Oregon
Theodore R. Kulongoski, Governor

Department of Land Conservation and Development
635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2524
Phone: (503) 373-0050
First Floor/Coastal Fax: (503) 378-6033
Second Floor/Director's Office: (503) 378-5518
Web Address: http://www.oregon.gov/LCD

NOTICE OF ADOPTED AMENDMENT

May 23, 2006

TO: Subscribers to Notice of Adopted Plan
or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: City of Portland Plan Amendment
DLCD File Number 009-05

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. Due to the size of amended material submitted, a complete copy has not been attached. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: June 5, 2006

This amendment was submitted to DLCD for review 45 days prior to adoption. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

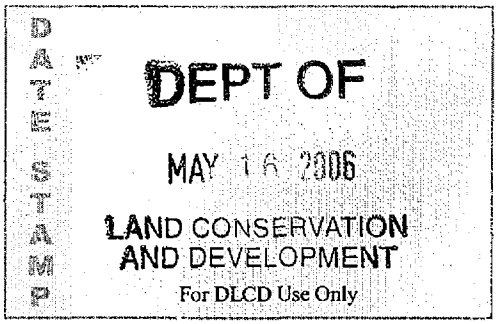
***NOTE:** **THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.**

Cc: Gloria Gardiner, DLCD Urban Planning Specialist
Meg Fernekees, DLCD Regional Representative
Robert Hillier, City of Portland

<paa> n

FORM 2 Notice of Adoption

THIS FORM **MUST BE MAILED** TO DLCD
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18



Jurisdiction: **City of Portland** Local file number: **N/A**

Date of Adoption: **5/10/2006** Date Mailed: **5/15/2006**

Date original Notice of Proposed Amendment was mailed to DLCD: **1/11/2006**

- ☒ Comprehensive Plan Text Amendment
- ☐ Comprehensive Plan Map Amendment
- ☐ Land Use Regulation Amendment
- ☐ Zoning Map Amendment
- ☐ New Land Use Regulation
- ☐ Other: _____

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

Amend the Transportation System Plan to incorporate the Freight Master Plan and Freight Network Map. Amend Goal 5 (Economic Development), Goal 6 (Transportation), and Goal 11B (Public Right-Of-Way) of the Comprehensive Plan. Amend the Public Facilities Plan for transportation infrastructure system improvements.

Describe how the adopted amendment differs from the proposed amendment. If it is the same, write "SAME". If you did not give Notice for the Proposed Amendment, write "N/A".

Amend Freight Master Plan and Major System Investments to include Burgard-Lombard, N. Street Improvements. Amend truck street classification of the NE 103rd Avenue couplet with NE 102nd Avenue to Truck Access Street, north of Washington Street.

Plan Map Changed from: **N/A** to: **N/A**

Zone Map Changed from: **N/A** to: **N/A**

Location: **N/A** Acres Involved: **N/A**

Specify Density: Previous: **N/A** New: **N/A**

Applicable Statewide Planning Goals: **1, 9, 11, 12**

Was and Exception Adopted? ☐ YES ☒ NO

DLCD File No.: 009-05 (14663)

Did the Department of Land Conservation and Development receive a Notice of Proposed Amendment.....

Forty-five (45) days prior to first evidentiary hearing?	☒ **Yes**	☐ **No**
If no, do the statewide planning goals apply?	☐ **Yes**	☒ **No**
If no, did Emergency Circumstances require immediate adoption?	☐ **Yes**	☒ **No**

Affected State or Federal Agencies, Local Governments or Special Districts:

Oregon Department of Transportation, METRO, Multnomah County, Port of Portland, City of Portland

Local Contact: **Robert Hillier** Phone: **(503) 823-7567** Extension:

Address: **1120 SW Fifth Ave, Suite 800** City: **Portland**

Zip Code + 4: **97204-** Email Address: **robert.hillier@pdxtrans.org**

ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and **TWO (2) Copies** of the Adopted Amendment to:

ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540

2. Submit **TWO (2) copies** the adopted material, if copies are bounded please submit **TWO (2) complete copies** of documents and maps.

3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.

4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.

5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.

6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.

7. **Need More Copies?** You can copy this form on to 8-1/2x11 green paper only; or call the DLCD Office at (503) 373-0050; or Fax your request to:(503) 378-5518; or Email your request to **mara.ulloa@state.or.us** - ATTENTION: PLAN AMENDMENT SPECIALIST.

-5683-6162

Agenda No. 180132
ORDINANCE NO.
Title As Amended

Amend the Transportation System Plan and Comprehensive Plan to incorporate the City's Freight Master Plan (Ordinance; amend ordinance no. 177028)

INTRODUCED BY	CLERK USE: DATE FILED APR 28 2006
Commissioner Sam Adams	Gary Blackmer Auditor of the City of Portland
NOTED BY COMMISSIONER	
Affairs	By: _____ Deputy
Finance and Administration	
Safety	ACTION TAKEN:
Utilities	MAY 03 2006 PASSED TO SECOND READING As Amended MAY 10 2006 2 P.M.
Works	
BUREAU APPROVAL	
Bureau: Office of the Director	
Prepared by: Jeanne E. Harrison JEH Date: February 23, 2006	
Financial Impact Statement __X__Completed _____Amends Budget _____Not Required	
Portland Policy Document _____Yes __X__No	
Council Meeting Date May 3, 2006 (Time Certain 2:00)	
Bureau Head: Susan D. Keil Susan D. Keil, Director	

AGENDA		FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
				YEAS	NAYS
Consent	Regular X	Adams	Adams		
NOTED BY		Leonard	Leonard	✓	
City Attorney KSBeaumont		Saltzman	Saltzman	✓	
		Sten	Sten	✓	
		Potter	Potter	✓	

180132

ORDINANCE No. **As Amended**

Amend the Transportation System Plan and Comprehensive Plan to incorporate the City Freight Master Plan (Ordinance; amend Ordinance No. 177028)

The City of Portland ordains:

Section 1. The Council finds that:

1. The City of Portland adopted its Comprehensive Plan on October 16, 1980 (effective date January 1, 1981). The Plan was acknowledged as being in conformance with Statewide Land Use Planning Goals by the Land Conservation and Development Commission (LCDC). Upon its adoption, the Plan complied with State Goal 12: Transportation.

2. In April 1991, the LCDC adopted an Administrative Rule for Goal 12 (660-012), the Transportation Planning Rule (TPR), which imposed additional requirements on local jurisdictions to achieve compliance with Goal 12.

3. The TPR requires local jurisdictions to develop transportation system plans (TSP) to ensure that the transportation system will support travel and land use patterns that will avoid air pollution, traffic, and livability problems faced by other areas of the country. The TSP is also intended to develop a safe, convenient and economic transportation system.

4. The TSP also incorporates the requirements of State Land Use Goal 11: Public Facilities and becomes the public facilities plan for transportation for the City. The Public Facilities Plan for the City was adopted by City Council Ordinance NO. 161770 on April 5, 1989. The Public Facilities Plan for Transportation includes a list of major transportation projects intended to serve the needs of the City for the following 20 years. The TSP Transportation System Improvements replaced the transportation projects in the Public Facilities Plan.

5. The Transportation Element of the Comprehensive Plan (TE) was originally adopted by City Council Ordinance 165851 (effective date October 23, 1992) to update the Transportation Goal and Policies to comply, in part, with the TPR. The TE also updated and incorporated the Arterial Streets Classification Policy (ASCP), including district policies and street classification descriptions and maps, into the Comprehensive Plan.

6. The TE was updated in 1996 and adopted by City Ordinance 170136 (effective date June 21, 1996). This update was Phase 1 of the City's effort to develop a transportation system plan for the City and includes amendments to Goal 6 and its policies, street classifications, and Goals 1, 2, 7, and 11.

7. On October 30, 2002 City Council adopted Ordinance 177028 (effective date December 14, 2003, the first Transportation System Plan (TSP) for Portland. The TSP included modal plans for motor vehicles, transit, bicycles, pedestrians, freight, and air, rail, water and pipeline and management plans for transportation demand management/parking and transportation system management. During the adoption process, the City recognized the need to better understand and plan for freight movement.

8. The development of the Freight Master Plan occurred in two phases. The first phase began in January 2003 and included a Freight Master Plan – Interim Report. City Council passed Resolution No. 36167 (September 10, 2003) recognizing the importance of freight and goods delivery and supporting implementation of the Freight Master Plan.

9. The TSP Technical Update included a recommendation to "develop a master plan to address freight movement in the local transportation system including needs and deficiencies of heavy freight and local good delivery, opportunities to support economic development, and alternative solutions to conflicts between truck freight and neighborhoods."

10. On October 13, 2004, City Council adopted Ordinances 178815 and 178826 (effective date November 12, 2004) to amend the TSP through the first Technical Update to correct omissions and update the major system improvements.

11. Phase II of the Freight Master Plan began in July 2004. Development of the Plan included a number of technical memoranda that addressed: innovations and trends, existing conditions, needs assessment, solutions and strategies, and performance measures.

12. The Freight Master Plan supports Portland's long-term commitment to a vibrant economy and efficient movement of goods and services to maintain the region's competitiveness and affordability for businesses.

13. Citizen involvement and public outreach for the Plan (outlined in the findings for Goal 1, Citizen Involvement, in the Findings section of Exhibit B), which included a Freight Advisory Committee and numerous opportunities for community input in the form of three open houses. The Freight Master Plan web page provides a public communication tool where meeting notices and documents are available for review.

14. On September 7, 2005, notice of proposed action was mailed to the Oregon Department of Land Conservation and Development (DLCD) in compliance with the post-acknowledgement review process required by OAR-660-020 and to Metro and Multnomah County.

15. On September 22, 2005, public notice was mailed to approximately 450 interested persons and groups of the Planning Commission hearing. The Planning Commission held a public hearing on October 25, 2005 to receive public testimony on the Freight Master Plan. Staff responded to public testimony and questions from the Commission on November 8, 2005. The Planning Commission approved the Freight Master Plan as amended on that date.

16. Findings of compliance with Statewide Planning Goals, the Transportation Planning Rule, the Regional Transportation Plan, the Urban Growth Management Functional Plan, and the Comprehensive Plan are contained in Exhibit B attached to this ordinance.

NOW, THEREFORE, the Council Directs:

a. Adopt the Freight Master Plan as shown in Exhibit A;

b. Adopt the Freight Master Plan findings as shown in Exhibit B;

c. Exhibit A of Ordinance 150580 adopting Portland's Comprehensive Plan to is amended to incorporate the Policies, Objectives, and street classification maps as shown in Exhibit C of this ordinance;

d. Exhibit C, the Public Facilities Plan, which was added to Ordinance 150580 by Ordinance 161770 is amended by updating the List of Significant Projects, as shown in Exhibit D of this ordinance;

e. Adopt the remainder of Exhibit A as additions to the support documents for Goal 6 and 11B of the Comprehensive Plan;

f. Adopt the explanations, as shown in Exhibits A and C, as an expression of legislative intent and as further findings to support City Council's action;

g. Direct the Office of Transportation to publish updated versions of Volumes 1, 2, and 3 of the Transportation System Plan to incorporate appropriate elements of the Freight Master Plan as adopted by City Council;

h. Direct the Bureau of Planning to update the Comprehensive Plan to incorporate changes to Goal 5, Goal 6, Goal 11B, including Policies, Objectives, and classification maps as shown in Exhibit C and publish the amended Comprehensive Plan by the effective date of this ordinance;

i. Direct the Office of Transportation to complete development of the Design Guide for Truck Streets.

Passed by the Council: MAY 10 2006

Prepared by: J. Harrison
February 23, 2006

GARY BLACKMER
Auditor of the City of Portland
By Susan Parsons
Deputy

CITY OF
PORTLAND
OFFICE OF
TRANSPORTATION

May 10, 2006

TO: Mayor Potter and Commissioners

FROM: John Gillam, Transportation Policy Section Manager

SUBJECT: Freight Master Plan Amendments

On May 3, 2006, the Portland City Council held a public hearing to consider Ordinance No. 177028 for the purpose of amending the Transportation System Plan and Comprehensive Plan to incorporate the City's Freight Master Plan. During the hearing, staff made the following recommended amendments to the Portland Freight Master Plan:

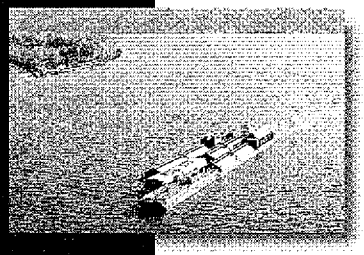
AMENDMNENTS to Exhibit A (City of Portland Freight Master Plan) Figure 10, page 33 and Appendix B page B-7 to read: S48 Burgard-Lombard, N. Street Improvements:
Widen street to include two 12-foot travel lanes, continuous left turn lane, bike lanes, sidewalks and intersection improvements. $17.2 Million, Tier 1.

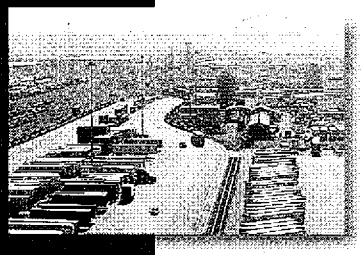
AMENDMENT to Exhibit C (Comprehensive Plan Amendments) page C-13 to amend the truck street classification of the NE 103rd Avenue couplet with NE 102nd Avenue to Truck Access Street, north of SE Washington Street.

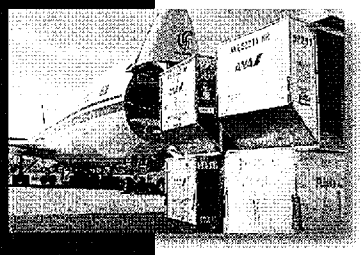
AMENDMNENT to Exhibit D (Major System Improvements) to include:
30080 Burgard-Lombard, N: Street Improvements
Widen street to include two 12-foot travel lanes, continuous left turn lane, bike lanes, sidewalks and intersection improvements. City of Portland, $17.2 Million (Years 1 –5)

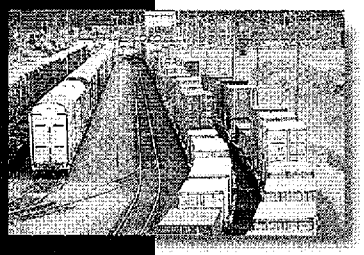
1120 S.W. 5th Avenue, Suite 800 • Portland, Oregon 97204-1914 • 503-823-5185
FAX 503-823-7576 or 503-823-7371 • TDD 503-823-6868 • www.portlandtransportation.org

EXHIBIT A









CITY OF PORTLAND

FREIGHT MASTER PLAN

Planning Commission Recommendation to City Council

February, 2006

CITY OF PORTLAND

OFFICE OF TRANSPORTATION

Acknowledgements

Portland City Council
Tom Potter, Mayor
Sam Adams, Commissioner
Randy Leonard, Commissioner
Dan Saltzman, Commissioner
Erik Sten, Commissioner
Gary Blackmer, City Auditor

City of Portland Planning Commission
Ingrid Stevens, President
Paul R. Schlesinger, Vice President
Timothy W. Smith, Vice President
Christine Caruso
Don Hanson
Larry Hilderbrand
Gail Shibley

City of Portland Office of Transportation
Sam Adams, Commissioner of Public Utilities
Sue Keil, Director
Paul Smith, Transportation Planning Division Manager

Office of Transportation Project Staff
John Gillam, Policy Section Manager
Deena Platman, Project Manager
Jeanne Harrison, Senior Transportation Planner
Lewis Wardrip, Senior Engineer
Peter Mason, Traffic Engineering Associate
Joseph Neilson, GIS Technician
Samy Fouts, Graphics Support
Sumi Malik, Staff Assistant
Judith Fouts, Administrative Support

Past Assistance
Jim Francesconi, former Public Works Commissioner
Brant Williams, former Director
Laurel Wentworth, Transportation Planning Division Manager
Steve Gerber, Senior Transportation Planner

Consultant Team
Sorin Garber Consulting Group
PB Consulting
David Evans & Associates

This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by funds provided by the federal Transportation Equity Act for the 21st Century (TEA-21), the City of Portland, and the State of Oregon.

The contents of this document do not necessarily reflect views of policies of the State of Oregon.

Cover photos: Courtesy of the Port of Portland and Tidewater Barge Lines

CITY OF PORTLAND

FREIGHT MASTER PLAN

Planning Commission
Recommendation to City Council

CITY OF PORTLAND OFFICE OF TRANSPORTATION

The Freight Master Plan was developed with the dedicated and valuable assistance from the following people:

Portland Freight Committee

Committee Members

Steve Bates
William D. Burgel
Tom Dechenne
David Eveson
Ann Gardner, Committee Chairperson
Jerry Grossnickle
Chris Hammond
Wayne Kingsley
Bill Maris
Thomas Rowe
Bob Short
Dick Swennes
Charles Tindall
Elizabeth Wainwright
Tracy Ann Whalen
Linda Braden
Corky Collier
Gary Eichman, Committee Vice-Chairperson
Jan M. Frost
Peter George
Bruce Halperin
Marion Haynes
Lee Johnson
Greg Miller
Robert Russell
Marsden Smith
Dan Spahr
John Trumbull
Howard Werth

Associate Members

Nick Fortey, Federal Highway Administration
Steve Kountz, Portland Planning Bureau
Susie Lahsene, Port of Portland
Jason Tell, Oregon Department of Transportation
Thomas Picco, Oregon Department of Transportation
Shelli Romero, Multnomah County
Colin Sears, Portland Development Commission
Laurel Wentworth, Portland Office of Transportation
Bridget Wieghart, Metro
Randy Evans, Portland Development Commission

Technical Advisory Committee

Rob Barnard, Project Management
Rob Burchfield, Traffic Operations
Ramon Corona, Parking Control
John Gray, Metro
Bill Kloos, Signals and Street Lighting
Mark Lear, Traffic Investigations
David O'Longaigh, Bridges and Structures
Lewis Wardrip, Traffic Design
April Bertelsen, Interim Pedestrian Coordinator
Mike Coleman, Traffic Design
Sorin Garber, Consultant
Roger Geller, Bicycle Coordinator
Dave Hutson, Bureau of Maintenance
Steve Kountz, Bureau of Planning
Lidwien Rahman, ODOT
Ning Zhou, Transportation Planning

For more information about the City of Portland Freight Master Plan, contact:

John Gillam
Portland Office of Transportation
1120 SW Fifth Ave, Room 800
Portland OR 97204

Phone: 503-823-5185 (use our main line)
Fax: 503-823-7609
TDD: 503-823-6868

Website: www.portlandtransportation.org
click on Freight Master Plan under Projects and Planning

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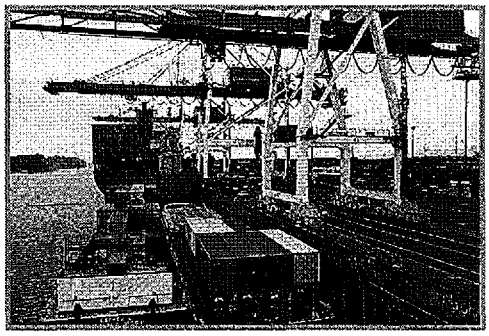
1 INTRODUCTION

From its early days, Portland has been a center of trade and commerce in the Pacific Northwest. The city's growth has been driven by its role in the movement of commodities. At the turn of the 21st century, Portland has established strong international trade connections. The regional economy has shifted from one focused on processing and shipping raw materials to one that builds consumer electronics, designs apparel, and serves as a gateway for imported automobiles. River commerce has grown into a network of intermodal terminals connected to the Pacific Northwest and rest of the nation by a superior rail and interstate highway network. Portland's international airport is used to ship high value cargo to Asia and is poised for substantial growth.

Today, Portland is a competitive gateway for international and domestic trade. It is a "trans-shipment" center, where freight is handled on the way to somewhere else. In fact, more goods move through its transportation network to national and international destinations than are consumed here in the region.



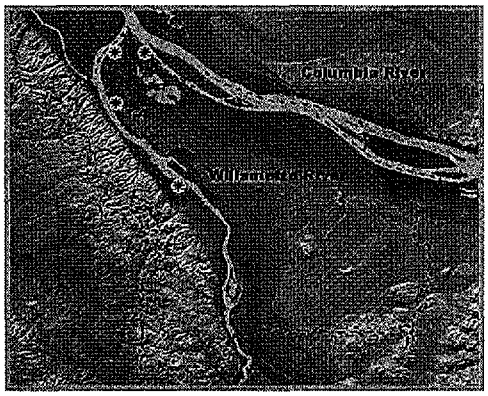
The economy of the Portland metropolitan region relies on the movements of goods, ideas and people. The ability to move these goods efficiently is critical to regional competitiveness and affordability, not only for businesses but also for all citizens.

RIVERS, RAILS, RUNWAYS AND ROADS

A combination of geography and multimodal freight infrastructure assures Portland's role as a center for goods distribution to and from the Pacific Northwest and throughout the world. Portland's freight system is comprised of waterborne, rail, air, pipeline, and truck transportation networks.

The city lies at the confluence of the navigable waters of the Columbia and Willamette rivers. The Columbia River links Portland to both Pacific Rim trade opportunities and the rich agriculture and resource lands of the interior Northwest. The 40-foot deep channel allows ocean-going vessels to navigate upstream to Portland's deep-water port. Barges carry agricultural and wood products, metals, and containers from upriver ports as far east as Lewiston, Idaho to Portland's marine terminal facilities.

Figure 1 - Waterways and Terminals



Portland Harbor, a twelve-mile stretch of the Willamette River and two miles along the Columbia River, provides maritime access for the industrial uses situated along its banks.

The Port of Portland operates several deep-water marine terminal facilities along the Columbia and Willamette rivers.

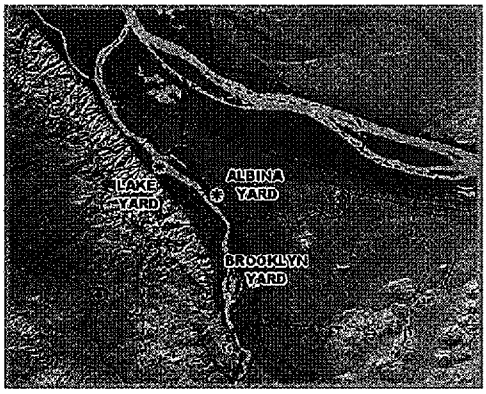
Two Class I railroads, the Burlington Northern & Santa Fe Railroad (BNSF) and the Union Pacific Railroad, connect Portland with national rail services and markets along the west coast and to major Midwest and Eastern United States markets. The city is also served by several branch rail lines, which distribute freight to and from the Class I railroads, as well as between local customers.

The North Portland Junction is where Union Pacific trains enter and leave the BNSF main line bound for Vancouver, Washington, Kalama/Longview, Washington, and the Puget Sound area. The BNSF Columbia Rail Bridge provides the only river crossing in the region. The nearest Columbia River crossing for trains is in The Dalles, Oregon.

Four main line rail routes converge in Portland:

- BNSF north to Seattle and Vancouver, British Columbia
- BNSF east to Chicago via Kansas City
- Union Pacific south to Oakland and Los Angeles, then across the Southwest to New Orleans
- Union Pacific east to Chicago via Salt Lake City and Denver

Figure 2 - Railroad Network

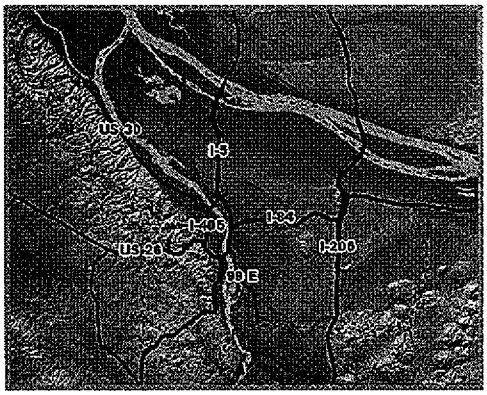


For travel to and from the east, the BNSF and Union Pacific routes through the Columbia Gorge are the preferred route for transcontinental trains as the tracks run at-grade with the Columbia River through the Cascade Range avoiding the steep grades of the Stampede Pass and Stevens Pass routes in Washington state.

Union Pacific operates two large rail yards in the City – Brooklyn Yard in Southeast Portland and Albina Yard in North Portland. BNSF operates two rail yards in Portland, Lake Yard and Willbridge Yard in the Northwest Industrial district, as well as its Vancouver Yard in Vancouver WA.

Portland International Airport, located entirely within the city of Portland, provides passenger and air cargo service for the Portland metropolitan area, including southwest Washington. Many air carriers provide domestic and international cargo transport in and out of the region.

Figure 3 - Freeway and Highway Network



Without local petroleum refineries, all of the Portland/Vancouver metropolitan region's fuel must be imported from Puget Sound refineries. The Olympic pipeline is the primary mode for transporting gasoline, diesel, and jet fuel to the region. This 400-mile common carrier pipeline transports approximately 12.3 million gallons of fuel per day – the daily equivalent of 1,500 tanker trucks traveling Interstate 5. Portland is also the terminus for the Kinder Morgan pipeline, which distributes fuel products from Portland into the Willamette Valley.

The link to all these modes is the network of freeways, highways, streets that connect the City's various modes of freight transport to their destinations. Two interstate freeways intersect in the heart of Portland. I-5 is the primary West Coast truck freight route linking urban centers between Canada and

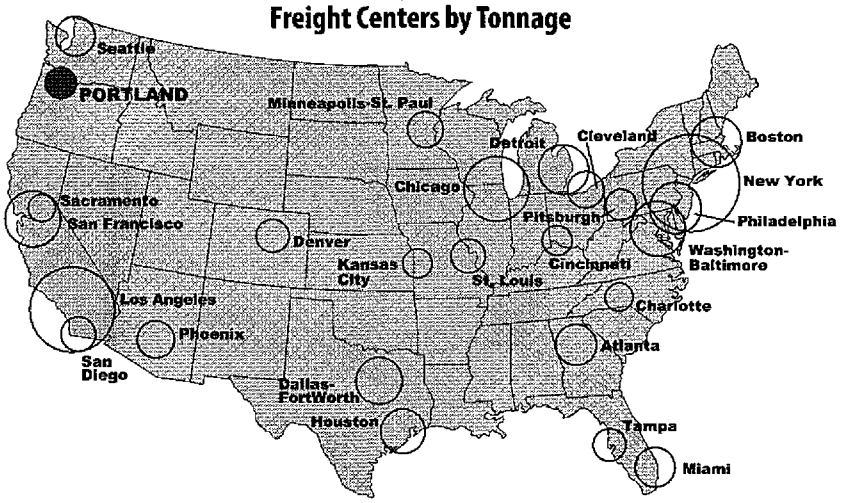
Mexico. Portland is the terminus for I-84, a primary freight route between the Pacific Northwest and Salt Lake City, where it merges with I-80 to the East Coast. I-205, I-405, US 26, US 30, and McLoughlin Blvd (OR 99E) are highways that facilitate intra-regional truck freight movement.

Portland's streets are the first and last mile connections for trucks moving freight to and from marine terminals, rail yards, the airport, and industrial businesses. Trucks also use city streets to deliver goods and services to local businesses and residents.

WEST COAST FREIGHT HUB

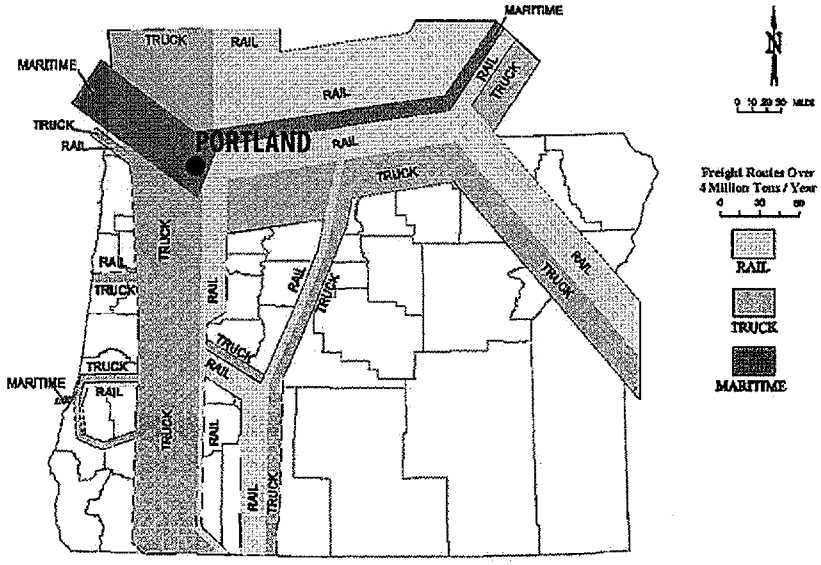
The Portland/Vancouver region is the fourth largest freight hub on the West Coast behind Los Angeles/Long Beach, Seattle/Tacoma and San Francisco/Oakland. As shown in Figure 4, the region's tonnage levels are approximately the same as those in Phoenix, Denver and San Diego, areas with larger economic markets and population.

Figure 4
Freight Centers by Tonnage



Portland also serves as Oregon's freight hub. Figure 5 shows how the State's most vital highway, railroad and marine freight routes converge in Portland.

Figure 5
Oregon's Major Freight Corridors



Source: Surface Transportation Board Waybill Sample, ODOT Transportation Data Section, U.S. Army Corps of Engineers, Waterborne Commerce of U.S.

Portland's freight hub is further characterized by its 12,500 acres of industrial land surrounding the Portland Harbor and the Portland International Airport. Most of the parcels in these industrial districts have multimodal freight access. Heavy industrial activities—marine terminals, rail yards, and large manufacturers—are the primary occupants of the industrial properties. When compared with other U.S. cities, Portland demonstrates a relatively centralized landscape of regionally significant industrial land, freight infrastructure, and industry clusters (distribution, metals, transportation equipment).

The key economic advantages of the Portland freight hub are that it provides access to the global economy, generates thousands of permanent family-wage jobs, and reduces transportation costs for Portland manufacturers, carriers, and shippers.[1]

[1]According to the Port of Portland Marine Economic Impact Study: Container Transportation Cost-Benefit Analysis (prepared by HDR Engineering, Inc. and John Martin & Associates for the Port of Portland, December 2000), the Port of Portland's container facilities save Portland shippers $67.9 million annually.

WHAT IS FREIGHT?

The term "freight" is used generically throughout this plan to mean the commercial transport of goods. "Freight" encompasses different types of movement from the transport of bulk items such as grain, lumber, and fuel to delivery of products and services to local businesses and residences.

The term "goods" is also generically used in the plan to refer to all items, except services, that can be moved commercially.

"Goods" are transported by multiple and often interconnected freight modes – waterborne, air, rail, pipeline, and truck – as they move between origin and destination. While goods and services can also be moved on foot, by bike and by car, this plan is focused on the transport of goods by large commercial vehicles.

FREIGHT MOVES PORTLAND'S ECONOMY

Portland's investment in its transportation infrastructure has contributed directly to its importance as a transportation distribution center and has provided access to jobs in the region. In fact, transportation investments in the region have contributed to a 37 percent increase in industrial jobs in the Portland-Vancouver area between 1980 and 2000, compared to a national growth rate of 12 percent during the same period.[2]

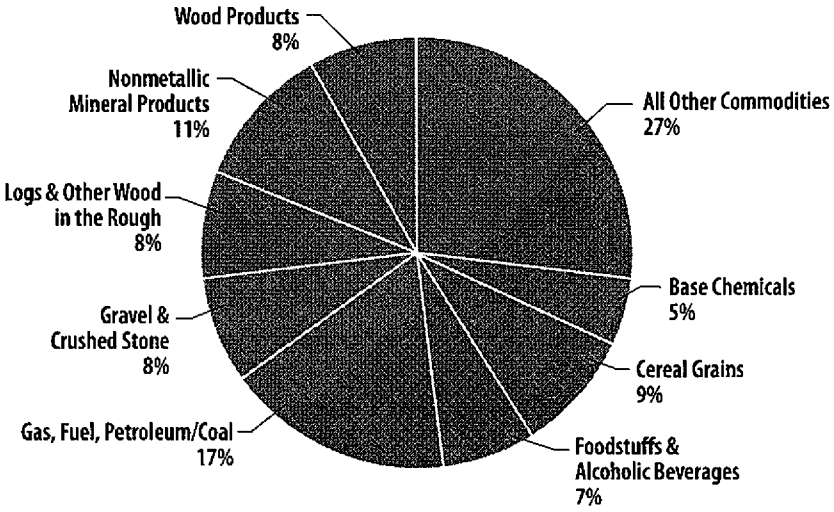
More than most U.S. cities, Portland's economy is dependent on freight movement. Table 1 illustrates that Portland's regional employment in transportation-related industries far exceeds the US average for these sectors. According to the Oregon Department of Employment data, the transportation sector accounted for one out of every nine jobs in the Portland metro region in 2000.

Table 1
Industry Share of Employment in Portland Region as Percent of Average Share in U.S.

Air Transportation	120%
Trucking and Warehousing	128%
Wholesale Trade	138%
Water Transportation	169%

Source: Planning Bureau, Portland Harbor Industrial Lands Study, 2003.

Figure 6
Commodity Share in Portland Region as % of Tonnage



Source: Commodity Flow Forecast Update and Lower Columbia River Cargo Forecast, Port of Portland, Figure 2.1, 2002.

Figure 6 identifies the type of goods moved in the region by tonnage levels. Eight commodity categories account for 74 percent of all tons shipped on all freight modes. This is only part of the story. As Portland's economy grows in the high-tech manufacturing sector, more high-valued, low-weight goods are being shipped. These types of commodities tend to move by truck and air.

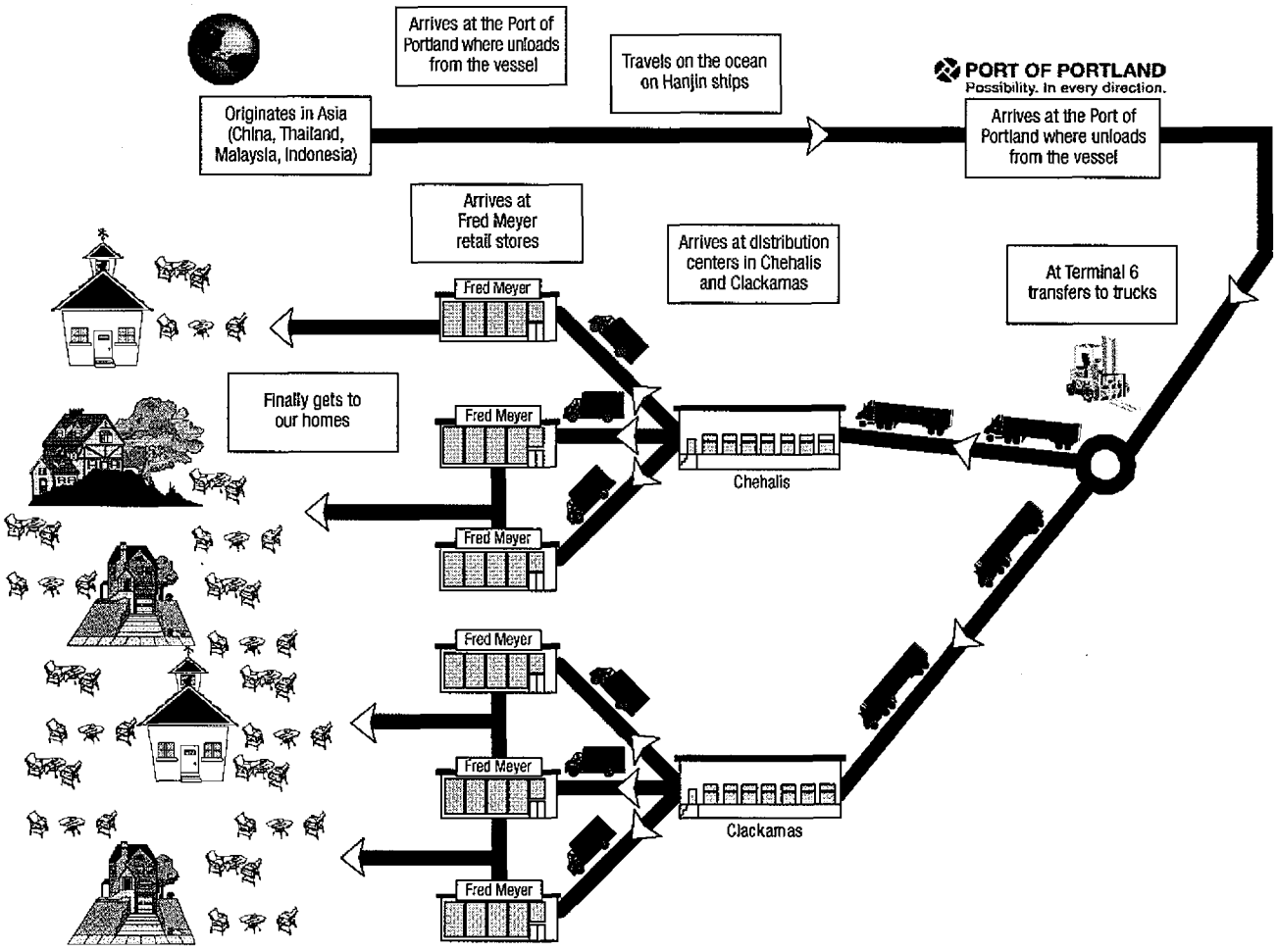
[2] Industrial Districts Atlas, Portland Bureau of Planning, 2005, page 12.

TRENDS INFLUENCING FREIGHT MOVEMENT

Changes in the national economy and business practices are triggering shifts in how goods are moved. With fewer industries storing goods and materials on-site, and the global demand for goods changing at a dramatic rate, the region is witnessing a growing emphasis in the use of logistics strategies to bring supplies to manufacturers for assembly, packaging and delivery. These strategies are linked to "supply chains" connected to a reliable and efficient transportation network that links origins and destinations, in many cases using multiple combinations of transport.

The "global supply chain" includes all of the activities associated with the flow and transformation of goods from raw materials to the end consumer. Figure 7 shows a portion of Fred Meyer's patio furniture supply chain, the distribution of the finished product. Even this small slice of the total supply chain reflects the complexity of the global movement of goods.

Figure 7
Fred Meyer's Patio Furniture Finished Product Distribution Story



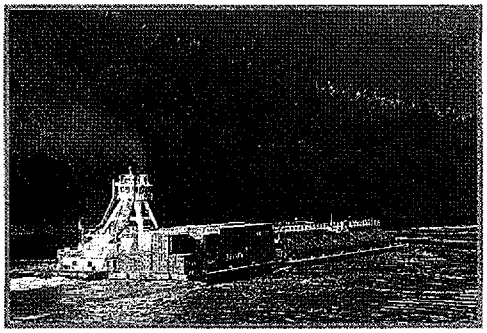
PLANNING AHEAD FOR FREIGHT

According to the Commodity Flow Forecast,[3] demand for freight tonnage into, out of, and within the Portland region will grow from 260 million tons with a total value of $352 billion in 1997 to 522 million tons with a combined value of $827 billion by 2030.[4] Overall, tonnage volume demand will grow at an annual compound rate of 2.1 percent, led by the increase (in percentage terms) in use of air cargo (3.77%/year), trucks (2.53%/year), and rail (2.47%/year). The share of tonnage carried by truck will increase from 64 percent in 1997 to 73% in 2030; while tonnage by water modes (ocean and barge) will decline from a combined 15 percent to 10 percent, and tonnage by pipeline will decline from 11 percent to 6 percent over the 1997-2030 timeframe.[5] Tons carried by rail will increase by 1 percent and by 0.5 percent for air cargo.

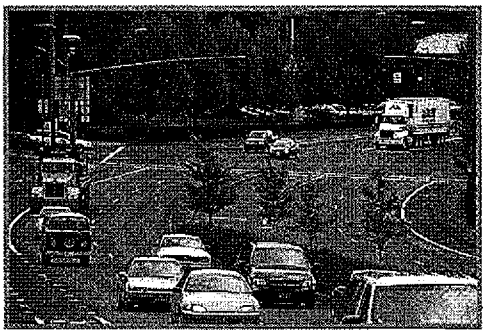
Table 2
1997 - 2030 Growth in Freight Tonnage
(in millions of short-tons)

	1997	2030	Annual Change	2030 Share
Truck	166.6	380.0	2.53%	73%
Pipeline	28.1	31.2	0.31%	6%
Ocean	25.3	34.8[3]	0.97%	7%
Rail	26.4	59.2	2.47%	11%
Barge	14.1	15.5	0.29%	3%
Intermodal	11.8	n/a	n/a	n/a
Air	0.3	1.1	3.77%	>1%
Total	260.8	521.8	2.12%	100.0%

Source: Commodity Flow Forecast Update and Lower Columbia River Cargo Forecast, Port of Portland, June 2002.



Freight movement is expected to continue to be a central element of Portland's economy. Increasing freight volumes will put pressure on all elements of its freight transportation system – roads, rail, pipelines, and marine and air terminals. Many parts of the freight transportation system in Portland are managed by other public agencies and private operators. Coordination and partnership on efforts to accommodate the growth in freight movement will include individuals and organizations in both the public and private sectors.



The Freight Master Plan covers the broad range of freight transport modes but has a primary focus on truck freight mobility due to the City's jurisdiction over the street network. Trucks use city-owned roads to transport goods and services throughout the community. The share of trucks on our roads is anticipated to increase in the future, particularly in Freight Districts and on freeways and highways. Strategies for efficient, safe, and reliable movement of trucks will help manage this growth in a way that maintains Portland's community livability.

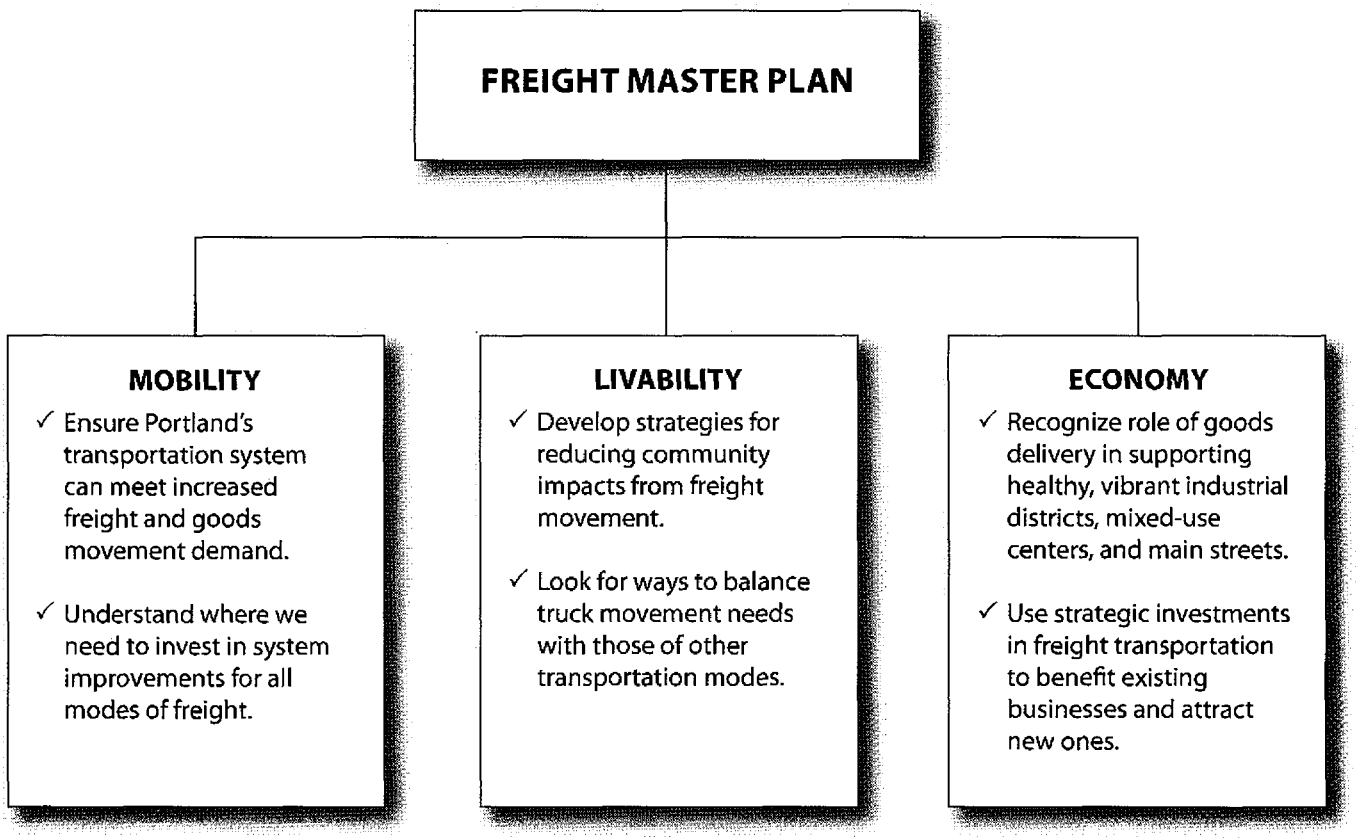
[3] *Commodity Flow Forecast Update and Lower Columbia River Cargo Forecast Final Report*, prepared for the Port of Portland, Metro, Oregon Department of Transportation, Port of Vancouver, Regional Transportation Council, prepared by DRI-WEFA, BST Associates and Cambridge Systematics, Inc., June 30, 2002 http://www.portlandairportpdx.com/pdfpop/MTMP_LCR_Cargo_Forecast_Final_Final_Report.pdf.
[4] Ibid., page 44.
[5] Commodity Flow Forecast combined freight tons and values using ocean and barge modes into one single "Water" mode.

PORTLAND'S FREIGHT MASTER PLAN

Plan Objectives

The Freight Master Plan provides a road map for managing freight movement and commercial delivery of goods and services in Portland, today and into the future. The goal is to foster a freight system that works for the community.

The Freight Master Plan objectives center around three main themes: mobility, livability, and healthy economy.



Preparing the Plan

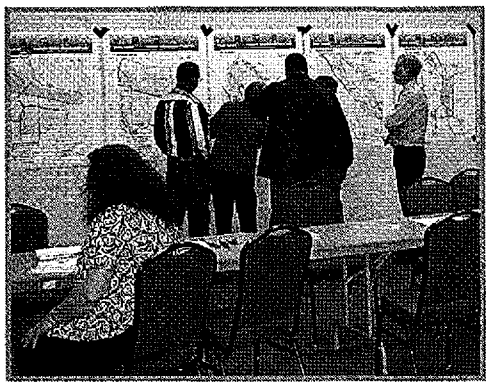
Portland completed its first Transportation System Plan (TSP) in 2002. During this process, the City recognized the need to better understand and plan for freight movement. The TSP identified a study to ascertain freight transportation system needs and deficiencies, and develop solutions.

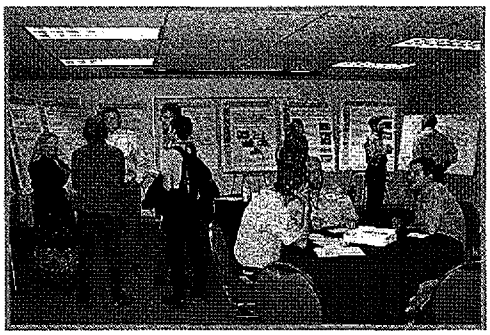
The development of the Freight Master Plan occurred in two phases. The first phase of planning began in January 2003 and accomplished the following:

- Completion of the Freight Master Plan - Interim Report, which built the case for freight planning and identified the Plan's objectives.
- Adoption of a City Council resolution that acknowledged the importance of goods movement to Portland's economy, established the Portland Freight Committee, directed Portland Office of Transportation to develop a Freight Master Plan, and identified short-term opportunities for freight mobility improvements.
- Evaluation of existing freight policies, identification of freight-related issues, development of freight mobility project prioritization criteria, compilation of previously identified freight projects, and research on freight street design considerations.

The second phase of the Plan began in July 2004. In this phase, a set of technical analyses of needs and deficiencies, and identified solutions in the form of policy revisions, infrastructure improvements, and implementation activities was completed. The supporting technical documentation for the Freight Master Plan is contained in a series of technical memoranda prepared by staff with support from a consultant team. The technical memoranda covered the following subjects:

- *Innovations & Trends Report* explores the array of innovations and trends in the transport of freight and highlights communities that are using creative approaches to address freight mobility issues.
- *Synthesis of Data Report* summarizes and compiles the data used to complete the Existing Conditions and Assessment of Needs reports.
- *Existing Conditions Report* provides the most current analyses of performance, regulations and policy that govern freight mobility in Portland, including origin and destination patterns, trip demand by all freight modes, distribution of truck volumes, congestion points, and other physical and regulatory impediments.
- *Needs Assessment Report* presents analyses of existing and future year (2020) system-wide freight conditions including mobility, policy, programmatic, and regulatory issues.
- *Solutions and Strategies Report* presents recommendations for addressing freight's existing and future mobility needs and issues.
- *Freight Performance Measures and Indices Report* proposes measures and indices to evaluate how the City's transportation system is performing for freight's movement.
- *Freight Coordination within the Portland Office of Transportation Report* outlines a process for accomplishing the implementation activities identified in the Plan.





Public involvement for the Plan's development began in February 2003 as a conversation between the City Commissioner in charge of Transportation, representatives from the freight community, and other public agency staff interested in freight mobility. This group evolved into the Portland Freight Committee, an advisory group on freight transportation issues. The committee includes a diverse mix of representatives from the transportation and logistic industry as well as participation from the federal, state, regional, and City agencies that oversee freight mobility issues. The Portland Freight Committee served as the steering committee for the Freight Master Plan's development, providing guidance on Plan objectives, system needs, and priorities. A Technical Advisory Committee comprised of key Portland Office of Transportation engineering and planning staff, Oregon Department of Transportation, Metro, and the project consultant guided the technical analysis.

Opportunities for broad community input were provided in the form of three community open houses held at key points in the Plan's formulation. The open houses were designed to share information and gather input used to craft the Plan. Additionally, staff made numerous presentations to interested community groups and advisory committees. A listing of these presentations is provided in Appendix D.

