

AN URBAN TRAILS NETWORK FOR PORTLAND

Fall 2023



PROBLEM STATEMENT

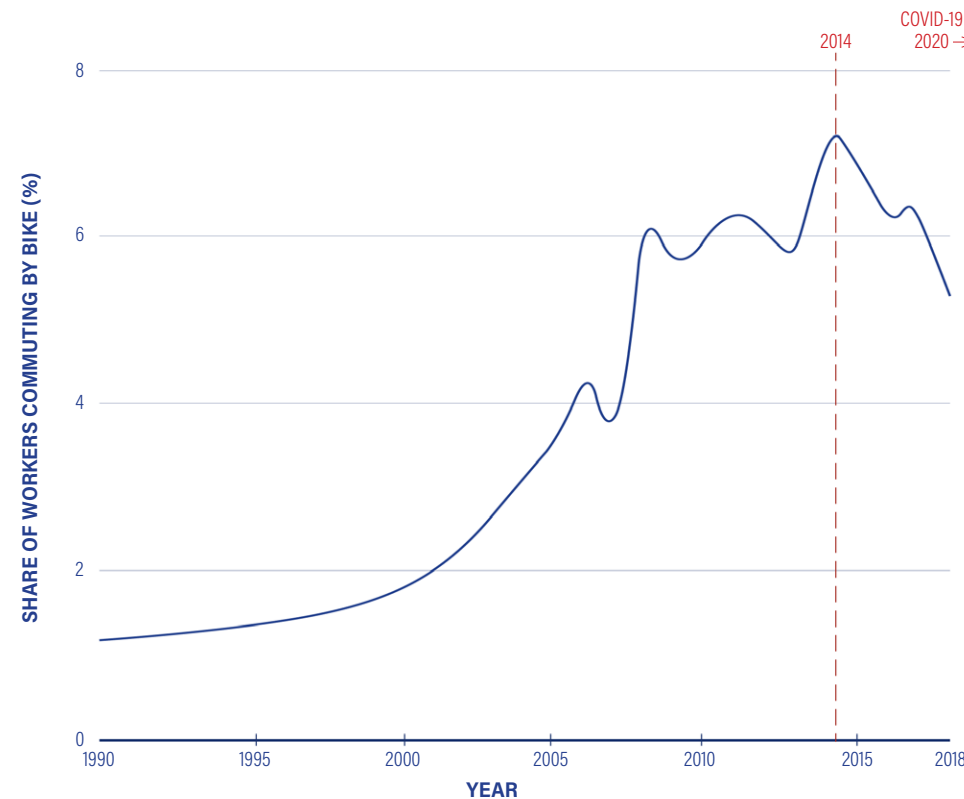
Portland, OR has been a leader in the bicycling community for decades. Portland has a strong bike culture, it has benefited from strong leadership and it has over 400 miles of bike routes on the ground today.

However, since a high water mark year in 2014, the number of Portlanders who ride bicycles has been in decline, suffering a more precipitous drop during the Covid-19 pandemic to lows not seen since 2006. Multiple factors have been identified as responsible for the steady decline, including the rise of electric cars, a decline in housing affordability in inner neighborhoods, a relatively easy driving environment and shifts in the political landscape.

