City of FRESNO

Travel by Trail, Fresno! Trail Network Wayfinding, Connectivity, and Promotion Project

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Acknowledgments

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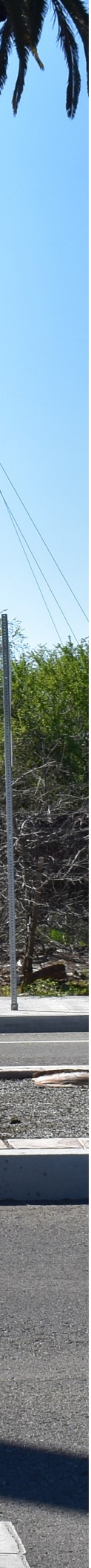
Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.



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1. Introduction and Background

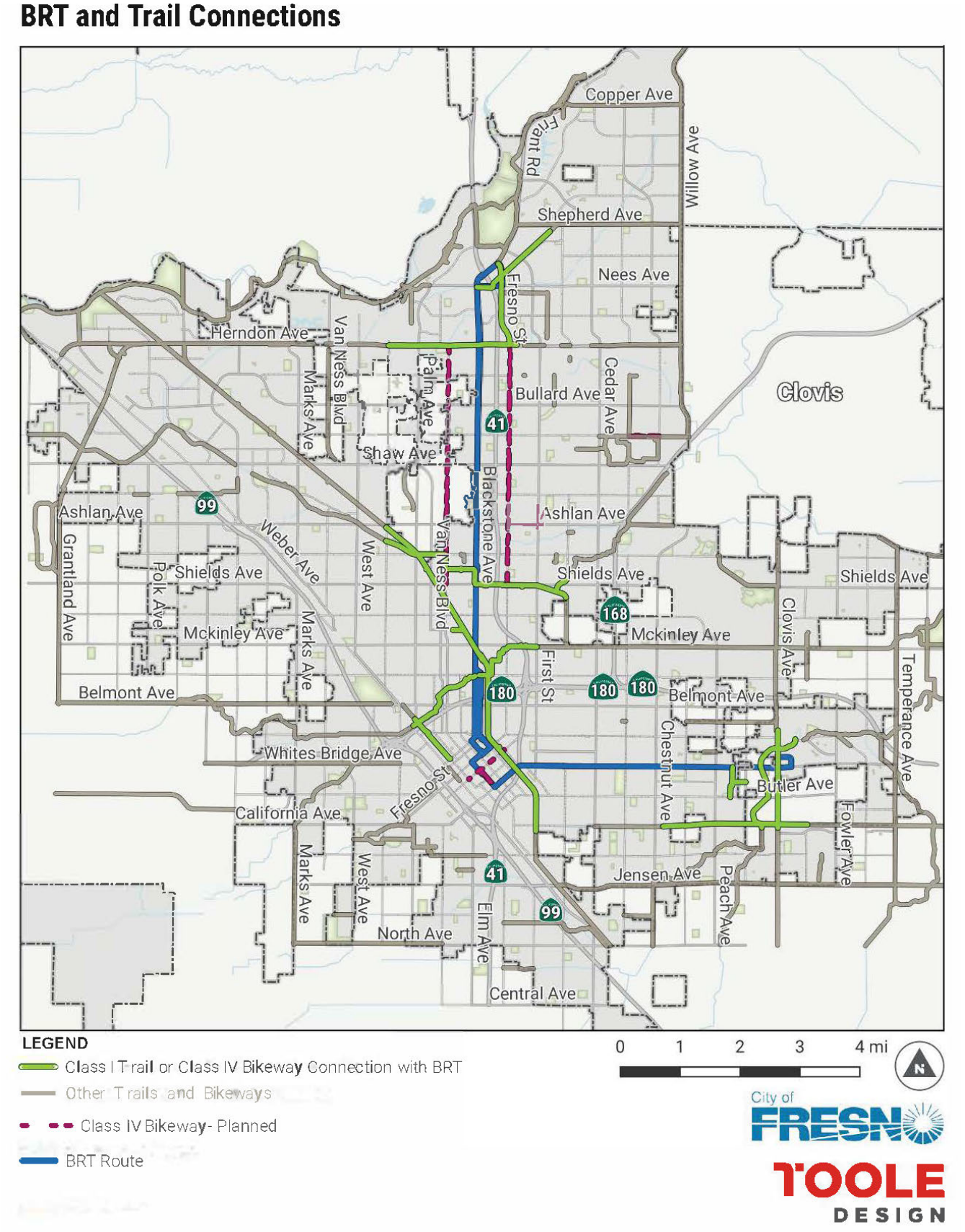
1.1 About this Plan

With this project, funded by a grant from Caltrans, the City of Fresno has set out to create a Wayfinding Plan to knit together the City's trails and transit network, shown in the project goals (Figure 1) and the system map (Figure 2), and to support and encourage transportation and recreation. Current trail and bike facility signage across the city is inconsistent and incomplete, resulting in a lack of guidance and creating confusion for people using the trails and bikeways. This plan, completed in February 2022, provides guidance for a seamless, coordinated wayfinding system that can be implemented across the City's trail network and to close the gaps between first- and last-mile connections to transit.

The City encourages other local trail owners and jurisdictions, such as the County of Fresno and City of Clovis, to make use of the guidance included to promote a unified look and feel for Fresno's wayfinding signage. The proposed signs, vetted by local maintenance staff, are designed to be easy to manufacture, install, and maintain.

Figure 2: Project Goals

Figure 1: Proposed Class I Trails and Class IV Bikeways, and Current BRT Route



1.2 Process

This plan was developed under the oversight of the City of Fresno Public Works Department with input and guidance from a Steering Committee created for this project.[1] The project team collected public input on the sign design at several points during the design process through on-line surveys promoted through the City's social media channels.

The plan had three phases, as shown in Figure 3:

1. Discovery: The plan began with an existing conditions assessment that looked at existing signage and branding around the City and examined best practices for trail-based wayfinding.
2. Sign Concept Development: The development of sign concepts began with conversations with City staff about the City's sign fabrication capabilities and maintenance issues. Notable imagery, colors, and design themes were gathered and presented to the community to solicit preferences. These became the starting point for the development of draft concepts, which were shared with City staff and the community.
3. Final Sign Design and Refinement of Concept: Based on public input, the sign concepts were finalized, and the nuts and bolts of sign design, placement, and installation were assembled in the plan. The full plan includes implementation and promotion strategies.

Figure 3: Plan Process

1 The Steering Committee included representatives from Centro La Familia, Every Neighborhood Partnership, the City of Clovis, Community Medical Centers, Tree Fresno, Fresno County, the Fresno Council of Governments, Caltrans, and California State University, Fresno, Fresno Cycling Club, and the Fresno County Bicycle Coalition.

1.3 Why Wayfinding Signs are Important

Wayfinding signage is an affordable way to improve conditions for people bicycling and walking, emphasize a local brand, create a sense of place, and promote community development. Wayfinding also provides the following benefits:

- It encourages people to bicycle or walk for transportation by highlighting how easy it is to get to destinations.
- It can help clarify what kinds of uses are allowed on trails.
- On trails, wayfinding guides trail users to key destinations that may be slightly off the trail.
- In emergencies, wayfinding signs help trail users report their location and help first responders.
- Orientation Maps at transit stops help transit users understand how their stop fits into the larger transit network.

2. Technical Guidance and Best Practices

2.1 Technical Guidance on Bicycle Wayfinding and Trail Signage

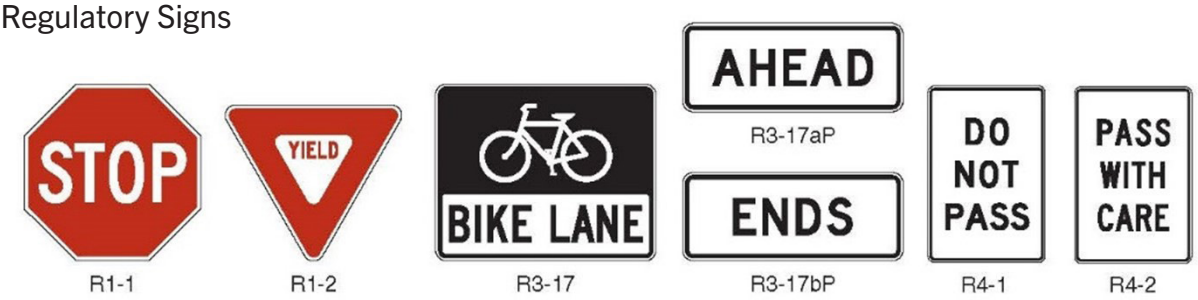
The following national, state, and local manuals provide guidance on specific aspects of bicycle and trail signage that are applicable to this project. A brief description of the guidance available in each manual is included below.

Manual on Uniform Traffic Control Devices (MUTCD) Guidelines

The Manual on Uniform Traffic Control Devices (MUTCD 2009 edition) defines the signs and standards for traffic control devices on all "public streets, highways, bikeways, and private roads open to public travel". It is published by the Federal Highway Administration (FHWA). Having consistent sign and traffic control devices across the United States results in safer, more efficient travel. Part 9 of the MUTCD establishes standards and guidance for traffic control of bicycle facilities, including the signs shown in Figure 4:

Figure 4: MUTCD Regulatory, Warning, and Guide Signs

Regulatory Signs



Warning Signs

Guide Signs

The MUTCD also has a section on Community Wayfinding which provides standards and guidance for customized, branded wayfinding signs, which may be used on roads that are not freeways (see example in Figure 5). Section 2D.50 of the MUTCD states:

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

Many communities interpret this section as providing guidance for customizing their bicycle wayfinding signs to include specific branding and flexibility in color and design, either as an element of one or more unique routes, or throughout their entire bicycle wayfinding system. The figure below illustrates the features of a community wayfinding sign. The background color of the sign may be customized but cannot use standard MUTCD colors that covey specific meanings to roadway users, such as red indicating “stop”. Prohibited standard colors include red, orange, yellow, purple, fluorescent yellow-green, and fluorescent pink. Enhancement markers may be any color, but the MUTCD recommends that enhancement markers occupy no more than 20 percent of the sign face on the top or side of the sign. Other features of the sign legend, such as the directional arrows, fonts, and layout are as dictated by the MUTCD.

Figure 5: MUTCD Community Wayfinding Signs

Design Flexibility for Shared Use Paths and Trails

Though the MUTCD states that its standards apply to all traffic control devices on bikeways, in practice, wayfinding signage systems on paths usually do not follow strict MUTCD design standards. There are two main reasons for this:

1. The funding agencies for wayfinding systems on paths often do not have to legally adhere to MUTCD standards, and therefore may not be aware of these standards. Frequently, funds for path wayfinding come from State Departments of Natural Resources, local or regional parks agencies, or privately raised funds.
2. On paths and trails, many users are pedestrians, and some wayfinding systems are therefore designed exclusively for pedestrians. The MUTCD Part 9 does not cover pedestrian traffic control for paths. The MUTCD notes that pedestrian wayfinding signs may differ from bicycle wayfinding, such as by using smaller fonts and not including retro-reflectivity.

Figure 6 shows the spectrum of compliance to MUTCD wayfinding sign standards. As the figure shows, there are many examples of unique bicycle and trail-based wayfinding signs across the county.

Figure 6: Spectrum of MUTCD Compliance

Caltrans Wayfinding Guidance

Some or all of the signs for this project may need to adhere to Caltrans policy. The California MUTCD has several wayfinding-related revisions and additions to the national MUTCD but lacks other wayfinding guidance.

City of Fresno Guidance

City staff weighed in on materials, shapes, colors, and design themes in regard to alignment with MUTCD, Caltrans, and local guidance. Sign shop capabilities and maintenance were also considered. The primary concern staff expressed was around being able to maintain signs, and address vandalism and tagging.

2.2 Accessibility Guidelines

Americans With Disabilities Act Standards

The 2010 ADA Standards for Accessible Design provides specific guidance for the design of communication elements, including signs. The following standards from Section 703.5, Visual Characters, should be considered when designing wayfinding signs for outdoor use.

Finish and Contrast

Signs are more legible for persons with low vision, as well as persons with color vision deficiency (i.e., colorblindness), when the value contrast (light vs. dark) between the characters and the background is kept high. This may be achieved by using light characters on a dark background or dark characters on a light background. Visual Characters and their background should both have a non-glare finish. Consider additional factors that affect the ease with which the text can be distinguished from its background including shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

Tactile Signs

Braille lettering can be included on wayfinding signs and can be successful in urban environments with predictable sign placement, and the use of tactile wayfinding surface indicators to help people find the signs. Trail signs are typically placed off the edge of a trail, making them difficult for people who have vision disabilities to find or access. Emerging technologies like audio-based navigation tools (e.g., Google Maps) can support accessible trail use.

2.3 Emerging Technology to Enhance Accessibility

Public input on the project (see Section 3.3) revealed a high level of interest in accessibility information. The integration of digital technology into everyday lives has created enhanced opportunities for accessible wayfinding strategies. Accessible audio-based navigation tools can communicate turn-by-turn wayfinding guidance to users through their smartphones, thus creating inclusive experiences and promoting independent navigation for blind and vision impaired persons. Wayfinding applications like Google Maps can provide walking information, but do not necessarily provide critical accessibility information like the location of curb cuts, signalized crossings, and other elements people who with disabilities rely on for orientation and safety. Recent efforts signal a more toward increased accessibility information:

- A 2019 trial commissioned by the Los Angeles County Metropolitan Transit Authority which employed open standard audio based wayfinding technology found that 95% of the study participants would be more likely to use public transit if the technology were deployed on a permanent basis. See: http://www.wayfindr.net/wp-content/uploads/2020/01/Wayfindr-LA-Metro-Trial-Report.pdf
- Sound Transit in the Puget Sound region of Washington State is currently pursuing an Accessible Mobility on Demand grant from the Federal Transit Administration to implement an audio navigation system to enhance access both to and through transit stations.
- BlindSquare is a "self-voicing app [that] delivers detailed points of interest and intersections for safe, reliable travel both outside and inside," for the blind, deafblind and partially sighted.

Right now, these efforts rely on agencies' abilities to provide accessibility data, such as accessible routes and the location of accessible information. The departments of Planning, Public Works, and FAX should look for future opportunities to develop such data to support digital wayfinding apps.

3. Public Engagement

Public engagement informed the design of the signs and the full plan.

3.1 Engagement Goals

A Public Engagement Plan was developed, with the intention of building on previous engagement efforts by continuing to engage with stakeholders from the 2016 Parks and Trails Community Engagement effort, the 2018 Active Transportation Plan (ATP) process, the 2019 Trail Network Expansion Feasibility Study, and other ongoing efforts. Public Engagement goals are shown in Figure 7 and described below.

Figure 7: Public Engagement Goals

- **Keep the public and officials informed about the Plan**. Use frequent communication to keep the public, local advocacy organizations, and local government officials apprised of progress.
- **Engage stakeholders in a way that creates a sense of shared goals and priorities.** Support for the adopted sign design and Plan will flow from frequent, reliable, and meaningful opportunities to be heard. To build support for the Plan, the community needs to be offered ample opportunities to provide input into the development of the Plan.
- **Grow the pool of stakeholders.** Strategic communication must be designed (and modified) to attract supporters ready to offer input, who will also encourage, implement, and possibly fund the walking and biking wayfinding signs.
- **Make it convenient to provide input.** Offer on-line opportunities to provide meaningful feedback at convenient hours via computer or mobile device. This will be important during the current COVID-19 pandemic when events and meetings may have less attendees.

3.2 Engagement Activities

The following engagement activities informed the plan.

- **Steering Committee (SC)**
  - The Steering Committee was formed to gather input and support from a small group of highly informed and engaged stakeholders. Three meetings were held; one at the beginning of the project, one after the sign concepts were developed, and one to review and discuss the draft plan.
- **Project Promotion and Coordination with Public Information Officer Coordination**
  - The project team worked with the City's Public Information Officer to promote meetings through flyers and social media posts.
- **On-line Surveys/Physically Distant Engagement**
  - Due to the impact of the COVID-19 pandemic and limitations on public gathering during the project's prime engagement phase, public input was solicited via two on-line surveys. The first was a visual preference survey and the second requested input on the draft sign concepts and navigational needs.
- **Participatory Meetings**
  - To engage with the public, inform them of the overall project outcomes, and gather critical feedback, participatory meetings were held. These meetings were originally planned to take place in locations where the community is already gathering, but under the recent COVID-19 concerns with public interaction, we are able to hold physically distant engagement through on-line meetings and surveys.
- **Language Access**
  - To ensure the engagement process is inclusive of the major languages in Fresno material translation was provide.