The Freight Master Plan web page serves as an important public communication tool. The page provides general information about the planning process and notice of upcoming community meetings. Downloadable versions of the technical reports are available. The "Virtual Open House" section allows citizens who missed the public events access to the presentation materials, providing the opportunity to review and comment electronically.

Organization of Document

The Freight Master Plan is organized around five major elements: freight-related policies and objectives, freight system classifications, implementation actions and strategies, freight system infrastructure improvements, and design guidelines for trucks.

Chapter Two summarizes the assessment of freight system needs and the Plan's approach for addressing the needs.

Chapter Three includes a summary of the freight-related Comprehensive Plan policies and classification map for the freight system.

Chapter Four describes the implementing actions and strategies for managing the movement goods in the community and how successful implementation is measure.

Chapter Five lists the freight infrastructure improvements.

Chapter Six focuses on planning for trucks in the right-of-way by providing a summary of the design guidelines for trucks.

Appendices include Comprehensive Plan policies, a detailed infrastructure improvements list, and a discussion paper on transportation funding sources for freight, a description of the public involvement process, and references used in the Plan's development.

RELATIONSHIP TO THE COMPREHENSIVE PLAN AND THE TRANSPORTATION SYSTEM PLAN

Portland's Comprehensive Plan is the policy guide for city growth and development. The Transportation System Plan (TSP) is covered under the umbrella of the Comprehensive Plan. It serves as the City's public facility plan for transportation and it contains the transportation policies found in Goal 6, Transportation and Goal 11B, Public Rights-of-Way.

The Freight Master Plan is the base document for the freight element of the TSP. The Freight Master Plan is approved by City Council ordinance and functions as the detailed guide for the freight mode. Portions of the Freight Master Plan are also incorporated into the Comprehensive Plan and the TSP including:

- Changes to Comprehensive Plan policies

  The Freight Master Plan includes revisions to Goal 5, Economic Development, Goal 6, Transportation, and Goal 11B, Public Rights-of-Way. Goal 6 includes both freight policies and classification maps.

- Changes to the Public Facilities Plan for Transportation

  The Freight Master Plan infrastructure improvements list updates the current list of major system improvements for transportation.

- Changes to the Transportation System Plan

  The Freight Master Plan informs future updates to the Truck and Air-Rail-Water-Pipeline modal plans and refines the performance measures used to monitor the function of the City's freight system.

COORDINATION WITH OTHER FREIGHT MOBILITY PLANS AND PROGRAMS

The Portland Freight Master Plan has been prepared in coordination with other plans, programs and studies of freight mobility in the region. The Portland Planning Bureau and the Portland Development Commission have prepared the *Industrial Districts Atlas*[6] and the *Target Industrial Plan for the Distribution and Logistics Industries*[7], respectively, which identify the current land uses and employment in the City's industrial districts, and make projections of the potential future growth of these districts.

The Port of Portland has produced essential data and plans for its marine terminals, airports, and overall ground transportation needs,[8] which have been incorporated fully into the Freight Master Plan. Moreover, the Port's information for the *Columbia River Channel Deepening Project*[9] and the *Commodity Flow Forecast Update/Lower Columbia River Cargo Forecast*[10] have provided fundamental data for the current and future products that flow into and out of the region, and the modes that will be used to move them.

Metro's Emme2 model output provided transportation data on truck volume and level-of-service during PM peak periods that was used to refine the truck street network.

Finally, the Oregon and Washington departments of transportation have produced the *I-5 Rail Capacity Study*,[11] and the working data and proposals for the *Columbia River Crossing*[12] project (formerly known as the "I-5 Trade and Transportation Corridor"), which have provided the regional level data on the major highway and railroad freight routes through Portland.

In 2006, Metro is anticipated to begin its Regional Freight Plan which is intended to develop projects and guidance that support freight mobility, and the Columbia River Crossing Project is anticipated to complete discrete analysis of freight conditions in the I-5 Corridor between Portland, OR and Vancouver, WA.

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[6] *Industrial Districts Atlas*, Portland, OR 2004, Portland Bureau of Planning, 2005, www.portlandonline.com/planning

[7] *Target Industry Plan: Distribution and Logistics*, Portland Development Commission 2004, http://www.pdc.us/bus_serv/target_industries/distribution.asp

[8] Including the Port's *2020 Marine Terminals Master Plan* (2004), the Portland International Airport Master Plan (2000), and the Port of Portland Transportation Improvement Plan (2005), all of which can be viewed at: http://www.portofportland.com/POP_home.aspx

[9] *Columbia River Channel Deepening Project*, Port of Portland, ongoing. http://www.portofportland.com/ch_home.aspx

[10] *Commodity Flow Forecast Update/Lower Columbia River Cargo Forecast*, Port of Portland, 2002, http://www.portofportland.com/PDFPOP/Trade_Trans_Studies_LCR_Cmdty_Flw_Rpt.pdf

[11] *I-5 Rail Capacity Study*, I-5 Trade and Transportation Corridor Partnership, 2003, http://www.oregon.gov/ODOT/RAIL/capstudy.shtml

[12] *Columbia River Crossing*, jointly sponsored by the Washington State Department of Transportation and the Oregon Department of Transportation, 2005, http://www.columbiarivercrossing.org

2 SETTING THE COURSE

INTRODUCTION

Historic investments in Portland's transportation infrastructure have contributed directly to its importance as a center for commerce in the region. Portland's transportation system is an economic engine for the state, moving both people and commerce by a variety of transport modes. Maintaining freight mobility within Portland is a key element in sustaining the vitality of the local, regional, and statewide economy.

Reliability and efficiency are measures of a well-functioning freight transportation system. A reliable system is predictable and dependable for businesses that plan freight movement in hours and minutes. An efficient system is cost effective in terms of time, energy consumption, and infrastructure needs.

When a system is unreliable and inefficient, it has real consequences for the economy and the community:

- Freight assets like trucks and trains become less productive.
- Businesses put more trucks on the road to meet customer needs.
- Costs increase when businesses have to warehouse inventory.
- Financial and operational pressure increases for companies competing in a competitive, global market.[13]

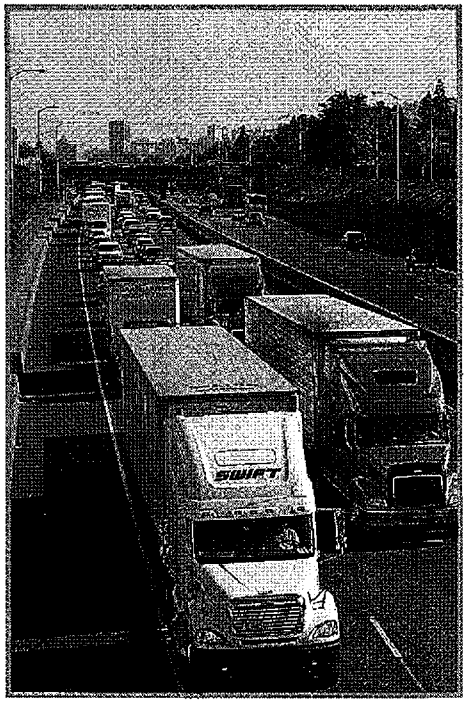
Understanding and improving freight transportation with these basic performance measures is imperative. Portland's freight system is owned and operated by a variety of public and private entities that are often interdependent. For example, private barge operators travel to the Port of Portland marine terminals to transfer cargo to privately owned steamship operators, rail companies and motor carriers. The Oregon Department of Transportation and the City of Portland manage the road network used by motor carriers to move freight to customers. Maintaining a well-functioning system in this dynamic environment depends on good coordination and partnership.

ASSESSING THE FREIGHT SYSTEM

Growth and Congestion in the Freight System

The region's travel forecast model estimates that between 2000 (base year) and 2020 (future year), the number of medium and heavy truck trips nearly double.[14] Not surprisingly, arterials that serve the Portland's industrial areas have the highest volume of medium and heavy truck trips today and in the future.

Along with the growth in truck movement, traffic congestion is also increasing on Portland's street system. Analysis of the travel forecast model data indicates that locations that experience peak hour vehicle congestion today will have increased levels of congestion in the future. The locations that demonstrate the greatest increases in travel delay for freight movement occur on roads approaching the Portland International Airport and surrounding industrial area, along the US 30 industrial corridor, and on all of the freeway corridors in the city.



Evening rush hour on I-5.

[13] *Reliability: Critical to Freight Transportation*, Public Roads, November/December 2004.
[14] The Regional Travel Forecast Model defines medium truck as having two axles, less than six tires, and less than 40,000 lb GTW. Heavy truck is defined as having two or more axles, six or more tires, and a GTW over 40,000 lbs.

Growth challenges are not confined to Portland's street system. The projected growth in freight moved by water, rail, and air is significant.[15]

- Air cargo is anticipated to increase at a rate of 5 to 9 percent per year over the next 15 years.
- Marine traffic is expected to grow by 7 percent per year between 2000 and 2020.
- Freight rail traffic increases by 3.5 to 4 percent per year.

According to recent technical studies, the Portland region's rail infrastructure contains critical bottlenecks along several main line segments and rail yards operated by Burlington Northern-Santa Fe and Union Pacific. The delays experienced on the local freight network are equivalent to those experienced in the nation's largest rail hub–Chicago–which has 3.7 times the freight train traffic and 42 times the passenger train traffic of Portland.[16] In addition, branch line rail operations to and from rail yards and intermodal terminals are also highly congested. Rail capacity and service is also impacted by the need to expand and redesign some rail yards in the region.

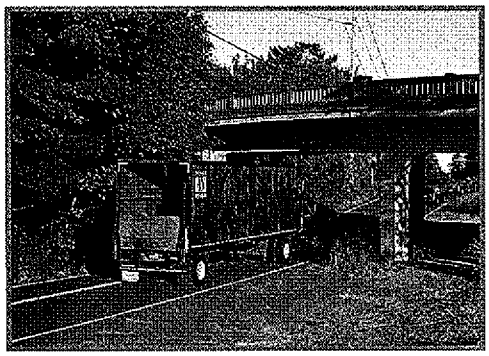
Infrastructure Barriers to Freight Mobility

Congestion is not the only challenge facing freight mobility in Portland. Physical barriers due to inadequate infrastructure also hamper the efficient and reliable movement of freight in the city. Some of the more significant obstacles include:

Weight-Restricted Bridges

A number of bridges on truck routes in Portland are weight-restricted to a single-unit truck weight of 50,000 pounds and 80,000 pounds for a combination truck, and in some instances less than 80,000 pounds. Industry efficiencies have led to an increase in the size of trucks since these bridges were constructed. Modern-day truck weights routinely exceed the design weight of these aging facilities. The result is that over-weight trucks are detoured from direct routes, increasing fuel consumption and operating costs. There is also the potential for diversion of trucks to streets that are not intended for frequent truck trips.

Truck detour at weight-limited MLK Jr. Blvd. Viaduct.


Bertha Blvd. underpass at Capitol Hwy.

Bridges with Low Vertical Clearance

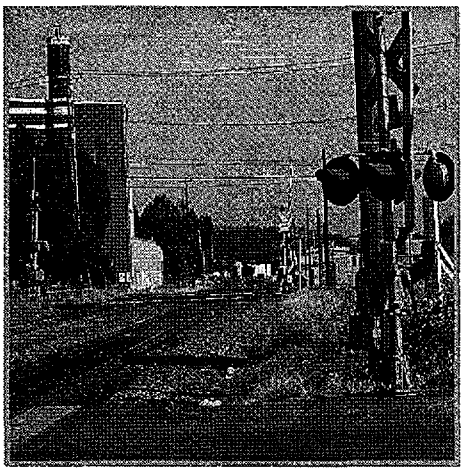
Also an issue are bridges with sub-standard clearance for trucks passing under them. The legal height for trucks operating on highways and city streets is 14 feet but many trucks operating by permit exceed this standard height. As many as 24 bridges in Portland have clearance between 14 feet and 17 feet, with most located on highways or priority truck routes. Like weight-restricted bridges, this barrier also results in detours from direct routes.

[15] *Commodity Flow Forecast Update and Lower Columbia River Cargo Forecast Final Report*, prepared for the Port of Portland, Metro, Oregon Department of Transportation, Port of Vancouver, Regional Transportation Council, prepared by DRI-WEFA, BST Associates, and Cambridge Systematics, Inc, June 30, 2002.

[16] *I-5 Rail Capacity Study*, prepared by HDR Engineering, Inc, February 2003, page 2-5.

At-Grade Railroad Crossings

With the predictions of substantial increases in train traffic in the Pacific Northwest over the next twenty years, conflicts between train and truck traffic will likely rise. Safety at locations where roads and rails intersect has long been a concern. More recently, the concern has focused on longer delays. Crossings near intermodal facilities, ports, major rail yards, and classification and switching areas will experience higher volumes of train and truck traffic due to growth in domestic and foreign trade.[17] In Portland, most at-grade crossings are located in industrial areas. At some crossings, stopped delay time for trucks and other traffic can be as high as four hours in a 24-hour period creating congestion and increasing operating costs.

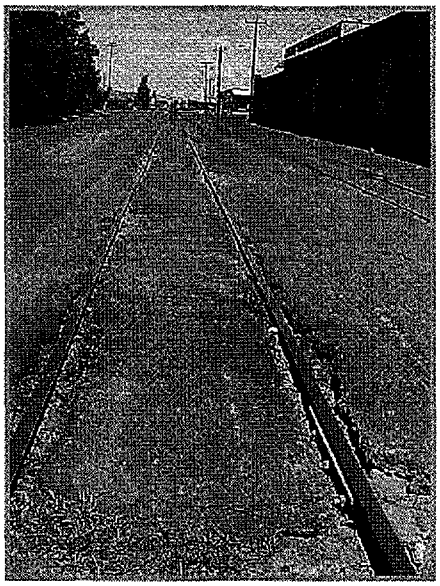


At-grade railroad crossing in SE Portland.

Pavement Condition

Portland is facing a growing pavement maintenance backlog. Declining revenues and increasing costs have reduced the miles of city streets maintained on a regular basis. Between 1980 and 2004, the backlog has grown from 285 miles to 586 miles. Regular maintenance of pavement increases its longevity, extending the time before major reconstruction is needed.

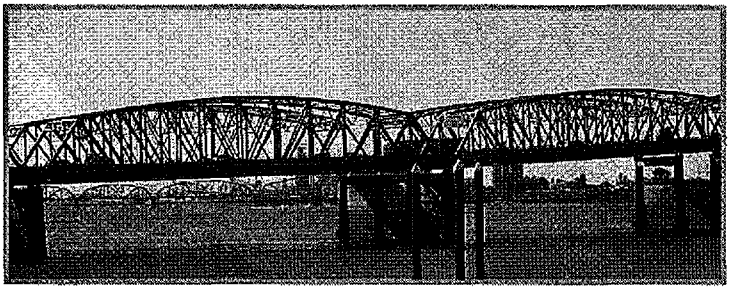
Large trucks accelerate the deterioration of paved surfaces. With forecasts of increasing truck volumes, the pavement on Portland's streets will certainly be subjected to increased wear and tear. The result of poor pavement conditions is decreased fuel economy, increased vehicle operation and maintenance costs, and the potential for damaged cargo.[18]



Deteriorating pavement on N. Bradford.

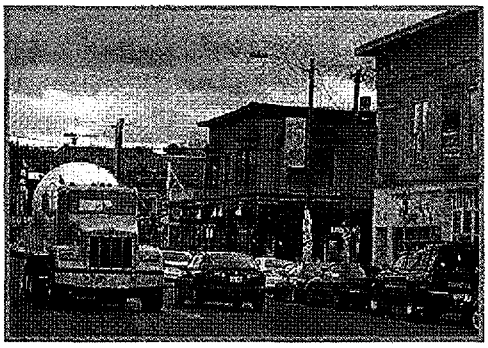
Lift and Swing Spans Over the Columbia River

A more unique freight barrier in the region is the misalignment of two adjacent bridge spans. Travel by river tow boats and barge vessels is complicated during high water periods by the indirect alignment of the high span of the Interstate Bridge and the swing span of the BNSF rail bridge over the Columbia river. Captains maneuver their vessels under the mid-section of the I-5 bridge to avoid I-5 bridge lifts that delay interstate traffic. Once clear of this bridge, captains maneuver their vessel to the northern river channel to clear the swing span of the rail bridge. During periods of high water, about six months of the year, this maneuver becomes far more difficult, increasing the potential for an accident.



I-5 bridge over the Columbia River, with the rail bridge in the distance..

[17] *Status of Nation's Highways, Bridges and Transit:2002 Conditions and Performance Report to Congress*, U.S. Department of Transportation, Federal Highway Administration, Pg. 26-1.
[18] www.transportationca.com, Transportation California, April 28, 2004.



Hawthorne Boulevard in SE Portland.

Road Design

Most of Portland has a mature arterial street system, designed to accommodate vehicle traffic of a former era. Today, many of the trucks that use these older streets to deliver goods and services to the community are much larger than the street design is intended to support. At times, the needs for efficient truck movement are in conflict with other desired design features on the same street such as median islands or curb extensions. In other cases, trucks benefit from a design feature such as bike lanes that provide more space for turns. Balancing the needs of the different truck types using the streets with the needs of other users presents a challenge, especially in mixed-use centers and along main streets.

On-street loading in downtown Portland.

Parking and Loading

A critical element of the supply chain is the ability to efficiently transfer goods and materials between shippers, trucks, and customers. Portland provides commercial on-street loading zones along many of its streets. The zones are assigned by request from individuals who receive and/or make truck deliveries. Portland's zoning code has requirements for off-street loading spaces in commercial, employment and larger residential developments.

Anecdotal evidence suggests that the existing supply of and demand for loading spaces is mismatched. The result is that drivers either double-park in travel lanes, blocking traffic, or park illegally. Currently, there is no comprehensive method to ensure that on- and off-street loading is adequate to meet business needs.

Truck hauling over-dimensional load of construction equipment.

Over-Dimensional Truckloads

Some loads carried by trucks are not practically divisible, meaning that they can not be reduced to meet legal limits for weight, height, length, and/or width set by the State of Oregon. The State requires that trucks exceeding legal dimensions obtain a permit when traveling on public roadways. Portland also regulates over-dimensional loads and writes permits based on criteria established in Title 16 of the City Code.

The most common type of over-dimensional load in Portland is construction equipment such as cranes and excavators but other manufactured items such as steel slabs and bridge girders require over-dimensionsal moves. These are an infrequent but an important type of freight movement in the city.
There is a need to identify and maintain a primary network of over-dimensional routes, with a focus on connections in and between Freight Districts.

Industrial Lands and Freight

Compared to other cities, Portland has a relatively large number of industrial parcels available for development. Portland has a natural advantage for firms seeking an industrial location adjacent to aviation, marine, rail and highway networks. However, analyses by Portland Development Commission and the Bureau of Planning found that demand for development-ready industrial land will outstrip supply. The challenge is that available industrial land has limitations to being readily developed, including:

- Lack of good access to the street and highway network.
- Environmental and ownership constraints.
- Many of the parcels are previously developed and are more expensive to redevelop.

A COURSE OF ACTION

The Freight Master Plan will provide an overall strategy of investment and management of the City's transportation system including connections to other public and private facilities as a catalyst for improved mobility, livability and economic health. The Plan strives to achieve its goals in a way that is supportive of and consistent with the community's transportation values encapsulated in the Transportation System Plan including:

- Maintain a healthy economy and a thriving community.
- Manage transportation assets in a fiscally-responsible way to ensure the region's limited dollars are available for a wide range of solutions.
- Provide transportation choices.
- Look for ways to reduce environmental impacts of transportation.
- Emphasize coordination and partnership in planning the transportation system.

Investments in multimodal transportation infrastructure have historically contributed directly to Portland's importance as an economic center. But a changing global business environment means Portland must be more strategic to maintain its economic vitality and competitiveness. 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.

The Plan's implementation framework relies on a three-pronged approach of policy guidance, programmatic actions and strategies, and infrastructure improvements. The following chapters provide the details of how the Plan will achieve the City's freight mobility goals and objectives.

3 POLICIES AND OBJECTIVES

INTRODUCTION

The City of Portland relies on its Comprehensive Plan to guide decision making for the City's future growth and development. The Plan contains a coordinated set of goals, policies and objectives that together set a direction for choices about programs, capital investments, and funding priorities.

- Goals are the broadest expression of a community's desire and aspirations for a particular focus area.
- Policies are statements that set a preferred course of direction.
- Objectives are specific actions that carry out the intent of the goal and policy.

The Comprehensive Plan goals relevant to freight movement include Goal 5, Economic Development, Goal 6, Transportation, and Goal 11B, Public Rights-of-Way. Following is a brief description of these goals.

Goal 5, Economic Development, promotes a multimodal transportation system that encourages economic development.

Goal 6, Transportation, provides overall guidance on how Portland's transportation system should function over the 20-year life of the Comprehensive Plan. The goal reflects the multiple functions of a balanced transportation system, which distributes transportation benefits and effects fairly across a diverse population of system users.

Goal 11B, Public Rights-of-Way meets the state of Oregon's requirements on jurisdictions to maintain public facility plans. Goal 11B policies and the Transportation System Plan project list comprise the public facility plan for transportation. The goal intends to improve the quality of Portland's transportation system by carrying out projects to implement the 2040 Growth Concept, preserving public rights-of-way, implementing street plans, continuing high-quality maintenance and improvement programs, and allocating limited resources to identified needs of neighborhoods and businesses.

POLICY FRAMEWORK

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.

Intermodal Surface Transportation Act of 1991 (ISTEA)

Landmark federal transportation legislation that initiated national policy for the development of a national intermodal transportation system that is economically and energy-efficient and environmentally sound in the movement of people and goods.

National Highway System (NHS)

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 Network

The Surface Transportation Assistance Act (STAA) of 1982 requires states to allow larger vehicles on a national network of roadways comprised of the Interstate Highway System and non-Interstate Federal Aid Primary System. The act also specifies the legal limits for height, length, width, and weight of trucks using the National Network roadways. Jurisdictions are required to provide reasonable access for STAA legal-sized vehicles on their networks.

Oregon Statewide Planning Goal 12

Statewide Planning Goal 12, Transportation is Oregon's policy umbrella for transportation planning at the state, regional, and local level. Goal 12 directs jurisdictions to "provide for and encourage a safe, convenient and economic transportation system." The goal states implementing directives that include: considering all transportation modes in planning; identifying system needs; avoiding reliance on a single mode of transportation; minimizing adverse impacts; conserving energy; meeting the needs of the transportation disadvantaged; and strengthening the economy by facilitating the flow of goods and services.

Transportation Planning Rule (TPR)

The TPR is the implementing rule for Goal 12, Transportation. It establishes mandates for linking land uses and transportation planning activities including the identification of needs for movement of goods and services to support planned industrial and commercial development.

Oregon Transportation Plan (OTP)

The OTP is the transportation system plan, providing guidance for policy and long-range planning for the multimodal transportation system. It directs that Oregon's transportation system be modally balanced, efficient, accessible, environmentally responsible, connect places and modes, safe, and financially sustainable. Specific to freight movement, Goal 3: Economic Development supports a balanced and efficient freight system, effective transportation links to markets, cooperation on expanding system capacity, and promotion of intermodal hubs.

Oregon Highway Plan (OHP)

The OHP is a subset of the encompassing Oregon Transportation Plan. It focuses specifically on Oregon's state highway system and includes policies and objectives that direct how the system should function for freight. The plan also identifies a freight system network, which incorporates the National Highway System designations.

2040 Growth Concept and Regional Framework Plan

The 2040 Growth Concept defines how the region should grow and develop over a 50-year planning horizon. The concept directs growth into higher density mixed-use centers and corridors supported by a multi-modal transportation system. Industrial areas are a primary component of the concept and are maintained as sanctuaries for long-term industrial activities. The Regional Framework Plan provides specific policies and guidelines for concept implementation.

Regional Transportation Plan (RTP)

The RTP is the Portland metropolitan area's policy and investment guide for the multimodal transportation system. 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.

RELATIONSHIP TO PORTLAND'S TRANSPORTATION SYSTEM PLAN

Portland's Transportation System Plan (TSP) is the 20-year guide for planning and investment in the multimodal transportation system. The TSP includes the Transportation Element of the Comprehensive Plan, consisting of Goal 6, Transportation and Goal 11B, Public Rights-of-Way policies and objectives.

The Freight Master Plan is a focused guide for managing freight activities. It details the specific policies, infrastructure needs, street design, and management actions that lead to an integrated and well-functioning freight transportation system. Through incorporation of freight policies and objectives, freight network map, and infrastructure improvements, this more detailed plan integrates into the TSP. Future updates to modal plans for trucks and air-rail-water-pipeline are informed by the Freight Master Plan.

As part of the TSP, implementation of the Freight Master Plan is combined and balanced with the needs of all transportation modes.

RELATIONSHIP TO OTHER CITY DOCUMENTS

Community and Neighborhood Plans

The City has numerous neighborhood and community plans with policies, strategies, and action items for improving local areas. Many of these plans specifically address freight. All existing neighborhood and community plans were reviewed for freight-related issues. Better management of truck activity in neighborhoods was the primary directive from these plans. Policy objectives and action items are addressed in the Freight Master Plan.

Portland Code and Charter

Title 16: Vehicles and Traffic

16.20.220, Truck Loading Zone regulates truck loading zones. Truck loading zones are established to prevent double parking and other illegal parking by designating a supply of parking spaces dedicated to the delivery of merchandise by trucks to commercial properties. The regulations specify the types of vehicles that may park in a truck loading zone, the duration (30 minutes), frequency and where the truck loading zone should be located in relation to an intersection for traffic safety reasons.

16.20.530,Temporary Truck Loading Area Permit regulates the issuance of a temporary truck loading permit to any person proving a need for the permit. The temporary truck loading area must be designated by portable signs or parking meter hoods or as otherwise designated by the administrative instructions of the permit.

16.70.600, Over Dimensional Vehicles generally prohibits the driving or movement of vehicles of excessive weight; those dragging a log, pole, or other thing; and a vehicle that is constructed or loaded so as to allow its contents to drop, sift, leak or escape, among other general prohibitions. The section defines exemptions to the general prohibitions, which include the operation of government vehicles and vehicles permitted by the Traffic Engineer.

16.70.630, Permits stipulates permitted use of over-dimensional vehicles.

16.70.640 Limits of Authority to Issue Variance Permit defines the circumstances for which an over-dimensional permit may not be issued.

Title 18: Noise Control

18.10.020, Motor Vehicles regulates excessive noise from motor vehicles including trucks. Section B (3) specifically prohibits the use of a dynamic braking device on trucks over 10,000 GCWR within any residential zone of the City or within 200 feet of residences, school, hospital, or library, expect to avoid imminent danger.

Title 33: Planning and Zoning Code

33.266.310, Loading Standards specifies the minimum number of loading spaces required to ensure adequate loading areas for larger uses and developments. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way. The section regulates the number of loading spaces based on land use and specifies where the regulations apply. It also regulates loading space size, their placement, setback and landscaping. Regulations state that the design of a facility allows vehicles to enter and exit the site in a forward motion, except in the Central City plan district.

33.130.255, Trucks and Equipment regulates parking and storage of trucks and equipment to ensure that it will be consistent with the desired character of the commercial zones and to limit adverse effects on adjacent residential lands. The section sets truck and equipment parking standards for business vehicles (light, medium and heavy trucks) that park regularly at a site.

Section 33.140.250, Trucks and Equipment regulates truck and equipment parking for business vehicles that park regularly at a site. The regulations do not apply to pick-up and delivery activities, the use of vehicles during construction or other intermittent, short-term activities. The regulations differentiate between light and medium trucks and heavy trucks.

COMPREHENSIVE PLAN POLICIES FOR FREIGHT

Goals, policies and objectives are the common link between the Freight Master Plan and the Comprehensive Plan. Development of the Freight Master Plan identified revisions to policies to better address freight movement needs and impacts. Following is a summary of policies and objectives that guide freight activity in Portland. Appendix A includes the complete text of the freight-related Comprehensive Plan policies.

Goal 5 Economic Development Policies

Goal 5, Economic Development, promotes a multimodal transportation system that encourages economic development.

Goal 5.4, Transportation System, Objectives A, B, and H address the connection between the City's transportation system and economic development by enhancing the multimodal freight transportation system for competitive access to global markets, supporting development of industrial- and employment-zoned properties, and reinforcing the link between transportation investment and thriving industrial districts.

Goal 6 Transportation Policies

Goal 6, Transportation, provides overall guidance on how Portland's transportation system should function. The goal reflects the multiple functions of a balanced transportation system, which addresses the needs of the many types of users. Many Goal 6 policies and objectives pertain directly to freight mobility including:

Policy 6.3 Transportation Education, Objective B supports a public-private partnership for implementing educational programs about freight movement in the City.

Policy 6.9 Freight Classification Descriptions, Objectives A–I describe the various elements of the City's Freight System including roadways, railways, freight districts, and freight facilities.

Policy 6.13 Traffic Calming, Objective C encourages vehicular traffic, including trucks, to use streets with higher classifications consistent with their function to avoid non-local traffic from infiltrating residential neighborhoods.

Policy 6.15 Transportation System Management, Objective B directs the City to give preference to projects that add system capacity through operational improvements such as signal upgrades, ITS, and intersection design that benefit all modes of transportation.

Policy 6.29 Multimodal Freight System, Objectives A–E supports the development of a safe, reliable, and efficient freight system that includes truck, rail, air, marine, and pipeline transport modes. The objectives emphasize public-private coordination and partnership in planning, prioritizing and funding freight infrastructure improvements. They also stress the need to work cooperatively to minimize adverse impacts cause by freight movement.

Policy 6.30 Truck Mobility, Objectives A–G provides guidance for developing, maintaining and managing the street network that supports truck movement. The objectives guide investment priorities, design for legal and over-dimensional loads, appropriate use of streets by trucks, and operational improvements to reduce delay.

Policy 6.XX Truck Accessibility, Objective A–F addresses truck access and circulation needs through objectives that focus on such actions as eliminating bridge weight and height restrictions, improving at-grade rail crossings to limit delay and increase safety, managing on-street loading zones for efficient loading and unloading, and considering truck needs in street design.

Policies 6.34–6.40, Transportation District Policies and Objectives detail and clarify issues and needs specific to a Transportation District. There are eight transportation districts in Portland–North, Northeast, Far Northeast, Northwest, Southeast, Far Southeast, Southwest, and Central City–many of which have policy and objectives that address freight mobility.

Goal 11B Public Rights-of Way

Goal 11B policies and objectives are intended to improve the quality of Portland's transportation system by guiding project development to implement the 2040 Growth Concept, preserve public rights-of-way, implement street plans, continue high-quality maintenance and improvement programs, and allocate limited resources to identified needs of neighborhoods, commerce and industry.

Policy 11.10 Street Design and Right-of-Way Improvements, Objective E directs the City to use the collection of right-of-way design resources including the Design Guide for Trucks (in progress) when developing and designing street improvements.

THE FREIGHT SYSTEM

Portland relies on a multimodal classification system to describe the design and function of a street or other transportation facility. There are seven classification categories: Traffic, Transit, Pedestrian, Bicycle, Freight, Emergency Response, and Street Design. When funding, designing, or operating a facility all modal classifications are considered.

Portland's freight system is comprised of streets, rail lines, and freight facilities including marine terminals, intermodal rail yards, airports, and pipeline terminals. Policy 6.9 describes each of the freight system classifications in the hierarchy. The classifications correspond to land use activities. For classifying network features, freight movement is divided into two broad categories: industrial-serving and commercial delivery of goods and services.

Industrial-serving freight moves by a combination of modes – truck, rail, air, pipeline, and marine vessel. Origins and destinations for this type of movement are primarily in Portland's industrial sanctuaries. Efficient and reliable access to terminal facilities and the regional/interstate freight network is paramount for this category of freight. High truck volumes and tractor-trailer activity characterize industrial-serving freight movement.

Commercial goods and services delivery relies largely on trucks. This category of truck movement has varied origins and destinations, which can be industrial, commercial or residential. Truck size varies depending on the type of delivery or service. Efficient circulation and access between distribution centers and customer locations is important.

Table 3.1 describes the type of freight movement and land uses that correspond to the freight classifications.

Table 3
Freight Classifications by Activity Type

FREIGHT CLASSIFICATION	PRIMARY ACTIVITY			Land Use Connection
	Heavy Freight	Goods Delivery	Services	
Regional Truckway	●	◉	◉	Routes for interregional and interstate movement of freight. Serves both industrial and commercial land uses via access ramps.
Priority Truck Street	●	○	○	Principal route for truck mobility in Freight Districts, and between Freight Districts, and Regional Truckways. Provides truck access and circulation to industrial and employment land uses.
Major Truck Street	◉	●	◉	Principal route for truck mobility between commercial centers and corridors. Provides truck access and circulation to regional main streets.
Truck Access Street	○	●	◉	Route for distribution of truck trips in neighborhoods. Provides truck access and circulation for delivery of goods and services to commercial and residential uses.
Local Truck Street	○	◉	●	Routes for local truck access and circulation to residents and businesses outside of the freight districts.
Freight District	●	○	○	Freight districts are determined by the presence of industrial sanctuary zoning (IG1, IG2 & IH). Streets within a Freight District provide local truck circulation and access. Applies to all streets unless classified with a higher designation.
Railroad Main Lines	●	○	○	Transports freight cargo and passengers over long distances as part of a national rail network.
Railroad Branch Lines	●	○	○	Transports Freight cargo over short distances or distributes it to and from railroad main lines.
Freight Facilities	●	○	○	The major marine terminals, airport, railyards, and intermodal facilities located in Freight Districts.

● Primary Activity ◉ Secondary Activity ○ Limited Activity

Mapping the Freight System

Figure 6 Recommended Freight Network displays Portland's freight system including the highway and street network, rail network, and major freight facilities. The mapped network, in combination with the classification descriptions, is part of Goal 6 of the Comprehensive Plan.

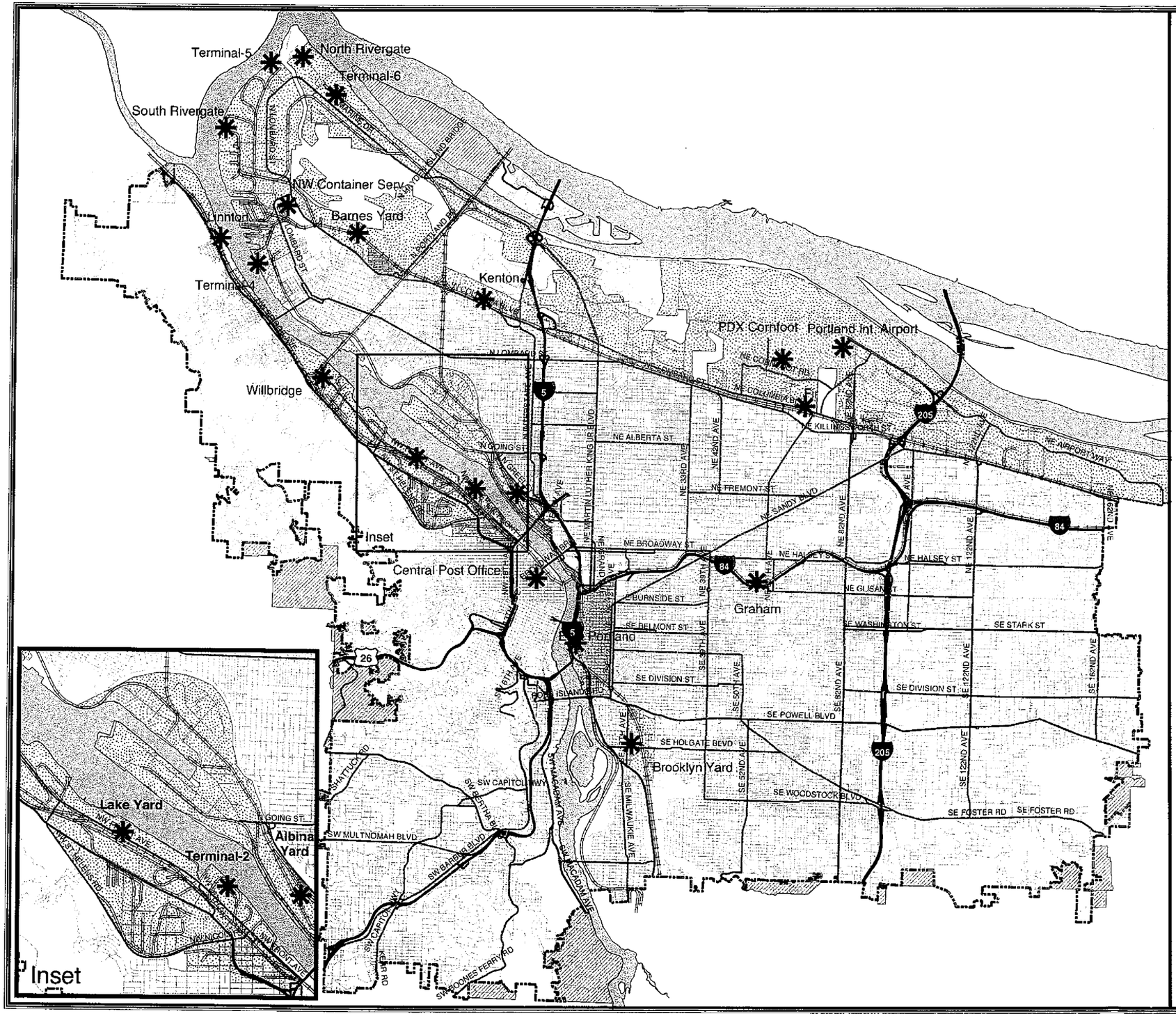


Figure 8
RECOMMENDED FREIGHT NETWORK

4 Implementing the Plan

INTRODUCTION

Success of the Plan's goals, policies, and objectives depends upon effective implementation and monitoring of progress. The combination of engineering, education, and enforcement strategies described in Chapters 4 and 5 are intended to enhance the movement of freight in Portland.

This chapter describes the follow-up actions and on-going activities to manage goods movement in the community. Chapter 5, Freight System Improvements, lists the infrastructure improvements that address freight network deficiencies. Together, these chapters provide a complete strategy for achieving the City's freight policies and objectives.

Many of the implementation actions, activities, and capital improvements described in this plan require coordination and partnership with other City bureaus such as the Planning Bureau and Portland Development Commission and with regional agencies including the Oregon Department of Transportation, METRO, the Port of Portland, and Multnomah County. Some may require endorsement and support from the private sector, while others require the involvement of neighborhood and business associations.

ACTIONS AND ACTIVITIES

The three themes of the Plan – Mobility, Livability, and Healthy Economy – provide the framework for organizing the follow-up actions and on-going activities.

Mobility

The mobility theme focuses on improving reliability and efficiency on the network of roads, railroads, rivers, and runways that move freight in Portland. Following are the actions and activities targeted at freight mobility:

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

Livability

The livability theme looks at ways to manage the aspects of freight movement that impact a community's quality of life. Following are the actions and activities that address livability:

- 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.
- 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 Continuous Operations Variance Permit Program (COVP).

Healthy Economy

Promoting a multimodal transportation system that stimulates and supports long-term economic development and business investment is the focus of the healthy economy theme. Following are the actions and activities targeted at building and maintaining a healthy economy:

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

MOVING AHEAD

A plan is only as successful as the time and effort given to supporting its realization. Responsibility for carrying out the actions, activities, and projects identified in the Plan is spread across a number of work units in the Portland Office of Transportation. The Office of Transportation's Freight Coordinator will manage the implementation of the plan in coordination with these various work units.

Moreover, the City of Portland will continue to work closely with its agency partners to better address regional freight mobility. Partners include the Oregon Department of Transportation, Metro, Port of Portland, Multnomah County, Washington State Department of Transportation, SW Regional Transportation Council, and the other local cities, counties, and service districts within the Portland/Vancouver region.

Additionally, the City's advisory committee on freight mobility matters – the Portland Freight Committee – continues to be an important forum for discussing the City's freight issues and providing advice to City leaders and staff on all topics related to improving freight movement.

MONITORING SUCCESS

An important component to any plan is the establishment of methods for measuring progress in achieving the plan goals and objectives. Performance measures have great value in technical assessment of change over time, evaluation of planned improvements, and as a tool for communication about the state of the system. The City uses performance measures to monitor its achievements and progress toward goals for transportation system performance and in meeting the transportation needs of its citizens. The City's TSP already includes several performance measures applicable to truck mobility. The Freight Master Plan enhances these existing performance measures and augments them with additional measures.

Table 4 lists both the established TSP measures and additional recommended measures. Refinement of the performance measures, development of baseline data, and on-going reporting of the data will occur as part of plan implementation.

Table 4
Freight System Performance Measures

Source	Measure	Description
TSP	Hours of truck delay in the PM Peak and Mid-day	Tracks delay as a result of congested roadways. The current baseline data compares hours of truck delay for the entire City street system with regional delay. Enhancements to current measures include truck delay at key intersections and along freight corridors, and distinguishing between causes of congestion by re-occurring vs. non-reoccurring events. Intersections and truck streets should be selected based on their direct accessibility to freight terminals and transfer facilities.
TSP	Travel time in ITS Corridors for average PM Peak, AM Peak, and Off-peak	Evaluates the travel time performance in corridors using ITS technology to manage system operations. Expand the current selection of corridors to include those critical for freight movement including Rivergate, Airport Way, Columbia Blvd, US 30, and interstate freeways in Portland. Track travel time for truck trips in addition to auto trips, as is current practice.
TSP	Assessment of unmet pavement need	Tracks success in reducing pavement maintenance backlog. Assess and report on pavement condition in Freight Districts and along major freight corridors.
TSP	Employee participation in Transportation Management Associations (TMA)	Tracks progress in expanding the use of and participation in TMA programs to encourage use of alternatives to the single-occupancy vehicle for work commute trips.
TSP	Annual truck collisions/million vehicle miles of travel	Measures the number of reported collisions that involved trucks and other modes, including rail, as reported for all City locations.
TSP	Elimination of weight-restricted bridges on truck streets	Tracks progress in rehabilitating or replacing weight-restricted bridges.
TSP	Assessment of truck compliant resolution	Evaluates the number of freight-related complaints received by PDOT and status of resolution.

5 FREIGHT SYSTEM IMPROVEMENTS

INTRODUCTION

Over the last decade, many area plans and corridor studies have identified needed freight infrastructure improvements in the City. The set of freight infrastructure improvements described in this chapter draw from multiple sources including:

- Portland Transportation System Plan
- Regional Transportation Plan
- Port of Portland Transportation Improvement Plan
- I-5 Rail Capacity Study
- I-5 Trade Corridor Study
- Central Eastside Transportation Study
- Columbia Corridor Transportation Study
- St. Johns Truck Strategy
- South Portland Circulation Study
- Intelligent Transportation System Implementation Plan
- Freight Master Plan technical analysis and community input

WHAT IS A FREIGHT IMPROVEMENT?

An infrastructure improvement is deemed "freight-related" if it meets the following criteria:

- Improves a freight route of significance, as defined by a Transportation System Plan, Regional Transportation Plan, Oregon Highway Plan, and/or National Highway System freight route designation or is located on or improves access to properties zoned for industrial or employment land uses.
- Includes project elements that improves or facilitates freight movement.
- Demonstrates consistency with state, regional, and local transportation policies.

TYPES OF FREIGHT IMPROVEMENTS

The freight infrastructure improvements included in the plan are presented in six categories:

- **HIGHWAY**
  Infrastructure improvements on Portland's freeway system such as interchange upgrades and auxiliary lanes.
- **STREET**
  Infrastructure improvements on Portland's arterial street system such as intersection upgrades, access management, and new road connections.
- **SYSTEM MANAGEMENT**
  Installation of Intelligent Transportation System infrastructure such as closed circuit TV cameras and variable message signs to provide real-time information to dispatchers and truck drivers.
- **BRIDGE**
  Upgrading load-limits, improving clearances, seismic upgrades, and new structures.

- **RAIL**
  Infrastructure improvements, such as signalization upgrades, bypass tracks, and high-speed turnouts, to improve rail capacity and reduce bottlenecks.
- **MARINE**
  Infrastructure improvements, such as longer berths, channel dredging, and adequate bridge clearances, to upgrade river operations and marine terminal facilities.

SETTING INFRASTRUCTURE PRIORITIES

All of the infrastructure improvements presented later in this chapter meet an identified need. However, finite resources for funding and implementing transportation projects require that priorities be set to direct limited resources to gain the greatest value for the dollar spent.

Priority Tiers

The freight infrastructure improvements are classified into four priority tiers by improvement category.
The four tiers include:

- Funded – Projects with identified partial or full funding, an indication that the project is advancing towards implementation in the near term.
- Tier 1 – Near-term advancement for funding and implementation, within five years.
- Tier 2 – Mid-term advancement for funding and implementation, within ten years.
- Tier 3 – Long-term advancement for funding and implementation, within twenty years.

Project Priority and Selection Criteria

The criteria used to develop priorities are shown in Table 5. Improvements with the highest priority demonstrate the following characteristics:

- Benefits multiple modes of freight transportation and may have benefits for non-freight modes, particularly transit, bicycles, and pedestrians.
- Benefits a key freight corridor by improving system reliability, safety and/or access.
- Improves access to freight facilities.

The criteria was applied to the infrastructure improvements listed under Highway, Street, System Management and Bridge categories to establish relative priority in each category. Priority for Rail and Marine improvements have been established in other planning efforts.

FREIGHT INFRASTRUCTURE IMPROVEMENTS

The following pages identify Portland's freight infrastructure improvements by category and include a location map. The list of improvements is inclusive of the needs identified to date. Future improvements may be added as additional needs are uncovered through further evaluation and study of freight movement.

Many of the infrastructure improvements identified here will require further study, more neighborhood input, and additional City Council review prior to construction. As further evaluations are made of the projects in this Plan, the projects may be modified.

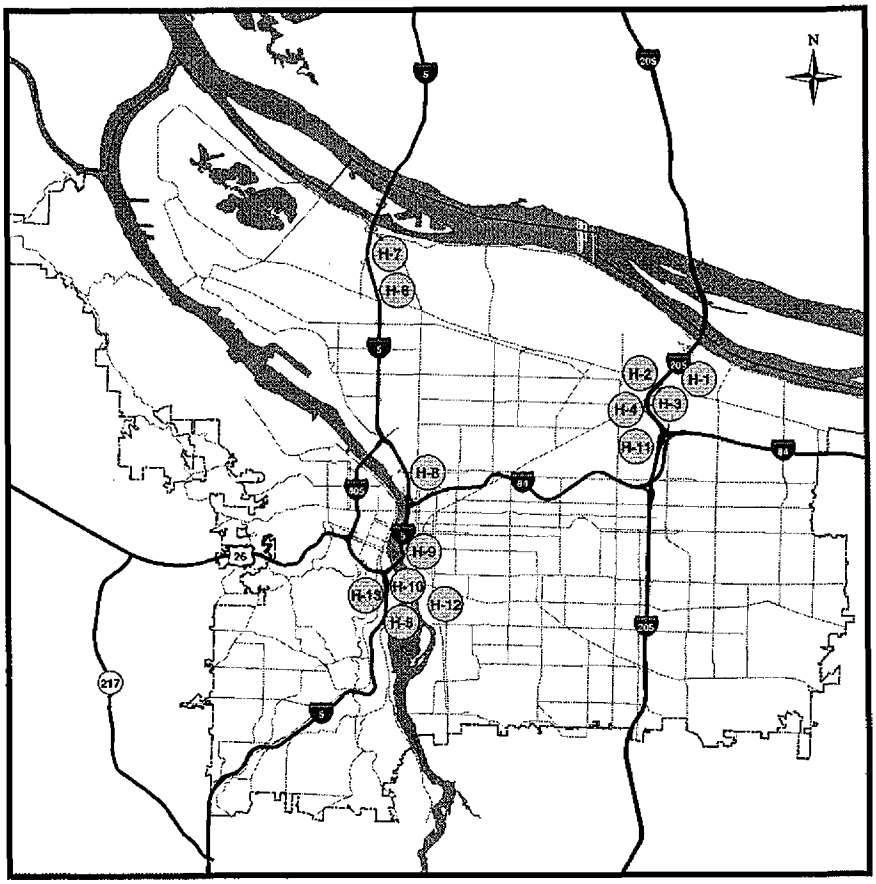
Appendix B includes the list of infrastructure improvements with detailed descriptions and estimated costs.

