



JEFFCO REGIONAL BIKEWAYS
**WAYFINDING
GUIDE** OCTOBER 2016



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- A Wayfinding Issues and Opportunities
- B Best Practices and Case Studies
- C Regional Destinations



JEFFCO REGIONAL BIKEWAYS WAYFINDING

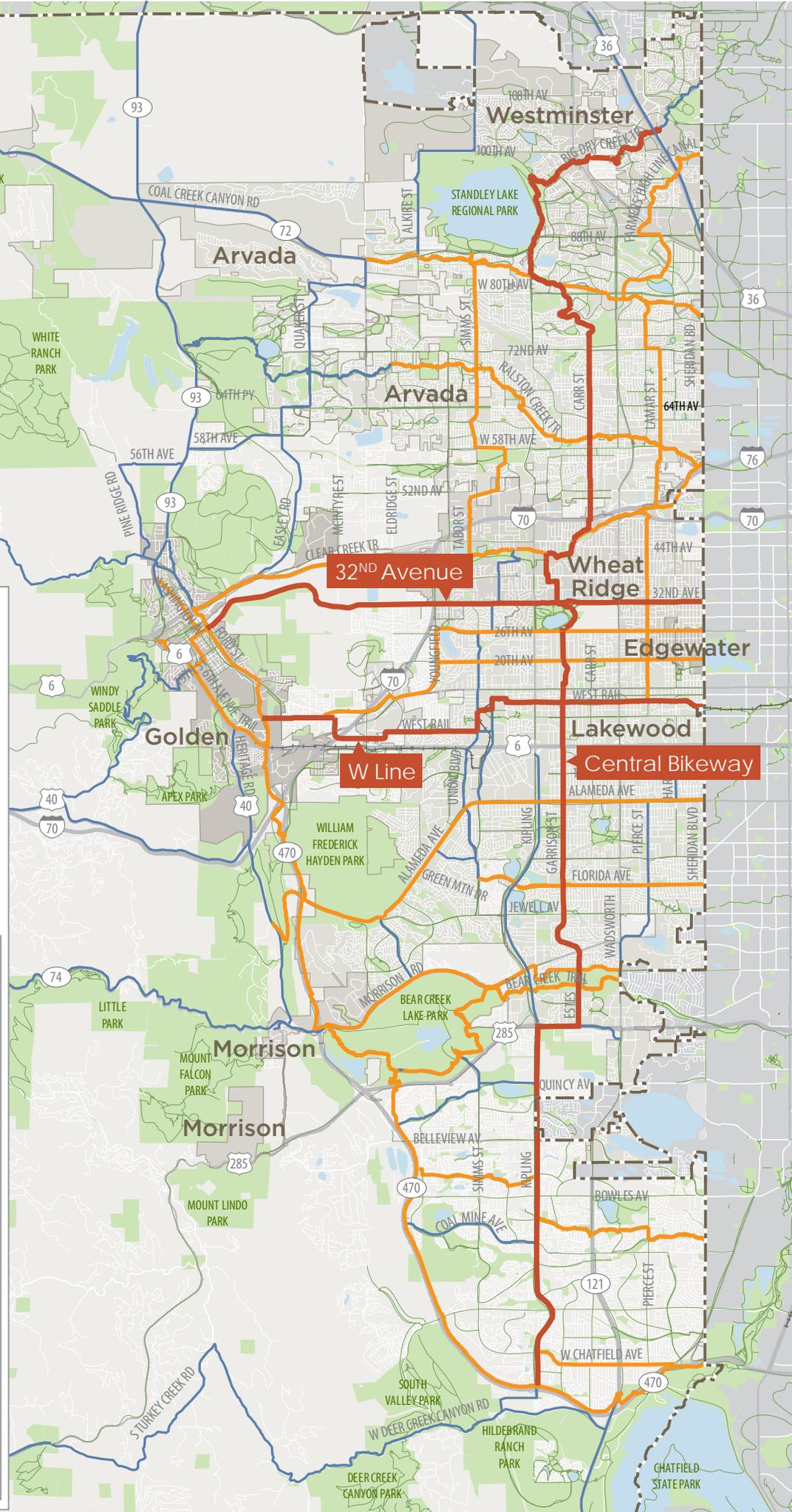
EXECUTIVE SUMMARY

Figure 1:
Regional Wayfinding Routes

Regional Wayfinding Routes

- Priority 1
- Priority 2
- Priority 3

- Existing Bicycle Facility
- Jefferson County Boundary
- Municipal Boundary



EXECUTIVE SUMMARY

OVERVIEW

The Jeffco Regional Bikeways Wayfinding Guide has been prepared collaboratively with county and municipal agencies, stakeholder groups and the general public. This guide serves as a toolkit for the development of a regional wayfinding network. When implemented, the wayfinding signs will be a core component of the well-used, more intuitively navigable, and memorable Jeffco Regional Bikeway network.

Purpose

The purpose of the Jefferson County Regional Bikeways Wayfinding project is to establish a clear visual language and universal graphic standards to guide residents and visitors along regional bikeways and to destinations.

Vision

Through clear and consistent messaging and placement, the Jeffco Regional Bikeways wayfinding network will provide seamless navigation along on- and off-street regional bikeways and to regional destinations.

PROCESS

The Jeffco Regional Bikeways Wayfinding Guide planning process consisted of three phases:

1

Project Discovery: In this phase of work, related planning initiatives and existing condition information was collected and analyzed, community audits were conducted, and best practices were documented.

2

Wayfinding System Development: In this phase of work, regional bikeway routes (see figure 1) and destinations were identified and prioritized, the landmark and wayfinding signs were designed and sign locations and messaging were determined for the Priority 1 wayfinding routes.

3

Wayfinding Guide Development: In this phase of work, the wayfinding guide was created to document the planning process, recommendations, and implementation guidance.

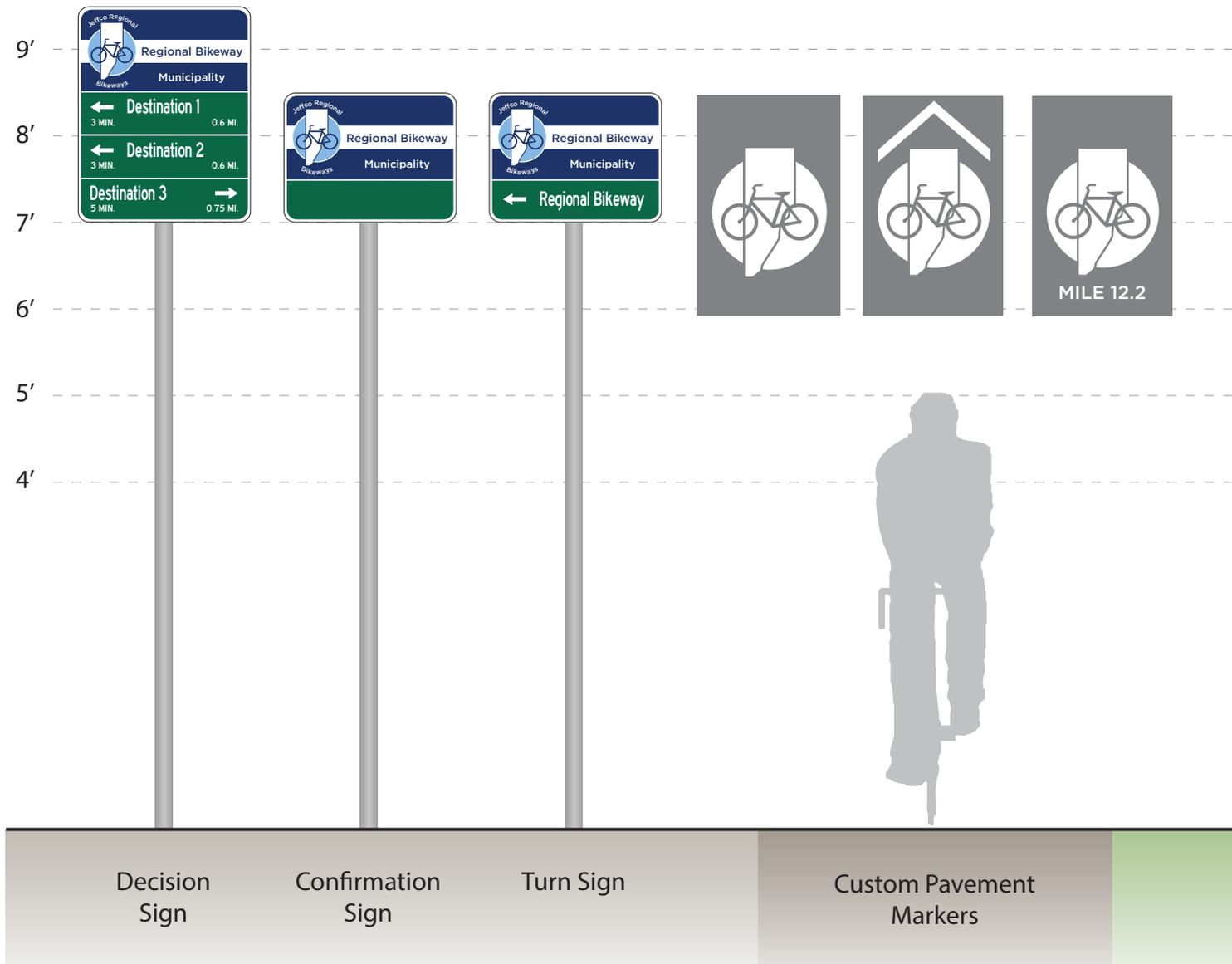
Input from the Project Management Team (PMT), Project Advisory Committee (PAC), stakeholders, and public was key to the development of this guide and each phase. Input and guidance was solicited through meetings, an online survey, an online mapping tool, and a pop-up wayfinding event.

KEY RECOMMENDATIONS

Key recommendations are included in this guide to document the outcome of the planning process and to serve as a guide for future programming and implementation of Jeffco Regional Bikeways Wayfinding. Key recommendations include:

- Jeffco Regional bikeways and destinations should be consistently identified and prioritized.
- Wayfinding placement and programming direction should be intuitive, consistent, and enhance navigability along Jeffco Regional Bikeways and to regional destinations.
- Use of Jeffco Regional Bikeways brandmark and of wayfinding signs should be consistent.
- Wayfinding signs should boldly and clearly communicate “Jefferson County Regional Bikeways,” be MUTCD compliant, and reflect local sign shop fabrication capabilities.

Figure 2: Jeffco Regional Bikeways Wayfinding Family of Elements



HOW TO USE THE GUIDE

The guide has been divided into two sections, each describing a particular aspect of the wayfinding network. The two sections are described below:

1

Section 1: Foundations for Jeffco Regional Bikeway Wayfinding Establishes a basis for this initiative and the components of the regional wayfinding system by providing an overview of the project, planning process, existing conditions and wayfinding principles.

2

Section 2: Jeffco Regional Bikeways Wayfinding Toolkits

Outlines and defines each component of the wayfinding network, how each component was identified, and provides technical guidance. This section was developed so that it can be used as a standalone reference as the county and municipalities move forward with programming and implementation.



Modified
Decision Sign



Modified
Confirmation Sign



Modified
Turn Sign



Supplemental
Marker



Supplemental
Mile Marker



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SECTION 1: JEFFCO REGIONAL BIKEWAYS

WAYFINDING FOUNDATIONS



1.1 INTRODUCTION

OVERVIEW

This wayfinding initiative stems from the recognition of the growing importance and value of alternative transportation within Jefferson County and throughout the region. In Jefferson County, residents and visitors are increasingly choosing a combination of alternative transportation modes within a single trip, including walking, bicycling, light rail, commuter rail and/or bus. The growing demand for alternative transportation, close proximity of municipalities, numerous regional trails that span several jurisdictions and popularity of the county's existing bikeways for both recreation and daily travel reinforce the need to establish wayfinding signs to guide residents and visitors to destinations throughout the county.

As the county and municipalities continue to build infrastructure supporting alternative transportation, a comprehensive wayfinding system is envisioned to benefit the county by enhancing quality of life, promoting economic development, improving navigability, and creating a positive travel experience along Jeffco Regional Bikeways.

The project was funded by federal transportation funds and was prepared collaboratively with input and guidance from staff and stakeholders from Lakewood, Arvada, Edgewater, Golden, Westminster, Wheat Ridge, Jefferson County, and the Colorado Department of Transportation.

(Opposite page) During July 2016, temporary wayfinding signs were located along a pop-up wayfinding route in Arvada, comprised of both on- and off-street facilities.

What is wayfinding?

Wayfinding guides people along routes and to destinations and enhances their ability to understand and experience places and networks. A bicycle wayfinding system is comprised of elements such as signs and markers that create awareness of the bicycle systems and establishes enhanced navigability along the bikeways and to destinations.



PURPOSE

The purpose of the Jefferson County Regional Bikeways Wayfinding project is to establish a clear visual language and universal graphic standards to guide residents and visitors along regional bikeways and to destinations.

OBJECTIVES

The following objectives for Jeffco Regional Bikeways wayfinding were developed through input from the Project Management Team (PMT), Project Advisory Committee (PAC) and stakeholders.

1

Develop wayfinding signs that boldly and clearly communicate “Jefferson County Regional Bikeways,” are compliant with the *Manual on Uniform Traffic Control Devices (MUTCD)*, and reflect local sign shop fabrication capabilities.

2

Define Jeffco Regional Bikeways within the larger context of existing on- and off-street facilities. The brandmark and signing should be bold and consistent to stand out among other branding and signage.

