BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING A 2008 SOUTH/NORTH LAND USE FINAL ORDER AMENDMENT, TO MODIFY THE PROPOSED ROUTE OF THE PORTLAND-MILWAUKIE SEGMENT OF THE SOUTH/NORTH LIGHT RAIL CORRIDOR, RELOCATE PROPOSED LIGHT RAIL STATIONS, ESTABLISH THE LIGHT RAIL ROUTE BETWEEN SE TACOMA STREET AND SE PARK AVENUE IN CLACKAMAS COUNTY, AND ESTABLISH NEW STATION LOCATIONS, PARK AND RIDE LOTS, MAINTENANCE FACILITIES, AND HIGHWAY IMPROVEMENTS	)	RESOLUTION NO. 08-3964 Introduced by Councilor Robert Liberty, with the concurrence of Council President David Bragdon

WHEREAS, the Oregon Legislature enacted Oregon Laws 1996, Chapter 12 (the "Act") establishing procedures for siting the South/North Light Rail Project through adoption by the Metro Council of a Land Use Final Order ("LUFO") following application by TriMet; and

WHEREAS, in accordance with Section 4 of the Act, the Oregon Land Conservation and Development Commission, following a public hearing, adopted the South/North Project land use final order criteria on May 30, 1996; and

WHEREAS, a plan for the South/North Light Rail Project was prepared and, in compliance with the Act, on July 2, 1998, TriMet applied for a corresponding LUFO; and

WHEREAS, the Metro Council, after public notice and public hearing, concluded that the TriMet LUFO application met all requirements of the Act, including the criteria, and on July 23, 1998, adopted Resolution No. 98-2673, "For the Purpose of Adopting the Land Use Final Order Establishing the Light Rail Route, Stations, Lots and Maintenance Facilities and the Related Highway Improvements For the South/North Light Rail Project"; and

WHEREAS, in 1999, the Interstate MAX design and alignment was proposed and an amendment to the South/North Land Use Final Order was requested by a second application by TriMet and the Metro Council, after public notice, a public hearing and consideration of the criteria and facts, concluded that the application met all requirements of the Act and on October 28, 1999, adopted Resolution 99-2853A, "For the Purpose of Adopting a Land Use Final Order Amending the Light Rail Route, Light Rail Stations, and Park-and-Ride Lots, Including Their Locations, For That Portion of the South/North Light Rail Project Extending From the Steel Bridge to the Exposition Center"; and

WHEREAS, in 2003, the I-205 MAX design and alignment was proposed and an amendment to the South North Land Use Final Order was requested by a third application by Tri Met, and the Metro Council, upon public notice, and after a public hearing and consideration of the criteria and facts, concluded that the application met all requirements of the Act and on January 15, 2004, adopted Resolution No. 03-3372 "For the Purpose of Amending the South/North Land Use Final Order, to Include the Two Phases of the South Corridor Project Consisting of the Addition of the I-205 Light Rail Transit Project From Gateway to Clackamas Regional Center with the Downtown Portland Transit Mall

Alignment, and Modification of the Proposed Light Rail Between Downtown Portland and Milwaukie, Deletion of Plans to Extend Light Rail From Milwaukie to Clackamas Regional Center, and to Reflect the Final Interstate MAX Design;" and

WHEREAS, extensive analysis was performed in the May 2008 South Corridor Supplemental Draft Environmental Impact Statement (SDEIS), evaluating a No-Build Alternative, the 2003 Locally Preferred Alternative, a Tillamook Branch Line Alternative, and an extension to SE Park Avenue in Milwaukie; and

WHEREAS, the South Corridor Steering Committee, comprised of elected officials from affected jurisdictions along the alternative alignments and directors of TriMet and ODOT, have met regularly during the preparation of the 2008 SDEIS and on June 26, 2008 made recommendations to Metro Council concerning a locally preferred alternative ("LPA") for the Portland-Milwaukie Light Rail Transit Project, a portion of the South Corridor; and

WHEREAS, on June 26, 2008, the LUFO Steering Committee recommended that TriMet apply for a 2008 LUFO amendment to revise and establish the light rail routes, stations and park-and-ride lots, maintenance facilities and highway improvements in accord with the South Corridor Steering Committee LPA recommendation, which LPA recommendation was described and adopted as the LPA by the Metro Council via Resolution No. 08-3959 on July 24, 2008 "For the Purpose of Approving the 2008 Portland-Milwaukie Light Rail Project Locally Preferred Alternative and Finding Consistency with the Metro 2035 Regional Transportation Plan," immediately prior to consideration of this resolution; and

WHEREAS, in a letter dated June 27, 2008 from Matthew Garrett, of the Oregon Department of Transportation (ODOT), ODOT also recommended that TriMet apply for the above set forth 2008 LUFO amendment; and

WHEREAS, on July 9, 2008, following consideration of the recommendations from the LUFO Steering Committee and ODOT, TriMet submitted to Metro its application for an amendment of the LUFO consistent with the recommendations in 2008 of the LUFO Steering Committee and ODOT; and

WHEREAS, the applied for locations of the light rail route, stations, highway improvements, maintenance facilities and park-and-ride lots in TriMet's application are in the form of boundaries within which the light rail route, stations and lots, maintenance facilities, and the highway improvements shall be located, as provided for in Section 6(1)(a) of the Act; and

WHEREAS, following receipt of TriMet's application, public notice of a July 24, 2008, public hearing to consider TriMet's application was published on July 9, 2008 in *The Oregonian*, which the Metro Council finds to be a newspaper of general circulation within Metro's jurisdictional area, and that this public notice was published more than the 14 days prior to the July 24, 2008, public hearing; and

WHEREAS, the above-identified notice contains all of the information required by Section 7(1)(b) of the Act to be included in the Metro Council's published notice of this LUFO amendment proceeding; and

WHEREAS, the Metro Council provided additional public notice of the July 24, 2008 public hearing by mailing notices to Clackamas and Multnomah counties, the cities of Portland, Milwaukie and Gresham, and ODOT and by posting this information on Metro's web site pages, mailing notices to interested parties and to property owners located within a minimum of 150 feet of areas to be affected by the proposed amendment to the LUFO; and

WHEREAS, on July 17, 2008, a copy of the staff report, identifying and addressing compliance with the applicable South/North land use criteria and also including a description of the proposed boundaries within which the light rail route, stations and lots, maintenance facilities and the highway improvements are proposed to be located, was made available for public inspection; and

WHEREAS, on July 24, 2008, the Metro Council held a public hearing at which it accepted oral and written public testimony on TriMet's application for a LUFO amendment as described in these recitals; and

WHEREAS, at the July 24, 2008 public hearing, the Metro Council commenced the public hearing by making a statement containing the information identified in Section 7(3) of the Act pertaining to the criteria, location of light rail, appeals and record requirements and other provisions of the Act; and

WHEREAS, the Metro Council has considered TriMet's application, the recommendations of the LUFO Steering Committee and ODOT, the staff report and the testimony provided in support of, or in opposition to TriMet's application; now therefore

BE IT RESOLVED:

1. That the Metro Council hereby adopts the 2008 South/North Land Use Final Order Amendment attached hereto as Exhibit A and incorporated herein by this reference, modifying the proposed route of the Portland-Milwaukie segment of the South/North light rail corridor, relocating proposed light rail stations, establishing the light rail route between SE Tacoma Street and SE Park Avenue in Clackamas County, and establishing new station locations, park-and-ride lots, maintenance facilities, and highway improvements. As indicated in Exhibit B, attached hereto and incorporated herein by this reference, the 2008 South/North LUFO Amendment hereby adopted by the Metro Council is identical to the LUFO Amendment application submitted by TriMet.

2. That the Metro Council finds that the South/North Land Use Final Order, as amended, is consistent with Metro Council policies and regulations including the latest adopted versions of the *Regional Framework Plan, Urban Growth Management Functional Plan, 2035 Regional Transportation Plan* and *the 2008-2011 Metropolitan Transportation Improvement Plan.*

3. That the Metro Council hereby adopts the Findings of Fact and Conclusions of Law attached hereto as Exhibit C and incorporated herein by this reference in support of the 2008 Land Use Final Order Amendment to demonstrate that the Metro Council's decision in its adopted 2008 Land Use Final Order amendment complies with the applicable review criteria.

ADOPTED by the Metro Council this 24th day of July 2008.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

Officially Approved — Approvato Ufficialmente — Consiglio Metropolitano — METRO COUNCIL — Metro Council

Exhibit A to Resolution No. 08-3964

2008 South/North Land Use Final Order Amendment

South Corridor Project
Portland-Milwaukie Segment

Adopted by the Metro Council

July 24, 2008

Your Metro representatives

Metro Council President

David Bragdon

Metro Councilors

Robert Liberty, Deputy Council President, District 6

Rod Park, District 1

Carlotta Collette, District 2

Carl Hosticka, District 3

Kathryn Harrington, District 4

Rex Burkholder, District 5

Metro Auditor

Suzanne Flynn

Metro's web site:
www.oregonmetro.gov.

1. Introduction

This document constitutes a Land Use Final Order (LUFO) for the South/North Light Rail Project (South/North Project), in accordance with Oregon Laws 1996, Chapter 12 (House Bill 3478). The 2008 South/North LUFO Amendment is the fourth in a series of LUFOs adopted by the Metro Council that established or amended the light rail route, stations, park-and-ride lots and maintenance facilities, and the highway improvements for the South/North Project, including their locations. The three previously adopted LUFOs are as follows:

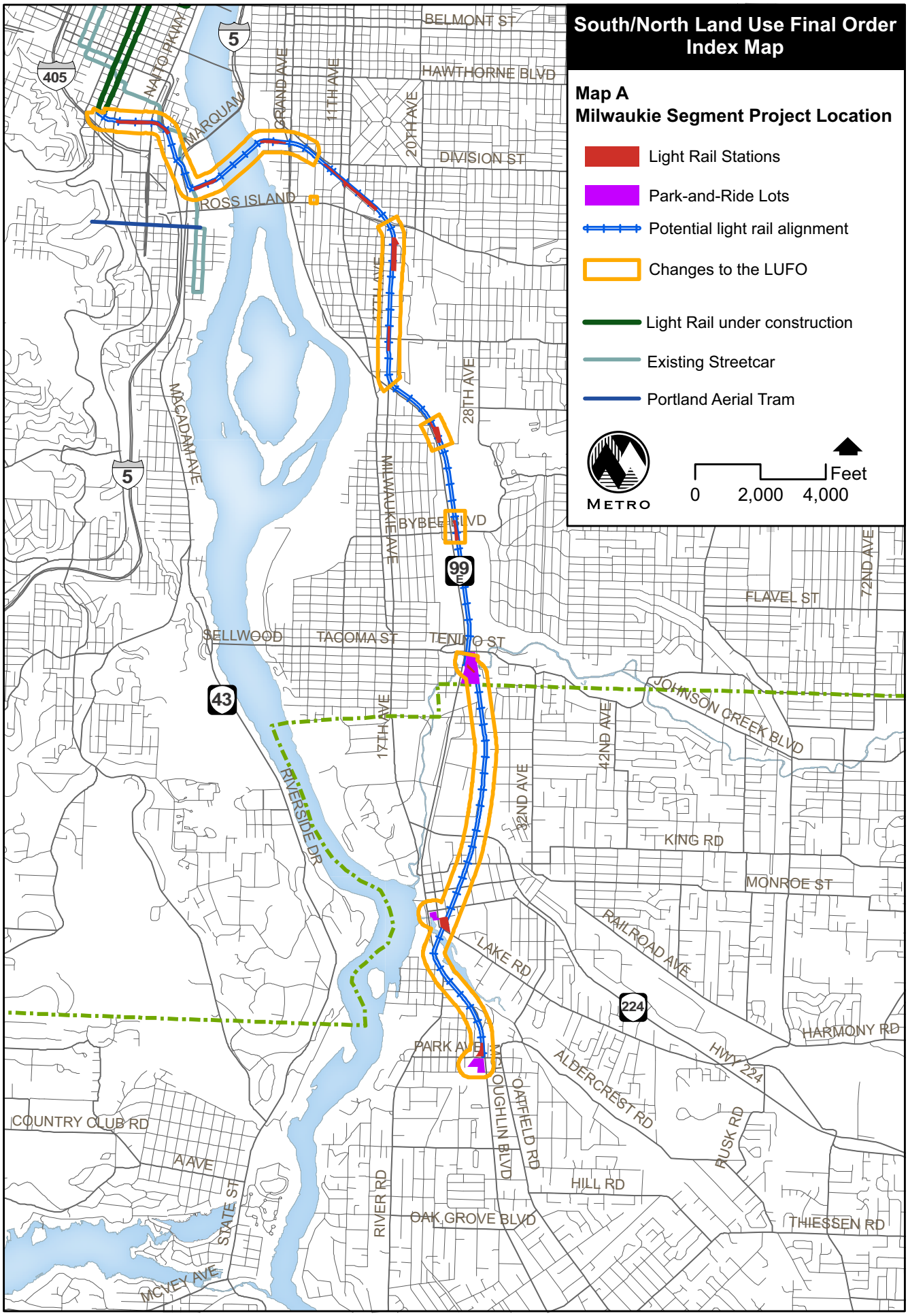
- On July 23, 1998, the Metro Council adopted Resolution No. 98-2673 (the 1998 LUFO), establishing the initial light rail route, stations, lots and maintenance facilities and the highway improvements, including their locations, for the South/North Project.

- On October 28, 1999, the Metro Council adopted Resolution No. 99-2853A (the 1999 LUFO), amending the 1998 LUFO to reflect revisions for that portion of the South/North Project extending from the Steel Bridge northward to the Exposition Center (Expo Center), primarily along Interstate Avenue. The 1999 LUFO modified the northern light rail alignment; established, relocated or expanded light rail station locations along that alignment; and authorized park-and-ride lots at Portland International Raceway (PIR) and the Expo Center along the light rail route.

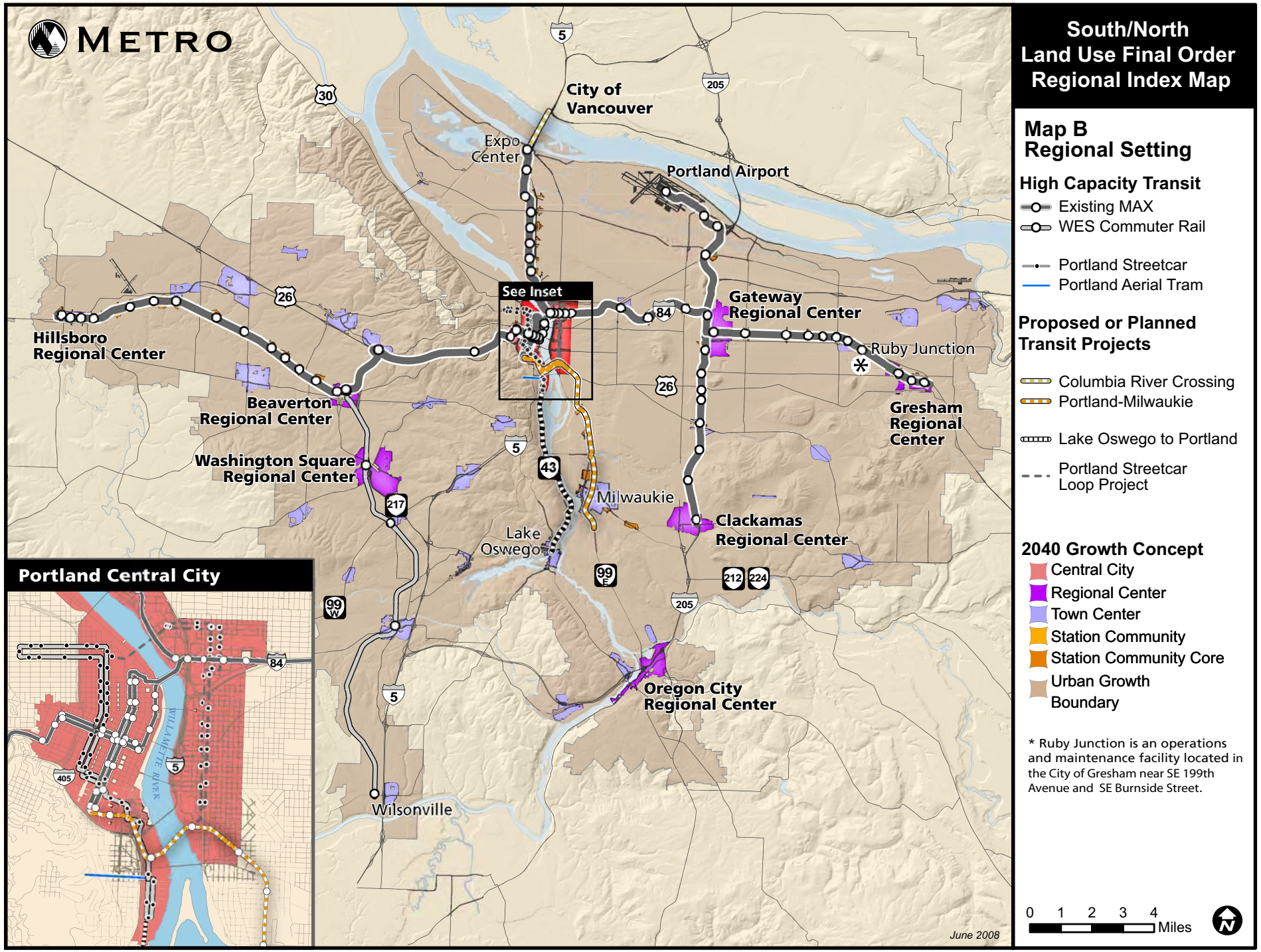
- On January 15, 2004, the Metro Council adopted Resolution No. 03-3372 (the 2004 LUFO), further amending the previous South/North LUFO resolutions to (1) establish the light rail route, stations and park-and-ride lots, including their locations, along the Interstate-205 right-of-way from the Gateway Transit Center to Clackamas Regional Center; (2) modify the route along the downtown Portland Transit Mall to extend light rail transit (LRT) to Portland State University (PSU) and establish, adjust or relocate station locations; (3) modify the original LUFO for the segment from Portland to Milwaukie by revising the alignment and adding study areas; (4) remove the 1998 LUFO designations from Milwaukie to Clackamas Regional Center; and (5) complete technical amendments to the 1999 LUFO alignment to reflect the final built configuration at certain stations consistent with the Full Funding Grant Agreement approved by the Federal Transit Administration.

This 2008 South/North LUFO Amendment amends the 1998 and 2004 LUFOs as they relate to the segment of the South/North Project extending from PSU in downtown Portland through SE Portland and downtown Milwaukie to SE Park Avenue in unincorporated Clackamas County (Portland-Milwaukie Segment). Among other things, this amendment realigns the light rail route between PSU and SE 7th Avenue; establishes the route from SE Tacoma Street to SE Park Avenue; relocates light rail stations or authorizes new stations along the light rail route; and establishes the park-and-ride lots and highway improvements for this segment. *See* Map A.

This 2008 LUFO also expands the Ruby Junction Maintenance Facility along NW Eleven Mile Avenue in Gresham to allow for the maintenance of additional LRT vehicles that will be associated with the Portland-Milwaukie Segment. *See* Map B.


South/North Land Use Final Order
Index Map
Map A
Milwaukie Segment Project Location
Light Rail Stations
Park-and-Ride Lots
Potential light rail alignment
Changes to the LUFO
Light Rail under construction
Existing Streetcar
Portland Aerial Tram
METRO
Feet
0
2,000
4,000
BELMONT ST
HAWTHORNE BLVD
DIVISION ST
GRAND AVE
11TH AVE
20TH AVE
MARQUAM
ROSS ISLAND
MACADAM AVE
MILWAUKIE AVE
28TH AVE
BYBEE BLVD
99E
SELLWOOD
TACOMA ST
TENINO ST
FLAVEL ST
72ND AVE
JOHNSON CREEK BLVD
17TH AVE
RIVERSIDE DR
42ND AVE
32ND AVE
KING RD
MONROE ST
RAILROAD AVE
LAKE RD
224
HARMONY RD
HWY 224
PARK AVE
MCLOUGHLIN BLVD
OATFIELD RD
ALBERCREST RD
RUSK RD
COUNTRY CLUB RD
A AVE
STATE ST
RIVER RD
HILL RD
OAK GROVE BLVD
THIESSEN RD
MCVEY AVE
405
5
43

June 2008



South/North Land Use Final Order Regional Index Map

Map B Regional Setting

High Capacity Transit

- Existing MAX
- WES Commuter Rail
- Portland Streetcar
- Portland Aerial Tram

Proposed or Planned Transit Projects

- Columbia River Crossing
- Portland-Milwaukie
- Lake Oswego to Portland
- Portland Streetcar Loop Project

2040 Growth Concept

- Central City
- Regional Center
- Town Center
- Station Community
- Station Community Core
- Urban Growth Boundary

* Ruby Junction is an operations and maintenance facility located in the City of Gresham near SE 199th Avenue and SE Burnside Street.

0 1 2 3 4 Miles

2. Requirements of House Bill 3478

Chapter 12 of the 1996 Oregon Laws (House Bill 3478) provides procedures for siting the South/North light rail route and associated light rail and highway facilities. In brief, it provides a set of regulations for making and for appealing land use decisions related to the South/North Project. The law includes a provision directing the Land Conservation and Development Commission to adopt criteria for land use final orders; a requirement that TriMet make application for land use final orders; requirements for how the Metro Council conducts its public hearing; and procedures for appeal.

Pursuant to House Bill 3478, upon application by TriMet and following a public hearing held on July 24, 2008, and in consideration of the whole record and based on a finding that there is substantial evidence supporting the proposed action, the Metro Council hereby adopts this 2008 South/North LUFO Amendment for the Project by Resolution No. 08-3964.

3. Establishment of Light Rail Routes, Stations, Park-and-Ride Lots, Maintenance Facilities and Highway Improvements, Including their Locations.

The Metro Council approves the light rail route, stations, lots, and maintenance facilities and highway improvements identified textually below and illustrated in the location boundary maps that follow. These light rail facilities and highway improvements and their location boundaries are identical to those for which TriMet requested Metro Council approval, and identical to those that the LUFO Steering Committee recommended to TriMet.

The LUFO boundary maps contained in this order are printed from a regional geographic information system database (Metro's *Regional Land Information System*, RLIS). The maps illustrate the adopted boundaries at an approximate scale of one inch equals 500 feet. The boundaries shown on these maps represent the areas within which the light rail facilities and highway improvements may be located. The maps include year 2007 aerial photographs with existing property lines added to provide orientation and illustrate project facility locations, to the extent that they have been determined.

The final location of the light rail facilities, as constructed, may be anywhere within the boundaries found on the LUFO maps. For example, along the Portland-Milwaukie Segment, the track alignment and most of the stations and park-and-ride lots have been approved and illustrated in the Locally Preferred Alternative (LPA). However, preliminary and final engineering have not been completed. Some variations from the illustrations in the LPA may be needed when the project is built. Accordingly, the LUFO shows a larger, more generalized boundary than that actually needed for the track alignment, stations, etc. The facilities may be constructed anywhere within the locations shown on the attached maps and be consistent with this LUFO.

3.1 Portland-Milwaukie Light Rail and Highway Improvements.

The 1998 LUFO established a light rail alignment that included a segment extending from downtown Portland to downtown Milwaukie and beyond to Clackamas Regional Center. The 2004 LUFO deleted the section from Milwaukie to Clackamas Regional Center and changed the existing downtown Portland to Milwaukie LUFO alignment by (1) establishing a study area for a possible light rail alignment from the downtown Portland Transit Mall at SW Lincoln Street and SW 5th Avenue eastward along SW Lincoln Street to I-5; (2) revising the light rail route and station locations from SE Powell Boulevard south to SE McLoughlin Boulevard, changing the alignment from SE 18th Avenue to SE 17th Avenue; (3) designating a study area for a light rail alignment and potential station and park-and-ride lot facilities south of SE Tacoma Street and generally north of Highway 224 between SE McLoughlin Boulevard and the Tillamook Branch railroad line; and (4) designating a study area at the SE Lake Road terminus south of SE Washington Street in Milwaukie and north and northeast of SE McLoughlin Boulevard.

This 2008 LUFO further modifies the 1998 and 2004 LUFOs by:

1) relocating the route southbound between PSU and the Willamette River along SW Lincoln Street and then into the South Waterfront district in the vicinity of SW Harbor Drive and SW Moody Avenue to a new Willamette River bridge crossing north of the Ross Island Bridge at approximately SW Porter Avenue, and establishing new light rail station locations along this alignment;

2) adding highway improvements associated with a new transitway extending from approximately SW 1st Avenue across the new light rail transit bridge to approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians;

3) realigning the route between the east bank of the Willamette River at SE Sherman Street and SE 7th Avenue at SE Caruthers Street, relocating the OMSI station, and adding highway improvements associated with the new transitway;

4) widening the alignment boundary along SE 17th Avenue;

5) expanding the SE Bybee Boulevard station to include bus pullouts on SE Bybee Boulevard and authorizing a new station near SE Harold Street along SE McLoughlin Boulevard;

6) establishing the route and station locations and authorizing a park-and-ride lot for the area south of SE Tacoma Street and north of State Highway 224;

7) establishing the route and station locations and authorizing a park-and-ride lot in downtown Milwaukie between Highway 224 and SE McLoughlin Boulevard; and

8) extending the route southward to a new terminus station and park-and-ride lot in the vicinity of SE Park Avenue in Clackamas County.

For the convenience of the reader and to maintain consistency with the 1998 LUFO, this 2008 LUFO divides the Portland-Milwaukie Segment into three sections: (1) South Willamette River Crossing; (2) McLoughlin Boulevard; and (3) Milwaukie Town Center (formerly Milwaukie Regional Center). With these amendments, the light rail route, stations, lots, maintenance facilities and highway improvements comprising the Portland-Milwaukie Segment are as follows:

South Willamette River Crossing Section

The South Willamette River Crossing Section extends from the Jackson Street LRT stations near Portland State University to the intersection of SE 17th Avenue and SE McLoughlin Boulevard.

From the Jackson Street LRT stations on SW 5th and 6th Avenues, the LRT alignment leaves Portland towards Milwaukie along SW Lincoln Street, across SW 1st Avenue and SW Naito Parkway, over SW Harbor Drive and under the I-5/I-405/Marquam Bridge ramps to a location west of SW Moody Avenue at approximately SW Porter Street. Short of reaching the Ross Island Bridge, the alignment curves eastward to cross the Willamette River on a new bridge. The alignment crosses the east bank of the Willamette River at SE Sherman Street and then continues eastward primarily along SE Sherman Street to the intersection of SE 7th Avenue and SE Caruthers Street, where it rejoins the 1998 LUFO alignment and continues southeast to SE Powell Boulevard.

South of SE Powell Boulevard, the LRT alignment follows SE 17th Avenue to SE McLoughlin Boulevard, as approved in the 2004 LUFO amendments. In this segment, the alignment boundary is widened so that the SE 17th Avenue right-of-way remains wide enough to accommodate bicycle lanes and freight movements.

West of the Willamette River, light rail stations are located between approximately SW 4th Avenue and SW Naito Parkway; between approximately SW Harrison Street and SW Caruthers Street; and between SW Moody Avenue and the Willamette River. East of the Willamette River, the OMSI station identified in the 1998 LUFO is relocated to SE Sherman Street east of SE Water Avenue. The locations previously approved for the SE Clinton Street station in the 1998 LUFO, and for the SE Rhine and SE Holgate Street stations along SE 17th Avenue in the 2004 LUFO amendments, are unchanged.

There are no park-and-ride lots or maintenance facilities in the Willamette River Crossing section. However, there are three new highway improvements: (1) A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and SE Division Place, that will accommodate buses, streetcars, bicycles and pedestrians; (2) transitway-related improvements on SE 8th between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and

transit-only signalization; and (3) modifications to SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

The boundaries of these light rail facilities and highway improvements are illustrated in attached *Figures 1.1 through 1.4.*

South/North Land Use Final Order Amendment Boundary Map

Figure 1.1

Portland-Milwaukie Light Rail Project

- Light Rail Route
- Light Rail Stations
- Park-and-Ride Lots
- Potential Alignment
- Potential Station Platform
- Highway Improvement

METRO

Feet
0 250 500
1 inch equals 500 feet

Note: The guideway between SW 1st Avenue and SE 8th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route.

June 2008

South/North Land Use Final Order Amendment Boundary Map

Figure 1.2

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

Highway Improvement

METRO

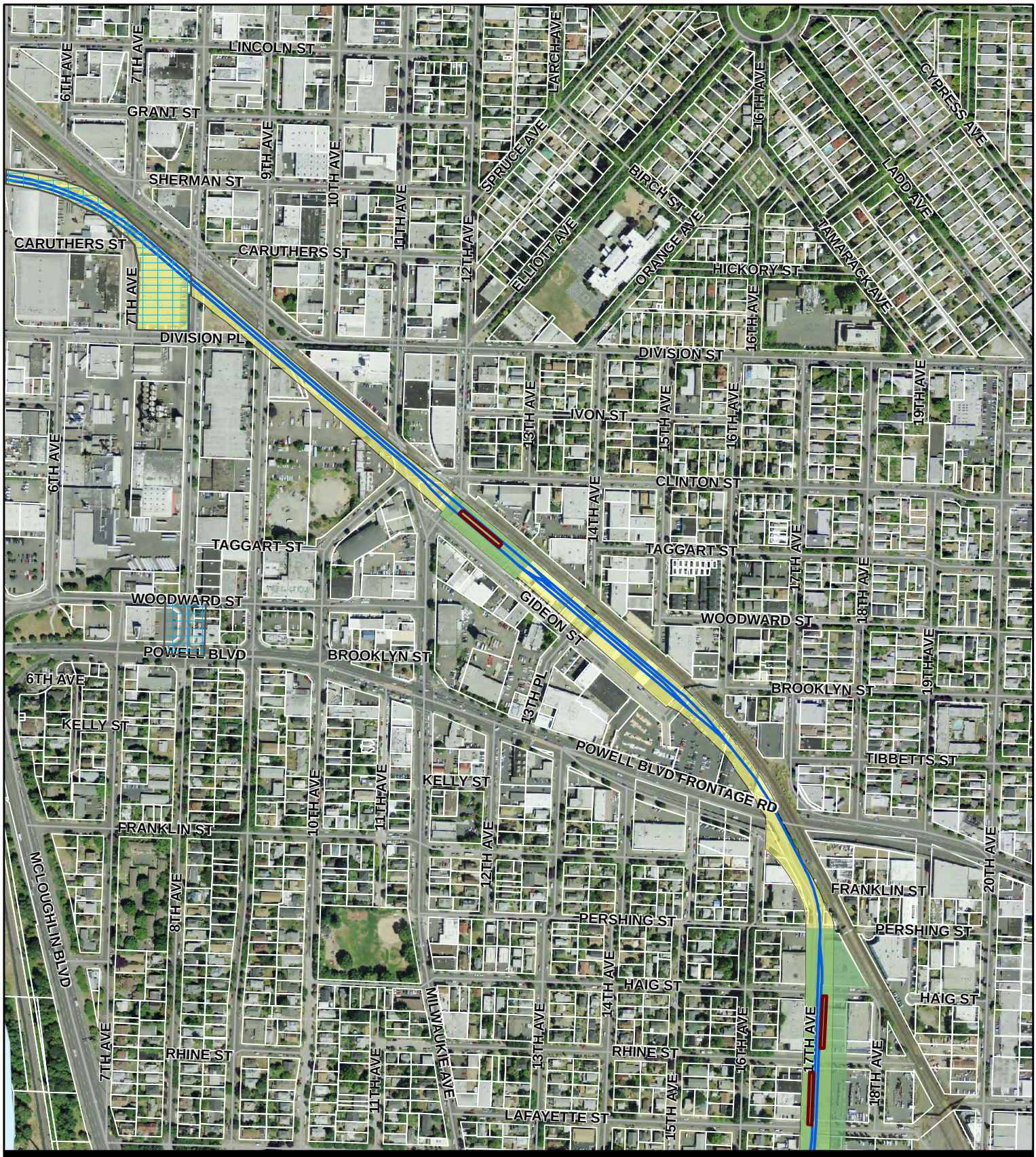
Feet

0 250 500

1 inch equals 500 feet

Note: The guideway between SW 1st Avenue and SE 8th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route.

June 2008



South/North Land Use Final Order Amendment Boundary Map

Figure 1.3

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

Highway Improvement

METRO

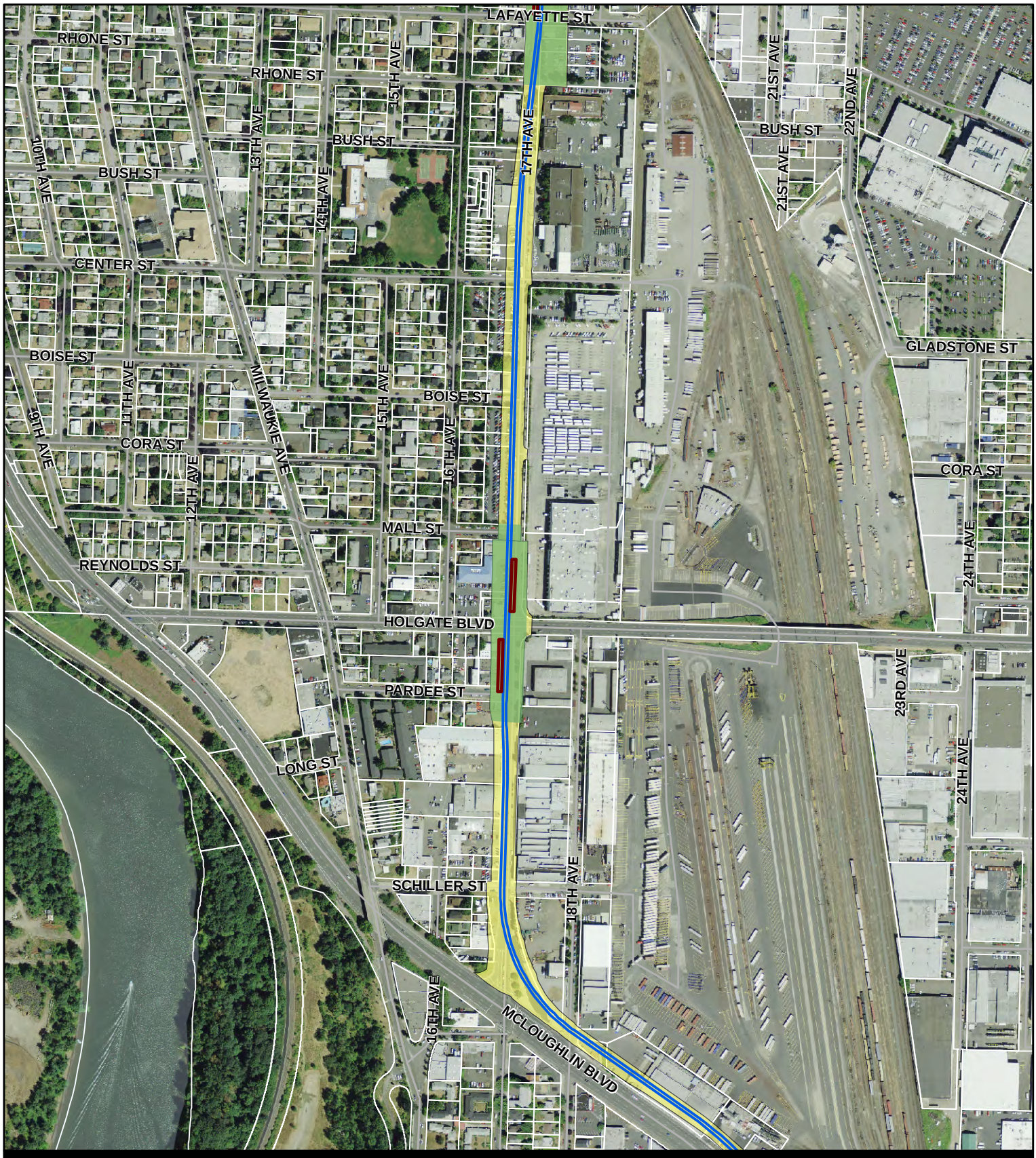
Feet

0 250 500

1 inch equals 500 feet

Note: The guideway between SW 1st Avenue and SE 8th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route.

June 2008



South/North Land Use Final Order Amendment Boundary Map

Figure 1.4

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

METRO

Feet

0 250 500

1 inch equals 500 feet

June 2008

McLoughlin Boulevard Section

The McLoughlin Boulevard section extends along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street.

No changes are made to the light rail route along SE McLoughlin Boulevard as established in the 1998 LUFO and amended in part in the 2004 LUFO. From SE 17th Avenue to SE Tacoma Street, the route continues southward along the east side of SE McLoughlin Boulevard between SE McLoughlin Boulevard and the Union Pacific Railroad tracks.

There is a new LRT station along SE McLoughlin Boulevard near SE Harold Street. Also, the Bybee Boulevard LRT station boundary is expanded to provide for bus pullouts on SE Bybee Boulevard.

There are no park-and-ride lots, maintenance facilities or highway improvements in the McLoughlin Boulevard section.