Table 5
Prioritization Criteria for Highway and Street Infrastructure Improvements for Freight

Criteria	Score	Rating
Policy Metrics		
Will this project benefit multimodal freight transportation movement?	High, Medium, or Low	Freight modes include trucks, rail, air, marine, pipeline • Low – benefits one mode • Medium – benefits 2 modes • High – benefits 3 or more freight modes
Is this project located on freight routes of significance?	High, Medium, or Low	• Low – Portland freight system only • Medium – Portland and Regional freight system • High – all the above plus Oregon Highway Plan and National Highway System
Operational Metrics		
Will this project improve reliability on the freight system?	High or Low	• Low – Minimal or no impact on system reliability • High – Improves freight travel time in a corridor through operation improvements, or removes a system bottleneck, or improves a congested intersection/roadway
Will this project improve freight system connectivity?	High or Low	• Low – Minimal or no impact on system connectivity • High – Removes barriers such as load limits, clearance restrictions, or improves street connectivity
Will this project improve safety on the freight system?	High or Low	• Low – Minimal or no impact on system safety • High – Reduces vehicle/rail conflicts, reduces risk of catastrophic failure, improves intersection turn movements at high accident locations
Will this project improve access to the airport, marine terminals or intermodal rail facilities?	High or Low	Does this project improve primary access to airport, marine terminals, or intermodal facilities? • Low – No • High – Yes
Public Benefit Metrics		
Will this project contribute to improved air quality?	High or Low	• Low – Does not reduce idling or travel time • High – Reduces idling or travel time
Will this project also benefit transit, walking, bicycling?	High, Medium, or Low	• Low – Benefits 1 alternative mode • Medium – Benefits 2 alternative modes • High – Benefits 3 or more alternative modes

HIGHWAY

Figure 9
Highway Improvements



Funded

Map ID	Project Name
H7	I-5, N (Expo Center - Lombard): Widening Freeway
H10	I-5/North Macadam Access Improvements, SW

Tier 1

Map ID	Project Name
H6	I-5, N (at Columbia Blvd): Interchange Improvements
H8	I-5, N (Lloyd District/Rose Quarter): Reconstruction and Widening

Tier 2

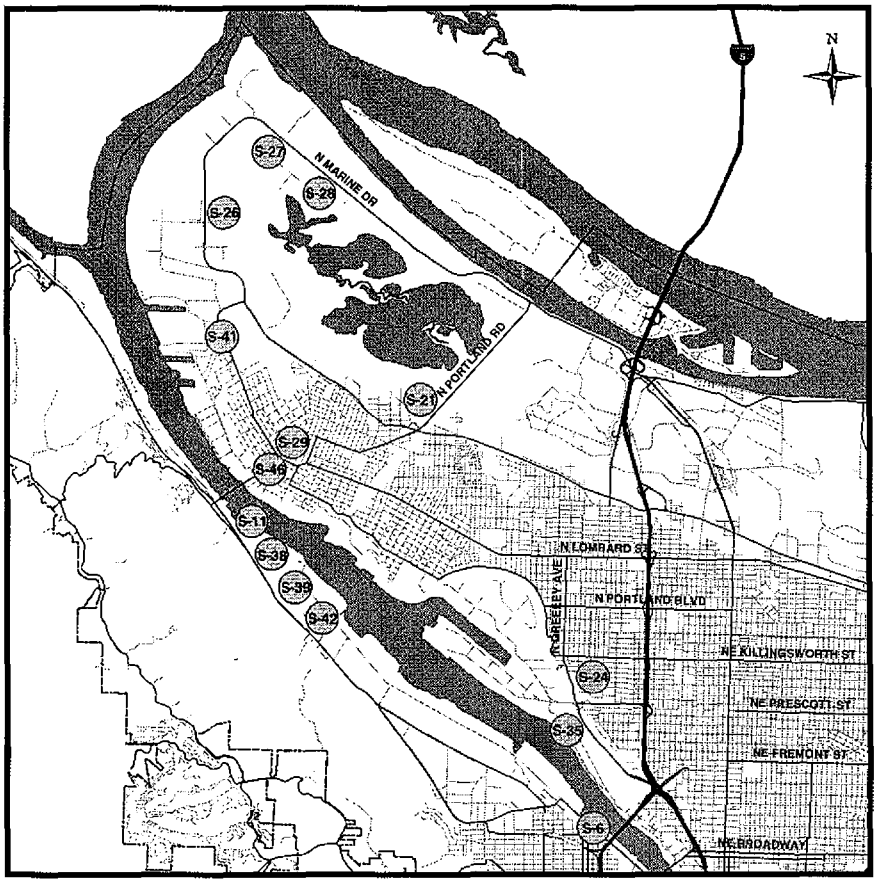
Map ID	Project Name
H3	I-205, NE (I-205/Airport Way) Interchange Improvement at NB On-ramp
H4	I-205, NE (I-205/Airport Way) Interchange Improvement at SB Off-ramp
H5	I-405/US 26/Ross Island Bridge, SW: Access Improvements
H13	Ross Island Bridge Interchange, SW

Tier 3

Map ID	Project Name
H1	Airport Way, NE: Braided Ramps
H2	I-205 ,NE (Columbia Blvd - Airport Way): Auxiliary Lane
H9	I-5/ McLoughlin, SE: Construct Access Ramps
H11	I-84/I-205, NE: Auxiliary Lane
H12	McLoughlin (99E), SE (Ross Island Bridge - Clatsop): Multi-modal Improvements

STREET – NORTH AND NORTHWEST PORTLAND

Figure 10
Street Improvements - N & NW Portland



Funded

Map ID	Project Name
S27	Leadbetter, N (Marine Dr Loop): Street Extension/Overcrossing
S28	Lombard, N (Rivergate - T-6): Multi-modal Improvements
S29	Lombard/St. Louis/Ivanhoe Multimodal Improvements, N
S41	Terminal 4 Driveway Consolidation
S42	US 30 at Lake Yard Hub Facility, NW: Access Improvements

Tier 1

Map ID	Project Name
S26	Heineman, N: Road Connection
S21	Columbia Blvd/Portland Rd, N: Intersection Improvements
S24	Going/Greeley, N: Climbing Lane and Interchange Improvements
S38	St Helens Rd (US 30), NW, (in Willbridge area): Traffic Improvements

Tier 2

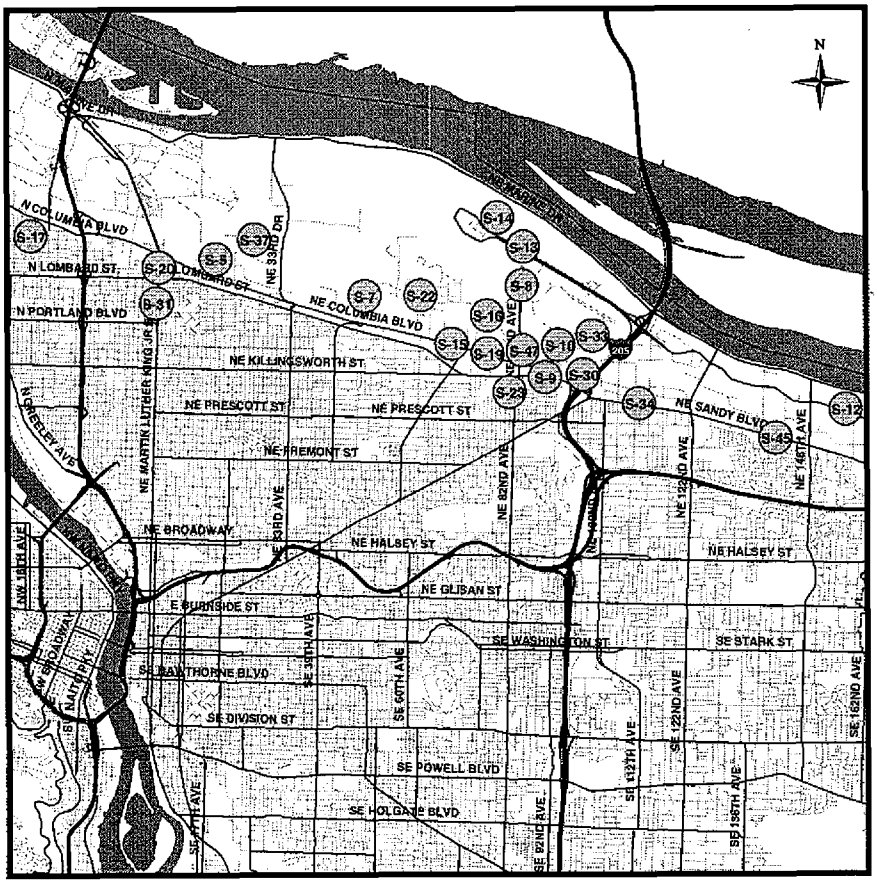
Map ID	Project Name
S11	112th Ave/US 30, NW: Intersection Improvements
S35	River Ave, N (Port Center Way - River Ave): Street Extension
S39	St. Helens Rd (US 30), NW (at Saltzman & Balboa): Intersection Realignment

Tier 3

Map ID	Project Name
S6	14/16th Connections, NW
S46	Ivanhoe/Philadelphia, N: Intersection Improvements

STREET – NORTHEAST PORTLAND

Figure 11
Street Improvements - NE Portland



Funded

Map ID	Project Name
S7	47th, NE (Columbia - Cornfoot): Roadway & Intersection Improvements
S8	82nd Ave/Alderwood Rd, NE: Intersection Improvements
S22	Cornfoot, NE (47th-Alderwood): Road Widening & Intersection Improvements
S23	East End Connector, NE
S47	82nd/Columbia, NE: Intersection Improvements

Tier 1

Map ID	Project Name
S5	11th/13th, NE (at Columbia Blvd): Roadway Connector
S9	87th/Columbia, NE: Intersection Improvement
S15	Alderwood/Columbia Blvd/Cully, NE: Intersection Improvements
S16	Alderwood/Cornfoot Road, NE: Intersection Improvement
S20	Columbia Blvd/MLK Jr & Lombard/MLK Jr, NE: Intersection Improvements
S33	Mt St Helens Ave, NE (Cascades Parkway – Alderwood Rd): Street Extension

Tier 2

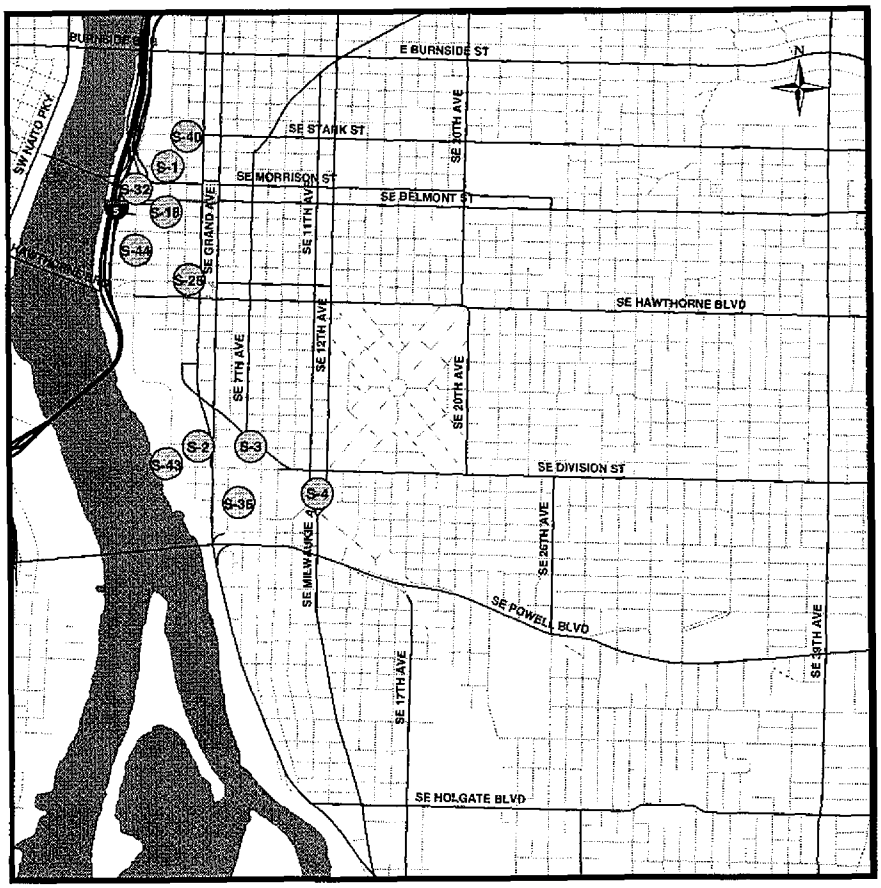
Map ID	Project Name
S10	92nd Ave, NE, (Alderwood - Columbia Bl): Street Improvements
S13	Airport Way, NE (82nd - PDX Terminal): Street Widening
S14	Airport Way, NE: Access Road
S19	Columbia Blvd, NE (60th - 82nd): Road Widening
S30	Marx Dr, NE (82nd-87th): Street Extension
S31	MLK Jr, NE (Columbia - Lombard): Widen Street
S37	Southwest Quad, NE (at 33rd): Access to PDX Properties

Tier 3

Map ID	Project Name
S12	158th, NE (Columbia Slough - Sandy Bl): Street Improvements
S17	Argyle, NE (14th - MLK): Street Extension
S34	Parkrose Connectivity Improvements, NE
S36	Southern Triangle Circulation Improvements, SE
S45	Sandy Bl, NE (122nd - City Limits): Multimodal Improvements

STREET – SOUTHEAST PORTLAND

Figure 12
Street Improvements - Central Eastside Portland



Funded

Map ID	Project Name
S32	Morrison Bridge at Water Ave Ramp, SE: Ramp Realignment

Tier 1

Map ID	Project Name
S2	4th Ave, SE (Caruthers – Ivon): Multi-modal Street Improvements
S3	7th/8th Ave, SE: New Street Connection
S25	Grand Ave, SE: Bridgehead Improvements
S43	Water Ave, SE (Caruthers – Division Pl): Street Extension Phase II

Tier 2

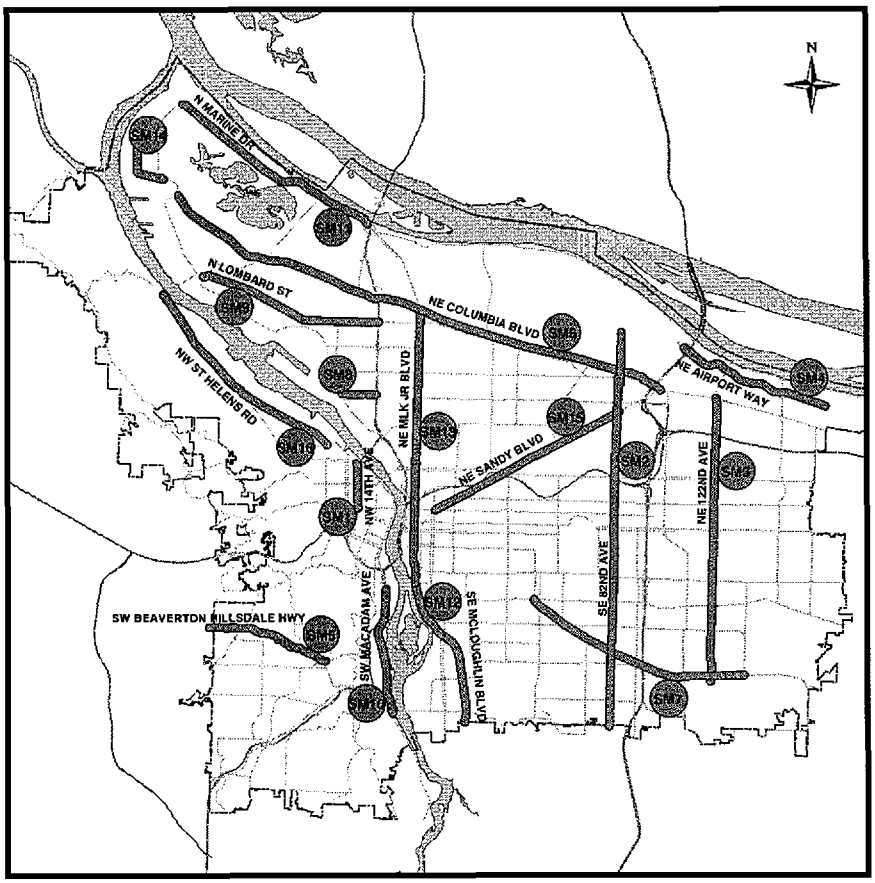
Map ID	Project Name
S4	11th/12th/Railroad Crossing, SE (West of Division): Intersection Improvements
S18	Belmont Ramp, SE (Eastside of Morrison Bridge): Ramp Reconstruction
S40	Stark St, SE (2nd - Grand): Safety & Capacity Improvements
S44	Water Ave, SE (Stark - Clay): Reconstruction

Tier 3

Map ID	Project Name
S1	1st Ave, SE (Stark - Clay): Railroad Mainline Access Improvements

SYSTEM MANAGEMENT

Figure 13
System Management Improvements



Funded

Map ID	Project Name
SM2	82nd, NE/SE: ITS

Tier 1

Map ID	Project Name
SM4	Airport Way, NE (I-205 - 158th): ITS
SM6	Columbia Blvd, N/NE(I-205 - Burgard): ITS
SM8	Going, N (Interstate - Greeley): ITS
SM14	Rivergate ITS, N
SM16	Yeon/St. Helens, NW: ITS

Tier 2

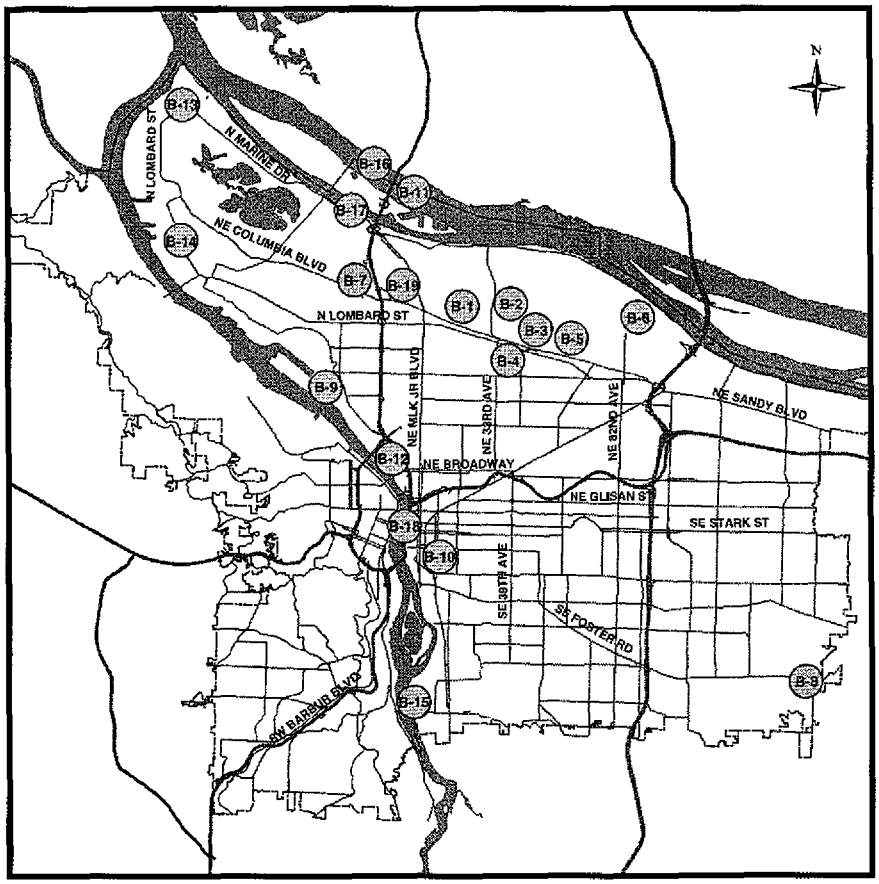
Map ID	Project Name
SM3	122nd, NE/SE (Airport Way - Powell): ITS
SM10	Macadam, SW (Bancroft - Sellwood Br): ITS
SM11	Marine Dr, N/NE (Portland Rd to 185th): ITS
SM12	McLoughlin, SE: ITS
SM13	MLK Jr, N (Columbia Bl - CEID): ITS
SM17	Powell Blvd, SE (Milwaukie – 122nd): ITS

Tier 3

Map ID	Project Name
SM1	14th/16th, NW/SW & 13th/14th, SW, Glisan - Clay: ITS, Clay to Glisan
SM5	Beaverton-Hillsdale Hwy, SW: ITS
SM7	Foster Rd, SE: ITS
SM9	Lombard, N/NE (MLK Jr - Philadelphia): ITS
SM15	Sandy Bl, NE (82nd - Burnside): ITS

BRIDGE

Figure 14
Bridge Improvements



Funded

Map ID	Project Name
B3	33rd, NE (at Columbia Slough): Bridge Replacement
B4	33rd, NE (at Lombard): Bridge Replacement
B8	Foster Rd, Bridge at Johnson Creek: Bridge Replacement
B9	Going St Bridge, N: Bridge Rehabilitation
B10	Grand/ MLK Jr Viaduct, SE: Reconstruct Viaduct
B11	I-5, N (Columbia River - Columbia Bl): Bridge Widening
B13	Lombard at Columbia Slough Overcrossing (Rivergate), N: Rehabilitation
B14	Lombard St. (Burgard), N: Bridge Replacement
B18	Willamette River Bridges, NE/NW/SE/SW: Rehabilitation for Broadway, Burnside, Morrison, and Sauvie Island (Phased improvement program)

Tier 1

Map ID	Project Name
B7	Denver Viaduct, N: Reconstruct Viaduct (Identified as Phase 2
B15	Sellwood Bridge, SE/SW: Bridge Replacement
B16	Vancouver BNSF Rail Bridge Project (Columbia River)
B19	Vancouver Bridge, N (at Columbia Slough): Bridge Replacement

Tier 2

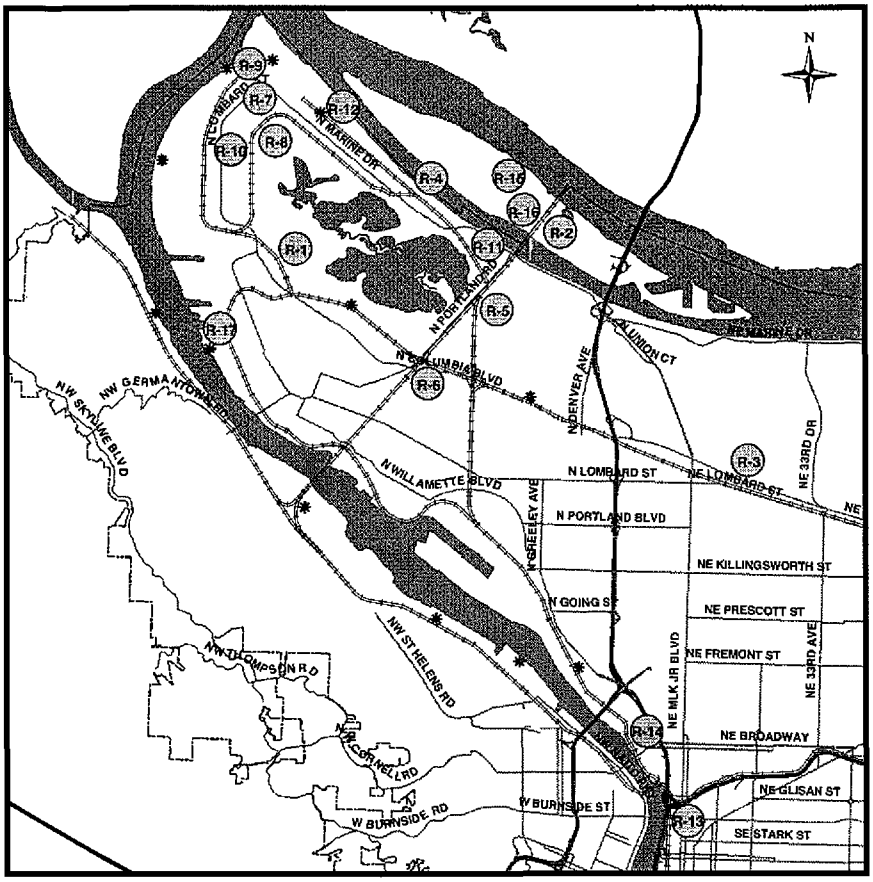
Map ID	Project Name
B1	21st, NE (at Columbia Slough): Bridge Replacement

Tier 3

Map ID	Project Name
B2	33rd Ramps, NE, (at Columbia Bl/Lombard): New Ramps
B5	42nd Bridge, NE (at Lombard): Bridge Replacement
B6	82nd/Airport Way, NE: Overcrossing
B12	Interstate, N, Bridge at Larrabee: Bridge Rehabilitation
B17	West Hayden Crossing, N: New Bridge

RAIL

Figure 15
Rail Improvements



Tier 1

Map ID	Project Name
R7	Ramsey Rail Complex, N (south of Columbia Slough Bridge): Capacity Improvements
R8	Rivergate Rail Yard Expansion, N
R10	T-5 Unit Rail Loops #3 & #4
R11	T-6 Intermodal Third Lead
R16	West Hayden Island/Rivergate, N: Rail Access
R17	Barnes to Terminal 4, N: Truck Expansion

Tier 2

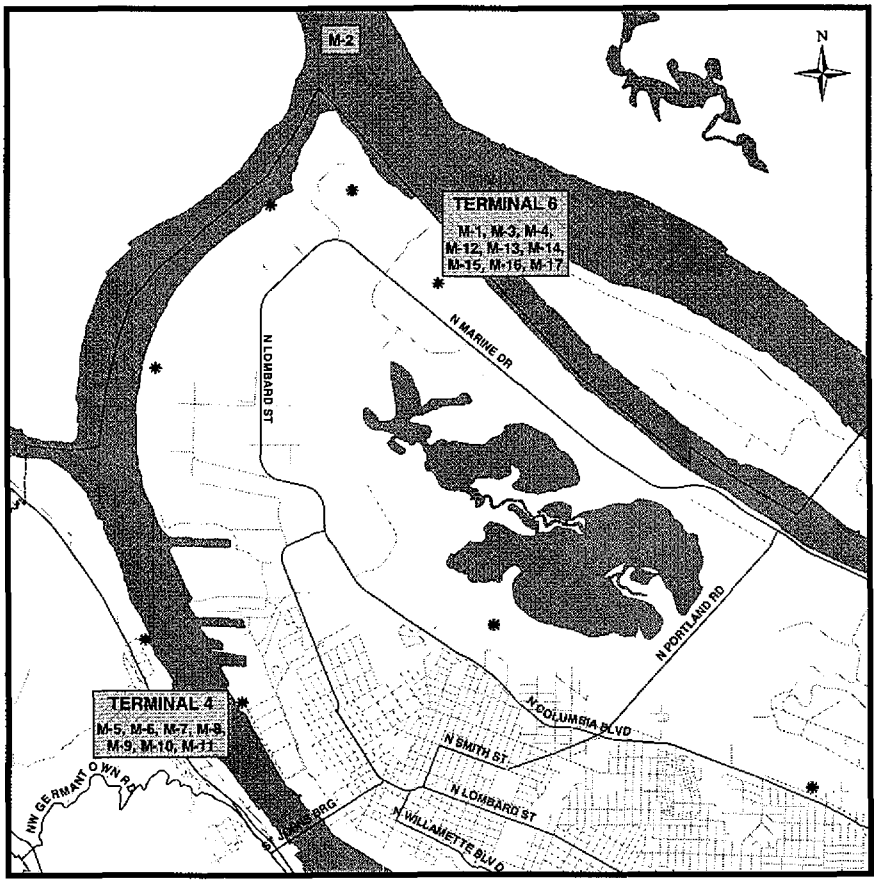
Map ID	Project Name
R1	Barnes Rail Yard - Bonneville Rail Yard, N: Track Expansion
R2	BNSF Line @ Columbia Bridge, N: Track Improvements
R5	North Portland Junction, N: Rail Improvements
R6	Penn Junction, N, UP/BNSF Main Line: Track Realignment
R12	Terminal 6 A&B Yards
R13	UP Line Connection, SE (Brooklyn line - Graham line)
R14	UP Line UPgrade, SE (Albina Yard - East Portland)

Tier 3

Map ID	Project Name
R3	Kenton Rail Line, NE: Additional RR Tracks
R4	Marine Dr, N (at Rivergate West): Rail Crossing, Phase II
R9	Slough Rail Bridge, N
R15	West Hayden Island Rail Yard Expansion, West Hayden Island

MARINE

Figure 16
Marine Improvements



Funded

Map ID	Project Name
M2	Columbia River Channel Deepening - Regional Share, N/NE
M3	Container Crane - Terminal 6
M4	Honda Facility Upgrade, N
M10	Terminal 4 Pier 2 Rail Yard Improvements, N
M13	Terminal 6 Berth Deepening
M14	Terminal 6 Computer System Upgrades, N

Tier 1

Map ID	Project Name
M1	Access Tunnel at Hyundai/Kia Facility, N
M5	Hyundai Auto Terminal Expansion, N
M6	Mar Com North Facility, N
M7	Optional Terminal Lower Lot Access, N
M8	Terminal 4 Grain Elevator Barge Conveyor Rebuild, N
M9	Terminal 4 On-site Overcrossing, N
M15	Terminal 6 Container Dock Extension, N

Tier 2

Map ID	Project Name
M11	Terminal 4, N: Access Improvements
M16	Terminal 6 Dock Structural Upgrades, N

Tier 3

Map ID	Project Name
M12	Terminal 6 Additional Post-Panamax Cranes, N
M17	Terminal 6 - Marine Dr, N: Overcrossing

FUNDING THE FREIGHT SYSTEM

Appendix C includes an in depth discussion of the federal, state, regional and local transportation financing options for freight infrastructure improvements.

6 TRUCKS AND STREET DESIGN

INTRODUCTION

Successful implementation of the freight mobility improvements and policies for trucks described in this document are based on the expectation that appropriate and consistent design practices are used for safe and convenient truck travel on city streets. Planning and designing for truck circulation and access is essential for all environments and districts in the city.

Streets within industrial areas as well as those that provide direct connections between industrial areas and the regional freeway system need to fully accommodate truck movements without impeding their mobility. In mixed-use areas, lane widths and corner radii may be narrowed to compel trucks to travel more slowly in order to provide a streetscape that supports significant pedestrian travel. In residential areas, all vehicle travel is limited to slower speeds, and streets in these areas are intended for local truck deliveries. Accommodating truck travel in these and other environments requires careful design practices that balance the needs of all users of the street.

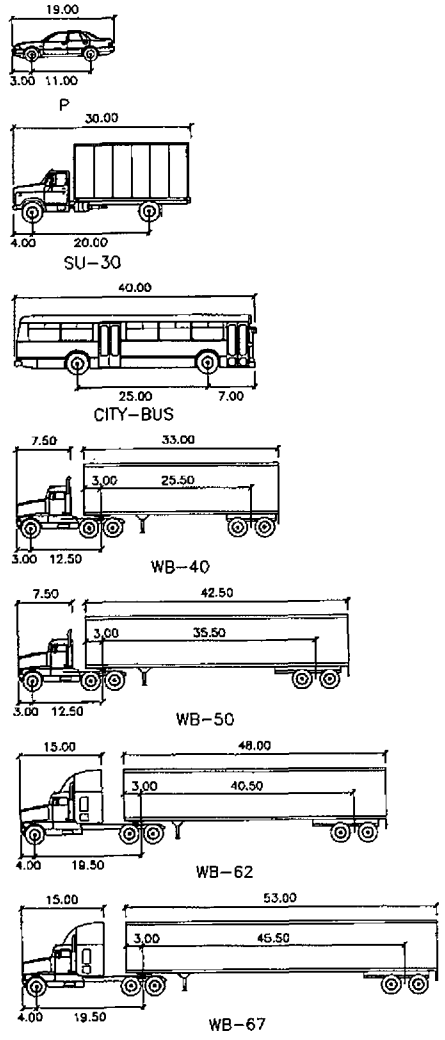
This chapter provides a general overview of street design for trucks. *The Portland Design Guide for Trucks*, a companion document to the Freight Master Plan, is an in-depth look at street design and trucks.

PLANNING FOR TRUCKS IN THE RIGHT-OF-WAY

Trucks come in many shapes and sizes, dictated by the goods or materials being hauled and the distance that the goods travel. The American Association of State Highway and Transportation Officials (AASHTO) have developed a classification system that identifies trucks by their approximate overall vehicle height, width, and length. This classification ranges from the SU-30 Single Unit truck (e.g., cement trucks, large rental trucks, local delivery trucks) up to the WB-67 Interstate truck (large semi-trailer with sleeper cab equipped tractor; this class also includes double and triple trailer combinations). Figure 15 shows the typical dimensions of the AASHTO standard vehicles referenced in these guidelines, and Table 6 lists the specific characteristics of each vehicle type. Additional information on these and other design vehicles can be found in the AASHTO "Policy on Geometric Design of Highways and Streets".[19]

While procedural guidance can be developed to provide general direction for design of intersections for trucks, the final configuration and best overall design of an intersection must still be completed by experienced designers. Basic geometric considerations, such as the angle at which the roads intersect, the presence of buildings abutting the right of way, and use of right-turn lanes will vary from intersection to intersection. Moreover, the surrounding land use, existing development, and many other factors could influence specific decisions about intersection design.

Figure 17
Dimensions of Typical Design Vehicles

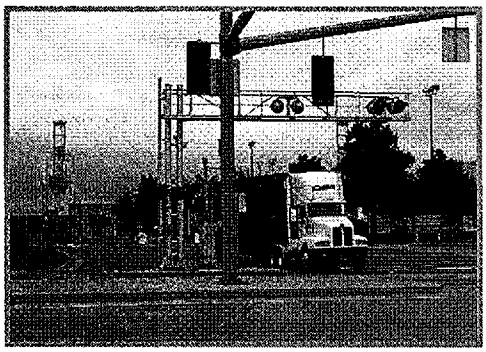


[19] *Policy on Geometric Design of Highways and Streets*, American Association of State Highway and Transportation Officials, 2004.

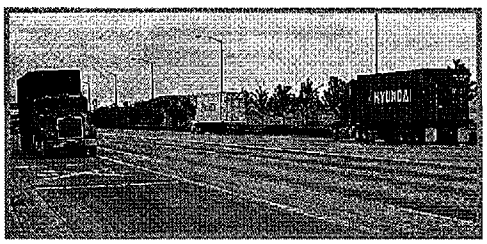
Table 6
Truck Design Vehicle Characteristics and Turning Movement Information

Design Vehicles	Symbol	Trailer	Wheelbase	Overall Length	Minimum Design Turning Radius	Truck Widths* (without mirrors)	Minimum Inside Radius**
Automobile	P	none	11'	19'	24'	na	14.4'
Bus	Bus	none	25'	40'	42'	8.5'	24.5'
Signal Unit Truck	SU-30	none	20'	30'	42'	8.5'	28.3'
Intermediate Semi -Trailer	WB-40	33' trailer	40'	45'	40'	8.5'	19.3'
Intermediate Semi -Trailer	WB-50	42.5' trailer	50'	55'	45'	8.5'	17.0'
Intermediate Semi -Trailer	WB-62	48' trailer	62'	68.6'	45'	8.5'	7.9'
Intermediate Semi -Trailer	WB-67	53' trailer	65'	73.5'	45'	8.5'	4.4'

Source: AASHTO *A Policy on Geometric Design of Highways and Streets*, 2001, Fourth Edition.
* Mirrors on trucks extend between 12" and 18" from the frame of the truck.
** For a 180-degree turn.



Truck exiting T-6 in Rivergate Industrial District.



Truck activity on N. Marine Dr.

Portland's Street Classification Designations

Streets within the City of Portland are designated by functional classifications on the basis of the traffic they are intended and expected to carry and the desired performance of traffic on those streets. With each designation comes a set of design principles to accomplish those functions. For example, Regional Truckways carry high volumes of intercity and interstate truck traffic on limited access highways with high speed limits, while Local Truck Streets are intended to accommodate local deliveries on streets with relatively slow travel speed limits.

Trucks in Freight Districts

Priority Truck Streets and local streets in Freight Districts should be designed to provide for good truck mobility, access, and circulation. Because trucks measure about 10.5' wide (including side mirrors) it is important to provide adequate roadway lane width for a truck to travel without encroaching into an adjacent lane, where another vehicle could be struck or forced to take evasive action. In addition, most trucks require a minimum vertical clearance of at least 14' between the roadway and overhead fixed objects. In addition to lane width and vertical clearance, other items to consider when designing a corridor for high truck activity include corner and median island radii, location of signs, utility and signal poles, street trees, and other roadside items.

Trucks in Mixed-Use Neighborhoods

Portland's mixed-use pedestrian and bicycle-friendly neighborhoods are hubs of activity hosting a variety of commercial and retail shops, restaurants, and residences and are referred to as "Centers" and "Main Streets". Common features that benefit pedestrians, such as narrow streets, curb extensions, and parked cars, are the toughest challenges for trucks and can impact the ability of trucks to maneuver, particularly compared to the streetscape provided in Freight Districts.

In most instances, deliveries to businesses in these locations can be completed with smaller trucks. Their compact size and tight turning radius make them suitable for narrow street geometries and local deliveries. Typical trucks include the SU-30 and WB-40 truck types. However, on occasion larger trucks, such as a WB-50 truck or a WB-67 truck, must circulate in a Center or Main Street area to make a delivery. The key design elements that need to be considered for the occasional large truck is intersection design.

Figure 18 illustrates how a WB-67 truck would negotiate a right-hand turn onto a 4-lane street with a 15' turning radius. Note that the truck has to position to the left and use as much space as possible to turn the trailer into the desired direction.

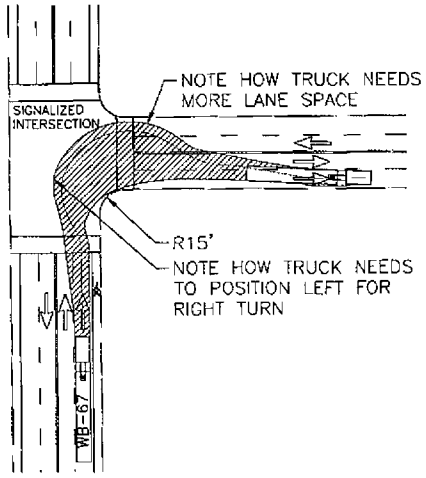
Figure 19 illustrates how a WB-67 truck completes a right-turn into a two-lane street. This is one of the most difficult street conditions a truck driver might face. Note how much of the on-street parking space the truck needs to complete the turn.

Trucks in Residential Areas

Portland's residential neighborhoods are principally designed for automobile, pedestrian and bicycle movements, and very low volumes of truck activity. While occasional large delivery trucks and moving vans travel in these areas, the more common truck type is smaller-sized delivery trucks. The streets serving residential areas are classified for local truck deliveries, and they are not intended for through truck trips. Trucks in these areas travel at relatively slow speeds and trucks conduct loading from on-street or even residential driveway locations.

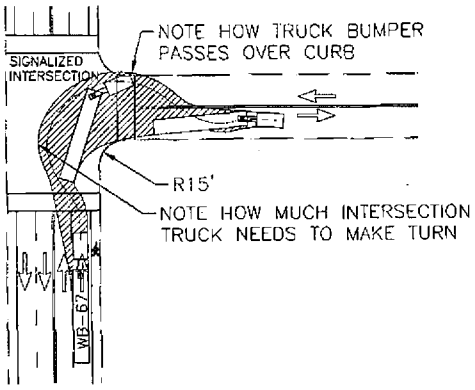
Lane widths on streets within residential areas are often relatively narrow and may feature on-street parking on one or both sides of the street. The combination of these elements leads to slow posted speeds (typically under 25 mph), and in many instances, traffic calming devices (such as raised center islands, landscaping treatments, rumble strips, and speed bumps) to reinforce the speed limits and improve pedestrian safety. The minimum width for streets in residential neighborhoods with parking on both sides is 32', but many streets are as narrow as 20'. Similar to Centers and Main Streets, truck movements are complicated by limited curb radii, narrow roadways, and often, parked vehicles near intersections.

Figure 18
Illustration of Large Truck at Four-Lane Intersection



Right-hand turn by a WB-67 truck into a four-lane street with 15'curb radius.

Figure 19
Illustration of Large Truck at Two-Lane Intersection



Right-hand turn by a WB-67 truck into a two-lane street with 15'curb radius.

Delivery trucks on Hawthorne.

"DESIGN FOR" VERSUS "ACCOMMODATE" APPROACHES TO ADDRESSING TRUCK ACCESS

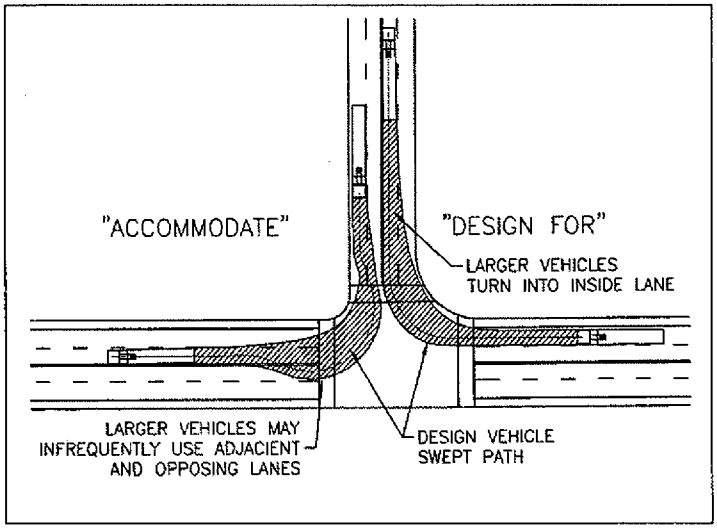
In the design of an intersection, it is essential to anticipate the type and size of trucks that will be accessing the intersection. Current and future use of adjacent property, roadway classification, truck route designation, and the need for a truck to turn at a particular intersection versus taking another more accessible route are some of the pertinent information needed to assess the level of truck activity.

With an understanding of the expected truck type, the designer evaluates the turning track maneuvers of a vehicle using AASHTO turning templates or specialized computer software such as AutoTURN,[20] including the path followed by the corners of the vehicle body or trailer, as well as the inside rear wheels. For a typical passenger vehicle, the path followed by the rear wheels is very nearly the same as that of the front wheels. With larger vehicles, the swept area becomes much larger as the inside rear wheels track substantially inside of the path of the front wheels. This becomes the most critical factor in sizing the intersection.

When developing designs to fully accommodate truck movements through an intersection, the designer establishes a travel path that allows the selected vehicle to remain entirely within its designated lane or lanes as it completes its turn. With respect to accommodating a truck in a tight street environment, the designer assumes more latitude for the vehicle path, including encroachment on adjacent lanes approaching and/or departing the intersection. (See Figure 18)

When seeking to accommodate larger vehicles in tight street environments, the designer often assumes a truck driver will shift to the left, hugging the lane line, before beginning a right turn, and will use all available lanes moving in their direction to begin and complete the turn.

Figure 18
Examples of "Design For" and "Accommodate"



This is just one example of how a designer might accommodate truck movements in a low traffic volume situation.

This can produce interference with other traffic during the times when trucks are turning. This is sometimes referred to as "operational accommodation" since the compromise is some loss of operational efficiency of traffic movements. If this maneuvering by large trucks is infrequent or if the general traffic volume is low, the interference from the encroachment into adjacent lanes moving in the same direction as the trucks is considered acceptable.

If physical constraints, such as limited right of way, restrict the ability for all trucks to conveniently complete a turn, the designer may be forced to further compromise the intersection operation with regard to large trucks. At a minimum, the designer seeks to assure "physical accommodation" of large vehicles. In such cases, the designer tries to design the intersection such that there are no permanent physical features that prevent a large vehicle from negotiating a corner. For example, the designer could assume that the entire street width is available for truck maneuvering. This maneuvering may require that trucks use opposing travel

[20] AutoTURN is a registered trademark of Transoft Solutions.

lanes normally used by oncoming traffic, and could require pilot cars, flaggers, or permits. Designing for minimal truck circulation and access may not be a desirable condition; however, if truck traffic is infrequent and traffic volumes are low, it is a workable operation and would have little effect on an overall streetscape concept. In addition, the designer seeks to keep traffic signal poles, fire hydrants and other street features outside the obstruction free zone of a street corner so that in extreme cases, trucks might even drive over the curb to complete a turn.

Over-Dimensional Load Considerations

Over-dimension variance permits are required by the Oregon Department of Transportation when truck width exceeds 8.5' (excluding side mirrors) or when truck height exceeds 14'. Pilot cars are required according to the segment of highway being traversed. On some highways, pilot cars may be required for loads as narrow as 9', but on other highways loads of 12' or even 14' may be permitted without pilot cars. The City's Continuous Operating Variance Permit Map provides guidance on designated pilot car routes.

The Manual on Uniform Traffic Control Devices (MUTCD) specifies that traffic signals be mounted with the bottom no less than 17' and no more than 19' above the pavement. In actual practice, some traffic signals in the Portland area fall outside these parameters. As indicated in the previous paragraph, trucks higher than 14' require permits, so that the placement of traffic signals, even those mounted lower than the standard specified in the MUTCD, do not interfere with regular loads. Since over-dimensional loads are an important form of freight, it is important to give these types of movements some consideration.

CONSIDERING TRUCKS IN DESIGN

This section provides a list of design considerations and suggested design practices for accommodating trucks in Centers and Main Street areas for use by engineers, architects, designers, and planners involved in the design and planning of street design concepts, land developments, and streetscapes that require access by trucks.

Coordination with Street Classifications

Streets in the City are classified according to their function in the transportation system. Higher-classified routes such as I-5 and US 26 carry high volumes of traffic over long distances, and have a significant number of larger vehicles. Lower-classified streets such as Neighborhood Collectors carry primarily passenger car traffic to and from residential areas. Policy language describes the desired function and design priorities for street classifications.

The 'design for' approach should be applied to Regional Truckways, Priority Truck Streets, Major Truck Streets, and in Freight Districts. The 'accommodate' approach should be applied to Truck Access Streets. In the case of Major Truck Streets, the 'design for' approach must be balanced with other street design considerations when there streets are also designated as City Walkways or located in Pedestrian Districts.

Plan for Trucks Early in the Process

Truck circulation should be considered early in the conceptual development of street design, as well as in the conceptual stages of a land use development proposal. During street design, consideration should be given to the level of truck activity along a street and access to and from adjacent properties. Street characteristics such as lane width, area and design of existing intersections need to be evaluated for their suitability to the types of trucks that are needed for businesses in the area. This is particularly important in existing urbanized areas outside of Freight Districts where conflicts with trucks are more likely to occur. Other land uses in the area that use trucks should also be noted.

During the conceptual design/design development stages of street design and land use actions, trucks need to be carefully considered in the design of loading facilities. Access to loading facilities (on- or off- street) and to properties on those streets need to be considered.

COMPREHENSIVE PLAN POLICIES FOR FREIGHT MOBILITY

Appendix A includes the Comprehensive Plan policy and objectives pertaining to freight mobility. Refer to the Comprehensive Plan or Transportation System Plan for the complete set of transportation policies and objectives.
An asterisk (*) next to the policy or objective indicates that no changes to the current language have been proposed.

Goal 5 Economic Development

Goal 5.4, Transportation System*

Promote a multimodal regional transportation system that stimulates and supports long term economic development and business investment.

Objective A
Support multimodal freight transportation improvements to provide competitive regional access to global markets and facilitate the efficient movement of goods and services in and out of Portland's major industrial and commercial districts. Ensure access to intermodal terminals and related distribution facilities to facilitate the local, national, and international distribution of goods and services.

Objective B
Use transportation system improvements as a catalyst for attracting industrial and employment development.

Objective H
Pursue transportation and parking improvements that reinforce commercial, industrial and residential districts and promote development of new districts.

Goal 6 Transportation

Policy 6.3 Transportation Education*

Implement educational programs that support a range of transportation choices and emphasize safety for all modes of travel.

Objective B*
Implement educational programs that recognize the need for developing and maintaining a multimodal transportation system that supports the movement of freight as well as people.

Policy 6.9 Freight Classification Descriptions

Designate a system of truck streets, railroad lines, and intermodal freight facilities that support local, national, and international distribution of goods and services.

Objective A. Freight Districts
Freight Districts are intended to provide safe and convenient truck mobility and access in industrial and employment areas serving high levels of truck traffic and to accommodate the needs of intermodal freight movement.

- Land Use. Support locating industrial and employment land uses that rely on multimodal freight movement in Freight Districts.
- Function. Freight District streets provide local truck access and circulation to industrial and employment land uses.
- Connections. In Freight Districts, streets not classified as Regional Truckways or Priority Truck Streets are classified as Freight District streets. Freight District streets connect individual properties to Priority Truck Streets.
- Design. Freight District streets should be designed to facilitate the movement of all truck types and over-dimensional loads, as practicable.

Objective B. Regional Truckways

Regional Truckways are intended to facilitate interregional and interstate movement of freight.

- Land Use. Support locating industrial and employment land uses with high levels of truck activity near Regional Truckway interchanges.
- Function. Provide for safe and efficient continuous-flow operation for trucks.
- Connection. Provide Regional Truckway interchanges that directly serve Freight Districts and connect to Priority Truck Streets and other streets with high levels of truck activity.
- Design. Design Regional Truckways to be limited access facilities and to standards that facilitate the movement of all truck types.

Objective C. Priority Truck Streets

Priority Truck Streets are intended to serve as the primary route for access and circulation in Freight Districts, and between Freight Districts and Regional Truckways.

- Land Use. Support locating industrial and employment uses that generate high truck activity on corridors served by Priority Truck Streets.
- Function. Priority Truck Streets accommodate high truck volumes and provide high-quality mobility and access.
- Connections. Priority Truck Streets connect Freight Districts to Regional Truckways.
- Design. Priority Truck Streets should be designed to facilitate the movement of all truck classes and over-dimensional loads, as practicable. Buffer adjacent residential uses from noise impacts, where warranted.

Objective D. Major Truck Streets

Major Truck Streets are intended to serve as principal routes for trucks in a Transportation District.

- Land Use. Commercial and employment land uses that generate high levels of truck activity should locate along Major Truck Streets.
- Function. Major Truck Streets provide truck mobility within a Transportation District and access to commercial and employment uses along the corridor.
- Connections. Major Truck Streets connect Transportation District-level truck trips to Regional Truckways. Trucks with no trip ends within a Transportation District should be discouraged from using Major Truck Streets.
- Design. Major Truck Streets should accommodate all truck types, as practicable.

Objective E. Truck Access Streets

Truck Access Streets are intended to serve as an access and circulation route for delivery of goods and services to neighborhood-serving commercial and employment land uses.

- Land Use. Support locating commercial land uses that generate lower volumes of truck trips on Truck Access Streets.
- Function. Truck Access Streets should provide access and circulation to land uses within a Transportation District. Non-local truck trips are discouraged from using Truck Access Streets.
- Connections. Truck Access Streets should distribute truck trips from Major Truck Streets to neighborhood-serving destinations.
- Design. Design Truck Access Streets to accommodate truck needs in balance with other modal needs of the street.

Objective F. Local Service Truck Streets

Local Service Truck Streets are intended to serve local truck circulation and access.

