



BELLINGHAM BICYCLE WAYFINDING SYSTEM PLAN

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INTRODUCTION

With the adoption of the 2014 Bellingham Bicycle Master Plan and a growing network of bicycle facilities, the addition of a comprehensive wayfinding system has the potential to encourage greater use of the bicycle network throughout the city.

The following report explores existing best practices in wayfinding throughout North America and aims to develop a wayfinding system for Bellingham. The first section reviews best practices, design standards, and other considerations for the creation of a wayfinding system. The following sections define the destination hierarchy and presents the prioritized routes for wayfinding implementation. Finally, the report concludes with the proposed wayfinding sign family for Bellingham and the resulting sign placement for the first two routes.



BEST PRACTICES

The following section describes wayfinding best practices with respect to core wayfinding principles, the wayfinding family of elements, typical placement recommendations, and destination prioritization. This best practices review aims to clarify the components of effective wayfinding using well-researched and proven techniques.

The guidelines presented below build on recommendations from the 2014 Bellingham Bicycle Master Plan, the Pedestrian Master Plan, Downtown Wayfinding System Plan, and the Parks and Recreation Greenway Trail Wayfinding Plan, among other relevant plans and guidelines for Bellingham. Overall, these best practices will be a guide for the placement and design of a wayfinding system.

CORE WAYFINDING PRINCIPLES

The legibility of a place describes how easy it is to understand. Places are more legible when they are arranged so that people can intuitively determine the location of destinations, identify routes, and recognize areas of different character. Wayfinding helps to make places more legible by better enabling individuals to:

- » easily and successfully find their way to their destination,
- » understand where they are with respect to other key locations,
- » orient themselves in an appropriate direction with little misunderstanding or stress; and
- » discover new places and services.

In order to create an effective wayfinding system, the following guiding principles have been developed for bicycle wayfinding plans. The principles are based on best practices from around North America.

1: Connect Places

Primarily, effective wayfinding information should assist both locals and visitors to travel between destinations as well as discover new destinations and services accessible by bicycle. Second, wayfinding should help improve local economic wellbeing by encouraging locals to use services within their own neighborhood or city. Third, wayfinding should enhance connections between the city and neighboring communities. Destinations within the city should be identified as well as priority destinations throughout the region. Fourth, the wayfinding navigation should be seamless on a regional level. Fifth, wayfinding should also enhance connections and expand the bicycle network.

In addition, wayfinding elements should help create a deeper connection to place and cultivate a sense of pride in one's community by reflecting community values and identity.

2: Promote Active Travel

Wayfinding should encourage more bicycling by creating a clear and attractive system that is easy to navigate. Whether advertising directly to people traveling by bicycle or indirectly to passing vehicles, the system should encourage use by being both attractive and effortless to use and understand. The presence of wayfinding signs should validate cycling as a transportation option as well as reduce barriers for those potentially interested in cycling.

Wayfinding should also expand the awareness and use of bicycle facilities. Under-utilized bicycle facilities are strong candidates for wayfinding improvements. The awareness and use of the existing bicycle network may efficiently and economically be expanded by installing wayfinding tools along facilities already in place. Miles of bicycle facilities and streets requiring little physical change to serve as safe and functional bikeways should be signed to raise the awareness of these route options. Wayfinding may also precede other infrastructure improvements in places.

3: Maintain Motion

Wayfinding information should be presented in a way that is easy to understand. Cycling requires physical effort. Frequent stopping and starting to check directions may lead to frustration. Wayfinding information that can be quickly comprehended contributes to bicycling enjoyment. Consistent, clear, and visible wayfinding elements allow bicyclists to navigate while maintaining movement.

4: Be Predictable

Wayfinding should be predictable and consistent. When information is predictable, it can be quickly understood and recognized. Predictability should relate all aspects of wayfinding placement and design (i.e. sign materials, dimensions, colors, forms, and placement). It also means that new situations are quickly understood. Once users trust they will encounter consistent and predictable information, their level of comfort is raised and new journeys become easier to attempt and complete, thereby promoting an experience that is welcoming and friendly. Similarly, maps should employ consistent symbology, fonts, colors, and style. The system should work within local, state, and federal guidelines for a variety of reasons - including the ability to be funded through state and federal sources.



5: Keep Information Simple

Information should be presented in as clear and logical form as possible. Wayfinding signage should be both universal and usable for the widest possible demographic and with special consideration for those without high educational attainment, English language proficiency, or spatial reasoning skills. It is important to provide information in manageable amounts. Too much information can be difficult to understand; too little and decision-making becomes impossible. Information should be provided in advance of where major changes in direction are required, repeated as necessary, and confirmed when the maneuver is complete.



These wayfinding principles combine to create a wayfinding system plan that is both legible and easy to navigate. These principles should be applied in the Bellingham Bicycle Wayfinding System Plan to guide design, placement, and destination logic. By following a clear set of principles an organized approach to wayfinding design will be achieved.

TECHNICAL GUIDANCE

A variety of standards and guidelines influence both the sign designs and placement of wayfinding elements in Bellingham. This section addresses national standards for wayfinding signage.

AASHTO Guide for the Development of Bicycle Facilities

The Guide for the Development of Bicycle Facilities by the American Association of State Highway Transportation Officials, or AASHTO, provides information on the physical infrastructure needed to support bicycling facilities. The AASHTO guide largely defers to Part 9 of the Manual on Uniform Traffic Control Devices, or MUTCD (discussed in the following section) for basic guidelines related to the design of wayfinding systems for bicycles. Additional information provided by AASHTO regarding wayfinding is as follows:

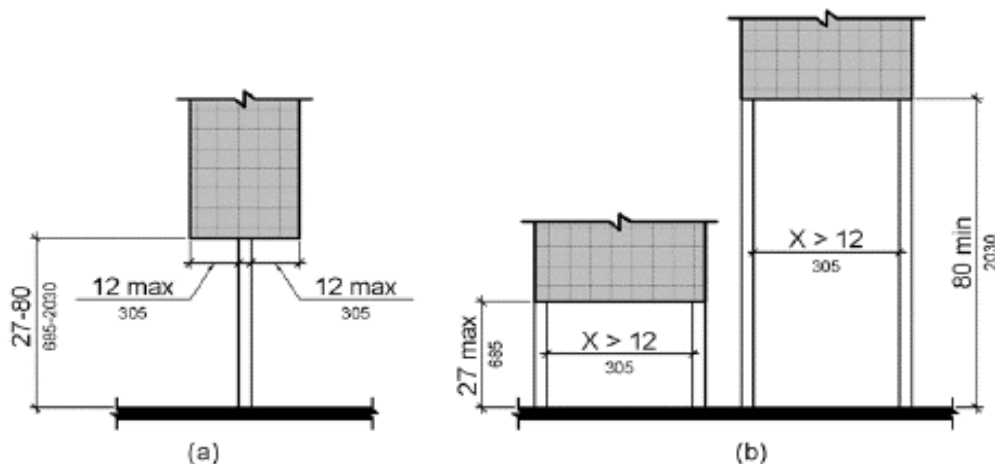
- » Many communities find that a wayfinding system for bicycles is a component of a bicycle network that enhances other encouragement efforts, because it provides a visible invitation to new bicyclists, while also encouraging current bicyclists to explore new destinations.
- » Bicycle wayfinding signs should supplement other infrastructure improvements so that conditions are favorable for bicycling, as signs alone do not improve safety or rider comfort.
- » Guide signs may be used to designate continuous routes that may be composed of a variety of facility types and settings.
- » Wayfinding guidance may be used to provide connectivity between two or more major bicycle facilities, such as a street with bike lanes and a shared use path.
- » Wayfinding may be used to provide guidance and continuity in a gap between existing sections of a bikeway, such as a bike lane or shared use path.
- » Road/path name signs should be placed at all path-roadway crossings to help users track their locations.
- » Reference location signs (mile markers) assist path users in estimating their progress, provide a means for identifying the location of emergency incidents, and are beneficial during maintenance activities

Accessibility Standards

As wayfinding systems often relate to accessible routes or pedestrian circulation, it is important to consider technical guidance from the ADA so that signs and other elements do not impede travel or create unsafe situations for pedestrians and/or those with disabilities. The Architectural and Transportation Barriers Compliance Board provides guidance for accessible design for the built environment. Standards which should be considered when designing and placing wayfinding signs include the following:

Vertical Clearance

Vertical clearance shall be 80 inches high minimum, or 27 inches maximum when signs protrude more than 12 inches from the sign post or support structure.



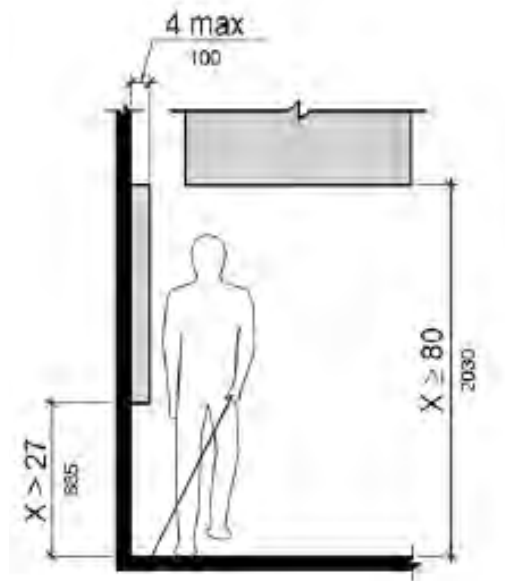
Current proposed standards for post mounted objects along shared use paths

Post-Mounted Objects

Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground.

Protruding Objects

Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path.



Limits of Protruding Objects

Required Clear Width

Protruding objects shall not reduce the clear width required for accessible routes. Generally this requirement is met by maintaining four feet minimum clear width for maneuvering. This requirement applies to both sidewalks and pedestrian circulation paths.

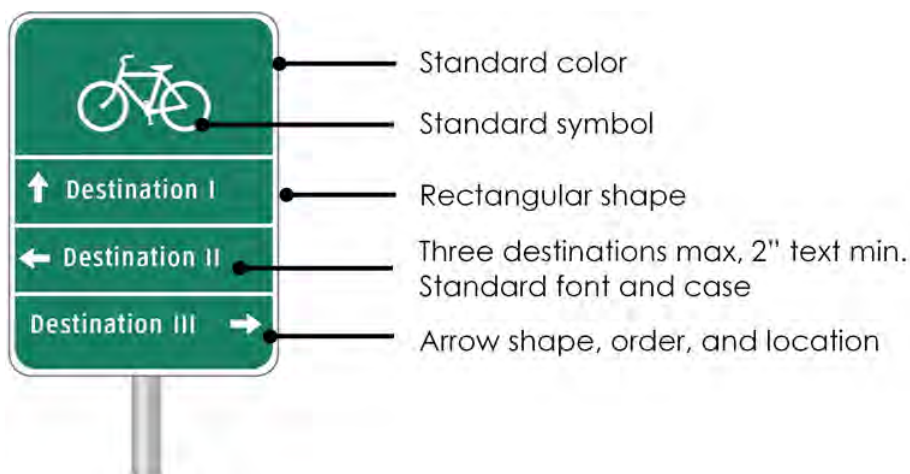
Manual on Uniform Traffic Control Devices (MUTCD)

Bicycle Sign Standards

The Manual on Uniform Traffic Control Devices, or MUTCD, is a document issued by the Federal Highway Administration of United States Department of Transportation. The MUTCD specifies the standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel. The MUTCD was established in order to achieve uniformity and consistency in traffic control devices (wayfinding signage is considered a traffic control device) so that information would be readily recognized and understood by travelers. Both on-street and off-street bicycle facilities are required to follow the standards within the MUTCD.

Per the MUTCD, devices should be designed so that:

- » Size, shape, color, composition, lighting or retro-reflection, and contrast are combined to draw attention to the devices; simplicity of message combine to produce a clear meaning.
- » Legibility and size combine with placement to permit adequate time for response.
- » Uniformity, size, legibility, and reasonableness of the message combine to command respect.



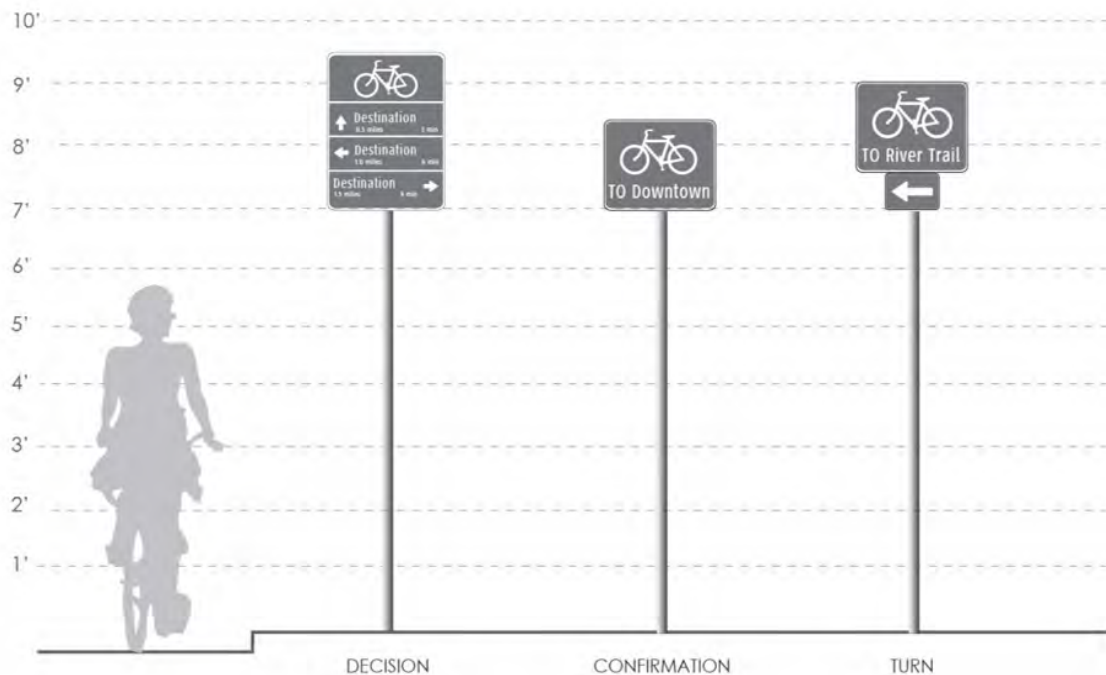
Standard MUTCD Compliant Directional or Decision Sign

The MUTCD also recommends the arrangement and amount of text, or legend, on each section of each sign:

- » Guide signs should be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions.
- » A straight ahead location should always be placed in the top slot followed by the destination to the left and then the right. If two destinations occur in the same direction, the closer destination should be listed first followed by the farther destination
- » Arrows shall be depicted, as shown on the previous page, for glance recognition, meaning straight and left arrows are to be located to the left of the destination name, while an arrow indicating a destination to the right shall be placed to the right of the destination name. The approved arrow style must be used.
- » 19 characters (including spaces) in titlecase should be considered a maximum length for a single destination title. 10-14 characters (including spaces) in titlecase should be considered an ideal maximum length for a single destination title.
- » In situations where two destinations of equal significance and distance may be properly designated and the two destinations cannot appear on the same sign, the two names may be alternated on successive signs.
- » Approved fonts include the Federal Series (series B, C, or D), also known as Highway Gothic. Clearview is also currently approved for use, however the FHWA is considering rescinding the use of Clearview.
- » A contrast level of 70% needs to be achieved between foreground (text and graphics) and background.

Fundamental Navigational Elements

The fundamental family of signs which provide cyclists with navigational information consists of decision, confirmation, and turn signs. The function, content, and placement of each are described below.



Fundamental On-Street Wayfinding Tools

Decision Sign

Function and Content: Decision signs clarify route options when more than one potential route is available. Signs display the system brand mark, space for up to three destinations, and distance in miles and time (based on 10 mph or 6 minute per mile travel speed). Decision signs may include specific route or path name.

Per the FHWA's *Standard Highway Sign Manual*, the standard size for a three line destination sign is 18 inches high by 30 inches wide; however many municipalities use a vertical format sign at 24 inches wide by 30 or 36 inches tall. This is accomplished by omitting the bicycle symbol from each line and instead having a single bike symbol at the top of the sign. Providing six inches of vertical space per destination line allows for the 2 inch minimum text height. Sign width is not standardized by the MUTCD. These dimensions apply to both on and off-street bicycle facilities.

Placement: Decision signs should be placed prior to decision making points or intersections with routes having bicycle facilities. Sufficient distance prior to the intersection should be provided to allow for safe recognition and response to information provided. Care should be taken so that the turn or options the sign refers to are obvious. Decision signs should not be placed near side or access paths that could be confused with the primary route.

Confirmation Sign

Function and Content: Placed after a turn movement or intersection to reassure cyclists that they are on the correct route, the signs include the system brand mark and route or pathway name. A minimum size of 24" wide by 18" high should be used for bike route signs whether on-street or off-street.

Placement: Signs should be placed 50 – 100 feet after turns. Confirmation signs need not occur after every intersection. They should be prioritized at locations where a designated route is not linear as well as after complex intersections. Complex intersections include those having more than four approaches, non-right angle turns, roundabouts, or indirect routing.



Confirmation signs may be as simple as a standard "Bike Route" sign or they may include information reassuring which destinations are ahead

Turn Sign

Function and Content: Used to clarify a specific route at changes in direction when only one route option is available. System brand mark, route or pathway name, and directional arrow are included on the sign. Standard D1-1 series signs may be used to indicate turns. Similar to decision signs, a minimum height of 6" should be used and width may vary according to destination length.

Standard turn arrow signs (M5 and M6 series) may also be used in conjunction with bike route signs to clarify turn movements.

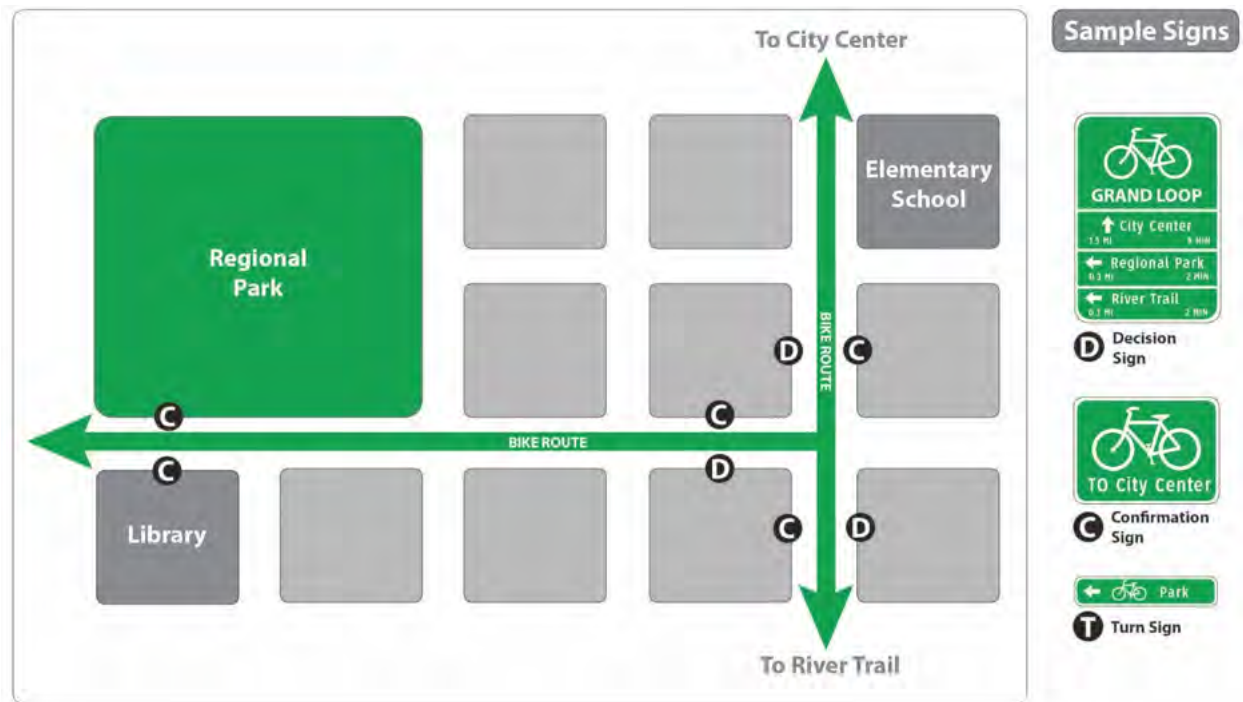
Placement: Placed at turns prior to the turning action to provide cyclists advance notice of a change in direction. Also may be used in conjunction with a decision sign at complex intersections warranting additional information.

Clearance

The nearest edge of any sign should be placed a minimum of 24" from face of curb for both on-street bicycle facilities and paths. Mounting height should be a minimum of 7' from the bottom edge of sign to finish grade for on-street signs and a minimum of 4' for paths.



Directional arrows may be added to bike route sign to clarify the need for a turn movement.
Chicago, IL



Typical placement scenario showing a decision sign being located prior to an intersection of two bicycle facilities. A confirmation sign is provided after the turn movement as well as periodically along the route for reassurance.

Community Wayfinding

Wayfinding signs, which allow for an expression of community identity and pride, reflect local values and character, and may provide more information than signs that strictly follow the basic guidance of the MUTCD. Section 2D.50 of the MUTCD describes community wayfinding signs as follows:

1. Community wayfinding guide signs are part of a coordinated and continuous system of signs that direct tourists and other road users to key civic, cultural, visitor, and recreational attractions and other destinations within a city or a local urbanized or downtown area.
2. Community wayfinding guide signs are a type of destination guide sign for conventional roads with a common color and/or identification enhancement marker for destinations within an overall wayfinding guide sign plan for an area.



Flexible directional or decision sign incorporating community wayfinding standards.

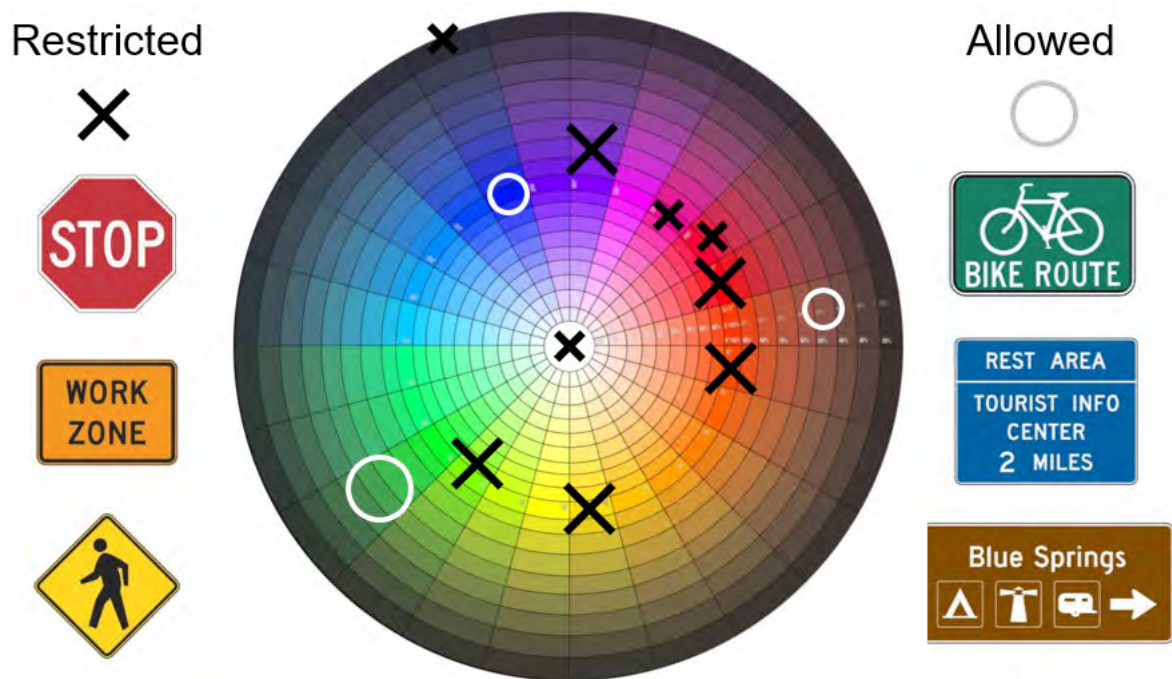
The design of the directional arrows shown above provides clarity but is not approved for use by the FHWA. The standard arrow has been deemed by engineering study to have superior legibility. Enhancement markers may occupy up to 20% of the sign face on the top or side of the sign.

Colors

Per the community wayfinding standards, color coding may be used on wayfinding guide signs to help users distinguish between multiple potentially confusing traffic generator destinations located in different neighborhoods or subareas within a community or area. Community wayfinding guide signs may use background colors other than green in order to provide a color identification for the wayfinding destinations by geographical area within the overall wayfinding guide signing system.

The MUTCD prohibits the use of some colors for wayfinding signs, these colors are known as “assigned colors.” The “assigned colors” consist of the standard colors of red, orange, yellow, purple (or the fluorescent versions thereof), fluorescent yellow-green, and fluorescent pink. They cannot be used as background colors for community wayfinding guide signs so as to minimize possible confusion with critical, higher-priority regulatory and warning sign color meanings readily understood by road users.

The color wheel diagram below depicts colors which are already assigned specific meanings and thus shall not be used on community wayfinding signs. Green is the standard color for guide signs. Blue and brown are also used for traveler information including destination and street name signs. The remaining colors are eligible for use on community wayfinding signs as long as they are sufficiently different from the “assigned colors.”



Each of the colors depicted with an “X” are not allowed for use on community wayfinding signs. Green, blue, and brown are approved for use on traveler information signs and have been accepted by some DOTs for wayfinding signs. The remaining colors not having restricted uses are appropriate for wayfinding signs per the community wayfinding standards.

Flexibility in Standards

Both the FHWA and USDOT have made statements in recent years encouraging a flexible approach in support of facilities for biking and walking:

“...DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics...” (2010)

Federal Highway Administration’s (FHWA) supports taking a flexible approach to bicycle and pedestrian facility design. (2013)

While the MUTCD provides standards and guidelines for the design, size, and content of wayfinding signs, many jurisdictions have implemented unique signs to enhance visibility while reinforcing local identity. The MUTCD Spectrum figure to the right shows a range of wayfinding elements that have been implemented by municipalities around the nation. The range extends from rigid MUTCD on the bottom to the more flexible options on the top. Signs that adhere to the MUTCD basic minimum standards are readily understood by a wide audience, are economical, and simple to fabricate and maintain. They also are clearly eligible to be implemented utilizing federal transportation funding resources. Signs that follow the community wayfinding standards may be more costly to design, fabricate, and maintain; however they have the added benefits of reflecting local character and identity. If a precedent has not already been set, the Washington Department of Transportation should be consulted to verify that community wayfinding standards may be applied to bikeways while retaining eligibility for federal transportation funds.

MUTCD Spectrum

Rigid



- MUTCD compliant signs
- Information is clear and consistent.
- Regional context or local identity not present.
- Variation in sign sizes and shapes.
- Encouragement information not present.



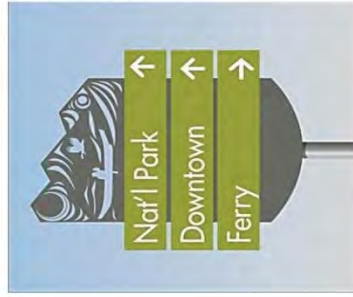
- DI series signs consolidated into a single sign reduces the number of signs required, overall sign clutter, and sign dimensional variation.
- MUTCD does not provide for travel times however numerous cities and states (Portland OR, Eugene OR, Nampa ID, Columbus, OH and Jackson WY) incorporate this additional information.



- Community signs may be augmented by unique system or municipality identifiers or enhancement markers as per Section 2D.50.
- MUTCD allows for custom color variations for community wayfinding signs.



- Directional sign with clear directional information and arrows, high contrasting text, custom sign post, and decorative elements.



- Custom framing and support structures. Unique sign shapes. High contrast graphic content, non-standard colors and layout.



Supplemental Information

The addition of measuring distance in terms of miles and minutes has been employed by a number of cities in the United States. Adding distance in familiar units has been found to be an effective encouragement tool to bicycling. While asking someone to ride their bike two miles may sound daunting, the thought of riding for twelve minutes is typically approachable. A no sweat pace of 10 miles per hour or 6 minutes per mile is the typical pace used on wayfinding signs. This is lower than typical bicycle design speed in order to best reflect and encourage the riding speed of the casual rider.

BELLINGHAM DESIGN STANDARDS

Bicycle Wayfinding elements should correspond with existing wayfinding and signage standards found for both the city Greenway Trail network and the City Center automobile wayfinding guidelines.