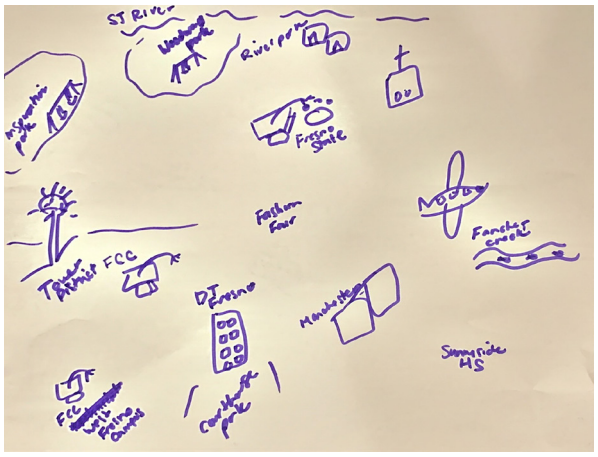
3.3 Summary of Engagement Input

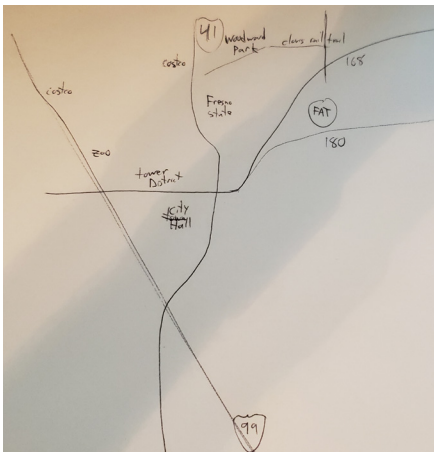
Mental Maps

The project team invited the Steering Committee to create mental maps of Fresno to understand local landmarks and points of orientation. Figure 8 shows a sample of the maps; the list below highlights some the major destinations around the city, which include colleges and universities, shopping areas, parks, Downtown and the Tower District:

- Airport
- City Hall
- Clovis Rail Trail
- Costco
- Downtown
- Fancher Creek
- Fashion Fair
- FCC
- FCC West Fresno Campus
- Fresno State
- Inspiration Park
- Manchester Shopping Center
- River Park
- Sunnyside High School
- Tower District
- Woodward Park

Figure 8: Mental Maps of Fresno





Visual Preference Survey

To understand the visual identify of Fresno, a visual preference survey was developed to solicit ideas about the City's visual style. The visual preference survey was live for about 6 weeks during the spring of 2021. Just under 200 responses were received (five in Spanish). In addition to the visual preference questions, the survey included demographic questions, questions about popular trails and destinations, and how people access transit.

Survey Results

Respondents were asked what words they would use to describe Fresno, what imagery and colors comes mind. The responses are shown in Figure 9.

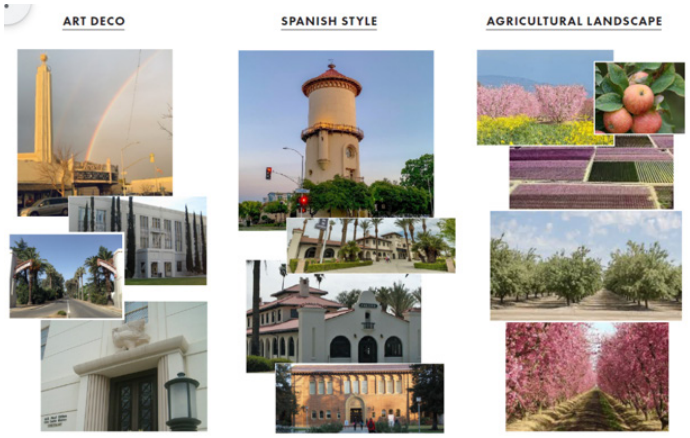
Figure 9: Words and Imagery to Describe Fresno

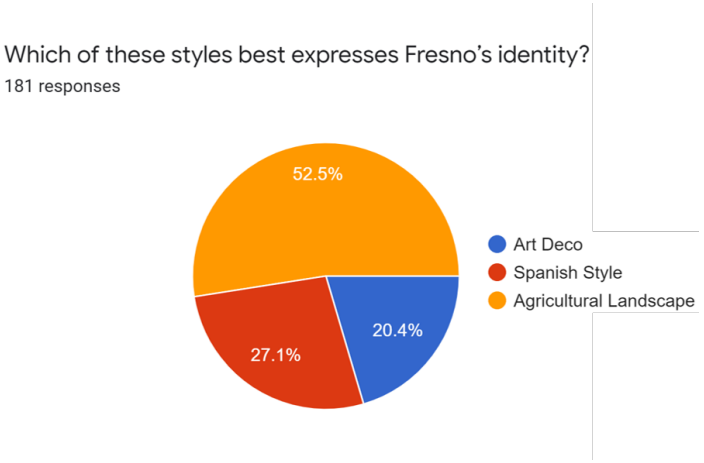
What words would you use to describe Fresno?	What imagery comes to mind when you think of Fresno?	What colors come to mind?
• Diverse (31) • Hot (15) • Potential (13) • Sprawl (8) • Dirty (7) • Flat (6) • Agriculture (6) • Spread out (5) • Fun (4) • Beautiful (4) • Community (4) • Affordable (4)	• Agriculture/ farms (30) • Homelessness (22) • Mountains (16) • River (10) • Sun (8) • Art (6) • Orchards (4) • Murals (3) • Vineyards (3)	• Green (77) • Brown (44) • Blue (36) • Yellow (29) • Gray (27) • Red (26) • Orange (19) • White (11)

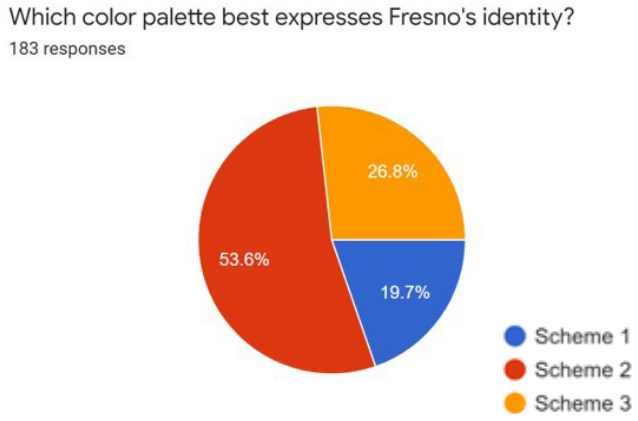
The graphics in Figure 10, 11, and 12 show the imagery, color palettes, and typefaces/fonts people were asked to select in response to what is the best expression of Fresno. The results of the survey align with the input above.

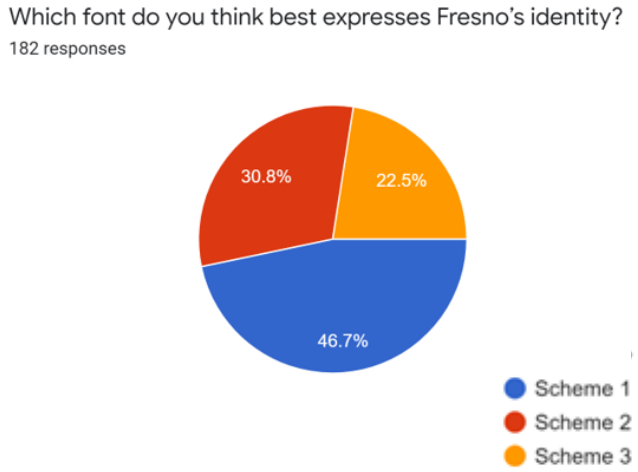
- **Imagery preference:** agricultural landscape (orchard trees, blossoms, pastel-colored blossoms).
- **Color preference:** warm, earthy, and temperate (muted blues, greens, yellows).
- **Typeface preference:** unique, sophisticated, styled.

Figure 10: Visual Preference Survey









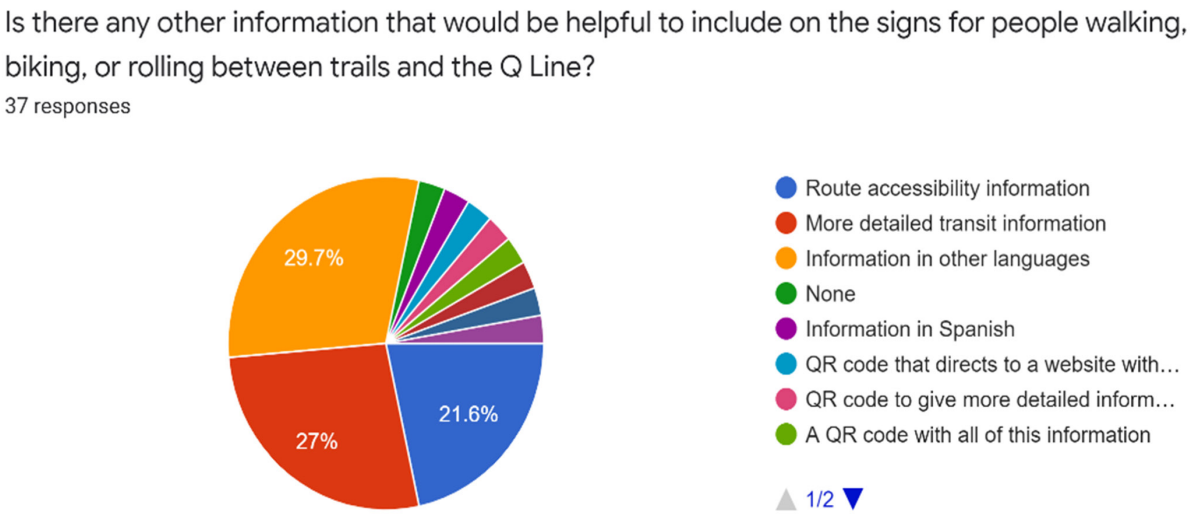
Sign Concept Feedback

Four signs design concepts were presented to City staff, to the Steering Committee, and the public via an on-line survey. Each concept reflected preferred color schemes and typeface, look and feel, and agricultural imagery (fruit tree blossoms, tree silhouette, mountain silhouette). The input received was used to refine the design and arrive at a final sign design.

Additional Information and Wayfinding Needs

The survey also included question about additional information and wayfinding needs (Figure 13). The top responses were; information in other languages, more detailed transit information, and route accessibility information. This information is helpful both for the design of the wayfinding signs and the transit stops.

Figure 11: Additional Information Needs



4. Sign Family Types and Concepts

This section describes best practices for wayfinding as a prelude to the design of the signs and the sign family. It also provides guidance for placement of the signs.

4.1 Wayfinding Principles

To lay a strong foundation for the development of the Fresno Wayfinding Plan, this section of the report summarizes some key principles and psychology for effective and intuitive wayfinding systems.

The Psychology of Wayfinding

The basic process of wayfinding for all modes of travel involves four steps.[2] The signs and markings in this Plan correspond to these steps:

- **Orientation:** determining one's location relative to nearby landmarks and the destination. To improve orientation, wayfinding can rely on landmarks, which provide strong orientation cues. Maps can also help in this orientation step.
- **Route Decision:** choosing a route to get to the destination. To aid in route decision making, minimize the number of destination choices and provide signs or prompts at decision points. Maps can help improve route decision making.
- **Route Monitoring:** confirming the chosen route will lead to the destination. "Breadcrumbs", which are visual cues highlighting the route taken, can aid route monitoring, and particularly help people avoid backtracking to check if they are on the right route.
- **Destination Recognition:** recognizing the destination. To aid people in destination recognition, give destinations clear and consistent markers, such as large gateway signs announcing each destination name.

Principles for Fresno's Wayfinding System

Design for the Inexperienced User

Wayfinding should be designed for people who are not experienced bicyclists, who prefer low stress bicycling conditions, and for people who have not been on the route before. People who don't speak English as their first language should also be taken into consideration. The "Inexperienced User" may include:

- People new to bicycling or people who only bicycle several times a year.
- Those unfamiliar with the trail or area through which they are traveling.
- Visitors and tourists.

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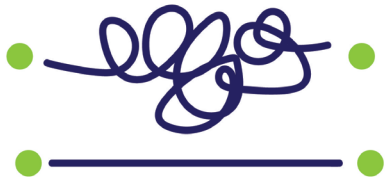
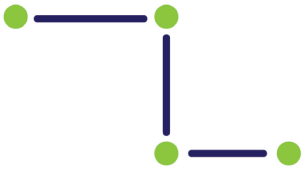
2 Lidwell, Holden and Butler, *Universal Principals of Design* (2003)

Figure 12: Wayfinding Principles



Keep It Simple



Be Consistent and Predictable

Progressively Disclose Information

Keep it Simple

Easy-to-use and intuitive wayfinding helps users navigate and understand where they are in relation to nearby landmarks and destinations. Information should be clear, legible, and simple enough to be understood by a wide audience. Sign legends must be concise and reveal enough information without overwhelming the user. Information on each sign should be kept to a minimum to avoid confusion and facilitate understanding.

Be Consistent and Predictable

Wayfinding signs should be predictable and consistent. When information is consistent, it can be recognized and quickly understood. Wayfinding signs should have common styles, messages, fonts, colors, materials, and placement throughout a community to promote continuity and help users quickly understand and interpret messages. Sign frequency and placement should be consistent so users know what to expect and can trust the system to provide adequate information.

Progressively Disclose Information

In order to reduce sign clutter and keep signs simple and easily understood, effective wayfinding systems disclose the most relevant information progressively. For example, a local destination such as a library or school only appears on signs close to the destination, not miles away. Progressive disclosure of information reduces clutter, confusion, and cognitive workload by presenting the minimum information needed for the task at hand. In wayfinding systems, this often means dividing up large numbers of potential destinations into distinct zones by region, district, or neighborhood, or by using a destination hierarchy to determine which destinations are the most relevant to include on different signs.

Figure 13: Existing branding around the Fresno region

Figure 14: Wayfinding Signs Around the Fresno Region

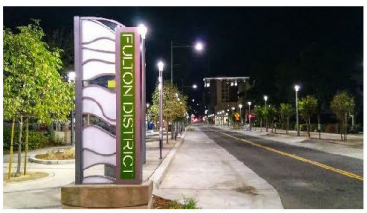
Dry Creek Trail, Clovis

San Joaquin River Trail

Old Town Trail, Clovis

Fresno Blossom Trail

Fulton District



Monument sign/branding

Auto-and pedestrian-oriented wayfinding signs

FULTON DISTRICT
FRESNO, CALIFORNIA

Branding for street signs

4.2 Brand Strategy

Existing Wayfinding and Branded Materials

The project explored the possibility of coordinating with existing wayfinding and City branded materials. With the exception of the Fulton Corridor, the City of Fresno has few existing wayfinding signs and minimal trail specific branding (see Figures 15 and 16). There are some unique branding and logos in use around the City, the Fulton District being the most distinctive, but no overarching elements. This opened the door for the project team to develop unique branding for the project.

Travel by Trail, Fresno! Branding

The design of the City's trail wayfinding signs is shown in Figure 17. The designs were developed based on visual preference surveys, input from City staff, and the project Steering Committee. These signs address branding on several levels. The strategy for branding includes uses bright colors, agriculturally inspired imagery, opportunities to include trail names, and icons for a casual bicyclist and pedestrian to convey "all ages and abilities" conditions. Figure 14 highlights how each branding element shows up in the sign design and Table 2 describes the branding elements in more detail.

