Transportation Master Plan Update

Chapter Review: Bicycle

Report Structure

1. Executive Summary
2. Introduction
3. Street System
4. Pedestrian
5. Bicycle
6. Transit
7. *Curbspace*
   - *Mayor reviewed Jan. 2025, Council reviewed Jan. 2025*
8. *Freight & Goods Delivery*
   - *Mayor reviewed Feb. 2025, Council review Mar. 2025*
9. Transportation Demand Management (TDM)
10. E-Mobility
11. Technology Forward
12. Maintenance
13. Monitoring Progress (Performance Metrics)
14. Appendices

Key Themes

- Use Level of Traffic Stress (LTS) rating to measure bicyclist comfort on existing and planned facilities, while planning for a high-comfort Spine Network
- Converting short vehicle trips (under 2 miles) to bicycle mode
- Proactively plan for bicycle facility maintenance needs
- Prioritize planned bicycle facilities by focusing on equity, safety, comfort, and proximity to key destinations

Review Timeline

- Director Review: 1/9/2025
- Mayor Review: 2/7/2025
- Planning Commission Presentation: 10/23/2024
- Council Staff Report: 11/19/2024, 3/18/2025
- Council Study Session: 3/25/2025

Bicycle Strategies

1. Convert short trips to bicycle trips
2. Connect to transit
3. Promote e-bikes and e-scooters
4. Implement a high comfort Spine Network
5. Implement the Neighborhood Bikeway Network
6. Balance modes
7. Provide convenient, plentiful, and secure bike parking

By implementing these strategies, Redmond can work toward the following outcomes:

- Bicycle and micromobility (scooter) mode share at 15% of all trips in urban centers by 2035
- Bicycle and micromobility mode share at 5% of all trips within city of Redmond by 2035
- Connect all key destinations with low-stress bicycle facilities

Bicycling in Redmond

TMP Update
March 2025

Bicycle Network Strategy

Introduction

Future of Bicycling in Redmond

Bicycling (and the use of other micromobility devices) will play a key role in creating a more sustainable, equitable, and livable Redmond. The bicycle provides a level of efficiency, affordability, accessibility, and freedom of movement unmatched by other forms of transportation while integrating easily with transit systems. Advancements in electric bike (e-bike) technology, affordability, and accessibility stand to further increase the importance of biking. The keys to unlocking the potential of bicycling in Redmond is to provide a bike network that most people feel safe using and conveniently connects people to where they need to go, and providing secure and convenient bike parking at destinations. By doing so, Redmond can encourage more people to bike more often while driving less.

What is Micromobility?

Micromobility refers to a range of small, lightweight devices operating at speeds typically below 15 mph. Micromobility includes both human-powered and electric scooters, bicycles, skateboards, one-wheels, hoverboards, cargo bikes, trikes and other similar devices. These devices offer flexible mobility and can provide efficient first-last mile connections to transit, and thus are an important component of Redmond's transportation system. In Redmond, micromobility devices are generally expected to operate within bikeways and trails, and not on sidewalks. While this chapter largely discusses bicycles, all network strategies pertain equally to micromobility.

How Bicycling Supports Redmond 2050 Guiding Principles

Equity and Inclusion

The Bicycle Network Strategy presented in this chapter will allow people of all ages and abilities to get from anywhere to everywhere by bicycle, or other micromobility device, safely, directly, and comfortably. In doing so, all Redmond community members will have an affordable, efficient, and healthy transportation option that complements other sustainable travel modes such as walking and transit.

Sustainability and Resilience

Redmond 2050 sets goals of a 50% reduction in per capita vehicle miles traveled (VMT)[1] and 71% reduction in transportation sector greenhouse gasses (GHG)[2] by 2050. The Redmond Environmental Sustainability Action Plan (2020) identifies intermediate targets to help move toward the 2050 goals. Namely, reducing GHG transportation emissions 50% by 2030 and reducing single-occupancy vehicle trips by 30% by 2025. Shifting trips from driving to biking can help Redmond achieve these goals and is a key objective of Redmond's Bicycle Strategy. Promoting new technologies such as the e-bike will create opportunities for increased mode shift away from motor vehicles (both internal

[1] From 2017 levels.
[2] From 2011 levels.

combustion and electric). In addition to reducing VMT and GHG emissions, shifting more trips to active travel and public transportation will offer other benefits like reduced congestion, more community space, improved air quality, and improved public health.

FIGURE 1 MICROMOBILIY SUCH AS E-SCOOTERS ARE A FLEXIBLE TRAVEL OPTION SUPPORTED BY THE BIKEWAY NETWORK. (IMAGE CREDIT: CITY OF REDMOND)

Goals and Performance Measures

Shifting vehicle trips to bicycling and micromobility is one component of a larger strategy to reduce vehicle miles traveled, particularly single occupancy vehicle trips. To shift trips from driving to biking, Redmond must expand and enhance its bikeway network and make biking an attractive choice, especially for short trips. The following outcome goals and related performance measures will be used to track and evaluate Redmond's implementation of this Bicycle Strategy, especially the development and expansion of the bikeway network.

Outcome Goal	Measures
Bicycle and micromobility mode share at 15% of all trips in urban centers by 2035	Bicycle and Micromobility mode share in Downtown Bicycle and Micromobility mode share in Overlake Bicycle and Micromobility mode share in Marymoor Village
Bicycle and micromobility mode share at 5% of all trips within city of Redmond by 2035	Bicycle mode share city wide for all trips
Connect all key destinations along the Spine Network with low stress bikeways by 2035	LTS 1 or 2 bikeways that connect directly to light rail stations, schools, and grocery stores[3]

Bicycling in Redmond Today

Estimates from the 2022 American Community Study and Move Redmond's recent surveys of Redmond employees, suggest that only 2% of work trips are by bicycle. Researchers and practitioners have categorized people based on their confidence interacting with motor vehicle traffic while biking. While the percentage varies by community, a national survey found that about 5 out of every 10 adults in major urban areas, labeled as "Interested but Concerned" riders, would like to ride a bicycle but do not currently do so, primarily due to concerns about traffic safety.[4]

The 2024 Bicycle Friendly Community Public Survey[5] received over 300 responses from Redmond community members about their experiences using Redmond's bicycle network. Of the survey responders, approximately 70% ride a bike in Redmond. Survey respondents use bicycle travel for varying purposes in Redmond, with approximately 35% primarily taking transportation or utilitarian trips (commuting, running errands, etc.), approximately 30% primarily riding a bicycle for recreation or leisure, and approximately 25% primarily riding a bicycle for exercise or fitness.

The City of Redmond's focus for the development of the bicycle network is serving people of all ages and abilities, which means building bikeways that are comfortable for the Interested but Concerned population. This strategy will encourage more bicycle trips, which will advance the City's goals around VMT and GHG reduction, while creating a more equitable transportation system that provides affordable and healthy travel options.

---

[3] Destinations should have convenient and secure bicycle parking facilities.
[4] Dill, J, and Nathan McNeil, 2016, Revisiting the Four Types of Cyclists: Findings from a National Survey, Transportation Research Record: Journal of the Transportation Research Board, 2587, Retrieved from https://journals.sagepub.com/doi/10.3141/2587-11
[5] League of American Bicyclists 2024 Bicycle Friendly Community Public Survey

Existing Bike Network

The existing bicycle network is comprised of 98.8 miles of bikeways[6] of varying condition and suitability for people of all ages and abilities. This includes:

- 73.5 miles of bicycle lanes (includes buffered bike lanes)
- 2.5 miles of separated bicycle lanes
- 4.2 miles of shared lanes/bicycle boulevard
- 15.2 miles of paved shared use pathways

In addition to the formal bike network, other streets in Redmond can serve people biking. At low volumes and speeds of traffic, many people feel safe and comfortable sharing the street with traffic or crossing the street in unmarked crossings. As traffic speed and volumes increase, their perception of safety degrades significantly, resulting in a feeling of increased stress and discomfort.

Progress Made

Redmond has made notable progress in implementing important bikeway network connections over the past decade through both its capital investment program and requirements for new development. These investments include two new bridges over SR 520 at the Redmond Technology Center and Overlake Village light stations, substantial completion of the Redmond Central Connector, the striping of miles of bike lanes, and bringing e-bike/scooter share to the city. These accomplishments and others contribute to Redmond being the "Bicycle Capital of Washington", but there is much more work that needs to be done to honestly be able to claim that title. The work that needs to be done is the focus of this chapter.

[6] Includes funded bikeways to be constructed by 2027, including NE 40th St and 156th Ave NE shared use paths.

