



# **CDTC** **REGIONAL** **BICYCLE** **PLAN**

ADOPTED AUGUST 11, 2022

*Prepared by*

## **Chelan-Douglas Transportation Council**

Additional copies of this document may be obtained by contacting:

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This document is also available on our website at: [www.chelan-douglas.org](http://www.chelan-douglas.org)



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**RESOLUTION No. 2-2022**

**A RESOLUTION TO ADOPT THE 2022 REGIONAL BICYCLE PLAN**

**WHEREAS**, the Chelan-Douglas Transportation Council (CDTC) is the lead agency for the Metropolitan Planning Organization and the Regional Transportation Planning Organization with responsibility for transportation planning and programming in the Wenatchee Metropolitan Statistical Area encompassing Chelan County and Douglas County; and

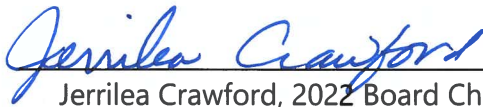
**WHEREAS**, CDTC staff has conducted comprehensive public engagement using monthly advisory committees and quarterly public forums to gain local knowledge on bicycle mobility, access, and safety needs to help prepare the 2022 Regional Bicycle Plan; and

**WHEREAS**, CDTC encourages member jurisdictions to individually adopt the 2022 Regional Bicycle Plan, or portions thereof, into local comprehensive plan updates;

**NOW, THEREFORE, BE IT RESOLVED**, that the Chelan-Douglas Transportation Council adopts the 2022 Regional Bicycle Plan.

**ADOPTED** by the CDTC governing board at a regular meeting thereof held on the 11<sup>th</sup> day of August 2022.

**DATED** this 11<sup>th</sup> day of August 2022:

  
\_\_\_\_\_  
Jerrilea Crawford, 2022 Board Chair

ATTEST:

  
\_\_\_\_\_  
Jeff Wilkens, Executive Director

## Governing Board

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**Jerrilea Crawford | 2022 Chair**  
Mayor, City of East Wenatchee

**Randy Agnew**  
Mayor, City of Rock Island  
*Douglas County Small Towns/City Rep.*

**JC Baldwin**  
Commissioner, Regional Port Authority

**David Bierschbach**  
Region Administrator, WSDOT-NCR

**Kyle Steinburg**  
Commissioner, Douglas County

**Richard DeRock**  
General Manager, Link Transit

**Jim Fletcher**  
Mayor, City of Cashmere  
*Chelan County Small Towns/City Rep.*

**Mike Poirier**  
City Councilperson, City of Wenatchee

**Kevin Overbay**  
Commissioner, Chelan County

## Staff Members

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**Jeff Wilkens**  
Executive Director

**Chad Daggett**  
Executive Assistant & Clerk of the Board

**Riley Shewak**  
Senior Transportation Planner

## Technical Advisory Committee

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*City of Wenatchee*  
**Gary Owen**, City Engineer  
**Emma Honeycutt**, Transportation Planning Manager

*City of East Wenatchee*  
**Garren Melton**, Project Development Manager  
**Lori Barnett**, Community Development Director

*Douglas County*  
**Aaron Simmons**, County Engineer

*Chelan County*  
**Eric Pierson**, Public Works Director

*Chelan-Douglas Regional Port Authority*  
**Ron Cridlebaugh**, Director of Economic & Business Development

*City of Cashmere*  
**Steve Croci**, Operations Director

*City of Chelan*  
**Travis Denham**, City Engineer

*City of Entiat*  
[Vacant]

*City of Leavenworth*  
**Tom Wachholder**, Public Works Director

*City of Rock Island*  
[Vacant]

*Town of Waterville*  
**Martin Ramin**, Public Works Director

*City of Bridgeport*  
**Stewart Dezellem**, Public Works Director

*Town of Mansfield*  
[Vacant]

*Link Transit*  
**Christina Barone**, Planning & Development Manager

*WSDOT – North Central Region*  
**George Mazur**, Transportation Planning Manager  
**Max Nelson**, Planner

# Regional Bicycle Advisory Committee

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## Citizen Members

**Mark Kacmarcik**  
Chelan County Citizen

**Bob Stoehr**  
Chelan County Citizen

**Charlie Hickenbottom**  
Chelan County Citizen

**Cassidy Cue**  
Douglas County Citizen

**Carmen Andonegui**  
Douglas County Citizen

**Sue Stanton**  
Chelan County Citizen

## Community Organization Members

**Mike Sorensen**  
Complete the Loop Coalition

**Erik Howe**  
Wenatchee Valley Velo

**Jana Fischbach; Joan Quazi; Cassie Bogdan Slemmer**  
Sustainable Wenatchee

## Agency Staff

**Gary Owen**  
City of Wenatchee

**Max Nelson**  
Washington State Department of Transportation

**Garren Melton**  
City of East Wenatchee

**Jennifer Lange**  
Douglas County

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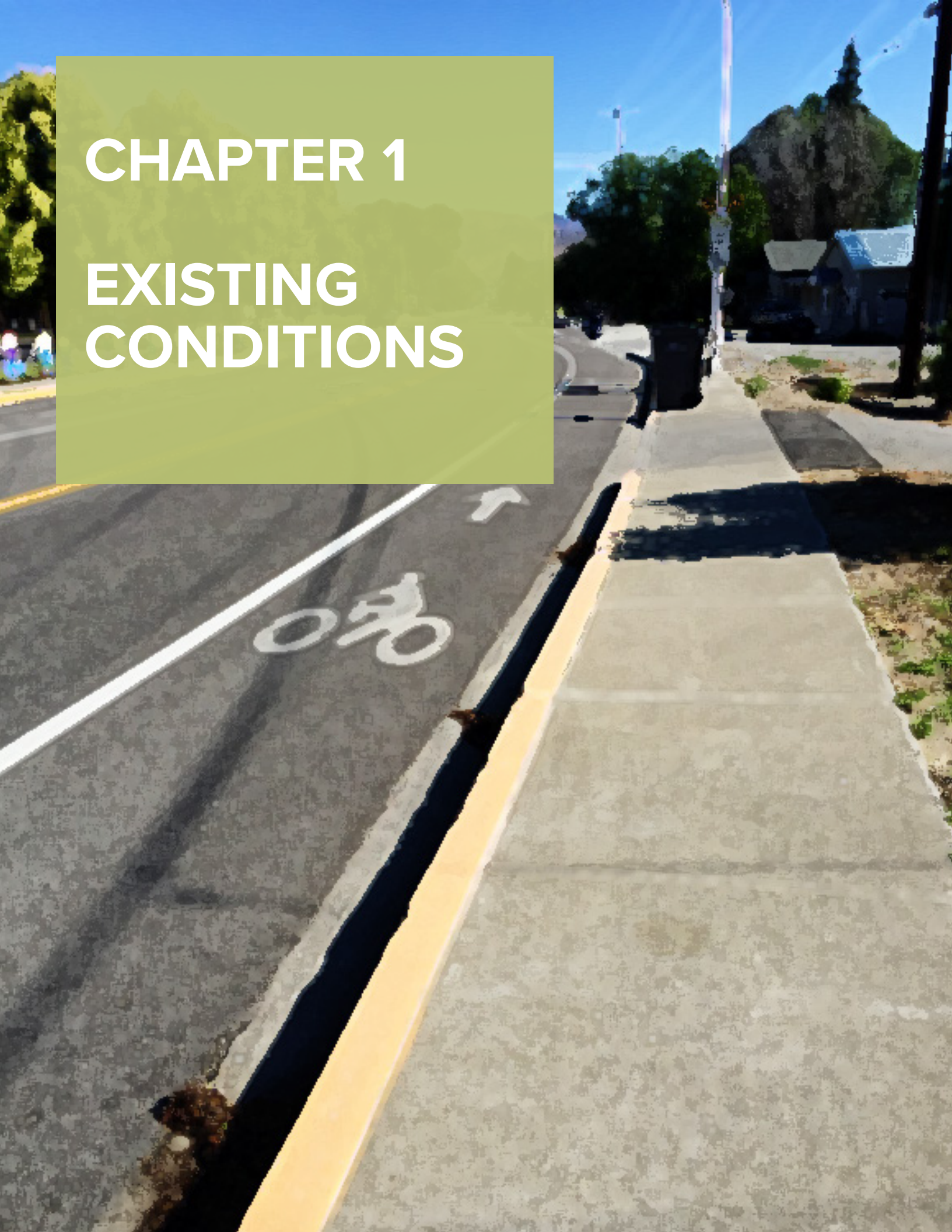
## Appendix B: Bicycle Program Recommendations

## Appendix C: Wayfinding Plan

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# CHAPTER 1

# EXISTING CONDITIONS





# Introduction

The Chelan-Douglas Transportation Council (CDTC) is responsible for regional transportation planning and programming in Chelan and Douglas counties, including regional bicycle planning. In 2013, CDTC completed the Greater Wenatchee Valley Bicycle Master Plan (Bike Plan) which identifies recommendations for a comprehensive bikeway network in the urbanized areas of the region (Wenatchee, East Wenatchee and Rock Island). In 2018 the Bike Plan was updated to track the progress of bikeway implementation; improve the Plan’s utility for planned bikeway implementation; and identify complementary planning programs, such as bike parking and wayfinding, to improve bicycle transportation.

The 2022 Chelan Douglas Regional Bike Plan builds on the comprehensive policy, network, and program recommendations developed in the first two iterations of the Bike Plan by:

- 1. Refining the details** of network recommendations and complementary bicycling programs; and
- 2. Expanding the scope** of the plan to the small towns and rural communities outside the urbanized area to provide recommendations on bicycle travel between communities.

This plan is a collaborative product of CDTC and the Regional Bicycle Advisory Committee (RBAC) a subcommittee to the CDTC Board consisting of citizens, non-profit stakeholders, and members of the CDTC Technical Advisory Committee. This plan is the direct result of their enthusiasm for bicycling, the time and energy they put into this process, and their commitment to improving bicycle transportation in their local jurisdictions. This document outlines the long-term vision for a safe and connected bicycle network and provides tools for prioritization and implementation. Implementation of the bike plan will be carried out over time at the discretion of local agencies and should be guided by ongoing coordination with community partners and public input

**The Regional Bicycle Advisory Committee was dissolved upon the completion of this Plan. The purpose of the RBAC is now carried out through a CDTC - led, quarterly public meeting called the Chelan-Douglas Bicycle Forum.**

This plan is a supporting document to the Regional Transportation Plan and local agencies are encouraged to adopt or reference it in future updates to the transportation element of their comprehensive plans.

This document is part of a suite of interactive bicycle planning tools. Multiple complementary, interactive maps and technical guides are available on [Chelan-douglas.org](http://Chelan-douglas.org) and [bikwenatcheevalley.org](http://bikwenatcheevalley.org) to aid in the ongoing analysis and implementation of the bikeway network recommendations and programs.

## The People of North-Central Washington

The CDTC region has a population of approximately 122,000<sup>1</sup> and covers nearly 4,850 square miles. **The population is projected grow by roughly 28,000 people over the next 25 years to 150,000<sup>2</sup> by 2045.** The Wenatchee urbanized area is the region’s economic, cultural and transportation hub with a population of approximately 71,000 . Nearly 70% of people in the region identifies as white with the next largest race group identifying as “some other race alone”. Nearly 30% of the region’s population identifies as Hispanic **or** Latino. Table 1-1 summarizes the demographic profile of the CDTC region by race and ethnicity.

1: United States Census Bureau 2020 Decennial Census

2: Washington State Office of Financial Management Population Projections

**Table 1-1: Race and Ethnicity in the CDTC Region**

Race	Count	Percentage
White alone	85,867	71.2%
Black or African American alone	1,492	1.2%
American Indian and Alaska Native alone	625	0.5%
Asian alone	1,404	1.2%
Native Hawaiian and Other Pacific Islander alone	18	0.015%
Some Other Race alone	28,399	23.5%
Two or more races:	2,824	2.3%
Ethnicity		
Hispanic or Latino	35,840	29.7%
Not Hispanic or Latino	84,789	70.3%

Source: 2020 Census

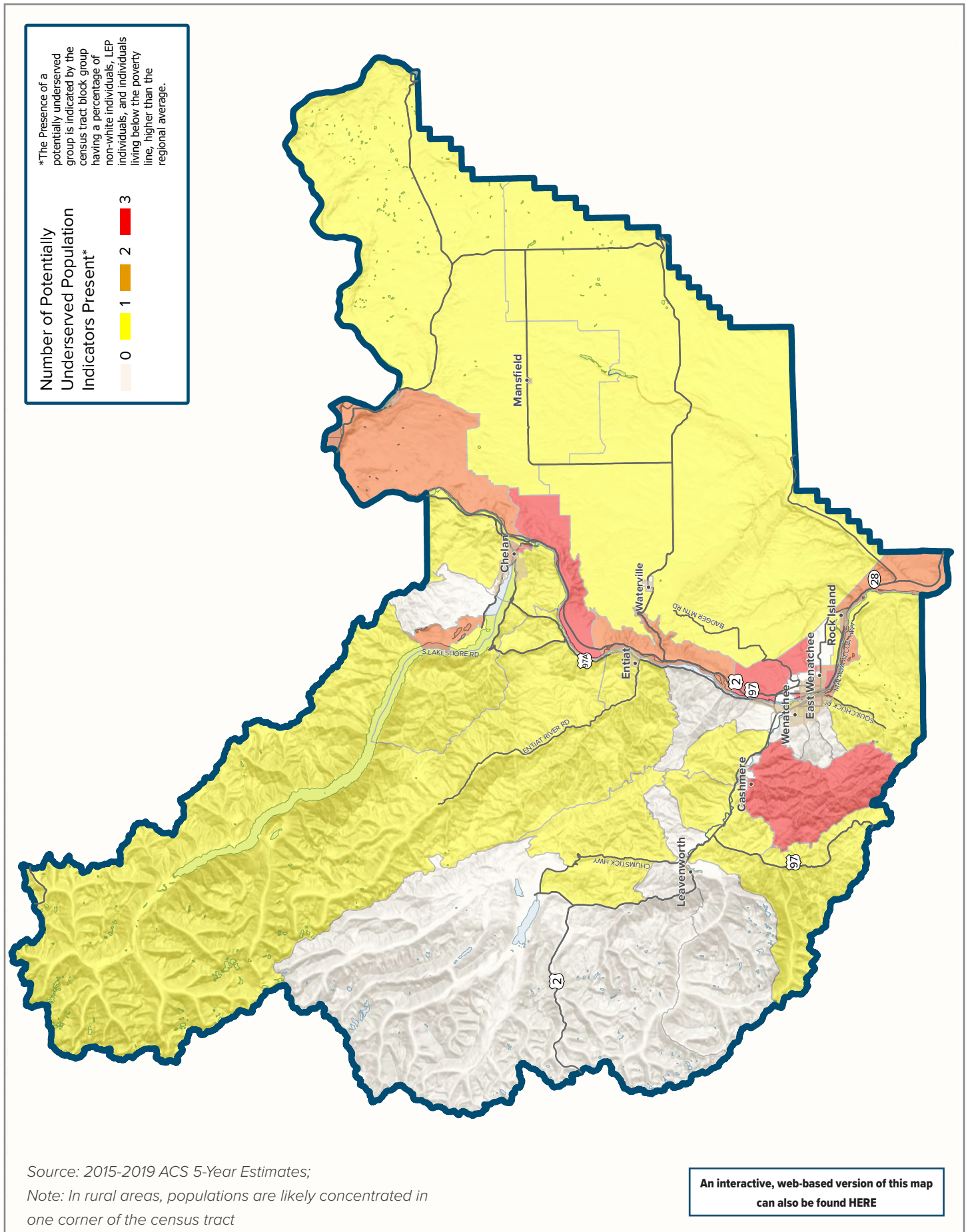
## Equity in Bike Planning

Equity in transportation seeks fairness in mobility and accessibility to meet the needs of all community members. The term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as people of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

CDTC must ensure that its plans and programs avoid disproportionate negative impacts or denials of benefits to underserved populations. Often, those exclusively using a bicycle for transportation are the most marginalized members of society. Bicycles offer a low cost, high mobility alternative to owning a car. A connected and comprehensive bikeway network can foster upward social mobility by removing the financial burden of car ownership while offering an efficient and comparable transportation alternative to automobiles.

Figures 1-1 and 1-2 show the census tract block groups where underserved populations are concentrated in the region. Most of the existing bikeway network connects areas with one or fewer underserved populations. However, the recommended network extends connections to all areas of underserved populations (Figure 1-3). The presence of underserved populations can be used as a prioritization criteria by local agencies for bikeway implementation and can be found on pages 33-38. Approaches for implementing equitable bicycle connections will be different for urban and rural contexts.

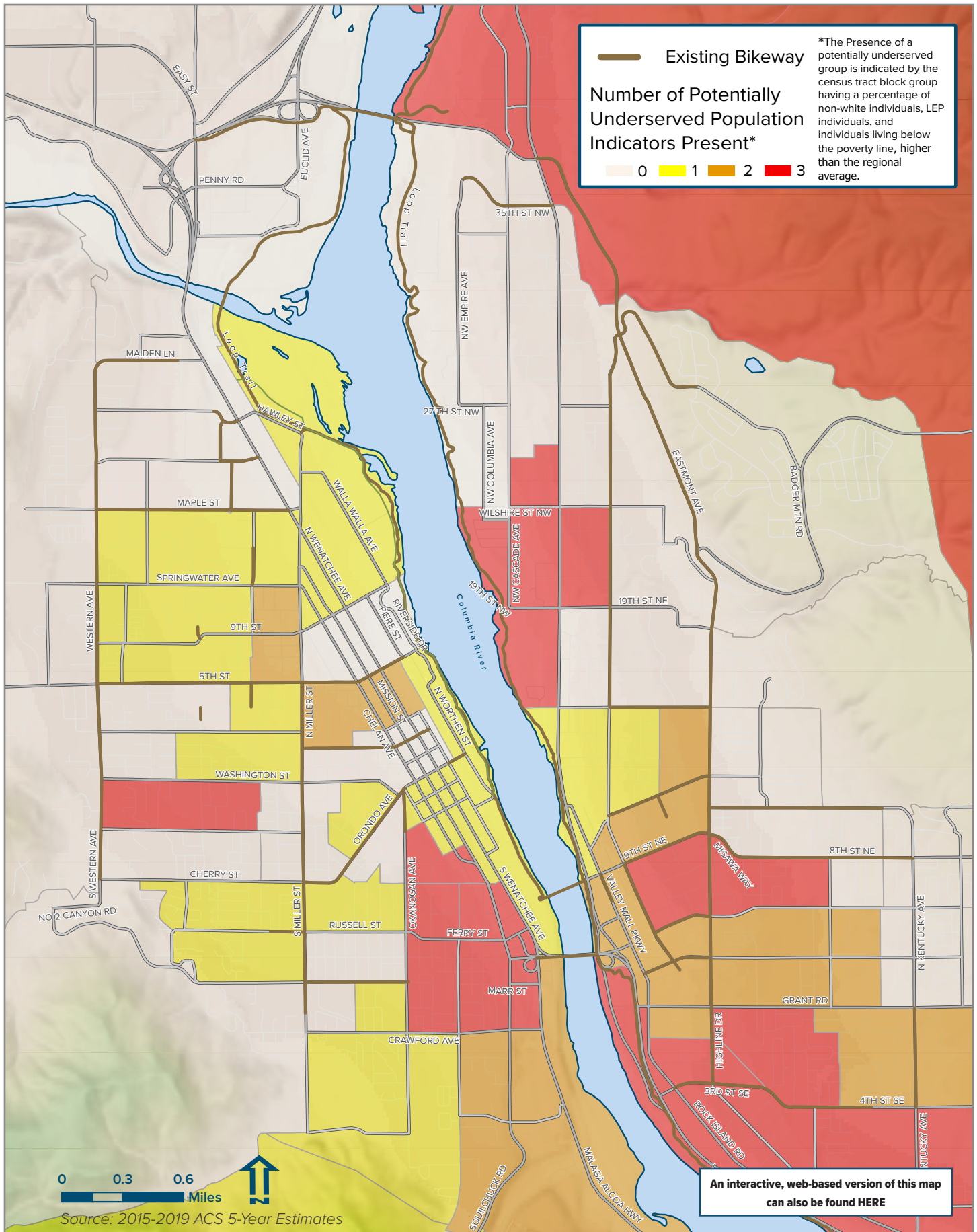
Figure 1-1: Underserved Populations in the CDTC Region \ by Census Tract Block Group



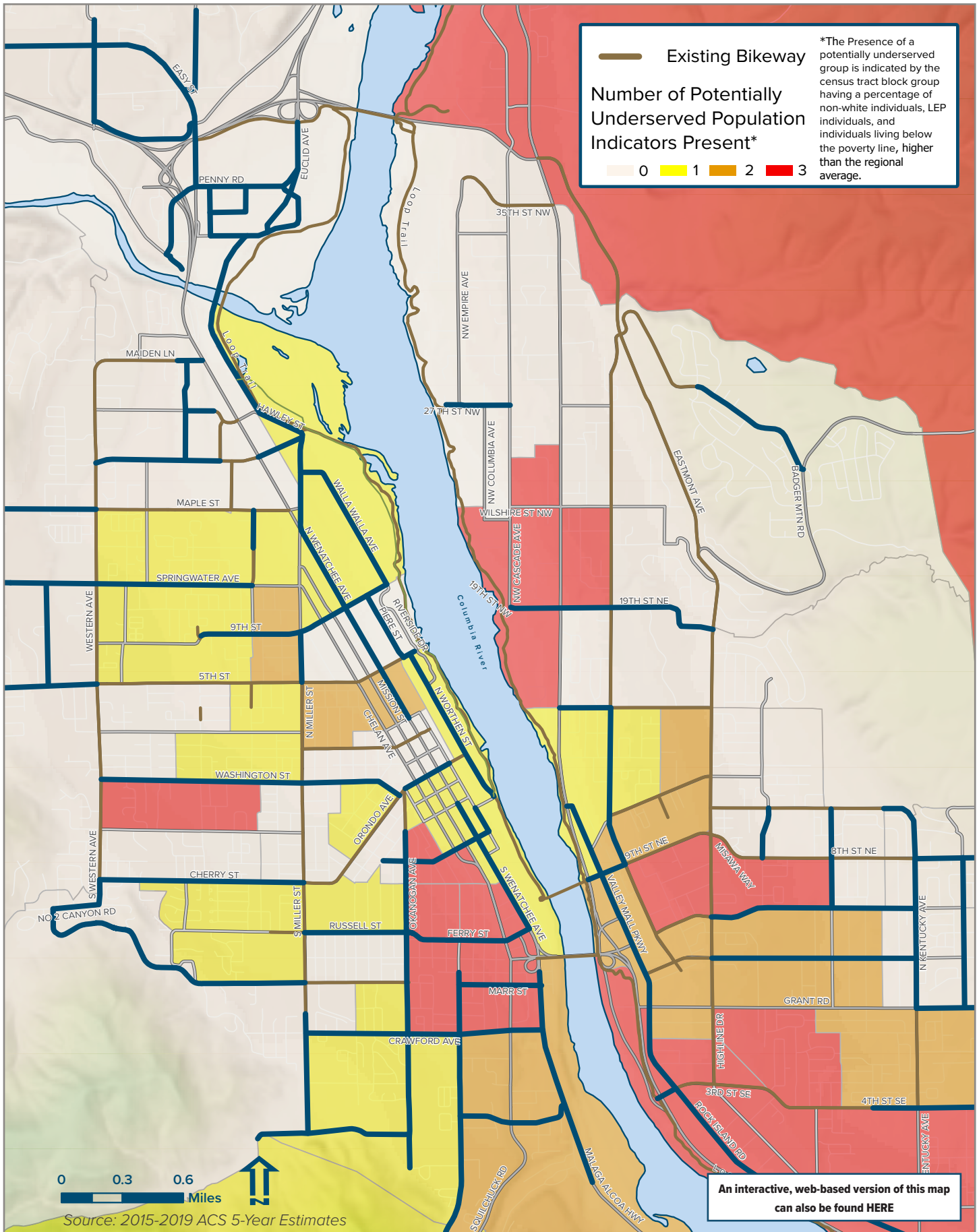
Source: 2015-2019 ACS 5-Year Estimates;  
 Note: In rural areas, populations are likely concentrated in one corner of the census tract

An interactive, web-based version of this map can also be found [HERE](#)

Figure 1-2: Underserved Populations in the Wenatchee Valley Urban Area By Census Tract Block Group



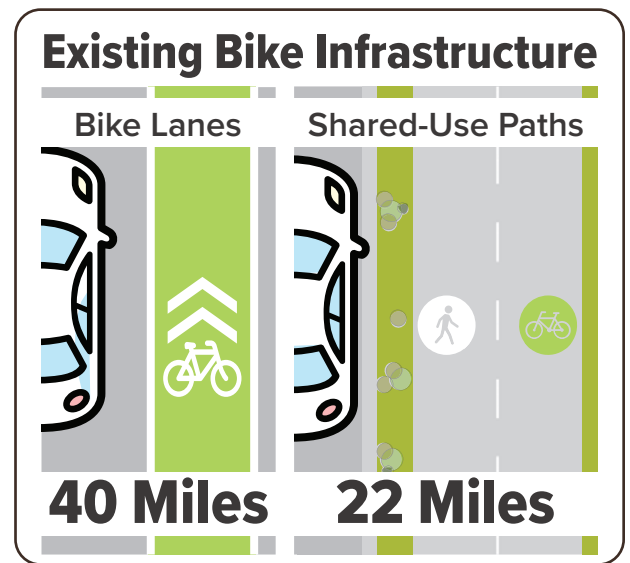
**Figure 1-3: Underserved Populations in the Wenatchee Valley Urban Area By Census Tract Block Group With Recommended Bikeway Network**



# Bicycling in the Region

## Wenatchee Valley Urban Area

There are roughly 40 miles of on-street bikeways and 22 miles of shared use paths within the Wenatchee Valley Urban Area (Figure 1-4). 24.5 miles of new bicycle facilities have been built since the completion of the 2013 plan, a rate of construction that would see the network recommendations in the 2018 Plan built within 20 years. This plan update adds roughly 13 miles of bikeway recommendations in the Wenatchee Valley, meaning full build out of the bikeway network may take longer.



