



2040 FREIGHT PLAN, PROGRAM & POLICY REVIEW

PBOT

PORTLAND BUREAU OF TRANSPORTATION



Picture 1.1: Image of a busy street in downtown Portland, Oregon. A black car, white freight truck, and a person on a bicycle each occupy a lane on the street. A person holding luggage is seen crossing the street. [Source: Portland Bureau of Transportation (PBOT)]

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SECTION I: PLAN REVIEW

The Oregon system of planning requires coordination between state, regional, and local levels of government. Between the time of adoption of the 2006 Freight Master Plan and today, there have been many relevant plans accomplished at each of these levels. Each one establishes project and/or policy basis that 2040Freight will need to reflect. Legally, 2040Freight will need to demonstrate compliance with applicable state and regional requirements as well as consistency with other locally adopted policies and plans. The plans, policy documents, and studies examined in this memorandum establish guidance and requirements for 2040Freight and provide a foundational framework and collection of priorities to be embedded in this work.

This section includes a simplified explanation of relevant plans that shape the context for freight in Portland, such as plans adopted by City Council, Metro, the Port of Portland, and State of Oregon. It provides context for understanding some of the work that has already been done, to help shape where we are now and where we will be going. To keep the work relevant, only related plans accomplished since the last Freight Master Plan was adopted are included.

Primary Plans

For the purposes of 2040Freight, the primary guiding policy documents include the following plans:

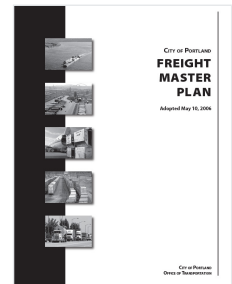
1. 2035 Comprehensive Plan (Comp Plan), first adopted by City Council in 2018
2. Transportation System Plan (TSP), with a major update in 2016
3. Moving to our Future, PBOT's Strategic Plan, 2018
4. Freight Master Plan, 2006
5. Regional Transportation Plan, 2018

These five plans make up the primary guiding policy documents because the Comp Plan and TSP undergo a formal legal process with the state to recognize their alignment with regional and state direction.

They can be thought of as the summarized versions of regional and state policies, with additional direction for our city jurisdiction and for our implementation. The PBOT Strategic Plan puts the TSP into action by identifying priorities for implementation within the three-year timeframe, in context with core PBOT functions of safety and asset management as well as reducing carbon emissions, advancing equity and addressing structural racism.



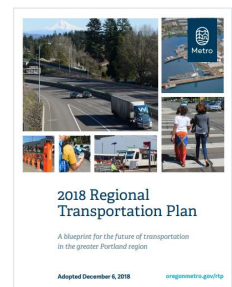
2035 Comprehensive Plan



2006 Freight Plan



2035 Transportation System Plan



Regional Transportation Plan (2018)



Moving to our Future, PBOT's Strategic Plan

Picture 2.1: Postage stamp size images of the front covers of the primary plans. [Source: PBOT]

Although the first Freight Master Plan already updated the TSP, it is important to specifically look back to it. In doing so, we will acknowledge what we said we would do, how far we have come, what is left, and whether or how it might make sense to continue to include anything we have not accomplished so far.

2035 Comprehensive Plan, 2018

Portland's 2035 Comprehensive Plan is a long-range plan that helps the City prepare for and manage expected population and employment growth, as well as plan for and coordinate major public investments. Portland's Comprehensive Plan establishes policies for freight in the context of a larger regulatory framework of federal, state, and regional goals and policies. Portland's policies are required to be compatible with and complement the framework established at higher levels of governance. The Comprehensive Plan includes relevant updates from



Picture 3.1: Image of a white freight truck driving through a congested freeway. Multiple black and white cars occupy the lane to the right of the truck. [Source: Oregon Department of Transportation (ODOT)]

other City plans, coordination with the planning work of partner agencies, and consistency with the Regional Transportation Plan adopted by Metro. Some of the key relevant policies are listed in Section III. Policy Review.

As captured in the Comprehensive Plan and the Transportation System Plan, transportation planning, street design classifications, and policy classifications have an inherent connection with land use. Oregon's Transportation Planning Rule, the implementing rule for Statewide Planning Goal 12, Transportation, establishes mandates for linking land uses and transportation planning activities. This critical linkage includes the identification of needs for movement of goods and services to support planned industrial and commercial development. The closer the relationship between transportation investment and siting of industrial and commercial facilities, the greater the benefit to the overall economic health of the community. To accomplish this, Portland must be more deliberate in integrating economic development activities with land use and transportation planning for industrial sectors.

Transportation System Plan, 2019

The Transportation System Plan (TSP) is the 20-year plan to guide policies and investments in Portland by supporting the City's commitment to Vision Zero by saving lives and reducing injuries to all people using our transportation system; helping transit and freight vehicles to move more reliably; reducing, carbon emissions and promoting healthy lifestyles; keeping more money in the local economy, as we spend less on vehicles and fuel; and creating great places. Several key policies related to freight and goods movement are cited in Section III. Policy Review.

As a part of the Transportation System Plan, the transportation element of the Comprehensive Plan, implementation of the City's Freight Master Plan is joined and balanced with the needs of all transportation modes. The Freight Plan Update will be a renewed guide for managing freight activities on City of Portland roadways. The final plan will detail infrastructure needs, street design, and operational strategies that will contribute to an integrated and efficient freight transportation system.

Moving to our Future, PBOT's Strategic Plan, 2018

Moving to Our Future maps out a strategic vision for Portland's transportation system. The Plan lays out the steps PBOT will take to harness the changes in our transportation system to deliver well-maintained streets, help ease congestion, and keep safety front and center in all that we do. This bureau-wide approach aligns goals and outcomes in order to deliver on an ambitious mission.

Emphasis is placed on priority outcomes related to safety, moving people and goods, and asset management. The Plan's goals are defined by strategic objectives and initiatives as well as a grounding basis for reducing carbon emissions, advancing equity, and addressing structural racism. Performance measures are also defined for each objective and will help to ensure we are making progress on our goals over time. Key objectives and initiatives with direct application to freight include:

Goal 1: Make Portland streets safe for everyone.

- *Objective 1:* Make Portland's High Crash Network safer, especially for pedestrians and people biking
- *Objective 3:* Use data and technology to make our transportation system safer.
- *Objective 4:* Make safety a core priority in everything we do.

Goal 2: Provide transportation options for a growing city.

- *Objective 2:* Make the most efficient use of our limited road space.
- Strategic Initiative D. Pilot a flexible curb zone that supports more people and more movement, and for efficient delivery of freight.
- Indicator C. Change in hours of delay of freight.
- *Objective 4:* Link transportation to land use more effectively.

Goal 3: Deliver smart investments to maintain our transportation system.

- *Objective 1:* Make PBOT a model of modern asset management
- *Objective 2:* Use data to make better decisions about transportation assets

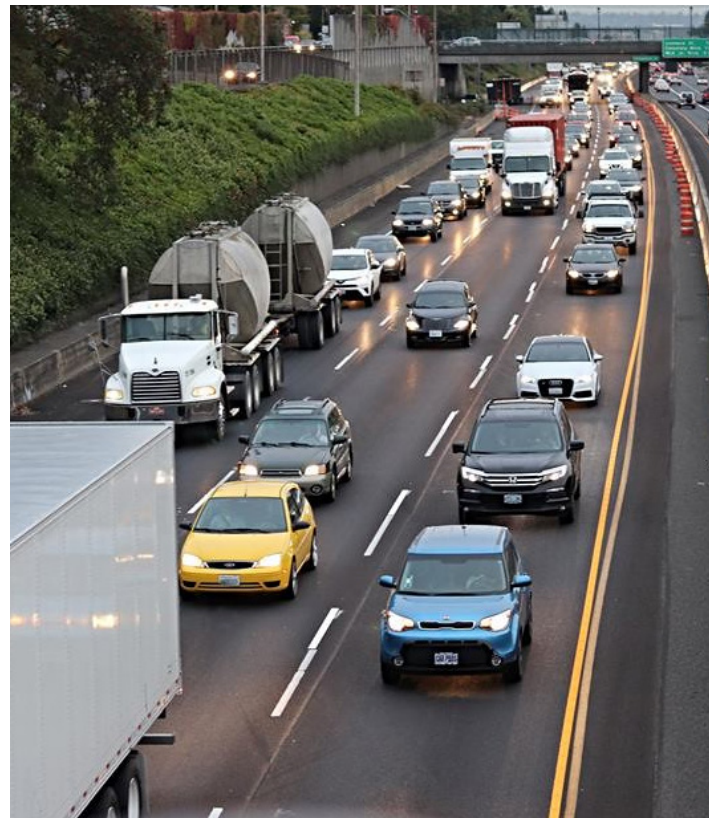
- *Objective 3:* Be good financial stewards of public infrastructure
- *Objective 4:* Talk to Portlanders about their expectations for asset performance

Portland Freight Master Plan, 2006

The City of Portland adopted its Freight Master Plan (FMP) in 2006. The FMP addresses the unique characteristics, needs and impacts of freight movement and is part of the City's Transportation System Plan. Through the FMP, the City of Portland promotes a multi-modal transportation system that supports long-term economic development by recognizing the role of goods delivery in supporting healthy and vibrant mixed-use centers and main streets.

The Freight Master Plan was built on three core values:

- *Mobility Improvements:* Focus on improving the reliability and efficiency of the freight network



Picture 4.1: Image of yellow, blue, black, and white vehicles and white freight trucks driving through a congested freeway. [Source: ODOT]



Picture 5.1: Image of a white and blue TriMet MAX light rail train stopped at a Max station. Multiple people are boarding and exiting MAX train. [Source: TriMet]

to meet increased demands and to identify where to invest in system improvements.

- **Livability Improvements:** Develop strategies for reducing community impacts from freight movement and balances truck movement needs with those of other transportation modes
- **Healthy Economy:** Promote a multi-modal transportation system that supports long-term economic development by recognizing the role of goods delivery in supporting healthy and vibrant mixed-use centers and main streets

The FMP includes policies that support the freight network and freight operations, strategies, actions for improving freight movement, the City's economic development goals, and developed a protocol for selecting and monitoring freight mobility projects. This body of work establishes freight network classifications for all Portland roadways and recommends thirty implementing actions based on the three core values. The FMP identifies capital projects, programs and activities to improve the reliability and efficiency of the freight network, to meet increased demands and identify where to invest in system improvements, develop strategies for reducing community impacts from freight movement, and balance truck movement needs with those of other transportation modes.

The list of capital projects in the 2006 FMP has been updated twice—in 2012 and again in 2015 as part of the City's update of the TSP. The FMP project list is also reviewed by the Portland Freight Committee on a yearly basis to identify potential project priorities that match available funding opportunities (i.e., STIP, RFF, TIGER). FMP capital projects are implemented based on available matching funds from various public and private resources and the level of project development for each project.

The 2040Freight will reexamine the freight network, multimodal conflicts and trends in the movement of goods and services to identify future needs and opportunities for increasing efficiency and safety. 2040Freight will also identify project solutions and prioritized strategies to provide immediate benefits as well as long-term capital improvements.

Regional Transportation Plan, 2018

Regionally, every four years Metro updates the Regional Transportation Plan (RTP) that guides and coordinates investments in the regional transportation system, which serves Clackamas, Multnomah, and Washington counties. Each update is shaped by growth forecasts in population, jobs and travel. The plan also evaluates federal, state and local funding for transportation improvements, estimates project costs and proposes funding strategies.

The 2018 RTP includes an updated list of projects of regional significance and aligns with the TSP.

By 2040, the region's goods movement system will need to absorb a near doubling of freight volumes, measured in tonnage by all freight modes, with approximately 75 percent of that dependent on trucks to link producers and consumers, or to reach intermodal nodes for import and export. The plan recognizes the importance of a sound multimodal freight system to support the region's economic and livability goals. The RTP identifies and defines a regional freight system. The plan also establishes policies and priorities for travel by motor vehicle, transit, foot and bicycle; movement of goods and services; and street design and the efficient management of the overall system.

Embedded within the RTP, the 2018 Regional Freight Strategy sets regional freight policy for the Portland metropolitan area and is a replacement of the Regional Freight Plan from June of 2010. The 2018 Regional Freight Strategy also provides the freight plan for the Portland metropolitan region, defined as the area within the Metropolitan Planning Area. The Metropolitan Planning Area is slightly larger than the region's Urban Growth Boundary.

Regional Freight Network Policies

- *Policy 1:* Plan and manage our multimodal freight transportation infrastructure using a systems approach, coordinating regional and local decisions to maintain seamless freight movement and access to industrial areas and intermodal facilities.
- *Policy 2:* Manage the region's multimodal freight network to reduce delay, increase reliability and efficiency, improve safety and provide shipping choices.
- *Policy 3:* Better integrate freight issues in regional and local planning and communication to inform the public and decision-makers on the importance of freight and goods movement issues.
- *Policy 4:* Pursue a sustainable multimodal freight transportation system that supports the health of the economy, communities and the environment through clean, green and smart technologies and practices.

- *Policy 5:* Protect critical freight corridors and access to industrial lands by integrating freight mobility and access needs into land use and transportation plans and street design.
- *Policy 6:* Invest in the region's multimodal freight transportation system, including road, air, marine and rail facilities, to ensure that the region and its businesses stay economically competitive.
- *Policy 7:* Eliminate fatalities and serious injuries caused by freight vehicle crashes with passenger vehicles, bicycles and pedestrians, by improving roadway and freight operational safety.

2040 Freight must demonstrate consistency with regional transportation policies and reflect the goals established in the RTP.



Picture 6.1: Image of white and gray vehicles entering and exiting the Portland Broadway Bridge. [Source: Chris Yunker]

Figure 1.1 Table

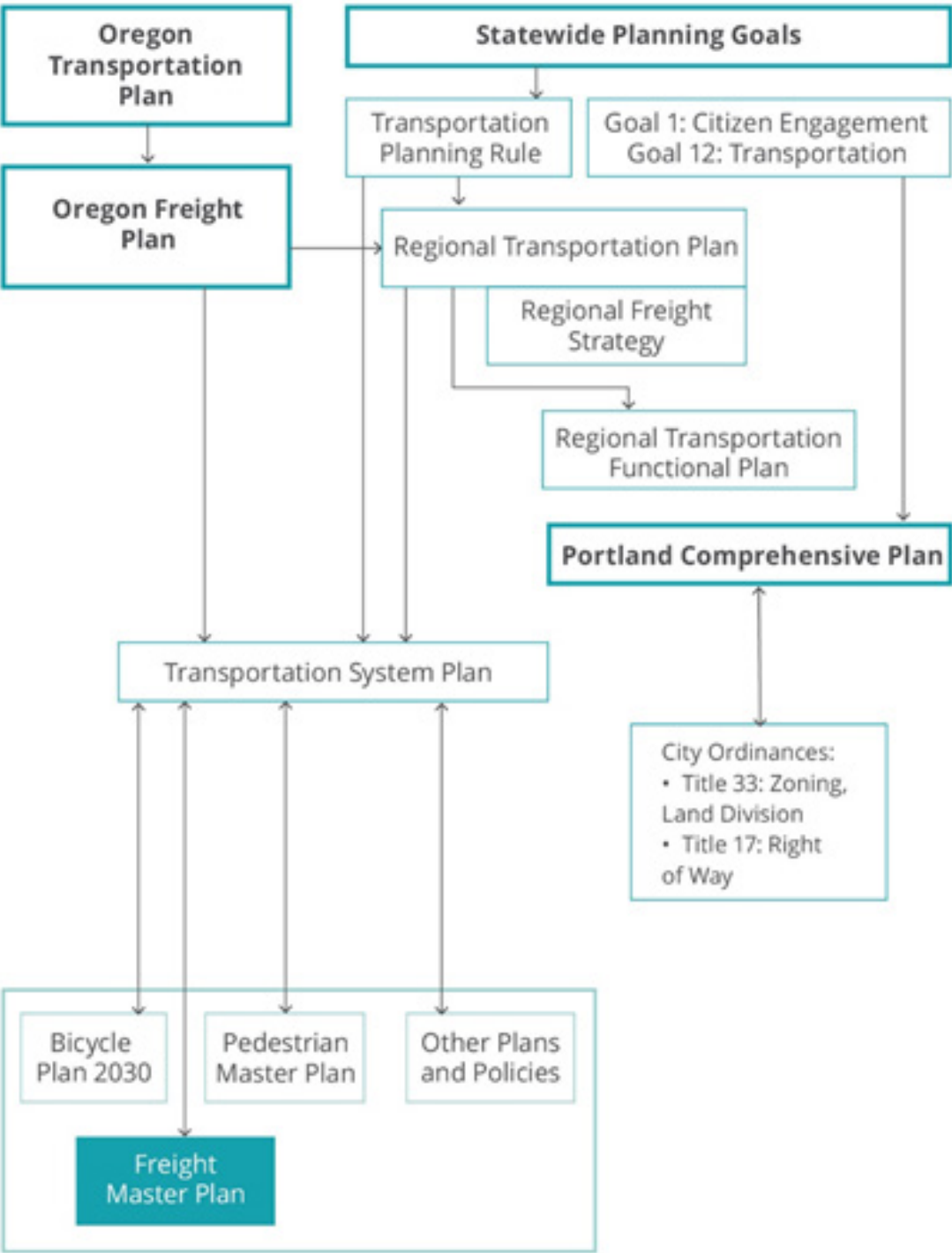


Figure 1.1. This illustration shows the relationships of state, regional, and local plans in terms of the hierarchy and flow of policy directives. State policy directs Metro’s Regional Transportation Plan, Regional Freight Strategy, and Transportation Functional Plan. The City Comprehensive Plan, Transportation System Plan, and all local modal plans (including the 2040 Freight Master Plan Update) conform to the requirements of the regional transportation plans. The process is not linear, however, as plan updates are staggered.

Federal Plans

Portland's Comprehensive Plan establishes policies for freight in the context of a larger regulatory framework of federal, state, and regional goals and policies. Portland's policies are required to be compatible with and complement the framework established at higher levels of governance. Achievement of 2040Freight vision and goals will occur through partnerships, ongoing engagement and implementation of a variety of policies, strategies and actions at the local, regional, state and federal level. Key federal efforts are highlighted below.

