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Introduction

In September 2019, the Oregon Transportation Commission created ODOT's Urban Mobility Office to collaboratively lead core projects to achieve the values and goals established in ODOT's **Strategic Action Plan**. These core projects are mapped and described on pages 34–50. In combination with key projects implemented by partner agencies supported by ODOT, the core projects will help achieve a modern and multimodal transportation system in the region by **advancing equity, climate change, congestion relief, and safety goals.**

Challenges

Severe traffic congestion

Congestion in the Portland metro area has steadily increased in the past decade, with regional growth trends expanding for the foreseeable future.

Significant population and employment growth in the region are straining the region's roadways.

The population growth trajectory in the Portland metro area is anticipated to accelerate in the coming decades, with a 23% population growth from 2.5 million to over 3 million residents between 2018 and 2040, and a 43% increase to 3.5 million residents by 2060.2 Job growth in Greater Portland continues to outpace that of the United States average, with job growth in Portland occurring at an average annual rate of 2% in 2019, which was greater than the nationwide average of 1.6%.3

Portland is ranked No. 11

in the United States for traffic congestion.¹

ODOT has observed severe congestion throughout the region's freeway network. In 2019, evening peak travel times on the most congested portions of Interstate 5 (I-5) and Interstate 205 (I-205) were close to three times longer than travel times in the same areas when experiencing no congestion.

Sections of I-5 and I-205 with older designs, sudden lane reductions, or on-ramps with significant demand have become severe "bottlenecks," where average speeds have dropped below 75% of desired speeds without congestion (45 miles per hour). While the daily economic impact of delayed vehicles on regional freeways in 2019 was \$1.2 million, congestion also spurred increased air pollution and collisions.

What's more, the quality of our transportation infrastructure and availability of funds are not keeping pace with population and jobs growth in our region. The Federal gas tax that funds transportation projects has not increased since 1993, and Oregon state transportation funds have been dedicated to little more than maintaining aging infrastructure.



Lack of funding has resulted in:

- Infrastructure at risk of failing in a significant earthquake, especially critical bridges that need to be seismically upgraded. The Portland metro region lacks even one earthquake-ready interstate structure across the Willamette River to be a lifeline for critical services, supplies, food and to support the economy after a disaster.
- Crash rates that are 3.5 times higher on the I-5 Rose Quarter between I-84 and I-405 where three interstates intersect than the statewide average. Improving our infrastructure improves safety for all Oregonians using our transportation system and workers supporting it.
- An outdated transportation system
 that is Oregon's largest single source of
 greenhouse gas emissions. More cars
 stuck in traffic directly affect air quality.
- Inadequate resources to address inequities experienced by historically and currently underrepresented and underserved communities.

Allowing the system to continue on its current trajectory will deepen current inequities, severely diminish the economy, reduce quality of life and result in increased greenhouse gas emissions.







The solution: The Urban Mobility Strategy

Now is the time to modernize Portland region's transportation system and how we use it. The Urban Mobility Strategy—along with ODOT's multimodal investments and partnerships—is a cohesive approach to make everyday travel easier, safer, and more efficient.

The Oregon Toll Program is key to delivering the Urban Mobility Strategy because it can both manage congestion through variable-rate tolls, and provide revenue for strategic transportation improvements.

The Urban Mobility Strategy core projects include:

- I-5 Rose Quarter Improvement Project
- I-205 Improvements Project
- I-5 Boone Bridge Project
- OR-217 Auxiliary Lanes Project
- Interstate Bridge Replacement Program
- Oregon Toll Program

Portland cannot build its way out of congestion

Countless locations across the world have tried and failed to build their way out of congestion. Oregon is rightly proud of our focus on multimodal infrastructure investments. We know that highways are only one part of a thriving transportation network.

The Urban Mobility Strategy for the Portland metro region represents the Urban Mobility Office's approach to reducing congestion for decades to come.

The Urban Mobility Strategy will manage congestion with:

- Variable-rate tolling
- Reducing highway bottlenecks
- Investing in public transportation, walking and rolling paths

Together, the multimodal infrastructure investments and strategies will provide people with efficient travel using the transportation mode of their choice.

Strategy Overview

The Urban Mobility Strategy outlines how ODOT will implement the core projects prioritized by House Bill 2017 and House Bill 3055. Additionally, the Strategy presents partner agency projects that help to achieve ODOT's **Strategic Action Plan**. ODOT supports these projects through collaboration, committee engagement, technical assistance, and/or financial support. The Oregon Toll Program will be an essential implementation strategy to both fund some of the projects and contribute to systemwide congestion relief.

This Strategy document is organized into the following sections:

- Urban Mobility Office –
 Overview of the Urban Mobility
 Office, including its vision,
 commitment, and goals
- 2. **Urban Mobility Strategy** –
 Overview of the comprehensive congestion management and mobility projects and their connection to Urban Mobility Office goals
- Oregon Toll Program –
 Overview of the toll program, including the connection between tolling and the projects (both agency-led and partner projects)
- 4. **Urban Mobility Strategy Project Descriptions** –
 overview of strategy projects, including key decisions, milestones and timelines
- 5. **Appendix:** Toll Program
 History, Regulatory, and
 Policy Background detailed
 summary of statutes and
 policy that guide tolling in
 Oregon and an overview of toll
 policy decisions

House Bills 2017 & 3055

In 2017, the Oregon Legislature passed House Bill 2017, known as "Keep Oregon Moving." This landmark legislation committs billions of dollars in projects that address our congestion problem and improve the transportation system in the region and statewide. House Bill 2017 funds bottleneck relief highway projects, freight rail enhancements, improvements to transit, and upgrades to biking and walking facilities. The Oregon Legislature also directs the Oregon Transportation Commission to pursue and implement tolls on I-5 and I-205 in the Portland metro area to help manage traffic congestion and raise revenue for bottleneck-relief projects.

In 2021, House Bill 3055 strengthens the state's commitment to congestion pricing on I-5 and I-205 and directs the creation of the Toll Program Fund to be used for toll system investments and transportation project financing. The House Bill amends ORS 383.001 to explicitly acknowledge Oregon's congestion issue and the role tolling has in alleviating the issue and supporting climate goals: Significant traffic congestion adversely impacts Oregon's economy and the quality of life of Oregon's communities. Where appropriate, variablerate tolls should be applied to reduce traffic congestion and support the state's greenhouse gas emissions reduction goals.

Urban Mobility Office

Our Charge

The Urban Mobility Office is charged with advancing **ODOT's mission** to comprehensively address our most pressing transportation challenges:

- Maintain and improve efficiency of travel on our transportation system.
- Support, lead and secure sustainable funding for multimodal projects that reduce traffic congestion.
- Reduce regional bottlenecks
- Center equity systematically, and in each individual project.

ODOT's Mission

We provide a safe and reliable multimodal transportation system that connects people and helps Oregon's communities and economy thrive.

The Urban Mobility Office uses the following strategies and tools to achieve systemwide improvements:

- Actively partnering and investing in public transportation and multimodal projects
- Designing a congestion management system that supports greenhouse gas reduction
- Improving equity in Oregon's transportation system by listening and incorporating community feedback, and working with Disadvantaged Business Enterprise contractors to prepare them for the bidding process and to meet hiring aims, and providing project information in five languages (Russian, Spanish, Vietnamese, Traditional Chinese, and Simplified Chinese)
- Upgrading or replacing bridges to withstand a major earthquake
- Enhancing safety for all Oregonians and workers supporting our transportation system.
- Supporting statewide goals and direction provided by the Oregon Transportation Plan and Oregon Highway Plan

Mobility is having access to the places needed to fulfill a rich and satisfying life, such as a job, schools, medical services, shopping, parks, and personal activities such as seeing your kid's game after work. In this sense, **mobility means having quality and diverse transportation options enabling businesses and people to safely fulfill needs within budgets for time and money. Mobility directly impacts the quality of life for all Oregonians every day.**



Urban Mobility Office Vision

The Urban Mobility Office was established to oversee, align, and implement ODOT's core urban mobility projects to achieve regional congestion relief, mobility, and safety for all Oregonians and people using the highway and interstate system. In addition, the Urban Mobility Office is implementing the **Oregon Toll Program**, which will contribute to regional congestion relief and secure sustainable funding to modernize, not just maintain, the transportation system.

In line with ODOT's mission, the Urban Mobility Office envisions an Oregon where all people have access to the mode of transportation that works best for them. For communities to thrive, Oregonians need to have easy, convenient, and affordable transportation that reflects a community's stated needs and wants.

Congestion on Portland metro highways is impacting economic competitiveness for the entire state.

– One Oregon, A Vision for Oregon's Transportation System (2016); Transportation Vision Panel Report to Governor Kate Brown

The Urban Mobility Office commits to the following:

- Address past harms caused by highway construction and seek to do no harm in the future.
 Look at every project through a restorative justice and equity lens, asking for community input and incorporating feedback every step of the way.
- Implement projects that adhere to ODOT's greenhouse gas reduction goals and mitigate negative impacts wherever possible.
- Reduce congestion across the region through support of public transportation, active transportation (such as biking and walking) and implementation of congestion pricing on our highways to provide reliable trips.
- Increase safety through investments in infrastructure.
- Support and improve the statewide economy by improving the transportation system in the economic and shipping hub of Portland.

The term congestion pricing

describes a type of tolling that aims to improve mobility, travel times, and reliability by charging a higher price during peak traffic periods.





ODOT's Strategic Action Plan and the Urban Mobility Office

Oregon state transportation funds are dedicated primarily to maintaining and preserving the system's functional standards. Outside of a few projects, ODOT lacks the funds to make discretionary investments that would enhance and modernize the transportation system.

And yet we have many transportation needs: to serve all Oregonians equitably, relieve traffic congestion, provide a broader range of mobility options, and ensure the safety of all travelers. The Urban Mobility Office's charge is to meet the four goals grounded in ODOT's 2021 **Strategic Action Plan**. Through its work on ODOT's core projects and support of partner projects, the Urban Mobility Office seeks the following:

Equity

Serve all Oregonians equitably. The voices of our community matter and influence the work we do. A focus on equity ensures that we look beyond merely improving the system to improving the quality of life of every Oregonian. This includes being mindful of the benefits and burdens created by our work and ensuring they are distributed equitably. The equity goal includes focusing on workforce diversity and opportunities for advancement, expanding economic opportunities for minority groups, climate-change equity, and creating more representative public engagement processes.

Accessibility, Mobility and Climate Change

Provide greater transportation access and a broader range of mobility options for Oregonians to address climate change.

Congestion Relief

Invest in a comprehensive congestion management strategy for the Portland metro area to benefit all Oregonians, and implement system and operational innovations to reduce traffic congestion throughout Oregon.

Safety

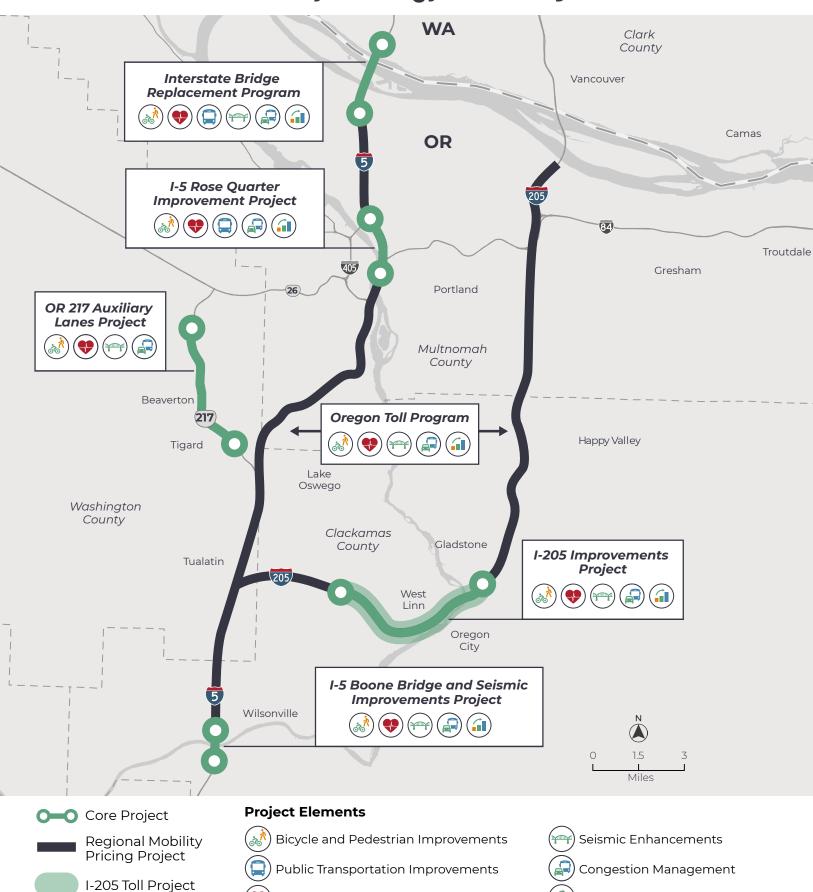
Prevent traffic fatalities and serious injuries and ensure the safety of travelers and transportation workers.