Level of Traffic Stress

Redmond's existing bikeways were assessed to determine their relative level of comfort using a bicycle Level of Traffic Stress (LTS) analysis, which factors vehicle speeds, vehicle volumes and the degree to which bicyclists are separated from vehicle traffic.[7] Higher vehicle speeds and volumes and less separation between bicyclists and vehicles results in stress and discomfort for bicyclists and according to research and feedback received from the Redmond community.

The results of the LTS analysis based on 2024 conditions show that 79% of existing designated on-street bikeway miles are high stress.[8] That means many of the major bicycle connections in Redmond are LTS 3 or 4. Research and real world examples show that LTS 1 and 2 bikeways are what will get a greater proportion of the population to feel comfortable bicycling.

The updated Redmond Bicycle Facility Design Manual (2023) designates the "Interested but Concerned" bicyclist as the design user. Recent bikeway network investments reflect the City's focus on building out a low-stress network, including separated bicycle lanes recently constructed on 156th Avenue NE and 152nd St Avenue NE, the protected intersection at 152nd Avenue and NE 24th Street, shared use path on NE 40th St, and the pedestrian and bicycle bridge connections to the Overlake Village Light Rail Station and the Redmond Technology Light Rail Station.

What is Level of Traffic Stress?

The Level of Traffic Stress (LTS) analysis, based on a methodology developed by Mekuria, Furth, and Nixon (2012), is a system that rates road segments or crossings based on the level of stress they place on bicyclists, ranging from LTS 1 (minimal stress) to LTS 4 (high stress). LTS 1 and 2 are considered suitable for most bicyclists, including children and Interested but Concerned riders, as they involve minimal interaction with traffic. LTS 3 and 4 are for more confident bicyclists, with LTS 4 being the most stressful, requiring high levels of skill and tolerance for high-speed traffic. The overall LTS for a route is determined by the highest stress level encountered along the route's segments.

[7] Mekuria, Maaza C. , Peter G. Furth, and Hilary Nixon. 2012. "LOW-STRESS BICYCLING and NETWORK CONNECTIVITY." Https://Transweb.sjsu.edu/Sites/Default/Files/1005-Low-Stress-Bicycling-Network-Connectivity.pdf. Mineta Transportation Institute. May 2012.

[8] Includes funded bikeways to be constructed by 2027.

FIGURE 2: SEPARATED BIKE LANES LIKE THIS ONE ON 156TH AVE NE PROVIDE A HIGHER LEVEL OF COMFORT AND SAFETY AND ATTRACT BICYCLISTS OF ALL AGES AND ABILITIES. (IMAGE CREDIT: CITY OF REDMOND)

Opportunities for Shifting Trips from Vehicles to Bicycles and Micromobility

Converting short motor vehicle trips of less than 2 miles to bicycling and micromobility offers a significant opportunity to reduce Vehicle Miles Traveled (VMT) and greenhouse gas (GHG) emissions.

In Redmond, areas with high numbers of short motor vehicle trips have been identified as key locations for targeted policies and infrastructure improvements that can encourage a shift from motor vehicle trips to more sustainable modes of transportation such as bicycling, micromobility, walking, and transit. As shown in Figure 3 the data suggests that Downtown Redmond, Overlake, and Southeast Redmond are the primary destinations for short motor vehicle trips under 2 miles. These areas, and routes connecting to these areas, are ripe for improved bicycle connections to facilitate access to the new light rail stations and other destinations and reduce reliance on motor vehicles.

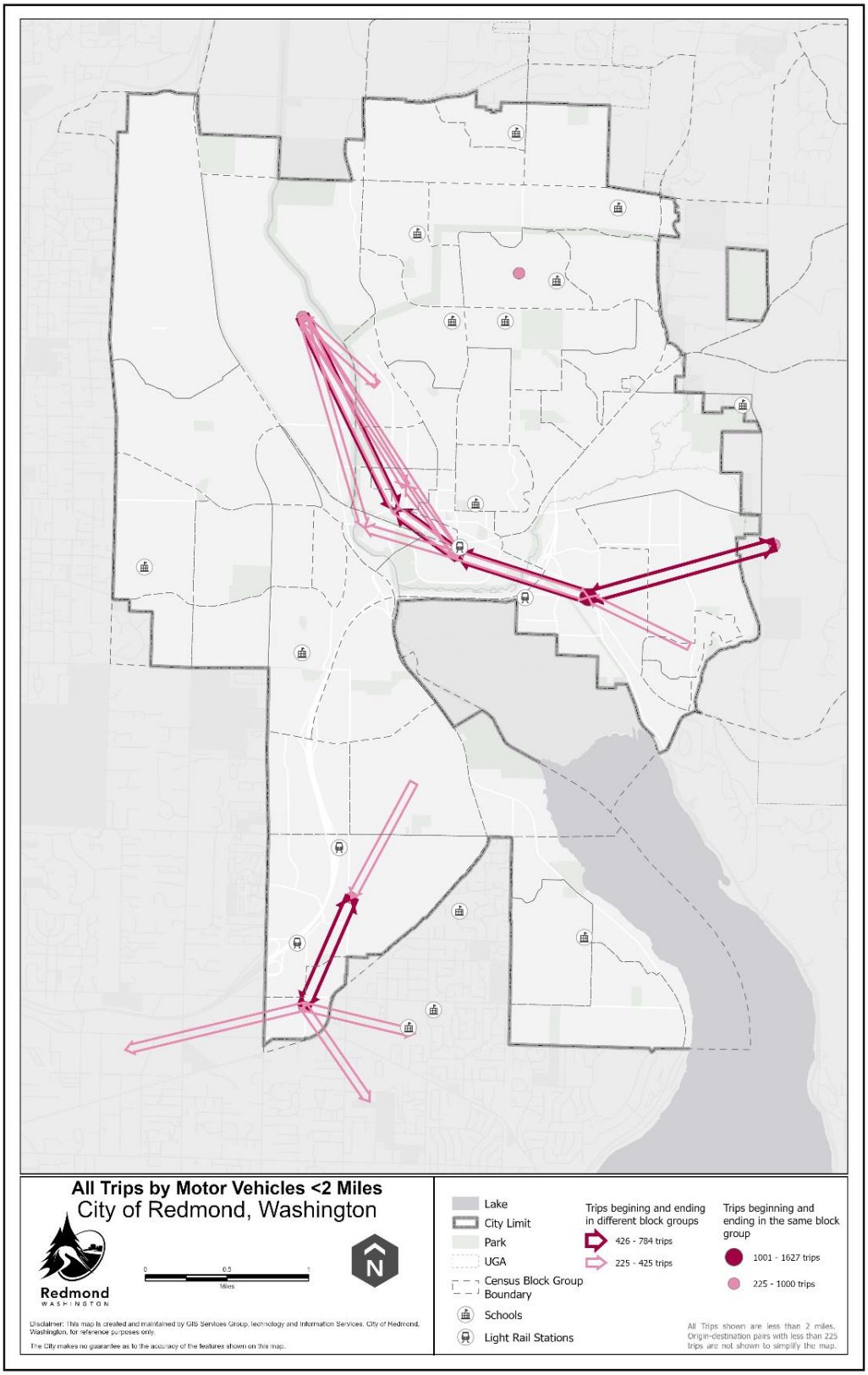

FIGURE 3:AREAS WHERE MOST TRIPS UNDER TWO MILES OCCUR IN REDMOND

Encouraging More People to Bicycle

When people are faced with the choice of whether to bike or take another mode of transportation for a trip, research suggests that there are several major categories of reasons that influence people's choice.[9] These reasons may include:

- Physical ability
- Seeing people biking
- Understanding benefits
- Automobile ownership
- Weather
- Topography
- Trip length
- Bicycle ownership or presence of bikeshare
- Traffic stress along the entire route
- Crashes
- Personal skill level
- Personal security
- Theft
- Access to transit

The relative weight between the above factors will vary by a person's individual needs and abilities. However, the aforementioned research indicates that the Interested but Concerned population (about half of all people) cite **traffic safety concerns as the main barrier to bicycling more**, and cite low-stress infrastructure (LTS 1 or 2) as the types of bikeways they feel comfortable using.[10] This indicates that to increase bicycle mode share among the largest group of potential bicyclists, people need access to safer, lower-stress bicycling facilities.

Peer City Focus:

Palo Alto, CA

The City of Palo Alto is similar to Redmond in terms of demographics, size and having an abundance of tech companies. Palo Alto is a Gold Bicycle Friendly Community and is currently updating its Bicycle and Pedestrian Transportation Plan (BPTP) to be completed in 2025.