Fixing America's Surface Transportation (FAST) Act, 2015

The FAST Act establishes a national policy of maintaining and improving the condition and performance of the National Multimodal Freight Network to ensure that the Network provides a foundation for the U.S. to compete in the global economy. The FAST Act specifies goals associated with this national policy related to the condition, safety, security, efficiency, productivity, resiliency, and reliability of the Network, and also to reduce the adverse environmental impacts of freight movement on the Network. These goals are to be pursued in a manner that is not burdensome to State and local governments. [49 U.S.C. 70101]

National Highway System

Established under ISTEA legislation, the (NHS) is a 161,000 mile national network of interconnected roadways that link primary intermodal facilities including: airports, international border crossings, maritime ports, rail-truck terminals, intermodal passenger facilities, and major travel destinations. These roadways are the most critical connections in the national transportation network. In Oregon, the NHS is comprised of three classes of designation: Interstate Highway – NHS, State Highway – NHS, and NHS Intermodal Connectors, which are primarily attached to county-and city-owned roadways.

National Freight Strategic Plan, 2020

The National Freight Strategic Plan defines the U.S. DOT's vision and goals for the Nation's multimodal freight system and defines strategies to achieve those

goals. The department developed this plan through a multi-agency effort involving extensive consultation with freight stakeholders in both the public and private sectors. The U.S. DOT will use the plan to guide national freight policy, programs, initiatives, and investments. This Plan meets the requirement of the FAST Act to develop a strategic plan to implement the goals of the new National Multimodal Freight Policy.

States Plans

The City of Portland and 2040Freight planning efforts are required to be consistent with state goals and policies. The framework established at higher levels of governance are reflected in the TSP and acknowledge the legacy of work the City is building from. Simplified summaries of relevant policy and planning documents are captured below and will inform 2040Freight planning work.

ODOT I-5 and I-205 Toll Projects, (in progress, 2020)

In 2017, the Oregon Legislature passed House Bill 2017, known as "Keep Oregon Moving." This bill committed hundreds of millions of dollars in projects that will address our congestion problem and improve the transportation system in the region and statewide. HB 2017 funded bottleneck relief highway projects, freight rail enhancements, improvements to transit, and upgrades to biking and walking facilities. The Legislature also directed the Oregon Transportation Commission (OTC) to pursue and implement tolls on I-5 and I-205 in the Portland Metro region to help manage traffic congestion. This work will continue at the same time that 2040Freight will be under way.

ODOT Oregon State Rail Plan, 2014 (revised 2020)

The Federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA) requires states to produce a comprehensive State Rail Plan to establish policy, priorities and implementation strategies for freight and passenger rail transportation. This aligns with the duties of the Oregon Transportation Commission (OTC) and the Oregon Department of Transportation (ODOT) requirements for multimodal transportation planning. Updating the OSRP allowed Oregon to not only address the federal requirements of PRIIA, but also build upon prior Oregon rail

planning work, to address current challenges and opportunities and to support ODOT's multimodal objectives. The OSRP explores the issues affecting the state's rail freight and passenger system over 25 years. It assesses both public and private transportation facilities and services at the state, regional and local level. It builds on the 2006 Oregon Transportation Plan (OTP) which established a vision of a balanced, well-connected, safe multimodal transportation system that supports people, places and the economy. The OSRP focuses on the role of the rail freight and passenger services in fulfilling the OTP Vision, Goals and Policies. The OSRP provides an investment decision-making framework to enable Oregon to identify projects that are in the public interest, prioritize those projects and consider funding responsibility for rail stakeholders in consideration with benefits received.

For 2040Freight, there may be rail-related issues that are therefore not within PBOT's authority to directly

resolve or plan for. In these circumstances, we will work with our partners at ODOT to provide guidance, as possible.

ODOT Region 1 Active Transportation Needs Inventory, 2019

The region has developed the Active Transportation Needs Inventory, also known as ATNI, to better understand pedestrian and bicycle travel needs on the existing system of ODOT highways in Multnomah, Washington, Clackamas, and Hood River counties. Project documents include minimum standards for bicycle facilities, sidewalks and shoulders for ODOT facilities and includes inventory of shoulder facilities, enhanced pedestrian crossings, and traffic signals.

ODOT Freight Highway Bottlenecks List Project, 2017

Freight Highway Bottlenecks Project (FHBP) was initiated to identify locations on Oregon's highway network that were experiencing significant freight truck delay, unreliability and increased transportation costs. Bottlenecks identified in Portland will be examined for improvements and alternative strategies to keep freight moving efficiently, reflected in the 2040Freight project list and strategies and actions.

Oregon Freight Plan, 2011 (revised 2017)

To receive funding under the National Highway Freight Program (23 U.S.C. 167), the FAST Act requires each State to develop a State freight plan, which must comprehensively address the State's freight planning activities and investments (both immediate and long-range). The Oregon Freight Plan provides a roadmap for the Oregon Department of Transportation (ODOT), other state and local agencies, tribal governments and the private sector to work together to preserve and enhance the state's freight system.

Implementation of the OFP will ensure a future freight system that supports diverse industrial sectors, including both traditional resource-based industries (like agriculture and forestry) and the modern high-tech sectors. It will be a system that ensures the safety of its users, connects businesses with their supply chains and global markets and provides steady employment while incorporating stewardship of natural resources. The State must update its freight plan at least every five years, and may update its



Picture 7.1: Image of an orange freight truck driving on a freeway. The truck is surrounded by vehicles driving behind and next to the truck. [Source: ODOT]

freight investment plan more frequently than the overall freight plan. [49 U.S.C. 70202(e)]

2040Freight is anticipated to be adopted by City Council in Spring 2022 and therefore may also be informative to shaping the next update of the OFP.

Oregon Freight Intermodal Connector System Study, 2017

The Oregon Freight Intermodal Connector System (OFICS) study identified intermodal terminals, additional intermodal connectors, validated the existing NHS intermodal connectors, identified connector needs and developed a tiered list and map of connectors.

As part of 2040Freight, connectors identified in Portland will be double-checked to ensure they carry appropriate freight classifications and any not completely built will be identified as a project.

Oregon Highway Plan, 1999 (amendments 2015)

The 1999 Oregon Highway Plan defines policies and investment strategies for Oregon's state highway system for the next 20 years. It further refines the goals and policies of the Oregon Transportation Plan and is part of Oregon's Statewide Transportation Plan.

Projects identified in the Portland area will be included in 2040Freight.

Statewide Transportation Strategy, 2013

The Statewide Transportation Strategy STS was initiated out of legislative direction to examine ways that transportation can reduce greenhouse gas emissions and help achieve Oregon reduction goals. The document charts a potential broad path for reducing emissions and is comprised of transportation and land use strategies that modeling, and analysis have shown to have measurable greenhouse gas reduction results. Those chosen for inclusion in the report reflect the mix of options with the fewest apparent negative impacts and that advisory committees felt were worth further consideration.

Additional work is needed to identify which of the strategies should be pursued, and when, given economic considerations, resource implications, and political will. As a whole, the Statewide Transportation Strategy represents a vision for a future Oregon with substantially less transportation related GHG emissions than today.

2040Freight will look to strategies related to Portland from this document, and consider them in the plan's needs and opportunities analysis.



Picture 8.1: Aerial image of a divided freeway under an overhead bridge. Multiple white freight trucks and passenger vehicles of varying sizes and colors are driving through the freeway. [Source: ODOT]

Regional Plans

Regional planning requirements call for the City of Portland to address local transportation needs in a way that is consistent and complementary to higher level policy and planning goals. Since the adoption of Portland's Freight Master Plan in 2006, numerous plans and policy documents have been developed that will inform PBOT's work on 2040Freight. The following plans are key examples of guiding work that PBOT will build from in this planning process.

Washington County Transportation System Plan Freight Element, 2019

The Washington County Transportation System Plan establishes the county's multimodal network, with the Freight Element accounting for freight system roadway classifications centered on economic vitality, mobility and access to provide for safe and efficient goods movement. Cities and counties in the Portland Metropolitan region are fundamentally tied together



Picture 9.1: Image of a person walking in front of a blue Amazon delivery vehicle exiting a parking garage. [Source: Tony Webster]

through interconnected roadways and the movement of goods and people. Due to the location of our region's economic hot spot, the Port of Portland, City of Portland roadways play important role in regional freight mobility to and from Washington County.

2040Freight will consider projects, freight routes and street classifications in Washington County when considering connectivity and continuity between jurisdictional borders.

Regional Freight Strategy, 2018

Updating the Regional Freight Plan adopted in 2010, the new strategy provides a coordinated vision and approach for enhancing freight and goods movement and prioritizing freight investments based on clear priorities. Informing the regional framework for freight policy is the understanding that the Portland-Vancouver region is a globally competitive international gateway and domestic hub for commerce. The multimodal freight transportation system is a foundation for economic activities and we must strategically maintain, operate and expand it in a timely manner to ensure a vital and healthy economy. The Regional Freight Network Concept contains policy and strategy provisions to develop and implement a coordinated and integrated freight network that helps the region's businesses attract new jobs and remain competitive in the global economy.

Regional Safety Strategy, 2018

The 2018 Regional Transportation Safety Strategy ("Regional Safety Strategy") updates the region's first Regional Transportation Safety Plan, which was completed in 2012. The Regional Safety Strategy is a topical plan of the Regional Transportation Plan and updates regional safety goals, objectives, policies, targets and performance measures. The purpose of the Regional Safety Strategy is to provide a specifically urban-focused overarching data-driven framework for increasing traffic safety on roadways in the greater Portland area. The plan focuses on strategies and actions drawn from best-practices and proven to reduce traffic related deaths and serious injuries.

2040Freight will consider the strategies of this document when developing strategies to address Portland safety hot spots and policies to serve Vision Zero.

Washington County Transportation Futures Study, 2017

At the close of its 2013 session, the Oregon Legislature provided funding for the Washington County Transportation Study to evaluate the long-term transportation strategies and investments needed to sustain the county's economic health and quality of life in the coming decades. This study provides the opportunity to think big and look far beyond the Transportation System Plan's 20-year horizon; study the county's evolving demographic and economic conditions and implications for travel needs; evaluate the tradeoffs from two transportation investment packages against a range of community values and two plausible future land use scenarios; and position Washington County for continued success in the future.

The study results aimed to provide a better understanding of long-term transportation needs, tradeoffs between alternative transportation investments, and inform future choices and decisions. Of particular interest for freight movement and commuters was improving access to North Portland, the Portland airport, Clark County, and I-5. Freight-related concepts were put forward, such as new and limited-access north-south roadways, the potential of freight-distribution centers, and the widening of freight thoroughways.

2040Freight will consider identified Portland needs and ideas in developing the list of projects and policies.

Regional Over-Dimensional Truck Route Study, 2016

This study was undertaken to better understand how over-dimensional truck freight travels in the tri-county region of Clackamas, Multnomah, and Washington counties. The study identified key routes, challenges, and a range of potential solutions to improve and protect the transportation network for over-dimensional trucks.

Projects identified in Portland will carry forward for 2040Freight.

Metro Regional Freight Plan, 2010

The Regional Transportation System Management and Operations Plan is a road map to guide transportation management investments and implementation through 2020. Transportation System Management and Operations strategies provide money-saving, multimodal solutions that relieve congestion, optimize infrastructure investments, promote travel options and reduce greenhouse gas emissions. The strategies in this plan support many regional transportation goals, such as: improving travel time reliability; reducing crashes; improving transit on-time arrival; reducing travel delay; reducing fuel use; and reducing air pollution and greenhouse gas emissions.



Picture 10.1: Image of a yellow and black curve warning sign. The sign is diamond shaped and depicts a freight truck tipping to the left. Under this sign is a 25 mph speed limit sign. [Source: ODOT]

Metro Regional Transportation System Management Operations 2010-2020 Plan, 2010

The Regional Transportation System Management and Operations Plan is a road map to guide transportation management investments and implementation through 2020. Transportation System Management and Operations strategies provide money-saving, multimodal solutions that relieve congestion, optimize infrastructure investments, promote travel options and reduce greenhouse gas emissions. The strategies in this plan support many regional transportation goals, such as: improving travel time reliability; reducing crashes; improving transit on-time arrival; reducing travel delay; reducing fuel use; and reducing air pollution and greenhouse gas emissions.

City of Portland Plans

There are a significant number of local policies and plans that must be considered as part of 2040Freight. The following is a summary of relevant plans developed since the original Freight Master Plan in 2006.

Columbia/ Lombard Mobility Corridor Plan, (in progress, 2020)

The Columbia/Lombard Mobility Corridor Plan is a plan to address safety, mobility, and access for freight, active transportation, and public transit both along the corridor (east/west) and across it (north/south). NE Columbia Blvd and NE Lombard St, running parallel on opposite sides of the Kenton Line railroad, are vital links in the regionally-identified mobility corridor running east and west between the I-5 and I-205 freeways. Both corridors are on the City's Vision Zero High Crash Network, and are suffering from aging infrastructure, gaps and deficiencies in the bicycle and pedestrian network, and inconsistent travel times. All users would benefit from improvements that would enhance mobility and access, provide greater connectivity, and reduce conflicts.

When this plan is adopted by City Council, the freight-related projects and subsequent recommendations will be included in 2040Freight. Although they will already be implementable and will already be able to directly update the TSP, reflecting them in 2040Freight will help bring a robust collection of freight-related efforts into full perspective in context with this work.

Rose Lane Project Report, 2020

In February 2020, the Portland City Council unanimously adopted the Rose Lane Project Report to help create a city-wide network of transit routes where buses and streetcars get priority in congested areas. The Rose Lane vision captured in this report is a network of transit lines where short-term and long-term fixes improve transit service where it's most delayed. The planned improvements will have an immediate impact on Portlanders who continue riding transit during the pandemic, including frontline workers. Through project development, we will determine which treatments best address the needs and context in specific locations. Not all Rose Lane corridors will include bus-only lanes.

2040Freight will consider opportunities that strategic potential shared transit and freight lanes might provide.

E-Commerce and Emerging Logistics Technology Research Report, 2019

A report on the changes to supply chains and delivery patterns resulting from the on-demand economy in order to know how they may affect traffic conditions, use of on-street loading areas, and changing uses of commercial buildings and land. While e-commerce industries develop fulfillment centers and distribution facilities, and last mile carriers create new logistics and operating strategies to handle the demands, cities must ensure these economic transitions occur smoothly. One important finding of this research is that, just as with more conventional deliveries, there are no perfect solutions to resolving many of the adverse traffic, safety and curbside impacts of ecommerce. There are, however, several reasonable and practical strategies that will reduce the number of deliveries and their combined vehicle miles of travel which will support the City of Portland's efforts in achieving many of its other transportation and climate-related goals. Other promising strategies will require additional data collection, analysis and testing ideas in collaboration with industry.

This work will directly be integrated into considerations of 2040Freight strategies and actions.

PedPDX, 2019

PedPDX is Portland's Citywide Pedestrian Plan. It prioritized sidewalk and crossing improvements, along with other investments to make walking safer and more comfortable across the city based on equity, safety, and demand. PedPDX updated pedestrian street classifications, which were included in the Transportation System Plan (TSP) in the 2019 Minor TSP Update adopted by City Council in February 2020.

Portland Loading Zone Parking Assessment, 2018

A consultant team was charged with measuring utilization behavior of loading zones in three parking districts – Northwest Portland, Central Eastside Industrial District, and Downtown Portland. Each area assessed was discussed in its own stand alone summary report, with implications for parking management that have been implemented.

Central City in Motion, 2018

Central City in Motion (CCIM) is PBOT's effort to plan, prioritize, and implement transportation improvements in the city's core. CCIM prioritizes specific transportation projects to be built over the next five years, as well as providing guidance for the City of PBOT plans for our network over the next 10 years. Eighteen projects were prioritized through this planning effort. They include new pedestrian crossings, bus lanes, and bikeways.

Enhanced Transit Corridors, 2018

City Council unanimously adopted the Enhanced Transit Corridors Plan on June 20, 2018. This planning process was conducted in coordination with TriMet and helps to identify where transit priority, streamlining, and access treatments could be most beneficial on the planned TriMet Frequent Service network within the City of Portland. Such improvements can help make transit more attractive and reliable for people to get to work, school, and to meet their daily needs, especially for people who depend upon transit.

This work informed a TSP update and development of the Rose Lanes Report, and will therefore be reflected in 2040Freight.

Safe Routes to School Strategic Plan, 2018

Safe Routes to School makes it safe, convenient and fun for children of all abilities to bicycle, walk, and roll to school. The Portland program serves almost every permanent public elementary, K-8, and middle school in the city, providing resources to over 100 schools across five school districts. In addition to education and encouragement programs, building on-the-ground safety improvements are critical to support safe walking and biking to Portland schools. That is what this plan is all about. It maps out more than 1,200 projects to be built in every part of the city in the coming years. In May 2016, Portland voters passed Measure 26-173, Portland's first local funding source dedicated to fixing our streets for people of all ages and abilities. Projected to raise \$64 million for road maintenance and street safety projects across the city between 2017–2021, the Fixing Our Streets measure also dedicated \$8 million to make routes safer and more convenient for students to walk, bike, and roll to school.

2040Freight will be mindful of freight classification overlaps with identified Safe Routes to School, to provide an additional lens of consideration for strategies and actions.

Vision Zero Action Plan, 2016

In June 2015, the Portland City Council unanimously passed a resolution committing Portland to Vision Zero. Vision Zero is the bold goal to eliminate all traffic deaths and serious injuries on Portland streets by 2025. The vision reaches beyond traditional transportation agency safety programs as a multi-agency, multi-partner initiative that requires cooperation, commitment, urgency, and action across the community. City of Portland bureaus, partner agencies, partner organizations, and community members are working together to realize the shared vision. The Vision Zero Action Plan places a strong emphasis on equity and supports Portland's Citywide Racial Equity Goals.

2040Freight will undergo a deep-dive on freight-related crash hot spots and develop designs, strategies and/or actions for improving the safety of these locations.



Picture 11.1: Image of white freight trailers sitting at a loading dock, where goods are unloaded and loaded for transport. [Source: Chris Yunker]

Prosper Portland 2020 Strategic Plan, 2015

Through the adoption of the 2009 Climate Action Plan, the City and County established a goal of reducing local carbon emissions 80 percent from 1990 levels by 2050, with an interim goal of 40 percent by 2030. This updated Climate Action Plan maintains these goals and provides new guidance for the next five years of the City and County's transition to a more prosperous, equitable and climate-stable future. The 2015 Climate Action Plan outlines the actions the City of Portland and Multnomah County will take in the next five years to keep Portland on the path of reducing local carbon emissions.