The boundaries of these light rail facilities are illustrated in attached *Figures 1.4 through 1.6.*

South/North Land Use Final Order Amendment Boundary Map

Figure 1.5

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

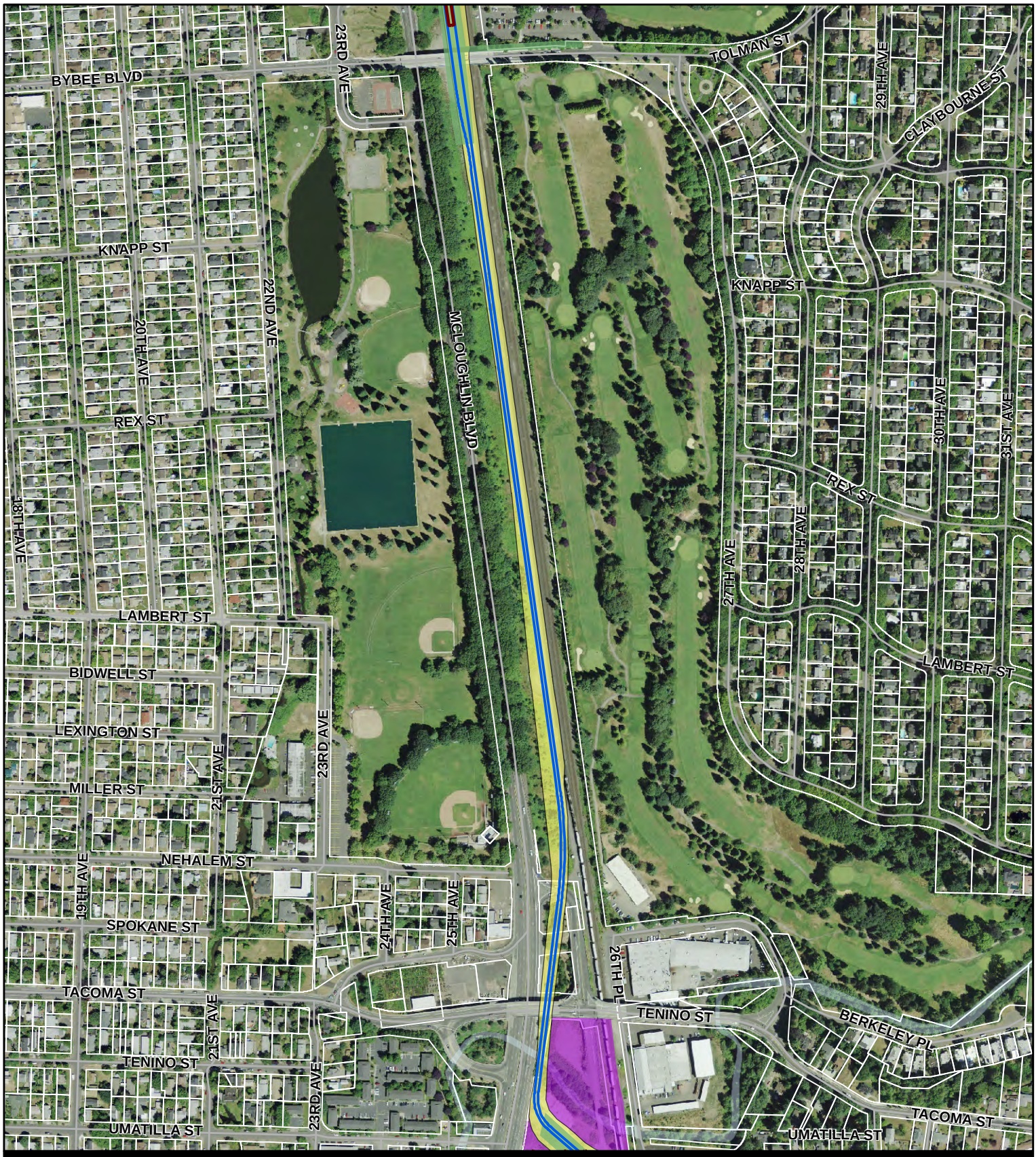
METRO

Feet

0 250 500

1 inch equals 500 feet

June 2008



South/North Land Use Final Order Amendment Boundary Map

Figure 1.6

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

METRO

Feet

0 250 500

1 inch equals 500 feet

June 2008

Milwaukie Town Center Section

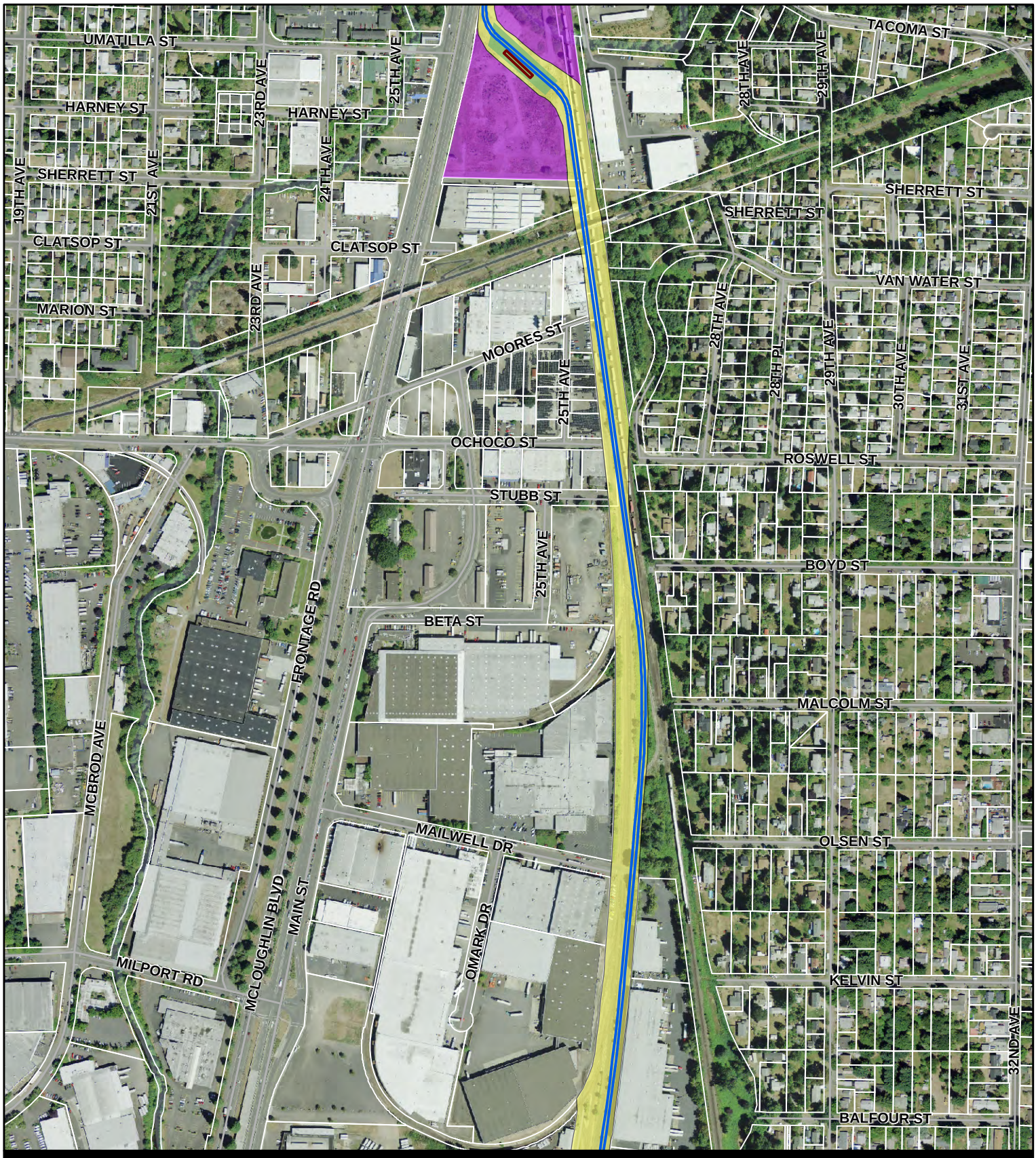
The Milwaukie Town Center Section extends from SE Tacoma Street through downtown Milwaukie to SE Park Avenue in Clackamas County. In the 2004 LUFO, this entire section was identified as a study area.

A short distance south of SE Tacoma Street, the route curves south and east from SE McLoughlin Boulevard to the west side of the UP Main Line, where it heads southward under the Springwater Trail bridge and then onto an elevated structure which extends over the Portland and Western railroad tracks and associated spur tracks before returning to grade level on the east side of the Portland and Western railroad tracks north of Highway 224. From here, the alignment continues southward under Highway 224 and into downtown Milwaukie along the east side of the railroad right of way to Kellogg Lake. The alignment crosses over Kellogg Lake and then crosses SE McLoughlin Boulevard on an elevated structure. West of SE McLoughlin Boulevard, the alignment curves towards the southeast and parallels SE McLoughlin Boulevard to its terminus at SE Park Avenue.

Stations along this section are located south of SE Tacoma Street, in the vicinity of SE Lake Road, and near SE Park Avenue. Park-and-ride lots in this section are located south of SE Tacoma Street, near SE Lake Road, and near SE Park Avenue.

No maintenance facilities or highway improvements are proposed for this section.

The boundaries of these light rail facilities are illustrated in attached *Figures 1.6 through 1.9*.



South/North Land Use Final Order Amendment Boundary Map

Figure 1.7

Light Rail Route

Light Rail Stations

Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment

Potential Station Platform

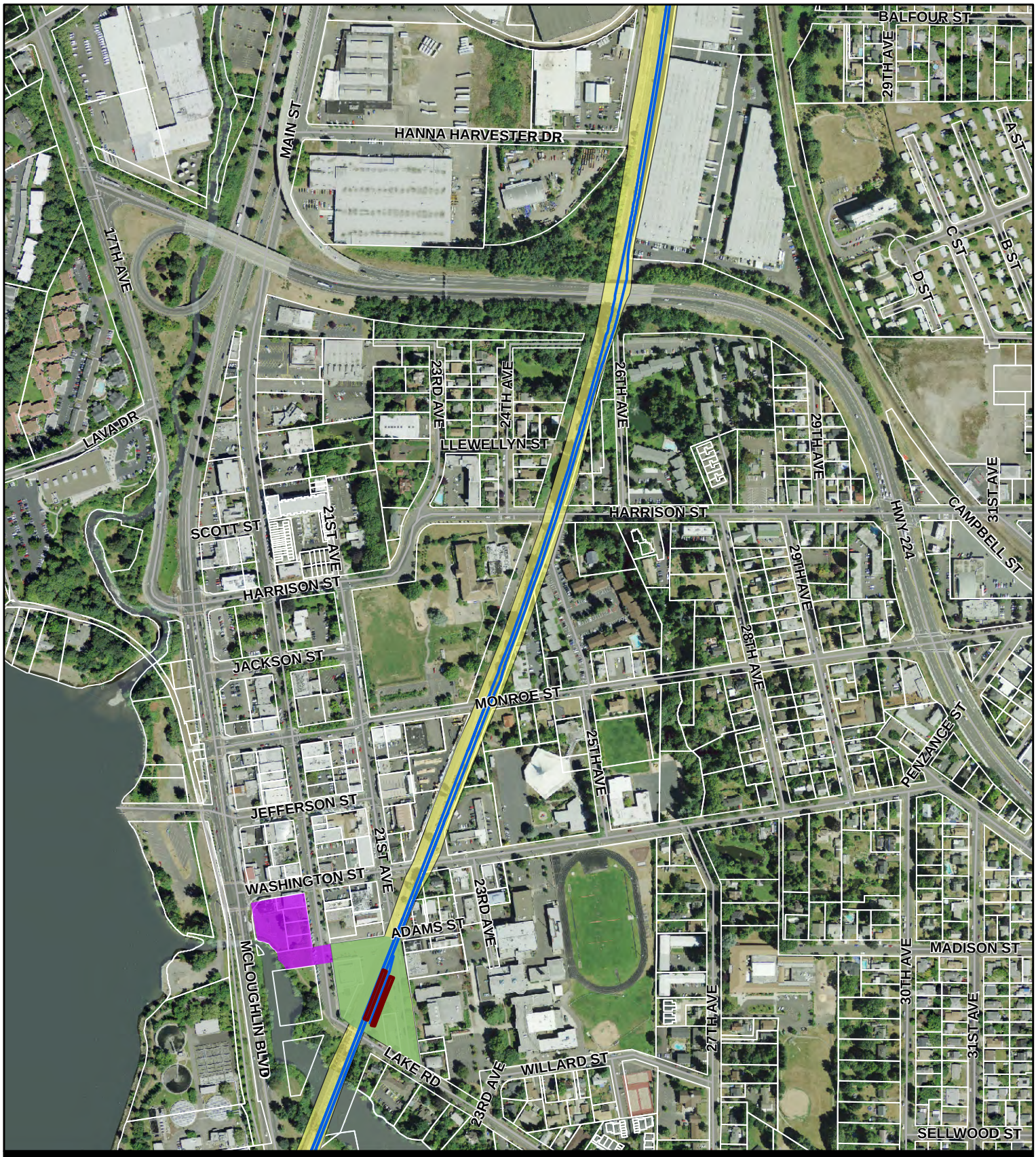
METRO

Feet

0 250 500

1 inch equals 500 feet

June 2008



South/North Land Use Final Order Amendment Boundary Map

Figure 1.8

- Light Rail Route
- Light Rail Stations
- Park-and-Ride Lots

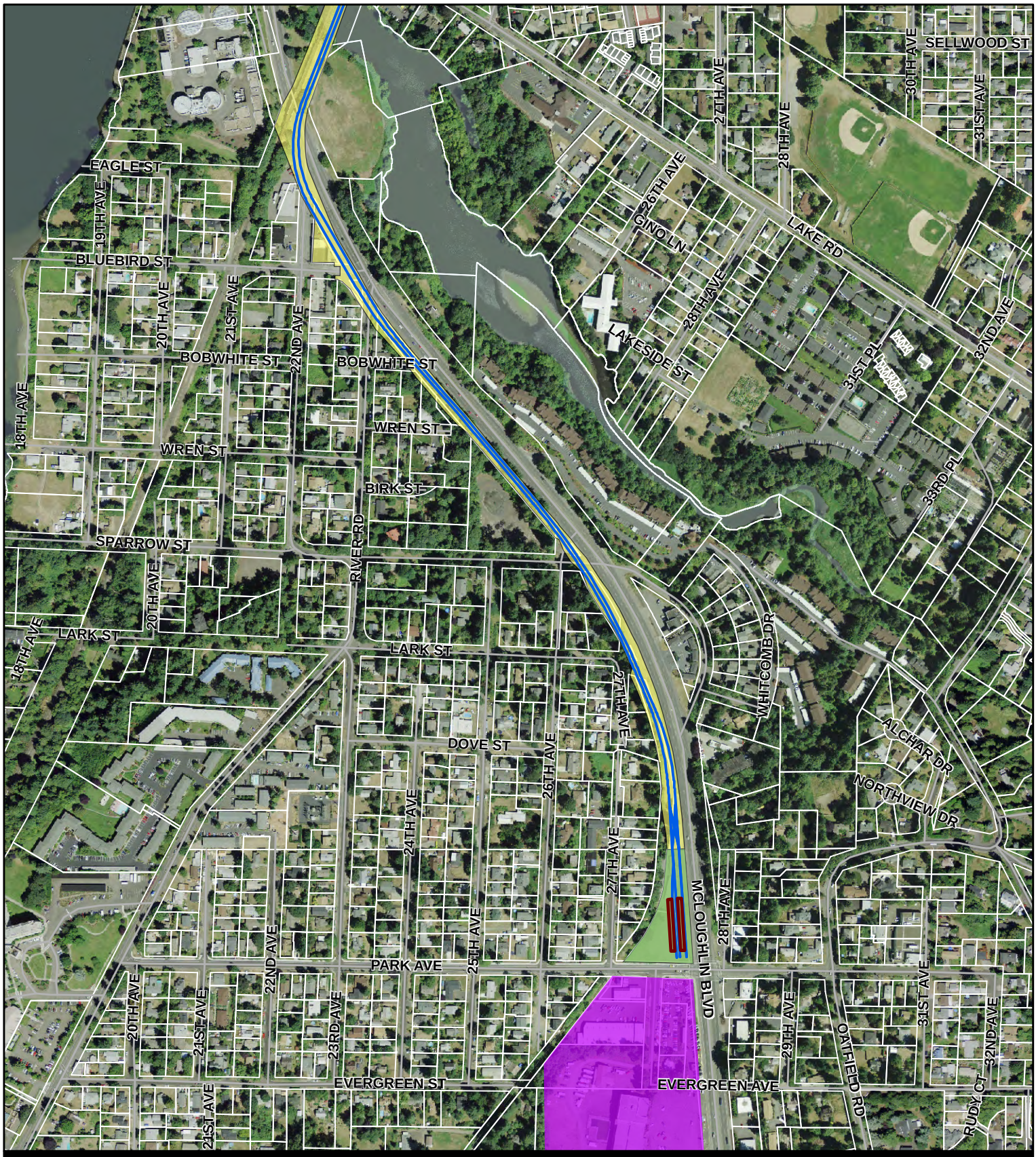
Portland-Milwaukie Light Rail Project

- Potential Alignment
- Potential Station Platform

METRO

Feet
0 250 500
1 inch equals 500 feet

June 2008



South/North Land Use Final Order Amendment Boundary Map

Figure 1.9

- Light Rail Route
- Light Rail Stations
- Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

- Potential Alignment
- Potential Station Platform

METRO

Feet
0 250 500
1 inch equals 500 feet

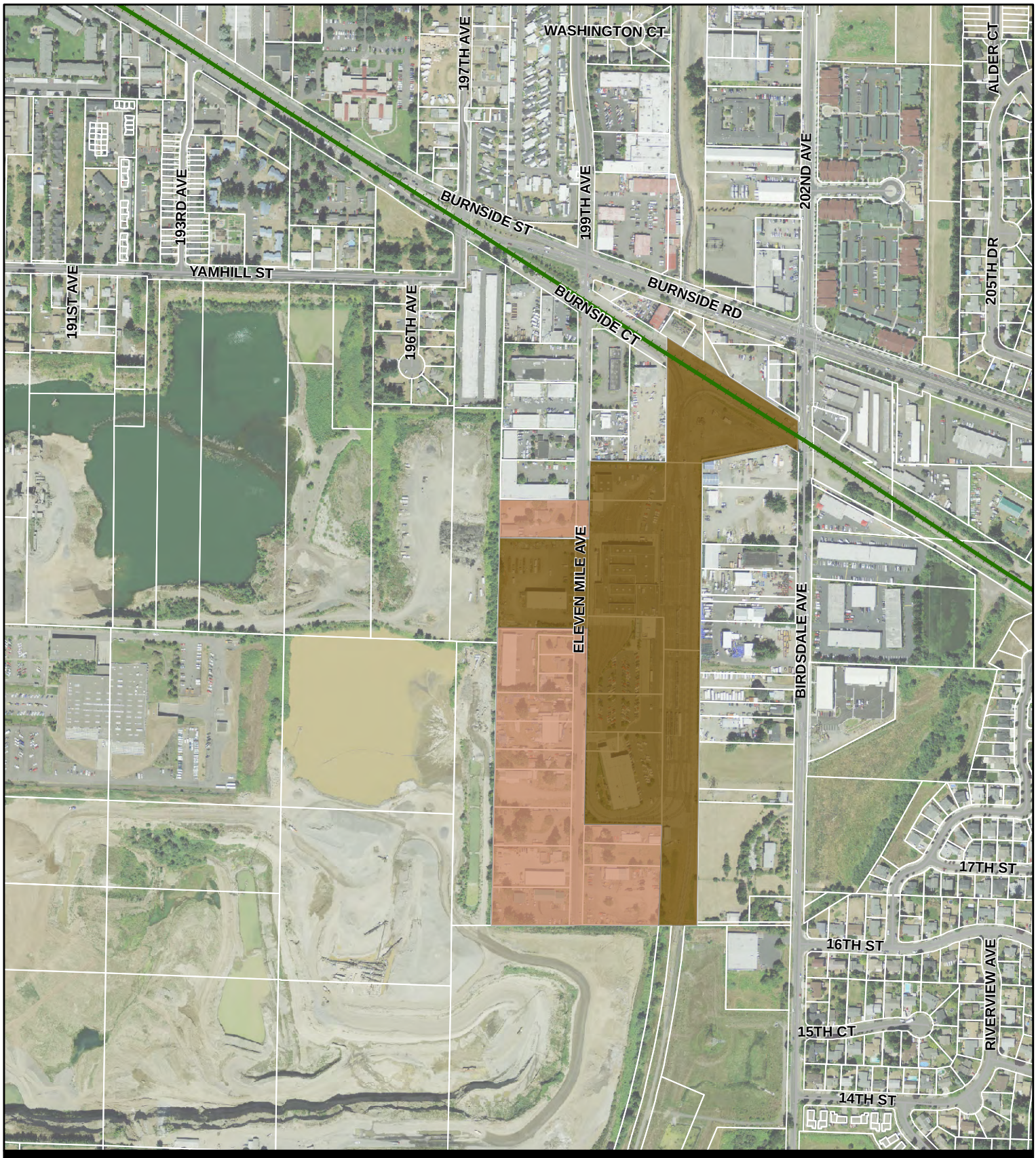
June 2008

3.2 Ruby Junction Maintenance Facility

The Ruby Junction Maintenance Facility along NW Eleven Mile Avenue in Gresham was first authorized in 1980, when TriMet approved the original light rail route serving the Portland metropolitan area between Portland and Gresham. The facility includes light rail tracks, vehicle storage spaces and maintenance bays, an operation center, and related facilities necessary to maintain light rail vehicles.

This 2008 LUFO authorizes the modification and expansion of the Ruby Junction Maintenance Facility to accommodate and serve additional light rail vehicles associated with the Portland-Milwaukie Segment. The expansion includes additional tracks, light rail vehicle storage spaces and maintenance bays and a new operations center.

The boundaries within which the above-described maintenance facilities may be located are as illustrated in attached *Figure 2-1*.



South/North Land Use Final Order Amendment Boundary Map

Figure 2.1

Ruby Junction Operations and Maintenance Facility

- Existing O&M
- Potential O&M expansion
- Potential Alignment
- Potential Station Platform
- Existing Light Rail

METRO

Feet
0 250 500
1 inch equals 500 feet

June 2008

4. Interpretation of Terms

As it did in the 1998, 1999 and 2004 LUFOs, the Metro Council interprets the terms "light rail route", "stations", "lots", "maintenance facilities" and "highway improvements" to have the following meanings:

- "***Light rail route***" means the alignment upon which the light rail tracks will be located. The light rail route will be located on land to be owned by or under the operating control of TriMet.
- "***Stations***" means those facilities to be located along the light rail route for purposes of accessing or serving the light rail system. Stations include light rail station platforms; kiss-and-ride areas; bus transfer platforms and transit centers; vendor facilities; and transit operations rooms.
- "***Lots***" means those parking structures or surface parking lots that are associated with a station, owned by or under the operating control of either TriMet or another entity with the concurrence of TriMet, and intended primarily for use by persons riding transit or carpooling. Parking structures may include some retail or office spaces in association with the primary use.
- "***Maintenance facilities***" means those facilities to be located on land to be owned or controlled by TriMet for purposes of operating, servicing, repairing or maintaining the light rail transit system, including but not limited to light rail vehicles, the light rail tracks, stations, lots, and ancillary facilities and improvements. Maintenance facilities include maintenance facility access trackways; storage tracks for light rail vehicles; service, repair and maintenance shops and equipment; office facilities; locker rooms; control and communications rooms; transit district employee and visitor parking lots; and storage areas for materials and equipment and non-revenue vehicles.
- "***Highway improvements***" include new roads, road extensions or road widenings outside existing rights-of-ways that have independent utility in themselves and are not needed to mitigate adverse traffic impacts associated with the light rail route, stations, lots or maintenance facilities.

Also consistent with these previous LUFOs, the Metro Council determines that implementation of the South/North LUFO under sections 8(1)(a) and (b) of Chapter 12 of the 1996 Oregon Laws (HB 3478), including the construction, operation and maintenance of the light rail route, stations, lots and maintenance facilities and the highway improvements for the South/North Project, necessitates and requires development approval of certain associated actions and the permitting of certain associated or ancillary facilities or improvements. These associated actions or ancillary facilities or improvements generally are required: (1) to ensure the safe and proper functioning and operation of the light rail system; (2) to provide project access; (3) to improve traffic flow, circulation or safety in the vicinity of the South/North Project; or (4) to mitigate adverse impacts caused to the adjoining roadway network resulting from the alignment, stations, lots or maintenance facilities. For these reasons, the Metro Council determines that these actions, facilities or improvements are integral and necessary parts of the South/North Project.

The Metro Council further determines that the associated actions and ancillary facilities or improvements for the South/North Project include, but are not limited to: ties, ballast, and other track support materials such as tunnels and bridges; modifications to existing tracks; retaining walls and noise walls; culverts and other drainage systems; traction electrification equipment including substations; light rail signals and communications equipment and buildings; lighting; station, lot and maintenance facility accesses, including road accesses, pedestrian bridges and pedestrian and bicycle accessways; roadway crossing protection; and the provision of pedestrian paths, bike lanes, bus stops, bus pullouts, shelters, bicycle storage facilities and similar facilities. They also include temporary LRT construction-related roadways, staging areas and road or lane closures; roadway reconstruction, realignment, repair, widening, channelization, signalization or signal modification, lane reconfiguration or reduction, addition or modification of turning lanes or refuges, modification of traffic circulation patterns, or other modifications or improvements that provide or improve project access, improve traffic flow, circulation or safety in the vicinity of the South/North Project, facilitate or are necessary for the safe or proper functioning and operation of the Project, or are necessary to mitigate adverse traffic impacts created by the Project; modifications of private roadways adjoining the Project; permanent road, lane or access closures associated with and necessitated by the Project; and other associated actions or associated or ancillary facilities or improvements related to the Project.

5. Applicable Land Use Criteria

The Oregon Land Conservation and Development Commission, as required by Section 4 of Chapter 12, 1996 Oregon Laws, adopted land use final order criteria on May 30, 1996. These criteria are to be used by the Metro Council "…in making decisions in a land use final order on the light rail route, stations, lots and maintenance facilities, and the highway improvements for the project and extension, including their locations." Compliance with these criteria must be demonstrated.

Procedural LUFO Criteria

1. Coordinate with and provide an opportunity for Clackamas and Multnomah counties, the cities of Gladstone, Milwaukie, Oregon City and Portland, the Tri-County Metropolitan Transportation District of Oregon and the Oregon Department of Transportation to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

2. Hold a public hearing to provide an opportunity for the public to submit testimony on the light rail route, light rail stations, park-and-ride lots, vehicle maintenance facilities and the highway improvements, including their locations.

Substantive LUFO Criteria

3. Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process, or, if reasonable and necessary, by affected local governments during the local permitting process.

    A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing:
        i. the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership;
        ii. the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and
        iii. the need to protect affected neighborhoods from the identified adverse impacts.

    B. Provide for associated highway improvements, including their locations, balancing:
        i. the need to improve the highway system with
        ii. the need to protect affected neighborhoods from the identified adverse impacts.

4. Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process, or if reasonable and necessary, by affected local governments during the permitting process.

5. Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or , if reasonable and necessary, by local governments during the permitting process.

6. Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process, or if reasonable and necessary, by local governments during the permitting process.

7. Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal

and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

8. Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.

Alignment-Specific Criteria

9. Consider a light rail route connecting the Clackamas Town Center area with the City of Milwaukie's Downtown. Consider an extension of the light rail route connecting the City of Oregon City and the City of Gladstone with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.

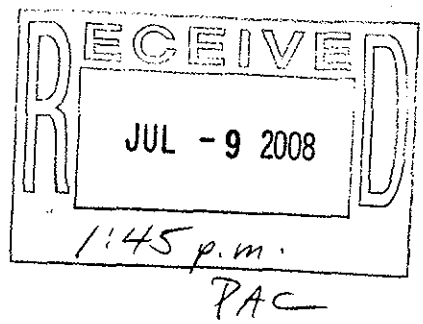
10. Consider a light rail route connecting Portland's Central City with the City of Milwaukie's Downtown via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor, and further connecting the Central City with north and inner northeast Portland neighborhoods via the Interstate 5/Interstate Avenue corridor.

Exhibit B to Resolution No. 08-3964

TRIMET

METRO

July 9, 2008



Via Hand Delivery

David Bragdon, President
Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Re : Application to Amend South/North LUFO

Dear Mr. Bragdon:

Enclosed please find TriMet's Application for approval of a Land Use Final Order (LUFO) amending the original South/North Light Rail Project (South/North Project) LUFO adopted by the Metro Council in July 1998, and the South Corridor Project LUFO Amendment adopted by the Metro Council in January 2004. Also enclosed is a copy of TriMet's Board Resolution authorizing submission of the LUFO Application to Metro.

The LUFO application is being submitted to Metro pursuant to the provisions of 1996 Oregon Laws, Chapter 12 (House Bill 3478), which directs TriMet to submit such an application to the Metro Council after TriMet has received recommendations from the LUFO Steering Committee and the Oregon Department of Transportation. I am pleased to report that TriMet has now received and considered both of those recommendations as noted in the Application and its attachments.

This LUFO Application is consistent with the recommendations of the Steering Committee and ODOT, in both the facilities and improvements it proposes.

The enclosed LUFO Application will provide the basis for the findings to be made as part of Metro's adoption of the subject Amendment to the Land Use Final Order. I am requesting that Metro schedule a public hearing and Council action on this application by the end of July, 2008.

Thank you for your cooperation and assistance on this very important component of our planned regional transportation system.

Very truly yours,

Fred Hansen

Fred Hansen
General Manager

Enclosures

cc: Neil McFarlane
Brian Playfair
Tamara Lewis
Richard Brandman
Ross Roberts

RESOLUTION 08-07-57

RESOLUTION OF THE TRI-COUNTY METROPOLITAN TRANSPORTATION DISTRICT OF OREGON (TRIMET) AUTHORIZING AN APPLICATION TO BE FILED WITH METRO REQUESTING AMENDMENT OF THE SOUTH/NORTH LIGHT RAIL PROJECT LAND USE FINAL ORDER

WHEREAS, on July 23, 1998 the Metro Council adopted a Land Use Final Order (LUFO) siting the track alignment, stations, park and ride lots, and associated facilities and highway improvements for the South/North Light Rail Project (Project); and

WHEREAS, on October 28, 1999, the Metro Council adopted a LUFO Amendment to modify the LUFO for the Project to include the Interstate MAX alignment and on January 15, 2004, the Metro Council adopted a LUFO Amendment to modify the LUFO for the Project to include the I-205 and Portland Mall alignments; and

WHEREAS, TriMet and Metro staffs have recommended amendments to the 1998 original LUFO and the 2004 LUFO Amendment; and

WHEREAS, the amendments to the Project require the adoption of LUFO amendments; and

WHEREAS, the LUFO Steering Committee composed of local government representatives has met and recommended Phase II of the South Corridor Project, including a revised Portland-Milwaukie light rail alignment and modifications to the Ruby Junction maintenance facility, and is recommending adoption of this amendment; and

WHEREAS, the State of Oregon, by and through its Department of Transportation (ODOT) has recommended Phase II of the South Corridor Project, including a revised Portland-Milwaukie light rail alignment; and

WHEREAS, this Board has reviewed the recommendations of the LUFO Steering Committee and ODOT recommending that TriMet file an application with Metro to modify the 1998 Land Use Final Order for the Project and the 2004 LUFO Amendment consistent with the LUFO Steering Committee recommendation.

NOW, THEREFORE, IT IS HEREBY RESOLVED:

1. The General Manager shall file an application with Metro for a Land Use Final Order Amendment relating to the South Corridor Project.

2. The application filed by the General Manager shall identify the modified light rail route, stations, park and ride lots, maintenance facility and highway improvements, including their locations. The location boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route and facilities as needed upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement with the Federal Transit Administration.

3. To the extent practicable, the modified light rail route, stations, park and ride lots, maintenance facility and highway improvements, including their locations, included in the application filed by, or on behalf of, the General Manager shall be consistent with those identified in the LUFO Steering Committee and ODOT recommendations.

Dated: July 9, 2008

Presiding Officer

Attest:

Kelly Bennion
Recording Secretary

Approved as to Legal Sufficiency:

Legal Department

Application for South/North Land Use Final Order Amendment

South/North Light Rail Project
Portland-Milwaukie Segment
July 9, 2008

This document constitutes TriMet's application to the Metro Council for approval of a Land Use Final Order (LUFO)[1] amending (1) Metro Resolution No. 98-2673, which adopted the original South/North Light Rail Project (South/North Project) LUFO (the 1998 LUFO), and (2) Metro Resolution No. 03-3372, which in part amended the 1998 LUFO by modifying the LRT alignment and facilities between downtown Portland and Milwaukie (the 2004 LUFO).[2]

This application would further amend those portions of the 1998 LUFO and the 2004 LUFO that established the light rail route, stations, lots, maintenance facilities and highway improvements, and their locational boundaries, for the Portland-Milwaukie Segment of the South/North Project (Portland-Milwaukie Segment), which extends from Portland State University (PSU) in downtown Portland through SE Portland to Milwaukie. It also would expand the existing Ruby Junction Maintenance Facility in Gresham to allow for the maintenance of additional light rail vehicles associated with the Portland-Milwaukie Segment.

B. Requirements of House Bill 3478.

Section 6(1) of Oregon Laws 1996, Chapter 12 (House Bill 3478) authorizes the Metro Council, upon application by TriMet, to adopt land use final orders for the South/North Project. The LUFO identifies the light rail route, stations, lots and maintenance facilities, and the highway improvements that comprise the South/North Project, and it further specifies the locations within which these facilities and improvements may be located. As explained in Section 6(1)(a) of the Act:

> "The applied for locations shall be in the form of boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements, shall be located. These boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route, stations, lots and maintenance facilities, and the highway improvements for which need commonly arises upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement."

Section 6(2) of the Act addresses amendments to the original LUFO. As relevant to this proceeding, it provides that any siting of the light rail route or a station, lot, maintenance facility or highway improvement outside the boundaries previously established in a LUFO, or any new station, lot or maintenance facility, or highway improvement, "shall require a land use final order

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[1] A LUFO is a written order or orders of the Metro Council deciding the light rail route, the light rail stations, park-and-ride lots and maintenance facilities, and the highway improvements for the South/North Project, including their locations.

[2] Metro Resolution 99-2853A, adopted in 1999, also amended the original South/North LUFO for that portion of the project extending from the Steel Bridge northward to the Exposition Center. That portion, which was amended in part by the 2004 LUFO, is not affected by the amendments requested herein.

amendment or a new land use final order which shall be adopted in accordance with the process provided for in subsection (1) of this section."

Section 6(1) of House Bill 3478 directs TriMet to file its application with the Council following its receipt of recommendations from the Oregon Department of Transportation and the South/North LUFO Steering Committee (Steering Committee) established pursuant to Section 1(21) of the Act. On June 26, 2008, the Steering Committee adopted its recommendations to TriMet on the light rail route, stations, park-and-ride lots, maintenance facilities and highway improvements for the Portland-Milwaukie Segment that is the subject to this LUFO amendment application. On June 27, 2008, the Oregon Department of Transportation provided recommendations in the form of a letter to the TriMet Board of Directors from Jason Tell, Region 1 Manager, endorsing the LUFO amendments recommended by the LUFO Steering Committee. TriMet has received and considered these recommendations from the Steering Committee and ODOT, copies of which are attached hereto as Attachments A and B. TriMet's application is consistent with those recommendations.

House Bill 3478 further requires the Metro Council to demonstrate that its decisions comply with approval criteria established by the Oregon Land Conservation and Development Commission (LCDC) under Section 4 of the Act. These criteria are identified later in this application.

C. <u>Requested Light Rail and Highway Improvements</u>.

TriMet requests that the Metro Council adopt a 2008 Land Use Final Order amending the previously authorized light rail route, stations, park-and-ride lots and maintenance facilities, and the highway improvements for the Portland-Milwaukie Segment, including their locations. TriMet's proposed amendments are described textually below and shown in location boundary maps attached to the Steering Committee's recommendation (*Figures 1.1 through 1.9 and 2.1*).

The light rail route, stations, lots, maintenance facilities and highway improvements associated with the Portland-Milwaukie Segment were initially established in the 1998 LUFO and amended in the 2004 LUFO. Council approval of this application would further amend those facilities by

1) relocating the route southbound between PSU and the Willamette River along SW Lincoln Street and then into the South Waterfront district in the vicinity of SW Harbor Drive and SW Moody Avenue to a new Willamette River bridge crossing north of the Ross Island Bridge at approximately SW Porter Avenue, and establishing new light rail station locations along this alignment;

2) adding highway improvements associated with a new transitway extending from approximately SW 1st Avenue across the new light rail transit bridge to approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians;

3) realigning the route between the east bank of the Willamette River at SE Sherman Street and SE 7th Avenue at SE Caruthers Street, relocating the OMSI station, and adding highway improvements associated with the new transitway;

4) widening the alignment boundary along SE 17th Avenue;

5) expanding the SE Bybee Boulevard station to include bus pullouts on SE Bybee Boulevard and authorizing a new station near SE Harold Street along SE McLoughlin Boulevard;

6) establishing the route and station locations and authorizing a park-and-ride lot for the area south of SE Tacoma Street and north of State Highway 224;

7) establishing the route and station locations and authorizing a park-and-ride lot in downtown Milwaukie between Highway 224 and SE McLoughlin Boulevard; and

8) extending the route southward to a new terminus station and park-and-ride lot in the vicinity of SE Park Avenue in Clackamas County.

In addition to these improvements and modifications, TriMet requests that the Council approve an expansion to the Ruby Junction maintenance facility in Gresham to serve additional LRT vehicles needed for the Portland-Milwaukie Segment and other TriMet LRT lines in the region.

The locations of the proposed LRT and highway improvements for which TriMet is seeking approval are illustrated on the boundary maps recommended by the Steering Committee and approved by the TriMet Board (Attachment A). These maps are printed from a regional geographic information system database (Metro's *Regional Land Information System*, RLIS) and illustrate the recommended boundaries at a scale of one inch equals 500 feet.

TriMet notes that several portions of the recommended Portland-Milwaukie Segment shown in the attached maps are unchanged from the descriptions and boundary maps that the Metro Council approved in the 1998 and 2004 LUFOs. For instance, the light rail alignments in SE Portland from SE 7th Avenue to SE 17th Avenue and along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street are unchanged. Also, a number of the stations and station boundaries within this segment remain as shown and described in the 1998 and 2004 LUFOs. While it was not necessary to illustrate these unchanged project elements on the attached boundary maps, TriMet recommended it to provide the reader a picture of the Portland-Milwaukie Segment in its entirety.

Consistent with Section 6(1)(a) of HB 3478, the boundaries shown on the maps represent the areas within which the light rail and highway facilities may be located. The maps generally show the existing property lines and major buildings to provide orientation and clarity with respect to the proposed project facility locations. The precise locations of the proposed light rail facilities and highway improvements within these boundaries cannot accurately be identified until preliminary engineering and final design have been completed. The LUFO maps accordingly show a larger, more generalized boundary than will actually be needed for the track alignment, stations, park-and-ride lots, maintenance facilities and highway improvements

Except for the Ruby Junction Maintenance Facility in Gresham, the applied for facilities are all located within the Portland-Milwaukie Segment of the South/North Project. To maintain

consistency with the 1998 LUFO, this application divides the Portland-Milwaukie Segment into three sections: (1) South Willamette River Crossing; (2) McLoughlin Boulevard; and (3) Milwaukie Town Center (formerly Milwaukie Regional Center).

With the proposed amendments identified above, the light rail route, stations, lots, maintenance facilities and highway improvements comprising the Portland-Milwaukie Segment are as follows:

South Willamette River Crossing Section

The South Willamette River Crossing Section extends from the Jackson Street LRT stations near Portland State University to the intersection of SE 17th Avenue and SE McLoughlin Boulevard.

From the Jackson Street LRT stations on SW 5th and 6th Avenues, the LRT alignment leaves Portland towards Milwaukie along SW Lincoln Street, across SW 1st Avenue and SW Naito Parkway, over SW Harbor Drive and under the I-5/I-405/Marquam Bridge ramps to a location west of SW Moody Avenue at approximately SW Porter Street. Short of reaching the Ross Island Bridge, the alignment curves eastward to cross the Willamette River on a new bridge. The alignment crosses the east bank of the Willamette River at SE Sherman Street and then continues eastward primarily along SE Sherman Street to the intersection of SE 7th Avenue and SE Caruthers Street, where it rejoins the 1998 LUFO alignment and continues southeast to SE Powell Boulevard.

South of SE Powell Boulevard, the LRT alignment follows SE 17th Avenue to SE McLoughlin Boulevard, as approved in the 2004 LUFO amendments. In this segment, the alignment boundary is widened so that the SE 17th Avenue right-of-way remains wide enough to accommodate bicycle lanes and freight movements.

West of the Willamette River, light rail stations are located between approximately SW 4th Avenue and SW Naito Parkway; between approximately SW Harrison Street and SW Caruthers Street; and between SW Moody Avenue and the Willamette River. East of the Willamette River, the OMSI station identified in the 1998 LUFO is relocated to SE Sherman Street east of SE Water Avenue. No changes are proposed to the locations of the SE Clinton Street station identified in the 1998 LUFO or the SE Rhine and SE Holgate Street stations along SE 17th Avenue identified in the 2004 LUFO amendments.

No park-and-ride lots or maintenance facilities are proposed for the Willamette River Crossing section. However, three highway improvements are proposed: (1) A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians; (2) transitway-related improvements on SE 8th between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and transit-only signalization; and (3) modifications to SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

The boundaries of these light rail facilities and highway improvements are illustrated in *Figures 1.1 through 1.4* attached to the Steering Committee recommendation.

McLoughlin Boulevard Section

The McLoughlin Boulevard section extends along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street.

No changes are proposed to the light rail route along SE McLoughlin Boulevard as established in the 1998 LUFO and amended in part in the 2004 LUFO. Along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street, the route continues southward along the east side of SE McLoughlin Boulevard between SE McLoughlin Boulevard and the Union Pacific Railroad tracks.

One new LRT station is proposed, along SE McLoughlin Boulevard near SE Harold Street. Also, the Bybee Boulevard LRT station boundary is expanded to provide for bus pullouts on SE Bybee Boulevard. No park-and-ride lots, maintenance facilities or highway improvements are proposed for the McLoughlin Boulevard section.

The boundaries of these light rail facilities are illustrated in *Figures 1.4 through 1.6* attached to the LUFO Steering Committee recommendation.

Milwaukie Town Center Section

The Milwaukie Town Center Section extends from SE Tacoma Street through downtown Milwaukie to SE Park Avenue in Clackamas County.