The Urban Mobility Office:

- Facilitates coordination and provides deliberate and cohesive project delivery of its core projects.
- Coordinates with other ODOT projects in the planning, design, and construction phases. This includes the I-5 Boone Bridge and Seismic Improvements Project and the OR 217 Auxiliary Lanes Project.
- Supports and is planning closely with the Interstate Bridge Replacement Program that is jointly led by the Oregon and Washington Departments of Transportation.

Section 4 (Pg. 34) provides more detailed project descriptions of the core projects.

ODOT's Urban Mobility Strategy Core Projects



Safety Enhancements

Funding Plan Includes Toll Revenue

ODOT's Urban Mobility Strategy

The **Oregon Toll Program**, which is led by the Urban Mobility Office, is part of ODOT's long-term strategy to manage travel demand, ease congestion, and secure sustainable revenue for highways, bridges, and multimodal capital investments.

Tolling is a vital funding element for projects on the Urban Mobility Strategy map. Projects that may be funded partially by toll revenue include the I-205 Improvements Project, I-5 Rose Quarter Improvement Project, and the I-5 Boone Bridge Seismic Improvement Project.

Oregon Toll Program

There are many types of tolling: variable rate, congestion pricing, dynamic pricing, flat/fixed rate, and managed lanes

The Oregon Toll Program projects will implement variable-rate tolling or "congestion pricing

GOALS



Manage congestion



Raise revenue to fund projects that reduce congestion

BENEFITS INCLUDE



Manage congestion



Raise revenue for transportation improvements



Increase system reliability



Support state climate goals by reducing traffic pollution

Urban Mobility Strategy Projects:

Through the **Regional Mobility Pricing Project**, ODOT is considering variablerate tolls to manage congestion and
raise revenue to help fund construction
of approved transportation projects that
further reduce congestion. The start and
end points for variable-rate tolling on I-5
and I-205 will be determined in 2021 and
2022 through a planning process. Starting
in 2022, we will engage agency partners
and the community to narrow the best
regional options for I-5 and I-205 to study in
a formal environmental review starting in
2022.

The I-205 Toll Project will implement tolls in the vicinity of the Abernethy and Tualatin River Bridges in Clackamas County to fund the I-205 Improvements Project. The toll project is being evaluated for benefits and impacts. As considered, tolls would help fund construction of the planned I-205 Improvements Project while giving travelers a better and more reliable trip.

The I-5 Rose Quarter Improvement Project will add auxiliary lanes and shoulders to reduce congestion and improve safety on the main north-south interstate highway on the West Coast and redesign the multimodal local street network to provide for improved active transportation access. These upgrades in Portland will reduce stop-and-go traffic and reduce congestion on I-5 between I-84 and I-405 where three interstates intersect and result in the biggest traffic bottleneck in Oregon. The project will also improve community connections by redesigning overpasses and reconnecting neighborhood streets, enhancing public spaces, and promoting economic development opportunities. With a focus on restorative justice, the project is committed to leveraging deep ties with the historic Albina community to ensure meaningful involvement with Black Portlanders and Disadvantaged Business Enterprise contractors. Input from the community will help shape the project and outcomes for the community including supporting

generational wealth.

The I-205 Improvements Project will provide key bottleneck relief and seismic upgrades on the interstate in Clackamas County by adding a third through lane to match the rest of I-205 and earthquakeready bridges. The Abernethy Bridge will be the first earthquake-ready interstate structure across the Willamette River, making I-205 the passable north–south route through the Portland region after a potential Cascadia Subduction Zone earthquake.

The I-5 Boone Bridge and Seismic Improvements Project will improve safety and resiliency on I-5 by upgrading the Boone Bridge to withstand a potential Cascadia Subduction Zone earthquake and improve safety and operations by adding a southbound auxiliary lane between the Wilsonville Road (Exit 283) and Charbonneau/Hubbard Interchanges (Exit 282A). The project will identify active transportation improvements across the Willamette River.

The OR 217 Auxiliary Lanes Project will address long-standing bottlenecks on the highway between Beaverton-Hillsdale Highway and OR 99W caused by too many closely spaced interchanges. One of the worst bottleneck locations is at the Allen Boulevard and Denney Road interchanges. The project will add a new frontage road—replacing a major bridge structure and building four sound-attenuation walls. In partnership with the City of Beaverton and Washington County, we are making targeted improvements to local bicycle and pedestrian routes.

ODOT Co-Led Project:

Interstate Bridge Replacement Program

will replace the aging Interstate I-5 Bridge across the Columbia River with a modern, seismically resilient, multimodal structure that will improve mobility for people, goods, and services well into the next century.

Multimodal transportation options and travel reliability are key components of access to employment and economic vitality for low-income travelers and displaced populations. Transportation costs—the second-largest expense after housing for Americans—have steadily increased and account for approximately 39% of average household spending for the poorest fifth of Americans.⁴ These impacts are pronounced in Portland and Multnomah County, which exceed the 11.4% Oregon state average of the impoverished population, at 13.7% and 12.0%, respectively. Further, the population of persons of color in those areas significantly exceeds the statewide average of 13.3%, with persons of color comprising 22.6% of Portland residents.5

Land use practices in Oregon are also closely tied to transportation costs. Unlike other states, Oregon limits sprawl by using a planning tool called an urban growth boundary—a land use planning border that controls urban expansion into farm and forest land and promotes the efficient use of land, public facilities and services inside the boundary.6 In turn, the state's tight urban centers are often unaffordable to those employed in the area, forcing low-income workers to live several miles from their jobs. Oftentimes, driving is the only viable commute option. These low-income commuters need to be supported through road investments and congestion relief projects.

In Oregon, the federal gas tax and its state equivalents are the primary revenue source for these investments and projects. This funding model is outdated and "regressive." Lower-income residents—who may drive older, less fuel-efficient vehicles and live farther from their place of employment—pay more on a relative scale than wealthier drivers who contribute to the congestion problem with greater peak-hour commutes.7 Further, lower-income travelers are more likely to have less flexibility in their travel schedules and therefore suffer the most from unpredictable travel. Congestion pricing is one funding tool that can more accurately reflect the true cost of those contributing to peak-hour congestion⁶ and benefit low-income drivers who highly value reduced congestion and greater travel reliability.8

When roadway pricing provides congestion relief, benefits include emissions reductions and the reduced risk of pollution-induced health risks to people living near congested roads, who are more likely to be lower-income individuals. Meanwhile, toll revenues from congestion pricing are often redirected to public transportation improvements. Additionally, toll rebates or discounts can be implemented for low-income motorists. Through the ODOT Toll Program, ODOT is seeking to implement effective policies and programs for low-income motorists and public transportation enhancements.

Largest expenses for Americans



#1 Housing #2 Transportation

Funding

The key financial challenge is this: funding sources for multimodal projects that would alleviate freeway congestion simply do not exist. The federal gas tax that funds transportation projects has not increased since 1993, and Oregon state transportation funds have been dedicated primarily to maintaining aging infrastructure, providing seismic upgrades of bridges, and building construction projects. Coupled with cost escalation and amplified by regional population growth, the pool of resources that could be dedicated to congestion relief along stateowned freeway sections are stretched.

Metro's Traffic Demand Model estimates that if the projects in Metro's Regional Transportation Plan—which includes planned multimodal transportation enhancements through 2040—were fully funded, the amount of annual hours that Portland households spend in congestion would be reduced by approximately 50%.¹⁰ However, given the funding challenges identified previously, funding for many of these projects has not been identified, let alone programmed.

\$510 million **shortfall** in its ability to adequately maintain a state of good repair on bridges and pavement



Urban Mobility Strategy Partner Projects

ODOT is committed to supporting and investing in projects that provide a modern transportation system for all Oregonians. This includes:

- Multimodal transportation investments like public transportation, bicycle and pedestrian facilities
- Safety enhancements like seismic upgrades to bridges
- Bottleneck alleviation to reduce potential crashes

This commitment comes in two forms: delivering projects and supporting partner projects.

The projects identified on the Urban Mobility Strategy map include ODOT-led and co-led multimodal projects in addition to significant partner-led projects.

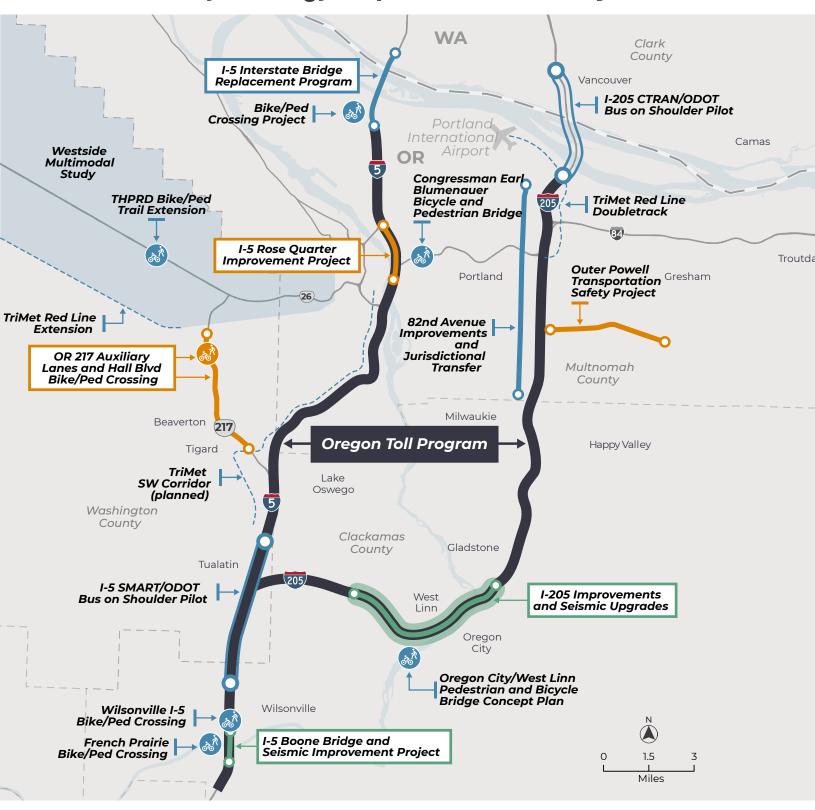
The partner projects are led by counties, cities, public transportation providers, and other local agency partners. They were identified from Metro's Regional Transportation Plan as key projects that advance multimodal accessibility and are critical to achieving regional congestion relief. The project list may expand as funding and regional priorities change. ODOT and Urban Mobility Office staff will work with regional partners to identify the investments that best meet ODOT, partner, and regional goals.



Multimodal transportation

options typically include walking, cycling, public transportation, car sharing, and trucking. Planning for a multimodal transportation system should consider, evaluate, and implement improvements for all types of travel.

Urban Mobility Strategy Map with Partner Projects



Currently Funded by HB2017

System Improvement Project

Bike/Ped Crossing Project

Note: Core project names are boxed

Made Possible with HB3055

System Improvement Project

Regional Mobility Pricing Project

I-205 Toll Project

Partner Project with ODOT Support

System Improvement Project

5 System improvement rojec

Bike/Ped Crossing Project

Bus on Shoulder Pilot

---- TriMet Project

Multimodal Study

Urban Mobility Strategy Project Goals

The following table presents how the core projects contribute to Urban Mobility Office goals linked to the ODOT **Strategic Action Plan**.

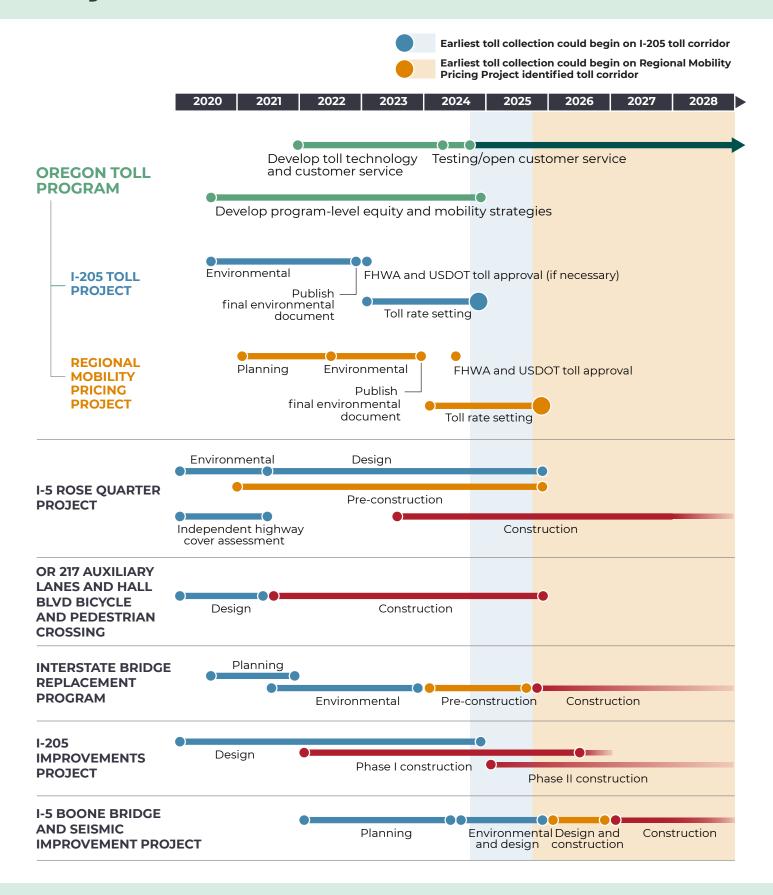
Urban Mobility Strategy Projects					
	Equity	Congestion Relief	Climate	Safety	
I-5 Rose Quarter Improvement Project	 Focus on minority owned Disadvantaged Business Enterprise (DBE) contracting; a Community Oversight Advisory Committee provides oversight, accountability and recommendations to ODOT for the DBE/On-the-Job Training Program. Robust engagement with historically and currently underrepresented and under-served communities. The Historic Albina Advisory Board was created to elevate voices in the Black community and ensure that project outcomes reflect community interests and values and that historic Albina directly benefits from the investments of this project. 	 New auxiliary lanes and widened shoulders will address bottlenecks that cause congestion and crashes, which create delays for travelers and freight; these improvements will provide options for bus-on-shoulder programs. Addresses the state's top bottleneck and 28th-worst freight bottleneck in the nation. 	 Reduces stop/start traffic, which will improve air quality and decrease greenhouse gas emissions. Bicycle and pedestrian improvements will provide greater access to multimodal transportation options. 	 Local street improvements will provide pedestrian and bicycle protection. New auxiliary lanes will separate slower vehicles and higher speed vehicles. Full shoulders will provide space for disabled and emergency vehicles. 	