City of Portland Climate Action Plan, 2015

Through the adoption of the 2009 Climate Action Plan, the City and County established a goal of reducing local carbon emissions 80 percent from 1990 levels by 2050, with an interim goal of 40 percent by 2030. This updated Climate Action Plan maintains these goals and provides new guidance for the next five years of the City and County's transition to a more prosperous, equitable and climate-stable future. The 2015 Climate Action Plan outlines the actions the City of Portland and Multnomah County will take in the next five years to keep Portland on the path of reducing local carbon emissions.

2040Freight will play a significant role in supporting the City's Climate Action Plan goals.

St. Johns Transportation Concept Plan Development Project, 2013

The St. Johns Transportation Concept Development Project developed conceptual design and plans for advancing several of the recommendations made in the St. Johns Truck Strategy (2001). To advance the objectives identified, the City developed a set of location-specific and programmatic recommendations to address traffic circulation, freight mobility, and pedestrian access issues identified in the St. Johns neighborhood. A number of these recommendations are focused on directing trucks to designated truck streets, while others seek to improve the livability of local streets through the use of traffic calming strategies and pedestrian safety improvements. Another set of goals for this project is to support the policy objectives of the Portland Freight Master Plan and the St. Johns Truck Strategy by providing a continuous and improved route for trucks instead of using the neighborhood street system. This report summarizes work accomplished since project inception in Spring 2011, including the project background and supporting policy and planning/engineering practices for 25 improvement concepts, field data that was

collected, analyses that were produced, input gained from public engagement processes, and the guidance from the project advisory committees.

Elements from this plan have already updated the TSP, however 2040Freight will look again to ensure identified issues are considered with strategy and action development.

City of Portland Central City Sustainable Freight Strategy, 2012

In 2009, the Portland City Council adopted the Climate Action Plan which sets targets for reducing carbon emissions to 40% below 1990 levels by 2030. Recognizing that moving goods and people accounts for nearly half of the greenhouse gas emissions in Multnomah County, the Climate Action Plan highlights the importance of improving the efficiency of freight movement in the Portland region. The goal of the Climate Action Plan to reduce greenhouse gas emissions runs parallel to operating an efficient freight business. Using more fuel increases carbon emissions; using less fuel saves money for the freight company.

In developing potential strategies for implementing the Climate Action Plan and accommodating freight movement within a denser Central City environment, the Portland Bureau of Transportation (PBOT) initiated a planning process in 2010 to identify sustainable freight practices implemented in other urban areas and their applicability in Portland. This process called upon local freight experts and other stakeholders to recommend sustainable strategies tailored for Portland.

2040Freight will build on this plan by incorporating the work and bringing the best practices to the implementation plan.

The Portland Plan - Economic Prosperity and Affordability Strategy, 2012

One of four strategies in the Portland Plan adopted in 2012, each strategy element has a role in expanding economic opportunity and equity. This inclusive economic growth strategy aims toward a city where every Portlander who wants a stable, well-paying job has one and can afford to meet their basic needs. This strategy continues implementation of the priorities set in the City's Economic Development

Strategy, the regional economic development strategy and the Portland Housing Bureau strategy.

2040Freight will be mindful of ensuring projects, policies, strategies and actions are in alignment with this overall strategy.

Greater Portland Export Initiative, 2012

The Greater Portland Export Plan was developed in partnership with Greater Portland Inc and regional economic development partners, to double exports in five years, with a focus on 1) supporting and leveraging primary exporters in computers and electronics; 2) catalyzing under-exporters in manufacturing; 3) building a healthy export pipeline of small and medium-size businesses; and 4) branding and marketing Greater Portland's most promising industries through initiatives such as We Build Green Cities. Selected by the Brookings Institution as one of four pilot cities in its Metro Export Initiative



Picture 12.1: Image of gray and red freight trains stopped near a train station. [Source: Chris Yunker]

(MEI). The MEI brought together regional civic and business leaders, in addition to local, state and federal partners, to craft a regional plan to foster economic growth through export activities.

The development of Greater Portland's export plan was led by staff from the following regional coalition organizations: Office of Portland Mayor Sam Adams (co-lead), Portland Development Commission (co-lead), Business Oregon, Columbia River Economic Development Council, Greater Portland, Inc., Metro, Oregon Export Council, Port of Portland, Portland Business Alliance, Portland State University, and Portland U.S. Export Assistance Center.

2040Freight will ensure it honors this work by checking that the elements it includes are included within the plan.



Picture 13.1: Image of Brown double-stack train cars carrying two layers of intermodal containers staged in an intermodal rail yard. The intermodal containers are blue and gray. [Source: unknown]

Central Eastside Parking Management Plan, 2012

The Central Eastside Parking Management Plan is a comprehensive look at the Central Eastside Industrial District's (CEID) parking facilities, how they are currently used, and how those facilities can help expand access to businesses by putting every parking space to its best use. This effort to ensure that access and parking will keep pace with the district's expanding needs gathered a diverse group of property and business owners, and representatives from the Central Eastside Industrial Council (CEIC) and adjacent neighborhoods to accomplish this purpose. The project team extensively researched and analyzed parking within the CEID and used this research and analysis to develop the actions identified in this plan. The Plan established a goal of balancing parking needs with freight mobility, access and loading/unloading.

2040Freight will ensure consistency with the plan, or, with the support of the CEID, elevate issues for a future CEID Parking Management Plan update, if considered.

Airport Futures, 2011

Airport Futures was a collaborative effort between the City of Portland, Port of Portland, and the Portland-Vancouver metropolitan community to create an integrated long-range development plan for Portland International Airport (PDX). Beginning in fall 2007 and concluding in spring 2011, the Port updated the airport master plan and the City developed a land use plan recognizing PDX's role in the regional economy while managing City infrastructure and livability.

however 2040Freight will look again to ensure identified issues are considered with strategy and action development.

Portland Bicycle Plan for 2030, 2010

The Portland Bicycle Plan for 2030 includes a list of capital projects and recommended actions. It recommends strengthening City policies in support of bicycling, providing more and better bicycle parking, expanding educational and encouragement programs and developing ongoing measures of success. The results of this plan updated the TSP, including bicycle classifications, recommended bikeway network (including suggested bicycle facilities), and programs to

support bicycling. Suggested bicycle facilities relevant to the study area are illustrated herein.

2040Freight will ensure harmony with the plan.

Central Eastside Street Plan, 2009

Upon adopting the Central City Plan District amendment, City Council directed the Bureau of Transportation to develop new right-of-way design guidelines to guide frontage improvements likely to occur as the area redevelops. The Central Eastside Street Plan was developed to establish those right-of-way guidelines for the Employment Opportunity Subarea. The Street Plan balances the operational needs of the existing industrial businesses with the multi-modal demands imposed on the infrastructure of the Street Plan area by increasing employment density, while accommodating bicycle and pedestrian access to the Eastbank Esplanade.

Hayden Island Plan, 2009

A collaborative effort between the City of Portland and the community to improve accessibility, livability, and sustainability of Hayden Island over the next 35 years. Focusing on the portion of Hayden Island within the City of Portland, the plan contains goals, objectives, comprehensive plan and zoning changes, and an implementation strategy.

Designing for Truck Movement and Other Large Vehicles in Portland, 2008

Adopted in 2008, this body of work provides specific guidelines and design information for maintaining truck access and mobility in the design of intersections and roadways in freight districts, Centers and Main Street environments, and residential areas. These guidelines incorporate all the safety, mobility, and access requirements found in nationally recognized engineering standards. They also incorporate the numerous needs by adjacent land uses for roadway use. Finally, using guidelines in place of standards recognizes that we need to examine every roadway section within its own unique context and environment.

These guidelines are intended for elected officials, planners, engineers, and others interested in street design. The guidelines identify the processes employed and the practices used to develop safe

and accessible streetscapes to accommodate truck movements. They also provide the policy basis to assist City traffic engineers and street designers in establishing the appropriate “curb line” or “edge of pavement” for street improvement projects.

It is possible that there may be recommendations from 2040Freight to make updates to this work.

Port of Portland Plans

The Port of Portland is a multi-modal port, overseeing both seaport and airport operations. The Port owns and operates marine terminals along the Columbia River, and in addition to the marine terminals owned and operated by the Port of Portland, the Portland Harbor also includes private marine terminals. The Port of Portland also owns and operates the Portland International Airport, and the general aviation airports at Troutdale and Hillsboro. The studies and plans included here have been conducted since the development of the City of Portland’s first Freight Master Plan in 2006. The wealth of information in the Port of Portland’s documents will be incorporated where appropriate to contribute to the 2040Freight planning process.

Port of Portland Transportation Improvement Plan, 2020

The following plan is a compilation of road, rail, waterway, transit, bike, pedestrian and transportation demand management projects that have been identified through transportation and other studies managed by or in coordination with the Port. The plan also identifies the Port’s transportation project priorities. Updated annually and approved by the Port of Portland Commission, the PTIP provides a long-range vision of transportation improvements that support the Port’s mission.

This recent work may help inform 2040Freight existing conditions.

International Trade and Logistics Initiative Report, 2016

The International Trade and Logistics Initiative released a report with recommendations to help Oregon businesses facing logistics challenges due to the loss of weekly Port of Portland Terminal 6 container service and changes in the international maritime and transportation industries. In April 2015,

Governor Kate Brown launched the Initiative—a partnership of Business Oregon, Oregon Department of Agriculture, Oregon Department of Transportation, and the Port—to identify trade-related, freight logistics solutions to help small- and medium-sized businesses across Oregon stay competitive. The goal is to help Oregon businesses move freight to markets and compete globally.

Port of Portland Economic Impact Analysis, 2015

Martin Associates, a Lancaster, PA-based economics research and consulting firm, conducted an economic impact study of the Port's marine, aviation, and industrial park activities for calendar year 2006, 2011 and fiscal year 2015. The Port has periodically conducted these analyses of its maritime, aviation, and industrial park activities to quantify its contribution towards its mission of enhancing the

region's economy and quality of life.

The impact analysis is based on a telephone survey of 916 marine, airport and real estate tenants and firms providing services to the marine terminals and airports. Local re-spending models were also developed to estimate the impact of local purchases by both individuals directly employed by Port operations as well as the firms providing support services to the airport and seaport operations. Also quantified was the economic impact of the marine terminals on shippers and consignees using the marine terminals and air cargo shippers using Portland International Airport.

Regional Commodity Movement Forecast, 2015

In 2012 Metro, the Oregon Department of Transportation, the Port of Vancouver USA, and the Port of Portland cooperatively funded a project to estimate current regional freight volumes and predict future volumes by commodity type by mode. The project was an update to the region's most recent commodity flow forecast (conducted in 2002) and a forecast of cargo by mode/commodity moving in, out, and through the region.

Portland International Airport Bicycle and Pedestrian Plan, 2014

The Portland International Airport Bicycle and Pedestrian Plan represents two elements of the Port's alternative mode strategy at Portland International Airport. The plan includes policies, strategies, and facility maps that together reflect the Port of Portland's intent regarding how we plan to incorporate bicycle and pedestrian facilities into development at PDX.

Port of Portland Rail Plan, 2013

The Plan identifies facility improvements both within the Port and around the region that will help the Port retain its competitive advantage. The Port formed a Rail Plan Working Group (RPWG) to assist in developing a pragmatic conceptual approach to rail system improvements for the next 20 years.



Picture 14.1: Image of a purple TriMet Streetcar driving through an intersection. The streetcar is surrounded by black and gray vehicles driving by. [Source: 5chw4r7z]

Westside Freight Access and Logistics Analysis, 2013

The Westside Freight Access and Logistics Analysis study was commissioned by a consortium of public and private interests to address the Metropolitan Export Plan of improving market access to support export expansion opportunities for our regional job base; specifically the Computer and Electronics industry cluster. The work was broken into two efforts; 1) interviews of a sample of the C and E industries, their forwarders and carriers and 2) analysis of their needs relative to the current state of the transportation system upon which they rely. The analysis focused on short term solutions that potentially could address the issues of access to PDX or connections beyond within a reasonable time frame.

Regional Industrial Site Readiness, 2013

The 2012 Regional Industrial Site Readiness report examined the supply of 25+ acre industrial sites available to accommodate the expansion and recruitment of traded-sector employers to the Portland metropolitan urban growth boundary and selected urban reserves. The study – commissioned by the Port of Portland, Portland Business Alliance, Business Oregon (an Oregon state agency), NAIOP Oregon Chapter (a commercial real estate development association) and Metro – identified a lack of development-ready large lot, industrial sites in the Portland metro region to attract and cultivate the types of catalytic employers that will help our region grow and thrive. It also identified the challenges, costs and benefits (jobs, state and local taxes) associated with the development of 12 large lot industrial sites with diverse characteristics, and highlighted the need for new policies and investments to increase the development-ready supply of industrial sites for traded-sector job growth.

Columbia Multimodal Corridor Study, 2012

The Columbia Multimodal Corridor spans a wide range of land uses and zoning, as well as business activity and is a vital component to the economic health and vitality of the greater Portland metropolitan region. With expected growth in both jobs and housing over the next 20 years, congested roadways are a threat to

businesses' ability to be cost competitive and maintain reliable travel times. Businesses surveyed as part of this study indicated that access to efficient, multimodal transportation is the reason they are located here. The study examines current and future congestion and travel times in order to identify bottlenecks that will erode the Corridor's transportation advantage. This study is a roadmap for businesses as well as regional planners to make smart, strategic investments.

Use of Freight and Business Impact Criteria for Evaluating Transportation Investments, 2008

The study, performed by Economic Research Group (EDRG), seeks to address the need to apply new methods in order to differentiate transportation projects that are particularly critical for business and economic growth, by asking: (a) why it makes sense to give weight to freight movement and critical business routes in the evaluation and prioritization of transportation investments, and (b) how a methodology and process can be implemented to appropriately take consideration of critical freight and business activities in the decision-making process. The Port of Portland partnered with the Portland Business Alliance on this study.

The Cost of Highway Limitations and Traffic Delay to Oregon's Economy, 2007

This study, commissioned by the Port of Portland, Portland Business Alliance, Oregon Business Council, and other businesses and agencies statewide, examines the impact of congestion and traffic delay to twelve of Oregon's major businesses and evaluates the cost to our state economy.

The City of Portland utilizes various funding sources to deliver multimodal transportation investments and improvements. Though additional financing tools for rail, marine, air freight and highway programs exist, this overview focuses on funding sources that are relevant to the PBOT, Metro, and in part to the Oregon Department of Transportation and TriMet. The following section provides an overview of freight-related programs impacting Portland's local transportation system.

SECTION II: PLAN REVIEW

Federal Programs

Federal Discretionary Funds: Federal discretionary revenue identifies resources that are traditionally allocated to discretionary grants. The most recent federal discretionary program is for TIGER grants (Transportation Investment Generating Economic Recovery). These grants are available to invest in road, rail, transit, and port projects that promise to achieve critical national objectives. Projects that emphasize repair, economic competitiveness, livability, environmental sustainability, safety, and project readiness are given priority.

Federal Transit Funds: This funding source includes revenue from the Federal Transit Administration Small Starts program, which focuses on new capital investments with total budgets less than \$250 million and requested funding less than \$75 million. Funding from this source is limited to specific projects that have been approved and must be either a fixed guideway project (those that use rail and operate a separate right-of-way) or a bus rapid transit project. Portland has historically used these grants to help with the development of the Streetcar system.

Highway Bridge Program: The Highway Bridge Program provides funding to enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance. The Highway Bridge Program is based on Federal Grant funding and is projected at \$7.0 million over the TSP forecast for the Existing and Constrained scenarios. The Unconstrained forecast adds an incremental amount of funding to total \$8.8 million.

National Highway System (NHS): Program purpose: funding for improvements to rural and urban roads that are part of the NHS, including the Interstate System and designated connections to major intermodal terminals. In some instances NHS funds may be used for transit improvements in NHS

corridors. Funds may also be used for intercity and intracity bus terminals, natural habitat mitigation and ITS improvements.

Candidate projects are programmed through ODOT's Statewide Transportation Improvements Program (STIP) during a public process, which includes the local transportation agencies. The STIP is coordinated with Metro's Metropolitan Transportation Improvement Program (MTIP) process. Typically, NHS funds are used for Interstate Freeway, primary state routes and freight-intermodal and bridge projects. As an example, NHS funds are being used to fund the I-5 Bridge influence area analysis and design work. Match requirements are 10.27 percent.

Consolidated Rail Infrastructure and Safety Improvements Program (CRISI):

The Fixing America's Surface Transportation (FAST) Act authorized the CRISI Program, which funds a wide range of projects that improve the safety, efficiency and reliability of intercity passenger and freight rail systems.

State & Regional Programs

State Enhance Funds: Funds are part of the Statewide Transportation Improvement Program (STIP). Projects are allocated funds through a competitive grant application, and awards are determined by the Oregon Transportation Commission. Those approved for Enhance Funding are projects that help meet or advance the goals and objectives of the Oregon Transportation Plan (OTP) and typically enhance, expand, or improve the transportation system.

A wide diversity of projects are eligible for Enhance funding, including, but not limited to highways, bicycle and pedestrian facilities, roadway modernizations, right-of-way purchases, public transportation, Safe Routes to Schools, scenic byways, transportation alternatives, and transportation demand management. Public transportation capital projects are also eligible for Enhance funds. Funds are limited to the specific project that was approved.

Local Improvement District + State/ Regional

Funds: This revenue source is intended to identify the revenues that will be needed to pay the match on the streetcar expenditures identified in the TSP

constrained list. It assumes that 50% of project revenue will come from a federal transit grant and that the 50% of local revenue will be from a local improvement district, a state allocation, or regional revenue. The TSP Constrained scenario assumes \$40 million from the federal Small Starts program. It is our assumption that a 50% match will be necessary. Portland has traditionally been able to find match from LIDs, SDC's and/or state/regional sources. As a result, we have included \$40 million of State/Regional/LID/SDC/Value Capture in the Constrained and \$70 million in the Unconstrained scenario.