## Small Town Connections

Bicycle transportation outside of the Wenatchee Valley Urban Area is characterized by the needs of unique user groups. Long distance bikers use the shoulders of small-town and rural roadways, often mixing with diverse roadway users like agriculture equipment and heavy trucks. Tourists in the resort towns of Leavenworth and Chelan create high demand for recreational riding in the often-congested downtowns and adjacent pathway networks. This unique demand creates the need for context sensitive planning and close coordination with diverse stakeholders.

Few small towns within the region have on-street bikeways. Leavenworth has roughly two and a half miles of bike lanes and a little more than one mile of shared use pathways. Chelan has just under one-half mile of bike lanes and roughly one mile of shared-use pathways. Cashmere has one-half mile of bike lanes and shared use paths.

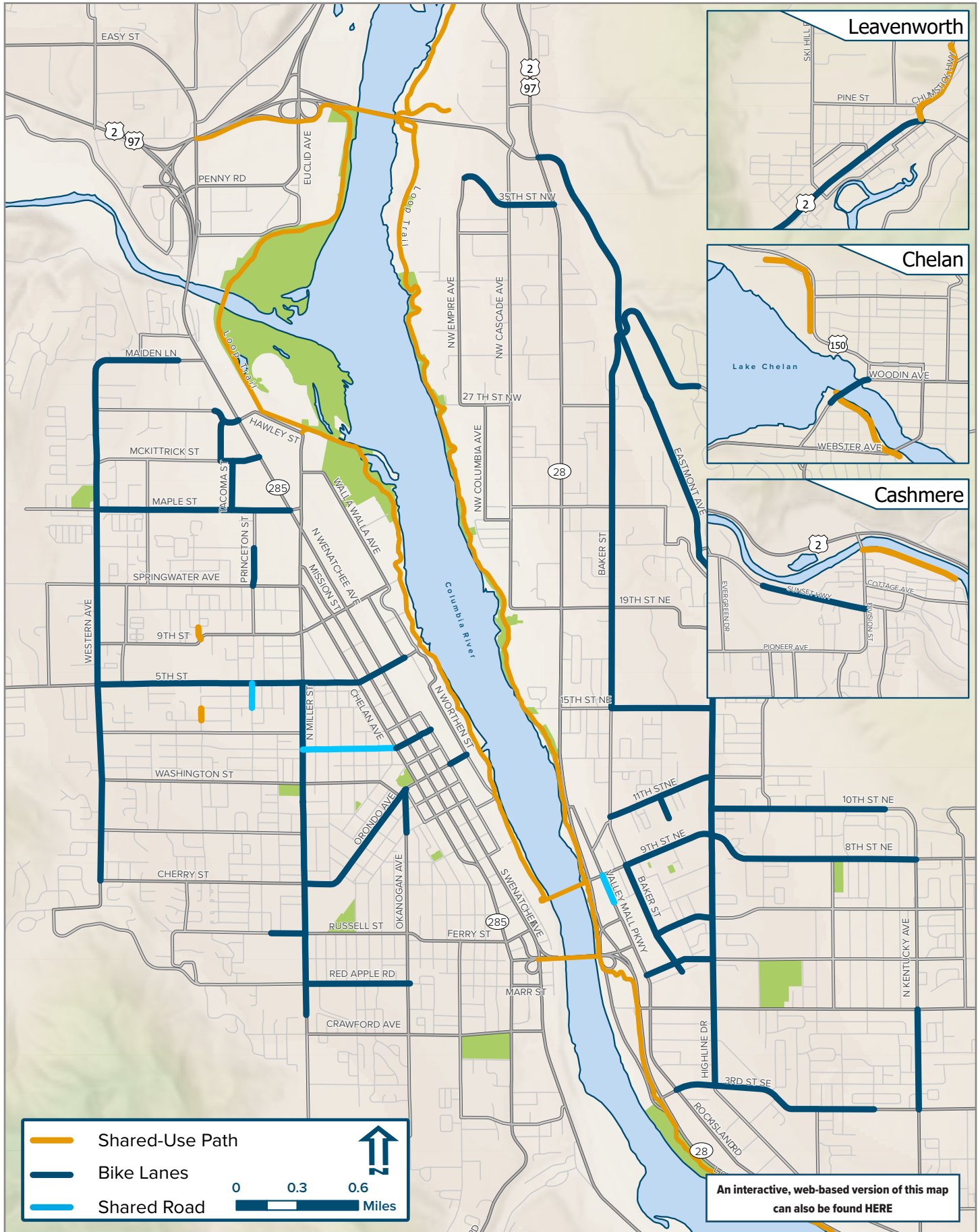
The small towns within the region are connected by a network of medium-to-high speed, low volume county roads and high-speed, high-volume state highways constrained by the region's mountains and river valleys. These roadway characteristics and topographic constraints create unique challenges for establishing comfortable bikeway connections between the outlying rural areas and the Wenatchee Valley. Throughout the west, legacy railroad corridors are repurposed for active transportation, but in this region, there are few rail corridors where this opportunity exists. CDTC and its partner agencies must identify alternative strategies for making these connections. Numerous irrigation canal easements traverse the rural communities and could be repurposed for shared use paths.

Though expensive and complex, shared-use paths are the most comfortable bikeway type for connecting rural communities. Counties currently accommodate bicycles on rural roads using signage and wide shoulders. CDTC will focus its efforts on expanding bikeway connections to rural communities on shared-use paths, where feasible.

## Existing Bicycle Infrastructure

CDTC uses standards consistent with the National Association of City Transportation Officials (NACTO) bikeway standards guide to determine existing bike facilities in urban areas and AASHTO/WSDOT standards in rural areas. A bike lane must be a minimum of 5' wide when measured from the curb face and minimum of 3' wide when measured from a longitudinal joint. A shared road must include signage and pavement markings to indicate that bicycle and vehicles share the same travel lane. Shared use paths must be separated from vehicle travel lanes by an open space or physical barrier.

Figure 1-4: Existing Bicycle Infrastructure in the Wenatchee Valley and Small Towns



# Public Engagement

Thorough public engagement was conducted over the course of the 2013 and 2018 planning processes through public events, social media, and surveys. These efforts provided a glimpse of the preferences and opinions of the bicycling and non-bicycling public. The responses to the survey from the 2018 Plan Update are summarized as follows:



Public Engagement at Other Local Events

## Barriers to Bicycle Transportation

1. 30% of responses mention a lack of bike lanes, trails or routes
2. 16% of responses mention safety around vehicles
3. 15% of responses mention weather
4. 9% of responses mention "other" barriers
5. 8% of responses mention lack of bike parking
6. 7% of responses mention business (work, kids, pets, hobbies)
7. 7% of responses mention hilly terrain

## Where people bike most often:

1. Neighborhood Streets; 31% bike/or would like to bike to trailheads, parks & recreation
2. Loop Trail; 25% bike/or would like to bike to shopping, dining, errands
3. City Streets; 21% bike/or would like to bike to their workplace

## How should the bike network be improved?

1. Create connections to the Loop Trail
2. Create a network of neighborhood streets with wayfinding and bike route information
3. Create safe routes for walking and bicycling around schools

## What type of bicycle facilities would improve the network?

1. Protected or buffered bicycle lanes
2. Bicycle lanes
3. Off-Street Trails (like the Loop Trail)



What bike programs are needed:

1. School programs (youth bike programs and education)
2. Bike parking improvements
3. Resources for businesses and employers to help employees commute by bike
4. Bike education for cyclists (classes, events, bike rodeos)

The 2022 update did not include the same comprehensive public engagement strategies used in the past. Instead, public engagement was done through multiple, localized planning efforts aiming to refine bicycle network recommendations. These efforts were led by CDTC, RBAC, and the local agencies in the region and are summarized below.

### ***North Wenatchee Avenue Preliminary Engineering Summary Report - 2020***

This study identified multi-modal design constraints for improvements on North Wenatchee Ave from Miller St to the Wenatchee River consistent with existing and planned funding strategies. Specifically, a shared-use path was identified parallel to North Wenatchee Avenue on the Gunn Irrigation Ditch from Walnut St to the Wenatchee River as the preferred active transportation improvement on the corridor.

Public engagement included a property owner meeting, online open house, survey, and a community meeting. In total, over 3,000 citizens participated in all events combined. Nearly 50% of the 766 survey respondents considered improving biking facilities either somewhat important or very important.

### ***RBAC Needs Further Study Area Analysis – 2021***

Between October '20 and December '21, the RBAC advised CDTC staff on clarifying the recommendations for the ten “Needs Further Study” areas identified in the 2018 Bike Plan. Subcommittees were created for four of the ten areas; five were discussed as agenda topics during regularly scheduled RBAC meetings; one was resolved by the North Wenatchee Avenue Report described above.



*An RBAC “Bike Audit”*

### ***Chelan County Multi-Use Pathways Plan – 2021***

The Chelan County Multi-Use Pathways Plan will guide investments for inter-urban trails and related facilities to better connect communities and destinations within the county. The plan identified 7 corridors connecting major recreation, tourism, economic, and residential destinations to focus additional bikeway planning and resources.

Public engagement included a steering committee consisting of public agencies and various local organizations, and an online survey/mapping tool generating responses from nearly 1,500 participants.



*Orondo Ave Pop-up Project*

## Wenatchee Complete Streets Academy – 2021

Smart Growth America selected the City of Wenatchee from a pool of 6 jurisdictions to participate in a technical assistance program designed to help jurisdictions overcome barriers to implementing complete streets. The project brought together planners, engineers, public health practitioners, and community advocates to create a “pop-up” redesign project at the intersection of Orondo Ave, Washington St, Okanogan Ave, and Methow St, a difficult intersection to navigate for both bicyclists and pedestrians.

Public engagement included outreach at multiple events, an online survey, and an afternoon market with dancing and music entertainment on the Saturday during the week-long pop-up demonstration. This project explicitly engaged Wenatchee’s Latino community through bilingual outreach materials and listening sessions and the inclusion of Latino vendors and performers during events.

## South Wenatchee Bike Network Connectivity Study – 2022

CDTC conducted a feasibility study for creating safe, comfortable bicycle connections on multiple roads between the South Wenatchee neighborhood and a funded bridge over the BNSF railroad tracks in the vicinity of Bridge St connecting South Wenatchee Avenue to the Loop Trail. South Wenatchee is a predominately Spanish speaking necessitating a targeted public engagement strategy that met the community members in their neighborhood at comfortable and familiar locations.

CDTC attended multiple community events in South Wenatchee, held focus groups with the community and city council members, directly solicited feedback from local businesses, and held a “bike rodeo” event showcasing the results of the study. In total 20-30 surveys were completed and nearly 100 people attended the bike rodeo.

## 2022 Our Valley, Our Future Action Plan

Our Valley Our Future (OVOF) is a community-based organization that engages and collaborates with the people and organizations of the Wenatchee Valley to achieve our region’s shared, long-range vision. Using the input from more than 1,300 community members and six subcommittees of subject-matter experts The Action Plan identifies actions that need to be taken to meet the region's shared vision.

The Action Plan identifies the CDTC as a supporting partner to prioritize development of a bike-and pedestrian-friendly transportation infrastructure, including building pathways that connect local communities and installing bike lanes and pedestrian sidewalks and trails in urbanized areas.

## Bikeway Planning Framework

CDTC conducts bikeway planning in a way that addresses the needs of all members of the community and applies the following frameworks to guide the identification of network recommendations, develop concepts, and advise on local agency implementation of bikeway projects.

**¿ANDAS EN BICICLETA South Wenatchee ?**

El Consejo de Transporte de Chelan-Douglas (CDTC) y la Ciudad de Wenatchee están llevando a cabo un Estudio de conectividad de bicicletas

**y queremos saber de usted!**

Responda la encuesta utilizando el QR Code que aparece a continuación o visitando [bikesouthwenatchee.com](https://bikesouthwenatchee.com) para compartir sus historias e inquietudes, y brindar comentarios sobre cómo podemos mejorar la seguridad de las bicicletas en South Wenatchee.

¡escanee aquí para completar la encuesta!

PARA OBTENER MÁS INFORMACIÓN, COMUNÍQUESE CON [info@cdtc.org](mailto:info@cdtc.org)

Chelan-Douglas Transportation Council CDTC

Project Information Translated to Spanish

## Scope of the Bike Plan and Relationship to Other Plans

The Bike Plan identifies the bikeway network vision for the Wenatchee Valley and surrounding rural areas. In general, bike recommendations are non-perspective corridor improvements that require additional concept development, analysis, and design. For example, a bike lane recommendation could be implemented as a traditional, buffered, or cycle track bike lane. However, some bikeway recommendations are closer to implementation due to additional planning, concept development, and engineering conducted by CDTC and the local agencies, but because not all recommendations have been developed to this level of detail they are also shown as non-prescriptive recommendations. Users of this plan can review the following supporting documents when seeking details of specific recommendations that have been developed beyond the scope of the Bike Plan.

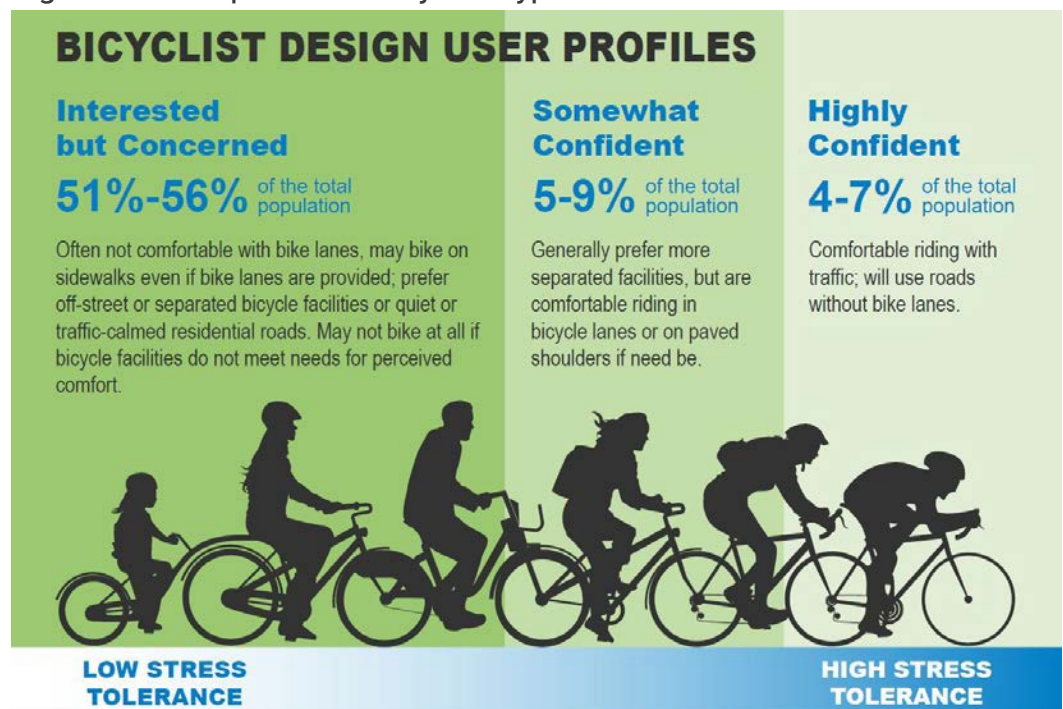
- North Wenatchee Avenue Preliminary Engineering Summary Report (City of Wenatchee)
- Confluence Parkway Environmental Assessment (City of Wenatchee)
- Wenatchee Riverfront Park Master Plan (Chelan PUD)
- Wenatchi Landing Sub-Area Plan (Douglas County)
- Chelan County Multi-Use Pathways Plan (Chelan County)
- SR-28 Corridor Vision (CDTC)
- South Wenatchee Bicycle Connectivity Study (CDTC)
- North Wenatchee Avenue Transportation Master Plan (CDTC)

## Planning for All Ages and Abilities

To achieve growth in bicycling, bikeway planning and design needs to meet the needs and desires of all potential bicyclists.

This framework is often described as planning for the eight and eighty year old. Often times, bikeway planning and infrastructure design excludes most people who might otherwise ride, traditionally favoring very confident riders, who tend to be adult men. CDTC considers the needs of all users in its bikeway planning and encourages the local agencies in the region to do the same during design and implementation.

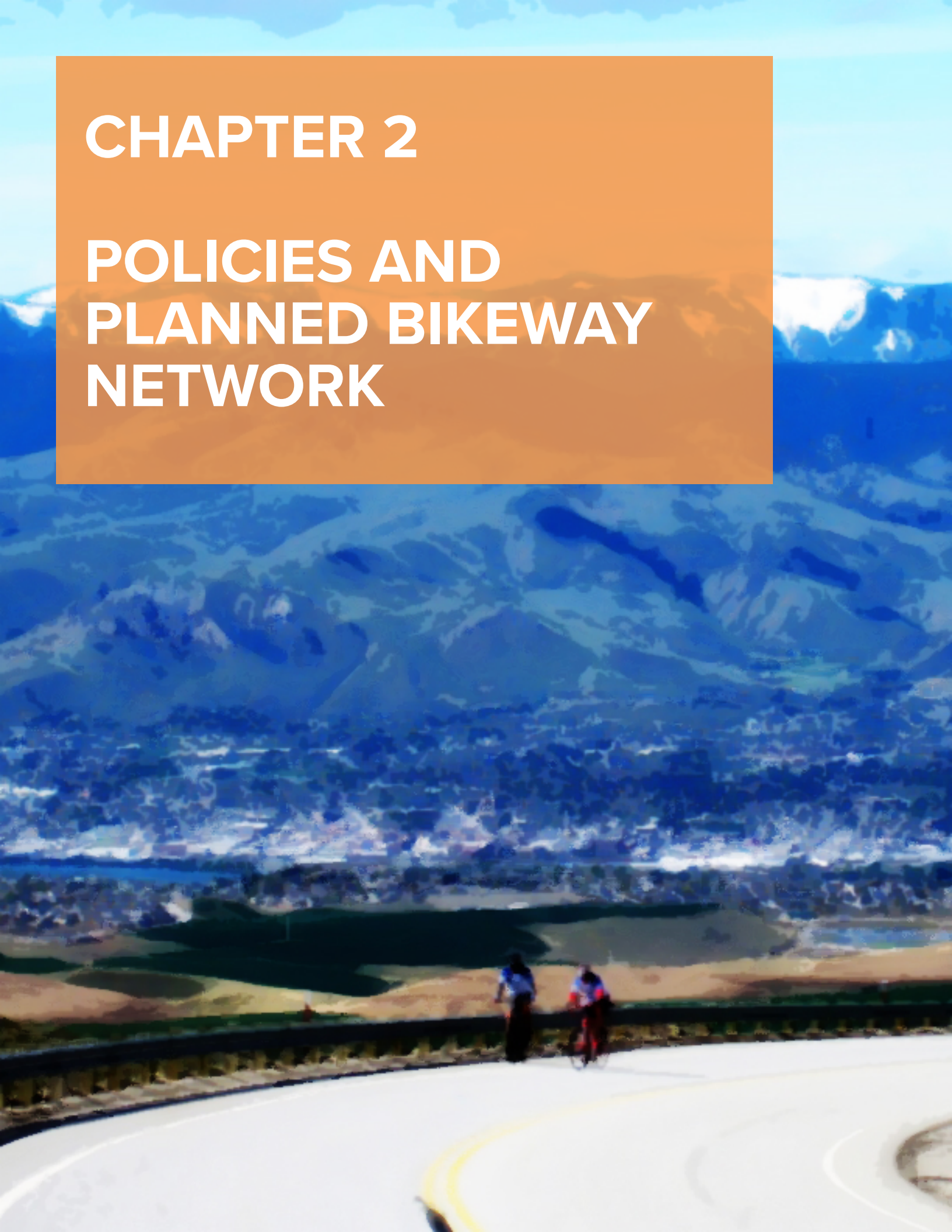
Figure 1-5: The spectrum of bicyclists types



Source: Federal Highway Administration

# CHAPTER 2

## POLICIES AND PLANNED BIKEWAY NETWORK



**T**he goal of this plan is to guide and support local agency implementation and stewardship of a safe and connected bikeway network. This plan is not constrained to existing funding levels and identifies the need for additional revenue. This chapter summarizes the policies that aid best practice planning, implementation, and stewardship and identifies the corridors recommended for bicycle improvements. Supporting programs can be found in Appendix B.