3

Establish consistent wayfinding placement and programming that is intuitive and enhances navigability along regional bikeways to regional destinations and provides confirmation to encourage users who are on the designated route.

4

Provide clear guidance for municipalities to place, program and implement Jeffco Regional Bikeways wayfinding signs.

PLANNING PROCESS

The Jeffco Regional Bikeways Wayfinding Guide has been prepared using a collaborative planning process that included extensive input from the PMT, PAC, stakeholders, and larger public. The process is outlined in Figure 1.1.

The process included monthly meetings with the PMT, two PMT/PAC meetings and two PMT/PAC/stakeholder meetings. Meetings were supplemented with additional opportunities for input, including an online survey and mapping tool and a temporary demonstration event. This input established a vision for the network, guided the identification and prioritization of Jeffco Regional Bikeways and destinations, and informed the development of the brandmark and wayfinding elements.

CREATING A VISION FOR JEFFCO REGIONAL BIKEWAYS WAYFINDING

To develop a vision for this planning process and Jeffco Regional Bikeway Wayfinding, members of the PMT, PAC and stakeholder group were asked to describe bicycling in Jefferson County and their ideal wayfinding network.

Participants commonly described biking in Jefferson County as:

- Diverse
- Disconnected
- Great opportunities
- Untapped potential

Participants commonly described the ideal wayfinding system as:

- Simple
- Uniform
- Intuitive
- Integrated

From this exercise, input was organized into the following vision statement:

Through clear and consistent messaging and placement, the Jeffco Regional Bikeways wayfinding network will provide seamless navigation along on- and off-street regional bikeways and to regional destinations.

Figure 1.1: Planning Process



ESTABLISHING GUIDANCE FOR THE IDENTIFICATION AND PRIORITIZATION OF JEFFCO REGIONAL BIKEWAY WAYFINDING ROUTES AND DESTINATIONS

Jeffco Regional Bikeways were identified through an iterative process with input from the PMT, PAC, stakeholders and the public. Preliminary regional bikeways were identified at the kick-off meeting and through use of an interactive online mapping tool. Regional bikeways were further refined through development of identification and prioritization criteria.

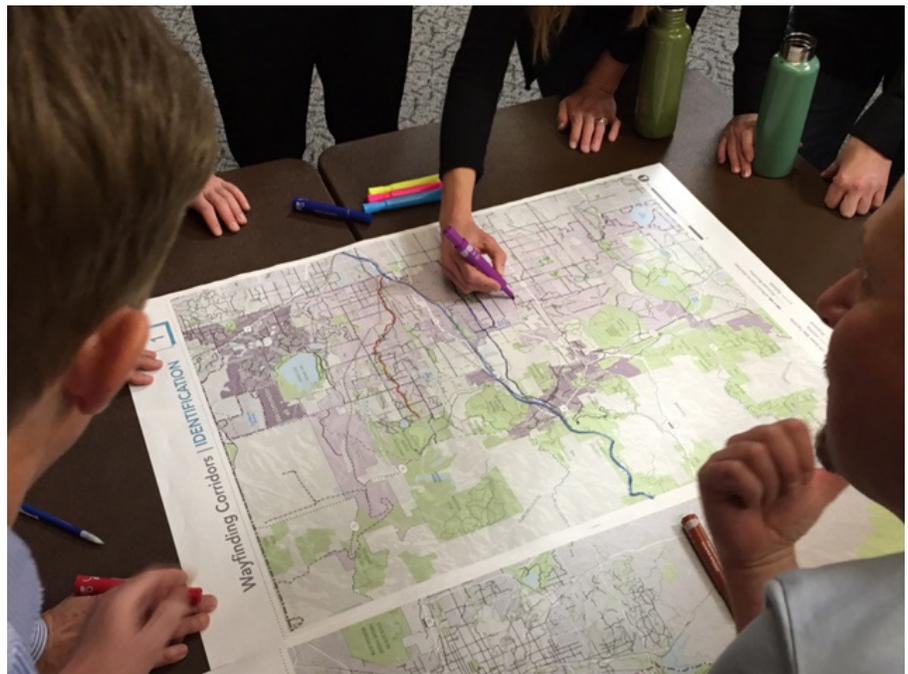
To identify destinations, the planning team developed guidelines for selecting destinations along Jeffco Regional Bikeways. These guidelines were refined by the PMT and PAC. Upon finalization of destination selection guidelines, the county and local municipalities identified regional destinations throughout Jefferson County.

See section 2.1: Regional Wayfinding Routes for a description of Jeffco Regional Bikeway route identification and prioritization.

See Section 2.2: Regional Destinations for a description of regional destination identification and prioritization.



PMT, PAC and stakeholder members provided guidance that informed the identification and prioritization of regional bikeways.



ESTABLISHING GUIDANCE FOR THE DEVELOPMENT OF THE BRANDMARK AND WAYFINDING SIGNS

Visual preference surveys were conducted with the PMT, PAC and stakeholders to establish direction for branding and sign design. By placing stickers on images, participants indicated their preference for the look of these elements. Input directed the planning team to develop branding that is **iconic, uses bold, clear fonts and colors that stand out and compliment the existing Jefferson County color palate**. Participants also indicated a desire to develop wayfinding elements that include custom branding, are MUTCD compliant and can be fabricated in-house by county and municipal sign shops.

To ensure wayfinding signs matched in-house fabrication capabilities, staff were interviewed to understand each sign shop's capabilities.

Three concepts for both the Jeffco Regional Bikeways brandmark and the family of wayfinding elements were developed to reflect input and sign shop capabilities. Based on PMT and PAC input, the preferred brandmark and family of wayfinding elements were refined.

See section 2.3 for brandmark information and guidance.

See Section 2.4 for wayfinding sign family information and guidance.



PMT and PAC members indicate preferences for wayfinding sign development.



ESTABLISHING GUIDANCE REFLECTING COMMUNITY INPUT

In addition to outreach through meetings, information was distributed and input was solicited from the larger Jefferson County community through the use of an online mapping tool (1A), project website (1B) and pop-up wayfinding demonstration event in Arvada (1C).

Comprised of both on- and off-street routes, a temporary pop-up wayfinding route was installed in Arvada for the month of July (Rows 2 and 3). During Arvada's 2nd Saturday Street Festival, booths were set up at the event site and along Ralston Creek Trail. Feedback from participants reaffirmed the need for wayfinding that is consistently placed, clearly communicates jogs in routes and is placed at a height of 7'. The need for clear signage where several spurs intersect was also identified.

A

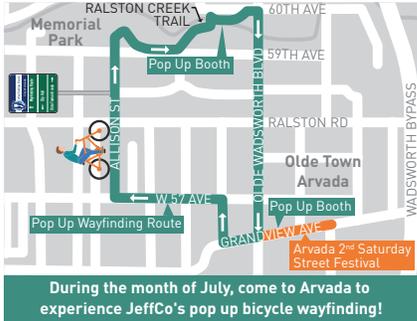
1



B



C



During the month of July, come to Arvada to experience JeffCo's pop up bicycle wayfinding!

As part of the JeffCo Bicycle Wayfinding Master Planning process, a temporary wayfinding route will pop up in Arvada during the month of July to demonstrate proposed wayfinding elements. Visit www.jeffcowayfinding.com or join us on July 9th

2







3







1.2 EXISTING CONDITIONS

CONTEXT

Uniquely positioned between the Rocky Mountains and Denver, Jefferson County and the communities it encompasses offer diverse experiences for residents and tourists. The county includes a unique blend of tourist attractions, outdoor activities, retail locations, cultural attractions, employment hubs and both emerging and established residential neighborhoods.

In addition to landmark destinations, Jefferson County's network of on- and off-street bicycle facilities serve as destinations. The county's robust network of regional trails (illustrated in Figure 1.2) are used for both daily transportation and recreation. The steep and winding roads found in western Jefferson County attract bicyclists from near and far for challenging recreational rides.

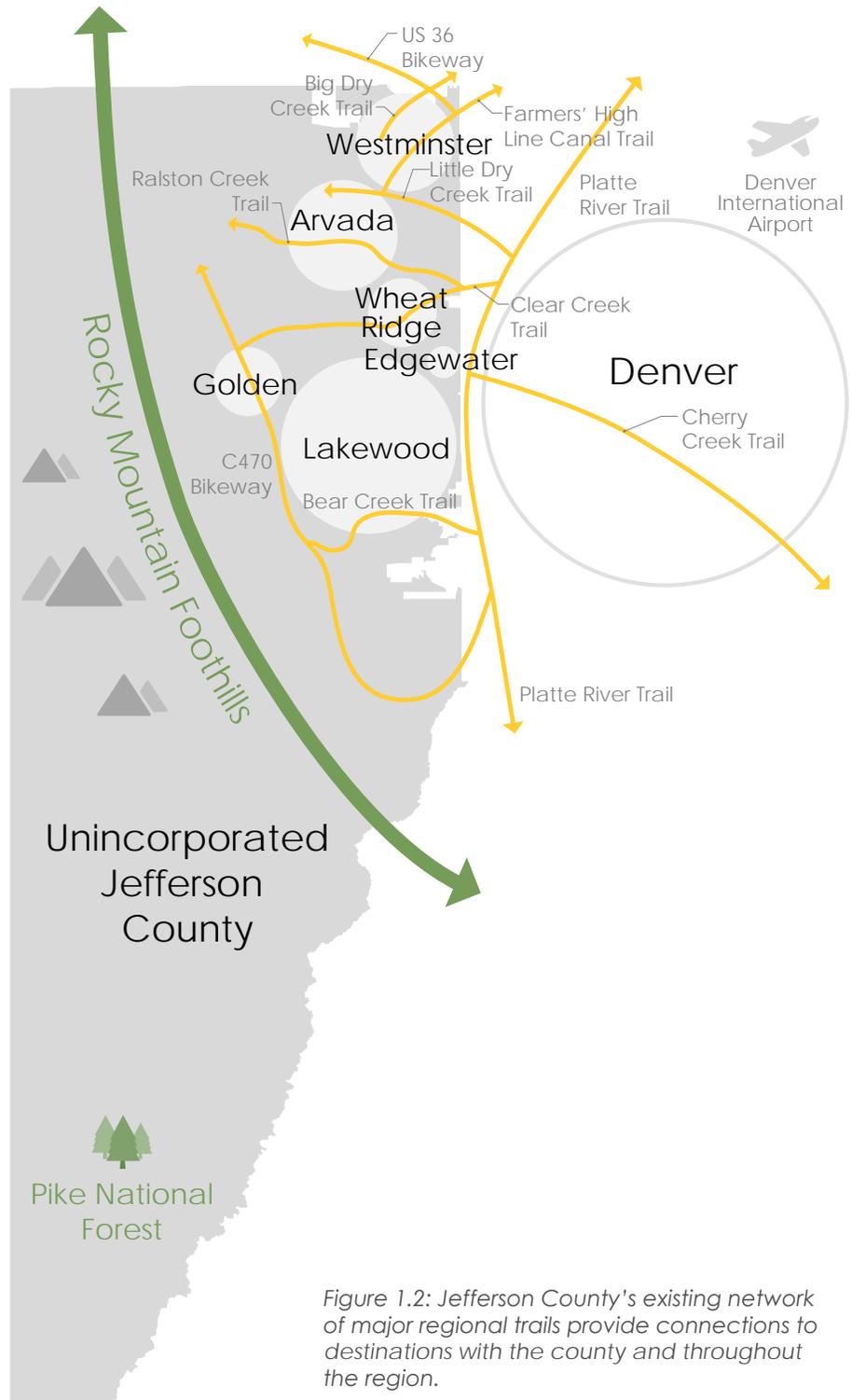


Figure 1.2: Jefferson County's existing network of major regional trails provide connections to destinations with the county and throughout the region.

Additional related plans including general wayfinding guidance:

- Jefferson County Bicycle and Pedestrian Master Plan
- City of Lakewood Bicycle System Master Plan
- City of Golden Bicycle Master Plan
- City of Wheat Ridge Bicycle and Pedestrian Master Plan
- City of Westminster Bicycle Master Plan
- City of Westminster 2014 Open Space Stewardship Plan



RELATED PLANNING INITIATIVES

Related planning initiatives were reviewed to inform the development and design of the Jeffco Regional Bikeways wayfinding network. While existing wayfinding guidance is generally limited to larger regional trails, most bicycle master plans identify wayfinding as a high priority and recommend MUTCD compliant signage be provided.

The following plans included specific recommendations regarding the development of wayfinding systems and wayfinding element design. Jeffco Regional Bikeway recommendations and designs were developed to compliment the following regional initiatives.

DRCOG Northwest Corridor Bicycle and Pedestrian Accessibility Study (Branding & Wayfinding Appendix)

The DRCOG study builds upon the 2013 US 36 First and Final Mile Study by 36 Commuting Solutions and focuses on enhancing bicycle and pedestrian access and mobility within the first and last mile of new transit Stations along the Northwest Corridor. Wayfinding was identified as a key recommendation to enhance mobility. The plan included conceptual design of bicycle and pedestrian wayfinding elements.