- Land Use. Local Service Truck Streets provide for goods and service delivery to individual commercial, employment, and residential locations outside of Freight Districts.
- Function. Local Service Truck Streets should provide local truck access and circulation only.
- Connections. All streets, outside of Freight Districts, not classified as Regional Truckways, Priority Truck Streets, Major Truck Streets, or Truck Access Streets are classified as Local Service Truck Streets. Local Service Truck Streets with a higher Traffic classification are the preferred routes for local access and circulation.
- Design. Local Service Truck Streets should give preference to accessing individual properties and the specific needs of property owners and residents along the street. Use of restrictive signage and operational accommodation are appropriate for Local Service Truck Streets.

Objective G. Railroad Main Lines
Railroad Main Lines transport freight cargo and passengers over long distance as part of a railway network.

Objective H. Railroad Branch Lines
Railroad Branch Lines transport freight cargo over short distances on local rail lines that are not part of a rail network and distribute cargo to and from main line railroads.

Objective I. Freight Facilities
Freight Facilities include the major marine, air, rail, and pipeline terminals that facilitate the local, national and international movement of freight.

Policy 6.13 Traffic Calming*
Manage traffic on Neighborhood Collectors and Local Traffic Streets, along main streets, and in centers consistent with their street classifications, classification descriptions, and desired land uses.

Objective C*.
Encourage non-local traffic, including trucks, to use streets of higher traffic and truck classification through design, operations, permitting, and signing.

Policy 6.15 Transportation System Management*
Give preference to transportation improvements that use existing roadway capacity efficiently and improve the safety of the system.

Objective B.
Employ transportation system management measures, including coordinating and synchronizing signals and intersection design, to improve mobility and safety for all modes.

Policy 6.29 Multimodal Freight System
Develop and maintain a multimodal freight transportation system for the safe, reliable, and efficient movement of freight within and through the City.

Explanation: The relationship between the movement of freight, goods and services is also addressed by objectives under Policy 5.4, Transportation System, of the Economic Development goal of the Comprehensive Plan.

Objective A
Support a well-integrated freight system that includes truck, rail, marine, air, and pipeline modes as vital to a healthy economy.

Objective B
Coordinate with private and public stakeholders to identify improvement and funding strategies for multimodal freight mobility needs.

Objective C
Participate with inter-jurisdictional partners in the development of corridor plans, master plans, and regional facility plans that impact freight mobility.

Objective D
Address freight access and mobility needs when conducting multimodal transportation studies or designing transportation facilities.

Objective E
Work with community stakeholders to minimize adverse impacts of freight activity on the environment and residential and mixed-use neighborhoods.

Policy 6.30 Truck Mobility
Develop, manage, and maintain a safe, efficient, and reliable freight street network to serve Freight Districts, commercial areas, and neighborhoods.

Explanation: This policy recognizes the City's role in managing truck movement on its street system.

Objective A
Prioritize transportation investments in the freight street network that improve connections between Freight Districts and Regional Truckways.

Objective B
Accommodate truck travel on designated truck streets through improvements to facility design and operations that address the dimensional needs of trucks.

Objective C
Encourage through-truck traffic to use Regional Truckways, Priority Truck Streets, and Major Truck Streets for mobility and Truck Access Streets and Local Service Truck Streets to access local destinations.

Objective D
Develop and implement street connectivity plans for Freight Districts to improve truck circulation and access to industrial land uses.

Objective E
Develop and implement a signage plan for designated truck routes and major freight destinations.

Objective F
Designate and maintain preferred routes to accommodate over-dimensional freight movement.

Objective G
Employ intelligent transportation system measures to reduce delays and improve travel time on Regional Truckways, Priority Truck Streets and Major Truck Streets.

Policy 6.XX Truck Accessibility
Improve truck access to and from intermodal freight facilities, industrial and commercial districts, and the regional freight system.

Objective A
Evaluate and improve locations where inadequate roadway design creates barriers for truck access in Freight Districts and on designated truck streets.

Objective B
Upgrade bridges to remove load limits and vertical clearance restrictions on designated truck streets.

Objective C
Use public-private collaboration to identify and implement measures to minimize delays and improve safety at at-grade rail freight crossings.

Objective D
Provide adequate off-street loading areas for larger employment, commercial and multi-family developments.

Objective E
Manage supply, operations, and demand of on-street truck loading spaces to ensure efficient, reliable and safe loading and unloading activities.

Objective F
Implement design guidelines for truck streets that meet the dimensional needs of trucks, particularly for Freight Districts, while balancing the needs of other transportation modes in the right-of-way.

Policy 6.34 North Transportation District*
Reinforce neighborhood livability and commercial activity by planning and investing in a multimodal transportation network, relieving traffic congestion through measures that reduce transportation demand, and routing non-local and industrial traffic along the edges of the residential areas.

Objective A*
Improve truck and freight movement in North Portland through changes to the street system, street classifications, and signing to enhance the economic vitality of the area and minimize impacts on residential, commercial, and recreational areas.

Objective B*
Support the efficient functioning of the N Marine Drive/N Lombard Street (west of N Philadelphia)/N Columbia Boulevard loop as the truck and commuter access to the Rivergate industrial areas and adjacent industrial areas.

Objective C*
Direct industrial traffic onto N Columbia Boulevard, while allowing limited access from residential neighborhoods and mitigating for unacceptable traffic impacts.

Objective D*
Re-evaluate the need for a truck designation on N Argyle when improvements to the I-5/Columbia interchange are constructed or other improvements are made that make the N Argyle/Interstate truck connection redundant.

Objective E*
Work with the Federal Highway Commission and ODOT to remove the US 30 Bypass designation from Philadelphia and Lombard, west of Martin Luther King, Jr. Boulevard, and relocate it to more appropriate streets to minimize impacts on the St. Johns town center and the Lombard main street.

Objective P
Encourage the use of Columbia Boulevard as the primary route for over-dimensional truckloads while ensuring the role of N Lombard (west of Martin Luther King Jr. Boulevard) as an interim route until such time as improvements are completed that allow N Columbia to accommodate all types of over-dimensional truckloads.

Policy 6.35 Northeast Transportation District
Support the efficient use of land in Northeast Portland by focusing on development and redevelopment where there will be a reduction in reliance on the automobile.

Objective A*
Encourage automobile and truck through-traffic to use major arterials near the edges of the district to reduce peak-period traffic impacts and to preserve neighborhood livability.

Objective I*
Implement the projects recommended in the Columbia Corridor Transportation Study that improve vehicle and transit access, safety for all modes, and local connections.

Objective J*
Balance the needs of adjacent land uses (located in a design zone) at the NE Lombard and Martin Luther King Jr. Boulevard intersection with the need for truck movement.

Policy 6.36 Far Northeast Transportation District*
Support transportation choices by focusing transit and traffic movement on a well-defined system of arterials, implementing demand management measures, and encouraging walking and bicycling in the Far Northeast.

Objective A*
Enhance the arterial street system by improving connections between Neighborhood Collectors and District Collectors and eliminating bottlenecks, such as narrow rail viaducts, that contribute to intrusions into residential neighborhoods by commercial, industrial, and non-local traffic.

Policy 6.37 Southeast Transportation District*
Reduce travel demand and reliance on the automobile in Southeast Portland to protect residential areas and industrial sanctuaries from non-local traffic, while maintaining access to established commercial areas.

Objective G

Encourage regional and interdistrict truck traffic to use Regional Truckways, Priority and Major Truck Streets in Southeast Portland by establishing convenient truck routing that better serves trucks, while protecting Southeast neighborhoods.

Objective O

Address the safety and access needs of pedestrians and bicyclists as part of freight-related street improvements for SE Holgate between SE 26th Avenue and McLoughlin Boulevard.

Explanation: SE Holgate is a Priority Freight Street that provides an important truck access function to the Brooklyn freight district. However, street improvement plans for SE Holgate developed for the purpose of facilitating freight movements should not overwhelm the other modal uses of the street, especially the safety and access needs of pedestrians and bicyclists.

Policy 6.38 Far Southeast Transportation District*

Address transportation issues in the Far Southeast District by encouraging the use of transit and demand management measures, improving pedestrian/bicycle access, creating a more connected street system, and improving the functioning of arterials.

Policy 6.39 Northwest Transportation District*

Strengthen the multimodal transportation system in the Northwest District by increasing public transit use, encouraging transportation demand management measures, and improving pedestrian and bicycle access.

Objective B*

Route non-local traffic, including non-local truck traffic, on Major City Traffic Streets and Regional Trafficways in order to minimize conflicts between modes.

Objective I*

Improve access to NW 14th and 16th to support their function as connections to the commercial and industrial areas in Northwest Portland and to reduce impacts of non-local traffic on residential areas.

Objective L

Preserve and enhance freight mobility, and industrial access in the Freight District, by maintaining or improving truck operations on Front Avenue, Yeon Avenue, Nicolai Street, St Helens Road, and the 14th and 16th Avenues couplet.

Policy 6.40 Southwest Transportation District*

Address outstanding transportation issues in the Southwest District through studies and multimodal improvements, and use the transportation policy and objectives in the Southwest Community Plan to evaluate potential changes to the street system.

Goal 11B Public Rights-of Way

Policy 11.10 Street Design and Right-of-Way Improvements*

Design improvements to existing and new transportation facilities to implement transportation and land use goals and objectives.

Objective E

Use a variety of transportation resources in developing and designing projects for all City streets, such as the City of Portland's Pedestrian Design Guide, Bicycle Master Plan-Appendix A, Design Guide for Truck Streets, and Design Guide for Public Street Improvements.

APPENDIX B

FREIGHT SYSTEM INFRASTRUCTURE IMPROVEMENTS

HIGHWAY

H1	**Airport Way, NE: Braided Ramps**	*Construct braided ramps between the I-205 interchange and Cascade interchange to maintain capacity and improve safety on Airport Way and freeway interchanges.*	Est. Cost: $30 M	Tier 3
H2	**I-205 ,NE (Columbia Blvd - Airport Way): Auxiliary Lane**	*New auxiliary lane on I-205 connecting Columbia Blvd and Airport Way ramps to reduce slowdowns and help improve safety for merging vehicles.*	Est. Cost: $20 M	Tier 3
H3	**I-205, NE (I-205/Airport Way) Interchange Improvement at NB On-ramp**	*New I-205 NB on-ramp at Airport Way interchange to provide additional capacity for anticipated growth at interchange.*	Est. Cost: $23 M	Tier 1
H4	**I-205, NE (I-205/Airport Way) Interchange Improvement at SB Off-ramp**	*Widen I-205 SB on-ramp at Airport Way interchange to provide additional capacity for anticipated growth at interchange.*	Est. Cost: $550 K	Tier 2
H5	**I-405/US 26/Ross Island Bridge, SW: Access Improvements**	*Construct new freeway access from Ross Island Bridge to I-405 and US 26 to improve connections between regional facilities and separate traffic from neighborhood streets.*	Est. Cost: $50 M	Tier 2
H6	**I-5, N (at Columbia Blvd): Interchange Improvements**	*Construct full direction access interchange based on recommendations from I-5: Delta Park to Lombard Environmental Assessment to improve connections between the Columbia Corridor industrial area and I-5.*	Est. Cost: $56 M	Tier 1
H7	**I-5, N (Expo Center - Lombard): Widening Freeway**	*Widen I-5 to three lanes in each direction from Lombard to the Expo Center exit to improve safety and repair a system bottleneck.*	Est. Cost: $41 M	Tier 1 - Funded
H8	**I-5, N (Lloyd District/Rose Quarter): Reconstruction and Widening**	*Modernize freeway and ramps between I-84 interchange and Fremont Bridge. Project improves safety, access to the Lloyd District and Rose Quarter, and reduces delay.*	Est. Cost: $92 M	Tier 1

H9	**Ii-5/McLoughlin, SE: Construct Access Ramps**	*Construct new ramps from McLoughlin to I-5NB near Division to improve connections.*	Est. Cost: $20M	Tier 3
H10	**I-5/North Macadam Access Improvements, SW**	*Construct new off-ramp at NB I-5 to NB Macadam Ave to add capacity and improve safety.*	Est. Cost: $60.0 M	Funded
H11	**I-84/I-205, NE: Auxiliary Lane**	*New auxiliary lane from I-84 to I-205 NB before Columbia Blvd to reduce slowdowns and help improve safety for merging vehicles.*	Est. Cost: $5 M	Tier 3
H12	**McLoughlin (99E), SE (Ross Island Bridge - Clatsop): Multi-modal Improvements**	*Provide access management, reversible travel lane from Ross Island Bridge to Harold, widen to six lanes from Harold to I-205 and construct pedestrian and bike facilities. Project reduces vehicle delay and improves corridor access for pedestrian and bicycles.*	Est. Cost: $96.5 M	Tier 3
H13	**Ross Island Bridge Interchange, SW**	*US 26 Interchange improvement on east approach to Ross Island Bridge.*	Est. Cost: $4.4 M	Tier 2
STREET				
S1	**1st Ave, SE (Stark - Clay): Railroad Mainline Access Improvements**	*Construct limited roadway access improvements, such as one-way vehicle circulation loops or loading zones, along the east side of the ROW adjacent to, but protected from, the railroad mainline.*	$750 K	Tier 3
S2	**4th Ave, SE (Caruthers - Ivon): Multi-modal Street Improvements**	*Improve geometrically constrained 4th and Caruthers intersection to facilitate truck turning movements. Construct urban standard street improvements for traffic, and pedestrian and bike facilities connecting the Springwater Corridor to Caruthers.*	$250 K	Tier 1
S3	**7th/8th Ave, SE: New Street Connection**	*Construct new street connection from SE 7th to 8th Avenue at Division Street to improve local street connectivity for industrial properties.*	$500 K	Tier 1

S4	**11th/12th/Railroad Crossing, SE (West of Division): Intersection Improvements**	*Reconstruct intersection to upgrade traffic signalization and establish bike and ped routes to improve safety and reduce delay at intersection.*	$400 K	Tier 2
S5	**11th/13th, NE (at Columbia Blvd): Roadway Connector**	*New three lane roadway and bridge over rail line to connect Lombard and Columbia. Provides space for double tracking of rail line. Improves freight mobility through additional rail capacity, new street connection, and grade separation.*	$8 M	Tier 1
S6	**14/16th Connections, NW**	*Improve or create connections to W. Burnside, Yeon, and Vaughn and provide directional signage to route non-local traffic to 14th/16th couplet.*	$200 K	Tier 3
S7	**47th, NE (Columbia - Cornfoot): Roadway & Intersection Improvements**	*Widen and reconfigure intersections to better facilitate truck turning movements to the cargo area located within the airport area. Project includes sidewalks and bikeway improvements.*	$4.1 M	Tier 1 - Partially Funded
S8	**82nd Ave/Alderwood Rd, NE: Intersection Improvements**	*Construct right turn lane on SB 82nd Ave; modify traffic signal and construct second right turn lane on Alderwood westbound. Project improves access to industrial properties.*	$200 K	Tier 1 - Partially Funded
S9	**87th/Columbia, NE: Intersection Improvement**	*Widen intersection to accommodate large truck turning movements (53' trailer). Project includes r-o-w acquisition, retaining walls, bike lanes and sidewalks, and stormwater facilities. Project improves access to industrial properties.*	$454 K	Tier 1
S10	**92nd Ave, NE, (Alderwood - Columbia Bl): Street Improvements**	*Extend 92nd to Alderwood to improvement better facilitate circulation in the Portland International Center development. Scope of project not fully defined.*	$1.5 M	Tier 2
S11	**112th Ave/US 30, NW: Intersection Improvements**	*Add traffic signal to improve safety and property access.*	$135 K	Tier 2
S12	**158th, NE (Columbia Slough - Sandy Bl): Street Improvements**	*Reconstruct street to industrial standards, add sidewalks, stripe bike lanes, curb and storm drainage, and construct bridge to replace culverts at main slough crossing.*	$480 K	Tier 3

S13	**Airport Way, NE (82nd - PDX Terminal): Street Widening**	*Widen to three lanes in both directions to improve traffic flow.*	$10 M	Tier 2
S14	**Airport Way, NE: Access Road**	*Construct Airport Way East Terminal access road to improve access to properties.*	$8 M	Tier 2
S15	**Alderwood/Columbia Blvd/Cully, NE: Intersection Improvements**	*Reconstruct intersection to provide left turn pockets, enhancing turning radii and improving circulation for trucks serving expanding air cargo facilities south of Portland.*	$350 K	Tier 1
S16	**Alderwood/Cornfoot Road, NE: Intersection Improvement**	*Add signal and improve turn lanes at Alderwood Road/Cornfoot Road to improve safety, circulation, and access to PDX and Portland International Center properties.*	$350 K	Tier 1
S17	**Argyle, NE (14th - MLK): Street Extension**	*Extend NE Argyle to provide better street grid. Will serve as a collector/distributor for industrial businesses & reduce traffic congestion at MLK/Columbia intersection.*	$480 K	Tier 3
S18	**Belmont Ramp, SE (Eastside of Morrison Bridge): Ramp Reconstruction**	*Reconstruct ramp to provide better access to the Central Eastside.*	$1.5 M	Tier 2
S19	**Columbia Blvd, NE (60th - 82nd): Road Widening**	*Widen Columbia Blvd to five lanes in this segment to address a system bottleneck and improve property access.*	$15 M	Tier 2
S20	**Columbia Blvd/MLK Jr & Lombard/MLK Jr, NE: Intersection Improvements**	*Widen turn lanes at MLK Jr. intersections with Columbia and Lombard to facilitate truck turning movements.*	$700 K	Tier 1
S21	**Columbia Blvd/Portland Rd, N: Intersection Improvements**	*Redesign of intersection could include realignment of travel lanes, channelization, signalization, signage, and new sidewalks and curbs. Project reinforces through-truck movements on truck streets and minimizes neighborhood cut-through traffic.*	$700 K	Tier 1

S22	**Cornfoot, NE (47th-Alderwood): Road Widening & Intersection Improvements**	*Road widening project including lighting and landscaping, left turn lanes, and bike lanes (47th - Airtrans Way). Signalize Cornfoot/Airtrans intersection and reconfigure traffic flow. Stripe bike lanes (Airtrans - Alderwood). Project improves traffic flow to air cargo facilities in airport area.*	$2 M	Tier 1 - Partially Funded
S23	**East End Connector, NE**	*Construct an at-grade intersection connection from Columbia Blvd at 82nd to US 30 Bypass/I-205 interchange and widen I-205 southbound on-ramp at Columbia Bl. Project resolves an existing safety and capacity problem at terminus of Columbia Blvd at 92nd. Adds capacity to Lombard. With completion of project, Killingsworth replaces Columbia Blvd as NHS intermodal connector east of new connection.*	$26.5 M	Tier 1 - Funded - Construction begins 2006
S24	**Going/Greeley, N: Climbing Lane and Interchange Improvements**	*Redesign Going/Greeley interchange including climbing lane on Going to improve truck movement between Swan Island, Lower Albina, and I-5.*	$2 M	Tier 1
S25	**Grand Ave, SE: Bridgehead Improvements**	*Reconstruct west edge of SE Grand at bridgehead to provide sidewalks and urban standard turn lanes for vehicles. Improves truck safety and access.*	$4.1 M	Tier 1
S26	**Heineman, N: Road Connection**	*Construct new street to provide access to developing Port of Portland industrial property.*	$570 K	Tier 1
S27	**Leadbetter, N (Marine Dr Loop): Street Extension/Overcrossing**	*Extend Leadbetter to Terminal 6/Marine Drive, vig a new rail overcrossing to provide access to developing Port property and address delay from at-grade rail crossing.*	$10.8 M	Tier 1 - Partially Funded 1 - 5 Years
S28	**Lombard, N (Rivergate - T-6): Multi-modal Improvements**	*Widen N Lombard to include two travel lanes, a non-continuous center turn lane, medians, bike lanes, and sidewalks to improve safety and access to industrial properties.*	$3.6 M	Tier 1 - Partially Funded 1 - 5 Years

S29	**Lombard/St. Louis/Ivanhoe Multimodal Improvements, N**	*Restripe, construct curb extensions, realign, and signalize as needed to improve pedestrian and bicyclist amenities while not impeding truck movements. Project maintains truck movement and minimizes conflicts with bicycles and pedestrians in town center.*	$1.4 M	Tier 1 - Funded
S30	**Marx Dr, NE (82nd-87th): Street Extension**	*Extend NE Marx Dr west from 87th and signalize at 82nd Ave to provide better street connectivity for industrial properties.*	$315 K	Tier 2
S31	**MLK Jr, NE (Columbia - Lombard): Widen Street**	*Expand roadway to provide better connection between streets for improved freight movement in and through the area.*	$12.6 M	Tier 2
S32	**Morrison Bridge at Water Ave Ramp, SE: Ramp Realignment**	*Realign and separate the Morrison Bridge off-ramp to Water Avenue from the I-5 off-ramp by moving it north approximately 100' from the Yamhill/Water intersection. Construct a sidewalk and bike lane along the south side of the realigned ramp.*	$1.75 M	Tier 1 - Funded - Construction begins 2005
S33	**Mt St Helens Ave, NE (Cascades Parkway - Alderwood Rd): Street Extension**	*Construct two-lane road extension to provide traffic access for developing properties.*	$1.5 M	Tier 1
S34	**Parkrose Connectivity Improvements, NE**	*Supplement access route for commercial properties in Parkrose by creating a loop road connection (102nd and 109th, NE, Killingsworth - Sandy; Killingsworth, NE, 109nd - 102nd) serving truck access functions, pedestrian, and bike connections.*	$500 K	Tier 3
S35	**River Ave, N (Port Center Way - River Ave): Street Extension**	*Evaluate econdary access road from Swan Island connecting to the Lower Albina Overcrossing at River. Improvements include roadway, drainage, pedestrian path & bike routes. Project improves street connectivity for industrial properties.*	$165,697	Tier 2
S36	**Southern Triangle Circulation Improvements, SE**	*Improve local street network and regional access routes in the area between the Powell/12th, Willamette River, railroad mainline and Hawthorne Bridge. Improve freeway access route from CEID to I-5 SB via the Ross Island Bridge.*	$2.5 M	Tier 3

S37	**Southwest Quad, NE (at 33rd): Access to PDX Properties**	*Provide street access from 33rd into the SW Quad property to provide access to developing Port properties.*	$1.5M	Tier 2
S38	**St Helens Rd (US 30), NW, (in Willbridge area): Traffic Improvements**	*Install center turn lane to NW Front to improve safety and property access*	$300 K	Tier 1
S39	**St. Helens Rd (US 30), NW (at Saltzman & Balboa): Intersection Realignment**	*Realign intersections to correct two offset intersections.*	$600 K	Tier 2
S40	**Stark St, SE (2nd - Grand): Safety & Capacity Improvments**	*Improve safety and capacity at the Stark/Grand intersection by restriping street to add eastbound lane, revising Stark to one-way eastbound between King-Grand, or implement a Stark-Oak one-way couplet between 2nd and Grand.*	$50 K	Tier 2
S41	**Terminal 4 Driveway Consolidation**	*Consolidate driveways at Terminal 4 and Schnitzer Steel to improve industrial property access.*	$1 M	Tier 1 - Funded
S42	**US 30 at Lake Yard Hub Facility, NW: Access Improvements**	*Provide an access lane on US 30 for trucks entering and/or exiting the site, add a signal at the entrance, and if needed construct an on-site access road and realigning tracks to improve access to intermodal yard and improve corridor safety.*	$2 M	Tier 1 - Funded
S43	**Water Ave, SE (Caruthers - Division Pl): Street Extension Phase II**	*Provide new roadway connection with sidewalks, bike lanes, landscaping, access to Willamette Greenway to improve access and circulation for industrial district.*	$250 K	Tier 3
S44	**Water Ave, SE (Stark - Clay): Reconstruction**	*Reconstruct street to meet industrial needs and provide pedestrian enhancements.*	$900 K	Tier 2
S45	**Sandy Bl, NE (122nd - City Limits): Multimodal Improvements**	*Widen street to three or five lanes with sidewalks and bike lanes.*	$5.75 M	Tier 3
S46	**Ivanhoe/Philadelphia, N: Intersection Improvements**	*Redesign intersection to improve traffic and pedestrian circulation.*	$107 K	Tier 3
S47	**82nd/Columbia, NE: Intersection Improvements**	*Widen and reconfigure intersection to improve access to air cargo areas.*	$2M	Tier 1

SYSTEM MANAGEMENT

SM1	**14th/16th, NW/SW & 13th/14th, SW, Glisan - Clay: ITS, Clay to Glisan**	*Closed-circuit TV (CCTV) camera at Everett. Changeable message signs at Glisan, Everett, Burnside, Taylor, Jefferson and Clay intersections.*	$175 K	Tier 3
SM2	**82nd, NE/SE: ITS**	*Implement ITS infrastructure to allow monitoring & control of traffic flow including circuit TV cameras & variable message signs to improve safety, reduce neighborhood intrusion, & help buses.*	$350 K	Tier 1 - Funded - Construction begins 2006
SM3	**122nd, NE/SE (Airport Way - Powell): ITS**	*CCTV at Powell, Division, Stark, I-84 eastbound ramp, Halsey, Sandy and Airport Way intersections. Changeable message signs at I-84 ramp, Sandy and Airport Way. Traffic monitoring stations at Powell, Division, I-84 and Airport Way.*	$200 K	Tier 2
SM4	**Airport Way, NE (I-205 - 158th): ITS**	*CCTV at I-205 and 122nd intersections. Variable sign at I-205. Monitoring stations at 122nd and 158th.*	$220 K	Tier 1
SM5	**Beaverton-Hillsdale Hwy, SW: ITS**	*CCTV at Terwilliger, Bertha and Shattuck intersections. Changeable signs at Bertha/Capitol Highway and 56th.*	$90 K	Tier 3
SM6	**Columbia Blvd, N/NE(I-205 - Burgard): ITS**	*CCTV at I-205 ramps, NE 82nd, NE 47th, NE 33rd ramps, MLK, Jr., I-5 southbound ramps, N Portland Rd, and N Burgard Rd. Changeable message signs at NE 82nd, MLK, Jr., and I-5 southbound ramps, N Portland Rd. Monitoring at I-205, NE 33rd, MLK, Jr.,and I-5 southbound ramps.*	$310 K	Tier 1
SM7	**Foster Rd, SE: ITS**	*CCTV at 50th/Powell, 82nd, 92nd, I-205, 112th, 122nd and Jenne Rd intersections. Changeable signs at 50th/Powell, 92nd/ Woodstock, 112th, 122nd, Jenne. Monitoring at 50th, 82nd, I-205.*	$145 K	Tier 3
SM8	**Going, N (Interstate - Greeley): ITS**	*CCTV at Greeley/Interstate intersections. Variable message sign for eastbound traffic at Greeley. Changeable message sign for eastbound traffic at Interstate. Monitoring station at Greeley.*	$255 K	Tier 1

SM9	**Lombard, N/NE (Philadelphia MLK, Jr): ITS**	*CCTV cameras at intersections with MLK Jr, Interstate, Greeley, Portsmouth, Philadelphia/ Ivanhoe. Changeable message signs at Interstate, Portsmouth and Lombard.*	$210 K	Tier 3
SM10	**Macadam, SW (Bancroft - Sellwood Br): ITS**	*CCTV at Hood/Bancroft, Taylors Ferry and Sellwood Bridge. Variable sign at Hood/Bancroft. Changeable sign at Taylors Ferry. Monitoring at Bancroft and Sellwood Bridge.*	$290 K	Tier 2
SM11	**Marine Dr, N/NE (Portland Rd to 185th): ITS**	*CCTV at N Portland Rd. Changeable message signs at Portland Rd, Vancouver and 185th.*	$750 K	Tier 2
SM12	**McLoughlin, SE: ITS**	*CCTV at Holgate, 17th, Bybee, Johnson Creek/Tacoma. Variable sign at Holgate. Monitoring at Holgate and Bybee.*	$250 K	Tier 1
SM13	**MLK Jr, N (Columbia Bl - CEID): ITS**	*CCTV at Hawthorne ramp, Clay, Belmont, Morrison, Burnside, Lloyd, Broadway, Fremont, Killingsworth, Lombard, Columbia, I-5/and Marine Dr. Changeable message signs at Madison, Morrison, Burnside, Lombard, I-5/Marine Dr. traffic monitoring stations at Clay, Burnside.*	$550 K	Tier 2
SM14	**Rivergate ITS, N**	*Connect real-time information about the Rivergate road system to ODOT's Highway ITC systems.*	$200 K	Tier 1
SM15	**Sandy Bl, NE (82nd - Burnside): ITS**	*CCTV at 12th, 37th, 39th, 57th, 72nd, 82nd, I-205 northbound ramp, and 122nd intersections. Variable signs at 37th, 102nd intersections. Changeable signs at 12th, 82nd, and 102nd. Monitoring stations at 12th, 57th, 82nd, I-205, 122nd and 162nd.*	$340 K	Tier 3
SM16	**Yeon/St. Helens, NW: ITS**	*CCTV at Nicolai, Kittridge, St. John's Bridge, I-405/Vaughn/ 23rd intersection. Changeable signs at Nicolai/I-405, Kittridge and I-405/Vaughn/23rd. Monitoring at Nicolai and Kittridge.*	$193 K	Tier 1
SM17	**Powell Blvd, SE (Milwaukie – 122nd): ITS**	*CCTV at 39th, 50th, 82nd, I-205 Ramp, 122nd. Variable signs at Milwaukie. Changeable signs at 39th, 50th, 82nd, I-205 ramps.*	$395 K	Tier 2

BRIDGE

B1	**21st, NE (at Columbia Slough): Bridge Replacement**	*Replace weight restricted bridge.*	$5 M	Tier 2
B2	**33rd Ramps, NE, (at Columbia Bl/Lombard): New Ramps**	*New ramp system connecting Columbia and Lombard at 33rd Ave to facilitate truck movement.*	$12 M	Tier 3
B3	**33rd, NE (at Columbia Slough): Bridge Replacement**	*Replacement of side-by-side bridges carrying NE 33rd Drive over Columbia Slough.*	$3 M	Tier 1 - Funded - Construction starts 2006
B4	**33rd, NE (at Lombard): Bridge Replacement**	*Lengthen and replace main span carrying NE 33rd Ave over Lombard St. Project will improve bridge clearance and load rating.*	$3.5 M	Tier 1 - Funded - Construction starts 2005
B5	**42nd Bridge, NE (at Lombard): Bridge Replacement**	*Replace 42nd bridge over Lombard to remove weight restriction and improve vertical clearance under bridge.*	$3 M	Tier 3
B6	**82nd/Airport Way, NE: Overcrossing**	*Construct grade-separated overcrossing to improve efficiency of traffic flow to PDX properties.*	$11 M	Tier 3
B7	**Denver Viaduct, N: Reconstruct Viaduct**	*Rebuild viaduct and add pedestrian walkway/bikeway. Project improves truck access to I-5.*	$2 M	Tier 1 - Identified as Phase 2 alternative in I-5 Delta Park to Lombard project
B8	**Foster Rd, Bridge at Johnson Creek: Bridge Replacement**	*Replace southern bridge span. Bridge is currently weight restricted.*	$1.4 M	Tier 1 - Funded - Construction begins 2007
B9	**Going St Bridge, N: Bridge Rehabilitation**	*Replace bridge over UPRR. Bridge is currently weight restricted.*	$3 M	Tier 1 - Partially-funded - OTIA
B10	**Grand/ MLK Jr Viaduct, SE: Reconstruct Viaduct**	*Reconstruct viaduct between Stephens & McLoughlin Blvd. Existing structure is deficient and requires capacity and structural design improvements.*	$22 M	Tier 1 - Funded - Construction begins 2005
B11	**I-5, N (Columbia River - Columbia Bl): Bridge Widening**	*Improve I-5/Columbia River bridge (local share of joint project) based on recommendations in I-5 Trade Corridor Study. Project addresses a high congestion location.*	$200 M	Tier 1 - Funded - Alternative analysis underway as part of Columbia River Crossing project

B12	**Interstate, N, Bridge at Larrabee: Bridge Rehabilitation**	*Rehabilitate Interstate overcrossing of Larrabee to remove weight restriction.*	$1.2 M	Tier 3
B13	**Lombard at Columbia Slough Overcrossing (Rivergate), N: Bridge Rehabilitation**	*Strengthen Columbia Slough bridge and add sidewalks and bike lanes.*	$4.9 M	Tier 1 - Funded - Construction begins 2010 (est.)
B14	**Lombard St. (Burgard), N: Bridge Replacement**	*Upgrade structure at entrance to Terminal 4 and Schnitzer Steel to eliminate load reconstructions on the bridge.*	$1.5 M	Tier 1 - Funded - Construction begins 2005
B15	**Sellwood Bridge, SE/SW: Bridge Replacement**	*Replace weight restricted bridge.*	$75 M	Tier 1
B16	**Vancouver BNSF Rail Bridge Project (Columbia River)**	*Replace existing swing span with lift span and relocate position to mid-river channel. Project creates wider and quicker opening, reduces I-5 Fwy lifts, eases river navigation, and could accommodate a third rail track.*	$42 M	Tier 1
B17	**West Hayden Crossing, N: New Bridge**	*New four-lane bridge from Marine Drive to Hayden Island to serve as the primary access to marine terminals on the island.*	$49 M	Tier 3
B18	**Willamette River Bridges, NE/NW/SE/SW: Rehabilitation**	*Provide for long-term rehabilitation and structural needs of the Broadway, Burnside, Morrison, and Sauvie Island bridges.*	$113 M	Tier 1 - Funded - On-going
B19	**Vancouver Bridge, N (at Columbia Slough): Bridge Replacement**	*Replace deteriorating bridge to improve safety and remove weight restriction.*	$8.5 M	Tier 1
RAIL				
R1	**Barnes Rail Yard - Bonneville Rail Yard, N: Track Expansion**	*Construct additional unit train trackage between Bonneville and Barnes Yards to support unit train movement between South Rivergate and the Columbia Corridor. Addresses limited Rivergate staging area for unit trains approaching the marine terminals. Solves switching bottlenecks, terminal access limitations, and other operational conflicts.*	$11.9 M	Tier 2
R2	**BNSF Line @ Columbia Bridge, N: Track Improvements**	*Improve rail track conditions on approaches to movable spans over the Columbia River to increase track speeds in this section of the north/south main line.*	$8 M	Tier 2

R3	**Kenton Rail Line, NE: Additional RR Tracks**	*Upgrade single track sections to double tracks built to mainline standards with new sidings from Peninsula Junction to I-205. Provides additional rail tracks for staging of Pacific Northwest unit trains. Expands capacity and reduces delays*	$25.4 M	Tier 1
R4	**Marine Dr, N (at Rivergate West): Rail Crossing, Phase II**	*Reroute rail tracks and construct an above-grade rail crossing at Rivergate West entrance to improve safety and reduce vehicle and rail traffic conflicts.*	$18 M	Tier 3
R5	**North Portland Junction, N: Rail Improvements**	*Upgrade rail track with revised crossovers, centralized traffic control tie-in and increased turning radius to accommodate higher rail speeds and capacity.*	$5 M	Tier 2
R6	**Penn Junction, N, UP/BNSF Main Line: Track Realignment**	*Realign track configuration, double track, and upgrade signaling to improve mainline capacity over the Columbia River bridge and allow greater train turnaround speed.*	$3.5 M	Tier 2
R7	**Ramsey Rail Complex, N (south of Columbia Slough Bridge): Capacity Improvements**	*Construct six tracks and one mainline track and lead into complex. Adds 46,000 linear feet of rail storage separate from the main line tracks. Improves regional heavy rail system efficiency. Solves storage capacity issues, bottlenecks, terminal access limitations, and other multimodal inefficiencies.*	$13.2 M	Tier 1 – Partially funded
R8	**Rivergate Rail Yard Expansion, N**	*Expand railroad capacity in the Rivergate industrial area to increase bulk capacity for mineral and agricultural products and improve train flows within the industrial area.*	$6 M	Tier 1
R9	**Slough Rail Bridge, N**	*Potential for future rail bridge across Columbia Slough to provide rail connection to south Rivergate from Terminal 6.*	$4.5 M	Tier 3
R10	**T-5 Unit Rail Loops #3 & #4**	*Construct two additional loop tracks to increase rail storage and rail handling capability of existing bulk terminal.*	$2.8 M	Tier 1 – Partially Funded

R11	**T-6 Intermodal Third Lead**	*Construct a dedicated lead for the T-6 intermodal yard. Removes bottleneck at T-6 for unit trains, auto carriers, box cars, and tank cars.*	$4.5 M	Tier 1 – Partially funded, construction expected in 2006
R12	**Terminal 6 A&B Yards**	*Connect A and B rail yards to increase Terminal 6 rail capacity.*	$3 M	Tier 2
R13	**UP Line Connection, SE (Brooklyn line - Graham line)**	*Add rail connection between the Brooklyn and Graham lines in Southeast Portland to increase rail capacity.*	$11 M	Tier 1
R14	**UP Line Upgrade, SE (Albina Yard - East Portland)**	*Upgrade existing track to second main track to increase track speeds in this section of the north/south main line.*	$8.8 M	Tier 1
R15	**West Hayden Island Rail Yard Expansion, West Hayden Island**	*Construct 7 track rail yard connected to facility trackage to advance rail-dependent development.*	$9.5 M	Tier 3
R16	**West Hayden Island/Rivergate, N: Rail Access**	*Rail access from Rivergate to Hayden Island development to support development.*	$3 M	Tier 1
R17	**Barnes to Terminal 4, N: Track Expansion**	*Provide a dedicated track for Terminal 4 through Barnes Yard and add a new track from Barnes Yard to Terminal 4.*	$1 M	Tier 1
MARINE TERMINAL				
M1	**Access Tunnel at Hyundai/Kia Facility, N**	*Access tunnel to Rivergate from Terminal 6 to allow auto facility access to facility expansion in Rivergate.*	$3 M	Tier 1
M2	**Columbia River Channel Deepening - Regional Share, N/NE**	*Deepen the Columbia River channel to 43 feet from Astoria and Portland to better serve the new class of larger container ships.*	$150.5 M	Tier 1 - Phase 1 Funded
M3	**Container Crane - Terminal 6**	*Purchase post-panamax container crane to permit the efficient handling of larger container ships. Includes electrical upgrades to dock and addition of related yard equipment.*	12.5 M	Tier 1 - Funded - Delivery in 2006

M5	**Hyundai Auto Terminal Expansion, N**	*40 acre expansion of import auto terminal to allow capacity improvements to include paving, lighting, and storm water management.*	$8 M	Tier 1
M6	**Mar Com North Facility, N**	*Acquisition, design, permitting, and development of 6.54 acre brownfield site adjacent to south side of Terminal 4 to provide additional auto storage capacity.*	$2. M	Tier 1
M7	**Optional Terminal Lower Lot Access, N**	*Regrade hill slope to provide two-lane truck access to provide alternative access to lower lot.*	$3 M	Tier 1
M8	**Terminal 4 Grain Elevator Barge Conveyor Rebuild, N**	*Rebuild conveyor connecting T4 grain elevator to Berth 405 barge unloader. Current conveyor will be removed with warehouse 1 and 2 demolition project. Barge facility use to transport Oregon wheat.*	$1.5 M	Tier 1
M9	**Terminal 4 On-site Overcrossing, N**	*Construct overcrossing for trucks to improve access between lower T-4 and Lombard.*	$2.5 M	Tier 1
M10	**Terminal 4 Pier 2 Rail Yard Improvements, N**	*Construct new yare with capacity of 200 loaded rail cars and 60 empty cars, replacing current capacity. Project will provide stormwater management for rail yard and upgrade riparian edge along Willamette R.*	$54 M	Tier 1 - Funded - Completion by 2005
M11	**Terminal 4, N: Access Improvements**	*Provide terminal overpass - two lane hwy bridge and driveway improvement. Provide bulk terminal access via single lane tunnel under rail tracks. Project maintains domestic trucking access inside the rail loop and accommodates emergency vehicle access inside the bulk rail loop.*	$10 M	Tier 2
M12	**Terminal 6 Additional Post-Panamax Cranes, N**	*Acquisition of three add'l post-panamax cranes to make T6 a two berth post panamax facility.*	$33.4 M	Tier 3
M13	**Terminal 6 Berth Deepening**	*Provide design, permitting, and construction to deepen T6 container berths in conjunction with Channel Deepening project.*	$1.25 M	Tier 1 - Funded - Completion by 2007
M14	**Terminal 6 Computer System Upgrades, N**	*Increase efficiency at the T6 container terminal with improved cargo tracking systems.*	$2 M	Tier 1 - Funded - Completion by 2006

FEDERAL, STATE, REGIONAL AND LOCAL TRANSPORTATION FINANCING IN PORTLAND AND OREGON

HISTORY BRIEF OF TRANSPORTATION FUNDING NATIONALLY

Historically, financing of public roadways has come directly from the users of the transportation system – through taxation of gas and gasoline derivative products. The retail fuel companies on behalf of the State and Federal government collect the taxes. Each state determines its own taxing level. The federal tax is fixed nationwide. Traditionally, State taxes are to be used for construction and maintenance of State-designated highways that serve as connections between the Interstate system (now known primarily as the National Highway System) and the web of highways linking cities and towns around the State.

There are three distinct eras of transportation infrastructure building in recent history: Pre-WWII "Up and Out of the Mud"; "Post-WWII Interstate Highway Building" and "Flexible Multimode Financing".

With the advent of production automobile manufacturing in the early 1900's, dirt trails and roads crisscrossing the landscape provided nothing but a quagmire for the new conveyances. As a matter of necessity cars had to get "Up and Out of the Mud" to be able to perform their intended duties. Plank roads like the original Canyon Road (now Sunset Highway) provided some traction but the trip still remained slow. Not until the advent of Macadam pavement did the roadway network really begin to be a reliable way to get products from farm to market, connecting burgeoning cities and people to places of beauty.

The early road building era made State highway engineers in Oregon into early visionaries who could see that roadways were an economic necessity to bring goods to market and to attract people to populate the State. They were also the early financiers of the modern roadway. For example, the Columbia Gorge highway was envisioned as both a critical accessway through the Cascade Mountains as well as a unique architectural and engineering opportunity to allow residents to enjoy the natural scenic beauty of the Columbia Gorge. This early highway was constructed on the premise that it benefited private enterprise and the general public. Hence a partnership between the public and private sector was struck to finance the vision. The tradition continues today.

Of note, however, is that during this era cities were still based on streetcars, walking and compact form. All that was about to change.

The Post-World War II Interstate Highway Building

The post-WWII era in the early 1950's set out to accomplish several goals: build an interconnected system of free public roadways of high quality and standards for national defense, and fast and reliable transport of goods to far reaching markets, further urbanizing cities and unifying the nation. In order to pay for such a system, the Highway Trust Fund was established by Congress and the precursor to today's United States Department of Transportation (USDOT), the Department of Public Roads, was created. The Highway Trust fund was, and is, fed by the federal tax on gasoline. Funds were granted to the individual State highway departments to design and construct the Interstate Freeway System based on a formula and through congressional appropriations. States also taxed fuel purchases based on their needs to provide for their own state highway system and to match the federal dollars for the Interstate system.

Cities sprawled outward, enabled by personal travel freedom afforded by the auto. Buses (private) replaced streetcars. Walking was too difficult as the distances between activities grew longer.

The Interstate Highway construction era, which started in the early 50's, reached its peak in the mid-1960's. By the end of the decade not only was the majority of the system constructed, but the public's attitude about its impact on communities was changing. The advent of environmental consciousness, displacement of people and businesses, and social disruption of communities all led to reshaping the direction of public policy, finance and engineering standards for the national roadway networks.

The 1969 National Environmental Policy Act changed the way in which all federal, state and local agencies assure that any expenditure of federal dollars for most manmade public facilities of any type are not a detriment to the environment in which they are constructed. In the early 1970's, the pendulum moved away from freeway building to multimodal highway and transportation system construction. Limitations on the legislative mandate of federal, state and local funding programs did not allow gas tax dollars to be spent for non-highway purposes, such as transit, pedestrian and bicycle facilities. The Highway Trust fund could not be "busted" for these purposes. Legislation in the late 1970's followed the crisis of inner cities to maintain diesel bus services. Since World War II, City buses had been private in many locations. With the advent of suburban development many went bankrupt, leaving a void in the transportation system. Congress created the Urban Mass Transit Administration to step in to provide traditional fixed-route bus services and assistance for aging heavy rail systems. Financing from the federal government to operate, maintain and grow these systems was established. A chink in the Highway Trust Fund armor was created. Multimodal financing was on the horizon.

The Congressional passage of Intermodal Surface Transportation Efficiency Act or ISTEA in 1991 began the modern "Flexible MultiMode Finance" era. As has been tradition, transportation financing legislation has a six-year life. ISTEA and its successor TEA-21, the Transportation Equity Act for the 21st century, provide for the Highway Trust Fund to be used for all modes of surface transportation. Each Congressional bill has specific provisions for different modal categories of money that can be expended by states, counties and cities based on prescribed formulas. Transportation system financing has been expanded to integrate modes, encourage the public's use of alternatives to single-occupant vehicles and to diminish environmental impact.

Congress is currently negotiating the third generation of flexible funding transportation bills or TEA-LU, the Transportation Equity Act a Legacy for Users. This pending TEA-LU bill should have been enacted in September 2003 to enable the six-year extent of its authority. Due to disputes between the Administration, House and Senate over funding dollar amounts and provision of the new bill, the date of enactment remains unclear. Extensions of the previous TEA- 21 Bill are evoked monthly and quarterly to allow transportation agencies to proceed with projects.

FEDERAL TRANSPORTATION FUNDING PROGRAMS

Of the myriad highway and multimode funding programs in the existing Six Year TEA-21 Bill, this overview discusses only those that are relevant to the City of Portland, Office of Transportation, Metro, and in part to the Oregon Department of Transportation and TriMet. Since federal transit dollars are largely allocated to TriMet they are not discussed in detail here.

The following major highway program funds are available as part of the TEA -21 Bill.

- National Highway System (NHS)
- Surface Transportation Program (STP)
- Congestion Management Air Quality (CMAQ)
- Transportation Enhancement (TE)
- High Priority (Demonstration) Projects (HPP)
- Highway Bridge Replacement and Rehabilitation Program (HBRRP)
- Intelligent Transportation Systems Program (ITS)

Within each of the program categories are specific sub-categories that may be relevant to the City and region.

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.

Distribution of funds based on the following formula:

- 25% based on total lane miles of principal arterials – excluding the Interstate System – in each state as a percent of total such principal arterial lane miles in all states.
- 35% based on total vehicle miles traveled (VMT) on lanes and principal arterials (excluding Interstate System) in each State as a percent of total VMT or lanes of such principal arterials in all states.
- 30% based on diesel fuel used on all highways in each state as a percent of diesel fuel used on all highways in all states
- 10% based on total lane miles of principal arterials in each state divided by total population in each state as a percent of such ratio for all states.
- Up to 50% of apportionments can be transferred to IM, STP, CMAQ and/or bridge programs or 100% may be transferred to STP on approval of the Secretary of Transportation.

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

How NHS funds Are Used in the Portland Region

Candidate projects are programmed through the ODOT STIP during a public process, which includes the local transportation agencies. The STIP is coordinated with the Metro 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%.

Surface Transportation Program (STP)

Program purpose: To provide flexible funding that may be used by states and localities for projects on any Federal-aid highway (FAH), including the National Highway System (NHS), bridge projects on any public road, transit capital projects and intracity and intercity bus terminals and facilities.

Distribution of federal highway funds based on formula:

- 25% based on total lane miles of Federal-aid highway (FAH) in the State as a percent of total FAH lane miles in all states.
- 40% based on total vehicle miles (VMT) in lanes of FAH in the State as a percent of total VMT on lanes of FAH in all states.
- 35% based on estimated tax payments attributable to highway users in the State paid into the Highway Account of the Highway Trust Fund (HTF) in the latest fiscal year for which date are available, as a percent of total such payments by all states.

State sub-allocations of apportioned funds set-asides including:

- 10% set aside for safety improvement projects including railway/highway crossings.
- 10% set aside for transportation enhancements (TE) up to 25% of the difference between the amount set aside for TE for the fiscal year and the amount set aside for the TE for FY 97 may be transferred to IM, NHS, CMAQ or the Bridge Program.
- Set aside for urbanized areas over 200,000 population.
- States are required to make available obligation authority to urbanized areas over 200,000 population in two – three year movements over the life of the Bill.

How STP Funds Are Used in the Portland Region

STP funds are "flexible federal funds" meaning they can be used to finance a variety of modal projects.

- ODOT programs STP funds through their statewide transportation improvements program (STIP) which is updated every two years and delivers funds over a four-year timeframe with minor realignments every year. A portion of ODOT's STP funds are to provide elderly and disabled services as well as a small allocation to the public transit division.
- Metro distributes STP funds to all agencies in the Portland region as a part of the "Transportation Priorities MTIP" process undertaken every two years for funds programmed for a four-year timeframe. Although a four-year look is provided, funds are programmed for the last two of every four-year timeframe. For example, for the current 2006-09 MTIP process, Metro is programming new projects only for years 2008 and 2009. In the intervening years like 2005, only minor adjustments to existing programmed projects will be made.

The 2006-09 MTIP will be integrated into the ODOT STIP timeline so that from this year forward the ODOT STIP and MTIP process will be coincidental.

Typically STP funds in this region are used for highway-related improvements like main streets, freight, reconstruction and bridge project types. As an example STP funds are being used for the Rivergate Rail Overcrossing project. They are also financing NW 23rd Avenue reconstruction.

Match requirements are 10.27% from a local source.

Congestion Mitigation and Air Quality Improvements Proram Funds (CMAQ)

Program purpose: Provides funding for projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide and small particulate matter that reduce transportation related emissions.

Distribution of funds according to the following formula:

- New weighting factors for ozone and CO maintenance areas.
- Up to 50% of the difference between the original program level of $1.35 billion annually and the actual annual program level can be transferred to STP, NHS, IM and/or Bridge.
- States may allocate funds to private and non-private entities for land, facilities, vehicles and project development activities.

How CMAQ Funds Are Used in the Portland Region

- Approximately $11.5 million in CMAQ dollars are available to the Portland region on an annual basis. Note: Portland is now a CO attainment or maintenance area. CMAQ funding levels in the pending TEA-LU Bill may change.
- CMAQ is part of the METRO administered "flexible federal funds" allocated every two years through the "Transportation Priorities" MTIP process.