Urban Mobilit	y Strategy Projects			
	Equity	Congestion Relief	Climate	Safety
I-205 Improvements Project	 Public engagement and National Environmental Policy Act process identified few communities of concern. Robust engagement with historically and currently underrepresented and under-served communities. 	 Corridor congestion will be reduced by about 5 hours a day, benefiting travelers of all incomes with a more reliable trip. New auxiliary lanes and widened shoulders will address bottlenecks that cause congestion and crashes, which create delays for travelers and freight; further these improvements will provide options for bus on shoulder programs. 	 Stop/start traffic will be reduced, which will improve air quality and reduces greenhouse gas emissions. Project bicycle and pedestrian improvements provide greater multimodal transportation access. 	 Abernethy Bridge improvements will construct the first earthquake-ready interstate structure across the Willamette River. Seismic upgrades will be done to eight other corridor bridges. New roundabout will improve safety and operations for northbound travelers accessing I-205. Auxiliary lanes will be lengthened and improved to address substandard merging and reduce traffic weaving.
Oregon Toll Program: I-205 Toll Project and Regional Mobility Pricing Project	 Established Equity Framework and Equity and Mobility Advisory Committee, which deepens relationships and partnerships with historically and currently underrepresented and under-served communities. Established new process to advance equity through project development. Evaluating strategic investments to advance equity for transit and multimodal transportation options, neighborhood health and safety, and affordability. 	 Improves travel time, reliability, and efficient movement of goods. Improves regional and statewide economic development by opening access to a wider range of jobs and improving predictability of travel times. 	 Reduces greenhouse gases and vehicle miles traveled through mode shifts. Project evaluating expanded transportation options. Reduces greenhouse gases emissions by managing congestion so that fewer hours are spent waiting in highway congestion. 	 Better congestion management reduces the large speed differences in stop-and-go traffic that backs up at peak travel hours. Evaluating strategic investments made to advance equity through safety improvements in areas affected by toll-based diversion. I-205 Improvements Project, which includes crucial seismic upgrades, is made possible with tolling.

Urban Mobility Strategy Projects					
	Equity	Congestion Relief	Climate	Safety	
OR 217 Auxiliary Lanes and Hall Blvd Bicycle and Pedestrian Crossing	 Working with community- based organizations and other active community groups to reach historically and currently underrepresented and under-served communities. 	New auxiliary lanes will help address bottlenecks that cause congestion and crashes, which create delays for travelers and freight.	Greater transportation access and a broader range of mobility options will be provided for Oregonians while addressing climate change through bottleneck relief.	Auxiliary lanes and the new frontage road will reduce the amount of merging on the highway, resulting in increased safety and reliability.	
I-5 Boone Bridge and Seismic Improvement Project	Equity goals, objectives, outreach and achievements will be defined as the study progresses.	New auxiliary lanes and widened shoulders will address bottlenecks that cause congestion and crashes, which create delays for travelers and freight; further these improvements will provide options for bus on shoulder programs. Project will use variable-rate tolling to provide congestion relief.	Climate goals, objectives and achievements will be defined as the study progresses.	Project will determine the best approach to address safety and seismic resiliency.	

ODOT Co-Led Project					
	Equity	Congestion Relief	Climate	Safety	
I-5 Interstate Bridge Replacement	 Commitment to centering equity in all aspects of program work to not only avoid further harm to marginalized and underserved communities, but also ensure that they have a voice to share program work and realize the economic and transportation benefits of the program. Targeted community engagement and outreach to underrepresented and underserved populations ensures that these voices are helping shape the program in a meaningful way. 	 Multimodal crossing and improved connections will move travelers through the program area more efficiently, improving mobility and travel time reliability. Improved roadway safety design and the elimination of bridge lifts that currently contribute to increased crash rates and traffic backups will further improve travel reliability and help reduce congestion. Multimodal solutions that include improvements to active transportation facilities and improvements to transit reliability will provide more choices to get across the Columbia River. 	 Commitment to considering climate impacts and resiliency throughout development and delivery. Currently constrained transit options, connections, limited service/hours, and inefficient travel times deter users from choosing low-emission transit options through the program area. Modal choices, including high-capacity transit, walking, biking, and rolling, will result in more efficient movement of people and goods across the Columbia River. 	 Program will construct an earthquake-ready structure across the Columbia River. Program will remove the interstate lift span that increases vehicle crashes that result in injuries, fatalities, infrastructure damage, and increased traffic congestion. New shared-use paths that meet current safety standards will improve traveler safety for those who walk, bike, and roll by making improvements to the current facility that has low railing, a narrow width, and is directly adjacent to interstate traffic. Program will enhance overall multimodal safety by improving merging and weaving between interchanges, adding safety shoulders, removing stops on the interstate, and updating roadway design to current safety standards. 	

Projects Schedule



Secured and Anticipated Funding

This matrix outlines secured and anticipated funding from known funding sources for the core comprehensive congestion management and mobility projects. These sources may change as new opportunities become available.

Project	Fully Funded	Toll Contribution	Federal Contribution*	State Contribution	Local Contribution
Funded by House Bill 2017					
I-5 Rose Quarter Improvement Project		X	X	X	×
OR 217 Auxiliary Lanes and Hall Blvd Bicycle and Pedestrian Crossing	X		X	X	×
Projects made possible wit	:h House I	Bill 3055			
I-205 Improvements Project		X	X	X	
I-5 Boone Bridge and Seismic Improvement Project		Х	X	X	
Partner Project with ODOT Support					
I-5 Interstate Bridge Replacement		X	X	X	

^{*}Federal contribution could be federal formula or federal discretionary funds (RAISE or INFRA grants, New Starts, etc.).

Urban Mobility Office Project Connections

The core projects that the Urban Mobility Office manages are among the region's most challenging to design and deliver. They address the worst bottlenecks and some of the toughest safety issues in the Portland metro area. Not surprisingly, the projects are also interconnected and the Urban Mobility Office's management must understand and address the key decisions that each project faces and determine whether these issues require

collaboration between individual project teams. The I-205 Improvements Project, for example, depends on toll revenue from the I-205 Toll Project, meaning that, at the very least, schedules must be aligned for each project. But financing decisions for the I-205 Improvements Project also affect the purpose and—by extension—the technical analysis for the I-205 Toll Project.

The following section captures some of the key decisions facing the Urban Mobility Office projects. The section describes where cross-project dependencies have been identified and where further collaboration is needed.



Oregon Toll Program Key Decisions and Milestones

Toll Rate Setting for the I-205 Toll Project

Toll rate setting is a process that will determine how much tolls are going to cost drivers. Being clear about the technical and financial path to setting toll rates is important, because it will set expectations and provide project transparency. Once project toll rates are set, additional financial analysis can be conducted to determine the gross and net toll revenues. Toll rates for the I-205 Toll Project need to be set by mid-2024.



Several decisions inform toll rate setting, including the I-205 Toll Project funding target, level of congestion relief desired, and vehicle-class tolling options (for example, will freight trucks be charged a higher toll than passenger vehicles) among others. Each variable has specific decision-making processes and requirements that need to be addressed before setting the toll rate.



Some of these decisions may be political in nature and will need public input to inform the decision.



Impacts

If toll rate setting isn't completed on time, ODOT will miss the late 2024/early 2025 tolling "Go Live" date on the I-205 Toll Project.



Funding Impacts

The I-205 Improvements Project's Finance Plan is at risk if toll revenue cannot be used to fund the project.

Tolling Will Fund Multimodal Investments

A best practice of toll programs around the U.S. is to pair toll implementation with specific multimodal projects and programs—such as enhanced bus service or walking and biking trails—or programs that make it easier for individuals to find carpools. In Oregon, some investments may not be able to be funded by toll revenue due to an Oregon constitutional restriction¹¹ on funding public transportation service and improvements that are not in the roadway. Identifying multimodal investments early will allow time for ODOT to work internally and with partner agencies to identify a path to funding these improvements.

The Oregon Transportation Commission will receive a project recommendation for multimodal and public transportation investments on a project-by-project basis. The Oregon Transportation Commission is tasked with giving ODOT direction to work internally and with partner agencies to achieve the recommendations. Multimodal and public transportation investments will need to be identified during the environmental phase of each project.

ODOT is working with the Toll Program's Equity and Mobility Advisory Committee and Transit and Multimodal Working Group to identify multimodal and public transportation investments that ODOT will either incorporate into the toll projects or identify as an opportunity to work with partner agencies to implement.

Without Tolling These Projects Cannot Move Forward

ODOT and partner agencies do not have adequate funding to invest in multimodal and public transportation elements before implementing

I-205 Improvements Project Key Decisions and Milestones

Project Finance Plan

The I-205 Improvements Project must have a final Federal Highway Administration (FHWA) Major Projects Financial Plan for Phase 1A by November 2021. The project will initiate construction of Phase 1A in summer 2022, with financing options provided in HB 3055. This legislation identifies short-term financing options for the project. However, it is assumed that toll revenue will be used to pay back initial borrowing costs. In July 2021, the Oregon Transportation Commission will program funds in the summer.



The process to program construction funds will require Oregon Transportation Commission to dedicate funds through the Statewide Transportation Program, and Metro will subsequently meet to update its Metropolitan Transportation Program. FHWA will need to confirm and approve the Statewide Transportation Program amendments and the Project Financial Plan.



Determine Construction Sequencing and Schedule

Establishing the preferred construction sequencing and schedule is a decision that affect project construction risk, cost, and flexibility. The I-205 Improvements Project has two construction phases each: Phase I will include four contracts (as described below) and Phase 2 will also include multiple contracts:

- Phase 1A will provide improvements between OR43 and OR99E, which include construction of the seismically upgraded Abernethy Bridge, interchange improvements and a sound wall.
- Phase 1B includes construction of the Main Street Bridge and a northbound auxiliary lane, and sound-attenuation walls between OR99E and OR213.
- Phase 1C includes construction of West A and Sunset bridges, rock cuts and highway widening between 10th Street and Sunset Bridge.
- Phase 1D includes construction of the 10th Street Bridges and highway widening between OR43 and 10th Street.
- Phase 1A is scheduled to go out to bid in December 2021. Phases 1B through 1D scoping, sequencing, and specifications will be determined by fall 2021.

Impacts of Delay

- Seismic and operational improvements are delayed, including congestion relief and safety enhancements
- About \$24 million per year in inflation costs



Confirm Highway Cover Design and Use

The I-5 Rose Quarter Improvement Project includes a highway cover, in addition to the I-5 mainline improvements, and local multimodal street improvements. In early 2020, the Oregon Transportation Commission directed the Oregon Department of Transportation to retain a consultant team that would conduct an independent assessment of the proposed highway covers included in the I-5 Rose Quarter Improvement Project to evaluate design and use scenarios that best align with the community vision. The goal for this independent team was to understand the goals and objectives of stakeholders in the project area, with a focus on the historic Albina community, generate potential highway cover design and use scenarios. The proposed highway cover design refinements have an impact on project cost and schedule; The Oregon Transportation Commission will consider this information when providing direction on the highway cover design and use.



Federal Highway Administration will determine if additional environmental review under the National Environmental Policy Act is required based on the proposed highway cover design and use.



Delaying a decision on the highway cover design and use beyond Q1 2022 has the potential to delay the project's 30% design milestone, which could have an impact on the construction start date in 2023.



The Oregon Transportation Commission has approved an aligned community recommendation based on stakeholder agreement and buy-in, prioritizing the voices of the historic Albina community. Ultimately, the Oregon Transportation Commission will provide final project direction.

