F Wayfinding Framework Plan

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WAYFINDING AND FRAMEWORK PLAN

Framework Mapping

The Glenwood Springs Long Range Transportation Plan team developed a list of destinations ranging from large scale city-wide destinations to smaller scale local destinations during the existing conditions phase of the project to be included in the identification of wayfinding signage. This list includes landmarks and features that are considered significant to the local community and to the interest of visitors and tourists. The primary goal was to determine which features residents or visitors might orient themselves by at each scale. Maps illustrating prioritized routes and destinations are included at the end of Appendix F.

City and Pathways

Through the development of the existing conditions report, the Glenwood Springs Long Range Transportation Plan team identified major city bicycle and pedestrian routes and city-wide and local destinations. Routes and destinations were mapped to understand spatial relationships and develop a framework for the logic and placement behind wayfinding signage .

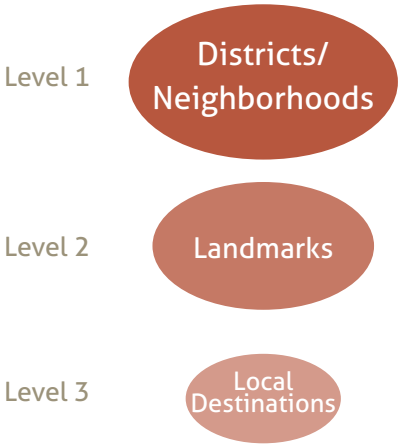
Selecting and Prioritizing Routes for Wayfinding

Candidates for implementation of wayfinding signage included pathways and on-street routes which are open to public use, provide a safe user experience, connect destinations, and are maintained on a regular basis. Pilot installations will be sited along popular routes that are well-maintained. Local paths that provide connections between neighborhoods, schools, parks, and places of work may also benefit from wayfinding to clarify connections and meet specific local needs.

Destination Hierarchy

Following the first principle, "connect places," these guidelines describe an approach for selecting and prioritizing potential destinations to which cyclists and pedestrians may want to travel. As signs only allow for three slots of information or destinations per sign, a consistent approach to select destinations to be included on wayfinding elements is necessary given the multitude of potential destinations possible. Signs should follow the same approach throughout the City so that the system is clear and predictable. Destinations and their names should be referred to consistently until they are reached.

Potential destinations to be included on wayfinding elements were generated from discussions between the City and design team. The list of destinations for inclusion on signs were categorized within a range of three levels. Level 1 destinations should receive first priority on wayfinding signs on City pathways and on-street facilities, followed by level 2 and then 3.



For the purpose of the Glenwood Springs Long Range Transportation Plan Wayfinding Guide, these levels have been broadly organized as follows.

- Level 1 – Districts and Neighborhoods
- Level 2 – Landmarks
- Level 3 – Local Destinations

Community and local pathways typically serve shorter trips within their immediate community. Signs on such facilities may prioritize level 3 destinations recognizing that longer, city-wide trips are more likely to occur via the city-wide pathway network. Also, destinations that are smaller in scale and a regional significance are less likely to have direct connections from the off-street bicycle network than higher level destinations. The on-street bicycle wayfinding system will typically need to work in conjunction with the off-street bicycle navigational information to provide direction at all levels of one's journey in order to reach the front door of destinations.

The table below categorizes destinations within the City of Glenwood Springs.

Level 1 - Districts and Neighborhoods
Level 1 navigational information is used to direct users to comprehendible district and neighborhood scale destinations. These may be city centers, historic, commercial, cultural, or educational districts, or neighborhoods with a distinct name and character. Emphasis should be placed on districts providing a mix of services. Neighborhoods not offering services or attractions, need not be included. Level 1 destinations should be included on signs up to 2 miles away.
Level 2 - Landmarks
Level 2 destinations are more detailed than those in level 1. They are specific landmarks or major attractions which generate a high amount of pedestrian or bicycle travel. Landmarks include transit stations, major tourist venues, and regional parks. Level 2 destinations should be signed up to 1 miles away.
Level 3 – Local Destinations
Level 3 destinations are local destinations such as civic buildings, parks, high schools, shopping centers, and healthcare facilities. They typically occur on signs in low density areas where few other destinations are present or along pathways not connecting higher priority level 1-2 destinations. Level 3 destinations may be signed up to 1 mile away.