- Examples of projects funded by this program include bicycle, pedestrian and transit system (both rail and bus) improvement projects, main streets, transit-oriented developments.
- Match requirements are 10.27% from a local source.

Transportation Enhancements Funds (TE)

Program purpose: Provides transportation-related activities that are designed to strengthen the cultural, aesthetic and environmental aspects of the nation's intermodal transportation system.

Provides for the implementation of a variety of non-traditional projects including restoration of historic transportation facilities, bike and pedestrian improvements, landscaping, landscaping and beautification, mitigation of water pollution from highway run-off, and the establishment of transportation museums.

Ten percent allocation of STP funds go to TE funds.

How TE Funds Are Used in the Portland Region

- Approximately $4 million in TE funds are available statewide. The Portland region historically receives approximately $1 – 1.5 million every two years for one, or possibly two projects.
- ODOT administers this program through a public solicitation process that is semi-coincidental with the Metro MTIP process. ODOT uses the Metro TPAC and JPACT advisory boards to screen candidate projects. ODOT assesses a select list of potential projects statewide and determines a final list based on specific program criteria.
- Examples of projects selected for funding through this program include parts of the Springwater Trail for bicycles and pedestrians and the preliminary design for reconstruction of the Union Station.
- Match for these projects is usually 10.27%. However, states may apply funds from other Federal agencies to the non-Federal share of the project. The local match can also be calculated on a project, multiple project or program basis. Therefore, it is possible that no local match may be required.

High Priority (Demonstration) Projects

Program purpose: This program provides funding for projects identified by Congress with a specific amount of funding over the six years of TEA-21. The designated funding can be used only for the specified project. This is commonly known as earmarked funds. Allocation of funds authorized for each project are to be made available for obligation over the six year period in roughly a ⅙ split in each year of the TEA 21 Authorization Bill.

It also establishes advance construction, which permits states to construct High Priority projects without the aid of Federal funds and then be reimbursed as the Federal funds become available in accordance with the distribution schedule.

How High Priority Funds Are Used in the Portland Region:

Typically these requests come directly from transportation agencies and are coordinated generally both at the formulation states of a new Transportation Bill and annually through JPACT as annual Appropriation requests are made of the Oregon Congressional delegation.

Metro, through TPAC and JPACT, prepares a regional, adopted appropriations project list which is submitted as part of the Oregon Congressional delegation visit by JPACT members in March of each year.

During the formulation of both programmatic and project requests for a new Six-Year Transportation Bill, TPAC and JPACT will begin to formulate a position paper one year in advance of a new bill's authorization. The region currently has a JPACT-adopted position paper and project request list that has been presented to the Oregon Congressional delegation in March 2003 and 2004.
Annual appropriations requests are coordinated through the City of Portland's Intergovernmental Relations office. A

comprehensive list of annual appropriations citywide is submitted to City Council by Resolution to ensure coordination where federal finance opportunities could potentially be piggybacked.

Intelligent Transportation Systems Program (ITS)

Program purpose: provides for research, development and operational testing of Intelligent Transportation Systems aimed at solving congestion and safety problems, improving operating efficiencies in transit and commercial vehicles, and reducing the environmental impact of growing travel demand.

Allocation of funds is the same as other federal aid programmed funds. ITS program elements fall into two categories: research and development and deployment incentives. The latter allowing for implementation of those concepts developed on the research and development side of the program.

How the ITS Funds Are Used in the Portland Region

- Examples of projects that use this funding source are the corridor-wide ITS projects on Powell Boulevard that provide improved signal timing for bus advantage at intersections.
- Match requirements for these programs and deployment are 10.27% local funds.

Highway Bridge Replacement and Rehabilitation Program (HBRRP)

Program purpose: provides funds to assist the states in their programs to replace or rehabilitate deficient highway bridges and to seismically retrofit bridges on any public road.

Allocation of funds:

- Bridge discretionary funds are $100 million; $25 million of that total must be spent on seismic retrofit.
- Funds are distributed according to each state's relative share of the total cost to repair or replace deficient highway bridges.
- Up to 50% of apportionments can be transferred to IM, NHS, STP and/or CMAW programs.
- Federal dollars guarantee a minimum of 25% of HBRRP funds to each state; no state shall receive more than 10% of the federal total.

How HBRRR Funds Are Used in the Portland Region

- Examples of projects that use this funding source include the Bybee Bridge project and the Martin Luther King, Jr Viaduct.
- Match requirements for this source of funds is 10.27% local funds.

STATE FUND TRANSPORTATION FINANCING

Federal Fund "Pass Through" to States/Locals

As described above, many federal USDOT funds are passed through the State via ODOT to the local jurisdictions.

Federal funding programs including NHS, ITS, HBRRP, and some STP allocations are "passed through" the State to locals. To request funds from any of these sources the request must be submitted and approved in the four-year STIP.

How State Gas Tax is Apportioned

State collected gas taxes are apportioned to counties and cities based on unique formulas for each jurisdiction. The City receives a share of the 15.57% of motor fuels tax based on its population size relative to all other cities in the state, vehicle registration fees and weight mile tax on trucks. The annual dollar amount totals about $21 million. In addition, through an agreement, Multnomah County and the City share in the pooled dollars available to the County. That sum totals about $21 million annually.

Revenue sources administered by ODOT that are available to local jurisdictions through the ODOT Statewide Improvement Program process:

- Oregon Transportation Investment Act (OTIA) I through III.
- OTIA I and II authorized by the legislature in 2001 and 2002, provides for $500 million in state bonding proceeds for modernization and preservation of Oregon's transportation system. Local matching funds statewide of $146 million bring the total to $646 million. Those funds are apportioned generally $250 million for moderization; $175 million for bridge and rehabilitation and $75 million for preservation.
- OTIA I and II funds are competitive statewide and have stringent criteria by which prospective projects are judged. They are generally committed to "shovel-ready" projects. Local projects funded through OTIA I and II are the East End Connector and Sandy Boulevard projects.
- OTIA III, passed by the Legislature in 2003, provides for $ 1.3 billion.
- in replacement and repair of state bridges; $300 million in replacement of local bridges and $300 million in modernization funds.
- ODOT has established program criteria appropriate to the category judged. Prospective projects are submitted by a statewide transportation agencies committee including municipalities, counties, and port authorities. The committee make a recommendation on a list of projects, based on technical and public review, to the Oregon Transportation Commission (OTC). The OTC is the final decision-maker.

Oregon Bicycle and Pedestrian Program

Administered by ODOT – commonly known as the "Ronkin" fund. Michael Ronkin is the ODOT administrator for bicycle and pedestrian programs. One percent of statewide gas tax is allocated to these facilities.

This is a competitive program that is on the same two-year cycle as the Metro MTIP. It is slightly out of synch with the MTIP "Transportation Priorities" MTIP timetable. For example, for the year 2008-09, the State is requesting that all submissions for review are submitted in July 2004 for lengthy scrutiny over the summer and incorporation into the draft STIP in September 2004.

Transportation Safety Program

Supports safety programs throughout the state at approximately $5 million per year.

Railroad Crossing Safety Improvement Program

As the title implies this program funds improvements to unsafe crossings with signals, crossing hazard signage and placement of crossing arms. Approximately $2 million per year available statewide.

Transportation Demand Management Program

ODOT finances programmatic opportunities that provide transportation travel options to the private automobile and assist in achieving air quality in urban areas. An example, is the Portland Travelsmart program that educates communities about travel options available to them. $2 million is available statewide annually.

Oregon Plan for Salmon And Watersheds

A culvert restoration program exists for streams with historic fish runs and where barriers to fish movement can be mitigated. The annual amount available statewide is $3 million.

THE LOCAL FUNDING PROCESS

Metro Metropolitan Transportation Improvement Program (MTIP) "Transportation Priorities" Process

Regional flexible federal funds that are administered by Metro, the regional federally recognized metropolitan planning

organization for the Portland region.

"Flexible" funds may be spent on a wide variety of transportation projects or programs. These funds constitute about four percent of the total annual spending on transportation in the Portland region.

Allocation of flexible funds occurs every two years as denoted in the TEA 21 Authorization Bill. As an example, funds are currently being programmed for 2008-09 specifically and adjustments made to projects programmed in 2006-07, hence the entire program years are defined as 2006-09.

Two sources of regional flexible funds are:

- Surface Transportation Program (STP) which may be used for any transportation improvement with the exception of local streets. The region receives approximately $17.63M annually for allocation to local transportation agencies.
- Congestion Mitigation/Air Quality (CMAQ) funds may be used for projects, which demonstrate that some improvement in air quality will result from building or operating a program. CMAQ funds represent approximately $11.25 million of the total $28.88 million available annually in flexible federal funds.

How regional flexible funds are allocated as a part of the Transportation Priorities Process also known as the "Metropolitan Transportation Improvement Program or MTIP":

Project applications are submitted to Metro on behalf of eligible public sponsors (like the City of Portland). These applications address specific questions regarding project cost, and ability to meet the objectives adopted by the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Council to guide the allocation of funds.

The primary objective for the Transportation Priorities 2006-09 program is to leverage economic development in priority 2040 Framework Plan land use areas through investments that support:

- 2040 Tier I and II mixed use areas (central city, regional and town centers, main streets and station communities).
- 2040 Tier I and II industrial areas (regionally significant industrial areas and other industrial areas).
- 2040 Tier I and II mixed-use and industrial areas within the urban growth boundary expansion areas with completed concept plans.

Other policy objectives include:

- Emphasis on modes that do not have other sources of revenue.
- Completion of gaps in the modal systems.
- Development of a multimodal transportation system with a strong emphasis on funding bicycle, boulevard, freight, green street demonstration, pedestrian, regional transportation options, transit-oriented development and transit projects and programs.
- Meet the average annual requirements of the State Implementation Plan for air quality for the provision of pedestrian and bicycle facilities.

Process for Selection of Projects

1. An initial screening process is done by Metro staff using the selection criteria outlined above. Project applications are ranked considering those criteria and a draft list of projects 150% over the total dollar amount available to allocate is submitted for public review. The candidate list must comply with elements 2-9 below.
2. Candidate projects must be consistent with regional street design guidelines for its designated design classification.
3. Candidate projects must be in the Regional Transportation Plan (RTP) and in the local Transportation Systems Plan

and be consistent with the regional functional classifications described in the RTP.

4. Candidate projects must be included in the Financially Constrained system of the 2004 RTP or otherwise eligible for consideration as an amendment of the financially constrained system.
5. The total cost of submitted projects must be consistent with established cost targets for each jurisdiction. For Portland in 2008-09, $33.1 million.
6. The applicant is in compliance with the Metro functional plan.
7. The applicant must make a statement that the project is deliverable within the funding timeframe and prepare a brief summary of the anticipated project development schedule.
8. Projects of less than $200,000 are not encouraged because administrative costs of bringing a project to bid is relatively high.
9. Public involvement is conducted by Metro through public meetings held by JPACT. This committee, along with the Metro Council, recommends projects for further consideration and public comment, narrowing the candidate list of projects to 150% of available funding. JPACT and the Metro Council may direct staff to develop a technical recommendation on a final list of projects and programs for the Council and JPACT's consideration.
10. Metro staff and TPAC recommend a final selection of projects to JPACT and the Metro Council within available funding revenues.
11. Air quality model analysis is provided on the list of projects to meet air quality conformity regulations.
12. The Metro Council adopts the final package and funds are ready for disbursement.

The City of Portland—Office of Transportation's "Transportation Priorities" MTIP and State Funding Coordination Process

The Office of Transportation (PDOT) coordinates the City's regional, state and federal solicitation of transportation funds for all city agencies and bureaus, as well as supports candidate projects for the Port of Portland and Multnomah County in the MTIP process.

PDOT has responsibility for coordinating the following discreet funding processes:

- Biennial Metro "Transportation Priorities MTIP" process for regional flexible funds.
- Birnnial ODOT Statewide Transportation Improvement Program (STIP) in concert with the MTIP. ODOT requests that local transportation agencies submit requests for projects on the state's highway system that are funded by the STP, ITS, and HBRPR programs.
- Biennial Transportation Enhancements (TE) program.
- Biennial ODOT Pedestrian and Bicycle Project statewide allocation.
- Annual High Priority federal demonstration projects commonly known as Congressional Appropriations earmarks. Coordination occurs formally through resolution at TPAC and JPACT.
- Every six years, Congressional reauthorization of the Transportation Bill occurs. Coordination of project earmarks (High Priority) and programmatic changes through resolution at TPAC and JPACT.

Process Specific Timelines for Funding Process Coordination

PDOT uses the process outlined below for all of its transportation funding coordination responsibilities with other agencies and bureaus. Transportation Planning staff acts as the inter and intra bureau list coordinators. Note that this process is currently under review by the PDOT Directors Team and is subject to some revision.

Most funding programs are on a two-year cycle. For those that are on annual cycles, projects are chosen from the larger two-year cycle project listings compiled for the "Transportation Priorities MTIP Process", JPACT federal project list or the Transportation Systems Plan Transportation System Improvements or Reference Lists.
Anomalous situations arise that have to be accommodated. If that situation occurs, the same general process principles, eg. the same committee structure and processing requirements are adhered to.

The following schedule applies to the "Transportation Priorities" MTIP Process and serves as the guide for all other funding source list production. Note that this process starts on even numbered years:

- January— two meetings
- PDOT Directors Team (bureau managers, director and division managers from finance and planning) provides project list development criteria and policy emphasis complementary to Metro section criteria as the basis for the PDOT Capital Oversight Committee (COC) review and refinement of prospective project lists. The Directors Team may advance different policy perspectives for selection of projects from year-to-year based on the type, scope, local match availability, need and location of the city's transportation infrastructure at a given point in time.
- End of January through May— The COC (represented by bureau and division managers and modal coordinators) meets monthly to provide internal review of a prospective project list.
- End of January— Transportation Planning re-establishes an inter-agency committee of participating bureaus and other agency representatives of process schedule and selection criteria.
- February through May— The inter-agency committee meets monthly to review their individual list production and that of PDOT's COC.
- June— The PDOT COC and inter-agency committees merge lists (in the MTIP process) to reach consensus on a draft list of project totaling 200 % of regional flexible dollars available for distribution.
- July—The draft list is finalized. Transportation Planning staff develops a Council Resolution for adoption detailing the policy rationale for the 200% list of projects.
- July through early November—Transportation Planning provides internal project managers and inter-agency managers with a comprehensive list of projects for which applications must be provided. All agencies and bureaus are responsible for providing their own applications, including cost estimates, unless prior arrangements are made with PDOT.
- Early November— One month prior to project application submission to Metro, PDOT COC and MTIP application managers set two meetings with agency staff to review project applications. The purpose for the meeting is to determine if project cost estimates are on target, and if projects require re-scoping or must be dropped to comply with target dollar allocation.
- Mid December— Two days prior to the project submission deadline, the Transportation Planning coordinator collects paper and electronic copies of all projects to be submitted to Metro. Transportation Planning staff bundles all projects from city bureaus, the Portland Development Commission, the Port of Portland and Multnomah County and hand delivers the package to Metro.
- Mid December through February— Metro provides technical rankings and a draft environmental justice analysis is released. Public hearings are held by Metro on the draft list.
- February-March— The 150% cut list recommendation is released by Metro.
- March-April— Public hearings are held by Metro on the 150% list. Final recommendations are approved.
- May-June— Air quality conformity determination is completed by Metro. A public hearing is held and STIP reporting and documentation is completed.
- July— Full MTIP adoption before TPAC and JPACT and Metro Council occurs in July.
- October— Obligation of federal fiscal year funding begins.
- End of process.

Notes: No discussion is included in this document about federal financing for transit programs and projects primarily because Federal Transit Administration administered funds are the primary, but not the sole responsibility of TriMet both from a financing and operational viewpoint. Note that CMAQ and STP funds can be used for most transit capital projects. Federal " Section 5309" transit operating funds are used by TriMet for the stated purpose and not for highway related capital investments.

PREPARING THE PLAN – PUBLIC INVOLVEMENT

Following is a description of the community involvement and outreach activities for the Freight Master Plan.

Community Events

February 4, 2004 Community Open House Montgomery Park, NW Portland
Event introduced the freight planning process to the community and gather input on needs and deficiencies.

January 27, 2005 Public Workshop Oregon Assoc. Minority Entrepreneurs; N Portland
Event participants reviewed existing conditions information and provided input on freight-related issues.

June 9, 2005 Community Open House OMSI, SE Portland
Event provided an opportunity to review and comment on draft elements of the Freight Master Plan.

Community Presentations

Date	Audience
2/4/2003	Columbia Corridor Association - Transportation Committee
4/1/2003	Central Eastside Industrial Council
9/10/2003	Portland City Council Hearing - Resolution and Interim Freight Master Plan
10/2/2003	Oregon Planning Institute Conference
10/4/2004	Cascadia Convergence Conference
11/3/ 2004	Transportation Association of Portland
2/8/2005	Portland Planning Commission Briefing
2/28/2005	Portland Citywide Land Use Group
3/4/2005	North Portland District Coalition
3/9/2005	NWDA and NW District Coalition
3/10/2005	Oregon Trucking Association - Highway Committee
3/14/2005	Arlington Heights Neighborhood Association
4/7/2005	Lloyd District Association
4/18/2005	SE Uplift - Transportation Committee
5/16/2005	NWDA Transportation Committee
5/18/2005	Pearl District NA – Transportation Committee
7/13/2005	Brooklyn NA Board Meeting
7/20/2005	Pearl District NA - Transportation Committee
7/20/2005	Brooklyn NA General Meeting
7/25/2005	Citywide Land Use Group
8/1/2005	SE Portland Rotary Club
9/12/2005	St. Johns Neighborhood Association
9/13/05	Friends of Cathedral Park
9/14/05	East Portland Land Use Committee
9/14/2005	Kenton Neighborhood Association
9/15/05	Arbor Lodge Neighborhood Association
9/26/05	University Park Neighborhood Association
10/4/05	Portsmouth Neighborhood Association

Advisory Committee Presentations

Date	Audience
2/12/2003	Portland Bicycle Advisory Committee
2/20/2003	River Industrial Economic Advisory Group
2/21/2003	Oregon Freight Advisory Committee
2/26/03	Portland Freight Committee Kick-off
3/25/2003	Portland Freight Committee
5/15/2003	Portland Freight Committee
6/17/2003	Portland Pedestrian Advisory Committee
8/20/2003	Portland Freight Committee
9/25/2003	Portland Freight Committee
12/4/2003	Portland Freight Committee
1/8/2004	Portland Freight Committee
2/5/2004	Portland Freight Committee
2/25/2004	Oregon Freight Advisory Committee
3/4/2004	Portland Freight Committee
4/1/2004	Portland Freight Committee
5/6/2004	Portland Freight Committee
5/18/2004	Portland Pedestrian Advisory Committee
6/3/2004	Portland Freight Committee
7/8/2004	Portland Freight Committee
8/5/2004	Portland Freight Committee
9/1/2004	Freight Technical Advisory Committee
9/2/2004	Portland Freight Committee
9/24/2004	Freight Technical Advisory Committee
10/7/2004	Portland Freight Committee
10/12/2004	Portland Bicycle Advisory Committee
10/26/2004	Freight Technical Advisory Committee
11/4/2004	Portland Freight Committee
12/2/2004	Portland Freight Committee
12/21/2004	Freight Technical Advisory Committee
1/6/2005	Portland Freight Committee
2/1/2005	Freight Technical Advisory Committee
2/3/2005	Portland Freight Committee
2/23/2005	Freight Technical Advisory Committee
3/3/2005	Portland Freight Committee
3/31/2005	Freight Technical Advisory Committee
4/7/2005	Portland Freight Committee
4/14/2005	PDOT Leadership Team
5/5/2005	Portland Freight Committee
5/20/2005	Multimodal Street Design Workshop
5/24/2005	Freight Technical Advisory Committee
6/2/2005	Portland Freight Committee
6/2/2005	Bureau of Planning District Liaisons
6/21/2005	Freight Technical Advisory Committee
6/21/2005	Portland Pedestrian Advisory Committee
7/12/2005	Bicycle Advisory Committee

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INTRODUCTION

The following constitutes the findings for the Portland Freight Master Plan (FMP). The findings are grouped under several sections – General Findings, Statewide Planning Goals Findings, Transportation Planning Rule (TPR) Findings, Metro Urban Growth Management Functional Plan (UGMFP) Findings, 2000 Regional Transportation Plan (RTP) Findings, and Portland Comprehensive Plan Goals Findings.

General Findings

The City of Portland adopted its Comprehensive Plan on October 16, 1980 (effective date January 1, 1981). The Plan was acknowledged as being in conformance with Statewide Land Use Planning Goals by the Land Conservation and Development Commission (LCDC). Upon its adoption, the Plan complied with State Goal 12: Transportation.

In April 1991, the LCDC adopted an Administrative Rule for Goal 12 (660-012), the Transportation Planning Rule (TPR), which imposed additional requirements on local jurisdictions to achieve compliance with Goal 12.

The TPR requires local jurisdictions to develop transportation system plans (TSP) to ensure that the transportation system will support travel and land use patterns that will avoid air pollution, traffic, and livability problems faced by other areas of the country. The TSP also incorporates the requirements of State Land Use Goal 11: Public Facilities and becomes the public facilities plan for transportation for the City.

The Public Facilities Plan for the City was adopted by City Council Ordinance No. 161770 on April 5, 1989. The Public Facilities Plan for Transportation includes a list of major transportation projects intended to serve the needs of the City for the following 20 years. The TSP Transportation System Improvements (2002) replaced the transportation projects in the Public Facilities Plan and was later updated through the 2004 TSP Technical Update.

The Transportation Element of the Comprehensive Plan (TE) was originally adopted by City Council by Ordinance 165851 (effective date October 23, 1992) to update the Transportation Goal and Policies to comply, in part, with the TPR. The TE also updated and incorporated the Arterial Streets Classification Policy (ASCP), including district policies and street classification descriptions and maps into the Comprehensive Plan.

The Central City Transportation Management Plan (CCTMP) was adopted by City Council in 1995 (effective date January 1, 1996). Its Goal, policies, and objectives and classification maps are adopted as part of the Comprehensive Plan. The CCTMP is part of the TE and is the transportation system plan for the Central City.

The TE was updated in 1996 and adopted by City Ordinance No. 170136 (effective date June 21, 1996). This update was Phase 1 of the City's effort to develop a transportation system plan for the City and includes amendments to Goal 6 and its policies, street classifications, and Goals 1, 2, 7, and 11.

On October 30, 2002 City Council adopted (Ordinance No. 177028), effective date December 14, 2002, the first Transportation System Plan (TSP) for Portland.

The TSP was amended in 2004 with the Technical Update (Ordinance Nos. 178815 and 178826). The amendments bring the TSP into compliance with Metro's Regional Transportation Plan (RTP), which was last updated on July 8, 2004 (Metro Ordinance 04-1045A).

Citizen involvement and public outreach for the project is outlined in the findings for Goal 1, Citizen Involvement, below.

Statewide Planning Goals Findings

State planning statutes require cities to adopt and amend comprehensive plans and land use regulations in compliance with the state land use goals.

Goal 1, Citizen Involvement, requires provision of opportunities for citizens to be involved in all phases of the planning process. The preparation of the FMP has provided several opportunities for public involvement. Portland Comprehensive Plan findings on Goal 9, Citizen Involvement, and its related policies and objectives also support this goal. The amendments are supportive of this goal in the following ways:

- Public notice of three open houses and the Planning Commission hearing was mailed on July 21,2004, to approximately 450 people asking to be notified of legislative actions by the City, including neighborhood and business organizations, interested persons and other organizations. In addition, the same notice was mailed to the Pedestrian Advisory Committee, the Bicycle Advisory Committee, and the Freight Advisory Committee and numerous others asking to be notified of FMP events. In all, approximately 425 people/agencies/organizations were notified of the Planning Commission hearing.

- The notice of the open house and Planning Commission hearing was posted on the Portland Office of Transportation web site and on PortlandOnline, the City's web site.

- A Planning Commission hearing was held on October 25, 2005 to consider the staff recommendation. The staff recommendation was available 10 days in advance of the Planning Commission hearing.

- Notice of the City Council public hearing was mailed to those who presented oral and/or written testimony at previous hearings, or were previously notified of public hearing dates.

Goal 2, Land Use Planning, requires the development of a process and policy framework which acts as a basis for all land use decisions and assures that decisions and actions are based on an understanding of the facts relevant to the decision. The amendments are supportive of this goal because the FMP project followed the process established in the Comprehensive Plan and Title 33, including notice and the availability of documents in advance of public hearings. Portland Comprehensive Plan findings on Goal 1, Metropolitan Coordination, and its related policies and objectives also support this goal.

The TSP Update does not affect **Goal 3, Agricultural Lands** and **Goal 4, Forest Lands**, because these lands are not located within the City of Portland.

Goal 5, Open Space, Scenic and Historic Areas, and Natural Resources, requires the conservation of open space and the protection of natural and scenic resources. The FMP is consistent with this goal because any impacts on open space that new FMP projects will have will be reviewed during project development.

The TSP FMP to be impacted by transportation projects listed in the TSP. Where there is a potential for impacts on these resources, further analysis will be completed as part of project design. If impacts are identified, the project will modified to avoid the impact or mitigation will be included as part of the project design.

The FMP is consistent with this goal because natural areas are not intended to be impacted by transportation projects listed in the TSP. Where there is a potential for impacts on these resources, further analysis will be completed as part of project design. The project development process, as described in Chapter 6 of the TSP, includes the evaluation of environmental impacts and the completion of necessary reviews to evaluate the impacts on environmentally-sensitive areas. If impacts are identified, the project will be modified to avoid the impact or mitigation will be included as part of the project design.

Goal 6, Air, Water and Land Resource Quality, requires the maintenance and improvement of the quality of air, water and land resources. The FMP is consistent with this goal because it contains many projects that will help to eliminate existing bottlenecks in the freight system. Elimination of these bottlenecks will reduce air pollution. Elimination of existing safety hot spots will reduce the likelihood that truck crashes will occur with the potential of spills.

Goal 7, Areas Subject to Natural Disasters and Hazards, requires the protection of life and property from natural disasters and hazards. The FMP is consistent with this goal because soil stability is addressed by a combination of existing and acknowledged Goal 5 regulations and building codes. TSP transportation projects must be consistent with these existing regulations. As part of the project development process, evaluation of existing conditions and application for relevant permits is made prior to construction.

Goal 8, Recreational Needs, requires satisfaction of the recreational needs of both citizens and visitors to the state. The FMP is consistent with this goal because it identifies and includes projects for recreational facilities, such as connections to the Springwater Trail, that also function as transportation facilities.

Goal 9, Economic Development, requires provision of adequate opportunities for a variety of economic activities vital to public health, welfare, and prosperity. The FMP is consistent with this goal because it reinforces the City's freight network with transportation projects that will provide access to freight facilities and employment sites, including Columbia South Shore, Guild's Lake, and Rivergate. Portland Comprehensive Plan findings on Goal 5, Economic Development, and its related policies and objectives also support this goal.

Goal 10, Housing, requires provision for the housing needs of citizens of the state. The FMP is consistent with this goal because it reinforces the livability of Portland's

neighborhoods by addressing the need for mitigation to reduce the impacts of inappropriate truck movements in residential neighborhoods. Portland Comprehensive Plan findings on Goal 4, Housing, and its related policies and objectives also support this goal.

Goal 11, Public Facilities and Services, requires planning and development of timely, orderly and efficient public service facilities that serve as a framework for urban and rural development. The FMP is consistent with this goal because it updates the Public Facilities Plan for Transportation by including significant transportation improvements to facilitate freight movement. Portland Comprehensive Plan findings on Goals 11 A through I, Public Facilities, and related policies and objectives also support this goal.

Goal 12, Transportation, requires provision of a safe, convenient and economic transportation system. The FMP is consistent with this goal because it meets all the requirements of the Transportation Planning Rule, including balancing the needs of all users of the transportation system and strengthening each modal network through the identification of projects. Findings for the TPR follow the Statewide Planning Goal findings. Portland Comprehensive Plan findings on Goal 6, Transportation, and its related policies and objectives also support this goal.

Goal 13, Energy Conservation, requires development of a land use pattern that maximizes the conservation of energy based on sound economic principles. The FMP is consistent with this goal because it includes system improvements to reduce bottlenecks on the freight network, thereby reducing fuel consumption. Portland Comprehensive Plan findings on Goal 7, Energy, and its related policies and objectives also support this goal.

Goal 14, Urbanization, requires provision of an orderly and efficient transition of rural lands to urban use. The FMP is consistent with this goal because it supports improving mobility and accessibility inside the urbanized areas, and consequently reducing the potential need for conversion of rural lands to urban uses. Portland Comprehensive Plan findings on Goal 2, Urban Development, and its related policies and objectives also support this goal.

Goals 15, 16, 17, 18, and **19** deal with the **Willamette River Greenway, Estuarine Resources, Coastal Shorelines, Beaches and Dunes,** and **Ocean Resources,** respectively, and are not applicable to Portland as none of these resources are present within the city limits.

Transportation Planning Rule Findings

The Transportation Planning Rule (TPR) was adopted in 1991 and amended in 1998 and 2005 to implement Statewide Planning Goal 12 (Transportation). Local jurisdictions are required to comply with the TPR and adopt TSPs as part of their comprehensive plans. The TSP Update complies with the TPR because it is adopted as part of Portland's Comprehensive Plan and meets the specific requirement as noted below.

Section 660-012-0000, the Purpose, of the TPR is to promote the development of safe, convenient and economic transportation systems. The purpose of the rule is to reduce reliance on the automobile so that the air pollution, traffic and other livability problems faced by urban areas in other parts of the country might be avoided. The FMP is supportive of the purpose (660-012-0000) because it contains policies and projects to support a

transportation system that will economically transport goods through the city to businesses and port facililties.

Section 660-012-0020(1), Coordinated Network of Transportation Facilities, of the TPR requires TSPs to establish a coordinated network of transportation facilities adequate to serve state, regional and local transportation needs. The FMP complies with this requirement because it augments already adopted transportation improvements on the state, regional and local networks for to more efficiently transport goods through the city.

Section 660-012-0020(2)(a), Determination of Transportation Needs, of the TPR requires TSPs to include a determination of transportation needs as provided in 660-012-0030. The FMP fulfills this requirement as demonstrated in the findings below for 660-012-0030 of the TPR.

Section 660-012-0030(1)(a), Determination of Transportation Needs, of the TPR requires TSPs to identify state, regional and local transportation needs relevant to the planning area and the scale of the transportation network being planned. Transportation needs are based on projections of future travel demand as modified by policy objectives, including those in Statewide Planning Goal 12 and the TPR, especially those for avoiding principal reliance on any one mode of transportation. The FMP meets this requirement because it incorporates the state and regional needs identified in the Regional Transportation Plan (RTP), adopted land use and transportation plans, and existing and future constraints identified in technical reports including "Needs Assessment Report" and "Solutions and Strategies Report" prepared as part of the FMP process.

Section 660-012-0030, Determination of Transportation Needs (1)(b), of the TPR requires TSPs to identify the needs of the transportation disadvantaged. The FMP meets this requirement because it is not amending the portions of the TSP that already comply with this requirement.

Section 660-012-0030, Determination of Transportation Needs (1)(c), of the TPR requires TSPs to identify the needs for movement of goods and services to support industrial and commercial development. The FMP meets this requirement because the amendments include a number of projects for freight movement that were identified as needs in recently adopted studies including the I-5 Transportation and Trade Partnership and the 2004 Port Transportation Improvement Plan along with more recent technical reports developed as part of the FMP process.

Section 660-012-0030, Determination of Transportation Needs (3)(a), of the TPR requires TSPs to use 20-year population and employment forecasts in determining state, regional, and local needs. The FMP is consistent with this requirement because it relied on the 20-year forecasts contained in the regional transportation model and used in the most recent RTP Update.

Section 660-012-0030, Determination of Transportation Needs (3)(b), of the TPR requires TSPs to include, as part of their determination of needs, measures to reduce reliance on the automobile. The FMP is consistent with this requirement because it includes strategies to reduce employee trips to industrial districts.

Section 660-012-0020(3)(b), Road Plan, of the TPR requires an inventory, assessment of capacity, and conditions for the street system. The FMP meets this requirement because it relied the 1996 TSP Inventory as well as the findings of more recent studies and plans that included inventory work, such as the St. Johns/Lombard Plan, and technical reports prepared as part of the FMP .

Section 660-012-0020(3)(b-c), Road Plan, of the TPR requires a map and description of planned facilities/services/improvements and a description of the responsible provider. The FMP meets this requirement because it includes maps and project descriptions for changes and additions to Chapter 3 major transportation system improvements

Section 660-012-0020(2)(b), Road Plan, of the TPR requires a plan that includes a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. The FMP is consistent with this requirement because it amends the system of Freight classifications to more closely align with the City's hierarchy of traffic streets.

Section 660-012-0020(3)(a), Public Transportation Plan, of the TPR requires an inventory and assessment of public transportation services including services for the transportation disadvantaged. The FMP is consistent with this requirement because it is consistent with the City's system of transit classifications.

Section 660-012-0020(2)(c), Public Transportation Plan, of the TPR requires a plan for public transportation that includes existing and planned transit streets, terminals, major transit stops, and park-and-ride stations. The FMP is consistent with this requirement because it does not conflict with the existing system of transit facilities.

Section 660-012-0020(3)(b-c), Public Transportation Plan, of the TPR requires a map and description of planned facilities/services/improvements and a description of the responsible provider. The FMP meets this requirement because it does not impact or conflict with the most recent RTP update and with the 2004 TriMet Transit Investment Plan.

Section 660-012-0020(3)(a), Bicycle Plan, of the TPR requires an inventory and assessment of bicycle facilities. The FMP is consistent with this requirement because it does not change the 1996 TSP Inventory and the findings of the Bicycle Master Plan (adopted in 1996), which identified all of the projects needed to address the parts of the bicycle system not completed.

Section 660-012-0020(2)(d), Bicycle Plan, of the TPR requires a plan for a network of bicycle routes throughout the planning area. The FMP is consistent with this requirement because does not conflict with the adopted bicycle network or planned facilities.

Section 660-012-0020(3)(b-c), Pedestrian Plan, of the TPR requires a map and description of planned facilities/services/improvements and a description of the responsible provider. The FMP meets this requirement because it does not change the maps and project descriptions for major pedestrian improvements.

Section 660-012-0020(3)(a), Pedestrian Plan, of the TPR requires an inventory and assessment of pedestrian facilities. The FMP is consistent with this requirement because it

does not conflict with the existing pedestrian plan inventory and assessment of pedestrian facilities.

Section 660-012-0020(2)(d), Pedestrian Plan, of the TPR requires a plan for a network of pedestrian routes throughout the planning area. The FMP is consistent with this requirement because it does not conflict with current planned network of pedestrian facilities.

Section 660-012-0020(3)(b-c), Bicycle Plan, of the TPR requires a map and description of planned facilities/services/improvements and a description of the responsible provider. The FMP meets this requirement because it does not conflict with existing planned facilities/services/improvements already in the TSP>

Section 660-012-0020(2)(e); Air, Rail, Water, and Pipeline Transportation Plan, of the TPR requires TSPs to identify where major facilities are located or planned within the planning area. The FMP meets this requirement because it builds on the existing facilities mapped in Chapter 2 by including needed system improvements to serve these facilities.

Section 660-012-0020(2)(f), Transportation System Management, of the TPR requires TSPs to address travel demand with measures which may include traffic signal improvements, traffic control devices, channelization, access management, ramp metering, and restriping for HOV lanes. The TSP Update is supportive of this requirement because it includes updates to transportation system management projects, including adding a new intelligent transportation system (ITS) project at the airport that addresses future congestion and is identified in the 2004 Port Transportation Improvement Plan and included in the most recent RTP update.

Section 660-012-0020(2)(f), Demand Management, and Section 660-012-0020(2)(g), Parking Plan, requires a plan that includes measures such as those that encourage the use of alternative modes, ridesharing and vanpool programs, and trip-reduction ordinances, reduce parking spaces per capita, and minimum and maximum parking ratios. The FMP is consistent with this requirement because it includes strategies to encourage employees in freight districts to use alternatives to the automobile .

Section 660-012-0025(2), Complying with Statewide Goals, of the TPR requires findings of compliance with applicable statewide planning goals. The FMP is consistent with this requirement because statewide planning goal findings are included in earlier sections in these findings that demonstrate compliance.

Section 660-012-0025(2), Complying with Comprehensive Plan, of the TPR requires findings of compliance with applicable acknowledged comprehensive plan policies. The FMP is consistent with this requirement because the findings of compliance with Portland's Comprehensive Plan are contained in later sections of these findings that demonstrate compliance.

Section 660-012-0035(1), Evaluation and Selection of Transportation System Alternatives, of the TPR requires that TSPs evaluate the following as components of system alternatives: improvements to existing facilities, new facilities, TSM measures, TDM measures, and a no-build system. The FMP is consistent with this requirement because the

TSP continues to rely on the 2000 RTP evaluation of alternatives – the no-build system, the priority system, and the preferred system. Each alternative had a combination of projects that included these components. Chapter 13 of the TSP summarizes the regional approach to developing system alternatives that the City relied on.

Section 660-012-0035(2), Evaluation and Selection of Transportation System Alternatives, of the TPR requires local governments in large MPO areas to evaluate alternative land use designations, densities, and design standards to meet local and regional transportation needs and consider increasing residential densities and establishing minimum densities, increasing commercial densities in designated community centers, designating land for shopping development near residential areas, and balancing land uses for housing and jobs. The FMP is consistent with this requirement because the City continues to refine the Growth Concept through more recent land use studies, including the St. Johns/Lombard Plan, the Northwest District Plan, and the Division Green Street/Main Street Plan. The results are areas zoned and developing as mixed-use neighborhoods with neighborhood shopping and in close proximity to employment areas in the City and well-served by goods delivery.

Section 660-012-035(3)(a), Appropriate Transportation Facilities and Services, of the TPR requires that TSPs include types and levels of transportation facilities and services appropriate to serve the land uses identified in the jurisdiction's Comprehensive Plan. The FMP is consistent with this requirement because the projects being added are based on needs that respond to the Comprehensive Plan Map. Transportation analysis was included as part of recent rezoning studies and addressed the capacity of the transportation system. Transportation improvements are included in the plans and incorporated in this update to address land use changes, particularly the changing needs of industrial areas and evolving commercial areas.

Section 660-012-035(3)(b), Air and Water Quality, of the TPR requires that the transportation system is consistent with state and federal standards for protecting air, land, and water quality. The FMP is consistent with this requirement because it conforms to the 2004 RTP Amendments, which has been found to conform to federal air quality requirements. The FMP is consistent with the Portland Comprehensive Plan, which is acknowledged as complying with water resource requirements. Projects that will potentially impact these resources will need to be further evaluated before proceeding with project development.

Section 660-012-035(3)(c), Economic, Social, Energy, and Environment Impacts, of the TPR requires TSPs to minimize adverse economic, social, environmental and energy consequences. The FMP is consistent with this requirement because the additions to the 20-year list of projects carry out the goals of the City to support economic development through improving access and mobility for employees and the movement of goods. A number of freight-related projects are being added through the FMP to support the movement of trucks in industrial areas. A well-designed and maintained transportation system as defined by the TSP, supports commercial development in centers and along main streets, employment and industrial areas of the City, and the movement of goods in, out, and through the region.

The FMP is consistent with this requirement because the additions to the 20-year list of projects carry out the goals of the City to support the social well-being of the community by

providing increased accessibility to jobs and recreation facilities. FMP projects that support neighborhood livability include multi-modal improvements in the St. Johns town center and along the N Lombard and Division main streets.

The FMP is consistent with this requirement because new projects support the environmental goals of the City by supporting a more efficient transportation system that will reduce the air and water pollution associated with motor vehicles, including trucks. Projects with potential impacts on protected environmental resources are subject to further evaluation through the environmental or greenway land use reviews.

The FMP is consistent with this requirement because new policies and objectives support energy conservation by including projects that reduce bottlenecks that cause unnecessary use of unrewable resources.

Section 660-012-035(3)(d), Minimization of Conflicts, of the TPR requires TSPs to minimize conflicts and facilitate connections between modes of transportation. The FMP is consistent with this requirement because it includes projects that will facilitate intermodal connections and include pedestrian and bicycle facilities to reduce conflicts with trucks.

Section 660-012-0035(3)(e), Reduce Reliance on the Automobile, of the TPR requires TSPs to avoid principal reliance on any one mode of transportation and reduce principal reliance on the automobile. The FMP is consistent with this requirement because transportation improvements are included that limit improvements to support the automobile except where needed to support freight movement.

Section 660-012-0035(4), Reduce VMT per Capita, of the TPR requires TSPs to achieve a 10 percent reduction in vehicle miles traveled per capita within 20 years of adoption of the TSP. The TSP Update is consistent with this requirement because, in addition to the transportation improvements included in the RTP, the TSP includes multimodal improvements in industrial area that will encourage additional walking, bicycling, and transit trips.

Section 660-012-0045(5), Alternative Standards, of the TPR, allows LCDC to authorize an alternative standard in place of the VMT reduction. The RTP uses an alternative to the VMT reduction that identifies parking management measures, transportation demand management (TDM) programs, and additional transit service as the types of actions that are most effective in increasing the non-single occupant vehicle (SOV) mode share. Their primary alternative is the modal targets for 2040 Growth Concept design types. The FMP incorporates, through its amendments to the project list, projects to reduce automobile trips by including pedestrian and bicycle improvements in conjunction with freight-related facilities.

Section 660-012-0045(6), Measurable Objectives, of the TPR, requires regional TSPs to include measurable objectives for mode share for non-automobile trips, average automobile occupancy, and a trip lengths. The TSP already includes performance measures and benchmarks for these objectives. The FMP is not proposing any changes to these performance measures but is adding additional freight-relating performance measures. The 5-year update of the TSP will address the City's progress in meeting the benchmarks and make adjustments as needed.

Section 660-012-0035(7), Interim Benchmarks, of the TPR requires TSPs to include interim benchmarks to assure satisfactory progress towards meeting the requirements of 660-0012-035 at five-year intervals over the 20-year life of the plan. The FMP is not required to address the City's progress at meeting its adopted benchmarks. The five-year update of the TSP will address the City's success at reaching its benchmarks and make adjustments to project lists as needed to assure that the benchmarks will be met.

Section 660-012-0040(1) and (2)(a-c), Transportation Financing Program, of the TPR requires TSPs to include a financing program that lists planned transportation facilities and major improvements, an estimate of timing, and rough cost estimates. The FMP is not reviewing the TSP financing program at this time. The Financing Plan in Chapter 14 of the TSP will be reviewed at the five-year update and revised as needed.

Section 660-012-0040(2)(d), Transportation Financing Program, of the TPR requires TSPs to include policies to guide selection of transportation facility and improvement projects for funding in the short-term to meet the standards and benchmarks of 660-012-0035(4-6). The FMP is consistent with this requirement because Policy 11.9, Project Selection, and its nine objectives in Chapter 2 require giving priority to transportation projects that contribute to a reduction in vehicle miles traveled per capita; promote a compact urban form through mixed-use and pedestrian-friendly development; and increase walking, bicycling, and transit use. The FMP is not proposing any change to this policy.

Section 660-012-0040(3), Transportation Financing Program, of the TPR requires TSPs to include in the transportation financing program a discussion of the facility provider's existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of the identified transportation improvements. The FMP is consistent with this requirement because Chapter 14 describes state, regional and local funding for transportation mechanisms and the ability of identified and new resources to fund the system. The financial program identifies three scenarios and the levels of funding necessary for each. The FMP is not proposing any change to this information although it does identify the array of funding programs available through federal, state, regional and local sources in Appendix C.

Section 660-012-0045(1)(c), Implementation of the TSP, of the TPR requires regulations that provide for consolidated review of land use decisions required to permit a transportation project. The FMP is consistent with this requirement because Title 33, Section 720.040, Concurrent Reviews, already provides for a consolidated land use review process for all land use applications. This includes transportation projects that require a land use review including public rights-of-way in the greenway, environmental, and scenic resource overlay zones, whether the project involves creating new rights-of-way or expanding or vacating rights-of-way.

Section 660-012-0045(2)(a), Implementation of the TSP, of the TPR requires TSPs to include measures that control access, such as driveway and road spacing, median control, and signal spacing standards consistent with the functional classification of streets. The FMP is consistent with this requirement because Policy 6.16, Access Management, already provides the policy basis for access management and Title 17, Chapter 28, controls the location and width of driveways. The TSP previously amended Title 17, Chapter 88, Street Access, which controls the location and spacing of streets.

Section 660-012-0045(2)(b), Implementation of the TSP, of the TPR requires TSPs to include standards to protect operation of roads, transitways and major transit corridors. The FMP is consistent with this requirement because the City Engineer has authority through Title 17 to permit or not permit changes to City rights-of-way. The TSP policies in Chapter 2 provide guidance in determining which streets must be protected as traffic and transitways. The FMP is consistent with this requirement because updates freight classifications to be more consistent with their intended function.

Section 660-012-0045(2)(c), Implementation of the TSP, of the TPR requires TSPs to protect public use airports by controlling land uses within airport noise corridors and imaginary surfaces, and by limiting physical hazards to air navigation. The FMP is consistent with this requirement because the TSP already includes in the Air, Rail, Water and Pipeline Modal Plan a discussion of the Title 33 regulations that protect Portland International Airport through noise and height regulations. The FMP is not proposing any changes to these protections.

Section 660-012-0045(2)(d), Implementation of the TSP, of the TPR requires TSPs to include a process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites. The FMP is consistent with this requirement because Title 33, Section 720.040, Concurrent Reviews, already provides for a consolidated land use review process for all land use applications. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(2)(e), Implementation of the TSP, of the TPR requires TSPs to include a process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites. The FMP is consistent with this requirement because Title 33, Section 800.070, Conditions of Approval, already allows the City to attach conditions to the approval of all discretionary reviews. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(2)(f), Implementation of the TSP, of the TPR requires TSPs to provide notice to public agencies providing transportation facilities and services, to Metro, and to ODOT. The TSP Update is consistent with this requirement because the Office of Planning and Development Review already provides notice to affected transportation agencies of land use and land division applications including those within airport noise corridors and imaginary surfaces which affect airport operations. Tri-Met and ODOT are notified of all land use reviews and are provided an opportunity to respond. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(2)(g), Implementation of the TSP, of the TPR requires TSPs to include measures to insure that amendments to land use designations, densities, and design standards are consistent with the functions, capacities, and levels-of-service of facilities identified in the TSP. The FMP is consistent with this requirement because Title 33, Chapters 33.810, Comprehensive Plan Map Amendments; 33.815, Conditional Uses; 33.820, Conditional Use Master Plans; 33.835, Goal, Policy, and Regulation Amendments; 33.850, State Planning Goal Exceptions; and 33.855, Zoning Map Amendments, require land use applications that could impact streets to be consistent with their function, capacity, level of service or other performance measures.

Section 660-012-0045(3)(a), Implementation of the TSP, of the TPR requires TSPs to require bicycle parking facilities as part of new multifamily residential development of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots. The FMP is consistent with this requirement because in 1996 amendments to Title 33, Chapter 266, Parking and Loading, to require short- and long-term bicycle parking as a part of all new multifamily, commercial, industrial and institutional development. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(3)(b), Implementation of the TSP, of the TPR requires TSPs to require on-site pedestrian and bicycle facilities within new subdivisions, multifamily development, planned developments, shopping centers, commercial districts adjacent to residential areas and transit stops, and neighborhood activity centers within one-half mile of the development. The FMP is consistent with this requirement because Title 33, Chapters 33.120, Multifamily Zones, 33.130, Commercial Zones, and 33.140, Industrial and Employment Zones, already require pedestrian connections to adjacent streets for all development, and for large retail development set back from the street, to adjacent sites. Chapter 33.654, (effective date July 1, 2002) regulates land divisions and requires street and pedestrian connections within the site and connecting to streets and pedestrianways adjacent to the site. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(3)(b)(B), Implementation of the TSP, of the TPR requires TSPs to provide bikeways along arterials and major collectors and sidewalks along arterials, collectors, and most local streets. The FMP is consistent with this requirement because Policy 6.7, Bikeway Classification Descriptions, and the district maps showing where the bikeway classifications are applied, which includes major streets, including most Major City Traffic Streets, District Collectors, Neighborhood Collectors, and some local streets. Policy 11.10, Street Design and Right-of-Way Improvements, Objective G, already require sidewalks on both sides of all new street improvement projects, except where physical constraints preclude them. Policy 11.10 also requires street improvements to comply with the Pedestrian Design Guide and the Bicycle Master Plan design guidelines for locating and building appropriate bicycle and pedestrian facilities. The FMP Update is not proposing any changes to these regulations.