Figure 15: Branding Elements

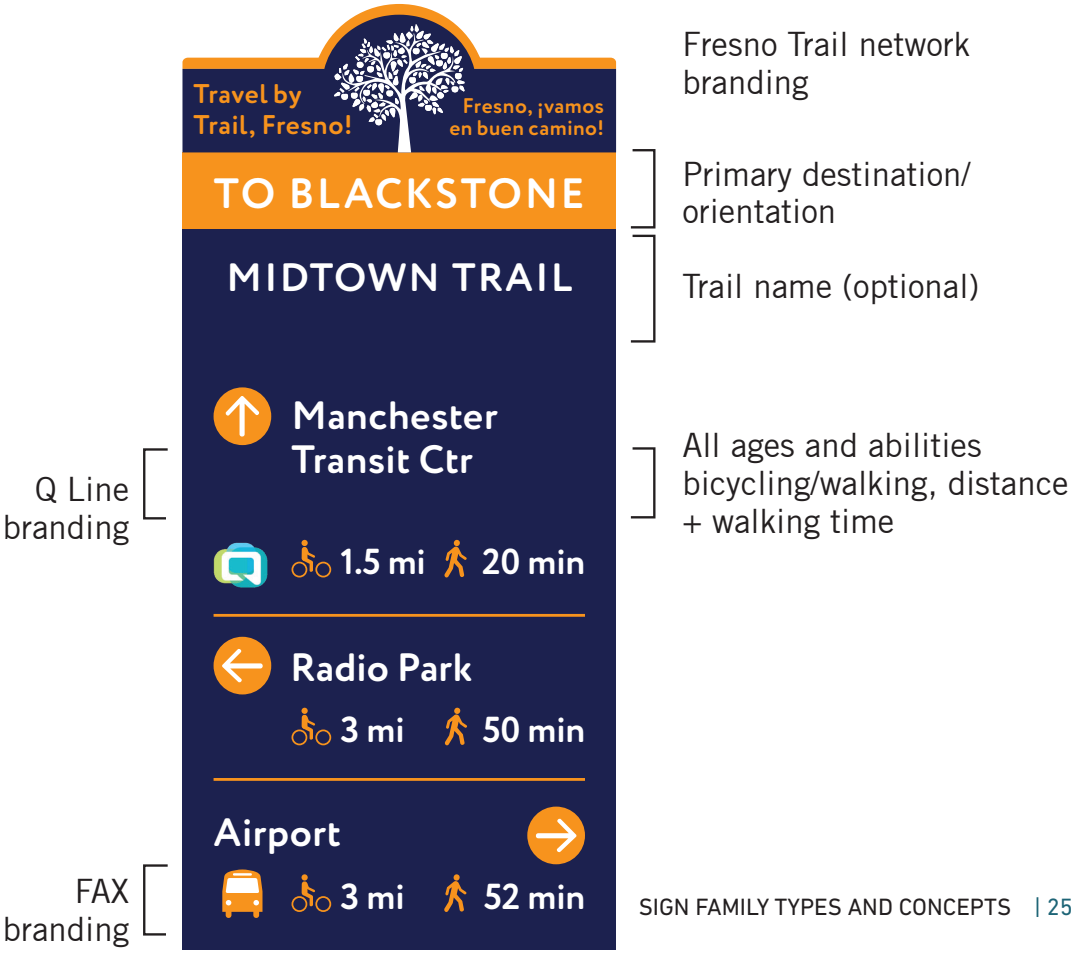


Table 1: Sign Design Elements

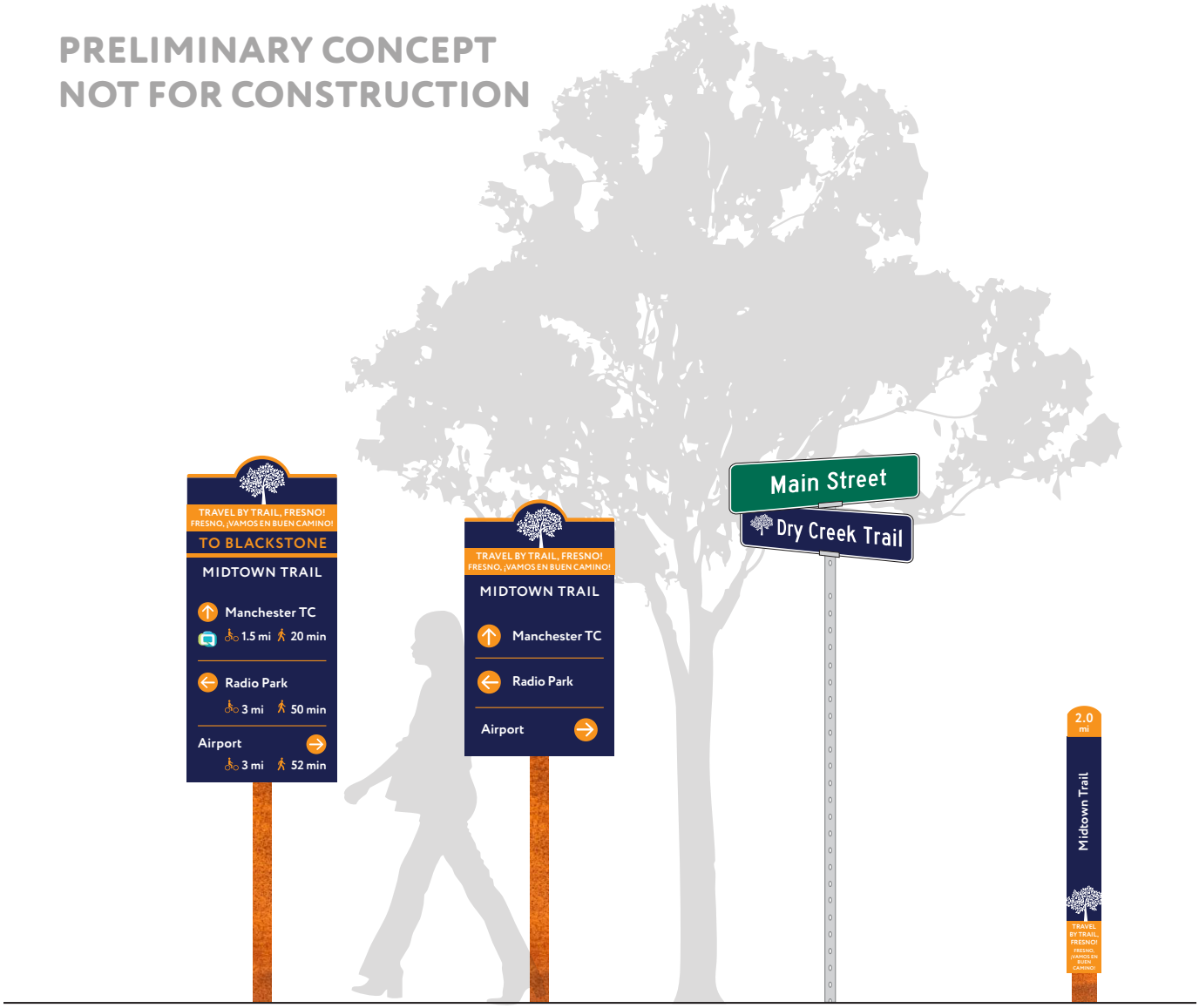
DESIGN ELEMENT	PURPOSE and DESIGN CONSIDERATION	DESIGN
Color/Imagery	Express the Fresno 'brand'.	Agriculturally inspired imagery, e.g., orchard tree. Blues, inspired by the City of Fresno logo with orange for contrast.
Shape and Size	Adequate size to include trail name, major destination for orientation, up to 3 additional destinations with arrows or travel time/distance, modal icons, FAX/Q line icons, and QR code.	Rectangular shape, 24" wide by varying heights.
Materials	Durability, replicable by sign shop.	Single- and double-sided aluminum panels, with vinyl overlay, UV resistant clear coats, attached to weathering steel (Corten) posts.
Branding and Information Options	Trail name, destination names, transit service information with destination names and icon so signs can be understood in other languages. Information kiosks/maps should provide text in alternative language.	Destination names, options for trail name, transit service icons (see low).
Bike/Ped Symbols	Convey welcome to both bicyclists, pedestrians, and all ages and abilities facilities.	Casual cyclist and pedestrian accessibility symbols.
Time/Distance by Mode	Provide travel time for walking and as well as distance for bicyclists.	Travel distance in miles and walking time, paired the modal icons.
Transit Info	To show connections to major transit stops/lines.	Q Line log and bus icon/route number for highest ridership lines.

4.3 Sign Family

The following pages (Figures 18 and 19) show the sign family for the City of Fresno. The remainder of this section will explain each sign type, its purpose, when it should be used, and placement guidelines for the signs.

The proposed family of signs include signs specifically for use on trails, and signs for use at transit stops to direct users to trails. The trail sign types correspond to the steps outlined in the psychology of wayfinding (Orientation, Decision Support, Route Monitoring, and Destination Recognition).

Figure 16: Trail Sign Family, Functions, and Locations



Trail Signs				
SIGN TYPE	Trail Welcome Sign	Trail Decision Sign	Trail/Street Sign	Trail Mile Marker
FUNCTION	Confirms the start and end of a trail, direction of travel, destinations that can be reached from the trail, and travel times/distances	Provides directional information to specific destination along the trail	Provides directional information to streets along the trail	Provides information about where a user is along a trail, along with confirmation of trail name
LOCATION	At the start/end of trails	At major decision points	At intersections with streets	At regular intervals along trails, 1/2 mile or full miles

Figure 17: On-street Sign Family, Functions, and Locations

On-Street/Transit Stop Signs		
SIGN TYPE	On-Street Orientation Map	On-Street Decision Sign
FUNCTION	Provides information to navigate to trail connections from Q stops	Provides directional information to specific destinations from Q stops
LOCATION	At Q stops	At Q stops

4.4 Wayfinding Sign Placement Guidance

Consistent and appropriate placement of wayfinding elements helps to provide a legible wayfinding system while ensuring the signage elements do not create undue safety hazards. The on-street sign family, functions, and locations shown in Figures 15 and 16 provide general sign placement guidance. The following placement scenarios were developed to address first- and last-mile connections:

- Typical Transit Stop with Nearby Destinations.
- Transit Stop with Trail Nearby.
- Pedestrian-to-Transit Wayfinding in a Business District.
- Trail Parallel to Street.
- Trail Crossing a Street.
- Trail Spur Connecting to Street (Basic).
- Trail Spur Connecting to Street (Near Major Destinations).

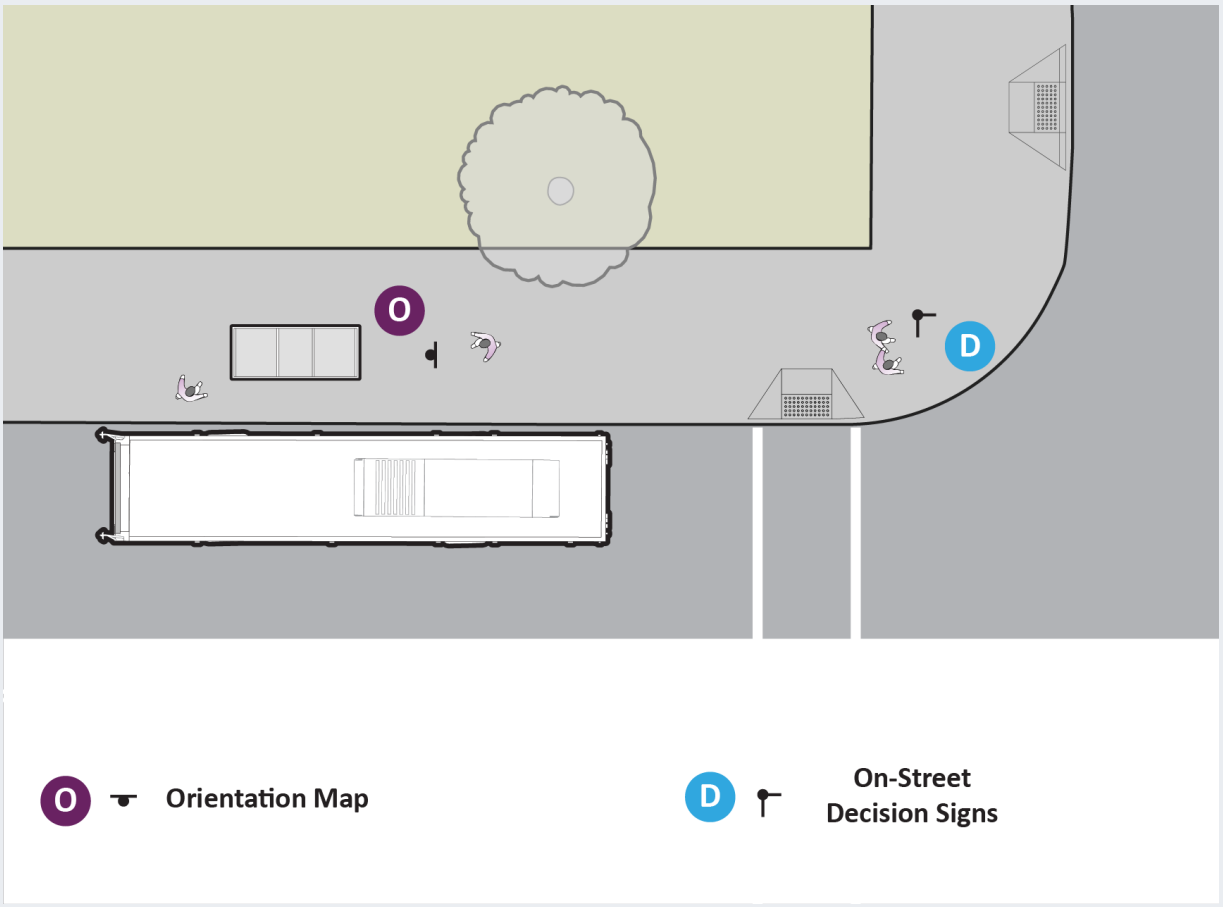
4.5 Typical Placement Illustrations

Typical Transit Stop with Nearby Destinations

The **Orientation Map** should be located close to the transit stop so that people alighting from the bus will see it, although it does not need to be a part of the physical stop itself. If the map panel is oriented so the user is not facing north, ensure that the map is designed in a “heads up” orientation that makes intuitive sense for the viewer.

On-Street Decision signs should be located at the corner of the intersection to guide people towards nearby destinations without needing to stop and refer to the map.

Figure 18: Typical Transit Stop with Nearby Destinations



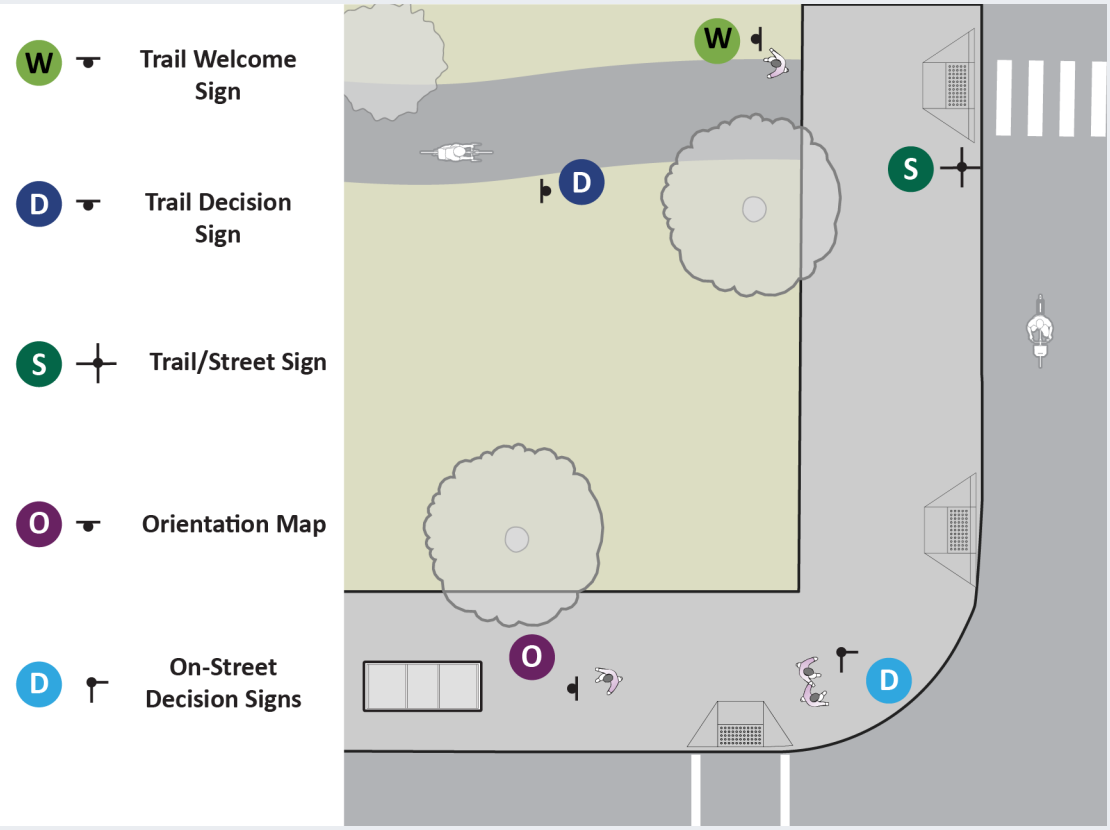
Transit Stop with Trail Nearby

In addition to the **Orientation Map** and the **On-Street Decision** signs to help transit users find the trail, wayfinding signs at the trail can help trail users get to transit. Typically, a **Trail Decision Sign** should be set back between 5-20 feet from the sidewalk to give people on bicycles time to react and make a turn at the street or sidewalk, if needed.

The **Trail Welcome Sign** should be very close to the sidewalk so that people turning onto the trail see the permitted trail modes and other destinations that can be reached on the trail.

A **Trail/Street Sign** should be provided at every intersection of a trail and street to orient trail users to the street network and help identify the trail to street users.