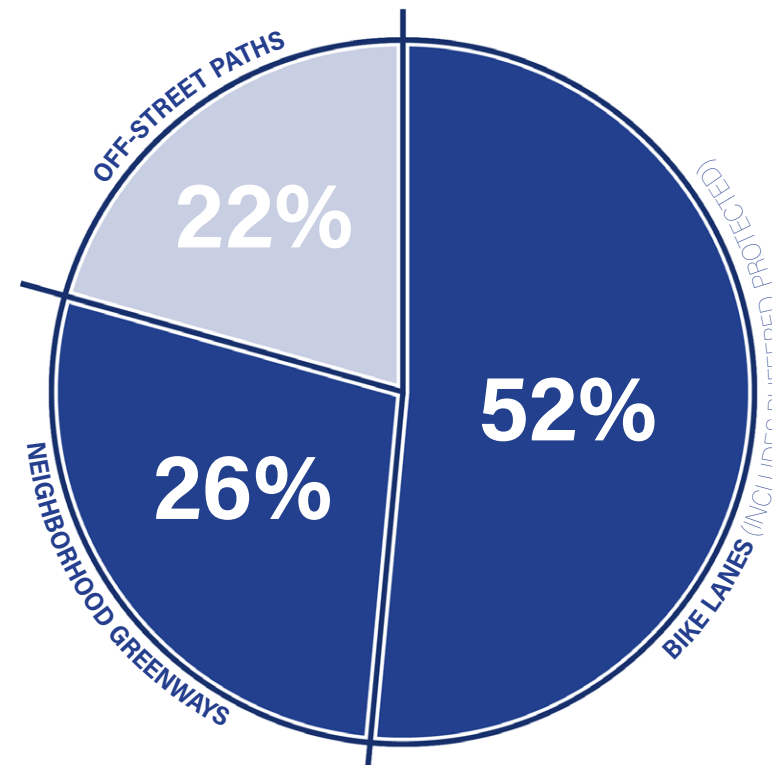
The character of Portland's bicycling infrastructure has played a role in the decline as well. The majority of the existing bicycle network (some 80%) leans heavily on two primary types of facilities – bike lanes on busy streets and “neighborhood greenways” that require riding in mixed traffic. Neither of these options appeal enough to a targeted group of riders labeled “Interested but Concerned” who make up some 60% of all Portlanders¹. This group would ride if there were more trail-like options available.

Portland is not that dense a city (roughly 7 people/acre overall²) and driving is relatively easy. While the city will continue to densify over the coming years, density – and the congestion that comes with it – cannot be relied upon to encourage meaningful transportation choices beyond motor vehicle trips. The City has set ambitious goals for bicycling – some 25% of work commute trips by 2035³ – and to help reach that goal the character of the network needs to become much more attractive to people of all ages and abilities.

Greenways and trails frequently top the list of Portlanders' favorite open spaces. While a lot of great work has been done on trails along the rivers, near freeways or within former rail lines, these options generally only exist at the fringes of the city. There are very few trail options that exist through the core of the city, safely linking Portlanders to different neighborhood centers, schools, parks or other attractions.



