



FREIGHT MOVEMENT ELEMENT

Planning for mobility includes more than just moving people—it means moving freight and services as well. The *Salem Transportation System Plan* places a greater emphasis on planning for all modes of travel, including the movement of freight within the Salem-Keizer Urban Area and beyond.

Unlike most transportation elements, government jurisdictions have much less involvement in planning for and providing freight transport services and facilities. These services and facilities are generally provided by private transportation companies. Although streets, highways, and airports are publicly owned, the actual provision of freight transportation services is done via private enterprises. This provides a unique challenge to local government planning, as it requires government take a supportive role.

Policy Framework

The State of Oregon Department of Transportation has developed statewide rail, marine, aviation, and other freight movement plans. Regional and local transportation plans are to expand, and need to be consistent with, the statewide plans.

The majority of the policies included in this element commit the City of Salem to taking a supportive role in the continuation and development of services and facilities. It is to the City's economic advantage that a variety of transportation modes be available to the area to meet the varied needs of area businesses. Issues that local government can play a key role in are related to safety and the mitigation of the negative impacts resulting from freight movement activities.

A newly emerging innovation is the operation of intermodal freight transfer facilities. These facilities allow the transfer and reloading of freight from one transport mode to another. Examples would include truck-to-rail facilities, pipeline-to-truck terminals, or truck-to-air freight facilities. The increased use of standardized intermodal containers has led to even greater utilization of intermodal transfer facilities. This Element includes an objective and policies that encourage enhancement of the area's intermodal facilities.

Goal, Objectives, and Policies

The City of Salem shall have the following goal, objectives, and policies for ensuring the efficient and safe movement of freight within the Salem Urban Area:

GOAL: To ensure a multimodal transport system for the efficient, safe, and competitive movement of goods and services to, from, and within the Salem Urban Area.

OBJECTIVE NO. 1

The City of Salem shall encourage accessibility to a range of viable and competitive transport modes that fulfill the needs of Salem area shippers.

Policy 1.1 Access to Streets and Highways

The City of Salem shall create a street and highway system that provides direct and efficient access to and between Salem Urban Area industrial and commercial centers, regional intermodal freight facilities, and statewide transport corridors.



Policy 1.2 Accessibility to Railroads

The City shall encourage the availability of railroad freight services to those industrial and commercial areas where utilization is economically viable.

Policy 1.3 Accessibility to Air Freight Services

The City shall promote the utilization of air freight services by continuing to provide and maintain facilities at McNary Field that enable the operation of private air freight providers.

Policy 1.4 Regional Pipeline Systems

The City shall promote accessibility to, protection of, and the appropriate location of, regional pipeline systems that service the Salem Urban Area.

Policy 1.5 Explore Feasibility of Inland Marine Transport Services

If there is an increased regional interest, the City shall work cooperatively with other governmental organizations to explore the feasibility of reestablishing barge freight services on the Willamette River.

Policy 1.6 Planning for Freight Accessibility

The City shall consider freight accessibility and movement in circulation studies and corridor studies, especially in areas serving or bordering freight terminals.

OBJECTIVE NO. 2

The City of Salem shall promote the safe transport of goods to, from, and within the Salem Urban Area.

Policy 2.1 Safety Awareness Programs

The City shall support commercial vehicle safety programs provided by public agencies, private firms, and organizations that work to increase freight transport safety awareness.

Policy 2.2 Safety Improvements to Freight Transport Facilities

The City shall work with public agencies and private freight service providers to reduce the number and severity of commercial transport-related accidents through the design, construction, and proper maintenance of freight transport facilities, especially where these facilities cross or share public rights-of-way.

Policy 2.3 Adequate Street Design Standards for Trucks

The City shall develop adequate design standards that meet the weight and dimensional needs of trucks, particularly for those streets that serve industrial and commercial areas.



Policy 2.4 Transportation of Hazardous Materials

The City shall encourage responsible Federal and State agencies to develop and enforce appropriate regulations regarding the safe transport of hazardous materials through the Salem Urban Area. In addition, the City shall prepare its emergency services resources to respond to emergencies involving the transport of hazardous materials.

