p>Medium Brown: PMS: 7531C CMYK: 44, 53, 66, 20</p>	<p>Lime Green: PMS: 2297C CMYK: 35, 0, 100, 0</p>
<p>Road Icons: PMS: 7535C CMYK: 27, 25, 38, 0</p>	<p>Orange PMS: 7571C CMYK: 11, 59, 100, 1</p>
<p>Map Background: PMS: 7527C @72% CMYK: 10, 9, 15, 0</p>	<p>Teal: PMS: 325C CMYK: 73, 0, 30, 0</p>
<p>Water Background: PMS: 7457C CMYK: 30, 1, 8, 0</p>	<p>Water Outline & River: PMS: 304C CMYK: 47, 0, 12, 0</p>
<p>Park Background: PMS: 4205C @50% CMYK: 21, 4, 30, 0</p>	<p>Water Text: CMYK: 67, 9, 17, 0 Font: Avenir, Book Oblique, 8pt</p>
<p>Park Trail: PMS: 2263C CMYK: 65, 23, 70, 5</p>	<p>Park Text: CMYK: 90, 30, 95, 30 Font: Barlow Thin, 8pt</p>



TYPOGRAPHY:

Barlow Semi Condensed - Regular, Medium
Barlow - Thin
Avenir - Medium



Kiosk layout example 1

Scale: NTS



Kiosk Mock-Up

SIGN POST FOOTING DETAILS

- FOOTING & REINFORCEMENT NOTES:**
- CAST-IN-PLACE CONCRETE FOR FOOTING SHALL MEET REQUIREMENTS AS INDICATED IN SPECIFICATION SECTION 03 30 00 CAST-IN-PLACE CONCRETE: f_c' @ 28 DAYS 4000 PSI CONCRETE AIR ENTRAINED TO 6% ± 1.5%.
 - REINFORCEMENT SHALL MEET REQUIREMENTS AS INDICATED IN THE SPECIFICATION SECTION 03 20 00 CONCRETE REINFORCING AND SHALL BE CONSIDERED INCIDENTAL. CLEAR MINIMUM COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS SPECIFIED OTHERWISE:
 - 3" - CONCRETE AGAINST EARTH
 - 2" - ALL OTHER CONCRETE

- WAYFINDING SIGNAGE FOUNDATION NOTES:**
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF SIGN ANCHORS AND FOOTINGS FOR APPROVAL BY ENGINEER PRIOR TO CONSTRUCTION. PROVIDE WELDING AS NECESSARY FOR FABRICATION OF METAL ANCHORS.
 - CONTRACTOR SHALL COORDINATE AND VERIFY LOCATIONS OF CONCRETE FOOTINGS FOR WAYFINDING SIGNS IN THE FIELD PRIOR TO FABRICATION. ALL SIGN POSTS SHALL BE CENTERED ON REINFORCED CONCRETE FOOTINGS.
 - MEASUREMENT AND PAYMENT FOR THE WAYFINDING SIGNAGE SHALL BE UNIT PRICE FOR EACH SIGN TYPE OF ANCHOR AND FOOTING INSTALLED AS INDICATED IN THE BID FORM. SIGN POSTS AND SIGN PANELS ARE NOT IN CONTRACT AND SHALL BE FURNISHED BY OTHERS. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE ANCHORING AND FOOTINGS WITH THE FABRICATION OF THE WAYFINDING SIGNAGE.
 - ALL WAYFINDING ANCHORS AND BASE PLATES SHALL RECEIVE A DARK BROWN (#4) POWDER COATED FINISH FROM STANDARD DAKOTA COUNTY GREENWAY WAYFINDING COLOR PALETTE.