## Policies

The policy recommendations described below are the foundation for developing a comprehensive bicycle network. Adopting these policies at the local level creates more strategic flexibility for local governments to implement bicycle projects. Moreover, these policy decisions take the stance that bikeway needs should be accommodated in project design and implementation using best practices.

### *Review bikeway standards, markings, and other design features*

Working through the Technical Advisory Committee, local agencies should consider reviewing and adopting standards for bike lane markings and signage to be consistent across the region. CDTC recommends use of the National Association of City Transportation Officials (NACTO) bikeway standards in urban areas and AASHTO/WSDOT standards in rural areas. These standards represent best practices for bike lanes, cycle tracks, shared roads, intersection treatments, signals, and wayfinding/signage. These standards are used by CDTC to determine which bikeways are included in CDTC's plans and programs and if projects submitted to CDTC's funding programs meet bikeway criteria, except where local Complete Streets ordinances are applied.

### *Improve Bikeway Maintenance*

The variety of weather experienced in North Central Washington makes maintenance difficult across all public infrastructure. Introducing new materials and road designs comes with additional challenges for street maintenance departments and local budgets but the need is present regardless of current budget constraints.

Examples of bikeway system maintenance include:

- Street sweeping (including soon after snowmelt)
- Signage and wayfinding repair/replacement
- Re-stripping and replacement of pavement markings
- Pavement and pothole repairs
- Vegetation management
- Snow removal

Additional funding is needed to adequately maintain existing and future bicycle facilities. It's been found in multiple cases that bikeway development can catalyze economic activity and help to pay for its maintenance<sup>1</sup>. The most effective way to improve bicycle and pedestrian infrastructure maintenance is it to create dedicated funding mechanisms that keep infrastructure maintained to an adequate standard. Revenue options and funding mechanisms are discussed in Chapter 3.

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1: Alliance for Biking & Walking; League of American Bicyclists: How Communities are Paying to Maintain Trails, Bike Lanes, and Sidewalks

One of the most challenging maintenance tasks for bikeways is snow removal. Snow is often pushed to the edges of a roadway, covering bike lanes, making them unusable. The local agencies and WSDOT are encouraged to evaluate additional costs for bikeway maintenance during the winter in order to support year-round access to the urban area bikeway network, where determined to be feasible.

## ***Improve Existing Bikeways***

Many bicycle facilities can be greatly benefited by making relatively simple and modest improvements to aid functionality, comfort, and safety. Many of the improvements are low-cost and high-benefit to existing bicycle routes.

Examples of improvements:

- Adding better lighting on busy corridors,
- Adding bicycle detection at signalized intersections,
- Striping through intersections,
- Adding “Green Boxes” and other modern pavement markings.

Additionally, bikeways along high traffic volume corridors and areas with a high density and heavily used driveways can benefit from more robust improvements such as:

- Creating separated bikeways through installation of a physical barrier or relocation of a bike lane/route
- Widening bike lanes to meet or exceed standards
- Providing a physical barrier between bikes and traffic
- Providing enhanced conditions at intersections to protect cyclists
- Providing separated crossings (bridges or tunnels) of busy routes

## ***Complete Streets Policies***

In general, Complete Streets policies require the consideration and recommendation of improvements for all modes of transportation throughout all phases of transportation projects. This includes publicly funded projects and projects associated with development. Local agency Complete Streets policies should consider the identification of a bikeway in this Plan as the justification for including a bikeway in any transportation project. Additionally, local agencies with codified Complete Streets policies qualify for bike specific grant programs at the federal, state, and regional levels.

## ***Bikeways Funded by Development***

Adding new bicycle infrastructure at the development and site plan review level can reduce the costs of adding new facilities through costly retrofits or land acquisitions in the future.

Local agencies are encouraged to review development policies and code and consider establishing a formal process to evaluate bicycling infrastructure needs concurrent with development of new subdivisions, businesses, multifamily buildings, commercial properties, and new parks and trails projects. Specific infrastructure and treatments should be consistent with the context and impact of development.

It is recommended that new development be reviewed against bicycle network gaps and consider the potential for increased cycling related to the development. The results of this review should be incorporated into the development process.

### **Periodic Roadway Preservation**

Often times, bikeways can be added as a low-cost addition to periodic road resurfacing. A public hearing may be required in cases where right-of-way needs to be repurposed for the bikeway. Local agencies are encouraged to review the bike plan as they develop roadway preservation projects and incorporate recommended bikeway treatments where feasible, in order to advance potential low-cost opportunities for development of the planned bikeway network.

### **Continue planning**

With the exception of periodic updates and refinements to this plan, the comprehensive bikeway network vision in the Wenatchee Valley has been identified and agreed upon now that all the “Needs Further Study” areas identified in the 2018 plan are resolved.. This plan attempts to take the next step in project development by identifying, at a high-level, the necessary roadway modifications for each recommendation to aid in implementation. CDTC's bikeway planning focus within the region will shift to concept development of the network vision within the Wenatchee Valley, and evaluation and refinement of bikeway connections between the Wenatchee Valley and the surrounding small towns and communities. Specific efforts include:

- Continue working with Chelan County, WSDOT, and the individual communities to identify partnerships and strategies for implementing each pathway concept identified in the Chelan County Pathways Plan.
- Work with WSDOT Douglas County, and Rock Island to strategize implementation of the Apple Capital Loop Trail connection to Rock Island.
- Work with stakeholders, landowners, and managers to determine the feasibility of using irrigation canal rights of way as multi-modal assets in urban and rural contexts.
- Work with WSDOT and Douglas County to clarify bikeway infrastructure recommendations in the Wenatchi Landing sub-area.

Additionally, local agencies are encouraged to adopt or reference the Regional Bike Plan in future updates to the transportation element of their comprehensive plans.

**CITY OF WENATCHEE**

**COMPLETE STREETS POLICY**  
Exhibit A to Ordinance 2016-24

**Prepared and Reviewed By:**  
City of Wenatchee Community & Economic Development Department  
City of Wenatchee Public Works Department

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*City of Wenatchee Complete Streets Policy*

# Bikeway Network

The principle goal of the Bike Plan is to identify an implementable, safe, comprehensive, and connected bikeway network. Though progress has been made since the adoption of the first Bike Plan in 2013 there are still many gaps in the bikeway network. The network recommendations in this plan are identified in two ways:

- CDTC captures bike infrastructure improvements identified in ongoing planning and bikeway concept development by its partner agencies
- CDTC works with the RBAC and TAC to identify corridors to include in the recommended bikeway network vision.

Additional detail may exist for some bikeway concepts and its encouraged that users of this plan review the supporting plans and documents listed on page 12 when seeking additional detail on a bikeway recommendation.

The 2013 and 2018 Bike Plans used community surveys, outreach, subcommittees, bike audits, and technical evaluations to identify the bike network recommendations. This plan gives deference to those efforts with few revisions to past network recommendations. However, the 2018 bikeway recommendations included ten areas or corridors where bicycle improvements were recommended, but identifying a bikeway type was not possible for one of the following reasons:

- The recommendation was in a complex area of the transportation system;
- The recommendation was dependent on ongoing planning work; or
- The recommendation needed a closer review by local agency staff or the RBAC.

All ten of these areas were resolved by local agency planning, CDTC planning, transportation and development projects, and RBAC subcommittees.

## *Bikeway Recommendation Types*

The bikeway recommendations in Figure 2-1 are defined by one the three types below.

### **Bike Lanes**

A bike lane recommendation includes all bike lane types from conventional bike lanes to physically protected bike lanes. A final decision about specific facility type is intended to be determined during project development and implementation.

### **Shared Roads**

Shared roads typically include shared lane markings (sharrows) and/or signage to indicate that bicycle and vehicles share the same travel lane. Shared roads may also include channelization and bicycle specific signals at major intersections to block motor vehicle use and improve crossing movements for bicyclists.

### **Shared-use paths**

Shared-Use Paths are separated from the roadway using an open space or barrier within the road right of way or within their own right of way.



# Wenatchee Valley Bike Network

There are approximately 33.5 miles of bike lanes, 7 miles of shared roads, and 2 miles of shared-use paths recommended in the Wenatchee Valley (Figure 2-1). These recommendations include the network recommendations identified by planning efforts completed since the adoption of the 2018 Plan.

## Small Town Connections

Establishing shared-use paths between the small towns and cities surrounding the Wenatchee Valley has long been a regional goal.

Within the Wenatchee Valley, there are few opportunities to add new existing trails for bike commuting as most bikeways will be on-street bike lanes or shared roads. However, there is an opportunity to use shared-use paths to connect the Wenatchee Valley to neighboring communities on high-comfort facilities.

Since 2018, multiple plans and studies identified alternative corridors and pathway alignments for making those connections. Chelan County conducted a community driven planning process that focused on identifying shared-use, inter-urban trails connecting the cities and towns in the county. Additionally, CDTC conducted an alternatives comparison study of SR 28 between East Wenatchee and Rock Island that included the evaluation of extending the Loop Trail to Rock Island. The results of these two efforts have laid the groundwork for implementing safe, comfortable, and equitable pathways between the small towns and communities in the region. In total, the bikeways identified in these plans have identified 64 miles of bicycle infrastructure needed to make these connections. Additional work is needed to determine the exact alignments and bikeway types for the connections but the goal is that they will be shared-use paths. Figure 2-2 shows the recommended small town connections.



Figure 2-1: Wenatchee Valley Bike Network Recommendations

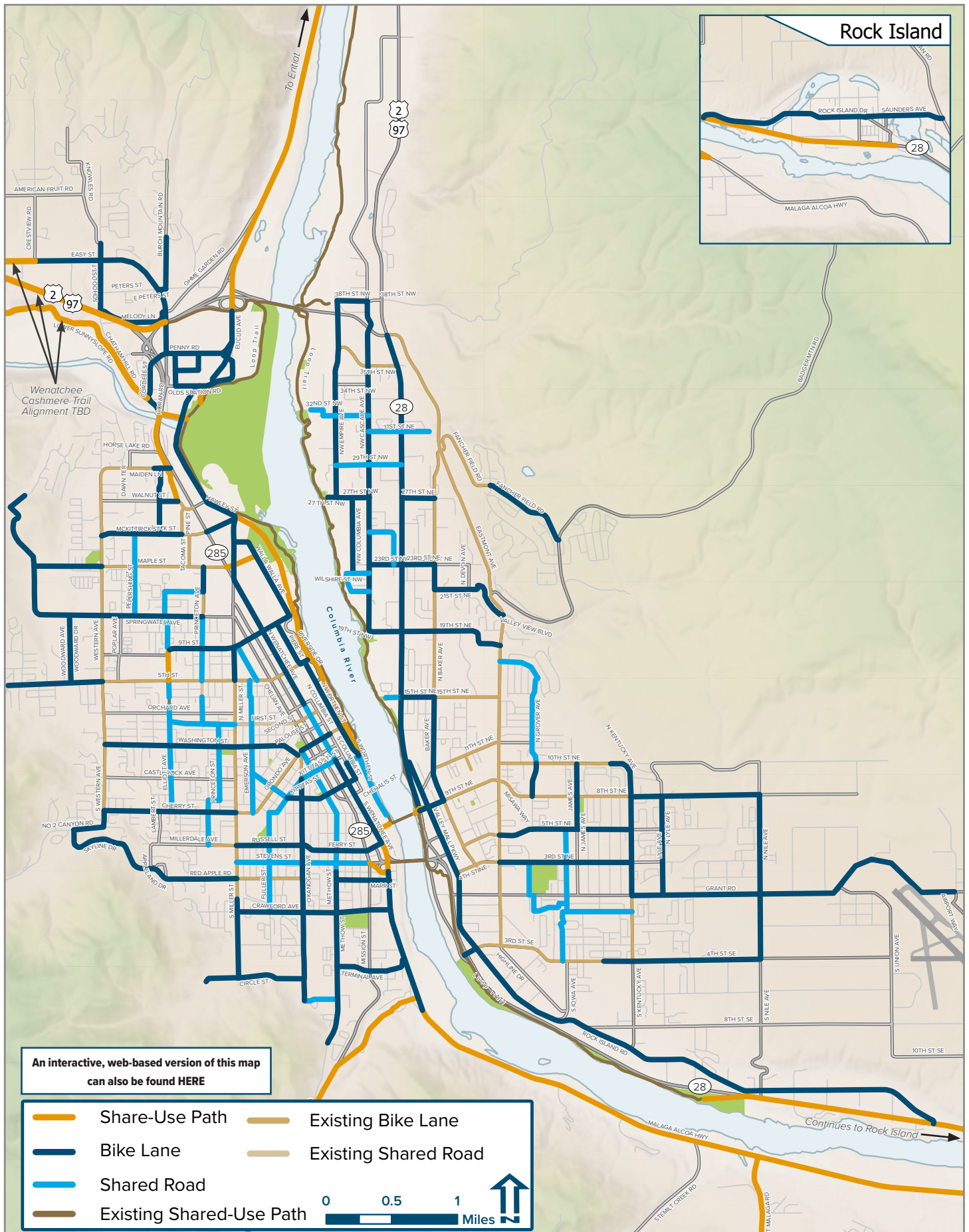
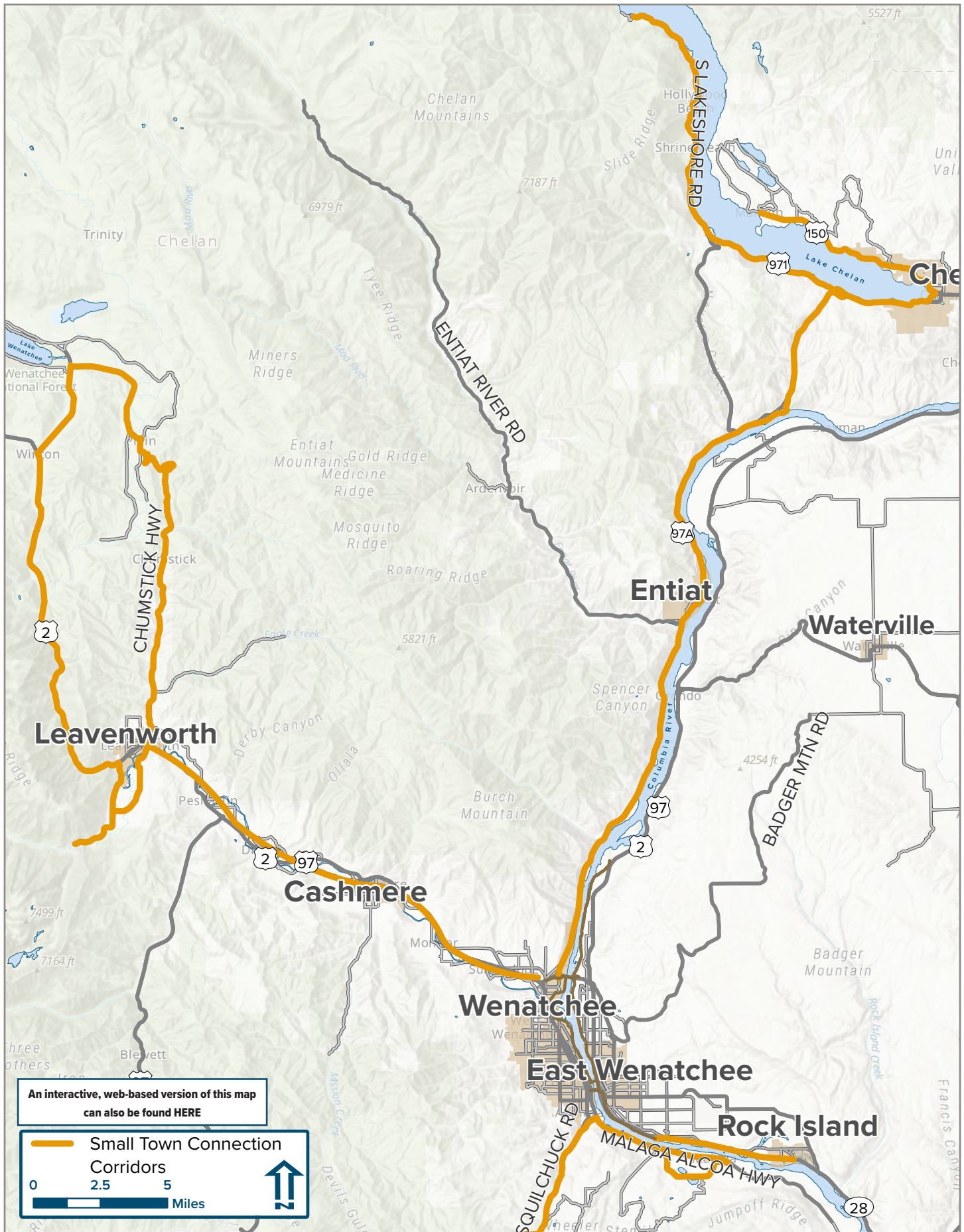
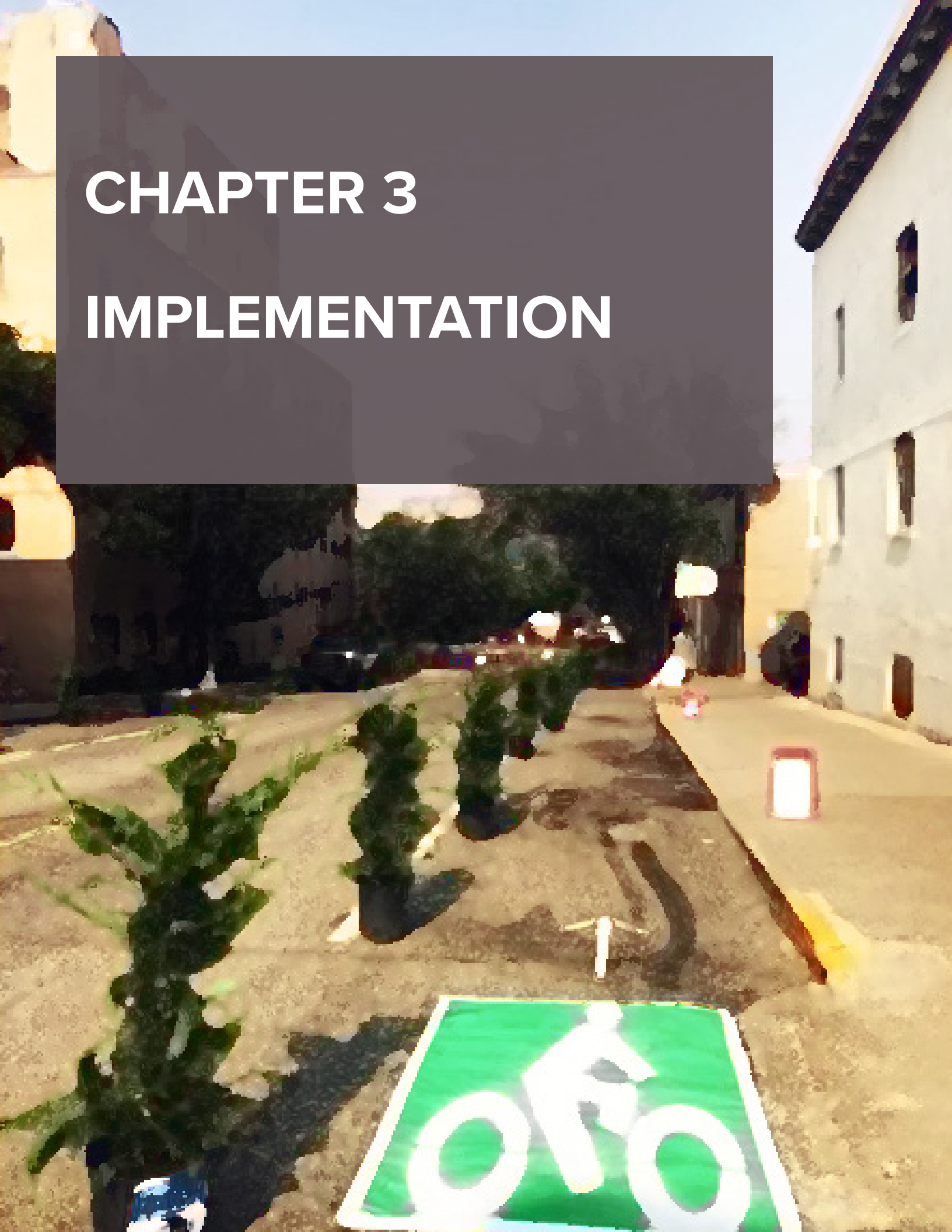


Figure 2-2: Small Town Connections



# CHAPTER 3

# IMPLEMENTATION



**W**ithout an implementation strategy the recommendations found in this plan are visionary. Bikeway projects must compete with all other transportation needs during budgeting and prioritization. Many bikeways may be implemented through low-cost restriping projects and annual preservation, but there are numerous projects with significant impacts to the roadway prism and a high price tag. This chapter attempts to delineate projects that are "quick-wins" and projects that require comprehensive concept development and engineering. Additionally, this chapter identifies funding and implementation strategies to build the network.

## **Implementation Strategies**

Past Bike Plans have had a 20-year vision for completion of the recommended network. This Plan recognizes that the community would like to see the entire network completed, but currently there is no funding source to ensure that 100% completion is possible in a 20-year time frame. Instead, this Plan sets a goal of continual implementation of the recommended network with periodic monitoring of the pace of implementation. Although there is no silver bullet for network implementation currently, the following strategies will help move us closer towards completing the network. Discussion of the funding options accompanying these strategies is discussed on pages 30 and 31.

### ***Include Bikeways Striping in Preservation Programs***

Local agencies and WSDOT are encouraged to implement bicycle facilities during road construction and periodic pavement preservation and striping projects whenever feasible. This is the easiest way to implement conventional, striped bike lanes and shared roads.

### ***Pursue Grants and New Revenues***

Local agencies are encouraged to continue pursuing grants for active transportation improvements and evaluate new revenue sources to implement both bicycle programs and bicycle network projects. The prioritization analysis in table 3-7 through 3-11 can help guide priorities for grant applications.