Signing Distances

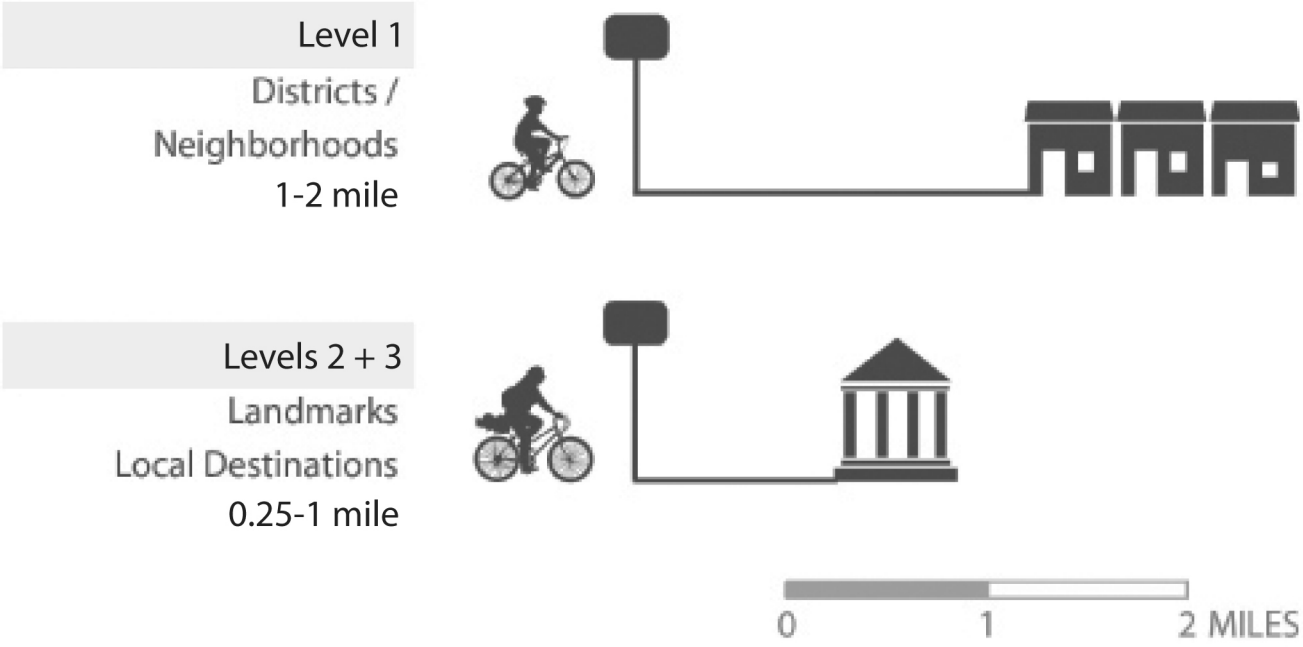
Signing distances suggest the maximum distance that destinations should appear on directional signs. This process ensures that information is spread along the journey in manageable amounts according to a cyclist's or pedestrians immediate needs.

Level 1 destinations provide navigational guidance to the widest spectrum of system users and thus should be prioritized on signs. As a priority, level 1 destinations should appear on signs up to 2 miles away. Level 2 and 3 destinations appeal to a broad spectrum of users with local interest and should be included on signs up to one mile away.

The closest destination lying straight ahead should be at the top of the sign or assembly, 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.

Signing Distances Based on Hierarchy

Distances may be measured either to a destination boundary or center, as long as the approach is consistent throughout the City. Cities typically have a well-defined edge and thus should be measured to their boundary lines. Districts or neighborhoods (level 1 destinations) are less defined in terms of their boundaries and thus should be measured to their centers. Level 2 and 3 destinations may have specific addresses and thus distances should be measured to the main entrance of their specific location. If a level 3 destination is large or has several access points, distance should be measured to the point at which the cyclist will arrive at the destination.



Destination Selection Criteria

Listed below are the inclusion criteria for determining where a specific destination may fall in the destination hierarchy and whether the destination will be considered for inclusion on wayfinding elements within the City of Glenwood Springs. All destinations to be signed should be open and accessible to the public.

LEVEL 1 – DISTRICTS AND NEIGHBORHOODS

Districts and neighborhoods may be included on signs if the area has 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 and surrounding neighborhoods. Neighborhoods having historic character or otherwise significantly contributing to the culture and vibrancy of a city may also be signed.