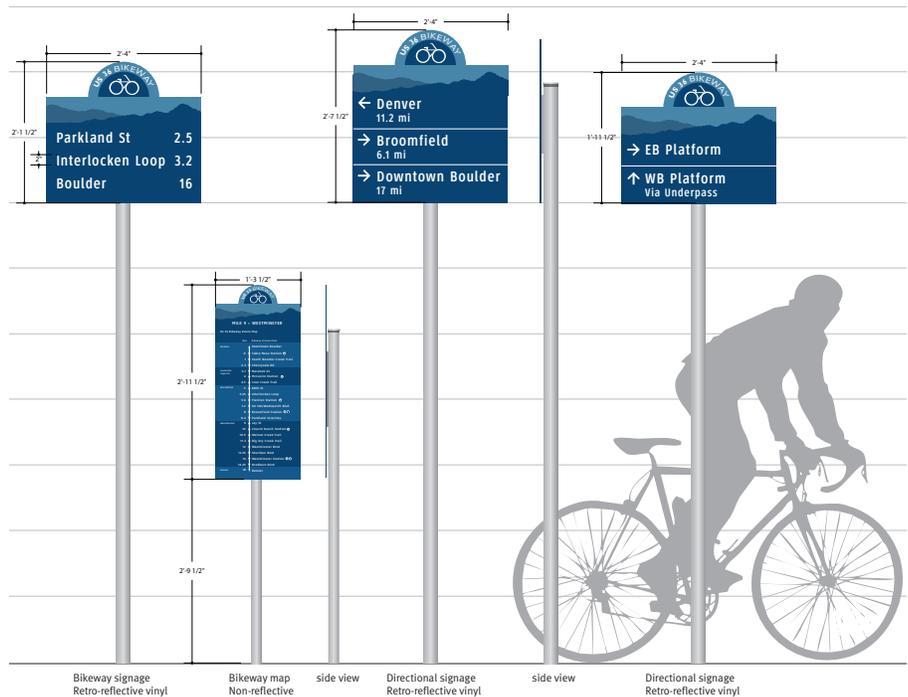
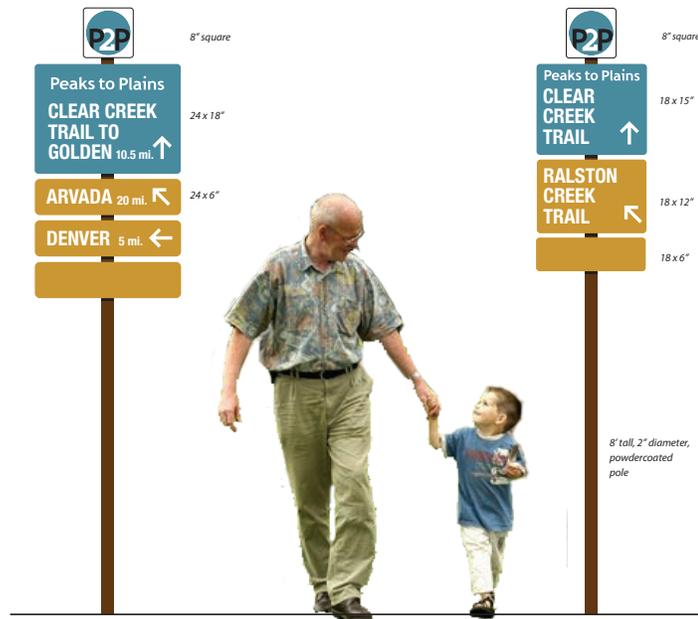


Figure 1.3: US 36 Family of Bicycle Wayfinding Elements

Peaks to Plains Trail Signage Master Plan

The 2014 Peaks to Plains Trail Signage Master Plan provides guidance for the design and implementation of consistent wayfinding for the regional trail that will extend from Glenwood Springs to Denver International Airport. The plan recommends that design and installation of all signs should reflect standards and requirements.

Figure 1.4: Peaks to Plains Directional Sign Design



Evergreen Trails Master Plan

The 2015 Evergreen Trails Master Plan outlines recommendations for a network of on- and off-street multi-use facilities. Recommendations included improving access, safety and comfort through implementation of a wayfinding family of elements. The plan highlighted locations for wayfinding elements and design guidance of wayfinding elements.

Figure 1.5: Evergreen Trails Master Plan Kiosk and Marker Design



See Appendix A for community audit finding and an overview of existing wayfinding infrastructure.



OVERVIEW OF THE EXISTING NETWORK

Early in the planning process, an audit of existing wayfinding facilities was completed by both driving and bicycling along Jefferson County's network of on- and off-street facilities. These field tours focused on larger regional networks (C-470, Clear Creek Trail, etc.) and infrastructure within the communities of Arvada, Edgewater, Golden, Lakewood, Westminster and Wheat Ridge. The routes traveled represent on- and off-street facilities typical of Jefferson County and were likely candidates for selection as Jeffco Regional Bikeway wayfinding routes.

The purpose of this audit was to document existing wayfinding infrastructure and identify opportunities. The following sections summarize the field tours through photos and observations concerning the form and function of:

- Existing bicycle wayfinding
- Existing community wayfinding
- Regional wayfinding

EXISTING BICYCLE WAYFINDING

Jefferson County has a network of designated on- and off-street bicycle facilities that are used for both recreation and daily travel. Existing wayfinding largely provides guidance along a single route, not to destinations or other facilities.

Existing bicycle wayfinding elements primarily include:

- MUTCD regulatory, warning and guide signs;
- customized wayfinding signage;
- multi-use trail wayfinding signage;
- pavement markings.

Inconsistent sign placement and messaging requires the user to have existing knowledge of the bicycle network to successfully navigate to destinations. Sign clutter also presents navigational challenges as bicyclists may become overwhelmed while trying to interpret information while in motion.

Opposite page, from top:

Row 1: Existing MUTCD regulatory, warning and guide signs

Row 2: Existing customized wayfinding signs

Row 3: Existing multi-use trail wayfinding signs

Row 4: Existing pavement markings

A



B



C



1



2



3



4

From left: Jefferson County Open Space regulatory sign, Lariat Loop turn sign



REGIONAL WAYFINDING

Examples of regional wayfinding include the Lariat Loop National Scenic Byway, C-470 Bikeway and Jefferson County Open Space. These initiatives offer consistent county-wide wayfinding branding, design, placement and messaging.

COMMUNITY WAYFINDING AND BRANDING

A variety of community wayfinding signs are located throughout Jefferson County. Community wayfinding is largely present in areas with a concentration of destinations and/or frequented by visitors from outside the community. A common form of community wayfinding throughout Jefferson County includes the customization of street signs to include branding indicating jurisdictional location.

Opposite page, from top:

Row 1 : Multiple wayfinding initiatives exist throughout Arvada. Although wayfinding sign designs vary, consistency is established through the use of a similar color palette (dark blues and reds) and application of Arvada's logo.

Row 2 : A popular tourist destination, Golden has an abundance of wayfinding oriented towards visitors arriving by car as they approach, enter and travel through the City. Within Golden's downtown, both directional signage and maps are provided for visitors traveling by foot or bicycle. The wayfinding elements incorporate elements of the old west and table mountain.

Row 3

3A-3B: Lakewood's branding appears on street and civic center signs.
3C: Edgewater incorporates branding on street sign design.

Row 4

4A: Wheat Ridge includes branding on street signs.
4B-4C: Westminster's branding appears on street signs and park signs.

A



B



C



1



2



3



4

EXISTING NETWORK CHALLENGES AND OPPORTUNITIES

Through community audits and input solicited via meetings, an online survey and mapping tool, the following major observations and related opportunities were identified.

1

Challenges: Existing facilities largely require a knowledge of the network to navigate through the county.

Opportunity: Establish consistent placement and unified messaging in signage to effectively guide bicyclists along routes and to different facilities.

Opportunity: Provide signage that directs bicyclists to destinations within communities to enhance the easability of making daily trips via bike and enables visitors and community members to discover new destinations.

2

Challenges: Physical barriers (highways, water bodies, topography, etc.) present challenges to navigating through the county.

Opportunity: Address barriers by establishing clear, consistent wayfinding to enable riders to easily navigate around barriers or gaps.

3

Challenges: Sign clutter make wayfinding difficult to follow and interpret.

Opportunity: Reduce sign clutter to enable bicyclists to easily interpret signs and make decisions while in motion.

4

Challenges: Branding, sign design, and message varies across jurisdictional boundaries.

Opportunity: Establish unified branding to provide a seamless experience throughout the county, regardless of local jurisdiction or facility type. Wayfinding design should incorporate local branding elements to inform bicyclists of their location within the county.

Opportunity: Develop a local identity for Jefferson County that connects the wayfinding elements to the county's uniqueness and makes the experience of the network memorable.

1.3 WAYFINDING PRINCIPLES

KEY 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 help ensure that wayfinding systems are the most effective, the following guiding principles were developed for bicycle wayfinding systems.



CONNECT PLACES

Effective wayfinding information should enable locals and visitors to travel between destinations and discover new destinations and services accessible by bicycle. Wayfinding should help improve local economic well-being by encouraging locals and visitors to utilize services within Jefferson County. Wayfinding should enhance connections within the county and to neighboring communities and expand the bicycle network. The wayfinding navigation should be seamless on a regional level.



PROMOTE ACTIVE TRAVEL

Wayfinding should encourage increased bicycling by revealing a clear and attractive system that is easy to understand and navigate. The presence of wayfinding signs should validate bicycling as a transportation option as well as reduce fear amongst those potentially interested in bicycling. Wayfinding should expand the awareness and use of bicycle facilities.



MAINTAIN MOTION

Wayfinding information should be presented in a way that is easy to understand. Bicycling requires physical effort and frequent stopping and starting to check directions may lead to frustration. Wayfinding information that is quickly understood contributes to an enjoyable experience. Consistent, clear, and visible wayfinding elements allow bicyclists to navigate while maintaining movement.



BE PREDICTABLE

Wayfinding should be predictable and consistent. When information is predictable, it can be quickly understood and recognized. Predictability should relate to all aspects of wayfinding placement and design (i.e. sign materials, dimensions, colors, forms, and placement). Predictability also means that new situations are quickly understood. Once users trust that they will encounter consistent and predictable information, their level of comfort is raised and new journeys become easier to attempt and complete. 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.



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 difficult. Information should be provided in advance of where major changes in direction are required, repeated as necessary, and confirmed when the maneuver is complete.

WAYFINDING NAVIGATIONAL ELEMENTS

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

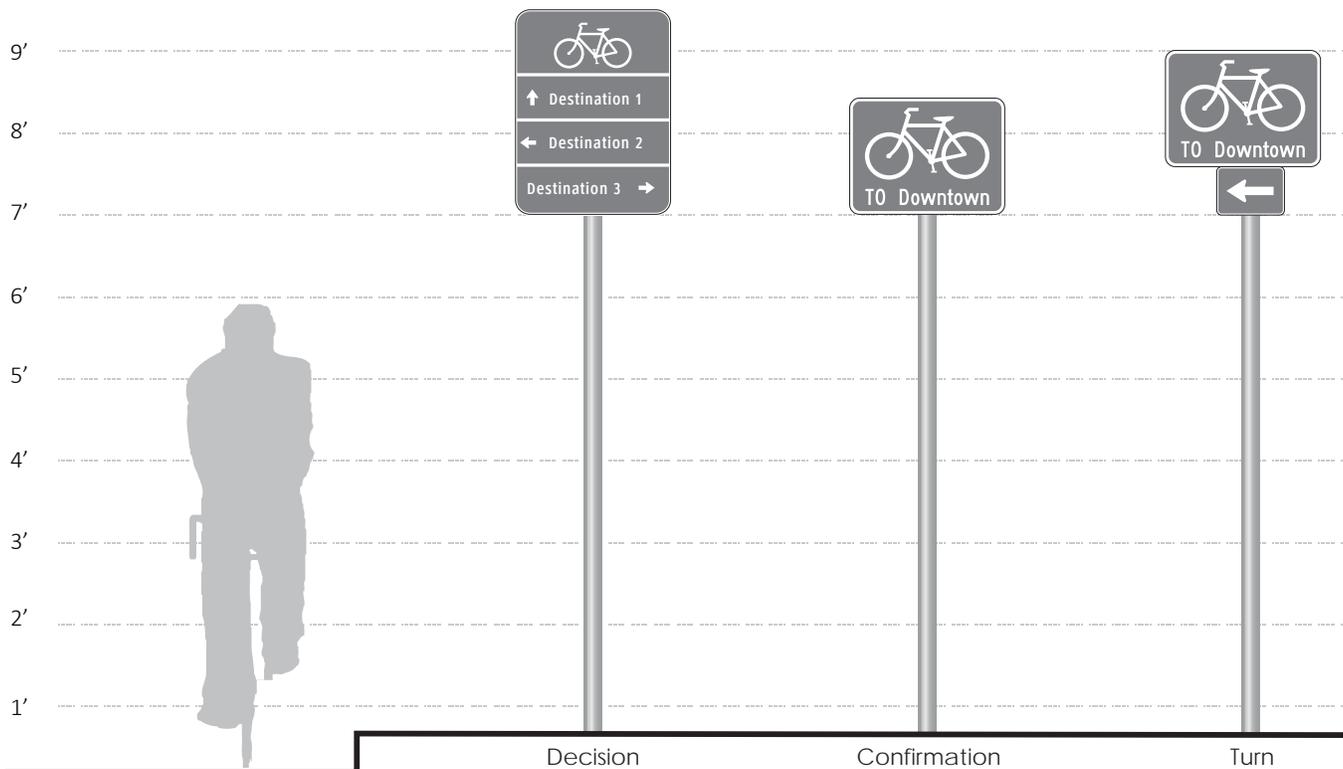


Figure 1.6: Fundamental Family of Navigational Elements

DECISION SIGN

Clarify route options where multiple routes exist. Signs may include a system landmark, route name, up to three destinations, distance in miles and/or time (based on 10 mph or 6 minute per mile average travel speed). In mountainous areas, this signs could indicate grade changes.