Section 660-012-0045(3)(b)(D), Implementation of the TSP, of the TPR requires TSPs to establish their own standards or criteria for providing streets and accessways consistent with the TPR. FMP is consistent with this requirement because Chapter 33.654 already includes the spacing standards for streets and accessways in sites dividing for development effective date July 1, 2002. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(3)(e), Implementation of the TSP, of the TPR requires TSPs to require internal pedestrian circulation within new office parks and commercial developments be provided through clustering of buildings, construction of accessways, walkways and similar techniques. The FMP is consistent with this requirement because Title 33, Chapters 33.130 and 33.140 already allows office and commercial development to cluster buildings and requires all buildings on site to be connected with pedestrian walkways and connected to adjacent streets. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(a), Implementation of the TSP, of the TPR requires TSPs to provide measures to ensure that transit routes and transit facilities are designed to

support transit use through provisions for bus stops, pullouts and shelters, optimum road geometrics, on-street parking restriction and similar facilities. The FMP is consistent with this requirement because the TSP already includes Policy 6.6, Transit Street Classification Descriptions, includes guidelines for transit-preferential treatments on Regional Transitways, Major Transit Priority Streets, and Transit Access Streets. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(b)(A), Implementation of the TSP, of the TPR requires TSPs to require new retail, office and institutional buildings at or near major transit stops to provide convenient pedestrian access to transit through walkways connecting building entrances and streets adjoining the site. The FMP is consistent with this requirement because the 1996 TPR amendments added this requirement to Title 33 for all multifamily, commercial (all C zones) and employment development (EGI and EX zones) adjacent to any transit street other than Regional Transitways that are also Regional Trafficways (Sections 130.240 and 140.240). The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(b)(B), Implementation of the TSP, of the TPR requires TSPs to require new retail, office and institutional buildings at or near major transit stops to provide pedestrian connections to adjoining properties except where impractical. FMP is consistent with this requirement because Title 33 already requires pedestrian connections to adjacent streets (Sections 33.120.255, 33.130.240, and 33.140.240). The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(b)(B), Implementation of the TSP, of the TPR requires TSPs to require new retail, office and institutional buildings at or near major transit stops to locate buildings within 20 feet of a transit stop, transit street or intersecting plaza. FMPe is consistent with this requirement because Title 33 was amended to require buildings to be no more than 10 feet from transit streets (Sections 33.120.220.B, 33.130.215.B, and 33.140.215.B). The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(d), Implementation of the TSP, of the TPR requires TSPs to include regulations for designating preferential parking areas in new development for employee parking. The FMP is consistent with this requirement because the 1996 Title 33 TPR amendments included requirements for preferential carpool parking in new commercial development (Section 33.266.110.C). The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(e), Implementation of the TSP, of the TPR requires TSPs to include regulations for allowing existing development to redevelop a portion of existing parking areas for transit-oriented uses. The FMP is consistent with this requirement because the 1996 Title 33 TPR amendments included a provision to convert up to 10 percent of required parking to a transit-oriented plaza that includes a shelter and seating area (Section 33.266.110.B.5). The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(f), Implementation of the TSP, of the TPR requires TSPs to include road systems for new development that can be served by transit, including pedestrian access. The FMP is consistent with this requirement because the TSP already designates transit streets to provide citywide transit coverage and these streets are built based on Policy 6. 5, Transit Street Classification Descriptions, including direction for pedestrian access. The TSP classifies streets that are also transit streets (other than Regional

Transitways on freeways) as City Walkways or Pedestrian-Transit Streets to ensure that adequate pedestrian facilities are built over time. The FMP is not proposing any changes to these regulations.

Section 660-012-0045(4)(g), Implementation of the TSP, of the TPR requires TSPs to ensure that, along existing or planned transit routes, the types and densities of land uses are adequate to support transit. The FMP is consistent with this requirement because freight classifications do not impact the City's ability to designate appropriate densities along existing or planned transit routes.

Section 660-012-0045(5)(a) Reduce Reliance on the Automobile, of the TPR requires TSPs to allow transit-oriented development along transit routes. The FMP is consistent with this requirement because all commercial zones in Portland already allow a mix of uses, including residential uses by right, as does the EX, Central Employment zone.

Section 660-012-0045(5)(b) Reduce Reliance on the Automobile, of the TPR requires TSPs to implement a demand management program to meet the benchmarks in the TSP. The FMP is consistent with this requirement because the TSP already includes a Demand Management and Parking Plan in Chapter 5 with projects, programs and strategies to help meet the benchmarks established in Chapter 15. One of the strategies of the FMP is to encourage demand management programs in industrial areas to reduce single-occupant commute trips.

Section 660-012-0045(5)(c) Reduce Reliance on the Automobile, of the TPR requires TSPs to implement a parking plan that achieves Portland's share of the region's reduction of 10 percent parking spaces per capita. The TSP Update is consistent with this requirement because the TSP already includes a Demand Management and Parking Plan in Chapter 5 with programs and strategies to help reduce parking spaces per capita over the planning period.

Section 660-012-0045(5)(c), Reduce Reliance on the Automobile, of the TPR requires TSPs to require major industrial, institutional, retail and office developments to provide a transit stop on site or a connection to transit when the transit operator requires the improvement. The FMP is consistent with this requirement because development in the C and E zones must provide a direct connection between its main entrance and adjacent streets, including transit streets (Sections 33.130.240 and 33.140.240).

Section 660-012-0045(6), Bicycle and Pedestrian Improvements in Developed Areas, of the TPR requires TSPs to identify improvements for bicycles and pedestrians to meet local travel needs in developed areas. The FMP is consistent with this requirement because the Pedestrian and Bicycle Master Plans have already been incorporated in the TSP in Chapter 3, Transportation System Improvements, and in the Pedestrian and Bicycle Modal Plans in Chapter 5. Title 33 land division regulations and Title 17 impose the street and pedestrian/bicycle connections in already developed areas that are redeveloping as well as in large vacant areas (Chapter 33.654: Rights-of-Way).

Section 660-012-0045(7), Local Street Standards, of the TPR requires TSPs to establish standards for local streets and accessways that minimize pavement width and total right-of-way consistent with the operational needs of the facility. The FMP is consistent with this requirement because the TSP incorporated street standards into Chapter 6 that

minimize street and pavement widths in single-family residential zones. Street widths are as narrow as 40 feet and pavement widths as narrow as 20 feet in the RF through R7 zones.

Section 660-012-050(3), Project Development, of the TPR requires project development to include findings of compliance with applicable requirements where those findings have not been made as part of the transportation system plan or refinement plan. The FMP is consistent with this section of the TPR because the TSP already states that findings, necessary for project development, will be completed before projects are approved.

Section 660-012-0060, Plan Amendments, of the TPR requires local governments to ensure that plan amendments, which significantly affect the transportation system, be consistent with adopted land use and transportation plans. The FMP freight classification changes to the street system do not impact the ability of any street to carry motor vehicle traffic or increase the capacity of any street above its traffic function. New major transportation system projects are designed to improve the mobility of truck traffic, improve operations at intersections, and widen a segment of a major street to alleviate an existing bottleneck. None of the FMP policies or projects will result in any street functioning at less than acceptable levels-of-service. The vast majority of changes to existing TSP major system improvements are to project descriptions, costs, and/or timeframes.

Metro Urban Growth Management Functional Plan Findings

Title 1, Requirements for Housing and Employment Accommodation, requires that each jurisdiction contribute its fair share to increasing the development capacity of land within the Urban Growth Boundary. This requirement is to be generally implemented through city-wide analysis based on calculated capacities from land use designations. The FMP is consistent with this title because the TSP already incorporates transportation policies in Chapter 2 to support the transition to a more compact and dense urban form by building a multi-modal transportation system.

Title 2, Regional Parking Policy, regulates the amount of parking permitted by use for jurisdictions in the region. The FMP is consistent with this title because the TSP includes a Demand Management and Parking Plan in Chapter 5 with programs and strategies to help reduce parking spaces per capita over the planning period. In addition, the TSP amended Title 33 to require parking lots over three acres in size to provide street-like features along driveways. (Section 33.266.110.F). Title 33 currently does not require any off-street parking in a number of zones – EX, CX, CS, CM, CO1 and CO2, and RX and its minimum and maximum parking ratios are consistent with Title 2. The TSP included an amendment exempting development from minimum parking requirements within 500 feet of transit streets with high-quality transit service (Section 33.266.110.B.3). The TSP also referenced the City's program for residential parking districts, which are being expanded to include commercial areas as well as residential, to reduce commuter and event parking from impacting residential and mixed-use neighborhoods.

Title 3, Water Quality and Flood Management Conservation, calls for the protection of the beneficial uses and functional values of resources within Metro-defined Water Quality and Flood Management Areas by limiting or mitigating the impact of development in these areas. The FMP is consistent with this title because Goal 6 Transportation policies and objectives already require the development of a balanced transportation system that reduces the reliance on automobiles in an effort to provide for a

healthy and livable environment that includes clean water. New projects will be subject to additional review if they impact protected natural resources through either an environmental review or a greenway review based on Title 33 requirements.

Title 4, Retail in Employment and Industrial Areas, calls for retail development in Employment and Industrial areas that supports these areas and does not serve a larger market area. The FMP is consistent with this title because the TSP already identifies a balanced transportation system that coordinates and supports the desired land use pattern with the appropriate level and mix of transportation improvements. The FMP includes new projects that are consistent with Title 4's intent to ensure that industrial areas remain viable for industrial uses.

Title 5, Neighbor Cities and Rural Reserves, defines Metro's policy regarding areas outside of the Urban Growth Boundary. This title does not apply because the TSP plan area is within the urban growth boundary.

Title 6, Central City, Regional Centers, Town Centers and Station Communities, encourages development in centers that will improve the role they play in the region and by discouraging development outside of center that will detract from those roles. The FMP is consistent with this title because the City has submitted its first report consistent with the requirements of this title.

Title 7, Affordable Housing, recommends that local jurisdictions implement tools to facilitate development of affordable housing. The FMP is consistent with this title because the plan makes no changes to the City's policies, regulations, or programs related to affordable housing.

Title 8, Compliance Procedures, outlines compliance procedures for amendments to comprehensive plans and implementing ordinances. The FMP is consistent with this title because the required notices and findings have been provided to Metro in a timely manner.

Title 9, Performance Measures, ensures the measure of progress toward implementing the UGMFP and 2040 Growth Concept. The FMP is consistent with this title because the TSP already includes a set of performance indicators in Chapter 15 to track the extent to which Portland is meeting both the regional transportation goals and its own local goals over the 20-year life of the plan. Additional performance measures are included in the FMP and will be benchmarked following its adoption.

2000 Regional Transportation Plan (RTP) Findings

Regional planning statutes require cities to adopt and amend comprehensive plans and land use regulations in compliance with regional goals. The Regional Transportation Plan (RTP) contains requirements that must be addressed. The RTP contains a list requirements – policy consistency, forecast consistency, street connectivity compliance, alternative mode analysis, motor vehicle analysis consistency, transit service planning compliance, and project development compliance – that are addressed below.

Policy 1.0, Public Involvement, establishes a process for involving the public through provision of complete information, timely public notice, full public access to key decisions and supporting broad-based, early and continuing involvement of the public in all aspects of

the transportation planning process that is consistent with Metro's adopted local public involvement policy for transportation planning. This includes involving those traditionally under-served by the existing system, those traditionally under-represented in the transportation process, the general public, and local, regional and state jurisdictions that own and operate the region's transportation system. The FMP is consistent with this policy because Policy 6.2, Public Involvement, and the objectives of the TSP establish a similar public involvement process for making transportation decisions including consideration of Metro's Local Public Involvement Policy for Transportation Planning. The FMP included a number of public involvement opportunities, including notice to neighborhood and business organizations, interested persons, the Freight Committee, the Pedestrian and Bicycle Advisory Committees, and agencies. Notice was also posted on PDOT's web site. Three open houses were held and public hearings were held before the Planning Commission and City Council.

Policy 2.0, Intergovernmental Coordination, requires coordination among the local, regional and state jurisdictions that own and operate the region's transportation system to better provide for state and regional transportation needs. The FMP is consistent with this policy because potentially affected agencies outside of the City were notified of the FMP - Metro; the Oregon Department of Transportation; the Port of Portland; Tri-Met; and Multnomah County. In addition, representatives from Metro, ODOT, the Port, Multnomah County, and the Federal Highway Administration served on the technical advisory committee for the FMP.

Policy 3.0, Urban Form, facilitates implementation of the 2040 Growth Concept with specific strategies that address mobility and accessibility needs and use transportation investments to leverage the 2040 Growth Concept. The FMP is consistent with this policy because the projects being added are intended to focus transportation investment in 2040 priority areas. New projects to support 2040 industrial areas are included in the FMP.

Policy 4.0, Consistency Between Land-use and Transportation Planning, ensures that the identified function, design, capacity and level of service of transportation facilities are consistent with applicable regional land use and transportation policies as well as the adjacent land-use patterns. The FMP is consistent with this policy because new projects are intended to relieve existing bottlenecks and address the growth in motor vehicle traffic on primary freight routes. Several of the new projects also encourage bicycling and walking by including bike and pedestrian improvements.

Policy 5.0, Barrier-Free Transportation provides access to more and better transportation choices for travel throughout the region and serves special access needs for all people, including youth, elderly and disabled. The FMP is consistent with this policy because TSP Policy 11.10, Street Design and Right-of-Way Improvements, Objective K, ensures that transportation facilities are accessible to all people and that all improvements to the right-of-way comply with the Americans with Disabilities Act of 1990.

Policy 5.1 Interim Job Access and Reverse Commute Policy, supports serving the transit and transportation needs of the economically disadvantaged in the region by connecting low-income populations with employment areas and related social services. The FMP is consistent with this policy because TSP Policy 6.24, Public Improvements, Objective C and F support a transit system that provides access and mobility for the transportation disadvantaged.

Policy 6.0, Transportation Safety and Education, calls for improving the safety of the transportation system and encouraging bicyclists, motorists and pedestrians to share the road safely. The FMP is consistent with this policy because existing Policy 6.3, Transportation Education, and its objectives support education programs that focus on transportation safety and travel choices.

Policy 7.0, The Natural Environment, calls for protecting the region's natural environment. The FMP is consistent with this policy because existing Policy 11.8, Environmental Sustainability in Transportation, calls for meeting the City's sustainability goals by designing, constructing, installing, using, and maintaining the transportation system in efficient, innovative, and environmentally responsible ways. Existing Policy 11.10, Street Design and Right-of-Way Improvements, Objective O, supports minimizing impacts on the natural environment, consistent with the City and regional response to the Endangered Species Act, in the planning, design, and development of transportation projects. Existing Policy 11.12, Maintenance, Objective C, supports the use of best management practices to address environmental impacts of maintenance activities.

Policy 8.0, Water Quality, calls for protecting the region's water quality. The FMP is consistent with this policy because existing Policy 11.8, Environmental Sustainability in Transportation, Objective A, calls for integrating best management practices into all aspects of the Portland Office of Transportation activities. Objective C, calls for maintaining equipment and facilities to minimize air, water, and noise pollution. Objective E calls for minimizing runoff and erosion in all ground-disturbing activities, including construction, excavation, landscaping, and trench work.

Policy 9.0, Clean Air, supports protecting and enhancing air quality so that as growth occurs, human health and visibility of the Cascades and the Coast Range from within the region is maintained. The FMP is consistent with this policy because existing Policy 11.8, Environmental Sustainability in Transportation, Objective C, calls for maintaining equipment and facilities to minimize air, water, and noise pollution, and Objective D calls for using environmentally safe products. Existing Policy 11.9, Project Selection, Objective C calls for using good resource management and minimizing or reducing negative impacts to the natural environment.

Policy 10.0, Energy Efficiency, supports designing transportation systems that promote efficient use of energy. The FMP is consistent with this policy because existing Policy 11.8, Environmental Sustainability in Transportation, supports designing, constructing, installing, using, and maintaining the transportation system in efficient, innovative, and environmentally responsible ways. Objective F supports using alternative energy sources to power equipment whenever feasible.

Policy 11.0, Regional Street Design, calls for designing regional streets with a modal orientation that reflects the function and character of surrounding land uses, consistent with regional street design concepts. The FMP is consistent with the existing Policy 6.11, Street Design, which incorporates the regional street design descriptions and classifications.

Policy 12.0, Local Street Design, supports designing local street systems to complement planned land uses and to reduce dependence on major streets for local circulation. The FMP is consistent with this policy because existing Policy 11.10, Street Design and Right-of-Way

Improvements, calls for designing improvements to existing and new transportation facilities to implement transportation and land use goals and objectives. Objective J of this policy requires designing and building residential streets to minimize pavement width and total right-of-way width, consistent with the operational needs of the facility and taking into account the needs of both pedestrians and vehicles.

Policy 13.0, Regional Motor Vehicle System, provides for a regional motor vehicle system of arterials and collectors that connect the central city, regional centers, industrial areas and intermodal facilities, and other regional destinations, and provide mobility within and through the region. The FMP is consistent with this policy because existing Policy 6.5, Traffic Street Classification Descriptions, describes the hierarchy of traffic streets to support the regional and local motor vehicle system. The classification maps for each district identify the network of traffic-classified streets consistent with RTP classifications. The Motor Vehicle modal plan includes a matrix that shows the consistency between Portland's and Metro's motor vehicle classifications. The FMP is not changing the classification descriptions.

Policy 14.0, Regional Public Transportation System, supports providing an appropriate level, quality and range of public transportation options to serve this region and support implementation of the 2040 Growth Concept. The FMP is consistent with this policy because existing Policy 6.6, Transit Street Classification Descriptions, describes the hierarchy of transit streets and facilities to support the regional and local transit system. The TSP Update is slightly modifying the transit classification system to include language parallel to existing language in the traffic classification description. The classification maps for each district identify the network of transit-classified streets consistent with the RTP classifications. The Public Transportation and Transportation Disadvantaged modal plan includes a matrix that shows the consistency between Portland's and Metro's transit classifications.

Policy 14.1, Public Transportation System Awareness and Education, supports expanding the amount of information available about public transportation to allow more people to use the system. The FMP is consistent with this policy because existing Policy 6.3, Transportation Education, supports programs that support a range of transportation choices. Objective A calls for publicizing activities and the availability of resources and facilities that promote a multimodal transportation system.

Policy 14.2, Public Transportation Safety and Environmental Impacts, supports continuing efforts to make public transportation an environmentally-friendly and safe form of motorized transportation. The FMP is consistent with this policy because existing Policy Public Transportation, Objective D, supports transit-preferential measures to ensure public transit is efficient and safe. Existing Objective A and H support light rail and the streetcar as more environmentally-friendly forms of public transportation.

Policy 14.3, Regional Public Transportation Performance, supports providing transit service that is fast, reliable and has competitive travel times compared to the automobile. The FMP is consistent with this policy because existing Policy 6.24, Public Transportation, supports a convenient public transit system. Existing Objective D supports transit-preferential measures on Major Transit Priority Streets to achieve travel times competitive with the automobile and to improve service reliability.

Policy 15.0, Regional Freight System, provides for efficient, cost-effective and safe movement of freight in and through the region. The FMP is consistent with this policy because the revised Policy 6.9, Freight Classification Descriptions, and its objectives support a hierarchy of truck streets, railroad lines, and intermodal freight facilities to support local, national, and international distribution of goods and services. The revised classification maps for each district identify the network of truck-classified streets consistent with RTP classifications. The changes to the freight street system reflect the outcome of the FMP technical analyses and public input. The classification changes are consistent with the RTP Freight system.

Policy 15.1, Regional Freight System Investments, supports protecting and enhancing public and private investments in the freight network. The FMP is consistent with this policy because revised Policy 6.29, Multi-modal Freight System, supports developing and maintaining a multi-modal freight transportation system for the safe, reliable, and efficient movement of freight within and through the City. The FMP adds to the project list freight-related improvements throughout the City to support more efficient freight movement as identified through the development of the FMP in response to trends and forecasts.

Policy 16.0, Regional Bicycle System Connectivity, provides for a continuous regional network of safe and convenient bikeways connected to other transportation modes and local bikeway systems, consistent with regional street design guidelines. The FMP is consistent with this policy because existing Policy 6.7, Bikeway Classification Descriptions, includes a hierarchy of bikeways to support the regional and local bikeway system. The classification maps for each district identify the network of bicycle-classified streets and off-street paths consistent with RTP classifications. The Bicycle modal plan includes a matrix that shows the consistency between Portland's and Metro's bicycle classifications. The TSP Update adds to the project list including bicycle-related improvements on major freight streets.

Policy 16.1, Regional Bicycle System Mode Share and Accessibility, supports increasing the bicycle mode share throughout the region and improve bicycle access to the region's public transportation system. The FMP is consistent with this policy because existing Policy 6.23, Bicycle Transportation, and its objectives support making the bicycle an integral part of daily life in Portland, completing a network of bikeways and increasing bicyclist safety and convenience. The TSP project list includes a large number of bicycle projects to support this policy and implement the bicycle network.

Policy 17.0, Regional Pedestrian System, supports designing the pedestrian environment to be safe, direct, convenient, attractive and accessible for all users. The FMP is consistent with this policy because existing Policy 6.8, Pedestrian Classification Descriptions, includes a hierarchy of pedestrianways to support the regional and local pedestrianway system. The classification maps for each district identify the network of pedestrian-classified streets and off-street paths consistent with RTP classifications. The Pedestrian modal plan includes a matrix that shows the consistency between Portland's and Metro's pedestrian classifications. The FMP adds to the project list including pedestrian-related improvements on major freight routes.

Policy 17.1, Pedestrian Mode Share, supports increasing walking for short trips and improve pedestrian access to the region's public transportation system through pedestrian improvements and changes in land-use patterns, designs and densities. The FMP is

consistent with this policy because existing Policy 6.22, Pedestrian Transportation, and its objectives promote walking as the mode of choice for short trips, such as walking to transit, parks, schools, and neighborhood shopping, and completing the pedestrian network to provide a safe and convenient environment for pedestrians. The TSP project list includes a large number of pedestrian projects to support this policy and implement the pedestrian network.

Policy 17.2, Regional Pedestrian Access and Connectivity, provides for direct pedestrian access, appropriate to existing and planned land uses, street design classification and public transportation, as a part of all transportation projects. The FMP is consistent with this policy because existing Policy 6.11, Street Design, includes the appropriate pedestrian improvements for each street design classification consistent with Metro's Creating Livable Streets Handbook. Existing Policy 11.10, Street Design and Right-of-Way Improvements, Objective G, requires including sidewalks on both sides of all new street improvement projects, except where there are severe topographic or natural resource constraints.

Policy 18.0, Transportation System Management, supports transportation system management techniques to optimize performance of the region's transportation systems. The FMP is consistent with this policy because existing Policy 6.15, Transportation System Management, gives preference to transportation improvements that use existing roadway capacity efficiently and improve the safety of the system by promoting transportation choices, employing transportation system management measures, and designing and building a system that can be safely navigated by all users.

Policy 19.0, Regional Transportation Demand Management, calls for enhancing mobility and supporting the use of alternative transportation modes by improving regional accessibility to public transportation, carpooling, telecommuting, bicycling and walking options. The FMP is consistent with this policy because existing Policy 6.28, Travel Management, supports reducing congestion, improving air quality, and mitigating the impact of development-generated traffic by supporting transportation choices through demand management programs. The FMP includes strategies to encourage alternatives to the single-occupant car in industrial areas.

Policy 19.1, Regional Parking Management, supports managing and optimizing the efficient use of public and commercial parking in the central city, regional centers, town centers, main streets and employment centers to support the 2040 Growth Concept and related RTP policies and objectives. The FMP is consistent with the policy because TSP Objective A calls for implementing measures to achieve Portland's share of the mandated 10 percent reduction in parking spaces per capita over the next 20 years. Existing Objective C calls for development parking management programs and strategies that improve air quality, reduce congestion, promoting alternatives to driving alone, and educating and involving neighborhoods and businesses.

Policy 19.2, Peak Period Pricing, supports managing and optimizing the use of highways in the region to reduce congestion, improve mobility and maintain accessibility within limited financial resources. The FMP is consistent with this policy because existing Policy 6.33, Congestion Pricing and its objectives advocate for a regional, market-based system to price or charge for auto trips during peak hours and supporting pricing strategies that are based on the environmental and social costs of motor vehicles. Existing Objective C

supports experiments in equitable and efficient pricing of new motor vehicle transportation facilities.

Policy 20.0, Transportation Funding, ensures that the allocation of fiscal resources is driven by both land use and transportation benefits. The FMP is consistent with this policy because existing Policy 6.1, Coordination, Objective A, calls for coordinating the funding and development of transportation facilities with regional transportation and land use plans and with public and private investments. Existing Objective B supports Portland's participation in Metro's processes for allocating and managing transportation funds and resources to achieve maximum benefit with limited available funds.

Policy 20.1, 2040 Growth Concept Implementation, calls for implementing a regional transportation system that supports the 2040 Growth Concept through the selection of complementary transportation projects and programs. The FMP is consistent with this policy because it includes a number of new freight projects that support industrial areas.

Policy 20.2, Transportation System Maintenance and Preservation, emphasizes the maintenance, preservation and effective use of transportation infrastructure in the selection of the RTP projects and programs. The FMP is consistent with this policy because existing Policy 11.12 supports activities and programs that preserve, maintain, and prevent deterioration of the transportation system. Existing Objective E calls for coordinating capital improvement programs development with ongoing maintenance needs in addition to preservation and rehabilitation projects.

Policy 20.3, Transportation Safety, calls for anticipating and addressing system deficiencies that threaten the safety of the traveling public in the implementation of the RTP. The FMP is consistent with this policy because it includes new projects on both the Major System Improvements list that address safety concerns.

Forecast Consistency *(RTP Section 6.4.9)*, requires consistency with the 2020 population and employment forecasts. The FMP is consistent with this requirement because the original TSP relied on the needs analysis and findings of the 2000 RTP and its transportation modeling assumptions. New projects are derived from the technical analyses for the FMP and input from the community.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires the development of a future street plan map of key street connections for all contiguous parcel(s) of vacant or redevelopable land of 5 acres or more planned or zoned for residential or mixed-use development. The FMP complies with this requirement because Policy 6.20 Connectivity, and its objectives and Policy 11.11, Street Plans, and its objectives provide the policy basis for Portland's approach to meeting connectivity standards through the development of master street plans. Policy 11.11, Objectives F through P and their associated maps, show the areas of the City with completed master street plans and areas of the City that currently meet connectivity standards or are exempt from the connectivity standards. Chapter 4, Refinement Plans and Studies, identify the areas of the City that do not currently have master street plans.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires that new residential or mixed-use development that proposes or is required to construct or extend street(s) to provide a site plan that:

- provides full street connections with spacing of no more than 530 feet between connections except where prevented by barriers
- provides bike and pedestrian accessways in lieu of streets with spacing of no more than 330 feet except where prevented by barriers
- limits use of cul-de-sacs and other closed-end street systems to situations where barriers prevent full street connections
- includes no closed-end street longer than 220 feet or having no more than 25 dwelling units
- includes street cross-sections demonstrating dimensions of ROW improvements, with streets designed for posted or expected speed limits.

The FMP is consistent with this requirement because city codes were amended as part of the 2002 TSP and a separate land division code update to include requirements for street connectivity and site plans showing the connectivity.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires street design standards that allow for and encourage consideration of narrow street designs. The FMP complies with this requirement because the 2002 TSP and the 2004 TSP Update included street standards that require narrow street designs.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires street design standards that allow for and encourage short, direct public ROW routes to connect residential uses with nearby commercial services, schools, parks and other neighborhood facilities. The FMP complies with this requirement because the 2002 TSP included amendments to Title 17.88, Through Streets, which includes City Engineer authority to limit the use of cul-de-sac and closed streets. Where street connections cannot be made the street connectivity requirements provide for frequent pedestrian/bicycle connections. The TSP includes street standards in use by the City for all zones.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires street design standards that allow for and encourage consideration of opportunities to incrementally extend streets from nearby areas. The FMP complies with this requirement because adopted land division regulations in Title 33 (effective date, July 1, 2002) require new street and pedestrianway connections consistent with the RTP standards for all land divisions whether in newly developing or infill situations (Section 33.654.110). The 2002 TSP amended Title 17.88, Through Streets, to give the City Engineer authority to require the same levels of connectivity for all development in residential and commercial zones.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires street design standards that allow for and encourage consideration of traffic calming to discourage traffic infiltration and excessive speeds on local streets. The FMP complies with this requirement because existing Policy 6.13, Traffic Calming, and its objectives provide the policy basis to use traffic calming measures to preserve and enhance neighborhood livability, and in high-density 2040 Growth Concept areas to calm traffic to levels that are comfortable for bicyclists and pedestrians.

Street Connectivity Compliance *(RTP Section 6.4.5)*, requires a street connectivity approach for redevelopment of existing land uses. The FMP complies with this requirement

because all of the street connectivity policies and standards in effect apply to redeveloping properties as well as to development on vacant land.

Alternative Mode Analysis Consistency *(RTP Section 6.4.6)*, requires local TSPs to adopt modal targets for non-single-occupant vehicles (SOV). The FMP is consistent with this requirement because Chapter 15 of the 2002 TSP contains mode share targets for 2040 Growth Concept design types consistent with the non-SOV targets contained in the RTP. No changes are being proposed in the FMP.

Alternative Mode Analysis Consistency *(RTP Section 6.4.6)*, requires local TSPs to adopt Title 2 parking requirements. The FMP is consistent with this requirement because Portland adopted parking minimums and maximums in 2000 consistent with the standards in Title 2. Chapter 6 of the TSP amended Title 33, Chapter 266, Parking and Loading, to require 'street-like' features for development sites that have parking lots that exceed three acres in size. . No changes are being proposed in the FMP.

Motor Vehicle Analysis Consistency *(RTP Section 6.4.7)*, requires level of service (LOS) standards in the RTP to be incorporated into local TSPs. The FMP is consistent with this requirement because the LOS Table 1.2 in the RTP is incorporated into existing Policy 11.13, Performance Measures, Objective A. The LOS table is used in the development and adoption of, and in amendments to, the TSP and in legislative amendments to the Comprehensive Plan Map. . No changes are being proposed in the FMP.

Motor Vehicle Analysis Consistency *(RTP Section 6.4.7)*, requires an action plan for areas designated as areas of special concern because they do not meet the RTP LOS standards. The TSP Update is consistent with this requirement because the Gateway regional center's action plan is contained in the Motor Vehicle modal plan in Chapter 5 and has been accepted by Metro. . No changes are being proposed in the FMP.

Transit Service Planning Compliance *(RTP Section 6.4.10.1)*, requires local jurisdictions to adopt the transit system map. The existing FMP complies with this requirement because the TSP includes a transit system map that is consistent with the RTP.

Transit Service Planning Compliance *(RTP Section 6.4.10.2)*, requires local jurisdictions to adopt regulations requiring retail, office and institutional buildings at major transit stops to:

- locate buildings within 20 feet of or provide pedestrian plaza at the major transit stop and
- provide reasonably direct pedestrian connections between a building and a major transit stop.

The FMP complies with this requirement because the TSP complies with the intent of these requirements and exceeds them because Title 33, Chapters 120, 130, and 140 requires multifamily, commercial, and some employment uses to locate their buildings and main entrances within 10 feet of property lines along the entire length of streets that have a transit classification. The FMP is not amending these regulations.

Transit Service Planning Compliance *(RTP Section 6.4.10.2)*, requires local jurisdictions to adopt regulations requiring retail, office and institutional building at major transit stops to:

- provide a transit passenger landing pad accessible to disabled persons,
- provide an easement or dedication for passenger shelter and underground utility connection from the new development to the transit amenity, and
- provide lighting at a transit stop.

The FMP is consistent with these requirements because the City relies on the Pedestrian Design Guide to ensure that, as property develops or redevelops, sidewalks are widened to ensure that adequate space will be provided in the right-of-way for transit facilities that are generally installed by TriMet.

Transit Service Planning Compliance *(RTP Section 6.4.10.3)*, requires local jurisdictions to consider designation of pedestrian districts or other implementing land use regulations to address the following:

- A connected street and pedestrian network, preferably through a local street and pedestrian network plan covering the affected area
- Designated pedestrian districts should consider transit/bike/pedestrian interconnection, parking and access management, sidewalk and accessway location and width, street tree location and spacing, street crossing and intersection design for pedestrians, pedestrian scale street lighting and furniture, and traffic speeds.

The FMP complies with this requirement because existing Policy 6.8, Objective A, describes the Pedestrian District classification and the District Maps show the location of existing pedestrian districts.

Transit Service Planning Compliance *(RTP Section 6.4.10.4)* requires local jurisdictions to provide direct, logical pedestrian crossings at transit stops and marked crossings at major transit stops. The FMP complies with this requirement because existing Policy 11.10, Objective E; the Pedestrian Modal Plan in Chapter 5; and the Project Development guidelines in Chapter 6 incorporate the Pedestrian Design Guide, which provides guidance for locating and constructing pedestrian crossings.

Transit Service Planning Compliance *(RTP Section 6.4.10.5)* requires local jurisdictions to consider street designs that anticipate planned transit stop spacing, location and facilities consistent with the regional street design guidelines. The FMP complies with this requirement because existing Policy 6.6, Transit Street Classification Descriptions, and its eight objectives include direction for transit improvements and stop spacing consistent with each designation. These transit classification descriptions are considered in conjunction with existing Policy 6.11, Street Design Classification Descriptions, derived from and consistent with the RTP Street Design classifications. The classifications and their associated design elements are considered when making changes to a street.

Project Development Compliance *(RTP Section 6.7.3.1)* requires local jurisdictions to consider system management to address or preserve existing street capacity during transportation project analysis. The FMP complies with this requirement because existing Policy 6.15, Transportation System Management, gives preference to transportation improvements that use existing roadway capacity efficiently. The project development process (as described in existing Chapter 6) includes, as its first step, policy review, which reviews all relevant policies including street design policies and guidelines. The FMP is not making any changes to this process.

Project Development Compliance *(RTP Section 6.7.3.2)* requires local jurisdictions to consider regional street design policies and guidelines during transportation project analysis. The FMP complies with this requirement because the project development process (as described in existing Chapter 6) includes, as its first step, policy review, which reviews all relevant policies including street design policies and guidelines. The FMP is not making any changes to this process.

Project Development Compliance (RTP Section 6.7.3.3) requires local jurisdictions to consider environmental design guidelines as contained in Green Streets and Trees for Green Streets or other similar resources during project analysis. The FMP complies with this requirement because the project development process (as described in existing Chapter 6) includes, as its first step, policy review, which review all relevant policies including Green Streets and Trees for Green Streets. The FMP is not making any changes to this process.

Portland Comprehensive Plan Goals Findings

The City's Comprehensive Plan was adopted by the Portland City Council on October 16, 1980, and was acknowledged as being in conformance with the statewide planning goals by the Land Conservation and Development Commission on May 1, 1981.

Goal 1, Metropolitan Coordination, calls for the Comprehensive Plan to be coordinated with federal and state law and to support regional goals, objectives and plans. The FMP is consistent with this goal because it responds to and complies with the Statewide Planning Goals, including the Transportation Planning Rule and with the 2000 RTP, the regional transportation plan as updated in 2004.

a) **Policy 1.1, Urban Growth Boundary,** calls for support of the concept of an Urban Growth Boundary for the Portland metropolitan area. The FMP supports this policy because it contributes to a multimodal transportation system that will support the compact growth called for in the 2040 Growth Concept.

b) **Policy 1.3, Urban Services Boundary,** calls for the establishment and maintenance of an Urban Services Boundary for the City of Portland. The FMP supports this policy because it addresses and classifies streets with Portland's urban services boundary consistent with 2000 RTP classifications and the 2004 RTP Update.

c) **Policy 1.4, Intergovernmental Coordination,** calls for continuous participation in intergovernmental affairs with public agencies to coordinate metropolitan planning and project development and maximize the efficient use of public funds. The FMP supports this policy because it was prepared in compliance with the RTP and with the participation of representatives from Metro, the Port of Portland, ODOT, and adjacent cities and counties. The City participated in the development and update of the RTP to ensure that it and the FMP would be consistent and compatible.

Goal 2, Urban Development, calls for maintenance of Portland's role as the major regional employment and population center by expanding opportunities for housing and jobs, while retaining the character of established residential neighborhoods and business centers. The FMP is consistent with this goal because it contributes to development of a multimodal transportation network that will accommodate planned growth at an urban scale as called for on the Comprehensive Plan Map.

a) **Policy 2.1, Population Growth,** calls for accommodating the projected increase in city households. The FMP supports this policy because the added projects address transportation needs based on the projected changes in households and employment over the planning period.

b) **Policy 2.2, Urban Diversity,** calls for promotion of a range of living environments and employment opportunities for Portland residents. The FMP supports this policy because it includes projects that support an efficient freight transportation system, which, in turn, helps to retain jobs and attract new jobs in Portland.

c) **Policy 2.6, Open Space,** calls for provision of opportunities for recreation and visual relief by preserving existing open space, establishing a loop trail that encircles the city and promoting recreational use of the city's rivers, creek, lakes and sloughs. The FMP Update supports this policy because it includes projects to connect to recreational trails.

d) **Policy 2.7, Willamette River Greenway Plan,** calls for implementation of the Willamette River Greenway Plan, which preserves a strong working river while promoting recreation, commercial and residential waterfront development along the Willamette south of the Broadway Bridge. The FMP is consistent with this policy because it includes projects to support businesses along the 'working harbor' portion of the Willamette.

e) **Policy 2.9, Residential Neighborhoods,** calls for allowance of a range of housing types to accommodate increased population growth while improving and protecting the city's residential neighborhoods. The FMP supports this policy because it includes transportation projects that are intended to reduce truck traffic in neighborhoods and the policies and strategies create and support a network of truck streets that help to minimize inappropriate truck traffic in neighborhoods.

f) **Policy 2.10, Downtown Portland,** calls for maintenance and reinforcement of downtown Portland as the principal retail, commercial, service, cultural and high density housing center in the city and region; and calls for implementation of the Downtown Plan. The FMP supports this policy because it reinforces the role of the Downtown for freight delivery rather than through truck traffic.

g) **Policy 2.11, Commercial Centers,** calls for expanding the role of major established commercial centers that are well served by transit in a manner compatible with the surrounding area. The FMP supports this policy because it includes new projects that are intended to support the St. Johns town center in conjunction with other TSP projects.

h) **Policy 2.14, Industrial Sanctuaries,** calls for encouraging the growth of industrial activities by preserving industrial land primarily for manufacturing purposes. The FMP supports this policy because it includes numerous projects that support freight movement both within Freight Districts and on access corridors to and from them, including a number of rail improvements identified in technical analyses for the FMP and through public input.

i) **Policy 2.19, Infill and Redevelopment,** calls for encouraging infill and redevelopment as a way to implement the Livable City growth principles and accommodate expected increases in population and employment. The FMP supports this

policy because it includes transportation projects that support infill and redevelopment of industrial lands within the City.

j) **Policy 2.25, Central City Plan,** calls for encouraging continued investment within Portland's Central City while enhancing its attractiveness for work, recreation and living through implementation of the Central City Plan. The FMP supports this policy because if includes transportation system improvements within the Central City to serve existing employment and industrial uses.

Goal 3, Neighborhoods, calls for preservation and reinforcement of the stability and diversity of the city's neighborhoods while allowing for increased density. The FMP is consistent with this goal because the existing TSP District policies and objectives reflect the need to accommodate growth while preserving and enhancing livability, and supports these policies with new projects that improve bicycle and pedestrian connections on multi-modal facilities.

a) **Policy 3.5, Neighborhood Involvement,** provides for the active involvement of neighborhood residents and businesses in decisions affecting their neighborhood. The FMP supports this policy because the neighborhood associations and the general public were invited to attend open houses and staff met with a number of neighborhood associations and boards and with the Citywide Land Use Group. Notice was provided to neighborhood associations about the open houses and public hearings.

Goal 4, Housing, calls for enhancing Portland's vitality as a community at the center of the region's housing market by providing housing of different types, tenures, density, sizes, costs and locations that accommodates the needs, preferences, and financial capabilities of current and future households. The FMP is consistent with this goal because implementation of the multimodal transportation network identified new transportation improvements that will support new jobs and encourage people to live and work in Portland.

Goal 5, Economic Development, calls for promotion of a strong and diverse economy, which provides a full range of employment and economic choices for individuals and families in all parts of the city. The FMP is consistent with this goal because the existing and revised policies and their objectives relating to freight support a transportation network that serves employment centers including Columbia South Shore, Swan Island, Guild's Lake and provides multimodal connections to these areas. The FMP also includes a number of rail projects that serve the rail yards and rail movement in the City.

a) **Policy 5.1, Urban Development and Revitalization,** calls for encouraging investment in the development, redevelopment, rehabilitation and adaptive reuse of urban land and buildings for employment and housing opportunities and supporting Downtown Portland and the Lloyd District as the major regional employment, cultural, business, and government center. The FMP supports this policy because it includes transportation improvements in the Central City to support its growth and economic vitality.

b) **Policy 5.4, Transportation System,** calls for promotion of a multi-modal regional transportation system that encourages economic development. The FMP is consistent with this policy and revises it slightly by strengthening its focus on the link between transportation improvements and industrial land development.

c) **Policy 5.5, Infrastructure Development,** calls for promotion of public and private investments in public infrastructure to foster economic development in Council-designated target areas. The FMP supports this policy because it incorporates multimodal transportation projects in the City's urban renewal areas including the Central Eastside and Willamette Industrial.

d) **Policy 5.8, Diversity and Identity in Industrial Areas,** calls for promotion of a variety of efficient, safe and attractive industrial sanctuary and mixed employment areas in Portland. The FMP supports this policy because it includes numerous projects to improve the transportation network in the City's industrial sanctuaries and major employment areas, including Columbia South Shore, Rivergate, and Swan Island.

e) **Policy 5.10, Columbia South Shore,** calls for encouraging the development of the Columbia South Shore as an industrial employment district which attracts a diversity of employment opportunities while protecting significant environmental resources and maintaining the capacity of the area infrastructure to accommodate future development. The FMP supports this policy because it includes multimodal transportation improvements in Columbia South Shore needed to support its growth as an industrial and employment district and to support growth in travel at the Airport.

Goal 6, Transportation, calls for the development of a balanced, equitable, and efficient transportation system that provides a range of transportation choices, reinforces livability, supports a strong economy, improves the environment, and lessens reliance on the automobile. The FMP is consistent with this goal because it incorporates new projects that support and improve facilities for freight movement.

a) **Policy 6.1, Coordination,** calls for coordinating with affected agencies and providers of transportation services when planning for and funding transportation facilities. The FMP supports this policy because affected agencies and providers were notified of the update and given an opportunity to comment on it as well as being involved in the technical advisory committee.

b) **Policy 6.2, Public Involvement,** calls for a public involvement process that provides information and solicits and considers feedback on transportation issues and projects. The FMP supports this policy because neighborhood and business organizations were notified of the open houses and hearings and given an opportunity to comment on the Plan. Comments and requests for amendments have been considered by staff, the Planning Commission, and City Council prior to adoption.

c) **Policy 6.3, Transportation Education,** calls for implementing educational programs that support a range of transportation choices and safety for all modes. The FMP is consistent with this policy because it provides information about freight movement and trends through the Plan and its supporting technical memorandu that have been made available to the public through PDOT's web page.

d) **Policy 6.4, Classification Description**, establishes the policy for classifying streets. The FMP is consistent with this policy because it updates freight classifications to fit with existing truck movements and will direct truck movement over the life of the plan by establishing a revised classification hierarchy.

e) **Policy 6.5, Traffic Classification Descriptions,** establishes the hierarchy of traffic classifications. The FMP does not include any changes to traffic classifications.

f) **Policy 6.6, Transit Classification Descriptions,** establishes the hierarchy of transit classifications. The FMP does not include any changes to traffic classifications.

g) **Policy 6.7, Bicycle Classification Descriptions,** establishes the hierarchy of bicycle classifications. The FMP does not include any changes to traffic classifications.

h) **Policy 6.8, Pedestrian Classification Descriptions,** establishes the hierarchy of pedestrian classifications. The FMP does not include any changes to traffic classifications.

i) **Policy 6.9, Freight Classification Descriptions,** establishes the hierarchy of freight classifications. The FMP is consistent with this policy because the proposed changes to freight classifications builds on the prior classification hierarchy but refines it to more fully account for differing types of freight movement, including through movement, movement within and connecting to freight districts, deliveries to commercial areas, and deliveries to residential areas. The Freight District boundaries are modified for a better match with existing industrial zoning. The freight facility designations are updated to better reflect existing terminal locations.

j) **Policy 6.10, Emergency Classification Descriptions,** establishes the hierarchy of emergency response classifications. The FMP does not include any changes to traffic classifications.

k) **Policy 6.11, Street Design Classification Descriptions,** establishes the hierarchy of street design classifications. The FMP does not include any changes to traffic classifications.

l) **Policy 6.12, Regional and City Travel Patterns,** supports the use of streets consistent with their state, regional, and city classifications. The FMP is consistent with this policy because the changes to freight classifications clarifies how freight moves within and through the City and brings the designated freight streets into closer conformance with state and regional classifications.

m) **Policy 6.13, Traffic Calming,** calls for managing traffic on Neighborhood Collectors and Local Service streets according to the hierarchy established in the Transportation Element, and the land uses they serve. The FMP supports this policy because it includes strategies to reduce infiltration of inappropriate truck traffic on residential streets.

n) **Policy 6.14, Emergency Response**, establishes the policy for creating a hierarchy of emergency response streets. The FMP supports this policy because it includes new projects that will provide improved operations along major freight corridors that are used by emergency vehicles as well.

o) **Policy 6.15, Transportation System Management,** gives preference to transportation improvements that use existing roadway capacity efficiently. The FMP is consistent with this policy because several new projects will increase capacity without

expanding roadway width, including an ITS project and several intersection improvements.

p) **Policy 6.16, Access Management,** promotes an efficient and safe street system and adequate accessibility. The FMP is consistent with this policy because it includes a new project that improves access to existing businesses.

q) **Policy 6.17, Coordinate Land Use and Transportation Planning,** calls for implementing the Comprehensive Plan Map and 2040 Growth Concept through long-range transportation and land use planning and the development of efficient and effective transportation projects and programs. The FMP supports this policy because it includes new projects that support existing and planned uses in the City, including projects that support the airport and industrial uses in the Columbia Corridor.

r) **Policy 6.18, Adequacy of Transportation Facilities,** requires amendments to the Comprehensive Plan to be consistent with the identified function and capacity of the transportation system. The FMP is supportive of this policy because the proposed changes to freight classifications are consistent with the projects proposed for the streets.

s) **Policy 6.19, Transit-Oriented Development,** calls for reinforcing the link between transit and land use by encouraging transit-oriented development. The FMP does not impact the City's ability to encourage transit-oriented development along transit streets.

t) **Policy 6.20, Connectivity,** calls for supporting development of an interconnected, multimodal transportation system. The FMP supports this policy because it proposes a new road connection to better serve industrial uses in North Portland.

u) **Policy 6.21, Right-of-Way Opportunities,** calls for preservation of existing rights-of-way unless there is no existing or future need for them. The FMP does not affect this policy.

v) **Policy 6.22, Pedestrian Transportation,** calls for planning and completing a pedestrian network that increases the opportunities for walking to shopping and services, schools and parks, employment, and transit. The FMP supports this policy because it includes new projects that include the provision of new or improved pedestrian facilities along freight-designated streets.

w) **Policy 6.23, Bicycle Transportation,** calls for making the bicycle an integral part of daily life in Portland, by implementing a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer. The FMP supports this policy because it includes new freight projects that include provision of new bicycle facilities.

x) **Policy 6.24, Public Transportation,** calls for development of a public transportation system that conveniently serves City residents and works throughout the day and week. The FMP does not affect this policy.

y) **Policy 6.25, Parking Management,** calls for managing the parking supply to achieve transportation policy objectives of neighborhood and business district vitality, auto trip

reduction, and improved air quality. The FMP does not affect this policy because no changes to parking policy and no new parking-related projects are included.

z) **Policy 6.26, On-Street Parking Management,** calls for managing the supply, operations and demand for parking and loading in the public right-of-way to encourage economic vitality, safety for all modes, and livability of residential neighborhoods. The FMP does not affect this policy because no changes to parking policy and no new parking-related projects are included.

aa) **Policy 6.27, Off-Street Parking,** calls for regulating off-street parking to promote good urban form and the vitality of commercial and employment areas. The FMP does not affect this policy because no changes to parking policy and no parking-related projects are included.

bb) **Policy 6.28, Travel Management,** supports transportation choices to reduce congestion, improve air quality, and mitigate the impact of development-generated traffic. The FMP supports this policy because it contains strategies to reduce single-occupant commute trips in industrial areas.

cc) **Policy 6.29, Freight Intermodal Facilities and Freight Activity Areas,** calls for development and maintenance of a multimodal transportation system for the safe and efficient movement of freight, goods , and commercial vehicles within the City. The FMP supports this policy and revises it to broaden its scope to include all modes of freight.

dd) **Policy 6.30, Truck Movement**, calls for a complete, safe, and reliable system of truck streets. The FMP is supportive of this policy and revises it by splitting it into two policies, one addressing truck mobility and one addressing truck access. The new Policy 6.30, Truck Mobility, supports the development, management, and maintenance of a safe, efficient and reliable freight street network. The FMP helps to implement this policy through new freight projects on truck-designated streets.

ee) **Policy 6.31, Regional Trafficways,** calls for accommodating increases in regional through-traffic on existing Regional Trafficways. The FMP is supportive of this policy because it updates projects that will improve capacity on an existing Regional Trafficways.

ff) **Policy 6.32, Multimodal Passenger Service,** calls for the City to participate in coordinated planning and development of interconnected transportation services for passenger travel. The FMP is supportive of this policy because it includes new projects that will improve multimodal access to the airport.

gg) **Policy 6.33, Congestion Pricing,** calls for advocating a regional, market-based system to price or charge for an auto trip during peak travel hours. The FMP does not affect this policy because no changes to the policy are proposed.

hh) **Policy 6.34 North Transportation District,** includes a policy and objectives specific to the North Transportation District and accompanying maps that classify the streets for motor vehicle, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications and adds a new Objective F. to address the role of Columbia Boulevard as the primary route for over-dimensional truckloads.

ii) **Policy 6.35, Northeast Transportation District,** includes a policy and objectives specific to the Northeast Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because a new project in this district will support travel to the airport and freight classifications will be updated.

jj) **Policy 6.36, Far Northeast Transportation District** includes a policy and objectives specific to the Far Northeast Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because only minor changes are being made update freight designations.

kk) **Policy 6.37, Southeast Transportation District,** include a policy and objectives specific to the Southeast Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because it updates freight designations and adds a new objective that supports the safety and access needs of pedestrians and bicyclists.

ll) **Policy 6.38, Far Southeast Transportation District,** includes a policy and objectives specific to the Far Southeast Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because it updates freight designations.

mm) **Policy 6.39, Northwest Transportation District,** includes a policy and objectives specific to the Northwest Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because it updates freight designations.

nn) **Policy 6.40, Southwest District Policies and Classification Maps** include policies specific to the Southwest Transportation District and accompanying maps that classify the streets for automobile, transit, bicycle, pedestrian, and truck use. The FMP supports this policy and classifications because it updates freight classifications.

oo) **Policy 6.41, Central City Transportation District,** incorporates the Central City Transportation Management Plan into the Comprehensive Plan including its goal, policies, objectives and classification maps. The FMP supports this policy because it updates freight classifications in the Central City.