LEVEL 2 - LANDMARKS

Through the Glenwood Springs Long Range Transportation Plan team discussions, destinations included within the inventory of Landmarks have been sorted between levels 2 and 3. Level 2 landmarks have regional and city-wide significance and can reasonably be expected to be in operation for years to come. Level 2 destinations include:

Businesses and Services

- ***Medical facility*** - Hospitals, veterans services providers, and clinics may be considered if the facilities meet all of the following criteria:
  - 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 Accommodation*** – Resorts or hotels having a satisfactory or three star rating or better and offering a minimum of seventy-five guest rooms.
- ***Visitor Center*** - A facility having the primary purpose of providing information and tourist support services. Must be approved by the State Department of Community and Economic Development.

Education

- ***College/University*** - An educational institution that is nationally accredited and grants degrees.
- ***Public 2 Year College*** - An educational institution that is nationally accredited and grants degrees.

Entertainment and Culture

- ***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.

Public Facility

- ***Airport*** – A facility licensed for landing and takeoff of aircraft.
- ***Recreation or Community Center*** – Publically owned buildings offering places to recreate, learn, and/or gather.
- ***Library*** - A repository for literary and multi-media materials, such as books, periodicals, newspapers, recordings, films, and electronic media, kept and systemically arranged for use and reference.
- ***Park*** – Publically owned National, State, and Regional parks.
- ***Pathway*** – Named regional facilities built for transportation and recreation purposes and used by both cyclists and pedestrians.
- ***Transit Center*** – Passenger terminals facilitating access to light rail, passenger train, or multiple bus lines.

Sports Facility

- ***Golf Course*** - A facility open to the public and offering at least eighteen holes of play. Miniature golf courses and driving ranges are not considered a level 3 landmark.
- ***Stadium or Arena*** – A permanent facility used for the primary purpose of presenting organized sporting events. Includes county and state fairgrounds.

LEVEL 3 - LOCAL DESTINATIONS

A city may wish to extend its wayfinding system to include local destinations. This may be useful in lower density areas or on more rural routes where Level 1-2 destinations are not present. Each city is unique but generally larger civic institutions such as libraries, museums, or community centers will take precedent over specific local services and visitor accommodations.

Businesses and Services

- ***Medical Facility*** - Licensed facilities that provide emergency or urgent care services. Need not be open 24 hours per day, seven days per week.
- ***Shopping Center*** - A group of at least five, but less than thirty shops, retail stores, and/or restaurants.

- ***Visitor Accommodation*** – Resorts or hotels having a satisfactory or three star rating or better and having fewer than seventy-five rooms but more than ten.

Community Facilities

- ***Cemetery*** - A large public park or ground laid out expressly for the interment of the dead.

Education

- ***Secondary School*** – Public schools providing high school level education to students generally aged eleven through eighteen.

Entertainment and Culture

- ***Movie Theater*** - A permanent indoor entertainment facility with capacity for at least two hundred seats which is focused on entertainment through film for visitors of all ages.
- ***Museum*** – A facility of local recognition exhibiting works of artistic, historic, or scientific value to the general public.
- ***Performing Arts Venue*** - A facility focused on the public's enjoyment of the performing arts and having a capacity of less than two hundred seats.
- ***Amusement Park*** - A permanent facility having multiple devices for entertainment, including rides, booths for the conduct of games, or sale of items, buildings for shows and entertainment, and restaurants and souvenir sales.

Public Facility

- ***Civic Building*** - City hall, court house, fire or police station.
- ***Local Park*** - Publically owned local parks.
- ***Post Office*** – Official federal postal service center.

Sports Facility

- ***Golf Course*** - A facility open to the public and offering fewer than eighteen holes of play. Miniature golf courses and driving ranges may be considered.
- ***Sports Field*** – A permanent facility used for the primary purpose of presenting and practicing local organized sports.

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.

Abbreviations

In general, 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. A list of accepted abbreviations per the MUTCD is 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.

Word Message	Abbreviation
Alternate	ALT
Avenue	AVE
Bicycle	BIKE
Boulevard	BLVD
Bridge	BR
Center (as part of a place name)	CTR
Circle	CIR
Court	CT
Crossing (other than highway)	X-ING
Drive	DR
East	E
Hospital	HOSP
Information	INFO
International	INTL
Junction / Intersection	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