### ***Complete Streets Policies***

All cities and counties in the region are encouraged to develop a Complete Streets ordinance consistent with the CDTC Complete Streets Policy, and to be eligible for the state Complete Streets funding program. For consistency, it is recommended that Complete Streets policies applicable within the Wenatchee Urbanized Area (Chelan County, Douglas County, Wenatchee, East Wenatchee and Rock Island) reference the presence of a recommended bikeway in this Plan as the basis for determining when bicycle accommodation is a necessary component of a transportation project.

### ***Continue Planning and Defining Major Projects***

Policy at the state and federal level is increasingly focusing on improving alternative modes of transportation including bicycling. This focus will likely create opportunities to fund large, expensive stand-alone bikeway projects that are difficult to fund using local revenue. CDTC and the local agencies should continue to plan and develop projects in order to position the region for large state or federal grants and to have projects included in state and federal legislative packages. Additionally, Local agencies are encouraged to adopt or reference the Regional Bike Plan in future updates to the transportation element of their comprehensive plans.

## Project Implementation Details

To make this plan more useful to local agency staff, each recommendation includes high-level details that identifies opportunities for implementation, standalone cost estimates, and the associated impacts to the road prism, where applicable (Table 3-1 through 3-5). There are multiple opportunities for implementation for most recommendations, including the following:

- Preservation: Resurfacing the existing roadway
- Urban Upgrade: Adding curb, gutter, sidewalk, and additional lanes or channelization
- New Construction: Construction of a new road
- New Development: Requiring developers to add bikeway infrastructure concurrent with development
- Road Diet: Repurposing vehicle lanes for other uses such as multi-modal improvements or transit
- Road Widening: Widening the road to add vehicle-lanes, parking, or multi-modal capacity
- Standalone: The bikeway could not be implemented through another project, generally new paths and bridges

The most common impact to the roadway prism is rededicating pavement previously used for vehicle traffic and parking. These details should be viewed as a starting point for determining feasibility and require further evaluation and scrutiny during project development.

The cost estimates identified below represent the cost if implemented as standalone projects. It should be noted that bikeways often represent a small portion of overall project cost when implemented as a part of a larger multi-modal mobility project. Due to the number of projects in the plan, developing a detailed, planning-level cost estimate for each project was not possible. Instead, projects have been grouped into the following cost categories:

- High – Projects \$1,000,000 and over – these are large projects; this category includes bike and pedestrian bridges/trails and bikeways that would require major ROW purchases and/or hard scape treatments.
- Medium – \$500,000 to \$1,000,000 – the majority of projects will fall into this category and includes conventonal, buffered, or protected bike lanes, and larger neighborhood bikeway projects
- Low – Projects under \$500,000 – these are very small projects; projects may be sharrows, wayfinding, or other simple improvements

**Table 3-1: Bikeway Implementation Details - Wenatchee**

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
1st Street (Miller Street - Elliott Avenue)	Shared Road	Miller Street	Elliott Avenue	Preservation	None	Low
5th Street Foothills Connection	Bike Lane	Western Avenue	Number 1 Canyon Road	Urban Upgrade/ Preservation	Parking – One side	Medium

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
5th Street Loop Trail Connection	Bike Lane	Worthen Street	Riverside Drive	Redevelopment/ Urban Upgrade/ Preservation	None	Low
9th Street	Bike Lane	Walla Walla Avenue	Elliot Avenue	Road Diet	Lanes	Medium
Bridge Street Loop Trail Connection	Bridge	Loop Trail	Wenatchee Avenue	Standalone	Parking/ Driveways	High
Broadview Extension	Bike Lane	Maple Street	Maiden Lane	Development/New Construction	None	N/A
Central Avenue	Shared Road	Princeton Avenue	Westwood Avenue	Preservation	Parking	Low
Cherry Street	Bike Lane	Miller Street	Western Avenue	Preservation	Parking	Medium
Chester Kim Road	Bike Lane	Olds Station Road	Penny Road	Urban Upgrade/ Preservation	Parking	Low
Columbia Street	Bike Lane	Spokane Street	Thurston Street	Urban Upgrade/ Preservation	Parking	Medium
Confluence Parkway	Bike Lane	North Wenatchee Avenue	Olds Station Road	New Construction	N/A	N/A
Confluence State Park Shared-Use Path	Shared Use Path	Confluence State Park	Olds Station Road	New Construction	N/A	High
Circle Street	Bike Lane	Saddlerock Trailhead	Okanogan Avenue	Urban Upgrade/ Preservation	ROW	Medium
Chrisand Lane	Shared Road	Okanogan Avenue	Methow Street	Preservation	None	Low
Crawford Avenue	Bike Lane	South Wenatchee Avenue	Miller Street	Preservation	Parking	Medium
Easy Street	Bike Lane	Penny Road	Melody Lane	Preservation	None	Medium
Elliot Avenue Bikeway	Shared Road	Princeton Avenue	Cherry Street	Preservation	None	Low
Euclid Avenue	Bike Lane	US 2/97	Olds Station Road	Preservation	None	Low
Franklin Avenue Bikeway	Shared Road	5th Street	Orondo Avenue	Preservation	None	Low
Isenhardt Avenue	Bike Lane	Euclid Avenue	Olds Station Road	Preservation	Parking	Low

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Kittitas Street	Shared Road	Alaska Street	Wenatchee Avenue	Preservation	None	Low
Maiden Lane	Bike Lane	Harbel Street	North Wenatchee Avenue	Preservation	None	Low
Maple- Walla Walla Bike/Ped Bridge	Bridge	Maple St	Walla Walla Ave	Standalone	None	High
Marr Street	Bike Lane	South Wenatchee Avenue	Methow Street	Preservation	Lanes/ Parking	Medium
McKittrick Street	Bike Lane	North Wenatchee Avenue	Western Avenue	Urban Upgrade/ Preservation	Parking/ROW	Medium
McKittrick Street	Bike Lane	North Wenatchee Avenue	Miller Street	New Construction	N/A	N/A
Methow Street Bikeway	Shared Road	Orondo Avenue	Lincoln Street	Preservation	None	Low
Methow Street Bikeway	Bike Lane	Lincoln Street	Saddlehorn Avenue	Urban Upgrade/ Preservation	Parking	Medium
Miller Street	Bike Lane	Circle Street	Central WA Hospital	Urban Upgrade/ Preservation	Parking	Medium
North Wenatchee Avenue	Bike Lane	2nd Street	Mill Street	Road Diet/ Preservation	Lanes	Medium
North Wenatchee Avenue Shared-Use Path	Shared Use Path	Walnut Street	Chatham Hill Drive	New Construction	ROW	High
Number 2 Canyon Road	Bike Lane	Western Avenue	Skyline Drive	Urban Upgrade/ Preservation	ROW	Medium
Olds Station Road	Bike Lane	Euclid Avenue	Chester Kim Road	Urban Upgrade/ Preservation	Parking	Medium
Okangonan Avenue	Bike Lane	Orondo Avenue	Chrisand Lane	Urban Upgrade/ Preservation	Parking	Medium
Orondo Avenue	Bike Lane	Columbia Street	Okanogan Avenue	Road Diet/ Preservation	Lanes/ Parking	High
Penny Road	Bike Lane	Euclid Avenue	Cordell Street	Preservation	None	Medium



Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Pershing Street	Shared Road	McKittrick Street	Springwater Avenue	Urban Upgrade/ Preservation	None	Low
Pierre Street	Bike Lane	9th Street	5th Street NE	Preservation	Center Left Turn Lane	Medium
Princeton Bikeway	Shared Road	Springwater Avenue	Millerdale Ave	Urban Upgrade/ Preservation	None	Low
Princeton Bikeway	Bike Lane	Central Avenue	Maple Street	Urban Upgrade/ Preservation	Parking	Medium
Russell/Ferry Street	Bike Lane	Fuller Street	Miller Street	Preservation/Bike Symbol Painting	None	Low
Skyline Drive/ Red Apple Road	Bike Lane	No 2 Canyon Road	Miller Street	Road Widening	ROW	High
South Wenatchee Avenue	Bike Lane	Kittitas Street	Malaga Alcoa Highway	Restripe/Road Diet/Preservation	None	Medium
Spokane - Alaska Bikeway	Shared Road	S. Columbia Street	Orondo Avenue	Preservation	None	Low
Spokane Street Bikeway: Thurston Underpass	Shared Road	Columbia Street	Worthen Street	Standalone	None	Low
Springwater Avenue	Bike Lane	Princeton Avenue	Western Avenue	Preservation	Parking	Medium
Springwater Extension	Bike Lane	Springwater Avenue	Maple Street	Development/New Construction	N/A	N/A
Stella Avenue	Bike Lane	McKittrick Street	Maiden Lane	Urban Upgrade/ Preservation	ROW	Medium
Stevens Street Bikeway	Shared Road	Mission Street	Miller Street	Preservation	None	Low
Stevens Street Bikeway	Shared Use Path	Mission Street	South Wenatchee Avenue	Standalone	None	High
Tech Center Way	Bike Lane	Penny Road	Chester Kimm Road	Preservation	Parking	Medium
Walla Walla Avenue	Bike Lane	9th Street	Miller St	Preservation/ Urban Upgrade	Center Left Turn Lane/ ROW	Medium

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Walnut Street	Bike Lane	Stella Avenue	Existing Bike Lanes	Urban Upgrade/ Preservation	ROW	Medium
Washington Street	Bike Lane	Western Avenue	Miller Street	Preservation	None	Medium
Washington Street	Bike Lane	Miller Street	Orondo Avenue	Preservation	Parking	Medium
Wenatchee Avenue: Downtown	Shared Road	2nd Street	Kittitas Street	Preservation	None	Low
Woodward Drive	Bike Lane	5th Street	Springwater Avenue	Preservation	ROW	Medium
Worthen Street	Bike Lane	5th Street	Thurston Street	Preservation	Parking	Medium
Worthen Street	Shared Road	Thurston	Columbia River Bridge	Preservation	None	Low

**Table 3-2: Bikeway Implementation Details - East Wenatchee**

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
10th Street NE	Bike Lane	Eastmont Avenue	Kentucky Avenue	Urban Upgrade/ Preservation	None	Medium
15th Street	Bike Lane	Columbia Lane	Baker Avenue	Urban Upgrade/ Preservation	None	Medium
15th Street	Shared Road	Columbia Lane	Loop Trail	Preservation	None	Low
19th Street	Bike Lane	Cascade Avenue	Eastmont Avenue	Urban Upgrade/ Preservation	ROW	Medium
1st Street SE Neighborhood Bikeway	Shared Road	Iowa Avenue	Kentucky Avenue	Urban Upgrade/ Preservation	None	Low
3rd Street NE	Bike Lane	Eastmont Avenue	Kentucky Avenue	Urban Upgrade/ Preservation	ROW	Medium
3rd Street SE Loop Trail Connection	Bike Lane	Loop Trail	Rock Island Road	Intersection Improvement	Channelize Intersection	Low
4th Street SE	Bike Lane	Kansas Avenue	Nile Avenue	Development/ Urban Upgrade/ Preservation	Parking	Medium
5th Street NE	Bike Lane	Eastmont Avenue	Kentucky Avenue	Urban Upgrade/ Preservation	ROW	Medium
8th Street NE	Bike Lane	Keller Avenue	Nile Avenue	Urban Upgrade/ Preservation	Parking/ROW	Medium

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Baker Avenue	Bike Lane	2nd Street NE	15th Street	Preservation	Parking	Medium
Georgia Avenue Neighborhood Bikeway	Shared Road	Grant Road	3rd Street NE	Urban Upgrade/ Preservation	None	Low
Grant Road	Bike Lane	Kentucky Avenue	Pangborn Road	Urban Upgrade/ Preservation	ROW	Medium
Grover Bikeway	Shared Road	Eastmont Avenue	10th Street NE	Urban Upgrade/ Preservation	None	Low
Grover Bikeway	Bike Lane	10th Street NE	5th Street NE	Urban Upgrade/ Preservation	Parking	Medium
Iowa Avenue Neighborhood Bikeway	Shared Road	4th Street SE	5th Street NE	Urban Upgrade/ Preservation	None	Low
James Avenue	Bike Lane	5th Street NE	10th Street NE	Urban Upgrade/ Preservation	Parking	Medium
Kentucky Avenue	Bike Lane	10th Street NE	Grant Road	Urban Upgrade/ Preservation	Parking/ROW	Medium
SR 28 Bike/Ped Bridge	Bridge	Loop Trail	Valley Mall Parkway	Standalone	None	High
Valley Mall Parkway/ Rock Island Road	Bike Lane	SR 28 (Douglas PUD)	SR 28	Urban Upgrade/ Preservation	Parking/ Lanes/ROW	Medium
Valley View Bikeway	Bike Lane	Cascade Avenue	Eastmont Avenue	Urban Upgrade/ Preservation	Parking	Medium

**Table 3-3: Bikeway Implementation Details - Douglas County**

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
25th Street NW/Alan Avenue	Shared Road	Cascade Avenue	23rd Street NE	Preservation	None	Low
27th Street	Bike Lane	Loop Trail	Baker Street	Urban Upgrade/ Preservation/ New Construction	ROW	Medium
27th Street NW Loop Trail Connection	Bike Lane	Cascade Avenue	Loop Trail	Urban Upgrade/ Preservation	ROW	High
29th Street NW	Shared Road	SR 28	Empire Avenue	Urban Upgrade/ Preservation	None	Low

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
31st Street	Shared Road	Cascade Avenue	Eastern Terminus of Road	Preservation	None	Low
32nd Street NW Loop Trail Connection	Shared Road	Cascade Avenue	Loop Trail	Urban Upgrade/ Preservation	None	Low
38th Street NW Extension	Bike Lane	Cascade Avenue	Empire Avenue	New Construction	None	Medium
Cascade Avenue	Bike Lane	19th Street NW	38th Street NW	Development/ Urban Upgrade/ Preservation	None	Medium
Columbia Street	Bike Lane	Wilshire Street	27th Street NW	Development/ Urban Upgrade/ Preservation	None	Medium
Empire Avenue	Bike Lane	27th Street NW	35th Street NW	Development/ Urban Upgrade/ Preservation	None	Medium
Empire Avenue Extension	Bike Lane	35th Street NW	38th Street NW	New Construction	N/A	N/A
Fancher Field Road	Bike Lane	Badger Mountain Road	Fancher Heights Boulevard	Preservation	Parking	Medium
Lyle Avenue	Bike Lane	8th Street NE	Grant Road	Urban Upgrade/ Preservation	Parking/ROW	High
Nile Avenue	Bike Lane	8th Street NE	4th Street SE	Development/ Urban Upgrade/ Preservation	Parking/ROW	High
Wilshire Street & Bellevue Avenue	Shared Road	Cascade Avenue	River Drive	Preservation	None	Low

**Table 3-4: Bikeway Implementation Details - Chelan County**

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Burch Mountain Road	Bike Lane	Peters Street	Marilane Drive	Urban Upgrade/ Preservation	Parking	Medium
Cordell Street	Bike Lane	Wenatchee River Bridge	Easy Street	Preservation	Parking	Medium
Easy Street	Bike Lane	Melody Lane	Crestview Road	Urban Upgrade/ Preservation	None	Medium
Melody Lane	Bike Lane	School Street	Easy Street	Preservation	None	Low

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
Peters St	Bike Lane	Easy St	Badger Mtn Road	Preservation	None	Low
School Street	Bike Lane	Melody Lane	Knowles Road	Urban Upgrade/ Preservation	Parking	Medium
Terminal Ave	Bike Lane	Crawford Avenue	South Wenatchee Avenue	Urban Upgrade/ Preservation	Parking	Medium

**Table 3-5: Project Implementation Details - WSDOT/PUD/WVCC/Rock Island**

Street/Bikeway Name	Type	From	To	Implementation Opportunities	Road Prism Impacts	Standalone Cost
SR 28	Bike Lane	9th Street NE	Eastmont Avenue	Urban Upgrade	ROW	Medium
SR 28	Shared Use Path	Hydro Park	Rock Island Dr	New Construction	N/A	High
Rock island Rd/ Saunders Ave	Bike Lane	SR 28	Batterman Rd	Urban Upgrade/ Preservation	Parking	High
Loop Trail Wenatchee Riverfront Expansion	Shared Use Path	Thurston Street	Walnut St	New Construction	N/A	High
Elliott St Bikeway	Shared Use Path	5th St	9th St	New Construction	N/A	High

## Funding

Bicycle planning and implementation doesn't exist in a vacuum, it's constrained by needs across all government services, and within transportation budgets. To help guide bikeway investments in a fiscally constrained world, this plan describes potential funding options and presents a prioritization framework to assist local agencies in implementation. In general, there are four main funding options for bikeways as described below and in Table 3-6. These funding options are not intended to be comprehensive, but represent the most common options for funding bikeway projects.

### Local

Few local agencies have dedicated funding for bikeway projects. Local dollars are commonly used as match for state and federal grants for bike specific programs or broader programs where a bike lane may be striped in conjunction with the project. Local agencies are encouraged to consider dedicating portions of their transportation budgets to bikeway projects and/or explore other local revenue options for bikeway implementation. There are multiple, unused local options for generating revenue for bikeway projects.

## State

There are multiple competitive grant programs at the state level for local agencies to implement standalone bikeway projects. The local agencies in the region have been very successful winning these dollars in recent cycles and should continue to develop bikeway projects that have a high chance of success in state funding programs. Additionally, there are opportunities for bikeway projects to be included in state legislative appropriations. CDTC will continue to monitor state legislation for new opportunities or increases in grant programs.

## Federal

There are multiple federal grant programs available to bike projects and programs. CDTC manages and awards competitive federal grants funds every two years for a wide range of projects and sets aside \$300,000 for active transportation projects. CDTC expects its annual allocation of federal funds for alternative mode projects to increase with the passing of the Bipartisan Infrastructure Law (BIL) and may consider setting aside this larger pot of funds to construct more standalone bikeway projects. There are also multiple programs for off-highway projects. Lastly, major active transportation projects like bridges or purchasing railroad grades can be included as funding line items in new legislation. CDTC will continue to monitor federal legislation for new opportunities and increases to grant programs.

**Table 3-6: Funding Options**

Program	Funding Type	Description
Motor Vehicle Fuel Tax	Local/Regional Revenue Option	With voter approval, counties in Washington may levy a local option motor vehicle fuel tax for local transportation purposes. The maximum rate is 10% of the state rate.
Transportation Benefit District (TBD)	Local/Regional Revenue Option	Cities and counties may establish TBDs and most commonly generate revenue through sales tax and registration fees, but can also include property tax levies.
Metropolitan Parks District (MPD)	Local/Regional Revenue Option	MPDs be created for the management, control, improvement, maintenance, and acquisition of parkways, boulevards, and recreational facilities. An MPD may include territory located in portions or in all of one or more cities or counties. MPDs generate revenue through property tax levies at six year increments, subject to voter approval.
Surface Transportation Block Grant Program (STBG); Transportation Alternatives Program (TA); Carbon Reduction Program (CRP)	Federal Grants	CDTC awards approximately \$5 million in flexible federal funds every two years. A minimum of \$300,0000 must be spent on active transportation improvements. The size of this fund is expected to grow in coming years and CDTC may consider creating a larger set-aside for bikeway projects.

Program	Funding Type	Description
Federal Lands Access Program (FLAP)	Federal Grants	The FLAP funds transportation improvements that provide access to, on, or adjacent to federal lands. This program is an updated version of the Forest Highway Program. Transportation improvements may include public roads, bridges, trails, or transit systems.
Recreational Trails Program	Federal Grants	Program that develops and maintains recreational trails and trail-related facilities. Funds for this program are from the Federal Highway Trust Fund and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use (snowmobiles, all-terrain vehicles, off-highway motorcycles, and off-highway light trucks)
Pedestrian and Bicycle Program & Safe Routes to School (SRTS)	State Grants	WSDOT issues a call for projects for its Bicycle/Pedestrian and Safe Routes to School (SRTS) programs in even number years to select and prioritize projects for funding in the next biennial budget proposed in odd year legislative sessions. Since 2005, approximately \$203.5 million has been awarded state-wide for 420 projects statewide between the two programs. The local agencies in the region have received approximately \$7 million between the two programs.
Regional Mobility Grants	State Grants	WSDOT provides a grant program for projects that promote multimodal transportation and improve high occupancy travel in order to reduce travel delay for people and goods. Projects can be capital construction, equipment acquisition, and operating expenses. Most funded projects in this program are transit-related.
Transportation Improvement Board Complete Streets Award	State Discretionary Program	The Complete Streets Award is a funding opportunity for local governments that have adopted a complete streets ordinance. Board approved nominators may nominate an agency for of planning and building streets to accommodate all users, including pedestrians, cyclists, and motorists of all ages and abilities, as well as providing access to transit.
REI Foundation; People for Bikes; The Robert Wood Johnson Foundation; Rails to Trails; Doppelt Family Trail Development Fund	Non-Government Funding	Multiple private and non-profit organizations make funds available to local governments or other non-profits through grants and donations. The funds are used for a wide variety of programs and projects in cities and towns of all sizes.

## **Non-Government Funding**

Businesses and non-profits often award grants or serve as partners for projects and programs that support walking and biking. Non-government entities may be interested in supporting active communities for a variety of complementary reasons. Increasingly, employers are recognizing that creating places to bike and walk is one way to build community and attract a quality work force.

## **Prioritization**

Every project identified in the plan has been given a prioritization score (Tables 3-7 through 3-11). The prioritization criteria were developed by the RBAC after a review of prioritization criteria used in other bicycle and pedestrian planning documents. There is no expectation that projects be completed in order of their priority ranking. This matrix is intended to help prioritize projects, not identify need. Some projects may have a score of 0 but are still needed for reasons not included in the prioritization matrix. The list is for informational purposes only and could be helpful in prioritizing funding and resources. Project prioritization scores are based on the following criteria:

### **Bike Network Connectivity**

- Does it fill a gap in the bike network or improve the network connectivity?
- Does the project improve connectivity to the Loop Trail?
- Pedestrian Demand Index: Is the route in an area with high pedestrian demand? The index was developed for the CDTC regional transportation plan and looks at population and employment density, intersection density, distance to schools, distance to transit and land use characteristics. This criteria assumes a pedestrian trip could convert to a bicycle trip if a bicycle facility were present.

### **Bicycle Comfort Level Index**

CDTC staff developed this index while developing the 2017 regional bike map to assign bicycle route comfort ratings. This rating defines streets as comfortable, somewhat comfortable, or not recommended for biking. Neighborhood, unbuilt, or dead end streets that don't connect to the street grid are rated as N/A.

### **Project Status**

Project status identifies streets that have existing studies or community outreach work completed. They are already moving towards implementation. Some may be larger projects that have no funding, while others are smaller projects that the cities or counties already have in their Transportation Improvement Programs (TIPS) and work plans.

### **Equity**

Using 2019 data from the regional transportation plan, CDTC looked at underserved population indicators (specifically race and ethnicity, language, and poverty). Points were awarded to projects in areas with the highest number of indicators. Concentrations of potentially underserved populations can be seen in the map on page 4.