Many of Palo Alto's proposed BPTP Update programs align with Redmond's TMP strategies and actions, including: developing a wayfinding plan, conducting an inventory of bike parking and monitoring bike parking usage, and implementing a proactive speed management program to lower speed limits and design speeds on streets within the city's bike network. Additionally, Palo Alto continues to focus on building high-comfort bikeways, especially as first/last mile connections to rapid transit at Caltrain stations. Palo Alto's Traffic Calming Program identifies speed management and multimodal safety measures that can be implemented quickly, and the City is prioritizing the addition of staff to this program who can focus on administering quick-build efforts.

The 2024 Bicycle Friendly Community Public Survey[11] asked respondents what their top priorities would be to make Redmond a better community for bicyclists. Three key themes emerged: providing

[9]Schneider, Robert J. "Theory of Routine Mode Choice Decisions: An Operational Framework to Increase Sustainable Transportation." *Transport Policy*, vol. 25, 2013, pp. 128–137., doi:10.1016/j.tranpol.2012.10.007.
[10] Sanders, Rebecca L., and Belinda Judelman. "Perceived Safety and Separated Bike Lanes in the Midwest: Results from a Roadway Design Survey in Michigan." Transportation Research Record: Journal of the Transportation Research Board, vol. 2672, no. 36, 2018, pp. 1–11., doi:10.1177/0361198118758395.

[11] League of American Bicyclists, 2024 Bicycle Friendly Community Public Survey

more bicycle lanes and bicycle paths, improving existing bicycle lanes to add protection for cyclists, and reducing vehicle speeds. Of the approximately 300 responses, 234 listed additional bike paths or bike lanes as a high priority, 179 listed improving existing bike lane protection, and 77 listed reducing vehicle speeds or providing traffic calming options. This data enforces that increasing bike lane milage and bike lane protection (e.g., making bike lanes more comfortable/less stressful) are high priorities for community members.

Strategic Approach to Increasing the Number of People Bicycling

Cities around the world have achieved their goals to increase the number of bicycling trips (i.e., mode shift) by applying focused strategies to improve bicycle network connectivity and comfort. While some of the examples that are show cased in this section may differ in size or urban form from Redmond, the commonality they all share is they have moved the needle in creating a more connected, high comfort bicycle network or have policies or programs that have increased bicycle ridership. These strategies can be wholly or partially applied in Redmond to significantly increase bicycle ridership.

Action 1: Convert Short Trips to Bicycle Trips

Focusing on providing bicycle infrastructure to serve trips under approximately 2 miles in length can maximize the mode shift return on investment. Short trips between 0.5 – 2 miles is a distance range where bicycling and micromobility can be the preferred mode of transportation, as they can be faster and more flexible than driving or using public transit and more time competitive than walking. Making biking (and micromobility) the most convenient choice for these short trips will encourage more people to bicycle and maximize the City's return on investment of bicycle infrastructure, reduce vehicle trips, and reduce GHG emissions. Complementary land use policies that support mixed use development and neighborhood siting of educational and care- facilities provides residents access to a variety of nearby destinations that are easier to get to by bicycle. Redmond 2050 embraces this "complete neighborhood concept" and
expands mixed-use development opportunities throughout the city.

Recommended Actions

- 1A: Prioritize bike infrastructure investments in areas where most short trips are occurring (Downtown Redmond, Overlake, and Southeast Redmond)
- 1B: Implement Redmond 2050 land use policies that reduce distances between residences and destinations that serve people's every day needs and support:
  - » Higher residential densities
  - » Transit-oriented development
  - » Mixed-use development
  - » Reduced parking requirements

Short Trip Focus

Austin's 2014 and 2023 Bicycle Plans focused on expanding bicycle facilities on routes with high concentrations of short trips in central Austin as well as to destinations such as schools, parks, business, and shopping districts in neighborhoods throughout the city. Protected bicycle lanes to transit stations and secure bicycle parking at these stations support linking shorter bicycle trips with longer trips on transit. Separated bicycle facilities, urban trails, and "quiet streets" with traffic calming devices for motor vehicles and wayfinding signage for bicyclists are key features of Austin's bicycle infrastructure.

- 1C: Support Transportation Demand Management (See Chapter X) and Safe Routes to Schools programs that encourage bicycling and walking, and reduce traffic volumes around schools.[12]

Bicyclist Safety

Building safe bicycle infrastructure and reducing vehicles speeds are the most effective strategies for making bicycling a safe mode of transportation. Good bikeway design and slower vehicle speeds promote safe interactions between bicyclists, micromobility users, pedestrians, and vehicles. Education does have a role to play in bicycle safety and should be focused on basic bicycle handling skills, understanding laws, and familiarizing people with new bicycle infrastructure such as bicycle signals, bike boxes, separated bike lanes, etc. Chapter X – Transportation Demand Management includes actions that address bicycle safety education (also as means of encouraging bicycling) and the Safer Streets Action Plan also includes an action focused bicycle safety.

[12] "City of Austin Bicycle Plan." 2023. https://www.austintexas.gov/sites/default/files/files/Transportation/Adopted%202023%20Bicycle%20Plan_FULL.pdf.

FIGURE 4: BICYCLING AND MICROMOBILITY ARE EASY AND FLEXIBLE WAYS TO ACCESS THE SERVICES AND AMENITIES OFFERED BY MIXED USE DEVELOPMENT (IMAGE CREDIT: CITY OF REDMOND)

Action 2: Connect to Light Rail and Bus

Creating low-stress bikeway connections to bus stops and light rail stations is an impactful "first-last mile" strategy to increase access to transit for both local and regional trips.

The new Overlake Village, Redmond Technology, Downtown Redmond, and Marymoor Village light rail stations are fantastic opportunities to connect bicycling with transit. Projected ridership of the East Link extension is 43,000-52,000 daily riders by 2026[13]. Building bicycle facilities that connect with these stations will expand the catchment area of the stations, help form new habits for light rail passengers to reach the station by bicycle and help grow transit ridership. Bicycle facilities that connect stations to destinations such as grocery stores, daycare centers, and schools will allow for trip chaining *en route* between transit and residences. These facilities are prioritized for implementation as described later in this chapter.

All Sound Transit and King County Metro buses have bicycle racks on which riders connecting by bicycle can place their bikes to have them transported to their destination. Ensuring that bus stops are accessible by the low-stress bikeway network can encourage bike to bus and bus to bike trips, particularly for more regional bus trips.

Recommended Actions

- 2A: Prioritize high-comfort bicycle facilities that connect to light rail and bus stops.
- 2B: Provide sufficient secure bicycle parking at transit centers and mobility hubs (see Transit Chapter).
- 2C: Ensure consistent availability of bike/scooter share at Transit Centers.

Bike to Rail

Integrating bicycles with transit expands the catchment area of stations from the typical ½ mile walking radius to 2-5 miles, a strategy successfully implemented in countries like the Netherlands where approximately 25-30% of urban bicycle trips are made to or from train stations, supported by a dense rail network and high-quality bicycle infrastructure. Extensive secure bicycle parking is offered at stations. This multimodal approach helps improve accessibility and convenience for all transit users.

In the United States, many cities' planned bicycle networks prioritize bikeway connections and wayfinding to transit hubs. Regional examples include the cities of Shoreline, Seattle, and Federal Way.

[13] "Downtown Redmond Link Extension | Project Map and Summary | Sound Transit." Www.soundtransit.org, www.soundtransit.org/system-expansion/downtown-redmond-link-extension.
Kager, Roland. 2022. Review of The Bike+Train Land-Use/Transportation System. Presented at the Planning the Cycling City Summer Course, July 2022.
"Renting the OV-Fiets | Door to Door | NS." n.d. Dutch Railways. https://www.ns.nl/en/door-to-door/ov-fiets.

FIGURE 5: THE NEW REDMOND TECHNOLOGY STATION BRIDGE CONNECTS BIKEWAYS, TRANSIT, AND EMPLOYMENT CENTERS (IMAGE CREDIT: CITY OF REDMOND)

Action 3: Promote E-Bikes and E-Scooters

The growing popularity of electric bikes (e-bikes) can be attributed to their ability to overcome challenging terrain and cover longer distances, making them a viable alternative to motor vehicles. The City of Redmond currently has a contract with a vendor that provides e-scooters and e-bikes for rent throughout the city. This service has proven to be very popular, with over 282,000 rides completed since the pilot program began in 2019. The median distance per trip has increased from 0.5 miles in 2020 to 0.9 miles in 2024, proving that Redmond's Shared Micromobility program is a viable first-last mile transportation mode.