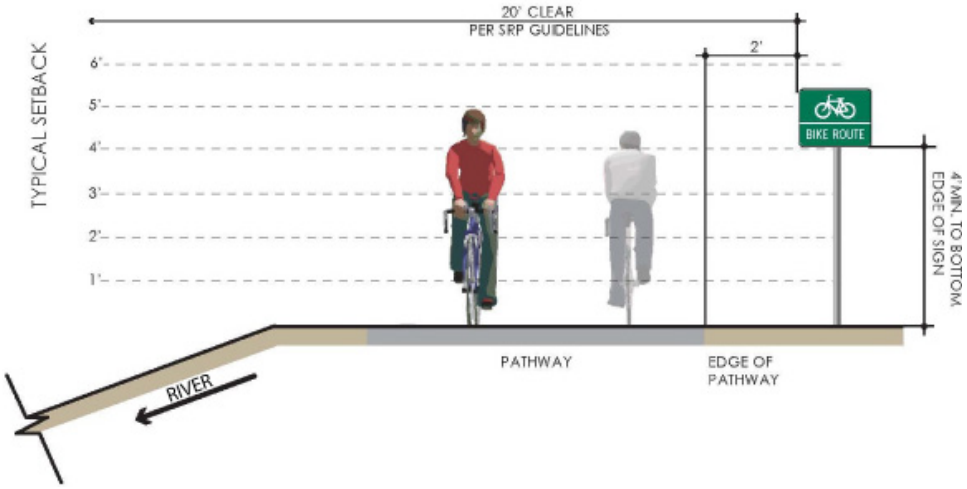
Function and Placement of Wayfinding Elements

Based on field reconnaissance, best practices review, public input, and discussions with project team members regarding wayfinding needs in the City of Glenwood Springs, the following sign typologies are recommended for the Glenwood Springs bicycle and pedestrian network family. All wayfinding elements are oriented and scaled towards the bicyclist and pedestrian unless noted otherwise.

Bicycle Elements

Bicycle oriented wayfinding elements include decision, confirmation, and turn signs as well as mile markers. Each element is designed to be legible by the pedestrian or the cyclist while in motion. The design speed of a path should not be confused with the assumed travel speed used to project distance based on travel time on wayfinding signs. When adding travel time to signs, a no sweat pace of 10 mph or six minutes per mile is typically used.

Per both the MUTCD and AASHTO, the nearest edge of any sign should be a minimum of two feet from the edge of the pathway. The lowest edge of post mounted signs should be no less than four feet above finish grade. The lowest sign edge of on-street bicycle signs should be seven feet.



In general, regulatory and warning signs are a higher priority than wayfinding signs. Care should be taken to not obscure priority information. This includes providing a typical spacing of no less than 75 feet between signs along off-street pathways. This distance is based on travel speeds and thus is generally greater for on-street systems.

Decision Sign

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

Placement: 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. Decisions 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. System brand mark, pathway name.

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, round-abouts, or in-direct routing.

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, pathway name, directional arrow.

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

Decision Sign with distances | Decision Sign with Existing path name | Path Confirmation Sign | Turn Sign

Mile Markers

Function and Content: Aids pathway users with measuring distance travelled. Also provides 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, distance in whole number miles or decimal miles when less than one mile. Path name and jurisdiction may be included.

Placement: To be placed every ¼ to ½ mile along the 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.

Distances along on-street routes should be included within mile measurements. Mile markers may be installed on one side of a pathway, back-to-back.

Supplemental Elements

Primary Pathway Identity Sign

Function and Content: Serves as the initial welcome and identification of primary pathway access points for vehicle drivers. System brand mark, pathway name, and local jurisdiction identity/logo.

Placement: Vehicle oriented and scaled identity signs should be located at trailheads or regional pathway access points. Care should be taken to maintain site triangles so as to not obstruct site lines between roadways and entries at trailhead locations.

Secondary Pathway Identity Sign

Function and Content: Serves as the initial welcome and identification of secondary pathway access points. Oriented and scaled towards pedestrian and bicycle network users. System brand mark, pathway name, local jurisdiction identity/logo.

Placement: Pedestrian and bicycle oriented and scaled monument sign located at pathway access points. Should be visible from adjacent bicycle facilities.

Information Kiosk

Function and Content: A clearing house of information for pathway users at a more detailed level than other elements. Includes space for orientation map graphics indicating the off-street route, on-street connections, major geographic features and area destinations to be included. Space shall be available for network rules and responsibilities as well as emergency and pathway manager contact information and jurisdiction logo.

Placement: Located at major pathway system access points. Should be set back from the edge of the path travelway in order to provide areas to dwell and consider the information. Not locating the signs within the first three feet of a pathway edge would remove a potential physical obstacle from the bicycle travelway as well as provide clear circulation area per accessibility guidelines.

System Identifiers

Function and Content: System identifiers include opportunities to add the system brand mark or logo to existing features to expand visibility at an affordable rate. Identifiers may include vinyl wraps, adhesive graphics, sign toppers, and pavement markings with system name or brand mark.