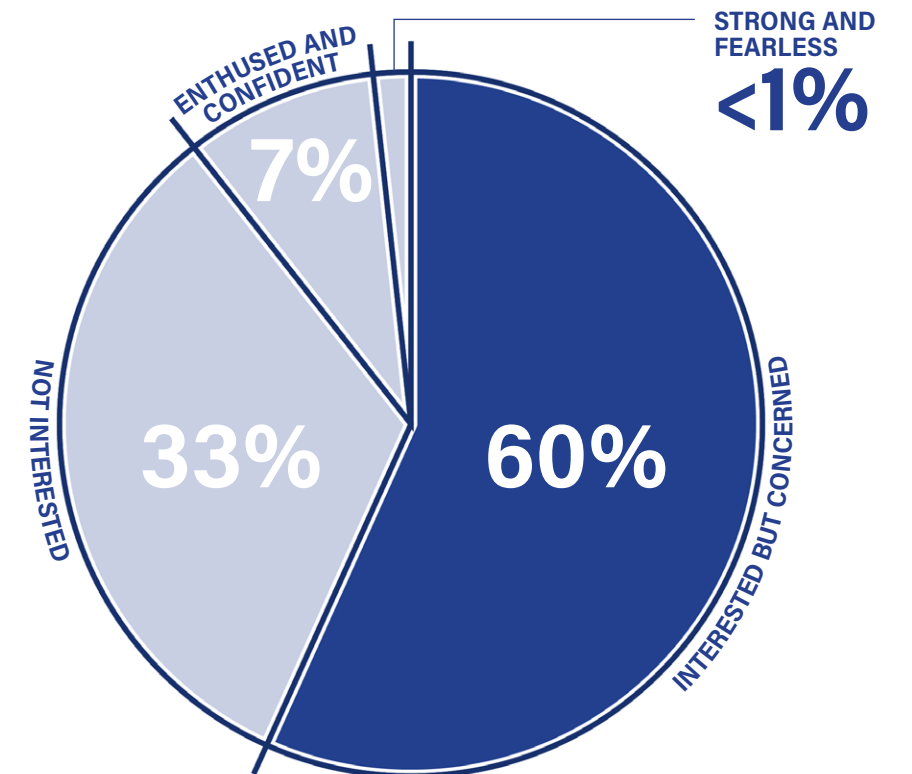
PORTLAND BIKE RIDERSHIP TRAJECTORY



PORTLAND BIKE INFRASTRUCTURE

CITY	POPULATION	SIZE (ACRES)	DENSITY (PEOPLE/ACRE)
COPENHAGEN, DK	1,300,000	44,800	29
VANCOUVER, BC	662,000	28,160	23
AMSTERDAM, NL	921,000	40,960	22
SEATTLE, WA	737,000	53,760	13
LOS ANGELES, CA	3,800,000	318,720	12
MINNEAPOLIS, MN	429,000	34,560	12
PORTLAND, OR	650,000	85,760	7
DENVER, CO	715,000	98,560	7
AUSTIN, TX	964,000	204,160	4

POPULATION DENSITY



'TYPES' OF CYCLISTS IN PORTLAND

¹ City of Portland, Bureau of Transportation, c. 2009
² Population and city area data from Wikipedia
³ City of Portland, Bureau of Planning & Sustainability, 2012