Impacts of Missed Milestone

- 30% design milestone is at risk of being delayed, which will delay subsequent design milestones and ultimately, project construction
- 1+ year delay would increase risk to 2023 construction start

Impacts of Cost Increases

About \$2 million per month in inflation costs



Impacts from other Urban Mobility Strategy Projects

If there is delay to the project schedule, Disadvantaged Business Enterprise (DBE) goals may be difficult to achieve due to a lack of DBE capacity to deliver so many regional projects at one time

Early Work Packages

The I-5 Rose Quarter Improvement Project aims to start project construction on some elements in mid-2023 through a series of early work packages. Ideally in September 2022, but at the latest in January 2023. ODOT must achieve the following milestones before beginning early construction as planned:

- Obtain Federal Highway Administration initial finance plan approval
- Successfully negotiate early work packages with the construction manager/general contractor
- Achieve community consensus and obtain Oregon Transportation Commission direction on highway cover design and use

While the ultimate decisions on the packages are defined by ODOT, the Historic Albina Advisory Board will provide input to the approach.

I-5 Rose Quarter Improvement Project Key Decisions and Milestones

Achieving Design Milestones

I-5 Rose Quarter Improvement Project design milestones must be achieved in order to deliver the project on schedule. However, the following significant decisions and partner input are needed to keep the project on schedule to meet the design milestones:

- Community consensus and timely Oregon Transportation
 Commission decision-making for the highway cover design and use
- City of Portland re-engagement and input on design details for the surface street system and city permits
- Portland Public School's input on the desire for a sound wall near Harriet Tubman Middle School

Impacts of Schedule Delay/ Missed Milestone

- 1+ year would increase risk to 2023 construction start
- Delay to design milestones will increase risk of not meeting 2023 construction start date

Impacts of Cost Increases

About \$2 million per month in inflation costs



Impacts from other Urban Mobility Strategy Projects

If there is delay to the project schedule, Disadvantaged Business Enterprise (DBE) goals may be difficult to achieve due to a lack of DBE capacity to deliver so many regional projects at one time

Identifying Funding Plan

As the highway cover design and use team evaluates design options and the consensus community-informed recommendation is brought to the Oregon Transportation Commission, the project cost estimate will be updated. Costs are expected to increase with updated design recommendation for the highway covers. Further, if the decision around the highway cover design and use is delayed beyond Q1 2022, the project will be subject to cost increases due to inflation. The funding plan must be approved by Federal Highway Administration before the project can start construction, which is scheduled for mid-2023.

Decisions needed to inform the funding plan include the following:

• Highway cover design and use

Impacts of Missed Milestone

- 1+ year would increase risk to 2023 construction start
- Delay to design milestones will increase risk of not meeting 2023 construction start date

Impacts of Cost Increases

About \$2 million per month in inflation costs



Impacts from other Urban Mobility Strategy Projects

- If there is delay to the project schedule, Disadvantaged Business Enterprise (DBE) goals may be difficult to achieve due to a lack of DBE capacity to deliver so many regional projects at one time
- There is potential for toll revenue to contribute funds to the project

Oregon Toll Program

The U.S. currently has over 150 roads, bridges, and tunnels that are paid for by tolls. Additionally, 49 express lanes in 11 states use congestion pricing principles to maintain free-flow speeds while serving more people in public transportation and carpools. ODOT has learned from these experiences and is creating a 21st Century program that takes the best elements of its peers' programs. Oregon's innovative, systemwide use of tolls will prevent recurring congestion on our freeways, remove bottlenecks, and repair critical infrastructure for the state's mobility and economy.

The Oregon Transportation Commission oversees tolling, or congestion pricing, in the state, including setting toll rates (see Appendix A for more on the Oregon Transportation Commission's role in tolling). The Urban Mobility Office-led Oregon Toll Program will deliver all aspects of the toll system under guidance of the Oregon Transportation Commission. This includes the following:

- Identifying potential toll corridors and conducting analysis to determine if tolls are feasible and, if so, how they should be implemented (in progress)
- Identifying and establishing program-level equity and mobility strategies to employ with each toll corridor (in progress)
- Establishing and operating back-office systems to administer tolls, including account management, customer self-service, transaction processing, violation processing, accounting, reconciliation, interoperability, and reporting (in progress)
- Designing and constructing physical toll infrastructure, such as gantries over the roadway
- Administering tolls and collecting toll fees

The Oregon Toll Program is in the initial stages of the first three bullets above. The earliest that tolls will be deployed in the region is in late 2024. Two major milestones must be completed before ODOT can begin to toll, as detailed on the project schedule (page <?>):

- Corridor study and environmental review. For the I-205 Toll Project, toll alternatives are being evaluated through an Environmental Assessment as required by the National **Environmental Protection Act** (NEPA). This project is on schedule to finalize the NEPA approval process by late 2022/early 2023. With approval in place, the project can be implemented once the next milestone is achieved. For the Regional Mobility Pricing Project, evaluation of a more regional application of tolling on I-5 and I-205 is taking place and will identify toll alternatives to move into the Environmental phase by mid-2022.
- Toll Infrastructure Development.
 ODOT must develop toll
 infrastructure for operations,
 including physical infrastructure
 and toll technology, and establish
 services to efficiently collect tolls,
 provide customer service, ensure
 financial integrity, establish legal
 and programmatic authorizations,
 and maintain transparency and
 accountability. Appendix A provides
 more information about this
 process. The soonest these systems
 would be established, tested, and
 ready to "Go Live" is 2024.

The Oregon Toll Program is in the beginning stages of project development and system establishment.

Why Toll in the Portland metro Area?

Tolls would benefit those who pay the toll with a faster, more reliable trip and provide funds for highway and multimodal improvements in the corridor. Variable rate tolls will help manage travel demand, resulting in reduced traffic congestion. Toll revenues will help increase funding for transportation projects, which has not kept pace with the cost to maintain or improve our multimodal transportation system.

ODOT is committed to using systemwide pricing on I-5 and I-205 through variable-rate tolling and considers it to be a vital tool to manage traffic demand in the Portland metro area.

Data show that traffic flows the smoothest at speeds from 45 - 65 mph. The number of vehicles that get through per hour can drop by as much as 50 percent when severe congestion sets in. With peak-period highway pricing, a variable toll dissuades some motorists from entering freeways at those access points where traffic demand is high, and where such surges in demand may push the freeway over the critical threshold at which traffic flow collapses.¹²

Both federal and state sources fund transportation, which includes taxes on fuel and heavy vehicles, and fees for drivers and vehicle registration. The federal gas tax remains unchanged from 1993 and the amount given to Oregon has decreased over that time period. At the same time, aging roads and bridges, earthquake risks, a growing population, and rising construction costs have greatly increased our funding needs.

In 2017, the Oregon Legislature¹³ agreed to boost transportation investments for all Oregonians. The adopted law dedicated millions of dollars to improve highways, freight railroads, public transportation, and biking and walking facilities. The law also directed the Oregon Transportation Commission to study the feasibility of and then implement tolls on I-5 and I-205 in the Portland metro area to help manage traffic congestion. The Oregon Constitution requires that revenues collected from highway tolls must be spent on roadway projects, which could include construction or reconstruction of travel lanes, bicycle and pedestrian facilities, or public transportation improvements in or along the roadway.14

Types of Tolls

Guided by the Oregon Transportation Commission, ODOT is pursuing systemwide tolling that could include two types of tolling: congestion pricing and project tolling. Together, these two toll types work to achieve both congestion relief and provide funding for projects that address key traffic bottlenecks and upgrade bridges for seismic resiliency. They provide an opportunity for ODOT to enhance the entire transportation network efficiency.

Congestion Pricing

A fee to address traffic congestion. Tolls under congestion pricing would vary by time of day and traffic conditions with the goal to provide more efficient travel during peak hours. In Oregon, the purpose of congestion pricing is to both manage congestion and raise revenue to help fund construction congestion-relief transportation projects while helping ODOT achieve climate goals.

Project Tolling

A user fee to drive on a road or bridge to raise funds for improvements to the facility, many of which are old and in need of seismic upgrades as our community faces the risk of a major seismic even in the next 50 years. Tolls can also vary by time of day to help manage traffic flow and provide congestion relief.

Expected Benefits

- Improved travel time and increased reliability, safety, and efficiency
- Reduced greenhouse gas emissions and fuel consumption
- New, sustainable funding source through a user fee
- Strategies to enhance transportation equity and mobility









Federal Programs to Authorize Tolls

Implementing tolling on I-5 and I-205, both of which are interstate highways under the National Highway System, will require one or both of the following federal authorizations with concurrence from the Federal Highway Administration.

- Section 129 General Tolling
 Program: gives the Oregon
 Transportation Commission the authority to implement tolls when they are used to fund new highways and new lanes on existing highways, or the reconstruction or replacement of bridges, tunnels, or existing toll facilities.
- Value Pricing Pilot Program: provides transportation agencies with options to manage congestion on highways through tolling and other pricing mechanisms. Interested state, regional, and local government authorities are eligible and may apply for tolling authority. Any project implemented through this program requires formal approval from the Federal Highway Administration/U.S. Department of Transportation and must be formally approved by the U.S. Secretary of Transportation.

Predictable mobility and transportation options for travelers depend on adequate funding for multimodal improvements, and tolling is an essential part of the toolbox of transportation funding options. This Urban Mobility Strategy illustrates a potential suite of multimodal transportation improvements to modernize the transportation system in the Portland metro area. The projects in this Strategy include elements that are eligible for toll revenue funding (see below). ODOT intends to collaborate with jurisdictional partners to prioritize potential funding of these projects with toll revenue.

ODOT has the independent authority to implement bridge tolls and managed lane tolls. Through the 2018 Portland metro Area Value Pricing Feasibility Analysis, managed single lanes, or single priced lanes, were determined to not be a feasible solution for our region's highways.

Why tolling on all lanes?

Single priced-lane treatments operate parallel to unpriced (general-purpose) lanes and are typically established in the left lane. In Oregon, vehicles over 10,000 pounds (such as freight trucks) are not allowed to travel in the left lane and would therefore receive limited or no benefit from single-lane tolling (ORS 2017 Edition. Chapter 811.352). While single-lane tolling has limited benefits for those traveling in unpriced lanes, tolling on all lanes benefits all drivers. Further, the per-trip price for tolling on all lanes tends to be lower in comparison to single-lane pricing despite single-lane pricing generating limited revenue (as a general order of magnitude). Lastly, some sections of I-5 have only two through lanes, making it operationally infeasible to toll on a single lane in these areas.

Toll revenues will be used to fund multimodal congestion relief projects

ODOT is committed to multimodal transportation solutions to address congestion relief.

Toll revenues will be used to fund multimodal congestion relief projects. Article IX, section 3a, of the Oregon Constitution requires that "any tax or excise levied on the ownership. operation or use of motor vehicles...be used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets and roadside rest areas in this state." ODOT has interpreted that tolls may constitute a tax subject to this clause. Therefore, when considering what and where projects toll revenues can be invested in, ODOT must carefully consider how each project meets this requirement.

The Oregon Department of Justice has not completed a full analysis of what activities that support public transportation or active transportation may be eligible under Article IX, Section 3a. However, ODOT has concluded that

revenues most likely can fund the following public transportation and bicycle and pedestrian elements using resources constitutionally dedicated to highway proposes:

- Congestion management options such as dedicated lanes for transit or carpooling, shared lanes for mixed auto/light- rail/bus traffic, bus-onshoulder operations, and queue-jumping lanes
- Transit facilities within public rights-of-way such as transit stops and stations
- Park-and-ride locations in or adjacent to the rights-of-way that serve buses
- Public transportation signal priority
- Highway pull outs to accommodate buses
- Bicycle and pedestrian facilities within the highway, road or street rights-of-way

ODOT is committed to looking at alternate ways to financially support, where needed, improvements to the public transportation system that are not currently able to use toll revenue due to the constitutional restriction on uses of revenue. The Oregon Transportation Commission will provide the final decision on the allocation process for toll revenues. There are different models from around the country in how tolling and public transportation work in collaboration. We are working with the Toll Program's Equity and Mobility Advisory Committee and our partners to understand the existing resources and needs to inform commitments that will occur as the toll project's progress through the environmental review process.

Project-Specific Toll Strategies

The Oregon Toll Program will use both congestion pricing and project tolling, as described above, to fund implementation of projects in this Urban Mobility Strategy.

Congestion Pricing

Regional Mobility Pricing Project

Planning is underway for congestion pricing (using variable-rate tolls) on I-5 and I-205 from near Oregon's Columbia River south to Wilsonville to manage congestion and raise revenue to help fund construction of approved congestion-relief multimodal transportation projects. Toll end points on the interstate corridors will be examined during the planning work. On I-5, the Regional Mobility Pricing Project team is working in close collaboration with the Interstate Bridge Replacement program to develop toll options near the Columbia River.

Mitigation focuses on reducing the impacts of tolling by implementing strategies such as traffic signal improvements or protected bike lanes and sidewalks on a roadway that may experience increased traffic. Other mitigation measures could address affordability. ODOT is exploring toll systems that use subsidies or reduced toll rates based on income levels.