Placement: May be placed at each jurisdiction's discretion based on need for augmented system visibility.

On-street Support Elements

Function and Content: Support elements to facilitate connections via the on-street bicycle network. Includes brand toppers or directional plaques.

Placement: May be mounted to existing or new on-street wayfinding sign posts.

Placement Scenarios

Elements of the wayfinding family should be located in a consistent and logical manner across all of Glenwood Springs.

The following typical placement scenarios are typical navigational issues that most need clarification in relation to the pedestrian and bicycle network:

- Gaps in path network,
- Path-path intersections,
- Path-roadway intersections,
- Off-street and on-street transitions,
- Pathway access points,
- Typical setback and frequency.

Note: in the diagrams below, generic wayfinding elements are used as placeholders until final designs are approved.

Pathway Access Points

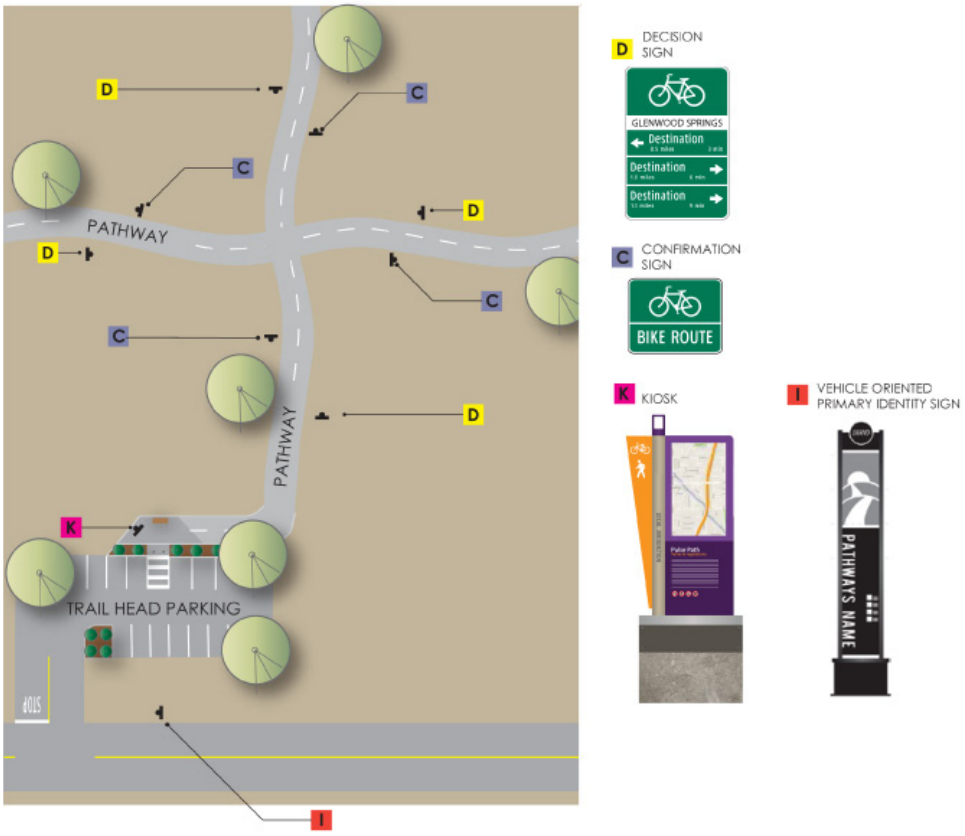
Major pathway access points or trailheads should be identified via primary identity signs. Primary identity signs should be placed oriented towards the approaching vehicle. Care should be taken to not obstruct site lines between the roadway and entry points or driveways.

Pathway system access points not providing vehicle parking should utilize the secondary bicycle and pedestrian scaled identity sign.

As an option, kiosk signs with orientation maps may be placed at developed trailheads or access points.