CONFIRMATION SIGN

Placed after a turn movement or intersection to reassure bicyclists that they are on the correct route. System brand mark and route or pathway name may be included.

TURN SIGN

Used to clarify a change in route direction where only one option exists. Turn signs may include a landmark, route name, and directional arrow. MUTCD sign series D1-1, M5 and M6 may be used.

A variety of standards and guidelines influence both the sign designs and placement of wayfinding elements. Appendix B highlights applicable local and national standards.



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SECTION 2: JEFFCO REGIONAL BIKEWAYS

WAYFINDING TOOLKIT



2.1 REGIONAL BIKEWAY WAYFINDING ROUTES



WHAT ARE REGIONAL BIKEWAY WAYFINDING ROUTES?

Regional bikeway wayfinding routes make internal and external connections with Jefferson County, are continuous, provide a comfortable experience for non-motorized use, and accommodate daily or occasional travel and recreation use.



TECHNICAL GUIDANCE: REGIONAL BIKEWAY WAYFINDING ROUTE IDENTIFICATION AND PRIORITIZATION

REGIONAL BIKEWAY WAYFINDING ROUTE IDENTIFICATION

Through meetings with the PMT, PAC and stakeholders, identification criteria and initial regional bikeway wayfinding routes were identified. This input was supplemented by an interactive Wikimap that enabled these groups and the larger public to identify routes. Regional bikeway wayfinding routes were largely based on the existing network of on- and off-street bicycle facilities.

Table 2.1

Regional Bikeway Wayfinding Route Identification Criteria

- Route follows an existing or planned facility
- Route spans the county and is continuous
- Route accommodates interested but concerned riders and promotes active living
- Route is in close proximity to regional destinations
- Route are at +/- one (1) mile intervals

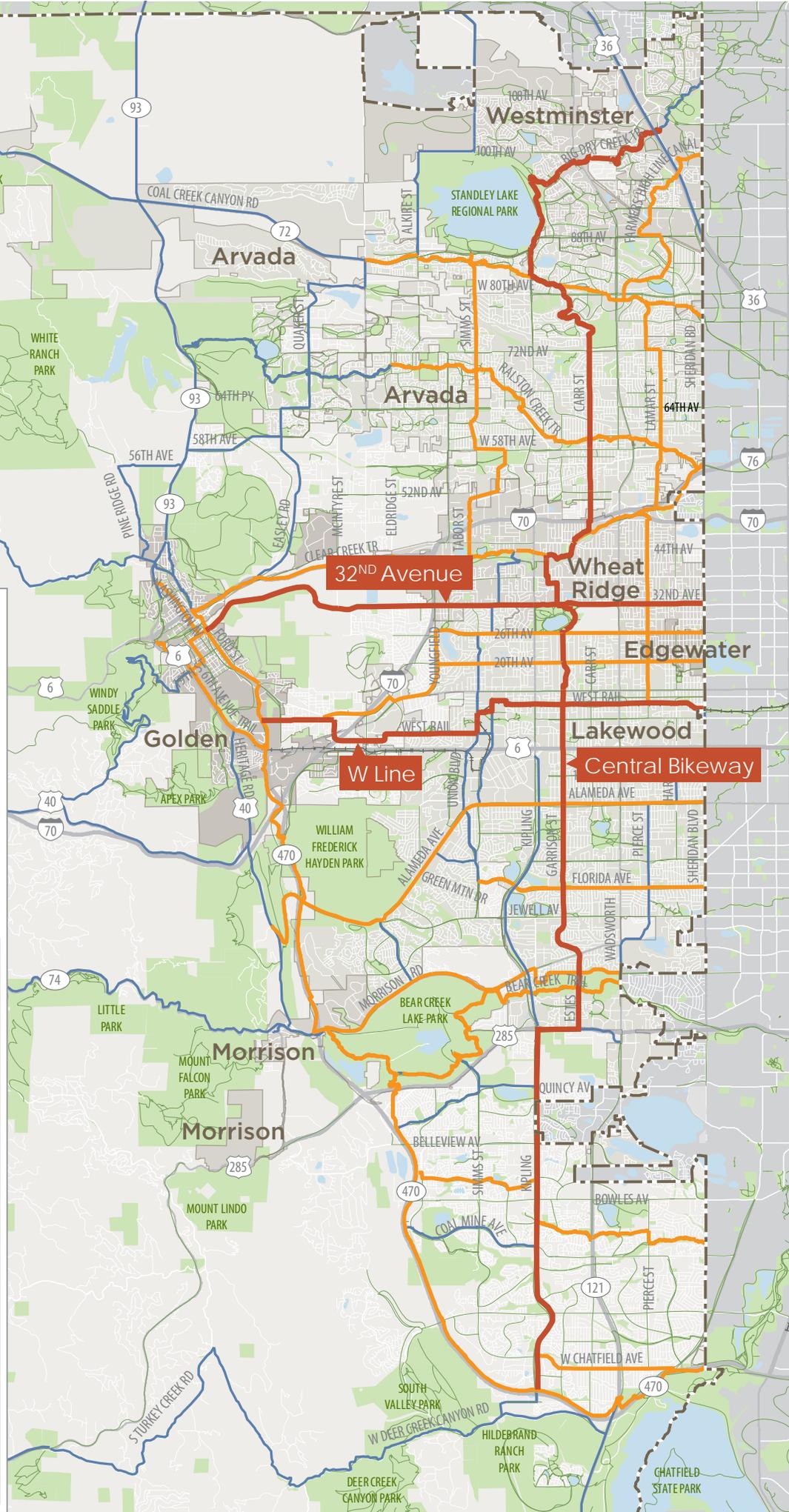
*(Opposite page)
Identification and prioritization of wayfinding routes was an iterative process requiring multiple meetings with the PMT, PAC, and stakeholders.*

Figure 2.1:
Regional Wayfinding Routes

Regional Wayfinding Routes

- Priority 1
- Priority 2
- Priority 3

- Existing Bicycle Facility
- Jefferson County Boundary
- Municipal Boundary



Wayfinding Route Prioritization

After identifying regional bikeway wayfinding routes, a prioritization analysis was conducted to identify each route's priority for wayfinding enhancements. Characterizing each route's priority as first, second or third enables the county and municipalities to establish a phased approach to the development of wayfinding improvements over time and will inform budgetary and funding decisions. The following criteria were established to objectively prioritize regional bikeway wayfinding routes.

Table 2.2: Regional Bikeway Wayfinding Route Prioritization Criteria

Route Readiness
<ul style="list-style-type: none"> Comprised of existing bicycle facilities Support for implementation exists
Need
<ul style="list-style-type: none"> Popular route Adjacent to high population areas and there is a large potential user base
Regional Connections
<ul style="list-style-type: none"> Continuous Connects to or is adjacent to a high density of regional destinations Connects to adjacent county or counties.
Pilot Project Potential
<ul style="list-style-type: none"> Provides a model for replication with a range of conditions and associated wayfinding elements

For each criterion, routes received a score of 0 or 1, where 0 represents that the route **does not** meet the criteria and 1 represents that a route **does** meet the criteria. For each route, all criteria scores were added together to produce a final priority for wayfinding improvements. Prioritization scores were divided into three categories: first priority for wayfinding improvements, second priority for wayfinding improvements and third priority for wayfinding improvements.

Based on this analysis, three priority 1 routes were selected for identification of wayfinding sign locations and destinations. Priority 1 routes include:

- W Line Bikeway
- Central Bikeway
- 32nd Ave Bikeway

A GIS database of prioritized regional bike-ways is available through Jefferson County GIS.



Jeffco Regional Bikeways Wayfinding Route Naming

As regional bikeway wayfinding routes are typically comprised of several different streets and/or trails, a standard approach to naming routes was developed. Based on guidance from the PMT and PAC, the following guidance was developed to ensure regional bikeways reflect existing names and are tied to geographic locations in Jefferson County. The approach places priority on names that reflect existing names and provides guidance for bikeways comprised of several on- and off-street facilities.

Table 2.3: Jeffco Regional Bikeway Route Naming Guidance

<p>Option 1: Name reflects the existing route name</p> <ul style="list-style-type: none"> • If the regional bikeway is largely comprised of a single existing regional route, the bikeway should reflect the name of the existing route. • Examples of this include: Bear Creek Trail, Little Dry Creek Trail, W Line, Ralston Creek Trail, and Clear Creek Trail
<p>Option 2: Name reflects the longest segment name</p> <ul style="list-style-type: none"> • If the regional bikeway is comprised of a few on- or off-street facilities, the regional bikeway name should be selected based on the route's longest single street or trail segment. • Examples of this include: 32nd Avenue Bikeway and 20th Avenue Bikeway
<p>Option 3: Route specific naming convention</p> <ul style="list-style-type: none"> • There are a few instances where regional bikeways are comprised of several major local bikeways with identifiable names that span multiple municipalities (typically north-south routes where shifts in facilities are required to address physical barriers). In these instances, a bikeway name that is intuitive in southern municipalities might seem disconnected and decrease legibility in northern municipalities. Municipalities implementing the route should identify a logical naming methodology that best describes the route. • Examples of this include: the Central Bikeway (Big Dry Creek, Carr, Garrison, Kipling) which refers to the bikeway's central location with the county and reflects the current West Connect naming convention.

The approach to naming should be replicated as Priority 2 and 3 routes are programmed and additional routes are added to the network.

2.2 REGIONAL DESTINATIONS



WHAT ARE REGIONAL DESTINATIONS?

Regional destinations describe places along the Jeffco Regional Bikeways to which users may want to travel. Within wayfinding systems, destinations appear as the messages on decision signs and are key to establishing a network that is traveled for both transportation and recreation.



TECHNICAL GUIDANCE: REGIONAL DESTINATION IDENTIFICATION

Given the multitude of destinations throughout Jefferson County, a consistent approach to identifying regional destinations is necessary to ensure the wayfinding network is clear and predictable.

Destinations were identified by developing three broad tiers that capture the spectrum of potential regional destinations (Table 2.4).

Regardless of the destination hierarchy, the following guidance should be considered when identifying regional destinations.

- Destinations should be open to the public.
- Destinations should include public buildings, parks, trail systems, and other facilities.
- Destinations should include a minimum level of public amenities (restrooms, trail access, etc.).
- Destinations should have significant visitor/user interest.
- Size of attraction/number of outside visitors.

See Section 2.6:
Sign Programming
for guidance on
using destinations
to identify sign
messages.

See Appendix C
for a full listing
of destinations
identified through
this process. A GIS
database of these
destinations is
available through
Jefferson County
GIS.



Table 2.4: Destination Hierarchy

Tier 1	<p>Regional Destinations. Provide the broadest navigational guidance such as city names and regional trail connections.</p> <ul style="list-style-type: none"> • Cities • Regional Trails
Tier 2	<p>Regional Attractions. Include landmarks and attractions.</p> <ul style="list-style-type: none"> • Commuter/LRT Stations • Regional Parks • Major Civic/Commercial Centers
Tier 3	<p>Local Destinations. Places of local interest.</p> <ul style="list-style-type: none"> • Business and Services (employment centers) • Medical facility - Hospitals, veterans services providers, and clinics may be considered if the facilities meet all of the following criteria: <ul style="list-style-type: none"> - Service is provided 24 hours a day, 7 days a week. - Emergency department facilities and services are provided. - The facility is licensed or approved for definitive medical care by an appropriate State authority. • Shopping Center: A group of thirty or more shops, retail stores, and/or restaurants with at least one major department store functioning as an anchor. • Visitor Center: A facility having the primary purpose of providing information and tourist support services. • College/University: An educational institution that is nationally accredited and grants degrees. • Historic Site: A structure or place of historical, archaeological, or architectural significance listed on the National Register of Historic Places. • Museum: A facility of national or regional significance exhibiting works of artistic, historic, or scientific value. • Performing Arts Venue - A facility focused on the enjoyment of the performing arts and providing a minimum capacity of two hundred seats. • Geological feature • Stadium or arena - A permanent facility used for the primary purpose of presenting organized sporting events. Includes county and state fairgrounds. • Designated districts and neighborhoods <ul style="list-style-type: none"> - Areas that have been formally established by resolution or ordinance of the appropriate local agency or if the district has developed and implemented its own internal wayfinding sign plan. Examples of districts include: city centers, university districts and arts districts. - Neighborhoods having historic character or otherwise significantly contributing to the culture and vibrancy of a city may also be identified.

2.3 BRANDMARK



WHAT IS THE JEFFCO REGIONAL BIKEWAY BRANDMARK?

The Jeffco Regional Bikeways graphic identity is core to the regional wayfinding brand. The brandmark enables continuity throughout the county, across municipalities, and along on- and off-street routes. This continuity lends to a cohesive network that encourages use.

The brand has been developed to represent Jefferson County's regional bicycle network as an attraction and an easily identifiable transportation network. As the regional network grows, the brandmark will remain constant as a visual cue throughout the county, linking municipalities and regional destinations.

The distinctive brandmark clearly and distinctly communicates Jeffco Regional Bikeways. The brandmark builds upon existing Jefferson County brands (the circle and county outline reference the Jefferson County seal). The colors draw from current Jefferson County marketing initiatives and complement local municipality branding color palates.



Figure 2.2: Jeffco Regional Bikeways Brandmark



TECHNICAL GUIDANCE: HOW SHOULD THE BRANDMARK BE USED?

The standard brandmark should be used in accordance with guidelines provided in this document. The brandmark should be used as shown below with or without the “Jeffco Regional Bikeways” tagline.

Figure 2.3: Brandmark with (left) and without (right) tagline



The Jeffco Regional Bikeways brandmark should be used throughout the county where regional bikeways exist.