A short distance south of SE Tacoma Street, the route curves south and east from SE McLoughlin Boulevard to the west side of the UP Main Line, where it heads southward under the Springwater Trail bridge and then onto an elevated structure which extends over the Portland and Western railroad tracks and associated spur tracks before returning to grade level on the east side of the Portland and Western railroad tracks north of Highway 224. From here, the alignment continues southward under Highway 224 and into downtown Milwaukie along the east side of the railroad right of way to Kellogg Lake. The alignment crosses over Kellogg Lake and then crosses SE McLoughlin Boulevard on an elevated structure. West of SE McLoughlin Boulevard, the alignment curves towards the southeast and parallels SE McLoughlin Boulevard to its terminus at SE Park Avenue.

Stations along this section are located south of SE Tacoma Street, in the vicinity of SE Lake Road, and near SE Park Avenue. Park-and-ride lots in this section are located south of SE Tacoma Street, near SE Lake Road, and near SE Park Avenue. No maintenance facilities or highway improvements are proposed for this section.

The boundaries of these light rail facilities are illustrated in *Figures 1.6 through 1.9* attached to the Steering Committee recommendation.

Ruby Junction Maintenance Facility Amendment

In addition to the above-identified light rail facilities and highway improvements located between Portland and Milwaukie, TriMet asks that the Council approve an expansion of the existing Ruby Junction Maintenance Facility in Gresham along NW Eleven Mile Avenue. This expansion is needed to allow for maintenance of the additional light rail vehicles that will be associated with the Portland-Milwaukie project. The expansion would include additional track, light rail vehicle storage spaces and maintenance bays and a new operations center.

The boundaries of the Ruby Junction Maintenance Facility are illustrated in *Figure 2.1* attached to the Steering Committee recommendation.

D. Applicable Land Use Criteria.

On May 30, 1996, pursuant to Section 4 of House Bill 3478, LCDC established the criteria to be used by the Council in making land use decisions establishing or amending the light rail route, stations, lots and maintenance facilities, and the highway improvements for the South/North Project, including their locations. The approved criteria include two procedural, six substantive, and two alignment-specific standards, set out below. In its LUFO, the Council must demonstrate compliance with these criteria.

Procedural Criteria

1. Coordinate with and provide an opportunity for Clackamas and Multnomah counties, the cities of Gladstone, Milwaukie, Oregon City and Portland, the Tri-County Metropolitan Transportation District of Oregon and the Oregon Department of Transportation to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

2. Hold a public hearing to provide an opportunity for the public to submit testimony on the light rail route, light rail stations, park-and-ride lots, vehicle maintenance facilities and the highway improvements, including their locations.

Substantive Criteria

3. Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process, or, if reasonable and necessary, by affected local governments during the local permitting process.

    A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient

and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.

B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.

4. Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.

5. Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

6. Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

7. Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

8. Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.

Alignment-Specific Criteria

9. Consider a light rail route connecting the Clackamas Town Center area with the City of Milwaukie's Downtown. Consider an extension of the light rail route connecting the City of Oregon City and the City of Gladstone with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.

10. Consider a light rail route connecting Portland's Central City with the City of Milwaukie's Downtown via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor, and further connecting the Central City with north and inner northeast Portland neighborhoods via the Interstate 5/Interstate Avenue corridor.

E. Interpretation of Terms.

TriMet assumes that the Metro Council will interpret the terms "light rail route", "stations", "lots", "maintenance facilities" and "highway improvements" as it did in its previous South/North LUFOs, to have the following meanings:

- "***Light rail route***" means the alignment upon which the light rail tracks will be located. The light rail route will be located on land to be owned by or under the operating control of TriMet.
- "***Stations***" means those facilities to be located along the light rail route for purposes of accessing or serving the light rail system. Stations include light rail station platforms; kiss-and-ride areas; bus transfer platforms and transit centers; vendor facilities; and transit operations rooms.
- "***Lots***" means those parking structures or surface parking lots that are associated with a station, owned by or under the operating control of either TriMet or another entity with the concurrence of TriMet, and intended primarily for use by persons riding transit or carpooling. Parking structures may include some retail or office spaces in association with the primary use.
- "***Maintenance facilities***" means those facilities to be located on land to be owned or controlled by TriMet for purposes of operating, servicing, repairing or maintaining the light rail transit system, including but not limited to light rail vehicles, the light rail tracks, stations, lots, and ancillary facilities and improvements. Maintenance facilities include maintenance facility access trackways; storage tracks for light rail vehicles; service, repair and maintenance shops and equipment; office facilities; locker rooms; control and communications rooms; transit district employee and visitor parking lots; and storage areas for materials and equipment and non-revenue vehicles.
- "***Highway improvements***" include new roads, road extensions or road widenings outside existing rights-of-ways that have independent utility in themselves and are not needed to mitigate adverse traffic impacts associated with the light rail route, stations, lots or maintenance facilities.

Consistent with its previous South/North LUFOs, TriMet asks the Council to determine that implementation of the South/North LUFO under sections 8(1)(a) and (b) of Chapter 12 of the 1996 Oregon Laws (HB 3478), including the construction, operation and maintenance of the light rail route, stations, lots and maintenance facilities and the highway improvements for the Project, necessitates and requires development approval of certain associated actions and the permitting of certain associated or ancillary facilities or improvements. These associated actions or ancillary facilities or improvements generally are required: (1) to ensure the safe and proper functioning and operation of the light rail system; (2) to provide project access; (3) to improve traffic flow, circulation or safety in the vicinity of the Project; or (4) to mitigate adverse impacts caused to the adjoining roadway network resulting from the alignment, stations, lots or maintenance facilities. For these reasons, these actions, facilities or improvements are integral and necessary parts of the Project.

Also consistent with previous South/North LUFOs, TriMet asks the Council to find that the associated actions and ancillary facilities or improvements for the South/North Project include, but are not limited to: ties, ballast, and other track support materials such as tunnels and bridges; modifications to existing tracks; retaining walls and noise walls; culverts and other drainage systems; traction electrification equipment including substations; light rail signals and communications equipment and buildings; lighting; station, lot and maintenance facility accesses, including road accesses, pedestrian bridges and pedestrian and bicycle accessways; roadway crossing protection; and the provision of pedestrian paths, bike lanes, bus stops, bus pullouts, shelters, bicycle storage facilities and similar facilities. They also include temporary LRT construction-related roadways, staging areas and road or lane closures; roadway reconstruction, realignment, repair, widening, channelization, signalization or signal modification, lane reconfiguration or reduction, addition or modification of turning lanes or refuges, modification of traffic circulation patterns, or other modifications or improvements that provide or improve Project access, improve traffic flow, circulation or safety in the vicinity of the Project, facilitate or are necessary for the safe or proper functioning and operation of the Project, or are necessary to mitigate adverse traffic impacts created by the Project; modifications of private roadways adjoining the Project; permanent road, lane or access closures associated with and necessitated by the Project; and other associated actions or associated or ancillary facilities or improvements related to the Project.

Attachment A

2008 South/North Land Use Final Order Amendment
LUFO Steering Committee Recommendation

June 26, 2008

Portland-Milwaukie Light Rail Project

LUFO Steering Committee Recommendations
Concerning the
2008 South/North Land Use Final Order

June 26, 2008

South/North Land Use Final Order Steering Committee Members

Metro
Robert Liberty, Metro Councilor

TriMet
Fred Hansen, Executive Director

City of Portland
Sam Adams, Commissioner

City of Milwaukie
James Bernard, Mayor

City of Gresham
Shane Bemis, Mayor

Oregon Department of Transportation
Jason Tell, Region 1 Manager

Multnomah County
Maria Rojo de Steffey, County Commissioner

Clackamas County
Lynn Petersen, Chair, County Commissioner

City of Oregon City
Alice Norris, Mayor, Ex-Officio

Portland-Milwaukie Light Rail Project Citizen Advisory Committee
Rick Williams, Chair, Ex-Officio

TABLE OF CONTENTS

1. Introduction

This document constitutes the South/North Land Use Final Order (LUFO) Steering Committee's recommendation to TriMet regarding TriMet's application to the Metro Council for approval of amendments to the original South/North Corridor Project LUFO, which the Metro Council adopted on July 23, 1998 (the 1998 LUFO), and to the South/North LUFO amendment that the Metro Council adopted on January 15, 2004 (the 2004 LUFO).

This recommendation is provided pursuant to Section 6(1) of Oregon Laws 1996, Chapter 12 (House Bill 3478), which directs TriMet to apply to the Metro Council for a Land Use Final Order approving the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project, including their locations, "following receipt of recommendations from the Department of Transportation and the Steering Committee", and Section 6(2), which provides:

> "(2) Any siting of the light rail route, a station, lot or maintenance facility, or a highway improvement outside the locations established in a land use final order, and any new station, lot, maintenance facility or highway improvement, shall require a land use final order amendment or a new land use final order which shall be adopted in accordance with the process provided for in subsection (1) of this section."

In May 1998, in accordance with Section 1(21) of House Bill 3478, the South/North LUFO Steering Committee was established through intergovernmental agreement between Metro, TriMet, ODOT, Clackamas County, Multnomah County, the City of Portland, and the City of Milwaukie. In 2008, the Intergovernmental Agreement was amended to add the City of Gresham as a LUFO Steering Committee member. The City of Oregon City is an ex officio member of the Committee.

This recommendation from the LUFO Steering Committee addresses the light rail route, stations, lots and highway improvements within only that portion of the South/North Project extending southward from Portland State University in downtown Portland through SE Portland and downtown Milwaukie to SE Park Avenue in unincorporated Clackamas County. Additionally, it addresses modifications to the existing Ruby Junction Maintenance Facility in the City of Gresham.


South/North Land Use Final Order
Index Map
Map A
Milwaukie Segment Project Location
Light Rail Stations
Park-and-Ride Lots
Potential light rail alignment
Changes to the LUFO
Light Rail under construction
Existing Streetcar
Portland Aerial Tram
METRO
Feet
0 2,000 4,000
June 2008

2. Requirements of House Bill 3478.

House Bill 3478, Section 6(1) authorizes the Metro Council, upon application by TriMet and following recommendations from the Steering Committee and Department of Transportation, to adopt a Land Use Final Order for the South/North Project. A LUFO is a written order or orders of the Metro Council deciding the light rail route, the stations, lots and maintenance facilities, and the highway improvements for the South/North Project, including their locations. The LUFO identifies the light rail route, stations, lots, maintenance facilities and highway improvements that comprise the South/North project, and it further specifies the locations within which these facilities and improvements may be located. As explained in Section 6(1)(a) of House Bill 3478,

> "The applied for locations shall be in the form of boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements shall be located. These boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route, stations, lots and maintenance facilities, and the highway improvements for which need commonly arises upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement."

3. Recommended South/North Project LUFO Amendments

The LUFO Steering Committee recommends that TriMet apply for, and that the Metro Council adopt, a LUFO amending the 1998 and 2004 South/North LUFOs to approve the light rail route, stations, lots and maintenance facilities, and the highway improvements as identified textually below and in the attached maps, which illustrate the location "boundaries" as required by Section 6(1)(a) of the Act. With one exception (Ruby Junction Maintenance Facility expansion), the recommended route, station, lot, maintenance facility and highway improvement amendments occur entirely within the Portland-Milwaukie segment of the South/North Project.

Consistent with the 1998 South/North LUFO, the LUFO Steering Committee recommends dividing the Portland-Milwaukie Project into four sections: (1) South Willamette River Crossing; (2) McLoughlin Boulevard; (3) Milwaukie Town Center; and (4) the expansion of the Ruby Junction Maintenance Facility located in Gresham which will serve the LRT vehicles for the Portland-Milwaukie Project as well as other TriMet LRT lines in the region.

For each of these sections, the project description begins with a brief summary of the section, followed by identification of the light rail route, stations, lots, highway improvements and maintenance facilities.

It should be noted that several portions of the recommended project in the Portland-Milwaukie segment remain unchanged from the descriptions and boundary maps that the Metro Council approved in the 1998 LUFO or the 2004 LUFO amendments. For instance, the light rail alignments in SE Portland from SE 7th Avenue to SE 17th Avenue and along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street are unchanged. Also, a number of the stations and station boundaries within this segment remain as shown and described in the previous LUFOs. While it is not necessary to include these unchanged project elements in this recommendation, they are illustrated on the attached maps to give the reader a complete picture of the Portland-Milwaukie segment.

The light rail route, stations, lots and maintenance facilities, and the highway improvements that the LUFO Steering Committee recommends to TriMet for inclusion in its LUFO application are as indicated in the text and maps that follow.

South Willamette River Crossing Section

The South Willamette River Crossing Section extends from the Jackson Street light rail transit (LRT) stations on SW 5th and 6th Avenues along SW Lincoln Street to the intersection of SE 17th Avenue and SE McLoughlin Boulevard.

The LRT alignment leaves downtown Portland towards Milwaukie from the Jackson Street LRT stations on SW 5th and 6th Avenues along SW Lincoln Street, across 1st Avenue and SW Naito Parkway, over SW Harbor Drive and under the I-5/I-405/Marquam Bridge ramps to a location west of SW Moody Avenue at approximately SW Porter Street. Short of reaching the Ross Island Bridge, the alignment curves eastward to cross the Willamette River on a new bridge. The alignment crosses the east bank of the Willamette River at SE Sherman Street and then continues eastward primarily along SE Sherman Street to the intersection of SE 7th Avenue and SE Caruthers Street, where it rejoins the 1998 LUFO alignment and continues southeast to SE Powell Boulevard along that alignment.

South of SE Powell Boulevard, the LRT alignment follows SE 17th Avenue to SE McLoughlin Boulevard, as approved in the 2004 LUFO amendments. While the route remains along SE 17th Avenue, the boundary within which the tracks may be located is widened so that the SE 17th Avenue right-of-way remains wide enough to accommodate bicycle lanes and freight movements.

West of the Willamette River, light rail stations along this section are located in the vicinity of SW Lincoln Street between approximately SW 4th Avenue and SW Naito Parkway, and a Harbor Station extending from approximately SW Harrison Street to SW Caruthers Street. There are still outstanding issues to be resolved regarding the Harbor station, but by including it in the LUFO now, the option remains available to build this station. A station will also be located east of SW Porter Street between SW Moody Avenue and the Willamette River. East of the Willamette River, the OMSI station identified in the 1998 LUFO is relocated to SE Sherman Street east of SE Water Avenue. No changes are recommended to the locations of the previously approved SE Clinton Street station identified in the 1998 LUFO, and the SE Rhine and SE Holgate Street stations along SE 17th Avenue identified in the 2004 LUFO amendments.

No park-and-ride lots or maintenance facilities are proposed for this section. However, there are three highway improvements: A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and Division Place, which would accommodate buses, streetcars, and bicycles and pedestrians; and transit-related improvements on SE 8th between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and transit-only signalization. The LUFO Steering Committee also recommends a third potential highway improvement that would modify SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

The proposed boundaries within which the above-described light rail improvements would be located are as illustrated on the boundary maps for the South Willamette River Crossing Section attached to this recommendation (Figures 1.1 to 1.4). As noted, boundary maps showing the light rail route and stations previously approved and not modified by these proposed amendments are provided solely for the convenience of the reader.

Note: The gateway between SW 1st Avenue and SE 6th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route. June 2008

Note: The guideway between SW 1st Avenue and SE 6th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route. June 2008

Note: The guideway between SW 1st Avenue and SE 6th Avenue/SE Division Place will provide bus access and is considered a highway improvement along the light rail route.


South/North Land Use Final Order Amendment Boundary Map
Figure 1.4
Light Rail Route
Light Rail Stations
Park-and-Ride Lots
Portland-Milwaukie Light Rail Project
Potential Alignment
Potential Station Platform
METRO
Feet
0 250 500
1 inch equals 500 feet
June 2008

McLoughlin Boulevard Section

The McLoughlin Boulevard Section extends southward between SE McLoughlin Boulevard and the Union Pacific Railroad tracks from SE McLoughlin at SE 17th Avenue to SE McLoughlin at SE Tacoma Street.

The Steering Committee recommends no changes to the light rail route along SE McLoughlin Boulevard as established in the 1998 LUFO and amended in part in the 2004 LUFO. From SE McLoughlin Boulevard at SE 17th Avenue to SE Tacoma Street, the route continues southward along the east side of SE McLoughlin Boulevard.

The Steering Committee recommends that the Bybee Street Station location be expanded to provide space for bus pullouts on SE Bybee Street. The Steering Committee also recommends a potential new station along SE McLoughlin Boulevard near SE Harold Street.

There are no park-and-ride lots, maintenance facilities or highway improvements proposed for this section.

The proposed boundaries within which the above-described light rail improvements would be located are as illustrated on the boundary maps for the McLoughlin Boulevard Section attached to this recommendation (Figures 1.4 to 1.6). As noted boundary maps showing the light rail route and stations previously approved and not modified by these amendments are provided solely for the convenience of the reader.

South/North Land Use Final Order Amendment Boundary Map

Figure 1.5

Portland-Milwaukie Light Rail Project

- Light Rail Route
- Light Rail Stations
- Park-and-Ride Lots
- Potential Alignment
- Potential Station Platform

METRO

Feet 0 250 500

1 inch equals 500 feet

June 2008

South/North Land Use Final Order Amendment Boundary Map

Figure 1.6

Light Rail Route
Light Rail Stations
Park-and-Ride Lots

Portland-Milwaukie Light Rail Project

Potential Alignment
Potential Station Platform

METRO

Feet
0 250 500
1 inch equals 500 feet

June 2008

Milwaukie Town Center Section

The Milwaukie Town Center Section (formerly Milwaukie Regional Center) extends from SE Tacoma Street through downtown Milwaukie to SE Park Avenue in Clackamas County.

A short distance south of SE Tacoma Street, the route curves south and east from SE McLoughlin Boulevard to the west side of the UP Main Line, where it heads southward under the Springwater Trail bridge and then onto an elevated structure which extends over the Portland and Western railroad tracks and associated spur tracks before returning to grade level on the east side of the Portland and Western railroad tracks north of Highway 224. From here, the alignment continues southward under Highway 224 and into downtown Milwaukie along the east side of the railroad right of way to Kellogg Lake. The alignment crosses over Kellogg Lake, then crosses SE McLoughlin Boulevard on an elevated structure. West of SE McLoughlin Boulevard, the alignment curves towards the southeast and parallels SE McLoughlin Boulevard to its terminus at SE Park Avenue.

Stations along this section are located south of SE Tacoma Street, in the vicinity of SE Lake Avenue and south of SE Park Avenue.

Park-and-ride lots in this section are located south of SE Tacoma Street and near SE Park Avenue. The LUFO Steering Committee also recommends a potential park and ride lot near SE McLoughlin Boulevard and SE Washington Street.

No maintenance facilities are proposed for this section.

The proposed boundaries within which the above-described light rail and highway improvements would be located are as illustrated on the boundary maps for the Milwaukie Town Center Section attached to this recommendation (Figures 1.6 to 1.9).


South/North Land Use Final Order Amendment Boundary Map
Figure 1.7
Portland-Milwaukie Light Rail Project
Light Rail Route
Light Rail Stations
Park-and-Ride Lots
Potential Alignment
Potential Station Platform
METRO
Feet
0 250 500
1 inch equals 500 feet
June 2008

South/North Land Use Final Order Amendment Boundary Map

Figure 1.8

June 2008


South/North Land Use Final Order Amendment Boundary Map
Figure 1.9
Portland-Milwaukie Light Rail Project
Light Rail Route
Light Rail Stations
Park-and-Ride Lots
Potential Alignment
Potential Station Platform
METRO
Feet
0 250 500
1 inch equals 500 feet
June 2008

Ruby Junction Maintenance Facility Amendment

In addition to the above-identified light rail facilities and highway improvements in the Portland-Milwaukie segment, the LUFO Steering Committee recommends expanding the existing Ruby Junction Maintenance Facility in Gresham along NW Eleven Mile Avenue. Expansion of Ruby Junction Maintenance Facility is needed in order to allow for maintenance of the additional light rail vehicles that will be associated with the Portland-Milwaukie project. The expansion would include additional track, light rail vehicle storage spaces and maintenance bays and a new operations center.

The proposed boundaries within which the above-described maintenance facility improvements would be located are as illustrated on the boundary maps for the Ruby Junction Maintenance Facility attached to this recommendation (Figure 2.1).

South/North Land Use Final Order Amendment Boundary Map

Figure 2.1

Ruby Junction Operations and Maintenance Facility

Existing O&M

Potential O&M expansion

Potential Alignment

Potential Station Platform

Existing Light Rail

METRO

Feet

0 250 500

1 inch equals 500 feet

June 2008

4. Interpretation of Terms

For the purposes of this Land Use Final Order, the Metro Council has interpreted the terms "light rail route", "stations", "lots", "maintenance facilities" and "highway improvements" to have the following meanings:

- "***Light rail route***" means the alignment upon which the light rail tracks will be located. The light rail route will be located on land to be owned by or under the operating control of TriMet.
- "***Stations***" means those facilities to be located along the light rail route for purposes of accessing or serving the light rail system. Stations include light rail station platforms; kiss-and-ride areas; bus transfer platforms and transit centers; vendor facilities; and transit operations rooms.
- "***Lots***" means those parking structures or surface parking lots that are associated with a station, owned by or under the operating control of either TriMet or another entity with the concurrence of TriMet, and intended primarily for use by persons riding transit or carpooling. Parking structures may include some retail or office spaces in association with the primary use.
- "***Maintenance facilities***" means those facilities to be located on land to be owned or controlled by TriMet for purposes of operating, servicing, repairing or maintaining the light rail transit system, including but not limited to light rail vehicles, the light rail tracks, stations, lots, and ancillary facilities and improvements. Maintenance facilities include maintenance facility access trackways; storage tracks for light rail vehicles; service, repair and maintenance shops and equipment; office facilities; locker rooms; control and communications rooms; transit district employee and visitor parking lots; and storage areas for materials and equipment and non-revenue vehicles.
- "***Highway improvements***" include new roads, road extensions or road widenings outside existing rights-of-ways that have independent utility in themselves and are not needed to mitigate adverse traffic impacts associated with the light rail route, stations, lots or maintenance facilities.

Additionally, the Metro Council has determined that implementation of the South/North LUFO under sections 8(1)(a) and (b) of Chapter 12 of the 1996 Oregon Laws (HB 3478), including the construction, operation and maintenance of the light rail route, stations, lots and maintenance facilities and the highway improvements for the Project, necessitates and requires development approval of certain associated actions and the permitting of certain associated or ancillary facilities or improvements. These associated actions or ancillary facilities or improvements generally are required: (1) to ensure the safe and proper functioning and operation of the light rail system; (2) to provide project access; (3) to improve traffic flow, circulation or safely in the vicinity of the Project; or (4) to mitigate adverse impacts caused to the adjoining roadway network resulting from the alignment, stations, lots or maintenance facilities. For these reasons, the Metro Council

has determined that these actions, facilities or improvements are integral and necessary parts of the Project.

The Metro Council has further determined that the associated actions and ancillary facilities or improvements for the South/North Project include, but are not limited to: ties, ballast, and other track support materials such as tunnels and bridges; modifications to existing tracks; retaining walls and noise walls, culverts and other drainage systems; traction electrification equipment including maintenance facility accesses, including road accesses, pedestrian bridges and pedestrian and bicycle stops, bus pullouts, shelters, bicycle storage facilities and similar facilities. They also include temporary LRT construction-related roadways, staging areas and road or lane closures; roadway reconstruction, realignment, repair, widening, channelization, signalization or signal modification, lane reconfiguration or reduction, addition or modification of turning lanes or refuges, modification of traffic circulation patterns, or other modifications or improvements that provide or improve project access, improve traffic flow, circulation or safety in the vicinity of the Project, facilitate or are necessary for the safe or proper functioning and operation of the Project, or are necessary to mitigate adverse traffic impacts created by the Project; modifications of private roadways adjoining the Project; permanent road, lane or access closures associated with and necessitated by the Project; and other associated actions or associated or ancillary facilities or improvements related to the Project.

Attachment B

2008 South/North Land Use Final Order Amendment
ODOT Recommendation

June 27, 2008

Oregon
Theodore R. Kulongoski, Governor

Department of Transportation
Region 1
123 NW Flanders
Portland, OR 97209-4019
(503) 731-8200
FAX: (503) 731-8259

June 27, 2008

Board of Directors
TriMet
4012 SE 17th Avenue
Portland, Oregon 97202

File Code:

Subject: Portland-Milwaukie Light Rail Land Use Final Order

Directors of the TriMet Board:

The Oregon Department of Transportation has been charged by the Oregon Legislative Assembly (House Bill 3478, Special Session 1996) with preparing a recommendation on the South/North Light Rail Transit Project Land Use Final Order (LUFO). The original LUFO was adopted by Metro Council in 1998, and TriMet is currently preparing an application for an Amendment to that LUFO to incorporate the Portland-Milwaukie Light Rail alignment, envisioned as Phase II of the South Corridor Light Rail Project by the Amendment adopted by Metro Council in January 2004.

We believe the project team has met both the intent and the specific requirements established by the Oregon Legislature concerning the conduct of this project. The Supplemental Draft Environmental Impact Statement has been completed and published, and the public and local agencies have been given an opportunity to comment upon it. The public process, including informational meetings, public hearings, and direct involvement of business, civic, and neighborhood associations, as well as elected and appointed local officials, has been comprehensive. Improvements to state highway facilities included in the Steering Committee recommendation would require coordination with and approval of the Oregon Department of Transportation.

Therefore, on behalf of the Oregon Department of Transportation, I am recommending approval of the Locally Preferred Alternative and the Land Use Final Order application, as adopted by the Steering Committee at its meeting on June 26, 2008. We at ODOT look forward to continuing our partnership with TriMet, Metro, and our jurisdictional partners in pursuing this project to its successful conclusion.

Sincerely,

Jason Tell
Region 1 Manager

TRIMET

Memo

Date: July 9, 2008

To: Board of Directors

From: Fred Hansen

Subject: **RESOLUTION 08-07-57 OF THE TRI-COUNTY METROPOLITAN TRANSPORTATION DISTRICT OF OREGON (TRIMET) AUTHORIZING AN APPLICATION TO BE FILED WITH METRO REQUESTING AMENDMENT OF THE SOUTH/NORTH LIGHT RAIL PROJECT LAND USE FINAL ORDER**

---

1. Issue or Purpose of the Item.

The purpose of this item is to request that the TriMet Board of Directors ("Board") approve a resolution authorizing the General Manager to file an application with Metro for a Land Use Final Order Amendment relating to the Portland-Milwaukie Segment of the South Corridor Project.

2. Reason for Board Action.

Under House Bill 3478 ("1996"), a special land use procedure has been adopted by the legislature and is applicable to the South Corridor Project as part of the South/North Light Rail Project ("Project"). This special legislation requires TriMet to file an application with Metro for a Land Use Final Order ("LUFO"), which is the guiding land use document for the Project. The special legislation also authorizes TriMet to apply to Metro for amendments to the South/North LUFO. LUFO applications must be approved by the Board.

3. Background.

On July 23, 1998, the Metro Council adopted a LUFO for the South/North Light Rail Project. The LUFO was amended on October 28, 1999 for the Interstate MAX Project and on January 15, 2004 for the I-205 and Portland Mall Segments of the South Corridor Project. An amendment to the LUFO is now required to add the 2008 Locally Preferred Alternative ("LPA") for Phase II of the South Corridor, making revisions and additions to that portion of the South/North Light Rail Project identified as the Portland-Milwaukie Segment. These changes include a modified and expanded light rail alignment from Portland State University to Park Avenue in Clackamas County, new and relocated station and park-and-ride locations, new highway improvements in SW and SE Portland, and an expanded Ruby Junction maintenance facility in Gresham.

According to the governing legislation, the LUFO amendment application must be filed by TriMet and approved by the Metro Council. Favorable recommendation was received unanimously from the LUFO Steering Committee, which met on June 26, 2008 (Exhibit A). A favorable recommendation

from the Oregon Department of Transportation is also required and has been received (Exhibit B). These recommendations are attached for your reference.

4. Options.

There are only two options available relating to this proposed action. If the Board desires for Phase II of the South Corridor Project to proceed, the application must be approved. If there is no action (the other option), Phase II of the South Corridor Project will not go forward.

5. Recommendation.

The General Manager recommends that the Board approve the Resolution.

Exhibit C
Metro Council Resolution No. 08-3964

Findings of Fact and Conclusions of Law
Portland-Milwaukie Project

1. Introduction

1.1 Nature of the Metro Council's Action

This action adopts a Land Use Final Order (LUFO) for the Portland-Milwaukie Project, which is an element of the larger South/North Corridor Project. The action is taken pursuant to Oregon Laws 1996 (Special Session), Chapter 12 (referred to herein as "House Bill 3478" or "the Act"), which directs the Metro Council (Council) to issue LUFOs establishing the light rail route, stations, park-and-ride lots and maintenance facilities, and any highway improvements for the South/North Project, including their locations (*i.e.* the boundaries within which these facilities and improvements may be located). [1,2]

This LUFO is the fourth in a series of LUFOs the Council has adopted for the South/North Project. The previously adopted LUFOs are as follows:

- On July 23, 1998, the Metro Council adopted Resolution No. 98-2673 (the 1998 LUFO), establishing the initial light rail route, stations, lots and maintenance facilities and the highway improvements, including their locations, for the South/North Project.

- On October 28, 1999, the Metro Council adopted Resolution No. 99-2853A (the 1999 LUFO), amending the 1998 LUFO to reflect revisions for that portion of the South/North Project extending from the Steel Bridge northward to the Exposition Center (Expo Center), primarily along Interstate Avenue. The 1999 LUFO modified the northern light rail alignment; established, relocated or expanded light rail station locations along that alignment; and authorized park-and-ride lots at Portland International Raceway (PIR) and the Expo Center along the light rail route.

- On January 15, 2004, the Metro Council adopted Resolution No. 03-3372 (the 2004 LUFO), further amending the previous South/North LUFO resolutions to (1) establish the light rail route, stations and park-and-ride lots, including their locations, along the Interstate-205 right-of-way from the Gateway Transit Center to Clackamas Regional Center; (2) modify the route along the downtown Portland

[1] Metro's Regional Transportation Plan shows northward extension of light rail to Clark County Washington. However, the Metro Council's jurisdiction is limited to the Oregon portion of the South/North Project.

[2] Section 1(18) of HB 3478 defines the "Project" as "the portion of the South/North MAX Light Rail Project within the Portland metropolitan area urban growth boundary including each segment thereof as set forth in the Phase I South North Corridor Project Locally Preferred Alternative Report, as may be amended from time to time or as may be modified in a Final Statement or the Full Funding Grant Agreement". The resulting alignment, including the revisions contained herein, extends north from the Rose Quarter station to northeast and north Portland and south from the Gateway Regional Center to the Clackamas Regional Center. It also extends from the Steel Bridge through downtown Portland along the Portland transit mall to southeast Portland and Milwaukie. These segments - I-205 LRT, downtown Portland Transit Mall, Milwaukie LRT and IMAX, in total, are defined as the "Project".

> Transit Mall to extend light rail transit (LRT) to Portland State University (PSU) and establish, adjust or relocate station locations; (3) modify the 1998 LUFO for the segment from Portland to Milwaukie by revising the alignment and adding study areas; (4) remove the 1998 LUFO designations from Milwaukie to Clackamas Regional Center; and (5) complete technical amendments to the 1999 LUFO alignment to reflect the final built configuration at certain stations consistent with the Full Funding Agreement Grant approved by the Federal Transit Administration.

This 2008 South/North LUFO Amendment (the 2008 LUFO) amends the 1998 and 2004 LUFOs as they relate to the segment of the South/North Project extending from PSU in downtown Portland through SE Portland and downtown Milwaukie to SE Park Avenue in unincorporated Clackamas County (Portland-Milwaukie Segment). Among other things, this amendment realigns the light rail route between PSU and SE 7th Avenue; establishes the route from SE Tacoma Street to SE Park Avenue; relocates light rail stations or authorizes new stations along the light rail route; and establishes the park-and-ride lots and highway improvements for this segment.

This 2008 LUFO also adds both the existing Ruby Junction Maintenance Facility along NW Eleven Mile Avenue in Gresham as well as areas to be added to the maintenance facility in order to allow for the maintenance of additional LRT vehicles that will be associated with the Portland-Milwaukie Project.

1.2 Relationship of Council's Order to Requirements of the National Environmental Policy Act of 1969

Like the 1998, 1999 and 2004 LUFOs before it, this 2008 LUFO is adopted solely to implement the provisions in HB 3478 authorizing the Council to make land use decisions on the light rail route, stations, lots and maintenance facilities and the highway improvements for the South/North Project, including their locations. This land use decision is not required by the National Environmental Policy Act of 1969 (NEPA) or other federal law.

1.3 Requirements of House Bill 3478

Section 6(1) of House Bill 3478 requires the Council to "establish the light rail route, stations, lots and maintenance facilities, and the highway improvements for the project or project extension, including their locations." Section 6(1)(a) further provides that the locations for each of these facilities and improvements:

> "*shall be in the form of boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements shall be located. These boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route, stations, lots and maintenance facilities, and the highway improvements for which need*

> *commonly arises upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement.*"

Section 6(2) of the Act addresses amendments to the 1998 LUFO. As relevant to this 2008 proceeding, it provides that any siting of the light rail route or a station, lot or maintenance facility outside the boundaries previously established in a LUFO, or any new station, lot or maintenance facility,

> *"shall require a land use final order amendment or a new land use final order which shall be adopted in accordance with the process provided for in subsection (1) of this section."*

Section 7 of HB 3478 requires the Council to apply land use criteria established by the Land Conservation and Development Commission (LCDC) in making decisions in a land use final order on the light rail route, stations, lots and maintenance facilities, and the highway improvements, including their locations, and to prepare and adopt findings of fact and conclusions of law demonstrating compliance with those criteria. *These findings serve to demonstrate compliance with LCDC's criteria for the modifications selected in this LUFO amendment.*

Section 3(1) of HB 3478 provides that the procedures and requirements set out in the Act are the *only* land use procedures and requirements to which the Council's decisions on the light rail route, the stations, lots and maintenance facilities, and the highways improvements for the Project, including their locations, are subject. Consequently, these findings focus on the matters identified in HB 3478 as land use actions being taken at this time.

2. Amendments to the Light Rail Route, Stations, Lots and Maintenance Facilities, and Highway Improvements for the Project, Including Their Locations

2.1 Introduction

The Metro Council initially approved a light rail route, stations, park-and-ride lots, maintenance facilities and highway improvements for the Project, including their locations, in the 1998 LUFO. That decision established an alignment from the Clackamas Town Center to downtown Milwaukie to downtown Portland to the Columbia River.

As pertinent to that portion of the South/North Project connecting Portland with Milwaukie, the 2004 LUFO amended the 1998 LUFO by:

> 1) extending the downtown LRT alignment from SW Harrison Street southward to SW Lincoln Street, providing a new set of stations near Portland State University;
>
> 2) identifying the LRT alignment designated to serve Milwaukie from downtown Portland (PSU) as the Milwaukie Segment;[3]
>
> 3) modifying portions of the route between PSU and Milwaukie, including an alignment relocation from SE 18th to SE 17th and designation of study areas along SW Lincoln Street in SW Portland, south of SE Tacoma Street in SE Portland, and near SE Lake Road in Milwaukie; and
>
> 4) eliminating the route segment connecting downtown Milwaukie with Clackamas Town Center.

This 2008 LUFO further modifies the 1998 and 2004 LUFOs by:

> 1) relocating the route southbound between PSU and the Willamette River along SW Lincoln Street and then into the South Waterfront district in the vicinity of SW Harbor Drive and SW Moody Avenue to a new Willamette River bridge crossing north of the Ross Island Bridge at approximately SW Porter Avenue, and establishing new light rail station locations along this alignment;
>
> 2) adding highway improvements associated with a new transitway extending from approximately SW 1st Avenue across the new light rail transit bridge to

[3] The Milwaukie Segment of the South-North Light Rail Project (now referred as the Portland-Milwaukie Segment) includes those areas identified in the 1998 LUFO as the South Willamette River Crossing, McLoughlin Boulevard and Milwaukie Regional Center (now a Town Center) segments, and the area identified in the 2004 LUFO as the downtown Portland segment between Portland State University and SW Naito Parkway.

approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians;

3) realigning the route between the east bank of the Willamette River at SE Sherman Street and SE 7th Avenue at SE Caruthers Street, relocating the OMSI station, and adding highway improvements associated with the new transitway;

4) widening the alignment boundary along SE 17th Avenue;

5) expanding the SE Bybee Boulevard station to include bus pullouts on SE Bybee Boulevard and authorizing a new station near SE Harold Street along SE McLoughlin Boulevard;

6) establishing the route and station locations and authorizing a park-and-ride lot for the area south of SE Tacoma Street and north of State Highway 224;

7) establishing the route and station locations and authorizing a park-and-ride lot in downtown Milwaukie between Highway 224 and SE McLoughlin Boulevard; and

8) extending the route southward to a new terminus station and park-and-ride lot in the vicinity of SE Park Avenue in Clackamas County.

The remainder of the Portland-Milwaukie Segment, as approved in the 1998 LUFO or amended by the 2004 LUFO, is unchanged.

These 2008 findings replace and supersede findings supporting the 1998 LUFO as follows:

- that part in Section 6.4.6 of the 1998 LUFO findings addressing the portion of the Downtown Portland segment between the Portland State University plaza and SW Naito Parkway (a.k.a. Front Avenue);
- that part in Section 6.4.5 of the 1998 LUFO findings addressing the portion of the South Willamette River Crossing segment between SW Naito Parkway and approximately SE 7th Avenue at SE Caruthers Street;[4] and
- in their entirety, the findings in Section 6.4.3 of the 1998 LUFO findings addressing the Milwaukie Regional Center segment; and

Further, to the extent these 2008 findings create inconsistencies with other sections of the 1998 LUFO findings [*see, e.g.*, Sections 2.1, 6.1 and 6.3], the 2008 findings control and supersede the earlier findings.

[4] Because this 2008 LUFO does not amend the alignment or station locations in that portion of the South Willamette River Crossing section between approximately SE 7th Avenue at SE Caruthers Street and SE Powell Boulevard at SE 17th Street, it does not replace or supersede those findings. To the extent findings addressing that portion of the route are repeated in these findings, it is only for the convenience of the reader.

Except as noted otherwise, these findings do not supersede or replace Section 6.4.4 of the 1998 LUFO findings (McLoughlin Boulevard Segment) or Section 6.4.3 of the 2004 LUFO findings (Milwaukie Segment).[5]

2.2 Selected Milwaukie Segment Amendments

The Metro Council amends the 1998 LUFO and the 2004 LUFO to select and establish the locations of the light rail route, stations, lots, maintenance facilities and highway improvements that are summarized below. More detailed descriptions are provided on a section-by-section basis later in these findings. The Council finds that its selected light rail route, stations, lots, maintenance facilities and highway improvements, including their locations, are identical to those for which TriMet requested Council approval in its "Application for South/North Land Use Final Order Amendment", which TriMet filed on July 9, 2008 and which the Council incorporates herein by this reference.[6] The light rail route, stations and lots selected by this amendment are described textually and illustrated on the maps contained in the Council's adopted 2008 LUFO.

In the 1998 LUFO there were four segments that, together, provided LRT service between downtown Portland and Milwaukie. These segments were: the downtown Portland Segment (portion from PSU to SW Naito Parkway); the South Willamette River Crossing Segment; the McLoughlin Boulevard Segment; and the Milwaukie Regional Center Segment. In 2004, the Metro Council identified these segments cumulatively as the Milwaukie Segment.

Because these 2008 amendments replace some, but not all, of the findings in the 1998 LUFO, these findings consider the Milwaukie Segment in three sections that are identical or roughly equivalent to the segments addressed in the 1998 LUFO. From Portland to Milwaukie, those sections are:

- South Willamette River Crossing (PSU to McLoughlin Boulevard)
- McLoughlin Boulevard (17th Avenue to Tacoma Street)
- Milwaukie Town Center (Tacoma Street to south terminus)

The Metro Council now deems it appropriate to approve the 2008 LUFO changes for the Milwaukie Segment as follows:

[5] The findings in Section 6.4.3 of the 2004 LUFO replaced and superseded that portion of the findings in Section 6.4.5 of the 1998 LUFO that addressed the portion of the South Willamette River Crossing segment extending from SE Powell Boulevard southward to McLoughlin Boulevard. Because the 2008 LUFO amendments widen but do not otherwise relocate the existing alignment along SE 17th Avenue, these findings supplement but do not replace the 2004 LUFO findings in Section 6.4.3.