Path-Path Intersection

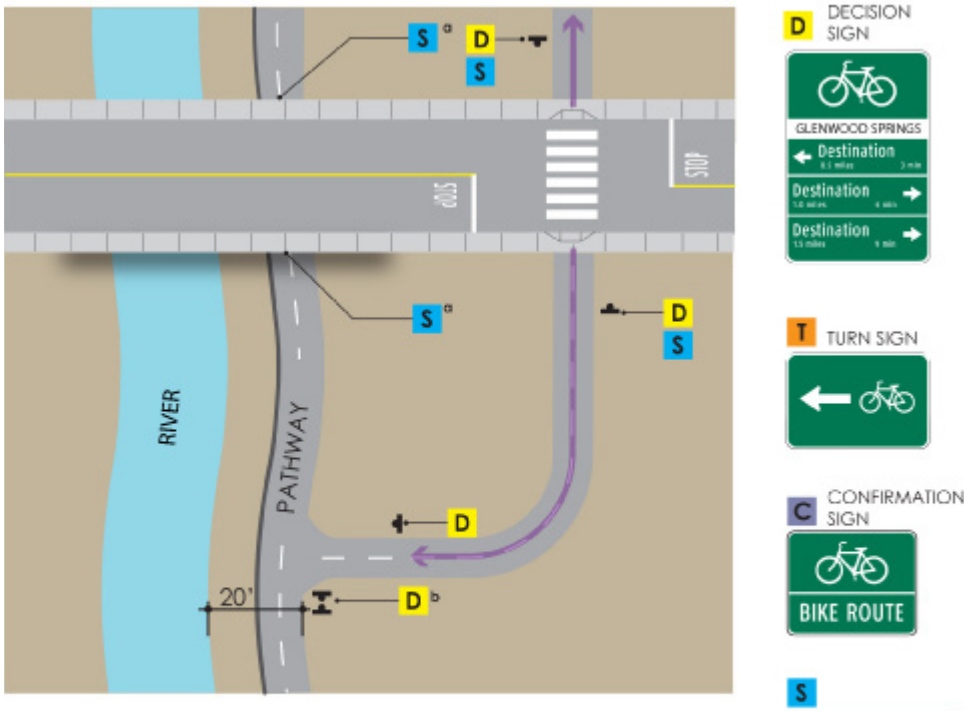
When pathways intersect each other, multiple destinations are likely. Thus, decision signs should be placed prior to the intersection. As an option, confirmation signs may be placed after intersections to reinforce that the user did indeed make the correct movement.



Pathway Bifurcations

Connections and access points between the off-street and on-street network may result in path bifurcations. At such junctions, it is important to inform pedestrians and cyclists of where the alternative route option goes. This may be done via decision signs located at junctions. Flood control facilities may limit the opportunity to place signs on both sides of the pathway. Although not ideal, decision signs may be placed on the opposite side of the pathway.

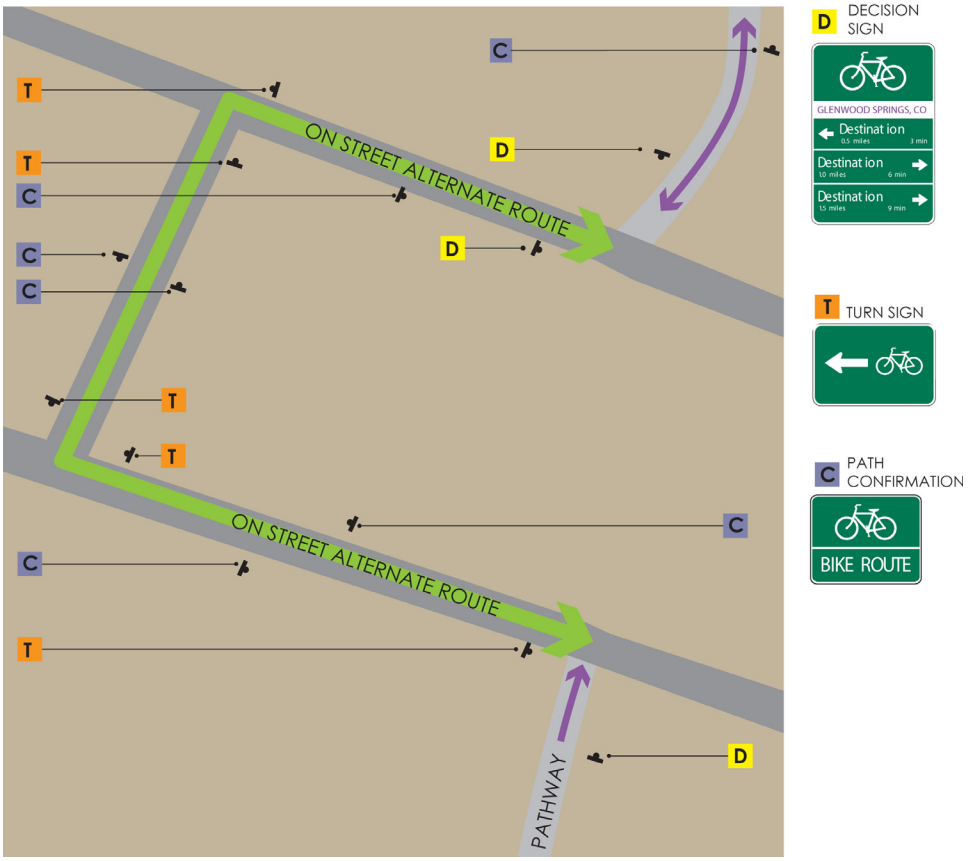
Grade separated roadway crossings would benefit from applying street name sign blades to crossing improvements such as bridge infrastructure.