Highway Safety Improvement Program: The Moving Ahead for Progress in the 21st Century Act (MAP-21) went into effect on October 1, 2012. It continued the Highway Safety Improvement Program (HSIP) as a core Federal aid program. The goal of the program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The HSIP Existing and Constrained scenarios assume \$80.0 million at \$4.0 million annually. The Unconstrained scenario increases to \$5.0 million annually to generate \$100.0 million over the 20 year forecast.

Regional Flex Funds: Metro's Regional Flexible Funds Program redirects funding from the Federal Highway Administration's Surface Transportation, Congestion Mitigation and Air Quality, and Transportation Alternatives Programs for non-highway transportation projects, focusing mostly on transit, bicycle, pedestrian, and TDM projects. In addition, funds are available for planning, research, and project development that supports those projects. Funding made available is restricted for use on the approved project but may also be used for related programs and services

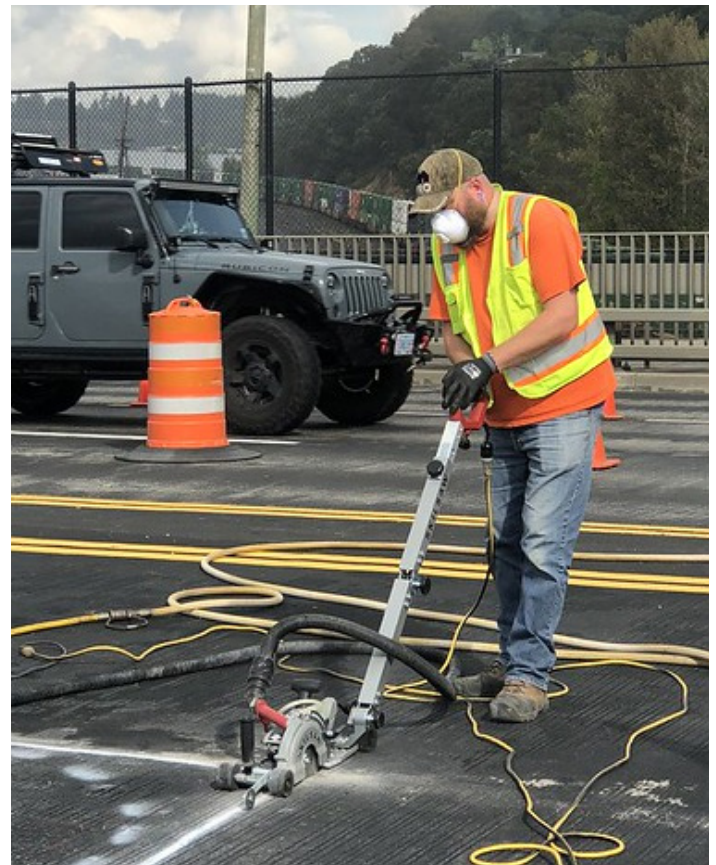
Port of Portland Funds: The Port of Portland is a transportation agency within the City of Portland that is responsible for providing cost-competitive freight and passenger access to regional, national, and international markets. The Port produces a Port Transportation Improvement Program (PTIP) that identifies a list of transportation system investments

that provide access to existing and expanding Port facilities and property developments. Projects and information contained in the PTIP is coordinated with Metro's MTIP, and relevant projects are incorporated into the TSP's list of transportation system improvements.

State Transportation Improvement Program:

The Statewide Transportation Improvement Program, also known as the STIP, is the Oregon Department of Transportation's capital improvement plan for state and federally-funded projects. The Oregon Transportation Commission and ODOT develop the STIP in coordination with a wide range of stakeholders and the public. The Commission will allocate funding among the following major categories:

1. Fix-It programs fund projects that fix or preserve the state's transportation system, including bridges, pavement, culverts, traffic signals, and



Picture 15.1: Image of a highway maintenance worker using a cutting tool to repair a pothole on the road. A gray vehicle is visible in the background. [Source: ODOT]

others. ODOT uses data about the conditions of assets to choose the highest priority projects.

2. Enhance programs fund projects that enhance or expand the transportation system.
3. Safety programs reduce deaths and injuries on Oregon's roads.
4. Non-highway programs fund bicycle and pedestrian projects and public transportation.
5. Local government programs direct funding to local governments to fund priority projects.

Connect Oregon: Connect Oregon is an initiative established by the 2005 state legislature to invest in non-highway modes of transportation. Connect Oregon projects are eligible for grants that cover up to 70 percent of project costs. A minimum 30 percent cash match is required from the recipient for all grant funded projects (except Class I Railroads which now have a 50 percent match). Projects eligible for funding from highway fund revenues that come primarily from state fuel taxes, vehicle title and registration fees, and heavy truck fees (section 3a, Article IX of the Oregon Constitution, the Highway Trust Fund), are not eligible for Connect Oregon funding. Future rounds of the program will fund aviation, rail, and marine projects, and previous rounds included bicycle/pedestrian and transit projects.



Picture 16.1: Image of a blue and orange Ocean Beauty Seafoods freight truck parked in front of a New Seasons grocery store. Two workers are unloading boxed goods from the truck onto a blue pulley. [Source: PBOT]

City of Portland Programs

Local revenue for PBOT programs include the following sources:

General Transportation Revenue:

- **State Highway Trust Fund** - State Highway Fund (comprised of motor fuels tax, vehicle titling and registration fees, and weight-mile tax imposed on trucks) is the primary source of General Transportation Revenue (GTR). GTR is a flexible funding source that may be applied to a wide range of capital improvement projects, maintenance activities, and operating expenses.
- **Parking** - The second source of General Transportation Revenue is from the on-street parking meter system and the Smart Park garages. Revenues from parking are comprised of parking fees and citations. Unlike the State Highway Trust Fund revenue, parking revenue is not constitutionally restricted and can be used on all modes of transportation.

General Fund Onetime: Over the past few years, City Council has allocated a relatively small amount of one-time General Fund revenue to PBOT for TSP projects and programs. Historically, PBOT has been receiving General Fund Onetime allocations at different levels depending on the request.

Private Development: The permitting process for private developments often results in code-required transportation improvements. This is in addition to permit fees that are set to cover the cost of plan review. This revenue source attempts to identify the revenue that will cover TSP project costs. Historically, the City identifies about \$10 million per year in transportation improvements tied to the development process. Development review staff estimate that about 35% of these required improvements cover TSP Major Projects or Citywide programs. As a result, we estimate \$75.6 million in the Constrained scenario and \$94.5 to reflect additional revenue in the Unconstrained scenario.

Institutional Zone Development: Hospitals, universities, and other large institutions invest in transportation infrastructure improvements through their conditional use permits and/or Master Plans. The new Comprehensive Plan proposes to implement

institutional zones which will remove the Conditional Use status for these institutions. We anticipate institutions will continue to invest in transportation improvements as a part of the new Institutional Zone Development process. This process may take the form of specific development agreements between the City and the institution, or some other codified requirement for ongoing transportation coordination with the City. Staff estimate \$10 million in the Constrained scenario and \$12.5 in the Unconstrained scenario. [This number will likely be refined through the Institutional Zoning implementation process.]

Local Improvement Districts: A Local Improvement District (LID) is a method by which a group of property owners can share in the cost of infrastructure improvements, most commonly for transportation, stormwater, and transit projects. LID participants are eligible to finance the completed improvements for periods of up to 20 years. Interest rates offered by the City through tax-exempt bonds are typically lower than conventional alternatives. State law and City code govern the formation of LIDs, the assessment methodology, and other factors. LIDs are usually funded by the participants but may also be combined with other project funding sources to leverage available resources. LIDs can be formed only for capital improvements—not for maintenance. The City accepts maintenance responsibility for streets after they are improved to current City standards.

- **Commercial and residential:** The assumption for LID funding is \$31.0 million for both the Existing and Constrained scenarios. The funding is largely from the property owners though, in some instances, did include other funding sources. This represents approximately 58% of historical LID projects which required additional funding sources such as PDC tax increment funding and Community Development Block grants which have since dried up. The Unconstrained figure of \$50.8 million reflects historical LID funding and assumes that additional funding sources similar to tax increment funding or grants will evolve to support LID projects.
- **Industrial:** The Industrial LID revenue assumption is about \$3.0 million for the Existing and Constrained scenarios. The Unconstrained

revenue is increased by about 75% to \$5.2 million as it assumes further LID development in industrial areas.

System Development Charge: The City adopted a system development charge (SDC) in 1997 as a financing mechanism to help compensate for the traffic impacts created by urban growth. Funds are generated through a one-time fee assessed on new development. SDC funding can be used on capital improvement projects that increase transportation system capacity as necessary to serve new development. The SDC cannot be used to address existing system deficiencies or operating and maintenance activities.

Urban Renewal: Portland voters created the Portland Development Commission (PDC) as an urban renewal agency in 1958. PDC's purpose is to deliver projects and programs in selected areas of the City



Picture 17.1: Image of the Willamette River waterfront hosting rail, marine freight, and grain elevators, with the Steel Bridge towering in the background. [Source: Chris Yunker]

to achieve housing, economic development, and redevelopment goals. Each designated urban renewal district has a plan that defines projects or programs needed to help the district achieve its long-term land use goals. Many urban renewal districts are located within key 2040 Growth Concept areas, such as the Central City, regional centers, town centers, main streets, and industrial areas.

A tax increment financing mechanism is used to create urban renewal funds. Basically, the growth in property tax revenues generated within an urban renewal district is used to secure bonds to finance projects and programs within that district. Each urban renewal plan area includes many transportation projects and programs, which have been incorporated into the TSP's list of transportation system improvements. Funds generated within each district must be spent within that district and are not available to finance TSP projects outside the district.

Portland Public Schools Bonds: Portland voters recently approved a school bond measure that included funding for traffic safety improvements at PPS schools. The process developed in partnership between PPS and the City ensures that development fees are prioritized for safety improvements near the “neediest” schools. The Portland Public Schools bond measure contributes \$5.0 million over the first 5 years of the TSP financial plan and is reflected in the Existing and Constrained scenarios. The Unconstrained scenario adds another \$1.3 million assuming additional funding will become available above and beyond the initial \$5.0 million bond measure.

Special PBOT Programs

In May 2016, Portland voters approved actions by the Portland Bureau of Transportation (PBOT) when they approved Measure 26-173, a new \$0.10 per gallon fuel tax for repairing streets. This was the first local funding source in the city's history dedicated to the city's transportation system. That same month, Portland City Council passed a Heavy Vehicle Use Tax on companies operating trucks over 13 tons, which resulted in companies paying 13% of the total fuel tax revenue which was directed for use on Portland's streets.

The passage of Measure 26-209 in May 2020 provides

for continuation of Fixing Our Streets (2020-2024), the street repair and traffic safety program funded by a 10-cent fuel tax.

Fixing Our Streets

Revenue projection: ~\$18.8 million (2020)¹

Implementer: PBOT Director's Office

Summary: The Fixing Our Streets program provides a source of funding for projects, such as paving, traffic signals, sidewalks, and street lighting that provide access to schools, transit, and community services.

Heavy Vehicle Use Tax

Revenue projection: ~\$11 million (2021-2024)²

Implementer: PBOT Director's Office

Summary: The Heavy Vehicle Use Tax applies to companies that pay the Oregon Weight-Mile Tax for any driving on Portland streets. It is applicable to tax years 2016 through 2023. Revenues from this tax will help pay for the upkeep of roads and safety projects. This tax is imposed in addition to the 2.6% business tax. Per City Council Ordinance 187743, the funds are to be allocated for Street Repair/Maintenance (56% of funds) and Traffic Safety (44% of funds).

PBOT TSP “Quick Build” Programs

TSP Programs bundle small-scale capital projects, generally under \$500,000 each, identified in the TSP, in adopted plans, and from suggestions by the public. In 2016, ten (10) citywide transportation programs were adopted by City Council into the TSP. These programs are a vital part of the City's twenty-year investment and funding proposal and are designed to make investments in the transportation system on an ongoing basis.

Programs include:

- Freight Priority
- Pedestrian Network Completion
- Bike Network Completion
- Neighborhood Greenways
- Safe Routes to School

¹ [Fixing Our Streets 2019 Progress Report](#)

² [Heavy Vehicle Use Tax: 2021-2024 Program](#)

- Vision Zero
- Transit Priority
- Transportation & Parking Demand Management
- Transportation System Management
- Alternative Street Design

These ten “Quick Build” programs help the public and staff understand, track, and promote small-scale transportation investments, which can be quite effective, but are often challenging to fund. Quick Build projects are primarily funded from City of Portland General Transportation Revenue (GTR) allocated through the Capital Improvement Plan. Fixing Our Streets funding is also used to supplement Quick Build projects. Adopted plans and strategies inform project priorities and program investments and are updated over time as new plans and strategies are adopted.

Starting in 2018, Quick Build funding has been used for small scale, low-cost, and quickly implemented capital projects in the ten program categories. The focus of the program is on critical gaps and missing links to help improve network capacity for a variety of modes. Projects are primarily drawn from adopted plans and strategies.

Freight Priority Program

Quick Build budget allocation: ~\$70,000 – 80,000 annually

Implementer: PBOT Freight Coordinator & Complete Streets Team

Summary: The Freight Priority Program is identified in the TSP to improve freight speed, reliability, safety and access along major freight routes by funding freight system needs. Example projects include signal priority, freight-only lanes, queue jumps, loading zones, turning radius improvements, and other identified improvements. The program coordinates with the Port of Portland and other freight related organizations to identify and implement these improvements.

In 2018, City Council approved Heavy Vehicle User Tax³ allocated \$500,000 to the Freight Priority Program for

completing targeted freight and safety improvements.

Transportation System Management Program

Quick Build budget allocation: ~\$65,000 – 75,000 annually

Implementer: Signals & Street Lighting Team

Summary: Transportation System Management (TSM) seeks to identify improvements to enhance the capacity of existing system through operational improvements. Through better management and operation of existing transportation facilities, these techniques are designed to improve traffic flow, air quality, and movement of vehicles and goods, as well as enhance system accessibility and safety. The TSM Program is not exclusive to freight but extends beyond freight improvements. Example projects include corridor signal timing, electronic message boards, variable speed limits, traveler information services, traffic cameras, Bluetooth readers, and other



Picture 18.1: Image of a black, electric bike signal. Red turn signals are visible in the background. One sign reads, “no turn on red”. [Source: ODOT]

³ [Refer to 2.4.3](#)



Picture 19.1: Image a white freight truck driving through a street with multiple orange traffic cones. Two people on bicycles ride to the left of the freight truck. A white car is visible in the background. [Source: ODOT]

intelligent transportation system (ITS) elements.

High Crash Corridors Program

Quick Build budget allocation: ~\$590,966 annually

Implementer: PBOT Policy, Planning & Projects Group

Summary: In 2015, City Council adopted Vision Zero, a commitment to eliminating fatalities and serious injuries on Portland streets by 2025. The comprehensive strategy to get there, Portland's Vision Zero Action Plan, includes specific actions aimed at achieving the City's aggressive 2025 target. In addition to the actions identified in the Vision Zero Action Plan, many other programs within and outside of PBOT integrate safety as a key tenant and are jointly working to achieve the Vision Zero goal.

PBOT's High Crash Corridors program has identified a list of major projects (over \$500,000) in the TSP, as well as a list of "smaller" projects (under \$500,000) and education and enforcement actions to be implemented under the High Crash Corridors Program. This program may fund projects that make improvements to freight routes, but multimodal safety improvements that benefit the most vulnerable road users are a primary focus. All Vision Zero projects (both large and small) are specifically limited to streets identified as part of Portland's "High Crash Network."

This network is comprised of the top 30 high crash streets and the top 30 high crash intersections in the city by mode -pedestrian, bicycle, and motor vehicle- where they intersect with Communities of Concern (places where higher concentrations of people of color and low-income Portlanders live).

Vision Zero

Budget allocation: Cannabis Tax ~ \$1.4 – 1.8 million annually⁴; Active Transportation Capital Improvements Program (budget varies)

Implementer: PBOT Active Transportation Traffic Safety Team

Summary: In 2015, Portland made a commitment to eliminate traffic deaths and serious injuries on city streets. The 2016 Vision Zero Action Plan mapped out actions to make that commitment a reality. The Vision Zero strategy to transform Portland's most dangerous streets has resulted in a commitment to deliver corridor-wide safety projects on High Crash Network streets. Completed and future safety improvements and roadway enhancements introduce benefits to rights-of-way within the freight network.

⁴ [Timeline, Report, and Plan: Portland's Local Cannabis Tax. Portland Office of Community & Civic Life. 2019.](#)

SECTION III: POLICY REVIEW

2040Freight builds upon a strong foundation of local and regional planning work that offers critical context and rich policy guidance. PBOT identified five primary policy documents to steer and inform this planning process: the 2035 Comprehensive Plan, the Transportation System Plan, Moving to Our Future (PBOT's Strategic Plan), the 2006 Portland Freight Master Plan, and the Regional Transportation Plan. Key policies from each of these planning and policy documents were examined through the lenses of the Comprehensive Plan Guiding Principles and PBOT's Strategic Plan Core Goals.



Picture 20.1: Image of two people riding their bicycles. Both riders wear black helmets. Multiple bicycle riders are visible in the background. [Source: PBOT]

The Comprehensive Plan includes five Guiding Principles that recognize and reinforce the need for plan and policy implementation to be balanced, integrated and multi-disciplinary. The influence of the Guiding Principles is seen throughout the Comprehensive Plan as they shape many of the individual policies and projects. Namely relevant to 2040Freight, the plan also establishes policies for freight in the context of a larger regulatory framework of federal, state, and regional goals and policies. Portland's policies are required to be compatible with and complement the framework established at higher levels of governance.

The Guiding Principles include:

- **Economic Prosperity:** Support a low-carbon economy and foster employment growth, competitiveness and equitably distributed household prosperity.
- **Human Health:** Avoid or minimize negative health impacts and improve opportunities for Portlanders to lead healthy, active lives.
- **Environmental Health:** Weave nature into the city and foster a healthy environment that sustains people, neighborhoods, and fish and wildlife. Recognize the intrinsic value of nature and sustain the ecosystem services of Portland's air, water and land.
- **Equity:** Promote equity and environmental justice by reducing disparities, minimizing burdens, extending community benefits, increasing the amount of affordable housing, affirmatively furthering fair housing, proactively fighting displacement, and improving socio economic opportunities for under-served and under-represented populations. Intentionally engage under-served and underrepresented populations in decisions that affect them. Specifically recognize, address and prevent perpetuation of the injustices suffered by communities of color throughout Portland's history.
- **Resilience:** Reduce risk and improve the ability of individuals, communities, economic systems, and the natural and built environments to withstand, recover from, and adapt to changes from natural hazards, human-made disasters, climate change, and economic shifts.