**Table 3-7: Project Prioritization Analysis - City of Wenatchee**

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
1st Street (Miller Street - Elliott Avenue)	2	2	2	1	1	2	10
Orondo Avenue	2	2	2	1	1	2	10
South Wenatchee Avenue	2	2	2	1	1	2	10
Spokane - Alaska Bikeway	2	2	2	1	1	2	10
5th Street Loop Trail Connection	2	2	2	1	0	2	9
Marr Street	2	2	2	1	0	2	9
Stevens Street Bikeway	2	2	1	1	1	2	9
9th Street	2	2	2	1	0	1	8
Bridge Street Loop Trail Connection	2	2	1	N/A	1	2	8
Cherry Street	2	2	2	1	0	1	8
Columbia Street (Wenatchee)	2	2	1	1	0	2	8
Confluence Parkway	2	2	2	1	1	0	8
Wenatchee Avenue: Downtown	2	0	2	1	1	2	8
Maple - Walla Walla Bike/Ped Bridge	2	2	1	1	1	0	7
McKittrick Street (North Wenatchee Ave - Miller Street)	2	2	1	1	1	0	7
McKittrick Street (North Wenatchee Ave - Western)	2	2	1	1	1	0	7
Methow Street Bikeway	2	0	2	1	0	2	7
Russell/Ferry Street	2	0	2	1	1	1	7
Spokane Street Bikeway: Thurston Underpass	2	2	1	0	0	2	7
Washington Street	2	0	2	1	0	2	7
Crawford Avenue	2	0	2	0	0	2	6
Easy Street	2	2	0	1	1	0	6

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
Franklin Avenue Bikeway	2	0	2	0	0	2	6
Princeton Bikeway (Springwater Avenue - Millerdale Ave)	2	0	2	0	1	1	6
Walla Walla	2	2	0	1	0	1	6
Okanogan Avenue	2	0	2	0	0	2	6
Crawford Avenue	2	0	2	0	0	1	5
Central Avenue	2	0	2	N/A	0	1	5
Elliot Avenue Bikeway	2	0	2	0	0	1	5
Maiden Lane	2	0	1	1	1	0	5
North Wenatchee Avenue (2nd Street - 9th Street)	2	0	1	1	0	1	5
North Wenatchee Avenue Shared-Use Path	2	0	1	1	1	0	5
Confluence Shared-Use Path	2	2	0	1	0	0	5
Princeton Bikeway (Central Avenue - Maple Street)	2	0	1	1	1	0	5
Skyline Drive/ Red Apple Road	2	0	2	0	1	0	5
5th Street Foothills Connection	2	0	2	0	0	0	4
Euclid Avenue	2	2	N/A	0	0	0	4
Kittitas Street	0	0	1	1	0	2	4
Miller Street	2	0	2	0	0	0	4
Springwater Avenue	0	0	2	1	0	1	4
Worthen Street (5th Street - Thurston Street)	2	1	0	1	0	0	4
Worthen Street (Thurston Street - Columbia River Bridge)	2	1	0	1	0	0	4
Number 2 Canyon Road	2	0	0	1	0	0	3
Olds Station Road	0	2	N/A	1	0	0	3

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
Pershing Street	2	0	0	0	0	1	3
Pierre Street	2	0	0	1	0	0	3
Stella Avenue	2	0	0	0	1	0	3
Walnut Street	2	0	0	0	1	0	3
Woodward Avenue	2	0	0	1	0	0	3
Circle Street	2	0	0	0	0	0	2
Chrisand Avenue	2	0	N/A	N/A	0	0	2
Broadview Extension	0	0	0	0	1	0	1
Chester Kim Road	0	0	N/A	1	0	0	1
Springwater Extension	0	0	0	0	1	0	1
Isenhart Avenue	0	0	N/A	N/A	0	0	0
Penny Road	0	0	N/A	0	0	0	0
Tech Center Way	0	0	N/A	N/A	0	0	0
Melody Lane	0	0	0	N/A	0	0	0

**Table 3-8: Project Prioritization Analysis - City of East Wenatchee**

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
SR 28 Bike/Ped Bridge	2	2	1	0	1	1	7
5th Street NE	2	0	2	1	1	1	7
8th Street NE	2	2	2	1	0	0	7
9th Street NE Loop Trail Connection	2	2	1	1	1	0	7
Valley Mall Parkway/Rock Island Road	2	0	1	1	1	2	7
3rd Street SE Loop Trail Connection	2	2	0	1	0	1	6
4th Street SE	2	2	1	1	0	0	6
19th Street	2	2	0	1	0	0	5
Baker Avenue	2	0	1	1	0	0	4
James Avenue	2	0	1	1	0	0	4
Kentucky Avenue	0	0	2	1	1	0	4
10th Street NE	2	0	1	N/A	0	0	3
15th Street	2	0	1	N/A	0	0	3
15th Street	2	0	1	N/A	0	0	3
3rd Street NE	0	0	1	1	0	1	3
Grant Road	0	0	1	1	0	1	3
Iowa Avenue Neighborhood Bikeway	0	0	1	1	0	1	3
Valley View Bikeway	2	1	0	0	0	0	3
Georgia Avenue Neighborhood Bikeway	0	0	1	N/A	0	1	2
Grover Bikeway	2	0	0	0	0	0	2
Grover Bikeway	2	0	0	0	0	0	2
1st Street SE Neighborhood Bikeway	0	0	1	N/A	0	0	1

**Table 3-9: Project Prioritization Analysis - Douglas County**

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
38th NW Street Extension	2	2	0	1	1	0	6
Columbia Street	2	2	0	1	0	1	6
Cascade Avenue	2	1	1	0	0	1	5
Empire Avenue	2	2	0	1	0	0	5
Empire Avenue Extension	2	2	0	N/A	1	0	5
Wilshire Street & Bellevue Avenue	2	2	0	N/A	0	1	5
27th Street (existing and proposed extension)	0	2	0	1	0	1	4
27th Street NW Loop Trail Connection	0	2	0	1	0	1	4
29th NW Street	2	1	1	N/A	0	0	4
25th Street NW/Alan Avenue	2	0	1	N/A	0	0	3
32nd Street NW Loop Trail Connection	0	2	0	N/A	0	1	3
Fancher Field Road	2	0	0	1	0	0	3
31st Street	2	0	0	N/A	0	0	2
Nile Avenue	0	0	0	1	0	1	2
Lyle Avenue	0	0	0	1	0	0	1

**Table 3-10: Project Prioritization Analysis - Chelan County**

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
Easy Street	2	2	0	1	1	0	6
Terminal Ave	2	0	1	0	0	2	5
Cordell Street	0	1	0	1	0	0	2
School Street	0	0	0	1	0	0	1
Peters Street	0	0	0	N/A	0	0	0
Burch Mountain Road	0	0	0	N/A	0	0	0

**Table 3-11: Project Prioritization Analysis - WSDOT/CCPUD/Rock Island**

Project Name	Bike Network Connectivity (6 Points)			Bicycle Comfort Level Index (1)	Project Status (1)	Equity (2)*	Total
	Fill gaps	Connect to the Loop Trail	Pedestrian Demand Index				
SR 28	2	0	0	0	1	1	4
SR 28 Shared Use Path	2	2	0	0	1	2	7
Rock Island Rd/Saunders Ave	2	0	0	0	0	1	3
Loop Trail Wenatchee Riverfront Expansion (CCPUD)	2	2	N/A	1	1	0	6

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**APPENDIX A**

**BIKE PARKING**





# Introduction

The RBAC has long voiced the need for best practice bicycle parking at public and private destinations within the Wenatchee Valley. As an agency with no authority over the implementation of bicycle parking, CDTC relies on its partners at the cities and counties to develop and follow best practices for bike parking on public property and programs to incentivize private businesses to install better bike racks. CDTC has developed a webpage dedicated to bike parking at [bikewenatcheevalley.org](http://bikewenatcheevalley.org) that provides multiple resources for staff at the local agencies and private business owners.

## History

The Greater Wenatchee Bicycle Advisory Board (GWBAB), the predecessor to the RBAC, purchased and installed bike racks around Wenatchee in 2007. They are the brown staple bike racks still seen at some businesses on downtown Wenatchee streets today. There isn't a complete record of their process and what was done, but it is known that the GWBAB purchased and installed the bike racks. The GWBAB was a City of Wenatchee advisory committee managed by both the Public Works and the Parks and Recreation departments.

**The 2013 and 2018 Greater Wenatchee Bicycle Master Plans** identified bicycle parking and amenities as a recommendation, specifically it calls for adding permanent & secure bicycle parking, adding temporary event bicycle parking, provide commuter stations (showers, locked bike rooms), develop bike share, & incentivize development to include bike amenities.

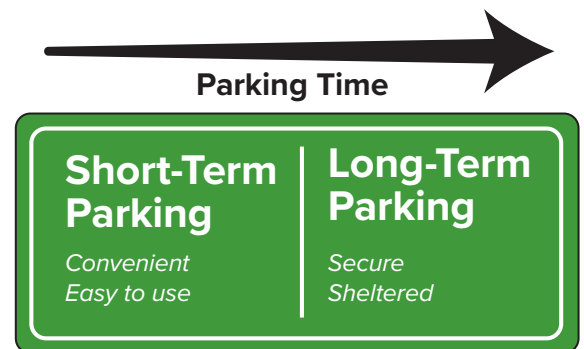
During the development of the plan (2012), CDTC staff and Regional Bicycle Advisory Board members worked with the Wenatchee Downtown Association to develop a pilot program and install the first bicycle corral in downtown Wenatchee. Their meetings also identified other locations and recommendations for bike parking.

In 2014, the City of Wenatchee, Arlberg Sports & the Wenatchee Downtown Association developed and installed a “bicycle hub” in Hedeem Plaza (First Street and Wenatchee Ave), which includes covered bike parking, an air pump and a bicycle repair vending machine (as of 2019 the vending machine has moved).

**The City of East Wenatchee comprehensive plan** also lists bicycle parking areas, specifically bike corrals, as an identified need in the Rediscover Historic Downtown Plan.

## Short Term vs Long Term Bike Parking

There are two types of bike parking: short-term and long-term. These two kinds of parking serve different needs, and the starting point for most bike parking projects is recognizing whether the installation should serve short-term users, long-term users, or both. If users will typically be parking for two hours or longer, they are likely to value security and shelter above the convenience and ease that should characterize short-term parking.



# Existing Bike Parking

From 2018-2021 RBAC members inventoried bike racks in the Wenatchee Valley. The inventory can be found at [bikewenatcheevalley.org](http://bikewenatcheevalley.org) or by using the hyperlink in Figure A-1 and includes the following information:

- Location Name
- Type of bike rack
- Whether it meets the Association of Pedestrian and Bicycle Professionals (APBP) standards (yes/no)

The existing bike rack inventory provides a big picture look at the state of bike parking and allows the local agencies in the region to make policy level recommendations that may improve bicycle parking. In summary there are:

- **136** total bike racks
- **98** Racks in Wenatchee
- **38** Racks in East Wenatchee
- **847** spaces of Capacity

Only 27 of the 136 bike racks inventoried meet the Association of Pedestrian and Bicycle Professional standards (APBP) with the most common rack types being "wave" and "schoolyard" style racks.

The inventory includes locations with long term bike parking but did not specifically inventory bike rooms and lockers. Some long term parking is located at some employers and multifamily housing locations in the Wenatchee Valley. The bike parking inventory included only locations that are easy to see or currently known to RBAC members.

## Bike parking needs

### *Short-Term Parking*

The RBAC spent several months reviewing bike racks. As they collected the information, it became clear that the most valuable information would include locations where bike parking is needed but not provided.

Table A-1 includes mostly public destinations needing short-term parking such as:

- Medical clinics
- Transit
- Parks and trailheads
- Public space in commercial centers
- Social services
- Government offices
- Community destinations (museum, stadiums)
- Downtown destinations

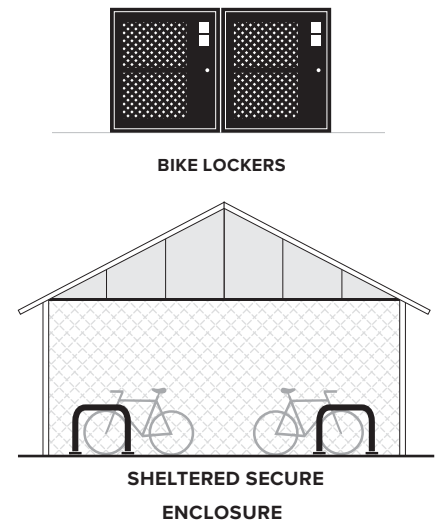
Figure A-1: Existing Bike Rack Locations



## Long-Term Parking

Long-term parking may be needed in locations where bikes are parked longer than two hours including but not limited to office buildings, apartments, transit park & ride lots, hospitals, and universities. Long term parking consists of a wider variety of fixture types and site plan layouts and includes racks in cages and bike lockers. The following should be considered when implementing long term parking:

- Easy access via effective signage
- Controlled access
- Lighting and surveillance
- Weather protection



Implementation of most long-term parking is at the discretion of private organizations, but local governments may want to consider incentivizing the construction of long-term parking during commercial and residential

**Table A-1: Bike Parking Needs**

Location Name	Address	City	Racks Needed	New or Upgrade	Property Owner	Property Type
Confluence- East Wenatchee Clinic	100 Highline Drive	East Wenatchee	1	New	Confluence Health	Medical Clinic
Confluence-Cashmere	303 Cottage Avenue	Cashmere	1	New	Confluence Health	Medical Clinic
City of Chelan	Downtown	Chelan	1	New	City of Chelan	Government Offices
Washington Park	110 S Miller Street	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Pioneer Park	220 Fuller Street	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Wenatchee Swimming Pool	220 Fuller Street	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Centennial Park	130 S Wenatchee Avenue	Wenatchee	1	Upgrade	Wenatchee Parks and Rec	City Park
Lincoln Park	1410 S Mission Street	Wenatchee	1	New	Wenatchee Parks and Rec	City Park

Location Name	Address	City	Racks Needed	New or Upgrade	Property Owner	Property Type
Chase Park	145 S Delaware Ave	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Pennsylvania Park	219 Pennsylvania Ave	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Rotary Park	1810 Maple Street	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Lewis and Clark Park	Princeton Ave	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Hale Park	720 South Worthen	Wenatchee	1	New	Wenatchee Parks and Rec	City Park
Walla Walla Park	1351 Walla Walla Ave	Wenatchee	1+	New	Chelan PUD	PUD Park
Linden Tree Park	Loop Trail and 9th Street	Wenatchee	1	New	Chelan PUD	PUD Park
Kirby Billingsley Hydro Park (both ends)	SR 28	East Wenatchee	1+	New	Chelan PUD	PUD Park
Sage Hills- Day Road Trailhead	980 Kookaburro Run	Wenatchee	1	New	CDLT	Trailhead
Sage Hills- Lester Trailhead	Sage Hills Drive	Wenatchee	1	New	CDLT	Trailhead
Sage Hills- Horse Lake Trailhead	Horselake Road	Wenatchee	1	New	CDLT	Trailhead
Castle Rock Trailhead	1963 Castlerock Avenue	Wenatchee	N/A	N/A	City of Wenatchee	Trailhead
Kenzie's Landing	2105 Maiden Ln	Wenatchee	1	New	City of Wenatchee	Trailhead
Loop Trail @ 27th Street	27th Street	East Wenatchee	1	New	Douglas County	Trailhead
Loop Trail @ 32nd Street	32nd Street	East Wenatchee	1	New	Douglas County	Trailhead
Loop Trail @ 19th Street	140 19th St NW	East Wenatchee	1+	Upgrade	Douglas County	Trailhead

Location Name	Address	City	Racks Needed	New or Upgrade	Property Owner	Property Type
Douglas County Courthouse	203 S Rainer Street	Waterville	1	New	Douglas County	Government Offices
19th Street Public Services Building	140 19th St NW	East Wenatchee	1+	New	Douglas County	Government Offices
Kenroy Park	700 N James Ave	East Wenatchee	1	New	Eastmont Parks	City Parks
Eastmont Community Park	N. Georgia Ave	East Wenatchee	1	New	Eastmont Parks	City Parks
Tedford Park	1st St SE and S Jarvis Ave	East Wenatchee	1	New	Eastmont Parks	City Parks
Kenroy Park	700 N James Ave	East Wenatchee	1	New	Eastmont Parks	City Parks
Apple Bowl Stadium	1005 Orondo Ave	Wenatchee	1	New	Wenatchee School District?	Stadium
WB Smith Gymnasium	1592 Fifth St	Wenatchee	1	New	Wenatchee Valley College	Gym
Wenatchee Valley Museum	127 S Mission Street	Wenatchee	1+	New	City of Wenatchee	Museum
U.S. Post Office	1050 Maple Street	Wenatchee	1	Upgrade	USPS	Post office
Wenatchee City Hall	301 Yakima Street	Wenatchee	1+	New	City of Wenatchee	Government Offices
Chelan County Courthouse	350 Orondo Avenue	Wenatchee	1+	Upgrade	Chelan County	Government Offices
Wenatchee Police Station	140 S Mission Street	Wenatchee	1	New	City of Wenatchee	Government Offices
Town Toyota Center	1300 Walla Walla Ave	Wenatchee	1	New	Greater Wenatchee Public Facilities District	Event Center
Wenatchee Public Works	1350 McKittrick Street	Wenatchee	1	New	City of Wenatchee	Government Offices

development. The list in Table A-1 only includes locations where short-term parking would be appropriate.

## Rack Design Standards

The APBP is a leading resource on best practice bike parking guidelines and standards. The APBP created bike parking guidelines that are used by jurisdictions across the country and identify the five following criteria for bike rack design:

- Support bikes upright without putting stress on wheels;
- Accommodate a variety of bicycle types and attachments (cargo bikes, trailers, trikes);
- Allow for locking of the frame and at least one wheel with a U-lock bike lock;
- Provide security and longevity features appropriate for the intended location; and
- Be intuitive

Additional information can be found in the Bicycle Parking Guidelines, Volume 2 book or the abbreviated Essentials of Bike Parking: Selecting and Installing Bicycle Parking that Works document at <https://www.apbp.org/Publications>. The APBP's recommended and non-recommended rack types are shown below and on the next page.

## APBP Recommended Rack Types

### RACKS FOR ALL APPLICATIONS

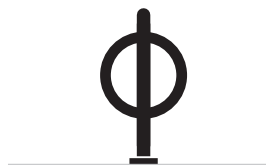
When properly designed and installed, these rack styles typically meet all performance criteria and are appropriate for use in nearly any application.

INVERTED U  
also called  
staple, loop



Common style appropriate for many uses; two points of ground contact. Can be installed in series on rails to create a free-standing parking area in variable quantities. Available in many variations.

POST & RING



Common style appropriate for many uses; one point of ground contact. Compared to inverted-U racks, these are less prone to unintended perpendicular parking. Products exist for converting unused parking meter posts.

WHEELWELL -  
SECURE



Includes an element that cradles one wheel. Design and performance vary by manufacturer; typically contains bikes well, which is desirable for long-term parking and in large-scale installations (e.g. campus); accommodates fewer bicycle types and attachments than the two styles above.

# APBP Non-Recommended Rack Types

Because of performance concerns, APBP recommends selecting other racks instead of these.

WAVE  
ALSO CALLED  
UNDULATING  
OR SERPENTINE



Not intuitive or user-friendly; real-world use of this style often falls short of expectations; supports bike frame at only one location when used as intended.

SCHOOLYARD  
ALSO CALLED  
COMB, GRID



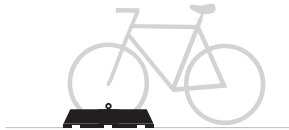
Does not allow locking of frame and can lead to wheel damage. Inappropriate for most public uses, but useful for temporary attended bike storage at events and in locations with no theft concerns. Sometimes preferred by recreational riders, who may travel without locks and tend to monitor their bikes while parked.

COATHANGER



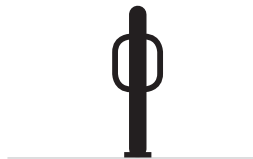
This style has a top bar that limits the types of bikes it can accommodate.

WHEELWELL



Racks that cradle bicycles with only a wheelwell do not provide suitable security, pose a tripping hazard, and can lead to wheel damage.

BOLLARD



This style typically does not appropriately support a bike's frame at two separate locations.

SPIRAL



Despite possible aesthetic appeal, spiral racks have functional downsides related to access, real-world use, and the need to lift a wheel to park.

SWING ARM  
SECURED



These racks are intended to capture a bike's frame and both wheels with a pivoting arm. In practice, they accommodate only limited bike types and have moving parts that create unneeded complications.



# Downtown Wenatchee Bike Parking

Downtown Wenatchee has been a focus of bike parking planning for multiple reasons:

1. Downtown Wenatchee has few bike racks that meet APBP standards. Downtown also has significant sidewalk and curb space limitations.
2. Bike parking in downtown has been identified as a priority in many plans (right, a study from 2012 looking at the Wenatchee Downtown Streetscape with recommended bike parking).
3. It's a significant bicycle destination for the region with a major transit hub, employment opportunities, dining and shopping, and destinations that draw people from the surrounding neighborhoods.
4. Downtown Wenatchee has been growing and changing. There are new businesses (including bike shops), more bars and restaurants, and plans for more urban development and downtown housing options that will increase the need for additional bike parking.



The next steps for improving bicycle parking downtown will be to determine a timeline and budget for implementation. The Wenatchee Downtown Association and local businesses are key partners on this work should be asked to review and provide feedback on the recommendations identified here.

Some funding may be available through the City of Wenatchee's Complete Street program. Additional funding will be needed to meet the entirety of downtown Wenatchee's bike parking needs identified in the following lists and maps.

## Bike Rack Design

Specific branding and design aesthetics are used in cities across the country. The examples at right and below show potential options and themes should the City choose to use bike racks design specifically for downtown.

- Above and right, The City of Ellensburg's custom designed downtown bike racks
- Right: An inverted U rack in Provo, Utah
- Bottom of page and right: inverted U rack in Denver, Colorado
- Bottom of page and right: An inverted U rack made to look like an apple



The recommended locations for bike racks in Downtown Wenatchee are shown in Figure A-2.



## Detailed Recommendations

### On-Street Corral vs. Sidewalk

The bike parking type identified in the maps and table are based on available space. Since 2013, Café Mela on Wenatchee Avenue has had a corral on the street in front of their coffee shop; There are additional no-parking zones available on Wenatchee Avenue to add racks (see photos on page A-12). The spaces identified during this process avoid handicap parking spaces and fire hydrants but have not been reviewed for other siting issues (space, snow removal, etc.).