NOTES:
a. MOUNT TO UNDERSIDE OF BRIDGE
b. OK TO MOUNT TWO SIGNS PER POLE. SIGNS TO BE PLACED PERPENDICULAR TO DIRECTION OF TRAVEL.

Gap in Path Network

Where gaps in the bicycle network exist, pathway users may be routed to another bicycle facilities to provide improved connectivity. The typical pattern for wayfinding signs includes a decision 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.



Off-street / On-street Transition

When transitioning from an off-street facility to an on-street facility, it is important to advise travelers of their route options. In this scenario, decision signs direct cyclists to their destination choices while confirmation signs reinforce that the user is on a designated facility after a turn movement is made.

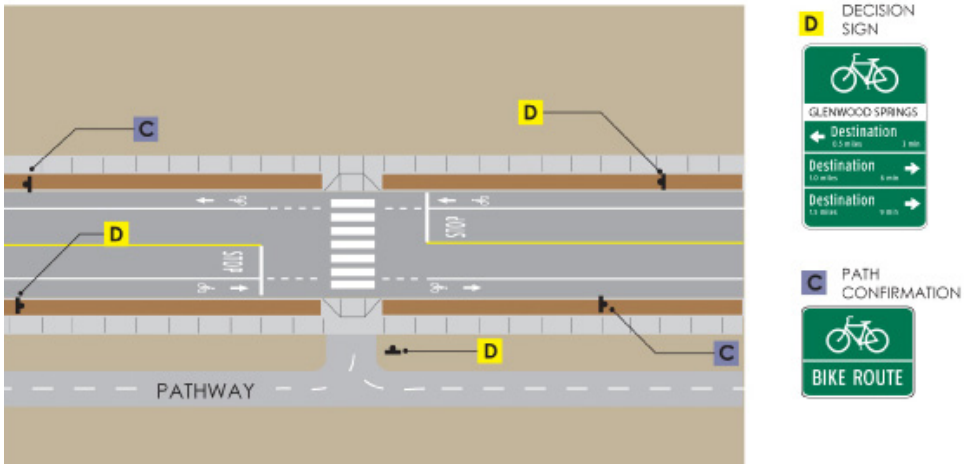
Decision signs should also be placed at the entry to the off-street bicycle network. Once on the off-street bicycle network, confirmation signs are optional.

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

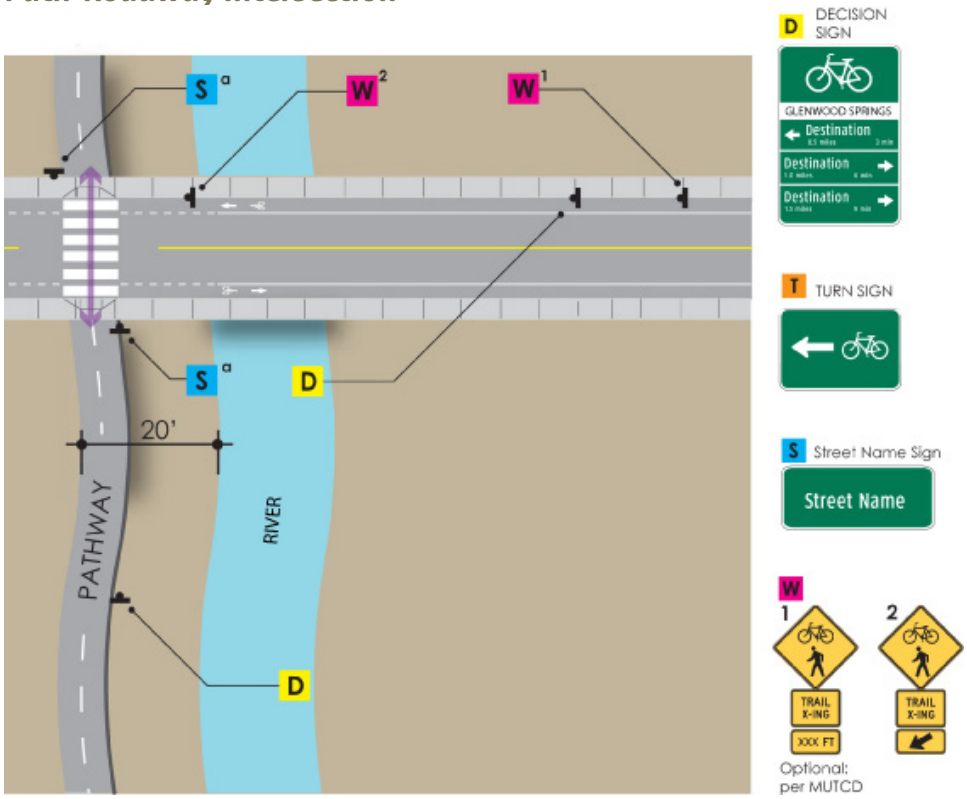
Advance warning signs are optional per the MUTCD. If they are used, their placement should provide needed time for dectection, recognition, decision, and