Greenway Network

Existing local standards identify sign size, content, and placement for signs connected to the Greenway Trail network. As identified in the Bellingham Parks & Recreation Department Design Standards for Park and Trail Development (2011), the following criteria apply:

Location

- » Greenways signs : On or near park signs; wayfinding sign posts at intersections with main city streets, major trail intersections and trailheads
- » Trailhead Markers (general): Main collection point, parking lots, and intersections
- » Directional Signs (general): On wayfinding posts at intersection with main city streets, trail intersections, or other locations where trail clarification is needed

Content

- » Projects funded with Greenway levy funds must include “Bellingham Parks and Recreation” on the sign
- » Primary trailhead markers: system-wide map, one or more maps of trail and parks near that marker, directional signs naming trail and mileage, Greenway funding sign (if necessary), and other important community information
- » Directional Signs: name of the trail system, location of sign, name and mileage to destination points, and directional arrows. Trail names are consistent for the length of the trail; 3 lines of text maximum

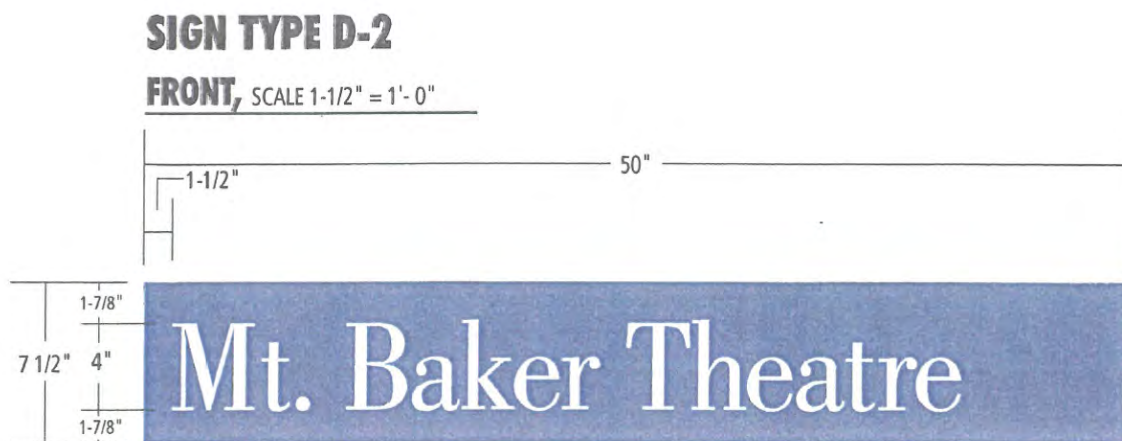
Size and Color

- » Trailhead Markers: 36” by 24”; no holes. Must follow 9-28.8 WSDOT Standard Specifications; 90 degree corners
- » Directional Signs: Standard Dark Green background; white lettering with 1/8” white borders; rounded corners. Dimensions include 6” by 4” (Directional, Words); 4” by 2” (arrows), and 4” by 4” (arrow up and to the left or right)

City Center Wayfinding

In addition to the Greenway Trail sign design standards referenced above, additional consideration will be given to the City Center Wayfinding System for consistency in design and placement.

The 2002 City Center Master Plan identifies the opportunity for providing signage that directs drivers into the City Center as well as providing signage that benefits all modes once in the core. The report also encourages the use of a cohesive system that reflects the sense of community and history for the city. Current signs in the downtown area utilize the destination name, direction arrow, and a deep blue background, as seen in the example to below. The City is in the process of updating signs throughout downtown, which will be limited to updating fonts and standardizing destination names. The bicycle wayfinding project will coordinate naming conventions with city staff updating the Center City Wayfinding System.



SPECIFICATIONS: QUANTITY 29 (SEE COPY SCHEDULE)
 BACKGROUND - 1/8" ALUMINUM, PAINTED PMS #648c "DEEP BLUE" (ALL SURFACES & EDGES)
 COPY - REFLECTIVE WHITE VINYL #680-10CR

Bellingham Vehicle Wayfinding Sign Dimensions

ENHANCED WAYFINDING TOOLS

Pavement Markings

Directional pavement markings indicate confirmation of bicyclist presence on a designated route and where bicyclists should turn. Especially in urban settings, pavement markings can often be more visible and can help supplement or reinforce signage.

On-Street Markings

The following images show different types of pavement markings that have been used for wayfinding purposes. While the shared lane marking is currently the only FHWA approved pavement marking shown, cities have experimented with the other options.



In Berkeley, CA and Minneapolis, MN, some bicycle boulevards have large “Bicycle Boulevard” stencils that take up nearly the entire width of one travel lane.

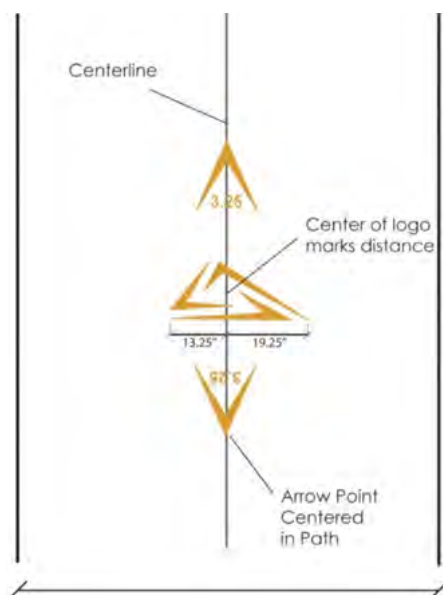
Portland, OR has turned the chevrons on the top of the MUTCD-standard shared lane marking (sharrow) to indicate the direction of intended travel (second photo from left in the four-photo matrix above). Notably, this practice is not FHWA approved or eligible for federal funding;

however local transportation engineers are confident that the benefits of the turned chevrons outweigh the risks. Portland installs standard shared lane markings with federal funds, and then makes modifications later with local monies to add the directional wayfinding component.

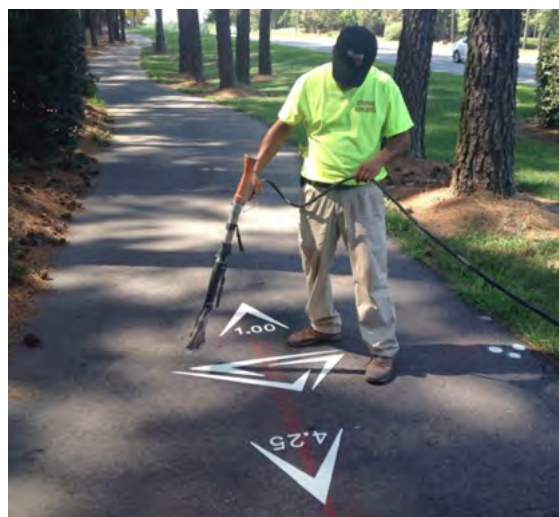
Columbia, MO is currently conducting an FHWA approved experiment regarding the use of small wayfinding medallions on both on- and off-street bikeways (second image from right, page 27). *Note: The City of St. Louis is no longer using the arrow with the Bike St. Louis logo and text. The City of Portland previously used similar small medallions to aid with wayfinding. However, these marks were viewed as less effective than shared lane markings as they were only visible to cyclists.*

Off-Street Markings

Some pavement markings, including off-street shared use path markings, can give an identity to the route and include directional and trip information, including distances or times. While such markings are not included as traffic control devices within the MUTCD, numerous agencies around the nation follow such practices.



Trail Width Varies



Research Triangle Park, North Carolina

Mile Markers

Mile markers aid pathway users with measuring distance travelled. They further provide pathway managers and emergency response personnel points of reference to identify field issues such as maintenance needs or locations of emergency events. System brand mark, path name, and distance information in miles may be included as well as jurisdiction identification.

Mile markers should be placed every $\frac{1}{4}$ to $\frac{1}{2}$ mile along a pathway network. Point zero should begin at the southern and westernmost terminus points of a pathway. Mile numbering should be reset at zero as a pathway crosses a jurisdictional boundary.

Although it is ideal to place mile markers on the right hand side of the path facing bicycle traffic, they may also be installed on one side of a pathway, on a single post back-to-back.



Mile Marker along Razorback Regional Greenway, Northwest Arkansas

Street Name Sign Blades

MUTCD standard street name sign blades have been enhanced by a wide number of municipalities around the nation to provide additional recognition of bikeways. Enhancements have been achieved either in the form of supplemental signs and sign toppers added to existing signs or via graphic embellishments integrated into new sign blades.

Good wayfinding practice also includes the use of street name sign blades on off-street pathways in reference to the roadway network. Numerous cities follow the practice of indicating cross streets at bridges, underpasses, and at-grade roadway crossings to inform pathway users of their location. Green, blue, and brown are all accepted colors for street name sign blades according to the MUTCD, as long as colors are used consistently across the city.



Top: Neighborhood Greenway sign topper in Portland, OR (Photo: Jonathan Maus, bikeportland.org). **Middle:** Yucca Street sign topper in Los Angeles, CA. Both the sign topper (foreground) and the wider, two color blader version (background) can be seen. **Bottom:** Sign topper-shaped one-piece sign on Kendall Ave Bike Boulevard in Madison, WI.

Destination Selection and Prioritization

Standards do not exist for selecting and prioritizing wayfinding information on signs. Given that only three slots of information or destinations may be used on bicycle oriented signs, a rationale for choosing which destinations will be signed has yet to be developed. We provide suggested destination selection and prioritization in the following section. Example cities and regions have utilized the following approach for selecting and prioritizing wayfinding information.

Priority/Place	Merritt, BC	Clackamas County, OR	Avondale, AZ
Primary	City Centers or Districts	Cities	Neighborhoods and Districts
Secondary	Major Attractions and Landmarks	Districts	Landmarks
Tertiary	Local Attractions	Landmarks	Attractions
Quaternary		Local Destinations	

PRECEDENT STUDY

Wayfinding Elements: Placement and Design

The following case studies demonstrate ways that communities have utilized wayfinding standards, simple graphics, unique color palettes, or other best practices, such as consistent naming conventions and clear hierarchy of information. All examples are compliant with MUTCD standards or MUTCD Community Wayfinding standards.

City of Gresham, Oregon

Planned utilizing extensive local knowledge of route and destination identification, the wayfinding signs found throughout Gresham, Oregon provide clear information on direction and distance to area destinations. The signs correspond with MUTCD standards and connect well with the city's emphasis on promoting public health and reducing drive alone trips.

Highlights:

- » Simple graphics
- » Follows MUTCD standards
- » Consistent naming of destinations
- » Distance provided in both miles and minutes



University of Oregon Bicycle Wayfinding

Clear wayfinding signs identify mode of travel, distance, direction, and approximate time to destinations around campus. Signs present a clear hierarchy of information.

Highlights:

- » Simple graphics / clarity of information
- » Clear hierarchy of information
- » Consistent naming of destinations

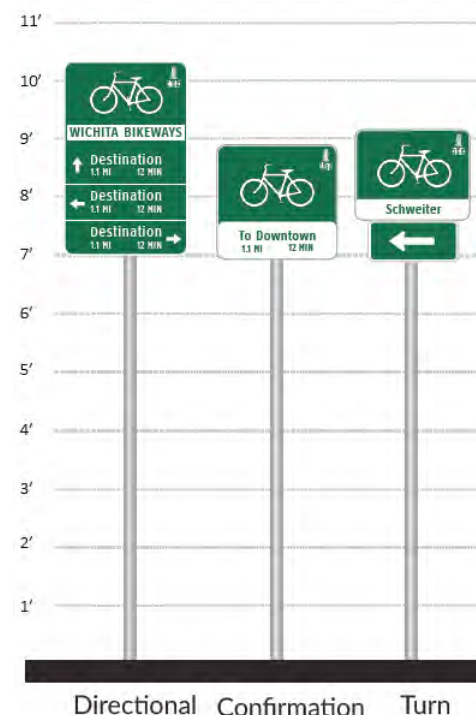


Wichita, KS Wayfinding Master Plan

The bicycle wayfinding in Wichita directs residents and visitors along the most comfortable routes through the city. Prioritization of destinations and placement also integrates access to health services and fresh foods.

Highlights:

- » Clear graphics quickly identify bicycle network
- » Distance is displayed by time and mileage on directional and confirmation signs
- » Design integrates with larger family of wayfinding elements throughout the city

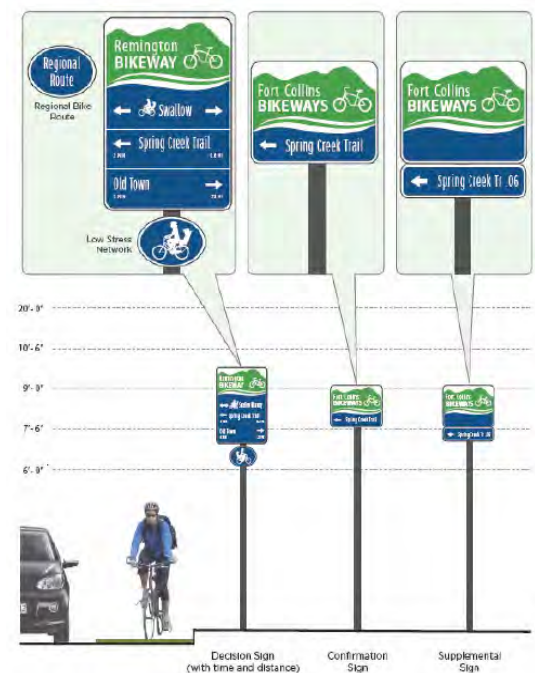


Fort Collins, CO Bicycle Wayfinding

The proposed sign family for Fort Collins, CO provides cohesive branding for the bike network. Auxiliary signs also help identify routes suitable for different types of cyclists or trip purposes, such as low stress networks, family-friendly routes, and regional bike route identification. The design builds on the existing Bikeways logo and utilizes MUTCD-compliant colors and fonts.

Highlights:

- » Bold colors and graphics clearly identify bikeway network
- » Use of auxiliary signs provide additional information regarding the network
- » Signs indicate distance and time to destinations



City of Tucson Bicycle Boulevard Wayfinding

Unique to the boulevard network, bold colors and text provide branding while also creating comprehensive wayfinding for nearby destinations and clarification of the boulevard route at roundabouts and route crossings.

Highlights:

- » Comprehensive sign family providing wayfinding, destinations mileage, and route identification
- » Bold colors and graphics provide network branding
- » Highlights key network connections
- » Includes roundabout intersection wayfinding, as seen in the bottom sign



Clackamas County, Oregon

Defined by both a unique shape and custom logo, bicycle wayfinding signs in Clackamas County not only brand the bicycle network but provide additional wayfinding through the use of color-coded destinations. Clear fonts increase legibility of the sign and indicate distance in both minutes and miles.

Highlights:

- » Custom shape and logo define the sign family
- » Destinations are color-coded by type
- » Includes both time and mileage to destinations



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RECOMMENDATIONS

DESTINATION SELECTION + PRIORITIZATION

Wayfinding + Destination Overview

Destination selection and prioritization directly connects to the principles of connecting places and being predictable. The order in which information appears on signs, the distance away from a destination, and the naming conventions used all contribute to an effective wayfinding system.

Bicycle wayfinding signs provide space for only three destinations per sign. With limited space and a large range of possible destinations, signs should follow the same approach throughout the city so that the system is clear and predictable.

Destination Selection

Potential destinations for inclusion on wayfinding signs were developed based on the Bicycle Master Plan, the City Center Wayfinding Plan, and input from city staff and community stakeholders. Additional destinations were included based on best practices and to create a more inclusive list (see appendix). For example, in instances where post offices or libraries were included, all additional locations within the city were added to the list.

Destinations should reflect those selected through local knowledge as destinations that are of interest to bicycle activity. Not every destination included on the potential destination list will necessarily be signed; proximity to the bicycle network will serve as one filter for inclusion on wayfinding signs. Additional filters include the destination hierarchy, described below, and need based on bicycle activity.

Destination Hierarchy

Locations serve both as destinations as well as orienting features to the area. For this reason, towns and cities are classified as primary because they help orient an individual to their location within the city and region. All destinations should be open and accessible to the public.

Destinations are organized into four levels in order to determine priority for inclusion on signs as well as the maximum distance from the destination where the location can be included on a sign. The four levels are as defined broadly below:

Level 1: Urban Villages, Colleges, & Universities

Level 1 destinations include neighborhoods, art and cultural districts, educational centers, and significant commercial districts. The primary emphasis is on areas providing a mix of services. Signs within 2 miles of the destination should include this destination.

Level 2: Landmarks

Level 2 destinations are specific landmarks or major attractions that generate a high amount of bicycle traffic. Landmarks begin to establish more localized destinations, and signs within 1 mile should include this destination.

Level 3: Local Destinations + Regional Destinations

Level 3 destinations reflect local destinations and are included on signs where few other destinations are present or along pathways that do not provide access to Level 1 – 2 destinations. Level 3 destinations can be signed up to 1 mile away.

Additionally, nearby towns, such as Ferndale, and Larabee State Park are included in Level 3 destinations. These locations are important for regional connectivity and orientation; however, their distribution in the region would result in these destinations appearing on the majority of signs on routes traveling away from downtown. For this reason, municipalities and Larabee State Park should only be signed within 1 mile of Bellingham city boundary for routes traveling away from Downtown and should be represented as a priority destination.

Signing Distances

Specific distances are addressed on the prior page. The intent behind these distances is to provide relevant information in manageable amounts along the length of a cyclist's journey. Level 1 signs provide information for the widest spectrum of network users, while Level 3 provides significantly more localized information.

The distance to the destination can be measured either to the boundary edge or center point of the location. The following approach is recommended:

- » Level 1: Distance signed to boundary
- » Level 2: Distance signed to center point. For larger areas with limited access points, the distance can be determined based on this location
- » Level 3: Often specific address locations; distance signed to center point

Destination Order

The closest destination, straight ahead appears first on the sign. Below are the closest destinations to the left then to the right. If more than one destination in the same direction is displayed, the nearer destination should be displayed first.

If destinations of equal significance and distance appear on a sign, the two names can be alternated on successive signs along the route.

Recommended Hierarchy

The following hierarchy identifies types of destinations to be included in each level.

Level 1: Districts & Urban Villages

- Districts
- Urban Villages
- Colleges & Universities
- Major Transit Centers

Level 2: Landmarks

- Minor Transit Facilities
- High Schools
- Regional Destinations
- Regional Parks
- Middle Schools

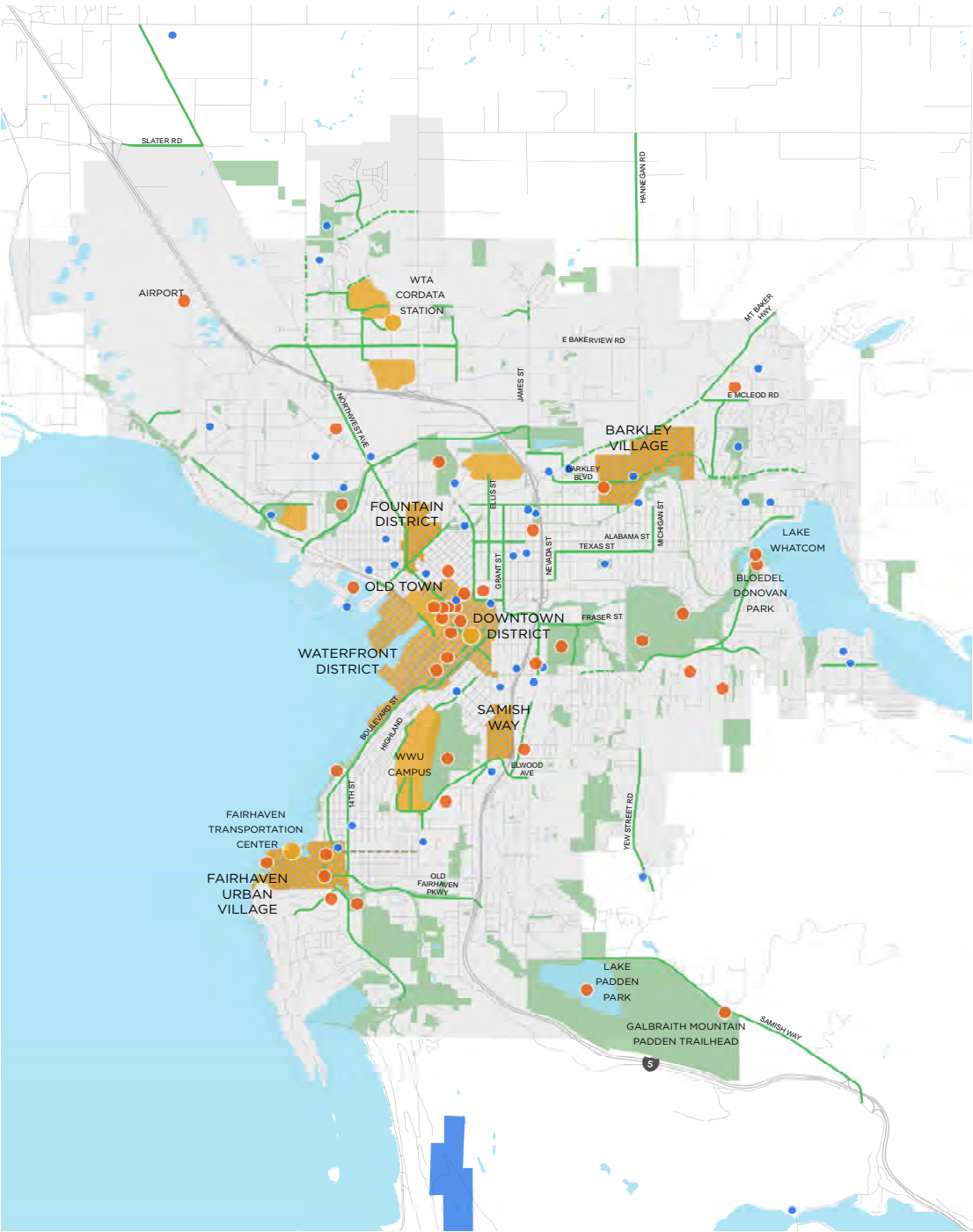
Level 3: Local Destinations

- Local Destinations
- Local Parks
- Municipalities*
- State Parks*
- Elementary Schools
- Libraries
- Services & Government Facilities
- Employment Centers

The maps on the following pages depict the destination locations by hierarchy at the writing of this report.

*Municipalities and Larabee State Park are to be signed within 1 mile of Bellingham city boundary for routes traveling away from Downtown.

Destination Hierarchy: City of Bellingham



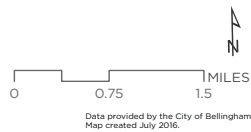
BELLINGHAM BICYCLE WAYFINDING: DESTINATION HIERARCHY

DESTINATIONS BY LEVEL

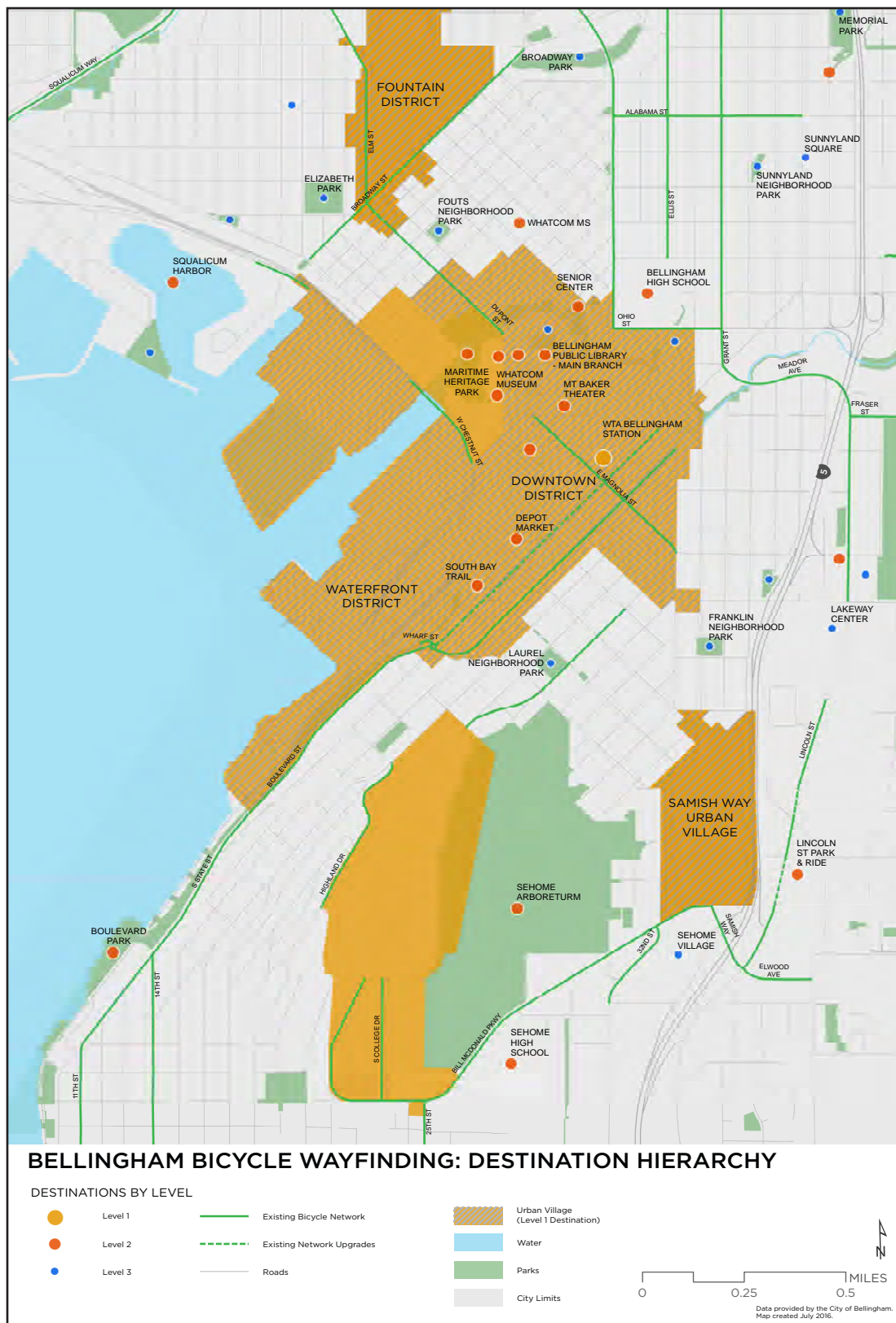
- Level 1
- Level 2
- Level 3

- Existing Bicycle Network
- Existing Network Upgrades
- Route in Process
- Roads

- Urban Village (Level 1 Destination)
- Water
- Parks
- City Limits



Destination Hierarchy: Downtown



Destination Naming Conventions

Consistent naming across the system aids in creating a clear and predictable system. Although it is recommended that abbreviations of destination names are kept to a minimum, signs include space for a maximum of 19 characters, including spaces. Commas, periods, apostrophes, and other punctuation marks should not be used, unless needed to avoid confusion.

The following table captures MUTCD-approved abbreviations. In addition to these abbreviations, recommended destination names will follow once all destinations are determined.

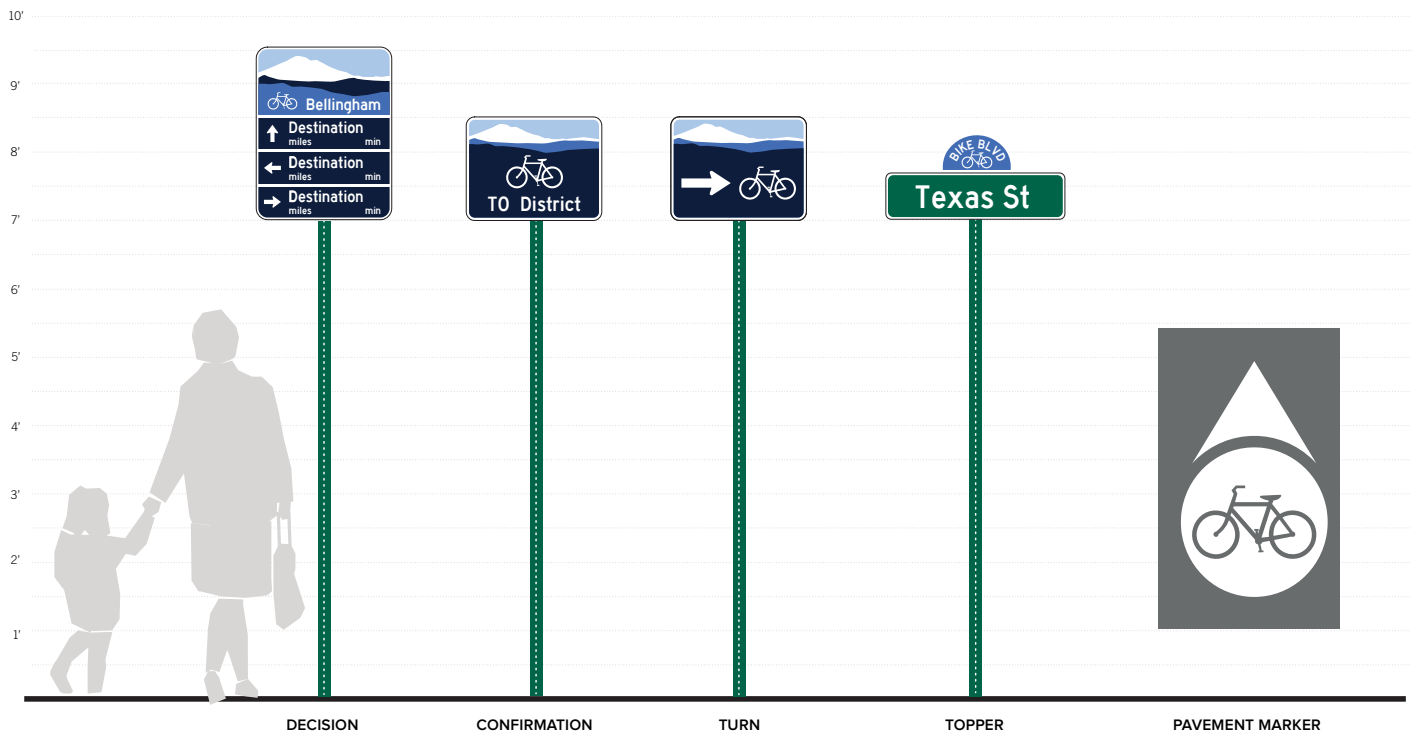
Word Message	Abbreviation
Alternate	ALT
Avenue	AVE
Bicycle	BIKE
Boulevard	BLVD
Bridge	BR
Center	CTR
Circle	CIR
Court	CT
Crossing	X-ING
Drive	DR
East	E
Hospital	HOSP
Information	INFO
International	INTL
Junction	JCT
Mile(s)	MI
Miles per Hour	MPH

Word Message	Abbreviation
Minute(s)	MIN
Mount	MT
Mountain	MTN
National	NATL
North	N
Parkway	PKWY
Pedestrian	PED
Place	PL
Road	RD
Saint	ST
South	S
Street	ST
Telephone	PHONE
Terrace	TER
Trail	TR
West	W

DESIGN OPTIONS + PLACEMENT PRACTICES

The following designs were created based on visual preferences survey results and input from City of Bellingham staff and community stakeholders (see appendix). This chapter also includes recommendations for the placement of the wayfinding system elements.