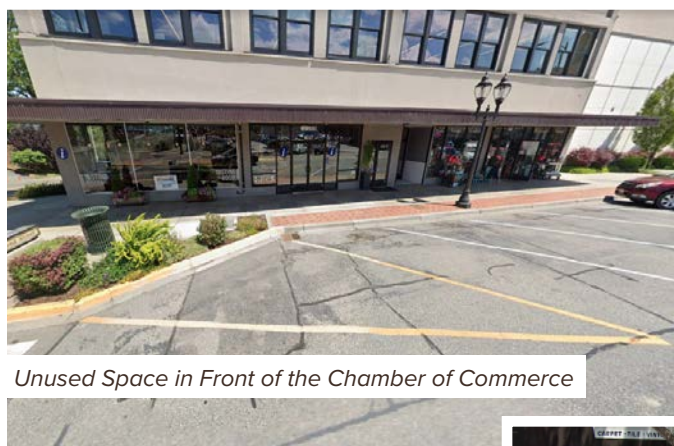
Sidewalk bike racks might look different based on the space available and the exact need at each location. Racks may be corrals grouped together on the sidewalk perpendicular to the buildings or individual racks placed parallel to the building and spaced throughout the block.

Details on site spacing requirements can be found in the APBP resources identified on page A-2.

**Table A-2: Downtown Wenatchee Bike Rack Needs**

Map #	Name	Type	Location Notes
1	2nd Street – Wenatchee Valley Chamber of Commerce	Sidewalk	Replace old rack with 2 new racks
2	Wenatchee Ave – Wenatchee Valley Chamber of Commerce	On-street Corral	See Photos
3	Wenatchee Ave – Lemolo Cafe	On-street Corral	See Photos
4	Wenatchee Ave – Numerica PAC	Sidewalk or on-street corral	Alternatives: Providing better bike parking in Hedeem Plaza or any bike parking on the East side of the building is another alternative
5	1st Street	Sidewalk	Upgrade bike parking at repair station next to Owl Soda Fountain
6	Wenatchee Ave – Chelan-Douglas Land Trust	On-street Corral	See Photos
7 – 11, 13-14	Palouse/Mission Streets	Sidewalk	There is space for a couple small corrals on the sidewalk or to space single racks out in this area. There are several small businesses, employers and the Liberty movie theater in this area.
12	Wenatchee Avenue- River of Life Center Church	On-Street Corral	See Photos
15	Wenatchee Avenue – Rent A Center	On-Street Corral	See Photos
16	Wenatchee Avenue – former Seattle First Bank Building	On-Street Corral	See Photos

Map #	Name	Type	Location Notes
17- 19	Orondo Avenue – Columbia Street to Chelan Avenue	Sidewalk	Wider sidewalks along Orondo Avenue likely allow for either a couple corrals grouped together or individual racks spaced along the street along the downtown blocks.
20	BPOE	Sidewalk	Wide sidewalk
21	Wenatchee Avenue – Key Bank	On- Street	See Photos
22	Centennial Park	Sidewalk	Racks could be added to any level space in Centennial Park
23 - 27	Yakima Street	Sidewalk	There is space on the sidewalk to add racks between Columbia Street and Mission Street
28 - 39	Kittitas Street	Sidewalk	There is space on the sidewalk to add racks between Columbia and Mission Street near existing businesses
30 - 34	Mission Street	Sidewalk	There is space on the sidewalk to add racks in this area to provide parking at existing businesses



## *Other Locations*

There is still a significant gap in bike parking along the edges of downtown that were not included. Bike parking along the sidewalk in these areas would be beneficial to existing and future businesses. Wenatchee Avenue is recommended for bike lanes north and south of downtown creating the need for bike racks along the road if implemented. There are also significant development and redevelopment projects identified along Wenatchee Avenue, Mission Street, and Chelan Avenue like the Chelan PUD site; a major apartment building on the corner of Mission Street and Kittitas Street; remodeling and expansion of Wenatchee City Hall; and the Bridge Street Loop Trail connection and plaza.

## **Bike Parking Policies and Ordinances**

### *Existing Codes and Requirements*

Wenatchee:

- No ordinances
- 2017 comprehensive plan calls for reducing parking requirements when bike parking is added (this is not in code)
- City of Wenatchee Parks and Recreation adopted the Inverted U as the preferred rack for their parks and now includes bike parking in new parks/park redevelopment projects.

East Wenatchee:

- Bike parking should be added to new streets where bike use is expected
- Illegal to block sidewalk with parked bikes
- Economic Development and Capital Improvement Projects section of the comp plan calls for bike corrals in downtown

Chelan County:

- None, with exception of Peshastin UGA

Douglas County:

- No ordinances

### *RBAC Recommendations for Improved Policies*

#### **Education and Outreach**

The RBAC has created a brochure and a "business card" with bicycle parking information for businesses and developers. Additionally, bikwenatcheevalley.org has a page dedicated to bicycle parking. Distributing the brochure and advertising the website to local businesses and developers might help raise awareness about the

need for bike parking and provide guidance for best practice bike parking installation.

Outreach to local businesses and developers can be done in several ways:

- Sustainable Wenatchee helps local businesses review sustainability initiatives and plans to distribute the bike brochure when meeting with local businesses
- RBAC plans to continue distributing business cards with the bike parking webpage information.
- The cities and counties can have the brochure and business cards available at their public service counters and their websites for when new businesses or developers contact them for resources and planning information

## **Local Ordinances**

When updating their comprehensive plans, local agencies are encouraged to review their existing policies for opportunities to strengthen requirements for bicycle parking in new development. Additionally, its encouraged that local agencies and WSDOT adopt APBP Standards.

# **Implementation and funding strategies**

## *Implementation*

This plan, the needs list, the brochure and bike parking cards can be used for outreach. Its important to raise awareness of bike parking needs beyond the biking public. The lack of bike parking at major businesses and services creates a challenge for those that exclusively use bicycles for transportation. The RBAC and others can use the materials created to help local businesses and services understand bike parking needs.

## *Funding Strategies*

### **Partnerships – Donate a bike rack program**

There are multiple case studies from cities across the country demonstrating opportunities for partnerships with non-profits and the city to install bike parking. For example, an agency installs and pays 50% of the cost while the rest is paid by the requesting business, non-profit, or individual. The Wenatchee Downtown Association, Chamber of Commerce, or a non-profit bicycle club like Wenatchee Valley Velo would be an ideal partner for these types of programs.

### **Grants**

Grant funding could be used to purchase bike parking. Examples include: Community Foundation grants, some federal transportation funds, public health/foundation grants, the Transportation Improvement Board's Complete Streets program, Community Development Block Grant funding, and bike funding organizations like People for Bikes.

### **Agency budgets**

Local agencies could add one-time bike parking costs to their budget, or they could set up a program to pay for bike parking. Transit agencies and jurisdictions across the country have started to budget for bike parking.

### **Private businesses**

Most of the bike parking in the Wenatchee Valley has been paid for by private businesses for use on private property. Riverway Family Dental in Wenatchee purchased and installed this bike rack in a partially covered location in view of the reception desk because they had multiple patients biking to their dental appointments.



# APPENDIX B

# PROGRAM RECOMMENDATIONS





**B**uilding the physical infrastructure is only one side of the equation for increasing bicycle transportation. Education, encouragement, and evaluation are all critical to improving the efficacy of bicycle transportation. For example, new bikeway designs can be confusing to cyclists and drivers, this can lead to dangerous conflicts between modes. Or, a person who could otherwise bike to work may not know how to maintain their bike properly to do so. Lastly, some portions of the community, both children and adults, don't own or know how to ride a bicycle. Supporting programs managed by government agencies, non-profits, and private organizations can be the difference in increasing the demand for bicycle transportation infrastructure.

The program recommendations described here contribute to achievement of long-term bike plan goals:

- Encourage and increase bicycle use; and
- Improve bicycling safety

The RBAC estimated the resources needed (time, funding, staff support, political capital), in addition to potential partners who might be involved in implementation. Where possible, ideas for specific programs have been identified. Some of these programs may be under development or consideration currently, and others are long-term ideas that may take many years to implement. None of these programs have specific funding identified at this time, but many could be eligible for state, federal or foundation grants.

The bike plan recommendations identified will serve as a guide for future work. The RBAC also hopes to help engage new partners and find champions for these programs. The RBAC will continue to serve as a resource for other agencies or organizations that may implement these programs in the future.

## Equity

### *Improve access to bikes, bike repair services, and bicycle infrastructure*

To truly achieve the vision of a bicycle friendly community, equity, diversity, and inclusion are the essential lenses through which all other elements must be viewed.

Access to reliable bicycles and maintenance/repair services has been identified as a barrier to cycling in the region. Low-income community members who rely solely on bicycles for transportation may be helpless if that bicycle breaks, incurs a flat tire, or requires basic maintenance. Moreover, many low-income community members simply don't use bicycles for transportation because they can't afford one. These barriers to cycling have been affirmed repeatedly through meetings, outreach at events, and while collecting existing conditions information for the Bike Plan update.

The community already has many successful one-day programs and events which provide bikes or helmets to youth and adults (e.g. Make a Difference Day, individual community volunteers, holiday drives, etc.). These efforts are typically well attended and provide a measurable benefit to cycling in the region, however; these opportunities are of limited scope and duration for daily riders. It is recommended that these types of programs be continued and expanded to make bicycles and repair services available to all community members, especially underrepresented or minority groups.

**Table B-1: Programs to improve access to bikes, repair services, and infrastructure**

Potential Programs	Resources Needed	Potential Partners	Timeline
Community/non-profit bike shops that offer used bikes, shop space, classes, and tools for community use	Medium-High	Churches, non-profits, health organizations, schools, Cashmere Bike Repair Club, Puget Sound organizations (Bike Works, Cascade Bicycle Club)	Long-term
Earn-a-bike programs like the Major Taylor Bike Project At Cascade Bicycle Club	Medium	Non-profits, local bike shops, schools, community organizations, Puget Sound organizations (Bike Works, Cascade Bicycle Club), Wenatchee Valley College,	1-5 years
Bike Swaps/Used Bike Marketplace (e.g. Cascade Bicycle Club sponsors Seattle’s annual Bike Swap/fundraiser)	Medium	Wenatchee Valley Velo, community organizations, bike shops, Wenatchee Valley College, Cashmere Bike Repair Club	1-5 years

***Increase the number of resources, events & programs in Spanish***

Most events and bike planning efforts far have struggled to engage the Latino community, which represents about 30% of the region. Based on event outreach its known that there is latent demand and interest in biking from the Latino community that is not currently being met. It is recommended that implementation of this bike plan consider how we can better provide resources, events, and programs in Spanish.

Examples of successful local bilingual outreach include:

- The 2017 Wenatchee Valley Bike Map and all Bike Plan update materials in Spanish
- Goathead Warriors did door to door outreach with Spanish materials in summer 2017
- Team Naturaleza’s programs and partnerships with the Chelan-Douglas Land Trust to provide hiking and recreation resources and event opportunities in Spanish
- City of Wenatchee’s work with the South Wenatchee neighborhood organization on the South Wenatchee Action Plan focused heavily on transportation issues
- The Orondo Ave/Methow St popup project explicitly engaged the Latino community by scheduling Latino vendors and performers during a week-long temporary intersection redesign which featured a new plaza at the end of a closed one-way street
- The South Wenatchee Bicycle Connectivity Study held focus groups and public events that were facilitated by a Latino community organization and included translators and decision makers from the Latino community.

# Education

## *Develop & Support Coordinated Safe Routes to School (SRTS) Programs*

The desire and need to do more in this area comes up continually from the RBAC, public comments, elected officials, and agency staff. Currently there aren't any coordinated programs at the regional or school district level. Both cities and counties generally work with their school districts to apply for Safe Routes to School grants and fix safety issues around the schools. Teachers and staff at individual schools have also taken on coordinating events for bike-to-school day and applying for grants to support bike education or after school bike clubs.

Across the country and state there are examples of successful, long-term programs at schools and in communities of every shape and size. One of the first steps for our region may be convening all potential partners to determine what is needed to improve biking and walking to school and developing a coordinated approach.

**Table B-2: Potential Safe Routes to School Programs**

Potential Programs	Resources Needed	Potential Partners	Timeline
Develop coordinated regional SRTS plan. Look at ways to fund and support SRTS improvements across the region/districts, identify infrastructure needs, and inventory existing activities.	Medium	CDTC, cities & counties, RBAC, STEM education, Educational Service District, health organizations	1-5 years
Conduct Bike and walk audits at schools. Develop walking/biking route maps for every school, look for needed safety improvements.	Medium	RBAC, cities & counties, Educational Service District, health organizations, CDTC	1-5 years
Institute formal bike education program. As an example, some WA school districts require every 5th grader to participate in a bike education program in PE class.	High	Educational Service District, school districts, non-profits	Long-term
Hire SRTS coordinators. Paid staff to coordinate SRTS program and grant applications. Other communities have staff at the school site, regional, or district level.	High	Health district, health organizations, CDTC, cities and counties, Educational Service District	Long-term
Develop bicycling programs. After-school programs or community programs to support youth bike education (e.g. bike repair, mountain bike clubs)	Medium	Schools, school districts, local bike groups, community education, Eastmont Parks & Wenatchee Parks, non-profits	Ongoing

## Bike Education

There are currently no regularly scheduled classes offered for someone interested in learning about bicycle transportation in the region. Wenatchee Valley Velo and the local bike shops are a great resource and have learning opportunities and group rides for recreational road and mountain biking, but there are no resources for general bicycle transportation. It is recommended that community bicycle transportation programs be offered. Example program topics include; bike repair, traffic skills 101, bike commuting, winter biking, and how to ride a bike for the first time.

**Table B-3: Potential Bike Education Programs**

Potential Programs	Resources Needed	Potential Partners	Timeline
Host a League of American Bicyclists Cycling Instructor training to train volunteers to teach traffic skills 101 classes	Low	Healthy Living Wenatchee Valley Coalition, local non-profits or health organizations, Wenatchee Valley Velo, bike shops, Wenatchee Valley College, RBAC, CDTC, Schools	1-5 years
Host more bike rodeos and temporary pop-up projects	Medium	Eastmont Parks, Safe-Kids Chelan-Douglas, Wenatchee Parks & Rec, Wenatchee Valley Velo, Schools	Ongoing
Develop a local bike guide with laws, resources, & tips for biking locally	Medium	Cities & Counties, RBAC, CDTC	1-5 years
Develop resources, outreach, and materials to inform all road users (cyclists, pedestrians, drivers) on how to navigate new bike facilities	Medium	Cities & Counties, RBAC, CDTC, law enforcement agencies, Schools	Ongoing
Conduct classes or events targeted seniors, Spanish-speaking residents, families, women, etc.	Medium	RBAC, CDTC, Eastmont Parks, Wenatchee Parks & Rec, WVC Community Education, Wenatchee Valley Velo, health organizations/ non-profits, bike shops, Schools	1-5 years

# Encouragement

## Resources for Employers and Businesses to Encourage Bicycle Transportation

In Washington State, the Commute Trip Reduction Act has funded and provided a structure for many employers to offer resources and incentives for employees to commute by biking, walking, transit or carpooling. The Wenatchee Valley has never been required to participate or been eligible to receive funding so there are no major employers that offer bicycle programs for employees. Some work has been happening in recent years at major employers, but there aren't any coordinated efforts or staff dedicated to this topic in the region. As the region grows and transportation demand increases, it is recommended that appropriate programs be adopted to encourage bicycle commuting.

**Table B-4: Potential Bike Education Programs**

Potential Programs	Resources Needed	Potential Partners	Timeline
Develop regional campaigns, incentive programs, website materials, trainings, and/or outreach materials to encourage bike commuting. This could be combined with other modes, such as transit, carpooling, and walking.	Medium	CDTC, RBAC, major employers, Link Transit, cities & counties, Sustainable Wenatchee, Climate Change NCW, health organizations	1-5 years
Encourage major employers to develop bicycle or multimodal transportation (bike/walk/carpool/ telework/bus) programs. Participating employers could develop plans, hire transportation coordinators, promote options, etc.	Low - high	Major employers and institutions, Wenatchee Valley College, Central Washington Hospital, cities and counties, CDTC, RBAC, Link Transit	Ongoing
Develop a transportation management organization to promote transportation options. Examples include Commute Options (Bend, OR), Whatcom Smart Trips (Bellingham, WA), Transmanage (Bellevue, WA)	High	WSDOT, counties, cities, CDTC, etc	Long-term

## Host More Bike Events

There are many bike events hosted weekly, monthly, and annually in the Wenatchee Valley. You can read more about the different events already happening in Chapter 2.

**Table B-5: Potential Bike Events**

Potential Programs	Resources Needed	Potential Partners	Timeline
<p>Current Bike Events:</p> <ul style="list-style-type: none"> <li>• Open Streets/Ciclovias</li> <li>• Family biking</li> <li>• Expanding bike to work day and bike month events</li> <li>• Slow rides, Ride of Silence</li> <li>• Themed rides (photography, brewery tours, bike to local farms)</li> </ul>	Low-high	RBAC, bike shops, local non-profits and bike clubs, community organizations, volunteers	Ongoing, and to be continued
<p>Possible New Bike Events:</p> <ul style="list-style-type: none"> <li>• Brewery/winery/cidery tours</li> <li>• Locavore farm tours</li> <li>• Bicycle scavenger hunts</li> <li>• Architectural tours</li> <li>• Geology tours</li> <li>• Birdwatching tours</li> </ul>	Low-high	RBAC, bike shops, local non-profits and bike clubs, community organizations, volunteers...anyone really!	1-5 years and long-term

## Evaluation & Planning

### *Develop a Bicycle and Pedestrian Counting Program*

The Wenatchee Valley has more than five years of annual bike counts and multiple automated counters on the Loop Trail (WSDOT and Complete the Loop Coalition). WSDOT is also planning to install additional counters in the region.

CDTC currently manages the vehicular traffic counts for the region and has equipment that could be used to do more bicycle counting. In addition, most local agencies have access to a free location-based dataset from Strava.

## Engineering

There aren't specific recommended programs that alter and improve how bicycles are supported by transportation infrastructure. The cities, counties, and WSDOT continue to use best practices for designing bike lanes, shared roads, and shared-use paths.

**Table B-6: Potential Evaluation and Planning Programs**

Potential Programs	Resources Needed	Potential Partners	Timeline
Develop a bicycle and pedestrian counting program	Medium	CDTC, TAC, RBAC, cities & counties, WSDOT, Cascade Bicycle Club	1-5 years
Review and evaluate bicycle-motorist crash data and use this information to guide bicycle infrastructure and education programs.	Medium	State Traffic Safety Office, School Districts, RBAC, CDTC, volunteers	Ongoing
Encourage law enforcement participation in RBAC meetings, and explore opportunities for coordination between the RBAC and local law enforcement.	Low	RBAC, local law enforcement agencies, Safe Kids Chelan-Douglas	Ongoing

## Bike Share

### Study the Feasibility of a Bike Share System in the Region

#### What is Bike Share?

According to the Pedestrian and Bicycle Information Center, bike sharing is an innovative transportation program, ideal for short distance point-to-point trips providing users the ability to pick up a bicycle at a station and return it to a different station in the service area.

Bike share has grown in popularity across the U.S. in recent years and can be found on college campuses (WSU in Pullman is a local example), in large cities like Seattle, and in small to mid-size cities across the country (e.g. Corvallis, OR; Truckee, CA; Carmel, IA).

#### Why Bike Share?

Bike sharing makes it easy to start bicycling! It can **introduce new riders to biking**, especially urban biking for transportation.

Bike sharing programs have been shown to **improve safety** because the visibility of bicycles increases with bike share. More people are biking for short trips in the city. The bikes are also often brightly colored and easily recognizable.



Docked Bike Share; Boulder Co

In our region specifically, bike share can help Link Transit better accommodate transportation needs by improving first-mile last-mile connections to transit for the intercity routes. Certain routes are maximum bus-mounted bike rack capacity during the summer months and riders are sometimes turned away or forced to wait another hour for the next bus.

Bike share can boost the economy, support tourism, and help the region recruit new businesses and employees. Cities across the country have developed bike share programs for these reasons and should be used as an example for developing a program in the region.

Bike share can improve public health by getting people out moving for short trips during the day. As an example, a participant who drives from Waterville to Olds Station for work can use a bike share bike to run errands on their lunch break in Wenatchee, or ride the Loop Trail.

### **Bike Share Next Steps**

This plan recommends applying to the WSDOT Consolidated Grant Program for a planning grant to complete a bike share feasibility study. The study could begin in the near future and make recommendations for bike share implementation in the region. The study could help answer feasibility questions about the type of bike share program to develop and assist in developing an implementation plan.

Key questions to be answered by the feasibility study:

- Is a bike share system feasible or needed in the region?
- What are the costs associated with bike share? Is it sustainable?
- Should the bike share system be regional or should each city develop their own as needed?
- Does it include stations or is it primarily dockless?
- Will bike share maximize and improve transit connections by bike?
- Will bike share support tourism goals and plans for the region?
- Is there interest or support from any major employers and local hospitals and clinics?
- What type of program would help ensure bike share is equitable and accessible to the widest audience possible? The study would explore payment methods, locations, languages, partners, etc.
- Can the program include adaptive bicycles to encourage ridership among the elderly and disabled populations in our region?
- Are e-bikes a possibility for the region?



# Maintain and Expand the Goathead Warriors Program

Since 2016, community volunteers organized within the Goathead Warriors Program have been removing goatheads, also known as puncture vine, from the Loop Trail. The spiny seeds of these plants are regionally known to cause many flat bicycle tires. Anecdotally we know this to be a barrier for biking for many youths and families in the region, which makes it a key maintenance issue for the region.

In 2017, the Goathead Warriors Program began expanding this program into the local neighborhoods with the goal to eradicate goatheads from the region. Public outreach and expanded programs could eradicate goatheads in the Wenatchee Valley. This program should be maintained, encouraged, and expanded.



**THE BATTLE JOIN THE FIGHT**

**OUR MISSION: "Goathead Free Zones"**  
Help convert your neighborhood and community into a **Goathead Free Zone**.



**NO MORE FLAT TIRES!  
NO MORE LIMBING PAWS!**

**ELIMINATE GOATHEADS ON YOUR PROPERTY**  
Thorns re-sprout each year and spread on shoes, paws, and tires to other properties in your neighborhood. We can supply a shovel and gloves to help your fight.

**HELP ELIMINATE GOATHEADS IN YOUR NEIGHBORHOOD**  
Volunteers are essential to winning the fight on your street. A quick walk once a week can make the difference. We provide goathead shovels, gloves, bags and brochures to neighborhood Warriors. Interested? Contact us via the website or email!

**SUPPORT THE CAUSE**  
Your tax-deductible donation will help buy shovels, gloves, bags, maps, and other essential tools to win this fight.