[6] TriMet's application is attached as Exhibit B to Resolution 08-3964.

South Willamette River Crossing Section

The South Willamette River Crossing Section extends from the Jackson Street LRT stations near Portland State University to the intersection of SE 17th Avenue and SE McLoughlin Boulevard.

From the Jackson Street LRT stations on SW 5th and 6th Avenues, the LRT alignment leaves Portland towards Milwaukie along SW Lincoln Street, across SW 1st Avenue and SW Naito Parkway, over SW Harbor Drive and under the I-5/I-405/Marquam Bridge ramps to a location west of SW Moody Avenue at approximately SW Porter Street. Short of reaching the Ross Island Bridge, the alignment curves eastward to cross the Willamette River on a new bridge. The alignment crosses the east bank of the Willamette River at SE Sherman Street and then continues eastward primarily along SE Sherman Street to the intersection of SE 7th Avenue and SE Caruthers Street, where it rejoins the 1998 LUFO alignment and continues southeast to SE Powell Boulevard.

South of SE Powell Boulevard, the LRT alignment follows SE 17th Avenue to SE McLoughlin Boulevard, as approved in the 2004 LUFO amendments. In this segment, the alignment boundary is widened so that the SE 17th Avenue right-of-way remains wide enough to accommodate bicycle lanes and freight movements.

West of the Willamette River, light rail stations are located between approximately SW 4th Avenue and SW Naito Parkway; between approximately SW Harrison Street and SW Caruthers Street; and between SW Moody Avenue and the Willamette River. East of the Willamette River, the OMSI station identified in the 1998 LUFO is relocated to SE Sherman Street east of SE Water Avenue. The locations previously approved for the SE Clinton Street station in the 1998 LUFO, and for the SE Rhine and SE Holgate Street stations along SE 17th Avenue in the 2004 LUFO amendments, are unchanged.

There are no park-and-ride lots or maintenance facilities in the Willamette River Crossing section. However, there are three new highway improvements: (1) A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and SE Division Place, that will accommodate buses, streetcars, bicycles and pedestrians; (2) transitway-related improvements on SE 8th Avenue between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and transit-only signalization; and (3) modifications to SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

The boundaries of these light rail facilities and highway improvements are illustrated in *Figures 1.1 through 1.4* attached as Exhibit A to Resolution No 08-3964.

McLoughlin Boulevard Section

The McLoughlin Boulevard section extends along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street.

No changes are made to the light rail route along SE McLoughlin Boulevard as established in the 1998 LUFO and amended in part in the 2004 LUFO. From SE 17th Avenue to SE Tacoma Street, the route continues southward along the east side of SE McLoughlin Boulevard between SE McLoughlin Boulevard and the Union Pacific (UP) Railroad tracks.

There is a new LRT station along SE McLoughlin Boulevard near SE Harold Street. Also, the Bybee Boulevard LRT station boundary is expanded to provide for bus pullouts on SE Bybee Boulevard.

There are no park-and-ride lots, maintenance facilities or highway improvements in the McLoughlin Boulevard section.

The boundaries of these light rail facilities are illustrated in *Figures 1.4 through 1.6* attached as Exhibit A to Resolution No 08-3964.

Milwaukie Town Center Section

The Milwaukie Town Center Section extends from SE Tacoma Street through downtown Milwaukie to SE Park Avenue in Clackamas County. In the 2004 LUFO, this entire section was identified as a study area.

A short distance south of SE Tacoma Street, the route curves south and east from SE McLoughlin Boulevard to the west side of the UP Main Line, where it heads southward under the Springwater Trail bridge and then onto an elevated structure which extends over the Portland and Western (Tillamook Branch) railroad tracks and associated spur tracks before returning to grade level on the east side of the Portland and Western railroad tracks north of Highway 224. From here, the alignment continues southward under Highway 224 and into downtown Milwaukie along the east side of the railroad right of way to Kellogg Lake. The alignment crosses over Kellogg Lake and then crosses SE McLoughlin Boulevard on an elevated structure. West of SE McLoughlin Boulevard, the alignment curves towards the southeast and parallels SE McLoughlin Boulevard to its terminus at SE Park Avenue.

Stations along this section are located south of SE Tacoma Street, in the vicinity of SE Lake Road, and near SE Park Avenue. Park-and-ride lots in this section are located south of SE Tacoma Street, near SE McLoughlin Boulevard and SE Washington Street, and near SE Park Avenue.

No maintenance facilities or highway improvements are proposed for this section.

The boundaries of these light rail facilities are illustrated in *Figures 1.6 through 1.9* attached as Exhibit A to Resolution No 08-3964.

2.3 Ruby Junction Maintenance Facility Amendment

The Ruby Junction Maintenance Facility along NW Eleven Mile Avenue in Gresham was built in 1980, when TriMet approved the original light rail route serving the Portland metropolitan area between Portland and Gresham. Over time, that facility has expanded into what it is today. The facility includes light rail tracks, vehicle storage spaces and maintenance bays, an operation center, and related facilities necessary to maintain light rail vehicles. No LUFO has been prepared for this facility to date.

This 2008 LUFO identifies the Ruby Junction Maintenance Facility as a maintenance facility serving the South/North Project and authorizes the modification and expansion of the Ruby Junction Maintenance Facility to accommodate and serve additional light rail vehicles associated with the Portland-Milwaukie Project. The expansion includes additional tracks, light rail vehicle storage spaces and maintenance bays and a new operations center.

The boundaries within which the above-described maintenance facilities may be located are illustrated in *Figure 2-1* attached as Exhibit A to Resolution No 08-3964.

3. South/North Project Land Use Final Order Criteria

On May 30, 1996, pursuant to Section 4 of HB 3478, LCDC established the criteria to be used by the Council in making land use decisions establishing or amending the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project or Project Extension, including their locations. The approved criteria include two procedural, six substantive, and two alignment-specific standards, set out as follows:

3.1 Procedural Criteria

1. Coordinate with and provide an opportunity for Clackamas and Multnomah Counties, the cities of Gladstone, Milwaukie, Oregon City and Portland, the Tri-County Metropolitan Transportation District of Oregon and the Oregon Department of Transportation to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

2. Hold a public hearing to provide an opportunity for the public to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

3.2 Substantive Criteria

3. Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.

    A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.

    B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.

4. Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.

5. Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

6. Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

7. Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

8. Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.

3.3 Alignment-Specific Criteria

9. Consider a light rail route connecting the Clackamas Town Center area with the City of Milwaukie's Downtown. Consider an extension of the light rail route connecting the City of Oregon City and the City of Gladstone with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.

10. Consider a light rail route connecting Portland's Central City with the City of Milwaukie's Downtown via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor, and further connecting the Central City with north and inner northeast Portland neighborhoods via the Interstate 5/Interstate Avenue corridor.

Compliance with Procedural Criteria 1 and 2 is demonstrated in Section 5 of these findings. Compliance with Substantive Criteria 3 through 8 is demonstrated in Section 6 (long-term impacts) and Section 7 (short term construction impacts) of these findings. Alignment-Specific Criteria 9 and 10 were addressed respectively in Sections 6.4.1.8 and

6.4.2.8 of the 2004 LUFO amendment findings, incorporated herein by this reference. The Council finds that the route modifications approved in these 2008 LUFO amendments remain consistent with the analysis and conclusions in those 2004 findings. Regarding Criterion 9, the Council further finds that these amendments do not extend light rail to Gladstone or Oregon City. Regarding Criterion 10, it further finds that the alignment in the City of Milwaukie is located in close proximity to SE McLoughlin Boulevard and, as such, connects the McLoughlin Boulevard corridor to Portland's Central City.

For all of the reasons set out in these findings, the Council finds and concludes that these 2008 LUFO amendments comply with the applicable LCDC criteria.

4. Implementation of a Land Use Final Order

4.1 Overview of Process for Selecting Mitigation Measures

LCDC Criteria 3 through 8 require the Council to identify (1) specified adverse impacts (*e.g.*, impacts to neighborhoods and natural resources) that would result as a consequence of its decisions, and (2) "measures" to reduce those impacts which potentially could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the local jurisdiction permitting processes. Consideration of appropriate measures is consistent with local comprehensive plan policies and land use regulations which recognize that development can have adverse impacts on persons and property and which seek to reduce those impacts to the extent reasonable and permitted by law.[7]

The Council's decisions selecting the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project, including their locations, are not the final steps in the process culminating with completion of construction of the South/North Project. Subsequent to or concurrent with Council actions, Final Environmental Impact Statements (FEIS) are submitted to the Federal Transit Administration (FTA). As part of that process, mitigation plans are developed addressing mitigation of adverse impacts associated with the selected rail and highway improvements for the Project. In each case, following federal approval of the FEIS, issuance of a Record of Decision by FTA and the signing of a Full Funding Grant Agreement with FTA, the Final Design phase will begin. During Final Design, all necessary federal and state permits for project construction are obtained.

Also during Final Design, the siting of light rail and highway improvements is subject to local permitting processes. Section 8(1)(b) of House Bill 3478 directs all affected local governments and agencies to "issue the appropriate development approvals, permits, licenses and certificates necessary for the construction of the Project or project extension consistent with a land use final order." Section 8(1)(b) further allows these affected local governments to attach approval conditions to their development approvals permits, licenses and certificates. However, any such conditions must be "reasonable and necessary" and "may not, by themselves or cumulatively, prevent implementation of a land use final order." Under Section 8(3) of HB 3478, unreasonable or unnecessary conditions would include 1) measures for which there are insufficient funds within the Project budget to pay for those measures; 2) measures that would significantly delay the completion or otherwise prevent the timely implementation of the Project; and 3) measures that would significantly negatively impact Project operations. See also *TriMet v. City of Beaverton*, 132 Or App 253 (1995). A condition prevents implementation of a LUFO if its imposition would require TriMet to finance construction of the condition at the expense of improvements funded under the Full Funding Grant Agreement or to go

[7]Section 1(17) of HB 3478 defines "measures" to include "any mitigation measures, design features, or other amenities or improvements associated with the project or project extension."

beyond the available federal funds and local matching funds for the Project. The Council finds that these funds constitute the envelope of available funds for the Project.

In summary, Criterion 3 through 8 require the Council to identify measures which potentially "could be imposed" later on in the process as part of an approved mitigation plan under NEPA or through local permitting (if reasonable and necessary). However, the actual determination and imposition of appropriate measures occurs only through these latter federal or local processes, not through this Council action. The Council finds this approach to be reasonable and appropriate, particularly given that the LUFO is not based on final design plans. Through final design, many identified adverse impacts may be avoided, and appropriate mitigation can be better determined.

4.2 Effect of Land Use Final Order on Local Comprehensive Plans and Land Use Regulations

Section 8(1)(a) of HB 3478 requires the affected cities and counties and Metro to amend their comprehensive or functional plans, including their public facility and transportation system plans and land use regulations, to the extent necessary to make them consistent with a land use final order. Section 8(2) further provides that a LUFO "shall be fully effective upon adoption."

The legal effects of these provisions are (1) to immediately authorize, as permitted uses, the light rail route, stations, lots and maintenance facilities and the highway improvements, including their locations, as identified and approved in a land use final order, and (2) to require appropriate plan and land use regulation amendments so that local land use requirements are consistent with a land use final order.[8] However, as noted above, the uses approved in a land use final order remain subject to local imposition of reasonable and necessary approval conditions under Section 8(1)(b).

While approval of a LUFO identifies where rail and highway improvements may go and authorizes their development at these locations subject to reasonable and necessary conditions, it does not concurrently prevent other uses allowed by existing zoning. Stated another way, a LUFO is not a right-of-way preservation tool. It does not prevent development of economically feasible uses currently permitted under acknowledged plans and land use regulations. It merely adds to the list of uses permitted on the properties affected by the LUFO without eliminating other uses from that list.

Similarly, a LUFO does not require local zoning amendments to allow more intense scales of development. Instead, it requires amendments only as necessary to authorize the approved Project elements and ancillary facilities or improvements that may be required to ensure the safe and proper functioning and operation of the light rail system, provide Project access, improve traffic flow, circulation or safety in the Project vicinity, or mitigate adverse impacts resulting from the Project.

[8]This may require amendments to authorize the ancillary facilities and improvements for the South/North Project.

In summary, Metro Council adoption of a LUFO has the immediate effect of permitting, on the affected properties, the light rail and highway facilities and improvements approved in the LUFO. It also identifies the affected locations for future public acquisition for rail or highway purposes. However, LUFO adoption in no way prevents or limits currently allowed uses on these properties during the interim period pending ultimate public acquisition, nor does it mandate the rezoning of areas nearby light rail stations to achieve regional growth management objectives.

5. Compliance with Procedural Criteria (1-2)

5.1 Criterion 1: Agency Coordination

> **"Coordinate with and provide an opportunity for Clackamas and Multnomah Counties, the cities of Gladstone, Milwaukie, Oregon City and Portland, the Tri-County Metropolitan Transportation District of Oregon and the Oregon Department of Transportation to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations."**

Criterion 1 ensures Metro coordination with the Tri-County Metropolitan Transportation District of Oregon (TriMet), the Oregon Department of Transportation (ODOT), and six cities and counties that are directly affected by the Project or Project Extension. Criterion 1 further requires Metro to provide these jurisdictions and agencies an opportunity to submit testimony on the light rail and highway facilities and improvements for the Project or Project Extension, including their locations.

The light rail route, station, park-and-ride lot, maintenance facility and highway improvement decisions that are the subject of this LUFO amendment fall within the jurisdictional boundaries of Clackamas County, the City of Portland, the City of Milwaukie and the City of Gresham. The Metro Council finds that Clackamas County, Multnomah County, Portland, and Milwaukie planning, engineering, and other technical staff, as well as staff from TriMet, have been actively involved in the process resulting in these proposed amendments, and that City of Gresham staff have been actively involved in the process relating to expanding the Ruby Junction Maintenance Facility.

For those jurisdictions and agencies not directly affected by this amendment, the Metro Council finds that coordination has occurred consistent with Criterion 1 through their participation on the LUFO Steering Committee and/or through notice and opportunity to provide comments and concerns to TriMet through the LUFO Steering Committee as part of its process for making recommendations to TriMet on a land use final order or LUFO amendment. More specifically, the Metro Council finds that on June 20, 2008, Metro staff mailed Project materials (*Draft LUFO Steering Committee Recommendation Concerning the 2008 South/North Land Use Final Order*, dated June 26, 2008) describing all aspects of the proposed Project to ODOT and to elected officials of the cities of Portland, Milwaukie, Gresham, Oregon City and Gladstone and the counties of Multnomah and Clackamas, providing them with information regarding the proposed 2008 LUFO amendments for the Portland-Milwaukie Project and advising them of their opportunity to submit comments to the LUFO Steering Committee on the proposed amendments. The Council further finds that the LUFO Steering Committee, which includes members from Metro, TriMet, ODOT, Clackamas and Multnomah Counties, and the cities of Portland, Milwaukie and Gresham, reviewed the proposed LUFO amendments and on June 26, 2008, made recommendations to TriMet on those amendments as documented in the 2008 LUFO and as provided for in Section 6(1)(a) of

House Bill 3478. Also, the Council finds that ODOT separately submitted its own recommendations to TriMet on June 27, 2008, as required by Section 6(1)(a).

In addition, the Metro Council finds that notice of its July 24, 2008 public hearing to consider this LUFO amendment was mailed directly to each of the local governments and agencies identified in Criterion 1, thus providing those local governments and agencies with the opportunity to submit testimony to the Council on the proposed LUFO amendments at that hearing.

In adopting these 2008 LUFO amendments, the Metro Council carefully considered the recommendations of the Steering Committee and ODOT and the comments of the affected jurisdictions. The Council's decision in this 2008 LUFO amendment proceeding is fully consistent with TriMet's application, which in turn is consistent with the recommendations of the LUFO Steering Committee and ODOT.

For all of these reasons, the Metro Council finds that Criterion 1 is satisfied.

5.2 Criterion 2: Citizen Participation

> **"Hold a public hearing to provide an opportunity for the public to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations."**

Criterion 2 ensures that the public has an opportunity to submit testimony and be heard in the process leading to the Metro Council's selection of the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project, including their locations.

On July 24, 2008, consistent with Criterion 2, the Metro Council held a public hearing and accepted public testimony on the proposed amendments to the 1998 LUFO and the 2004 LUFO. This followed public notice, which Metro published in *The Oregonian* on July 9, 2008, which is more than 14 days prior to its hearing. The Metro Council finds that *The Oregonian* is a newspaper of general circulation and that this publication of notice in *The Oregonian* meets all requirements for notice set out in HB 3478.

In addition to the published notice, a postcard mailing announcing the hearing was mailed to people on Metro's South/North mailing list for the Portland-Milwaukie Project. This list includes owners of property within 150 feet of the light rail alignment and within 500 feet of the Ruby Junction Maintenance Facility.

Also, announcements of the 2008 LUFO public hearing were included on Metro's and TriMet's websites.

Further, the Metro Council finds that there has been substantial community participation in the process leading to the selection of the proposed amendments. The Metro Council

takes notice of, and incorporates by reference herein, the description of the community participation process leading up to adoption of these 2008 LUFO amendments as set out at pages 6-1 to 6-6 and Appendix F of the *South Corridor Portland-Milwaukie Light Rail Project Supplemental Draft Environmental Impact Statement* (May, 2008).

In summary, the Metro Council finds that the holding of the public hearing on July 24, 2008 satisfies the requirement of Criterion 2. It further determines and concludes that the notices provided through publication, mailings, recorded announcements and by other means were reasonably calculated to give notice to people who may be substantially affected by the Metro Council's decision on TriMet's application.

6. Compliance with Substantive Criteria (3-8) Long Term Impacts

6.1 Introduction

As revised and amended, the Portland-Milwaukie Segment of the South/North Project will provide an approximately 7.3 total mile, double-tracked light rail route extending from downtown Portland through Milwaukie into unincorporated Clackamas County.

For the purpose of these findings, the Portland-Milwaukie Segment is divided into three sections addressed in Section 6.4 below[9]:

- Willamette River Crossing (PSU to SE McLoughlin Boulevard)
- SE McLoughlin Boulevard (SE 17th Avenue to SE Tacoma Street)
- Milwaukie Town Center (SE Tacoma Street to SE Park Avenue)

Ruby Junction is addressed in Section 6.5 below.

6.2 Supporting Documentation

In addition to the findings of fact addressing the selected light rail route, stations, lots, maintenance facilities and highway improvements for the Portland-Milwaukie Segment, including their locations, the Metro Council believes, adopts and incorporates by reference herein the facts set forth in the following documents:

Portland-Milwaukie Supplemental Draft Environmental Impact Statement
Portland-Milwaukie Results Reports
- Air Quality Analysis Results Report
- Acquisitions and Displacements Results Report
- Capital Costs Analysis Results Report
- Community Impact Assessment Analysis Results Report
- Ecosystems Analysis Results Report
- Energy Analysis Results Report
- Financial Analysis Results Report
- Geology, Soils and Seismic Impacts Results Report
- Hazardous Materials Impacts Results Report
- Historic, Archaeological and Cultural Impacts Results Report
- Land Use and Economic Activity Results Report
- Local Traffic Impacts Results Report
- Noise and Vibration Results Report

[9] The sections that follow describe various types of potential adverse impacts that may result from the changes being proposed to earlier LUFO decisions for the Portland-Milwaukie Segment, but they do not describe potential adverse impacts associated with those portions of the project that were previously approved and are not being amended. Individuals wanting information regarding adverse impacts associated with the entire Portland-Milwaukie Project are advised to examine the *Portland-Milwaukie Light Rail Project Supplemental Draft Environmental Impact Statement* (May 2008).

- Parklands, Recreation Areas, Wildlife and Waterfowl Refuges (Section 4(f)) Results Report
- Travel Forecasting and Transit Analysis Results Report
- Visual Quality and Aesthetics Results Report
- Water Quality and Hydrology Results Report
- Wetlands Determination Results Report

Portland-Milwaukie Methods Reports

- Evaluation and Financial Methods Report
- Transportation Analysis Methods Report
- Social, Economic and Environmental Methods Report
- Historic, Archaeological and Cultural Impact Analysis Methods Report
- Capital Cost Methods Report
- Operating and Maintenance Cost Methods Report
- Approach to Threatened and Endangered Species

Portland-Milwaukie Detailed Definition of Alternatives
Portland-Milwaukie Light Rail Plan and Profile Drawings (September 2007)
Portland-Milwaukie Draft Safety and Security Task Force Report
CRC DEIS and Supporting Documents (compact disk)

Additionally, the Metro Council takes official notice of the following documents:

- Metro Regional Framework Plan and appendices (including the 2040 Growth Concept and 2040 Growth Concept Map)
- Urban Growth Management Functional Plan (codified in Metro code)
- Adopted and signed Resolution No. 07-3831B (adopting 2035 RTP, including Milwaukie LRT)
- Adopted and signed Resolution No. 08-3911 (adopting air quality conformity, including Milwaukie LRT)
- 2035 Regional Transportation Plan and Appendix
- City of Portland Comprehensive Plan
- City of Milwaukie Comprehensive Plan
- City of Gresham Comprehensive Plan
- Clackamas County Comprehensive Plan

6.3 General Impacts and Mitigation Measures Applicable to All Segments (General Findings)

Section 6.3 of the 1998 LUFO findings identifies a broad range of impacts relevant to LCDC Criteria 3-8 that are expected to occur throughout the South/North Corridor as opposed to one or a few discrete properties or places. The Metro Council finds that the kinds of impacts addressed in Section 6.3 of the 1998 LUFO findings are also likely to occur in the areas affected by this 2008 LUFO amendment, and that the analysis in Section 6.3 of the 1998 LUFO findings applies to the light rail route, station, park-and-ride lot, and maintenance facility amendments and the highway improvements identified herein as it did to the originally approved route, stations and lots. Accordingly, the Metro Council continues to adhere to those original findings.

Of course, the changes to the South/North Project, particularly in its alignment, will render some of these earlier general findings no longer accurate or relevant to the amendments contained in this LUFO. To the extent those earlier findings are now incorrect, irrelevant or in conflict with the more specific findings set out below, the Council disregards them.

The general findings include discussion of measures potentially available to mitigate the broad range of identified adverse impacts. The Council finds that it is just as appropriate to consider these measures with respect to impacts resulting from the amended light rail route, stations and lots, and from the maintenance facility amendments and highway improvements approved herein, as it was for the impacts from the originally approved alignment, stations and lots.

Finally, the Council notes that many of the impacts identified in the 1998 general findings were identified and described in a series of results reports, such as the Social and Neighborhood Impacts Results Report, the Land Use and Economic Impacts Results Report, and many others. New results reports, listed in Section 6.2 of these findings, have been prepared for this 2008 LUFO amendment. Those new reports provide extensive updated information on economic, social and traffic impacts (including visual impacts, displacements and other relevant considerations); noise and vibration; geology and soils impacts; hydrology and water quality; impacts to natural resources, including ecosystems, wetlands, and wildlife; and impacts to cultural and historic resources. The Council incorporates all of these results reports by reference into these findings.

6.4 Section-Specific Findings and Mitigation Measures

6.4.1 South Willamette River Crossing Section (SW Jackson Street to SE McLoughlin Boulevard at SE 17th Avenue)

6.4.1.1 Description of Light Rail and Highway Improvements

The South Willamette River Crossing Section of the Portland-Milwaukie Segment includes the following Light Rail Transit-related facilities and highway improvements:

- An alignment that extends from the southern terminus of the Portland transit mall at SW Jackson Street near PSU, across the Willamette River on a new bridge and then south along SE 17th Avenue to SE McLoughlin Boulevard. The location of the light rail transit (LRT) alignment south of the intersection of SE 7th Avenue and SE Caruthers Street to SE McLoughlin Boulevard has not changed from the 1998 LUFO, as amended by the 2004 LUFO.

- Seven light rail stations; three located on the west side of the Willamette River and four located on the east side of the Willamette River. West of the Willamette River, light rail stations are located between approximately SW 4th Avenue and SW Naito Parkway; between approximately SW Harrison Street and SW Caruthers Street; and between SW Moody Avenue and the Willamette River.

East of the Willamette River, the OMSI station identified in the 1998 LUFO is relocated to SE Sherman Street east of SE Water Avenue. No changes are proposed to the locations of the Clinton station identified in the 1998 LUFO or the Rhine and Holgate Stations along SE 17th Avenue identified in the 2004 LUFO amendments.

- Three highway improvements: (1) A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians in addition to light rail; (2) transitway-related improvements on SE 8th Avenue between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and transit-only signalization; and (3) modifications to SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

For those portions of the South Willamette River Crossing Section for which no modifications to the LRT alignment or station locations are proposed, the Metro Council hereby reaffirms and incorporates the findings adopted for the South Willamette River Crossing Segment in the 1998 LUFO (9.4.5) as amended by the 2004 LUFO (6.4.3.1).

See **Figures 1.1 to 1.4** attached as Exhibit A to Resolution No 08-3964 for the LUFO boundaries for the South Willamette River Crossing Section.

Light Rail Alignment

The South Willamette River Crossing Section extends from the Jackson Street LRT stations near Portland State University to the intersection of SE 17th Avenue and SE McLoughlin Boulevard.

From the Jackson Street LRT stations on SW 5th and 6th Avenues, the LRT alignment leaves Portland towards Milwaukie along SW Lincoln Street, across SW 1st Avenue and SW Naito Parkway, over SW Harbor Drive and south under the I-5/I-405/Marquam Bridge ramps to a location west of SW Moody Avenue at approximately SW Porter Street. Short of reaching the Ross Island Bridge, the alignment curves eastward to cross the Willamette River on a new bridge. The alignment crosses the east bank of the Willamette River at SE Sherman Street and then continues eastward primarily along SE Sherman Street to the intersection of SE 7th Avenue and SE Caruthers Street, where it rejoins the original 1998 LUFO alignment and continues southeast to SE Powell Boulevard.

South of SE Powell Boulevard, the LRT alignment follows SE 17th Avenue to SE McLoughlin Boulevard, as approved in the 2004 LUFO amendments. In this segment, the alignment boundary is widened so that the SE 17th Avenue right-of-way remains wide enough to accommodate bicycle lanes and freight movements.

Light Rail Stations

Seven light rail stations are provided in the South Willamette River Crossing Section. Table 3.2-1 of the SDEIS summarizes estimated population and employment within one-half mile of each station location for the years 2005 and 2030.

Lincoln Station. The Lincoln Station will serve the neighborhood at the south end of downtown near PSU. Land uses in the vicinity include office buildings associated with PSU, banks, high rise housing and retail services. In 2005, there were 3,929 households and 32,482 jobs within a one-half mile radius of the Lincoln Station. By 2030, households in this station area are projected to increase to 7,407 (+89%) and jobs are projected to increase to 46,255 (+42%).

Harbor Drive Station. The elevated station at Harbor Drive will serve the high density RiverPlace mixed use development. Land uses in the vicinity include hotels, offices, condominiums, restaurants, an athletic club and Tom McCall Waterfront Park. The Harbor Drive Station will also provide a connection with the Portland Streetcar. In 2005, there were 2,631 households and 28,787 jobs within a one-half mile radius of the Harbor Drive Station. By 2030, households in this station area are projected to increase to 6,000 (+128%) and jobs are projected to increase to 43,126 (+50%).

South Waterfront Station. The station near SW Porter will serve the growing South Waterfront district and the future OHSU Schnitzer Campus, and provide a nearby connection with the aerial tram. Since 1998, the South Waterfront area has undergone dramatic changes. The South Waterfront Plan, adopted by the Portland City Council in 2002, has triggered significant public and private investments in the area. While there were fewer than 1,000 households within a one-half mile radius of the South Waterfront Station in 2005, almost 5,000 households are projected by 2030. Jobs are projected to double from about 10,000 in 2005 to more than 20,000 in 2030. Oregon Health and Science University (OHSU) has completed a 400,000 square foot health center and is currently developing a new master plan for a 19-acre university complex in the South Waterfront.

OMSI Station. The OMSI station will provide direct light rail access to a cluster of significant destinations at the south end of the Central Eastside Industrial District, including OMSI, the PCC Workforce Training Center, the Portland Opera building and the Eastbank Esplanade. OMSI attendance has grown to 1 million visitors a year, including many school children and senior citizens. The OMSI station, in conjunction with planned transportation improvements in the area, could seed further development of general employment activities in the vicinity of the light rail station. In 2005, there were 695 households and 6,961 jobs within a one-half mile radius of the planned station near SE Sherman. By 2030, households in this station area are projected to increase to 1,915 (+176%) and jobs are projected to increase to 12,816 (+84%).

Clinton Station. There is no change in the location of the Clinton Station approved in the 1998 LUFO. The Council hereby reaffirms and incorporates by reference the description and findings adopted for the Clinton Station in the1998 LUFO (9.4.5).

Rhine Station. There is no change in the location of the Rhine Station approved in the 2004 LUFO amendment. The Council hereby reaffirms and incorporates by reference the description and findings adopted for the Rhine Station in the 2004 LUFO (6.4.3.1).

Holgate Station. There is no change in the station location approved in the 2004 LUFO amendment. The Council hereby reaffirms and incorporates by reference the description and findings adopted for the Holgate Station in the 2004 LUFO (6.4.3.1).

Park-and-Ride Lots

No park-and-ride lots are located in the South Willamette River Crossing Section.

Operations and Maintenance Facilities

There are no operations and maintenance facilities located in the South Willamette River Crossing Section. LUFO findings to address expansion of the Ruby Junction Maintenance Facility (located in the city of Gresham) are provided in Section 6.5 of these findings.

Highway Improvements

Three highway improvements are proposed for the South Willamette River Crossing Section: (1) A transitway extending from approximately SW 1st Avenue across the new bridge to approximately SE 8th Avenue and SE Division Place, which would accommodate buses, streetcars, bicycles and pedestrians in addition to light rail; (2) transitway-related improvements on SE 8th Avenue between SE Powell Boulevard and SE Woodward Street, including roadway widening for a turn lane and transit-only signalization; and (3) modifications to SW Moody Avenue between approximately the Marquam Bridge and the Ross Island Bridge.

6.4.1.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit

ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods in the Willamette River Crossing Section

The South Willamette River Crossing Section connects Southeast Portland to downtown Portland. The LRT alignment extends from the southern terminus of the downtown Portland transit mall at SW Jackson Street near Portland State University (PSU) across the Willamette River to SE McLoughlin Boulevard near SE 17th Avenue. The portion of the alignment where there are changes to the 1998 LUFO, as amended by the 2004 LUFO, crosses the following neighborhoods within the City of Portland: Downtown, South Portland and Hosford-Abernethy. The minor widening of the LRT alignment along SE 17th Avenue is within the Brooklyn neighborhood. A summary description of each neighborhood follows, based on information from the *Community Impact Assessment Results Report (Community Impact Report), April 2008.*

The *Downtown Neighborhood* contains Portland's business and retail core and is bounded by the Willamette River to the east, I-5 and I-405 to the south and west and SW Burnside Street to the north. The street system in this area is primarily a one-way grid system. The transit mall couplet of SW 5th and SW 6th Avenues between SW Burnside and SW Market Streets is currently being renovated for light rail and bus access. The Portland Streetcar line runs through the Downtown neighborhood and connects Northwest Portland to the South Waterfront.

Downtown Portland is the region's central business district and contains the city's largest concentration of office, retail, apartment, condominium and mixed-use buildings, as well as Portland State University (PSU), numerous parks and other community and public facilities. Downtown is the largest employment center in the region with 106,639 jobs in 2000. Housing in Downtown Portland is found almost exclusively in large apartment or condominium buildings. All uses in the Downtown neighborhood are within a short walking distance of public transit (LRT, buses and streetcar).

As shown in Table 3.3-2 of the SDEIS, the Downtown neighborhood had an estimated population of 10,225 in 2000 and, given the amount of high-rise development in the Pearl District, that number is expected to have grown significantly in the last eight years. The proportion of minority residents in the Downtown neighborhood (23.7 percent) was somewhat higher than in Multnomah County (20.8 percent) and the region (17.1 percent). The proportion of elderly residents was also higher than the county or region. The number of households below the poverty level (32.1 percent) living in the Downtown neighborhood was nearly triple the rate in Multnomah County (11.4 percent) and quadruple the rate for the region (8.7 percent).

The *South Portland Neighborhood* was recently created by merging six smaller neighborhoods south of downtown Portland: South Waterfront, Lair Hill, Corbett, Johns Landing, Terwilliger and Fulton. The South Waterfront planning district is east of I-5 and south of I-405 and borders the Willamette River.

The character of the South Waterfront differs markedly from that of surrounding areas in the *South Portland Neighborhood.* Until recently, the 130-acre South Waterfront district was a mixture of vacant industrial land and active industrial uses. Recent redevelopment has included expansion of OHSU into a new, multi-story building, which is connected by an aerial tram to the rest of OHSU on Marquam Hill. The major remaining industrial facility immediately north of the OHSU building is Zidell, a barge manufacturer. Several tall, high-density residential towers have been built in the South Waterfront and new ones are under construction. About 1,000 housing units were built in the South Waterfront district by 2005, with another 5,000 units projected by 2030. OHSU and the City of Portland have plans for continued development of the South Waterfront with a mix of office and research uses, high-density residential uses, retail and mixed-use developments.

East of the Willamette River, the *Hosford-Abernethy Neighborhood* is bounded by the Willamette River to the west, SE Hawthorne Boulevard to the north, SE 28th Avenue to the east and SE Powell Boulevard to the south. Hosford-Abernethy contains a variety of land uses, including single-family and multi-family housing, large commercial and industrial uses, neighborhood commercial uses and railroad facilities. There are a variety of housing types and sizes.

The character of Hosford-Abernethy changes from mostly commercial and industrial at the edge of the Willamette River and south of SE Division Street to residential north of SE Division Street and to the east. The southern portion of the Central Eastside Industrial District, located west of SE 11th Avenue, is a major industrial and distribution center for the city and a significant employment center within the Hosford-Abernethy neighborhood. OMSI, located along the Willamette River just south of the Marquam Bridge, is a major facility in the neighborhood that draws visitors from throughout the region.

In 2000, the Hosford-Abernethy neighborhood had an estimated population of 7,229 and 9,111 jobs. The proportion of minority residents in the Hosford-Abernethy neighborhood (15.4 percent) was slightly lower than in Multnomah County (20.7 percent) and the region (17.1 percent). In 2000, Hosford-Abernethy was one of five Portland-Milwaukie Project area neighborhoods with more jobs than residents.

South of SE Powell Boulevard, the *Brooklyn* neighborhood contains a variety of land uses, including established single-family residential, multi-family residential, large commercial and industrial uses, Brooklyn Rail Yards, and TriMet headquarters and bus operations facilities. Commercial uses line SE Milwaukie Avenue and SE 17th Avenue.

In 2000, *Brooklyn* was home to an estimated population of 3,595 residents and 9,282 jobs. Its population included a smaller proportion of minority and elderly residents compared to the county and the region. Renters occupied more than 60 percent of housing units in *Brooklyn*, significantly more than in the county or the region.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the Downtown, South Portland, Hosford-Abernethy and Brooklyn neighborhoods in the South Willamette River Crossing Section are addressed in the following section. Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economy Results Report (Land Use Report),* the *Community Impact Assessment Results Report (Community Impact Report), Acquisitions and Displacements Results Report (Displacements Report), Visual Quality and Aesthetics Results Report (Visual Report),* and the *Local Traffic Impact Results Report (Traffic Report).*

Economic Impacts

Economic impacts include business displacements[10], loss of parking or access, impacts to the local tax base, and impacts to efficient freight movement.

Displacements. In every instance where the Portland-Milwaukie Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Even though the adverse impacts associated with displacement may not be significant on a regional or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and neighborhood level. Adverse economic impacts associated with displacements include the loss of employment and payroll, loss of retail services, and loss of assessed value and tax base associated with the business.

Appendix G of the SDEIS presents the likely property acquisitions for the Portland-Milwaukie Project based on the current conceptual designs. It is important to note that the list of acquisitions should not be interpreted as the final determination regarding property acquisition and the list could be updated as the Project design is further refined.

[10] As used in these findings and the *Displacements Report*, a project element is considered as having the potential for displacement if any one or more of the following circumstances would occur: (1) any building used for residential, social/recreational or business purposes lies in the path of a portion of the proposed transit facility or highway improvement such that it could not continue to function in its current use; (2) access to any building used for residential, social/recreational or business purposes would be completely and permanently eliminated by any portion of a proposed transit facility or highway improvement and could not be restored by reconfiguring the access or building; (3) the widening of streets, construction of sidewalks or other improvements required in conjunction with Portland-Milwaukie Project improvements would come into physical contact with or encroach upon a building such that it could not continue to function in its current use; and (4) the nature and extent of construction would likely have a severe impact on a use and could not be mitigated.

As shown in Figures G.1-1 and G.1-2 of the SDEIS, the 2004 LUFO could have resulted in up to 16 full or partial property displacements in the portion of the South Willamette River Crossing Section extending from the southern terminus of the transit mall on the west to the intersection of SE 7th Avenue and SE Caruthers Street on the east. Figure G.1-9 shows that the Porter-Sherman bridge crossing could result in 2 additional displacements (for a total of 18) in this same Section. By shifting the bridge alignment, there would be new displacement impacts on currently undeveloped property in the South Waterfront area, but displacements of OMSI parcels would be reduced.

Taken together, the 2004 LUFO realignment and the 2008 widening of the boundary along SE 17th Avenue (by approximately 4-6 feet on both sides) will result in approximately 17 business displacements along SE 17th Avenue.

SE 8th Avenue and SE 9th Avenue will be used as a bus route to the shared transitway north of SE Powell Boulevard. Highway improvements at SE 8th Avenue & Powell Boulevard will include construction of a bus only left turn lane, a bus only left-turn signal and widening and reconstruction of the curb and sidewalk in a one block segment of SE 8th Avenue between SE Powell Boulevard and SE Woodward Street. There could be one full or partial displacement of a commercial building associated with the highway improvements at this location.

During the preliminary and final engineering, staff will try to minimize displacement impacts to the extent practicable through design refinements to reduce overall economic impact. Where displacements are unavoidable, relocation assistance will be available to assist displaced businesses. All properties required for the Project in the South Willamette River Crossing Section will be acquired at fair market value for land and improvements. If only a portion of a property is required, the acquisition price will also reflect any measurable loss in value to the remaining property due to the partial acquisition. Generally, the relocation process occurs concurrently with the acquisition of affected properties. Relocation benefits may include payment for reasonable expenses of moving a business and/or other benefits such as reasonable search costs and business re-establishment costs.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the Project must remove an existing access, and no reasonable access remains, then the entire business is assumed to be displaced.

Minimal right-of-way acquisition would be required on the west side of the Willamette River. The *Traffic Report* notes that approximately 30 on-street parking spaces would be removed on SW Lincoln Street and SW River Parkway in the South Willamette River Crossing Section west of the river. Additionally, access may be affected along SW Lincoln Street where the center-running LRT would restrict access to right-in/right-out movements only and increase the potential for out of direction travel. These parking and access impacts west of the river would be similar to impacts for the 2004 LUFO and any of the river crossing options. Overall parking supply appears to be adequate to serve area land uses, especially given the improved mobility to be provided by light rail. Parking

mitigation strategies that could be implemented include replacement of lost parking spaces and/or parking management strategies.

On the east side of the river, the previous LUFO alignment could have affected up to 50 parking spaces in OMSI and Portland Opera parking lots. The Porter-Sherman alignment crosses SE Water Avenue at SE Sherman Street and thus avoids the parking impacts on the OMSI and Portland Opera lots. Along SE 17th Avenue, with the modified boundary, approximately 160 on-street parking spaces would be removed. Off-street parking impacts would occur primarily in two parking lots on the west side of SE 17th Avenue near SE Center Street. Other off-street parking would also be removed; however, because the land use would be changing, the demand for parking would be eliminated. The two affected off-street lots are exclusively for TriMet employees. These lots hold approximately 110 parking spaces and are at near 100 percent occupancy. Potential mitigation measures include parking management strategies to add additional capacity in the area, development of a parking master plan for TriMet employees, and/or parking restrictions. The highway improvements at the intersection of SE 8th Avenue and SE Powell Boulevard associated with the bus route to and from the shared transitway will not displace any on- or off-street parking spaces.