Project Tolling

Several ODOT-led projects will require funding from toll revenue. These project costs include the capital improvements and any related strategies or **mitigation** to address impacts due to tolling.

I-205 Toll Project

This project would implement tolls in the vicinity of the Abernethy and Tualatin River Bridges in Clackamas County to fund reconstruction for earthquake safety and to add a travel lane in each direction. The project is currently being evaluated for benefits and impacts. Other toll points are also being evaluated as part of the analysis.

Interstate Bridge Replacement Program

Project planning and evaluation is underway to replace the I-5 Interstate Bridge. Construction and maintenance of this bridge will be funded in part through project tolls.

I-5 Boone Bridge and Seismic Improvement Project

Project planning has begun to upgrade and reconstruct the I-5 Boone Bridge for earthquake safety. Construction and maintenance of this project will be funded in part through project tolls.

When Will Tolls Be Implemented?

Tolling on these projects could begin prior to or during construction, which is referred to as "preconstruction tolling" or "pre-completion tolling".

Pre-construction tolling begins before construction on a facility that will be financed with toll revenue

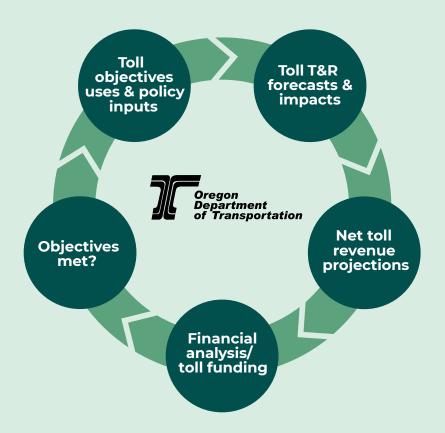
Pre-completion tolling is a broader term that includes pre-construction tolling and any tolling during construction

Finance Planning for Toll Revenue

ODOT will need to conduct several financial studies to understand the ability of tolls to contribute to project funding. The major studies, referred to as traffic and revenue (T&R) studies, help answer key questions to understand how much toll revenues can contribute to project funding. The process is iterative.

Traffic and Revenue Study Levels

In the context of the I-205 Improvements Project's Financial Plan, a decision is needed to determine how much funding from tolling is required. Toll revenue contributions could fund the entire project capital cost or a subset of the total project costs if other funding is available and/or if there is a policy goal to maintain lower toll costs that prohibit the I-205 Toll Project from achieving higher toll revenues. With a decision on the desired toll funding contribution, the traffic and revenue (T&R) study and The National Environmental Policy Act (NEPA) effort can then examine options that work to achieve the funding goal.



The purpose of a Level 1 T&R study is to determine high-level potential for a toll project to meet the established funding goal. The purpose of a Level 2 T&R study is to help inform the NEPA process as to the level of toll rates and type of toll schedule and policies that would be required to meet the financial obligations of tolls. A Level 3 T&R study would further refine the toll rates and financial plan in concert with the Oregon Transportation Commission's ratesetting process and preparation for the financing; however, completion of that work could end up being more or less concurrent with (or even subsequent to) obtaining a final NEPA decision. The table below provides details about the inputs and requirements of each T&R study level. The timeline that follows details when the T&R studies. will occur during the I-205 Toll Project's development.

Category	Level 1: Sketch	Level 2: Comprehensive	Level 3: Investment Grade
Traffic data collection (volumes, speeds, trip origin-destination patterns)	Relies on existing available data or modeled parameters	May include additional data collection and model validation/calibration	Likely includes detailed data collection to support thorough model validation/ calibration
Revealed & stated preference surveys	None	Possibly	Highly likely, especially if a new toll collection program
Land use / socioeconomic forecasts	Relies on existing metropolitan planning organization forecasts	May refine existing forecasts	Detailed study to generate independent forecasts or independently confirm or refine existing forecasts
Modeling tools	 Spreadsheet or existing regional travel demand model May be augmented with toll optimization tools 	 Existing regional travel demand model may be updated/refined with survey and traffic data May include calibration/validation for region or study corridor Likely augmented with toll optimization tools May include subarea model or operation simulation tools 	 Purpose-built travel demand model or updated existing model refined with survey and traffic data Thorough calibration/validation for study corridor Augmented with toll optimization tools Likely includes subarea model or operation simulation tools
Benchmarking and sensitivity testing of input assumptions	Minimal	May include benchmarking and sensitivity tests for key assumptions	Detailed benchmarking and sourcing for all input assumptions; sensitivity testing of all major assumptions and key risk factors
Net revenue projections	Optional consultant effort	Optional, may be a separate consultant effort and report	Required, typically a separate consultant or owner effort and report

Tolling Timeline

January Oregon Transportation Plan: updated congestion pricing/ toll policies RMPP publish NEPA document May RMPP: EMAC May **Equity Framework** recommendations on RMPP: EMAC toll rates and revenue November recommendations distribution **EMAC** foundational statements. December informs EMAC Adoption of toll operation RMPP: OTC sets toll rates recommendations rules **Toll Opening** (1-205)2021 2023 2025 2022 2024 Toll Opening (RMPP) **February January** I-205: EMAC I-205: Begin mitigation discussion recommendations on toll rates and revenue distribution I-205 Toll Project publish EΑ RMPP issue final NEPA document and findings **EMAC** recommendations September I-205: OTC sets toll rates Income-based toll rates report (HB 3055) and toll/ RMPP: USDOT decision congestion pricing policy on toll agreement options RMPP begins NEPA **Policy and Operations December**

I-205

Regional Mobility

Pricing Project (RMPP)

Adoption of toll

operation rules

I-205 Toll Project publish Environmental decision

December

document

Urban Mobility Strategy

Core Project Descriptions

I-5 Rose Quarter Improvement Project

Overview

The I-5 Rose Quarter Improvement Project will smooth traffic where three interstates meet, easing congestion at the worst traffic bottleneck in Oregon and one of the worst in the nation. As of 2021, I-5 Rose Quarter is the 28th-worst freight bottleneck in the nation. In Oregon, it has the highest crash rate for an urban interstate.

This critical project will add auxiliary lanes and safety shoulders on I-5 between I-84 and I-405. This will save people driving nearly 2.5 million hours of delay each year, reduce crashes by up to 50% and provide better access to emergency services and bus transit. The project will also improve community connections by redesigning overpasses, reconnecting neighborhood streets, enhancing public spaces and promoting economic development.



Equity in the Rose Quarter Project

In the 1950s and 1960s, construction of I-5, the Veterans Memorial Coliseum, Rose Quarter/ Moda Center, Emanuel Legacy Hospital, Portland Public School Blanchard site and other urban renewal projects divided and displaced communities in North and Northeast Portland, impacting communities of color, especially African American communities, in the historic Albina neighborhood.

With the I-5 Rose Quarter Improvement Project, the Oregon Department of Transportation (ODOT) is designing an equitable process by actively engaging affected communities to determine design solutions that reduce some of the barriers created by the construction of past projects. ODOT anticipates the project will

generate more opportunities for economic development and redevelopment in the Albina neighborhood.

One element of the equitable process is how ODOT is changing the way it does business with minority-owned disadvantaged business enterprises (DBEs). We will be intentional in setting contracting and workforce goals to hire people of color and want to be held accountable for doing so. ODOT has determined the following DBE workforce goals for the Rose Quarter project:

- 18% to 22% in the Construction Manager/ General Contractor Request for Proposals
- 20% DBE by trade for the apprenticeships
- 25% minority and 14% female as aspirational workforce targets

Beginning in the late 1980s, ODOT developed several studies to evaluate transportation design options to address congestion on I-5. These included the I-5: Greeley-N. Banfield Study (1987) and Modified Concept (1990-1996), Portland/Vancouver I-5 Trade Corridor Study (1999), I-5/I-405 Freeway Loop Study (2005), and ODOT/City Practical Design Workshop (2007).

ODOT and the City of Portland reached agreement on a set of alternatives through the 2010-2012 N/NE Quadrant Plan and I-5 Broadway/Weidler Facility Plan effort. During that process, together with a 30-member Stakeholder Advisory Committee, ODOT and the City evaluated over 70 design options. We narrowed the scope of design options to be consistent with, and not to preclude, the City's land use planning goals. ODOT and the City talked with more than 2,800 individuals and held 19 Stakeholder Advisory Committee meetings, 14 subcommittee meetings, four open houses and over 85 community briefings and walking tours. In 2012, the Portland City Council and Oregon Transportation Commission adopted the plans and the recommended design concept, which is now known as the I-5 Rose Quarter Improvement Project.

The project design concept is included in region land use and transportation plans adopted by the City of Portland. Metro Council adopted the proposed project as part of the Regional Transportation Plan in 2014 and again in 2018. Portland City Council adopted the proposed project into the City's Central City 2035 Plan and Transportation System Plan in June 2018.

During the I-5 Rose Quarter Improvement Project Environmental Assessment planning process, public engagement opportunities included the following:

- Interviews with Portland BIPOC community members
- Work with a 14-member Community Liaisons Group to inform outreach
- Project presentations at more than 100 events and community gatherings
- Nine public events with over 280 attendees
- Community walking and biking tours
- Door-to-door outreach with more than 60 businesses
- Updates via the project website and newsletters
- A 45-day public review and comment period on the draft Environmental Assessment
- Interested parties list of almost 1,500 people and organizations to provide project information
- Information shared through fact sheets, mailers, social media and media releases
- Community Liaisons Group to engage and involve those with current and historical ties to the area

Status

The environmental review phase and independent cover assessment are complete and ODOT continues design work. ODOT released an updated design package, reflecting 20% design, in spring 2021 that reflects comments heard from project partners and community input from the Environmental Assessment. This design update will inform the work of the construction team and allow us to continue to work together to address design issues, challenges and opportunities moving forward. Additionally, project findings of compatibility with local land use plans were adopted on April 5, 2021.

ODOT is working closely with local partners, and the Oregon Transportation Commission and Legislature on design. The agency is also partnered with the construction manager/general contractor (CM/GC) early in the design phase to optimize design, provide innovation, manage risk, and refine project schedule and cost. The CM/GC structure will also allow ODOT to meet if not exceed goals in hiring women- and minority-owned businesses to build the project.

Schedule

Planning Phase:

- N/NE Quadrant Plan, including the I-5 Broadway/ Weidler Interchange Improvements Facility Plan, adopted by Portland City Council in 2012
- Environmental review: National **Environmental Policy** Act (NEPA) decision document: CM/GC selection and notice to proceed, 2020

Design and Construction Phases:

- Early Work Packages coordinated with CM/GC, 2020 through 2025
- 30% design: Main Work Packages, 2020-2022
- Independent Highway Cover assessment (Oregon **Transportation Commission** direction on highway cover in • 100% design: Main 2021), 2020 to 2021
- Right of Way certification, 2020 to 2022
- Federal Highway Administration (FHWA) coordination for construction approval — prior 2020–2022

- 60% design: Main Construction Packages, 2024
- 90% design: Main Construction Packages, 2024
- Main Construction Package, 2026 to 2029
- Construction Package,
- Main Construction Package Complete (accommodating 3 story buildings on highway cover), 2030

Funding

Partial funding for design and construction phases was provided in HB 2017. The legislature authorized \$30 million per year, beginning in January 2022, for the Project based on the estimated project cost of approximately \$450 to \$500 million (in 2017 dollars).

To meet Section 27c requirements of Oregon's HB2017, the Project provided a cost-to-complete (CTC) report to the Legislature on January 23, 2020.

On September 9, 2021, the total project cost increased with approval of the Hybrid 3 design concept which expands the length and width of the cover to allow for more buildings on top - up between \$500 million and \$750 million. Those costs were preliminary (based a 5% design concept) and were expected to change based on further design and technical analysis from the project team.

One of the conditions of approval of the Hybrid 3 design concept outlined by the Oregon Transportation Commission was that ODOT must develop a finance plan to be delivered to the Commission in January 2022 that includes:

- An estimate of the amount of dedicated funding needed to build the project
- A viable plan to secure that dedicated funding from federal, state and/or the City of Portland, Metro, Multnomah County, TriMet and other organizations in Portland

The finance plan will include refined cost estimates and the federal, state and local funding sources that will provide the financing needed to cover the full cost of the project. This is a conceptual finance plan, intended to kick off the financial planning process for the project.

Partner Agencies

FHWA, Metro, and Portland Public Schools. Additional project partners include: the Governor's Office, Oregon Building Trades, N/NE Community Development Initiative, N/NE Housing Strategy, National Association of Minority Contractors,

Oregon Trucking Associations, TriMet, and Williams and Russell Project, City of Portland. Multnomah County and Albina Vision Trust withdrew their support for the project in 2020 and ODOT continues active discussions and an open-door policy for their return.

I-205 Improvements Project

Overview

The I-205 Improvements Project is part of the Urban Mobility Strategy to comprehensively reduce congestion and crashes, while also making travel times shorter and more predictable. As part of this plan, ODOT is evaluating tolling as a way to raise revenue and manage congestion on I-205 between Stafford Rd and OR 213 under the NEPA process. A safer, less congested corridor will provide access to work, health and play, and will support a healthy Oregon economy.