Figure 19: Transit Stop with Nearby Trail



Pedestrian-to-Transit Wayfinding in a Business District

A mix of **Orientation Maps** and **On-Street Decision Signs** can be used to help pedestrians navigate to and from transit in non-trail areas like downtown Fresno. **Orientation Maps** should be placed at arrival points, welcome points, or other areas of high pedestrian traffic where there is space for several people to cluster around a map and not impeded foot traffic.

On-Street Decision Signs can be used at decision points. They can also be placed along key pedestrian routes every 2-3 blocks like a breadcrumb to help confirm that people are going in the right direction.

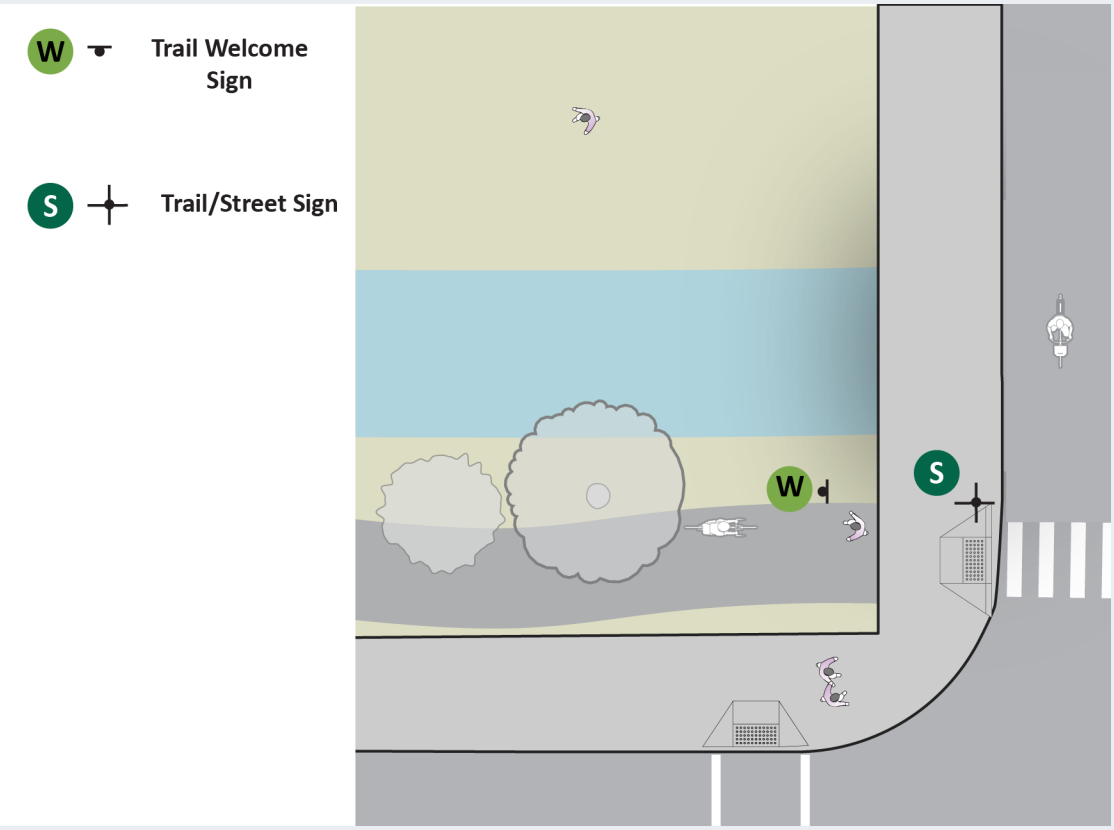
Figure 20: Pedestrian-to-Transit Wayfinding in a Business District

Trail Parallel to Street

Fresno has several trails that are parallel to street segments. In these cases, not much wayfinding is required because people on the trail can use the street network to orient themselves to their surroundings.

A **Trail/Street Sign** helps call out the trail name to passing bicyclists and motorists, and a **Trail Welcome Sign** provides information about destinations and trail rules.

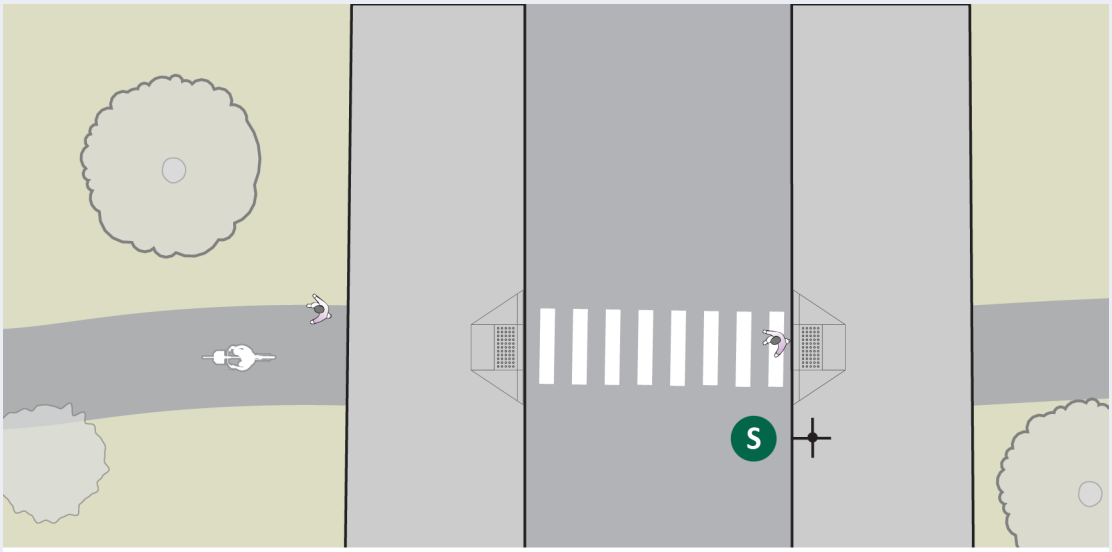
Figure 21: Trail Parallel to Street



Trail Crossing a Street

In many cases, the trail will cross minor residential streets that are not bikeways and do not connect to any destinations. In the majority of these cases, a simple **Trail/Street Sign** helps trail users orient themselves to the street network.

Figure 22: Trail Crossing a Street

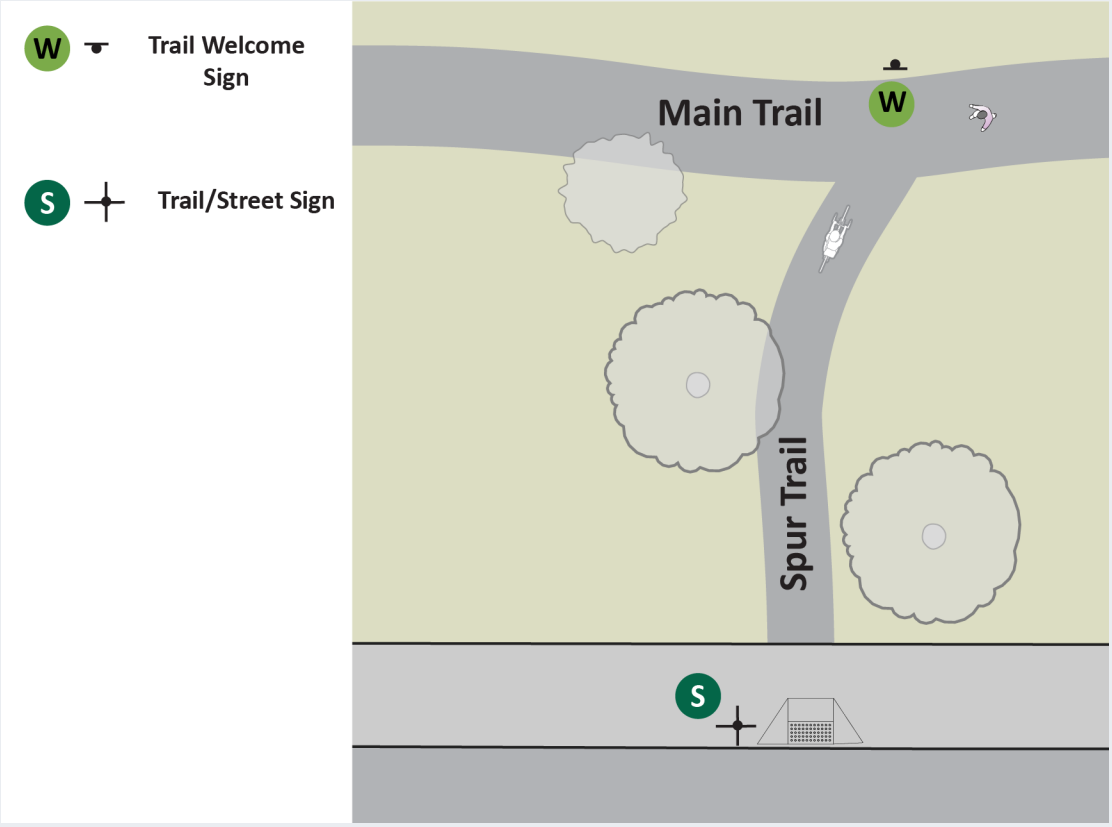


S Trail/Street Sign

Trail Spur Connecting to Street (Basic)

Sometimes, a trail connects to a street via a spur trail. In many cases, this is a basic connection with few destinations nearby, and minimal signage is needed. A **Trail/Street Sign** at the street will help trail users orient themselves to the street network and identify the trail. An optional **Trail Welcome Sign** at the main trail juncture can identify nearby destinations, trail rules, and allowed modes.

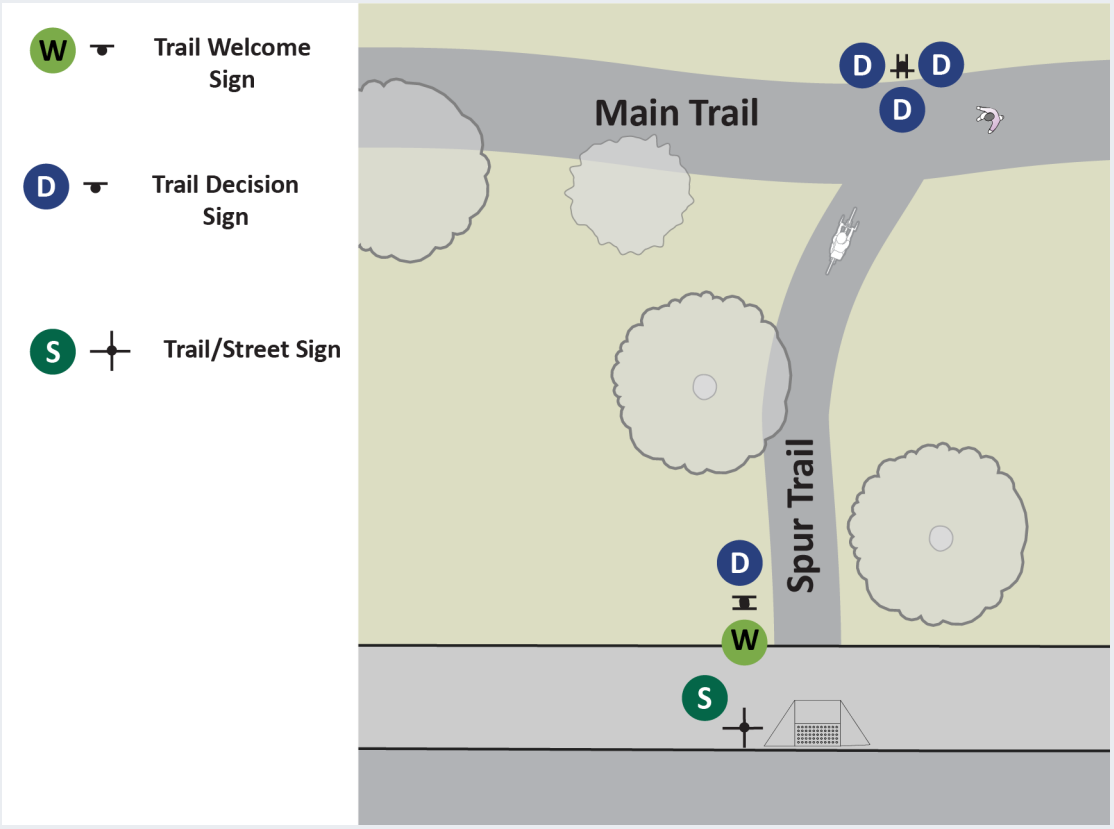
Figure 23: Trail Spur Connecting to Street (Basic)



Trail Spur Connecting to Street (Near Major Destinations)

In some cases, more signage is needed at these kinds of trail spur junctures. Heavily used trails and trail spurs that have lots of users and destinations nearby may require more signage to guide people between the trail and the nearby destinations. Three **Trail Decision Signs** facing different directions may all be mounted to the same post at the junction of the trail spur and/or destination and supplemented by an additional **Trail Decision Sign** and **Trail Welcome Sign** where the spur meets the street.

Figure 24: Trail Spur Connecting to Street (Near Major Destinations)

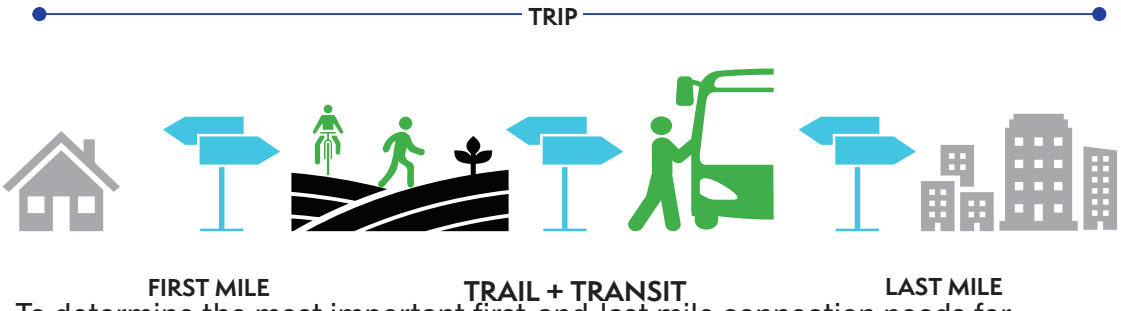


5. First- and Last-Mile Connection Needs

This section addresses how destinations are selected in order to orient trails users and populate signs. It also explores areas where the trail and transit network are close but not connected, known as first- and last- miles gaps, and provides prioritized recommendations to connect them via wayfinding.