COLORS

The official brandmark colors are listed below, along with their CMYK and RGB formulas. These match numbers should be used whenever possible to maintain a consistent brand appearance.

	Light Blue			Dark Blue
	C: 46	R: 132		C: 100
	M: 16	G: 184		R: 33
	Y: 0	B: 227		M: 90
	K: 0			G: 52
				Y: 30
				B: 105
				K: 19

COLOR VARIATION

There are three approved color variations. The brandmark may be reproduced as one or two color formats.

- 2-color (CMYK) Reproduction - Light Blue and Dark Blue
- 1-color (CMYK) Reproduction - Dark Blue OR Black

Figure 2.4: Color variation options - 2-color (left) and 1-color dark blue (center) and 1-color black (right)



TYPOGRAPHY

Typography is an important tool in branding and contributes to brand personality and recognition. Typography used in the “Jeffco Regional Bikeways” is bold and legible to be read from a distance and while in motion. The original landmark artwork should always be used. Recreation by using the fonts listed below is discouraged. The following fonts are shown for reference only.

Primary Brandmark Typeface

The primary brandmark typeface is **Gotham Medium**.

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 1234567890

Wayfinding Signage MUTCD Sign Messages

The primary brandmark typeface is **Highway Gothic**.

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 1234567890

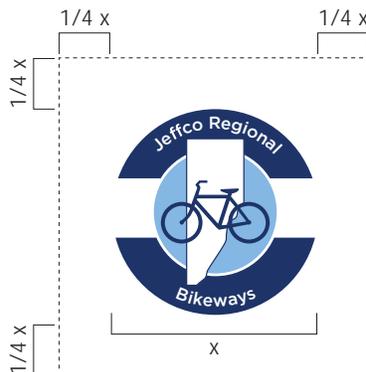
REPRODUCTION

When reproducing the Jeffco Regional Bikeways logo, the original digital files available through Jefferson County should be used. Do not reproduce or use low-resolution files or edit original artwork other than to make changes to overall logo size. Artwork with the extension .ai or .eps should be used whenever possible to avoid quality loss.

BRANDMARK FREE SPACE

To preserve the brandmark’s legibility, a minimum free space should be maintained around the brandmark. No other visual elements, text, photos, or borders should be placed in this free space.

Figure 2.5: Brandmark free space diagram



To account for brandmarks placed at varying sizes, the width of the logo is identified in the diagram below as “X.” The minimum free space that should be maintained around the brandmark is indicated as a fraction of X.

IMPROPER USE

The Jeffco Regional Bikeways brandmark should be applied consistently. The brandmark should not be altered or modified from the original digital artwork in any way, except to uniformly and proportionally change the size of the brandmark.

Examples of improper use are illustrated below.



Figure 2.6: Do not stretch or distort the brandmark. Resize proportionally



Figure 2.7: Do not alter brandmark colors.



Figure 2.8: Do not rotate the brandmark.



Figure 2.9: Do not place the logo within another shape.

2.4 WAYFINDING FAMILY OF SIGNS



WHAT IS THE WAYFINDING FAMILY OF SIGNS?

The wayfinding family of signs establishes a cohesive identity for Jeffco Regional Bikeways. The sign designs improve navigation, encourage use, and provide an identify for the network.

Wayfinding signs include:

- Decision signs
- Turn signs
- Confirmation signs
- Pavement markers
- Mile markers
- Supplemental markers

The wayfinding signs have been tailored for Jeffco Regional Bikeways and will enable the county and municipalities to effectively address wayfinding needs along both on- and off-street routes. The wayfinding signs include opportunities for municipalities to be identified on signs, but the intent is to promote Jeffco Regional Bikeways first.



TECHNICAL GUIDANCE: HOW ARE THE SIGNS USED?

The subsequent sections provide an overview of the Jeffco Regional Bikeways wayfinding family of signs and planning level design guidance for sign production. Wayfinding signs were developed to match in-house fabrication capabilities throughout Jefferson County. On-street signs are MUTCD compliant.

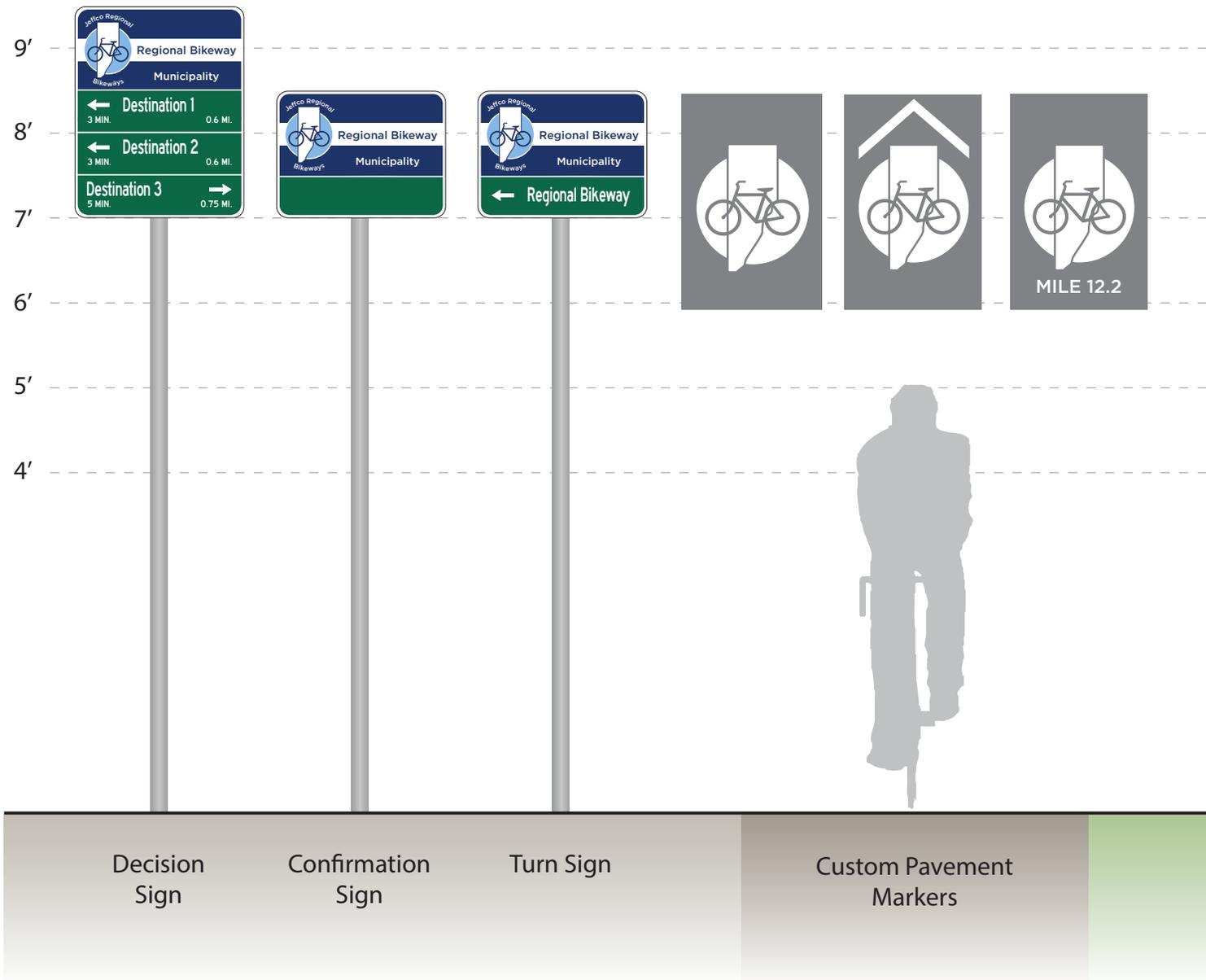


Figure 2.10: Jeffco Regional Bikeways Family of Elements

Modified decision, confirmation and turns signs and supplemental mile markers are best suited for off-street bikeways and areas where less visibly obtrusive options are desired. Message sizes do not meet MUTCD minimums. See Appendix B: Best Practices and Case Studies for AASHTO placement guidance.



Modified
Decision Sign

Modified
Confirmation Sign

Modified
Turn Sign

Supplemental
Marker

Supplemental
Mile Marker

DECISION SIGN

Description

Decision signs clarify route options when more than one potential route or multiple regional destinations exist. Signs consist of a system brand mark, space for up to three destinations, distance in miles and/or time.

Placement

Install direction signs along the trail prior to decision making points and at major trail intersections. Allow for sufficient distance prior to the intersection to provide safe recognition and response to information provided.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.11: Decision Sign

Notes:

Regional Bikeway Text

- Gotham Medium (font sizes varies based on message length)

Municipality Text

- Gotham Medium (font sizes varies based on message length)

Destination Text

- 215 point Highway Gothic

Time and Distance Text:

- 100 pt Highway Gothic

- The use of time and distance is optional. Use should be determined by local municipalities. In unincorporated Jefferson County and other areas with challenging elevation gains, time and/or distance may be substituted with incline information.

MODIFIED DECISION SIGN

Description

Modified decision signs serve the same function as decision signs and may be in locations where signs are not required to be MUTCD compliant. Modified decision signs have been scaled down from 24x30 inches to 18x24 inches.

Placement

Signs may be placed where full sized decision signs may be visually obtrusive, typically along off-street routes. Install decision signs along the route prior to decision making points and at major trail intersections. Allow for sufficient distance prior to the intersection to provide safe recognition and response to information.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.12: Modified Decision Sign

Notes:

Regional Bikeway Text

- Gotham Medium (font sizes varies based on message length)

Municipality Text

- Gotham Medium (font sizes varies based on message length)

Destination Text

- 160 point Highway Gothic

Time and Distance Text:

- 75 pt Highway Gothic
- The use of time and distance is optional. Use should be determined by local municipalities. In unincorporated Jefferson County and other areas with challenging elevation gains, time and/or distance may be substituted with incline information.

TURN SIGN

Description

Used to clarify a specific route at changes in direction when only one route option is available.

Turn signs can also be used when one regional destination or an intersecting regional bikeway exists.

Placement

Signs should be placed at turns prior to the turning action to provide cyclists advance notice of a change in direction. Turn signs may be used in conjunction with a decision sign at complex intersections warranting additional information.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.13: Turn Sign

Notes:

Regional Bikeway Text

- Gotham Medium (font sizes varies based on message length)

Municipality Text

- Gotham Medium (font sizes varies based on message length)

Destination Text

- 215 point Highway Gothic
- Turn message may indicate turns necessary to remain on the regional bikeway, a regional destination or intersecting regional bikeway.

MODIFIED TURN SIGN

Description

Modified turn signs serve the same function as turn signs and may be used in locations where signs are not required to be MUTCD compliant. Modified turn signs may typically be located along regional off-street paths where several spurs/turn options exist.

Placement

Signs may be placed where full sized turn signs may be visually obtrusive, typically along off-street routes. Signs should be placed prior to the turning action to provide cyclists advance notice of a change in direction.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.14: Modified Turn Sign

Confirmation Sign

Description

Placed after a turn movement or intersection to reassure cyclists that they are on the correct route. Regional route name may be included.

Placement

Signs should be placed 50 – 100 feet after turns. Confirmation signs are not necessary after every intersection and should be prioritized at locations where a designated route is not linear and after complex intersections. Complex intersections include those having more than four approaches, non-right angle turns, roundabouts, or in-direct routing.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.15: Confirmation Sign

Notes:

Regional Bikeway Text

- Gotham Medium (font sizes varies based on message length)

Municipality Text

- Gotham Medium (font sizes varies based on message length)

Modified Confirmation Sign

Description

Placed after a turn movement or intersection to reassure cyclists that they are on the correct route. Regional route name may be included.

Placement

Signs may be placed where full sized confirmation signs may be visually obtrusive, typically along off-street routes. Signs should be placed after turns and should be prioritized at locations where a designated route is not linear and after complex intersections.

Materials

- 0.080 inch high intensity prismatic aluminum sign panel
- Front of sign to be solvent print or 3M EC Film with UV Gloss Laminate
- Custom JeffCo Regional Bikeways logo to be solvent print or digitally imaged vinyl applied to sign
- Mount to post



Figure 2.16: Modified Confirmation Sign

Notes:

Regional Bikeway Text

- *Gotham Medium* (font sizes varies based on message length)

Municipality Text

- *Gotham Medium* (font sizes varies based on message length)

Pavement Marking

Description

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.

Pavement markings may also include a directional arrow to indicate turns and/or mile marker information.

Placement

Pavement markings can be used on paved pathways, city sidewalks, or on-street bikeways.