Widening and strengthening I-205 creates safer and less congested travel with earthquake-ready bridges. Upgrades to the Abernethy Bridge will make it the first earthquake-ready interstate structure across the Willamette River, and the project will also rebuild or reinforce other bridges on the corridor, making I-205 the passable north-south route through the Portland region after a major earthquake.



The project will also add a third travel lane in each direction, improve the ability of people driving to safely enter and exit the interstate, with an auxiliary lane from OR 99E entrance ramp to OR 213 exit ramp, and make interchange improvements at OR 43 and OR 99E.

Equitable Engagement

The I-205 Improvements public involvement team has engaged minority and low-income communities by offering materials in six languages, distributing materials through community engagement liaisons and targeting outreach to community-based organizations that serve these communities.

In the spring 2021 online open house and campaign, community engagement liaisons reached out to communities and shared project information to inlanguage networks, including Facebook groups and email groups, distributing these materials:

- Spanish language newsletter invited participation in the Spanish online open house
- **Postcard** invited participation at the English and Spanish online open house
- In-language information sheets provided project information in Russian, Spanish, Vietnamese, Traditional Chinese and Simplified Chinese, and included links to the in-language webpages

As a part of this campaign, targeted advertising was conducted with the following media and social media outlets:

- Print Ads The Asian Reporter (English) and Latino de Hoy (Spanish)
- Radio Ad El Rey 93.1 FM (Spanish)
- Google Ads Russian, Spanish, Vietnamese, Traditional Chinese and Simplified Chinese
- Facebook Ads Spanish and Vietnamese

Similar outreach will occur in spring 2022, prior to beginning construction of the Abernethy Bridge and adjacent interchanges. In addition, the public involvement team engaged Disadvantaged Business Enterprise in networking events to prepare for the Phase 1A bidding process.

I-205 was identified by the governor's task force, Legislature and regional stakeholders as a corridor inhibiting statewide economic growth due to congestion on the southern section of the corridor. House Bill 2017 named the project as a priority for the state, and directed Oregon Transportation Commission to evaluate congestion pricing as a way to providing funding and manage congestion. In addition, as directed in House Bill 2017, a cost-to-complete report was submitted to the Legislature in January 2018. This report outlined schedule and scope assumptions at 15% design, as well as associated costs of delivering the full project between 2020-2025, if construction funding was available. Despite efforts to secure federal grants and other funds, other fund sources have not been identified. The current project delivery approach includes constructing the project in phases, beginning in 2022.

One key goal of ODOT's Urban Mobility Office is to expand contracting and workforce opportunities for historically disadvantaged groups. Over 100 potential opportunities for Disadvantaged Business Enterprise firms have been identified for the first I-205 contract. The I-205 Improvements public involvement team

engaged Disadvantaged Business Enterprise firms and associations in summer and fall 2021, hosting networking events with potential prime contractors to prepare firms for the bidding process. The project team is also participating in a pilot program administered by the Federal Highway Administration to address inequities in the construction industry by allowing a local hiring preference. The program increases workforce development opportunities and improves participation in existing training and education programs in the Portland metro area.

Public engagement included efforts to seek out and engage minority and/or low-income populations, primarily by contacting and interviewing stakeholders who serve or have knowledge of low-income, minority, limited English proficiency, and elderly populations in or near the project area. The 20 individual stakeholder interviews and the 21 stakeholder group interviews reported very few potential minority and/or low-income populations in and around the project area.

The NEPA process was completed in December 2018, and the project is included in the current Regional Transportation Plan's fiscally constrained project list.

Status

This project is part of the Urban Mobility Strategy through ODOT's Urban Mobility Office. The project team is working closely with our partners at Oregon City, West Linn and Clackamas County.

Phase 1 has passed 90% design; Phase 2 is at 60% design.

Schedule

Construction Phase:

- Phase I 10th Street to OR 213 (2022)
 - » Phase I will be delivered through multiple contracts. The first, Phase IA, will go to bid in December 2021 to enable the contractor to begin work in summer 2022 (during the allowed inwater work window)
- Phase II Stafford Road to 10th Street (2025)

Funding

Project design is funded, and ODOT is actively working to establish the financing plan to support construction. Toll revenue will ultimately fund the project, following the completion of the required tolling analysis.

Partner Agencies

The project team is working closely with our partners at Oregon City, West Linn and Clackamas County. Federal oversight is provided by FHWA and state and federal permits provide direction for in-water construction in a navigable river.

I-205 Toll Project

Overview

The proposed I-205 Toll Project would toll I-205 near the Abernethy Bridge to manage congestion between Stafford Road and Oregon Route 213 and raise revenue for transportation improvements. As considered, tolls could help complete construction of the planned I-205 Improvements Project while giving travelers a better and more reliable trip.

Tolling on I-205 would consist of an allelectronic system that would automatically collect tolls from vehicles traveling on the corridor. People driving will not stop to pay a toll. A transponder, a small sticker placed on the windshield, is read and connected to a pre-paid account. If a vehicle doesn't have a transponder, a camera captures the license plate, and the registered owner is billed.



Equity and Mobility Advisory Committee

To ensure equitable toll projects and processes, and to help develop a framework, ODOT convened an Equity and Mobility Advisory Committee. This committee is a group of individuals with professional or lived experience in equity and mobility coming together to advise the Oregon Transportation Commission (The Oregon Transportation Commission) and ODOT on how tolls on the I-205 and I-5 interstate highways, in combination with other demand management strategies, can include benefits for populations that have been historically and are currently underrepresented or undeserved by transportation projects. In providing input to the The Oregon Transportation Commission, the committee shall consider needs and opportunities for achieving community mobility

and equity priorities as part of the National Environmental Policy Act process for toll implementation. As of May 2021, the committee has developed or is in the process of creating the follow items:

- An equity framework that establishes a new process for project development and engagement
- Collaborating on community engagement by improving our plans and direct-coordination with community-based organizations
- Draft recommendation to the The Oregon Transportation Commission on policies and strategies that address transit and multimodal transportation options, affordability, and neighborhood impacts to health and safety
- Feedback on the detailed performance measures that assess impacts and

In 2017, the Oregon Legislature passed House Bill 2017, known as "Keep Oregon Moving." This bill committed hundreds of millions of dollars in projects to address our congestion problem and improve the transportation system in the region and statewide. The legislation also led the Oregon Transportation Commission to pursue and implement tolling on I-5 and I-205 in the Portland metro area to help manage traffic congestion. A 2018 feasibility analysis, which included both technical analysis and public input, found that tolling could help raise revenue and manage congestion on I-5 and I-205.

Status

ODOT is in the environmental review phase, which began in 2020. Following a public comment period in summer through fall 2020, the I-205 Toll Project is moving forward with an analysis of the three alternatives. This phase will include:

- An assessment of the potential for additional diversion onto the surrounding street system, especially onto neighborhood streets designed for low speed, low volume conditions
- An evaluation of existing transit during peak periods to accommodate any shift in travel modes
- An assessment of whether improved reliability on I-205 will make bus service on the highway a viable option to improve the currently limited public transportation options between West Linn, Oregon City and the I-5 corridor
- Evaluation of other potential benefits and impacts of the tolling alternatives
- Consideration of equity and mobility strategies to ensure people of all demographics receive travel benefits

The project team summarized all the public comments in a report and responded to the concerns, ideas and recommendations provided. In 2023, the preferred alternative is expected to be selected based on the analysis conducted, existing policy and guidance, and community and stakeholder feedback.

Regional Mobility Pricing Project

Overview

Through this project, ODOT is evaluating variable-rate tolls to manage congestion and raise revenue to help fund construction of approved transportation projects that further reduce congestion.

The start and end points for variable-rate **tolling on I-5 and I-205** will be determined through the planning process in 2021 and 2022. ODOT will engage agency partners and the community to narrow the best regional options for I-5 and I-205 to study in a formal environmental review starting in 2022.



History

Oregon's House Bill 2017, also known as Keep Oregon Moving, directed the Oregon Transportation Commission to develop a proposal for tolling on I-5 and I-205. When implemented, tolling would reduce congestion as part of a suite of transportation investments throughout the state for roadway improvements, transit service enhancements and bicycle and pedestrian safety upgrades.

The Oregon Transportation Commission and ODOT conducted the Portland metro Area Value Pricing Feasibility Analysis from 2017–2018 to study how and where tolls could be applied. Substantial public input and a Policy Advisory Committee informed the final recommendations.

In December of 2018, the Oregon Transportation Commission submitted a proposal to the FHWA outlining the findings of the feasibility analysis and seeking approval to continue the process of implementing tolls on I-5 and I-205. FHWA provided guidance to move into the next phase of evaluation and toll study.

In 2020, stakeholders commented on the I-205 Toll Project and stated the need for a comprehensive approach to tolling, but expressed concerns about fairness, equity, climate and diversion. To address these concerns, ODOT expanded its approach to consider regional tolling on I-5 and portions of I-205 not included in the I-205 Toll Project, consistent with the long-term vision of the identified in the Value Pricing Feasibility Analysis.

Status

Start and end points for tolls on the I-5 and I-205 corridors will be defined as part of the technical and environmental analysis. This will include:

- An evaluation of toll options and start and end points of the tolled area
- An assessment of the potential for diversion onto the surrounding street system, especially other major routes (such as SW Barbur Boulevard, NE Martin Luther King Jr. Boulevard, OR 99E, I-84, I-405, N/NE Columbia and Lombard corridors)
- An evaluation of existing and planned future transit service
- Consideration of equity and mobility strategies to ensure all demographics receive travel benefits

Schedule

The process to implement a toll program requires substantial analysis, public input, construction, testing and education before the system can be operational. Early planning for regional tolling started in 2021. The soonest regional tolls could begin is late 2025.

OR 217 Auxiliary Lanes Project

Overview

OR 217 between Beaverton and Tigard has 10 interchanges in just over 7 miles and some of the shortest merging spacing in the region. The limited interchange spacing, combined with 120,000 vehicles a day, leads to high crash rates and travel delays. The interchanges at Allen Boulevard and Denney Road are some of the worst bottleneck locations along OR 217. This project will help reduce traffic congestion and help everyone on OR 217 get where they need to go.

The OR 217 Auxiliary Lanes Project will address long-standing bottlenecks on the highway between Beaverton-Hillsdale Highway and OR 99W due to too many closely spaced interchanges. Auxiliary lanes are ramp-to-ramp connections that help reduce gridlock by giving people driving more space and time to merge safely. This decreases conflicts, improves the safety and flow of traffic, and ultimately allows the existing lanes to work more efficiently.

The project will also address one of the worst bottleneck locations at the Allen Boulevard and Denney Road interchanges by adding a new frontage road, replacing a major bridge structure and building four sound walls.

We aren't just making improvements to the highway itself. The area surrounding OR 217 must be made safer for all Oregonians. In partnership with the City of Beaverton and Washington County, the project is making targeted improvements to local bicycle and pedestrian routes.



Hall Boulevard Bicycle/Pedestrian Crossing

There are bike/ped improvements planned for both Hall Boulevard bridges over OR 217 as part of the OR 217 Auxiliary Lanes project.

The project will replace the Hall Boulevard overpass between OR 99W and Pfaffle Street in Tigard and will include wider sidewalks and bike lanes.

The project will also widen the Hall Boulevard overpass between Scholls Ferry Road and Cascade Avenue in Beaverton to include sidewalks on both sides and bicycle lanes. This is in partnership with the City of Beaverton.

ODOT studies identified OR 217 bottlenecks as priority areas for improvement. House Bill 2017 funded this improvement project to alleviate the bottleneck issues.

Status

Construction has started.

Schedule

Design

• Ending in spring 2021

Construction

Late 2021 to 2025

Funding

The 2017 Keep Oregon Moving legislation is the primary funding source for these safety improvements.

Partner Agencies

The City of Beaverton and Washington County have contributed funds toward the project.

I-5 Boone Bridge and Seismic Improvement Project

Overview

The I-5 Boone Bridge is located within Clackamas County over the Willamette River, south of Portland and north of Salem. A portion of the project area is within the City of Wilsonville and spans the southern urban growth boundary of the Portland metro area. This section of I-5 serves intercity, regional, statewide, interstate and international mobility. I-5 is the key freight corridor for the West Coast stretching from Canada to Mexico, and has been recognized as a federally designated "corridor of the future." As such, I-5—especially in the vicinity of the Boone Bridge—is an important Oregon Seismic Lifeline Route for destinations along the West Coast.

The project will improve safety on I-5 by upgrading the Boone Bridge to be able to withstand the Cascadia Subduction Zone earthquake. ODOT designated I-5, with the exception of a short segment in Portland, a Seismic Lifeline Route, which means it must be operational quickly after an earthquake if other roadways are rendered unusable or impassable. Lifeline routes will play a critical role in getting supplies and services to the region if a significant seismic event or other catastrophe occurs.

The project will also improve safety and operations by adding a southbound auxiliary lane between the Wilsonville Road (Exit 283) and Charbonneau / Hubbard Interchanges (Exit 282A). This section of I-5 experiences significant congestion during the afternoon commute hours especially. Southbound traffic queues at the Wilsonville Road Interchange extend for many miles daily.