Personal e-bike ownership is rapidly growing in the US and is expected to grow more than 15 percent annually between 2023 and 2030.[14] The rate of e-bike adoption (and its impact on greenhouse gas emissions and vehicle miles traveled) depends on the cost of e-bikes, individual choices, and the provision of infrastructure that is safe and comfortable for e-bike users.

An e-bike lending libraries is a strategy Redmond should explore to provide opportunities for more people to see what it is like to ride an e-bike. Such libraries lend e-bikes for an extended period of time (typically 1 to 3 months) so people can experience an e-bike and have time to use it for a variety of trip purposes to discover how they can effectively integrate an e-bike into their daily travel demands.

E-Bike Incentives

Denver has gained recognition for its successful e-bike incentives. The city launched an e-bike voucher program in April 2022, offering $400 vouchers for all residents and up to $1,200 for income-qualified individuals, with additional funds for e-cargo bikes. Since its launch, Denver has invested $4.7 million, providing vouchers to 4,734 residents.

A survey of recipients suggested notable changes in transportation habits, with participants riding an average of 26 miles per week and replacing 3.4 vehicle trips, collectively reducing vehicle miles traveled by 100,000 miles per week. Lower-income recipients were particularly active, averaging 32 miles per week.

Washington State DOT is launching its own e-bike rebate program in 2025. This program will offer qualifying applicants rebates for either $1,200 or $300 depending on household income. They expect to give out about 8,500 vouchers, an amount far less than expected demand.

[14] U.S. E-bike Market Size, Share & Trends Analysis Report By Propulsion Type, By Drive Type, By Application, By Battery, By End-use (Personal, Commercial), And Segment Forecasts, 2023 - 2030

Another way the City of Redmond can influence e-bike adoption is to provide financial incentives for people to purchase e-bikes. The Rocky Mountain Institute (RMI) developed a calculator that allows users to explore the potential benefits of e-bike incentives of various funding amounts and time horizons. The table below illustrates potential incentive scenarios and anticipated outcomes in terms of reductions in vehicle miles traveled and greenhouse gas emissions.

The RMI calculator estimates that replacing 25% of weekly car trips under 3 miles and 10% of trips under 5 miles with e-bikes over the next 10 years could reduce CO2 emissions and vehicle miles traveled (VMT) by 17% in Redmond. This tool can help Redmond assess the potential impact of various e-bike incentive programs. For example, with an annual $150,000 incentive over 10 years, annual citywide GHG reduction equates to approximately 3%. When annual incentives increase to $500,000 and $1,000,000 over 10 years, GHG reduction increases to 9% and 17%, respectively. More details are included in the appendix of the report.

Recommended Actions

- 3A: Support the establishment of e-bike lending libraries.
- 3B: Offer financial incentives for e-bike purchase at time of purchase.[15]
  - » Prioritize extensive and early outreach about e-bike incentive programs among lower income populations.
  - » Keep the e-bike incentive program application process simple and easy.
  - » Leverage relationships with local bike shops to support e-bike incentive program rollout and promote local purchase of e-bikes.
  - » Make a plan for how to collect data from individuals once they have purchased the e-bike[16]
- 3C: Develop safety and etiquette campaign that targets e-bike users. Bicycle safety education is discussed more in Chapter X – Transportation Demand Management and the Safer Streets Action Plan.

15 If e-cargo bikes receive a different level of incentive, try to make the definition of e-cargo bike as objective as possible.

16 City and County of Denver et al. Review of Denver's 2022 Ebike Incentive Program Results and Recommendations.

FIGURE 6: SHARED E-SCOOTERS AND E-BIKES ARE INCREASINGLY POPULAR IN REDMOND (IMAGE CREDIT: CITY OF REDMOND)

Action 4: Implement a High Comfort, Spine Network

The Spine Network (Figure 14) provides the primary, most direct connections between all of Redmond's neighborhoods and one or more Urban Centers. It is envisioned to be comprised of high comfort bikeways (level of traffic stress 1 and 2), including trails such as the Redmond Central Connector, Sammamish River Trail, and East Lake Sammamish Trail, separated bike lanes such as 156th Ave NE and Bel Red Rd, and bicycle boulevards such as 152nd Ave NE in the Grass Lawn neighborhood.

Implementation of the Spine Network is a high priority as these routes are expected to have the highest return on investment in terms of ridership given their directness to the major destinations people want to connect to. Some corridors on the Spine Network will take longer to implement due to costs while other segments can be more rapidly implemented using low-cost, "quick-build" materials. See Bicycle Network Strategy below.

Bicycle wayfinding and enhanced lighting along bikeways and shared use paths are investments that can increase the appeal of biking. Wayfinding signage helps direct bicyclists to key destinations. Good lighting and visibility at bicycle parking areas, on shared use trails, and at intersections will help enhance safety, personal security, and comfort.

Recommended Actions

- 4A: Complete "Spine Network" to include 100% high comfort bicycle facilities by 2035.
- 4B: Install wayfinding, lighting, and other features such as lean bars, bicycle near-side signals to enhance safety and comfort on the Spine Network.
- 4C: Install traffic diverters and traffic calming interventions on bike boulevards to complete local neighborhood network.
- 4D: Craft tailored messaging with compelling case studies and data to support bike network build out, especially when tradeoffs might be involved.[17]

Quick Build, Funding, and Communication

Jersey City, New Jersey, successfully implemented 10 miles of protected bike lanes in one year using quick-build materials, completing about a quarter of its planned bike network. Seattle used similar techniques for a rapid roll out of separated bike lanes on 2nd and 4th Avenues, with 4th Avenue recently receiving a permanent upgrade.

In 2020, the Cambridge, MA City Council amended its Cycling Safety Ordinance, setting ambitious requirements for 25 miles of separated bike lanes within seven years. Using a "quick build" approach with lightweight materials like flex posts and on-street parking lanes, the City rapidly installed 14.22 miles of separated lanes in four years.

In addition to infrastructure funding, coalition building, and targeted messaging are key to gaining community support for more rapid bike network expansion. The People for Bikes "Final Mile" program illustrates this point.

[17] "The Final Mile." 2022. Peopleforbikes.org. 2022. https://finalmile.peopleforbikes.org/.

- 4E: Deploy quick build and pilot projects.[18]
- 4F: Evaluate quick build and pilot projects, iterate designs as needed.
- 4G: Develop effective maintenance strategies for all bikeways (See Chapter X-Maintenance and Preservation).
- 4H: Update quick build and pilot projects with more durable, permanent infrastructure.
- 1I: Update the Bicycle Wayfinding Design Manual (2015) to align with current best practices and design standards.

[18] Streetfilms®. 2019. "Jersey City Uses Surveys, Rides & Tactical Urbanism to Generate a Bike Master Plan." YouTube. August 15, 2019. https://www.youtube.com/watch?v=G3I1_ud5c94.

FIGURE 7: QUICK BUILD MATERIALS SUCH AS THESE "ARMADILLOS" ON THE 150TH AVE NE BIKE LANE CAN BE USED TO ROLL OUT NEW HIGHER COMFORT BIKEWAYS MORE RAPIDLY (IMAGE CREDIT: CITY OF REDMOND)

Action 5: Implement the Neighborhood Bikeway Network

The Neighborhood Bikeway Network provides local connections between neighborhood destinations such as schools and parks, connects people to the Bicycle Spine Network and provides first-last mile connections to transit. The Neighborhood Bikeway Network is comprised primarily of bike boulevards, bike lanes, and short off-street paved pathway connections. Low vehicle speeds

achieved through traffic calming, wayfinding signage to help people navigate the network, and safe crossings of major streets are important components of the Neighborhood Bikeway Network. Infrastructure investments for the Neighborhood Bikeway Network include traffic calming, signage, pavement markings, and in some cases may require enhanced crossing treatments such as signals, crossing islands, etc. at major street crossings.

FIGURE 8: PATHWAYS SUCH AS THIS ONE CONNECTING TO 161ST COURT NE ENHANCE THE NEIGHBORHOOD BIKEWAY AND PEDESTRIAN NETWORKS BY PROVIDING MORE DIRECT ROUTING AND ACCESS TO SCHOOLS AND OTHER NEIGHBORHOOD DESTINATIONS.

Action 6: Balance Modes

Fulfilling Redmond 2050 goals and policies, and shifting trips from motor vehicles to bicycles requires making bicycling a competitive choice for travel in Redmond. Achieving this requires taking actions to rebalance Redmond's transportation system to strive for modal parity i.e., how Redmond allocates its public right of way and financial investments. It is important to consider how the entire population's

transportation needs are being served, especially those unable to drive and those who choose not to (potentially up to 25 percent of the driving age population[19]).