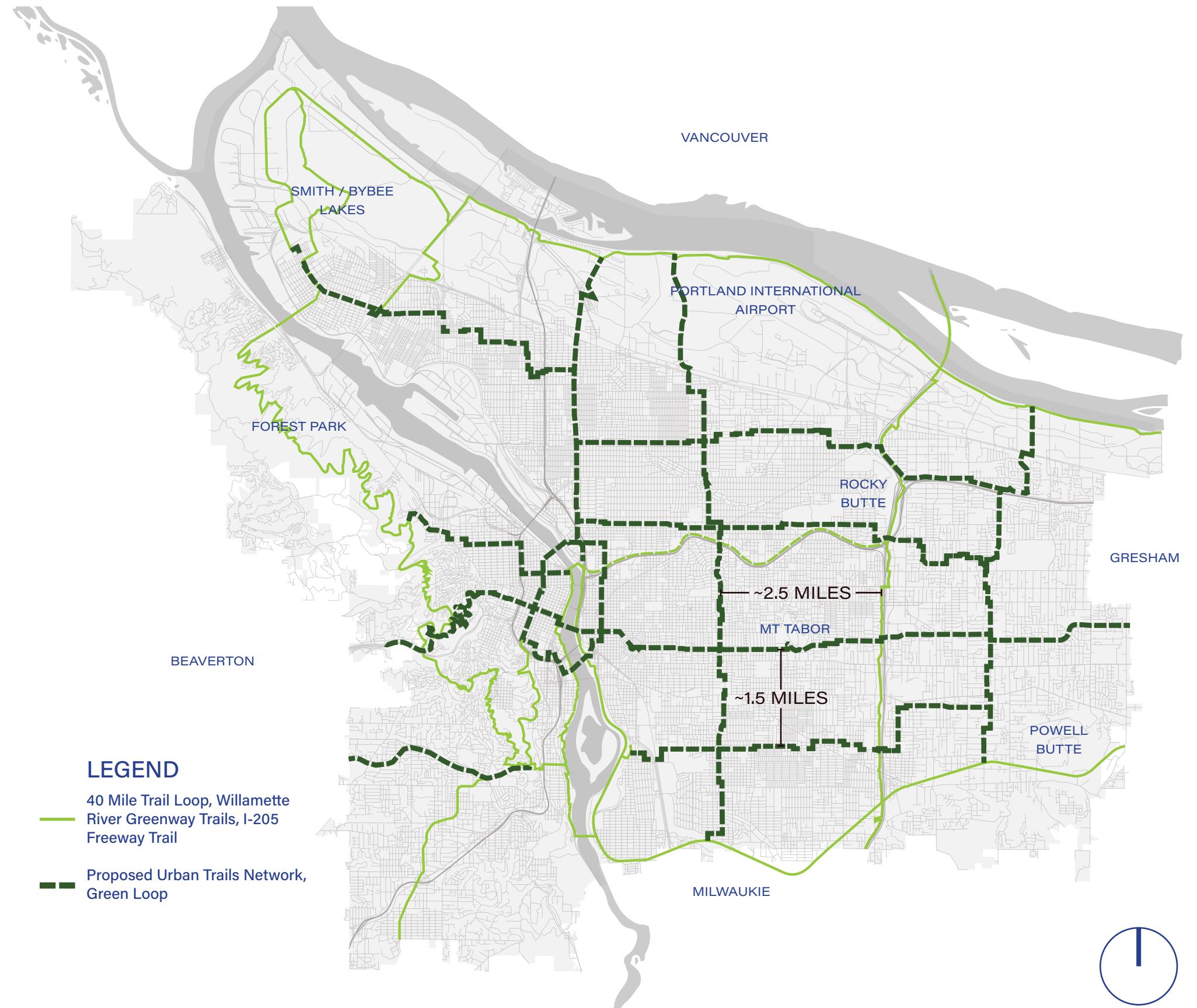
THE CONCEPT

The Urban Trails network proposes a strategic framework of bicycling – and more broadly, active transportation – trails linking all parts of Portland. These regularly-spaced routes would offer intuitive, physically-separated, and close-by trail-like experiences navigating through neighborhoods across the city. The regular spacing across the city would ensure that no one is farther than a mile from an Urban Trail facility.

Urban Trails would attract new riders critical to “move the needle” if the city hopes to come anywhere close to hitting its adopted targets. They would create attractive, distinctive, comfortable and fun pathways for Portlanders of all ages and abilities to use for a range of functions – going to school, work, a get-together with friends, or the grocery store.

The Urban Trails concept amplifies a targeted series of existing neighborhood greenways. Urban Trails are proposed on streets that are predominantly residential in character, feature low traffic volumes and are not burdened with high transportation demand. By targeting lower volume streets, the concept responds to the frequently-heard concern that Portland’s narrow busy streets do not have the room to accommodate everything everyone wants.

The Urban Trails network would create a healthy, resilient system of connections that would support Portlanders at all times, whether they are working in major employment centers or from their own homes. No matter the time of day, day of the week, season or crisis, people will likely still need to get to cultural attractions, major employment centers, different neighborhoods, open spaces and schools. The Urban Trails network will provide a much-needed and intuitive network of connections that will provide a flexible and resilient series of new pathways for all ages and abilities – whether they be walking, rolling, riding, roller-skating or scooting around the city.