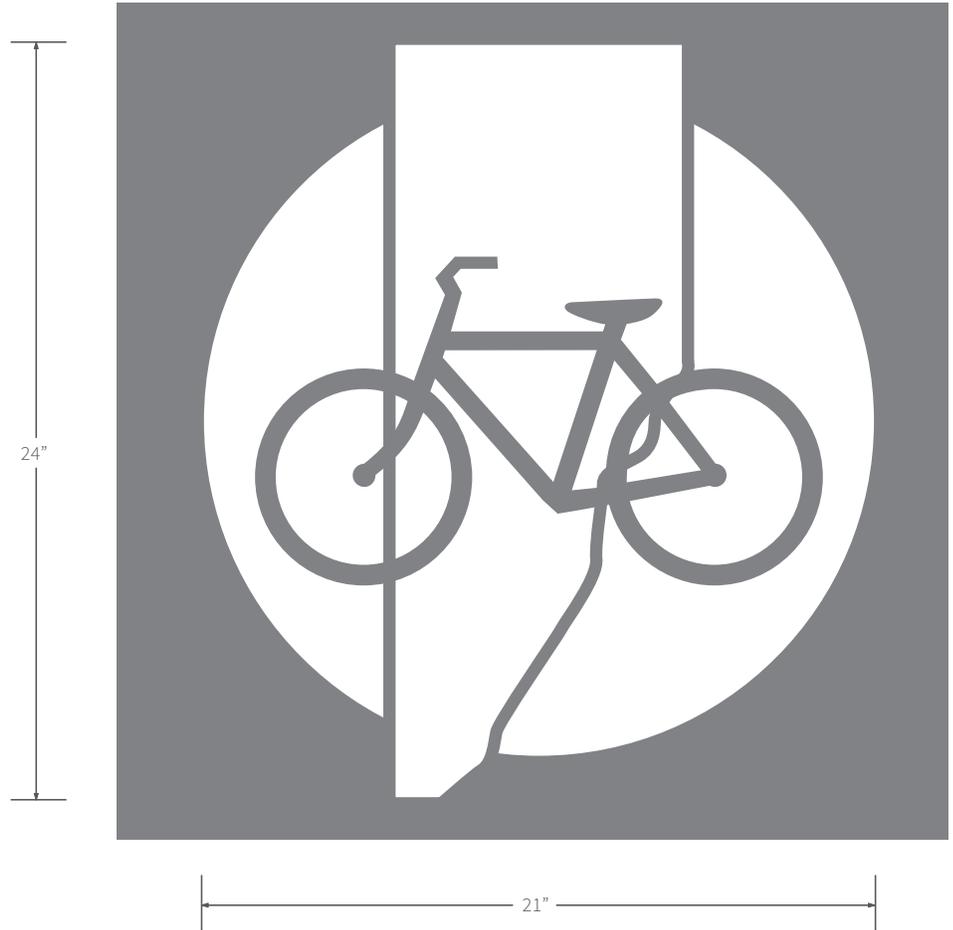


Figure 2.17: Pavement marking as a supplemental confirmation element

Materials

- Paint or thermoplastic stencils - surface material and level of use should be considered when selecting an appropriate pavement marking material. Thermoplastic stencils have a higher up front cost but require less maintenance and are preferred for areas with high use and/or tire abrasion.



Figure 2.18: Pavement marking with mileage information

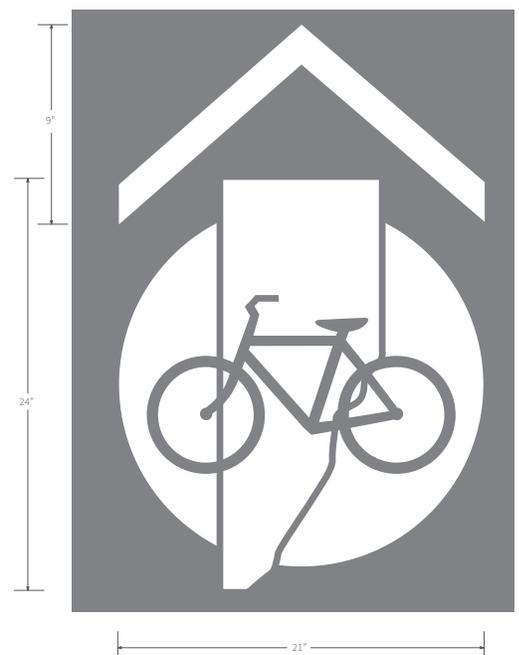


Figure 2.19: Pavement marking with directional arrows

JEFFCO REGIONAL BIKEWAYS BRANDMARK WITH OTHER WAYFINDING INITIATIVES

Description

There are opportunities to add the Jeffco Regional Bikeways brandmark to existing signs and features to expand visibility of the bikeways. Several variations exist to incorporate the brandmark into existing signs, including mounting a supplemental brandmark plaque to existing posts, placing vinyl stickers (adhesive graphics) to existing signs, posts and racks.

Placement

Placement should be at each jurisdiction's discretion based on the need for bikeway system visibility.

Materials

- 0.080 inch aluminum sign with graffiti coating
- Adhesive vinyl stickers



Figure 2.20: Supplemental Brandmark

SUPPLEMENTAL MILE MARKER

Description

Mile markers enable users to track how far they have traveled and help people put their location in context by matching the marker to a map. Most trail users identify strongly with distance from home, distance from their favorite place, or simply with knowing a certain location based on its relationship to a mile point. Mile markers enable emergency responders to easily locate a person in distress.

Placement

Mile marker placement frequency varies by municipality and/or trail network but are often placed in 1/2 mile intervals.

Materials

- 0.080 inch aluminum sign with graffiti coating
- Adhesive vinyl stickers



Figure 2.21: The modified turn sign can be fabricated and include mile information rather than directional arrows. Sign can be attached to metal pole or wood post.



Figure 2.22: Where off-street standards exist for mile marker posts, aluminum or adhesive vinyl stickers can be scaled the specified marker. These could also be placed on existing mile marker posts.

2.5 SIGN PLACEMENT



WHY PROVIDE PLACEMENT GUIDANCE?

The following sign placement guidance addresses common challenges to navigating Jeffco Regional Bikeways to ensure consistent placement throughout the county. Challenges were identified through stakeholder meetings, an online Wikimap, online survey, and discussion with participants at the Jefferson County Wayfinding Pop-Up event. Responses reaffirmed the need for consistent wayfinding throughout Jefferson County. While the scale of identified challenges range from existing bike route markers that provide minimal information to larger infrastructural barriers created by roads and tributaries, the following common navigational challenges can largely be addressed through clear and consistent wayfinding.

- Highways, tributaries, and rail lines create barriers, especially along north-south roads.
- Gaps in off-street facilities create discontinuous routes and require users to be familiar with the area to navigate along on-street facilities through the gap.
- Shifts in facility types (hard-surface multi-use trails to on-street facilities or narrow, natural-surface trails) and route marking creates challenges when traveling along regional routes that are comprised of several local routes.
- At points where bike routes intersect, turn signs often do not include information regarding the route associated with each direction. Familiarity with the network is required to effectively navigate using the signs.
- On- and off-street signage varies by municipality and is often non-existent upon crossing municipal boundaries.



TECHNICAL GUIDANCE: SIGN PLACEMENT

The Jefferson County regional wayfinding signs should be located in a consistent manner across all jurisdictions. The diagram below illustrates typical placement and sequencing of on-street wayfinding signs. Decision signs are located prior to an intersection of two bicycle facilities, turns in routes, and in relation to regional destinations. Confirmation signs are provided after the turn movement, as well as periodically along the route for reassurance.

d Decision Sign



c Confirmation Sign



t Turn Sign

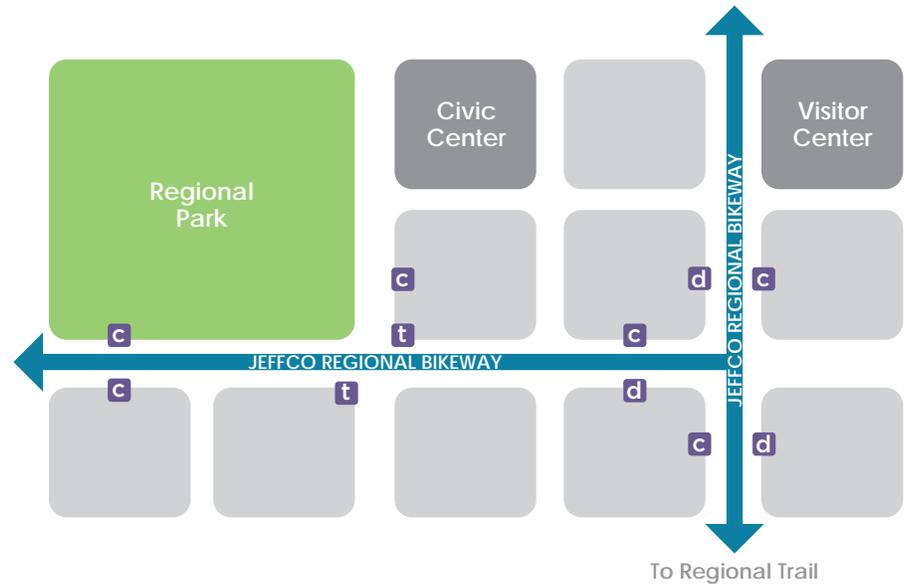


Figure 2.23: Typical sign placement

Jefferson County's regional bikeway network includes a variety of on- and off-street facilities, most of which are intersected by a variety of facility types and streets. To ensure consistent placement of signs throughout the network, the subsequent placement guidance addresses typical layout patterns of wayfinding signs.

ON-STREET GAP

Where physical barriers (highways, tributaries, topography, development, etc.) create continuous gaps in on-street facilities, users are often routed to adjacent streets to navigate around the barrier and continue along the route. The typical pattern for wayfinding signs includes a turn sign prior to each intersection where a turn is necessary to circumnavigate the barrier. Confirmation signs are placed after intersections to reinforce that the user made the correct movement.

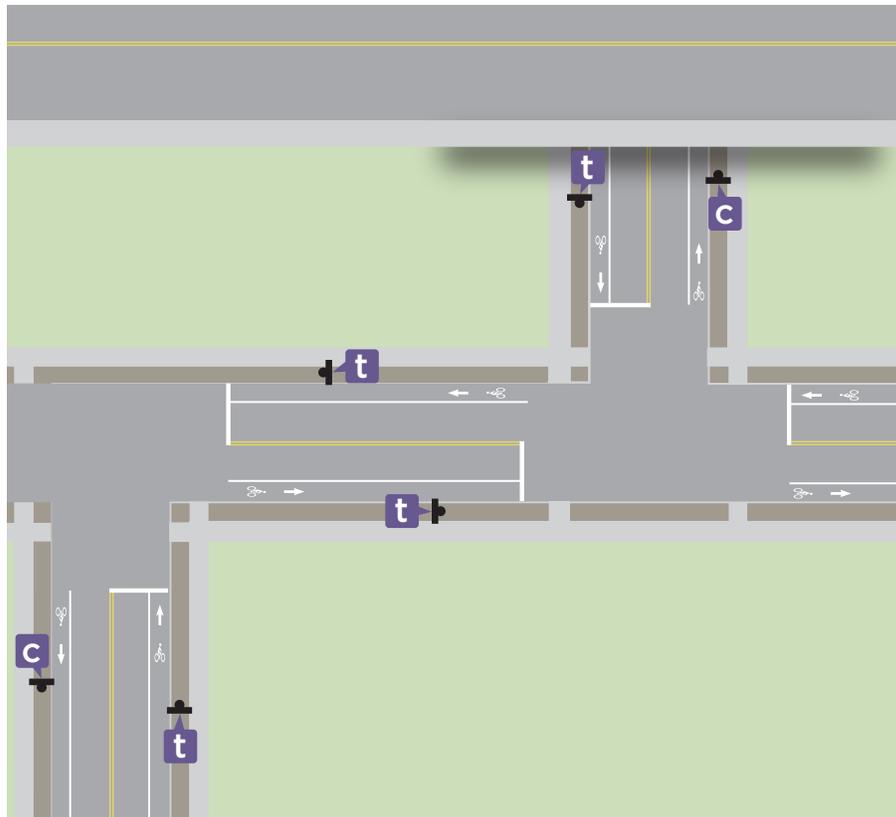


Figure 2.24: On-street gap sign placement

C Confirmation Sign



t Turn Sign



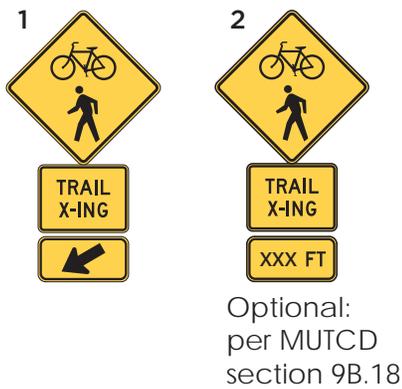
d Decision Sign



c Confirmation Sign



w Warning Sign



OFF-STREET/ON-STREET TRANSITION

When transitioning from an off-street facility to an on-street facility, it is important to advise users of their route options. In this scenario, decision/directional signs direct users to their destination choices, while confirmation signs reinforce that the user is on a designated facility after a turn movement is made. Decision signs should also be placed at the entry to the off-street bicycle network. Once on the off-street bicycle network, confirmation signs are optional.

Vehicle-oriented bicycle and pedestrian crossing warning signs should be placed in advance of crosswalks. In urban areas, signs should not be placed within 4 feet of a crosswalk in order to maintain visibility of those intending to cross the roadway.

Advance warning signs are optional per the MUTCD. If they are used, their placement should provide needed time for detection, recognition, decision, and reaction. Table 2C-4 within the MUTCD provides guidance for advance warning sign placement based on vehicle speeds.

On-street directional signs leading to the pathway network should not obscure other roadway signs including warning signs. They should be spaced according to roadway travel speeds with faster roadways warranting wider spacing. Guidelines for the placement of advance warning signs based on perception-response time may be found within Table 2C-4 of the MUTCD.