Balancing modes requires various actions that may reduce the convenience of driving, such as reducing motor vehicle speeds or space allocated to vehicle traffic or parking to create safer and more comfortable conditions for bicycling, as well as enacting various policies to discourage driving, especially for short trips (reducing car parking availability, charging more for parking, etc.).[20],[21]

Recommended Actions

- 6A: Implement traffic calming and traffic diversion measures to create higher comfort conditions for bicyclists of all ages and abilities.
- 6B: Establish parity in transportation funding and street space allocation to achieve mode shift and equity goals. For example, if the goal is to achieve 15 percent bicycle mode share, it would be reasonable to spend at least 15 percent of transportation funding on building a high comfort bike network.
- 6C: Within constrained corridors evaluate the expected costs and benefits of removing vehicle lanes to create space for high comfort bikeways, taking into account safety, vehicle congestion, VMT and GHG reduction.
- 5D: Prioritize high comfort bicycle access over on-street parking (see Chapter X – Curbspace Management).

Action 7: Provide Convenient, Plentiful, and Secure Bike Parking

The bicycle can be a door-to-door travel mode if bicycle parking is sufficient for both short- and long-term needs at neighborhood commercial centers, grocery stores, schools, transit facilities, and multi-family housing. Bike parking should be ubiquitous, easy to use, and free or very low-cost.

Changing Priorities

Portland, Oregon expanded its bike network in the 1990s by leveraging traffic calming and diversion in residential areas, creating a network of 100 miles of neighborhood greenways that are considered the "backbone of the city's Safe Routes to School network" and connect neighborhoods, parks, schools, business districts, and residences.

In addition to its neighborhood greenway program, Portland has a long history of supporting multimodal trips to its downtown central business district when it began limiting motor vehicle parking availability in the 1970s to address air quality issues. From 1975 to 1997, Portland maintained a cap on the total number of parking spaces allowed Downtown, even as the metro area's population increased by 50%.

[19] Nondrivers: Population, Demographics & Analysis, Final Report, January 31st, 2023. nondriversstudyfinalreportsummaryreport.pdf

[20] https://www.portland.gov/Transportation/What-Are-Neighborhood-Greenways.

[21] JAQUISS, NIGEL . 2003. "Lots of Trouble the Turf War over Portland's Parking Spaces Heats Up." Willamette Weekly. June 3, 2003. https://www.wweek.com/portland/article-2124-lots-of-trouble.html#:~:text=From%201975%20until%201997%2C%20Portland,the%20cap%20was%20a%20boon

Recommended Actions

- 7A: Conduct inventory of existing public bike parking and update inventory as new bike parking is installed.
- 7B: Explore partnerships to establish an on-demand secure bike parking system throughout the city with initial focus within Urban Centers.
- 7C: Incentivize existing multi-family housing to retrofit property to include secure bicycle parking inside property or contribute to other secure, sheltered parking facilities in the public right of way adjacent to the property.
- 7D: Retrofit existing public facilities such as parks and schools to provide secure and easy to access bicycle parking.
- 7E: Collaborate with Sound Transit to ensure sufficient secure bicycle parking is provided at light rail stations as bicycle use grows.
- 7F: Create a city program for short-term bicycle parking, for example, providing businesses and organizations bike racks within the adjacent public right-of-way upon request, which could include conversion of an on-street parking spot(s) to a bicycle parking corral where multiple bicycles can be parked[22], [23]

Retrofitting Bike Parking

Portland's Bureau of Transportation (PBOT) offers a bike parking program in commercial districts, allowing property owners to request up to two free bike racks for installation on the sidewalk in front of the property, with additional racks available for $150 each. PBOT also has a program that converts on-street parking spots into bike corrals (groups of 6-12 racks), which can accommodate 12-24 bikes in the space of one or two parking spots. These corrals are prioritized at street corners to increase parking, improve pedestrian crossings, and boost business visibility.

22 22 "Apply to Install Bike Racks on the Sidewalk." 2018. Portland.gov. 2018. https://www.portland.gov/transportation/walking-biking-transit-safety/apply-install-bike-racks-sidewalk.

22 "Apply to Install Bike Racks in the Street." 2024. Portland.gov. 2024. https://www.portland.gov/transportation/walking-biking-transit-safety/apply-install-bike-racks-street.

23 "Bicycle Parking | Ddot." 2022. Dc.gov. 2022. https://ddot.dc.gov/page/bicycle-parking.

FIGURE 9: SECURE BIKE PARKING CONVENIENTLY LOCATED IN THE STREET ENCOURAGES PEOPLE TO USE BICYCLES FOR RUNNING ERRANDS AND ACCESSING SERVICES. (IMAGE CREDIT: CYCLE HOOP)

Bicycle Network Strategy

The bicycle network strategy includes planned new connections and upgrades to existing bikeways to create higher comfort bikeways. The network builds upon the existing bikeways in Redmond and past planning efforts, with the ultimate goal of people of all ages and abilities being able to get from anywhere to everywhere by bike or other micromobility devices. The build out of the Spine Network and a local neighborhood network will support this goal. The prioritized implementation of the bicycle network will maximize the opportunity to convert short driving trips to biking. The bicycle network also includes connections to surrounding communities such as Bellevue, Kirkland, Sammamish, and Woodinville and their bikeways.

The planned bicycle network is grounded in the following principles:

- Connected: It is possible to get from anywhere to everywhere by bicycle. Emphasis is placed on creating a Spine Network and connecting people to light rail, schools, major employment centers, and commercial centers.
- Direct: Going by bicycle offers the most direct route to important destinations.
- Cohesive: Similar designs provide consistency, so bicyclists, pedestrians, and motorists know what to expect when they encounter a bicycle facility.[24]
- Safe and Comfortable: On streets with high motor vehicle traffic volumes and speeds, high comfort, separated bicycle lanes or shared use paths are provided. Protected intersections and other treatments provide safer continuity for bicycle facilities at intersections. Bicycle boulevards provide further comfort on streets with lower traffic volumes and speeds.
- Multimodal: Bicycling is the preferred mode to reach light rail stations and bus stops for trips 0.5 – 3.0 miles in length, with high comfort bicycle facilities provided to all existing and future light rail stations and other mobility hubs. Bicycle racks on buses support connections to transit in areas not connected by light rail.

The Bicycle Spine Network

Figure 14 below shows the foundation of Redmond's planned network of bikeways, a Bicycle Spine Network, which includes key links providing connectivity from and within each of Redmond's neighborhoods to key destinations and activity centers. The Spine Network will consist of high comfort (LTS 1 or LTS 2) bicycle facilities—primarily shared-use pathways, separated bike lanes, and bicycle boulevards. The City of Redmond's goal is to complete the Spine Network by 2035, recognizing that some corridors that have significant physical or environmental constraints and high costs could take longer to implement.

The Neighborhood Bikeway Network

This network will connect people's homes to neighborhood schools, parks, the Bicycle Spine Network, and serve as first-last mile connections to bus routes. It will focus on traffic calming and be comprised primarily of bike boulevards, bike lanes, and short off-street paved pathway connections.

[24] The 2023 updated Bicycle Facility Design Manual will support consistency in the design and construction of future bicycle facilities in Redmond.

Bikeway Types

Figure 15 later in this chapter shows the planned bicycle network, identifying existing bikeways and planned bikeways by bikeway type (e.g., separated bike lane, shared use path, etc.). These bikeway types, their design parameters, and compatibility with various contexts and conditions are explained in the Bicycle Facility Design Manual (2023). Figure 10, Figure 11, Figure 12, and Figure 13 illustrate some examples of existing high comfort bikeways in Redmond.