Tax Base. Tax bases can be impacted when private properties are acquired for public use and those properties are removed from the public tax rolls. There can also be increases in the tax base if property values increase as a result of the Project. Table 3.2-3 of the SDEIS shows the estimated property tax impacts of acquired properties by full Project alternative and by jurisdiction. Estimated tax base impacts do not vary significantly between the alternatives (ranging from about $824,000 to $912,000 for the full Project) and the effects on overall tax revenues are minor. The Council finds that the tax base impacts will be minimized in the South Willamette River Crossing Section because the LRT alignment and stations are generally located within existing or planned right-of-way and the highway improvements at the intersection of SE 8th Avenue and Powell Boulevard associated with the bus route to and from the shared transitway are very minor. The Council also finds that properties near light rail stations in the South Willamette River Crossing Section will likely experience an increase in value when the Project is completed, thereby increasing property tax revenue in the long term.

Freight Movement. Efficient movement of freight and goods throughout the Portland-Milwaukie Segment corridor is critical to the economic vitality of the region. Details about freight activity can be found in Chapter 4 (Transportation) of the SDEIS.

Section 4.1.8 of the SDEIS includes information on potential long-term impacts to freight movement on *navigable waterways.* Through a survey implemented in fall 2007, commercial and recreational users were asked to characterize their use of the Willamette River and clearance needs at the proposed transit bridge location. The survey of river users found that recreational uses would be accommodated with a 65- to 72-foot clearance. A limited number of large industrial users as well as smaller commercial users are important contributors to the local economy whose shipping and manufacturing

operations could be affected by a bridge with a clearance of 65 feet, but adverse impacts would be much less with a bridge clearance of 72 feet.[11]

Based on surveys of current river users, the Council finds that the proposed bridge would have a limited adverse impact on navigation in this area. However, the Council recognizes that the US Coast Guard has the ultimate permit authority on navigational clearances for this new bridge across the Willamette River. The vertical clearance for the bridge will be increased if the US Coast Guard determines it is required for river navigation.

Trucking freight movement is generally low through South Willamette River Crossing intersections on the west side of the river. Local delivery access may be affected along SW Lincoln Street where the center-running LRT would restrict access to right-in/right-out movements only and increase the potential for out of direction travel.

On the east side of the Willamette River, the Central Eastside Industrial District is a freight district with SE 11th and 12th Avenues classified as major truck streets by the City of Portland. All streets within a freight district are intended to allow truck movements. The LRT alignment would not affect freight route alignments, although some intersections would be reconstructed. Additionally, McCoy Millworks is located on the south side of SE Caruthers Street; all of the freight access and loading occurs on the south side of SE Caruthers Street. The driveway and full access would be retained. However, there may be some restrictions to movements due to the proximity to the LRT crossing. Apple Foods utilizes private property on the north side of SE Caruthers Street and some loading movements may be affected by the Project.

The 2004 LUFO shifted the light rail route from SE 18th Avenue to SE 17th Avenue between SE Powell Boulevard and SE McLoughlin Boulevard. SE 17th Avenue is designated as a freight route and a bicycle route in the City of Portland Transportation System Plan. The boundary for the light rail route along SE 17th Avenue is being widened by a small amount (approximately 4-6 feet on both sides) to provide sufficient area for the bike lanes and adequate turning radii for trucks at the intersections along SE 17th Avenue.

The highway improvement at SE 8th Avenue and SE Powell Boulevard may include a new bus only signal on SE Powell Boulevard, which could briefly slow freight traffic through the area. Possible mitigation for impacts to freight traffic includes creating a separate left turn lane for buses so that trucks can continue to make turns onto SE Powell Boulevard in an unimpeded manner.

Rail freight movement is summarized in Section 4.1.7 of the SDEIS. All build alternatives include an at-grade LRT crossing of the Oregon Pacific Railroad (OPRR) and either closure or an at-grade LRT crossing of the Darigold Spur in the South Willamette River Crossing Section. At-grade LRT crossings of the OPRR and Darigold spur could

[11] Some users advocate a bridge clearance of 75 feet, while others believe even a 75 foot clearance would constrict use of the river south of this point.

cause delays to freight trains using these rail facilities. OPRR currently accesses its yard once or twice per day, typically in the morning. Total time for OPRR to cross LRT is estimated to be approximately five minutes for an average train. Designs and operation planning for the at-grade crossing would seek to minimize delay to OPRR and to light rail. The Darigold Spur, if abandoned, would eliminate potential rail service to two parcels south of SE Caruthers Street. Rail service has not been observed on the spur since July 2007.

The Federal Railroad Administration (FRA) is likely to assert jurisdiction over any at-grade LRT/Freight rail crossing and shared LRT/Freight rail roadway crossings. The Council finds that the Project will require ongoing review and coordination with FRA and ODOT Rail Division. Additionally, the Council finds that the proximity of LRT and freight tracks through this Section will also require coordination of general LRT and Rail freight alignment maintenance activities.

Conclusions. The Council finds that, on balance, the Portland-Milwaukie Project will result in positive economic impacts in the Downtown, South Portland, Hosford-Abernethy and Brooklyn neighborhoods, particularly because improved transit capacity and new transit connections will be available to support existing and planned intensive development in south Downtown, the South Waterfront District and the Central Eastside Industrial District and eastside neighborhoods. Residents and businesses in the affected neighborhoods will have improved access to the regional rail transit system, which offers direct connections between major regional centers offering employment, education, entertainment, recreation and public services, and improved bus service along the new transitway. The improved access, along with higher levels of activity in stations areas, could support and encourage new development and redevelopment, potentially increase property values, and increase the economic vitality of the affected neighborhoods.

The Council also finds that the Project would result in short-term economic benefits with the increase in employment resulting from the construction of the LRT facilities and highway improvements in the South Willamette River Crossing Section. Based on the information contained in the SDEIS and supporting results reports, the Council concludes that LRT and highway improvements in the South Willamette River Crossing Section can be designed to mitigate adverse impacts associated with the displacement of up to 18 businesses or properties, minor changes in access and impacts on freight movement. Also, measures such as parking management strategies to add additional capacity and/or the development of a parking master plan can be used to mitigate the loss of off-street parking for TriMet employees working at TriMet's administrative offices on SE 17th Avenue. By shifting the alignment of the bridge to the south of the route approved in the 1998 LUFO, the displacement of parking spaces in lots owned by OMSI and the Portland Opera can be avoided.

Additionally, the Council notes that the US Coast Guard will make the final decision in approving the clearance height for the new bridge over the Willamette River. While some river users prefer a minimum clearance of 75 feet or higher, the Council finds that based on existing information, most river users could be accommodated with a clearance

of about 72 feet. The Federal Railroad Administration (FRA) and ODOT Rail Division will also have jurisdiction in review and approval of any at-grade LRT/freight rail crossings and shared LRT/freight rail crossings in the South Willamette River Crossing Section and involvement of those agencies will assure that adverse impacts to rail freight movement are mitigated.

Social Impacts

Chapter 3.3 of the SDEIS evaluates the potential effects of the light rail alternative on neighborhoods and communities in the Portland-Milwaukie corridor. The analysis of adverse social impacts includes consideration of residential displacements, access to community facilities, barriers to neighborhood interaction, safety and security issues and visual impacts.

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the Portland-Milwaukie Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. It understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the South Willamette River Crossing Section, the widening of SE 17th Avenue required for freight and bicycle lanes could displace up to one residential property. There are no residential displacements in the South Willamette River Crossing Section between SW Jackson Street on the west to the intersection of SE 7th Avenue and SE Caruthers Street on the east.

It may be possible in some instances to reduce some residential displacements by taking only a portion of a property and/or structure and by modifying the remaining property and/or structure to allowed continued occupancy. Where displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program.

Access to Community Facilities. The Council finds that the Portland-Milwaukie Project will provide improved transit access to community and employment centers for the Downtown, South Portland, Hosford-Abernethy and Brooklyn neighborhoods in the South Willamette River Crossing Section. The LRT improvements will increase the number of residents within 45-minutes (transit time) of key community facilities and destinations such as downtown Portland and PSU, the Convention Center, the Rose Quarter, the Expo Center, the Airport, and other area institutions such as schools, hospitals and libraries. The Council finds that improved transit accessibility to community facilities and employment centers is especially important to the higher than average percentage of minority and elderly residents, and households in poverty, residing within a ½ - mile radius of light rail stations in the South Willamette River Crossing Section.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment and highway improvements in the South Willamette River Crossing Section will not result in barriers to neighborhood interaction. In the Downtown neighborhood, LRT facilities and the highway improvements are well-integrated into the urban street environment. In the newer South Portland neighborhood, the LRT alignment and station has been integrated into plans for new development in the South Waterfront district. On the east side of the river, the LRT alignment generally parallels the UP main line, which currently functions as a boundary between neighborhoods. Therefore, the LRT alignment does not encroach into or fragment neighborhoods. Likewise, the highway improvements at SE 8th Avenue and SE Powell Boulevard will not encroach into or fragment neighborhoods. Also, pedestrian improvements in the vicinity of the LRT stations will improve neighborhood access to transit facilities in the Hosford-Abernethy and Brooklyn neighborhoods of SE Portland and will reduce barriers to neighborhood interaction.

Safety and Security. Public safety and security are major considerations in the planning and development of light rail projects. Public involvement efforts for the Portland-Milwaukie Project have highlighted a number of questions and concerns from the community about how safety and security will be managed, including but not limited to:

- Light rail transit station placement and access
- Crime along the light rail corridor and car and bike prowls or theft near stations and park and ride lots
- Livability concerns (drunkenness, loud verbal assaults, nuisance behavior, vandalism and graffiti)
- Ability to promptly respond to 911 calls for assistance
- Lighting at transit stations and park and ride lots
- Vehicular, pedestrian and bike crossings of the light rail alignment (including school children interaction and gated crossings)
- Public perception of safety near parks and trails in proximity to stations

TriMet considers safety and security management an integral part of its mission for developing and operating an effective light rail system and Section 3.16 of the SDEIS addresses safety and security. The agency uses a combination of design, public education, and operations measures to reduce the potential for crime and to minimize potential conflicts among trains, people, and other vehicles. The agency also has an established transit rider security program that combines TriMet enforcement officers, fare inspectors and security officers with public safety resources from other jurisdictions.

TriMet's Transit Police Division (TPD) is a special unit within the Portland Police Bureau and is made up of contracted law enforcement officers from other police agencies in the region. To provide more focused deployment and presence, Eastside and Westside precincts have been established recently with offices in Gresham and Hillsboro. The TPD is currently being increased from 36 to 41 sworn officers and staffing will increase by another 10 percent with the opening of the I-205 LRT Project. With the proposed

operation of two light rail lines in Clackamas County in upcoming years, a South precinct is also likely.

Based on information in the SDEIS, the Council finds that in the Downtown neighborhood, the Lincoln station will be street-oriented in an area with residential and commercial uses nearby and high levels of activity. No unique concerns are anticipated. The Harbor Drive Station, while elevated, will also be located in a relatively active area and will be visible from the street. The new station in the South Waterfront area will be integrated with plans for development of an active, mixed use neighborhood to maximize opportunities for a safe, visible and accessible station and for safe light rail crossings of future streets. The new bridge crossing of the Willamette River would be designed to allow for effective emergency detection and response. To respond to safety and/or security emergencies on the bridge, TriMet will work cooperatively with the City of Portland to develop and conduct emergency response plans. The OMSI Station would be at street level, with streetcars and bus stops nearby. Overall activity levels would be higher than today, which is expected to improve visibility and reduce the potential for crime during evening off-peak hours, when the area is currently less active. Other potential measures to enhance safety and security could include the use of CCTV cameras at stations and park and ride lots, further increasing the size of TriMet's transit police and fare inspector forces, and frequent security patrols. Additional potential measures are listed in the *Draft Safety and Security Task Force Report*.

Visual/Aesthetic. In general, the South Willamette River Crossing Section is a visually complex environment of older inner city industrial areas and new riverfront residential and commercial development, visually and physically separated by strong natural and man-made edges such as the river, major roads, bridges and railroad lines. The Section is also characterized by visual and physical access to the river, prominent natural features and some of the most panoramic views of downtown Portland and the Willamette River within the Portland-Milwaukie Project Corridor.

This South Willamette River Crossing Section includes a variety of features and views identified as significant in the City of Portland's *Scenic Resources Protection Plan* including: the Willamette River, Ross Island, and viewpoints at OMSI, RiverPlace, the South Waterfront District and at SW Lincoln Street between SW 1st and SW 4th Avenues.

As described in the *Visual Report* and the *Community Impacts Report*, changes in the Downtown neighborhood would affect views along SW Lincoln Street and SW 1st Avenue by removing vegetation and allowing views of structures and other urban features currently screened by mature trees. The elevated crossing of SW Harbor Drive would have moderate visual impacts, but it would not block views into or out of downtown. In the Hosford-Abernethy neighborhood, a low to moderate degree of change would occur with displacements of buildings, more track, poles and overhead wires. The minor widening of SE 17th Avenue and the highway improvements at the intersection of SE 8th Avenue and SE Powell Boulevard will not result in major changes to the visual environment beyond changes that were authorized in the 2004 LUFO. Near OMSI and the Portland Opera building, viewer sensitivity would be high for recreational users, local

employees and others whose view to the water or toward downtown could be framed or enclosed by the new bridge crossing. The bridge types considered in the SDEIS include cable-stayed, concrete segmental, and cable-stayed through truss hybrid bridge types. Figure 2.1-4 illustrates these three bridge types. In addition, the SDEIS studied two vertical navigational clearances, 65 and 72 feet.

Conclusions. The Council finds that the social impacts of the Portland-Milwaukie Project are generally positive in the affected Downtown, South Portland, Hosford-Abernethy and Brooklyn neighborhoods in the South Willamette River Crossing Section. There is only one potential residential displacement in this Section, and the LRT improvements will be integrated with the built and planned urban environment. Light rail will implement an important component of the infrastructure needed to support the expected population growth, particularly in the south Downtown and South Waterfront neighborhoods. Considering the Project's direct connections to MAX lines as well as the Portland streetcar and the aerial tram, a wide range of destinations will become more accessible for the entire region, including PSU, OMSI, OHSU, the Rose Garden, Convention Center, Expo Center, Portland International Airport, the Washington Park Zoo, and regional centers in Gresham, Beaverton, Hillsboro and Clackamas.

There is a relatively higher representation of minorities and elderly residents in the Downtown neighborhood relative to the county and region, and a higher representation of people with low incomes in the Downtown, Hosford-Abernethy and Brooklyn neighborhoods compared to the county and region. Improved transit access to employment centers and services would benefit lower income and elderly residents who may have more limited alternatives to driving and are generally more dependent on availability of transit to access employment centers and services.

Light rail would provide an alternative mode to automobile travel on often congested roadways within this Section. The improved transit access, along with higher levels of activity in station areas, could encourage redevelopment and new services, potentially increase property values, and maintain or enhance the viability of neighborhoods in the South Willamette River Crossing Section.

Relative to safety and security impacts, the Metro Council acknowledges and supports TriMet's continuing efforts to improve passenger and community safety throughout its service area. The public involvement for this project has featured a Safety and Security Task Force and most of the Task Force mitigation suggestions are addressed in TriMet's current practices and policies for security along the existing system. TriMet is committed to making continued improvements to help maintain a safe and effective transit system as suggested by the Safety and Security Task Force and the Council supports consideration of other suggestions during the FEIS and design and construction of the Portland-Milwaukie Project or as part of system-wide safety and security improvements.

Relative to visual impacts, the Council finds that the scale, form, character and alignment of the new transit bridge across the Willamette River will be the defining visual element within the South Willamette River Crossing Section. More details on the design will be

developed through a bridge type, size, and location study, which will be conducted following the adoption of a revised LPA. The Council finds that adverse visual effects can be mitigated through careful coordination with the affected jurisdictions and the public, leading to selection of a final bridge design.

Traffic Impacts

Section 4.2.3 of the SDEIS evaluates the impacts to the highway and street network for the project alternatives and design options. Transit improvements in the Portland-Milwaukie Corridor could affect traffic operations and congestion in two basic ways. First, the improvements could divert trips from automobiles to transit, resulting in reduced system-wide vehicle traffic. Second, transit facilities could affect localized traffic operations on highways and streets in the corridor.

Major roadways within the South Willamette River Crossing Section include the I-405 on-/off-ramps, SW Harbor Drive, SW Moody Avenue, Marquam Bridge (I-5), Ross Island Bridge (US 26), and SE Powell Boulevard (US 26). Table 4.2-15 of the SDEIS summarizes potential motor vehicle impacts by transit alignment for the segment extending from PSU to SE Powell Boulevard.

The LRT alignment would impact the following intersection/locations in the South Willamette River Crossing Section where there are changes in the LRT alignment from the 1998 LUFO, as amended by the 2004 LUFO:

- SW Lincoln Street/SW 4th Avenue: Additional motor vehicle delay in eastbound direction for shared lane due to LRT operations.
- SW Lincoln Street/SW 1st Avenue: Additional motor vehicle delay associated with LRT operations to eastbound left turn and northbound/southbound through movements.
- SW Naito Parkway/SW Lincoln Street: Eastbound motor vehicle movements over capacity creating queuing and delay.

Highway improvements at the intersection of SE 8th Avenue and SE Powell Boulevard will accommodate a bus route to and from the shared transitway (bridge) north of Powell. A proposed bus-only traffic signal at SE Powell Boulevard/SE 8th Avenue would be located approximately 930 feet from SE Powell Boulevard/SE Milwaukie Avenue and would not meet signal spacing standards for a principal arterial facility. Coordination with ODOT would be required to be able to install a signal at this location to ensure adequate operation of the new signal, allow traffic progression along SE Powell Boulevard and meet sight distance requirements.

Additionally, new gated crossings would add approximately 50 seconds of delay per LRT crossing for trucks/motor vehicles. These impacts would occur along SE Water Avenue (north of SE Caruthers Street) and SE 8th Avenue (south of SE Division Street). All other LRT crossings are proposed to occur at signalized locations.

By shifting the bridge crossing south from the location shown in the 1998 LUFO, adverse traffic impacts to the following intersections can be avoided:

- SW River Parkway/SW River Drive
- SW River Parkway/SW Moody Avenue

In the 1998 LUFO, the intersection at SW River Parkway/SW River Drive has conflicting movements that require complex traffic signal phasing. Delay would occur as a result of the exclusive nature of LRT and bus transit movements. Estimates also project that peak period queues would extend through and block the adjacent signalized intersection at SW River Parkway/SW Moody Avenue.

The 1998 LUFO alignment of SW River Parkway between SW River Drive and SW Moody Avenue would be complex. LRT, streetcar, bicycle lanes, sidewalks, and motor vehicles would all be interacting in a limited space as the bridge crossing comes to grade. Several different signal phases would be required to safely accommodate movements of various travel modes in addition to motor vehicles. With the given number of travel lanes, the intersection at SW River Parkway/SW Moody Avenue would experience large delays associated with the gate controlled crossing for the LRT and traffic signal phase accommodations for streetcar and bus movements. The intersection would fail to meet the jurisdictional (Portland) standards.

With the realignment of SW Moody Avenue between the Marquam and Ross Island bridges, the street and streetcar would be relocated in the manner anticipated in the South Waterfront Street plan and to a grade that minimizes impacts to the OHSU campus due to floodplain and hazardous soils associated with providing structured parking. With this realignment, LRT would have just one at-grade crossing instead of crossing both the streetcar and then SW Moody Avenue.

Based on the outlined impacts to motor vehicle operations, Table 4.2-16 of the SDEIS summarizes the potential mitigation strategies to minimize adverse traffic impacts associated with the LRT route and Porter-Sherman bridge crossing:

- SW Lincoln Street/SW 4th Avenue: Add eastbound left turn pocket to achieve Level of Service (LOS) C.
- SW Lincoln Street/SW 1st Avenue: Optimize signal timing to achieve LOS D.
- SW Naito Parkway/SW Lincoln Street: Optimize signal timing; construct separate eastbound left turn pocket (100 ft) to achieve LOS B (eastbound 100 ft).

The 1998 LUFO alignment requires reconstruction of SW Harrison Street and SW River Parkway, including the existing streetcar tracks. Temporary service and/or facilities can be more difficult for streetcar than streets because of the design constraints of the tracks themselves. By shifting the LRT route from SW Harrison Street to SW Lincoln Street, adverse impacts on the streetcar tracks can be avoided. The 1998 LUFO alignment also requires limited reconstruction of SW Harbor Drive underneath the transit over crossing.

This arterial access to I-5 will require more temporary traffic control and planning to ensure minimum disruption to traffic during construction than the Porter-Sherman route.

The 1998 LUFO river crossing route also has the most constraints on bridge type selection. The curved horizontal alignment adds complexity to the design and limits the bridge type selection to the cable-stayed through truss type, a relatively rare and expensive bridge type. Additionally, should clearances greater than 72 feet be required for the new bridge crossing, the 1998 LUFO is the most constrained option due to the proximity of existing buildings and intersections on the west side of the river. Additional clearance would require longer and higher ramping of the approach structures that would be more difficult to accommodate when existing built features are nearby.

Conclusions. The Council finds that the improvements summarized above can mitigate the adverse traffic impacts of the Portland-Milwaukie Project in the South Willamette River Crossing Section. Additionally, the Council finds that the shift in the LRT alignment from SW Harrison Street to SW Lincoln Street and the southerly shift in the bridge alignment to the Porter-Sherman Crossing can avoid or minimize some of the adverse traffic impacts that were associated with the 1998 LUFO alignments as summarized below.

In summary, the Council finds that changes in the South Willamette River Crossing Section to shift the LRT route from SW Harrison Street to SW Lincoln Street and to shift the bridge alignment south from its location in the 1998 LUFO to a general Porter-Sherman route provide opportunities to avoid adverse traffic impacts. It finds that the SW Moody Avenue realignment will minimize impacts to the OHSU campus and reduce the number of LRT at-grade crossings. It also finds that reasonable options are available to mitigate the remaining traffic impacts. The mitigation measures can be refined and further detailed in the FEIS and preliminary engineering phases of the Project.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The Council finds that the following changes in the LRT route and station locations in the South Willamette River Crossing Section will provide for more complementary connections between land use and transit relative to the route and station locations approved in the 1998 LUFO:

- Moving the LRT route from SW Harrison Street to SW Lincoln Street will avoid adverse impacts to the existing streetcar route and will improve connections with the southerly terminus of Downtown LRT improvements to PSU.
- Shifting the bridge alignment to the south to a general Porter-Sherman route will provide the opportunity to avoid some of the adverse traffic impacts associated with the 1998 LUFO alignment and will greatly enhance linkages and service to

the growing South Waterfront District that is capable of enhancing light rail ridership. The Porter-Sherman bridge crossing would serve almost 3,000 more residents and 4,000 more employees than the 1998 LUFO crossing. Additionally, the more southerly bridge crossing would add between 1,200 and 1,400 light rail trips a day between downtown Portland and Milwaukie when compared with the 1998 LUFO alignment.

- Shifting the bridge alignment to the south to a general Porter-Sherman route also provides the opportunity to avoid some of the adverse impacts to off-street parking at OMSI and Portland Opera parking lots on the east side of the river that were associated with the 1998 LUFO alignment.
- The southerly shift in the bridge crossing also provides more flexibility for the type, height and design of the bridge.
- Changes in potential station locations (Lincoln, Harbor Drive and South Waterfront) will provide the opportunity to support and leverage existing and planned development in the South Downtown and South Waterfront neighborhoods with minimal adverse economic, social or traffic impacts on the affected neighborhoods. On the east side of the river, the OMSI station will provide an important transit connection to a significant activity center that can also support transit ridership and benefit from linkages to downtown and existing and planned OHSU facilities in the South Waterfront area.

The Metro Council believes that the LRT route and stations in the South Willamette River Crossing Section will provide a tremendous opportunity to support and leverage the development of an efficient and compact urban form as outlined in the *2040 Growth Concept*, the *Portland Comprehensive Plan*, and the *South Waterfront District Plan*, thereby saving energy, reducing congestion and improving air quality. LRT service will help encourage more intensive use of undeveloped lands in the affected neighborhoods, which in turn would accommodate more jobs and housing. Further, the Metro Council believes that the modified alignment and station locations will offer an excellent opportunity for residents and employees in the South Willamette River Crossing Section to take light rail to work and recreational destinations, thereby saving energy, reducing congestion and improving air quality.

The Metro Council is aware that LRT facilities within the South Willamette River Crossing Section will have some adverse impacts, particularly in the form of business displacements, a potential residential displacement, loss of parking, minimal delays in freight movement, safety and security concerns, and visual changes, particularly for the new bridge crossing. However, these impacts can be minimized during preliminary engineering, and mitigation measures can and will be taken to reduce adverse community impacts. Overall, for the reasons stated above, the Council concludes that the identified benefits of LRT to the affected Downtown, South Waterfront, Hosford-Abernethy and Brooklyn neighborhoods outweigh the adverse impacts. From an economic, social and traffic standpoint, the affected neighborhoods should benefit substantially from the proximity and availability of light rail transit.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

The new bridge over the Willamette River, together with its approaches, is a transitway accommodating not only light rail but also buses, streetcars, and bicycles and pedestrians. Highway improvements on SE 8th Avenue between SE Powell Boulevard and SE Woodward Street include roadway widening for a turn lane and transit only signalization to accommodate the bus route to and from the shared transitway. The SDEIS discloses the impacts associated with the new bridge as a transitway.

The Council finds that the minor incremental impacts associated with accommodating buses, streetcars, bicycles and pedestrians on the new bridge crossing are balanced by the regional opportunity to improve connections between neighborhoods on the east and west sides of the Willamette River and substantially enhance travel options for multiple modes, including light rail, bus, streetcar, bicycle and pedestrians. Additionally, the Council finds that the highway improvements at the intersection of SE 8th Avenue and Powell Boulevard are needed to provide for safe and efficient movement of buses on and off the transitway. The Council recognizes that the proposed transit signal would not meet signal spacing standards for a principal arterial facility and coordination and approval from ODOT would be required to be able to install a signal at this location. It also recognizes the concerns of the trucking industry for the continued efficient movement of truck freight vehicles through the intersection of SE Powell Boulevard and SE 8th Street, which could be mitigated by creating a separate left turn lane for buses. Improvements to SW Moody Avenue will bring about consistency with the South Waterfront Street plan.

6.4.1.3 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

Noise and vibration impacts specific to the South Willamette River Crossing Section are addressed in the following section. An overview of noise and vibration measurements and identification of potential noise mitigation by noise type are included in the *Noise and Vibration Results Report (Noise Report).*

Identification of Noise and Vibration Impacts in the South Willamette River Crossing Section

The South Willamette River Crossing Section connects Southeast Portland to downtown Portland. The Section includes a mix of residential, commercial, and industrial uses, with open space and public facility/institutional uses near the river. The noise environment in this Section is dominated by automobile and truck traffic on the bridges and major

arterial streets; Amtrak and freight traffic on the Union Pacific railroad line; and outdoor activity associated with specific industrial uses. On the east side of the river, the Central Eastside Industrial District is one of Portland's older working industrial areas.

FTA Noise Impact Criteria groups noise-sensitive land uses into the following three categories:

- **Category 1.** Buildings or parks where quiet is an essential element of their purpose.
- **Category 2.** Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.
- **Category 3.** Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, churches, and office buildings and other commercial and industrial land use.

Sensitive land uses on the west side of the Willamette River include the Residence Inn at RiverPlace and apartments at RiverPlace. Sensitive land uses on the east side of the Willamette River include OMSI, the Portland Opera and the Willamette River Greenway. The *Noise Report* states that no Category 1 land uses were identified in the South Willamette River Crossing Section. FTA has not established noise impact criteria for commercial or industrial land uses, which are the predominant uses in this Section. FTA also provides criteria for acceptable levels of ground-borne vibration. The *Noise Report* states that the FTA criteria for ground-borne vibration are 72 VdB for Category 2 (residential) structures and 75 VdB for Category 3 (institutional) structures.

As shown on Figure 3.10-4 of the *Noise Report*, there were four noise monitoring sites and two vibration monitoring sites in the portion of the South Willamette River Crossing Section north of SE Powell Boulevard. The ambient noise levels (Ldn) at the noise monitoring locations ranged from 64 dBA to 71 dBA. The higher background noise levels were associated with proximity to the UP rail line and to SE Division Street and SE 8th Avenue which carry large volumes of medium and heavy truck traffic.

The existing vibration environment in the South Willamette River Crossing Section includes ground-borne vibration from freight rail traffic as well as trucks and other vehicular sources. Ambient vibration levels ranged from 30 to 55 VdB, excluding Amtrak and freight trains.

Table 3.10-2 of the *Noise Report* summarizes noise and vibration impacts. For the 1998 LUFO, noise and vibration impacts were identified at 15 residential units at RiverPlace that exceed the FTA criteria by up to 2 dBA. OMSI and the Portland Opera buildings were evaluated under FTA criteria for a *Concert Hall, TV/Recording Studio* and neither was identified with adverse noise or vibration impacts, regardless of the alignment alternative.

Mitigation Options for Noise and Vibration Impacts in the South Willamette River Crossing Section

Based on the information in the *Noise Report*, the Council finds that there are no adverse noise and vibration impacts associated with LRT and highway improvements in the South Willamette River Crossing Section that require mitigation. By shifting the bridge crossing to the south from the location approved in the 1998 LUFO, the noise and vibration impacts to the RiverPlace Apartments can be avoided.

6.4.1.4 Criterion 5: Natural Hazards

"Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural hazard impacts specific to the South Willamette River Crossing Section are addressed in the following section. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Results Report (Soils Report),* and the *Water Quality and Hydrology Results Report (Hydrology Report).*

Identification of Natural Hazard Areas in the South Willamette River Crossing Section

The *Soils Report* does not identify specific *landslide areas* or *areas of severe erosion potential* in the South Willamette River Crossing Section. The potential for major landslides within the Portland-Milwaukie Corridor is very limited because the topography within the corridor is relatively gentle. No active or historically active landslides are mapped within the area of potential effect in the South Willamette River Crossing Section.

Fill materials may be encountered approaching the OMSI Station and occasionally from the OMSI Station to SE Powell Boulevard. This fill may include highly variable soil types with inconsistent soil strengths. In addition, considerable woody debris such as sawdust may be encountered.

The Northwest is a seismically active area and is subject to *earthquake damage.* Figure 2.2-1 of the *Soils Report* illustrates relative earthquake hazards in the Portland-Milwaukie Project corridor. Areas of slope instability, liquefaction and lateral spread displacement conditions are localized along the east and west banks of the Willamette River. The high relative earthquake rating is attributed to ground amplification conditions.

The LRT alignment and new transitway in the Willamette River Crossing Section will cross the *100-year floodplain* of the Willamette River. The Willamette River flows northerly through Portland to its confluence with the Columbia River. The river is regulated by 11 multi-purpose reservoirs operated by the U.S. Army Corps of Engineers

to prevent flooding. When flooding occurs on the Willamette River, it is mainly due to backwater effects from the Columbia River.

Eight bridges span the three-mile portion of the lower Willamette River that flows through central Portland from the Ross Island Bridge to the Fremont Bridge. This lower portion of the river is channelized, its banks either constrained by rip-rap or the Portland seawall and its channel largely lacking topographic or habitat diversity.

Figure 3.3-1 of the *Hydrology Report* shows that most of the South Waterfront development west of the Willamette River is within the 100-year floodplain. Elevations on the river's east bank are higher; consequently no light rail facilities would be located in the 100-year floodplain.

The *Hydrology Report* estimates that up to 1.2 acres of LRT facilities or highway improvements would be located in the Willamette River floodplain. General design options being considered for the bridge have from one to five support piers in the river channel. Although this increases the potential for backwater effects and a rise in flood elevation, the report concludes and the Council finds that none of the crossing designs would significantly affect flooding levels in the reach. The volume of floodplain storage that would be displaced by the piers under the bridge design options would be very small relative to the large cross-sectional area of the floodplain. The light rail alignment and station in the South Waterfront will be elevated and would have a very small impact on this floodplain area that could easily be mitigated through compensatory flood storage.

Mitigation Options for Natural Hazard Impacts in the South Willamette River Crossing Section

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the South Willamette River Crossing Section. Additionally, although the Council recognizes that the Northwest is a seismically active area, the majority of the South Willamette River Crossing is not mapped as a *high seismic hazard area.*

The Council finds that options are available to mitigate landslide, erosion and seismic hazard conditions in the South Willamette River Crossing Section. Designing slopes to minimize the effect of surface runoff could control erosion in cut and fill areas. Collecting and routing surface water away from cut-and-fill slopes could limit erosion damage. Exposed soil can be seeded to control erosion and prevent sediment-laden runoff from reaching streams. Stream banks at bridges can be reinforced to prevent erosion and undercutting.

Potential mitigation measures to address geologic/soils conditions are provided in Section 4 of the *Soils Report.* During final design, a thorough geotechnical investigation of the alignment will provide the necessary information to anticipate and remedy less-than-ideal foundation conditions. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs. Mitigation would consist of design of the

LRT/transitway bridge to meet Uniform Building Code seismic standards; and techniques such as special footing and foundation designs to address the composition and stability of artificial fills.

Additionally, the Council finds that no significant *flooding* impacts are expected with the LRT alignment and crossing. The LRT/transitway bridge will span the 100-year flood plain of the Willamette River and the LRT stations in this Section also will be located above the 100-year flood elevation. The Council recognizes that additional technical analysis may be required under NEPA and the local permitting processes to document that the proposed development within the floodway (placement of bridge piers) does not reduce the conveyance capacity of the river at the Project site. The Council concludes, therefore, that options are available to mitigate for the placement of fill in the 100-year floodplain. Wherever possible, the Council supports incorporating balanced cut and fill requirements with projects that improve water quality, such as planting native vegetation in riparian areas that are currently in a degraded state.

6.4.1.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the South Willamette River Crossing Section are addressed in the following section. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystem Results Report (Ecosystems Report),* and the *Parks and Recreation Results Report (Parks Report).*

Identification of Impacts to Significant, Protected Natural Resources in the South Willamette River Crossing Section

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5 – including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resource sites, identified the significance of each site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones, Scenic Overlay Zones and Open Space Zones.

Within the South Willamette River Crossing Section, the Council finds that the Willamette River is identified as a significant natural resource for multiple values, including fish and wildlife habitat and scenic resource values. The river and adjacent

banks are within the Willamette River Greenway and the river itself is identified as a scenic corridor. The bridges over the Willamette River are identified as scenic resources, and specific scenic viewpoints have been mapped on both the east and west sides of the river in proximity to the LRT/transitway alignment. The LRT/transitway bridge will cross over the Greenway Trail (existing and proposed) on both the east and west banks of the river. The light rail improvements in this Section, most specifically the design of the LRT/transitway bridge over the Willamette River, will be subject to City of Portland urban design and Greenway review.

Based on information in the SDEIS and supporting results reports, the Council concludes that the protected natural resources in this Section are focused on the Willamette River Crossing. LRT and highway improvements in this Section do not affect significant and protected wetlands or riparian areas.

Fish and Wildlife Habitat. The Porter-Sherman Crossing Alignment is located in a highly urbanized area that lacks wildlife habitat. Native riparian habitat along the bank of the Willamette River in the vicinity of the crossing has been removed or is highly degraded. The bridge will be constructed approximately one mile north of the bald eagle nest and heron rookery on Ross Island and approximately two miles south of the Fremont Bridge, the nearest known peregrine falcon nest site.

Both anadromous and resident fish species inhabit the Willamette River. The main stem of the Willamette River serves as a primary corridor for the migration of adult salmonids upstream and smolts downstream. Tributaries of the Willamette River are used by anadromous and resident fish for spawning and rearing. The main stem channel of the Willamette has been heavily modified by human activity throughout the last century, and much of the original shoreline and fish habitat has been eliminated. Adjacent construction has resulted in the channelization of the river and loss of secondary channels. In developed areas, water quality has been degraded from storm water runoff carrying pollutants from roads, parking lots, and rooftops.

The crossing of the Willamette River raises several important fisheries issues. Typical resource agency concerns with bridge crossings include the potential for water quality degradation during construction, increases in predation rates through shading, hydraulic impacts that create eddies where predators could effectively hide, and habitat disturbance through placement of piers or abutments.

Due to the lack of natural riparian habitat along the Willamette River with the Porter-Sherman Crossing, potential impacts to fishery resources are limited to project effects associated with construction of in-water bridge foundations. These impacts include the loss of river bottom habitat and hydraulic and shading effects of the bridge foundations.

Scenic and Open Space Areas. The Willamette River is identified as a scenic corridor, with important views to and from the water. Additionally, all of the existing bridges over the Willamette River are identified as scenic resources. Significant scenic resources identified in the *City of Portland Scenic Resources Protection Plan*, including viewpoints

and view corridors along the Willamette River, are mapped and provided protection through application of the Scenic Resource Zone.

The purposes of the Scenic Resource Zone are achieved by establishing height limits within view corridors to protect significant views and by establishing additional landscaping and screening standards to preserve and enhance identified scenic resources.

The Council finds that the new LRT/transitway bridge over the Willamette River will be subject to City of Portland review under the provisions of the Willamette Greenway and Central City design review requirements, subject to Section 7 of HB 3478, which requires the city to approve permits subject to reasonable conditions. The local review and permitting will include consideration of the urban design of the bridge, provisions for the Greenway Trail, and consideration of scenic viewpoints and view corridors.

The Council also finds that the LRT/transitway overpass and structure over SW Harbor Drive could have an adverse impact on the designated SW Montgomery Street viewpoint. The overpass and structure will be subject to review by the Portland Design Commission. The local review process will include consideration of the overpass design on the designated viewpoint. The Council concludes that the local permitting process will provide the forum for site-specific design decisions that can mitigate adverse impacts of the overcrossing. The scale and design of the overcrossing could function as a gateway to the South Downtown.

Riparian Areas. As described in the discussion of fish and wildlife habitat, the *riparian area* along the Willamette River in the vicinity of the proposed LRT/transitway bridge crossing has been significantly altered with development. Shorelines along both the east and west banks of the river support limited natural vegetation and are included within the "River General" greenway overlay zone. Significant riparian and habitat areas, such as Ross Island, are included within the "River Natural" greenway overlay zone.

Wetland Areas. No wetlands occur within the vicinity of the South Willamette River Crossing Section. With the Porter-Sherman Bridge Crossing, up to 0.11 acre of river bottom habitat (non-wetland waters) would be removed due to construction of bridge pier foundations. Potential mitigation for the impacts of the pier foundations is discussed under Fish and Wildlife Habitat.

Park and Recreational Areas and Willamette River Greenway. The South Willamette River Crossing Section will span the Willamette River and cross over the Greenway Trail on both the west and east banks of the river. The Greenway Trail is designated to increase recreational opportunities, as well as public access to and along the Willamette River.

On the west side of the Willamette River, the greenway trail is planned to link to South Waterfront Park under the Marquam Bridge. As identified in the adopted South Waterfront Plan, the greenway will continue 1.2 miles south to SW Hamilton Court, joining with the existing Willamette River trail system. It will average 100 feet in width along the top of the riverbank. The greenway will include two trails, one for bicycles and

one for pedestrians. The South Waterfront Plan indicates that private property owners are required to provide a public easement for the trail upon development of land in the South Waterfront area. However, there are currently no easements in place for the Greenway Trail at the locations of the river crossing options in the South Waterfront. The LRT alignment will provide for a minimum 10-foot vertical clearance over the planned trail and would not impede trail development.

The existing Greenway Trail on the east bank begins south of the Eastbank Esplanade at the Hawthorne Bridge and extends south toward OMSI, below the Marquam Bridge. There is a designated viewpoint on the OMSI property, and the Greenway Trail continues south of OMSI about 175 yards, ending at the Opera Building at SE Caruthers Street. The Greenway Trail is located within easements granted to the City of Portland for recreational purposes.