Sign Family



Function + Placement of Wayfinding Elements

Based on field reconnaissance, best practices review, City staff design input, and discussions with City staff regarding wayfinding needs in Bellingham, a variety of sign typologies are recommended for the bicycle network wayfinding family. All wayfinding elements are oriented and scaled towards the bicycle user unless noted otherwise.

Family of Elements

Decision Sign

Function and Content: Decision signs clarify route options and should include the following features:

Placement: Decision signs are placed prior to decision-making points. For Bellingham, we recommend signs be placed at approximately the following distances before an intersection:

- » 30 feet before a zero lane merge
- » 100 feet before a one lane merge
- » 200 feet before a two lane merge





Confirmation Sign

Function and Content:

Confirmation signs are placed after a turn movement or intersection to reassure cyclists that they are on the correct route.

Placement: Typically placed 50-100 feet after bike route turns and at the far side of key intersections.



Turn Sign

Function and Content: Turn signs are used to clarify changes in a bikeway route direction when only one routing option is available

Placement: Placed prior to the turn to provide cyclists advance notice of a change in direction. For Bellingham, we recommend the signs be placed at the following distances before an intersection:

- » 25 feet before a zero lane merge
- » 100 feet before a one lane merge
- » 200 feet before a two lane merge

Street Name Sign Topper

Function and Content: Adding the system brand mark to the tops of street name signs expands the visibility of the City's bicycle boulevards in a quick and cost effective manner.

Placement: Sign toppers should be placed on street name signs along bicycle boulevards.



Pavement Markings

Function and Content: Shared lane markings or wayfinding medallions are an additional means of route confirmation for cyclists, and can indicate turns where vehicles or vegetation obscure signs. Note that only the share lane marking has been approved for roadway use by the MUTCD.

Placement: Pavement markings should be placed prior to decision-making points in alignment with Decision Signs, and after a turn movement or intersection, in alignment with Confirmation Signs. Laterally, markings should be a minimum of four feet from the curb, or where parking is present, 11 feet from the curb. On ≤ 25 mph streets, the markings should be placed in middle of lane.

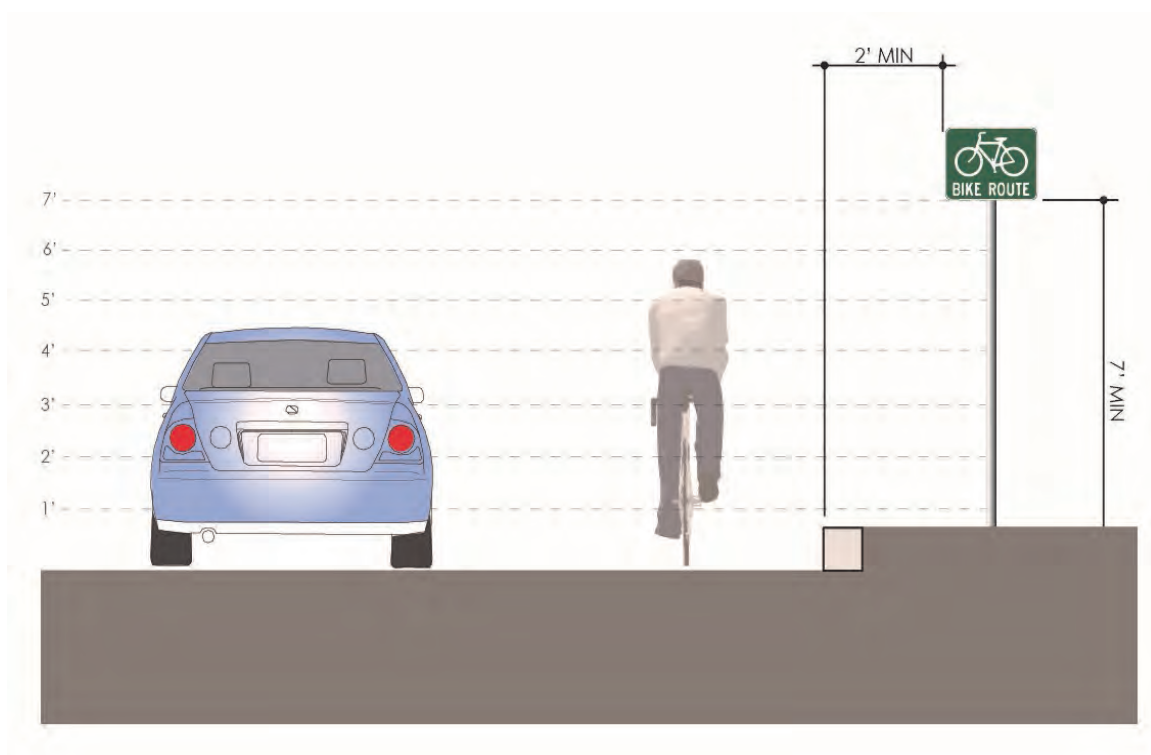


Placement Guidance

The following pages describe placement guidance for the Bellingham Bicycle Wayfinding System. Elements of the wayfinding family should be located in a consistent and logical manner across the City. This will help network users learn and build confidence in the system encouraging additional bicycle use.

Setback + Clearance

Per both the MUTCD and AASHTO, the nearest edge of any potential bikeway obstruction including signs should be a minimum of two feet from the edge of travelway. The lowest edge of post-mounted signs should be seven feet.



Standard setback and clearance for on-street wayfinding

Spacing

Bicycle-oriented wayfinding elements are designed to be legible by the cyclist while in motion. To help ensure that information is clearly presented and easily understood, care should be taken when placing wayfinding signs near other signs so that information is not obscured. Sign clutter should be avoided, and if multiple plaques are needed, it may be prudent to place the signs on one shared pole.

In general, regulatory and warning signs are a higher priority than wayfinding signs. In order to not obscure priority information, a minimum spacing between signs based on vehicle travel speeds and perception response times ensure legibility. Per the table below, signs may be spaced closer together when posted travel speeds are slower.

Wayfinding signs for bicycles should be spaced a minimum of 50-75 feet apart. Design speed should not be confused with travel time. When travel time is added to wayfinding signs, a casual pace of 10 mph or six minutes per mile is typically used to calculate the time to a destination.

Minimum Suggested Sign Spacing Based on Posted Speed

Speed (mph)	X = Distance between signs (ft)
18	75
25	100
30	125
35	150
40	200
45	250
50	300

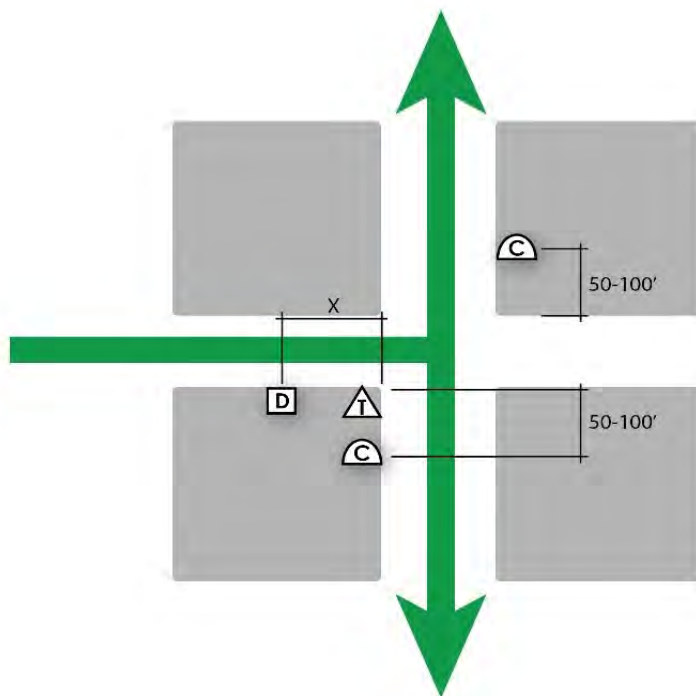
Source: ODOT Sign Policy Manual

General Placement

When two bikeways intersect, the general approach is to place a directional sign prior to the decision point followed by a confirmation sign or pavement marking after the intersection to confirm intended direction. While this approach provides redundant information, it ensures that the system does not break down if one sign is compromised.

See the text above for typical distance “x” between signs. When higher priority signs are present, the suggested sign placement distances may adjust per the previous Minimum Suggested Sign Spacing table in order to not obscure other roadway signs.

Signs may be placed on existing posts, poles, or other supports as practical, if such supports allow mounting in accordance with the MUTCD.



C: confirmation sign

D: Decision sign

T: Turn sign

Placement with City Center Wayfinding

If there is an existing downtown wayfinding sign directing to a destination, a bicycle wayfinding sign should not repeat the same destination information. This is unnecessary sign clutter and may confuse rather than help roadway users. Instead, care should be taken in placing bicycle destination decision signs in the context of the existing downtown Bellingham wayfinding system, and in some cases a bicycle destination sign may not be necessary.

Typical Placement Scenarios

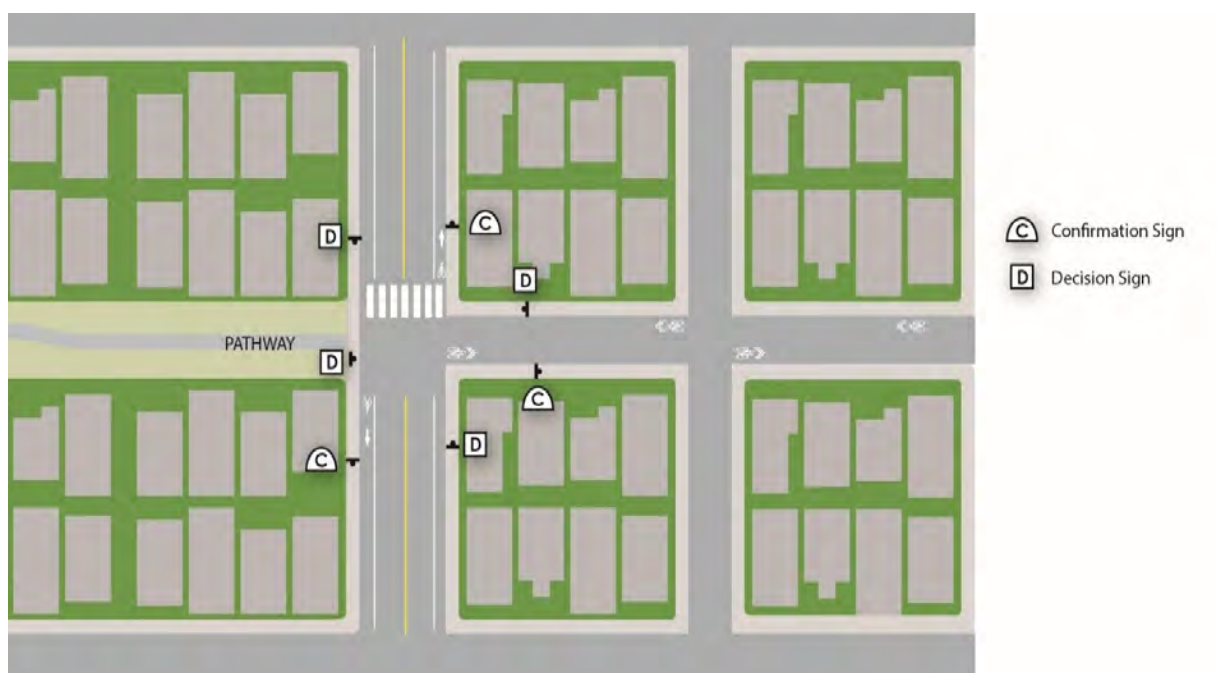
There are a variety of navigational challenges for Bellingham cyclists. The following typical placement scenarios were identified by the project team as navigational challenges in need of clarification:

- » On-street / Off-street Transition at Path Access Point
- » Trail Crossings
- » Navigation from Bikeway to Destination
- » Offset Routes
- » Multiway Intersections
- » Roundabouts

The following exhibits show wayfinding information only. Regulatory signing is to be placed as per the MUTCD.

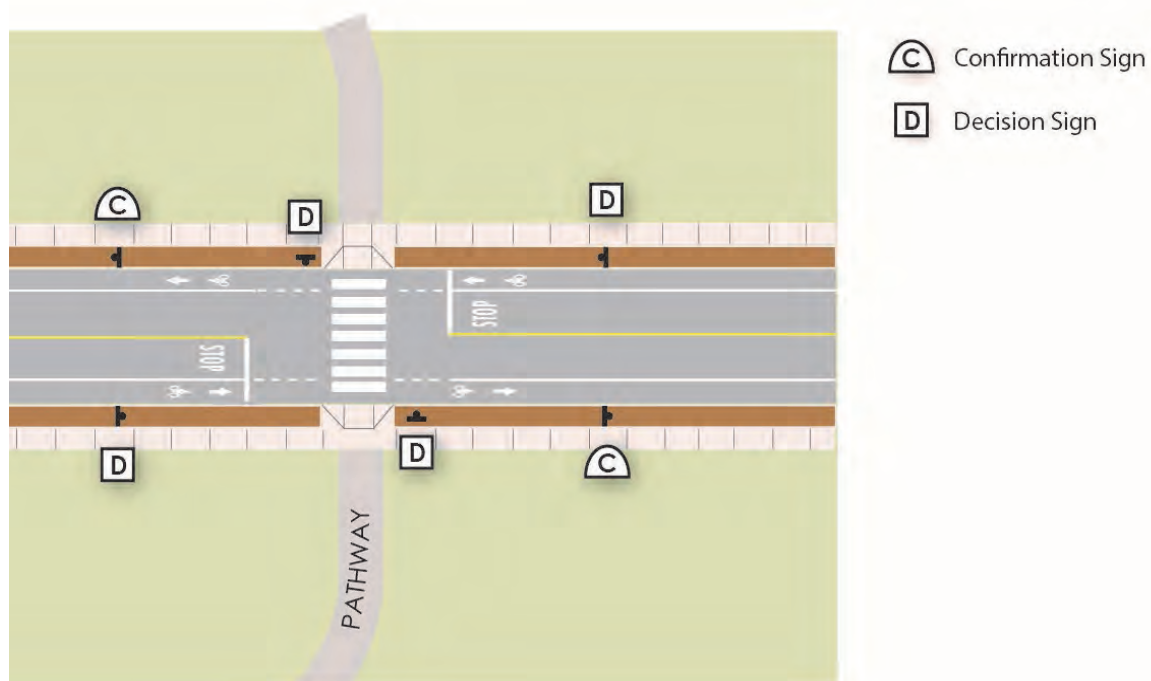
On-street/Off-street Transition at Path Access Point

Where transitions are made between on-street and off-street facilities, decision signs shall be placed on the approach to the facility transition. Once on-street, confirmation signs should be placed after the pathway transition point to indicate a continuation of a designated bike route. On bike boulevards, regularly placed shared lane markings or wayfinding medallions minimize the need for additional confirmation signs along the on-street bicycle facility. On bike lanes, the bicycle lane symbol and fog line also serve as route affirmation.



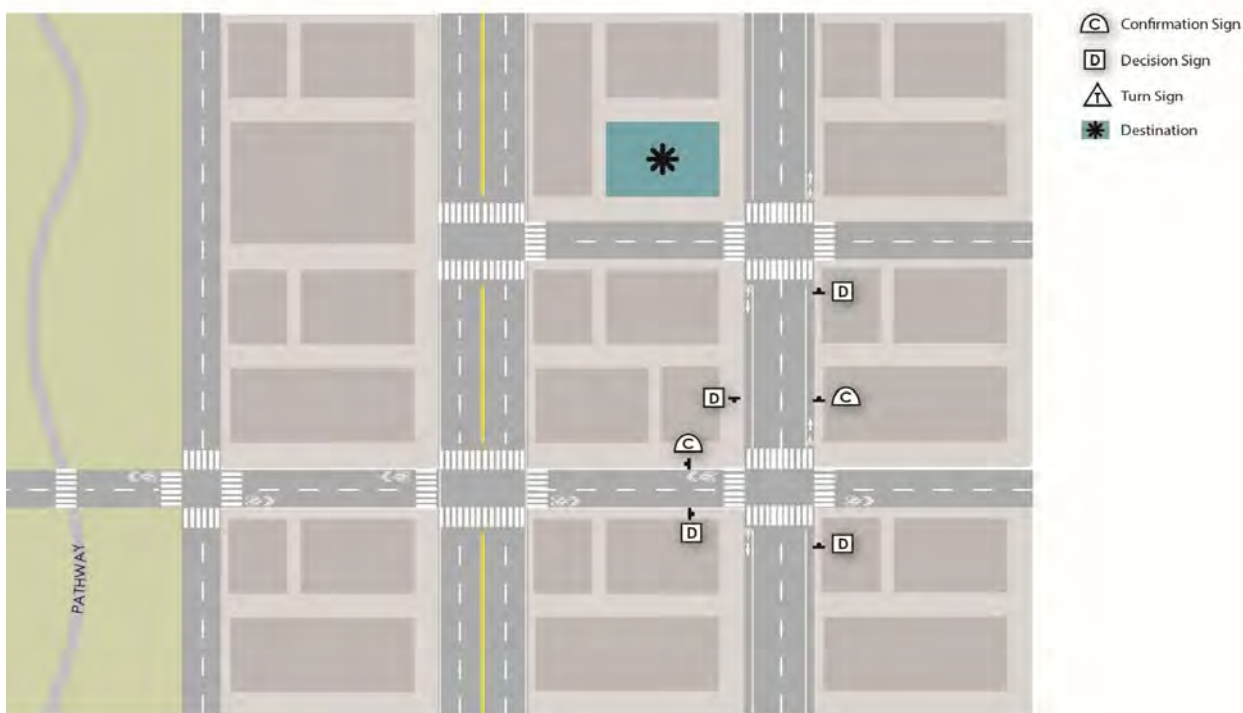
Trail Crossings

Where a trail crosses on-street bike route, decision signs should be placed on-street in advance of the trail crossing to advise on-street users of their route options. Decision signs should also be placed at the intersection facing the trail to alert trail users to the on-street bikeway network. Confirmation signs should be placed on-street after the trail crossing to reinforce that trail users have transitioned to a designated on-street bicycle facility.



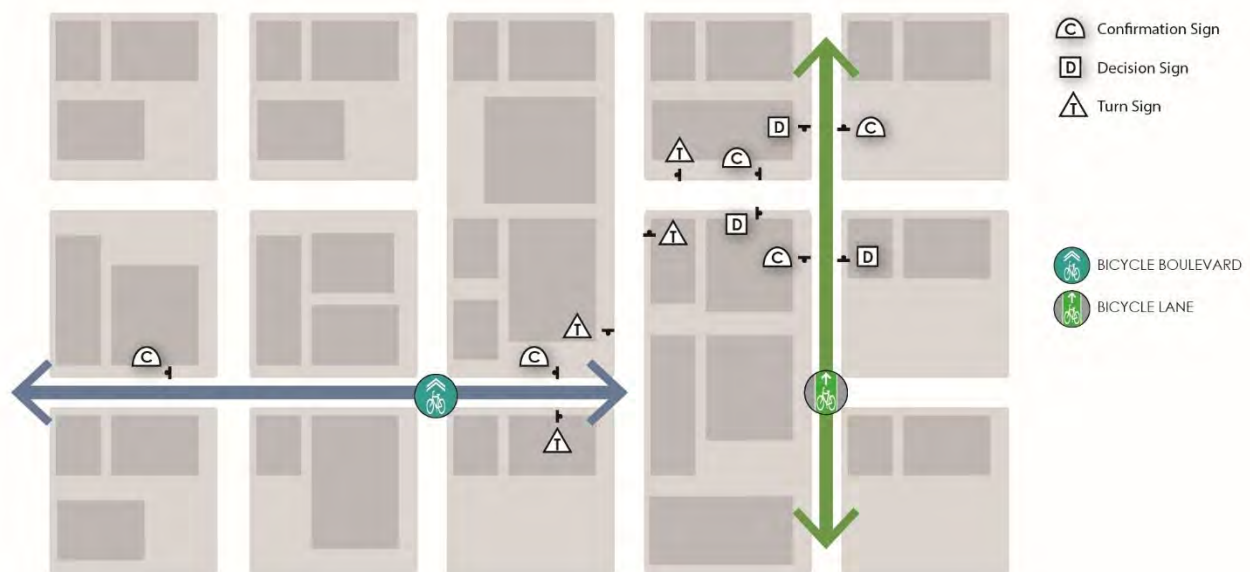
Navigation from Bikeway to Destination

There are destinations that will occur without direct connections to the bicycle network. Destinations off-network may be signed when a straight, safe bicycle connection or route is available. Engineering judgement must be used to determine whether the connecting route is suitable for cycling.



Offset Routes

Where gaps occur between on-street facilities, wayfinding signs may be used to provide connectivity if the route is suitable for bicycle travel. Where jogs in an on-street route occur, a series of turn and confirmation signs should be used to emphasize the correct direction of travel. Turn signs should be placed well enough in advance of the required turn movement to allow the cyclist to perceive the information and respond accordingly. Confirmation signs need not be used after a turn movement if the block size is short and the next turn sign is visible.



Multiway Intersections

Complex intersections having more than four approaches or non-right angle turns can be disorienting for users. Turn signs can be used in place of, or in conjunction with, decision signs at these intersections to clarify the direction of the bike route. Confirmation signs should be placed after these intersections to affirm that cyclists turned onto the designated bikeway. Directional pavement markings can also aid in navigation through complex intersections.



Roundabouts

At single lane roundabouts where bicyclists are expected to stay on the roadway with motor vehicles, there should be shared lane pavement markings directing cyclists to use the center of the travel lane through the roundabout. These pavement markings also alert drivers to the presence of bicycles in the roundabout. Approximately 100 feet in advance of a roundabout, decision making signs should be placed to indicate which leg the bicycle route follows using diagrammatic arrows. The placement of this sign should not obscure any of the regulatory signage pertaining to vehicle movement through the roundabout. After exiting the roundabout, confirmation signs should also be placed to reassure bicyclists they are continuing on the correct route.



Conceptual SLM placement in roundabout to guide bicyclist placement and navigation through the roundabout.

ROUTE PRIORITIZATION

In order to help prioritize the phasing of the wayfinding improvements, the following criteria have been identified. The criteria are based on an analysis of available data, input from city staff and identified need, and best practices in bicycle wayfinding system design. The GIS-based prioritization exercise is intended to serve as a first step in identifying priority routes for wayfinding implementation; further input from city staff will help refine the results in preparation for the final system plan.

Prioritization Criteria

Route Readiness

While bicycle facilities and wayfinding improvements are not codependent, they are typically employed in tandem to provide for safe, comfortable, and simple bicycle travel. The status of a bicycle facility is an important prioritization criterion and should be weighted accordingly.

In addition to whether or not a facility is existing or planned, existing facilities were further stratified based on their type. Greater separation was prioritized, with bike lanes receiving the highest score and presence of shoulder receiving the lowest. More detail regarding this stratification can be found in the matrix on the following page.

Proximity to Destinations

Not all destinations are located along a bikeway. Wayfinding improvements can provide a vital link between bikeways and high priority destinations, particularly where safe and comfortable routes support bicycle travel. The more destinations a bicycle route connects, the greater the prioritization of wayfinding improvements. Routes connecting fewer destinations should receive a lower prioritization score. The relationship to destinations is a key aspect of wayfinding, thus the scores for this criterion are weighted more heavily than other categories. Both existing and proposed routes are considered in this factor.

Need

In addition to connecting key destinations, it is important for wayfinding signage to provide information on routes that serve the population where they live and work. To calculate need, this analysis considers the number of people who live and work within ¼ mile of the route. Estimated population and employment data were calculated at the parcel level, and the total population served was then normalized based on route length in miles.

Need provides input for the impact signing the facility will have on the network. Greater numbers of people served present the opportunity for wayfinding signage to have greater impact.

Gap Closure

Wayfinding improvements offer a cost-effective means for connecting existing bikeways along safe and comfortable routes. Wayfinding improvements should be prioritized based on their potential to address critical gaps, thereby expanding the utility of the bicycle network. In addition to providing connections between existing facilities, improvements may also extend the length of an existing facility, thereby increasing its utility. All existing facilities were provided the full possible score, while all proposed facilities were then evaluated based on their ability to fill existing network gaps.

Evaluation Matrix

Based on the four criteria described above, the evaluation matrix below may be used to prioritize wayfinding improvements throughout the City of Bellingham. The table below includes the following topics:

- » Prioritization Criteria: is the prioritization criteria described in the section above.
- » Variable: is the level or degree to which the proposed wayfinding improvement would meet the criteria.
- » Score: is the weighted score that the proposed project would earn based on the variable.