Moving to Our Future, PBOT's Strategic Plan for 2019-2022, lays out the steps PBOT will take to harness the changes in our transportation system to deliver well-maintained streets, help ease congestion, and keep safety front and center in all that we do. The Strategic Plan aligns the activities of PBOT's six work groups to achieve three primary goals over the next three years. Moving to Our Future establishes these goals and expands on each of the outcomes we are striving for and on how the overall goal works to (1) advance racial equity and (2) reduce pollution. The Core Goals include:

- **Safety:** Make Portland streets safe for everyone
- **Moving People and Goods:** Provide transportation options for a growing city
- **Asset Management:** Deliver smart investments to maintain our transportation system

The following review sorts policies from the primary

policy documents into the above eight groups defined by the Comprehensive Plan Guiding Principles and Moving to Our Future, PBOT's Strategic Plan Core Goals.

Economic Prosperity

Comprehensive Plan Policies

- Policy 3.15 Investments in centers. Encourage public and private investment in infrastructure, economic development, and community services in centers to ensure that all centers will support the populations they serve.
- Policy 3.22 Model Urban Center. Promote the Central City as a living laboratory that demonstrates how the design and function of a dense urban center can concurrently provide equitable benefits to human health, the natural environment, and the local economy.
- Policy 3.3.f. Coordinate housing, economic



Picture 21.1: Image of a highway maintenance worker drilling a yellow curve sign onto a sign post. The worker assembles the sign on the back of a flat bed truck. A 35 mph sign is positioned below the sign post. [Source: ODOT]

development, and public facility plans and investments to create an integrated community development approach to restore communities impacted by past decisions.

- Policy 3.67 Employment area geographies. Consider the land development and transportation needs of Portland's employment geographies when creating and amending land use plans and making infrastructure investments.
- Policy 3.72 Industry and port facilities. Enhance the regionally significant economic infrastructure that includes Oregon's largest seaport and largest airport, unique multimodal freight, rail, and harbor access; the region's critical energy hub; and proximity to anchor manufacturing and distribution facilities.
- Policy 6.23 Trade and freight hub. Encourage investment in transportation systems and services that will retain and expand Portland's competitive position as a West Coast trade gateway and freight distribution hub.
- Policy 6.62 Neighborhood business districts. Provide for the growth, economic equity, and vitality of neighborhood business districts.
- Policy 7.3 Ecosystem services. Consider the benefits provided by healthy ecosystems that contribute to the livability and economic health of the city.

Transportation System Plan Policies

- GOAL 9.G: Opportunities for prosperity. The transportation system supports a strong and diverse economy, enhances the competitiveness of the city and region, and maintains Portland's role as a West Coast trade gateway and freight hub by providing efficient and reliable goods movement, multimodal access to employment areas and educational institutions, as well as enhanced freight access to industrial areas and intermodal freight facilities. The transportation system helps people and businesses reduce spending and keep money in the local economy by providing affordable alternatives to driving.
- Policy 9.31 Economic development and industrial lands. Ensure that the transportation system supports traded sector economic development plans and full utilization of prime industrial land,

including brownfield redevelopment.

- Policy 9.32 Multimodal system and hub. Maintain Portland's role as a multimodal hub for global and regional movement of goods. Enhance Portland's network of multimodal freight corridors.
- Policy 9.41 Portland International Airport. Maintain the Portland International Airport as an important regional, national, and international transportation hub serving the bi-state economy.
- Policy 9.43 Airport partnerships. Partner with the Port of Portland and the regional community to address the critical interconnection between economic development, environmental stewardship, and social responsibility. Support an ongoing public advisory committee for PDX to:
- Policy 9.43.a. Support meaningful and collaborative public dialogue and engagement on airport related planning and development.



Picture 22.1: Image of green, orange, and white freight trucks driving on a freeway lane. The lane and trucks are surrounded by orange traffic cones. [Source: ODOT]

- Policy 9.43.b. Provide an opportunity for the community to inform the decision-making related to the airport of the Port, the City of Portland, and other jurisdictions/organizations in the region.
- Policy 9.43.c. Raise public knowledge about PDX and impacted communities.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

- Goal 2, Objective 3. Make walking, biking, and taking transit more attractive options
 - A. Expand adoption of existing programs, and develop new ones, that are community-led and provide information and incentives for walking, biking, and taking transit, such as SmartTrips and the Transportation Wallet.
 - B. Develop and implement a Commute Trip Reduction program for Portland employers.
 - D. Advocate for demand management through pricing on Oregon Department of Transportation freeways to mitigate existing inequities, improve safety on local roads, and reduce carbon emissions.
 - E. Produce a regional pricing model with key partners that allows us to evaluate different demand management strategies in combination with levels of transit investment.
- Goal 2, Objective 4. Link transportation to land use more effectively
 - A. Collaborate with city bureaus and partner agencies to integrate plans for balancing jobs and housing and increasing access to essential services, starting with the Southwest Corridor, East Portland, and Northeast Portland.
 - C. Expand programs to support transportation options that align with affordable housing efforts and major transportation improvements.
 - D. Strengthen the value of the central city as a vibrant commercial center accessible to all Portlanders.
 - E. Update the freight master plan to support better movement of goods and a vibrant, sustainable economy.

Portland Freight Master Plan (2006) Actions and Activities

- Collaborate with agency partners on public investment strategies to stimulate economic development associated with freight movement and the industries that rely on the efficient movement of freight.
- Partner with Portland Development Commission and Port of Portland to identify and implement transportation improvements that enhance marketability of industrial opportunity sites.
- Participate in the development of workforce strategies for freight service providers.
- Identify and improve site-specific obstacles to access and circulation in Freight Districts.
- Work with businesses in centers and along main streets to address truck access and loading issues.
- Identify and prioritize pavement maintenance needs in industrial areas.

Regional Transportation Plan Policies

Regional Transportation Equity Policies:

- Policy 6: Evaluate transportation plans, policies, programs and investments to understand how they address transportation-related disparities and barriers experienced by communities of color, people with low income and other historically marginalized communities and the extent disparities are being eliminated.
- Policy 7: Support family-wage job opportunities and a diverse construction workforce through inclusive hiring practices and contracting opportunities for investments in the transportation system.

Regional Freight Network Policies:

- Policy 2: Manage the region's multimodal freight network to reduce delay, increase reliability and efficiency, improve safety and provide shipping choices.
- Policy 4: Pursue a sustainable multimodal freight transportation system that supports the health of the economy, communities and the environment through clean, green and smart technologies and practices.

- Policy 5: Protect critical freight corridors and access to industrial lands by integrating freight mobility and access needs into land use and transportation plans and street design.
- Policy 6: Invest in the region's multimodal freight transportation system, including road, air, marine and rail facilities, to ensure that the region and its businesses stay economically competitive.

Human Health

Comprehensive Plan Policies

- Policy 3.22 Model Urban Center. Promote the Central City as a living laboratory that demonstrates how the design and function of a dense urban center can concurrently provide equitable benefits to human health, the natural environment, and the local economy.
- Policy 3.4 All ages and abilities. Strive for a built

environment that provides a safe, healthful, and attractive environment for people of all ages and abilities.

- Policy 3.49 Design great places. Improve public streets and sidewalks along Civic Corridors to support the vitality of business districts, create distinctive places, provide a safe, healthy, and attractive pedestrian environment, and contribute to quality living environments for residents.
- Policy 3.7 Integrate nature. Integrate nature and use green infrastructure throughout Portland
- Policy 6.29 Poverty reduction. Encourage investment in, and alignment of, poverty-reduction efforts that address economic development, land use, transportation, housing, social services, public health, community development, and workforce development.

Transportation System Plan Policies

- GOAL 9.F: Positive health outcomes. The transportation system promotes positive health outcomes and minimizes negative impacts for all Portlanders by supporting active transportation, physical activity, and community and individual health.
- Policy 9.38 Automobile transportation. Maintain acceptable levels of mobility and access for private automobiles while reducing overall vehicle miles traveled (VMT) and negative impacts of private automobiles on the environment and human health.
- Policy 9.66 Project and program selection criteria. Establish transportation project and program selection criteria consistent with Goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety goals.
- Policy 9.66 Project and program selection criteria. Establish transportation project and program selection criteria consistent with Goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety goals.



Picture 23.1: Image of a person riding a bicycle with an orange attachment seat for children. Two small children are seated in the attachment seat. [Source: PBOT]

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

- Goal 2, Objective 4. Link transportation to land use more effectively
 - A. Collaborate with city bureaus and partner agencies to integrate plans for balancing jobs and housing and increasing access to essential services, starting with the Southwest Corridor, East Portland, and Northeast Portland.
 - B. Develop and implement new review guidelines to ensure new development yields investments in infrastructure for walking, biking, and taking transit, rather than using standards for automobile level of-service.

Portland Freight Master Plan (2006) Actions and Activities

- Use the Transportation Safety and Livability Hotline as a tool to monitor neighborhood conflicts with freight movement. Work with the stakeholders to resolve neighborhood conflicts as they arise.
- Implement Share the Road, a public education program to distribute information about the characteristics and operational needs of the various transportation modes to improve safety on City streets.
- Partner with railroad operators and ODOT to institute "Quiet Zones" to reduce train whistle noise and improve track safety.
- Support efforts to foster environmentally-friendly goods movement practices such as the use of cleaner fuels and the reduction of truck and train idling.



Picture 24.1: Image of multiple vehicles driving through a congested merge lane. Three freight trucks are driving on the freeway. [Source: ODOT]

Regional Transportation Plan Policies

Climate Smart Policies:

- Policy 1: Implement adopted local and regional land use plans.
- Policy 2: Make transit convenient, frequent, accessible and affordable.
- Policy 3: Make biking and walking safe and convenient.

Regional Freight Network Policies

- Policy 4: Pursue a sustainable multimodal freight transportation system that supports the health of the economy, communities and the environment through clean, green and smart technologies and practices.
- Policy 7: Eliminate fatalities and serious injuries caused by freight vehicle crashes with passenger vehicles, bicycles and pedestrians, by improving roadway and freight operational safety.

Regional Bicycle Network Policies

- Policy 1: Make bicycling the most convenient, safe and enjoyable transportation choice for short trips of less than three miles
- Policy 2: Complete an interconnected regional network of bicycle routes and districts that is integrated with transit and nature and prioritizes seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
- Policy 3: Complete a green ribbon of bicycle parkways as part of the region's integrated mobility strategy.
- Policy 4: Improve bike access to transit and community places for people of all ages and abilities.
- Policy 5: Ensure that the regional bicycle network equitably serves all people.

Environmental Health

Comprehensive Plan Policies

- Policy 3.22 Model Urban Center. Promote the Central City as a living laboratory that demonstrates how the design and function of a dense urban center can concurrently provide

equitable benefits to human health, the natural environment, and the local economy.

- Policy 3.4 All ages and abilities. Strive for a built environment that provides a safe, healthful, and attractive environment for people of all ages and abilities.
- Policy 3.47 Green infrastructure in corridors. Enhance corridors with distinctive green infrastructure, including landscaped stormwater facilities, extensive tree plantings, and other landscaping that both provide environmental function and contribute to a quality pedestrian environment.
- Policy 3.63 Design. Use design options such as distinctive street design, motor vehicle diversion, landscaping, tree plantings, scenic views, and other appropriate design options, to create City Greenways that extend the experience of open spaces and nature into neighborhoods, while improving stormwater management and calming traffic.
- Policy 6.12 Economic role of livability and ecosystem services. Conserve and enhance Portland's cultural, historic, recreational, educational, food-related, and ecosystem assets and services for their contribution to the local economy and their importance for retention and attraction of skilled workers and businesses.
- Policy 6.49 Industrial growth and watershed health. Facilitate concurrent strategies to protect and improve industrial capacity and watershed health in the Portland Harbor and Columbia Corridor areas.

Transportation System Plan Policies

- GOAL 9.D: Environmentally sustainable. The transportation system increasingly uses active transportation, renewable energy, or electricity from renewable sources, achieves adopted carbon reduction targets, and reduces air pollution, water pollution, noise, and Portlanders' reliance on private vehicles.
- Policy 9.34 Sustainable freight system. Support the efficient delivery of goods and services to businesses and neighborhoods, while also reducing environmental and neighborhood impacts.

Encourage the use of energy efficient and clean delivery vehicles, and manage on- and off-street loading spaces to ensure adequate access for deliveries to businesses, while maintaining access to homes and businesses.

- Policy 9.38 Automobile transportation. Maintain acceptable levels of mobility and access for private automobiles while reducing overall vehicle miles traveled (VMT) and negative impacts of private automobiles on the environment and human health.
- Policy 9.5 Mode share goals and Vehicle Miles Travelled (VMT) reduction. Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro's mode share and VMT targets.
- Policy 9.58 Off-street parking. Limit the development of new parking spaces to achieve land use, transportation, and environmental goals, especially in locations with frequent transit service. Regulate off-street parking to achieve mode share objectives, promote compact and walkable urban form, encourage lower rates of car ownership, and promote the vitality of commercial and employment areas. Use transportation demand management and pricing of parking in areas with high parking demand. Strive to provide adequate but not excessive off-street parking where needed, consistent with the preceding practices.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

Portland City Council has committed to a 40% reduction in carbon emissions by 2030, and a 100% reduction by 2050. This strategic plan also coincides with Portland's participation in the Bloomberg American Cities Climate Challenge. The initiative supports near-term actions to reduce carbon emissions while providing us with a guiding framework for our strategic plan, with clear outcomes and measures. To increase safety and reduce carbon emissions, we must reduce the number of trips made by people driving. An overall focus on moving people and goods—rather than the number of vehicles—will help us reduce carbon emissions.

Portland has very ambitious goals for transitioning people away from driving alone and into alternative modes of transportation such as bicycling, public transit, and walking. Successfully making this transition allows us to lower carbon emissions and make Portland the city we want it to be. To meet these goals, we must begin implementing major changes to the way we build, price, and allocate our roads in the city. And we must do this together, with an evidence-based approach, so that we deliver clear benefits to all Portlanders.

Portland Freight Master Plan (2006) Actions and Activities

- Support efforts to foster environmentally-friendly goods movement practices such as the use of cleaner fuels and the reduction of truck and train idling.



Picture 25.1: Image of a white freight truck driving through a street. Multiple white, red, and black cars are driving in front of the freight truck. [Source: unknown]

Regional Transportation Plan Policies

Climate Smart Policies:

- Climate Smart Policy 5: Use technology to actively manage the transportation system and ensure that new and emerging technology affecting the region's transportation system supports shared trips and other Climate Smart Strategy policies and strategies.
- Climate Smart Policy 8: Support Oregon's transition to cleaner fuels and more fuel-efficient vehicles in recognition of the external impacts of carbon and other vehicle emissions.

Regional Motor Vehicle Network Policies:

- Policy 1: Preserve and maintain the region's motor vehicle network system in a manner that improves safety, security and resiliency while minimizing life cycle cost and impact on the environment.
- Policy 9: Minimize environmental impacts of new or improved facilities using Green Street infrastructure design, street trees, wildlife habitat or waterway crossing improvements and other approaches to the extent practicable.

Regional Transit Network Policies:

- Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.

Equity

Comprehensive Plan Policies

- Goal 7.D: Environmental equity. All Portlanders have access to clean air and water, can experience nature in their daily lives, and benefit from development designed to lessen the impacts of natural hazards and environmental contamination.
- Policy 2.1 Partnerships and coordination. Maintain partnerships and coordinate land use engagement with:
 - Policy 2.1.a. Individual community members.
 - Policy 2.1.b. Communities of color (including those whose families have been in this area for generations such as Native Americans, African Americans, and descendants of immigrants),

low-income populations, Limited English Proficient (LEP) communities, Native American communities, immigrants and refugees, and other under-served and under-represented communities.

- Policy 2.1.c. District coalitions, Neighborhood Associations, watershed councils, and business district associations as local experts and communication channels for place-based projects.
- Policy 2.1.d. Businesses, unions, employees, and related organizations that reflect Portland's diversity as the center of regional economic and cultural activity.
- Policy 2.1.e. Community-based, faith-based, artistic and cultural, and interest-based non-profits, organizations, and groups.
- Policy 2.1.f. People experiencing disabilities.
- Policy 2.1.g. Institutions, governments, and Sovereign tribes.
- Policy 2.10 Community participation in data collection. Provide meaningful opportunities for individuals and communities to be involved in inventories, mapping, data analysis, and the development of alternatives.
- Policy 2.2 Broaden partnerships. Work with district coalitions, Neighborhood Associations, and business district associations to increase participation and to help them reflect the diversity of the people and institutions they serve. Facilitate greater communication and collaboration among district coalitions, Neighborhood Associations, business district associations, culturally-specific organizations, and community-based organizations.
- Policy 2.24 Representation. Facilitate participation of a cross-section of the full diversity of affected Portlanders during planning and investment processes. This diversity includes individuals, stakeholders, and communities represented by race, color, national origin, English proficiency, gender, age, disability, religion, sexual orientation, gender identity, and source of income.
- Policy 2.25 Early involvement. Improve opportunities for interested and affected community members to participate early in planning and investment processes, including identifying and prioritizing issues, needs, and

opportunities; participating in process design; and recommending and prioritizing projects and/or other types of implementation.

- Policy 2.26 Verifying data. Use data, including community-validated population data, to guide planning and investment processes and priority setting and to shape community involvement and decision-making efforts.
- Policy 2.27 Demographics. Identify the demographics of potentially affected communities when initiating a planning or investment project.
- Policy 2.28 Historical understanding. To better understand concerns and conditions when initiating a project, research the history, culture, past plans, and other needs of the affected community, particularly under-represented and under-served groups, and persons with limited English proficiency (LEP). Review preliminary

findings with members of the community who have institutional and historical knowledge.