The OMSI Station is approximately 380 feet away from the existing Greenway Trail. Under the current design (5% engineering), the closest bridge pier for the alignment would be located approximately 50 feet away from the Greenway Trail on the east side. The alignment also provides at least a 10-foot vertical clearance over the Greenway Trail. While distances could change during preliminary engineering and final design, TriMet will ensure that its structures and facilities are located a reasonable distance away from the Greenway Trail.

Both the OMSI Station and the South Waterfront Station will provide enhanced recreation access to the Willamette River Greenway and the Greenway Trail from throughout the region. Additionally, the LRT/transitway bridge itself will accommodate bike and pedestrian use and will provide an important new link to multi-purpose trails such as the Greenway Trail, the Eastbank Esplanade and the Springwater Corridor.

Mitigation Options for Natural Resource Impacts in the South Willamette River Crossing Section

Based on information in the results reports, the Council finds that the South Willamette River Crossing will not impact park areas, wildlife or wildlife habitat, riparian areas or wetland areas. Potential adverse impacts on significant and protected natural resources are focused at the crossing of the Willamette River. The new bridge will span the Willamette River Greenway and will also cross over existing or planned Sections of the Greenway Trail on both the east and west banks. The Willamette River is designated a scenic corridor, existing bridges over the river are identified as scenic resources, and number of scenic viewpoints are established on both the east and west banks of the river in the vicinity of the new bridge.

The bridges over the Willamette River contribute to the unique character and urban design context of the City of Portland, and the Council finds that the location and design of the new LRT/transitway bridge provides the opportunity to add to that character. Mitigation of adverse visual effects of the new bridge can be addressed during the FEIS process and local permitting.

Construction of the new LRT/transitway bridge over the Willamette River could result in adverse impacts to fisheries. Long-term impacts to fisheries include the removal of a small amount of channel bottom habitat due to construction of the bridge pier foundations. However, none of the bridge piers are expected to modify essential habitat features such as suitable spawning gravels, or sites used for cover, shelter, refuge, holding, or rearing. No suitable spawning or rearing habitat is present in the area of the bridge crossing.

The Council finds that the Project team is consulting with NMFS as required by Section 7 of the Endangered Species Act (ESA) and mitigation measures are available to mitigate adverse impacts to fisheries and can be imposed as conditions of approval during the FEIS process and/or the local permitting process, such as:

- Timing in-water work to occur outside of critical fish migration seasons
- Using coffer dams around in-water work sites
- Using confined bubble curtains and bubble trees around pile and other noise generating activities
- Implementing best management practices.

6.4.1.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the South Willamette River Crossing Section are addressed in the following section. Stormwater impacts and mitigation measures are also described in the *Water Quality and Hydrology Results Report, (Hydrology Report).*

Identification of Stormwater Impacts in the South Willamette River Crossing Section

The LRT improvements in the South Willamette River Crossing Section that are changed from the 1998 LUFO, as amended in 2004, include a shift in the location of the new bridge over the Willamette River and changes in the locations of the Lincoln, Harbor Drive, South Waterfront and OMSI stations. Highway improvements in the Section include the new transitway, the improvements on SE 8th Avenue, and modifications to SW Moody Avenue.

As outlined in the *Hydrology Report*, the general water quality issues in the portion of the Willamette River located in the Project area include aquatic ecosystem degradation, soil erosion from changing land use, and elevated concentrations of nutrients, synthetic compounds, and trace elements such as heavy metals. There are numerous public and

private outfalls in the South Willamette River Crossing Section. This portion of the Willamette River also receives discharges from the City of Portland's combined sewer overflows (CSOs).

The primary indicator of both hydrologic and water quality impacts for transportation projects is the relative increase in the amount of impervious surface area. Not only do impervious surfaces provide a media for collecting pollutants, they also provide a mechanism for transporting these pollutants to local streams. Based on alignment drawings, an estimated 50 percent of the Portland-Milwaukie LRT project total impervious area would be redeveloped, i.e., constructed on existing impervious areas.

The LRT stations in the South Willamette River Crossing Section will be located on sites with predominantly impervious surface. Therefore, runoff is not expected to increase significantly with the proposed stations.

The *Hydrology Report* concludes that the Portland-Milwaukie LRT Project may have a detectable local effect on water quality and hydrology; however, these impacts would be undetectable at the basin scale. Potential effects include addition of new impervious surfaces, floodplain fill, stream crossings and limited pollutant loading. All of these impacts would be mitigated using approaches outlined in *Portland's Stormwater Manual.*

As summarized in Table 4.3-3 of the *Hydrology Report,* no major impacts to water quality or hydrology are expected in the South Willamette River Crossing Section. Detectable impacts from increased runoff are not anticipated and all fill would be mitigated by a balanced cut. Potential short-term impacts to water quality include sediment-laden runoff, accidental spills, and leaks from construction equipment. Potential short-term impacts to hydrology include increased runoff from vegetation clearing, soil compaction and dewatering portions of the channel during in-water construction.

Potential impacts of the highway improvements include those associated with the addition of new impervious surfaces. Oils, heavy metals and other pollutants can pollute surface water and the streets will make water warmer and "flasher" – that is, they will make the water run off instead of soak into the ground or vegetation, to the detriment of fish. These impacts would be mitigated using approaches outlined in *Portland's Stormwater Manual.*

Mitigation Options for Stormwater Impacts in the South Willamette River Crossing Section

Without adequate mitigation, additional impervious surface area created by the LRT and highway improvements would induce additional Project area runoff, and pollutants transported by the runoff could adversely affect receiving waters. Based on the information contained in the *Hydrology Report,* the Council concludes that no significant stormwater runoff or water quality impacts are expected in the South Willamette River Crossing Section. As shown in Table 4.3-1 of the *Hydrology* Report, the additional

amount of new impervious surface that would be created by the Portland-Milwaukie LRT Project represents a small overall increase in total impervious surface area in each basin.

Water quality and hydrologic mitigation measures implemented as part of the Portland-Milwaukie LRT Project would include minimizing impervious surface area (especially new impervious surfaces) and implementing structural and non-structural Best Management Practices (BMPs) for water quality impacts such as sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. Another means of mitigating the stormwater effects of the Project is to reduce the amount of impervious area. This can be accomplished through creative design approaches such as using pervious pavement and reducing the widths of Project facilities. Landscaping is also an effective means of reducing impervious surfaces. Wherever possible, native plants should be used for landscaping and the use of fertilizers, pesticides and herbicides should be minimized or eliminated to further protect water quality.

Based on the potential mitigation measures outlined in Section 5 of the *Hydrology Report, t*he Council finds that a range of measures are available and mandated by local, state and federal regulations and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

6.4.1.7 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

Historic and cultural resource impacts specific to the South Willamette River Crossing Section are addressed in the following section. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archaeological and Cultural Impacts Results Report (Historic Report).*

Identified Significant and Protected Historic and Cultural Resources in the South Willamette River Crossing Section

The *Historic Report* identifies four historic-period resources located within the area of potential effect for the South Willamette River Crossing Section:

- Portland State/School Building at 2000 SW 5th Avenue (potentially eligible for architectural merit)
- Hawthorne Bridge (formally determined eligible in 1985 as part of ODOT's Historic Highway Bridges of Oregon thematic group nomination)
- Ross Island Bridge (formally determined eligible in 1985 as part of ODOT's Historic Highway Bridges of Oregon thematic group nomination)

- Royal Foods Warehouse/Office at 2424-2445 SE 8th Avenue (potentially eligible for architectural merit)

Impacts on historic resources are described in Section 3.2.2 of the *Historic Report.* The acquisition of a portion of the parking lot of the Portland State School Building is considered a direct effect. The introduction of light rail along the eastern portion of the property introduces a new visual element on this site; however, it would not constitute an adverse effect as it would not significantly alter the integrity of the resource.

Two historic resources, the Hawthorne and Ross Island Bridges, would experience a change in visual effects with the new Willamette River bridge crossing. However, the historic bridges will not be adversely affected because the new crossing is a sufficient distance away and none of the options would affect the qualities for which the bridges are eligible for listing in the National Register. The bridge elevation options would not alter these effects. A lower profile bridge, such as a concrete Sectional bridge type, would involve less of a visual change than a higher profile bridge, such as a cable stay, but neither would create adverse effects to the two historic bridges.

The Royal Foods Warehouse/Office property would be acquired and the building demolished. This constitutes an adverse effect.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the South Willamette River Crossing Section

The Council finds that the LRT and highway improvements in the Willamette River Crossing Section will have an adverse effect on the potentially eligible Royal Foods Warehouse/Office property and have a visual effect on the Hawthorne and Ross Island Bridges. The Council finds that specific impacts and mitigation commitments will be addressed in a formal Memorandum of Agreement (MOA) with the State Historic Preservation Office (SHPO) and executed for inclusion in the FEIS. Mitigation measures that could be included are discussed below.

Changes in Project design could eliminate the need for displacement of the Royal Foods building. Relocation of the resource, either elsewhere on the property or off-site, may be another mitigation option. If these options are not practicable, documentation and salvage of the resource could mitigate for the loss. Other mitigation measures could include interpretation of the history and architecture of the resource. Visual impacts to historic properties would generally be mitigated through design treatments.

6.4.2 McLoughlin Boulevard Section (SE McLoughlin Boulevard to SE Tacoma Street)

6.4.2.1 Description of Light Rail and Highway Improvements

The McLoughlin Boulevard Section extends along SE McLoughlin Boulevard from SE 17th Avenue to SE Tacoma Street and includes the following LRT-related facilities established in the 1998 LUFO:

- An alignment that extends from SE McLoughlin Boulevard at SE 17th Avenue to SE Tacoma Street.
- One station in the vicinity of the Bybee Overpass.

No park-and-ride lots, maintenance facilities or highway improvements are proposed for the McLoughlin Boulevard Section.

In past studies of this corridor, there has been considerable consensus reached on the location of the LRT alignment in this Section. Therefore, the Council hereby reaffirms and incorporates by reference the findings that were adopted for the LRT alignment and Bybee Station as described in Section 6.4.4 of the 1998 LUFO.

The SDEIS evaluated the potential of adding a station in this Section in the vicinity of SE Harold Street and SE McLoughlin Boulevard. This 2008 LUFO authorizes the construction of the Harold Station in the general location shown in Figure 1.5. The addition of the Harold Station does not require changes to the 1998 LUFO findings relating to Criteria 4-8 (6.4.4.3 – 6.4.4.7). Those findings are incorporated by reference with respect to the Harold Station. However, findings to address criterion 3 are provided below for the potential Harold Station.

Also, this LUFO provides for the addition of bus pullouts next to the Bybee Station on SE Bybee Boulevard. These pullouts will enhance LRT ridership and provide safer access to the Bybee Station. While impacts associated with the addition of bus pullouts are generally similar to those identified in the 1998 LUFO, it is likely that slope easements or retaining walls will be needed to accommodate these bus pullouts, which was not anticipated in the 2004 LUFO. Impacts would include increased impervious surface and increased and polluted stormwater runoff. However, the scale of these impacts should be small and can be addressed by compliance with *Portland's Stormwater Manual*.

See **Figures 1.4 to 1.6** attached as Exhibit A to Resolution No 08-3964 for the LUFO boundaries for the McLoughlin Boulevard Section.

6.4.2.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures

to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods

The Harold Station is bounded by the *Brooklyn* and *Eastmoreland* neighborhoods to the east side of SE McLoughlin Boulevard and by the *Sellwood-Moreland* neighborhood to the west of SE McLoughlin Boulevard.

The *Brooklyn* neighborhood contains a variety of land uses, including established single-family residential, multi-family residential, large commercial and industrial uses, Brooklyn Rail Yards, and TriMet headquarters and bus operations facilities. Commercial uses line SE Milwaukie Avenue and SE 17th Avenue.

In 2000, *Brooklyn* was home to an estimated population of 3,595 residents and 1,690 households. Its population included a smaller proportion of minority and elderly residents compared to the county and the region. Renters occupied more than 60 percent of housing units in *Brooklyn*, significantly more than in the county or the region.

Though SE McLoughlin Boulevard forms the western boundary of the *Eastmoreland* neighborhood, the Union Pacific Railroad (UPRR) right-of-way and the open space of Crystal Springs Rhododendron Garden and Eastmoreland Golf Course form a barrier and buffer between SE McLoughlin and residential areas.

Single-family homes, large open spaces and Reed College campus define the character of the *Eastmoreland* neighborhood. Reed College is the only large employer in the neighborhood. The Springwater Corridor passes just south of the neighborhood and continues west into the Sellwood-Westmoreland neighborhood.

In 2000, the *Eastmoreland* neighborhood was home to an estimated 5,044 people and 1,642 households. *Eastmoreland* is an affluent neighborhood, with half the county's poverty rate, a low proportion of minority residents and the lowest proportion of renter-occupied housing in the Project corridor.

The *Sellwood-Moreland* neighborhood is bounded by the Willamette River to the west, SE McLoughlin Boulevard to the north and east and SE Ochoco Street to the south. The major east-west roads are SE Bybee Boulevard and SE Tacoma Street, which connects to the Sellwood Bridge.

Large, single-family residential areas flanked on the east and west by large open spaces and recreation areas characterize the *Sellwood-Moreland* neighborhood. Recreation facilities consist of the Springwater Corridor Trail, Westmoreland Park, Oaks Bottom and Sellwood Riverfront Park. The neighborhood also contains commercial areas that serve as employment centers along SE Milwaukie Avenue, along SE 13th Avenue near SE Tacoma Street and along SE 17th Avenue near SE Tacoma Street.

In 2000, the *Sellwood-Moreland* neighborhood was home to an estimated population of 10,617 residents and 5,211 households. Sellwood-Moreland had lower rates of minorities compared to the county and region. The percent of households below the poverty level was 10.8, slightly lower than county poverty rate but above that of the region. Renters occupied 47 percent of the neighborhood's housing, a much higher share than the percentage in the region and slightly higher than the percentage for the county.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the potential Harold Station are addressed below. Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Activity Results Report (Land Use Report),* the *Community Impact Assessment Results Report (Community Impact Report),* and the *Local Traffic Impact Results Report (Traffic Report),* all dated March 2008.

Economic Impacts

Displacements. The Harold Station would be located on the east side of SE McLoughlin Boulevard adjacent to the approved LRT alignment and would not displace commercial uses beyond those already displaced by the alignment.

Loss of Parking/Access. 20 off-street parking spaces might be affected near the SE Harold Street/SE McLoughlin Boulevard intersection on property owned by Union Pacific Transportation Company; however, occupancy in this lot would remain below 50 percent with the impact. The affected parking spaces are associated with the previously approved alignment.

Tax Base. The Harold Station would not have adverse impacts on the local tax base because of the small footprint of the station and avoidance of displacements.

Freight Movement. The Harold Station would not have adverse impacts on truck or rail freight movement. SE McLoughlin Boulevard is classified as a freight route in the City of Portland Transportation System Plan. Although there will be some disruption during construction of the Harold Station, there will be no long-term impacts to trucking on SE McLoughlin Boulevard. The LRT route will generally parallel the UP rail line through the McLoughlin Boulevard Section. However, construction of the Harold Station will not affect freight rail or switching movements.

Social Impacts

Residential Displacements. There will be no residential displacements or displacement of residential access for the Harold Station.

Access to Community Facilities. The Harold Station will improve transit access to community facilities within the affected neighborhoods, particularly Reed College. The Harold Station will also improve accessibility by residents of the affected neighborhoods to regional employment and recreational facilities.

Barriers to Neighborhood Interaction. The Harold Station will not result in barriers to social interaction or neighborhood cohesion in the McLoughlin Boulevard Section. McLoughlin Boulevard and the UP rail line currently form the boundary between several inner-eastside neighborhoods and the LRT route and location of the Harold Station will reinforce existing boundaries.

Safety and Security. The Council is sensitive to safety and security concerns at light rail stations. Transit users are more vulnerable in areas with less activity and/or lower visibility. The Harold Station will include standard safety and security features such as lighting, platform telephones, and appropriate landscaping. The precise location of the station, and the design of the pedestrian access, will ensure consideration of visibility from nearby roadways. Additionally, the existing traffic signal in proximity to the Harold Station provides the opportunity for a safe pedestrian crossing from neighborhoods west of SE McLoughlin Boulevard to the Harold Station. Potential mitigation measures to promote safety and security concerns are identified in the *Draft Safety and Security Task Force Report*.

Visual/Aesthetic. The McLoughlin Boulevard Section contains dominant visual features adjacent to the roadway, including Westmoreland Park and Eastmoreland Golf Courses. Other important visual features include a continuous row of mature deciduous canopy trees bordering both sides of SE McLoughlin Boulevard between the Tacoma Street and the Bybee Boulevard overpasses. The Harold Station will be located north of these open space areas and will blend in with the existing scale and linear character of the road corridor.

Traffic Impacts

SE McLoughlin (Oregon Highway 99E) provides south-north regional access through the Portland metropolitan area. SE McLoughlin Boulevard is classified as a Major Arterial and is generally posted for 45 mph speeds. On-street parking is not permitted on SE McLoughlin Boulevard. No traffic impacts have been identified for the Harold Station in the SDEIS.

Pedestrian and bicycle access to the Harold Station should be adequate, with the existing signalized crossing in the vicinity of the station. Rider activity in the vicinity of the Harold Station could potentially result in limited park-and-ride activity on the adjacent street system. Data indicates that on the existing MAX system, the typical rider walks up to one-quarter mile to reach the train, while another 25 percent of the riders walk up to one-half mile. If monitoring illustrates parking problems and/or neighborhood traffic intrusion associated with this station location, the Council finds that traffic management strategies such as a parking permit program can be considered to address identified problems.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

Table 3.2-1 of the SDEIS indicates that there were 1,703 households within one-half mile of the Harold Station in 2005, with a modest 5 percent increase in households projected by 2030. The same table shows a more substantial change in jobs, with 3,072 jobs within one-mile of the station in 2005, projected to increase to 3,685 jobs in 2030.

Overall, the Council finds that the Harold Station would have minimal adverse impacts on the affected neighborhoods and could result in positive economic and social impacts because the station would improve proximity of service to established residential neighborhoods and Reed College that could enhance transit ridership and reinforce a compact and efficient urban form.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect the affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the McLoughlin Boulevard Section.

6.4.3 Milwaukie Town Center Section (SE Tacoma Street to SE Park Avenue)

6.4.3.1 Description of Light Rail and Highway Improvements

The Milwaukie Town Center Section of the Portland-Milwaukie Segment includes the following LRT-related facilities:

- An alignment that extends from SE Tacoma Street through downtown Milwaukie to the terminus at SE Park Avenue in Clackamas County.
- Three LRT stations in this Section are located south of SE Tacoma Street, in the vicinity of SE Lake Road, and near SE Park Avenue.
- Three park-and-ride lots in this Section are located south of SE Tacoma Street, in the vicinity of SE McLoughlin Boulevard and SE Washington Street, and near SE Park Avenue.

See **Figures 1.6 to 1.9** attached as Exhibit A to Resolution No 08-3964 for the LUFO boundaries for the Milwaukie Town Center Section.

Light Rail Alignment

A short distance south of SE Tacoma Street, the light rail route curves south and east from SE McLoughlin Boulevard to the west side of the UP Main Line, where it heads southward under the Springwater Trail bridge and then onto an elevated structure which extends over the Portland and Western railroad tracks and associated spur tracks before returning to grade level on the east side of the Portland and Western railroad tracks north of Highway 224. From here, the alignment continues southward under Highway 224 and into downtown Milwaukie along the east side of the railroad right of way to Kellogg Lake. The alignment crosses over Kellogg Lake and then crosses SE McLoughlin Boulevard on an elevated structure. West of SE McLoughlin Boulevard, the alignment curves towards the southeast and parallels SE McLoughlin Boulevard to its terminus at SE Park Avenue.

Light Rail Stations

Three light rail stations are provided in the Milwaukie Town Center Section, each of them associated with a park-and-ride lot. Table 3.2-1 of the SDEIS summarizes estimated population and employment within one-half mile of each station location for the years 2005 and 2030.

Tacoma Station. The Tacoma Station is located at the Tacoma Street Park-and-Ride lot on the south side of the Tacoma Street Overpass. Land uses in the vicinity include commercial and industrial uses fronting on McLoughlin and the railroad, transitioning to residential uses further away from the transportation corridor. In 2005, there were 1,608 households and 1,610 jobs within a one-half mile radius of the Tacoma Station. By 2030, households in this station area are projected to increase to 1,730 (+8%) and jobs are projected to increase to 2,196 (+36%).

Lake Road Station. The Lake Road Station is located at the south end of downtown Milwaukie and north of Kellogg Lake. Land uses in the vicinity include retail uses, community facilities and residential neighborhoods. In 2005, there were 1,268 households and 1,983 jobs with a one-half mile radius of the Lake Road Station. By 2030, households in this station area are projected to increase to 1,987 (+57%) and jobs are projected to increase to 2,733 (+38%).

Park Avenue Station. The Park Avenue Station is located at the southern terminus of the Portland-Milwaukie Segment, to the west side of SE McLoughlin Boulevard and north of SE Park Avenue. Land uses in the vicinity include retail uses, community facilities and single and multi-family housing. In 2005, there were 1,796 households and 830 jobs within a one-half mile radius of the Park Avenue Station. By 2030, households in this station area are projected to increase to 1,873 (+4%) and jobs are projected to increase to 1,368 (+65%).

Park Park-and-Ride Lots

There are three park-and-ride lots provided in the Milwaukie Town Center Section.

Tacoma Park-and-Ride. The Tacoma park-and-ride will accommodate from 600-1,000 spaces in a parking structure of 2-4 floors. The park-and-ride is located north of the Springwater Corridor and south of the SE Tacoma Street Overpass, between SE McLoughlin Boulevard and the UPRR main line. There are two automobile accesses to the park-and-ride. The primary access would be at the signalized intersection on SE Tacoma Street and the McLoughlin (99E) Ramp/Park and Ride Driveway (formerly the Goodwill Driveway). This intersection and ramp already exist. The second access location is a right in/right out access on SE McLoughlin Boulevard. This access is a shared right in/right out with the Pendleton Woolen Mills property.

McLoughlin/Washington Park-and-Ride. The McLoughlin/Washington park-and-ride will accommodate approximately 275 spaces in a parking structure of 3-4 floors. The park-and-ride is located at the south end of downtown Milwaukie and is bounded by SE McLoughlin Boulevard, SE Washington Street and SE Main Street. There are two automobile accesses to the park-and-ride: a right in/right out mid-block access location on SE Washington Street and a full access on SE Main Street.

Park Avenue Park-and-Ride. The Park Avenue park-and-ride will accommodate about 1,000 spaces in a structure of 5 floors. The park-and-ride is located to the west of SE McLoughlin Boulevard and south of SE Park Avenue. There are two automobile accesses to the park-and-ride. The major access is at a new signalized intersection at SE Park Avenue and SE 27th Avenue. The second access is a right in/right out on SE McLoughlin Boulevard south of SE Park Avenue.

Operations and Maintenance Facilities

There are no operations and maintenance facilities located in the Milwaukie Town Center Section. LUFO findings to address expansion of the Ruby Junction Maintenance Facility (located in the city of Gresham) are provided in Section 6.5 of these findings.

Highway Improvements

There are no highway improvements in the Milwaukie Town Center Section.

6.4.3.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods in the Milwaukie Town Center Section

Extending from SE Tacoma Street on the north to SE Park Avenue on the south, the Milwaukie Town Center Section affects four neighborhoods within the City of Milwaukie and one neighborhood within unincorporated Clackamas County: Ardenwald, McLoughlin Industrial, Historic Milwaukie, Island Station and Oak Lodge, respectively. A brief description of each neighborhood is presented below. More detailed neighborhood information is included in the *Community Impact Assessment Results Report,* March 2008.

The northern boundary of the *Ardenwald Neighborhood* is Johnson Creek and the southern boundary (in the LRT project area) is SE Sherrett Street. South of the Springwater Corridor Trail, the UPRR tracks provide a barrier to east-west connections. The neighborhood is composed almost exclusively of single family homes built after World War II. The street pattern within this neighborhood is irregular, with mostly east-west street connections. The only significant employment center in the Ardenwald

Neighborhood is Providence Milwaukie Hospital. Other community facilities within the neighborhood include Ardenwald Elementary and the City of Milwaukie's Public Safety Building.

In 2000, the Ardenwald neighborhood was home to an estimated 4,455 residents and 1,861 households. The proportion of elderly residents and households with incomes below the poverty level is greater in this neighborhood than in Clackamas County or the region. In 2000, Ardenwald supported 1,860 jobs, a relatively low number compared to other area neighborhoods.

The *McLoughlin Industrial Neighborhood* is bounded by the UPRR Tillamook Branch Line to the east, SE McLoughlin Boulevard to the west and Highway 224 to the south. SE Main Street is a focal point because it provides north-south circulation and access to the neighborhood. The neighborhood includes active heavy industrial and outdoor storage uses and vacant industrial sites. No community facilities are located in this neighborhood. The 2000 Census identified only 158 residents and 23 households within this neighborhood, a reflection of the predominant industrial uses.

The *Historic Milwaukie Neighborhood* contains the downtown core of Milwaukie. Land uses in the downtown area include low-scale commercial uses surrounded by older, established residential neighborhoods with grid streets. Significant community facilities in the neighborhood include Milwaukie City Hall, Ledding Library, Scott Park, Milwaukie Transit Center, and several schools and churches.

In 2000, the Historic Milwaukie Neighborhood was home to 1,941 residents and 1,089 households. A higher proportion of residents were elderly than the regional norm. The proportion of households below the poverty level was 5.7 percent, below both the Clackamas County and regional averages.

The *Island Station Neighborhood* is bounded by the confluence of Kellogg Creek and the Willamette River to the north, SE Lark Street to the south, SE McLoughlin Boulevard to the east, and the Willamette River to the west. SE River Road is the main north-south street in the neighborhood. Roads access SE McLoughlin Boulevard at irregular angles.

The neighborhood is largely developed with single-family homes with a small commercial node at SE River Road. Newer multi-family dwellings are located to the east of SE McLoughlin Boulevard. The main community facility close to the LRT alignment in this neighborhood is the Milwaukie Grange.

In 2000, Island Station was home to 873 people and 417 households. Fewer than 5 percent of Island Station's households had incomes below the poverty level, one of the lowest poverty rates in the Portland-Milwaukie LRT Project area.

The *Oak Lodge Neighborhood* within unincorporated Clackamas County is bounded by SE Lark Street to the north, the Willamette River to the west, and SE Aldercrest Road to

the east. The southern boundary is SE Park Avenue, where the light rail alignment terminates.

Oak Lodge is dominated by single-family homes, with larger-scale and convenience commercial business along major streets. Three large retirement facilities in the neighborhood include Rose Villa, Willamette View and Vineyard Place. The nearest community facility in this neighborhood is the Elks Lodge. Other community facilities more than ½ mile from the LRT alignment but in the neighborhood include Oak Grove Elementary and Rowe Middle School.

In 2000, the Oak Lodge neighborhood was home to 22,814 people and 9,466 households. A higher percentage of neighborhood residents are elderly compared with the county and region. At 6.1 percent, Oak Lodge's poverty rate was equivalent to the Clackamas County average and below the regional average. With 9,428 jobs in 2000, Oak Lodge exhibited a higher jobs-to-housing balance than the majority of study area neighborhoods.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the affected neighborhoods in the Milwaukie Town Center Section are addressed below. Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economy Results Report (Land Use Report),* the *Community Impact Assessment Results Report (Community Impact Report), Acquisitions and Displacements Results Report (Displacements Report), Visual Quality and Aesthetics Results Report (Visual Report),* and the *Local Traffic Impact Results Report (Traffic Report).*

Economic Impacts

Economic impacts include business displacements, loss of parking or access, impacts to the local tax base, and impacts to efficient freight movement.

Displacements. In every instance where the Portland-Milwaukie Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Even though the adverse impacts associated with displacement may not be significant on a regional or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and neighborhood level. Adverse economic impacts associated with displacements include the loss of employment and payroll, loss of retail services, and loss of assessed value and tax base associated with the business.

Appendix G of the SDEIS presents the likely property acquisitions in the Milwaukie Town Center Section based on the current conceptual designs. It is important to note that the list of acquisitions should not be interpreted as the final determination regarding property acquisition and the list could be updated as the Project design is further refined.

As shown in Figures G.1-14 and G.1-15 of the SDEIS, the light rail alignment, stations and park-and-rides would displace seven businesses in the Milwaukie Town Center Section. The majority of the displacements are associated with the extension to SE Park Avenue. Partial acquisitions for the extension to Park Avenue would include an additional 15 tax lots, including tax lots belonging to the North Clackamas Park and Recreation District, the City of Milwaukie, the Oak Lodge Sanitary District, and several single family tax lots.

Adverse economic impacts associated with the displacements include the loss of employment and payroll, loss of retail services, and loss of assessed value and tax base associated with the business. The LRT alignment, stations and park-and-ride lots will be in public ownership and off the tax rolls.

By aligning light rail with the Tillamook Branch Railroad, business displacements have been reduced in the area between SE Tacoma Street and Highway 224 relative to the LRT alignment approved in the 1998 LUFO. Additionally, business displacements in downtown Milwaukie are avoided or minimized with the LRT alignment that parallels the Tillamook Branch Railroad. The Park Avenue extension, station and park-and-ride could result in 7-10 partial or full displacements south of Lake Road.

In terms of mitigation, displaced commercial uses will be acquired at fair market value, and relocation benefits will be provided to business owners and tenants as required by law. During the preliminary and final engineering processes, staff will try to minimize displacement impacts to the extent practicable through design refinements. In addition, the increased accessibility provided to people and places by LRT will likely result in increased sales and property values to remaining businesses which could mitigate or even reverse any overall business losses directly due to construction of the light rail system.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the Project must remove an existing access, and if no reasonable access remains, then the entire business is assumed to be displaced.

The Tillamook Branch Line alignment has no impact on parking spaces (on or off-street) from SE Tacoma Street to Highway 224. From Highway 224 to SE Park Avenue, approximately six on-street parking spaces would be removed from the west side of SE 21st Avenue, south of SE Adams Street. On-street parking spaces would also be removed from the light rail crossing points on SE Monroe Street and SE Washington Street. Off-street parking impacts in this area would result from the addition of the LRT tracks parallel to the existing freight rail tracks through downtown Milwaukie. All of the off-street parking (34 spaces) that would be lost are located between SE Harrison and SE Washington Streets. These parking spaces are owned and managed by the City of Milwaukie as long-term parking spaces. Potential mitigation for the displaced off-street parking on SE Main Street could include replacement parking with a surface lot.

Table 4.1-2 of the SDEIS summarizes existing on-street parking spaces and utilization (%) within 1,000 of each LRT station in the Milwaukie Town Center Section. Table 4.1-

2 indicates that 231 on-street parking spaces are available within 1,000 feet of the Lake Road Station, with a current utilization of 50%. 119 on-street parking spaces are available within 1,000 feet of the Park Avenue Station, with a current utilization of 17%. There is no on-street parking available within 1,000 feet of the Tacoma Station, primarily because of the barriers of McLoughlin Boulevard, the Tacoma Overpass and the Railroad.

The SDEIS concludes that there appears to be an adequate supply of on-street and off-street parking in the Milwaukie Town Center Section to accommodate displaced parking. Other parking mitigation strategies that could be implemented if parking supply were to become over-utilized once the Project is in place include replacement of off-street and on-street parking, parking management strategies, and/or parking restrictions. TriMet would work with the affected neighborhoods and/or local jurisdiction to determine the appropriate parking mitigation strategy, if needed.

Tax Base. The LRT route in the Milwaukie Town Center Section will minimize impacts on the tax base because it will largely parallel an established rail corridor and minimize displacements of private properties. The Tacoma station and park-and-ride lot will not displace any businesses but is located on currently vacant property owned by Oregon Worsted Co. The Park Avenue Station and park-and-ride lot will potentially displace approximately 5 businesses and one residential property. All but a small portion of the McLoughlin/Washington park-and-ride lot property is already owned by the City of Milwaukie. No companies enrolled in the North Clackamas County Enterprise Zone program are in the impact area of the alignment. The Council also finds that properties near light rail stations in the Milwaukie Town Center Section will likely experience an increase in value when the Project is completed, thereby increasing property tax revenue in the long term to balance short-term adverse impacts.

Freight Movement. Efficient movement of freight and goods throughout the Portland-Milwaukie Project Corridor is critical to the economic vitality of the region. Details about railroad and truck activity in the various subareas of the Milwaukie Town Center Section can be found in the *Traffic Report.* Existing railroad lines within the Portland-Milwaukie Project Corridor are owned by UPRR, East Portland Traction Company, Oregon Pacific Railroad (OPR), and Portland and Western Railroad Company.

The Tillamook Branch LRT alignment in the North Industrial area of Milwaukie would require shortening the Unisource Spur. This would reduce the rail car storage in the area and eliminate potential rail service to the southernmost building within the adjacent industrial park.

As described in Section 4.1.7 of the SDEIS, the intersections of SE McLoughlin Boulevard/SE Ochoco Street and SE Main/Milport have high levels of truck freight activity in the Milwaukie Town Center Section. Potential impact to freight operations could result from disruptions during gate closures at LRT crossing points. However, by using the Tillamook Branch alignment, gated crossings in the North Industrial area are avoided and adverse impacts on freight movement are reduced relative to the 2003 LPA.

Conclusions. The Council finds that, on balance, the Portland-Milwaukie Project will result in positive economic consequences in the Ardenwald, McLoughlin Industrial, Historic Milwaukie, Island Station and Oak Lodge neighborhoods in the Milwaukie Town Center Section, particularly because improved transit capacity and new transit connections will be available to support existing and planned development in Downtown Milwaukie consistent with local plans. Residents and businesses in the affected neighborhoods will have improved access to the regional rail transit system, which offers convenient travel and connections to regional centers offering employment, education, entertainment, recreation and public services.

The improved access, along with higher levels of activity in station areas, could support and encourage new development, particularly in downtown Milwaukie, consistent with the vision articulated in the Milwaukie Downtown and Riverfront Plan.

The Council also finds that the Project would result in short-term economic benefits with the increase in employment resulting from the construction of the LRT facilities in the Milwaukie Town Center Section. The Oak Lodge Sanitary District has raised issues related to the poor condition of culvert pipes over Courtney Springs Creek that could create problems in the siting of the Park Avenue terminus and park and ride. The Council finds that issues associated with utilities will be explored during preliminary engineering and final design and that potential mitigation for the District's concerns would be the outcome of that process. Potential mitigation could result in changes to design or modifications to the culverted pipes to Courtney Springs Creek.

Based on the information contained in the SDEIS and supporting results reports, the Council concludes that the LRT improvements in the Milwaukie Town Center Section can be designed to mitigate adverse impacts associated with the displacement of up to seven businesses or properties, and minor impacts on parking and freight movement. Additionally, by shifting to the Tillamook Branch alignment between SE Tacoma Street and Highway 224 as recommended by the Milwaukie Working Group, the Council finds that business displacements and freight impacts have been substantially reduced relative to the 2003 Locally Preferred Alternative in the North Milwaukie Industrial Area.

The Council also notes that TriMet has developed and refined strategies to minimize construction impacts on existing small businesses. When the Interstate MAX was constructed, TriMet worked closely with businesses before, during and after construction. Crews ensured access to businesses and worked in shorter segments to minimize the impact on any one area for an extended period of time. TriMet also provided technical and marketing support to businesses and funded an advertising campaign to attract customers. The Council expects that the Portland-Milwaukie Project would mirror these efforts in Milwaukie and along the entire line.

Social Impacts

Chapter 3.3 of the SDEIS evaluates the potential effects of the light rail alternative on neighborhoods and communities in the Portland-Milwaukie corridor. The analysis of adverse social impacts includes consideration of residential displacements, access to community facilities, barriers to neighborhood interaction, safety and security issues and visual impacts.

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the Portland-Milwaukie Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. It understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the Milwaukie Town Center Section, with the extension to SE Park Avenue in Clackamas County, the LRT improvements could displace up to three residential properties.

It may be possible in some instances to reduce some residential displacements by taking only a portion of a property and/or structure and by modifying the remaining property and/or structure to allow continued occupancy. Where displacements are unavoidable, the Project will provide compensation for real property and relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program as required by law.

Access to Community Facilities. The Council finds that the Portland-Milwaukie LRT Project will provide improved transit access to community facilities within the Milwaukie Town Center Section and in the larger region. LRT service will be available to several community facilities in downtown Milwaukie, including but not limited to the library, city hall, several schools and churches and the riverfront area. Additionally, the Tacoma station and park-and-ride lot will provide a direct connection to the Springwater Corridor, a multi-purpose regional trail, and the Lake and Park Avenue Stations will provide access to the future Trolley Trail.

Affected residential and industrial neighborhoods in the Milwaukie Town Center Section will also have convenient access to community facilities located adjacent to LRT stations in the larger region, including but not limited to the Portland International Airport, OMSI, Portland State University, the Zoo, the Rose Garden, the Convention Center and the Expo Center. Travel time savings to destinations such as downtown Portland would be substantial compared to bus transit under the No Build Alternative and would be competitive to automobile trips.

The Council finds that improved transit accessibility to community facilities within the affected neighborhoods and in the larger region is especially important to the higher than

average percentage of minority and elderly residents, and households in poverty, residing within ¼ mile of the three light rail stations in the Milwaukie Town Center Section.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment and improvements will not result in barriers to neighborhood interaction in the Milwaukie Town Center Section. The existing railroad corridor functions as a boundary between neighborhoods and following the Tillamook Branch alignment reinforces this edge between the Ardenwald neighborhood and the Milwaukie Industrial Area. There are some residences immediately adjacent to the existing railroad line at the ends of SE Roswell, SE Boyd, and SE Malcolm Streets. The elevated structure for LRT would be visible to some of the homes, but the alignment remains within a separate area dominated by transportation and industrial uses.

Through downtown Milwaukie, LRT will parallel existing freight rail tracks within the Tillamook Branch rail right-of-way. By following this route, existing neighborhood edges are reinforced and fragmentation of neighborhoods avoided. There would be an increase in delays at gated crossings at SE Harrison, SE Monroe, SE Washington and SE Main Streets relative to existing conditions with freight rail trains. While the community has identified concerns about the compatibility of light rail with nearby uses such as Portland Waldorf School and St. John the Baptist Church and School, the SDEIS has not identified impacts that would appreciably degrade access or other conditions at these facilities. Crossings of light rail would be designed to incorporate both active and passive measures to prevent conflicts between trains and pedestrians, bicyclists or motor vehicles.

The LRT extension south of Kellogg Creek to SE Park Avenue would parallel SE McLoughlin Boulevard, a major transportation corridor and existing barrier to neighborhood interaction. The Island Station and unincorporated Clackamas County neighborhood of Oak Lodge would have access to the light rail system via stations at SE Lake Road and SE Park Avenue. Additionally, pedestrian improvements in the vicinity of the LRT stations and SE McLoughlin Boulevard will improve neighborhood access to transit facilities in these neighborhoods and reduce barriers to neighborhood interaction.

Safety and Security. Public safety and security are major considerations in the planning and development of light rail projects. Public involvement efforts for the Portland-Milwaukie Project have highlighted a number of questions and concerns from the community about how safety and security will be managed, including but not limited to:

- Light rail transit station placement and access
- Crime along the light rail corridor and car and bike prowls or theft near stations and park and ride lots
- Livability concerns (drunkenness, loud verbal assaults, nuisance behavior, vandalism and graffiti)
- Ability to promptly respond to 911 calls for assistance
- Lighting at transit stations and park and ride lots

- Vehicular, pedestrian and bike crossings of the light rail alignment (including school children interaction and gated crossings)
- Public perception of safety near parks and trails in proximity to stations

TriMet considers safety and security management an integral part of its mission for developing and operating an effective light rail system and Section 3.16 of the SDEIS addresses safety and security. The agency uses a combination of design, public education, and operations measures to reduce the potential for crime and to minimize potential conflicts among trains, people, and other vehicles. The agency also has an established transit rider security program that combines TriMet enforcement officers, fare inspectors and security officers with public safety resources from other jurisdictions.