OBJECTIVE NO. 3

To increase transport opportunities, the City of Salem shall encourage the development of efficient intermodal freight transfer facilities serving the Salem Urban Area.

Policy 3.1 Retention and Enhancement of Intermodal Freight Transfer Capabilities

The City shall encourage private shippers and transport providers to maintain and, where possible, improve their intermodal freight transfer capabilities.

OBJECTIVE NO. 4

The City of Salem shall work to minimize the negative impacts associated with the movement of freight within the Salem Urban Area.

Policy 4.1 Reduce Commercial Vehicle Traffic Through Residential Neighborhoods

Working within the context of State and local statutes, the City shall employ physical and legal measures to reduce through commercial vehicle traffic on residential streets where problems exist.

Policy 4.2 Eliminate Lengthy Blockage of Public Streets at Railroad Crossings

To better facilitate the movement of traffic, especially emergency services vehicles, the City shall work with the railroad companies and the appropriate State agencies to eliminate frequent, lengthy blockages of public streets by trains at railroad crossings.

Policy 4.3 Commercial Vehicle Loading and Unloading During Peak Travel Times

In order to facilitate the movement of traffic, the City shall adopt ordinances that prohibit commercial vehicles from blocking the travel lanes of arterial and collector streets while loading or unloading during peak weekday travel periods.

Policy 4.4 Establish Noise Overlay Zones Near Aviation Facilities

As permitted by Federal law, the City shall establish noise overlay zones in areas adjacent to aviation facilities.

Freight Movement System in the Salem Urban Area

Although the *Salem Transportation System Plan* deals specifically with the Salem Urban Area, freight movement is essentially a global activity. Freight movement will be treated from a Salem-Keizer regional perspective in this



Element. This freight movement system contains facilities and terminals for intercontinental pipeline systems, air freight, rail, and truck lines.

AVIATION (AIR FREIGHT)

McNary Field has evolved into a general aviation facility that supports private passenger, charter, air freight, and military aviation activities. A major customer of the air freight services in Salem is the high value, low weight silicon wafer and electronics industries. Federal Express operates a facility at the airport with local delivery services. Federal Express air freight services are not daily and are operated as demand requires. United Parcel Services (UPS) operates daily air freight services from Salem under contract via Sports Air, a contract air freight carrier based at Troutdale airport near Portland.

McNary Field has a considerable array of modern facilities capable of handling jet aircraft up to the size of a Boeing 737 or Douglas DC-9. Runway 13-31 is the primary runway, having a length of 5,811 feet and an array of modern and traditional landing guidance and lighting systems. Runway 16-34 is 5,145 feet long and serves as the airport's secondary runway. The airport has a passenger terminal, gate aprons, hangars, tie-downs, T-hangars, fueling facilities, and several parallel taxiways. Currently, passenger aircraft having over 30 seats require a temporary presence of additional fire and rescue apparatus and personnel in order to land or take off from McNary Field. See the *1997 Airport Master Plan Update* for more information on the facilities and future plans for McNary Field.

Recommended Improvements

A major runway overlay project was completed at McNary Field in 1996. Ongoing renovation and maintenance activities are needed for the terminal area. Long-term improvements would include lengthening the primary runway, replacement of the airport terminal, and expansion of general aviation facilities.

RAILROADS

Despite a flurry of recent mergers, Salem is still served by two major intercontinental (Class I) railroads: the Burlington Northern/Santa Fe (BNSF) and the Union Pacific. The Union Pacific (UP) recently purchased the Southern Pacific Railroad (SP) which, historically, was the major railroad serving Salem. Both major railroads provide north-south and east-west intercontinental connections. A third railroad, the Willamette Valley Railway, is a Class III carrier that has trackage rights over the remaining portion of the Geer Line branch east of Lancaster Drive.

Without counting spurs and sidings, there are approximately 25 miles of rail within the combined Salem-Keizer UGB.

Between the two major railroads, about 17 trains run through Salem daily. This does not include minor switching activities. In addition to freight train movements, four Amtrak passenger trains travel through and stop in Salem. The number of trains moving through Salem are expected to increase, depending upon the eventual results of the Union Pacific-Southern Pacific merger and the future of the Oregon High Speed Rail Program.