- Policy 2.29 Project-specific needs. Customize community involvement processes to meet the needs of those potentially affected by the planning or investment project. Use community involvement techniques that fit the scope, character, and potential impact of the planning or investment decision under consideration.
- Policy 2.3 Extend benefits. Ensure plans and investments promote environmental justice by extending the community benefits associated with environmental assets, land use, and public investments to communities of color, low-income populations, and other under-served or under-represented groups impacted by the decision. Maximize economic, cultural, political, and environmental benefits through ongoing partnerships.
- Policy 2.30 Culturally-appropriate processes. Consult with communities to design culturally appropriate processes to meet the needs of those affected by a planning or investment project.
- Policy 2.4 Eliminate burdens. Ensure plans and investments eliminate associated disproportionate burdens (e.g. adverse environmental, economic, or community impacts) for communities of color, low-income populations, and other under-served or under-represented groups impacted by the decision.
- Policy 2.4.a. Minimize or mitigate disproportionate burdens in cases where they cannot be eliminated.
- Policy 2.4.b. Use plans and investments to address disproportionate burdens of previous decisions.
- Policy 2.5 Community capacity building. Enhance the ability of community members, particularly those in under-served and/or under-represented groups, to develop the relationships, knowledge, and skills to effectively participate in plan and investment processes.
- Policy 2.6 Land use literacy. Provide training and educational opportunities to build the public's understanding of land use, transportation, housing, and related topics, and increase capacity for meaningful participation in planning



Picture 26.1: Image of a black child jumping over a jump rope. Multiple children in the background are cheering and clapping for the child playing with the jump rope. [Source: PBOT]

and investment processes.

- Policy 2.7 Agency capacity building. Increase City staff's capacity, tools, and skills to design and implement processes that engage a broad diversity of affected and interested communities, including under-served and under-represented communities, in meaningful and appropriate ways.
- Policy 2.8 Channels of communication. Maintain two-way channels of communication among City Council, the Planning and Sustainability Commission (PSC), project advisory committees, City staff, and community members.
- Policy 2.9 Community analysis. Collect and evaluate data, including community-validated population data and information, to understand the needs, priorities, and trends and historical context affecting different communities in Portland.
- Policy 3.22 Model Urban Center. Promote the Central City as a living laboratory that demonstrates how the design and function of a dense urban center can concurrently provide equitable benefits to human health, the natural environment, and the local economy.
- Policy 3.3 Equitable development. Guide development, growth, and public facility investment to reduce disparities; encourage equitable access to opportunities, mitigate the impacts of development on income disparity, displacement and housing affordability; and produce positive outcomes for all Portlanders.
- Policy 3.3.a. Anticipate, avoid, reduce, and mitigate negative public facility and development impacts, especially where those impacts inequitably burden communities of color, under-served and under-represented communities, and other vulnerable populations.
- Policy 3.3.b. Make needed investments in areas that are deficient in public facilities to reduce disparities and increase equity. Accompany these investments with proactive measures to avoid displacement and increase affordable housing.
- Policy 3.3.c. Encourage use of plans, agreements, incentives, and other tools to promote equitable

outcomes from development projects that benefit from public financial assistance.

- Policy 6.1 Diverse and growing community. Expand economic opportunity and improve economic equity for Portland's diverse, growing population through sustained business growth.
- Policy 6.42 Columbia East. Provide a mix of industrial and limited business park development in Columbia East (east of 82nd Avenue) that expand employment opportunities supported by proximity to Portland International Airport and multimodal freight access.
- Policy 7.2 Environmental equity. Prevent or reduce adverse environment-related disparities affecting under-served and under-represented communities through plans and investments. This includes addressing disparities relating to air and water quality, natural hazards, contamination, climate



Picture 27.1: Image of a worker operating a Toyota forklift in a warehouse.. The worker is lifting a pallet of brown, stretch-wrapped boxes. [Source: U.S. Department of Agriculture]

change, and access to nature.

- Policy 8.22 Equitable service. Provide public facilities and services to alleviate service deficiencies and meet level-of-service standards for all Portlanders, including individuals, businesses, and property owners.
- Policy 8.39 Interconnected network. Establish a safe and connected rights-of-way system that equitably provides infrastructure services throughout the city.

Transportation System Plan Policies

- GOAL 9.E: Equitable transportation. The transportation system provides all Portlanders options to move about the city and meet their daily needs by using a variety of safe, efficient, convenient, and affordable modes of transportation. Transportation investments are responsive to the distinct needs of each

community.

- Policy 9.45.a Support regional equity measures for transportation system evaluation.
- Policy 9.66 Project and program selection criteria. Establish transportation project and program selection criteria consistent with Goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety goals.
- Policy 9.67 Funding. Encourage the development of a range of stable transportation funding sources that provide adequate resources to build and maintain an equitable and sustainable transportation system.
- Policy 9.68 New mobility priorities and outcomes. Facilitate new mobility vehicles and services with the lowest climate and congestion impacts and greatest equity benefits; with priority to



Picture 28.1: Image of a blue TriMet bus driving through the Hawthorne Bridge. Multiple bicycle riders are riding on the bike lane to the right of the TriMet bus. [Source: TriMet]

vehicles that are fleet/shared ownership, fully automated, electric and, for passenger vehicles, shared by multiple passengers (known by the acronym FAVES). Develop and implement strategies for each following topic.

- Policy 9.68.d. Make the benefits of new mobility available on an equitable basis to all segments of the community while ensuring traditionally disadvantaged communities are not disproportionately hurt by new mobility vehicles and services. This includes people with disabilities, as well as communities of color, women, and geographically underserved communities.
- Policy 9.68.d. Make the benefits of new mobility available on an equitable basis to all segments of the community while ensuring traditionally disadvantaged communities are not disproportionately hurt by new mobility vehicles and services. This includes people with disabilities, as well as communities of color, women, and geographically underserved communities.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

- Goal 2, Objective 3. Make walking, biking, and taking transit more attractive options
- F. Implement an equitable pricing strategy in partnership with the community.
- Goal 3, Objective 4. Talk to Portlanders about their expectations for asset performance
- B. Create strategies for investment that are informed by equity and prioritize communities of color in decisions made about asset reinvestment. Build partnership and trust with underserved communities by working together to define and evaluate asset performance.

Portland Freight Master Plan (2006) Actions and Activities

- Work with local businesses and the Oregon Trucking Association to establish "good neighbor agreements" to address truck delivery issues including circulation plans and delivery schedules.
- Use the Transportation Safety and Livability Hotline as a tool to monitor neighborhood conflicts with freight movement. Work with the

stakeholders to resolve neighborhood conflicts as they arise.

- Participate in the development of workforce strategies for freight service providers.

Regional Transportation Plan Policies

Regional Transportation Equity Policies:

- Policy 1: Embed equity into the planning and implementation of transportation projects, programs, policies and strategies to comprehensively consider the benefits and impacts of transportation and eliminate disparities and barriers experienced by historically marginalized communities, particularly communities of color and people with low income.
- Policy 2: Ensure investments in the transportation system anticipate and minimize the effects of displacement and other affordability impacts on historically marginalized communities, with a focus



Picture 29.1: Image of a congested freeway with a green travel time sign. White freight trucks and vehicles of varying colors are driving on the freeway. A white and blue TriMet MAX light rail train is visible in the background. [Source: ODOT]

on communities of color and people with low income.

- Policy 3: Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low income.
- Policy 4: Use inclusive decision-making processes that provide meaningful opportunities for communities of color, people with low income and other historically marginalized communities to engage and participate in the development and implementation of transportation plans, projects and programs.
- Policy 5: Use engagement and other methods to collect and assess data to understand the transportation-related disparities, barriers, needs and priorities of communities of color, people with low income and other historically marginalized communities.
- Policy 6: Evaluate transportation plans, policies, programs and investments to understand how they address transportation-related disparities and barriers experienced by communities of color, people with low income and other historically marginalized communities and the extent disparities are being eliminated.
- Policy 7: Support family-wage job opportunities and a diverse construction workforce through inclusive hiring practices and contracting opportunities for investments in the transportation system.

Regional Transit Network Policies:

- Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.
- Policy 6: Make 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.

- Policy 7: Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.
- Policy 8: Ensure that transit is affordable, especially for people who depend on transit.

Regional Bicycle Network Policies:

- Policy 2: Complete an interconnected regional network of bicycle routes and districts that is integrated with transit and nature and prioritizes seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
- Policy 4: Improve bike access to transit and community places for people of all ages and abilities.
- Policy 5: Ensure that the regional bicycle network equitably serves all people.

Regional Pedestrian Network Policies:

- Policy 2: Complete a well-connected network of pedestrian routes and safe street crossings that is integrated with transit and nature that prioritize seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
- Policy 3: Create walkable downtowns, centers, main streets and station communities that prioritize safe, convenient and comfortable pedestrian access for all ages and abilities.
- Policy 4: Improve pedestrian access to transit and community places for people of all ages and abilities.

Resilience

Comprehensive Plan Policies

- Policy 4.80 Geological hazards. Evaluate slope and soil characteristics, including liquefaction potential, landslide hazards, and other geologic hazards.
- Policy 4.81 Disaster-resilient development. Encourage development and site-management approaches that reduce the risks and impacts of natural disasters or other major disturbances and that improve the ability of people, wildlife, natural

systems, and property to withstand and recover from such events.

- Policy 6.47 Clean, safe, and green. Encourage improvements to the cleanliness, safety, and ecological performance of industrial development and freight corridors by facilitating adoption of market feasible new technology and design.
- Policy 6.5 Economic resilience. Improve Portland's economic resilience to impacts from climate change and natural disasters through a strong local economy and equitable opportunities for prosperity.
- Policy 7.4 Climate change. Update and implement strategies to reduce carbon emissions and impacts, and increase resilience through plans and investments and public education.



Picture 30.1: Image of a white United States Postal Service (USPS) van parked on the curb of street. [Source: Atomic Taco Photography]

Transportation System Plan Policies

- Policy 9.30 Multimodal goods movement. Develop, maintain, and enhance a multimodal freight transportation system for the safe, reliable, sustainable, and efficient movement of goods within and through the city.
- Policy 9.34 Sustainable freight system. Support the efficient delivery of goods and services to businesses and neighborhoods, while also reducing environmental and neighborhood impacts. Encourage the use of energy efficient and clean delivery vehicles, and **manage on- and off-street** loading spaces to ensure adequate access for deliveries to businesses, while maintaining access to homes and businesses.
- Policy 9.35 Freight rail network. Coordinate with stakeholders and regional partners to support continued reinvestment.
- Policy 9.49.b. Maintain or decrease the number of peak period non-freight motor vehicle trips, system-wide and within each mobility corridor to reduce or manage congestion.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

- Goal 2, Objective 2. Make the most efficient use of our limited road space
 - A. Replace level-of-service metric with one that measures the efficient movement of people and goods, and make this a core measure in all PBOT operations.
 - D. Pilot a flexible curb zone that supports more people and more movement, and for efficient delivery of freight.
- Goal 2, Objective 4. Link transportation to land use more effectively
- E. Update the freight master plan to support better movement of goods and a vibrant, sustainable economy.
- Goal 3, Objective 1. Make PBOT a model of modern asset management
 - A. Build a broad bureau-wide conversation to advance a sustainable reinvestment practice throughout our work.

- B. Empower PBOT staff to incorporate an asset's complete life-cycle cost into planning and finance in order to support reliable, sustainable, and resilient performance.
- C. Enhance alignment within the bureau and with external partners to make sure that when any transportation asset is impacted by a utility, it is restored at least to good condition.
- D. Maintain assets in a proactive and predictive manner to reduce costs, decrease asset failure, improve resource planning, and enhance customer service.

Portland Freight Master Plan (2006) Actions and Activities

- Work with local businesses and the Oregon Trucking Association to establish "good neighbor agreements" to address truck delivery issues including circulation plans and delivery schedules.
- Coordinate with the Portland Police Bureau through programs like Strategic and Focused Enforcement (SAFE) to identify opportunities for improving truck safety, education, and enforcement.
- Complete and implement the Portland Design Guide for Trucks.
- Develop and implement a signage program to direct trucks to appropriate routes.
- Evaluate and update on-street and off-street truck loading regulations and operations.
- Implement Share the Road, a public education program to distribute information about the characteristics and operational needs of the various transportation modes to improve safety on City streets.
- Partner with railroad operators and ODOT to institute "Quiet Zones" to reduce train whistle noise and improve track safety.
- Support efforts to foster environmentally-friendly goods movement practices such as the use of cleaner fuels and the reduction of truck and train idling.
- Monitor and enforce over-dimensional truck activity through the COVP program.
- Collaborate with agency partners on public investment strategies to stimulate economic development associated with freight movement



Picture 31.1: Image of a white FedEx truck parked on the curb of a street. A person on a bicycle is riding through the bike lane to the left of the FedEx truck. [Source: Minneapolis Public Works Streets]

and the industries that rely on the efficient movement of freight.

- Partner with Portland Development Commission and Port of Portland to identify and implement transportation improvements that enhance marketability of industrial opportunity sites.
- Participate in the development of workforce strategies for freight service providers.

Regional Transportation Plan Policies

Climate Smart Policies:

- Policy 1: Implement adopted local and regional land use plans.
- Policy 2: Make transit convenient, frequent, accessible and affordable.
- Policy 3: Make biking and walking safe and convenient.
- Policy 4: Make streets and highways safe, reliable and connected.
- Policy 5: Use technology to actively manage the transportation system and ensure that new and emerging technology affecting the region's transportation system supports shared trips and other Climate Smart Strategy policies and strategies.
- Policy 6: Provide information and incentives to expand the use of travel options.
- Policy 7: Make efficient use of vehicle parking spaces through parking management and reducing the amount of land dedicated to parking
- Policy 8: Support Oregon's transition to cleaner fuels and more fuel-efficient vehicles in recognition of the external impacts of carbon and other vehicle emissions.
- Policy 9: Secure adequate funding for transportation investments that support the RTP climate leadership goal and objectives.

Transportation System Management and Operations Policies:

- Policy 1: Expand use of pricing strategies to manage travel demand on the transportation system in combination with adequate transit service options.

- Policy 2: Expand use of access management, advanced technologies, and other tools to actively manage the transportation system.
- Policy 3: Provide comprehensive, integrated, universally accessible and real-time travel information to people and businesses.
- Policy 4: Improve incident detection and clearance times on the region's transit, motor vehicle networks to reduce the impact of crashes on the transportation system.
- Policy 5: Expand commuter programs, individualized marketing efforts and other tools throughout the region to increase awareness and use of travel options.
- Policy 6: Build public, non-profit and private sector capacity throughout the region to promote travel options.
- Policy 7: Manage parking in mixed-use centers and corridors that are served by frequent transit service and good biking and walking connections to reduce the amount of land dedicated to parking, encourage parking turnover, increase shared trips, biking, walking and use of transit, reduce vehicle miles traveled and generate revenue.

Safety

Comprehensive Plan Policies

- Policy 3.18 Accessibility. Design centers to be compact, safe, attractive, and accessible places, where the street environment makes access by transit, walking, biking, and mobility devices such as wheelchairs, safe and attractive for people of all ages and abilities.
- Policy 3.4 All ages and abilities. Strive for a built environment that provides a safe, healthful, and attractive environment for people of all ages and abilities.
- Policy 3.43 Active transportation. Enhance the role of the Inner Ring Districts' extensive transit, bicycle, and pedestrian networks in conjunction with land uses that optimize the ability for more people to utilize this network. Improve the safety of pedestrian and bike connections to the Central City. Strengthen transit connections between the Inner Ring Districts and to the Central City.

- Policy 3.49 Design great places. Improve public streets and sidewalks along Civic Corridors to support the vitality of business districts, create distinctive places, provide a safe, healthy, and attractive pedestrian environment, and contribute to quality living environments for residents.
- Policy 3.54 Community connections. Integrate transit stations into surrounding communities and enhance pedestrian and bicycle facilities (including bike sharing) to provide safe and accessible connections to key destinations beyond the station area.
- Policy 3.55 Transit station area safety. Design transit areas to improve pedestrian, bicycle, and personal safety.
- Policy 3.97 Eastern Neighborhoods active transportation. Enhance access to centers, employment areas, and other community destinations in Eastern Neighborhoods by ensuring that corridors have safe and accessible pedestrian and bicycle facilities and creating additional secondary connections that provide low-stress pedestrian and bicycle access.
- Policy 3.99 Western Neighborhoods active transportation. Provide safe and accessible pedestrian and bicycle connections, as well as off-street trail connections, to and from residential neighborhoods.
- Policy 4.5 Pedestrian-oriented design. Enhance the pedestrian experience throughout Portland through public and private development that creates accessible, safe, and attractive places for all those who walk and/or use wheelchairs or other mobility devices.
- Policy 8.24 Risk management. Maintain and improve Portland's public facilities to minimize or eliminate economic, social, public health and safety, and environmental risks.
- Policy 8.39 Interconnected network. Establish a safe and connected rights-of-way system that equitably provides infrastructure services throughout the city. 8.49.b. Coordinate transportation and stormwater system plans and investments, especially in unimproved or substandard rights-of-way, to improve water

quality, public safety, including for pedestrians and bicyclists, and neighborhood livability.

Transportation System Plan Policies

- GOAL 9.A: Safety. The City achieves the standard of zero traffic-related fatalities and serious injuries. Transportation safety impacts the livability of a city and the comfort and security of those using City streets. Comprehensive efforts to improve transportation safety through equity, engineering, education, enforcement and evaluation will be used to eliminate traffic related fatalities and serious injuries from Portland's transportation system.
- Policy 9.19 Pedestrian safety and accessibility. Improve pedestrian safety, accessibility, and convenience for people of all ages and abilities.
- Policy 9.21 Accessible bicycle system. Create a bicycle transportation system that is safe, comfortable, and accessible to people of all ages and abilities.



Picture 32.1: Image of an orange and white "20 is plenty" sign posted on a lawn. The sign is accompanied by a 20 mph speed limit sign and an orange sign that reads "vision zero". [Source: PBOT]

- Policy 9.24 Transit service. In partnership with TriMet, develop a public transportation system that conveniently, safely, comfortably, and equitably serves residents and workers 24 hours a day, 7 days a week.
- Policy 9.3 Transportation System Plan. Maintain and implement the Transportation System Plan (TSP) as the decision-making tool for transportation-related projects, policies, programs, and street design.
- Policy 9.30 Multimodal goods movement. Develop, maintain, and enhance a multimodal freight transportation system for the safe, reliable, sustainable, and efficient movement of goods within and through the city.
- Policy 9.33 Freight network. Develop, manage, and maintain a safe, efficient, and reliable freight street network to provide freight access to

and from intermodal freight facilities, industrial and commercial districts, and the regional transportation system. Invest to accommodate forecasted growth of interregional freight volumes and provide access to truck, marine, rail, and air transportation systems. Ensure designated routes and facilities are adequate for over-dimensional trucks and emergency equipment.