TriMet's Transit Police Division (TPD) is a special unit within the Portland Police Bureau and is made up of contracted law enforcement officers from other police agencies in the region. To provide more focused deployment and presence, Eastside and Westside precincts have been established recently with offices in Gresham and Hillsboro. The TPD is currently being increased from 36 to 41 sworn officers and staffing will increase by another 10 percent with the opening of the I-205 LRT Project. With the proposed operation of two light rail lines in Clackamas County in upcoming years, a South precinct is also likely.

Table 3.16-1 of the SDEIS shows City of Portland, City of Milwaukie and Clackamas County crime statistics for the neighborhoods affected by the LRT Project from January – June 2007. Property crimes and misdemeanors reported near the Ardenwald neighborhood (97 total) make up the majority of total crimes within the Milwaukie Town Center Section (portions of the neighborhood are within the City of Portland). There were relatively few total crimes reported in the McLoughlin Industrial (8), Historic Milwaukie (17) or Island Station (12) neighborhoods in the City of Milwaukie.

Clackamas County crime statistics are reported at the district level and are not available at the neighborhood level. Property crimes make up over 70 percent of the total crime for the three categories of reported crime (2,055) in the 99E patrol district, which includes the Oak Grove and Oak Lodge neighborhoods.

Based on TriMet experience with its existing system and on national information, crime levels along light rail project corridors are typically closely related to the existing crime conditions that prevail in the surrounding community. Light rail stations are places that attract people and can be a place where incidents occur. Similarly, vehicles at a park and ride can be a potential target for vandalism and theft.

The Tacoma Station and Park-and-Ride would be located in an area that is currently largely industrial, although residential areas are located to the east. While SE McLoughlin Boulevard and SE Tacoma Street are busy roadways, activity levels in the area surrounding the Tacoma Station are relatively low outside of daytime hours. As with other park-and-rides in the MAX system, the Tacoma Station and Park-and-Ride would be designed to maximize visibility, provide for safe and convenient access for

patrons, and reduce potential property loss or damage to parked vehicles.[12] Other potential measures to enhance safety and security at Tacoma Station and other stations could include access controls, the use of CCTV cameras at stations and park and ride lots, further increasing the size of TriMet's transit police and fare inspector forces, and frequent security patrols. Additional potential measures are listed in the *Draft Safety and Security Task Force Report*.

The Lake Road Station and McLoughlin/Washington Park-and-Ride would be located at the south end of downtown Milwaukie in a neighborhood with a relatively low incidence of crime. The station would be located adjacent to existing streets and in areas that afford good visibility. The station and the gated crossings for light rail would incorporate a combination of design, education and operating measures to minimize potential safety concerns to students and others who may access light rail or cross the corridor. As described in the *Draft Safety and Security Task Force Report*, this could include best practices for constructing rail near schools, using fencing, lighting and signage to keep light rail riders from crossing school grounds to reach destinations, and outreach and education programs targeted directly to students and community members to help them understand light rail operations and safety issues.

Some members of the Milwaukie community have expressed concerns about the proximity of the light rail alignment and station locations to elementary schools in downtown Milwaukie. The Council finds that the only light rail station located in downtown Milwaukie is at Lake Road. It further finds that the Lake Road station is located the farthest from the elementary schools compared to the other alternative station sites in downtown Milwaukie that were studied in the SDEIS.

The presence of light rail stations in the Milwaukie Town Center Section would increase overall activity levels on streets and public areas in the vicinity of the stations. Potential for trespass would be discouraged with signage, landscaping or other measures at access points to or from the light rail stations. Station access would be oriented to existing streets and sidewalks and all grade crossings will be gated and clearly designated. The LRT alignment and stations would also feature physical barriers to prevent patrons from crossing directly across the track or onto school grounds, and these barriers would also prevent children from crossing onto the tracks from school grounds.

The Park Avenue Station and Park-and-Ride would be in an area that is highly visible and accessible by existing streets. No unique public safety considerations are anticipated or described in the SDEIS for this station.

Visual/Aesthetic. As described in Section 3.4 of the SDEIS, SE McLoughlin Boulevard is a major feature of the Milwaukie Town Center Section, and it marks the boundaries between neighborhoods. South of the Tacoma Street Overpass, development in the McLoughlin Industrial neighborhood is generally composed of a loose-knit pattern of

[12] The use of Crime Prevention Through Environmental Design (CPTED) principles is part of TriMet's practices and policies.

rail-oriented industrial uses, with much of the area featuring large-scale buildings. Established single-family neighborhoods sit on a hill, overlooking the corridor.

Distinct visual boundaries define the historic downtown area of Milwaukie, including the Willamette River on the west, Highway 224 to the north and east and Kellogg Lake to the south. Milwaukie's downtown area is a small town neighborhood that possesses a distinct visual character because of its commercial, office and civic blocks surrounded by old houses and apartments on tree-lined, narrow streets. The strong physical connection between downtown and the surrounding residential areas, the natural topography, and the presence of several dominant community features such as City Hall, Scott Park, St. John the Baptist Catholic Church, the Portland Waldorf School, Milwaukie High School, and the Ledding Library make the Historic Milwaukie neighborhood district the visual center of this community.

South of Kellogg Creek to the terminus at SE Park Avenue, the McLoughlin Boulevard corridor is a dominant visual element. To the north is a view of the Willamette River; to the south the dominant land feature is a ridge that slopes down to the Willamette River on the west. The LRT alignment passes areas lined with trees and other vegetation until it reaches an area of low-density commercial buildings set back from the street with parking in front.

Table 3.4-2 summarizes potential visual impacts of the Portland-Milwaukie Project on the affected neighborhoods. In the Ardenwald neighborhood, the raised structure for the LRT alignment to the east side of the Tillamook Branch would be similar in scale to industrial/area features, but would result in a high degree of visual change for selected residential streets looking west such as Roswell Street.

Visual impacts on the McLoughlin Industrial neighborhood would be low-moderate because the elevated transition to cross the rail tracks would be similar in scale to existing industrial/rail area features.

In the Historic Milwaukie neighborhood, visual changes would include new rails and overhead catenary system, a new station, a multistory park-and-ride, retaining walls and building removal. Viewer sensitivity is high and the overall degree of change plus viewer sensitivity is moderate-high.

In the Island Station and Oak Lodge neighborhoods, visual changes would include an elevated crossing of SE McLoughlin Boulevard, partly beside an existing rail trestle over Kellogg Creek. Other visual changes would include a new station with multi-story parking, building and tree removal and intersection improvements. Overall visual impacts are considered moderate-high.

Given the types of visual impacts identified, important goals for mitigation of the visual impacts include the following:

- Develop the alignment and other Project-related facilities consistent with neighborhood pattern and scale.
- Use Project-related facilities to integrate vacant or unused areas into the neighborhood or to improve the visual character of neighborhood areas along alignment routes.
- Buffer or reduce the loss of visual resources.
- Reduce obstructions or limitations to designated views, view corridors, viewpoints, and important neighborhood features affected by the alignment.

Conclusions. The Council finds that the social impacts of the Portland-Milwaukie Project are generally positive in the affected Ardenwald, McLoughlin Industrial, Historic Milwaukie, Island Station neighborhoods in Milwaukie and the Oak Lodge neighborhood in unincorporated Clackamas County. Efforts have been taken to minimize displacements and the LRT improvements will be integrated with the built and planned urban environment. Light rail will provide an important component of the infrastructure to support additional development in downtown Milwaukie, consistent with adopted local plans. Residents and businesses in the Milwaukie Town Center Section will have important new transit connections to a range of important destinations throughout the region, including the Airport, Convention Center, Rose Garden, Expo Center, OMSI, Zoo, and Portland State University.

Improved transit access to employment centers and services would benefit lower income and elderly residents who may have more limited alternatives to driving and are generally more dependent on availability of transit to access employment centers and services.

Availability of light rail to the Milwaukie Town Center Section would provide an alternative mode to automobile travel on the often-congested SE McLoughlin Boulevard. The improved transit access, along with higher levels of activity in station areas, could encourage redevelopment and new services, potentially increase property values, and maintain or enhance the viability of neighborhoods in the Milwaukie Town Center Section.

Relative to safety and security impacts, the Metro Council acknowledges and supports TriMet's continuing efforts to improve passenger and community safety throughout its service area. The public involvement for this project has featured a Safety and Security Task Force and most of the Task Force mitigation suggestions are addressed in TriMet's current practices and policies for security along the existing system. TriMet is committed to making continued improvements to help maintain a safe and effective transit system as suggested by the Safety and Security Task Force and the Council supports consideration of other suggestions during the FEIS and design and construction of the Portland-Milwaukie Project or as part of system-wide safety and security improvements.

Relative to visual impacts, the Council finds that the elevated alignment north of Highway 224, the park-and-ride structures and the elevated crossing over SE McLoughlin Boulevard will be the defining visual elements within the Milwaukie Town Center Section. The Council finds that adverse visual effects can be mitigated through careful coordination with the affected neighborhoods and jurisdictions through the FEIS process.

Traffic Impacts

Section 4.2.3 of the SDEIS evaluates the impacts to the highway and street network for the project alternatives and design options.

Major roadways within the Milwaukie Town Center Section include SE McLoughlin Boulevard, SE Johnson Creek Boulevard, Highway 224, SE 17th Avenue and SE Monroe, SE Harrison and SE Main Streets.

The discussion of traffic impacts for Milwaukie Town Center Section is divided into two subareas in the SDEIS. Subarea C describes impacts for the area from SE Tacoma Street to Highway 224 and Subarea D describes impacts for the area from Highway 224 to SE Park Avenue.

The intersection of SE Johnson Creek Boulevard/SE 32nd Avenue meets signal warrants today, and would continue to meet P.M. peak hour signal warrants in the future without the proposed Project. A signal alone would not allow for adequate operations and additional capacity would be necessary to reduce potential delay. The addition of park and ride related trips increases delay at this intersection beyond 10 seconds of delay (when compared with the No Build Alternative with potential improvements) and triggers the need for the Project to provide mitigation. With the Tillamook Alignment and the extension to Park Avenue, the Project would contribute about 12 percent of the motor vehicle traffic at this intersection. Potential mitigation would include signalizing the intersection, adding a westbound right turn pocket of 100 feet and adding a northbound right turn pocket of 100 feet.

The Tillamook Branch alignment would not require any gated crossings in the area from SE Tacoma Street and Highway 224 and would not affect motor vehicle or freight operations. Additionally, the Tillamook Branch alignment would avoid impacts and the need for mitigation at the intersection of SE McLoughlin Boulevard/SE Milport Road that had been associated with the 2003 LPA.

For the area from Highway 224 to SE Park Avenue, five intersections do not meet jurisdictional performance standards under the No Build Alternative, and one other intersection shows the potential for queuing.

Volumes along SE McLoughlin Boulevard are projected to increase under the No Build Alternative, using much of the intersection capacity along this corridor and creating new demand-to-capacity constraints. This affects intersections of SE McLoughlin Boulevard with SE Harrison Street, SE Sparrow Street, SE Washington Street, and SE Park Avenue.

In addition to locations along SE McLoughlin Boulevard, the intersection of SE Harrison Street/SE 21st Avenue also has delay constraints under the No Build Alternative.

The following intersections in the Milwaukie Town Center Section have more complex operations:

- SE Harrison Street/LRT Crossing – the LRT crossing at SE Harrison Street could back up vehicles that block the driveway of the Spring Creek apartments when the crossing gates are down. The Spring Creek apartments have alternative access on SE Monroe Street.
- SE McLoughlin Boulevard/SE Washington Street – westbound queuing at this intersection would be present under the No Build Alternative and would continue to present ingress/egress blockage for the McLoughlin/Washington park-and-ride access. Additional capacity at this intersection and/or the potential to reallocate signal timing through different phasing or shifting of green time from the mainline (SE McLoughlin Boulevard) to the side street (SE Washington Street) is needed. In order to reallocate green time, a signal progression analysis would need to be approved by ODOT to show the mainline operations would not be impacted.
- Lake Road park-and-ride – proposed access points for the park-and-ride on SE Washington Street are blocked from left turn egress due to queuing on SE Washington Street. Relocation of the park-and-ride access to SE Main Street would allow for egress from the park-and-ride. Access on SE Washington Street could remain as a right-in/right-out driveway to minimize inbound out of direction travel from SE McLoughlin Boulevard.

Additionally, new gated crossings would add approximately 50 seconds of delay per LRT crossing for eastbound/westbound travel along SE Harrison Street, SE Monroe Street, and SE Washington Street in downtown Milwaukie.

Conclusions. The Council finds that the following potential strategies summarized in Tables 4.2-20, 4.2-21 and 4.2-22 of the SDEIS can mitigate adverse traffic impacts in the Milwaukie Town Center Section:

- SE 32nd Avenue/SE Johnson Creek Boulevard: Add westbound right turn pocket of 100 feet, add northbound right turn pocket of 100 feet and signalize intersection to achieve Level of Service D.
- Tacoma Park-and-Ride south access: Consolidate business access south of park-and-ride to achieve 900 foot access spacing.
- SE McLoughlin Boulevard/SE Sparrow Street: The current design indicates closure; however, the intersection could operate within jurisdictional standard as right-in/right-out, but would create some out of direction travel.
- SE McLoughlin Boulevard/SE Park Avenue: Add eastbound left turn lane, add westbound left turn lane, add southbound right turn lane and implement Traffic Demand Management strategies to achieve a volume to capacity ratio of 0.99.

The Council finds that the grade separated crossing of SE McLoughlin Boulevard south of downtown Milwaukie avoids the complex traffic impacts and mitigation requirements that would be required for an at-grade crossing. ODOT has raised significant concerns regarding an at-grade crossing of SE McLoughlin Boulevard.

Additionally, the Council finds that several mitigation measures could be explored to minimize construction traffic impacts. The following is a list of some potential construction mitigation measures, and will be refined as the Project advances:

- During construction, affected transit stops would be temporarily relocated to the nearest possible location on the same transit route.
- During construction, temporary sidewalks and/or pathways would be provided to replace any sidewalks and/or trails adjacent to the Project that are affected by construction.
- To minimize truck excavation trips to/from the Project corridor, efforts should be made to recycle as much of the excavated earth from the Project sites as possible.
- A public outreach program would be developed to inform local residents and businesses of potential delays and impacts to the local street network due to temporary construction.
- To help minimize on-street parking impacts, temporary parking should be identified to mitigate the temporary loss of on-street parking due to construction.
- Staging areas should be identified along with alignment to help minimize the impact of materials and/or equipment intruding into surrounding residential/commercial areas.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The light rail route and associated facilities in the Milwaukie Town Center Section are largely located adjacent to the established Tillamook Branch rail line corridor, thus avoiding displacement and adverse impacts that would have resulted from a separate LRT right-of-way through neighborhoods.

Overall, neighborhood impacts are positive. Positive impacts include increased transit accessibility to local and regional jobs and community facilities, decreased congestion on SE McLoughlin Boulevard relative to the No Build Alternative, and opportunity for new development at the south end of downtown Milwaukie that is envisioned in adopted local plans. Where park-and-rides do create additional congestion at specific intersections, the light rail project will be required to make improvements to mitigate that congestion (like extra turn lanes or traffic signals to improve flow).

The Council recognizes and supports the extensive public outreach efforts in Milwaukie that led to the Working Group recommendation to support the Tillamook Branch

alignment. The Working Group involved the efforts of more than 40 Milwaukie business and neighborhood leaders. In response to concerns of several Downtown stakeholders, the Working Group more closely examined alternative Downtown alignments that might use McLoughlin Boulevard and/or Main Street and/or 21st Avenue. After consideration, the Milwaukie Planning Commission and City Council reaffirmed local support of the Tillamook Branch alignment.

The Council believes that the LRT route and stations in the Milwaukie Town Center Section provide an opportunity to support and leverage the development of an efficient and compact urban form as outlined in the *Regional 2040 Growth Concept*, thereby saving energy, reducing congestion and improving air quality. The City of Milwaukie has adopted a Downtown & Riverfront Plan to guide development in the Milwaukie Town Center and the availability of LRT will support the zoning and densities established in the local plans. The alignment and stations support employment and public uses in the downtown area without disrupting the established central business district in downtown Milwaukie.

Traffic studies document that all roads and intersections in the Milwaukie Town Center Section are projected to operate within acceptable levels of service with mitigation. Mitigation strategies for traffic and other impacts will be further evaluated in the FEIS and through the local permitting process. During preliminary and final engineering and throughout the FEIS and local permitting processes, coordination with the City of Milwaukie and Clackamas County will be maintained.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the Milwaukie Town Center Section. Modest roadway improvements are proposed as mitigation for traffic impacts associated with the LRT facilities in this Section. These improvements are described in the discussion of traffic impacts for the Milwaukie Town Center Section and in the *Traffic Report.*

6.4.3.3 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

Noise and vibration impacts specific to the Milwaukie Town Center Section are addressed in the following Section. An overview of noise and vibration measurements and identification of potential mitigation for noise and vibration impacts is included in the *Noise and Vibration Results Report (Noise Report).*

Identification of Noise and Vibration Impacts in the Milwaukie Town Center Section

As noted under the Criterion 3 findings for this Section, existing land uses in the Milwaukie Town Center Section include residential, commercial, industrial and institutional uses (including schools, parks and churches).

Figure 3.10-4 of the SDEIS identifies 7 noise monitoring sites (M17 – M23) in the Milwaukie Town Center Section. Table 3.10-1 indicates that existing noise levels at these monitoring sites range from 54 dBA to 74 dBA. Major existing noise sources include freight trains and traffic on major arterial roadways.

FTA Noise Impact Criteria group noise-sensitive land uses into the following three categories:

- **Category 1.** Buildings or parks where quiet is an essential element of their purpose.
- **Category 2.** Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.
- **Category 3.** Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, churches, and office buildings and other commercial and industrial land use.

In the Milwaukie Town Center Section, there are noise impacts at two single-family residences just north of SE Harrison Street, where future noise levels are projected to increase by 2dBA over existing levels. Additionally, there are noise impacts at two single-family residences north of the Park Avenue Station along SE 27th Avenue that exceed the noise criteria by 3dBA.

The Waldorf School qualifies as a Category 3 use under the FTA noise impact criteria listed above. Section 3.10 of the SDEIS indicates that light rail noise levels at the Portland Waldorf buildings would range from 54 to 57 dBA. The higher predicted noise levels are at the high school, while lower noise levels are for the main building. The varying noise levels are due to different maximum speeds under different station options. The SDEIS does not identify adverse noise impacts from light rail at either of the Portland Waldorf School buildings because the facility is below the 64 dBA criteria for Category 3 land uses.

The LRT alignment south of Lake Road would increase noise levels along the Trolley Trail. However, the dominant noise source would continue to be heavy trucks and vehicle traffic on SE McLoughlin Boulevard. The FTA criterion for trails is 70 dBA, and the peak-hour noise from light rail operations is projected at 68 dBA.

Noise impacts related to the operation of the Tacoma Street Station and Milwaukie-area stations are not expected to change the existing noise environment more than 1 to 2 dBA. Operation of the 275-space Park and Ride garage on SE Washington Street is not

projected to increase noise by more the 1 dBA in the downtown Milwaukie area. The Park Avenue Station and Park and Ride would shield existing residential areas from bus traffic and passenger vehicles accessing SE McLoughlin Boulevard and no noise impacts are projected in this area either.

Crossing bells are required at all gated crossings, and there is potential for increased noise levels at noise-sensitive properties in the Milwaukie Town Center Section. Typical noise level associated with warning bells range from 75 to 105 dBA at 10 feet. The actual volume for the crossing bells would depend on the existing noise level in the area and would be set as low as safety allows.

The SE Washington Street crossing is shielded from Milwaukie High School and crossing bells are not projected to result in a noise impact there. The Spring Creek Apartments were recently updated with new double-pane windows that should be sufficient to mitigate interior noise levels at these buildings.

The *Noise Report* concludes that noise from the crossing bells is not projected to result in noise impacts inside the classrooms at the Portland Waldorf School. The newer brick Portland Waldorf School building near the SE Harrison Street crossing has a few small, double-pane windows and doors facing toward the tracks. Therefore, noise levels in these classrooms are projected to remain within interior noise standards for institutional land use. In addition, overall noise levels within the classrooms could be reduced if the Federal Railroad Administration (FRA) grants a quiet zone exemption. The gating for the light rail system would meet requirements needed to allow existing freight trains to stop using the on-train warning horns at the at-grade crossing.

FTA also provides criteria for acceptable levels of ground-borne vibration. The *Noise Report* states that the FTA criteria for ground-borne vibration are 72 VdB for Category 2 (residential) structures and 75 VdB for Category 3 (institutional) structures. Table 3.10-4 of the *Noise Report* summarizes light rail vibration levels without mitigation.

Mitigation Options for Noise and Vibration Impacts in the Milwaukie Town Center Section

As required by the FTA, noise and vibration impacts associated with the Project will be considered for mitigation. As Project design continues, slight deviations in track locations or speeds can vary the number and location of noise and vibration impacts. Therefore, during final design, the noise and vibration levels will be reevaluated and mitigation measures revised to meet the final design.

The Council finds that the following general noise and vibration mitigation could be used to reduce or eliminate noise and vibration impacts in the Milwaukie Town Center Section. Possible mitigation measures for reducing noise impacts from light rail are described in Section 3.10.7 of the *Noise Report* and include 1) sound barriers, 2) track lubrication at curves, 3) building sound insulation, and 4) special track work at crossovers and turnouts. Noise impacts under the Tillamook Branch Line alignment could be

mitigated with a sound wall along the elevated structure and the two single-family homes on SE 27th Avenue could also be mitigated with sound walls or sound insulation.

As part of the Project, quad-gates or some other acceptable at-grade safety device could be constructed to potentially qualify the Project for a quiet zone exemption in downtown Milwaukie. With the exemption, the requirement to sound the horn at all at-grade crossings for the LRT and freight trains could be lifted. TriMet will work with the City of Milwaukie, Federal Railroad Administration (FRA) and community members to determine if a quiet zone is appropriate for downtown Milwaukie and whether an application to FRA should be undertaken.

Warning bells would still be required for the gated crossings. There are several types of crossing bells that could be used for the Project. Directional crossing bells with adjustable sound level could be used and set to minimize noise increases at nearby noise sensitive properties.

The Council finds that significant vibration impacts in the Milwaukie Town Center Section could be mitigated with standard techniques such as: 1) ballast mats, 2) resilient fasteners, 3) tire derived aggregate, and/or 4) special track work at crossovers and turnouts.

Based on the information in the *Noise Report*, the Council finds that options are available to mitigate adverse noise and vibration impacts associated with LRT in the Milwaukie Town Center Section. Choices regarding the location and type of mitigation will be determined during the Final Environmental Impact Statement process and will utilize the higher level of design detail associated with the Preliminary Engineering designs. Determinations regarding the location and type of noise and vibration mitigation will include public input from the affected property owners, neighborhood associations and local jurisdictions.

6.4.3.4 Criterion 5: Natural Hazards

"Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or constructions techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural hazard impacts specific to the Milwaukie Town Center Section are addressed in the following Section. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology, Soils, and Seismic Impacts Results Report (Soils Report),* and the *Water Quality and Hydrology Results Report (Hydrology Report).*

Identification of Natural Hazard Areas in the Milwaukie Town Center Section

The *Soils Report* does not identify specific *landslide areas* or *areas of severe erosion potential* in the Milwaukie Town Center Section. The potential for major landslides within the Portland-Milwaukie Segment is very limited because the topography within the corridor is relatively gentle. Areas of landslides and severe erosion potential are generally associated with steep slopes and creek crossing. The only area that has significant potential for *landslides* is the steep slopes along the UPRR rail line near the Ardenwald neighborhood. High potential for *erosion* may also exist in these steep areas.

An identified *earthquake fault line* (Portland Hills Fault) traverses the City of Milwaukie about one-quarter mile south of SE Tacoma Street and near SE Lake Road. The *Soils Report* indicates that risk from ground motion amplification is high from the crossing of Crystal Springs southward. In the Milwaukie Industrial area, there are shallow groundwater and high liquefaction and ground motion amplification hazards. Additionally, several areas in the Milwaukie Town Center Section have weak foundation soils. These soils typically occur in poorly drained bottomland and can exert pressures on solid structures and cause severe damage.

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council concludes that the *100-year floodplain* represents the key natural hazard constraint in the Milwaukie Town Center Section. The following streams will be crossed in this Section:

- Johnson Creek – immediately east of SE McLoughlin Boulevard, approximately 100 feet south of the SE Tacoma Street Bridge
- Crystal Creek – adjacent to the UPRR, between Highway 224 and SE Harrison Street crossings
- Spring Creek – adjacent to the Portland & Western RR at its SE Harrison Street crossing
- Kellogg Creek – immediately east of the existing Portland & Western RR crossing
- Courtney Springs Creek – immediately to the west of SE McLoughlin Boulevard, approximately 100 feet north of SE Park Avenue

As described in the *Hydrology Report*, designated 100-year floodplains are associated with Johnson Creek and Kellogg Creek. The City of Milwaukie has designated as flood management areas the same areas designated by Metro Title 3 and FEMA maps. In these areas, the City of Milwaukie has adopted standards that prohibit any development actions (such as encroachments or rill in floodplains) that would increase the 100-year floodplain elevations by more than one foot or would produce hazardous flow velocities. The City of Milwaukie also required balanced cut and fill. The City of Milwaukie also regulates development in floodplains in the Oak Lodge Sanitary District.

The area of *Johnson Creek* that would be affected by the Portland-Milwaukie Project is in the lower reach of the stream, very close to where Johnson Creek discharges to the Willamette River. This portion of the creek has a moderate gradient, and flow is

relatively swift. Due to the combined effects of the four bridges and Willamette River backwater, flooding in the lower reaches of Johnson Creek is expected to be extensive during significant flood events.

Lower *Kellogg Creek* is described as a large channel that drops steadily until reaching Kellogg Lake, a man-made, urban lake located in downtown Milwaukie. Kellogg Lake's outlet (control dam) is located at SE McLoughlin Boulevard, less than 100 feet from its confluence with the Willamette River. The 100-year floodplain at the Kellogg Lake Crossing is approximately 400 feet wide; however, Metro Data Resource Center maps indicated a narrower floodplain for the February 1996 flood event.

The new LRT bridge would span Johnson Creek and would not include structures below its ordinary high water (OHW) elevation. Consequently, the bridge would not affect the capacity of the channel or cause a rise in its flood elevation. Similarly, the bridge would be wider than the McLoughlin structure, and therefore would not further constrict the channel's capacity or its ability to meander naturally. The Tacoma Street Station and park and ride lot is within the FEMA 100-year floodplain. However, the park-and-ride improvements would not increase the impervious surface area relative to existing conditions. Compensatory flood storage can be provided to mitigate floodplain impacts of about 1.1 acre. Additionally, the LRT alignment, Tacoma Street Station and park and ride lot will be elevated at least one foot above the 100-year flood elevation of Johnson Creek and the station and park and ride would comply with the required 30 foot setback from the top of bank of Johnson Creek.

Extending light rail to SE Park Avenue requires crossing Kellogg Lake via a new bridge constructed immediately east of the existing Tillamook Branch Line crossing. Design options being considered include up to three support piers in the river channel that impact 0.1 acre of floodplain. Although this increases the potential for backwater effects and a rise in flood elevation, this potential is considered extremely low relative to the size of the piers relative to the channel and will include balanced cut and fill.

If Kellogg Lake dam has been removed by the time the LRT track is constructed, the new bridge would span the creek and would not include structures below its OHW elevation. Similarly, the bridge would span a greater distance than the existing railroad structure and, therefore, would not further constrict the channel's capacity or its ability to meander naturally.

Mitigation Options for Natural Hazard Impacts in the Milwaukie Town Center Section

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the Milwaukie Town Center Section. The Project will avoid steep slopes in the vicinity of the Ardenwald neighborhood and in the vicinity of Milwaukie Heights along Kellogg Creek.

The Council finds that options are available to mitigate unstable soil hazard conditions in the Milwaukie Town Center Section. In areas where unstable soils are limited, they can be excavated and replaced by engineered fill. If this is not feasible, mat foundations, deep foundations, piles, or other forms of mechanical foundations can be used. Designing slopes to minimize the effect of surface runoff could control erosion in cut and fill areas. Collecting and routing surface water away from cut-and-fill slopes could limit erosion damage. Exposed soil can be seeded to control erosion and prevent sediment-laden runoff from reaching streams. Stream banks at bridges can be reinforced to prevent erosion and undercutting. Additional precautions should be taken when working near stream crossings.

Seismic hazards within the Portland-Milwaukie Corridor include liquefaction, amplification of ground motions and earth rupture. All three could lead to significant structural damage due to settlement, shaking or earth displacement. Liquefaction can be mitigated by stabilizing the soils or supporting the structures. Ground motion amplification can be reduced through foundation design and proper structural design.

Once locations have been chosen for balanced cut and fill to take place, hydraulic modeling will be performed to ensure no net rise in floodplain elevations. Hydraulic modeling in the vicinity of constrictions such as bridges and culverts will be performed to ensure that their functioning would not be compromised. The Council concludes, therefore, that options are available to mitigate for the placement of fill within the 100-year floodplains of Johnson Creek and Kellogg Creek. Wherever possible, the Council supports incorporating balanced cut and fill requirements with projects that improve water quality, such as revegetating riparian areas of Johnson Creek and Kellogg Creek which are currently in a degraded state.

6.4.3.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the Milwaukie Town Center Section are addressed in the following Section. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystem Impacts Results Report (Ecosystems Report),* and the *Parks and Recreation Results Report (Parks Report).*

Identification of Impacts to Significant, Protected Natural Resources in the Milwaukie Town Center Section

As required by Statewide Planning Goal 5, the cities of Portland and Milwaukie and Clackamas County have inventoried and evaluated natural resources for the purpose of identifying and protecting significant natural resources, including high quality wetlands and streams. Protection of these areas includes objectives of minimizing erosion, maintaining and enhancing water quality and fish and wildlife habitat, and preserving scenic quality and recreation potential.

Due to Milwaukie's physical setting and level of development, the Milwaukie Comprehensive Plan notes that few major natural resource features remain undisturbed and visible within the City. Map 5 of the Milwaukie Comprehensive Plan identifies significant natural resource sites. Within the Milwaukie Town Center Section, portions of the Spring Creek area are designated as a significant resource for riparian and wildlife values. The riparian corridor along Johnson Creek is also designated by Milwaukie as a significant natural resource site for riparian values. However, the portion of Johnson Creek crossed by the new LRT bridge is within the City of Portland's jurisdiction. Portland has mapped Environmental Protection zones along Johnson Creek.

Fish and Wildlife Habitat

Johnson Creek supports populations of both resident and anadromous fish. Johnson Creek also provides opportunity for wildlife movement; however, much of the area along the creek contains disturbed riparian areas due to residential and commercial development, high traffic use and the need to control flooding. The Milwaukie Comprehensive Plan designates the riparian corridor of Johnson Creek as a significant natural resource area. However, the portion of Johnson Creek that will be crossed by the LRT bridge is under the City of Portland's land use jurisdiction.

Long-term Project impacts to water quality and fish and wildlife habitat values of Johnson Creek are expected to be insignificant provided appropriate erosion control measures are implemented during Project construction. The Tacoma Street park-and-ride will not increase the impervious surface area relative to existing conditions. On-site treatment of runoff from the park and ride would reduce concentrations of pollutants compared to the untreated stormwater that enters Johnson Creek from the existing site development.

Light rail operations would create a source of noise and light. Migratory salmonids may be initially disturbed by the additional noise and flashing lights along the rail line, but the disturbance is not expected to deter them from spawning in this reach of Johnson Creek. Resident fish are already adapted to noise and light in this reach.

Extension of the 1998 LUFO alignment to SE Park Avenue would cross two additional streams: Kellogg Creek and Courtney Springs Creek. If the dam near the mouth of Kellogg Creek were removed, both of these streams would be crossed via bridges that do

not include structures below the OHW elevation.[13] Kellogg Creek supports a variety of native and non-native fish species, both anadromous and resident. Although Courtney Springs Creek is an intermittent stream that is not documented as supporting fish, it likely supports both native and non-native fish species when flows are adequate. Indirect impacts to Kellogg Creek and Courtney Springs Creek would include hydrologic and water quality impacts caused by adding impervious surfaces to their respective basins as well as shading from crossing structures.

The Tillamook Branch Line alignment with the extension of LRT to SE Park Avenue adds a "net" 0.42 acre of vegetation impacts relative to the 1998 LUFO alignment. Impacts specific to the Tillamook Branch Section would occur in scrub-shrub cover. Nearly all of this cover consists of invasive non-native Himalayan blackberry thickets growing in a highly disturbed railway corridor. The vegetation impacts associated with the extension to SE Park Avenue would primarily occur to grassland and upland forest cover types. These additional areas are relatively degraded as a result of the urban setting and high presence of invasive and non-native species. Much of the upland forest cover that would be impacted consists of large, scattered conifer trees with extensive canopy cover but with only lawn and a paved walking path underneath.

Scenic and Open Space Areas

The City of Milwaukie's Comprehensive Plan contains specific reference to scenic areas under open spaces, scenic areas and natural resources elements. Important scenic views and sites "will be preserved for the enjoyment of present and future City residents as well as for visitors to the City" (Objective #3 – Scenic Areas). Visual access within the Greenway and to the Willamette River and Kellogg Lake are to be provided, improved and maintained (Objective #5 – Public Access and View Protection). Areas along the river have also been included in the Willamette River Greenway Zone and the City of Milwaukie's Downtown and Riverfront Plan. The Greenway Zone calls for protecting views toward the Willamette River from downtown during the development review process. The Public Area Requirements of the Downtown and Riverfront Plan identify a Primary Trail and Access Pathway along the UPRR rail line and a potential viewpoint from a recreation pathway from mid-block on SE Main Street, south of SE Monroe Street.

A new park and ride structure would be located between SE Main Street and SE McLoughlin Boulevard, next to Kellogg Lake Park. This new structure would displace two small buildings. The park patrons would be sensitive to the change and visual impacts; however, the building could have the positive impact of activating the edge of

[13] The Project proposes to construct a structure over Kellogg Creek and will develop appropriate mitigation based on conversations with federal, state and local natural resource agencies. Currently, TriMet does not intend to remove the dam, drain Kellogg Lake and restore it as a creek. However, TriMet may choose to participate with other agencies and groups to restore the creek as part of TriMet's mitigation for impacts to riparian areas. To the extent such action may impact endangered fish, it would be fully coordinated with affected fish and wildlife agencies.

the park. The building would be visible from the Milwaukie Waterfront Park and could be a significant gateway into downtown Milwaukie.

Riparian Areas

Riparian areas within the Milwaukie Town Center Section have been described and addressed under the heading of Fish and Wildlife Habitat.

Wetland Areas

The Portland-Milwaukie Project will result in minor impacts on wetland areas in the Milwaukie Town Center Section. As summarized in Table 3.8-8 of the SDEIS, the Tillamook Branch Alignment would avoid impacts to two wetlands in the Milwaukie Town Center Section (PM 6/C and PM10/0) and would include a small amount of fill (about 200 square feet) of a wetland area at the west end of the Crystal Creek channel (PM 7/10) to extend a culvert. Because of alignment constraints, this wetland cannot practically be avoided. Mitigation could include wetland enhancement along Crystal Creek and could also consist of off-site wetland enhancement, restoration and/or creation in areas adjacent to the Minthorn Springs Natural Area potentially along Johnson Creek.

Park and Recreational Areas and Willamette River Greenway

Figure 2.2-3 of the Parks Report identifies the following publicly owned park resources in the area of potential effect for the Portland-Milwaukie Project in the Milwaukie Town Center Section:

- Springwater Corridor Trail
- Milwaukie High School and Grounds
- Milwaukie Riverfront Park
- Dogwood Park
- Robert Kronberg Park
- Trolley Trail

The *Springwater Corridor Trail* is the major southeast Section of the 40-Mile Loop. When the Springwater Corridor trail is fully developed, it will be over 21 miles long. For the most part, the trail is separated from public roads. A project constructing three bridges along the Springwater Corridor Trail was completed in early 2007. These bridges provide elevated crossings over Johnson Creek, as well as over the busy transportation corridors of SE McLoughlin Boulevard and the UPRR line in Milwaukie. Potential impacts would be visual only. The LRT alignment crosses below the existing trail, which is on a bridge that also crosses over SE McLoughlin Boulevard. The LRT alignment would be separated from the trail itself, avoiding direct impacts. Since trail uses currently encounter major transportation facilities in this area, the secondary effects of visual change (low) or noise (low) on trail users would not be substantially greater than what currently existing. In addition, the nearby Tacoma Station would provide increased access to the trail.

Public uses of the *Milwaukie High School* grounds consist mainly of residents walking on the field. The school is expecting that public uses may increase next season when they install Astroturf of the field. The Portland-Milwaukie Project does not require any of the school land and the primary function of the school is not for recreational purposes. There are no impacts to this resource.

Milwaukie Riverfront Park includes a boat ramp and is located about three blocks from the area of potential effect. There are no impacts on this park resource or to the *Willamette River Greenway*.

Dogwood Park is adjacent to Kellogg Lake, on SE Main Street. This 0.75-acre pocket park is owned by the City of Milwaukie and managed by North Clackamas Parks and Recreation District. The park is adjacent to SE McLoughlin Boulevard, which already impacts the park with a high level of ambient noise and visual obstruction. None of the park is needed for right-of-way acquisition. Noise impacts are low, considering existing conditions, and visual impacts are low.

Robert Kronberg Nature Park (Planned). The City of Milwaukie is planning park improvements on land it currently owns and that lies adjacent to Kellogg Lake in the open space area south of the railroad trestle on SE McLoughlin Boulevard. The park is part of proposed plans for downtown Milwaukie that would restore a creek that is now impounded as Kellogg Lake and provide improved connections between the city and the Willamette River waterfront area. The park is adjacent to SE McLoughlin Boulevard and a rail trestle for the Tillamook Branch Line, which already affects the currently undeveloped park property with a high level of ambient noise and visual obstruction. About 0.05 acre could be impacted with an elevated crossing.

Trolley Trail (Planned). The North Clackamas Park and Recreation District is planning the Trolley Trail along a 6-mile stretch of a historic corridor once used by a streetcar line traveling between Portland and Oregon City. Though the corridor is approximately 40 feet wide, the trail itself will only be between 12 and 15 feet wide. When completed, the Trolley Trail will be part of a continuous 20-mile loop connecting Portland, Milwaukie, Gladstone, Oregon City, and Gresham. The trail will provide connections to community facilities, parks, and public transit. Intersection improvements will be designed to provide safe trail crossings at existing roads. The trail project will include safety and security features such as lighting and good definition between the trail and adjacent neighbors. Construction on the first phase of construction between SE Jefferson Street south to SE Courtney Road is expected to begin later in 2008. Up to 0.87 acre of the Trolley Trail could be impacted with the Tillamook Branch alignment and extension to SE Park Avenue.

Mitigation Options for Natural Resource Impacts in the Milwaukie Town Center Section

The Council finds that the Portland-Milwaukie Project improvements will not impact the Willamette River Greenway in the Milwaukie Town Center Section. Options are available to mitigate impacts on protected natural resources in the Milwaukie Town Center Section. Mitigation options for significant fish and wildlife resources could include using best management practices during construction and operation; avoiding removal of native vegetation where practicable; and where removal of native vegetation is unavoidable, leaving cut trees and large shrubs onsite to provide cover for animals and retaining snags and downed wooding materials. Replanting with approved native vegetation could also be done where removal of native vegetation is unavoidable. Wetland mitigation could include restoration of remaining wetlands, creation of new wetlands and enhancing wetland along with avoiding soil erosion.

The Council finds that the LRT improvements will not conflict with the Springwater Corridor Trail. Construction of the 3 bridges project was coordinated with plans for the Portland-Milwaukie Project. In addition, the Tacoma Station and park and ride will provide increased access to the trail.