**DONATE ONLINE OR MAIL TO:**  
GW@WenatcheeOutdoors.org  
www.gowarriors.com

**GOATHEADWARRIORS.COM**

**DECLARE WAR ON GOATHEADS**



*Goathead Warriors Information Pamphlet*

**THANK YOU!**

An aerial photograph of a valley. In the foreground, there are rolling green hills with some dirt roads. A river flows through the middle ground, winding around a small town or village. In the background, there are blue mountains under a blue sky with white clouds. A dark grey rectangular box is overlaid on the top left of the image, containing the text.

**APPENDIX C**

**WAYFINDING PLAN**

# Introduction

Creating a regionally coordinated bicycle wayfinding plan has long been a goal of the cities, counties, and the Regional Bicycle Advisory Committee (RBAC). Consistent wayfinding provides effective direction to the biking public, advertises the region as a bicycle friendly community, and provides branding for a region with a growing tourism economy. Though bicycle wayfinding is already implemented in some jurisdictions, a coordinated plan will tie wayfinding efforts together so that directions to and from destinations in different jurisdictions are clear, intuitive, and accurate.

## ***Past Efforts & Need for a Wayfinding Plan***

The 2013 Bicycle Master Plan (2013 Plan) identified the development of a wayfinding plan as an action item to encourage bicycling acceptance and use. In 2017, the RBAC listed a wayfinding plan as a priority goal and was included in the 2018 Wenatchee Valley Bicycle Master Plan (2018 Plan).

The 2013 Plan recommends that a wayfinding plan be developed and implemented and include signage recommendations for existing and future bikeways. The 2018 Plan went one step further and established the framework for identifying signpost locations and sign content but ultimately didn't include spot specific recommendations for signs. In addition to the 2013 and 2018 Plans, other efforts have identified wayfinding as a need for the region.

## **The Economic Importance of Outdoor Recreation in Chelan and Douglas Counties, WA**

In 2017 a regional study looked at the current and potential impact of outdoor recreation in the region and how to improve and grow this part of the local economy. Wayfinding, signage and mapping came up as key suggestions for improvement for the region.

## **The Chelan County Multi-Use Pathways Plan:**

Developing a wayfinding and interpretive signing plan is identified as a step for implementing pathways connecting the cities and towns in Chelan County as. The County may consider leveraging some of the work completed in past and current Bike Plans to provide consistent wayfinding design treatments throughout the county.

## ***Benefits of wayfinding***

According to the National Association of City Transportation Officials (NACTO), there are 6 key benefits of developing a bicycling specific wayfinding system.

- 1.** Familiarizes users with the bicycle network
- 2.** Identifies the best routes to destinations
- 3.** Overcomes a “barrier to entry” for infrequent bicyclists
- 4.** Signage that includes mileage and travel time to destinations may help minimize the tendency to overestimate the amount of time it takes to travel by bicycle
- 5.** Visually indicates to motorists that they are driving along a bicycle route and should use caution
- 6.** Passively markets the bicycle network by providing unique and consistent imagery throughout the region.

# Existing Conditions

## On-Street Bikeways

CDTC staff and RBAC members documented existing bicycle route signage and recorded all known signs in the region; There are approximately 150 existing signs. Wenatchee has a network of signed bicycle routes that date back to the 1980s, likely making it one of the oldest in the state of Washington. East Wenatchee and Douglas County currently have no wayfinding signs associated with bicycle routes off the Loop Trail. The existing signage in Wenatchee is included on routes in most parts of the city, however there are issues:

- Existing signs have no route or destination information.
- Most signs only include arrows, making it difficult for visitors and infrequent riders to navigate certain routes
- Some streets are not comfortable for bicycling (Example: Okanogan Avenue is a bus route, has heavily utilized on-street car parking, and has roughly 4000 cars a day and is currently a signed bicycle route with no bicycle amenities beyond signs)
- The route signs have not been updated to reflect changes in bicycle facilities
- The route signs end at city limits. They provide no connections to nearby cities or areas in the county

The City of Wenatchee installed the first “Decision” bicycle wayfinding signs on 5th Street when adding bicycle lanes to the corridor. There are currently 5 signs that have the following destinations and miles identified:

- College
- Riverfront Loop Trail
- Downtown
- Sage Hills
- Rotary Park



5th St "Decision" Sign

## Shared Use Paths

The Loop Trail and adjacent trail connections have a variety of signage from the different agencies managing the trail. There are no consistent wayfinding signs going to or from the trail.

### Loop Trail Mile Post Markers (mile 0-10)

The Chelan County PUD has installed decorative milepost markers along the Apple Capital Loop trail. These markers do not include information on distance to destinations.



Loop Trail Mile Post Markers

## Bike Route signs

Bike route signs are also used on some trails. In the photo at right, 3 different signs within 20 feet of each other let you know that the Loop Trail is a bike route (and also Thurston and Worthen Streets)

Some of the north end trailheads were marked with Bike Route Ends signs. The one pictured at Right is at the 37th Street trailhead. The Sellar Bridge trail connection also includes bike route signs.



*Bike Route Signs*



*37th St Trailhead*

## Brown Trail Wayfinding Signs

The North End of Douglas County and also the Euclid Street exit have trail wayfinding signs that clearly mark junctions and trailheads.

Brown signs are in place with wayfinding noting the “east loop trail” and “west loop trail”. These do not provide clear direction to trail users unfamiliar with the region. The Rocky Reach Trail extension is also not signed accurately on all signs.



*Brown Loop Trail Wayfinding Signs*

# Wayfinding Framework

## Technical Guidance

There is not one specific source for information on the technical guidance for bicycle route wayfinding.

The Washington State Department of Transportation (WSDOT) Design Manual includes minimal guidance for bicycle wayfinding and signage (see 1520.05(1) for details) and direct users to the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) bicycle and pedestrian page.

There are two different design manuals which cover bicycle wayfinding signage. The following guidance comes from the MUTCD and NACTO:

## NACTO

The NACTO Urban Bikeway Design Guide provides the following design guidance for bike route wayfinding

### Required Features

- Follow MUTCD standards (Section 9B.01—Application and Placement of Signs) and (Section 9B.20—Bicycle Sign Guides)

### Recommended Features

- Decision signs should be before turns (near side of intersection) or other route decision points
- Decision signs should include destinations, directional arrows and distance
- Travel time can be used to supplement information (estimate using 10 mph bicycle speeds)
- Place the closest destination to each sign in the top slot, followed by the second and third destinations. Intermediate destinations can be used on long routes
- Place turn signs on the near-side of the intersection to indicate where the route turns
- Confirmation signs should be placed every  $\frac{1}{4}$  mile to  $\frac{1}{2}$  mile along off-street bicycle routes and every 2 to 3 blocks along on street routes, and on the far side of major street intersections
- Clearway Hwy Font is commonly used for signs

### Optional Features

- Signs can be placed on “feeder streets” between the bicycle route and nearby destinations
- Bicycle route map signs can be placed along routes to provide additional information to users
- Conventional Street name signs along bicycle routes may be redesigned to identify the street as a bicycle route
- The placement of signs may be limited solely to the designated bicycle network to avoid other streets that may be difficult or dangerous to bicyclists
- Pavement markings may be useful where signs are difficult to see
- Some wayfinding signs use a route numbering system (MUTCD Section 9B.21 includes standards and options)

There is no standard color, but green is the most common color used for bicycle wayfinding

## **Manual on Uniform Traffic Control Devices**

Bicycle signage standards can be found in Section 9B.01. There are both standards and optional guidance included in the chapter. Additionally, MUTCD Section 2D.50 allows for custom colors and logos to support community wayfinding systems. Guidance in this section covers wayfinding for bicycle, pedestrian, and tourist wayfinding signage.

## AASHTO

The 2012 AASHTO guide for the development of bicycle facilities does not cover bicycle wayfinding. However, the guide is currently being updated and is assumed to include bicycle wayfinding guidance and best practices.

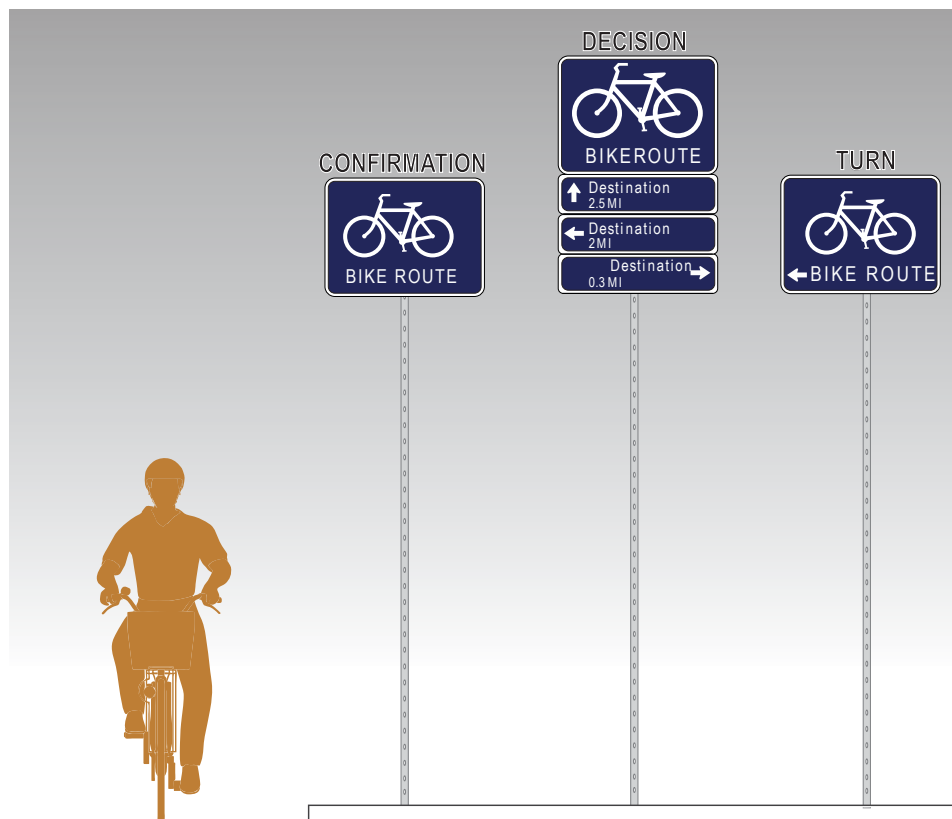
### *Sign Types*

There are three types of signs typically used for bicycle wayfinding: Decision, Turn, and Confirmation.

**Decision Signs:** Mark the junction of two or more routes and provide a list of destinations

**Confirmation sign:** Inform bicyclists and motorists that they are traveling on a bicycle route

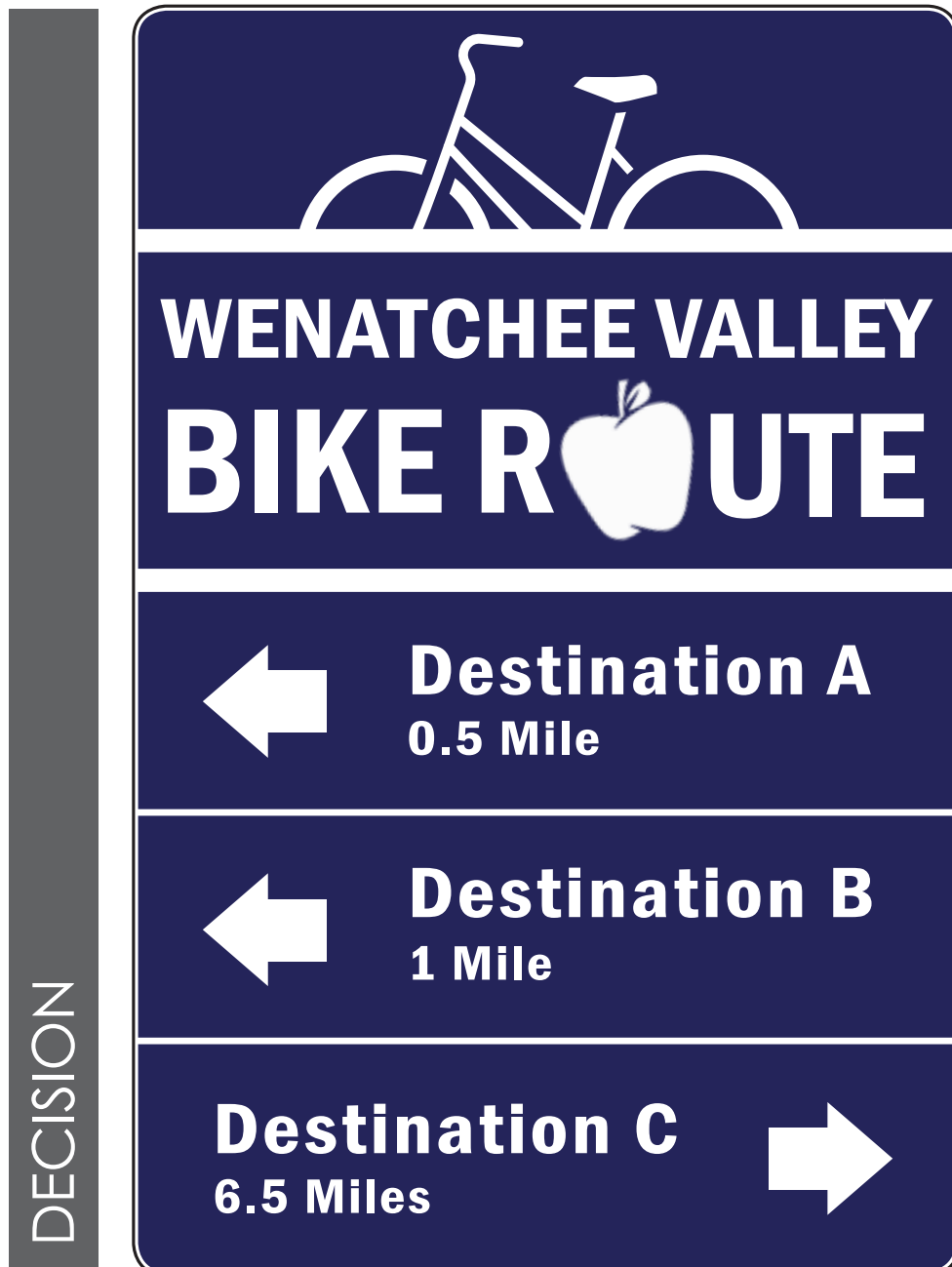
**Turn Signs:** Inform bicyclists when the bikeway turns from one street onto another street or directs a cyclist to a destination not on the bikeway



*Typical Sign Types for Bicycle Wayfinding*

## Branding and Design

The Chelan-Douglas Transportation Council developed 3 branded wayfinding sign options for the Regional Bicycle Advisory Committee and Technical Advisory Committee to review. It is recommended that the implementation agencies use this design style to maintain wayfinding consistency across the bikeway network. The preferred signage branding is shown below and on page C-7.





CONFIRMATION



TURN



# Signage Recommendations

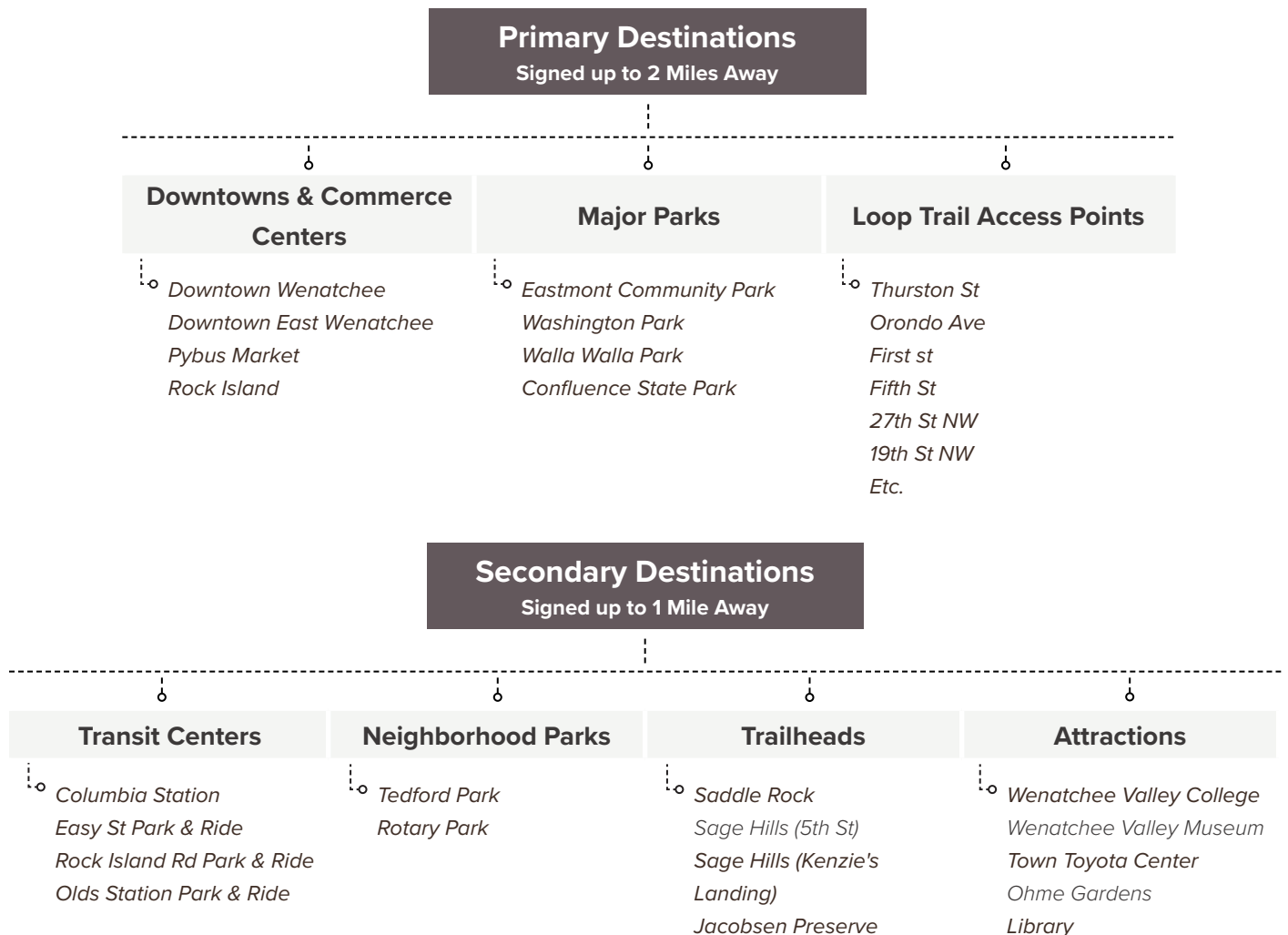
## Destination Selection + Prioritization

A hierarchical list of destinations based on their relative importance was created prior to identifying locations of signs and sign content. The list was reviewed and confirmed by a working group of public works staff from the cities and counties and staff from the Chamber of Commerce.

A particular destination’s ranking in the hierarchy was used to determine the physical distance from which the locations were signed. Multiple distances were tested for each hierarchy class and compared to wayfinding plans from other metro areas. Because of the relatively small size of the Wenatchee Valley, two classes were used. Primary destinations are to be signed up to 2 miles away. Secondary destinations are to be signed up to one mile away.

Some destinations were recommended for signing only within certain neighborhoods or in certain systems like Chamber of Commerce in downtown Wenatchee or the parks along the Apple Capital Loop Trail. Therefore, the some destinations are recommended on signage further than 2 miles away or only within a specific geographic area including the Chamber of Commerce, Lincoln Rock State Park, Hydro Park, Hale Park, and Linden Tree Park. All other destinations are shown in the figure below.

Figure C-1: Primary and Secondary Destinations



## Signage Recommendation Methods

Sign post location and signage content recommendations were made for all existing and recommended bicycle network recommendations. Not all intersections are recommended for signage, for example, at the end of a short block where additional signage wouldn't provide new information to the user. Directions to primary destinations were provided even if the destination wasn't on the same corridor as the sign. Directions to secondary destinations were only signed if the destination was on the same corridor as the sign. All distances to destinations were measured in ArcGIS Pro. It's important to note that sign placement in the map is generalized, exact locations of each sign should be determined during project design and meet local signage standards. In total, 351 decision signs, 454 confirmation signs, and 102 turn signs are recommended for on-street bikeways. 34 signs were recommended for the Loop Trail. Approximately 189 existing signs will need to be retrofitted by either moving sign posts, changing the sign plaque, or both. Final determinations should be made during project design. The recommended locations, sign types, and content **can be found HERE**.

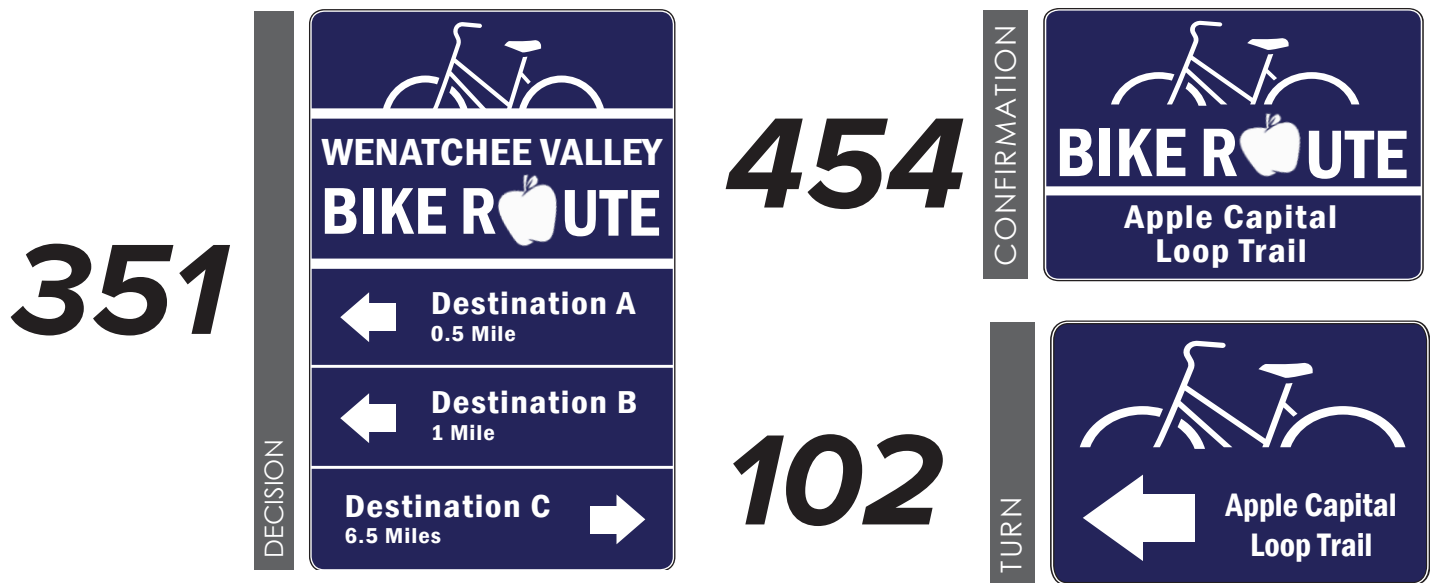


Table C-1: Sign Cost Estimates

	Wenatchee		East Wenatchee		Chelan County		Douglas County		Chelan PUD	
	Signs	Cost <sup>1</sup>	Signs	Cost	Signs	Cost	Signs	Cost	Signs	Cost
Existing Network Retrofits/Installs	181	\$26,800	95	\$14,300	0	\$0	36	\$5,200	28	\$5,200
Recommended Network Installs	459	\$47,200	114	\$11,700	20	\$2,000	163	\$15,100	34	\$6,300

<sup>1</sup>: Sign material costs only

## ***Sign Features***

### **Decision Signs**

- Decision signs should be placed in advance of all turns (near side of the intersection) or decision points along the bicycle route.
- Decision signs should include destinations, directional arrows, and distance. Travel time required to reach the destination provides bicyclists with additional information and may also be included.
- The nearest destination should be placed in the top slot. Destinations that are further away can be placed in slots two and three. This allows the nearest destinations to “fall off” the sign and subsequent destinations to move up the sign as the bicyclist approaches.