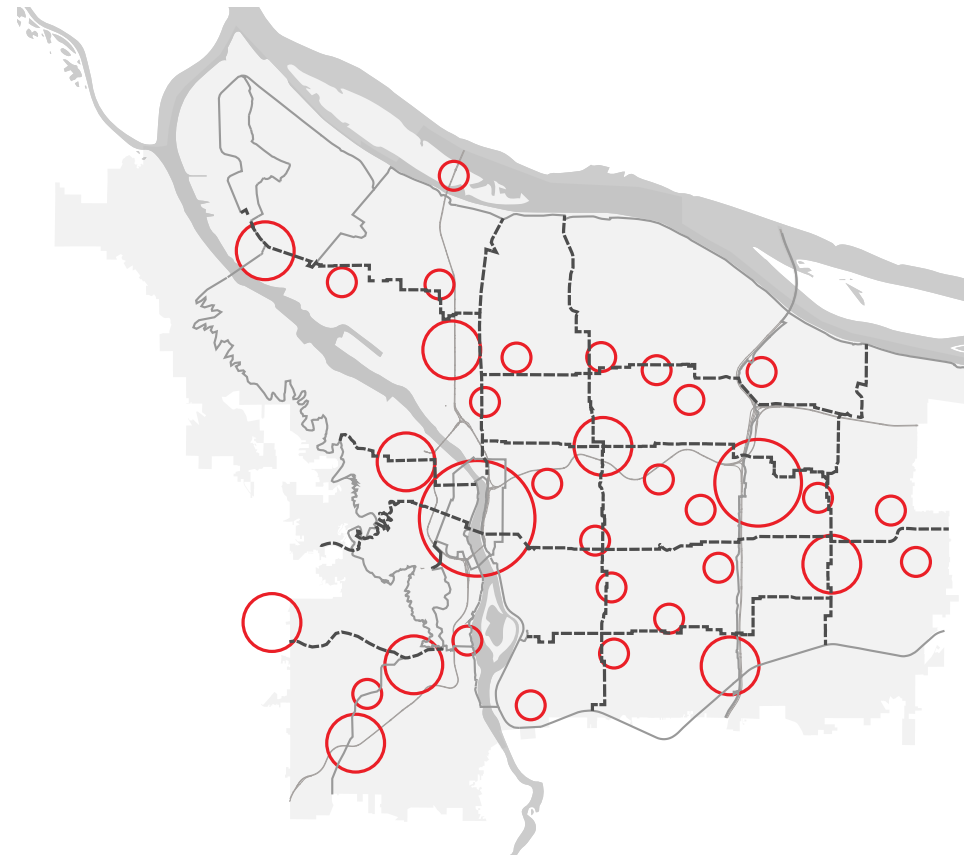


LINKING PLACES

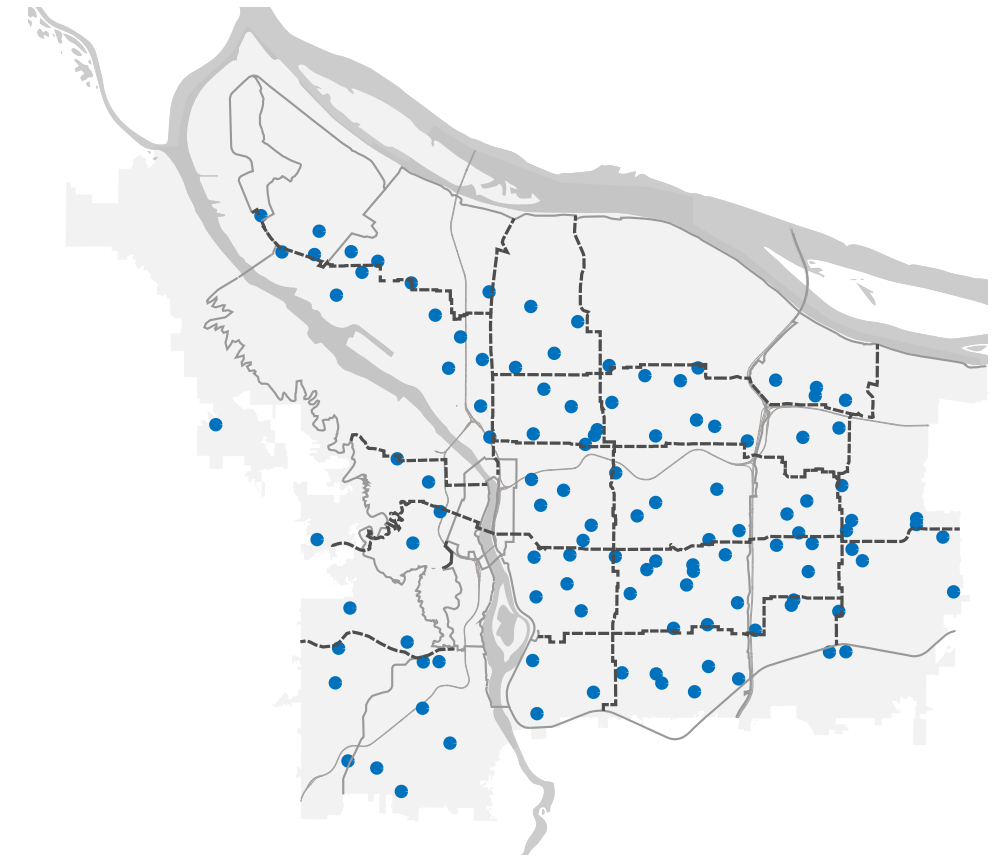
The Urban Trails network would provide new, comfortable routes between the city's system of centers, including the Central City, the Gateway Regional Center and multiple Town Centers. As hybrid-work options appear more likely post-pandemic, the Urban Trails would offer comfortable ways for Portlanders to move between their homes and an evolving set of different employment centers, which will likely still include the Central Business District in downtown.

The Urban Trails network will create safe, comfortable and attractive pathways to Portland's system of iconic parks and neighborhood schools. The trails will be able to link all Portland's neighborhoods to citywide open spaces and offer easy access to natural areas at the edges of the city and the larger network of regional trails. The Urban Trails will also provide healthy and attractive corridors to schools across the city, becoming foundational parts of the "Safe Routes to School" program.