Goal 7, Energy, calls for promotion of a sustainable energy future by increasing energy efficiency in all sectors of the city. The FMP is consistent with this goal because it includes new projects that will result in a more efficient multimodal transportation system that will support freight movement and include pedestrian and bicycle facilities on major freight corridors.

Goal 8, Environment, calls for maintenance and improvement of the quality of Portland's air, water, and land resources, as well as protection of neighborhoods and business centers from noise pollution. The FMP is consistent with this goal because new projects will result in more efficient and smoother flow of freight carriers and lessen air pollution associated with congestion.

Goal 9, Citizen Involvement, calls for improved methods and ongoing opportunities for citizen involvement in the land use decision-making process. The FMP is consistent with this goal because its development included opportunities for public involvement through extensive notification, three open houses, numerous meetings with neighborhood and interest groups, and a draft document for review.

a) **Policy 9.1, Citizen Involvement Coordination,** calls for encouraging citizen involvement in land use planning projects through coordination with community organizations, availability of planning reports and notice of public hearings. The FMP supports this policy because notice was mailed to approximately 425 interested organizations and individuals and posted on the City's web site, a draft staff report was available 30 days in advance of the first public hearing, and staff hosted three open houses and responded to numerous calls and letters.

b) **Policy 9.3, Comprehensive Plan Amendment,** calls for allowing for the review and amendment of the adopted Comprehensive Plan which ensures citizen involvement opportunities for the city's residents, businesses and organizations. The FMP supports this policy because the process for amending the Comprehensive Plan, as described in Title 33, was followed in its development.

Goal 10, Plan Review and Administration, requires that Portland's Comprehensive Plan undergo a periodic review to assure that it remains an up-to-date and workable framework for land use development. The FMP is consistent with this goal because it updates Goals 5, 6 and 11B of the Comprehensive Plan.

a) **Policy 10.1, Comprehensive Plan Review,** calls for implementing a process for the review of the Comprehensive Plan goals, policies, objectives, and implementation provisions on a periodic basis. The FMP supports this policy because it includes minor revisions to policies and objectives, and updates the freight classifications citywide.

b) **Policy 10.4, Comprehensive Plan Map,** calls for the Comprehensive Plan Map to be the official long range planning guide for uses and development in the city. The FMP supports this policy because it updates the freight classification maps for the City, which are adopted as part of the Comprehensive Plan.

c) **Policy 10.6, Amendments to the Comprehensive Plan Goals, Policies, and Implementing Measures,** requires that all proposed amendments to goals, policies, and implementing ordinances be reviewed by the Planning Commission prior to action by the City Council. The FMP supports this policy because the proposed amendments to the Comprehensive Plan have been reviewed on October 25, 2005 and adopted by the Planning Commission on December 13, 2005.

d) **Policy 10.7, Amendments to the Comprehensive Plan Map,** requires that amendments be supportive of the overall Comprehensive Plan and Map, be consistent with the Statewide Planning Goals, and be consistent with any adopted applicable area plans. The FMP supports this policy because the revisions to maps being adopted as part of the Comprehensive Plan include freight classification maps for each district of the City that complement the Comprehensive Plan Map. These findings demonstrate that these changes are consistent with the Comprehensive Plan and Map and Statewide Planning Goals.

e) **Policy 10.8, Zone Changes,** requires that base zone changes within a Comprehensive Plan Map designation be to the corresponding zone stated in the designation. The policy also requires that such zone changes be granted when it is found that public services are sufficient. The FMP is consistent with this policy because no changes are being proposed to the base zones.

f) **Policy 10.10, Amendments to the Zoning and Subdivision Regulations,** requires amendments to the zoning and subdivision regulations to be clear, concise, and applicable to the broad range of development situations faced by a growing, urban city. The FMP is consistent with this policy because no amendments are being proposed to the zoning and subdivision regulations.

Goal 11 A, Public Facilities, General, calls for provision of a timely, orderly and efficient arrangement of public facilities and services that support existing and planned land use patterns and densities. The FMP is consistent with this goal because one of the primary elements of the FMP are revisions and additions to the 20-year list of transportation projects, including relative time frames, that will address transportation needs associated with existing and planned land use.

a) **Policy 11.1, Service Responsibility,** describes the responsibilities of the City of Portland within its Urban Services Boundary (both within and outside of its jurisdictional boundary), including service provision, coordination, education, and public participation. The FMPsupports this policy because it is a comprehensive approach to serving the transportation needs of the City as a whole over the next 20 years. Transportation services for unincorporated areas within Portland's Urban Services Boundary are being addressed through a separate effort to develop a transportation system plan for the unincorporated parts of Multnomah County that are within Portland's Urban Services Boundary.

b) **Policy 11.2, Orderly Land Development,** calls for urban development to occur only where urban public facilities and services exist or can be reasonably made available. The FMP supports this policy because it does not include provision of transportation services for areas where urban development is not planned.

c) **Policy 11.3, Orderly Service Extension,** calls for improvement and expansion of urban public facilities or services to not stimulate development that significantly precedes the ability to provide all other necessary urban public facilities and services at uniform levels. The FMP supports this policy because it does not include the provision of transportation infrastructure in areas where development is not planned.

d) **Policy 11.4, Capital Efficiency,** calls for supporting maximum use of existing public facilities and services by encouraging higher density development and development of vacant land within already developed areas. The FMP supports this policy because it includes transportation improvements in areas planned for industrial development and the development of vacant land within already designated and developing industrial areas.

e) **Policy 11.5, Cost Equitability,** calls for the costs of improvement, extension and construction of public facilities, where possible, to be borne by those whose land development and redevelopment actions made the improvement necessary. The FMP

supports this policy because it includes projects that serve growth and are developed with transportation system development fees.

f) **Policy 11.6, Public Facilities System Plan,** calls for development and maintenance of a coordinated Public Facilities System Plan that provides a framework for the provision of urban public facilities and services within Portland's Urban Services Boundary. The FMPsupports this policy because it updates the Public Facilities Plan for transportation.

g) **Policy 11.7, Capital Improvement Program,** identifies the capital improvement program as the annual planning process for major improvements to existing public facilities and construction of new facilities. The FMP supports this policy because it updates the TSP 20-year list, which are then moved to the capital improvement program as funding becomes available.

Goal 11 B, Public Rights-of-Way, calls for improving the quality of Portland's transportation system, preserving public rights-of-way, implementing street plans, continuing high-quality maintenance and improvement programs, and allocated limited resources. The FMP is consistent with this goal because new projects are included in the update.

a) **Policy 11.9, Project Selection,** gives priority to transportation projects that will contribute to a reduction in vehicle miles traveled per capita while supporting economic vitality and sustainability. The FMP is consistent with this policy because new projects are focused on new freight-supportive projects that will help to retain existing and attract new businesses and jobs in the City.

b) **Policy 11.10, Street Design and Right-of-Way Improvements,** supports designing transportation facilities to implement transportation and land use goals and objectives. The FMP is consistent with this policy because new projects include pedestrian and bicycle facilities as part of freight-related improvements, where appropriate.

c) **Policy 11.11, Street Plans,** promotes a logical, direct, and connected street system through the development of street plans. The FMP is supportive of this policy because it does not modify existing street master plans.

d) **Policy 11.12, Maintenance,** supports activities and programs that preserve, maintain, and prevent deterioration of the existing transportation system. The FMP is consistent with this policy because no changes to the policy are being proposed.

e) **Policy 11.13, Performance Measures,** requires evaluation of the performance of the transportation system at five-year intervals. The FMP is consistent with this policy because this is a technical update less than five years after initial adoption of the TSP. The FMP includes three new performance measures to evaluate the efficiency of the freight system over time.

Goal 11 C, Sanitary and Stormwater Facilities, calls for an efficient, adequate, and self-supporting wastewater collection treatment and disposal system which will meet the needs of the public and comply with federal, state and local clean water requirements. The

FMP is consistent with this goal because new projects will include stormwater management facilities, as appropriate.

Goal 11 F, Parks and Recreation, calls for maximizing the quality, safety and usability of parklands and facilities through the efficient maintenance and operation of park improvements, preservation of parks and open space, and equitable allocation of active and passive recreation opportunities for the citizens of Portland. The FMP is consistent with this goal because pedestrian and bicycle connections are included in freight-related projects, as appropriate.

Goal 11 G, Fire, calls for the development and maintenance of facilities that adequately respond to the fire protection needs of Portland. The FMP is not making any changes to the existing Emergency Response street classifications. New projects in the FMP may facilitate emergency response vehicles access to industrial areas.

Goal 11 H, Police, calls for the development and maintenance of facilities that allow police personnel to respond to public safety needs as quickly and efficiently as possible. The FMP is not making any changes to the existing Emergency Response street classifications.

Goal 11 I, Schools, calls for the enhancement of educational opportunities of Portland's citizens through assistance in planning educational facilities. The FMP is consistent with this goal because it continues to support schools by identifying transportation improvements improve the safety of intersections and streets used by students, parents, and teachers.

a) **Policy 11.62, Safety,** calls for providing traffic improvements, such as sidewalks and bikeways, to promote safe routes to schools where attendance area reorganization requires longer travel distances for students. The FMP projects include sidewalks and bicycle facilities on major freight streets, where appropriate.

Goal 12, Urban Design, calls for the enhancement of Portland as a livable city, attractive in its setting and dynamic in its urban character by preserving its history and building a substantial legacy of quality private developments and public improvements for future generations. The FMP is consistent with this goal because the existing Policy 6.11, Street Design, includes design elements and design treatments for all street designs.

Portland City Code 33.835.040, Approval Criteria for Goal, Policy and Regulation Amendments, includes one applicable approval criterion. The TSP Update meets these as follows:

a) Amendments to the goals and policies of the Comprehensive Plan must be found to be consistent with the Comprehensive Plan and the Statewide Planning Goals. The FMP amendments to Goal 6 and Goal 11B are consistent with this criterion because the findings demonstrate this consistency.

Council Directives

The following statements are the City Council 'directives' that explain how each part of the TSP is adopted and how it fits into the structure of the City's Comprehensive Plan.

a. Adopt the Freight Master Plan as shown in Exhibit A;

b. Adopt the Freight Master Plan findings included in Exhibit B;

c. Amend Portland's Comprehensive Plan to incorporate the FMP amendments to Policies, Objectives, and Maps as shown in Exhibit A, including amendments to the Central City Transportation Management Plan classification maps;

d. Amend the Public Facilities Plan, as adopted by Ordinance No. 161770, by replacing the List of Significant Projects in Exhibit C with the updated 20-year Major Transportation Improvements List and Maps, as shown in Exhibit D of this ordinance, as a support document to Portland's Comprehensive Plan;

e. Adopt the remainder of Exhibit A as additions to the support documents for Goal 6 and 11B of the Comprehensive Plan;

f. Adopt the explanations, as shown in Exhibit A, as an expression of legislative intent and as further findings to support City Council's action;

g. Direct the Office of Transportation to publish revised versions of Volumes 1, 2, and 3 of the Transportation System Plan to incorporate appropriate elements of the Freight Master Plan as adopted by City Council;

h. Direct the Bureau of Planning to update the Comprehensive Plan to incorporate changes to Goal 5, Goal 6, Goal 11B, including policies, objectives, and classification maps as shown in Exhibit C and publish the amended Comprehensive Plan by the effective date of this ordinance;

i. Direct the Office of Transportation to complete development of the Design Guide for Truck Streets.

Proposed Revisions to Comprehensive Plan Goals 5, 6, and 11B

GOAL 5, ECONOMIC DEVELOPMENT

Policy 5.4 Transportation System
Promote a multimodal regional transportation system that ~~encourages~~ stimulates and supports long term economic development and business investment.

Objectives:

A. Support ~~regional~~ multimodal freight transportation improvements to provide competitive regional access to global markets and facilitate the efficient movement of goods and services in and out of Portland's major industrial and commercial ~~areas~~ districts. Ensure access to intermodal terminals and related distribution facilities to facilitate the local, national, and international distribution of goods and services.

B. ~~Support the maintenance and efficient use of the transportation infrastructure for local, national, and international distribution of goods and services.~~ Use transportation system improvements as a catalyst for attracting industrial and employment development.

C. – G. *Not applicable to freight*

H. Pursue transportation and parking improvements that reinforce commercial, industrial and residential districts and promote development of new ~~commercial, industrial, and residential~~ districts.

GOAL 6, TRANSPORTATION

Policy 6.9 Freight Classification Descriptions
~~Maintain~~ Designate a system of truck streets, railroad lines, and intermodal ~~and other~~ freight facilities that support local, national, and international distribution of goods and services.

Objectives

A. Freight Districts
Freight Districts are intended to provide safe and convenient truck ~~movement~~ mobility and access in industrial and employment areas serving ~~large numbers of truck trip ends and to accommodate the needs of intermodal facilities~~ high levels of truck traffic and to accommodate the needs of intermodal freight movement.

- Land Use. ~~Freight Districts encompass truck terminals, freight intermodal facilities, and industrial sanctuaries. Encourage national and international shipping firms to locate near intermodal facilities within Freight Districts.~~ Support locating industrial and employment land uses that rely on multimodal freight movement in Freight Districts..

- Function. ~~All streets within a Freight District are intended to allow truck movement.~~ Freight District streets provide local truck access and circulation to industrial and employment land uses.

- Connections. In Freight Districts, streets not classified as Regional Truckways or Priority Truck Streets are classified as Freight District streets. Freight District

streets connect individual properties to Priority Truck Streets.

- ~~Improvements~~. Design. ~~Street improvements in~~ Freight Districts streets should be designed to ~~serve truck movements and access to industrial areas~~ facilitate the movement of all truck types and over-dimensional loads, as practicable.

B. Regional ~~Truck Streets~~ Truckways

Regional ~~Truck Streets~~ Truckways are intended to ~~provide~~ facilitate interregional and interstate ~~and interregional truck movements that bypass a district completely or have only one trip end in a Transportation District~~ movement of freight.

- Land Use. ~~Encourage land uses that generate high levels of truck traffic to locate near interchanges with Regional Trafficways and Regional Truck Streets~~ Support locating industrial and employment land uses with high levels of truck activity near Regional Truckway interchanges.
- Function. ~~Regional Truck Streets should provide access to Truck Districts and to interchanges with Major Truck Streets.~~ Provide for safe and efficient continuous-flow operation for trucks.
- Connections. Provide Regional Truckway interchanges that directly serve Freight Districts and connect to Priority Streets and other streets with high levels of truck activity.
- Design. Design Regional ~~Truck Streets~~ Truckways to be limited access facilities and to standards that ~~accommodate~~ facilitate the movement of all types of trucks.

C. Priority Truck Streets

Priority Truck Streets are intended to serve as the primary route for access and circulation in Freight Districts, and between Freight Districts and Regional Truckways.

- Land Use. Support locating industrial and employment uses that generate high truck activity on corridors served by Priority Truck Streets.
- Function. Priority Truck Streets accommodate high truck volumes and provide high-quality mobility and access.
- Connections. Priority Truck Streets connect Freight Districts to Regional Truckways.
- Design. Priority Truck Streets should be designed to facilitate the movement of all truck classes and over-dimensional loads, as practicable. Buffer adjacent residential uses from noise impacts, where warranted.

~~C.~~ D. Major Truck Streets

Major Truck Streets are intended to serve ~~truck trips with one or both trip ends in a Transportation District~~ as principal routes for trucks in a Transportation District.

- Land Use. ~~Encourage land uses that attract large number of truck trips from inside and outside transportation districts to locate along Major Truck Streets~~.

Commercial and employment land uses that generate high levels of truck activity should locate along Major Truck Streets.

- Function. Major Truck Streets ~~should distribute truck traffic from Regional Truck Streets to Minor Truck Streets and provide access to Truck Districts~~ provide truck mobility within a Transportation District and access to commercial and employment land uses along the corridor.

- Connections. Major Truck Streets connect Transportation District-level truck trips to Regional Truckways. Trucks with no trip ends within a Transportation District should be discouraged from using Major Truck Streets.

- Design. ~~On new or reconstructed Major Truck Streets, buffer adjacent residential uses from noise impacts, where warranted. Truck access points should be consolidated to the extent feasible to reduce conflicts with all modes.~~ Major Truck Streets should accommodate all truck types, as practicable.

~~D.~~ E. ~~Minor~~ Truck Access Streets

~~Minor~~ Truck Access Streets are intended to serve ~~truck trips with both trip ends in a transportation district~~ as an access and circulation route for delivery of goods and services to neighborhood-serving commercial and employment uses.

- Land Use. ~~Discourage land uses that generate large numbers of truck trips, such as regional truck terminals, from locating on Minor Truck Streets.~~ Support locating commercial land uses that generate lower volumes of truck trips on Truck Access Streets.
- Function. ~~Minor~~ Truck Access Streets should ~~distribute truck trips from Major Truck Streets to local destinations~~ provide access and circulation to land uses within a Transportation District. Non-local truck trips are discouraged from using Truck Access Streets.
- Connections. Truck Access Streets should distribute truck trips from Major Truck Streets to neighborhood-serving destinations.
- Design. ~~Discourage non-local truck trips on Minor Truck Streets~~ Design Truck Access Streets to accommodate truck needs in balance with other modal needs of the street.

~~E.~~ F. Local Service Truck Streets

Local Service Truck Streets are intended to serve local truck circulation~~,~~ and access~~, and service requirements for truck movement~~.

- Land Use. ~~Outside of Freight Districts, discourage land uses that generate a significant number of truck trips~~ Local Service Truck Streets provide for goods and service delivery to individual commercial, employment, and residential locations outside of Freight Districts.
- Function. ~~Outside of Freight Districts,~~ Local Service Truck Streets should provide local truck access and circulation only.
- Connections. All streets, outside of Freight Districts, not classified as Regional Truckways, Priority Truck Streets, Major Truck Streets, or Truck Access Streets are classified as Local Service Truck Streets. Local Service Truck Streets with a

higher Traffic classification are the preferred routes for local access and circulation.

- Design. Local Service Truck Streets should give preference to accessing individual properties and the specific needs of property owners and residents along the street. Use of restrictive signage and operational accommodation are appropriate for Local Service Truck Streets.
- ~~Classification. All streets not classified as Regional Truck Streets or Major or Minor Truck Streets are classified as Local Service Truck Streets.~~

~~F.~~ G. ~~Main~~ Railroad Main Lines

~~Main Railroad Lines are those that are identified as Class I rail lines, for example, Union Pacific and Burlington Northern/Santa Fe.~~ Railroad Main Lines transport freight cargo and passengers over long distances as part of a railway network.

H. Railroad Branch Lines

Railroad Branch Lines transport freight cargo over short distances on local rail lines that are not part of a rail network and distribute cargo to and from main line railroads.

~~G.~~ I. Freight Facilities

Freight Facilities include the major ~~shipping and~~ marine, air, rail, and pipeline terminals ~~and rail facilities~~ that ~~serve the statewide, interstate, and international movement of goods or commodities~~ facilitate the local, national, and international movement of freight.

Policy 6.15 Transportation System Management

Give preference to transportation improvements that use existing roadway capacity efficiently and improve the safety of the system.

Objectives:

B. Employ transportation system management measures, including coordinating and synchronizing signals and intersection design, to improve ~~traffic and transit movements~~ mobility and safety for all modes.

Policy 6.29 ~~Freight Intermodal Facilities and Freight Activity Areas~~ Multimodal Freight System

Develop and maintain ~~an intermodal~~ a multimodal freight transportation system for the safe, reliable and efficient~~, and cost-effective~~ movement of freight~~, goods, and commercial vehicles~~ within and through the City. ~~on Truck Streets and for access and circulation in Freight Districts.~~

Explanation: The relationship between the movement of freight, goods and services is also addressed by objectives under Policy 5.4, Transportation System, of the Economic Development goal of the Comprehensive Plan.

Objectives:

A. ~~Participate in the planning and development of marine, aviation, and rail facilities with the Port of Portland and other affected agencies, groups, and individuals.~~ Support a well-integrated freight system that includes truck, rail, marine, air and pipeline modes as vital to a healthy economy.

B. ~~Address freight movement and access needs when conducting multimodal transportation studies or designing transportation facilities.~~ Coordinate with private and public stakeholders to identify improvement and funding strategies for multimodal freight mobility needs.

C. Participate ~~in the~~ with interjurisdictional ~~planning for improvements to the I-5 transportation and trade corridor~~ partners in the development of corridor plans, master plans, and regional facility plans that impact freight mobility.

D. ~~Continue to support rail as a mode for freight movement~~. Address freight access and mobility needs when conducting multimodal transportation studies or designing transportation facilities.

E. ~~Participate in area and regional planning for major regional pipelines and terminals~~. Work with community stakeholders to minimize adverse impacts of freight activity on the environment and residential and mixed-use neighbhorhoods.

~~Explanation: The movement of freight, goods, and services is addressed by other objectives under Policy 5.4, Transportation System, of the Economic Development goal of the Comprehensive Plan.~~

Policy 6.30 Truck ~~Movement~~ Mobility

~~Provide a complete, safe, and reliable system of Major and Minor Truck Streets for local truck movement, connecting Freight Districts, intermodal facilities, and commercial areas.~~ Develop, manage, and maintain a safe, efficient, and reliable freight street network to serve Freight Districts, commercial areas, and neighborhoods.

Explanation: ~~This is the general statement of the truck policy previously stated in the Implementation section of the Transportation Element.~~ This policy recognizes the City's role in managing truck movement on its street system.

Objectives:

A. ~~Encourage truck through-traffic to use Regional and Major Truck Streets for mobility and the use of Minor Truck Streets and Local Service Truck Streets to access local destinations~~. Prioritize transportation investments in the freight street network that improve connections between Freight Districts and Regional Truckways.

B. ~~Identify measures to improve truck access into and within Freight Districts and to and within 2040 Growth Concept centers.~~ Accommodate truck travel on designated truck streets through improvements to facility design and operations that address the dimensional needs of trucks.

C. Encourage through-truck traffic to use Regional Truckways, Priority Truck Streets, and Major Truck Streets for mobility and Truck Access Streets and Local Service Truck Streets to access local destinations.

D. Develop and implement street connectivity plans for Freight Districts to improve truck circulation and access to industrial land uses.

E. Develop and implement a signage plan for designated truck routes and major freight destinations.

F. Designate and maintain preferred routes to accommodate over-dimensional freight movement.

G. Employ intelligent transportation system measures to reduce delays and improve travel time on Regional Truckways, Priority Truck Streets and Major Truck Streets.

Policy 6.42 Truck Accessibility
Improve truck access to and from intermodal freight facilities, industrial and commercial districts, and the regional freight system.

A. Evaluate and improve locations where inadequate roadway design creates barriers for truck access in Freight Districts and on designated truck streets.

B. Upgrade bridges to remove load limits and vertical clearance restrictions on designated truck streets.

C. Use public-private collaboration to identify and implement measures to minimize delays and improve safety at at-grade rail freight crossings.

D. Provide adequate off-street loading areas for larger employment, commercial and multi-family developments.

E. Manage supply, operations, and demand of on-street truck loading spaces to ensure efficient, reliable and safe loading and unloading activities.

F. Implement design guidelines for truck streets that meet the dimensional needs of trucks, particularly for Freight Districts, while balancing the needs of other transportation modes in the right-of-way.

[Note: All Goal 6 policies and maps will be renumbered to add the Truck Accessibility policy after 6.30 Truck Mobility. This will occur as part of a future update of the TSP. On an interim basis the Truck Accessibility policy will be numbered 6.42]

Policy 6.34 North Transportation District
Reinforce neighborhood livability and commercial activity by planning and investing in a multimodal transportation network, relieving traffic congestion through measures that reduce transportation demand, and routing non-local and industrial traffic along the edges of the residential areas.

P. Encourage the use of Columbia Boulevard as the primary route for over-dimensional truckloads while ensuring the role of N Lombard (west of Martin Luther King Jr. Blvd) as an interim route until such time as improvements are completed that allow N Columbia to accommodate all types of over-dimensional truckloads.

Policy 6.37 Southeast Transportation District
Reduce travel demand and reliance on the automobile in Southeast Portland to protect residential areas and industrial sanctuaries from non-local traffic, while maintaining access to established commercial areas.

G. Encourage regional and inter-district truck traffic to use Regional Truckways, Priority and Major Truck Streets in Southeast Portland by establishing convenient truck routing that better serves trucks, while protecting Southeast neighborhoods.

O. Address the safety and access needs of pedestrians and bicyclists as part of freight-related street improvements for SE Holgate between SE 26th Avenue and McLoughlin Boulevard.

Explanation: SE Holgate is a Priority Freight Street that provides an important truck access function to the Brooklyn freight district. However, street improvement plans for SE Holgate developed for the purpose of facilitating freight movements should not overwhelm the other modal uses of the street, especially the safety and access needs of pedestrians and bicyclists.

Policy 6.39 Northwest Transportation District
Strengthen the multimodal transportation system in the Northwest District by increasing public transit use, encouraging transportation demand management measures, and improving pedestrian and bicycle access.

L. Preserve and enhance freight mobility, and industrial access in the Freight District, by maintaining or improving truck operations on Front Avenue, Yeon Avenue, Nicolai Street, St Helens Road, and the ~~114th~~ 14th and 16th Avenues couplet.

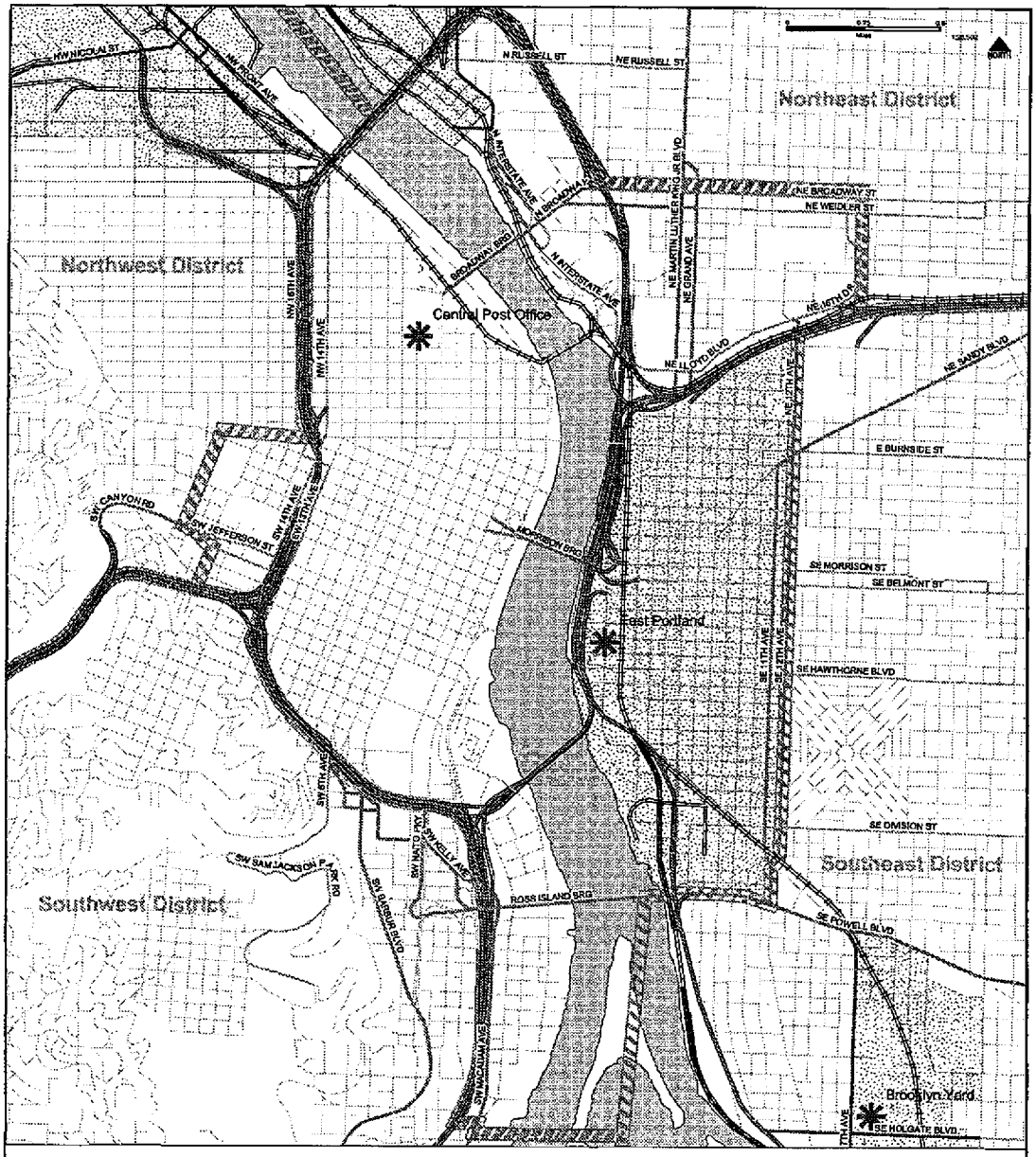
GOAL 11B PUBLIC RIGHTS-OF-WAY

Policy 11.10 Street Design and Right-of-Way Improvements

Design improvements to existing and new transportation facilities to implement transportation and land use goals and objectives.

Objectives:
E. Use a variety of transportation resources in developing and designing projects for all City streets, such as the City of Portland's Pedestrian Design Guide, Bicycle Master Plan-Appendix A, Design Guide for Truck Streets, and Design Guide for Public Street Improvements.

Explanation: The Design Guide for Truck Streets is in draft form and will be completed under the direction of the City Engineer after the adoption of the Freight Master Plan.



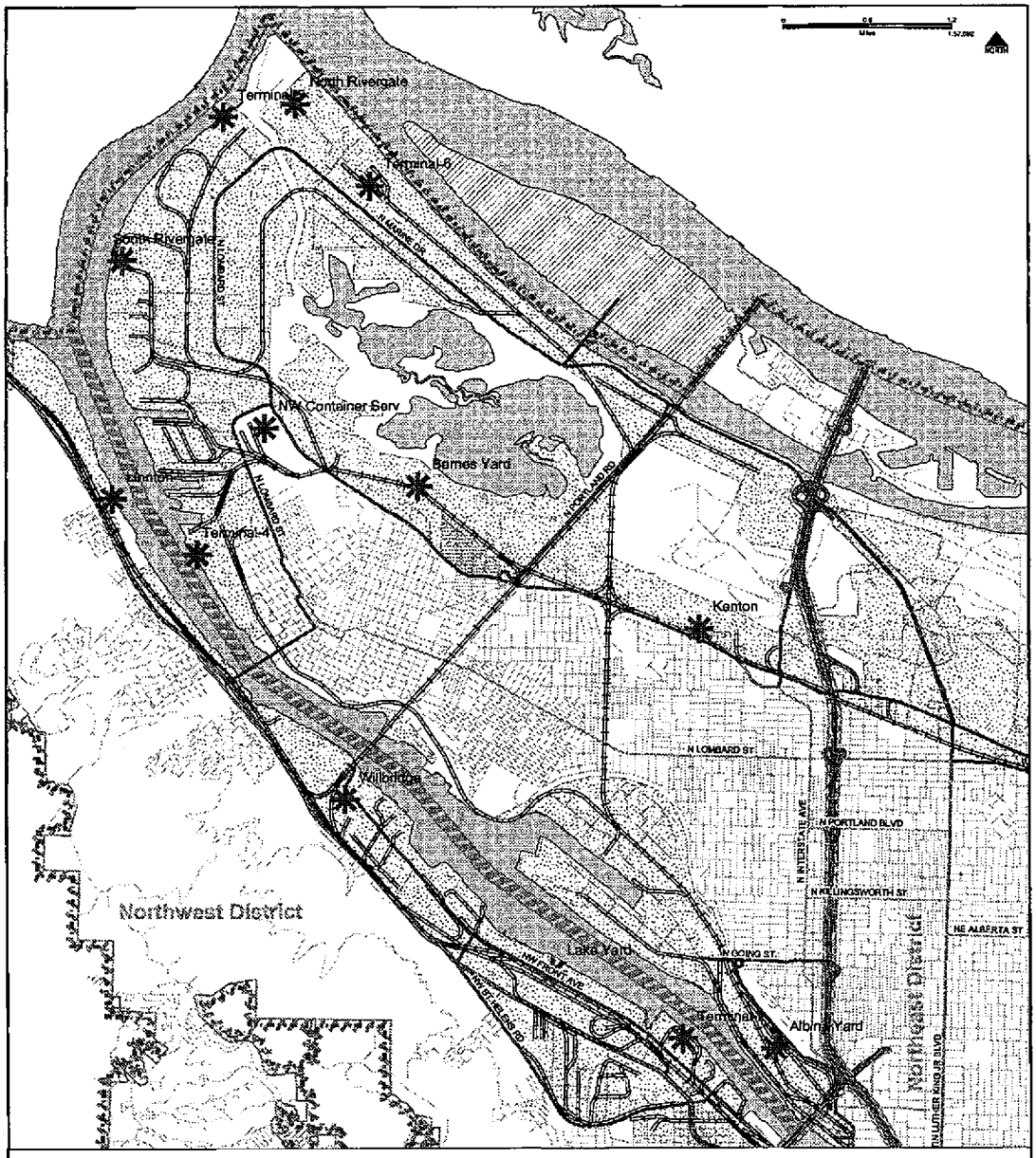
Central City District - Map 2.5

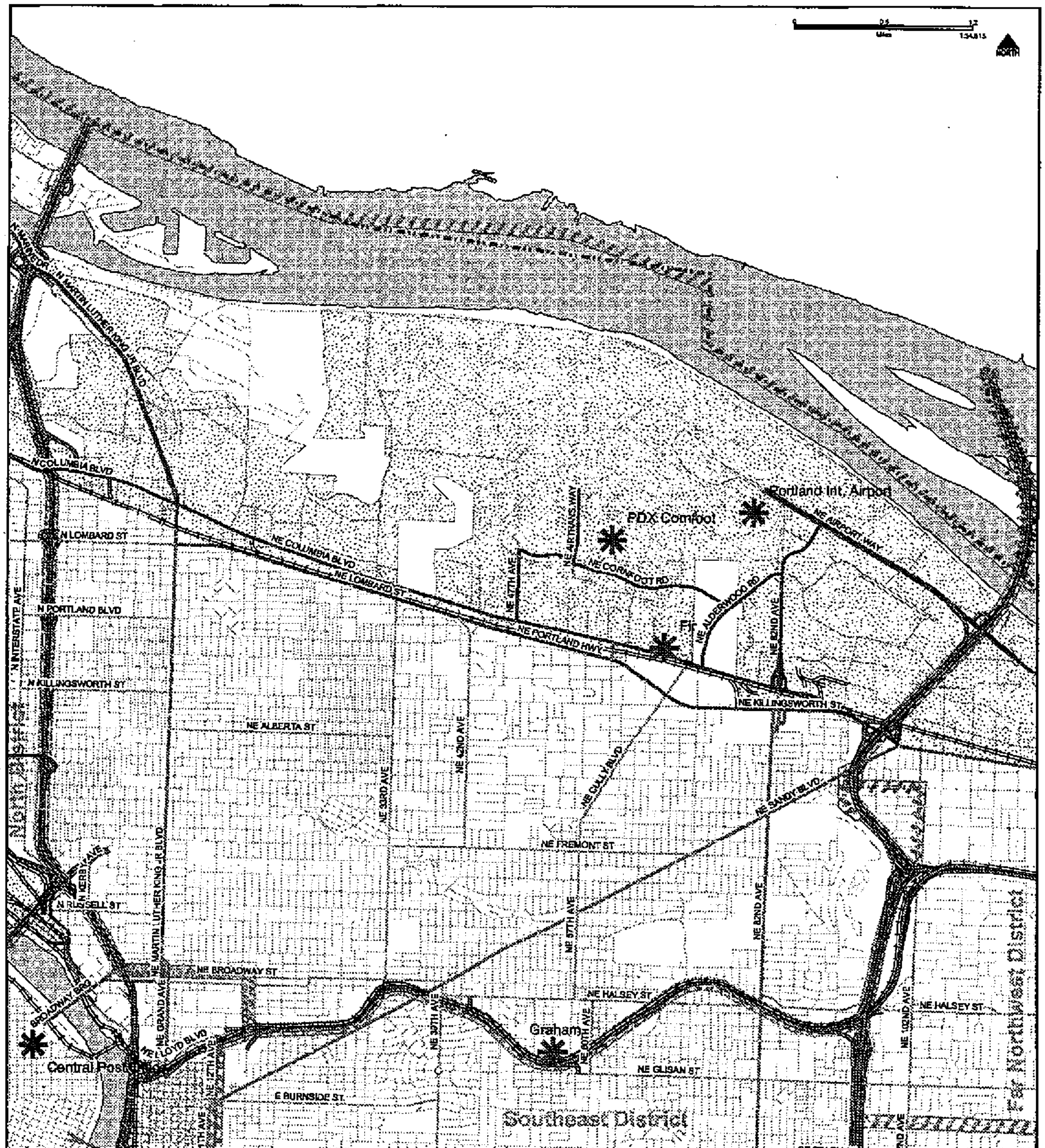
Freight Classifications

- Regional Truckway
- Priority Truck Street
- Major Truck Street
- Truck Access Street
- Freight District / Street
- Local Service Truck Street
- Main Rail Line
- Branch Rail
- Freight Facility

Other Map Features

- City of Portland Boundary
- Transportation District Boundary
- Unincorporated Areas within the Portland Urban Services Boundary


North Rivergate Terminal
Terminal-6
South Rivergate
NPI Container Serv
Barnes Yard
Terminal-4
Kenton
Willbridge
Northwest District
Lake Yard
Albina Yard
N LOMBARD ST
N PORTLAND BLVD
N KILLINGSWORTH ST
NE ALBERTA ST
N GOING ST
N INTERSTATE AVE
N LOMBARD ST
N PORTLAND RD
NW YEON AVE
NW 63RD AVE
NW 63RD DR
NW 82ND AVE
NORTH PORTLAND FREEWAY
NORTH PORTLAND FREEWAY
N MARINE DR
N MARINE DR
N LOMBARD ST
N CHAUTAUQUA BLVD
NORTH
North District - Map 6.34.5
Freight Classifications
Regional Truckway
Priority Truck Street
Major Truck Street
Truck Access Street
Freight District / Street
Local Service Truck Street
Main Rail Line
Branch Rail
Freight Facility
Other Map Features
City of Portland Boundary
Transportation District Boundary
Unincorporated Areas within the Portland Urban Services Boundary



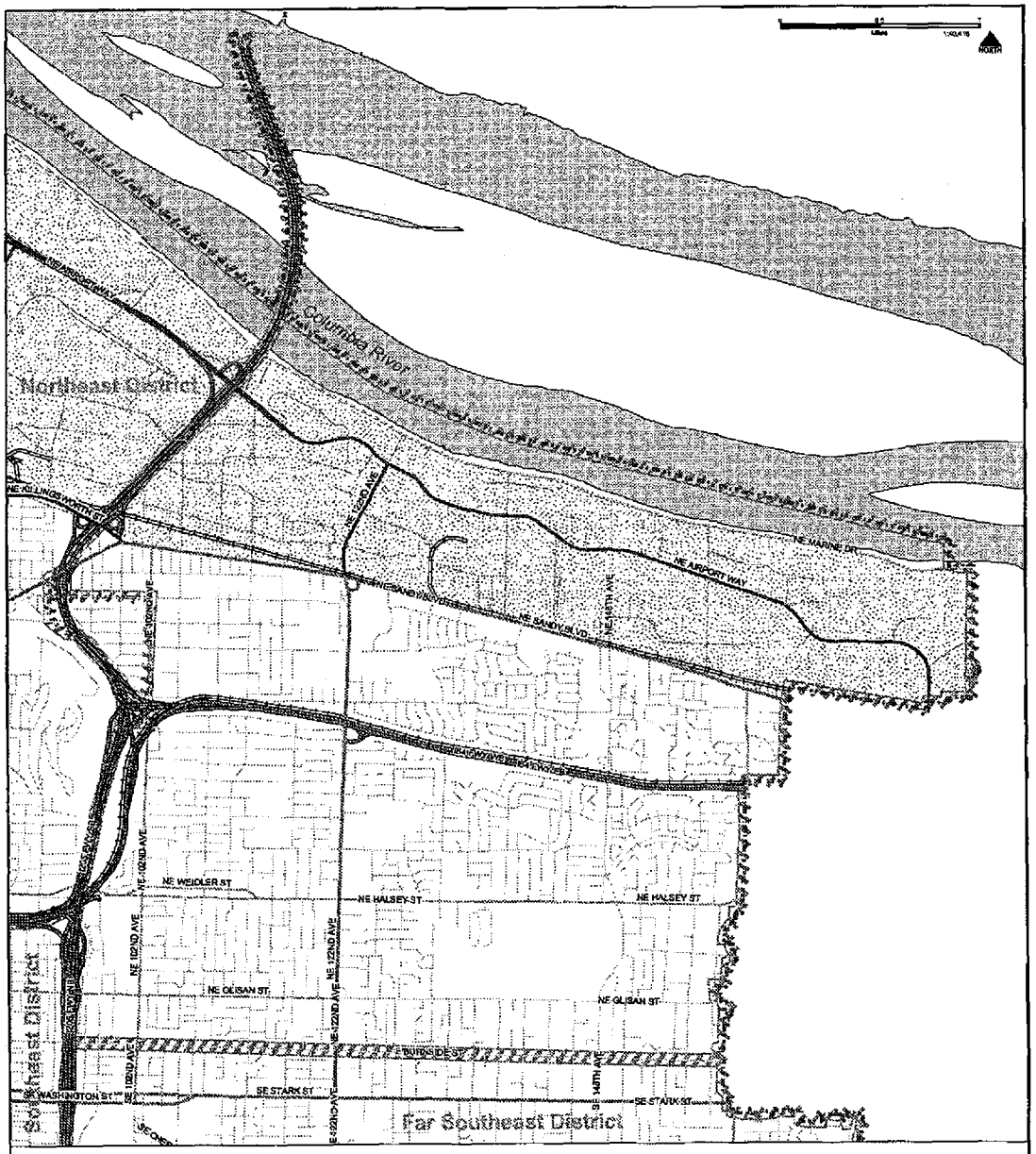
Northeast District - Map 6.35.5

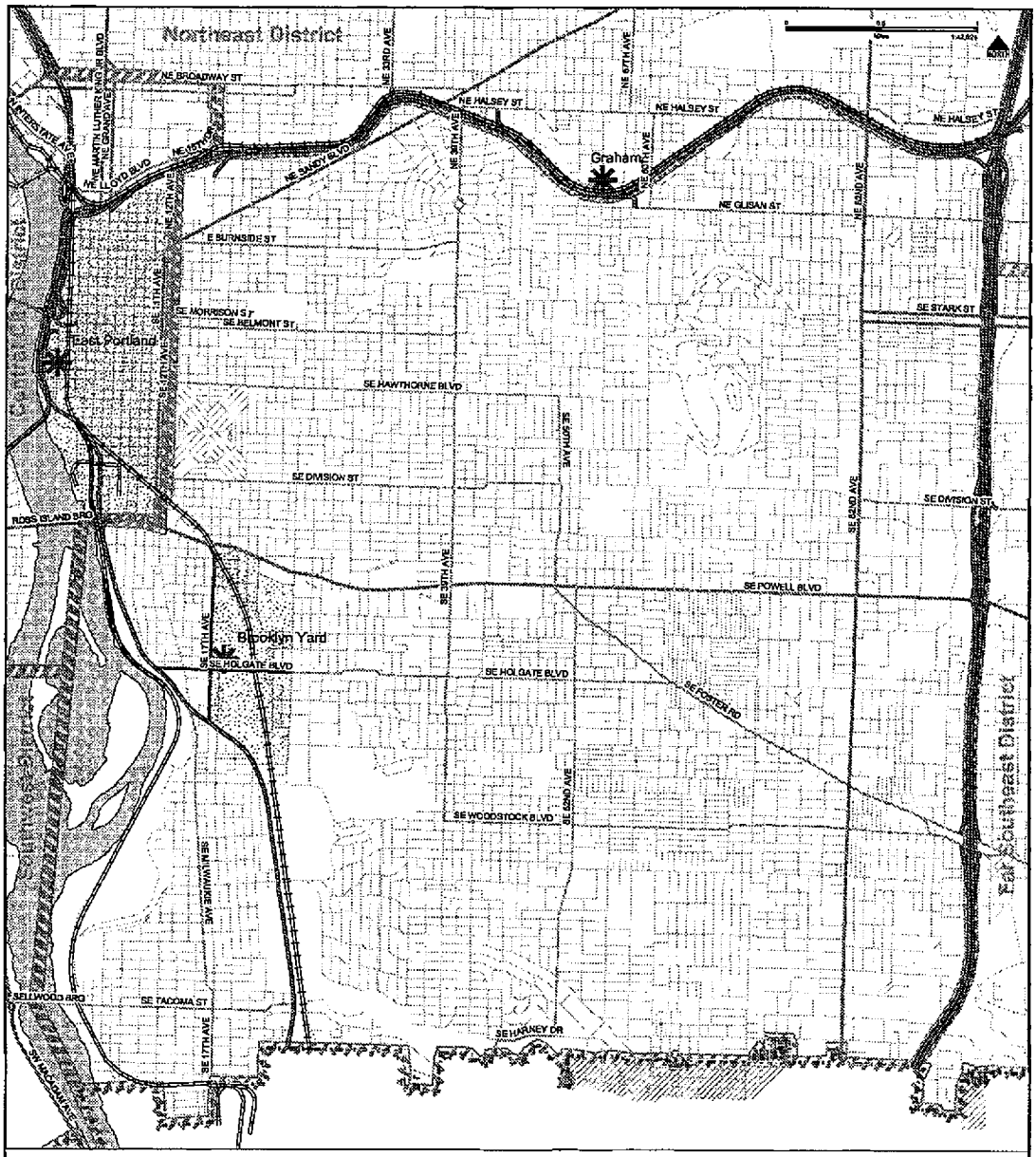
Freight Classifications

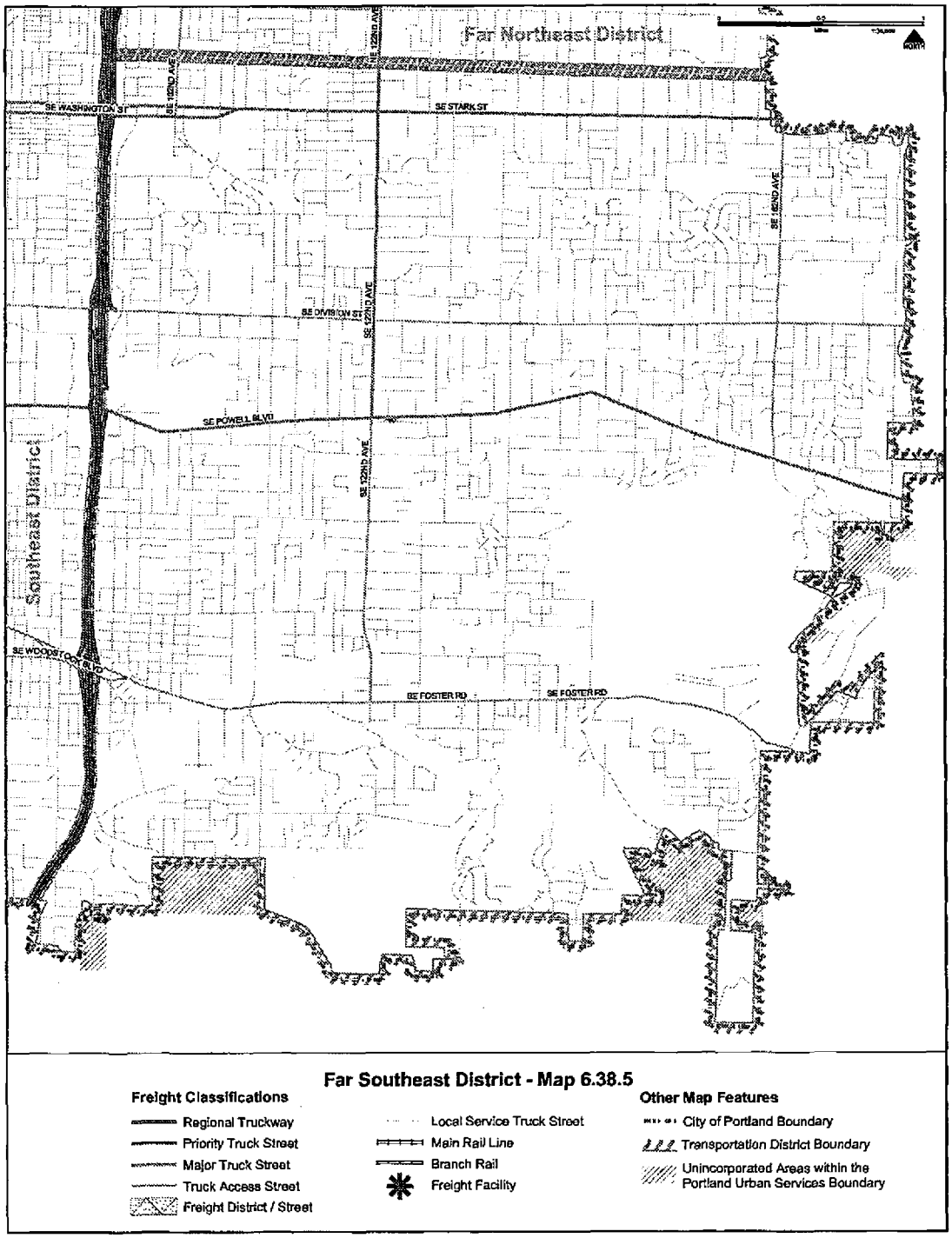
- Regional Truckway
- Priority Truck Street
- Major Truck Street
- Truck Access Street
- Freight District / Street
- Local Service Truck Street
- Main Rail Line
- Branch Rail
- Freight Facility