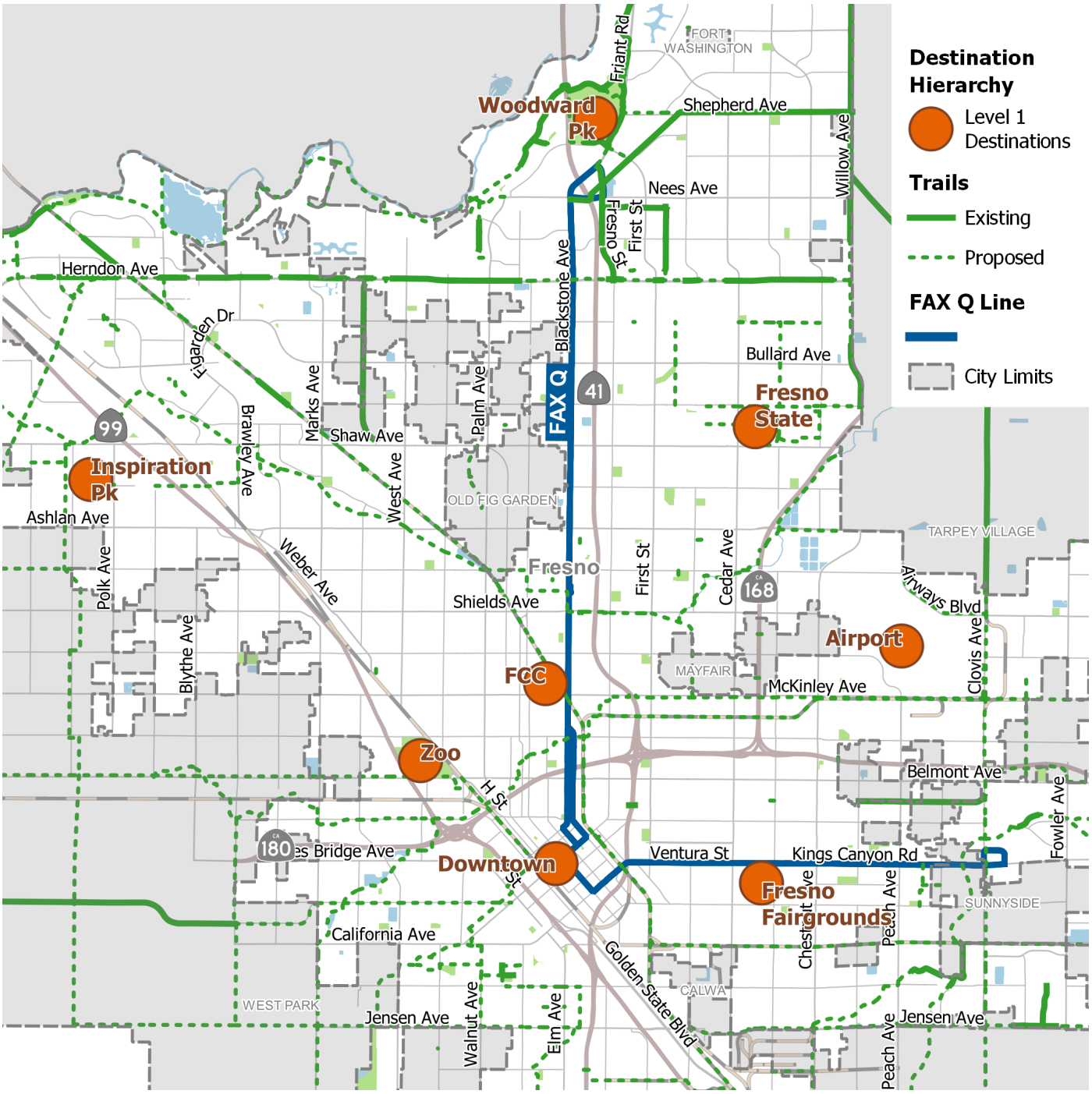
5.1 Fresno Destinations for Trail and Transit

Figure 25: First-and Last-Mile Connections to Transit



To determine the most important first-and-last mile connection needs for Fresno's trail and transit users, this Plan identified the most important destinations for trail users in Fresno. Identifying and organizing destinations into a hierarchy according to their importance to trail users helped determine the routes, trail segments, and sign types that will be necessary to connect trails and transit to those destinations. This Plan used the mental maps submitted by the Stakeholder Committee, as well as destinations identified in open-source GIS data, to create several maps of the most important navigational destinations for Fresno. The Level 1 destinations for all of Fresno are shown in the map in Figure 28. More detailed maps showing the Level 2 and Level 3 destinations in Fresno's Destination Hierarchy are included in the Appendix.

Figure 26: Level 1 Destinations for Fresno

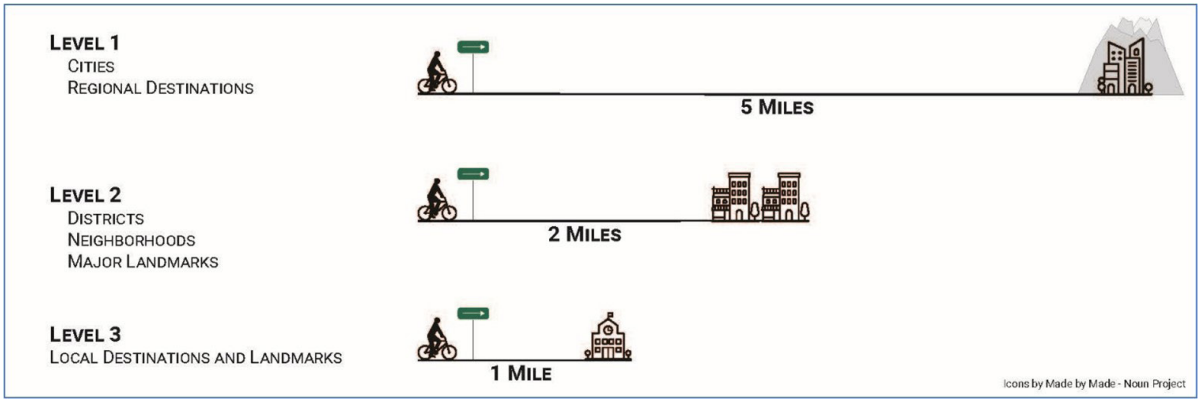


5.2 How will this destination hierarchy be used?

Developing a Destination Hierarchy ensures that as people travel along the trail network or the transit routes, they encounter a system of destination naming that is simple, legible, and consistent. It also helps planners choose which destinations to include on which wayfinding signs.

Categorizing a city's destinations into different levels makes it easier to decide which destinations will eventually be included on signs, and how far away to include them. Level 1 destinations serve both as landmarks for orientation and are the ones that will appear on every sign along a trail until arriving at the destination, like breadcrumbs. The Level 3 destinations would only appear as on signs that are close to the destinations.

Figure 27: Organization of Destinations into a Hierarchy



5.3 Priority First/Last Mile to Transit and Trails Connections

Fresno needs to be strategic as it invests in projects that connect residents to trails and transit. One key barrier to implementing trail wayfinding signs in Fresno is that the trail system is currently fragmented, making it difficult to recommend wayfinding until the trails are connected. This Plan recommends prioritized investments that correspond to the four key objectives:

- Knit together Fresno's expanding trail network.
- Close first-and last-mile connections to transit.
- Increase the viability and visibility of Fresno's trails.
- Encourage mode shift to walking and bicycling.

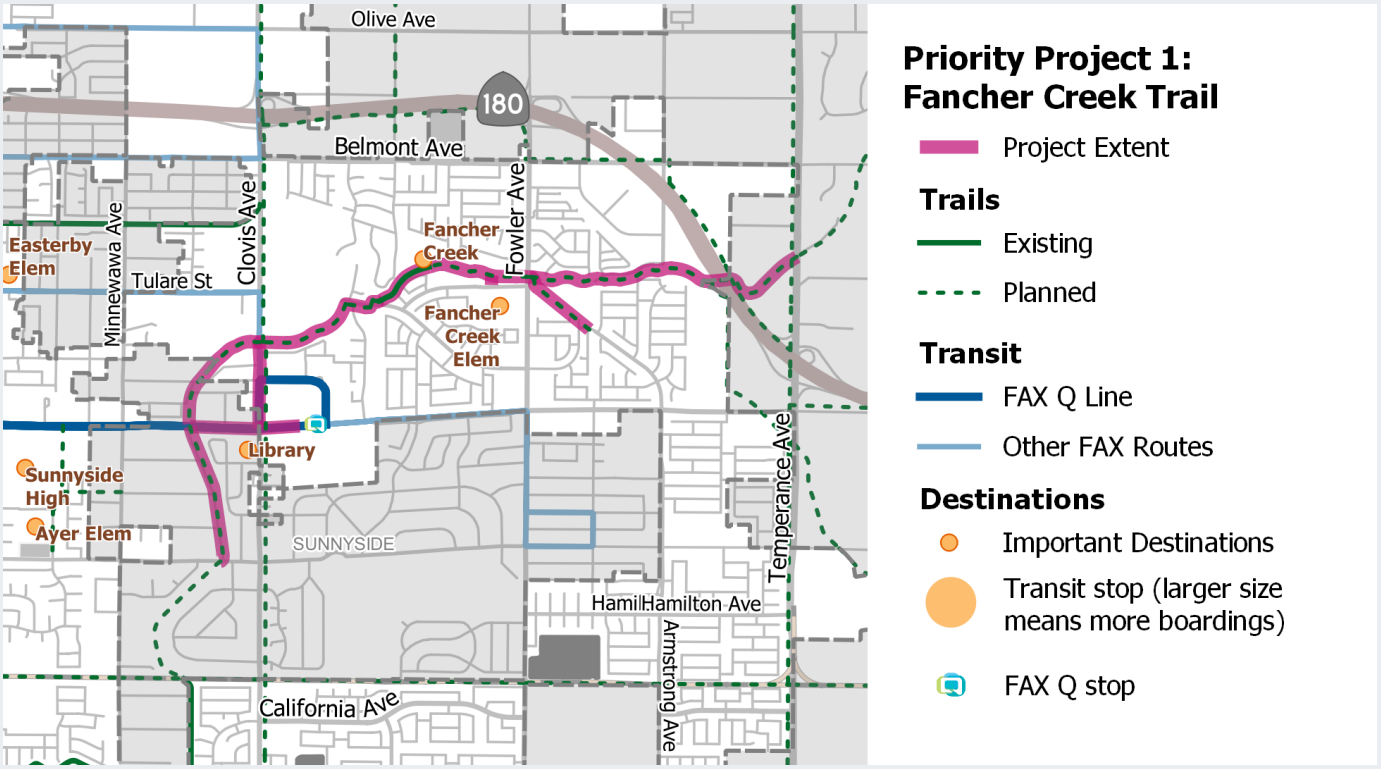
To develop the list of prioritized investments, this Plan reviewed connections to important destinations at the FAX Q stops with the highest number of boarding and alighting passengers, and existing and proposed trails that would provide important connections to FAX Q stops. From that analysis, we identified ten priority connection projects that Fresno should invest in to achieve the objectives of the Plan. These priority connection projects are summarized in the table below and described in more detail in the following pages.

PRIORITY	AREA/ LOCATION	PRIORITY CONNECTION PROJECT	Corresponding Plan Objectives			
			KNIT TRAILS TOGETHER	FIRST/LAST MILE TO TRANSIT	TRAIL VIABILITY AND VISIBILITY	ENCOURAGE MODE SHIFT
1	Fancher Creek Trail	Provide trail wayfinding and transit-to-trail wayfinding between the FAX Q stop and Fancher Creek Trail as part of trail construction.	X	X	X	X
2	Midtown Trail	Provide trail wayfinding and transit-to-trail wayfinding between the FAX Q stop as part of trail construction.	X	X	X	X
3	Tuolumne Street	Add low stress bikeway connection between downtown Fresno and the planned Kearney Boulevard Trail and Merced Street Trail. Provide trail and bicycle wayfinding when bikeway connections are built.	X	X	X	X
4	Kearney Boulevard Trail, Merced Street Trail	Provide trail wayfinding (including downtown Fresno as a destination) after low stress connection on Tuolumne Street is built.	X		X	X
5	FAX Q Weldon Station by Fresno City College	Add pedestrian wayfinding and a clear bicycle route to improve connections to FCC campus.		X		X
6	FAX Q Shaw/ Cedar stop by Cal State Fresno	Add pedestrian wayfinding and a clear bicycle route to improve connections to CSU-Fresno campus.		X		X
7	FAX Q Chestnut station to Fresno Pacific	Add pedestrian wayfinding and a clear bicycle route to improve connections to CSU-Fresno campus		X		X
8	Downtown Fresno	Add pedestrian wayfinding and Orientation Maps throughout downtown Fresno to improve pedestrian connections to transit and other destinations.		X		X
9	Nevada Avenue Overpass, near Community Regional Medical Center	Add pedestrian wayfinding to improve pedestrian connections for the Jefferson neighborhood, the Community Regional Medical Center, and the FAX Q Divisidero stop.		X		X
10	All FAX Q stops with over 60,000 annual boardings and alightings	Orientation Maps		X		X

1) Fancher Creek Trail

As part of the construction and design of the Fancher Creek Trail, design and install wayfinding signs along the trail, as well as pedestrian wayfinding between the FAX Q stop on Kings Canyon Road and Fancher Creek Trail.

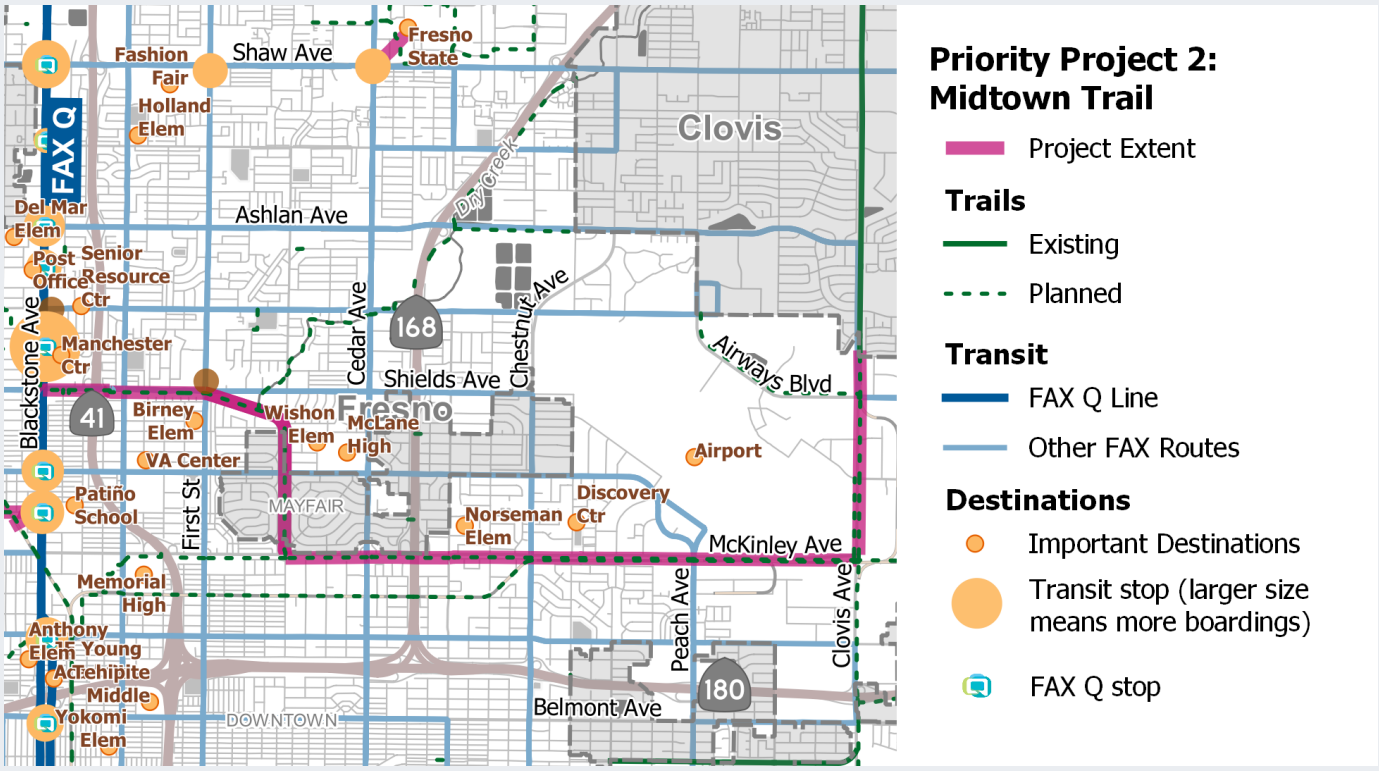
Figure 28: Priority Project 1



2) Midtown Trail

As part of the construction and design of the Midtown Trail, design and install wayfinding signs along the trail, as well as wayfinding between the trail and the FAX Q stops on First Street and Blackstone Avenue.

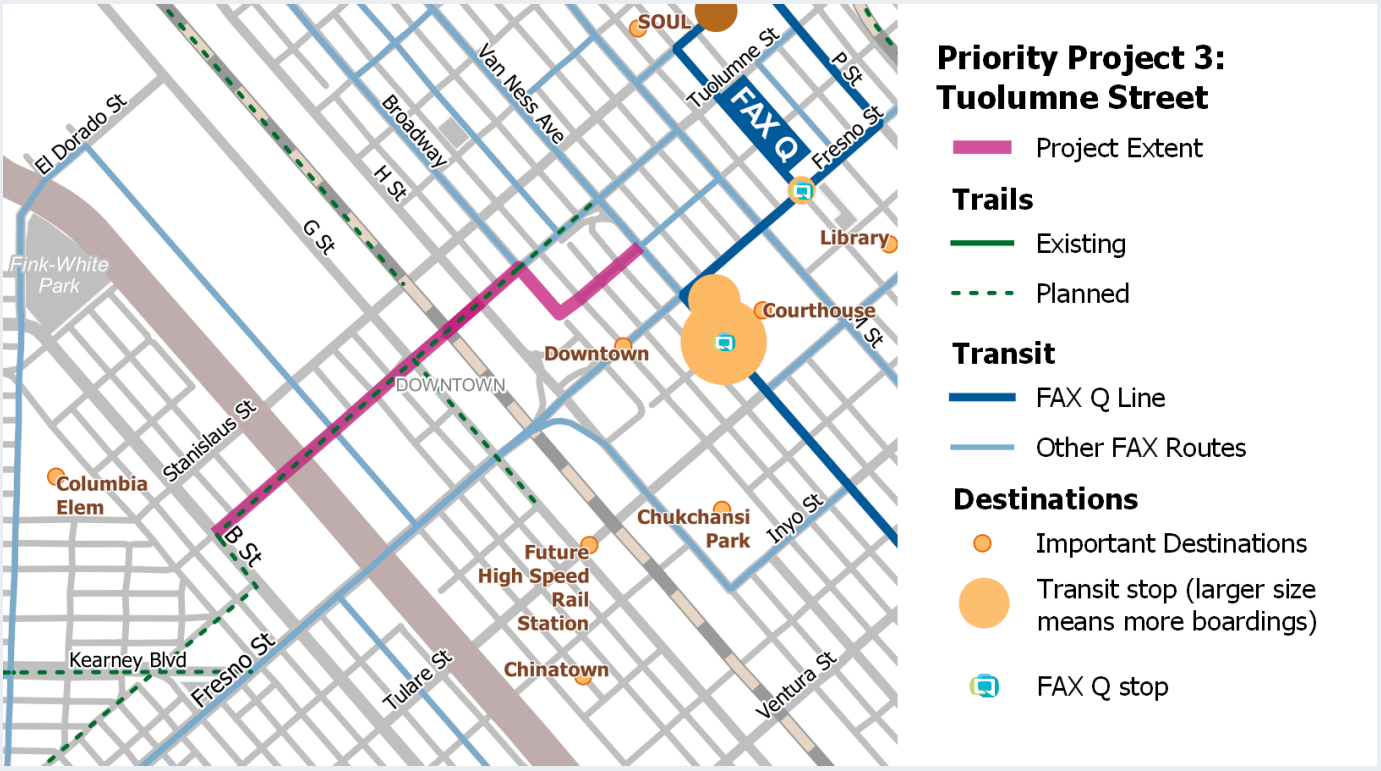
Figure 29: Priority Project 2



3) Tuolumne Street Bikeway

There are few low stress bikeway connections between southwest Fresno and downtown, where the FAX Q stop is and other important destinations. Tuolumne Street is a planned trail connection identified in previous trail plans. It could possibly have a two-way separated bike lane installed by reconfiguring the roadway and bridge, or there could be two one-way separated bike lane pairs on Tuolumne and Stanislaus Streets. Although this is a longer-term project, it is high priority.