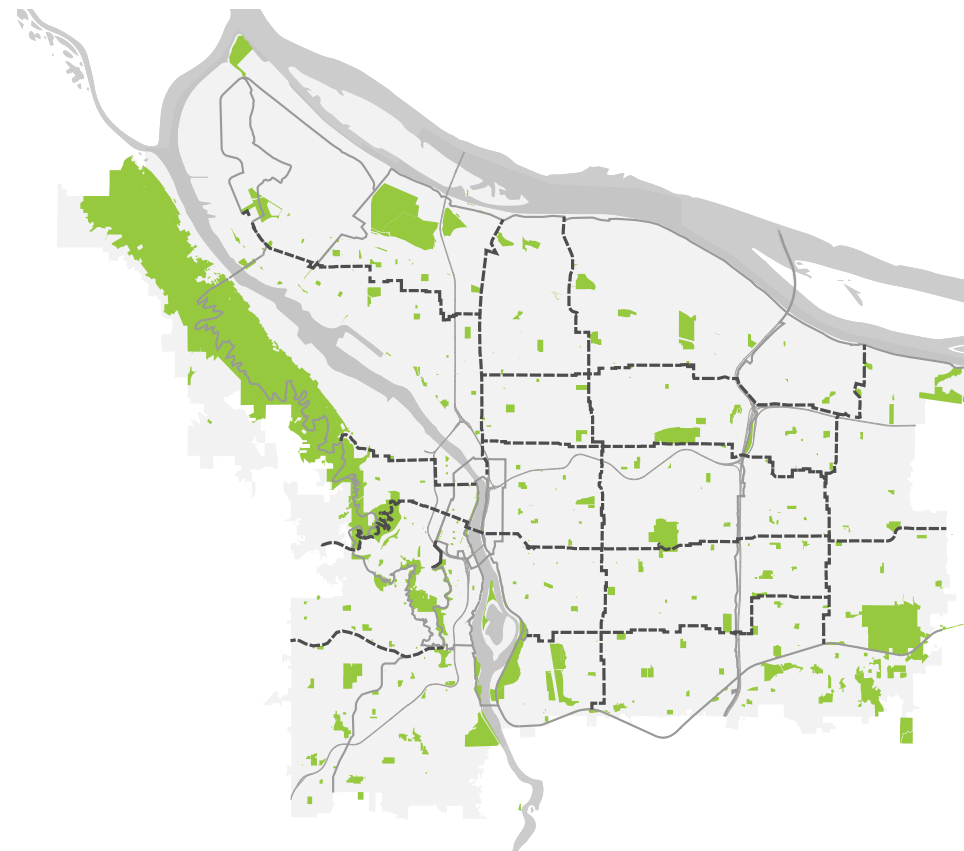
Using the planned Green Loop in downtown Portland as a central hub, the Urban Trails network would be able to link Portlanders to regional and cultural attractions. These destinations include the Portland Art Museum, Portland State University, the Oregon Convention Center and OMSI (among many others) and they are unlikely to relocate outside of Portland's Central City.