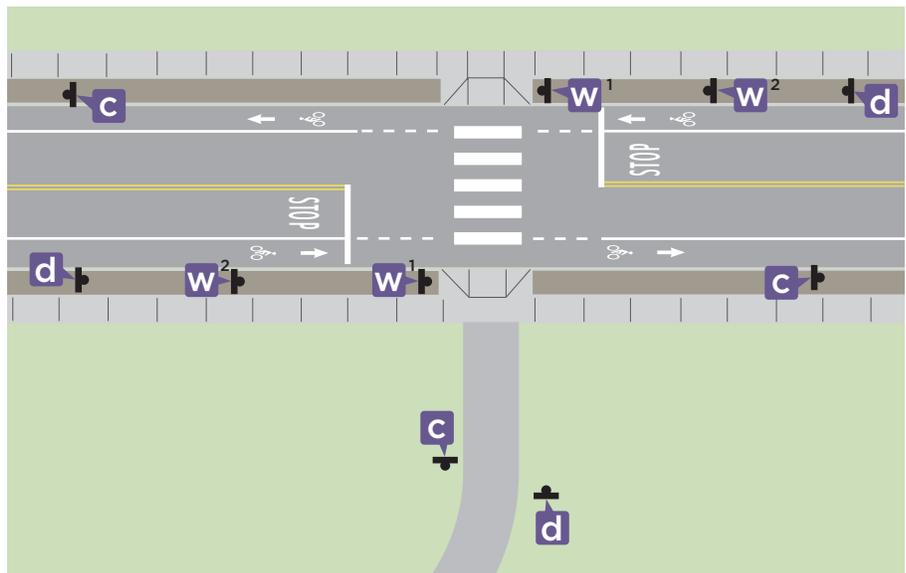


Figure 2.25: On-street/off-street transition sign placement

PATH-PATH INTERSECTION

When pathways intersect each other, multiple destinations are likely. Thus, decision/directional signs should be placed prior to the intersection. As an option, confirmation signs may be placed after intersections to reinforce that the user did indeed make the correct movement.

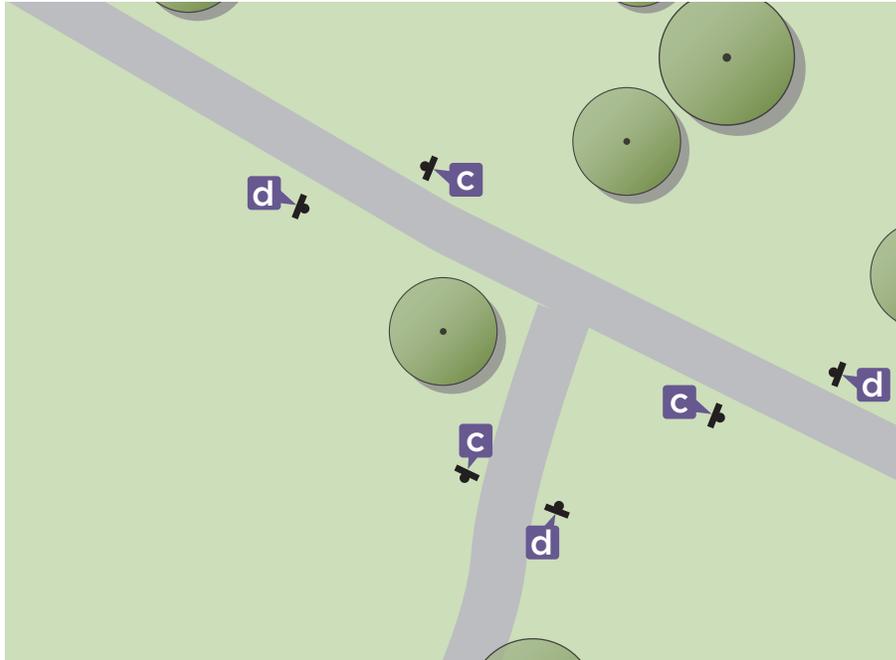


Figure 2.26: Path-path intersection sign placement

d Decision Sign



c Confirmation Sign



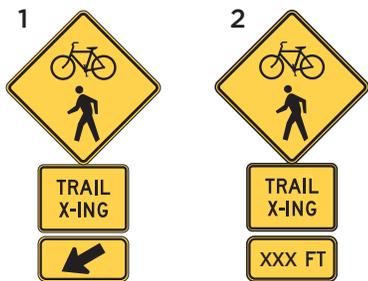
d Decision Sign



c Confirmation Sign



w Warning Sign



Optional:
per MUTCD
section 9B.18

PATHWAY BIFURCATIONS

Connections and access points between the off-street and on-street network may divide a path into two branches. At such junctions, it is important to inform cyclists of where the alternative route option goes. This may be done via decision/directional signs located at junctions.

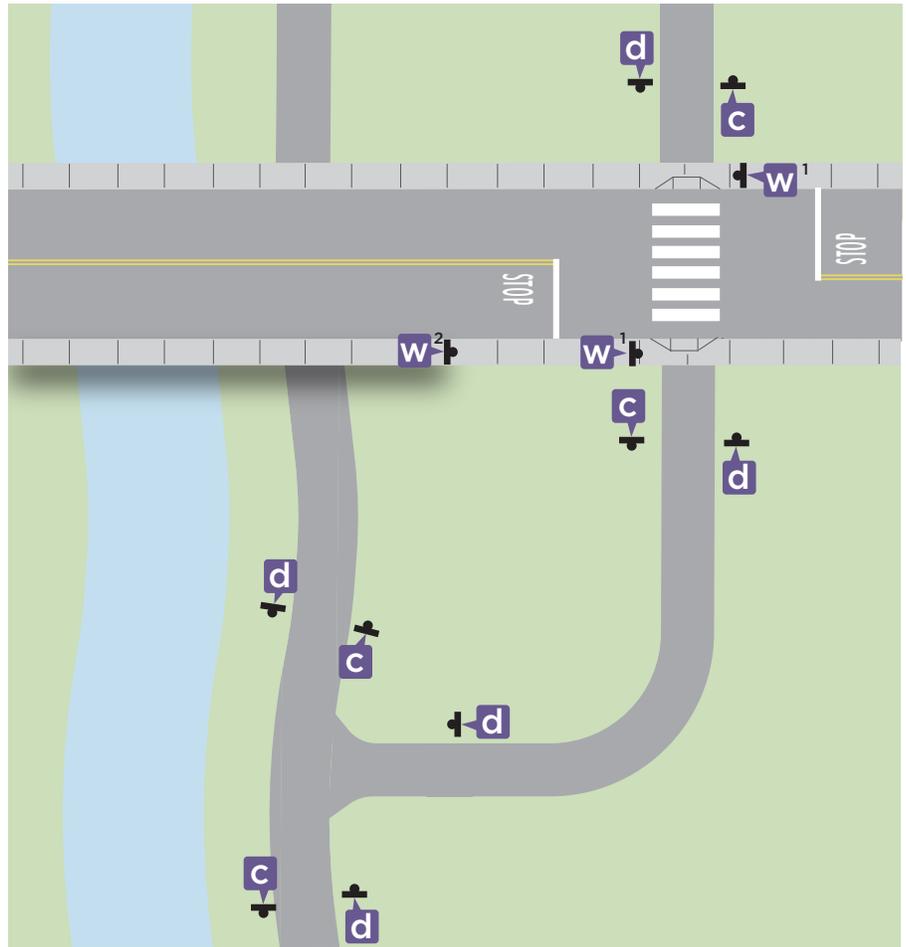


Figure 2.27: Pathway bifurcations sign placement

d Decision Sign**c** Confirmation Sign**t** Turn Sign

GAP IN PATH NETWORK

Where gaps in the off-street bicycle network exist, pathway users may be routed to on-street bicycle facilities to provide improved connectivity. The typical pattern for wayfinding signs includes a decision/directional sign prior to the intersection of route options, followed by an optional confirmation sign. Turn signs should be placed to reinforce the route in locations where only one route option exists.

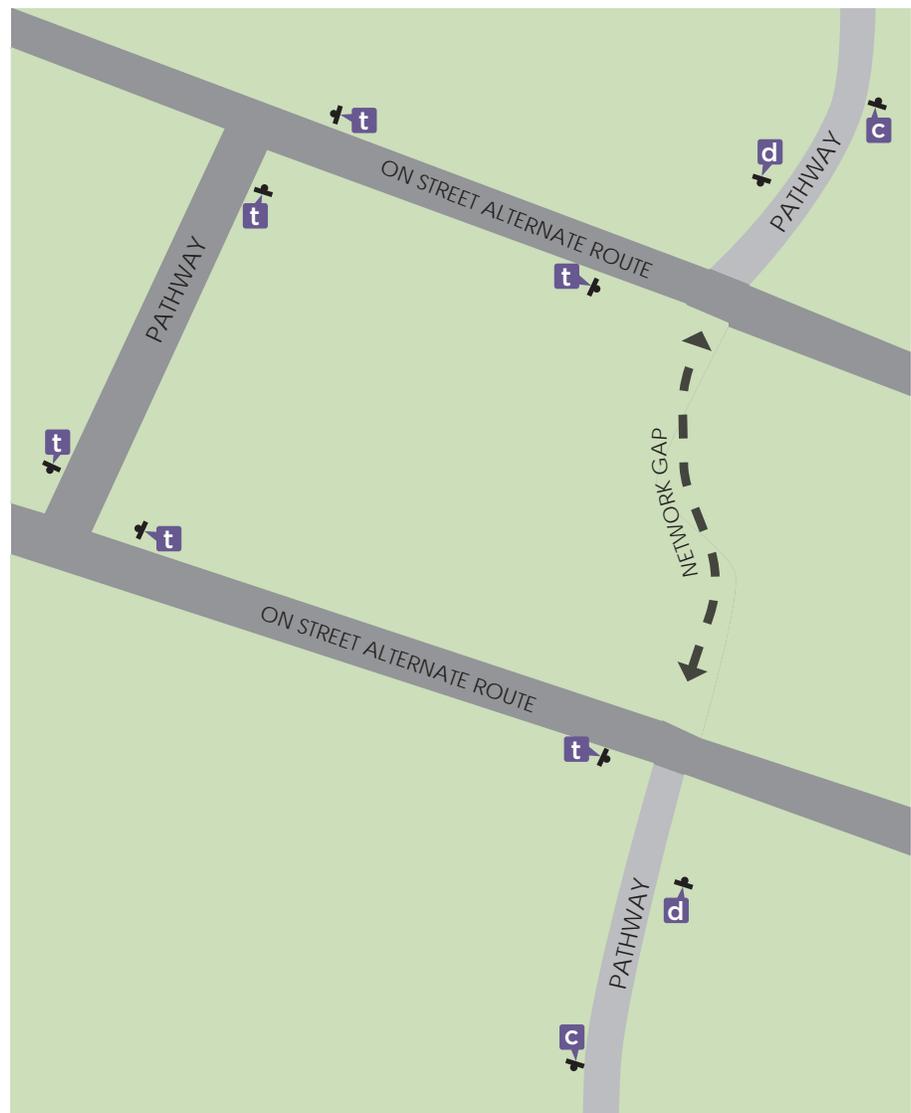


Figure 2.28: Gap in path network sign placement

d Decision Sign



c Confirmation Sign



w Warning Sign



Optional:
per MUTCD
section 9B.18

PATH-ROADWAY INTERSECTION

Path users should be directed to cross roads where improvements such as curb ramps, crosswalk striping, and warning signs exist. If the cross street has on-street bicycle facilities, a decision/directional sign should be placed prior to the intersection to inform bicyclists of their route options. If a bicyclist-oriented stop sign is present, it should not be obscured by the wayfinding sign. Confirmation signs may optionally be placed at path entries to assure bicyclists that they are on a bicycle facility.

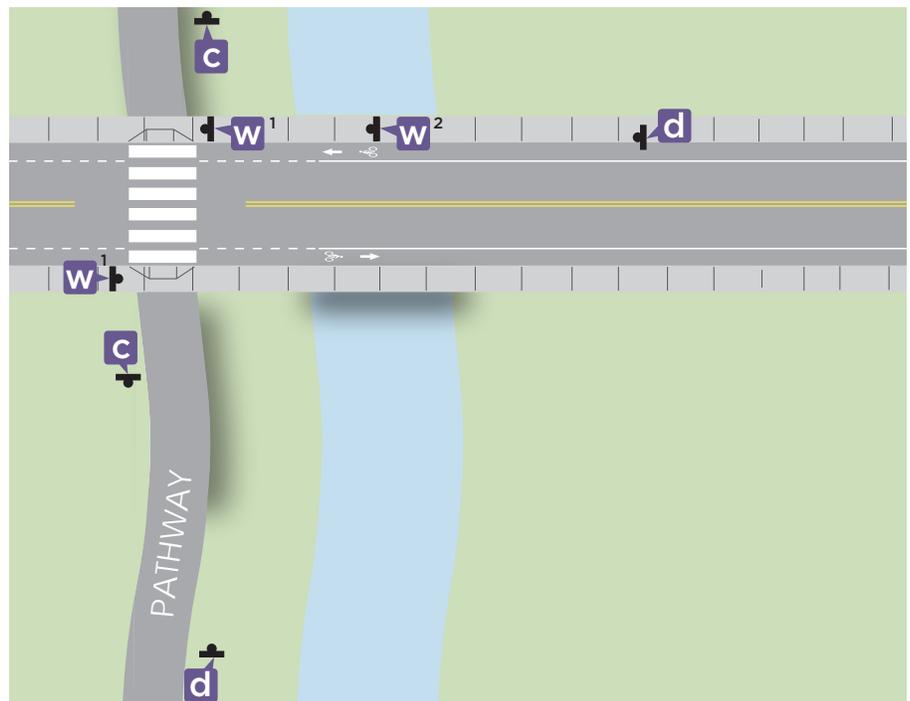


Figure 2.29: Midblock path-roadway intersection sign placement

Direct travel via mid-block roadway crossings is often not provided. Instead, travelers are expected to divert to the nearest improved or signalized intersection. In this scenario, turn signs should be used to direct cyclists to the intersection with safety improvements.