Prioritization Criteria	Variable	Score
Route Readiness	Existing Bike Boulevard	10
	Existing Bike Lane	9
	Existing Shared-Use Facility	7
	Existing Paved Shoulder	5
	Planned Facility	3
	No Facility	0
Proximity to Destinations (All Routes Evaluated)	Route occurs within 0.5 miles of more than two Level 1 destinations	20
	Route occurs within 0.5 miles of at least two Level 1 destinations	15
	Route occurs within 0.5 miles of more than two Level 2 destinations	10
	Route occurs within 0.5 miles of at least one Lower Level destination	5
	Route provides no direct or near access to any destination	0
Need	Segment or route serves more than 15,000 people	10
	Segment or route serves more than 10,000 but less than 15,000 people	8
	Segment or route serves more than 5,000 but less than 10,000 people	6
	Segment serves less than 5,000 people	0
Gap Closure	Proposed segment is complete; no gaps (facility existing)	20
	Proposed segment connects two existing bicycle facilities less than 0.5 miles apart	15
	Proposed segment connects two existing bicycle facilities greater than 0.5 miles apart	10
	Proposed segment extends the length of an existing bicycle facility	5
	Proposed segment does not connect to any existing bicycle facility or close a gap in the bike network	0

Approach

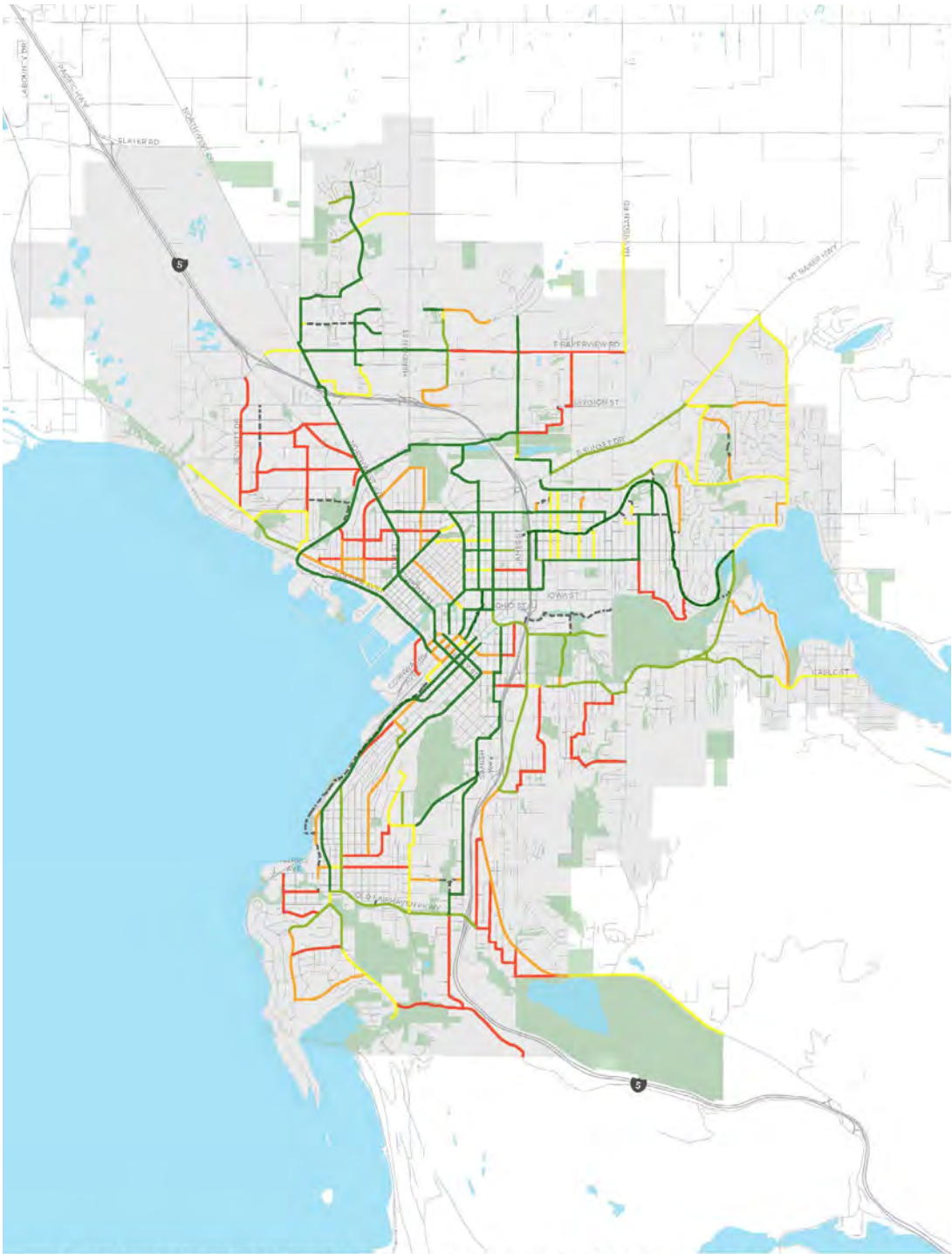
Facilities evaluated in this prioritization process include existing facilities and proposed facilities city staff identified for short term implementation.

Route segments were identified as segments with similar characteristics (e.g., existing facilities of the same type). Breaks in route segments occurred at intersections with other facilities. When assessing proposed facilities, project identification numbers were used to identify segments with similar characteristics.

Segments comprising longer trunk routes identified by the city were aggregated prior to completing this analysis. A total of 15 routes serving areas across the city were noted. Many of these routes included both existing and proposed facilities and captured a variety of facility types. To facilitate the scoring process and reflect the importance of these routes, all segments were scored as existing; route type was assigned to the lowest-scoring existing facility type. Since facility type serves as a proxy for rider type served by the route, use of the lowest-scoring facility is consistent with Level of Traffic Street weakest link principles.

The following map displays initial route prioritization. Identifying highest priority existing routes helps identify routes most viable for Phase I implementation. Viewing both existing and proposed facilities help identify proposed routes that may have the most impact in completing existing routes and identify longer term implementation phasing.

Route Prioritization: All Facilities

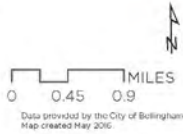


BELLINGHAM BICYCLE WAYFINDING: ROUTE PRIORITIZATION

ROUTES BY PRIORITY (TOTAL SCORE)

7 - 17	Existing Trails
18 - 28	Roads
29 - 38	Water
39 - 49	Parks
50 - 59	City

The prioritization ranking indicates the results of a scoring process based on four criteria: Route Readiness, Proximity to Destinations, Gap Closure, and Need. Additional input from city staff will further refine these results in preparation for the implementation plan.



Results

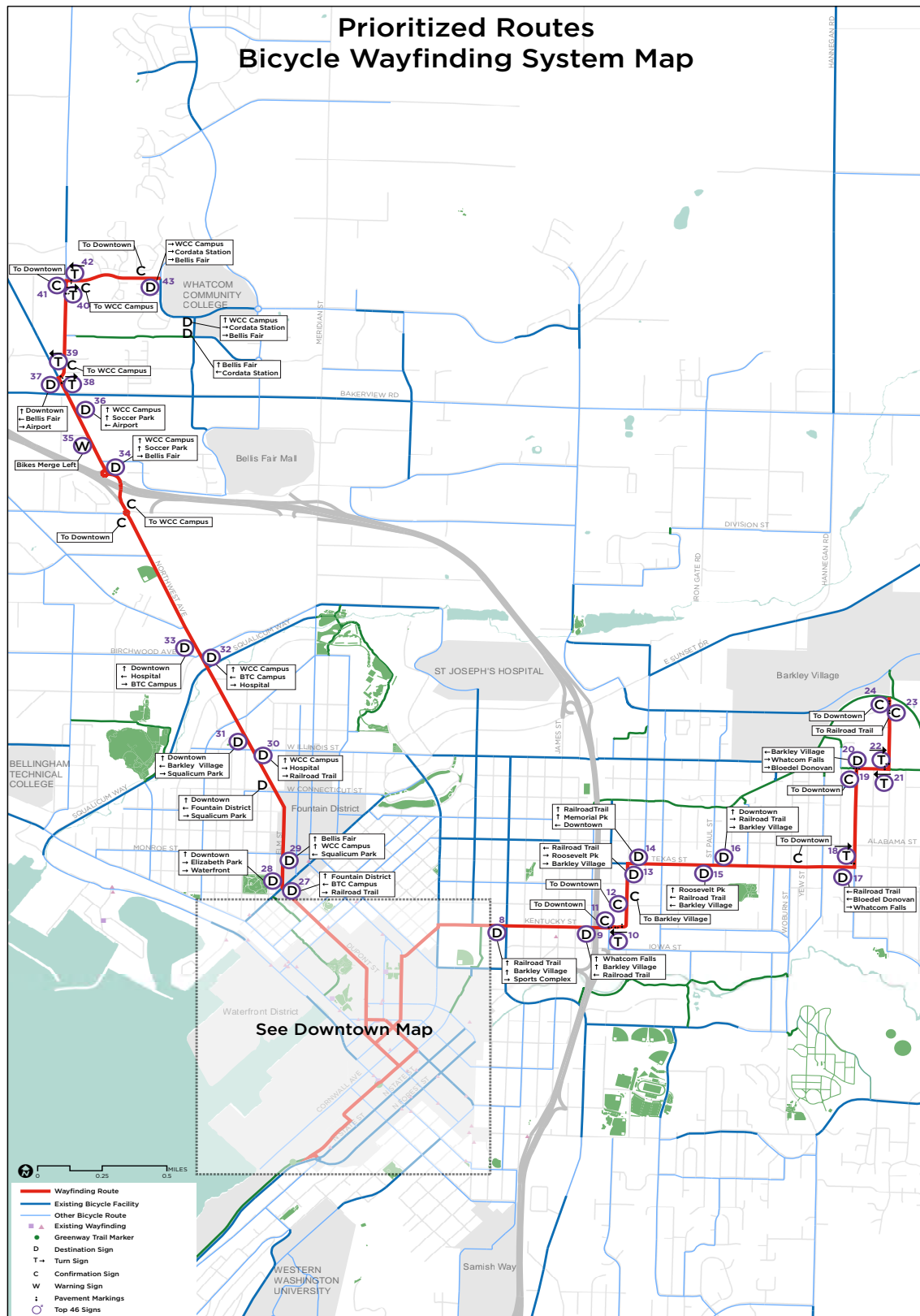
The highest priority routes are displayed based on cumulative scores, thus representing the most suitable routes for wayfinding improvements. The lowest cumulative scores are currently less ready for wayfinding improvements.

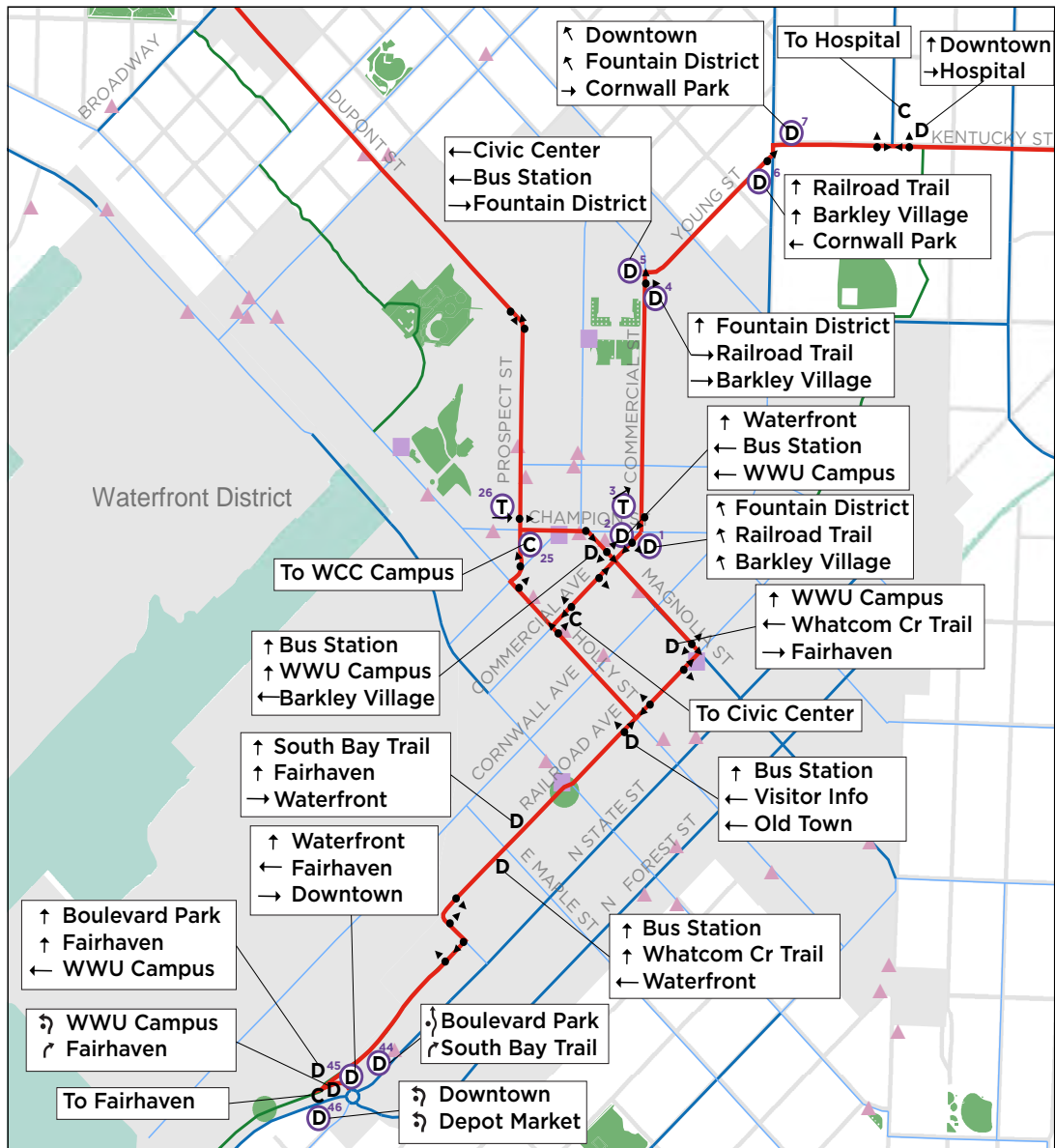
The results of this prioritization exercise indicate numerous existing facilities that are highly suited for wayfinding improvements and several key proposed facilities that provide connections within the existing network. The highest ranking facilities are located within the center city, with key corridors leading north toward Whatcom Community College, east across I-5, and south toward the South Bay Trail and WWU.

As anticipated, the longer trunk routes identified by the city scored well; however, several other segments, primarily those providing connections for the longer routes, scored very well due to proximity to destinations, gap closure, and population served. Note that while some routes incorporate existing trail segments, wayfinding signage will not be placed along these trails as a wayfinding system already exists for these segments.

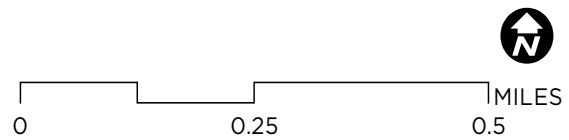
Based on the results of the prioritization, the project team identified two priority routes for implementation. These routes, and the corresponding signs, can be found on the following pages.

WAYFINDING SYSTEM PLAN





- Wayfinding Route
- Existing Bicycle Facility
- Other Bicycle Route
- Existing Wayfinding
- Greenway Trail Marker
- D Destination Sign
- T→ Turn Sign
- C Confirmation Sign
- Pavement Markings
- Top 46 Signs



Placement Schedule

Wayfinding information should be placed in locations where pedestrians, and cyclists are expected to arrive as well as in locations where travelers need to make decisions. Signs for each should be installed where adequate infrastructure exists to safely support their movements. At each of these transition points it is important to provide cyclists with ample time to make a decision and appropriately position themselves on the roadway.

The preceding maps identify the recommended placement for signs along the two priority corridors, including recommended destinations to be included on each sign. Further detail regarding these signs can be found in the Design Intent Appendix.



REFERENCES

REFERENCES

Accessibility Standards. US Access Board, 2012. <http://www.accessboard.gov/guidelines-and-standards>

“Design Guidelines for Bicycle Wayfinding.” City of Oakland, CA, 2009.

“Manual on Uniform Traffic Control Devices.” Manual on Uniform Traffic Control Devices. Department of Transportation, 2009. <http://mutcd.fhwa.dot.gov/index.htm>

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“Wayfinding Signs for Shared-Use Paths.” National Committee on Uniform Traffic Control Devices, Spring 2014. <http://www.ncutcdbtc.org/sponsors.html>

“Design Standards for Park and Trail Development.” Bellingham Parks & Recreation Department, 2011



APPENDIX

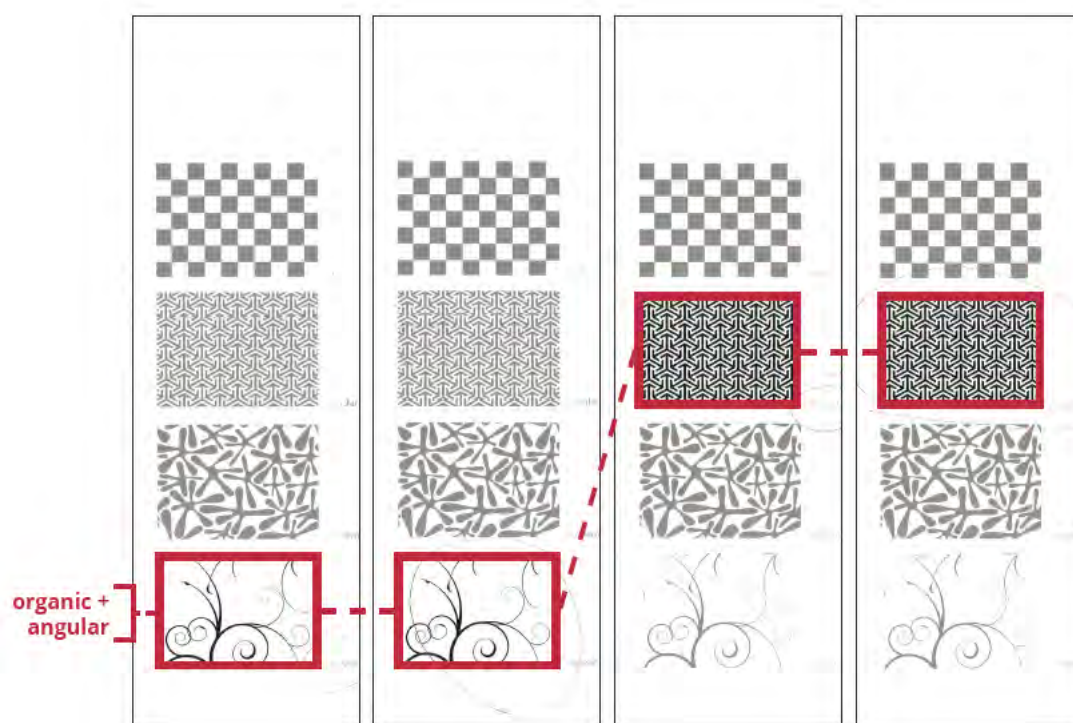
BELLINGHAM VISUAL PREFERENCES

The following memo outlines the results of the visual preferences and mental mapping survey conducted with City of Bellingham staff on February 1, 2016.

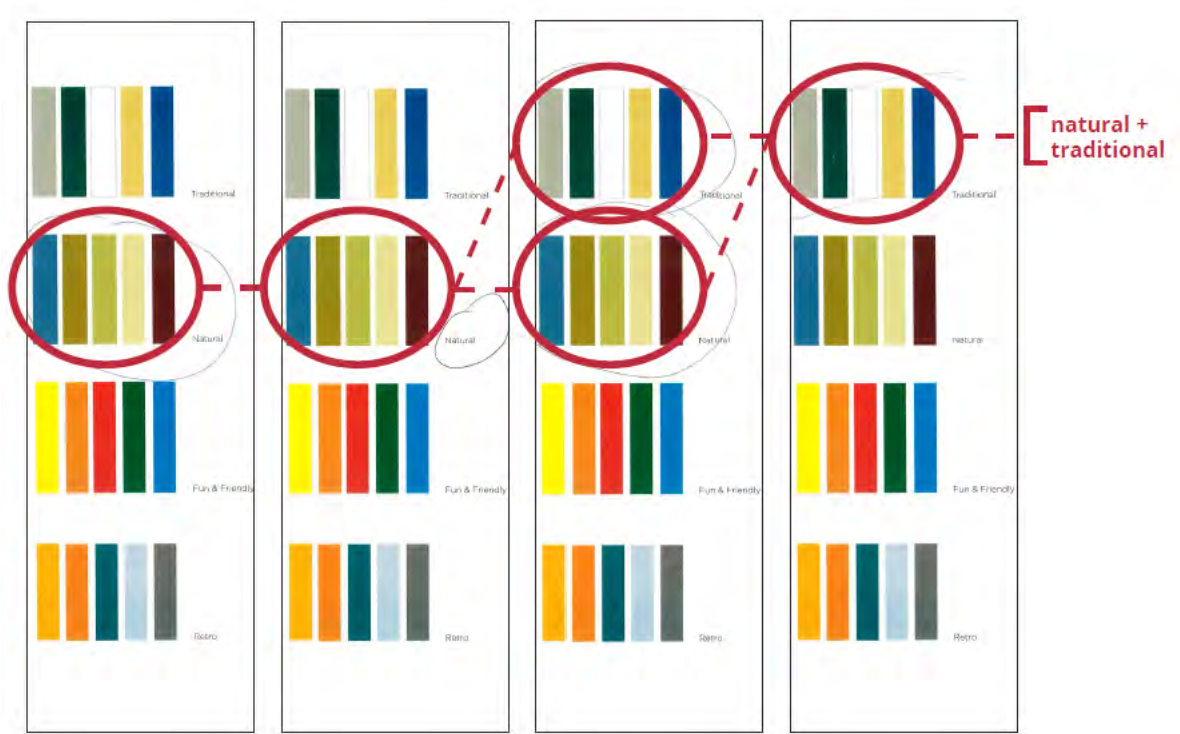
Ten participants provided feedback on items including preferred color palette, font, and patterns. Additional items sought to capture greater understanding of how Bellingham's character and values are reflected in visual preferences.

The following graphics explore the results and identify key themes that will inform the subsequent design process.

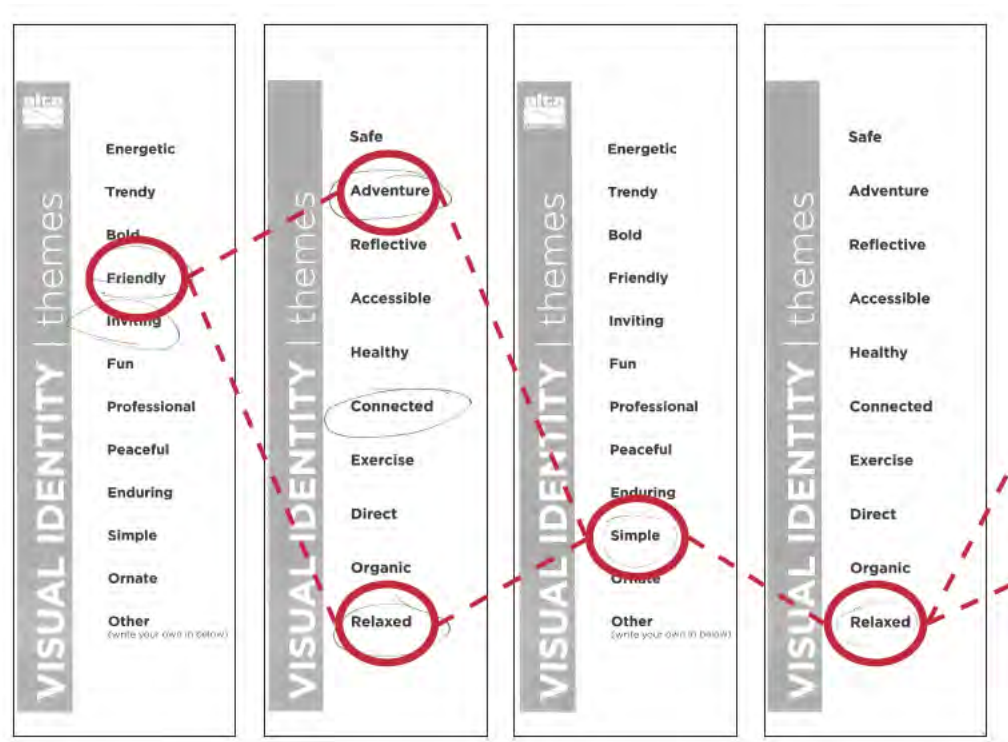
Patterns



Colors



Words



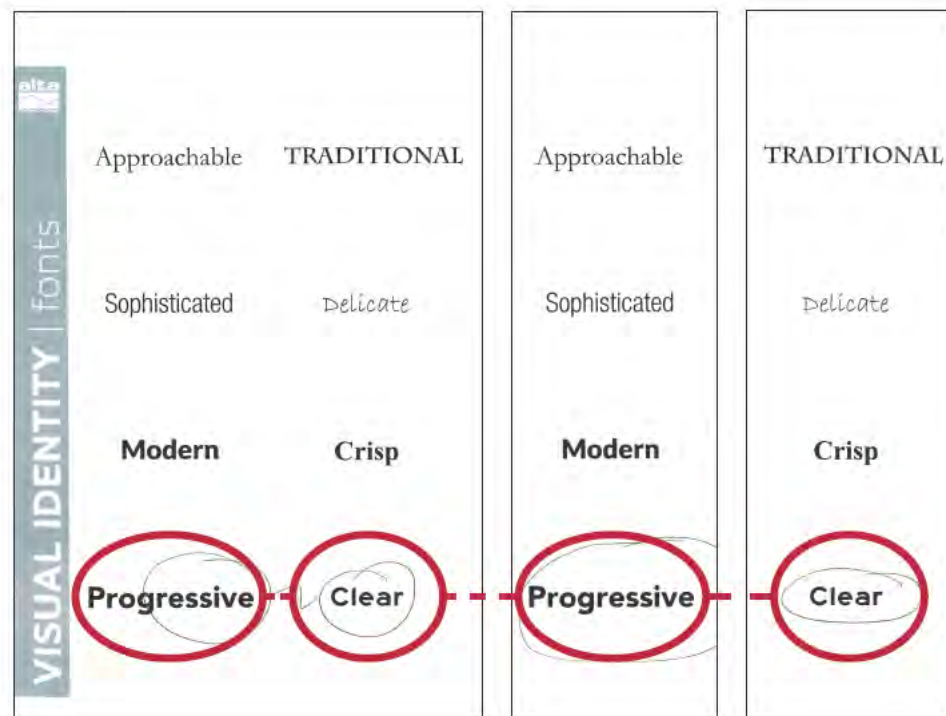
Fonts & Typology

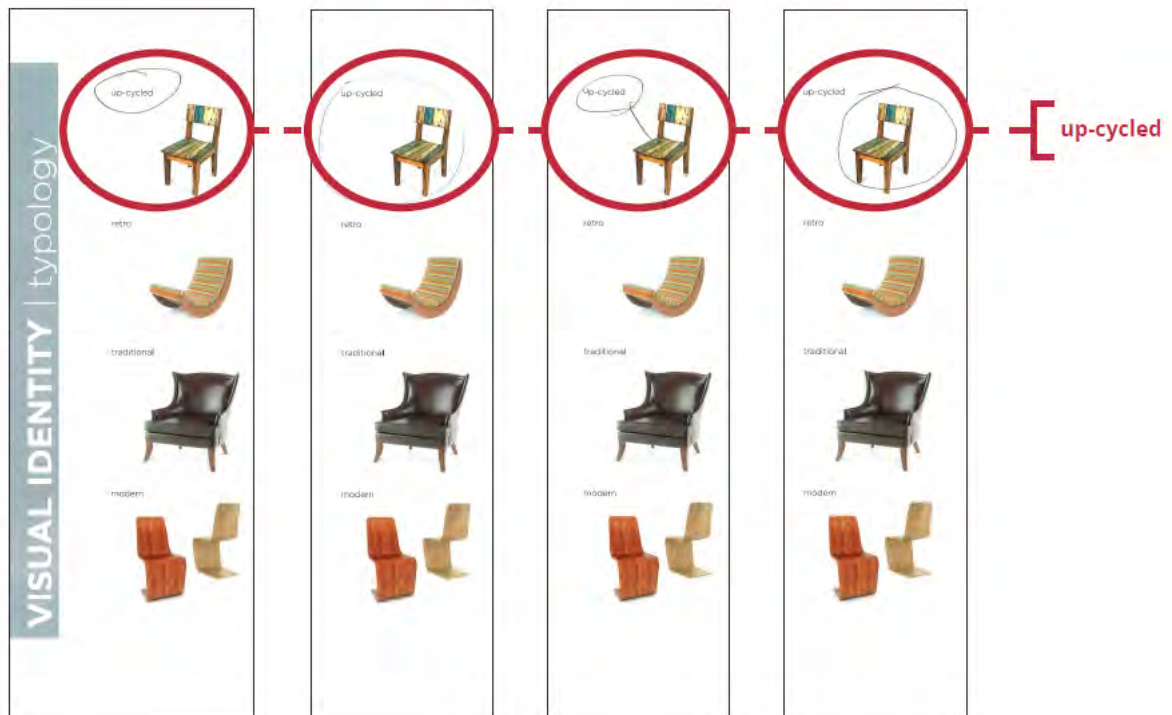
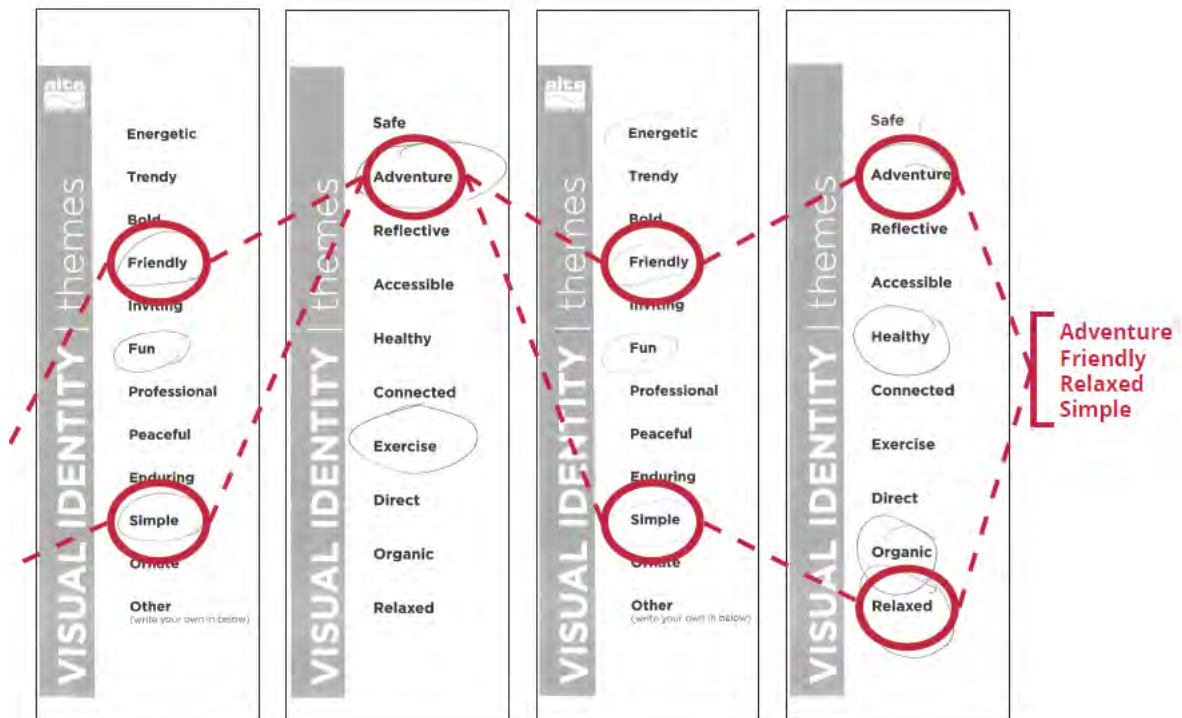
Progressive and Clear Fonts:

Open Sans Light
Open Sans Regular
Open Sans Bold
OPEN SANS BOLD CAPS

Lato Light
Lato Regular
Lato Bold
LATO BOLD CAPS

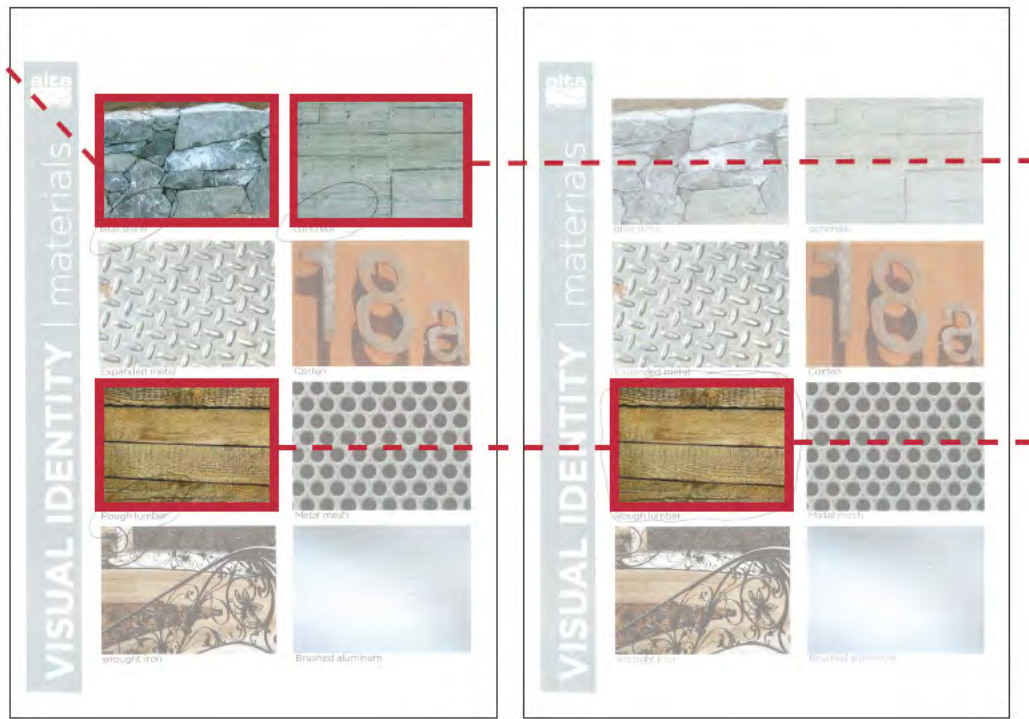
Proxima Nova Light
Proxima Nova Regular
Proxima Nova Bold
PROXIMA NOVA BOLD CAPS



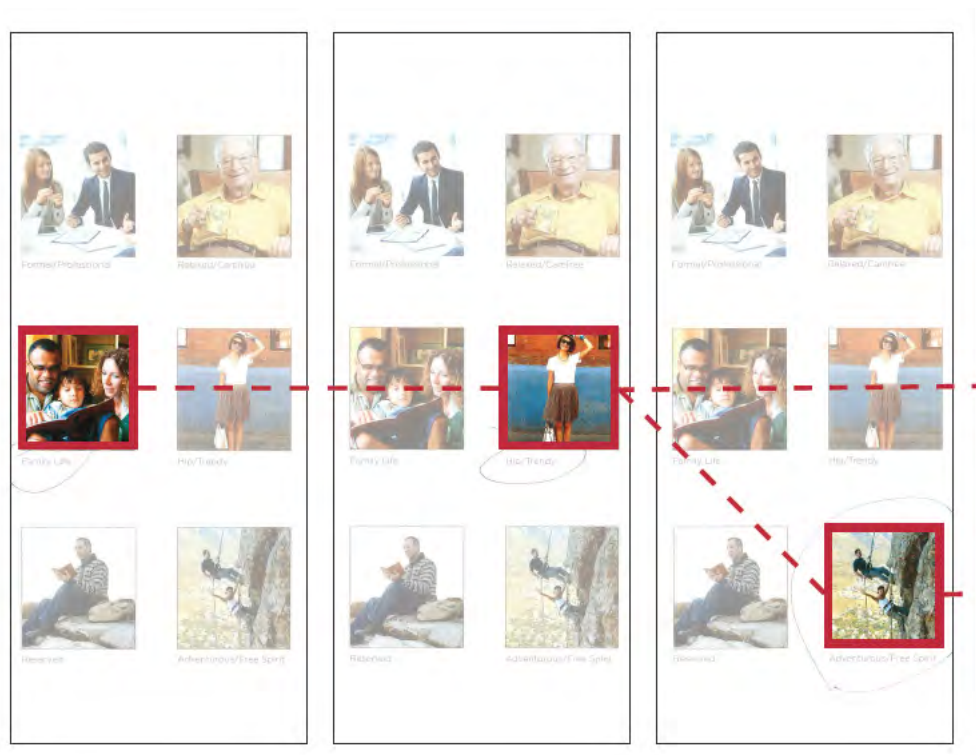


Materials

stone +
concrete



Lifestyle





Summary of Visual Preferences

Overall, participants expressed preference for natural, recycled materials and colors and embraced the relaxed, adventurous spirit the surrounding environment provides.

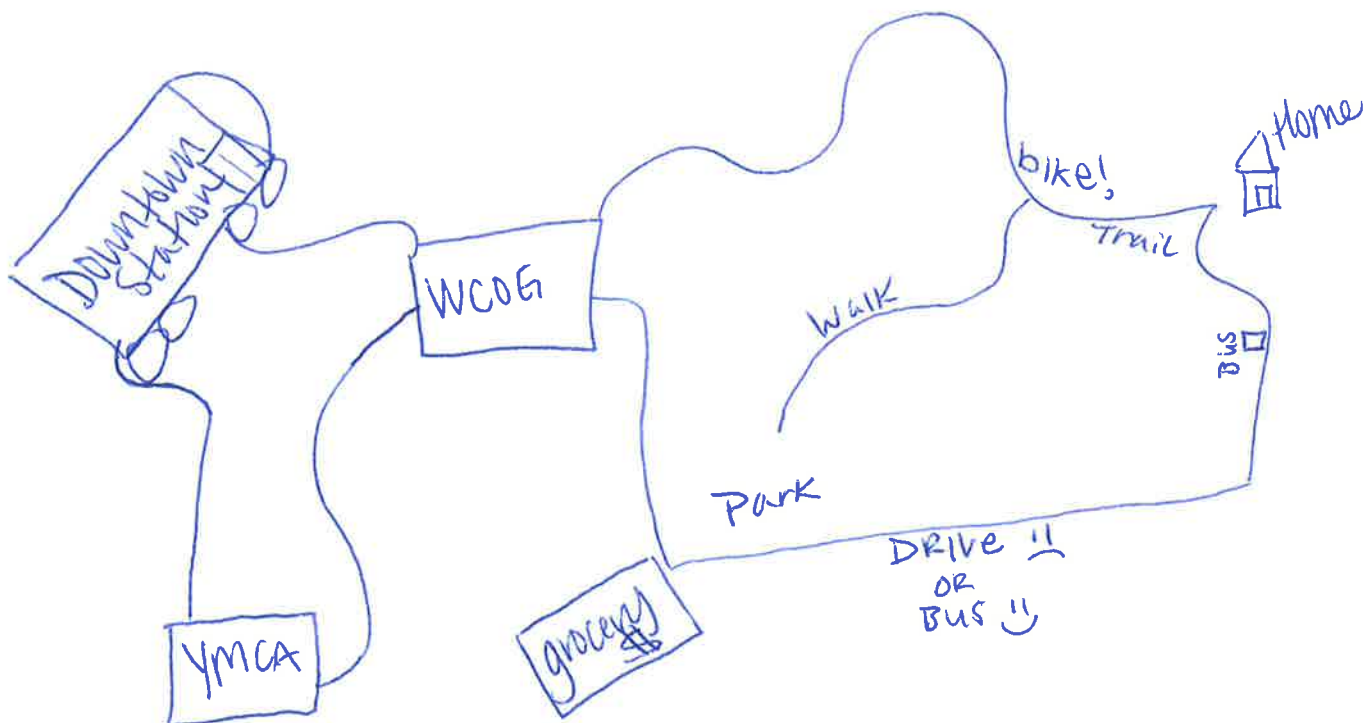


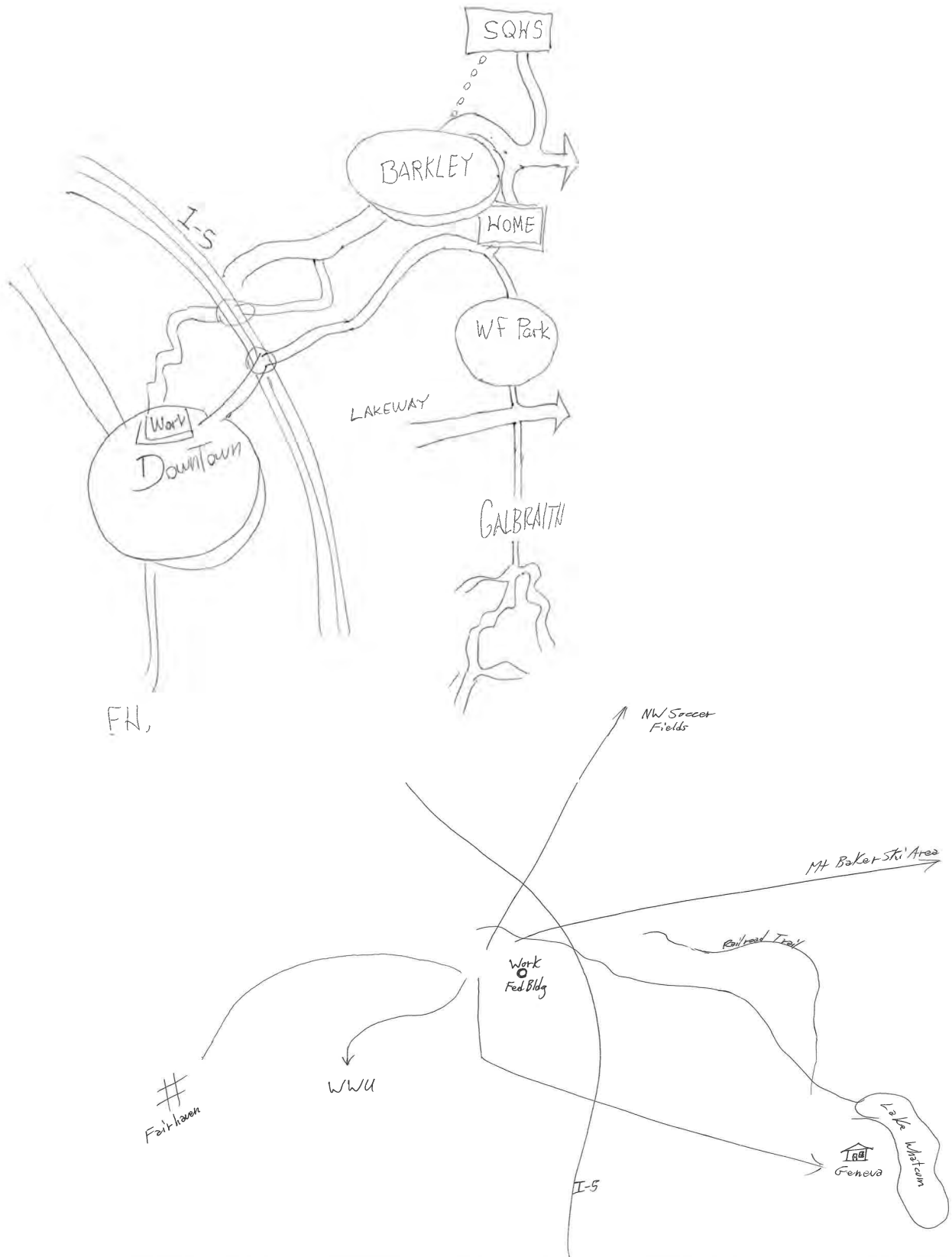
BELLINGHAM MENTAL MAPPING

Survey participants were asked to create maps of Bellingham from memory. Using the Federal Building as a common landmark, the maps should include common routes and destinations they use throughout a normal day. Additionally, they were asked to note whether they drive, take transit, bike, or walk on specific routes. These maps will help inform our understanding of Bellingham and confirm important defining features, decision points, destinations, and routes through the community.

Common destinations emerge across the ten maps collected:

- » Most participants indicated destinations within Bellingham, such as schools, neighborhoods, shopping, and recreation
- » Other prominent landmarks included access to I-5, Lake Whatcom, Mount Baker, NW Soccer Fields, and the train station
- » Several of the maps show different modes preferred on each route. It is interesting to note that on a few maps, two destinations are connected by different modes, which could indicate a greater sense of safety or efficiency depending on the mode.





Bellingham Bicycle Wayfinding Design Intent Drawings

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- 1: Cover Sheet
- 2: Decision Signs
- 3: Confirmation Sign and Turn Sign
- 4: Sign Topper and Pavement Medallion
- 5: Graphic Standards
- 6: Sign Post Details
- 7: Existing Post Mounting Details
- 8: Sign Locations 1-4
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- 10: Sign Locations 9-12
- 11: Sign Locations 13-16
- 12: Sign Locations 17-20
- 13: Sign Locations 21-23
- 14: Sign Locations 24-27
- 15: Sign Locations 28-31
- 16: Sign Locations 32-35
- 17: Sign Locations 36-39
- 18: Sign Locations 40-42
- 19: Sign Locations 43-45
- 20: Sign Schedule, Signs 1-14
- 21: Sign Schedule, Signs 15-31
- 22: Sign Schedule, Signs 32-46



Project Owner:

Bellingham Bicycle Wayfinding
Contact:
Kim Brown
Transportation Options Coordinator
Public Works Engineering
City of Bellingham
E-Mail: kimbrown@cob.org
Phone: 360.778.7950

Prepared by:



Alta Planning + Design

1402 Third Ave #206
Seattle, WA 98101
ph: 206.735.7466

The purpose of these drawings is to illustrate design intent. Drawings are not for construction. All fabrication and installation work is assumed to be completed by Public Works staff at the City of Bellingham. If the Project Owner identifies a need to solicit bids from a fabricator, additional notes and assumptions will need to be clarified by the Project Owner.

Drawing scale shown on plans is for full size plans only. Alta shall not be responsible for scale discrepancies caused by reduced or enlarged drawings.

Decision Signs

KEY NOTES

- ① $\frac{3}{8}$ " diameter hole

GENERAL NOTES

See sign schedule for sign content. Do not place signs beyond the ROW.

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Date	Description
7/12/16	

PROJECT

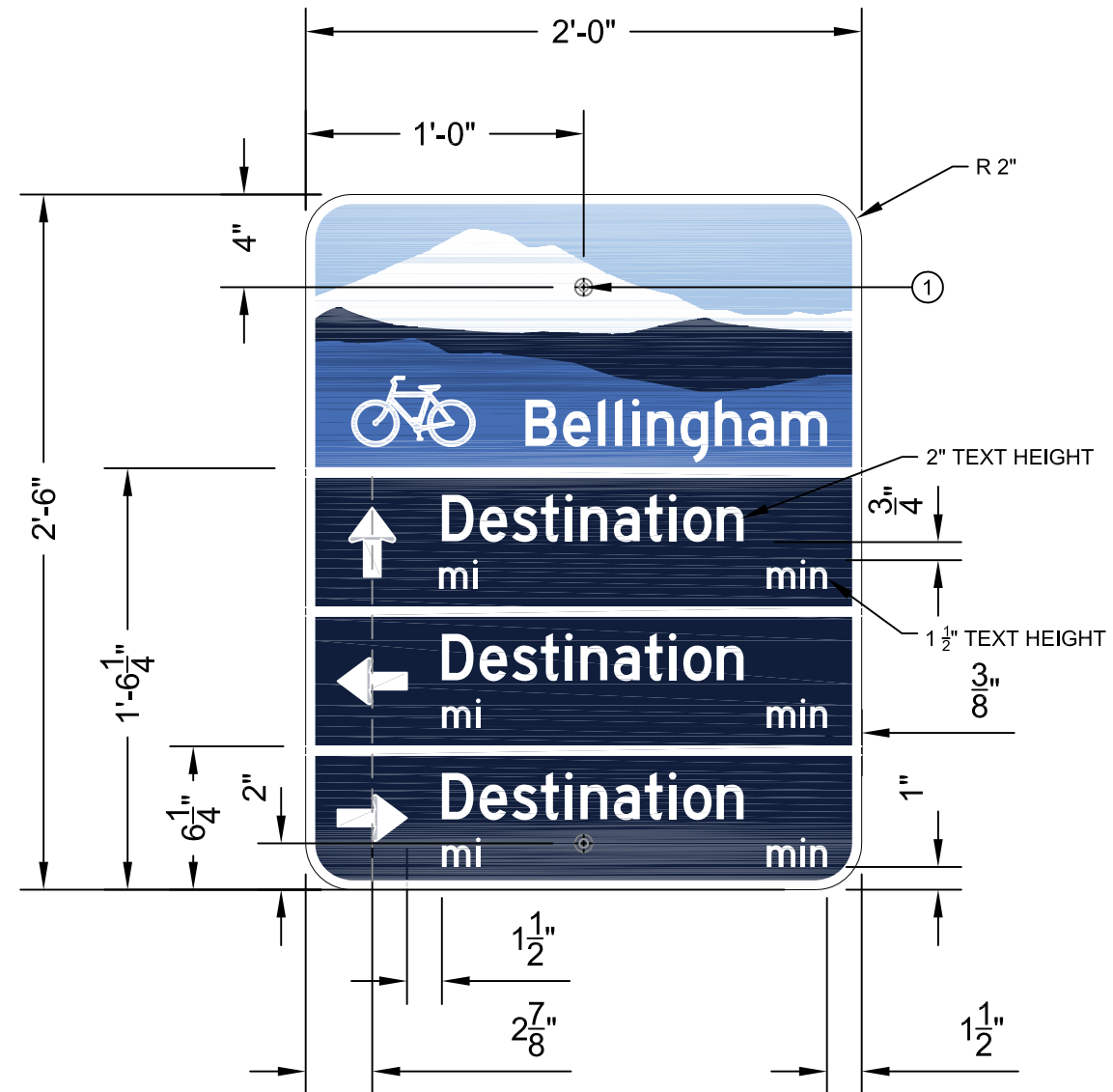
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

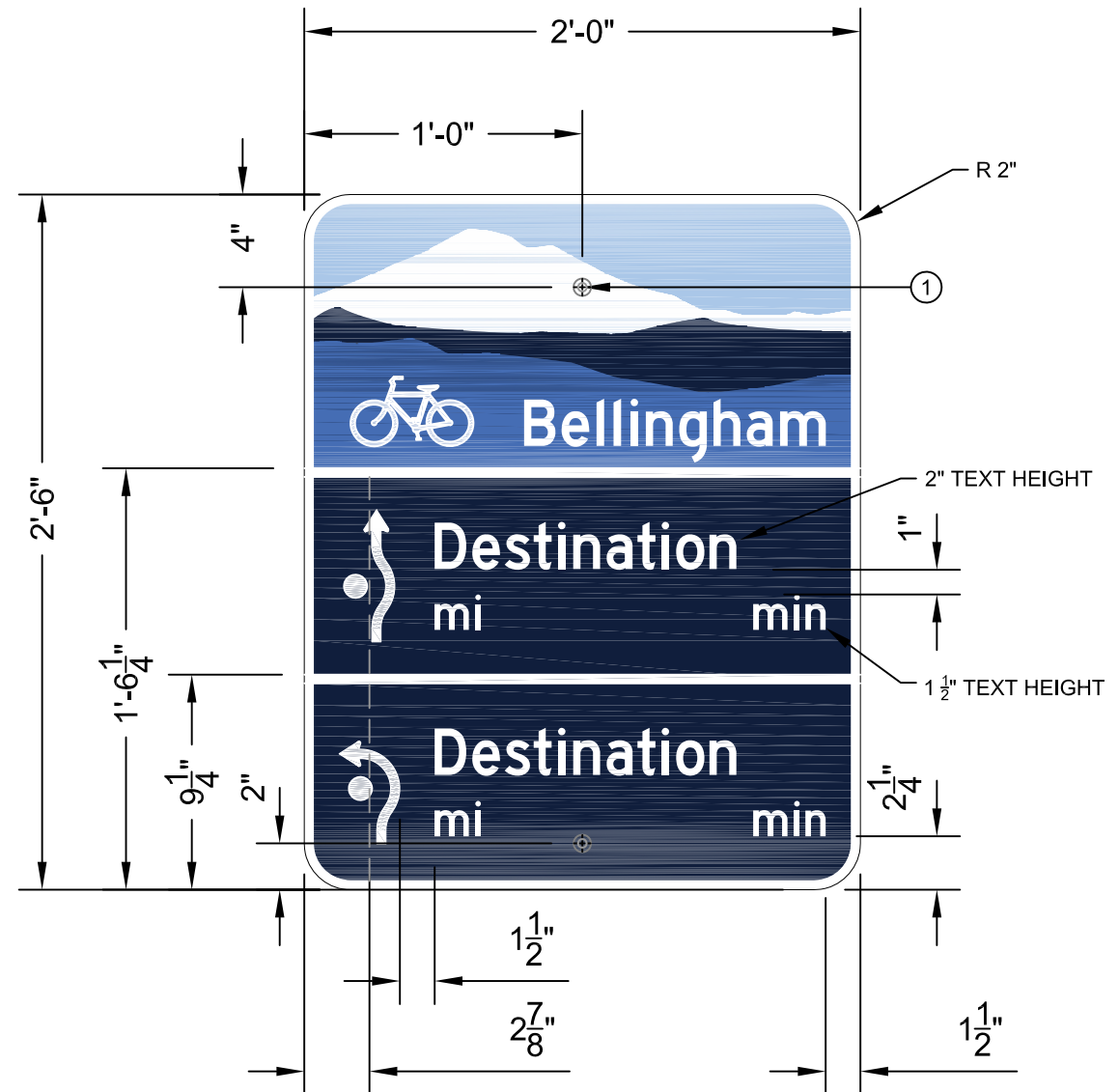
Kim Brown
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kimbrown@cob.org 360.778.7950



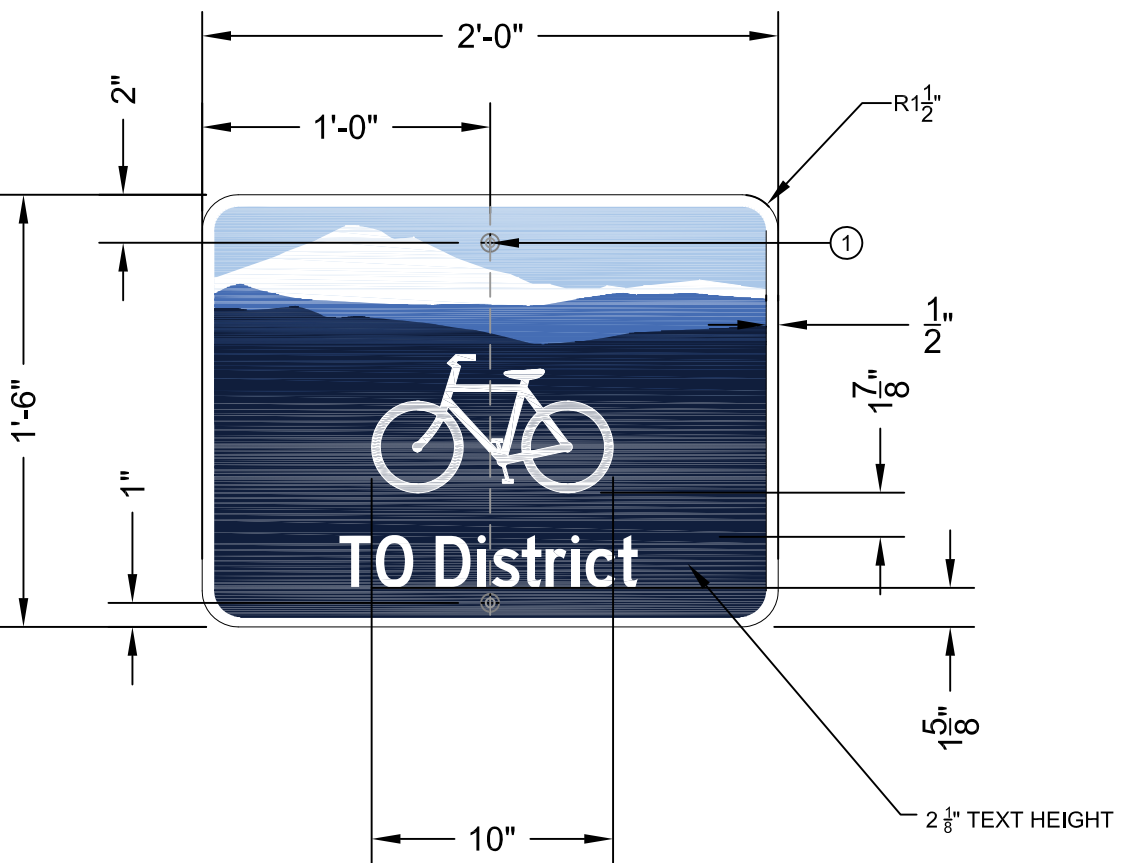
Alta Planning + Design
1402 Third Ave #206
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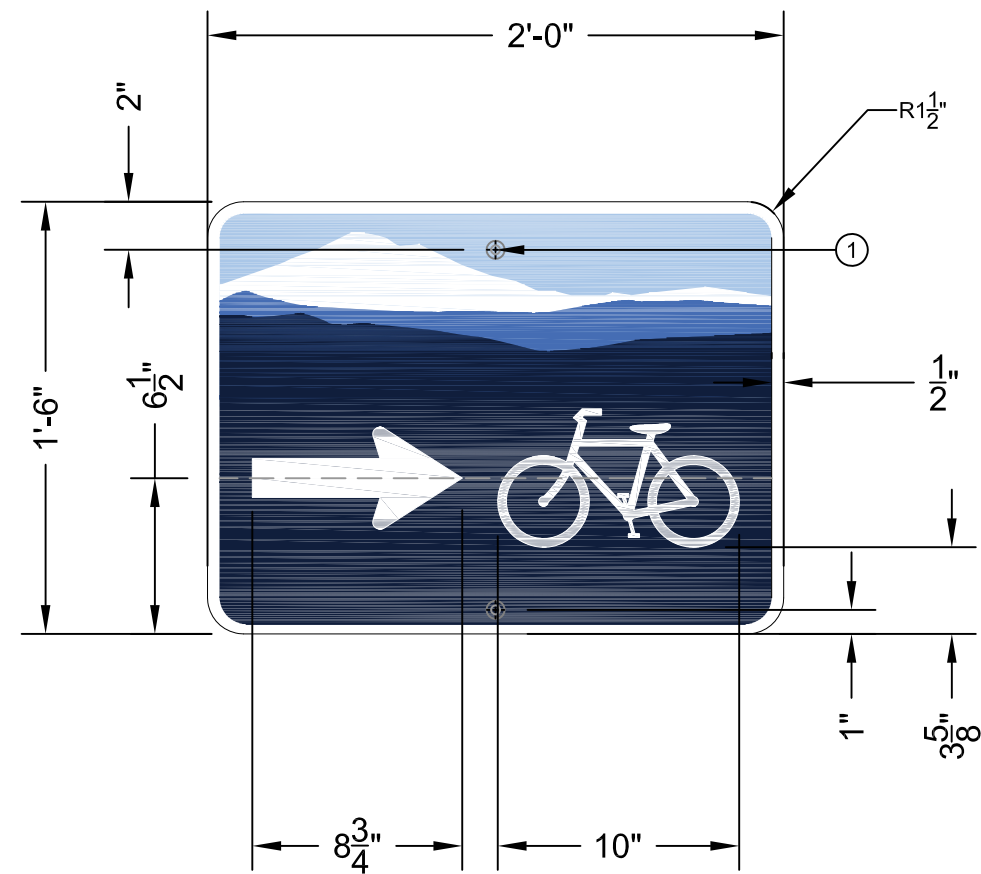
① **DECISION SIGN**
SCALE: 1 1/2" = 1'-0"