FIGURE 10: SEPARATED BIKE LANE ON 152ND AVENUE NE (IMAGE CREDIT: CITY OF REDMOND)

FIGURE 11: TRAFFIC CALMED BICYCLE BOULEVARDS SUCH AS THIS ONE ON 152ND AVENUE NE IN REDMOND PROVIDE IMPORTANT CONNECTIONS BETWEEN HOMES AND NEIGHBORHOOD DESTINATIONS LIKE SCHOOLS AND PARKS (IMAGE CREDIT: TOOLE DESIGN)

FIGURE 12: REDMOND'S SHARED USE PATHS (REDMOND CENTRAL CONNECTOR TRAIL SHOWN HERE) ARE POPULAR TRANSPORTATION AND RECREATIONAL FACILITIES (IMAGE CREDIT: CITY OF REDMOND)

FIGURE 13: WAYFINDING SIGNAGE HELPS BICYCLISTS NAVIGATE THE NETWORK AND CONNECT TO THEIR FINAL DESTINATION. (IMAGE CREDIT: CITY OF REDMOND)

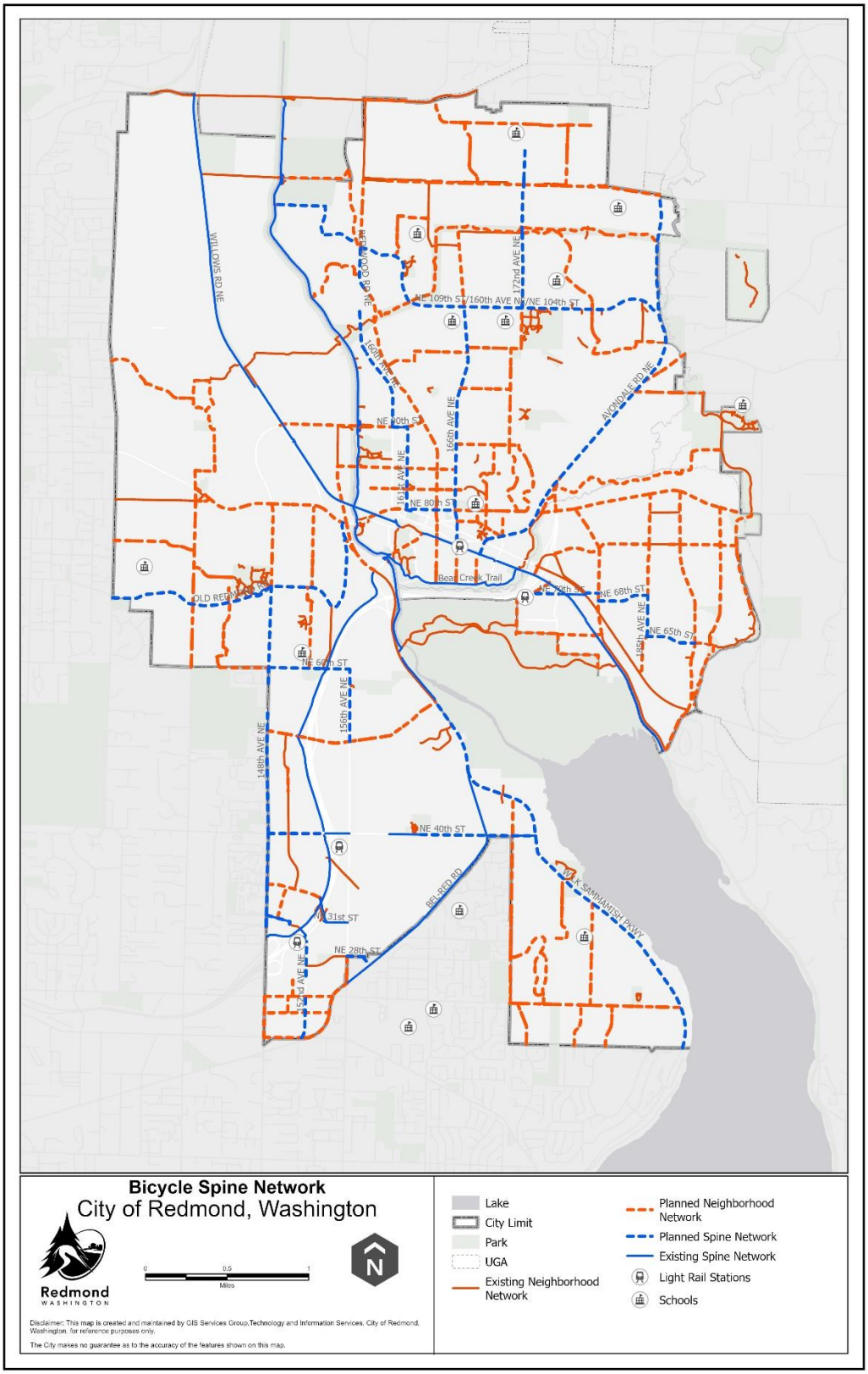

FIGURE 14:SPINE NETWORK

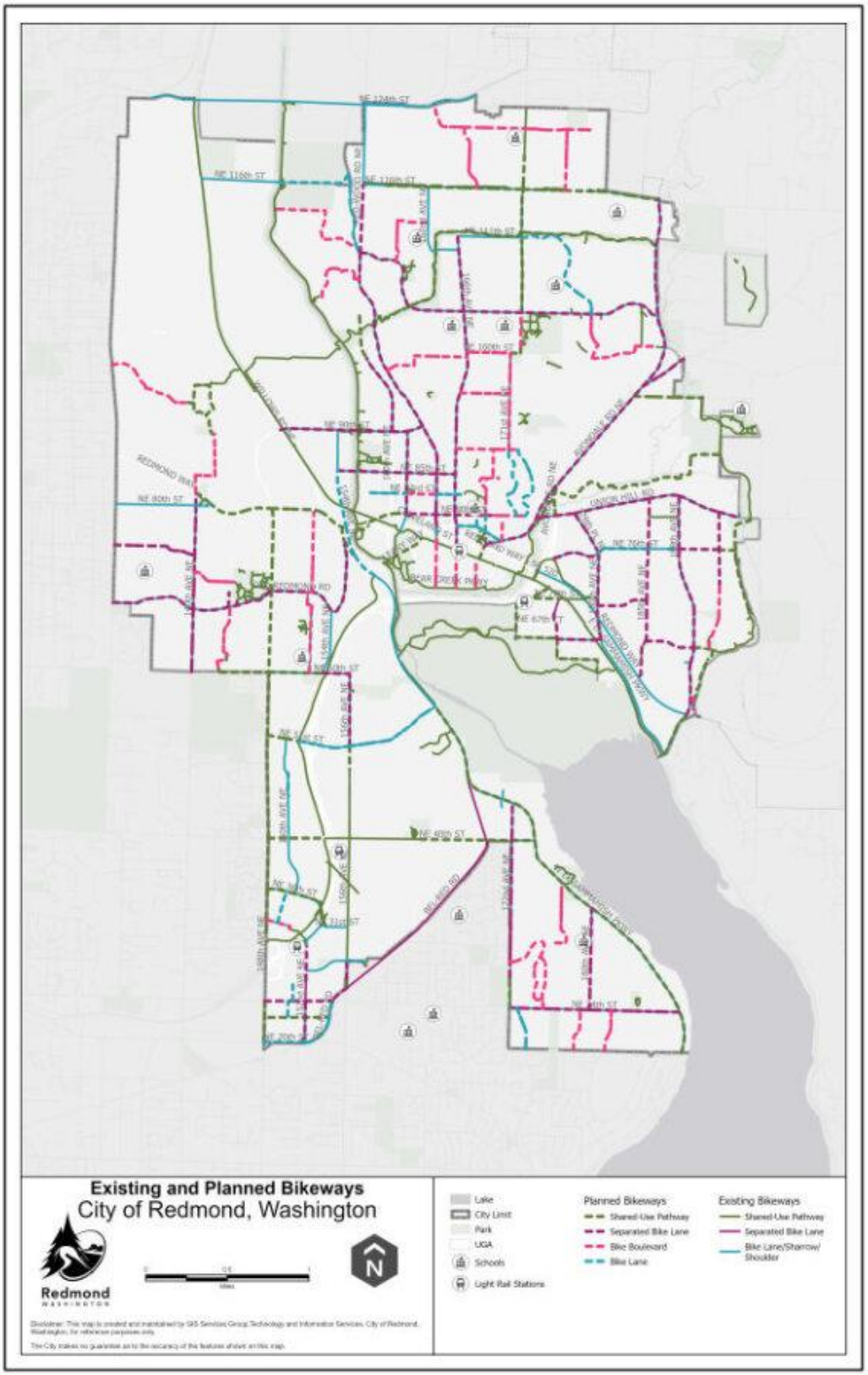

FIGURE 15: EXISTING AND PLANNED BICYCLE FACILITIES

Implementation

The City of Redmond will focus on implementing the Spine Network and other high priority projects identified in Figure 16 below. However, the City will also consider other factors when deciding what to build each year, such as the feasibility and cost of each project; opportunities to "piggyback" on other capital projects (e.g., stormwater); and time needed to plan, apply for grant funding, and conduct engineering and design.