- Policy 9.33 Freight network. Develop, manage, and maintain a safe, efficient, and reliable freight street network to provide freight access to and from intermodal freight facilities, industrial and commercial districts, and the regional transportation system. Invest to accommodate forecasted growth of interregional freight volumes and provide access to truck, marine, rail, and air transportation systems. Ensure designated routes and facilities are adequate for over-dimensional trucks and emergency equipment.
- Policy 9.4 Use of classifications. Plan, develop, implement, and manage the transportation system in accordance with street design and policy classifications outlined in the Transportation System Plan.
- Policy 9.4.a Classification descriptions are used to describe how streets should function for each mode of travel, not necessarily how they are functioning at present.
- Policy 9.40 Emergency response. Maintain a network of accessible emergency response streets to facilitate safe and expedient emergency response and evacuation. Ensure that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion, without negatively impacting traffic calming and other measures intended to reduce crashes and improve safety.
- Policy 9.45 System management. Give preference to transportation improvements that use existing roadway capacity efficiently and that improve the safety of the system for all users.
- Policy 9.46 Traffic management. Evaluate and encourage traffic speed and volume to be consistent with street classifications and desired land uses to improve safety, preserve and enhance neighborhood livability, and meet system goals



Picture 33.1: Image of a white TriMet MAX lightrail train passing through an intersection. The banner of the train reads "Beaverton". [Source: TriMet]

of calming vehicle traffic through a combination of enforcement, engineering, and education efforts.

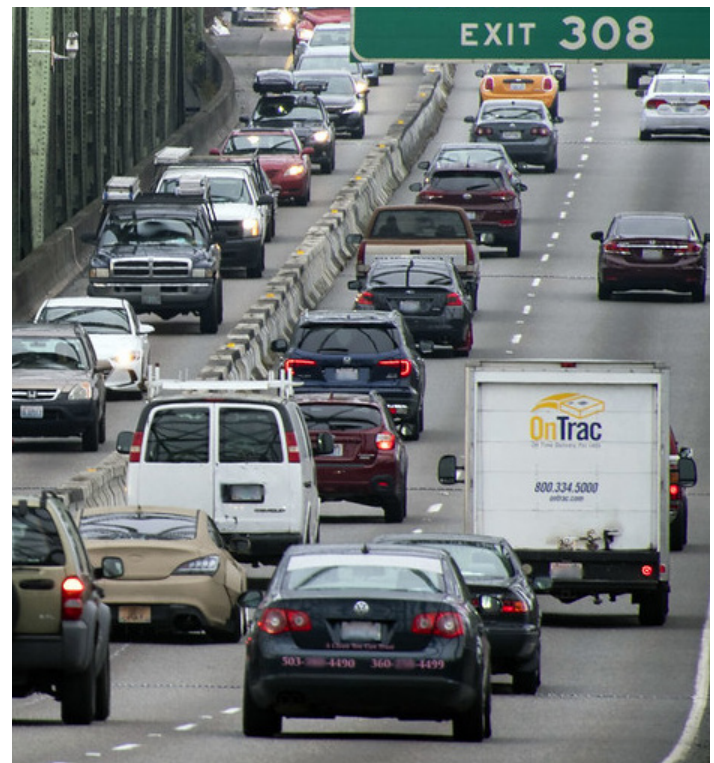
- Policy 9.49.a. Eliminate deaths and serious injuries for all who share Portland streets by 2025.
- Policy 9.5 Mode share Goals and Vehicle Miles Travelled (VMT) reduction. Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro's mode share and VMT targets.
- Policy 9.6 Transportation strategy for people movement. Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list:
 1. Walking
 2. Bicycling
 3. Transit
 4. Fleets of electric, fully automated, multiple passenger vehicles
 5. Other shared vehicles
 6. Low or no occupancy vehicles, fossil-fueled non-transit vehicles

When implementing this prioritization, ensure that:

- The needs and safety of each group of users are considered, and changes do not make existing conditions worse for the most vulnerable users higher on the ordered list.
- All users' needs are balanced with the intent of optimizing the right of way for multiple modes on the same street.
- When necessary to ensure safety, accommodate some users on parallel streets as part of a multi-street corridor.
- Land use and system plans, network functionality for all modes, other street functions, and complete street policies, are maintained.
- Policy-based rationale is provided if modes lower in the ordered list are prioritized.
- Policy 9.64 Education and encouragement. Create, maintain, and coordinate educational and encouragement programs that support

multimodal transportation and that emphasize safety for all modes of transportation. Ensure that these programs are accessible to historically underserved and under-represented populations.

- Policy 9.66 Project and program selection criteria. Establish transportation project and program selection criteria consistent with Goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety goals
- Policy 9.68a: Ensure that all new mobility vehicles and services and levels of automated vehicles advance Vision Zero by operating safely for all users, especially for vulnerable road users. Require adequate insurance coverage for operators, customers, and the public at-large by providers of new mobility vehicles and services.
- Policy 9.69.a. Maintain City authority to identify and develop appropriate data sharing requirements to inform and support safe, efficient,



Picture 34.1: Image of cars and a white freight truck driving through a congested freeway. A sign that reads "exit 308" hangs above the freeway. [Source: ODOT]

and effective management of the transportation system. Ensure that when new mobility vehicles and services use City rights-of-way or when vehicles connect with smart infrastructure within the City they share information including, but not limited to, vehicle type, occupancy, speed, travel routes, and travel times, crashes and citations, with appropriate privacy controls. Ensure that private data communications devices installed in the City right-of-way are required to share anonymized transportation data.

- Policy 9.69.b: Design and manage the mobility zone, curb/flex zone, and traffic control devices to limit speeds to increase safety, to minimize cut-through traffic, evaluate future demand for pick-up and drop-off zones, and to prioritize automated electric vehicles carrying more passengers in congested times and locations.
- Policy 9.69a: Maintain City authority to identify

and develop appropriate data sharing requirements to inform and support safe, efficient, and effective management of the transportation system. Ensure that when new mobility vehicles and services use City rightsof-way or when vehicles connect with smart infrastructure within the City they share information including, but not limited to, vehicle type, occupancy, speed, travel routes, and travel times, crashes and citations, with appropriate privacy controls. Ensure that private data communications devices installed in the City right-of-way are required to share anonymized transportation data.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

Objective 1. Make Portland's High Crash Network safer, especially for pedestrians and people biking

A. Speed up delivery of small-scale safety



Picture 35.1: Image of a white United States Postal Service (USPS) vehicle parked on the curb of a street. The trunk of the vehicle is open. A USPS worker stands to the right of the truck placing mail into a large gray mail box. [Source: unknown]

improvements that help complete our multimodal networks.

- B. Gain community support and improve our ability to deliver large-scale, transformational safety projects and “complete street” projects on arterial and collector streets.
- C. Assess the impact of new development differently, identifying the public and private funding needed to fill gaps in our crosswalk infrastructure.
- D. Implement new development impact standards that increase what is allowed and encouraged on the part of developers, residents, and property owners to increase the rate at which we build and maintain safety infrastructure.
- E. Improve street lighting conditions to increase the visibility of pedestrians on Portland streets.
- F. Expand campaigns that educate the public about pedestrian and bicycle safety.
- G. Identify and fund improvements to signal timing at key intersections in order to allow more time and separation between people crossing and vehicles turning.
- H. Influence adoption of statewide policy supporting safer speeds and design, and implement these on streets throughout the city.

Objective 2. Get drivers to slow down

- A. Implement traffic-calming programs targeted along Safe Routes to School, neighborhood greenways, and other shared spaces and walkways.
- B. Develop a comprehensive strategy for how PBOT sets speed limits, designs infrastructure for safer speeds, promotes safer speeds, and enforces speeding on city roads.
- C. Develop an education and communications strategy so the public better understands the purpose of speed enforcement.
- D. Expand the use of speed safety cameras for enforcement along the High Crash Network and other key locations.
- E. Establish an approach to monitor speeds citywide and track our speed reduction work.

Objective 3. Use data and technology to make our transportation system safer

- A. With the aid of robust data, develop a more comprehensive approach to evaluating safety projects.
- B. Pilot new and emerging technology that can provide additional data and improve our understanding of how people move through our transportation system, where conflicts arise, and how we can reduce risk.
- Objective 4. Make safety a core priority in everything we do
 - A. Incorporate the concept of getting people where they need to go safely—safe, completed trips—as a core measure for all PBOT operations.
 - B. Prioritize a multimodal Safe Systems approach in all bureau guidelines for the model, scope, design, and ongoing maintenance of our assets.
 - C. Train and empower staff, and provide them with a Safe Systems toolkit that allows for building safety improvements into every phase of project delivery.



Picture 36.1: Image of three people standing by a TriMet bus stop. A blue TriMet bus carrying passengers passes by in the background. [Source: TriMet]

Portland Freight Master Plan (2006) Actions and Activities

- Work in partnership with ODOT and private rail service providers to improve crossing protection safety and reduce at-grade rail crossing delays for trucks and trains. Strategies include construction of grade-separated rail crossings at key locations, consolidation and/or elimination of at-grade rail crossings, and deployment of Intelligent Transportation System (ITS) communication system technology to provide real-time information about traffic delays due to train activity.
- Coordinate with the Portland Police Bureau through programs like Strategic and Focused Enforcement (SAFE) to identify opportunities for improving truck safety, education, and enforcement.
- Complete and implement the Portland Design Guide for Trucks.
- Develop and implement a signage program to direct trucks to appropriate routes.
- Evaluate and update on-street and off-street truck loading regulations and operations.
- Use the Transportation Safety and Livability Hotline as a tool to monitor neighborhood conflicts with freight movement. Work with the stakeholders to resolve neighborhood conflicts as they arise.
- Implement Share the Road, a public education program to distribute information about the characteristics and operational needs of the various transportation modes to improve safety on City streets.
- Partner with railroad operators and ODOT to institute “Quiet Zones” to reduce train whistle noise and improve track safety.
- Monitor and enforce over-dimensional truck activity through the COVP program.
- Identify and prioritize pavement maintenance needs in industrial areas.

Regional Transportation Plan Policies

Climate Smart Policies:

- Policy 2: Make transit convenient, frequent, accessible and affordable.
- Policy 3: Make biking and walking safe and convenient.
- Policy 4: Make streets and highways safe, reliable and connected.

Regional Transportation Safety Policies:

- Policy 1: Focus safety efforts on eliminating traffic deaths and severe injury crashes to achieve Vision Zero.
- Policy 2: Prioritize safety investments, education and equitable enforcement on high injury and high risk corridors and intersections, with a focus on reducing speeds and speeding.
- Policy 3: Prioritize investments that benefit people with higher risk of being involved in a serious crash, including people of color, people with low incomes, people with disabilities, people walking, bicycling, and using motorcycles, people working in the right-of-way, youth and older adults.
- Policy 4: Increase safety for all modes of travel and for all people through the planning, design, construction, operation and maintenance of the transportation system, with a focus on reducing vehicle speeds.
- Policy 5: Make safety a key consideration in all transportation projects, and avoid replicating or exacerbating a known safety problem with any project or program.
- Policy 6: Employ a Safe System approach and use data and analysis tools and performance monitoring to support data-driven decision making.
- Policy 7: Utilize safety and engineering best practices to identify low-cost and effective treatments that can be implemented systematically in shorter timeframes than large capital projects.
- Policy 8: Prioritize investments, education and enforcement that increase individual and public security while traveling by reducing intentional

crime, such as harassment, targeting, and terrorist acts, and prioritize efforts that benefit people of color, people with low incomes, people with disabilities, women and people walking, bicycling and taking transit.

- Policy 9: Make safety a key consideration when defining system adequacy (or deficiency) for the purposes of planning or traffic impact analysis.

Regional Freight Network Policies:

- Policy 7: Eliminate fatalities and serious injuries caused by freight vehicle crashes with passenger vehicles, bicycles and pedestrians, by improving roadway and freight operational safety.

Movement of People and Goods

Comprehensive Plan Policies

- Policy 3.45 Connections. Improve corridors as multimodal connections providing transit,

pedestrian, bicycle, and motor vehicle access and that serve the freight needs of centers and neighborhood business districts.

- Policy 3.51 Freight. Maintain freight mobility and access on Civic Corridors that are also Major or Priority Truck Streets.
- Policy 6.41 Multimodal freight corridors. Encourage freight-oriented industrial development to locate where it can maximize the use of and support reinvestment in multimodal freight corridors.
- Policy 8.40 Transportation function. Improve and maintain the right-of-way to support multimodal transportation mobility and access to goods and services as is consistent with the designated street classification.



Picture 37.1: Image of white and red cars driving on a busy freeway bridge. Buildings in the downtown Portland, Oregon area are visible in the background. [Source: ODOT]

Transportation System Plan Policies

- Policy 9.2 Street Policy classifications. Maintain and implement street Policy classifications for pedestrian, bicycle, transit, freight, emergency vehicle, and automotive movement, while considering access for all modes, connectivity, adjacent planned land uses, and state and regional requirements.
- Policy 9.2.a. Designate district classifications that emphasize freight mobility and access in industrial and employment areas serving high levels of truck traffic and to accommodate the needs of intermodal freight movement.
- Policy 9.30 Multimodal goods movement. Develop, maintain, and enhance a multimodal freight transportation system for the safe, reliable, sustainable, and efficient movement of goods within and through the city.



Picture 38.1: Image of a large, brown and dusty flat bed truck driving on a road. A yellow "oversize load" sign hangs on the back of the truck. A blue freight truck is visible in the background. [Source: unknown]

- Policy 9.32 Multimodal system and hub. Maintain Portland's role as a multimodal hub for global and regional movement of goods. Enhance Portland's network of multimodal freight corridors.
- Policy 9.33 Freight network. Develop, manage, and maintain a safe, efficient, and reliable freight street network to provide freight access to and from intermodal freight facilities, industrial and commercial districts, and the regional transportation system. Invest to accommodate forecasted growth of interregional freight volumes and provide access to truck, marine, rail, and air transportation systems. Ensure designated routes and facilities are adequate for over-dimensional trucks and emergency equipment.
- Policy 9.38 Automobile transportation. Maintain acceptable levels of mobility and access for private automobiles while reducing overall vehicle miles traveled (VMT) and negative impacts of private automobiles on the environment and human health.
- Policy 9.49.b. Maintain or decrease the number of peak period non-freight motor vehicle trips, system-wide and within each mobility corridor to reduce or manage congestion.
- Policy 9.50 Regional congestion management. Coordinate with Metro to establish new regional multimodal mobility standards that prioritize transit, freight, and system completeness.
- Policy 9.50.a. Create a regional congestion management approach, including a market-based system, to price or charge for auto trips and parking, better account for the cost of auto trips, and to more efficiently manage the regional system.
- Policy 9.69.a. Maintain City authority to identify and develop appropriate data sharing requirements to inform and support safe, efficient, and effective management of the transportation system. Ensure that when new mobility vehicles and services use City rights-of-way or when vehicles connect with smart infrastructure within the City they share information including, but not limited to, vehicle type, occupancy, speed, travel routes, and travel times, crashes and citations, with appropriate privacy controls. Ensure

that private data communications devices installed in the City right-of-way are required to share anonymized transportation data.

- Policy 9.6 Transportation strategy for people movement. Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list:
 1. Walking
 2. Bicycling
 3. Transit
 4. Fleets of electric, fully automated, multiple passenger vehicles
 5. Other shared vehicles
 6. Low or no occupancy vehicles, fossil-fueled non-transit vehicles

When implementing this prioritization, ensure that:

- The needs and safety of each group of users are considered, and changes do not make existing conditions worse for the most vulnerable users higher on the ordered list.
- All users' needs are balanced with the intent of optimizing the right of way for multiple modes on the same street.
- When necessary to ensure safety, accommodate some users on parallel streets as part of a multi-street corridor.
- Land use and system plans, network functionality for all modes, other street functions, and complete street policies, are maintained.
- Policy-based rationale is provided if modes lower in the ordered list are prioritized.
- Policy 9.69.b. Design and manage the mobility zone, curb/flex zone, and traffic control devices, e.g. to limit speeds to increase safety, to minimize cut-through traffic, evaluate future demand for pick-up and drop-off zones, and to prioritize automated electric vehicles carrying more passengers in congested times and locations;
- Policy 9.7 Moving goods and delivering services. In tandem with people movement, maintain efficient and reliable movement of goods and services as a critical transportation system

function. Prioritize freight system reliability improvements over single-occupancy vehicle mobility where there are solutions that distinctly address those different needs.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

Objective 1. Expand and improve transportation facilities

- A. Build new high-priority pedestrian crossings and sidewalks.
- B. Increase investments in transportation facilities for walking, biking, and taking transit.
- C. Build a protected bikeway system in the central city that connects to the broader bike network.
- D. Fund and build major transit lines and trail corridors in partnership with other agencies, including the new Southwest Corridor light rail and the Division Transit Project.
- E. Leverage state investments to maximize benefits for Portlanders, such as projects along outer SE Powell Boulevard and 82nd Avenue in East Portland.
- F. Utilize "quick-build" projects that allow us to respond to community safety and livability concerns while simultaneously encouraging active trips on neighborhood streets.
- G. Develop specific plans for high-need, high-growth centers, especially in East Portland, that will increase safe, and convenient options for underserved communities.
- H. Accelerate the conversion to electric vehicles.

Objective 2. Make the most efficient use of our limited road space

- A. Replace level-of-service metric with one that measures the efficient movement of people and goods, and make this a core measure in all PBOT operations.
- B. Develop clear practices for allocating space in the public right-of-way when either public or private development occurs.
- C. Prioritize transit traffic by implementing key projects and maximizing the use of existing transit needs.

- D. Pilot a flexible curb zone that supports more people and more movement, and for efficient delivery of freight.
- E. Upgrade signal systems so they can manage speed, give priority to transit, and collect data to help improve our management of the transportation system.
- F. Increase transportation options, such as bike share and e-scooters that are able to move more people sustainably in our limited public right-of way.