② **DECISION SIGN AT ROUNDABOUTS**
SCALE: 1 1/2" = 1'-0"



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



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

Confirmation Sign and Turn Sign

KEY NOTES

- ① $\frac{3}{8}$ " diameter hole

GENERAL NOTES

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PROJECT

**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

Kim Brown
Transportation Options Coordinator
Public Works Engineering
kimbrown@cob.org 360.778.7950

Sign Topper and Pavement Medallion

KEY NOTES

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

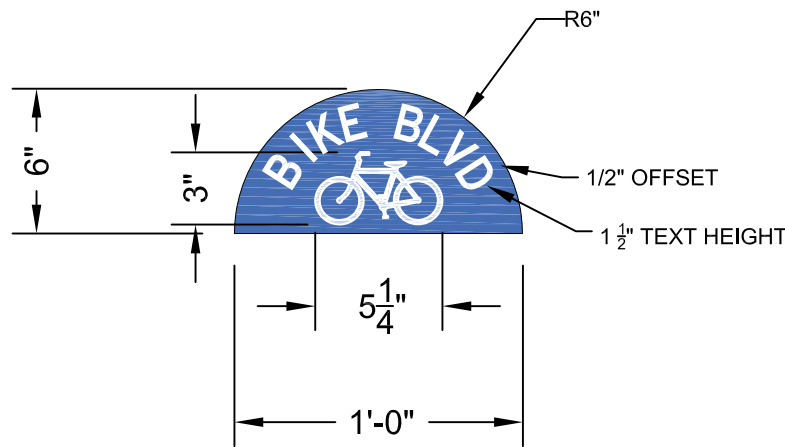
Bellingham Bicycle
Wayfinding System

PROJECT OWNER

Kim Brown
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Public Works Engineering
kimbrown@cob.org 360.778.7950

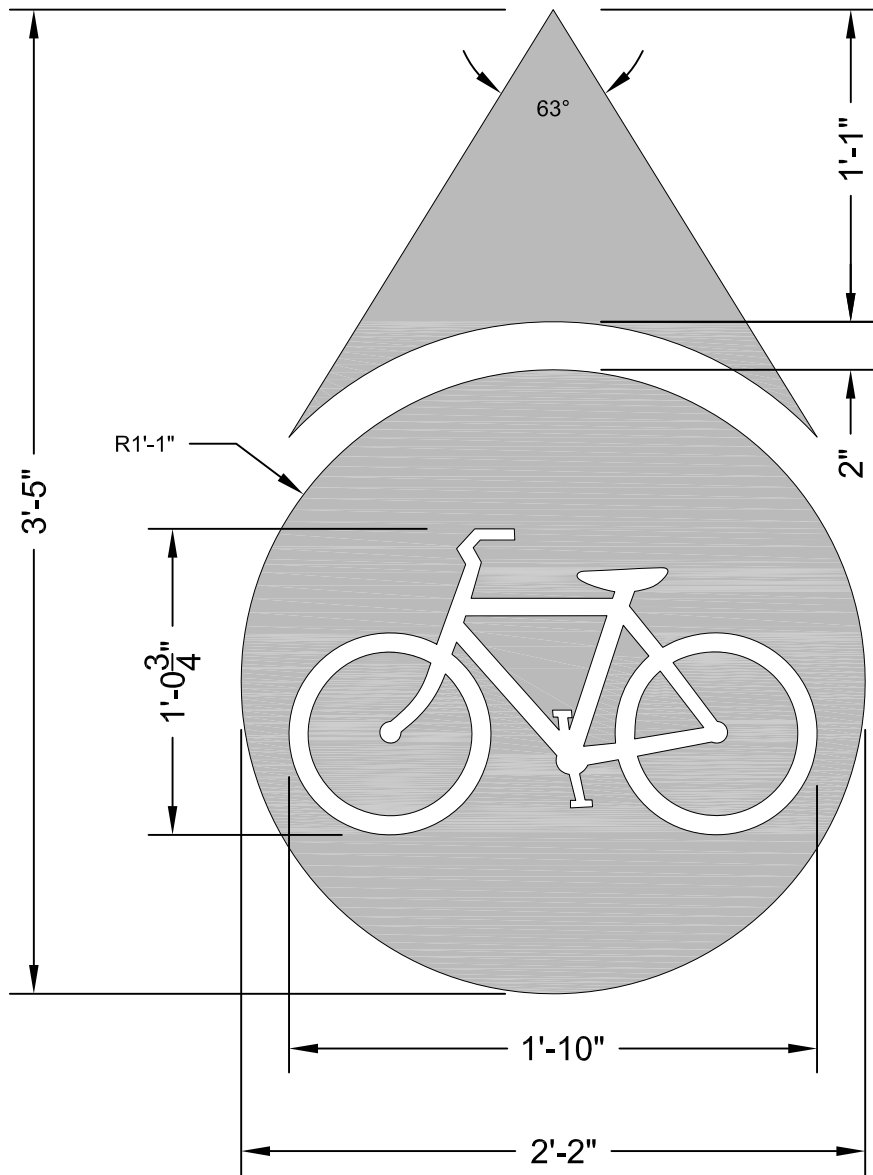


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1 SIGN TOPPER





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



2 PAVEMENT MEDALLION

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

COLORS PALETTE

			
Ⓐ White - Reflective	Ⓑ Dark Blue	Ⓒ Medium Blue	Ⓒ Light Blue
Color: White	C96 M86 Y46 K54	C79 M58 Y0 K0	C31 M13 Y0 K0
Materials: 3M 3930 High Intensity Reflective	High Intensity Reflective	High Intensity Reflective	High Intensity Reflective

TYPOGRAPHY

Highway Gothic
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 1234567890
Highway Gothic Condensed
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 1234567890

ARTWORK



SHEET

5

Graphic Standards

KEY NOTES

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

Bellingham Bicycle Wayfinding System


PROJECT OWNER

Kim Brown

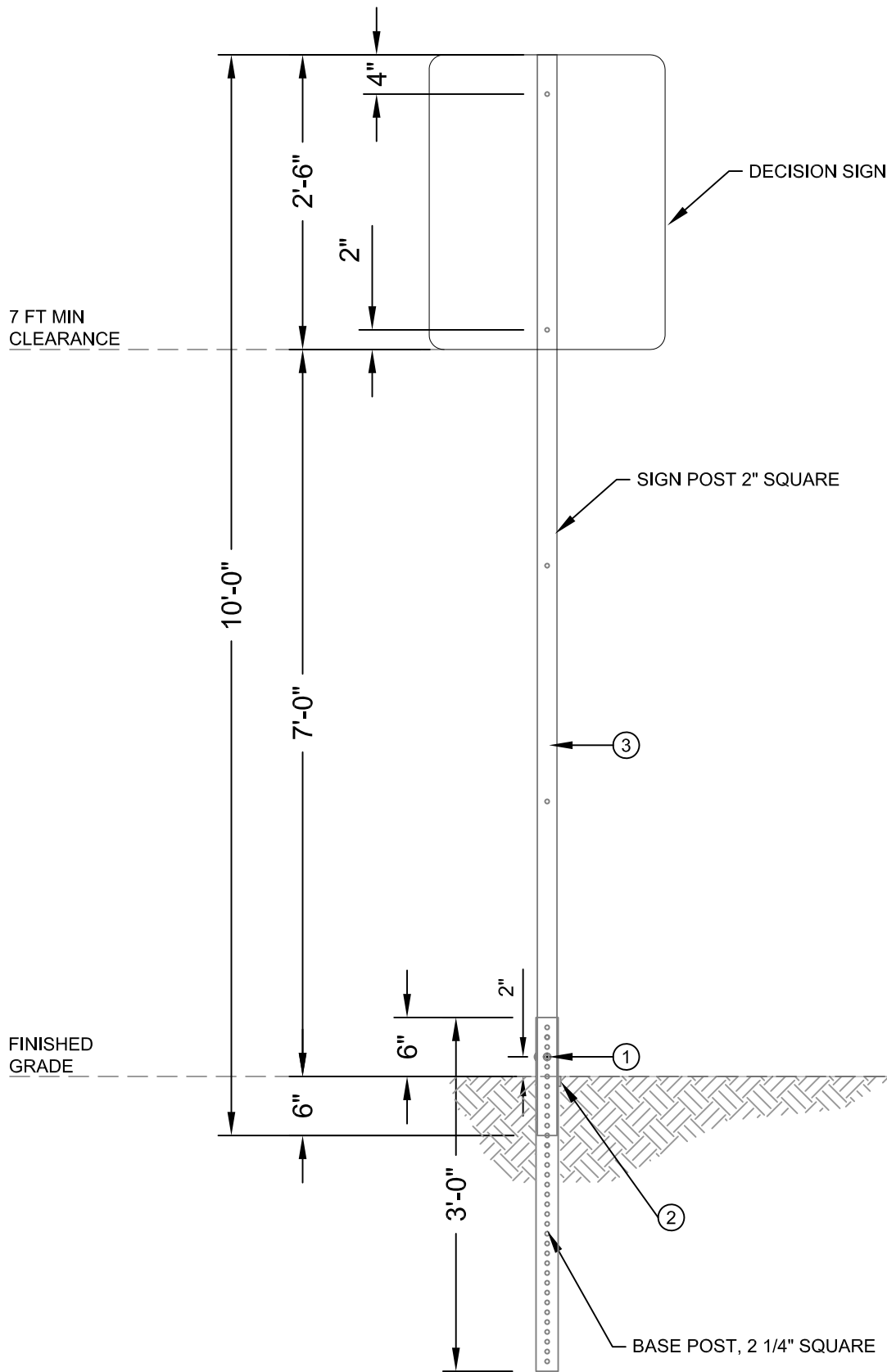
Transportation Options Coordinator

Public Works Engineering

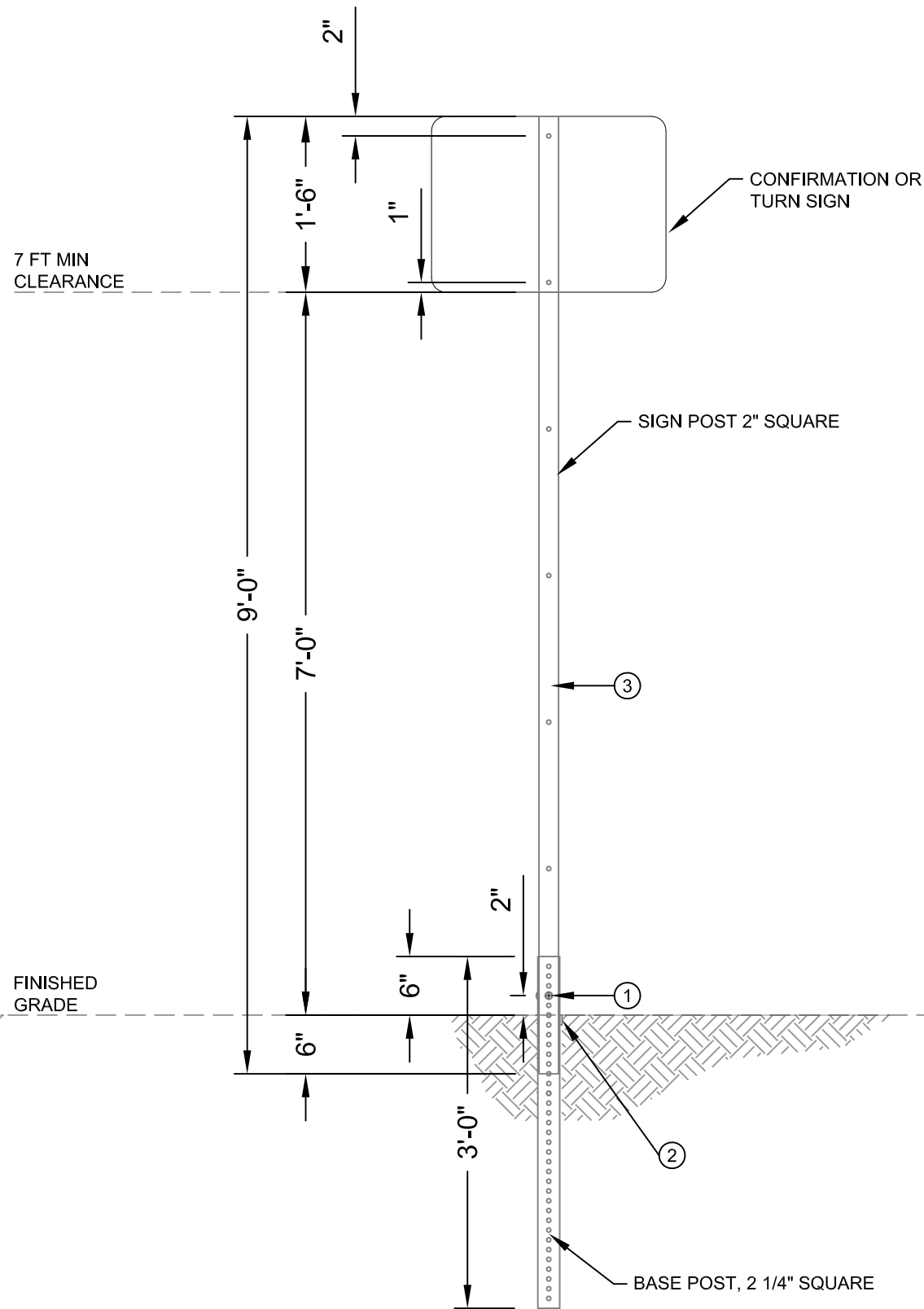
kimbrown@cob.org 360.778.7950



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1 SIGN POST - DECISION SIGN
NTS



2 SIGN POST - CONFIRMATION OR TURN SIGN
NTS

Sign Post Details

KEY NOTES

- ① $\frac{3}{8}$ " diameter drive rivet and black nylon flat $\frac{3}{8}$ " washer or $\frac{5}{16}$ " corner bolt and nut
- ② If installed in concrete, install expansion joint material around base
- ③ See City of Bellingham Street Sign Post Detail Drawing TC-320

GENERAL NOTES

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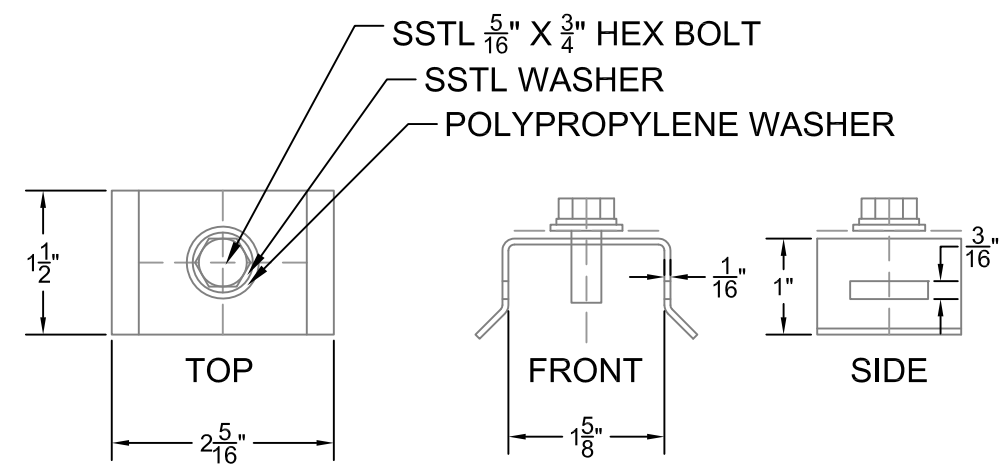
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

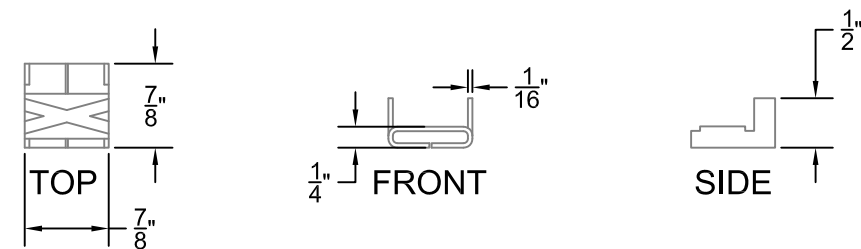
Kim Brown
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kimbrown@cob.org 360.778.7950

Mounting Details

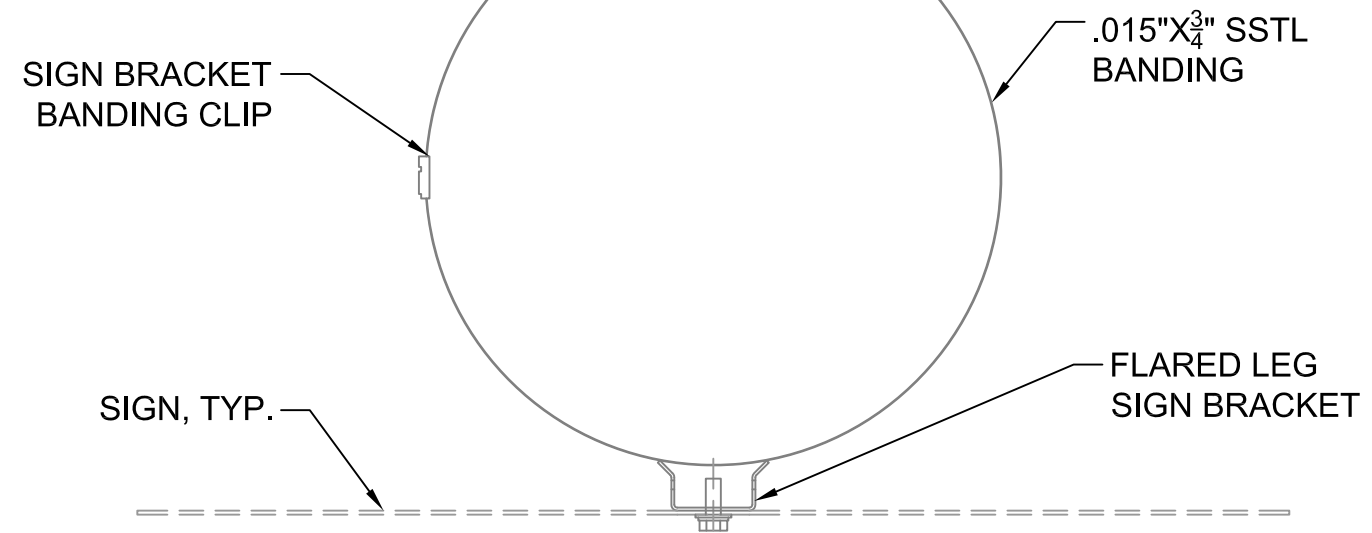
KEY NOTES



1 FLARED LEG SIGN BRACKET
NTS



2 BRACKET BANDING CLIP
NTS



3 SIGN MOUNTING ASSEMBLY FOR UTILITY POLES
NTS

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

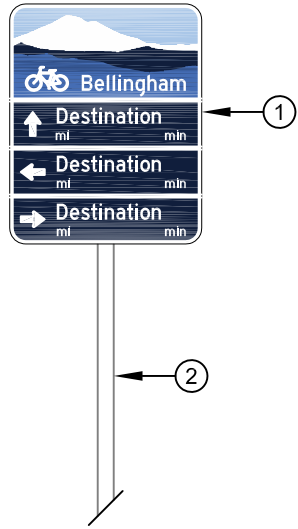
**Bellingham Bicycle
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kimbrown@cob.org 360.778.7950

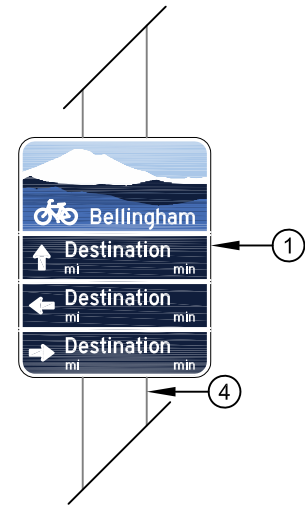
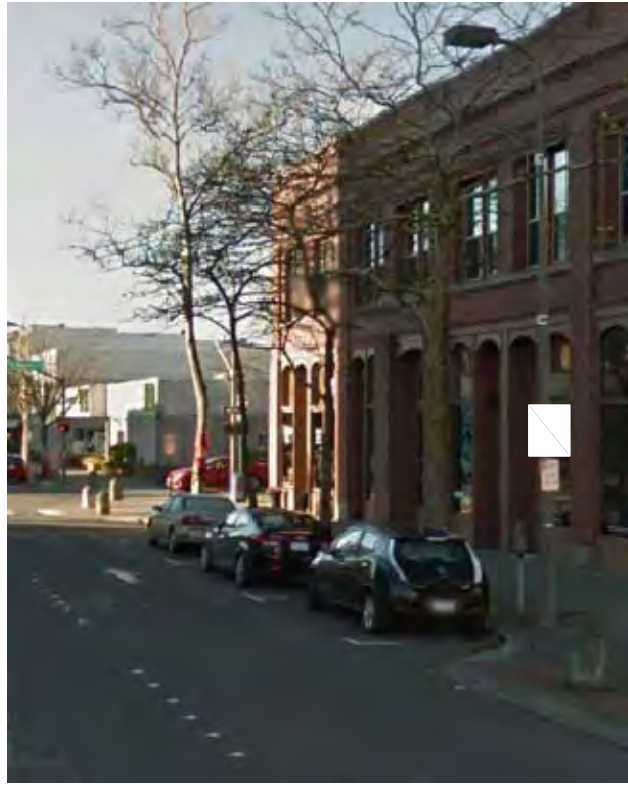


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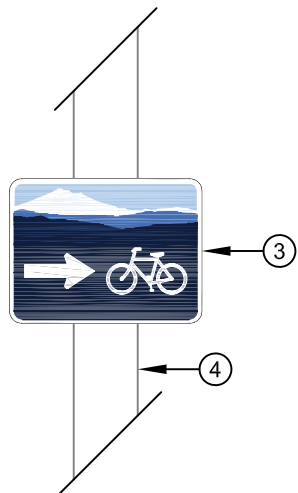
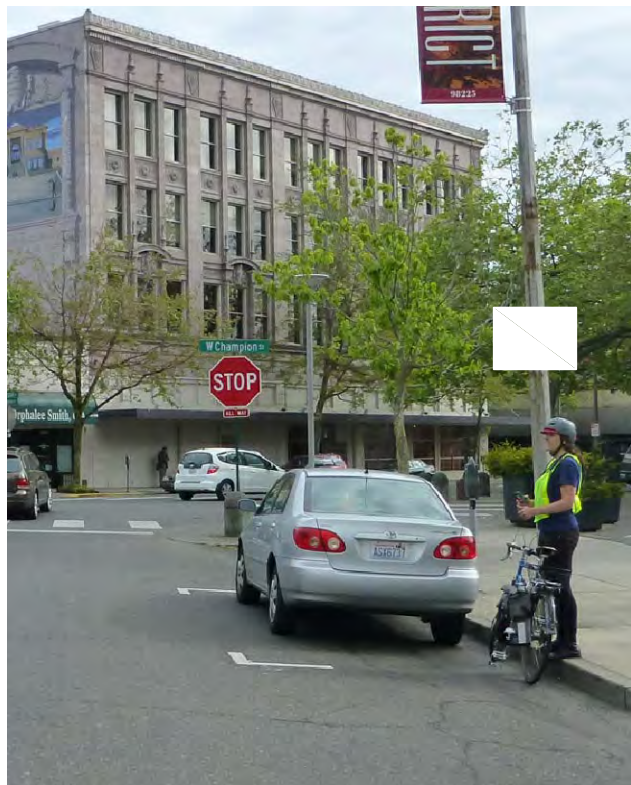
NOTE : PHOTO FROM 2015 GOOGLE STREETVIEW

1 EASTBOUND: COMMERCIAL ST AT CHAMPION
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

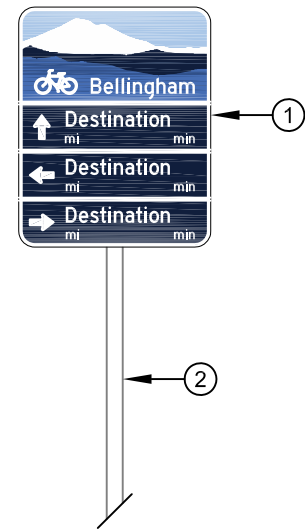


NOTE : PHOTO FROM 2015 GOOGLE STREETVIEW

2 WESTBOUND: COMMERCIAL ST AT MAGNOLIA ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



3 WESTBOUND: COMMERCIAL ST AT CHAMPION ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



4 EASTBOUND: COMMERCIAL ST AT YOUNG ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

Sign Locations 1-4

KEY NOTES

- 1 See Decision Sign Detail (SHT 2, DET 1)
- 2 See Decision Sign Post Detail (SHT 6, DET 1)
- 3 See Turn Sign Detail (SHT 3, DET 2)
- 4 See Existing Utility Pole Mounting Detail (SHT 7, DET 3)

GENERAL NOTES

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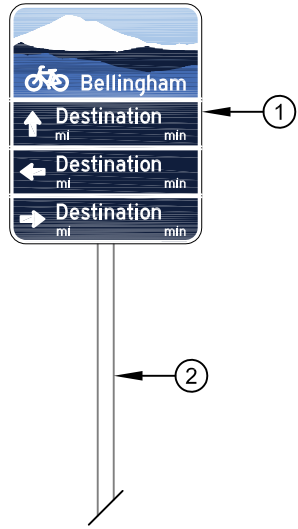
Date	Description
7/12/16	

PROJECT

**Bellingham Bicycle
Wayfinding System**

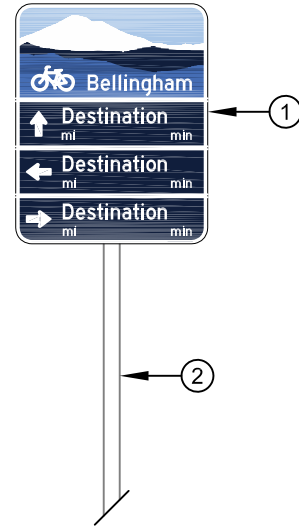
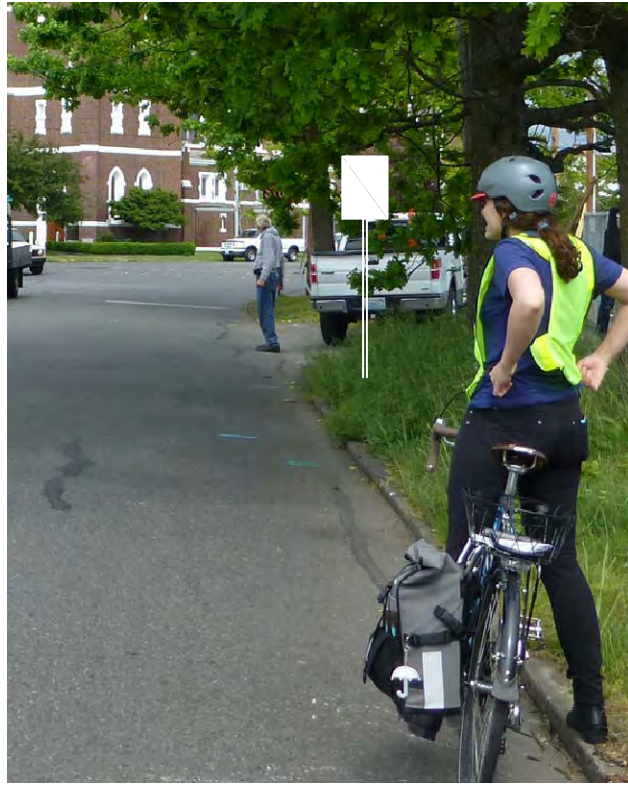
PROJECT OWNER

Kim Brown
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Public Works Engineering
kimbrown@cob.org 360.778.7950