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.



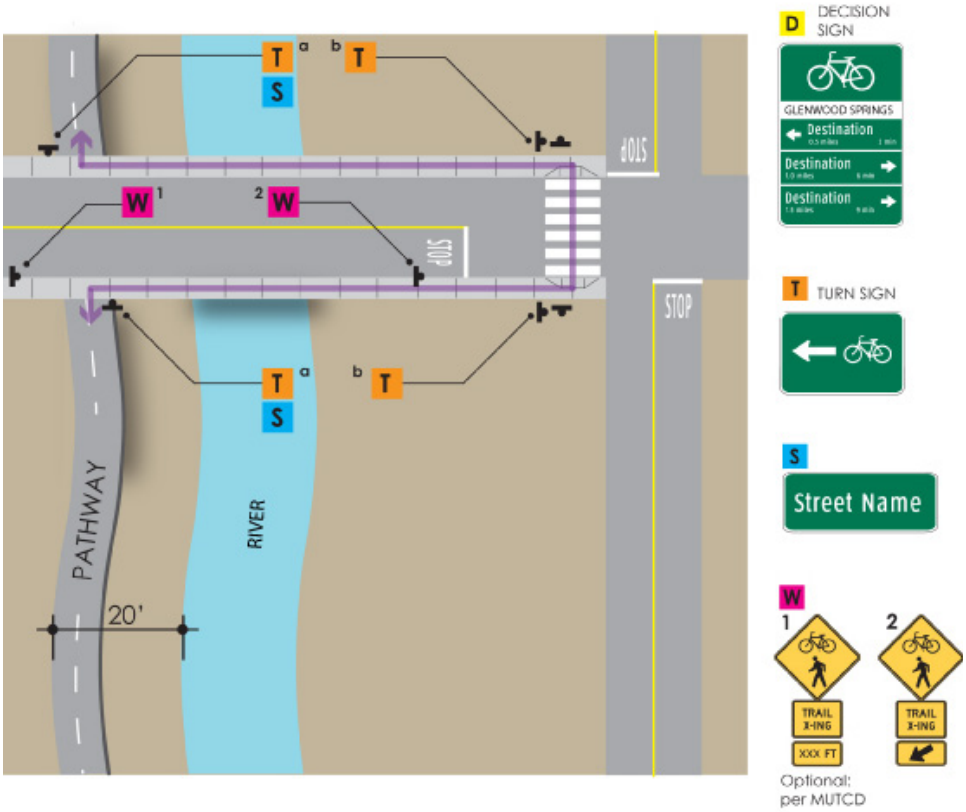
Path-Roadway Intersection



Pathway users should be directed to cross roadways only where improvements such as curb ramps, crosswalk striping, and warning signs exists. If the cross

street has bicycle facilities such as bike lanes, a bicycle boulevard, or cycletrack, a decision sign should be placed prior to the intersection to inform cyclists of their route options. If a cyclist oriented stop sign is present, it should not be obscured by the wayfinding sign. Decision signs may be topped with street name sign blades to enhance one's awareness of their location. As an option, confirmation signs may be placed at pathway entries to assure cyclists that they are on a bicycle facility.

Along Colorado River or Roaring Fork River facilities, a twenty foot wide clear area should be maintained from the edge of the river. It is preferred that signs not be placed in this area. Opportunities to mount wayfinding signs within the road right-of-way or to existing features within RFTA and Colorado River right-of-way such as sign posts and bridge railings, should be sought prior to the installation of signs on new posts.



Oftentimes, direct travel via mid-block roadway crossings is not provided for. Instead pathway users 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. Again street name blades may be mounted above decision signs to reinforce location.