There are currently 43 businesses in the Salem-Keizer region that are served by active rail sidings. Salem has the following active rail spurs and switching yards:



BNSF/UP Interchange

Currently classified as yard trackage, the interchange connects the mainlines of the two major railroads. The interchange runs just north of Johnson Street NE through the Cherry Avenue Business and Salem Industrial Parks. Tight geometry and poor railbed conditions have resulted in a higher than normal number of derailments on this line.

UP Southeast Switching and Storage Yard

Bordered by Cross Street SE to the north, Vista Avenue SE to the south, Pringle Road SE to the east, and 14th Avenue SE to the west, the UP operates a small switching and car storage yard south of the Salem Passenger Rail Station.

UP Union Street Bridge and West Salem Spur

No longer an active spur, this rail line used to serve the food processing and other industries located in West Salem. Currently under embargo, the line is awaiting abandonment and disposition. The City of Salem has expressed interest in acquiring the Union Street bridge, trestle, and rail right-of-way between Front Street NE and Wallace Road NW for use as a future pedestrian/bicycle connection between downtown and West Salem (see Pedestrian Element, page 8-17).

Conflicts between rail traffic, motor vehicles and pedestrians are issues of increasing concern in Salem. The Union Pacific mainline crosses 12 major roadways at-grade. The average daily traffic using these rail crossings totaled 129,000 motor vehicles in 1993, and is projected to grow to 183,000 vehicles per day by the Year 2015. The BNSF mainline crosses six major roadways at-grade. The average daily traffic using these rail crossings totaled 86,755 vehicles in 1993, and is projected to grow to 108,800 vehicles by the Year 2015. If the number and length of trains were to significantly increase, extra delays can be expected on City streets at these locations, especially within the central core area.

A conflict of significant concern regards access into the Cherry Avenue Business and Salem Industrial Parks. Despite efforts by the railroads to switch and store rolling stock elsewhere, crossings can be frequently blocked for long periods of time. This problem is the primary impetus behind the Northgate Avenue NE extension project that, when constructed, will provide a direct, grade-separated street connection to Salem Industrial Park from Portland Road NE.

Pedestrian safety continues to be a concern in the Salem-Keizer region. In 1995, six rail-related deaths occurred along rail lines. Although the causes of most of these accidents were beyond the control of the railroads, much needs to be done to improve rail-pedestrian safety, including greater public education, trespassing enforcement, and improved rail crossing barriers.

Train whistles (actually horns) constitute a liveability issue for many Salem residents. Given the numerous at-grade crossings and recent pedestrian accident history, many trains lay on their horns for extended periods of time. In order to pursue a “whistle free” zone for Salem, road and pedestrian crossings will need to become dramatically more secure.



Recommended Improvements

Currently, all freight rail trackage and facilities are privately owned. Improvements to that infrastructure are completed by the railroads themselves. However, as part of the State's Enhanced Passenger Rail Service Program, \$1.378 million in trackage and crossing improvements were identified in 1994 to increase train speed and crossing safety. At the time of printing this document, the future of this program is in doubt. Regardless of the funding time frame, the needs remain.

The following street crossings have been identified as needing modifications and upgrades to increase safety and train speed:

Tile Street NE	\$ 44,000
Woodrow Street NE	\$ 44,000
Hyacinth Street NE	\$ 13,000
Total (2003 dollars)	\$101,000

SALEM INDUSTRIAL/NORTHGATE AREA RAIL CROSSING IMPROVEMENTS

The recent Salem Industrial/Northgate Area Local Access and Circulation Study (SINALACS) identified a need for the City to work with the Burlington Northern/Santa Fe Railroad and ODOT to improve the Ridge Drive NE crossing and consolidate private crossings and provide property access connectivity. In addition, the City should coordinate with ODOT and the Union Pacific Railroad to identify safety enhancement measures to improve bicycle/pedestrian crossing opportunities at Claxter Road NE.