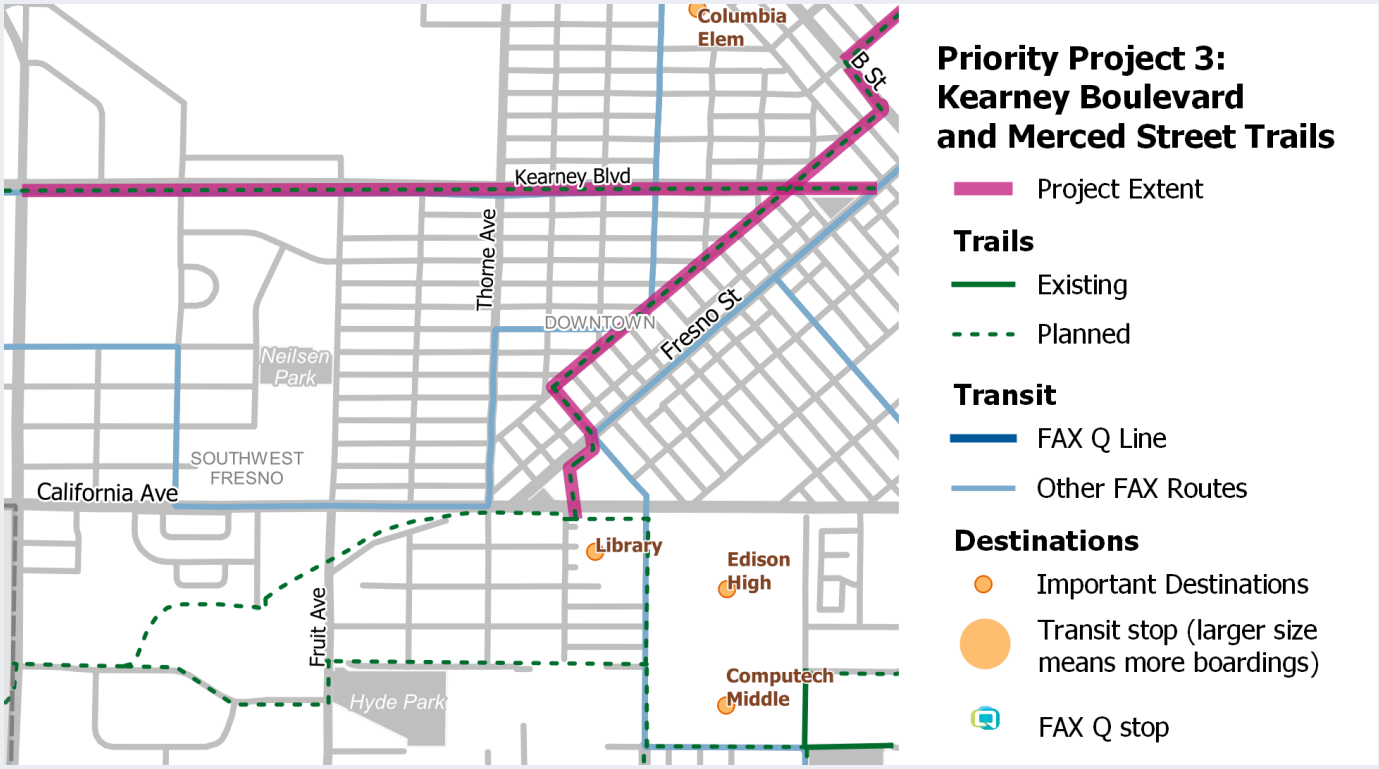
Figure 30: Priority Project 3



4) Kearney Boulevard and Merced Street Trails

The Kearney Boulevard and Merced Street Trails were identified as high-priority trails in the Fresno Trail Expansion Plan. They would help provide an important connection between downtown Fresno and destinations such as Edison High and the New West Fresno CTC. However, trail wayfinding should not be implemented on these trails until it can guide bikeway users safely between southwest Fresno and downtown Fresno. Therefore, this Plan recommends postponing the implementation of trail wayfinding on these two projects until after a low stress bikeway connection is provided to downtown Fresno.

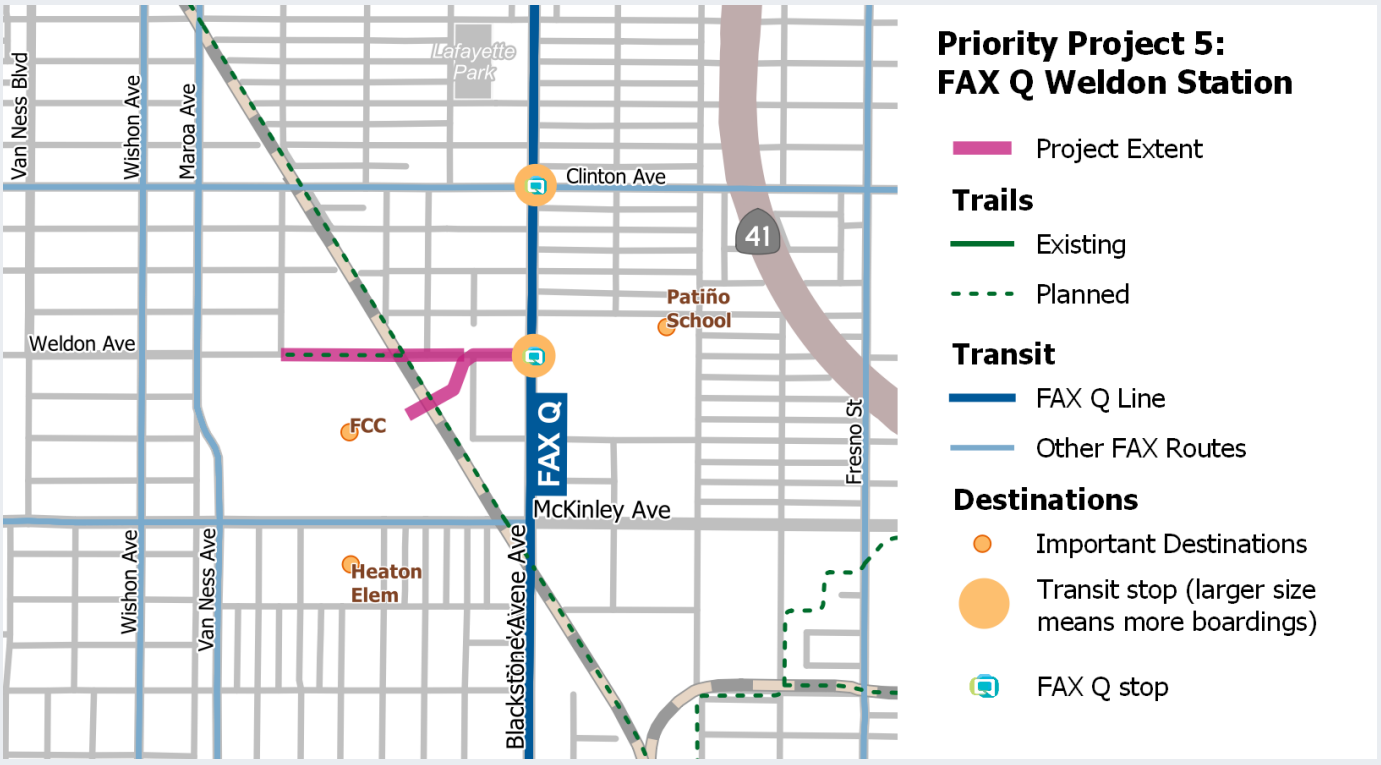
Figure 31: Priority Project 4



5) FAX Q Weldon Station by Fresno City College

The route between the Fresno City College campus and the FAX Q Weldon station is not intuitive and would benefit from wayfinding signs to encourage mode shift to transit and provide the first-and last-mile connection from transit to a major destination in Fresno. Ideally a safe, low stress bikeway would also be provided to connect the campus to the transit stop.

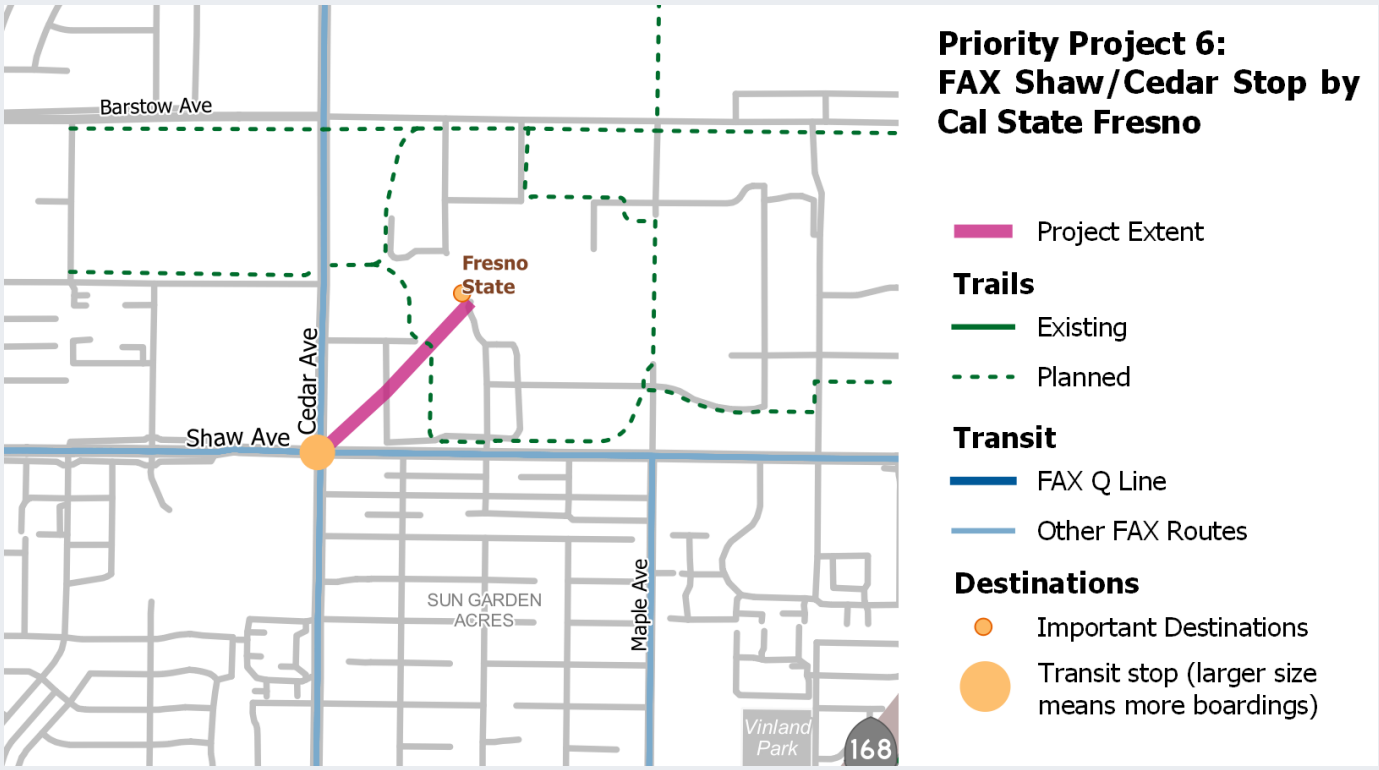
Figure 32: Priority Project 5



6) FAX Q Shaw/Cedar stop by Cal State Fresno

The FAX Q Shaw Avenue and Cedar Avenue stop has over 60,000 annual boardings and alightings, making it one of the most used stops in Fresno. The Fresno State campus is currently not arranged in a way to promote walking or biking to the stop, which is why the map below only illustrates a schematic line from the stop to the center of campus. Students and staff would benefit if the campus created a more direct path for people walking, biking, or using transit, as well as wayfinding signs to encourage mode shift to transit and provide the first-and last-mile connection from transit to a major destination in Fresno.

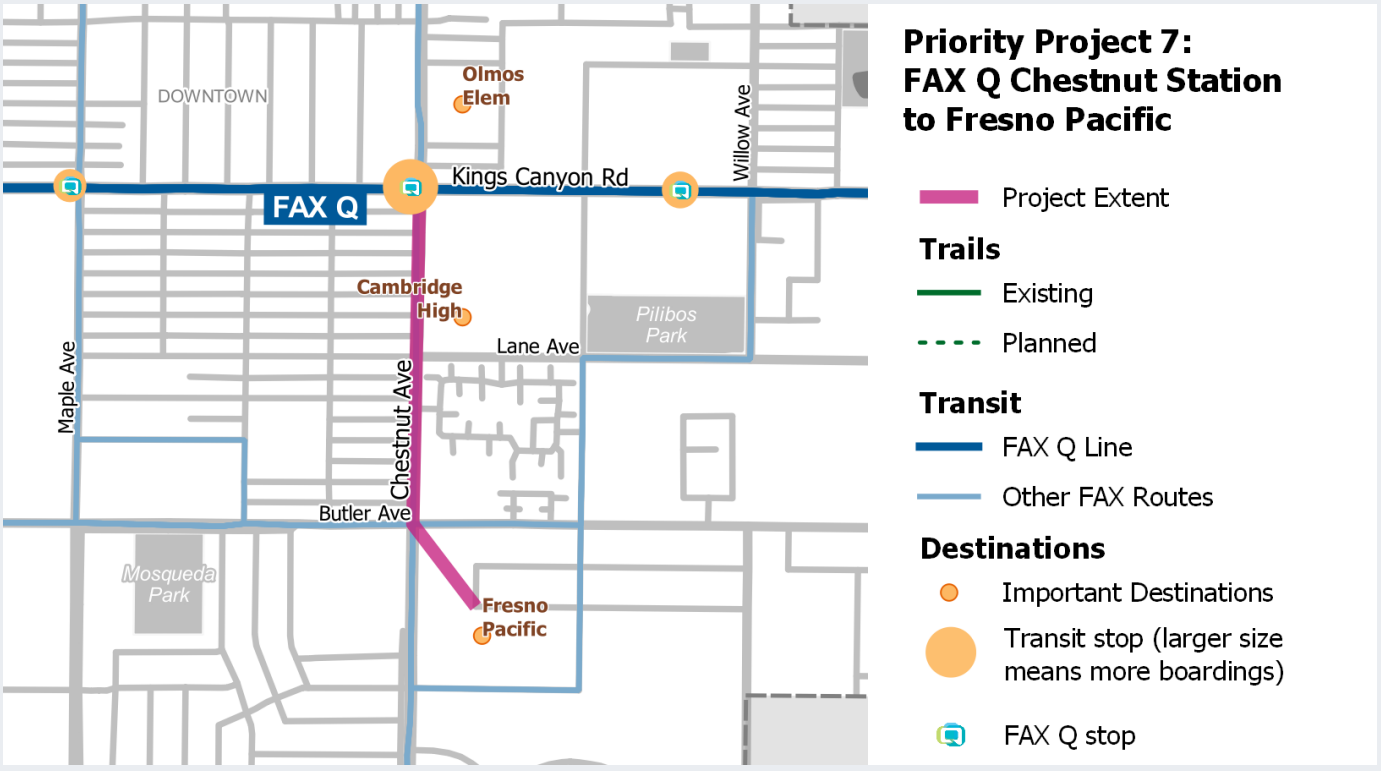
Figure 33: Priority Project 6



7) FAX Q Chestnut Station to Fresno Pacific University

The route between the FAX Q Chestnut Station and Fresno Pacific University is not intuitive. Moreover, the Fresno Pacific campus is currently not arranged in a way to promote walking or biking to campus, which is why the map below only illustrates a schematic line to the center of campus. Students and staff would benefit if the campus created a more direct path for people walking, biking, or using transit, as well as wayfinding signs to encourage mode shift to transit and provide the first-and last-mile connection from transit to a major destination in Fresno.