CENTERS



SCHOOLS



PARKS & OPEN SPACES

SAFETY & COMFORT

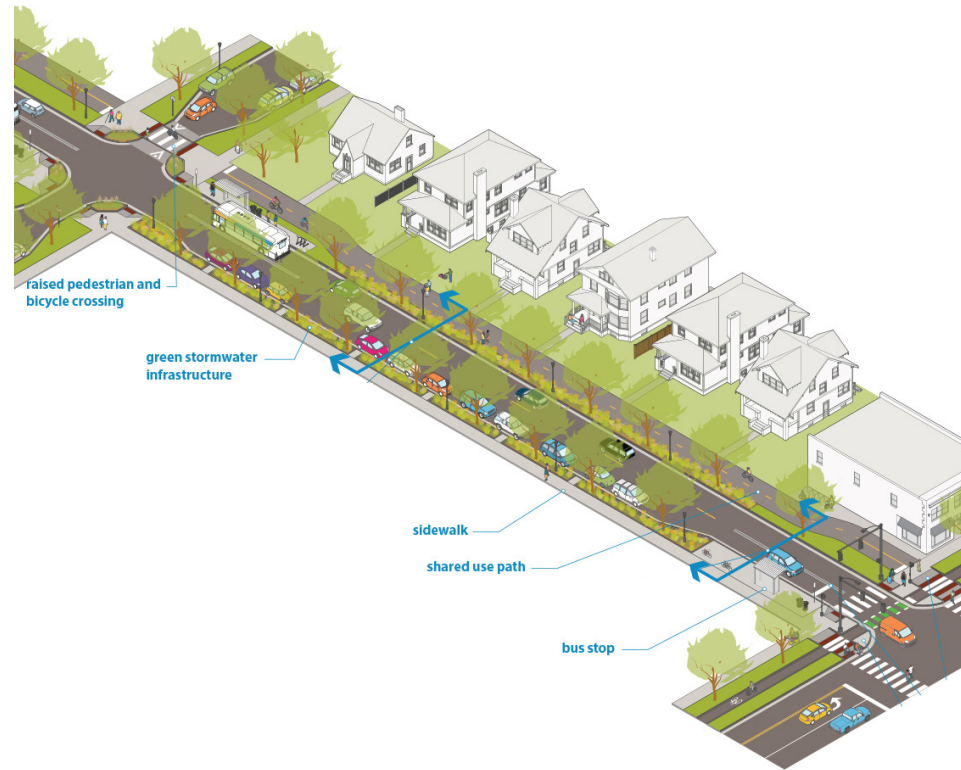
The Urban Trails concept proposes a kit of parts that can be deployed differently across the city and its neighborhoods, depending on local issues, needs, challenges or opportunities. The key parts include:

- Safe and comfortable pedestrian facilities
- Amenities for trail users including restrooms and water fountains
- Physical separation for a two-way pathway for bicycles, mobility devices or other “light individual transport” options
- Additional trees where feasible
- Wayfinding, lighting and signage to help guide users to nearby attractions, destinations and/or connections

The success of the Urban Trails network is not reliant on the elimination of motor vehicle access – the concept proposes a more pragmatic relationship with motor vehicles. The concept will relieve stress experienced by some active transportation users on busy corridors by creating attractive options on quieter routes already featured during the popular and city-wide annual (but temporary) Sunday Parkways events.

Some motor vehicle access and frequent residential edges can be a part of the perceived safety of the network. Many existing trails in the city today do not feel safe for all users (by day and night) as they are too far removed from the visibility of typical Portland streets offering eyes on the street. As the proposed network is along predominantly resident streets, motor vehicle access to individual lots – usually via driveways – will need to be considered.

The Urban Trails concept implements adopted city policies. The 2035 Comprehensive Plan calls for urban trail connections “to and through neighborhoods”¹ across the city, linking the existing robust trail network that is part of the 40-mile loop encircling the city. A key part of City Greenways, the Urban Trails are part of a system of city-wide green spaces and connections that will help make Portland more livable as it continue to evolve.



The City of Minneapolis’s Street Design Guide (adopted in 2020) identifies a street design type called a “Full Greenway” that calls for a separated 2-way bicycle/light individual mobility space that are critical pieces of their “All Ages and Abilities Network.”



This image is of new protected bicycle/light individual mobility lanes on Rue Clark in the Mile End area of Montreal, Quebec in Canada. Montreal features an extensive network of these protected two-way facilities throughout the city’s districts and neighborhoods.



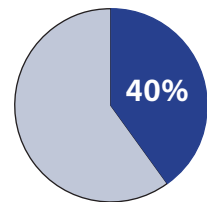
The Urban Trail network is shown in the blue dashed lines on this diagram from Portland’s 2035 Comprehensive Plan.

¹ City of Portland, 2035 Comprehensive Plan, March 2020

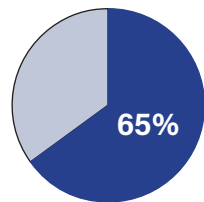
1. ONE WAY

This Urban Trail concept proposes adding a 15' wide pathway and buffer on one side of a 36'-wide roadway of a street that already includes comfortable 12' pedestrian sidewalks on both sides. The new buffer along the pathway would be wide enough to allow for the planting of additional street trees to help address urban heat issues and create a more distinctive street. The two-way traffic movement would be reconfigured to a one-way traffic flow condition, with on-street parallel parking retained on one side.