The I-5 Boone Bridge was originally built in 1952, substantially widened in 1967, and retrofitted in the late 1990s with a Phase 1 seismic retrofit intended to prevent the superstructure from falling from its supports. The 2016 Oregon Bridge Conditions Report identified the I-5 Boone Bridge as seismically vulnerable and in need of upgrades to withstand a Cascadia Subduction Zone earthquake.

In 2017, ODOT completed a study of freight delay areas. The final report identified this segment of southbound I-5 as part of a Tier 2 Freight Delay Corridor. A Tier 2 designation indicates that this segment is a critical location for investment to reduce the high costs of freight delay and unreliability to Oregon's economy.

The 2014 and 2018 versions of the Regional Transportation Plan describes how peak period congestion in this corridor impacts regional freight reliability, mobility and travel patterns. The Regional Transportation Plan also recommends consideration of auxiliary lanes between Wilsonville's on- and off-ramps.

In 2018, ODOT partnered with the City of Wilsonville to complete the Southbound I-5 Boone Bridge Congestion Study, the results of which are presented in the I-5 Wilsonville Facility Plan. This effort evaluated and addressed operational problems on I-5 southbound from the Wilsonville Road onramp (Exit 283) to the Canby-Hubbard offramp (Exit 282A). It also proposed a solution to address operations and safety in the worsening congestion bottleneck area. The recommended solution includes the addition of a southbound auxiliary lane to I-5 between the Wilsonville Road on-ramp and Canby-Hubbard off-ramp, with a two-lane off-ramp at Exit 282A. These operational improvements were proposed to be combined with necessary seismic improvements to the Boone Bridge.

The recommended improvements from the I-5 Wilsonville Facility Plan, plus improvements to the Boone Bridge itself, were added to the 2018 Regional Transportation Plan financially constrained project list (#11990). Since then, Wilsonville and state legislators have provided consistent support for the project, and in 2019, ODOT received direction to take initial steps to advance the project.

Status

In House Bill 5050, specifically written in the budget note to House Bill 5050, the 2019 Oregon Legislature directed ODOT to determine the best way to widen and seismically retrofit the I-5 Boone Bridge over the Willamette River and to provide a programming/funding estimate report back to the Legislature by February 1, 2021.

In spring 2020, using the funding allocated by the Oregon Transportation Commission, ODOT moved forward with the following tasks, in collaboration with Quincy Engineering, Inc. to resolve the question of structural retrofit versus structure replacement, defining the necessary next steps and a cost range and delivery schedule:

- Assessed approaches for achieving a seismically resilient I-5 Boone Bridge with a southbound auxiliary lane, including analyses of both Phase 2 seismic retrofit and bridge replacement options. We identified risks associated with each option and recommended an approach
- Assessed operational and safety improvements for I-5 northbound at the Charbonneau Miley Road/OR 551 Portland-Hubbard Highway interchange in coordination with the Boone Bridge improvements
- Analyzed potential land use and related travel demand impacts associated with the project, per Metro's request for analysis

- Developed a planning-level cost range for the recommended bridge replacement and other I-5 improvements, assuming planning and environmental work commences in 2022 and construction begins in 2027
- Developed a scope of work that includes additional field investigations, analyses, environmental-related tasks, and design work necessary to deliver the 15% design milestone for the recommended Boone Bridge and I-5 interchange improvements
- Developed a cost estimate to advance the project to the 15% design milestone and further inform a financial programming report to deliver the recommended Boone Bridge Replacement and I-5 interchange improvements through construction

Schedule

Planning Phase:

• Environmental analysis and NEPA: beginning 2022

Construction Phase:

Beginning 2027

Funding

Based on preliminary studies and less than 3% design, the estimated cost range to deliver this project is \$450 million to \$550 million. This cost range reflects a conceptual planning-level estimate to be refined after geotechnical/seismic investigations, environmental review and design work is completed. This cost range incorporates all phases of project delivery, including planning, preliminary and final design and construction resulting in the following improvements:

- · Seismically resilient Boone Bridge
- Southbound auxiliary lane between the Wilsonville Road entrance and the OR 551 exit
- Converting the southbound exit to OR 551 into a two-lane exit
- Northbound auxiliary lane extension from OR 551 to the Boone Bridge.

Partner Agencies

- The City of Wilsonville: the City has been a proponent of improvements to address congestion and safety in this segment of I-5and will be an important partner in future discussions about bicycle/pedestrian facilities in the vicinity of the Boone Bridge
- Clackamas County: portions of the project are in unincorporated Clackamas County, just outside the Wilsonville city limits
- Metro: the project is included in the 2018
 Regional Transportation Plan financially
 constrained project list. Ongoing
 coordination with Metro will help to
 address concerns related to land use and
 travel demand impacts
- FHWA: the project is on a federal highway and will undergo a federal NEPA process

Interstate Bridge Replacement

Overview

The **I-5 Bridge** provides a critical connection between Oregon and Washington that supports local jobs and families, and it is a vital trade route for the regional, national and international economies.

The two existing bridge structures are at risk for collapse following a major earthquake. They no longer satisfy modern commerce and travel needs. One span of the bridge is over 100 years old.

Replacing the aging Interstate Bridge across the Columbia River with a modern, seismically resilient, multimodal structure that improves mobility for people, goods and services is a vital priority for the region.



IBR Centers Equity

The Interstate Bridge Replacement (IBR) program has made a commitment to center equity in all aspects of program work. Fundamental to this is a program-specific definition of equity developed and recommended by our Equity Advisory Group. The definition distinguishes between process equity and outcome equity:

Process equity means that the program prioritizes access, influence and decision-making power for marginalized and under-served communities throughout the program by establishing objectives for design and implementation to evaluate project success.

Outcome equity is the result of successful process equity, demonstrated by tangible transportation and economic benefits for marginalized and under-served communities.

Both process and outcome equity are necessary to ensure that marginalized and under-served communities not only shape the program in a meaningful way, but ultimately gain from the many benefits the program promises to deliver.

Other elements of the IBR program that support the commitment to center equity include:

- Grounding the program in the history of the Columbia River, the I-5 corridor, and the Portland-Vancouver metro region
- A Principal Equity Officer (Johnell Bell), who leads the Equity Program team
- An Equity Advisory Group to guide the program toward equitable processes & outcomes
- Inclusive and intentional community engagement strategies
- Language accessibility and inclusion
- Accessibility and inclusion for people with disabilities

Regional leaders identified the need to address the I-5 corridor, including the Interstate Bridge, through previous bistate, long-range planning studies. In 2004, the Washington State Department of Transportation and ODOT formed a joint Columbia River Crossing project. The intent of this project was to improve safety, reduce congestion, and increase mobility of motorists, freight traffic, transit riders, bicyclists and pedestrians. This project was active between 2005 and 2014 and successfully received a federal Record of Decision in December 2011. However, the Columbia River Crossing project did not secure adequate state funding to advance to construction.

Status

Recognizing that regional transportation issues and necessary improvements to the Interstate Bridge remain unaddressed, both Washington and Oregon have dedicated a combined \$80 million for initial planning work as of March 2021. The IBR program will leverage work from previous planning efforts where appropriate and update prior studies to integrate new data, regional changes in transportation, land use and demographic conditions, and public input to inform program development work.

Schedule

Planning Phase:

• Program Launch: 2020

• Planning: 2020 through 2021

• Environmental: 2021 through 2023

Construction Phase:

• Pre-Construction: 2024 through 2025

Funding

As of March 2021, leaders from both Oregon and Washington have provided \$80 million for the initial planning work.

Given the funding reality for large transportation projects nationwide, it is assumed that a bridge replacement will require revenue from a diverse range of sources, including tolling, federal funds and state funds from both Oregon and Washington. Cost estimates and potential funding sources will be updated as work continues to identify and analyze river crossing and transit options. The IBR's program scope will adjust to align with available funding.

Partner Agencies

To provide coordinated regional leadership, ODOT and WSDOT are jointly leading the IBR program work in collaboration with eight other bistate public agencies. The eight agencies are TriMet, C-TRAN, Oregon Metro, Southwest Washington Regional Transportation Council, the City of Portland, the City of Vancouver, Port of Portland, and Port of Vancouver.

Appendix

Toll Program History, Regulatory, and Policy Background

Innovative Approach to Tolling

Legislative Direction for Tolling in Oregon

The modern legislative framework for tolling in Oregon began in 1995 with the legislature's passage of Senate Bill 626 and subsequent development of Chapter 383 of the Oregon Revised Statutes. Chapter 383 establishes basic rules for rate setting, tolling agreement, tolling authority, use of revenues, contracting, design, and other various project elements.

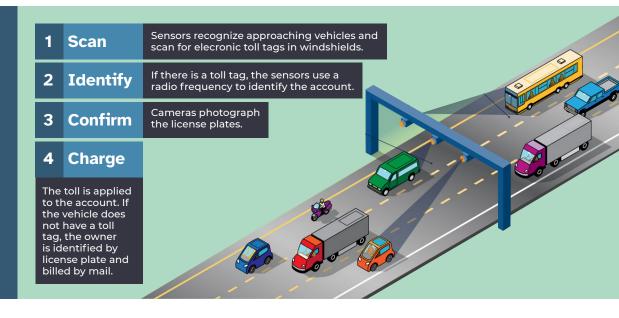
Who has authority over tolling proposals?

Chapter 383 states that tolls must be established with review and approval from the Oregon Transportation Commission. The Oregon Transportation Commission is also authorized to adopt rules for the commission's review of tolling proposals. When reviewing proposals, Chapter 383 directs the Oregon Transportation Commission to consider the following:

- a) The amount and classification of the traffic using, or anticipated to use, the tollway
- b) The amount of the toll proposed for each class or category of tollway user and the different amounts of the toll depending on time and day of use as applicable
- c) The extent of the tollway, including improvements necessary for tollway operation and improvements necessary to support the flow of traffic onto or off of the tollway
- d) The location of toll booths or electronic toll collection systems
- e) The cost of constructing, reconstructing, improving, installing, maintaining, repairing and operating the tollway
- f) The amount of indebtedness incurred for the construction of the tollway and all expenses and obligations related to the indebtedness including, without limitation, financial covenants, debt service requirements, reserve requirements and any other funding requirements established under the terms of any indenture prepared under section 150 of this 2021 Act and any other contracts establishing the terms of the indebtedness, if any

- g) The value of assets, equipment and services required for the operation of the tollway
- h) The period of time during which the toll will be in effect
- The process for altering the amount of the toll during the period of operation of the tollway
- j) The method of collecting the toll
- k) The rate of return that would be fair and reasonable for a private equity holder, if any, in the tollway
- I) other contracts establishing the terms of the indebtedness, if any
- m) The value of assets, equipment and services required for the operation of the tollway
- n) The period of time during which the toll will be in effect
- o) The process for altering the amount of the toll during the period of operation of the tollway
- p) The method of collecting the toll
- q) The rate of return that would be fair and reasonable for a private equity holder, if any, in the tollway

How Electronic Tolling Works



How can tolls be collected?

Tollway operators are authorized to use electronic toll-collection systems, photo enforcement systems, or any combination of these tolling approaches. The Oregon Transportation Commission is charged with setting standards by rule for toll system operation to ensure that "systems used in Oregon and systems used in the State of Washington are compatible to the extent technology permits."

How can tollways be designed?

In designing tollways, Chapter 383 states that tollways must meet ODOT minimum design standards and that ODOT will solicit recommendations from "all units of government having jurisdiction over any of the territory encompassing or adjacent to the proposed route of the tollway" including state and local parks departments. In reviewing recommendations, ODOT will consider the "present and future needs of local transit authorities" and whether expansion of the tollway through land or right-of-way acquisition for mass transit accommodation is warranted due to future population growth.

How is the toll program funded?

Chapter 383 also establishes the Toll Program Fund, which receives all monies and revenues received by ODOT (or made available by the federal government) for any tollway project or for the operation or maintenance of any tollways. The account consists of toll revenues in addition to loans, bond proceeds, and transfers from other state resources for tolling projects.

How is tolling enforced?

Chapter 383 establishes basic rules for enforcement. For example, those who have failed to pay a toll are required to pay ODOT the amount of the toll, a civil penalty, and an administrative fee established by the toll operator that cannot exceed the cost of collecting the unpaid toll. ODOT is also permitted to withhold vehicle registrations for failure to pay tolls. Language in Chapter 383 requires a "recorded image of a vehicle and the license plate of the vehicle" as proof of non-toll payment. Language also notes that "records and information used to collect and enforce tolls are exempt from disclosure under public records law" except for particular cases as specified in Section 383.075.

Recent Legislative Direction

With the passage of HB 2017 in 2017 and subsequent modifications per HB 3055 in 2021, Chapter 383 was updated to include a traffic congestion relief toll program (Oregon Revised Statutes 383.150).

Why is ODOT pursuing tolling on I-5 and I-205?