Near-term vs. Long-term Implementation

To maximize bicycle and micromobility ridership the City of Redmond needs to implement a connected network of low-stress bikeways that connect people to destinations and allow them to meet their everyday needs, including schools, transit, parks, shopping, and services. Communities that have had the most success in significantly increasing the number of people bicycling have strategically invested in building out their bike networks and doing so quickly. Often these cities have relied on so called rapid implementation with a focus on using lower- cost quick build materials. While some critical connections in the planned bicycle network can be accomplished in the near-term (0-5 years) using rapid implementation methods, others will be longer-term (5-10 years or more) due to physical or environmental constraints and associated high costs.

Implementation Through Capital Projects

Typically, bikeway projects such as separated bike lanes, shared use paths, and bicycle boulevards are implemented through the City's capital improvement program, which dedicates City funds to implement capital projects (i.e., major infrastructure projects). These types of projects tend to have longer implementation timeframes as it may take time to allocate sufficient City funds to cover the total project costs given many other competing capital project funding needs and/or secure grant funding. Examples of bikeways that have been implemented in this way include the Bel-Red buffered bike lanes and Redmond Central Connector Trail.

Implementation Through Development

Redmond has been fortunate to have had a high level of commercial and residential development. Any development must pay transportation impact fees and may also be required to build infrastructure that has been identified in the City's Transportation Facilities Plan or determined to be necessary to mitigate impacts to the transportation system. The implementation timeline for these projects tends to be longer as it depends on new development occurring and often new development projects can take several years to construct from the time of initial application. Several key segments of Redmond's Bicycle Spine Network have been built by development, including shared use paths on NE 40th St and 156th Ave NE and separated bike lanes on 152nd Ave NE. As Redmond continues to grow there will be more opportunities to leverage this growth to build the planned bikeway network.

Rapid Implementation

More rapid implementation of bikeways is possible, in some cases. Such projects use lower cost quick build materials (e.g., flexible posts, c-curb) to separate bicyclists from motor vehicles. Projects that do not require modifications to other infrastructure such as traffic signals, drainage, etc., and that can be designed and implemented by City staff are typically the best candidates for rapid implementation. Many parts of the Neighborhood Bikeway Network are good candidates for more rapid implementation, however it is necessary to prioritize these connections given the extensiveness of the network and budget limitations. The City will look for these rapid implementation opportunities to close priority gaps in the bikeway network in the nearer-term until funding can be secured for longer-term, more permanent solutions.

Prioritization Framework

Planned bicycle facilities have been prioritized using a framework that reflects the goals and strategies outlined earlier in this chapter. Specifically, the following metrics were used to prioritize segments of the bicycle network for implementation:

- Safety: Locations with high density of fatal and serious injury (FSI) crashes received higher priority
- Equity: This metric prioritized projects that would serve people with greater needs for active transportation, based on the City of Redmond's Equity Analysis tool
- Proximity to key destinations (transit, schools, daycare centers, parks, and grocery stores): Prioritizes projects close to clusters of pedestrian and bicycle activity centers
- Comfort: Facilities designed to serve All Ages and Abilities provide a higher level of comfort and may attract more users. On steep streets, providing higher comfort is even more important to serve all users.
- Route Connectivity: Connection to one or more existing bikeways or modal corridors serves to extend the bike network and increase the ability for people to use the network to access destinations.
- Topography: Factors hilly routes into the prioritization of bicycle facility projects
- Spine Network: Projects along the Spine Network receive additional priority
- Short trip density areas: Locations where the highest density of short trips occur have the greatest potential for mode shift to reduce VMT and GHG emissions. Facilities in hilly areas with high short trip density may receive higher priority because if an area is flat, we may see more trip conversion from vehicle to bikes.

Table 1 below provides a summary of the planned bicycle facility mileage by bikeway type and priority level. The planned bikeway network includes 72.8 miles total of planned bikeways, including 22.4 miles of shared-use pathways and 29.3 miles of separated bike lanes. The planned Spine Network includes 24.7 miles of bikeways.

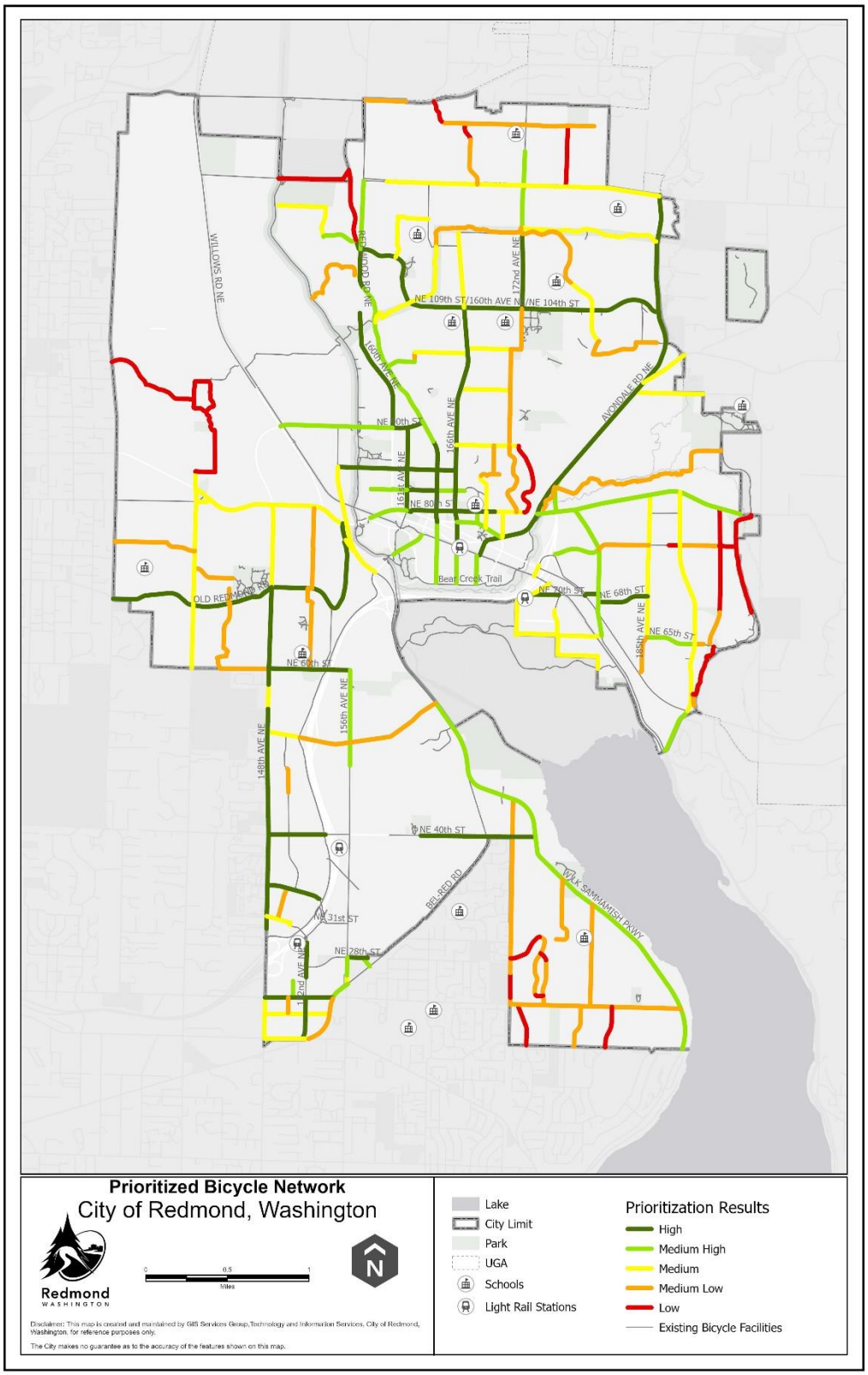

FIGURE 16: PRIORITIZED BICYCLE NETWORK

TABLE 1: PLANNED BICYCLE NETWORK MILEAGE BY BIKEWAY TYPE AND PRIORITY LEVEL

Priority Level → **Bikeway Type** ↓	High No. Miles	Medium High No. Miles	Medium No. Miles	Medium Low No. Miles	Low No. Miles	Total No. Miles by **Bikeway** Type
Shared-Use Pathway	8.3	1.8	7.6	3.2	1.6	**22.4**
Separated Bike Lane	15.9	4.7	4.7	3.6	0.4	**29.3**
Bicycle Boulevard	0.2	1.1	3.2	6.8	1.9	**13.3**
Bike Lane	0.6	0.6	1.4	3.3	1.7	**7.5**
Total No. Miles by Priority	**24.9**	**8.1**	**17.2**	**16.9**	**5.6**	**72.8** Total Miles Planned Bikeways
Spine Network	21.9	1.7	1.0	0.0	0.0	**24.7** Total Miles Spine Network

Spine Network

The Spine Network consists of separated bike lanes, shared use paths, and bicycle boulevards on low-speed, low-volume neighborhood streets. Table 2 below summarizes the remaining segments of the Spine Network and the anticipated timeframe (Near-term, or 0-5 years and Long-term, or 5-10 years) for their implementation. Some segments with near-term implementation timeframes may be good candidates for more rapid implementation (0 – 2 years), which will be determined by staff capacity, street work capabilities, and whether or not there are major costs items related to drainage, signals, etc.