Objective 3. Make walking, biking, and taking transit more attractive options

- A. Expand adoption of existing programs, and develop new ones, that are community-led and provide information and incentives for walking, biking, and taking transit, such as SmartTrips and the Transportation Wallet.
- B. Develop and implement a Commute Trip Reduction program for Portland employers.
- C. Complete a multiyear Transportation Demand Management Action Plan which guides the bureau in how to integrate transportation demand management into programs and projects.
- D. Advocate for demand management through pricing on Oregon Department of Transportation freeways to mitigate existing inequities, improve safety on local roads, and reduce carbon emissions.
- E. Produce a regional pricing model with key partners that allows us to evaluate different demand management strategies in combination with levels of transit investment.
- F. Implement an equitable pricing strategy in partnership with the community.
- G. Implement new permitted parking programs and multimodal strategies that reduce vehicle ownership in growing parts of the city.
- Objective 4. Link transportation to land use more effectively

- A. Collaborate with city bureaus and partner agencies to integrate plans for balancing jobs and housing and increasing access to essential services, starting with the Southwest Corridor, East

Portland, and Northeast Portland.

- B. Develop and implement new review guidelines to ensure new development yields investments in infrastructure for walking, biking, and taking transit, rather than using standards for automobile level-of-service.
- C. Expand programs to support transportation options that align with affordable housing efforts and major transportation improvements.
- D. Strengthen the value of the central city as a vibrant commercial center accessible to all Portlanders.
- E. Update the freight master plan to support better movement of goods and a vibrant, sustainable economy.

Portland Freight Master Plan (2006) Actions and Activities

- Coordinate with Metro and the Oregon Department of Transportation (ODOT) to



Picture 39.1: Image of a various passengers aboard the Portland Aerial Tram. One passenger holds onto a hand-rail. [Source: ODOT]

develop a strategy for the transfer of US 30 Bypass designation to N. Columbia Boulevard in North Portland. The strategy will identify improvements to Columbia Boulevard to better meet the needs of over-dimensional truck movement.

- Identify a strategy for truck routes that serve the movement of over-dimensional loads throughout the City. Coordinate this effort with the existing Continuous Operations Variance Permit (COVP) program activities.
- Develop a local street plan for the Northwest Industrial District to address access and circulation issues.
- Designate freight classifications for Central City sub-districts including Downtown, Lloyd District, Pearl District, South Waterfront, and Central Eastside streets as part of the Central City

Transportation Management Plan update.

- Implement Intelligent Transportation System projects to manage congestion on key truck routes in order to provide better information about traffic delays and improved signal operation to control flow of traffic for certain situations.
- Coordinate with ODOT to provide truck-only queue lanes at freeway ramps in freight districts. Investigate the use of different ramp meter timing for truck-only lanes.
- Investigate implementation of exclusive trucks lanes including use of high-occupancy vehicle (HOV) lanes by trucks when not in use for HOV traffic.
- Optimize signal timing in freight corridors including Columbia Boulevard, Airport Way, Powell Boulevard, and McLoughlin Boulevard.
- Work in partnership with ODOT and private rail



Picture 40.1: Image of an electric freeway sign in the middle of a divided freeway. The sign reads "give extra space to each other and on the road". Black and white freight vehicles are driving on the freeway. [Source: ODOT]

service providers to improve crossing protection safety and reduce at-grade rail crossing delays for trucks and trains. Strategies include construction of grade-separated rail crossings at key locations, consolidation and/or elimination of at-grade rail crossings, and deployment of Intelligent Transportation System (ITS) communication system technology to provide real-time information about traffic delays due to train activity.

- Coordinate with the Columbia River Crossing Draft Environmental Impact Statement (DEIS) process on the evaluation of freight mobility issues in this segment of the I-5 Trade Corridor.
- Institute transportation demand management strategies in Freight Districts to provide travel options that help reduce single-occupancy vehicle use and increase street capacity for trucks.
- Support other freight modes such as rail or short sea shipping as alternatives to moving freight by truck.
- Initiate a North Willamette River Crossing Study to assess the feasibility of new bridge between Rivergate and US 30.
- Develop a freight mobility web page that provides up-to-date information on City truck routes, advisories about construction detours and work zones, over-dimensional permits and routing, and general information about the City's freight system management.
- Work with local businesses and the Oregon Trucking Association to establish "good neighbor agreements" to address truck delivery issues including circulation plans and delivery schedules.
- Coordinate with the Portland Police Bureau through programs like Strategic and Focused Enforcement (SAFE) to identify opportunities for improving truck safety, education, and enforcement.
- Complete and implement the Portland Design Guide for Trucks.
- Develop and implement a signage program to direct trucks to appropriate routes.
- Evaluate and update on-street and off-street truck

loading regulations and operations.

- Use the Transportation Safety and Livability Hotline as a tool to monitor neighborhood conflicts with freight movement. Work with the stakeholders to resolve neighborhood conflicts as they arise.
- Monitor and enforce over-dimensional truck activity through the COVP program.
- Identify and improve site-specific obstacles to access and circulation in Freight Districts.
- Collaborate with agency partners on public investment strategies to stimulate economic development associated with freight movement and the industries that rely on the efficient movement of freight.
- Work with businesses in centers and along main streets to address truck access and loading issues.

Regional Transportation Plan Policies

Climate Smart Policies:

- Policy 1: Implement adopted local and regional land use plans.
- Policy 2: Make transit convenient, frequent, accessible and affordable.
- Policy 3: Make biking and walking safe and convenient.
- Policy 4: Make streets and highways safe, reliable and connected.
- Policy 5: Use technology to actively manage the transportation system and ensure that new and emerging technology affecting the region's transportation system supports shared trips and other Climate Smart Strategy policies and strategies.
- Policy 6: Provide information and incentives to expand the use of travel options.
- Policy 7: Make efficient use of vehicle parking spaces through parking management and reducing the amount of land dedicated to parking
- Policy 8: Support Oregon's transition to cleaner fuels and more fuel-efficient vehicles in recognition of the external impacts of carbon and other vehicle emissions.

- Policy 9: Secure adequate funding for transportation investments that support the RTP climate leadership goal and objectives.

Emerging Technology Policies:

- Policy 1: Make emerging technology accessible, available and affordable to all, and use technology to create more equitable communities.
- Policy 2: Use emerging technology to improve transit service, provide shared travel options throughout the region and support transit, bicycling and walking.
- Policy 3: Use the best available data to empower travelers to make travel choices and to plan and manage the transportation system.
- Policy 4: Advance the public interest by anticipating, learning from and adapting to new developments in technology.



Picture 41.1: Image of black vehicles driving in front of an orange TriMet street car. Cars parked on the sides of the street are visible in the background. [Source: 5chw4r7z]

Regional Pedestrian Network Policies:

- Policy 1: Make walking the most convenient, safe and enjoyable transportation choice for short trips of less than one mile.
- Policy 2: Complete a well-connected network of pedestrian routes and safe street crossings that is integrated with transit and nature that prioritize seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
- Policy 3: Create walkable downtowns, centers, main streets and station communities that prioritize safe, convenient and comfortable pedestrian access for all ages and abilities.
- Policy 4: Improve pedestrian access to transit and community places for people of all ages and abilities.

Regional Bicycle Network Policies:

- Policy 1: Make bicycling the most convenient, safe and enjoyable transportation choice for short trips of less than three miles
- Policy 2: Complete an interconnected regional network of bicycle routes and districts that is integrated with transit and nature and prioritizes seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
- Policy 3: Complete a green ribbon of bicycle parkways as part of the region's integrated mobility strategy.
- Policy 4: Improve bike access to transit and community places for people of all ages and abilities.
- Policy 5: Ensure that the regional bicycle network equitably serves all people.

Regional Transit Network Policies:

- Policy 1: Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.
- Policy 2: Preserve and maintain the region's transit

infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.

- Policy 3: Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.
- Policy 4: Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.
- Policy 5: Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.
- Policy 6: Make 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.
- Policy 7: Use technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.
- Policy 8: Ensure that transit is affordable, especially for people who depend on transit.

Regional Freight Network Policies:

- Policy 1: Plan and manage our multimodal freight transportation infrastructure using a systems approach, coordinating regional and local decisions to maintain seamless freight movement and access to industrial areas and intermodal facilities.
- Policy 2: Manage the region's multimodal freight network to reduce delay, increase reliability and efficiency, improve safety and provide shipping choices.
- Policy 3: Better integrate freight issues in regional and local planning and communication to Inform the public and decision-makers on the importance of freight and goods movement issues.
- Policy 4: Pursue a sustainable multimodal freight transportation system that supports the health of the

economy, communities and the environment through clean, green and smart technologies and practices.

- Policy 5: Protect critical freight corridors and access to industrial lands by integrating freight mobility and access needs into land use and transportation plans and street design.
- Policy 6: Invest in the region's multimodal freight transportation system, including road, air, marine and rail facilities, to ensure that the region and its businesses stay economically competitive.
- Policy 7: Eliminate fatalities and serious injuries caused by freight vehicle crashes with passenger vehicles, bicycles and pedestrians, by improving roadway and freight operational safety.

Regional Motor Vehicle Network Policies:

- Policy 1: Preserve and maintain the region's motor vehicle network system in a manner that improves safety, security and resiliency while minimizing life cycle cost and impact on the environment.
- Policy 2: Use the Congestion Management Process, Regional Mobility Policy, safety and bike and pedestrian network completion data to identify motor vehicle network deficiencies.
- Policy 3: Actively manage and optimize capacity on the region's thoroughway network for longer, regional, statewide and interstate travel.
- Policy 4: Actively manage and optimize arterials according to their planned functions to improve reliability and safety, and maintain mobility and accessibility for all modes of travel.
- Policy 5: Strategically expand the region's thoroughway network up to six travel lanes plus auxiliary lanes between interchanges to maintain mobility and accessibility and improve reliability for regional, statewide and interstate travel.
- Policy 6: In combination with increased transit service, consider use of congestion pricing to manage congestion and raise revenue when one or more lanes are being added to thoroughways.
- Policy 7: Complete a well-connected network of arterial streets ideally spaced at approximately 1-mile apart and planned for up to four travel lanes to maintain transit and freight mobility and accessibility and prioritize safe pedestrian, bicycle

and transit access for all ages and abilities using Complete Street design approaches.

- Policy 8: Complete a well-connected network of collector and local streets that provide for local circulation and direct vehicle, bicycle and pedestrian access to adjacent land uses and to transit for all ages and abilities.
- Policy 9: Minimize environmental impacts of new or improved facilities using Green Street infrastructure design, street trees, wildlife habitat or waterway crossing improvements and other approaches to the extent practicable.
- Policy 10: Address safety needs on the motor vehicle network through coordinated implementation of cost-effective crash reduction engineering measures, education, and enforcement.
- Policy 11: Incorporate complete street designs for safe and convenient pedestrian and bicycle access

for regional and local roadways.

- Policy 12: Prior to adding new throughway capacity beyond the planned system of through lanes, demonstrate that system and demand management strategies, including access management, transit and freight priority and congestion pricing, transit service and multimodal connectivity improvements cannot adequately address throughway deficiencies and bottlenecks.

Asset Management

Comprehensive Plan Policies

- Policy 3.17 Arts and culture. Ensure that land use plans and infrastructure investments allow for and incorporate arts, culture, and performance arts as central components of centers.
- Policy 3.68 Regional Truck Corridors. Enhance designated streets to accommodate forecast freight growth and support intensified industrial use in nearby freight districts.
- Policy 3.9 Growth and development. Evaluate the potential impacts of planning and investment decisions, significant new infrastructure, and significant new development on the physical characteristics of neighborhoods and their residents, particularly under-served and under represented communities, with particular attention to displacement and affordability impacts. Identify and implement strategies to mitigate the anticipated impacts.
- Policy 8.23 Asset management. Improve and maintain public facility systems using asset management principles to optimize preventative maintenance, reduce unplanned reactive maintenance, achieve scheduled service delivery, and protect the quality, reliability, and adequacy of City services.
- Policy 8.25 Critical infrastructure. Increase the resilience of high-risk and critical infrastructure through monitoring, planning, maintenance, investment, adaptive technology, and continuity planning.
- Policy 8.36 Context-sensitive infrastructure. Design, improve, and maintain public rights-of



Picture 42.1: Image of blue, white, and red shipping containers stacked on top of each other. Several shipping containers have "Hanjin" written on the sides. [Source: SqueakyMarmot]

way and facilities in ways that are compatible with, and that minimize negative impacts on, their physical, environmental, and community context.

- Policy 8.4 Supporting facilities and systems. Maintain supporting facilities and systems, including public buildings, technology, fleet, and internal service infrastructure, to enable the provision of public facilities and services

Transportation System Plan Policies

- Policy 9.35 Freight rail network. Coordinate with stakeholders and regional partners to support continued reinvestment in, and modernization of, the freight rail network.
- Policy 9.49 Performance measures. Establish multimodal performance measures and measures of system completeness to evaluate and monitor the adequacy of transportation services based on performance measures in Goals 9.A. through 9.I. Use these measures to evaluate overall system performance, inform corridor and area-specific plans and investments, identify project and program needs, evaluate and prioritize investments, and regulate development, institutional campus growth, zone changes, Comprehensive Plan Map amendments, and conditional uses.
- Policy 9.50 Regional congestion management. Coordinate with Metro to establish new regional multimodal mobility standards that prioritize transit, freight, and system completeness.
- Policy 9.66 Project and program selection criteria. Establish transportation project and program selection criteria consistent with Goals 9A through 9I, to cost-effectively achieve access, placemaking, sustainability, equity, health, prosperity, and safety Goals.
- Policy 9.67 Funding. Encourage the development of a range of stable transportation funding sources that provide adequate resources to build and maintain an equitable and sustainable transportation system.

Moving to Our Future, PBOT's Strategic Plan Goals and Objectives

Objective 1. Make PBOT a model of modern asset management

- A. Build a broad bureau-wide conversation to advance a sustainable reinvestment practice throughout our work.
- B. Empower PBOT staff to incorporate an asset's complete life-cycle cost into planning and finance in order to support reliable, sustainable, and resilient performance.
- C. Enhance alignment within the bureau and with external partners to make sure that when any transportation asset is impacted by a utility, it is restored at least to good condition.
- D. Maintain assets in a proactive and predictive manner to reduce costs, decrease asset failure, improve resource planning, and enhance customer service.



Picture 43.1: Image of a yellow truck re-paving the shoulder of a road. A white FedEx semi-truck on the right drives by the yellow truck. [Source: ODOT]

Objective 2. Use data to make better decisions about transportation assets

- A. For each class of assets, define “state of good repair” and develop a living asset registry to better prioritize maintenance.
- B. Integrate data collection and management of all PBOT assets, including transit facilities, so decisions are data-driven.
- C. Measure the likelihood and consequence of asset failure— known as “asset criticality”—and prioritize reinvestment according to this measure

Objective 3. Be good financial stewards of public infrastructure

- A. Develop and implement a prioritization methodology for reinvestment in asset rehabilitation, repair, and replacement.
- B. Develop and implement consistent tools, such as business case evaluations, to justify asset investment based upon defined goals and priorities. Use these tools to develop capital projects and budgets, and for making decisions within an asset class and between asset classes.
- C. Develop new criteria for how PBOT accepts ownership of new assets, such as through jurisdictional transfer, donation, development, or new capital investments.
- D. Reduce maintenance backlog by leveraging investments and coordinating with both public and private utilities.
- E. Develop bureau policy to account for life-cycle costs when planning, rehabilitating, replacing, or taking responsibility of assets.

Objective 4. Talk to Portlanders about their expectations for asset performance

- A. Define goals for asset performance and deliver outcomes that are achievable, measurable, sustainable, and contribute to the bureau’s progress in delivering “state of good repair.”
- B. Create strategies for investment that are informed by equity and prioritize communities of color in decisions made about asset reinvestment. Build partnership and trust with underserved communities by working together to define and evaluate asset performance.

- C. Align the timing of maintenance to address the most critical priorities for the public and maximize return on the public’s investment.
- D. Report annually on asset conditions and the progress made toward “state of good repair” since the previous year.
- E. To enhance public trust, improve communication and transparency about the decisions and trade offs when it comes to asset investment.

Portland Freight Master Plan (2006) Actions and Activities

- Work with local businesses and the Oregon Trucking Association to establish “good neighbor agreements” to address truck delivery issues including circulation plans and delivery schedules.
- Complete and implement the Portland Design Guide for Trucks.
- Develop and implement a signage program to direct trucks to appropriate routes.
- Evaluate and update on-street and off-street truck loading regulations and operations.
- Collaborate with agency partners on public investment strategies to stimulate economic development associated with freight movement and the industries that rely on the efficient movement of freight.
- Partner with Portland Development Commission and Port of Portland to identify and implement transportation improvements that enhance marketability of industrial opportunity sites.
- Work with businesses in centers and along main streets to address truck access and loading issues.
- Identify and prioritize pavement maintenance needs in industrial areas.

Regional Transportation Plan Policies

Climate Smart Policies:

- Policy 9: Secure adequate funding for transportation investments that support the RTP climate leadership goal and objectives.

Regional Transportation Equity Policies:

- Policy 1: Embed equity into the planning and implementation of transportation projects,

programs, policies and strategies to comprehensively consider the benefits and impacts of transportation and eliminate disparities and barriers experienced by historically marginalized communities, particularly communities of color and people with low income.

- Policy 2: Ensure investments in the transportation system anticipate and minimize the effects of displacement and other affordability impacts on historically marginalized communities, with a focus on communities of color and people with low income.
- Policy 3: Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low income.

Regional Motor Vehicle Network Policies:

- Policy 1: Preserve and maintain the region's motor vehicle network system in a manner that improves safety, security and resiliency while minimizing life cycle cost and impact on the environment.

Regional Transit Network Policies:

- Policy 2: Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.

Regional Freight Network Policies:

- Policy 1: Plan and manage our multimodal freight transportation infrastructure using a systems approach, coordinating regional and local decisions to maintain seamless freight movement and access to industrial areas and intermodal facilities.
- Policy 2: Manage the region's multimodal freight network to reduce delay, increase reliability and efficiency, improve safety and provide shipping choices.
- Policy 5: Protect critical freight corridors and access to industrial lands by integrating freight mobility and access needs into land use and transportation plans and street design.
- Policy 6: Invest in the region's multimodal freight transportation system, including road, air, marine and rail facilities, to ensure that the region and its businesses stay economically competitive.



Picture 44.1: Image of a white freight truck unloading goods in the middle of a street. A beige van drives by the truck. Multiple cars parked on the street are visible in the background. [Source: unknown]