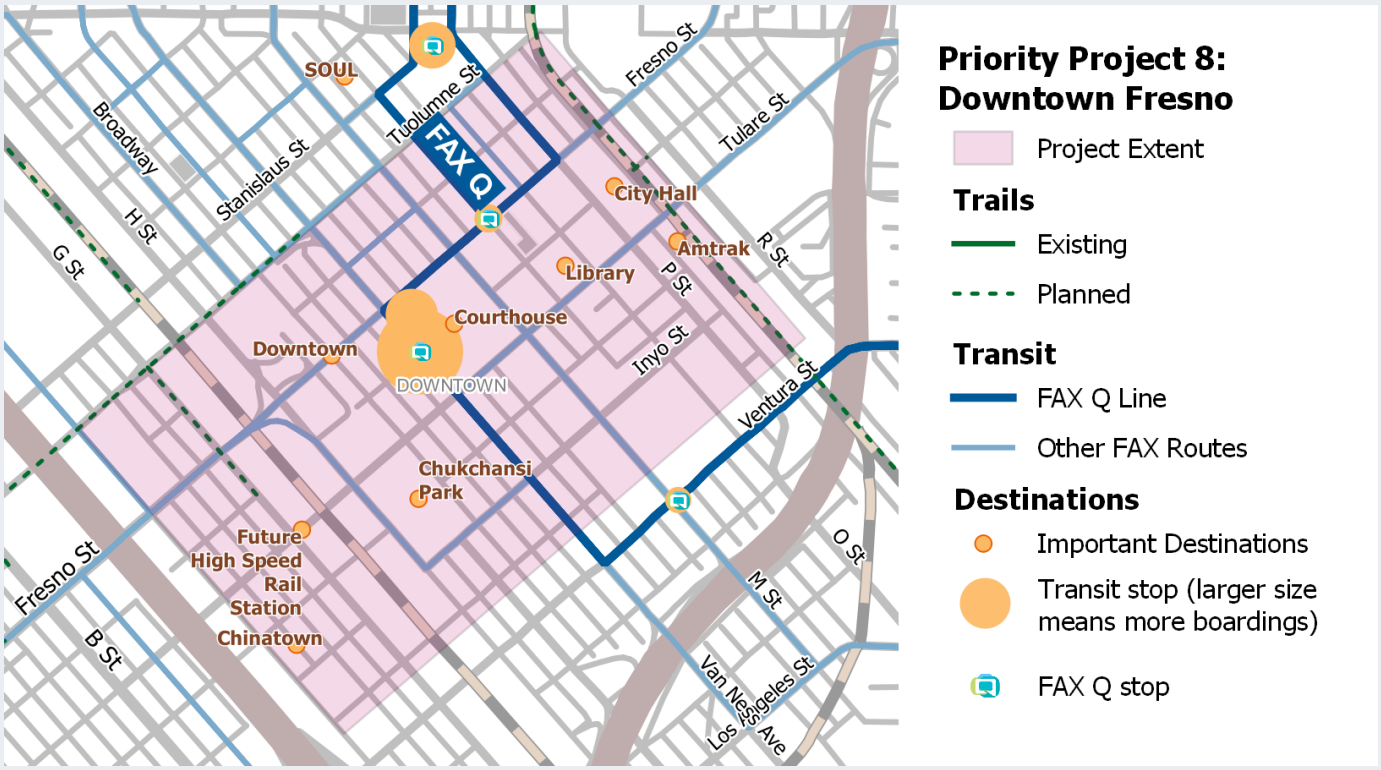
Figure 34: Priority Project 7



8) Downtown Fresno

Installing pedestrian wayfinding and Orientation Maps throughout downtown Fresno will improve pedestrian connections to transit and other destinations and help encourage mode shift to transit and walking.

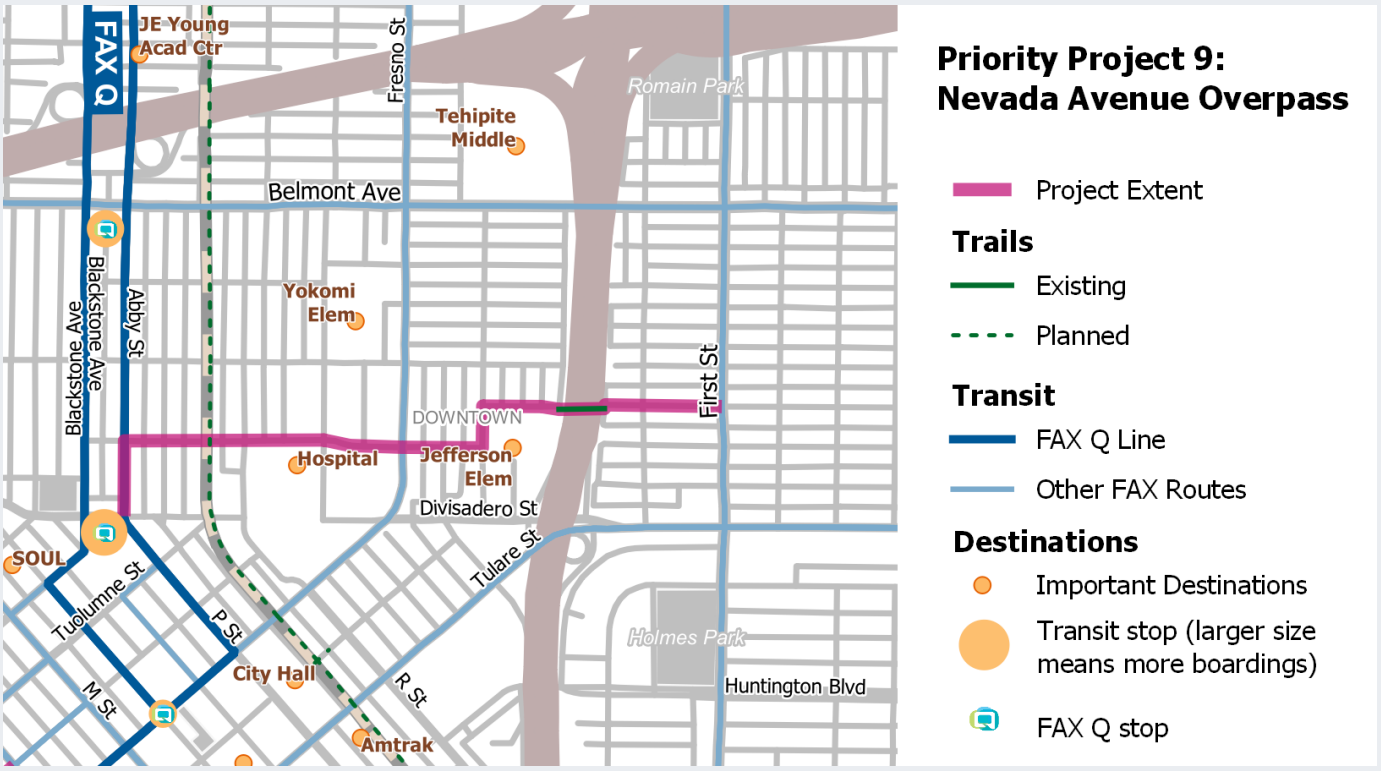
Figure 35: Priority Project 8



9) Nevada Avenue Overpass near Community Regional Medical Center

The overpass across the Yosemite Freeway near the Community Regional Medical Center is an underutilized low stress walking and biking connection to downtown and the FAX Q route. Transit users and people looking for a way to walk or bike to downtown would benefit from wayfinding to guide people to the overpass.

Figure 36: Priority Project 9



6. Layout, Fabrication, and Implementation Guidance

This section provides details about the layout of the signs, materials, fabrication, installation, and maintenance.

6.1 Typefaces for Wayfinding signs

Circe Rounded Bold

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	)		&	,	‘												

6.2 Colors and Symbols

Colors

Navy: C 100 / M 96 / Y 38 / K 35

Orange: C 0 / M 50 / Y 100 / K 0

Symbols

6.3 Sign Layout

Figure 37: Trail Welcome Sign Layout

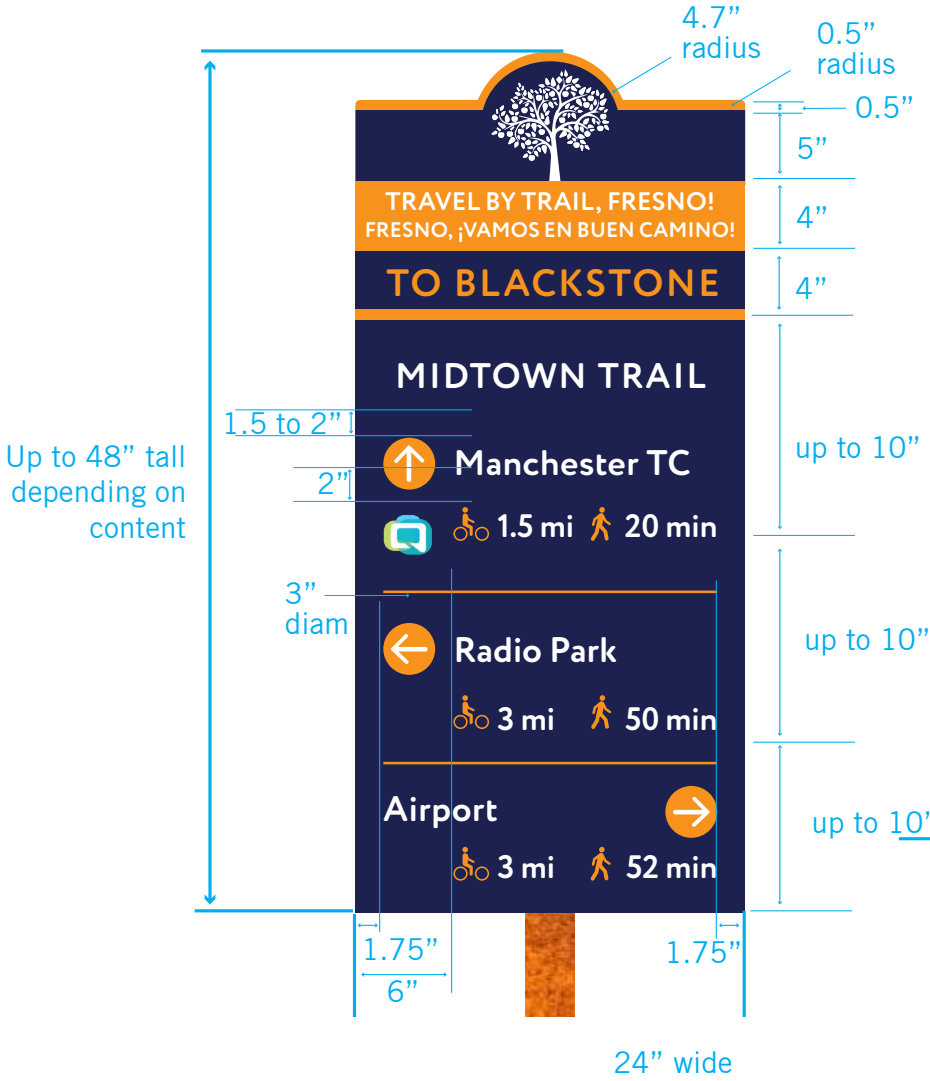


Figure 38: Mile Marker Layout

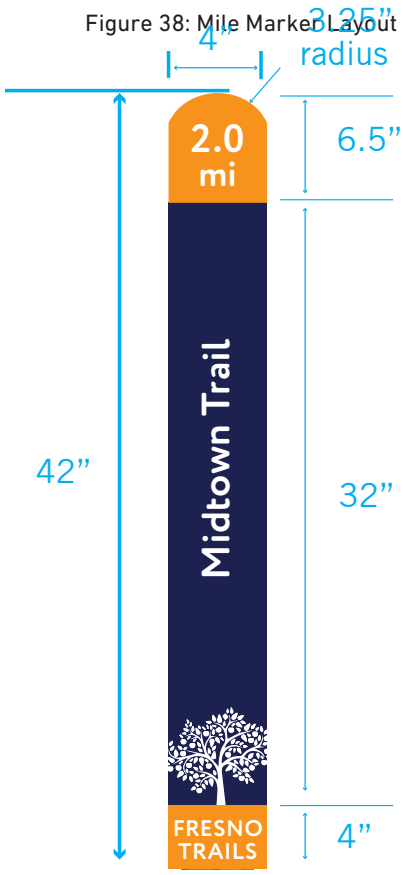
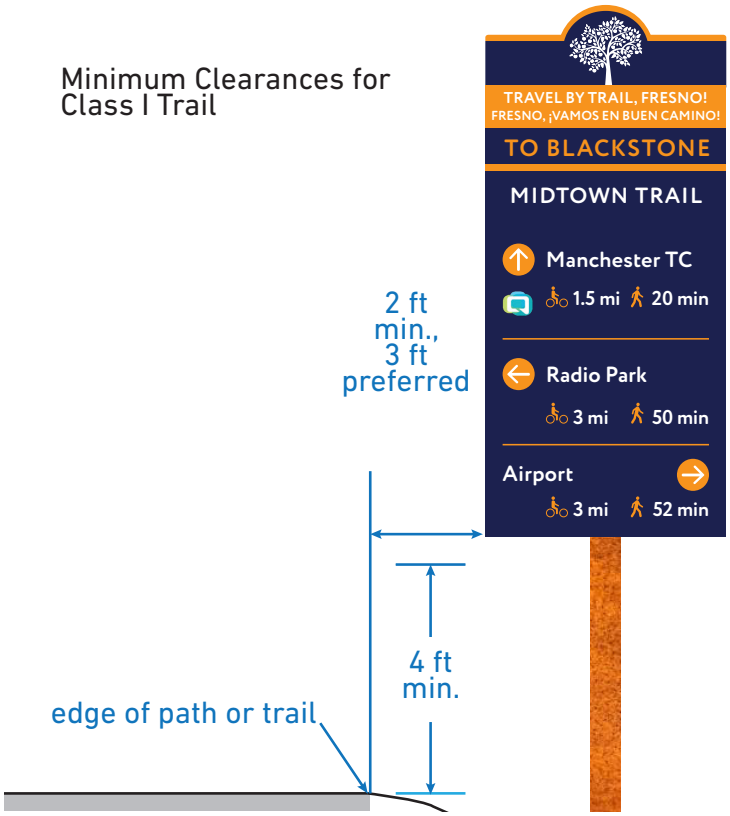


Figure 39: Trail Decision Sign Layout

6.4 Installation Clearance Guidelines

The sign mounting height and clearance guidelines in this Plan are drawn from the MUTCD (Part 2, Section 2A.18, and Part 9, Section 9B.01).

Figure 40: Sign Clearances



Trails

- Minimum of 4’ from the height of the trail to the bottom edge of the sign.
- For signs placed overhead of trails, a minimum of 8’ vertically over entire width of trail.
- Preferred 3’ from the edge of trail to the side edge of the sign (exception to no less than 2’ in very confined areas).

Urban Streets

- Minimum of 7’ from the pavement to the bottom edge of the sign.
- Minimum of 2’ from the edge of the travel lane to the edge of the sign.

Rural Road

- Minimum of 5’ from the pavement to the bottom edge of the sign.
- Minimum of 12’ from the edge of the travel lane to the edge of the sign.

6.5 Cost Opinions and Potential Funding Sources

Opinion of Probable Cost for Sign Panel Fabrication

The signs produced for this Plan represent conceptual designs. Table 3 shows opinions of probable cost for the fabrication of the sign panels for budgeting purposes only. Costs are based on estimates from local sign shops. They assume an order of 240 total signs (40 of each type) using .080 aluminum panels with 3M vinyl overlay. They do not include posts, shipping, or installation costs.