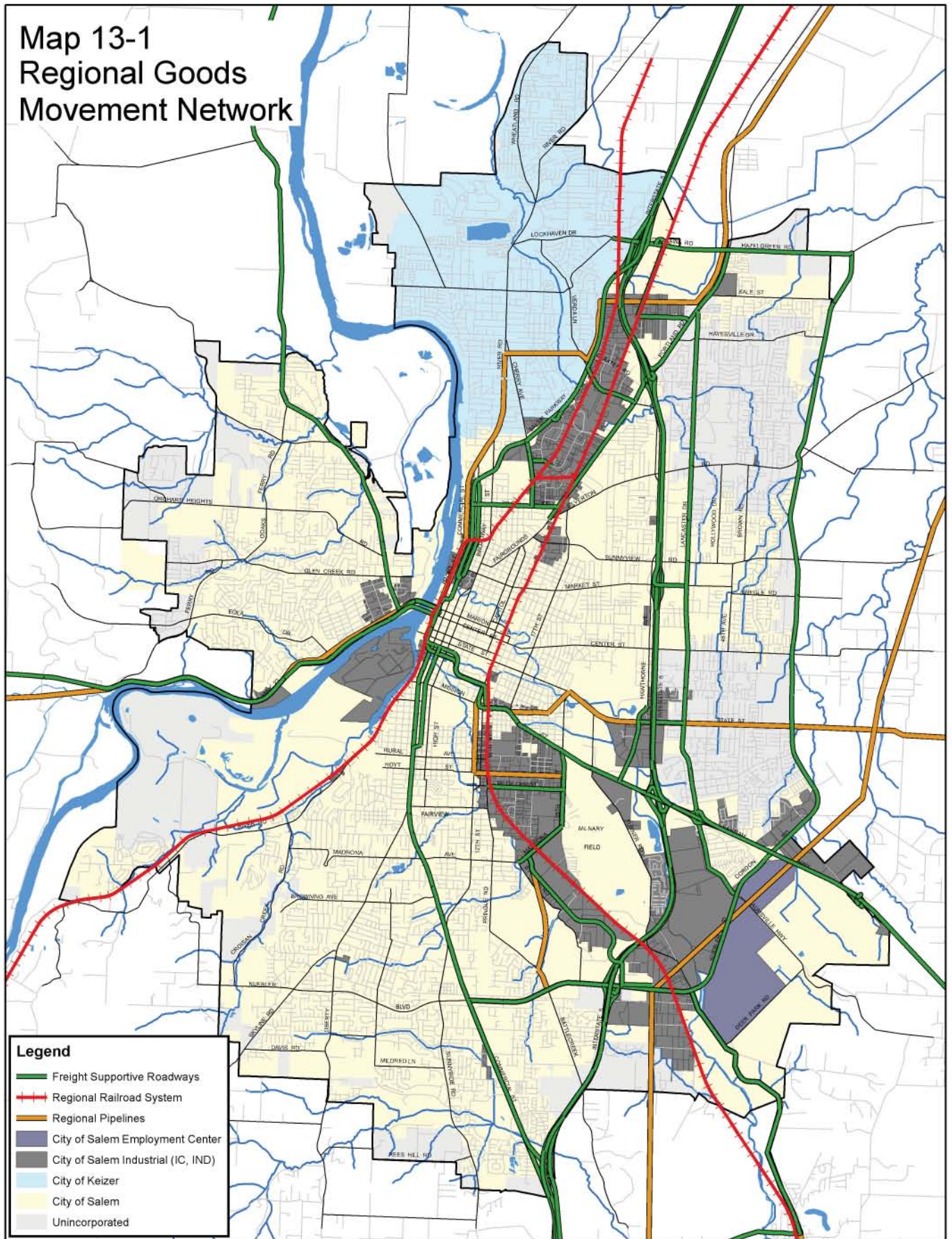
MARITIME/INLAND MARINE

There are currently no maritime port or freight barging activities on the Willamette River in the Salem area. There have been discussions about dredging the Willamette River both to restore barge service to Salem and Independence from Portland and to improve the river's flood capacity. However, it is not known if barge service would be profitable or worth the cost of such large-scale dredging efforts. The Union Street Rail Bridge, its lift span currently disabled, will need to undergo substantial mechanical repairs if commercial navigation is restored to Salem. As long as the Willamette River is technically considered navigable, bridges will have to be built to higher river clearances. This requirement will increase the cost of any new bridges.