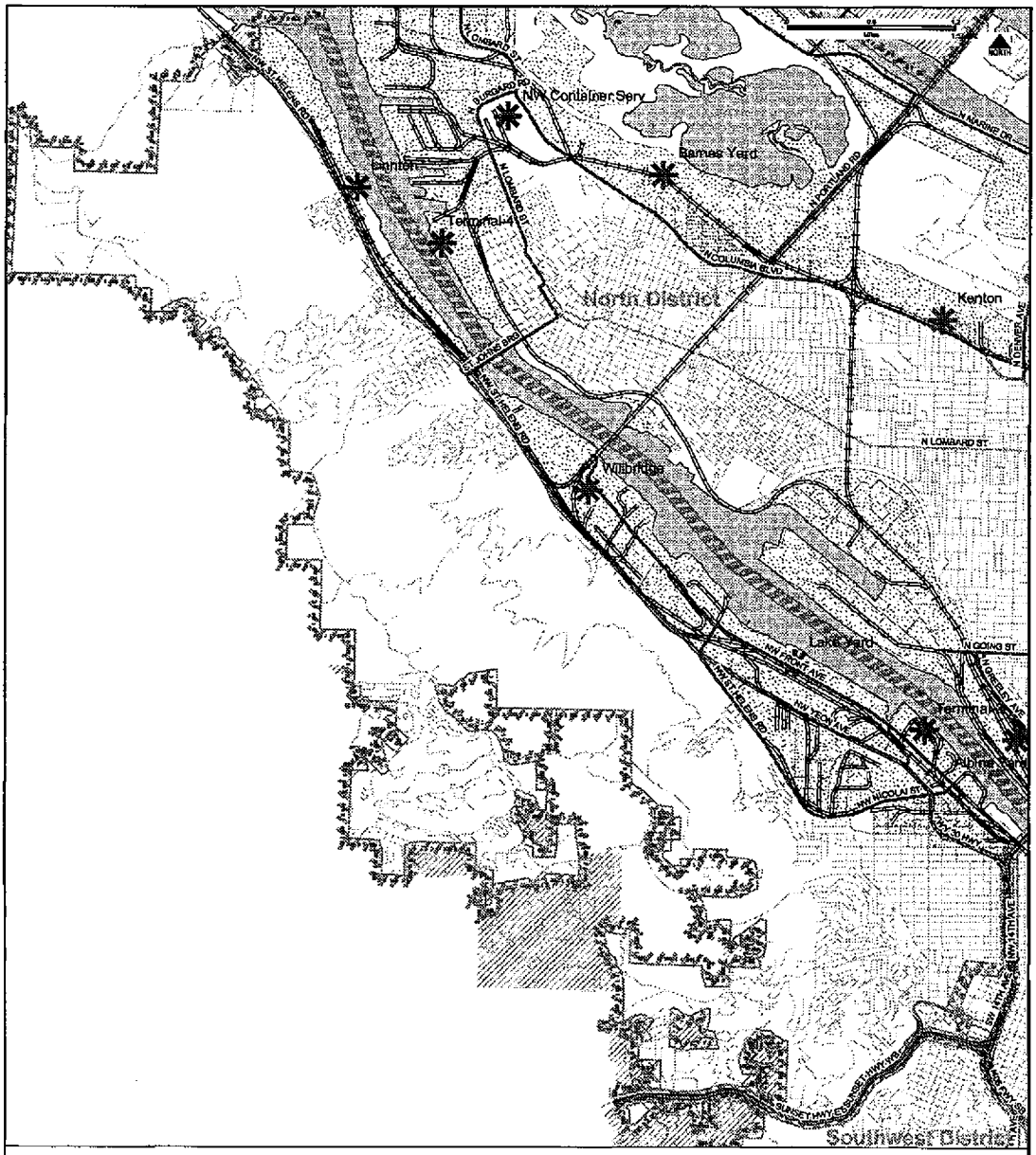
Other Map Features

- City of Portland Boundary
- Transportation District Boundary
- Unincorporated Areas within the Portland Urban Services Boundary


Columbia River
Northeast District
Southeast District
Far Southeast District
NE COLUMBIA BLVD
NE MARINE DR
NE AIRPORT WAY
NE SANDY BLVD
NE HALSEY ST
NE WEIDLER ST
NE GLISAN ST
SE STARK ST
SE WASHINGTON ST
NE 102ND AVE
NE 122ND AVE
NE 148TH AVE
SE 148TH AVE
Far Northeast District - Map 6.36.5
Freight Classifications
Regional Truckway
Priority Truck Street
Major Truck Street
Truck Access Street
Freight District / Street
Local Service Truck Street
Main Rail Line
Branch Rail
Freight Facility
Other Map Features
City of Portland Boundary
Transportation District Boundary
Unincorporated Areas within the Portland Urban Services Boundary


Northeast District
East Portland
Brooklyn Yard
Graham
NE BROADWAY ST
NE HALSEY ST
NE SANDY BLVD
NE GLISAN ST
E BURNSIDE ST
SE MORRISON ST
SE BELMONT ST
SE HAWTHORNE BLVD
SE DIVISION ST
SE POWELL BLVD
SE HOLGATE BLVD
SE WOODSTOCK BLVD
SE TACOMA ST
SE HARNEY DR
SE STARK ST
SE PORTER RD
ROSS ISLAND BRG
SELLWOOD BRG
Southeast District - Map 6.37.5
Freight Classifications
Regional Truckway
Priority Truck Street
Major Truck Street
Truck Access Street
Freight District / Street
Local Service Truck Street
Main Rail Line
Branch Rail
Freight Facility
Other Map Features
City of Portland Boundary
Transportation District Boundary
Unincorporated Areas within the Portland Urban Services Boundary


Far Northeast District
Southeast District
SE WASHINGTON ST
SE STARK ST
SE DIVISION ST
SE POWELL BLVD
SE FOSTER RD
SE 122ND AVE
SE 162ND AVE
SE WOODSTOCK BLVD
NORTH
Far Southeast District - Map 6.38.5
Freight Classifications
Regional Truckway
Priority Truck Street
Major Truck Street
Truck Access Street
Freight District / Street
Local Service Truck Street
Main Rail Line
Branch Rail
Freight Facility
Other Map Features
City of Portland Boundary
Transportation District Boundary
Unincorporated Areas within the Portland Urban Services Boundary



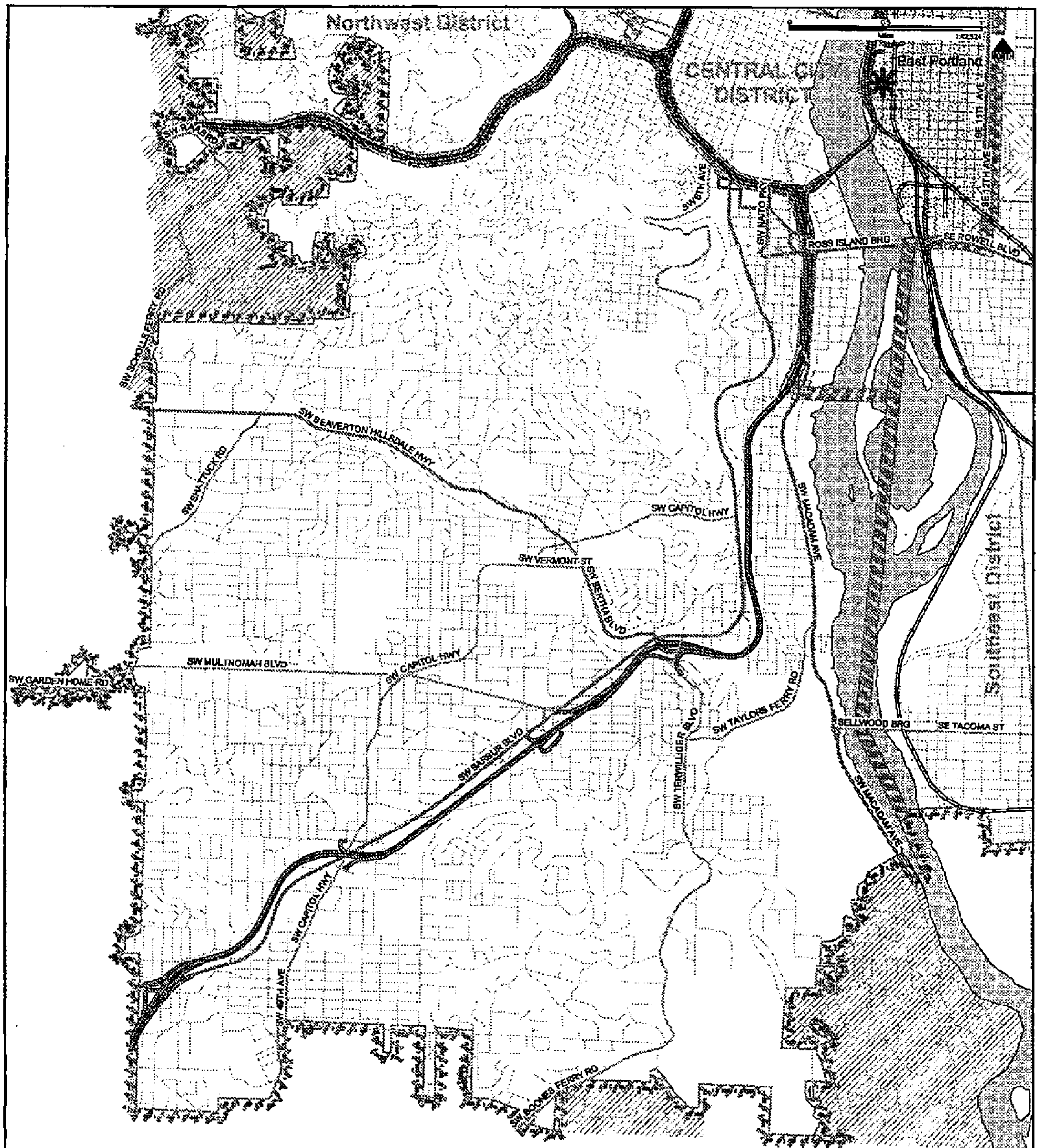
Northwest District - Map 6.39.5

Freight Classifications

- Regional Truckway
- Priority Truck Street
- Major Truck Street
- Truck Access Street
- Freight District / Street
- Local Service Truck Street
- Main Rail Line
- Branch Rail
- Freight Facility

Other Map Features

- City of Portland Boundary
- Transportation District Boundary
- Unincorporated Areas within the Portland Urban Services Boundary



Southwest District - Map 6.40.5

Freight Classifications
- Regional Truckway
- Priority Truck Street
- Major Truck Street
- Truck Access Street
- Freight District / Street
- Local Service Truck Street
- Main Rail Line
- Branch Rail
- Freight Facility

Other Map Features
- City of Portland Boundary
- Transportation District Boundary
- Unincorporated Areas within the Portland Urban Services Boundary

Central City

20002
14th/16th, NW/SW & 13th/14th, SE (Glisan – Clay): ITS

~~*Six signals between Clay and Glisan including communications infrastructure, closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow.*~~ *Closed-circuit TV (CCTV) camera at Everett. Changeable message signs at Glisan, Everett, Burnside, Taylor, Jefferson and Clay intersections.*

Portland

~~$202,125~~ $250,000 (Years 11 – 20)

20004
7th/8th Ave, SE: New Street Connection

Construct new street connection from SE 7th to 8th Ave at Division Street to improve local connectivity for industrial properties.

Portland

~~$577,500~~ $500,000 (Years ~~11 – 20~~ 1 – 5)

20023
11th/12th/Railroad Crossing, SE (west of Division): Intersection Improvements

Reconstruct intersection to upgrade traffic signalization and establish bike and pedestrian routes to improve safety and reduce delay at intersection.

Portland

$400,000 (Years ~~11 – 20~~ 6 – 10)

20024
Grand Ave, SE: Bridgehead Improvements

Reconstruct west edge of SE Grand at bridgehead to provide sidewalks and urban standard turn lanes for vehicles. ~~and~~ Improves truck safety and access.

Portland

~~$1,600,000~~ $4.1M (Years 1 – 5)

20027
I-405/US 26/Ross Island Bridge, SW: Access Improvements

Construct new freeway access from Ross Island Bridge to I-405 and US 26 to improve connections between regional facilities and separate traffic from neighborhood streets.

ODOT

~~$57,750,000~~ $50M (Years ~~11 – 20~~ 6 – 10)

20028
~~I-5, SW (South of I-405):~~ /North Macadam Access ~~and Safety~~ Improvements

Construct new off-ramp at NB I-5 to NB Macadam Ave ~~and provide safety and modernization improvements to I-5 South~~ to add capacity and improve safety.

ODOT

~~$57,750,000~~ $60M (Years ~~11 – 20~~ 1 – 5)

20029
I-5 & McLoughlin, SE: Construct Access Ramps

Construct new ramps from McLoughlin to I-5 ~~North at~~ NB near Division to improve connections.

ODOT

~~$23,100,000~~ $20M (Years 11 – 20)

20047
Ross Island Bridge Interchange, SW

US 26 Interchange improvement on east approach to Ross Island Bridge.

Portland

~~$5,082,000~~ $4.4M (Years 11 – 20)

20054
Water Ave, SE (Caruthers – Division Pl): Street Extension Phase II

Provide new roadway connecting with sidewalks, bike lanes, landscaping, access to Willamette Greenway, and reconstruction of existing roadway.

Portland

$288,750 (Years ~~1—5~~ 11 – 20)

20058
Willamette River Bridges, NE/NW/SE/SW: Rehabilitation

Provide for long-term rehabilitation and structural needs of the Broadway, Burnside, Morrison, and Sauvie Island bridges.

Multnomah County

~~$93,334,395~~ $113M (Years ~~11—20~~ 1 - 5)

20065
Interstate, N, Bridge at Larrabee: ~~Seismic Retrofit~~ Bridge Rehabilitation

~~Seismic retrofit Interstate overcrossing at Larrabee.~~ Rehabilitate Interstte overcrossing of Larrabee to remove weight restriction.

Portland

~~$1,455,300~~ $1.2M (Years 11 – 20)

20067
I-5, N (Lloyd District/Rose Quarter): Reconstruction and Widening

Modernize freeway and ramps ~~to improve~~ access to the Lloyd District and Rose Quarter.

Portland

$106,260,000 (Years 1 – 5)

20068
12th, NE (Bridge at Lloyd Blvd): Seismic Retrofit

Seismic retrofit.

Portland

$415,800 (Years 11 – 20)

20074
4th Ave, SE (Caruthers – Ivon): Multi-modal Street Improvements

Improve geometrically constrained 4th and Caruthers intersection to facilitate truck turning movements. Construct urban standard street improvements for traffic. Add pedestrian and bike facilities connecting the Springwater Corridor to Caruthers.

Portland

$250,000 (Years 1 – 5)

Portland

$350,000 (Years 6 – 10)

20093
~~Graham Line Connection, N: South of Steel Bridge~~ UP Line Connection, SE (Brooklyn line – Graham line)

~~Reestablish a connection in the southeast quadrant in East Portland between UP's Brooklyn and Graham rail lines.~~ Add rai connection between the Brooklyn and Graham lines in SE Portland to increase rail capacity.

Railroad

$11,000,000 (Years ~~6—10~~ 1 – 5)

20094
~~Albina Yards Mainline Improvements,~~ ~~N~~ UP Line Upgrade, SE (Albina Yard – East Portland)

~~Upgrade river lead tracks between Albina and East Portland, and a second track through the East Portland yard, interlocking the Seattle and Brooklyn subdivisions.~~ Upgrade existing track to second main track to increase track speeds in this section of the north/south main line.

Railroad

~~$12,000,000~~ $8.8M (Years ~~6 – 10~~ 1 - 5)

20096
Morrison Bridge at Water Ave Ramp, SE: Ramp Realignment

Realign and separate the Morrison Bridge off-ramp to Water Avenue from the I-5 off-ramp by moving it north approximately 100' from the Yamhill/Water intersection. Construct a sidewalk and bike lane along the south side of the realigned ramp.

ODOT/Portland

$1.75M (Years 1-5)

North

30008
Columbia Blvd, N/NE (I-205 – Burgard): ITS

~~Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring, and control of traffic flow for six signals.~~ CCTV at I-205 ramps, NE 82nd, 47th, NE 33rd ramps, MLK, Jr, I-5 SB ramps, N Portland Rd, and N Burgard Rd. Changeable message signsat NE 82nd, MLK, Jr, and I-5 SB ramps, N Portland Rd. Monitoring at I-205, NE 33rd, MLK, Jr, and I-b SB ramps.

Portland

$310,000 (Years ~~6 – 10~~ 1 – 5))

30010
Denver Viaduct, N: Reconstruct Viaduct

Rebuild viaduct and add pedestrian walkway/bikeway. Project improves truck access to I-5.

ODOT/Portland

$2,000,000 (Years ~~11 – 20~~ 1 - 5)

30013
Going St Bridge, N: Overcrossing Improvements

~~Seismic retrofit project will include work to both the substructure and superstructure to help minimize the risk of a structural collapse in a major earthquake.~~ Replace bridge over UPRR. Bridge is currently weight restricted.

Portland

~~$3,099,000~~ $5M (Years 1 – 5)

30015
Going, N (Interstate – Greeley): ITS

~~Communications infrastructure including closed circuit TV cameras, variable messsage signs for remote monitoring and control of traffic flow.~~ CCTV at Greeley/Interstate intersections. Variable message sign for EB traffic at Greeley. Changeable message sign for EB traffic at Interstate. Monitoring station at Greeley.

Portland

~~$294,525~~ $255,000 (Years ~~11 – 20~~ 1 – 5)

30016
Going/Greeley, N: Climbing Lane and Interchange Improvements

Redesign Going/Greeley interchange including climbing lane on Going to improve truck movement between Swan Island, Lower Albina, and I-5.

Portland

$2,000,000 (Years 1 – 5)

30020
I-5, N (Columbia River – Columbia Bl): Bridge Widening

Improve I-5/Columbia River bridge (Local share of joint project) based on recommendations in I-5 Trade Corridor Study. Project addresses a high congestion location.

ODOT

$200,000,000 (Years 1 – 5)

30022
I-5, N (Expo Center – Lombard): Widening Freeway

Widen I-5 to three lanes in each direction from Lombard to the Expo Center exit to improve safety and repair a system bottleneck.

ODOT

~~$25,000,000~~ $41M (Years 1 – 5)

30023
I-5/~~Columbia Blvd~~, N: Interchange Improvements

Construct a full direction access interchange based on recommendations from I-~~5 North Trade Corridor Study~~: Delta Park to Lombard Environmental Assessment to improve connections between the Columbia Corridor industrial area and I-5.

ODOT

~~$25,000,000~~ $56M (Years ~~6—10~~ 1 - 5)

30031
Leadbetter, N (Marine Dr Loop): Street Extension/ ~~and~~ Overcrossing

~~Complete Leadbetter loop to Marine Drive to provide access to developing properties. Add overcrossing to reduce truck delays~~. Extend Leadbetter to Terminal 6/Marine Dr, via a new rail overcrossing to provide access to developing Port property and address delay from at-grade rail crossing.

Port

~~$9,867,000~~ $10.8M (Years 1 - 5)

30036
Lombard, N (Rivergate – T6): Multi-modal Improvements

Widen N Lombard to include two travel lanes, a non-continuous center turn lane, medians, bike lanes, and sidewalks ~~and planting strips~~ to improve safety and access to industrial properties.

Portland/ODOT

~~$3,610,000~~$3.6M (Years 1 – 5)

30038
Marine Dr, N/NE (Portland Rd – 185th): ITS

~~Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow for three signals.~~ CCTV at N Portland Rd. Changeable message signs at Portland Rd, Vancouver and 185th.

Portland

$750,000 (Years ~~11—20~~ 6 - 10)

30054
Barnes Rail Yard – Bonneville Rail Yard, N: Track Expansion

Construct additional unit train trackage between Bonneville and Barnes Yards to support unit train movement between South Rivergate and the Columbia Corridor. Addresses limited Rivergate staging area for unit trains approaching the marine terminals. Solves switching bottlenecks, terminal access limitations, and other operational conflicts.

Port

~~$4,500,000~~ $11.9M (Years 6 – 10)

30055
Penn Junction, N (UP/BNSF Main Line): Track Realignment

Realign track configuration, double track, and upgrade signaling to improve mainline capacity over the Columbia River and allow greater train turnaround speed.

Port

$3,500,000 (Years 6 – 10)

30057
Lombard/St. Louis/Ivanhoe: Multi-modal Improvements

~~Implement signal and pedestrian crossing improvements to improve pedestrian safety and freight flow.~~ Restripe, construct curb extensions, realign, and signalize as needed to improve pedestrian-bicyclist amenities while not impeding truck movements. Project maintains truck movement and minimizes conflicts with bicycles an dpedestrians in town center.

Portland

~~$109,725~~$1.4M (Years ~~6 – 10~~ 1 – 5)

30058
Lombard, N (at Terminal 4): Driveway Consolidation

Consolidate ~~two signalized~~ driveways at Terminal 4 and Schnitzer Steel to improve industrial property access.

Portland/Port

$1,000,000 (Years 1 – 5)

30062
~~WHI Rail Yard West Hayden Island, N~~ West Hayden Island Rail Yard Expansion, West Hayden Island

Construct seven track rail yard connected to facility trackage to advance rail-dependent development.

Port/Railroad

~~$9,500,000~~ $3M (Years ~~6 – 10~~ 11 – 20)

30063
~~BNSF Rail Bridge, N:~~ BNSF Line @ Columbia Bridge, N: Track Improvements

~~Construct improvements to increase track speeds on approaches to movable river spans.~~ Improve rail track conditions on approaches to movable spans over the Columbia River to increase track speeds in this section of the north/south main line.

Region

$8,000,000 (Years 6 – 10)

30064
Ramsey Rail Complex: N (south of Columbia Slough Bridge): Capacity Improvements

~~*Construct improvements to increase track speeds on approaches to movable river spans.*~~ *Construct six tracks and one mainline track and lead into complex. Adds 46,000 linear feet of rail storage separate from the main line tracks. Improves regional heavy rail system efficiency. Solves storage capacity issues, bottlenecks, terminal access limitations, and other multimodal inefficiencies.*

Port/Railroad

~~$12,000,000~~ $13.2M (Years 1 – 5)

30065
N Portland Junction, N: Rail ~~Crossovers~~ Improvements

~~*Install revised rail crossovers and higher turnout speeds.*~~ *Upgrade rail track with revised crossovers, centralized traffic control tie-in and increased turning radius to accommodate higher rail speeds and capacity.*

Region

~~$9,200,000~~ $5M (Years 6 – 10)

30067
Lombard at Columbia Slough Overcrossing (Rivergate), N: ~~Overcrossing~~ Bridge Rehabilitation

Strengthen or reconstruct the Columbia Slough Bridge and add sidewalks and bike lanes. Accommodate overweight loads.

Region

~~$4,925,889~~ $4.9M (Years 1 – 5)

30068
Lombard St (Burgard), N: Bridge Replacement

Upgrade structure at entrance to Terminal 4 and Schnitzer Steel to eliminate load restrictions on the bridge.

Port

$4.9M (Years 1 – 5)

30069
Slough Rail Bridge, N

Potential for future rail bridge across Columbia Slough to provide rail connection to south Rivergate from Terminal 6.

Region

$4.5M (Years 11 – 20)

30070
Columbia Bl/Portland Rd, N: Intersection Improvements

Redesign of intersection could include realignment of travel lanes, channelization, signalization, signage, and new sidewalks and curbs. Project reinforces through-truck movements on truck streets and minimizes neighborhood cut-through traffic.

Portland

$700,000 (Years 1 – 5)

30071
Ivanhoe/Philadelphia, N: Intersection Improvements

Redesign intersection to improve traffic and pedestrian circulation.

Portland

$107,000 (Years 11 – 20)

30072
Rivergate ITS, N

Connect real-time information about the Rivergate road system to ODOT's Highway ITC systems.

Portland

$200,000 (Years 1 – 5)

30073
Heineman, N: Road Connection

Construct new street to provide access to developing Port of Portland industrial property.

Port

$570,000 (Years 1 – 5)

30074
Vancouver Bridge, N (at Columbia Slough): Bridge Replacement

Replace deteriorating bridge to improve safety and remove weight restriction.

Portland

$8.5M (Years 1 – 5)

30075
Lombard, N/NE (Philadelphia – MLK, Jr): ITS

CCTV cameras at intersections with MLK Jr, Interstate, Greeley, Portsmouth, Philadelphia/Ivanhoe. Changeable message signs at Interstate, Portsmouth and Lombard.

Portland

$210,000 (Years 11 – 20)

30076
Vancouver BNSF Rail Bridge Project (Columbia River)

Replace existing swing span with lift span and relocate position to mid-river channel. Project creates wider and quicker opening, reduces I-5 Fwy lifts, eases river navigation, and could accommodate a third rail track.

Region

$42M (Years 1 - 5)

30077
Barnes to Terminal 4, N: Track Expansion

Provide a dedicated track for Terminal 4 through Barnes Year and add a new track from Barnes Yard to Terminal 4.

Port

$1M (Years 1 - 5)

30078
T-5 Unit Rail Loops # 3 & #4

Construct two additional loop tracks to increase rail storage and rail handling capability of existing bulk terminal.

Port

$2.8M (Years 1 - 5)

30079
T-6 Intermodal Third Lead

Construct a dedicated lead for the T-6 intermodal yard. Removes bottleneck at T-6 for unit trains, auto carriers, box cars, and tank cars.

Port

$4.5M (Years 1 - 5)

Northeast

40001
~~Lombard/Columbia (at MLK Jr Blvd): Roadway Connector~~ 11th/13th, NE (at Columbia Bl): Roadway Connector

~~Improve road connection between Columbia Blvd and Lombard in the vicinity of MLK Jr Blvd to 11th/13th to facilitate freight movement.~~ New three lane roadway and bridge over rail line to connect Lombard and Columbia. Provides space for double tracking of rail line. Improves freight mobility through additional rail capacity, new street connection, and grade separation.

Portland

~~$16,835000~~ $8M (Years ~~6 – 10~~ 1 – 5)

40002
33rd, NE (at Colmbia Slough): Bridge Replacement

Replacement of side-by-side bridges carrying nE 33rd Dr over Columbia Slough.

Portland

$3M (Years 1 - 5)

40005
33rd ~~Bridge & Ramps~~, NE (at ~~Columbia/~~Lombard): ~~Seismic Retrofit/Replacement~~ Bridge Replacement

~~Seismic retrofit of bridge and ramps at 33rd/Columbia/Lombard or replace existing structure to include new ramp system connecting Columbia and Lombard. Widen for bike lanes.~~ Lengthen and replace main span carrying NE 33rd Ave over Lombard St. Project will improve bridge clearance and load rating.

Portland

~~$1,800,000~~ $3.5M (Years ~~11 – 20~~ 1 – 5)

40007
42nd Bridge, NE (at Lombard~~): Seismic Retrofit~~ Bridge Replacement

Replace 42nd bridge over Lombard to remove weight restriction and improve vertical clearance under bridge.

Portland/ODOT

~~$473,550~~$3M (Years 11 – 20)

40009
47th, NE (Columbia - Cornfoot: ~~Intersection and~~ Roadway & Intersection Improvements

Widen and ~~channelize NE 47th Av/Cornfoot Rd intersection and NE Columbia~~ reconfigure intersections to better facilitate truck turning movements to the cargo area located within the airport area. Project includes sidewalks and bikeway improvements.

Portland

~~$2,800,000~~ $4.1M (Years 1 – 5)

40014
82nd Ave/Alderwood Rd, NE: Intersection Improvements

Construct right turn lane on SB 82nd Ave; modify traffic signal and construct second right turn lane on Alderwood westbound. Project includes sidewalks and bikeway improvements.

Port/ODOT

~~$790,000~~$200,000 (Years 1 – 5)

40015
82nd, NE/SE: ITS

Implement ITS infrastructure to allow monitoring and control of traffic flow including closed circuit TV cameras and variable message signs to improve safety, reduce neighborhood intrusion, and help buses.

Portland/ODOT

~~$404,250~~ $350,000 (Years ~~11 – 20~~ 1 – 5)

40018
East End Connector, NE

Construct an at-grade intersection connection from Columbia Blvd at 82nd to US 30 Bypass/I-205 interchange and widen I-205 SB on-ramp at Columbia Bl. Project resolves an existing safety and capacity problem at terminus of Columbia Bl at 92nd. Adds capacity to Lombard. With completion of project, Killingsworth replaaces Columbia BL as NHS intermodal connector east of new connection.

Portland/Port

~~$28,865,250~~ $26.5M (Years 1 – 5)

40019
92nd Ave, NE (Alderwood – Columbia Blvd): Street Improvements

~~*Improve 92nd to*~~ *Extend 92nd to Alderwood to better facilitate circulation in the Portland International Center development. Scope of project not fully defined.*

Portland

~~$1,732,500~~ $1.5M (Years 11 – 20)

40021
Airport Way, NE (82nd – PDX Terminal): Street Widening

Widen to three lanes in both directions to improve traffic flow.

Port

~~$11,550,000~~$10M (Years 6 – 10)

40022
Airport Way, NE: Access Road

Construct Airport Way East Terminal access road to improve access to properties.

Port

~~$9,240,000~~ $8M (Years 6 – 10)

40025
82nd/Airport Way, NE: Overcrossing

Construct grade-separated overcrossing to improve efficiency of traffic flow to PDX properties.

Port

~~$11,895,000~~ $11M (Years ~~6 – 10~~ 11 – 20)

40032
Alderwood/Columbia Bl/Cully, NE: Intersection Improvements

Reconstruct intersection to provide left turn pockets, enhancing turning radii and improving circulation for trucks serving expanding air cargo facilities south of Portland.

Portland

~~$1,460,000~~ $350K (Years 1 - 5)

40035
Alderwood/Cornfoot Road, NE: Intersection Improvement

Add signal and improve turn lanes at Alderwood Road/Cornfoot Road to improve safety, circulation, and access to PDX and Portland International Center properties.

Port

~~$730,000~~ $350,000 (Years 1 - 5)

40036
Cornfoot, NE (47th -Alderwood): Road Widening & ~~Bikeway~~ Intersection Improvements

Road widening project including lighting and landscaping, left turn lanes, and bike lanes (47th – Airtrans Way). Signalize Confoot/Airtrans intersection and reconfigure traffic flow. Strip bike lanes (Airtrans – Alderwood). Project improves traffic flow to air cargo facilities in airport area.

Portland

~~$1,607,760~~ $2M (Years ~~11 – 20~~ 1 - 5)

40046
I-84/I-205, NE: Auxiliary Lane

New auxiliary lane from I-84 to I-205 NB before Columbia Blvd to reduce slowdowns and help improve safety for merging vehicles.

ODOT

~~$5,775,000~~ 5M (Years 11 - 20)

40048
I-205, NE (I-205/Airport Way) Interchange Improvement at SB Off-ramp ~~/Airport Way, NE: Interchange Improvements~~

Widen I-205 SB ~~on~~ off-ramp at Airport Way interchange to provide additional capacity for anticipated growth at interchange.

ODOT

~~$10,000,000~~ $550K (Years ~~11 – 20~~ 6 – 10)

40058
MLK Jr, N (Columbia Bl - CEID): ITS

~~Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow on MLK Jr and Grand couplet through Central Eastside Industrial District and along MLK Jr to Columbia Blvd.~~ CCTV at Howthorne ramp, Clay, Belmont, Morrisorn, Burnside, Lloyd, Broadway, Fremont, Killingsworth, Lombard, Columbia, I-5 and Marine Dr. Traffic monitoring stations at Clay and Burnside.

Portland/ODOT

~~$635,250~~ $550K (Years ~~1 – 5~~ 6 - 10)

40060
Marx Dr, NE (82nd -87th): Street Extension

Extend NE Marx Dr west from 87th and signalize at 82nd Ave to provide better street ~~grid~~ connectivity for industrial purposes.

Port/ODOT

~~$363,825~~ $315K (Years 6 - 10)

40061
Columbia Blvd/MLK Jr & Lombard/MLK Jr, NE: Intersection Improvements

Widen turn lanes at MLK Jr intersections with Columbia and Lombard to facilitate truck turning movements.

Port/ODOT

$700,000 (Years 1 - 5)

40069
Sandy Blvd, NE (82nd - Burnside): ITS

~~*Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow.*~~ *CCTV at 12th, 37th, 39th, 57th, 72nd, 82nd, I-205 NB ramp, and 122nd intersections. Variable signs at 37th, 102nd intersections. Changeable signs at 12th, 82nd, and 102nd. Monitoring stations at 12th, 57th, 82nd, I-205, 122nd and 162nd.*

Portland/ODOT

~~$392,700~~ $340,000 (Years 11 - 20)

40073
Southwest Quad, NE (at 33rd): Access to PDX Properties

Provide street access from 33rd into the SW Quad property to provide access to developing Port properties.

Port

~~$1,732,500~~ $2.5M (Years ~~1 – 5~~ 6 - 10)

40085
Kenton Rail Line, NE: Additional RR Tracks

~~*Construct additional rail tracks and sidings between Penn Junction and I-205 for staging of Pacific Northwest unit trains.*~~ *Upgrade signle track sections to double tracks built to mainline standards with new sidings from Peninsula Junction to I-205. Provides additional rail tracks for staging of Pacific Northwest unit trains. Expands capacity and reduces delay.*

Port

~~$17,600,000~~ $25.4M (Years ~~11 – 20~~ 1 –5)

40094
I-205, NE (I-205/Airport Way) ~~SB/Airport Way: I-205~~ Interchange Improvement at NB On-ramp

New I-205 NB on-ramp at ~~I-205~~/Airport Way interchange to provide additional capacity for anticipated growth at interchange. ~~Phase I – modify signing, striping, channelization and signal timing for NB ramp.~~

ODOT
~~$23,100,000~~ $23M (Years 1 – 5)

40096
I-205, NE (Columbia Bl – Airport Way): Auxiliary Lane ~~(Airport Way – Columbia Blvd)~~

New auxiliary lane from Airport Way to Columbia ~~Boulevard~~ Bl and Airport Way ramps to reduce slowdowns and help improve safety for merging vehicles.

ODOT

~~$23,100,000~~ $20M (Years 11 – 20)

40097
Airport Way, NE: Braided Ramps

Construct braided ramps between the I-205 interchange and Cascade interchange to maintain capacity and improve safety on Airport Way and freeway interchanges.

ODOT

$30M (Years 11 – 20)

40098
Mt St Helens Ave, NE (Cascades Parkway – Alderwood Rd): Street Extension

Construct two-lane road extension to provide traffic access for developing properties.

Portland/Port

$1.5M (Years 1 – 5)

40099
21st, NE (at Columbia Slough)

Replace weight-restricted bridge.

Portland

$5M (Years 6 - 10)

40100
33rd Ramps, NE, (at Columbia Bl/Lombard): New Ramps

New ramp system connecting Columbia and Lombard at 33rd Ave to facilitate truck movement.

Portland

$12M (Years 11 – 20)

40101
87th/Columbia, NE: Intersection Improvement

Widen intersection to accommodate large truck turning movements (53' trailer). Project includes ROW acquisition, retaining walls, bike lanes and sidewalks, and stormwater facilities. Project improves access to industrial properties.

Portland

$454K (Years 1 – 5)

40102
Columbia Bl, NE (60th – 82nd): Road Widening

Widen Columbia Bl to five lanes in this segment to address a system bottleneck and improve access to properties.

Portland

$15M (Years 6 – 10)

40103
82nd Ave/Columbia, NE: Intersection Improvements

Widen and reconfigure intersection to improve access to airport cargo areas.

ODOT/Portland/Port

$2M (Years 1 – 5)

Far Northeast

50005
122nd, NE/SE (Airport Way – Powell): ITS

~~*Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow.*~~ *CCTV at Powell, Division, Stark, I-84 EB ramp, Halsey, Sandy and Airport Way intersections. Changeable meessage signs at I-84 ramp, Sandy and Airport Way. Traffic monitoring stations at Powell, Division, I-84 and Airport Way.*

Portland

~~$231,000~~ $200K (Years ~~11 – 20~~ 6 – 10)

50016
Airport Way, NE (I-205 – 158th): ITS

~~*Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow for three signals.*~~ *CCTV at I-205 and 122nd intersections. Variable sign at I-205. Monitoring stations at 122nd and 158th..*

Portland

~~$2,000,000~~ $220K (Years 1 -5)

Northwest

60001
112th Ave/US 30, NW: Intersection Improvements

Add traffic signal to improve safety and access to property.

ODOT

$135,000 (Years 6 - 10)

60022
St Helens Rd (US 30), NW, (in Willbridge area): Traffic Improvements

Install center turn lane to NW Front to improve safety and access to property.

ODOT

~~$222,338~~ $300K (Years ~~11—20~~ 1 – 5)

60023
Yeon/St. Helens, NW: ITS

~~*Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow.*~~ *CCTV at Nicolai, Kettridge, St Johns Bridge, I-405/Vaughn/23rd intersection. Changeable signs at Nicolai-I-405, Kittridge and I-405/Vaughn/23rd. Monitoring at Nicolai and Kittridge.*

Portland/ODOT

~~$192,500~~ $193K (Years ~~11—20~~ 1 – 5)

60028
US 30 at Lake Yard Hub Facility, NW: Access Improvements

Provide an access lane on US 30 for trucks entering and/or exiting the site, add a signal at the entrance, and if need, construct an on-site access road and realigning tracks to improve access to intermodal yard and improve corridor safety

Portland/ODOT

$2M (Years 1 – 5)

Southeast

70030
McLoughlin (99E), SE (Ross Island Bridge – Clatsop): Multi-modal Improvements

Provide access management, reversible travel lane from Ross Island Bridge to Harold and widen to six lanes from Harold to I-205. ~~Include~~ and construct pedestrian and bike facilities. Project reduces vehicle delay and improves corridor access for pedestrian and bicycles.

ODOT

$96,500,000 (Years 11 - 20)

70050
Sellwood Bridge, SE/SW: ~~Multi-modal Improvements~~ Bridge Replacement

~~Implement recommendations from South Willamette Study and Willamette River Bridge Accessibility Plan.~~ Replace weight-restricted bridge.

Multnomah County

~~$90,000,000~~ $75M (Years ~~11 – 20~~ 1 – 5)

70063
~~Albina to Willsburg Junction, SE: Improvements~~ UP Line Upgrade, Albina Yard – East Portland

~~Implement track and signal improvements.~~ Upgrade existing track to second main track to increase track speeds in this section of the north/south main line.

Region

$8,800,000 (Years 1 - 5)

70064
Foster Rd, SE: ITS

CCTV at 50th/Powell, 82nd, 92nd, I-205, 112th, 122nd and Jenne Rd intersections. Changeable signs at 50th/Powell, 92nd/Woodstock, 112th, 122nd, Jenne. Monitoring at 50th, 82nd, I-205.

Portland

$145K (Years 11 - 20)

70065
McLoughlin Rd, SE: ITS

CCTV at Holgate, 17th, Bybee, Johnson Creek/Tacoma. Variable sign at Holgate. Monitoring at Holgate and Bybee.

ODOT

$250K (Years 1 – 5)

70066
Powell Bl SE: ITS

CCTV at 39th, 50th, 82nd, I-205 ramp, 122nd. Variable signs at Milwaukie. Chageable signs at 39th, 50th, 82nd, I-205 ramps.

ODOT

$395K (Years 6 - 10)

Far Southeast

80027
Foster Rd, Bridge at Johnson Creek: Bridge Replacement

Replace south bridge span. Bridge is currently weight restricted.

Portland

$1.4M (Years 1 - 5)

Southwest

90019
Beaverton-Hillsdale Hwy, SW: ITS

~~*Communications infrastructure; closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow at three signals: Terwilliger, Bertha Blvd and Shattuck.*~~ *CCTV at Terwilliger, Bertha and Shattuck intersections. Changeable signs at Bertha/Capitol Highway and 56th.*

Portland

~~$103,950~~ $90K (Years ~~6—10~~ 1 – 5)

90046
Macadam, SW (Bancroft – Sellwood Br): ITS

~~*Communications infrastructure including closed circuit TV cameras, variable message signs for remote monitoring and control of traffic flow.*~~ *CCTV at Hood/Bancroft, Taylors Ferry and Sellwood Bridge. Variable sign at Hood/Bancroft. Changeable sign at Taylors Ferry. Monitoring at Bancroft and Sellwood Bridge.*

Portland/ODOT

~~$294,525~~ $290K (Years 6 – 10)

CITY OF PORTLAND, OREGON
PLANNING COMMISSION

c/o Bureau of Planning
1900 S.W. 4th Ave., Suite 4100
Portland, OR 97201-5380
Telephone: 503-823-7700
Fax: 503-823-7800

March 23, 2006

EXHIBIT E

Mayor Tom Potter and Members of Portland City Council
Portland City Hall
1221 SW Fourth Avenue
Portland, OR 97204

Re: Portland Freight Master Plan

The Planning Commission of the City of Portland hereby submits and recommends approval of the Portland Freight Master Plan. This plan is the result of the extremely dedicated work on the part of the Portland Freight Committee and Portland Office of Transportation under Commissioner Adams. As a modal plan, much like the Pedestrian Master Plan and the Bicycle Master Plan, the Freight Master Plan provides policy guidance for building the freight network over the next twenty years. Many components of the Plan will be incorporated into the City's Transportation System Plan including new freight policies and objectives, action items and a listing of capital projects and programs to implement the Plan.

During the public hearing process, the Planning Commission found that a thorough public outreach process to review plan was conducted. There were some concerns on the part of the Commission that the plan primarily responded to the needs of freight stakeholders, and less so by people who sense the impacts of the intrusion of trucks on neighborhood streets. We recommend that the dialogue continue regarding the needs of businesses and its residents regarding complimentary approaches to blending neighborhood livability and economic vitality.

Some members of the Commission felt that the Plan is an excellent review of current transportation issues, and makes thoughtful recommendations about needed changes in approaches to freight planning, but it lacks breadth, boldness and vision. It proposes solving tomorrow's problems with yesterday's tools. Although this is a multi-modal freight plan, with recommendations for truck, rail, waterway and air freight systems, it lacks serious discussion of innovations and alternatives to truck movement, such as increased use of rail for one example.

In terms of future direction and plan refinement over time, there needs to be improved on-going efforts in freight planning of how the City's Plan fits in with important regional freight issues and connections. There also needs to be greater recognition in freight planning of the role of maintenance and operational improvements on appropriate truck streets and enforcement on inappropriate streets. Planning for freight needs to consider other important modal plans such as pedestrian-friendly street plans like the Sandy Boulevard main street improvement design.

The Commission found that several issues remain in the Plan regarding the Central City area of Portland. The Central City is its own unique entity with a vibrant mix of land uses and competing street needs. For this reason, much of the Central City area concerning street use designations for freight were deferred to the Central City Transportation Management Plan update for evaluation and resolution. These include:

- Determine the appropriate truck street classification for Naito Parkway south of Morrison Bridge as well as other arterial streets such as Burnside, NW Front and various connecting streets.
- Consider the use of a flexible truck street design approach for the Central Eastside freight district recognizing its special nature and historic industrial and commercial buildings.
- Consider new boundaries or elimination of freight district designation for Central Eastside and instead classify the streets appropriate for truck street designations.
- There is a need for City Council to provide adequate funding in the budget for the additional freight planning work required for the CCTMP update.
- There needs to be public input in the CCTMP update process that includes stakeholders of all modes of interest, including the freight community.

As part of approval of this Plan we support a staff requested amendment regarding a mapping oversight to designate NE 103rd Avenue connecting between NE 102nd and NE Washington Street as a Major Truck Street.

The Planning Commission appreciates the opportunity to transmit these recommendations to the City Council and urges the adoption of the Portland Freight Master Plan with consideration of the points contained above.

Sincerely,

Paul R. Schlesinger, President
Portland Planning Commission

C: Gil Kelley, Planning Director
Portland Planning Commission

CITY OF
PORTLAND
OFFICE OF
TRANSPORTATION

DATE: April 13, 2006

TO: Commissioner Sam Adams

FROM: John Gillam, Policy Planning Manager, Transportation Planning

RE: **Freight Master Plan** – Staff Supplemental Report

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1. **ORDINANCE TITLE**
Amend the Transportation System Plan and Comprehensive Plan to incorporate the City's Freight Master Plan (Ordinance; amend ordinance no. 177028)

2. **CONTACT NAME, DEPARTMENT, & NUMBER**
John Gillam, Transportation Planning (503-823-7707)

3. **REQUESTED COUNCIL DATE:**
May 3, 2006 at 2:00 PM

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4. **HISTORY OF AGENDA ITEM / BACKGROUND:**
During the development of the its first Transportation System Plan (TSP), the City recognized the need to better understand and plan for freight movement. The Freight Master Plan (FMP) was developed in two phases beginning in January 2003. The first phase built the case for freight planning, identified plan objectives, and evaluated existing freight policies, issues and projects.

The second phase began in July 2004 and included as et of technical analyses of needs and deficiencies, potential policy revisions, infrastructure improvements, and programmatic changes.

5. **PURPOSE OF AGENDA ITEM:**
The ordinance will adopt the FMP as the guiding document for freight movement and improvements in Portland for the next 20 years. It will incorporate the FMP policies and infrastructure improvements into the City's TSP and Comprehensive Plan. It will direct the Office of Transportation to complete the Design Guide for Truck Streets.

6. **LEGAL ISSUES:**
The policies and street classifications are adopted into the Comprehensive Plan and become non-binding guidance for implementing changes to the freight movement system in Portland.

7. **CONTROVERSIAL ISSUES:**
Some residents feel that the FMP will encourage truck traffic or result in street improvements that will hinder the movement of bicyclists and pedestrians.

8. **HOW DOES THIS RELATE TO CURRENT CITY POLICIES?**
The FMP policies supercede existing freight-related policies in the City's TSP and Comprehensive Plan.

9. **COMMUNITY PARTICIPATION:**
The FMP was the subject of significant community participation as outlined in the plan. A Freight Advisory Committee was formed as a sounding board for all elements of the plan. Three public workshops were held to discuss the development of the plan with members of the community. Dozens of

meetings were held with business, industrial, and civic groups, neighborhood associations and coalitions, and advisory committees.

10. **OTHER GOVERNMENT PARTICIPATION:**
Members of the Technical and Freight Advisory Committes included staff from PDOT, Planning, Metro, Multnomah County, ODOT, Portland Development Commission, Federal Highway Administration, and the Port of Portland.

11. **FINANCIAL IMPACT:**
The FMP will not have any direct impact on the City's budget. Transportation improvements are included in the FMP and will be part of the City's Public Facility Plan, but the City is not obligated to fund any of these projects.

12. **FOR CONTRACTS: (Optional)**
DOES CONTRACTOR HAVE A CURRENT BUSINESS LICENSE? _____
IS THEIR ACCOUNT WITH THE CITY CURRENT? _____
IF NOT, HOW MUCH DOES IT OWE? _____

13. **RECOMMENDATION:**
Adopt Ordinance

14. **FILING QUESTIONS:**

CONSENT AGENDA ITEM: or REGULAR AGENDA ITEM: X

EMERGENCY ITEM: or NON-EMERGENCY ITEM: X

Explanation if Emergency Clause Requested:

1. Why is it necessary to circumvent the regular agenda process and timelines?

2. Why couldn't this item have been filed a month earlier preventing the need for the emergency?

3. Why is it in the public's best interest to have the item filed as an emergency precluding the opportunity for public review and input through the regular agenda process?

City of Portland, Oregon

FINANCIAL IMPACT STATEMENT
For Council Action Items

(Deliver original to Financial Planning Division. Retain copy.)

1. Name of Initiator	2. Telephone No.	3. Bureau/Office/Dept.
John Gillam	503-823-7707	PDOT/OTD/TP

5a. To be filed (hearing date):	5b. Calendar (Check One) Regular	Consent	4/5ths	4. Date Submitted to Commissioner's office and FPD Budget Analyst:
May 3, 2006	X☐	☐	☐	April 21, 2006

1) Legislation Title:
Amend the Transportation System Plan and Comprehensive Plan to incorporate the City's Freight Master Plan (Ordinance; amend ordinance no. 177028)

2) Purpose of the Proposed Legislation:
Adopt plan to guide investment in the freight system in Portland over the next 20 years. The Freight Master Plan is incorporated into the City's Transportation System Plan and Comprehensive Plan.

Revenue and/or Expense:
Is ALL the Revenue and/or Expense a part of the current year's budget? Yes _X_ No _____
If YES, identify Center Code(s) and Project No(s).:_____,
then go to Step #5.
If NO, complete Steps 3 & 4. For modifications to budgets, identify/discuss only the changes to the budget.

3) Revenue:
Will this legislation generate or reduce current or future revenue coming to the City? If so, by how much? If new revenue is generated please identify the source.
No.

4) Expense:
What are the costs to the City as a result of this legislation? *(Please include costs in the current fiscal year as well as costs in future years) (If the action is related to a grant or contract please include the local contribution or match required)*
There are no direct costs to the City as a result of this legislation. Although the FMP includes a list of transportation changes to enhance freight movement, there is no obligation to fund these changes over the life of the plan.

Staffing Requirements:
5) Will any positions be created, eliminated or re-classified in the current year as a result of this legislation? *(If new positions are created please include whether they will be part-time, full-time, limited term or permanent positions. If the position is limited term please indicate the end of the term.)*
A Freight Coordinator position is currently funded in the City's budget. Staff in this position will coordinate implementation of the FMP over time.

6) Will positions be created or eliminated in *future years* as a result of this legislation?
No.

7) Change in Appropriations *(Please reflect the dollar amount to be appropriated by this legislation. Include the appropriate center codes and accounts that are to be loaded by accounting. Indicate "new" in Center Code column if new center needs to be created. Use additional space if needed.)*
None.

KK 3-23-06

APPROPRIATION UNIT HEAD SUSAN D. KEIL, Director, Office of Transportation