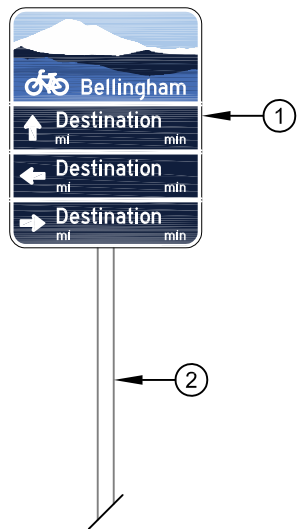


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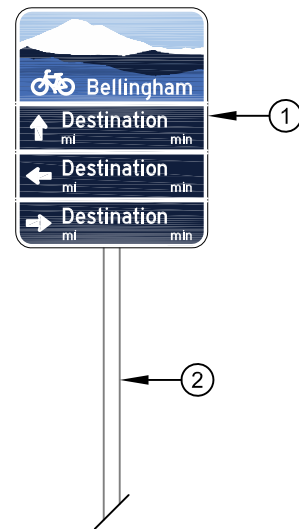
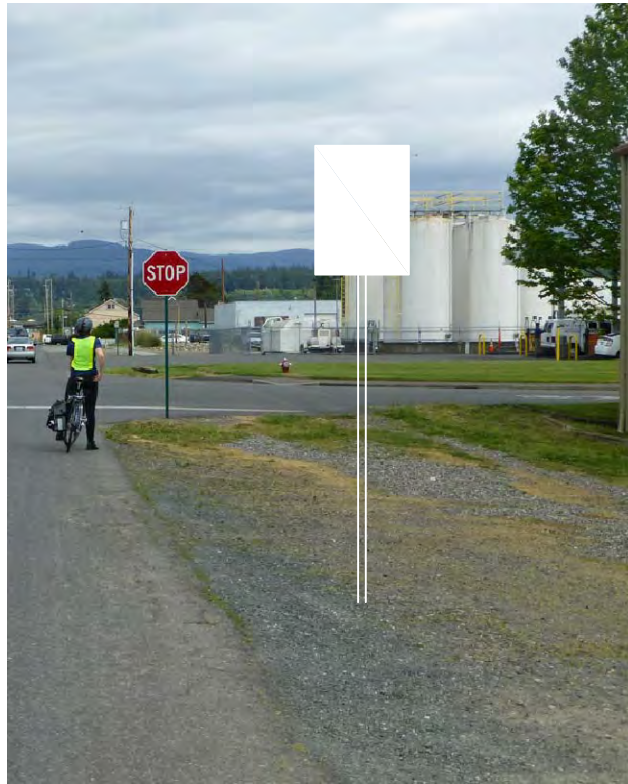
5 WESTBOUND: YOUNG ST AT COMMERCIAL ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



6 EASTBOUND: YOUNG ST AT CORNWALL AVE
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



7 WESTBOUND: KENTUCKY ST AT CORNWALL AVE
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



8 EASTBOUND: KENTUCKY ST AT GRANT ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

Sign Locations 5-8

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Decision Sign Post Detail (SHT 6, DET 1)

GENERAL NOTES

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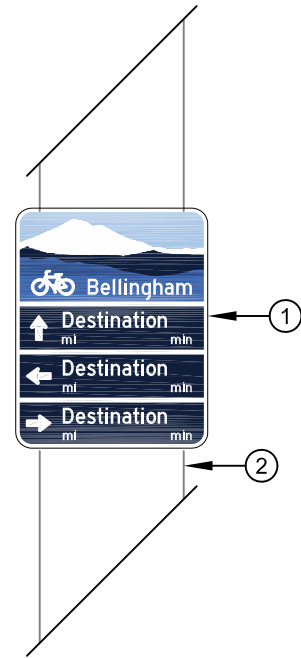
Date	Description
7/12/16	

PROJECT

**Bellingham Bicycle
Wayfinding System**

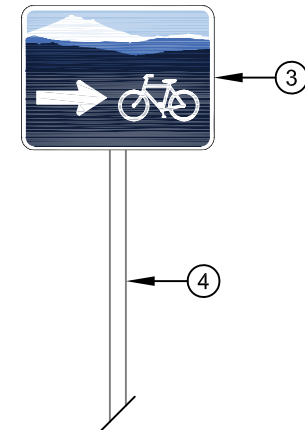
PROJECT OWNER

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kimbrown@cob.org 360.778.7950

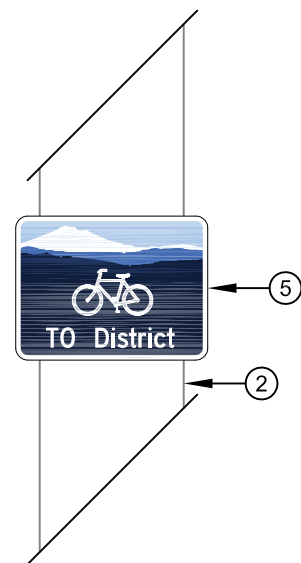


NOTE : PHOTO FROM 2012 GOOGLE STREETVIEW

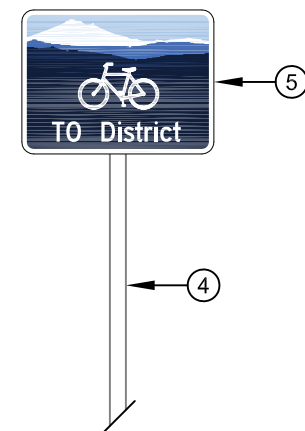
9 EASTBOUND: KENTUCKY ST AT LINCOLN ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



10 EASTBOUND KENTUCKY ST AT MOORE ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



11 WESTBOUND: KENTUCKY ST AT MOORE ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



12 WESTBOUND: NEVADA ST AT VIRGINIA ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

Sign Locations 9-12

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Existing Utility Pole Mounting Detail (SHT 7, DET 3)
- ③ See Turn Sign Detail (SHT 3, DET 2)
- ④ See Turn Sign Post Detail (SHT 6, DET 2)
- ⑤ See Confirmation Sign Detail (SHT 3, DET 1)

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

Kim Brown
Transportation Options Coordinator
Public Works Engineering
kimbrown@cob.org 360.778.7950

Sign Locations 13-16

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Existing Utility Pole Mounting Detail (SHT 7, DET 3)
- ③ See Decision Sign Post Detail (SHT 6, DET 1)

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

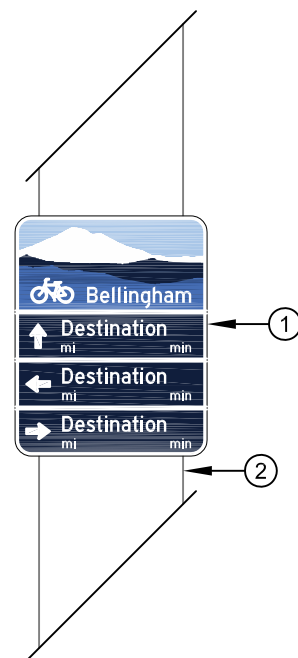
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

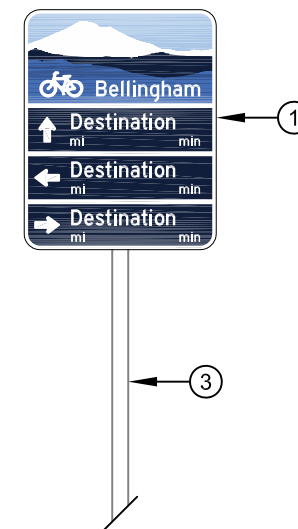
Kim Brown
Transportation Options Coordinator
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kimbrown@cob.org 360.778.7950



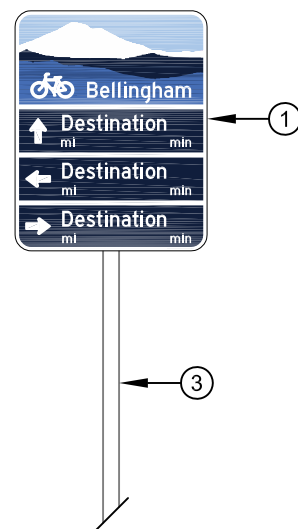
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Seattle, WA 98101
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13 EASTBOUND: NEVADA ST AT TEXAS ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

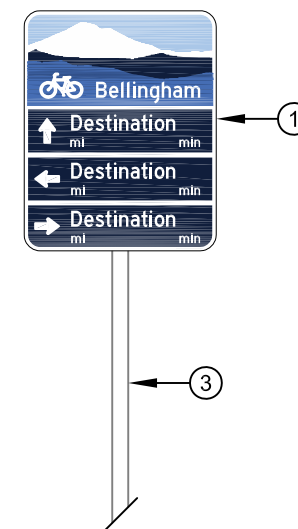


14 WESTBOUND: TEXAS ST AT NEVADA ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



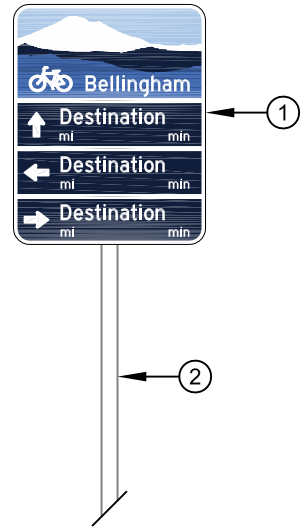
NOTE : PHOTO FROM 2012 GOOGLE STREETVIEW

15 EASTBOUND: TEXAS ST AT ST PAUL ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

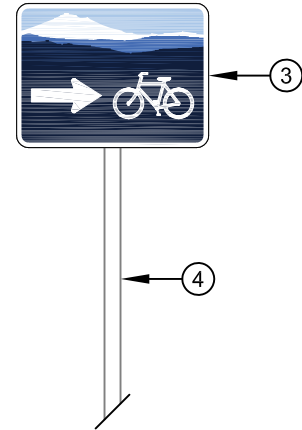
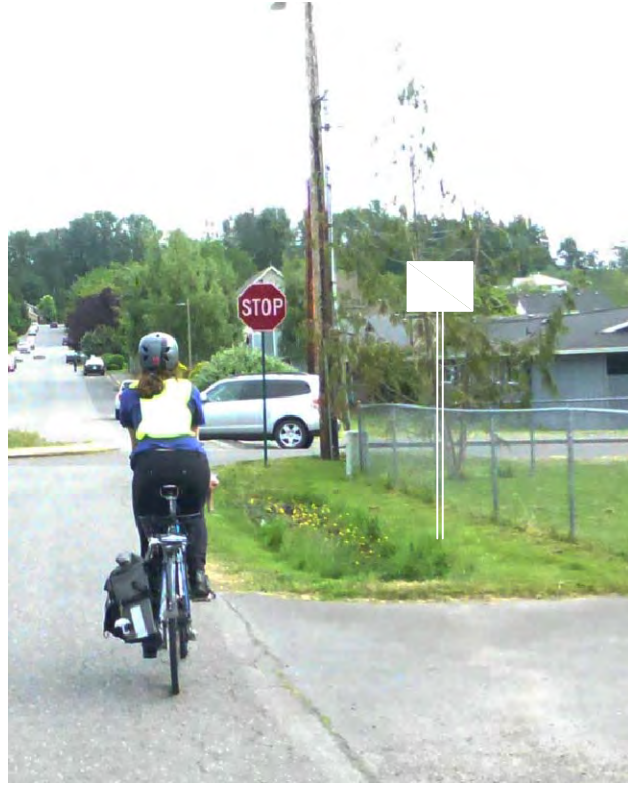


NOTE : PHOTO FROM 2012 GOOGLE STREETVIEW

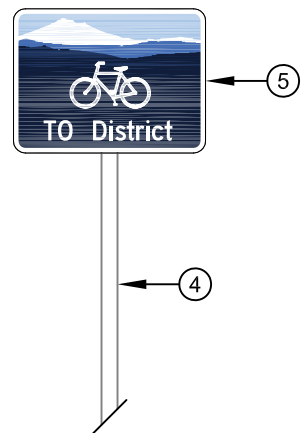
16 WESTBOUND: TEXAS ST AT ST PAUL ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



17 EASTBOUND: TEXAS ST AT MICHIGAN ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

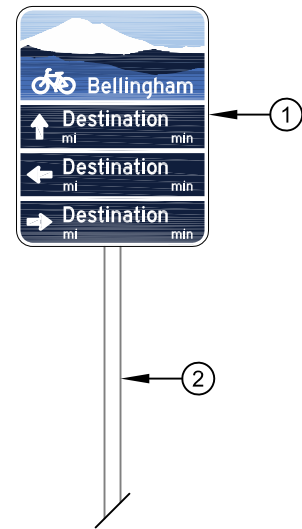


18 WESTBOUND: MICHIGAN ST AT TEXAS ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



NOTE : PHOTO FROM 2012 GOOGLE STREETVIEW

19 WESTBOUND: MICHIGAN ST AT ILLINOIS ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



20 EASTBOUND: MICHIGAN ST AT ILLINOIS ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

Sign Locations 17-20

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Decision Sign Post Detail (SHT 6, DET 1)
- ③ See Turn Sign Detail (SHT 3, DET 2)
- ④ See Turn Sign Post Detail (SHT 6, DET 2)
- ⑤ See Confirmation Sign Detail (SHT 3, DET 1)

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

Kim Brown
Transportation Options Coordinator
Public Works Engineering
kimbrown@cob.org 360.778.7950

Sign Locations 21-24

KEY NOTES

- ① See Turn Sign Detail (SHT 3, DET 2)
- ② See Turn Sign Post Detail (SHT 6, DET 2)
- ③ See Confirmation Sign Detail (SHT 3, DET 1)
- ④ See Confirmation Sign Post Detail (SHT 6, DET 2)

GENERAL NOTES

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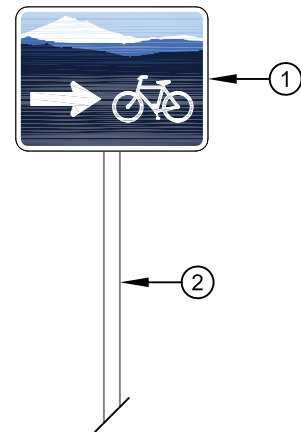
Date	Description
7/12/16	

PROJECT

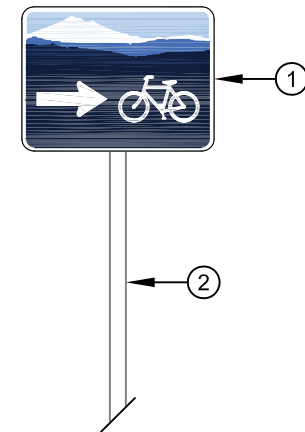
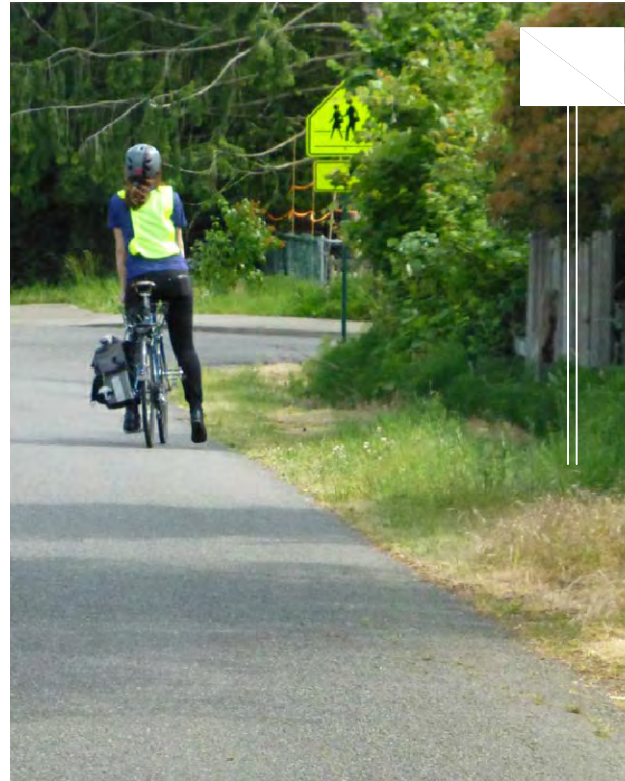
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

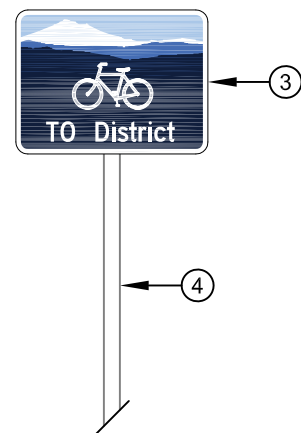
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Public Works Engineering
kimbrown@cob.org 360.778.7950



21 EASTBOUND: ILLINOIS ST AT ST CLAIR ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

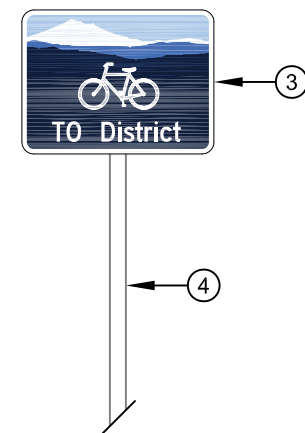


22 WESTBOUND: ST CLAIR ST AT ILLINOIS ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



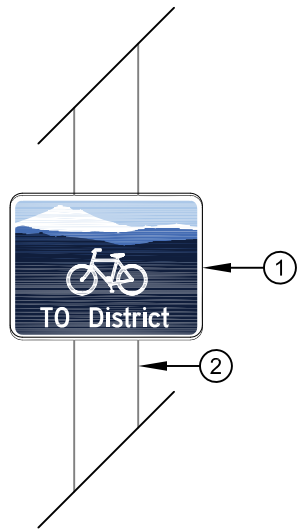
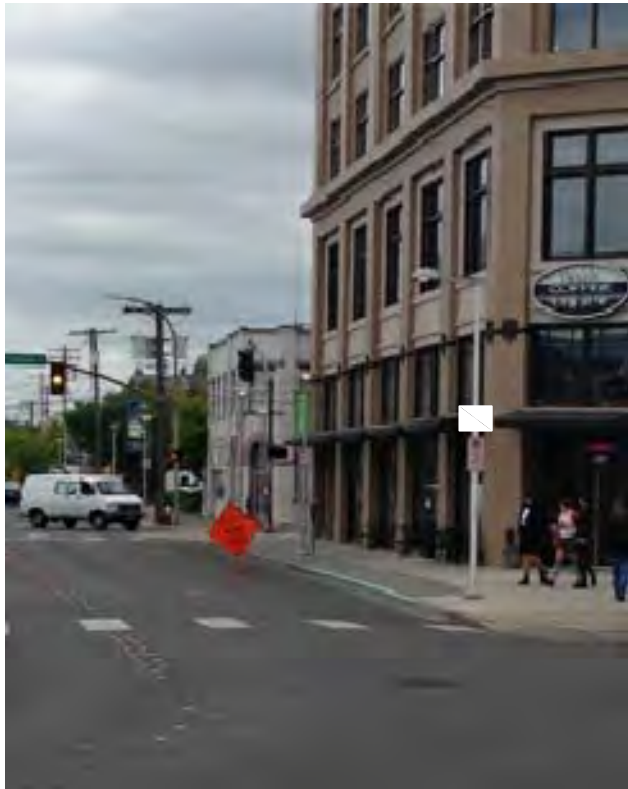
NOTE : LOCATED ON SAME POST AS SIGN #24

23 EASTBOUND: ST CLAIR ST AT RAILROAD TRAIL
ROUTE: DOWNTOWN TO BARKLEY VILLAGE

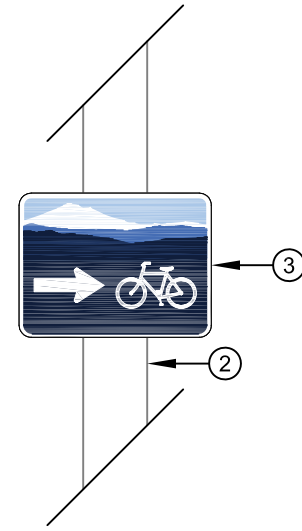


NOTE : LOCATED ON SAME POST AS SIGN #23

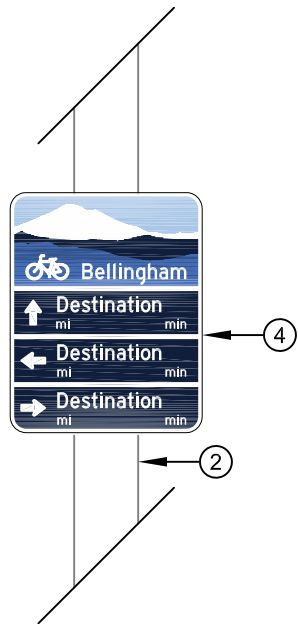
24 WESTBOUND: RAILROAD TRAIL AT ST CLAIR ST
ROUTE: DOWNTOWN TO BARKLEY VILLAGE



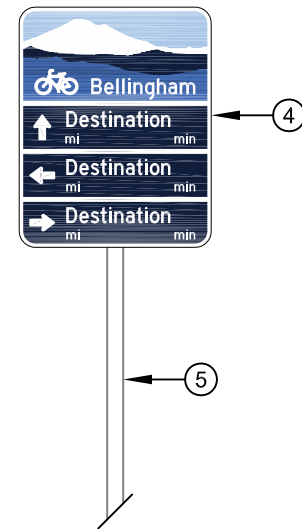
25 NORTHBOUND: PROSPECT ST AT BAY ST
ROUTE: DOWNTOWN TO WHATCOM COMMUNITY COLLEGE (WCC) CAMPUS



26 SOUTHBOUND: PROSPECT ST AT CHAMPION ST
ROUTE: DOWNTOWN TO WCC CAMPUS



27 NORTHBOUND: DUPONT ST AT BROADWAY
ROUTE: DOWNTOWN TO WCC CAMPUS



28 SOUTHBOUND: ELM ST AT BROADWAY
ROUTE: DOWNTOWN TO WCC CAMPUS

Sign Locations 25-28

KEY NOTES

- ① See Confirmation Sign Detail (SHT 3, DET 1)
- ② See Existing Utility Pole Mounting Detail (SHT 7, DET 3)
- ③ See Turn Sign Detail (SHT 3, DET 2)
- ④ See Decision Sign Detail (SHT 2, DET 1)
- ⑤ See Decision Sign Post Detail (SHT 6, DET 1)

GENERAL NOTES

See sign schedule for sign content. Do not place signs beyond the ROW.

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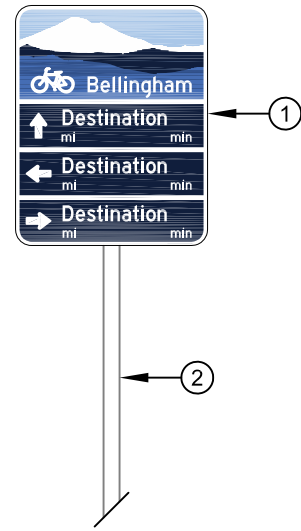
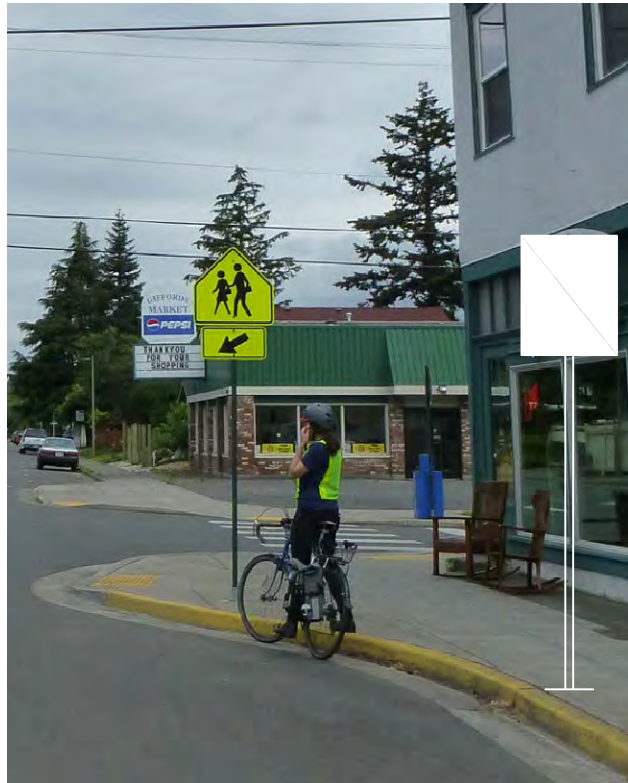
Date	Description
7/12/16	

PROJECT

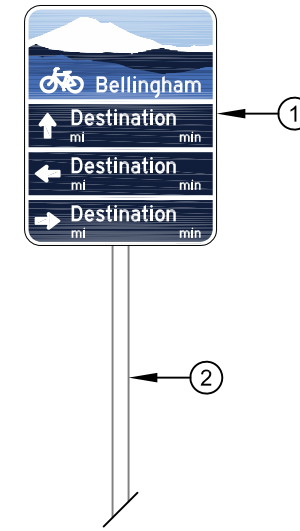
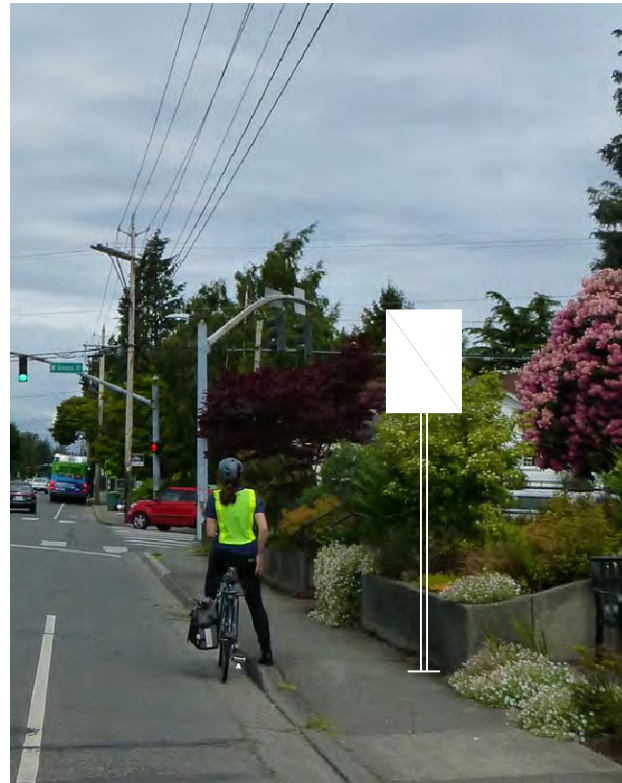
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

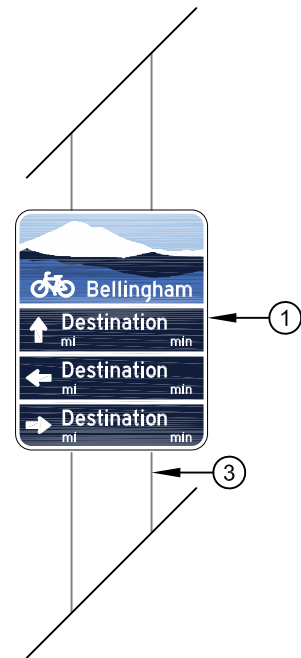
Kim Brown
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kimbrown@cob.org 360.778.7950



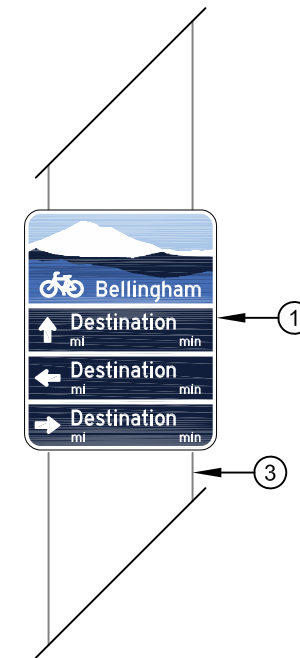
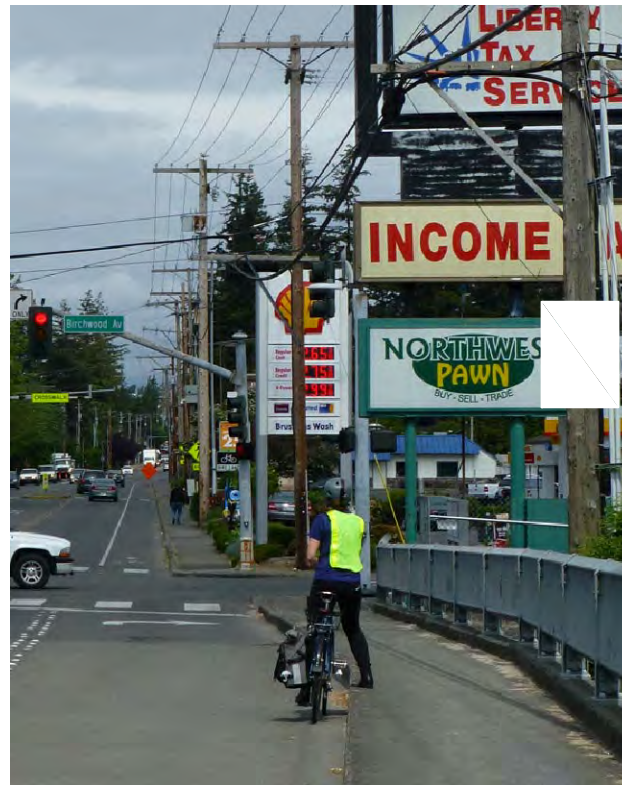
29 NORTHBOUND: ELM ST AT MONROE ST
ROUTE: DOWNTOWN TO WHATCOM COMMUNITY COLLEGE (WCC) CAMPUS