## Confirmation Signs

- Confirmation signs should be placed every ¼ to ½ mile on off-street facilities and every 2 to 3 blocks along on-street bicycle facilities
- Confirmation signs can include destinations, distance and time but do not include arrows
- Confirmation signs should be placed soon after a turn to confirm that the bicyclists are on the correct route
- Pavement markings may be used in place of confirmation signs

## Turn Signs

- Turn signs should be placed on the near-side of the intersection to indicate where the bike route turns or where a bicyclist must turn to reach a destination not on a bikeway.
- Pavement markings may be used in place of turn signs

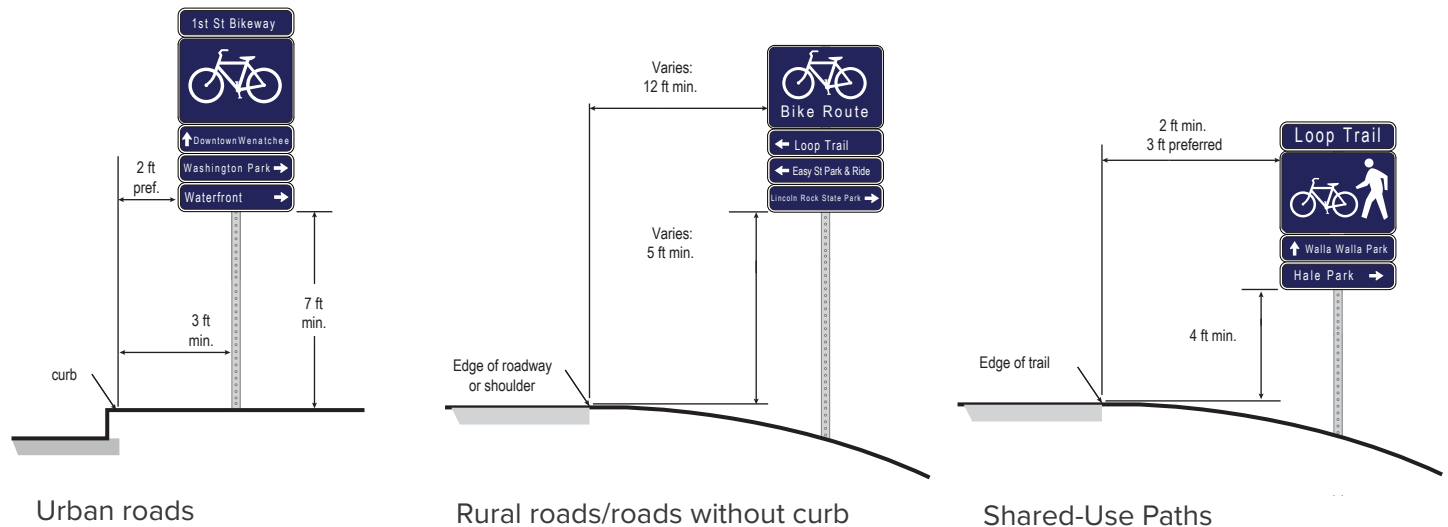
## Sign Placement

The following section describes the recommended placement of decision, confirmation, and turn signs at a variety of intersections. Wayfinding signage should be located in a consistent manner across jurisdictions to aid wayfinding system utility and encourage bicycle use.

### Clearance

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

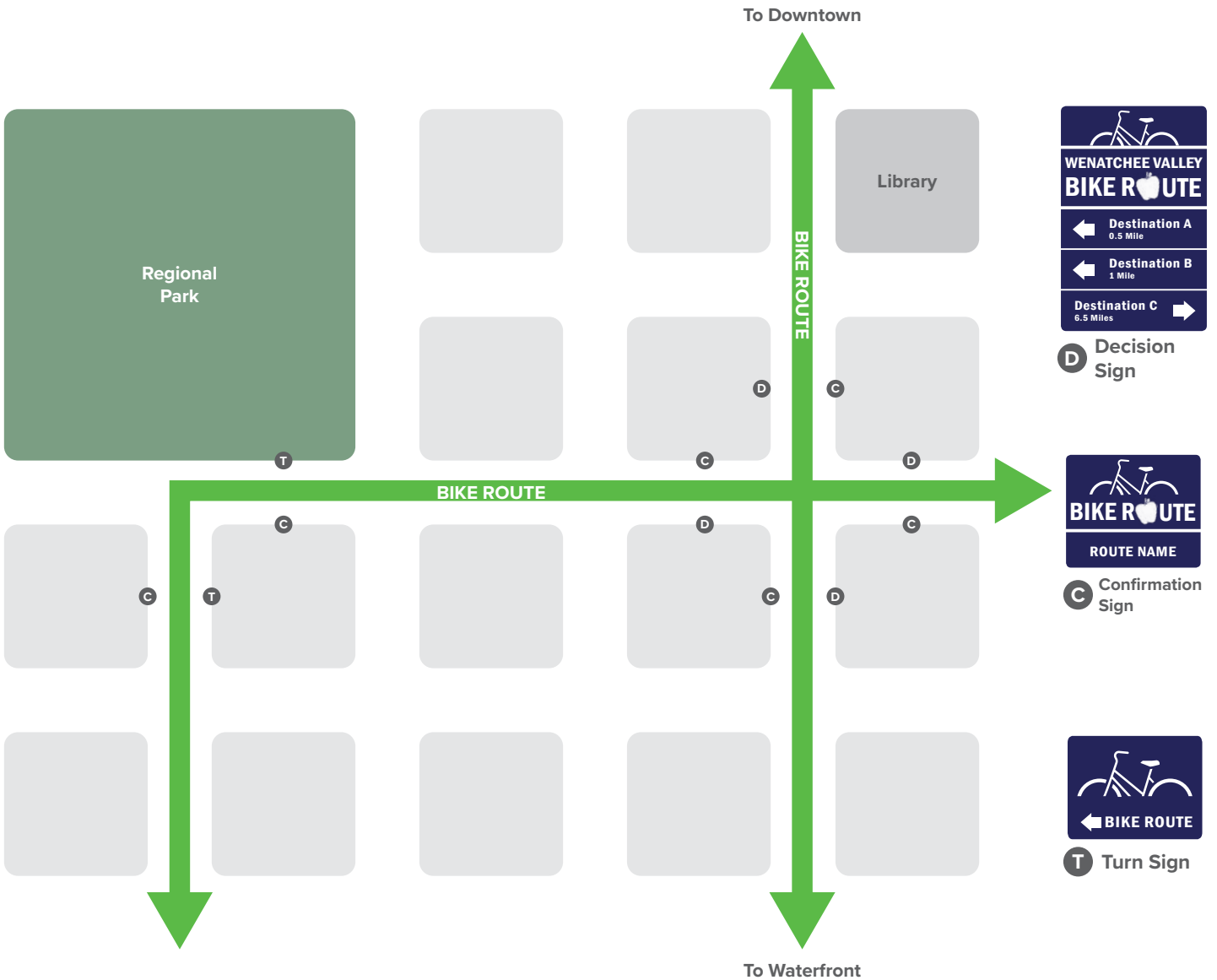
Figure C-2: Clearance



## General Placement

When two bikeways intersect, the general approach is to place a directional sign prior to the decision point followed by a confirmation sign or pavement marking after the intersection to confirm intended direction. While this approach provides redundant information, it ensures that the system does not break down if one sign is compromised. Signs may be placed on existing posts, poles, or other supports as practical, which should be determined during design and installation.

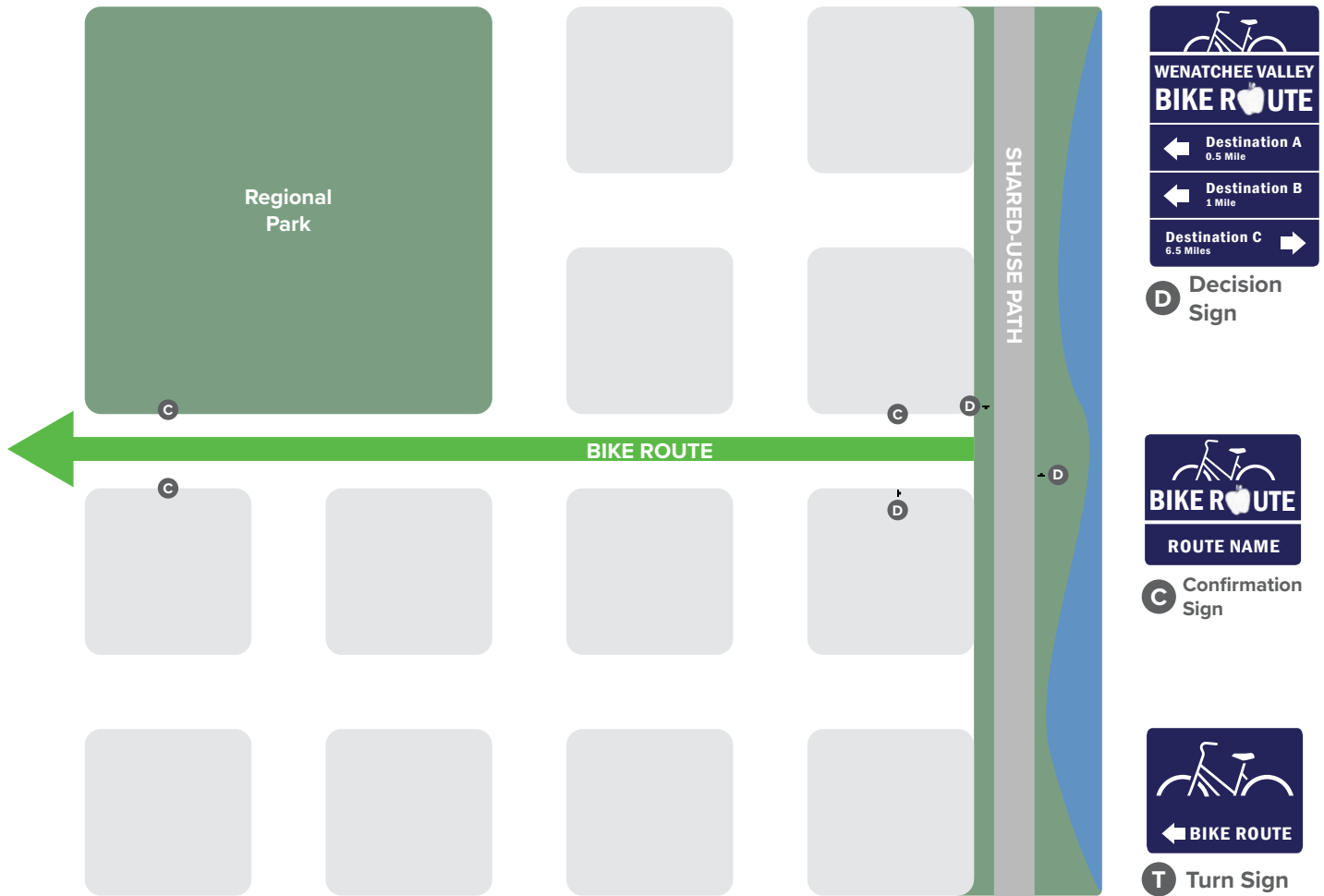
Figure C-3: General Placement



### On-Street Bikeway/Shared-Use Path Transitions

Where transitions are made between on-street and shared-use paths, decision signs shall be placed on the approach to the facility transition. Once on-street, confirmation signs should be placed after the pathway transition point to indicate a continuation of a designated bike route.

Figure C-4: On-Street Bikeway/Shared-Use Path Transitions



### From a Bikeway to Destination Not on a Bikeway

Some destinations aren't directly on bikeway frontage. Destinations off-network may be signed when a straight, safe bicycle connection or route is available. Engineering judgment must be used to determine whether the connecting route is suitable for cycling.





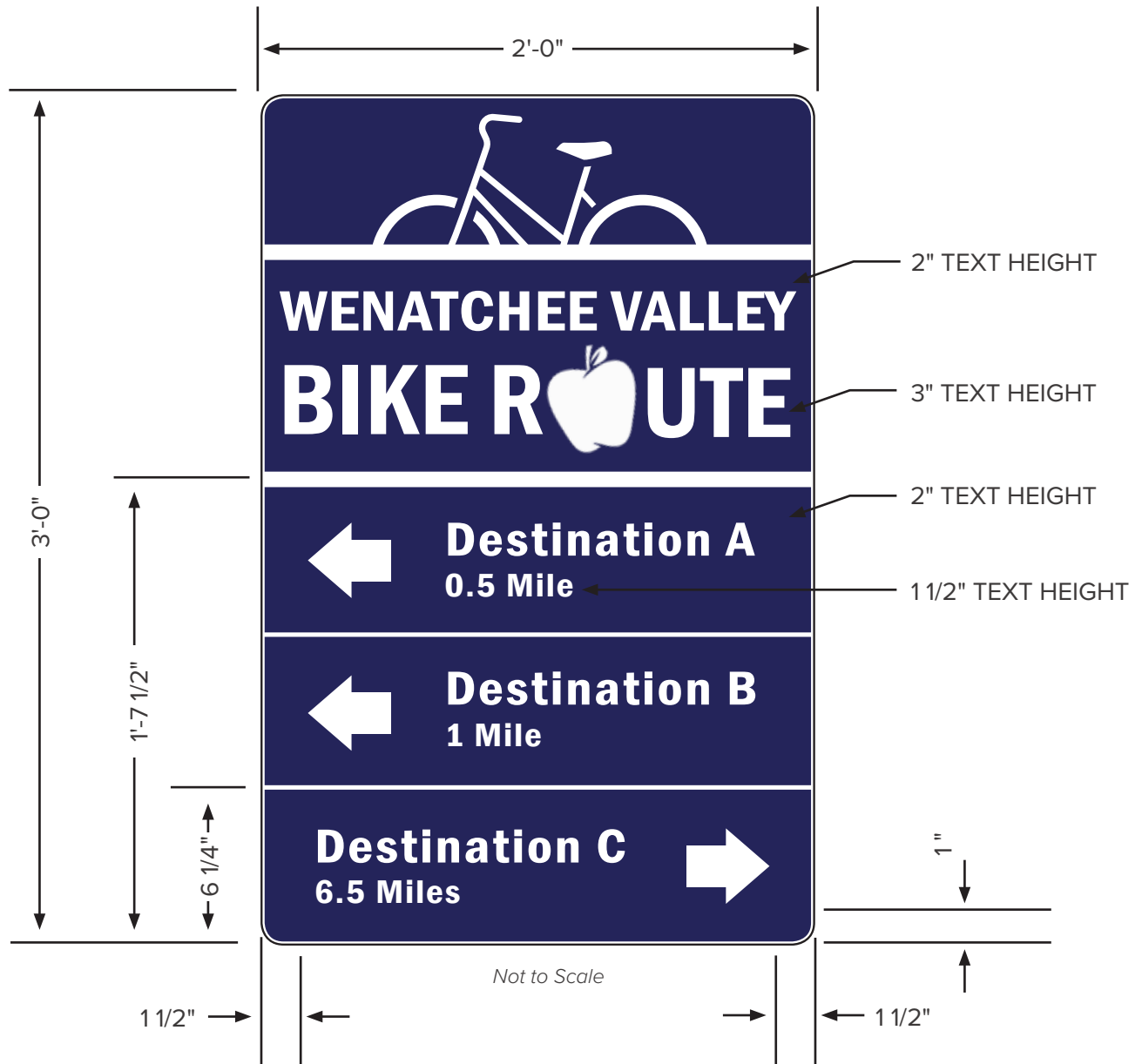
## Planned Trails and Paths

There are multiple corridors planned for path and trail connections between communities for which an exact route and alignment have yet to be identified. The corridors include:

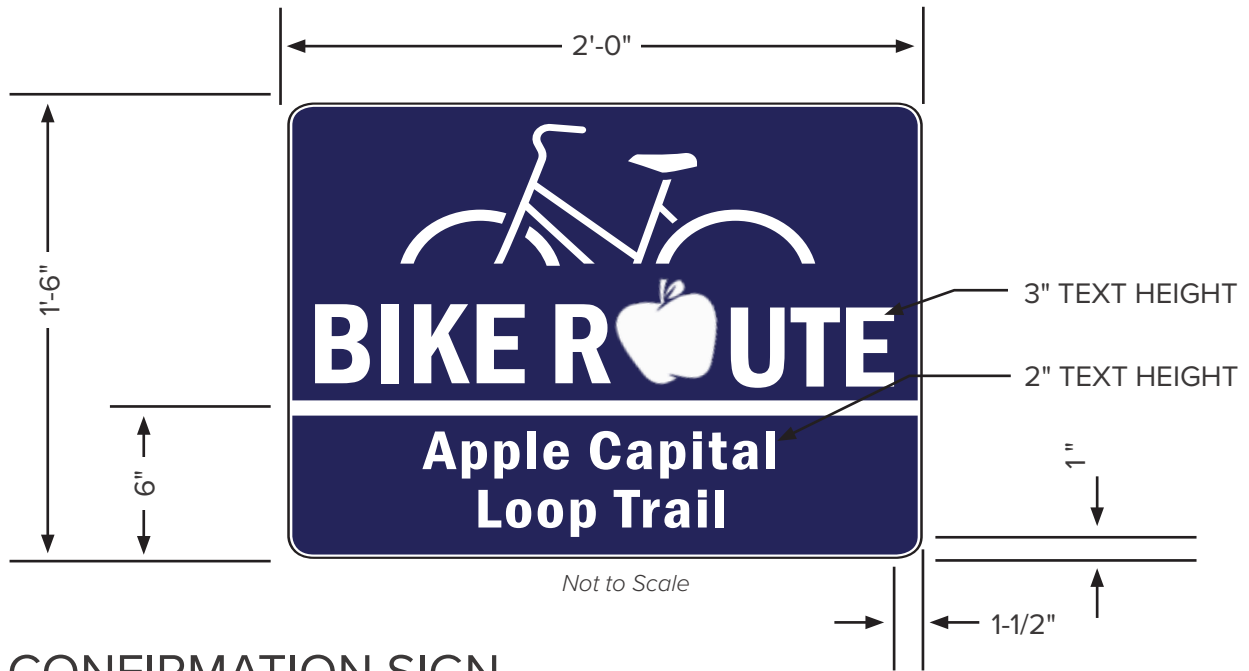
- US 2/97 between Wenatchee and Leavenworth
- SR 28 between East Wenatchee and Rock Island
- US 97A between Wenatchee and Chelan
- Malaga Highway between Wenatchee and Malaga
- SR 150 between Chelan and Manson

It is recommended that wayfinding signage consistent with the framework in this plan be included in the development of these paths and trail concepts once specific alignments are determined. It may be beneficial to create unique branding consistent with the designs on page C-6 and C-7 to inform users and provide directions in a way that is consistent and interoperable with the rest of the wayfinding system in the Wenatchee Valley.

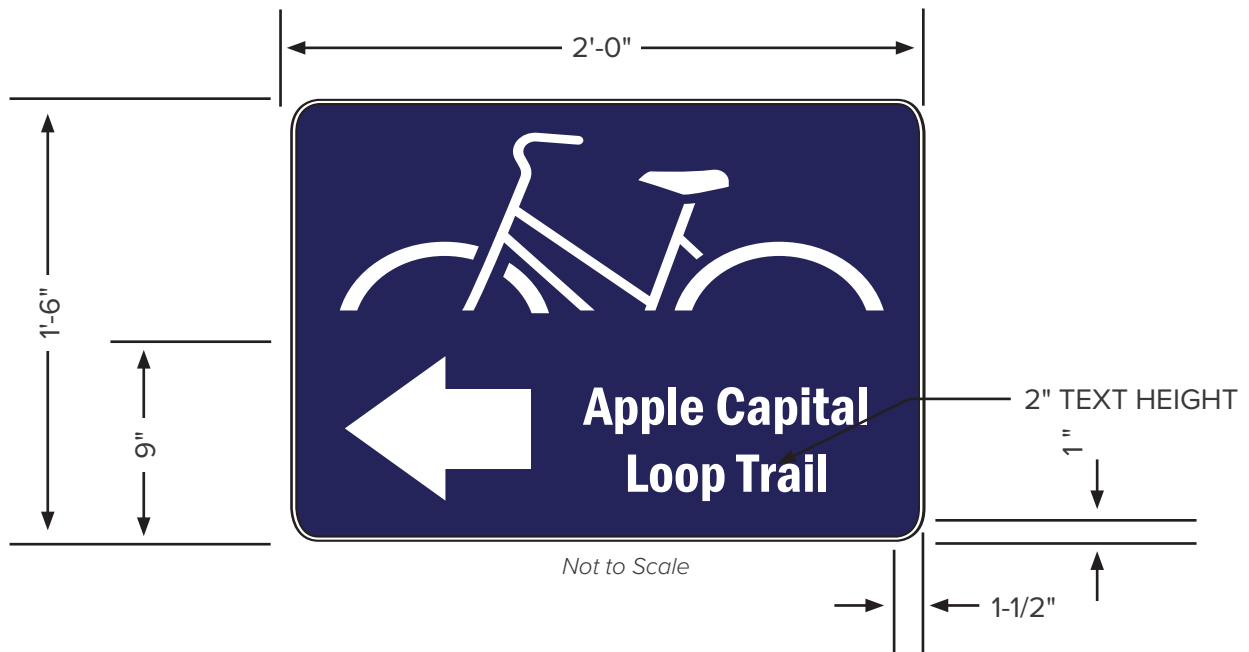
# Dimensions and Graphic Standards



## DECISION SIGN



CONFIRMATION SIGN



TURN SIGN

## Color Palette



White

C0 M0 Y0 K0



Blue

C100 M98 Y35 K29

## Typography

**Franklin Gothic Demi Condensed**

**Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 1234567890**

Prepared by  
Chelan-Douglas Transportation Council

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