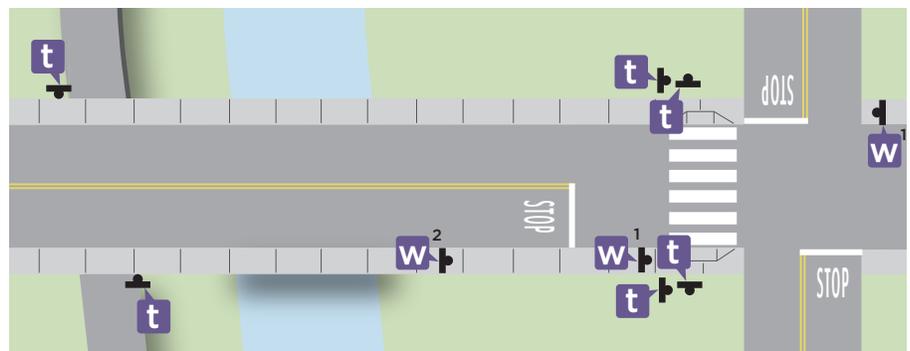


Figure 2.30: Path-roadway intersection sign placement

2.6 SIGN PROGRAMMING



WHAT IS SIGN PROGRAMMING?

Sign programming refers to the messages that appear on signs. Sign messages enable travelers to navigate to destinations and along regional bikeways.



TECHNICAL GUIDANCE: SIGN PROGRAMMING

Sign programming includes identifying the following unique elements for each sign:

- Jeffco Regional Bikeway route name
- Municipality the sign will be located in
- Custom messages and optionally associated time and distance information

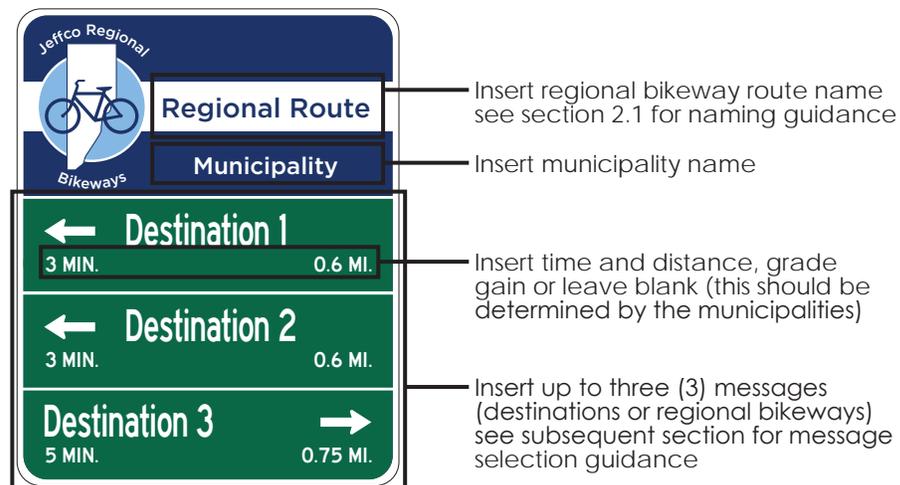
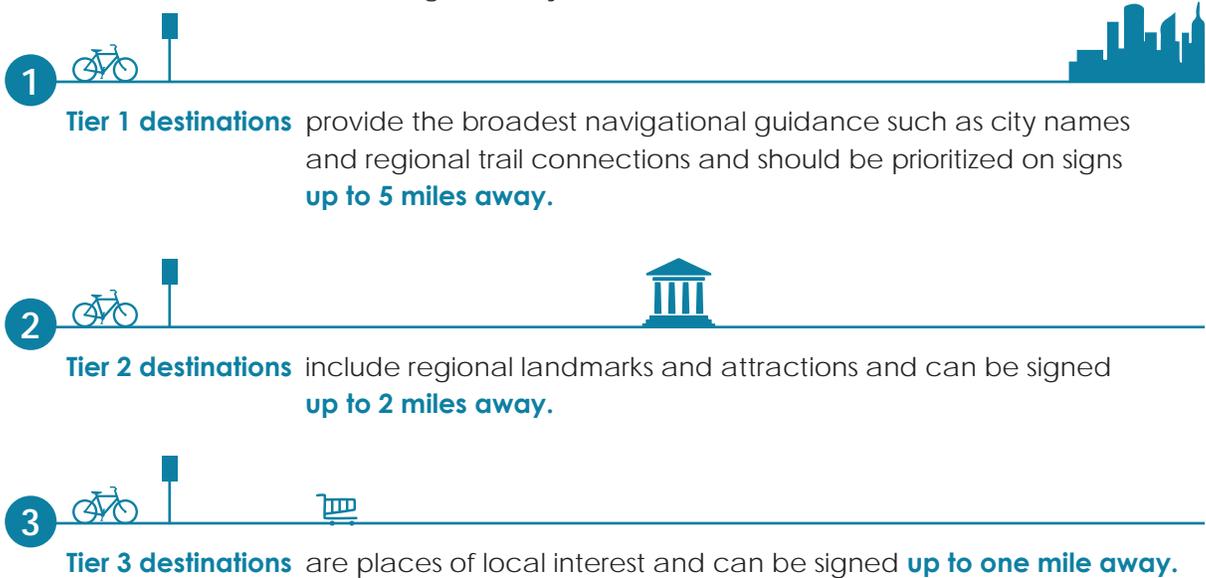


Figure 2.31: Sign programming

The following guidance outlines a consistent approach to message identification based on broad identification of destinations associated with the route, selecting destinations that would appear on signs (based on signing distances outlined below), and identifying the message order (based on distance and direction). All destinations to be signed should be open and accessible to the public.

SIGNING DISTANCES

Using the destination identification guidance (see Section 2.2), identify destinations associated with each route based on distance. The following guidance suggests the maximum distance that destinations should appear on directional signs. This process ensures that information is spread along the journey in manageable amounts according to a bicyclist's immediate needs.



When programming signs in unincorporated Jeffco, signing distances for all tiers may be increased to a distance of 20 miles or more given the lower density of destinations.

DESTINATION ORDER

The closest destination located straight ahead should be at the top of the sign and below it the closest destinations to the left and to the right, in that order. If more than one destination is displayed in the same direction, the name of a nearer destination shall be displayed above the name of a destination that is further away.

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.



Figure 2.32: Decision sign including grade information



Figure 2.33: Confirmation sign including grade information

TIME AND DISTANCE

If time and distance are included on signs, distance is typically measured in miles. A casual pace travel time of six minutes per mile (10 mph average travel speed) should be used for time estimates.

GRADE

In mountainous areas, decision and confirmation signs may include grade climb and distance (see figure 2.32 and figure 2.33).

ABBREVIATIONS

When placing destination names on signs, the use of abbreviations should be kept to a minimum whenever possible. When insufficient space is available for full wording, abbreviations may be used. MUTCD accepted abbreviations are included in the table below. Unless necessary to avoid confusion, periods, commas, apostrophes, question marks, ampersands, and other punctuation marks or characters that are not letters or numerals should not be used in any abbreviation.

Table 2.5 MUTCD Approved Abbreviations

Word Message	Abbreviation	Word Message	Abbreviation
Alternate	ALT	Minutes(s)	MIN
Avenue	AVE	Mount	MT
Bicycle	BIKE	Mountain	MTN
Boulevard	BLVD	National	NATL
Bridge	BR	North	N
Center	CRT	Parkway	PKWY
Circle	CIR	Pedestrian	PED
Court	CT	Place	PL
Crossing	X-ING	Road	RD
Drive	DR	Saint	ST
East	E	South	S
Hospital	HOSP	Street	ST
Information	INFO	Telephone	PHONE
International	INTL	Terrace	TER
Junction	JCT	Trail	TR
Mile(s)	MI	West	W
Miles Per Hour	MPH		



Pop Up Wayfinding
City of Arvada
Wayfinding Route

2.7 IMPLEMENTATION

FINAL DESIGN AND FABRICATION

Based on the content of this wayfinding guide, wayfinding sign designs within this document may be used as templates for in-house fabrication or for bidding the work to independent contractors.

As was done for Priority 1 routes, a sign schedule describing each wayfinding sign in relation to placement, orientation, messaging, directional arrows, and distance/time or elevation measurements to be placed on each individual sign should be produced for the subsequent phases of implementation as described within the guide. Note that placement recommendations generated through the master plan process should be refined during final design. Final sign placement should be field verified to ensure that conflicts are not present and that each location is in compliance with applicable laws and authorities. Verification of placement within the public right-of-way or negotiated easement need also occur.

Fabricators may be required to produce shop drawings indicating methods of assembly. Shop drawings should be routed through the appropriate agency departments for approvals. The production of full-scale mock-ups of sign elements may be required as part of the fabrication contract.

As part of the contractor selection process, requirements may be outlined to assure a quality product. For more complex elements, fabricators should have at least five years of experience in the field completing projects of similar scope. References should be contacted to verify quality of products during the fabrication and installation phase, as well as in regard to ongoing maintenance support.

(Opposite page) The temporary pop-up signs located throughout Arvada affirmed the need for consistent messaging and confirmation.

COSTS

Description	Unit	Unit Cost ¹ (assumes fabrication by contractor, signs include costs of posts)
Decision Sign	EA	\$300.00
Modified Decision Sign	EA	\$235.00
Turn Sign	EA	\$235.00
Modified Turn Sign	EA	\$190.00
Confirmation Sign	EA	\$235.00
Modified Confirmation Sign	EA	\$175.00
Supplemental Brandmark	EA	\$50.00
Supplemental Mile Marker Brandmark	EA	\$190.00

¹Cost of sign assumes fabrication by contraction and includes costs of new post. Cost does not include installation.

Potential Federal Funding Sources

- Community Transformation Grants
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- Federal Aid Highway Program: MAP-21
- Federal Transit Administration Urbanized Area Formula Grants (5307)
- Fixing American's Surface Transportation (FAST) Act
- Highway Safety Improvement Program (HSIP) and Bicycle and Pedestrian Funding
- Land and Water Conservation Fund
- Partnership for Sustainable Communities
- Surface Transportation Block Grant Program Set-aside (STBGP) and Bicycle and Pedestrian Funding
- Transportation Alternatives Program(TAP)

FUNDING OPPORTUNITIES

Funding for bicycle projects may come from a variety of sources including matching grants, sales tax or other taxes, bond measures, or public/private partnerships. This section identifies sources of funding for planning, design, implementation, and maintenance of bicycle projects, including wayfinding improvements throughout Jefferson County. The descriptions are intended to provide an overview of available options and do not represent a comprehensive list. It should be noted that this section reflects the funding available at the time of writing. The funding amounts, fund cycles, and even the programs themselves are susceptible to change without notice.

FEDERAL FUNDING

Federal transportation funding is typically directed through state agencies to local governments either in the form of grants or direct appropriations, independent from state budgets. Federal funding typically requires a local match of 20%, although there are sometimes exceptions, such as the 2009 American Recovery and Reinvestment Act stimulus funds, which did not require a match.

The Colorado Department of Transportation (CDOT) and Denver Regional Council of Governments (DRCOG) administer most federal monies. Federal funding is intended for capital improvements, and projects must relate to the surface transportation system. Most, but not all, of these programs are oriented toward transportation, (as

opposed to recreation), with an emphasis on reducing auto trips and providing inter-modal connections. In the DRCOG region, funding from the Federal Highway Administration (FHWA) requires a local match of generally between 10% and 20% depending on the funding program, while Federal Transit Administration (FTA) requires a local match that ranges between 0 – 20%. Otherwise, Federal funding typically requires a local match of 20%.

The list of federal funding sources provided here could be used to support the implementation of pathway wayfinding improvements. Most of these are competitive, and involve the completion of extensive applications with clear documentation of the project need, costs, and benefits. However, it should be noted that, in addition to stand alone projects, the Federal Highway Administration (FHWA) encourages the construction of bicycle improvements as an incidental element of larger ongoing projects, consistent with its 2010 policy statement on bicycle and pedestrian accommodation. It is important to be in substantial conformance with the MUTCD standards in order to retain eligibility for federally available transportation funding resources.

PRIVATE FOUNDATIONS

Private foundations are an increasingly important source of funds for bicycle and pedestrian planning and implementation. For more information on private foundations, including an extensive list of national foundations visit: <http://www.foundationcenter.org/>

CREATIVE TAX METHODS

Often referred to as hot funds, creative tax methods are an efficient way to collect money from travelers ensuring that it is regenerated back into your city. Providing a creative and engaging wayfinding system will allow travelers to know where they are going and how they are getting to desired locations. This will also allow tourist to become more engaged and encourage them to spend more time and money in prime tourist destinations. This strategy will result in additional revenue for your city.

CIVIC CROWD FUNDING

Unlike private crowd funding, civic crowd funding is dedicated to a specific community, economic, or civic development project. Targeting well known citizens or groups that have the capabilities and interest in funding city projects should be considered. Most citizens want to ensure that their city looks great and may assist in gathering needed donations. Websites like www.gofundme.com are a great and easy online solution to help the public promote and donate to wayfinding projects or city beautification.

COMMUNITY PARTNERS

A typical way to create great momentum is to work with other businesses or agencies that have an interest in your city's wayfinding system. This also helps to identify available funding such as a local bike shop having interest in assisting with the funding for a new bike path. Reaching out to them and offering to promote their brand via signage in exchange for their assistance is a valuable strategy.