30 NORTHBOUND: NORTHWEST AVE AT ILLINOIS ST
ROUTE: DOWNTOWN TO WCC CAMPUS



31 SOUTHBOUND: NORTHWEST AVE AT ILLINOIS
ROUTE: DOWNTOWN TO WCC CAMPUS



32 NORTHBOUND: NORTHWEST AVE AT BIRCHWOOD AVE
ROUTE: DOWNTOWN TO WCC CAMPUS

Sign Locations 29-32

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Decision Sign Post Detail (SHT 6, DET 1)
- ③ See Existing Utility Pole Mounting Detail (SHT 7, DET 3)

GENERAL NOTES

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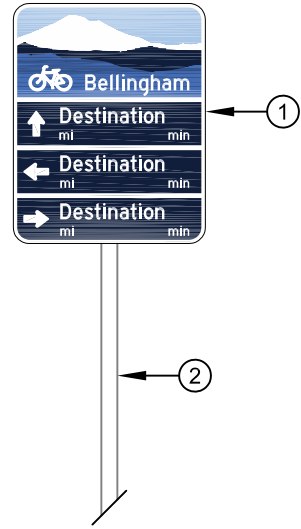
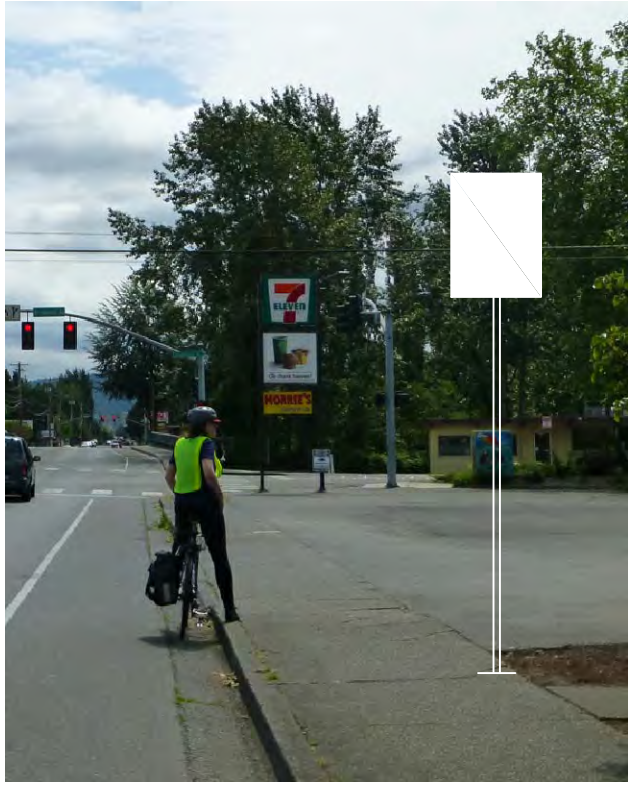
Date	Description
7/12/16	

PROJECT

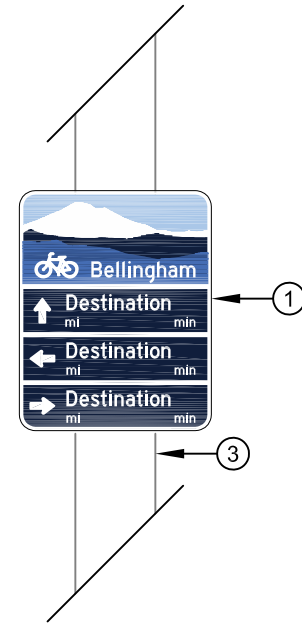
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

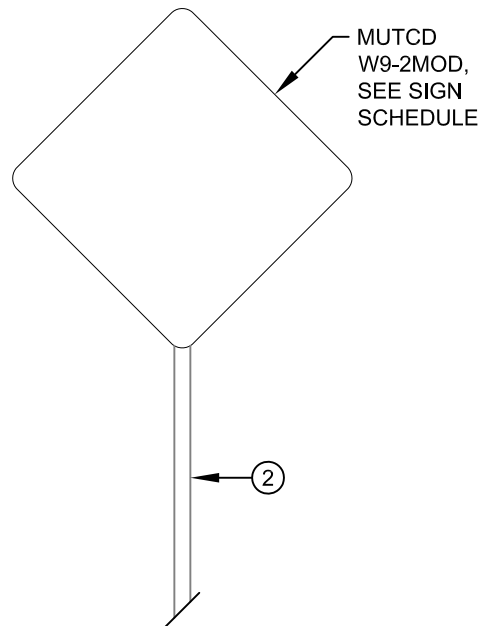
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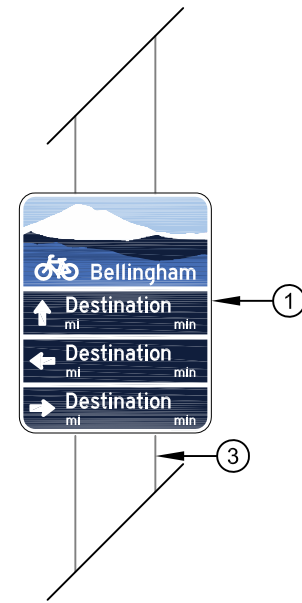
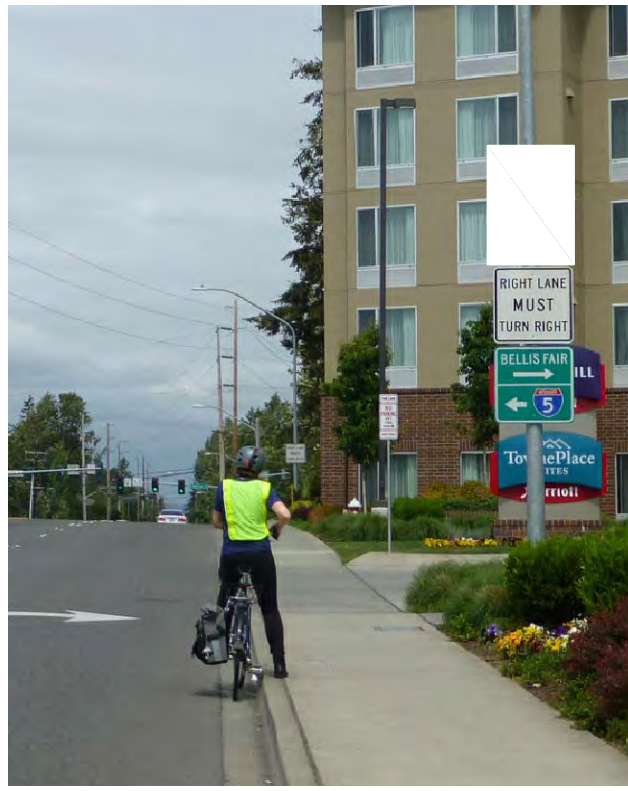
33 SOUTHBOUND: NORTHWEST AVE AT BIRCHWOOD AVE
ROUTE: DOWNTOWN TO WHATCOM COMMUNITY COLLEGE (WCC) CAMPUS



34 NORTHBOUND: NORTHWEST AVE AT STERLING DR
ROUTE: DOWNTOWN TO WCC CAMPUS



35 SOUTHBOUND: NORTHWEST AVE AT STERLING DR
ROUTE: DOWNTOWN TO WCC CAMPUS



36 NORTHBOUND: NORTHWEST AVE AT BAKERVIEW RD
ROUTE: DOWNTOWN TO WCC CAMPUS

Sign Locations 33-36

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Decision Sign Post Detail (SHT 6, DET 1)
- ③ See Existing Utility Pole Mounting Detail (SHT 7, DET 3)

GENERAL NOTES

See sign schedule for sign content. Do not place signs beyond the ROW.

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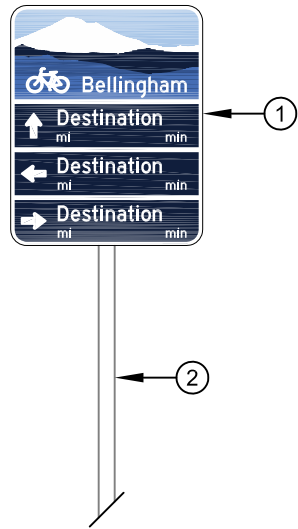
Date	Description
7/12/16	

PROJECT

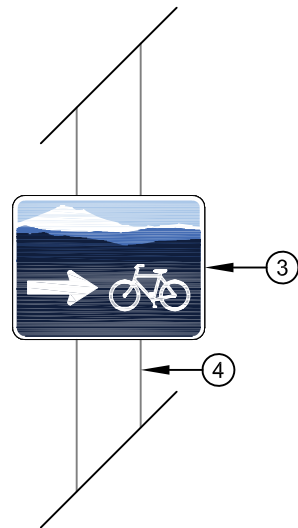
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

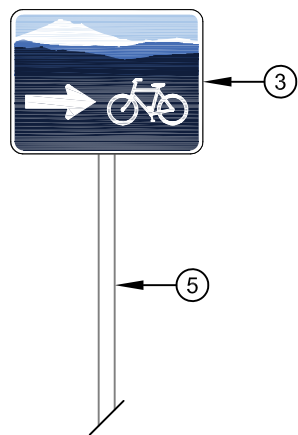
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Public Works Engineering
kimbrown@cob.org 360.778.7950



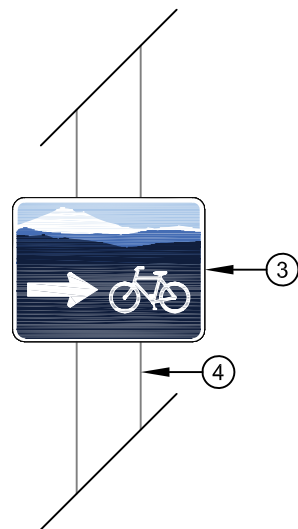
37 SOUTHBOUND: NORTHWEST AVE AT BAKERVIEW RD
ROUTE: DOWNTOWN TO WHATCOM COMMUNITY COLLEGE (WCC) CAMPUS



38 NORTHBOUND: NORTHWEST AVE AT ALDRICH RD
ROUTE: DOWNTOWN TO WCC CAMPUS



39 SOUTHBOUND: ALDRICH RD AT NORTHWEST AVE
ROUTE: DOWNTOWN TO WCC CAMPUS



40 NORTHBOUND: ALDRICH RD AT JUNE RD
ROUTE: DOWNTOWN TO WCC CAMPUS

Sign Locations 37-40

KEY NOTES

- ① See Decision Sign Detail (SHT 2, DET 1)
- ② See Decision Sign Post Detail (SHT 6, DET 1)
- ③ See Turn Sign Detail (SHT 3, DET 2)
- ④ See Existing Utility Pole Mounting Detail (SHT 7, DET 3)
- ⑤ See Turn Sign Post Detail (SHT 6, DET 2)

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

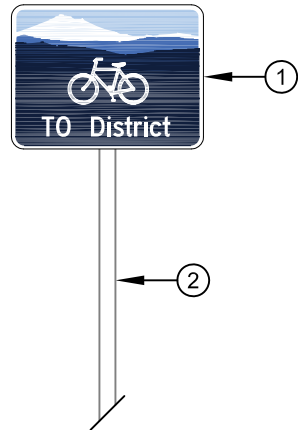
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

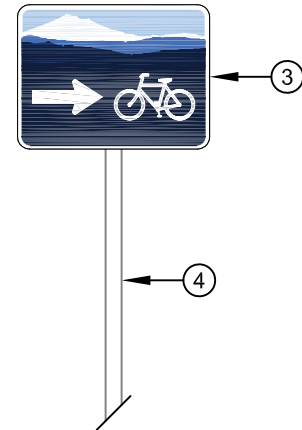
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kimbrown@cob.org 360.778.7950



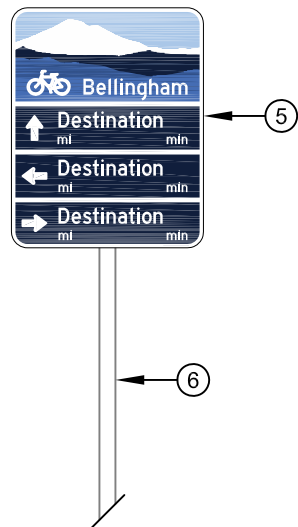
Alta Planning + Design
1402 Third Ave #206
Seattle, WA 98101
ph: 206.735.7466



41 SOUTHBOUND: ALDRICH RD AT JUNE RD
ROUTE: DOWNTOWN TO WHATCOM COMMUNITY COLLEGE (WCC) CAMPUS



42 SOUTHBOUND: JUNE RD AT ALDRICH RD
ROUTE: DOWNTOWN TO WCC CAMPUS



43 NORTHBOUND: JUNE RD AT KELLOGG RD
ROUTE: DOWNTOWN TO WCC CAMPUS

Sign Locations 41-43

KEY NOTES

- ① See Confirmation Sign Detail (SHT 3, DET 1)
- ② See Confirmation Sign Post Detail (SHT 6, DET 2)
- ③ See Turn Sign Detail (SHT 3, DET 2)
- ④ See Turn Sign Post Detail (SHT 6, DET 2)
- ⑤ See Decision Sign Detail (SHT 2, DET 1)
- ⑥ See Decision Sign Post Detail (SHT 6, DET 1)

GENERAL NOTES

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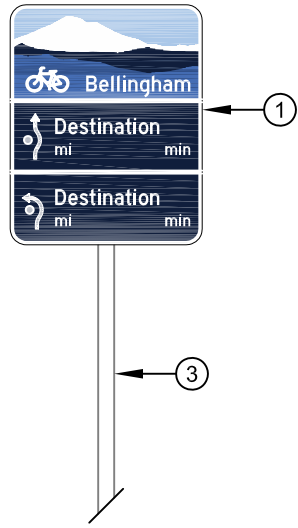
Date	Description
7/12/16	

PROJECT

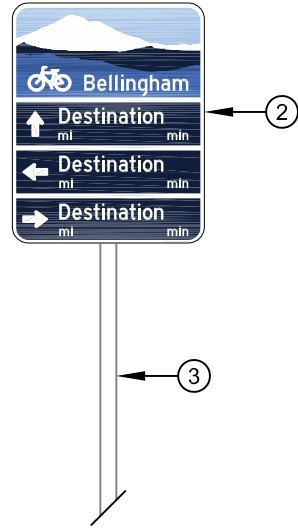
**Bellingham Bicycle
Wayfinding System**

PROJECT OWNER

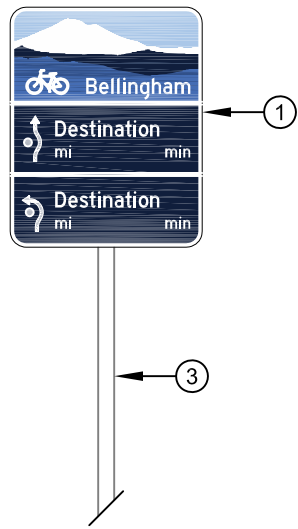
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Public Works Engineering
kimbrown@cob.org 360.778.7950



44 SOUTHBOUND: STATE ST AT WHARF ST
WHARF ST ROUNDABOUT



45 NORTHBOUND: WHARF ST AT S BAY TRAIL
WHARF ST ROUNDABOUT



46 NORTHBOUND: BOULEVARD AT WHARF ST
WHARF ST ROUNDABOUT

Sign Locations 44-46

KEY NOTES

- ① See Decision Sign at Roundabouts Detail (SHT 2, DET 2)
- ② See Decision Sign Detail (SHT 2, DET 1)
- ③ See Decision Sign Post Detail (SHT 6, DET 1)

GENERAL NOTES

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Date	Description
7/12/16	

PROJECT

Bellingham Bicycle
Wayfinding System

PROJECT OWNER

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Public Works Engineering
kimbrown@cob.org 360.778.7950

Sign No.	Sign Type	Arrows	Destinations	Distance/Time		Installation Location Detail (Sheet #)
1	Decision	↖	Fountain District	0.8 mi	5 min	8
		↖	Railroad Trail	1.6 mi	10 min	
		↖	Barkley Village	2.5 mi	15 min	
2	Decision	↑	Waterfront	0.5 mi	3 min	8
		←	Bus Station	0.2 mi	1 min	
		←	WWU Campus	1.2 mi	7 min	
3	Turn	↗		N/A	N/A	8
4	Decision	↑	Fountain District	0.6 mi	4 min	8
		→	Railroad Trail	1.3 mi	8 min	
		→	Barkley Village	2.2 mi	13 min	
5	Decision	←	Civic Center	0.1 mi	1 min	9
		←	Bus Station	0.5 mi	3 min	
		→	Fountain District	0.6 mi	4 min	
6	Decision	↑	Railroad Trail	1.1 mi	7 min	9
		↑	Barkley Village	2.0 mi	12 min	
		←	Cornwall Park	0.9 mi	5 min	
7	Decision	↖	Downtown	0.1 mi	1 min	9
		↖	Fountain District	0.7 mi	4 min	
		→	Cornwall Park	0.9 mi	5 min	
8	Decision	↑	Railroad Trail	0.9 mi	5 min	9
		↑	Barkley Village	1.8 mi	11 min	
		→	Sports Complex	1.1 mi	7 min	
9	Decision	↑	Whatcom Falls	1.2 mi	7 min	10
		↑	Barkley Village	1.4 mi	8 min	
		←	Railroad Trail	0.5 mi	3 min	
10	Turn	←		N/A	N/A	10
11	Confirmation		To Downtown	N/A	N/A	10
12	Confirmation		To Downtown	N/A	N/A	10
13	Decision	←	Railroad Trail	0.3 mi	2 min	11
		→	Roosevelt Park	0.6 mi	4 min	
		→	Barkley Village	1.0 mi	6 min	
14	Decision	↑	Railroad Trail	0.3 mi	2 min	11
		↑	Memorial Park	0.4 mi	2 min	
		←	Downtown	1.2 mi	7 min	

SHEET

20

Sign Schedule,
Signs 1-14

KEY NOTES

GENERAL NOTES

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Date

Description

7/12/16

PROJECT

Bellingham Bicycle
Wayfinding System

PROJECT OWNER

Kim Brown

Transportation Options Coordinator

Public Works Engineering

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Seattle, WA 98101

ph: 206.735.7466

Sign No.	Sign Type	Arrows	Destinations	Distance/Time		Installation Location Detail (Sheet #)
15	Decision	↑	Roosevelt Park	0.3 mi	2 min	11
		←	Railroad Trail	0.3 mi	2 min	
		←	Barkley Village	0.7 mi	4 min	
16	Decision	↑	Downtown	1.5 mi	9 min	11
		→	Railroad Trail	0.3 mi	2 min	
		→	Barkley Village	0.3 mi	2 min	
17	Decision	←	Railroad Trail	0.9 mi	5 min	12
		←	Bloedel Donovan	2.7 mi	16 min	
		→	Whatcom Falls	0.5 mi	3 min	
		→		N/A	N/A	12
			To Downtown	N/A	N/A	12
20	Decision	←	Barkley Village	0.3 mi	2 min	12
		→	Whatcom Falls	1.9 mi	11 min	
		→	Bloedel Donovan	2.2 mi	13 min	
21	Turn	←		N/A	N/A	13
22	Turn	→		N/A	N/A	13
23	Confirmation		To Railroad Trail	N/A	N/A	13
	Confirmation		To Downtown	N/A	N/A	13
	Confirmation		To WCC Campus	N/A	N/A	14
24	Turn	→		N/A	N/A	14
27	Decision	↑	Fountain District	0.1 mi	1 min	14
		←	BTC Campus	1.4 mi	8 min	
		→	Railroad Trail	1.4 mi	8 min	
28	Decision	↑	Downtown	0.4 mi	2 min	14
		→	Elizabeth Park	0.1 mi	1 min	
		→	Waterfront	0.5 mi	3 min	
29	Decision	↑	Bellis Fair	2.5 mi	15 min	15
		↑	WCC Campus	3.1 mi	19 min	
		←	Squalicum Park	0.9 mi	5 min	
30	Decision	↑	WCC Campus	2.7 mi	16 min	15
		→	Hospital	1.1 mi	7 min	
		→	Railroad Trail	1.7 mi	10 min	
31	Decision	↑	Downtown	1.0 mi	6 min	15
		←	Barkley Village	2.1 mi	13 min	
		→	Squalicum Park	0.8 mi	5 min	

SHEET

21

Sign Schedule,
Signs 15-31

KEY NOTES

GENERAL NOTES

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Date

Description

7/12/16

PROJECT

Bellingham Bicycle
Wayfinding System

PROJECT OWNER

Kim Brown

Transportation Options Coordinator

Public Works Engineering

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1402 Third Ave #206

Seattle, WA 98101

ph: 206.735.7466

Sign No.	Sign Type	Arrows	Destinations	Distance/Time		Installation Location Detail (Sheet #)
32	Decision	↑	WCC Campus	2.2 mi	13 min	15
		←	BTC Campus	1.1 mi	7 min	
		→	Hospital	1.2 mi	7 min	
33	Decision	↑	Downtown	1.5 mi	9 min	16
		←	Hospital	1.2 mi	7 min	
		→	BTC Campus	1.1 mi	7 min	
34	Decision	↑	WCC Campus	1.3 mi	8 min	16
		↑	Soccer Park	3.6 mi	22 min	
		→	Bellis Fair	0.6 mi	4 min	
35	Warning		Bikes Merge Left	N/A	N/A	
36	Decision	↑	WCC Campus	1.0 mi	6 min	16
		↑	Soccer Park	3.3 mi	20 min	
		←	Airport	1.6 mi	10 min	
37	Decision	↑	Downtown	2.7 mi	16 min	17
		←	Bellis Fair	0.7 mi	4 min	
		→	Airport	1.6 mi	10 min	
38	Turn	→		N/A	N/A	17
39	Turn	←		N/A	N/A	17
40	Turn	→		N/A	N/A	17
41	Confirmation		To Downtown	N/A	N/A	18
42	Turn	←		N/A	N/A	18
43	Decision	→	WCC Campus	0.1 mi	1 min	18
		→	Cordata Station	0.7 mi	4 min	
		→	Bellis Fair	0.8 mi	5 min	
44	Decision	*↑	Boulevard Park	1.1 mi	7 min	19
		*→	South Bay Trail	0.1 mi	1 min	
45	Decision	↑	Waterfront	0.2 mi	1 min	19
		←	Fairhaven	2.0 mi	12 min	
		→	Downtown	0.2 mi	1 min	
46	Decision	*←	Downtown	0.3 mi	2 min	19
		*←	Depot Market	0.4 mi	2 min	

NOTES

* Roundabout specific arrows

MUTCD compliant roadway signs - not a part of the wayfinding sign package

All sign locations will need to be vetted individually before sign fabrication. Consider visibility (bicycle and pedestrian circulation), grading around the sign, vegetation, clearance for walk-up viewing (ADA accessibility), and overall dimensions and context of the site. Ensure sightlines remain clear for all modes traveling on adjacent paths and roadways. Also consider permission/permitting from DOT or property owners.

Destinations to be organized by arrow direction in the following order: ↑ ← →

SHEET22

Sign Schedule, Signs 32-46

KEY NOTES

GENERAL NOTES

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Date

Description

7/12/16

PROJECT

Bellingham Bicycle Wayfinding System

PROJECT OWNER

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Transportation Options Coordinator

Public Works Engineering

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Seattle, WA 98101

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Bellingham Wayfinding Final Destination List

Level	Destination	Measure To	Sign Name	Length
1	Barkley Village	Boundary	Barkley Village	15
1	Bellingham Technical College	Boundary	BTC Campus	10
1	Bellis Fair Mall	Boundary	Bellis Fair	11
1	Downtown	Boundary	Downtown	8
1	Fairhaven	Boundary	Fairhaven	9
1	Fairhaven Transportation Center	Boundary	Transportation Hub	18
1	Fountain District	Boundary	Fountain District	17
1	Old Town	Boundary	Old Town	8
1	Samish Urban Village	Boundary	Samish Way	10
1	St. Joseph Hospital	Boundary	Hospital	8
1	Waterfront	Boundary	Waterfront	10
1	Western Washington University	Boundary	WWU Campus	11
1	Whatcom Community College	Boundary	WCC Campus	10
1	WTA Bellingham Station	Point	Bus Station	11
1	WTA Cordata Station	Point	Bus Station	11
2	Airport	Point	Airport	7
2	Bayview Cemetery	Point	Cemetery	8
2	Bellingham Central Library	Point	Library	7
2	Bellingham HS	Point	Bellingham HS	13
2	Bloedel Donovan Park	Point	Bloedel Donovan	15
2	Boulevard Park	Point	Boulevard Park	14
2	Civic Athletic Complex	Point	Sports Complex	14
2	Cornwall Park	Point	Cornwall Park	13
2	Courthouse	Point	Courthouse	10
2	Depot Market	Point	Depot Market	12
2	Fairhaven MS	Point	Fairhaven MS	12
2	Fairhaven Park	Point	Fairhaven Park	14
2	Fairhaven Village Green	Point	Village Green	13
2	Galbraith Mountain - Birch St Trailhead	Point	Galbraith Mtn	13
2	Galbraith Mountain - Padden Trail Head	Point	Galbraith Mtn	13
2	Interurban Trail	Point	Interurban Trail	16
2	Kulshan MS	Point	Kulshan MS	10
2	Lake Padden Park	Point	Lake Padden	11
2	Lake Whatcom	Boundary	Lake Whatcom	12
2	Lincoln Street Park & Ride	Point	Park & Ride	11
2	Marine Park	Point	Marine Park	11
2	Maritime Heritage Park	Point	Maritime Heritage	16
2	Mt Baker Theater	Point	Mt Baker Theater	16
2	NW Indian College	Point	Lummi Nation	12
2	Railroad Trailhead	Point	Railroad Trail	14
2	Sehome Arboretum	Point	Sehome Arboretum	16
2	Sehome HS	Point	Sehome HS	9
2	Senior Center	Point	Senior Center	13
2	Shuksan MS	Point	Shuksan MS	10

Level	Destination	Measure To	Sign Name	Length
2	South Bay Trailhead	Point	South Bay Trail	15
2	Squalicum Fields Park	Point	Squalicum Fields	16
2	Squalicum Harbor	Point	Squalicum Harbor	16
2	Squalicum HS	Point	Squalicum HS	12
2	Visitor Info (<i>Downtown location</i>)	Point	Visitor Info	12
2	Visitor Info (<i>Potter St location</i>)	Point	Visitor Info	12
2	Whatcom Falls Park	Point	Whatcom Falls	13
2	Whatcom MS	Point	Whatcom MS	10
2	Whatcom Museum	Point	Whatcom Museum	14
3	Alderwood ES	Point	Alderwood ES	12
3	Barkley Library	Point	Library	7
3	Bellingham Downtown Post Office	Point	Post Office	11
3	Bellingham Food Bank	Point	Food Bank	9
3	Big Rock Garden Park	Point	Big Rock Garden	15
3	Birchwood Center	Point	Birchwood Center	16
3	Birchwood ES	Point	Birchwood ES	12
3	Birchwood Neighborhood Park	Point	Birchwood Park	14
3	Broadway Park	Point	Broadway Park	13
3	Carl Cozier ES	Point	Carl Cozier ES	14
3	Carl Lobe Neighborhood Park	Point	Carl Lobe Park	14
3	City Hall	Point	City Hall	9
3	Columbia ES	Point	Columbia ES	11
3	Cordata ES	Point	Cordata ES	10
3	Cordata Park	Point	Cordata Park	12
3	Elizabeth Park	Point	Elizabeth Park	14
3	Fairhaven Library	Point	Library	7
3	Ferndale*	Point	Ferndale*	9
3	Fouts Neighborhood Park	Point	Fouts Park	10
3	Franklin Park	Point	Franklin Park	13
3	Geneva ES	Point	Geneva ES	9
3	Geneva*	Point	Geneva*	7
3	Happy Valley ES	Point	Happy Valley ES	15
3	Lake Samish Park	Point	Lake Samish Park	16
3	Lakeway Center	Point	Lakeway Center	14
3	Larrabee State Park*	Boundary	Larrabee Park	13
3	Laurel Neighborhood Park	Point	Laurel Park	11
3	Little Squalicum Park	Point	Little Squalicum	16
3	Lowell ES	Point	Lowell ES	9
3	Lynden*	Point	Lynden*	7
3	Memorial Park	Point	Memorial Park	13
3	Mount Baker Post Office	Point	Post Office	11
3	Northern Height ES	Point	N Heights ES	12
3	Northridge Park	Point	Soccer Park	11
3	Northwest Soccer Park	Point	Northwest Way	13
3	Parkiew ES	Point	Parkiew ES	10
3	Roosevelt ES	Point	Roosevelt ES	12

Level	Destination	Measure To	Sign Name	Length
3	Roosevelt Park	Point	Roosevelt Park	14
3	Sehome Village	Point	Sehome Village	14
3	Silver Beach ES	Point	Silver Beach ES	15
3	Sudden Valley*	Point	Sudden Valley*	14
3	Sunnyland ES	Point	Sunnyland ES	12
3	Sunnyland Neighborhood Park	Point	Sunnyland Park	14
3	Sunnyland Square	Point	Sunnyland Square	16
3	Sunset Square	Point	Sunset Square	13
3	Wade King ES	Point	Wade King ES	12
3	Zuanich Point Park	Point	Zuanich Point	13