TABLE 2: SPINE NETWORK IMPLEMENTATION TIMEFRAME

Street Name	**From**	**To**	**Planned Bikeway**	**Status**	**Timeframe**
148th AVE NE	Old Redmond Rd	NE 60th ST	Shared-Use Path	Planned	5-10 years
148th AVE NE	NE 51st ST	NE 40th ST	Shared-Use Path	Planned	5-10 years
148th AVE NE	NE 40th ST	NE 31st ST	Shared-Use Path	Planned	0-5 years
152nd AVE NE	NE Hopper Wy	Da Vinci NE	Separated Bike Lane	Planned	0-5 years
160th AVE NE	NE 90th St	Road End	Separated Bike Lane	Planned	0-5 years
161st AVE NE	NE 90th ST	Redmond Way	Separated Bike Lane	Planned	0-5 years

NE 28th Ave NE	156th Ave NE	Shared-Use Path between Bel-Red Road and NE 28th St	Bike Lane	Planned	0-5 years
NE 36th ST	148th AVE NE	SR 520	Shared-Use Path	Planned	0-5 years
NE 60th St	154th Ave NE	156th Ave NE	Shared-Use Path	Planned	0-5 years
OLD REDMOND RD	W Lake Sammamish Pkwy NE	132nd AVE NE	Separated Bike Lane	Planned	0-5 years
W LK SAMMAMISH PKWY	Bel-Red RD	NE 51st ST	Shared-Use Path	Planned	0-5 years
152nd AVE NE	NE 20th ST	NE 24th ST	Separated Bike Lane	Planned	5-10 years
160th AVE NE	Road End	NE 102nd Way	Shared-Use Path	Planned	5-10 years
166th AVE NE	Cleveland ST	NE 91st ST	Separated Bike Lane	Planned	5-10 years
166th AVE NE	NE 104th ST	NE 111th ST	Separated Bike Lane	Planned	5-10 years
AVONDALE RD NE	Redmond Way	NE Novelty Hill RD	Separated Bike Lane	Planned	5-10 years
AVONDALE RD NE	NE Novelty Hill RD	NE 116th St	Separated Bike Lane	Planned	5-10 years
NE 109th ST/160th AVE NE/NE 104th ST	Red-Wood Rd NE	Avondale RD NE	Separated Bike Lane	Planned	5-10 years
NE 40th ST	148th AVE NE	SR 520	Shared-Use Path	Planned	5-10 years
W LK SAMMAMISH PKWY	Southern City Limit	Bel-Red	Shared-Use Path	Planned	5-10 years
NE 40th ST	163rd AVe NE	172nd Ave	Shared-Use Path	Constructed by 2028	0-5 years
NE 85th ST	166th Ave NE	Sammamish River Trail	Separated Bike Lane	Constructed by 2027	0-5 years
NE 70th ST to 180th AVE NE Connector	Redmond Way	180th Ave NE	Shared-Use Path	Constructed by 2026	0-5 years
148th AVE NE	NE 40th ST	NE 36th ST	Shared-Use Path	Design	5-10 years
148th AVE NE	NE 36th ST	NE 31st ST	Shared-Use Path	Design	5-10 years
NE 90th ST	160th Ave NE	161st Ave NE	Separated Bike Lane	Planned	5-10 years
RED-WOOD RD NE	NE 106th ST	NE 109th ST	Separated Bike Lane	Planned	5-10 years

Related Plans, Policies, and Programs

The Bicycle Network implementation is supported by several complementary plans, policies, and programs, including:

- Bicycle Facility Design Manual (2023): The recently updated manual provides design guidance for bikeways to ensure consistent design of new bikeways in Redmond. Notably, the design user for the Manual is the "Interested but Concerned" bicyclist, someone who is not comfortable with bike lanes and

may bike on sidewalks if bike lanes are provided. These bicyclists prefer LTS 1 or 2, off-street or separate bikeways or quiet traffic-calmed residential streets.

- City of Redmond Municipal Code: 12.06 Complete the Streets: Code requiring all transportation projects to provide appropriate accommodation for persons of all ages and all abilities, including bicyclists, pedestrians, transit users, as well as automobiles, freight and buses, in comprehensive and connected networks defined in the City's Transportation Master Plan.
- City of Redmond Municipal Code: 21.52.010 Transportation Concurrency: All proposed new developments are required to analyze its impacts to the transportation system. If the new development is located in an area identified in the Transportation Facilities Plan for an improvement, such as a planned bikeway or sidewalk, the developer would be required to incorporate this as part of the project or pay impact fees to the City for its implementation. Many of Redmond's existing bikeways have been constructed as part of new development through the Transportation Concurrency program.
- City of Redmond Municipal Code: 21.52.020 Mobility Management Program: Requires building owners to implement a mobility management program to reduce the level of traffic generation during the a.m. and p.m. peak hours. Requires all development applications that warrant transportation mitigation to comply with this code's requirements.
- City of Redmond Municipal Code 21.40.020 Bicycle Parking Requirements and Standards: Purpose is to (1) Promote bicycling as an important and integral mode of transportation which enables healthy lifestyles, is affordable, and reduces greenhouse gas emissions; (2) Provide requirements and standards efficient and safe bicycling parking meeting the parking needs of specific uses; and (3) Provide the necessary bicycle parking facilities for a bicycle-friendly community.
- Safer Streets Action Plan (2025): This plan provides a roadmap for achieving zero fatal and serious injury crashes in Redmond. Grounded in the Safe System approach, it identifies policy, programmatic, a high risk network where safety improvements should be prioritized, and provides details on infrastructure improvements that should be made on specific corridors.
- Redmond School Pool Program: City of Redmond active travel to school encouragement program that works with Lake Washington School District schools located in Redmond to provide marketing materials, education on alternative commuting safety topics, and ideas for events like Walk to School Days to encourage a reduction in drive alone trips to school and Bike Rodeos to learn about road safety and bike handling.
- Parks, Arts, Recreation, Culture, and Conservation (PARCC) Plan: This plan identified completing and expanding trail system connections as one of the highest capital project priorities during the community engagement process, and walking was the top activity for Redmond residents. The plan supports improving trail access for transportation options as essential to maintaining a healthy and livable community and promoting alternatives to motor vehicle use.
- Stormwater and Surface Water System Plan: The City of Redmond Stormwater and Surface Water Systems Plan (SSWSP) guides actions to reduce and prevent flooding, protect and restore natural habitat, keep pollutants away from fish and wildlife, protect our drinking water aquifer, and keep our lake, river, and streams healthy for everyone to enjoy. The SSWSP identifies where stormwater and water system infrastructure needs be built or replaced, which can present opportunities to make modifications to the street, including construction of bikeways. Capital transportation projects are also opportunities to upgrade stormwater and water system facilities.
- Transportation Facilities Plan: The Transportation Facilities Plan (TFP) guides transportation investments that the City of Redmond expects to deliver by 2050.

- Six-Year Transportation Improvement Program: The six-year Transportation Improvement Program (TIP) is an annual planning document that outlines Redmond's transportation projects and programs for the next six years, based on the city's Comprehensive Plan and Transportation Facility Plan. It includes a list of projects with secured or expected funding, with the first three years typically fully funded, and the last three years often partially or completely unfunded.

Planning for Maintenance of Redmond's Bikeway Network

As Redmond plans and builds new bikeways, there will be a need for additional maintenance, potentially requiring increased staffing levels, additional funding, and/or the development of new maintenance protocols to maintain a level of service that supports safe and comfortable operation. This is particularly true for separated bike lanes that may require more frequent seasonal maintenance, specialized equipment, and have more pavement markings and other features requiring periodic maintenance and replacement. It is important for the City to proactively plan and account for these needs. Chapter X – System Maintenance and Preservation provides more discussion on maintenance of the bikeway network.