PIPELINES

Pipelines are the silent, and usually unknown, freight movement system that transport natural gas and petroleum products within and through the Salem Urban Area. Only two major pipelines traverse the Salem Urban Area. Santa Fe Pacific Pipeline carries petroleum products through its pipeline that crosses under the southeast corner of the Salem Urban Area across State Street, Highway 22, Aumsville Highway SE, Kuebler Boulevard SE, and southward between Interstate 5 and Turner Road SE. Northwest Natural Gas has a system of high pressure natural gas distribution pipelines that serve the Salem Urban Area, see Map 13-1.

Map 13-1 Regional Goods Movement Network





Recommended Improvements

Similar to the railroads, investments made in pipeline infrastructure are completed through the private transmission corporations. Santa Fe Pacific Pipeline plans to either increase the diameter of its existing pipe or install a second pipe to its system within the next 10-12 years. Northwest Natural Gas can meet increased consumer demand by increasing pressure through its current pipeline system.

TRUCK MOVEMENTS OVER SALEM STREETS AND HIGHWAYS

It is easy to think of the City's street system only in terms of moving people in automobiles. However, a major purpose of the street system is to move freight and service vehicles throughout the Urban Area. The street system provides mobility for trucks and service vehicles that, in turn, represent jobs and economic vitality.

Providing mobility for trucks means constructing certain streets and highways with thicker, deeper substrates and designing them with adequate lane widths, curb radii, and height clearances. Bridges must be designed to carry the added weight of heavily-loaded trucks. All freeways, parkways, arterials, and most collectors are built to facilitate truck movements. Local streets, particularly residential streets, are not usually designed to carry significant numbers of heavy trucks. In addition to trucks, transit buses require the same level of construction design.

Truck movements, with the exception of local deliveries, should be limited to the freeway, parkway, and arterial street system. Some Collector-level streets also serve as truck routes when those streets connect industrial and commercial districts to the higher level street system. The City of Salem does not attempt to regulate which streets are "truck routes." Instead, it encourages the use of the Arterial and State highway system and discourages the use of local residential streets for truck movements. Trucks are kept out of residential neighborhoods through street design, signage, and occasional police citations.

Recommended Improvements

The City of Salem uses the location of industrial and commercial districts to determine which streets and highways are in need of truck-facilitating improvements. The following streets have been identified as requiring improvements to better facilitate truck movements. The need for improvements are based on the status and condition of the roadway and/or the amount of congestion that causes delays to freight movement. All of these projects are described in the Street System Element of this Plan.

High Priority Freight-related Street Improvements

- Traffic Signal Interconnects and Coordination (Citywide)
- Kuebler Boulevard SE (Commercial Street SE to Interstate 5)
- Hawthorne Avenue SE (Access to/from Interstate 5 and Mission Street SE)
- McGilchrist Street SE (12th Street SE to 25th Street SE)
- Kuebler Boulevard SE (Interstate 5 to new interchange needed at Highway 22)
- Cordon Road NE (State Street to Center Street NE)
- Ferry Street SE (Church Street SE to Liberty Street SE)



Medium Priority Freight-movement Street Improvements

Lancaster Drive SE (Highway 22 to Kuebler Boulevard SE)
Madrona Avenue SE at 25th Street SE
Commercial Street NE at Division Street NE
Commercial Street SE at Madrona Avenue SE
Commercial Street SE (Baxter Road SE to Interstate 5)
Cordon Road SE at Pennsylvania Avenue SE
Market Street NE at Lancaster Drive NE
25th Street SE (Mission Street SE to McGilchrist Street SE)
Salem Industrial Drive NE (Extensions and Improvements)
Blossom Drive NE/Indian School Road NE

Low Priority Freight-movement Street Improvements

Cherry Avenue NE (Pine Street NE to Salem Parkway NE)
Madrona Avenue SE (25th Street SE to Union Pacific Rail Line)
25th Street SE (McGilchrist Street SE to Madrona Avenue SE)

The projects listed above will accommodate the needs of trucks in their design. While some projects are listed as high priority freight-movement improvements, they may not be listed in the Street System Element with the same priority. The priority given to the projects in this Element should be factored into the funding and time frame priorities given projects as a whole.