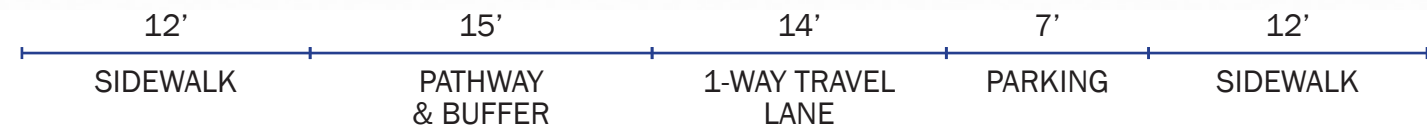
PERCENTAGE OF ACTIVE TRANSPORTATION SPACE IN ROW



CURRENT



PROPOSED

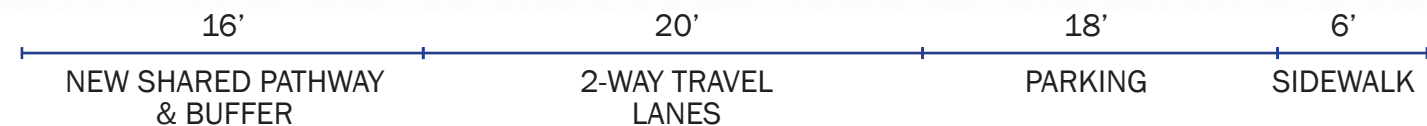


2. FULL REBUILD

This Urban Trail concept proposes a full rebuild of an unimproved street that currently only has a paved 20' shared roadway down the center of a 60' right-of-way. The concept could be implemented in parts of the city that are farther away from attractions or employment centers, where higher numbers of the community are still driving. The concept proposes an asymmetrical section with a 6' sidewalk facing on-street head-in parking and two travel lanes beyond. A new, shared pedestrian and bicycle 17' pathway with a planted buffer would be on the opposite side of the street. This concept would be paired with a tree-planting program for adjacent private lots to increase opportunities for new tree canopy.

This concept adds new, safe spaces for pedestrians on both sides of the street – on one side as part of a new trail, and on the other side as a dedicated sidewalk. These safe pedestrian facilities would be transformative additions to a street space that currently lacks them.

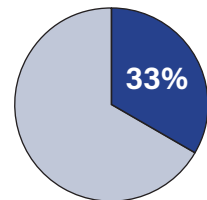
PERCENTAGE OF ACTIVE TRANSPORTATION SPACE IN ROW



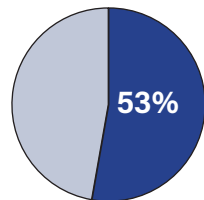
3. NARROW

This Urban Trail concept proposes adding a 12' pathway in the 40' roadway to one side of an outer east side street. The street features 10' existing sidewalks on both sides of the street. Where trees have not already been planted, they could be added at the edge of the pathway as part of the buffer. This concept proposes a 14' two-way "queuing" lane with on-street, parallel parking on both sides, which is a frequently occurring street type east of the Willamette River. The provision of two-way traffic flow and preserved parking opportunities will help maintain access to adjacent residences, while the narrowness of the queuing lane will help to reduce traffic speeds.

PERCENTAGE OF ACTIVE TRANSPORTATION SPACE IN ROW



CURRENT



PROPOSED



PROPOSED



CURRENT



SECTION



LET'S BUILD IT

Portland has been a leader before, and it's time to build the next generation of infrastructure. Bold ideas are needed to create attractive options helping to turn the recent decline in bicycling around and achieve ambitious – and achievable – city targets for ridership.

The Urban Trails will be attractive to users of all ages and abilities – to people of different backgrounds and from different demographic groups. The system will be inherently resilient – it will work no matter which way you are going, offering a safe, free and healthy way to navigate the city in the face of unpredictable climate changes and future pandemics. Finally, the Urban Trails are a “yes, and” solution and not an “either or” proposition – they will not remove or replace any of the existing infrastructure currently in the city today.

The Urban Trails network will add a much-needed, intuitive top tier of active transportation infrastructure to the city's robust existing foundational system. The linked series of citywide pathways will define the next era of healthy, climate-responsive mobility in Portland and create a true all-ages-and-abilities system for residents, workers, and visitors to enjoy.