Chapter 383 directs the Oregon
Transportation Commission to
establish a traffic congestion relief toll
program pursuant to Federal Highway
Administration requirements. Upon
approval of the program, the commission
may assess variable rate tolls which
includes variable time-of-day pricing, on I-5
and I-205 as well as other areas of the state,
as warranted.

Where will I-5 and I-205 toll revenues go?

Revenues from the program are to be deposited in the Toll Program Fund established within Chapter 383 as "separate and distinct" from the from the state's General Fund. The fund is to be used to develop, implement and administer the toll program. Meanwhile, the Oregon Transportation Commission in 2020 determined that toll revenues should be used in the corridor in which they were generated. The definition of a "corridor" will be determined during a future public process that will inform the Oregon Transportation Commission decision.

Toll Program Fund can be used for:

- Toll project studies
- Project-related right-of-way acquisition
- Tollway construction, maintenance and administration costs
- Toll project grants or loans
- Bond administration fees
- Guaranty or other security for bonds or financial obligations
- Oversight, operation and administration of the Toll Program Fund
- Develop, implement and administer the toll program
- Make improvements or fund efforts on the tollway and on adjacent, connected or parallel highways to reduce traffic congestion, improve safety, and reduce tollway diversion impacts

State and Regional Plans Related to Tolling

Both the Oregon Highway Plan and Regional Transportation Plan provide policy direction on tolling in Oregon.

Oregon Highway Plan

In 2009, ODOT updated the Oregon Highway Plan to include a new "Tolling and Congestion Pricing" goal (Oregon Highway Plan Goal 6). The goal defines key attributes for "highway tolling" in terms of affecting driver behavior and generating new revenues while noting the international growth in tolling due to insufficient revenues and improvements to tolling technology. The amendment goes on to establish policy in five main areas, each of which is discussed in more detail:

- New Toll Facilities
- Pricing Existing Capacity
- Consistent and Supportive Policy Objectives
- Toll Revenues
- Tolling Technology and Systems

New Toll Facilities

State policy is to "consider the use of tolling for financing the construction, operations and maintenance of new roads, bridges or dedicated lanes only if expected toll receipts will pay for an acceptable portion of project costs" (Oregon Highway Plan Goal 6). Toll projects that provide new capacity must comply with other State of Oregon policies and be included as tollways in relevant local and regional land use and transportation plans. ODOT must consider only those toll projects ranked "medium to high." Any toll projects requesting statewide funds as a supplement for toll revenues must "prepare and submit to ODOT a formal financing plan that includes debt service, operational, maintenance, and preservation expenses." Any proposed high-occupancy toll lanes must be compared to alternatives that include highoccupancy vehicle lane(s) and "multi-class" general-purpose alternatives. ODOT is also tasked with examining the equity of any tolling or pricing proposal for new facilities.

Pricing Existing Policy

It is the policy of the State of Oregon to "consider the use of tolls, including time-of-day pricing, on existing, non-tolled state highways consistent with other Oregon Transportation Commission policies, state law, and federal statutes and planning regulations." To this end, projects that toll existing capacity on a previously non-tolled state highway are required to be included in the relevant local and regional land use and transportation plans. Furthermore, entities proposing to toll or price existing capacity must have "a clear statement of public policy objectives against which the effectiveness of the proposal can be measured" and must compare the proposed project to a non-tolled alternative. ODOT is tasked with analyzing the economic, social, and environmental effects of such projects with strong focus on equity and particularly impacts to the "transportation disadvantaged."

Consistent and Supportive Policy Objectives

ODOT has adopted a policy of ensuring that "motorists and its citizens have clear, consistent and coordinated objectives for any future highway tolling or pricing proposals, reflective of primary public concerns with the performance of the state highway system." As such, toll project proposers are required to review and document that such proposals are consistent with other toll and congestion pricing policies as well as applicable state and federal statutes and policies. ODOT is responsible for analyzing transportation, economic, social, energy, and environmental effects of tolling or pricing projects at the regional or state area as warranted. This includes analyzing the expected change in vehicle throughput due to any toll or pricing proposal. Finally, ODOT region staff and local government agencies are charged with coordinating to "evaluate public understanding of and support for the principal objectives" for toll and pricing projects relative to other alternatives that may address the Purpose and Need Statement.

Tolling Revenues

It is the policy of the State of Oregon to "treat the use of toll-generated revenue as an important component in evaluating any tolling proposal" given that the "effectiveness, equity and overall utility of tolling projects can be affected by how net toll receipts are used." As such, project proposers are required to consider the allowable range of potential uses for toll-generated revenue, with ODOT incorporating these considerations into its required economic, social, energy, and environmental analyses undertaken for the proposed project. Furthermore, ODOT region staff and local government agencies are required to coordinate in assessing public attitudes toward toll revenue usage for toll or pricing projects on state highways.

Tolling Technologies

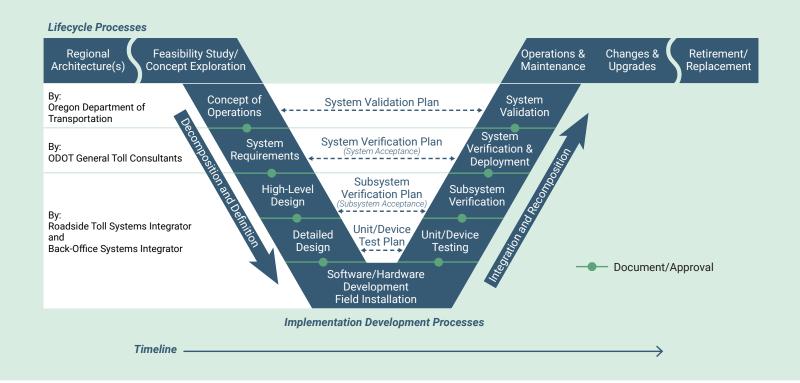
State of Oregon policy is to "enable cash-based motorists ready access to all-electronic toll facilities while eliminating the need for cash payment at the point of entry" and "deploy technology that facilitates interoperability with tolling systems of neighboring states and allows evolution of fully functional, nonproprietary tolling systems." As such, tolling and pricing proposals on a state highway require that ODOT develop tolling systems that rely on allelectronic collection mechanisms while enabling at least one "readily accessible electronic payment method" for cash and/or unbanked customers. Furthermore, tolling technologies and associated systems must be based on "common standards" and an operating sub-system accessible by the marketplace where components performing the same function can be readily substituted or provided by multiple providers." These objectives must be met while maintaining compatibility with tolling systems in Washington state.

Regional Transportation Plan

Metro's 2018 Regional Transportation Plan outlines transportation investments through 2040. As discussed in earlier sections of this plan, tolling projects must be included on appropriate regional plans. The 2018 Regional Transportation Plan includes little in terms of specific policy guidance for tolling or I-5 and I-205 in the Portland metro area with the exception of two policies:

- Transit Policy 6 relates to making transit more accessible by "improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option." The 2018 Regional Transportation Plan language notes that the region should "explore new ways to improve connections to high frequency transit" and should "consider methods of pricing that reduce tolls for higher occupancy vehicles" given the growing prevalence of ride-hailing services
- Transportation Systems
 Management and
 Operations Policy I directs
 the region to "expand use
 of pricing strategies to
 manage travel demand
 on the transportation
 system in combination
 with adequate transit
 service options"

Tolls at a future I-5/Columbia River Bridge are identified as a major throughway investment in the financially constrained Metro 2018 Regional Transportation Plan.



Tolling Policy

Tolling policy is a foundation for subsequent toll system development. The section begins with a brief overview of the tolling system development process followed by an explanation of required toll policy decisions.

Tolling System Development Process

Tolling system development will occur in accordance with systems engineering processes to ensure that technology hardware and associated software/back-office systems perform as needed to achieve objectives. As such, it is critical that certain policy decisions be made before developing various technical documents.

The commencement of tolling operations for I-205 is currently planned for late 2024 to early 2025. This will require ODOT to develop the requisite toll infrastructure for operations, which includes developing both one-time efforts to develop the physical infrastructure and toll technology and ongoing efforts to transform institutions and support services to efficiently collect tolls, provide customer service, ensure financial integrity, establish legal and programmatic authorizations, and maintain transparency and accountability. Currently, ODOT has developed an initial Concept of Operations document that provides a high-level overview of the tolling system. From there, various system requirements will be developed. It is for these documents in particular that subsequent policy decisions must be made.

Toll Policy Decisions

In general, tolling system policy requirements should include the following:

- Selection of a federal tolling authorization program Tolling in the Portland metro region will occur on interstate highway facilities (I-5 and I-205) and will therefore require federal approval. The Oregon Transportation Commission, ODOT, and Federal Highway Administration must agree on whether tolling will occur under Section 129, "General Tolling Program" ("mainstream tolling authority") or under the Value Pricing Pilot Program before releasing the Roadside Toll System Request for Proposals.
- Define tolling objectives Tolling systems are shaped by their operational policies, which in turn are informed by project objectives. These objectives are likely to include congestion mitigation and revenue generation. ODOT must finalize tolling objectives with concurrence by the Oregon Transportation Commission before procuring toll systems and in conjunction with National Environmental Policy Act processes.
- Use of Oregon Innovative Partnerships Program special procurement structure
 - The Oregon Innovative Partnerships
 Program has developed special
 procurement rules for transportation
 projects, and ODOT's Office of Innovative
 Funding is a resource for implementing
 projects with the Oregon Innovative
 Partnerships Program. ODOT should
 determine whether to use the Oregon
 Innovative Partnerships Program for
 procuring vendors and tolling support
 systems as soon as possible because it
 can affect the timing of the procurement
 process.
- Contracting approach Before procuring toll systems, ODOT must decide on a preferred contracting approach and decide what services (for example, back-office operations, roadside tolling system operations, customer service) will be included in each procurement.

- Enforcement reciprocity ODOT and the Oregon Transportation Commission should decide whether to facilitate enforcement reciprocity within the back-office system before posting procurement documents or finalizing agreements with potential partner agencies (early 2020 decision).
- Toll exemptions or discounts ODOT should determine if the back-office software will include the ability for individual facility toll systems to have the flexibility to allow for toll exemptions or discounts for special cases. This decision on flexibility must be incorporated into toll system procurement documents. The actual decision about exemptions or discounts will be made by the Oregon Transportation Commission in the future.
- decide what toll rate structure options to include in the back-office system. Available options include flat-rate tolls, time-of-day (variable pricing), and real-time/dynamic pricing. The rate structure to use on individual facilities will depend on decisions on federal tolling authorization, tolling objectives, and the use of exemptions and discounts. The decision on whether to move forward into procurement with the flexibility to use different toll rate structures is needed before posting procurement documents.
- Vehicle classification ODOT must decide if the toll system will have the flexibility to allow for separate tolling rates to be applied to certain vehicle attributes such as vehicle class, weight, and/or axle count. ODOT must also decide if toll systems on different types of facilities will have the flexibility to be priced differently including the use of tolling zones or applying tolls on a per-mile basis. These decisions are dependent on toll rate structure and the use of exemptions or discounts. Building in system flexibility for vehicle classification must be made before posting procurement documents (early 2020 decision).

- Toll rate thresholds (Minimum and Maximum Rates) – ODOT, with a final decision made by the Oregon Transportation Commission in the future, must decide whether the system will be flexible to include a maximum toll cap or a minimum toll floor value, or both. Specific rates can be determined at a later date, but the possible use of thresholds should be determined before posting procurement documents.
- Hours of operation ODOT must determine whether the back-office system will be able to decide the hours tolling will be active on a facility-by-facility basis. Options include at all hours of the day or during certain periods. Oregon Transportation Commission will make a final decision on toll hours of operation in the future.
- Toll tag form factor ODOT must decide on the form factor of the toll tags to be used, which includes the use of tags that are switchable for declaring high-occupancy vehicle status. These decisions are affect by the decision to offer exemptions and discounts and should occur before procuring toll tags.
- Back-office interoperability ODOT should determine the options that the back-office software will have for processing tolls from valid account holders from other tolling entities. Specific business rules that facilitate toll system interoperability will need to be developed or incorporated. Decisions on back-office software to support interoperability should occur before posting procurement documents.
- Data policy ODOT must develop and include specifications, requirements, and/or business rules in procurement documents that ensure data is secure and that personally identifiable information is protected.

The table below summarizes the toll policy decisions that have been made as of the drafting of this plan.

Toll Policy Area	Decision
Toll Rate Structure	Toll segments anywhere on the corridor will employ variable pricing to manage congestion in addition to using tolls to assist in funding improvement projects.
Vehicle Classification	All vehicles that are legally allowed to drive on Oregon roadways are to be allowed on Oregon tolled highways.
Toll Tag	The Oregon toll system will use ISO 18000-6C standard ("6C") sticker transponders. This is the same technology used by Washington state and California, which will enable interoperability with those states. Roadside readers will be configured to read three different tag standards: 6C, E-ZPass (used on the east coast and in the Midwest) and a modified ISO 18000-6B standard (used in the southern and southwestern US).

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- 15. The National Environmental Policy Act (NEPA) requires projects on the interstate system to be evaluated for benefits and negative impacts to the natural, cultural, historic and community environment. Results of that evaluation must be made publicly available.











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