Table 2: Probable Costs per Sign Type

Sign Type	Details	Unit Cost
Trail Welcome Sign	Single sided 24x54”	$380 - 780
Trail Decision Sign	Single sided 24x40”	$350 - 600
Street / Trail Name Sign	Double sided 32x8”	$170 - 600
Mile Marker	Single sided 6x48”	$150 - 230
Orientation Map	Single sided 24x54”	$380 - 800
On-Street Decision Sign	Double sided 24x4”	$150 - 160

Opinion of Probable Cost for Signposts

The table below shows opinions of probable cost for orders of signposts and is for budgeting purposes only. Costs are based on estimates from local sign shops and providers. They assume an order of 40 of each signpost, using the details as specified. They do not include shipping or installation costs.

Table 3: Probably Costs per Post Type

Sign Type	Post Details	Unit Cost
Trail Welcome Sign, Trail Decision Sign, and Orientation Map	A847 Weathering Steel tubes, 4” x 4”, 3/16” thickness (comes in 20’ and 24’ sections)	$300
Street/Trail Name Sign	12’ tall x 2” square, raw aluminum	$170
Mile Marker	5’10” tall x 4” wide thickness Corten steel	$300
On-Street Decision Sign	12’ tall, 2 3/8” round post, 13 gauge galvanized steel, V-Loc breakaway anchor	$250

Methods for Estimating Costs for Wayfinding Planning and Design

There are several ways to estimate the costs of planning and designing wayfinding signs:

- 50% rule of thumb. For typical engineering projects involving street reconstructions, the rule of thumb is that engineering and planning represent about 10% of the cost of the total project. However, for wayfinding projects, the cost of planning and design are about the same as the cost of fabrication, materials, and installation.
- $500 per directional sign, and $2000 per map. Another way to estimate costs for signs is to assume planning and design costs of about $500 for each directional sign, and $2,000 for each Orientation Map.

Potential Funding Sources

Cities usually secure funding for wayfinding signage through competitive application-based grants. In addition to pursuing such federal, state, or regional funds, the City of Fresno could dedicate local funds to implementation of the wayfinding signage recommendations.

Table 4: Summarizes the most likely funding programs and source agencies.

FUNDING SOURCE	DETAILS
Congestion Mitigation and Air Quality (CMAQ)	
Lead Agency	Federal Highway Administration (project selection by Fresno County Transportation Authority through the CMAQ Call-For-Projects)
Description and Eligible Projects	Program funds can be used for transportation projects that contribute to air quality improvements and provide congestion relief in areas that do not meet minimum air quality standards. This program can fund transit, bicycle, and pedestrian projects because of their link to air quality improvements. Federal funds come with many restrictions and reporting requirements.
Link	https://www.fhwa.dot.gov/fastact/factsheets/cmaqfs.cfm
Recreational Trails Program	

FUNDING SOURCE	DETAILS
Lead Agency	Federal Highway Administration (project selection by California Department of Parks and Recreation and Caltrans)
Description and Eligible Projects	Program funds may be used to fund projects on recreational trails, such as the Lewis S Eaton Trail. Eligible projects include the development of trailside and trailhead facilities.
Link	https://www.fhwa.dot.gov/environment/recreational_trails/
Active Transportation Program	
Lead Agency	Caltrans and California Transportation Commission
Description and Eligible Projects	The program consolidates federal and state transportation programs into a single program. It funds projects that increase modes of active transportation like walking and biking, including infrastructure and non-infrastructure projects.
Link	https://catc.ca.gov/programs/active-transportation-program
Fresno County Measure C Transit Oriented Infrastructure for In-Fill Development (TOD)	
Lead Agency	Fresno Council of Governments, Fresno County Transportation Authority
Description and Eligible Projects	The program includes funding for improvements to transit facilities to encourage safety and access to transit facilities. Funds could be used for preliminary design and environmental studies, engineering, land acquisition, and construction. City and County governments in Fresno County are eligible. Projects must be within ½ mile of an existing bus stop or a proposed bus stop/High Speed Rail station. No local match is required.
Link	https://www.fresnocog.org/measure-c-transit-oriented-development/

FUNDING SOURCE	DETAILS
Non-Profit Hospital and Healthcare Organizations Community Initiatives	
Lead Agency	Non-profit hospitals and health care organizations
Description and Eligible Projects	Non-profit hospitals and health care organizations like Community Medical Centers must complete several requirements to maintain their non-profit status, including supporting community initiatives that are consistent with the local Community Health Needs Assessment (CHNA). The 2020 Fresno County Community Health Needs Assessment lists public transportation as one of its top three priority areas that need to be addressed to improve the health of Fresno County residents. A fourth priority area is air quality. Many cities have partnered with non-profit health care organizations to share the local funding match on federal grant applications to develop and install wayfinding systems that support active transportation and transit.
Link	https://www.fchip.org/
Convention and Visitor's Bureau and Local Chamber of Commerce	
Lead Agency	Fresno/Clovis Convention & Visitors Bureau, Fresno Chamber of Commerce
Description and Eligible Projects	Local tourism boards and chambers of commerce can provide local matches for Federal, State, or County grant funding, or can help fundraise for local matches.
Link	https://www.visitfresnocounty.org/ https://fresnochamber.com/

6.6 Maintenance Considerations

Construction Materials and Environment

The sign concepts included in this Plan were designed with flexibility in mind when it comes to specific materials. Some materials are more durable, but also more expensive, while others are less expensive but require more frequent maintenance or replacement.

When designing a wayfinding system, the material selection must match the environmental conditions in which they will exist. Specifications of durable materials for the sign program shall consider the environment, temperatures, and climate within the Central Valley. In all cases, the manufacturer guidelines will be the primary reference for material suitability. Materials may be exposed to the following conditions:

- UV radiation from sun exposure.
- High-temperature fluctuation.
- High wind and rain.
- Vandalism.

Painted and direct print type graphic applications on pedestrian wayfinding systems prevent vandalism. Other durable surfaces include digital high-pressure laminate and porcelain graphic panels. Both of these materials are used by the National Park Service UniGuide Sign Standards for implementation of durable signs, which are prone to high volumes of hands-on touching by visitors.

Mitigating Maintenance Costs

In addition to signage materials, additional measures may also be taken to mitigate vandalism risk and the associated maintenance costs:

- **Anti-Graffiti Coating.** Anti-Graffiti overlays are available as film or liquid laminates. When these are overlaid on a sign, harsh solvents can be used to remove graffiti without damaging the underlying sign. Some sign vendors may already include “Anti-Graffiti Overlay” as part of the cost of their standard sign fabrication. If they do not, it may be worth it to purchase overlays for an extra $1-2 per sign.
- **Anti-Theft Sign Hardware.** A variety of theft-resistant sign hardware such as sloped nuts, security bolts, and special screws can help deter sign thieves. The additional cost of this hardware is an extra $1-2 per sign.

Sign Replacement Costs as Part of a Maintenance Plan

Agencies that maintain signs and trails should have an overarching maintenance and management plan that includes strategies for dealing with vandalism and theft. A maintenance plan for a trail, for example, would include and budget for both routine and remedial maintenance and define responsibilities between the different agencies and jurisdictions that have responsibilities for different segments of the trail.

- **Routine Maintenance.** Routine maintenance should be scheduled and occur weekly, monthly, and annually. Routine maintenance includes mowing, sweeping, trash-clean up, graffiti removal, and vegetation management. The best trail routine maintenance programs perform routine trail inspections that both inspect and respond to maintenance issues at the same time. Responding to issues immediately saves time and provides a better trail experience for users but requires that maintenance staff have equipment (such as paint, saws, brooms or trail sweepers, weed killer, graffiti removal supplies, trash bags, etc.) at all times. Regular maintenance and quick repair or replacement of vandalized signs sends a message that vandals will not impact the trail. Routine trail inspections should remove graffiti from signs and identify which signs need to be replaced due to damage, fading, or other issues.
- **Remedial Maintenance.** Remedial maintenance is maintenance that remedies a specific issue that cannot be addressed immediately such as trail washouts, damaged bridges, or in the context of signs, replacement of trail amenities. Agencies should expect to replace about 5 percent of their signs every year. It is important to address trail amenity issues, especially those that take an amenity off-line, because in doing so trail users can have confidence in the information being provided by wayfinding.

The Rails to Trails Conservancy's Maintenance Practices and Costs of Rail-Trails (https://www.railstotrails.org/resourcehandler.ashx?id=6336) is a good resource for trail agencies to refer to when developing a trail maintenance plan. The report's Appendices include example maintenance schedules and maintenance budgets.

Figure 41: Promotion Strategies

MARKETING CAMPAIGN	BRANDING	PROGRAMMING
• Travel by Trail, Fresno! • Multi-lingual name • Social media • Other media source	• Printed trail maps, on-line trail maps • Sidewalk medallions	• Piggyback on established events • Create standalone event • Use Meetup or other crowd-source event sources

7. Travel by Trail/ Fresno, !vamos en buen camino!

7.1 Trail Network Promotion Strategies

To highlight the citywide trail network and encourage trail use and travel mode shift, it is recommended that the city develop a multi-pronged promotion approach (Figure 44).

Ideally, the promotion effort would be built on **market research** on Fresno community members who are interested in biking and walking more, but who have safety or comfort concerns, or could benefit from additional information and inspiration. Research should seek to understand the barriers and motivators associated with this audience.

Recommendations

Develop a marketing campaign using the Travel by Trail! Fresno project name, with appropriate translations used wherever possible (e.g. Viajar por Camino, Fresno!). Such a campaign should include consistent and comprehensive interactive marketing materials as well as programming to encourage trail use in Fresno. Information gathered through market research should be used to inform this work.

Branded materials should be developed to enhance the visibility of the campaign. Ideas include:

- A visually appealing on-line trail map available via the city's web-page, like the example from Oakland shown in Figure 42. This map could include transit routes, stop, and links to schedule information, accessibility information, and the destinations included in the wayfinding sign system. The map could highlight a few scenic routes or routes to popular destinations, along with information about trip time, available amenities along the way (e.g. restrooms, shade, refreshments). This map would be easily updatable and should be printable. The map link should be a part of the any branding materials.
- **Sidewalk murals medallions**, either painted or durable (cast) materials incorporating the Travel by Trail! Fresno branding (Figures 43 and 44) . These could be placed on sidewalks near trail access points and at transit stops to point to trail access points. These could serve as additional wayfinding/branding on the ground-plan.
- **Traffic control cabinets** can be transformed with vinyl wrap or bespoke artist design (Figure 45). Locations near trails could be identified for transformation for branding and awareness. As these structures are typically owned by the City, only internal permission would be necessary.

Figure 42: Sample on-line/printable bike map (Oakland Bikeways)

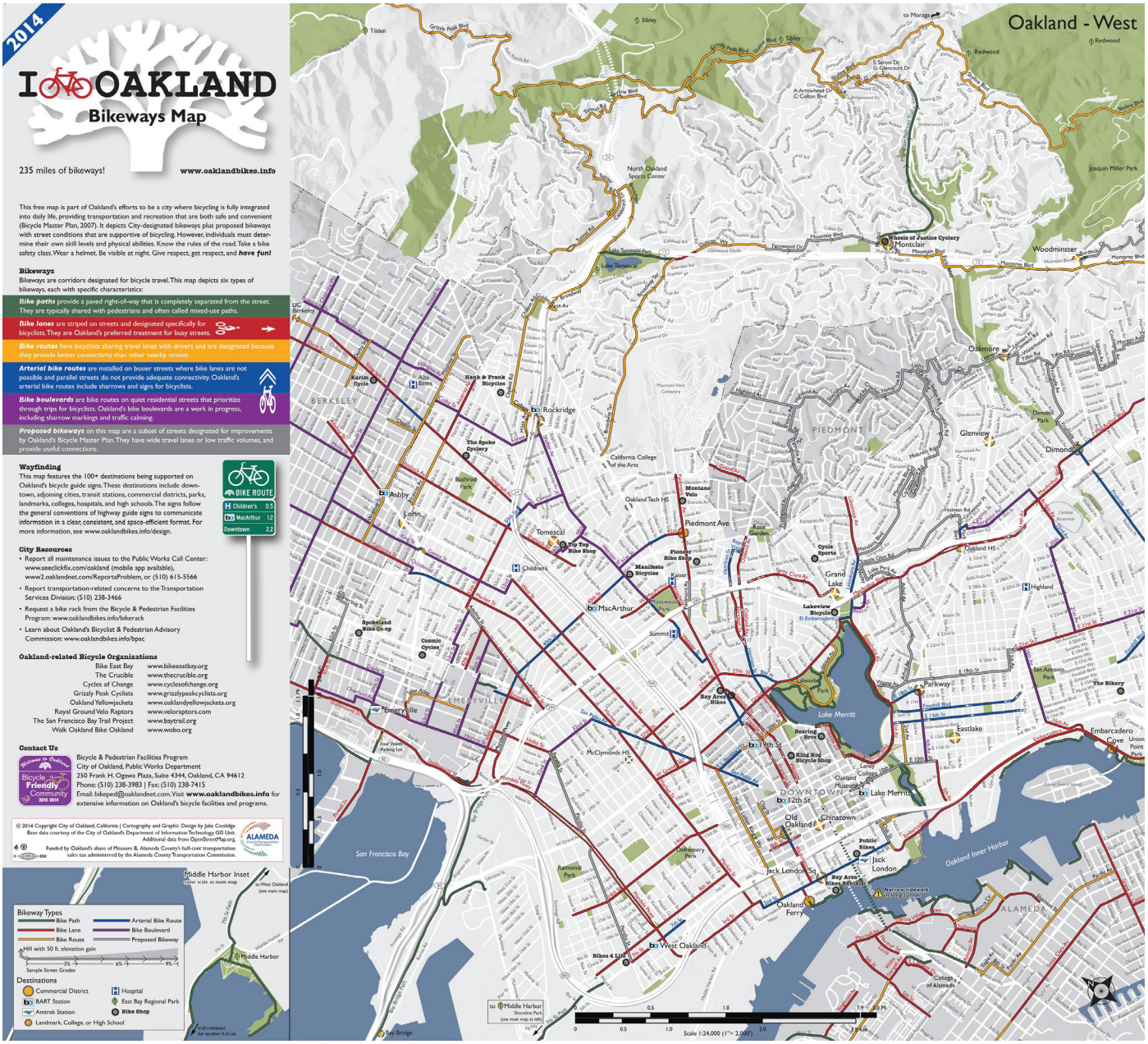


Figure 43: Trail mural, Charlotte Rail Trail

Figure 44: Example of a painted sidewalk medallion

Figure 45: Art on Traffic Control Panels

Spreading the Word

Radio is popular in the Latino/Latinx community and in-language radio ads could be a way to promote trail use and participation in programming events.

Programming

Standalone and piggyback event events can be used to engage the community, generate interest, and expand the user base. Some ideas include:

Piggyback on Established Events

Art Hop – Coordinate with the Fresno Arts Commission to schedule an Art Hop on or nearby a trail and provide information and trail maps. Visitors could be encouraged to ride/walk a section of trail for swag (branded bike lights, water bottles, silicone phone wallets).

Tabling at **Farmers' Markets, Blossom Trail**, and other regular events: to provide information and trail maps

Standalone Events:

National Trails Day takes place on the first day of June. These are typically events that focus on volunteer maintenance and cleanup of trails. An event could be organized along one or multiple trails, with support from advocacy groups.

Organized walks/rides: Coordinate with local recreation or health-based groups like the Fresno Cycling Club, the Fresno County Bicycle Coalition, Fresno Mindfulness Walks, Cultiva La Salud, Central Valley Ethnic Women's Empowerment Group. Events can be advertise via the Meetup app.

Plan trail rides/walks to popular destinations like Woodward Park or the Fort Washington Farmers Market at the Riverview Shopping Center or end a local coffee shop/pub/ice cream spot. To captured are wider range of participants, a "slow ride" could be modeled after Detroit's Slow Roll rides, weekly bike rides that focus on exploring the community by bike, taking a leisurely pace.

Social Media/Selfie Contests are an idea to raise awareness of different trails around the city's network. People could take selfies next to trail welcome signs and post them via Instagram with a hashtag, #travelbytrailfresno! / #viajarporloscaminosfresno! Participants' names can be put into a raffle to win swag or a larger prize like an activity tracker or a gift certificate to a bike shop or athletic gear shop.

Use the #travelbytrailfresno! / #viajarporloscaminosfresno! hashtags should be encouraged so that community members who take and post photos on social media spread the visual 'word' about the trails.

Monitoring & reporting: To determine success, it will be important to measure progress over time. Metrics could include trail counts on specific high-use trails, surveys to understand participation levels, mode share. The information should be shared as part of the overall marking strategy/campaign. Regular reports for trail use can help tell the story of how continued use makes the trails and wayfinding program more successful over time.