The Council also finds that FTA, Metro and TriMet will continue to coordinate with the North Clackamas Park and Recreation District during final design to avoid impacts to the development of the Trolley Trail. The Park District has indicated its willingness to coordinate design and phasing with the light rail project. The most likely option would be to place light rail on the west side of SE McLoughlin Boulevard, between the roadway and the planned Trolley Trail, maintaining the transportation and recreation purpose of the trail. Light rail and the trail also share common treatments to reduce conflicts with side street intersections. While light rail would function as a buffer from roadway traffic, light rail trains would be close to the trail and traveling at relatively high speeds. However, the Project would include fencing between the light rail alignment and the trail. The additional coordination and mitigation for visual or other impacts on the planned Trolley Trail can be addressed through the FEIS and local permitting.

The Council finds that the Project team is consulting with NMFS as required by Section 7 of the Endangered Species Act (ESA) and mitigation measures are available to mitigate adverse impacts to fisheries and can be imposed as conditions of approval during the FEIS process and/or the local permitting process, such as:

- Timing in-water work to occur outside of critical fish migration seasons
- Using coffer dams around in-water work sites
- Using confined bubble curtains and bubble trees around pile and other noise generating activities
- Implementing best management practices.

6.4.3.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the Milwaukie Town Center Section are addressed in the following Section. Stormwater impacts and mitigation measures are also described in the *Water Quality and Hydrology Results Report (Hydrology Report).*

Identification of Stormwater Impacts in the Milwaukie Town Center Section

LRT improvements in the Milwaukie Town Center Section would involve the following crossings or encroachments:

- Johnson Creek – immediately east of SE McLoughlin Boulevard, approximately 100 feet south of the SE Tacoma Street bridge
- Crystal Creek – adjacent to the Portland & Western RR, between the Highway 224 and SE Harrison Street crossings
- Spring Creek – adjacent to the Portland & Western RR at its SE Harrison Street Crossing
- Kellogg Lake – immediately east of the existing Portland & Western RR Crossing
- Courtney Springs Creek – immediately to the west of SE McLoughlin Boulevard, approximately 100 yards north of SE Park Avenue

The primary indicator of both hydrologic and water quality impacts for transportation projects is the relative increase in the amount of impervious surface area. Impervious surfaces have an adverse impact on the hydrology of a basin and the water quality within its receiving streams for two primary reasons: 1) impervious surfaces prevent natural infiltration and, therefore, alter the volume and pattern of stormwater runoff, and 2) impervious surfaces collect pollutant during dry periods. During storm events, concentrated stormwater runoff conveys these pollutants to receiving streams.

Table 4.3-2 of the *Hydrology Report* summarizes the combined acreage of track, park and ride lots and stations in mapped Project area floodplains. The Project would place up to 0.9 acre of LRT facilities in the 100-year floodplain of Johnson Creek, and up to 0.1 acre in Kellogg Lake. Resulting impacts would be minor because the entire volume of fill would be mitigated by a balanced cut in the same floodplain area. Additionally, where appropriate, culverts would be placed under the proposed track to allow floodwaters to flow unimpeded around, under and/or through the elevated track, thereby providing access to adjacent floodplain storage areas and preserving floodplain functionality.

The extension to SE Park Avenue requires crossing Kellogg Lake via a new bridge constructed immediately east of the existing Portland & Western Railroad trestle

crossing. General design options being considered for this structure include up to three support piers in the channel. If Kellogg Lake dam has been removed by the time the LRT track is constructed, the new bridge would span the creek and would not include structures below its ordinary high water (OHW) elevation. Consequently the bridge would not affect the capacity of the channel or cause a rise in its flood elevation.

Spring Creek and Courtney Springs Creeks are crossed on existing culverts that likely would not require significant modification; consequently, no hydrological impacts related to these crossings are anticipated.

Mitigation Options for Stormwater Impacts in the Milwaukie Town Center Section

Based on the information contained in the *Hydrology Report*, the Council concludes that, with mitigation, no significant stormwater runoff or water quality impacts are expected in the Milwaukie Town Center Section. The Council finds that stormwater impacts created by the construction and operation of the Portland-Milwaukie Project in the Milwaukie Town Center Section can be substantially mitigated by complying with the following: Army Corps of Engineers Section 404 permit regulations; Division of State Lands regulations for in-stream activities; City of Milwaukie erosion control and stormwater regulations; and Oak Lodge Sanitary District stormwater regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

Although the Tacoma Park and Ride lot would not increase the impervious surface area, it may require water quality treatment and could cause minor flooding impacts due to fill that would be required for the approaches to the Johnson Creek crossing. Compensatory flood storage could be provided to avoid flood impacts.

Standard erosion control measures can be implemented in connection with all improvements in the Milwaukie Town Center Section, and site-specific erosion controls can be provided at the creek crossings. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

6.4.3.7 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

Historic and cultural resource impacts specific to the Milwaukie Town Center Section are addressed in the following Section. Historic and cultural resource impacts and mitigation

measures are also described in the *Historic, Archaeological and Cultural Impacts Results Report (Historic Report).*

Identified Significant and Protected Historic and Cultural Resources in the Milwaukie Town Center Section

Table 2.1-1 of the *Historic Report* identifies eight listed, eligible or potentially eligible historic resources in the Milwaukie Town Center Section. The resources are described in the *Historic Report* and they are highlighted below:

- ODOT Office, 9200 SE McLoughlin Boulevard (listed in the National Register in 1981)
- R. Derwey House, 2206 SE Washington Street (determined eligible for architectural significance)
- Milwaukie Middle School (now known as the Portland Waldorf School), 2300 SE Harrison Street (determined eligible in 1998)
- Residence, 2405 SE Harrison (determined eligible for architectural significance)
- Spanish Revival Residence, 2326 SE Monroe Street (potentially eligible for architectural significance)
- Oregon Pacific Railroad, Union Pacific Railroad & Trestle (potentially eligible)
- Birkemeier-Sweetland Home, 12006 SE McLoughlin Boulevard (moved several times, only the house is considered eligible for listing)
- Kellogg Lake Outlet, approx. 11205 SE McLoughlin Boulevard (determined eligible for engineering qualities)

There are no known archaeological resource sites within the area of potential effect in the Milwaukie Town Center Section. However, there are areas along the corridor that have the potential to contain significant archaeological resources. Included are areas in the general vicinity of Johnson Creek and a stream near SE Park Avenue south of Milwaukie, near SE McLoughlin Boulevard. The latter site is also encompassed by a larger area that contained a historic-period streetcar line connecting Portland to Oregon City. LRT improvements in the Milwaukie Town Center Section could encounter these potential archaeological resource areas.

Impacts on historic resources in the Milwaukie Town Center Section are described in Section 3.2.2 of the *Historic Report.*

The acquisition of a strip of land approximately 10 feet wide adjacent to the public right-of-way on the south side of the Spanish Revival residence (2326 SE Monroe Street) would not adversely affect the characteristics for which the house is potentially eligible. The light rail line would be parallel with other rail lines and would not significantly alter the surrounding visual aspects of the property. Therefore, the effect would not constitute an adverse effect.

The proposed Project would require acquisition of land along the west side to within approximately 10 feet of the R. Derwey House (2206 SE Washington Street). The

proximity of the LRT structure and associated features would alter the setting of the building and compromise the historic characteristics of the site, constituting an adverse effect.

The LRT would extend along the northern edge of the Milwaukie Middle School (Portland Waldorf School) but would not adversely affect the characteristics for which the school is eligible. The LRT line will be parallel with other rail lines, will not significantly alter the surrounding visual aspects of the property, and therefore the effect would not constitute an adverse effect.

The extension to Park Avenue would have potentially adverse secondary effects on the Oregon Pacific and Union Pacific Railroad Trestle. The Tillamook Branch Line Alignment would also require building a structure parallel to an existing railroad trestle. Design options that are compatible with the historic resource and the Secretary of Interior Standards for the Treatment of Historic Properties will be considered to reduce the visual impacts to a level where the effects would be considered not adverse.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Milwaukie Town Center Section

The Council finds that the LRT improvements in the Milwaukie Town Center Section may have an adverse effect on the R. Derwey House. The Council finds that specific impacts and mitigation commitments will be addressed in a formal Memorandum of Agreement (MOA) with the SHPO and executed for inclusion in the FEIS. Mitigation measures that could be included are discussed below.

Changes in Project design could reduce the adverse effect on the R. Derwey House. Visual impacts to historic properties would generally be mitigated through design treatments. These design treatments could include use of construction materials to complement existing buildings and structures or landscape design to minimize the adverse visual effects.

Relative to the alignment approved in the 1998 LUFO, the Council finds that the Tillamook Branch Alignment and the extension to Park Avenue avoids impacts on the ODOT administrative building on SE McLoughlin Boulevard.

Areas with a high or moderate probability of archaeological resources have been identified. Construction activities in these probability areas would be monitored by a professional archaeologist, and, if requested, monitors from appropriate Tribes. The archaeological monitoring would be undertaken within the framework of a Monitoring Protocol to be prepared in consultation with the federal agencies, the SHPO, Metro, TriMet and interested Tribes during the FEIS process.

6.5 Ruby Junction Maintenance Facility

6.5.1 Description of Maintenance Facility Improvements

The Ruby Junction Maintenance Facility along NW Eleven Mile Avenue in Gresham was first authorized in 1980, when TriMet approved the original light rail route serving the Portland metropolitan area between Portland and Gresham. The facility includes light rail tracks, vehicle storage spaces and maintenance bays, an operation center, and related facilities necessary to maintain light rail vehicles.

This 2008 LUFO authorizes the modification and expansion of the Ruby Junction Maintenance Facility to accommodate and serve the addition of approximately 16 to 23 light rail vehicles associated with the Portland-Milwaukie Project. The expansion includes additional tracks, light rail vehicle storage spaces and maintenance bays and a new operations center. The Ruby Junction expansion also is expected to serve additional light rail vehicles needed for future LRT expansion to Vancouver, Washington and potentially Oregon City.

The boundaries within which the above-described maintenance facilities may be located are illustrated in *Figure 2-1* attached as Exhibit A to Resolution No 08-3964.

6.5.1.1 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods

The Ruby Junction Maintenance Facility is located in the *Rockwood Neighborhood* in the city of Gresham. The maintenance facility and adjacent parcels are zoned for heavy

industrial use and currently support a mix of industrial businesses and residences. A large gravel mining operation is located immediately west of the maintenance facility.

The closest LRT station (Ruby Junction) is located at E Burnside Street and 197th Avenue.

Gresham annexed the Rockwood area in the mid-1980's. The Rockwood neighborhood straddles the MAX line and forms the primary western entry to the city. In 2003, Gresham residents voted to designate Rockwood as an Urban Renewal Area for a 20-year period. Social conditions based on 2000 U.S. Census data are described in the *Rockwood-West Gresham Renewal Plan (January 2003)* and key statistics are highlighted below.

Census block-group data shows an estimated 20,175 residents, or 22.4% of Gresham's total population, for Rockwood-West Gresham. Rockwood-West Gresham has a significantly higher percentage (57.5%) of renter occupied units than the City percentage (45.3%). Rockwood-West Gresham is home to a disproportionately high percentage (34.4%) of the City's total non-white population. Further, about 22.4% of Rockwood-West Gresham's total population was Hispanic, nearly double the city-wide share of 12.3%. At 21.4%, the percentage of persons living below poverty in Rockwood-West Gresham was nearly twice that of the City.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts associated with the expansion of the Ruby Junction Maintenance Facility are briefly described in the *Land Use and Economy Results Report (Land Use Report),* the *Community Impact Assessment Results Report (Community Impact Report), Acquisitions and Displacements Results Report (Displacements Report), Visual Quality and Aesthetics Results Report (Visual Report),* and the *Local Traffic Impact Results Report (Traffic Report).*

Economic Impacts

Economic impacts include business displacements, loss of parking or access, impacts to the local tax base, and impacts to freight movement.

Displacements. In every instance where the Portland-Milwaukie Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Even though the adverse impacts associated with displacement may not be significant on a regional or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and neighborhood level. Each displacement involves costs and disruption to the day-to-day operations of each business, and expense and effort associated with moving to another location. Adverse economic impacts associated with displacements include the loss of employment and

payroll, loss of retail services, and loss of assessed value and tax base associated with the business.

Appendix G of the SDEIS presents the likely property acquisitions for the Portland-Milwaukie Project based on the current conceptual designs. It is important to note that the list of acquisitions should not be interpreted as the final determination regarding property acquisition and the list could be updated as the project design is further refined. However, where there was any question, the project erred towards including a property rather than not including the property.

As shown in Figures G.1-16 of the SDEIS, expansion of Ruby Junction Maintenance Facility by about 10.5 acres would require full acquisition of 14 parcels and partial acquisition of 1 additional parcel. Six businesses and seven residences would be displaced. Table S-3 of the SDEIS estimates that the six businesses, together, employ an estimated 60 people and have estimated annual sales of approximately $17.4 million.

Loss of Parking or Access. Expansion of the maintenance facility would cause few impacts to parking, as the properties to be acquired are on a dead-end street, bordered by an active gravel pit. However, the proposed expansion requires the vacation of NW Eleven Mile Avenue. This street is planned to extend south from its current southern terminus to provide necessary connectivity and access to surrounding industrial land (City of Gresham Future Street Plan #108). Without this connection, there would be inadequate vehicular access to serve the future development of the surrounding parcels.

Therefore, mitigation for this adverse impact should include a requirement that TriMet amend Future Street Plan #108 and construct a realignment of NW Eleven Mile Avenue due west through the north end of the expanded Ruby Junction Maintenance Facility, stubbing the street towards the west so that when the property to the west is developed, a through street system can be completed.

Tax Base. Tax bases can be impacted when private properties are acquired for public use and those properties are removed from the public tax rolls. Although the SDEIS does not estimate the tax revenue impact of the proposed expansion of the Ruby Junction Maintenance Facility, Multnomah County Assessor 2008 records show a combined value of $4,930,040 for the buildings and land within the area to be acquired by TriMet for this purpose.

Freight Movement. Efficient movement of freight and goods throughout the Portland-Milwaukie Segment corridor is critical to the economic vitality of the region. Details about freight activity can be found in Chapter 4 (Transportation) of the SDEIS.

Expansion of the Ruby Junction Maintenance Facility will not have an adverse effect on freight movement through the Rockwood neighborhood. A realignment of NW Eleven Mile Avenue will be required through the north end of the expanded maintenance facility property to assure adequate connectivity for freight movement and future development of industrial properties in the vicinity.

Social Impacts

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the Portland-Milwaukie Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. It understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

As described above, expansion of the Ruby Junction Maintenance Facility would displace up to seven residences. The affected parcels are zoned for Heavy Industrial use, and the existing residences are considered legal non-conforming uses under the existing zoning. Therefore, the Gresham Community Plan anticipates redevelopment of these parcels for industrial uses over time.

Mitigation for residential displacement impacts will be provided for the affected parcels needed for expansion of the maintenance facility. In addition to payment of "just compensation," TriMet will comply with all provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (the Uniform Act) and implementing regulations, and ensure that no family or individual legally occupying any dwelling will be required to vacate until finding or being offered comparable replacement housing. All replacement housing offered will be fair housing open to all persons regardless of race, color, religion, sex or national origin. Any individual or family displaced by a TriMet project may be eligible to receive a payment for the expenses of moving personal property, subject to regulatory conditions.

Access to Community Facilities. The Council finds that expansion of the Ruby Junction Maintenance Facility will have a minimal impact on access to community facilities for the Rockwood neighborhood as there will be no change to the existing LRT stations serving the neighborhood. However, expansion of the regional light rail system will provide improved neighborhood accessibility to community facilities and employment centers located in downtown Portland and the SE portion of the metropolitan region. Residents of the Rockwood neighborhood and all other neighborhoods in proximity to LRT stations benefit with each incremental expansion of the LRT system into a broader interconnected network.

Barriers to Neighborhood Interaction. The Council finds that expansion of the Ruby Junction Maintenance Facility will not result in barriers to neighborhood interaction, primarily because the existing maintenance facility is located in an area that is zoned for Heavy Industrial use and that is largely separated from residential neighborhoods and key arterial streets. Westerly expansion of the maintenance facility will be compatible with the existing gravel operation located to the west.

Safety and Security. Light rail vehicles using the expanded maintenance facility would not be carrying passengers and would not change LRT crossings of existing streets.

Therefore, the SDEIS concludes that the proposed expansion is unlikely to have an adverse effect on safety or security in the Ruby Junction area.

Visual/Aesthetic. Chapter 3.4 of the SDEIS describes visual impacts of the Portland-Milwaukie Project. Expansion of the maintenance facility would be in an industrially zoned area, where viewer sensitivity is considered low and where the existing maintenance facility and other industrial uses are major visual features. In the general vicinity of the maintenance facility are an active gravel mine; a mix of undeveloped tracts and industrial box buildings with parking lots; a transmission line corridor; and several small single-family homes on land zoned for heavy industrial use. The existing maintenance facility has the character of a rail yard and is not landscaped. Therefore, expanding the existing maintenance facility in the Rockwood neighborhood would be consistent with the surroundings. Visual impacts resulting from an expansion are expected to be low because the added structures and uses are consistent with the existing character, uses and heavy industrial zoning.

Traffic Impacts

Expansion of the Ruby Junction Maintenance Facility in the Rockwood neighborhood would cause few traffic disruptions because there would be no changes to the LRT route or intersections that provide access to the maintenance facility. In order to construct the expansion of Ruby Junction, TriMet will need to seek closure of the portion of NW Eleven Mile Avenue starting approximately 400 feet south of Burnside Court. The road currently dead-ends at the property owned by Morse Bros. Inc., which is used as a gravel operation. The Gresham Community Plan currently calls for extension of NW Eleven Mile Avenue if the Morse Bros. property is redeveloped in the future (Future Street Plan #108).

The Council finds that TriMet should provide mitigation for this impact and construct a realignment of NW Eleven Mile Avenue due west through the north end of the expanded Ruby Junction site to assure adequate street connectivity to serve the future development of the surrounding industrial parcels to the west.

Conclusions. The Council finds that there will be adverse economic impacts to the Rockwood neighborhood associated with expansion of the Ruby Junction Maintenance Facility, primarily because of the displacement of six businesses, an estimated 60 jobs, and associated payroll and tax base impacts. Additionally, seven residences will be displaced and a portion of NW Eleven Mile Avenue is proposed to be vacated. Direct property acquisition and relocation impacts would be mitigated through financial compensation and technical assistance, regulated in accordance with the Uniform Act and implementing regulations, Oregon Revised Statutes, Oregon Department of Transportation guidance, and the Federal Highway Administration Federal Aid Policy Guide.

The Uniform Act establishes a uniform policy for the fair and equitable treatment of people displaced as a direct result of programs or projects undertaken by a federal agency

or with federal financial assistance, such as the Portland-Milwaukie Project. TriMet's policies for implementation of the Uniform Act are outlined in its publication "Acquisition and Relocation for Transportation Projects". (http://trimet.org/pdfs/publications/acquisition-relocation.pdf). This publication also includes federal and state guidance on displacement and programs to assist businesses and residents in relocating, in addition to their compensation.

Where displacements are unavoidable, owners of property needed for a TriMet project are offered "just compensation" for the required property or property interest. "Just compensation" is the estimated value of all the land and improvements within the needed area. If only a part of a property is to be acquired, "just compensation" will also include any measurable loss in value to the remaining property due to the partial acquisition.

For businesses and residents that need to be relocated, relocation assistance will be provided. Displaced small businesses may receive compensation up to a set amount for actual expenses to relocate and reestablish themselves at a replacement site. TriMet policy requires that no family or individual occupying any dwelling will be required to vacate until finding or being offered comparable replacement housing. All replacement housing offered will be fair housing open to all persons. Additionally, any individual or family displaced by expansion of the Ruby Junction Maintenance Facility may be eligible to receive a payment for the expenses of moving personal property.

The vacancy rates for the industrial market in the region are about seven percent (first quarter 2008, see http://www.grubb-ellis.com/pdf/metro_ind_mkttrnd/portland.pdf), which is considered to be a market that has a healthy balance of supply and demand. The rates indicate that an adequate supply of properties is available to absorb the current demand and enough available space to allow building occupants some flexibility when relocating. TriMet's programs provide mitigation or relocation assistance tailored to businesses that require a specific kind of zoning (such as heavy industrial).

The Council also finds that expansion of the Ruby Junction Maintenance Facility will result in an increase in short and long-term jobs associated with construction and operation of the facility. Table S-4 of the SDEIS indicates capital costs for expansion of the maintenance facility at $19.6 million. This represents a substantial capital expenditure and is expected to result in direct and secondary positive economic impacts in the Rockwood neighborhood associated with the construction jobs and longer-term positive economic impacts associated with a larger number of TriMet jobs at the expanded maintenance facility.

Finally, the Council recognizes and supports the importance of street connectivity to existing and planned industrial development in the vicinity of the Ruby Junction Maintenance Facility. While expansion of the maintenance facility will require vacation of NW Eleven Mile Avenue, potential mitigation could include an amendment of Future Street Plan #108 to require TriMet to construct a realignment due west through the north end of the expanded Ruby Junction Maintenance Facility property to provide adequate connectivity and access to serve the future industrial development of surrounding parcels.

The Metro Council understands that TriMet has agreed to provide this mitigation as requested by the City of Gresham.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

Light rail maintenance facilities are an integral component of the regional rail transit system. The Ruby Junction Maintenance Facility was the first maintenance facility built in the region with the opening of the first LRT line to Gresham. A second maintenance facility was built on the Westside (Elmonica) with construction of the LRT line to Hillsboro.

Expansion of Ruby Junction is needed in order to allow for maintenance of the additional LRT vehicles that will be associated with the Portland-Milwaukie Project. The expansion would include additional track, light rail vehicle storage spaces and maintenance bays and a new operations center.

The availability of LRT in Gresham has been a key element in the city's overall plans to develop an efficient and compact urban form and to provide light rail proximity and service to areas that are capable of enhancing transit ridership. Downtown Gresham and the Civic Neighborhood are designated as a "regional center" in the *2040 Growth Concept* and central Rockwood is identified as a "town center." The city of Gresham has applied zoning in the station areas to concentrate densities at nodes along the corridor. While expansion of Ruby Junction is accompanied by adverse impacts for the Rockwood neighborhood, residents of the neighborhood also benefit from proximity and access to a larger, interconnected light rail system. Additionally, the Council finds that adverse impacts to the neighborhood can be mitigated through established programs for displacement assistance and by realigning and constructing a portion of NW Eleven Mile Avenue to assure street connectivity and access to support long-term redevelopment of surrounding parcels. Additionally, the major capital investment in the Rockwood neighborhood will support both short-term construction jobs and associated spending and longer-term expansion of the job base at the maintenance facility.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in conjunction with expansion of the Ruby Junction Maintenance Facility. Construction of a realigned portion of Eleven Mile Avenue is proposed as mitigation to assure connectivity and vehicular access to surrounding industrial properties.

6.5.1.2 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

An overview of noise and vibration measurements and identification of potential noise mitigation by noise type are included in the *Noise and Vibration Results Report (Noise Report)* and summarized in Chapter 3.10 of the SDEIS.

Identification of Noise and Vibration Impacts

As noted in Chapter 3.10 of the SDEIS, the additional light rail traffic to and from the maintenance facility is not projected to result in any noise impacts.

Based on information in the SDEIS, the Council finds that there are no noise sensitive land uses in the vicinity of the proposed expansion of the Ruby Junction Maintenance Facility and no mitigation for noise or vibration would be required under FTA criteria.

6.5.1.3 Criterion 5: Natural Hazards

"Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Identification of Natural Hazard Areas

The SDEIS does not identify any landslide areas, areas of severe erosion potential, or areas subject to earthquake hazards associated with expansion of the Ruby Junction Maintenance Facility.

Based on information in the SDEIS, the Council finds that expansion of the Ruby Junction Maintenance Facility would not have an adverse impact on identified landslide areas, areas of severe erosion potential or areas subject to earthquake hazards. All new buildings and improvements will be designed and built in conformance with current seismic standards for earthquake protection.

Fairview Creek is proximate to the Ruby Junction Maintenance Facility. The creek is not crossed but it could be indirectly affected by the proposed expansion of the maintenance facility. The facility would be expanded by approximately 10.5 acres. Proposed facility improvements (new roads, parking, and buildings) would contribute 3.6 acres of new impervious area to the Fairview Creek watershed.

Three of the ten parcels that would be added to the maintenance facility site are located within Fairview Creek's 100-year floodplain. These three parcels presently contain several buildings and paved surfaces; however, no new buildings would be constructed in the floodplain. Some of these floodplains may be used for outside storage, but not for hazardous materials and with no structures that would impede stormwater flow. Operational activities such as equipment cleaning and repairs could result in accidental spills or polluted stormwater runoff to Fairview Creek. Mitigation measures such as oil/water separators and the use of best management practices are available and would be required through the FEIS and/or local permitting to prevent accidents and to store and treat runoff prior to it leaving the site. Therefore, no new adverse floodplain impacts are anticipated. Further, the Council understands that balanced cut-and-fill would be required if there were any encroachments into the floodplain as a consequence of any changes to the site plan during preliminary engineering.

6.5.1.4 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the expansion of the Ruby Junction Maintenance Facility are described below. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystem Results Report (Ecosystems Report)*, and the *Parks and Recreation Results Report (Parks Report).*

Identification of Protected Natural Resources

The SDEIS does not identify any significant fish and wildlife areas, scenic and open space areas, riparian or wetland areas or parks in the vicinity of the proposed maintenance facility expansion that are protected in the acknowledged Gresham Community Plan.

The Gresham Community Plan identifies a planned multimodal *recreational trail (Gresham to Fairview Multi-Use Trail)* that runs north/south along the easterly boundary of the existing maintenance facility site. The proposed expansion area will be located to the west and south of the existing maintenance facility, and therefore would not have an adverse impact on the planned recreational trail.

Mitigation Options for Natural Resource Impacts

The Council is aware that TriMet has granted the City of Gresham an easement to locate a portion of the planned Gresham to Fairview Multi-Use Trail on the Ruby Junction site. PGE also has an easement in the area to the east of the maintenance facility site for a power transmission corridor. PGE is currently involved in permitting for upgrading transmission lines through the existing easement. Staffs with the City of Gresham, PGE, and TriMet have examined a variety of options for resolving any potential conflicts between the various facilities (maintenance facility, power transmission lines and recreational trail). Gresham staff has identified a design concept that tentatively appears workable for all parties. The design concept would locate the 12-foot Gresham-Fairview Trail to the west side of a larger 20-foot easement that is currently occupied by PGE poles, and replace those existing power line poles with larger poles on the east side of Gresham's easement. This solution would be acceptable to TriMet. The Metro Council encourages on-going coordination through the FEIS and local permitting to assure a design that minimizes impacts on the planned recreational trail and facilitates trail connections that benefit the Rockwood neighborhood.

Based on information in the SDEIS and the discussions and agreements between the City of Gresham and TriMet, the Council finds that the proposed expansion of the Ruby Junction Maintenance Facility will not have an adverse impact on the planned Gresham to Fairview Multi-Use Trail.

6.5.1.5 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Identification of Stormwater Runoff Impacts

At the Ruby Junction Maintenance Facility, no buildings are proposed to be built within Fairview Creek or its floodplain. Necessary stormwater treatment required for new construction would result in minimal impacts to surface water or groundwater resources.

Long-term direct stormwater impacts are typically associated with increases in impervious surface area. Table 3.8-10 of the SDEIS summarizes the increase in total impervious surface area by basin. Fairview Creek has an existing impervious surface area of 1,338 acres (URS, 2003) and expansion of the maintenance facility would result in a 3.7-acre increase in impervious surface area.

Because the amount of new impervious surface added is relatively low compared to the overall size of the basin and because the maintenance facility expansion would adhere to

all applicable stormwater management regulations, adverse hydrologic and water quality impacts resulting from impervious surfaces are unlikely to occur.

Mitigation Options for Stormwater Runoff

Potential mitigation measures for stormwater runoff are described in Chapter 3.9 of the SDEIS. Hydrologic and water quality impacts are minimized by collecting stormwater from impervious surfaces associated with the project and directing it to structural best management practices (BMPs) for treatment. Water quality benefits are realized when suspended sediment and other pollutants are settled out of the water; filtered through the use of separators, screens, filter media, or soils; and/or taken up by plants. Hydrological benefits are realized when stormwater is collected on-site and discharged to the receiving stream at a slower rate (detention) and/or lower volume (retention). Hydrologic and water quality impacts also may be mitigated by retaining and infiltrating stormwater on-site such that little or none is discharged to surface water bodies.

The City of Gresham requires that the quantity and quality of stormwater runoff from new impervious surfaces and, in some cases, redeveloped impervious surfaces be managed to protect streams. In summary, the Council finds that a range of measures are available to reduce stormwater impacts to acceptable levels. Site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

6.5.1.6 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

Historic and cultural resource impacts are described in the *Historic, Archaeological and Cultural Impacts Results Report (Historic Report)* and summarized in Chapter 3.5 of the SDEIS.

Identification of Historic and Cultural Resources

Chapter 3.5 of the SDEIS does not identify any historic resources in or near the areas identified for the Ruby Junction Maintenance Facility expansion.

Archaeological resources may be affected by expansion of the Ruby Junction Maintenance Facility. Because archaeological resources in urban settings are often identified only during construction, avoidance through redesign is usually not practicable until the preferred alternative has been selected and the Record of Decision finalized. While the potential types of archaeological resources differ, the treatment for potential mitigation would be similar.

Mitigation Options For Historic And Cultural Resource Impacts

Subsurface testing, shovel tests, and exploratory excavations for buried archaeological sites during preliminary engineering, final design, and in early construction could reduce potential impacts and minimize delays during general construction. These early actions would require an inadvertent discovery plan, which would be reviewed and approved by the SHPO and interested tribes. The plan would provide procedures for notifying SHPO and the tribes should resources be encountered, along with measures for documentation, resource recovery, and analysis.

7. Compliance with Substantive Criteria: Short Term Construction Impacts

7.1 Introduction

This section summarizes the short-term impacts associated with construction of the Portland-Milwaukie Project and highlights mitigation measures that are applicable in all three sections. The primary goals of including short-term construction impacts in the LUFO findings are to:

- Identify locations, importance and duration of potential major construction impacts; and
- Identify potential mitigation measures (in general terms) for major impacts.

Linear projects such as the Portland-Milwaukie Project are typically divided into various segments or line sections for construction of the trackway, structures, park-and-ride facilities and related work. The construction sequence will vary depending upon pre-existing conditions and the nature of the LRT facilities. In sections of the alignment where the track is located within a separate right-of-way, extensive clearing and grading may be required. During the grading phase, culverts or other permanent drainage structures will be installed. Underground utility services may be relocated during the grading phase to avoid interference with light rail construction.

Following the grading and preliminary site work, installation of light rail utility duct banks, catenary pole foundations, platform foundations, and major structures such as bridges will begin. Bridge work will be accompanied by foundation construction which may involve pile driving or other specialized operations. Other activities outside the trackway also may occur during this period, such as construction or relocation of roadways, park-and-ride construction, and construction of traction power substations and signals buildings.

The next construction phase involves the installation of track work, catenary poles, catenary wire, signals, communications cables, and other system-wide elements. Once all elements of the LRT system are completed, integrated testing and start-up will begin.

Construction of transitway improvements will proceed with construction of the light rail alignment. Other highway improvements (e.g., SW Moody Avenue, SE 8th Avenue between SE Powell Boulevard and SE Woodward Street) can occur concurrently with construction of LRT improvements.

7.2 Short Term Construction Impacts and Mitigation Measures

7.2.1 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

The Portland-Milwaukie Project will result in adverse economic, social and traffic impacts through disruptions to existing land uses. However, these impacts will be temporary in duration and should end when the construction activities end. Construction of light rail facilities and highway improvements will adversely impact local economic and social interests located adjacent to or nearby construction or staging areas by interfering with residences and businesses, disrupting traffic and pedestrian movement, displacing parking, altering accesses, and causing noise, vibration, dust, congestion, increased truck traffic near residences and businesses, and visual impacts. Rerouting, detours and lane closures will create temporary additional traffic through neighborhoods, with associated noise, dust and congestion. Construction machinery, trucks, and general construction activities will be temporary negative visual features of the project. Businesses likely to feel the greatest impact are those that would experience the longest construction periods, those that have many other convenient competitors, and those that are most dependent upon convenient access.

Throughout the alignment, construction will have short-term and temporary impacts to businesses of the nature described above. During preliminary engineering and the preparation of the FEIS, specific mitigation plans will be developed addressing short-term economic and social impacts to businesses and residences. These measures will include maintaining access to existing uses and providing screening to minimize dust and visual impacts. Wherever possible, the project will provide alternative access and ensure that access is maintained to all properties during construction. Some businesses that require access at all times and generate many trips (e.g., delivery services, drive-ins) may be inconvenienced. Utility services also may be interrupted as a result of construction.

In the event that access or utility service to a residence or business would be temporarily disrupted, advance notice would be provided and the length of the disruption would be minimized to the extent practical.

Temporary construction impacts on neighborhoods could result from increased traffic congestion, truck traffic, noise, vibration and dust. Temporary street closures, traffic reroutes and detours could increase traffic within neighborhoods and impede access to community facilities. Additional short-term impacts could include temporary rerouting or relocation of driveways, noise impacts from pile driving and bridge pier construction, impaired access for elderly and mobility-impaired residents, and disruption of activities near schools.

Construction activity may temporarily create dangerous situations for pedestrians. Much of the construction will occur in public rights-of-way, which also accommodate sidewalks and accesses to adjacent uses like schools. Construction activities can reduce sidewalk widths and bring trucks and other construction-related traffic into neighborhoods and in close proximity of pedestrian areas. For neighborhoods so affected by construction, the Council finds that TriMet can work with neighborhood representatives to identify issues of concern and potential mitigation measures. Potential mitigation measures include:

- Developing construction management plans for incorporation into construction contracts
- Coordination with neighborhood and businesses associations and representatives of public facilities located adjacent to the alignment, to maximize the opportunity to identify potentially hazardous situations for pedestrians in advance and proactively plan for pedestrian safety
- Providing ongoing coordination during construction to keep affected neighborhood and business area representatives informed about the schedule and location of construction work and anticipated modifications to pedestrian access
- Limiting construction hours for certain activities in sensitive areas
- Providing facilities to maintain pedestrian movement and safety
- Providing fencing around construction and staging areas

Construction activities also could reduce accessibility to police, fire departments and other public safety and emergency service providers. Construction activities will, at times, impede the movement of emergency vehicles by temporarily narrowing or reducing the number of travel lanes or by detouring traffic and road segment closures. These impacts are often associated with activities such as construction of grade crossings of streets and construction of overpasses or underpasses for the LRT alignment. To ensure the most effective, continuous access to construction site vicinity uses for public safety and emergency service providers, the Council finds that the following measures could be employed:

- Develop construction management plans in close coordination with affected police and fire departments and other emergency service providers, for incorporation into construction contracts
- Involve emergency service providers in planning for traffic management in order to identify alternate emergency routes in advance of construction
- Maintain regular coordination with emergency service providers during construction to give them advance notice of when, where and for how long traffic capacity constraints or street closures will be employed, and to plan for how local emergency access will be maintained
- To the extent practicable, maintain the visibility to police patrols of uses adjacent to construction areas

In summary, the Council finds that numerous measures are potentially available to mitigate short-term impacts to businesses and neighborhoods. Potential mitigation measures beyond those listed above include:

- Management of construction activities to reduce dust, noise and vibration
- Fencing and buffering to reduce construction impacts in sensitive areas
- Use of berms, hay bales, plastic sheeting and other similar measures to reduce surface erosion and runoff into water bodies and storm sewers
- Provision of temporary alternative parking and pedestrian access

Construction of the LRT and highway improvements within the Portland-Milwaukie Corridor will result in temporary impacts to local and regional automobile and truck traffic. Short-term construction impacts will likely take the form of roadway closures, detours and/or lane reductions, increased truck traffic, pedestrian access restrictions and local access restrictions. The Council finds that short-term construction impacts are best mitigation by coordination with local agencies, service providers and residents.

Mitigation for short-term traffic impacts could include a variety of activities ranging from scheduling of construction activities to minimizing conflicts during peak travel periods to using alternative construction techniques or equipment. The Council finds that some of the options for mitigating the short-term traffic impacts associated with light rail construction could include, but not be limited to the following:

- Limit work areas in congested locations to minimize disruptions to traffic, bus and pedestrian circulation, as well as business access
- Avoid construction during peak travel hours or seasons such as Christmas when traffic volumes in the vicinity of shopping facilities are significantly higher
- Develop and maintain a program of coordination and outreach with affected businesses and community interests to oversee construction traffic mitigation and management activities
- Develop and implement Travel Demand Management strategies to reduce vehicular traffic volumes in congested corridors
- Where appropriate, develop temporary parking to mitigate loss due to construction staging or work activities

- As appropriate, functional and reasonable, develop and implement alternative construction techniques to minimize traffic impacts. These techniques might include such activities as barging of materials to work sites for major bridge construction to reduce the anticipated level of truck activities
- Monitor traffic control to identify and resolve issues which occur due to changes in day-to-day construction activities

7.2.2 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

As with any large project, construction of a light rail system involves the use of equipment, machinery and procedures that result in intense noise levels and occasionally high vibration levels in and around the construction sites. Sections of the alignment for the Portland-Milwaukie Project are adjacent to a number of noise sensitive uses such as dwellings.

Noise levels at 100 feet from receivers generally range from 85 dBA (backhoe, loader) to 89 dBA (paver, trucks). Offsetting the relatively high noise levels is the fact that the construction will be of short duration, and the high noise levels can be expected only when the construction equipment is within 100 feet of the receivers. All buildings bordering on project roadways can expect maximum construction levels in the 80 to 90 dBA range when equipment is operating in the immediate area.

There are currently no criteria for construction noise or vibration impacts between the hours of 7 AM to 7 PM. However, if construction is to continue past these hours, noise levels must meet the appropriate state standards or a night-time noise variance must be issued by the local governing body.

Common vibration-producing equipment used during construction activities are pile drivers, jackhammers, bulldozers, and backhoes. Pile driving activities are only expected for bridge construction for the grade separated and river and stream crossings and possibly during the construction of station structures.

The Council finds that adverse noise and vibration impacts associated with construction are temporary and can be effectively mitigated by avoiding construction on Sundays, legal holidays, and during late evening and early morning hours in noise sensitive areas. Additionally, the Council finds that equipping motorized construction equipment with sound control devices, and developing construction contract documents that include noise limit specifications, reinforced with state/local ordinances and regulations, can be effective techniques for minimizing adverse noise impacts associated with construction.

If specific noise complaints are received during construction, the contractor could be required to implement one or more of the following noise mitigation measures:

- Install temporary or portable acoustic barriers around stationary construction noise sources
- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible
- Shut off idling equipment
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint
- Notify nearby residents whenever extremely noisy work will be occurring

7.2.3 Criterion 5: Natural Hazards

"Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

No specific landslide areas or areas subject to earthquake damage have been identified in the Portland-Milwaukie Corridor. Construction activities at stream crossings could result in erosion and have detrimental effects on 100-year floodplain areas and water quality.

Erosion control during construction begins with an Erosion and Sediment Control Plan (ESCP). The ESCP is based on the results of the geotechnical investigation and on the preliminary design. Appropriate remediation measures will be applied at each phase of construction. These measures include clearing limits, sensitive area restrictions, surface water control, perimeter protection, sediment retention, cover measures, traffic area stabilization and dust control.

Slope stability problems encountered during construction could include failures of existing oversteepened or unstable slopes and failures of improperly designed (constructed) slopes or fills. These failures can be minimized by using construction techniques appropriate to the foundation conditions of the site.

Construction activities will involve using heavy machinery for clearing and grading. Pollutants such as fuel, oil and grease, hydraulic fluid, and other hydrocarbons could be released from the heavy equipment during construction. The removal of vegetative cover and the subsequent exposure of soil can increase the amount and velocity of surface runoff. Erosive capacity also increases. Stream crossings would be especially vulnerable to construction-related impacts due to vegetation removal and subsequent rises in water temperature and turbidity. Construction activities have the potential to contribute significant amounts of sediment to waterways either directly or indirectly via the storm drain system.

To mitigate these potential impacts, Best Management Practices (BMPs) will be used during construction. BMPs to control sedimentation can include limiting work to dry weather periods and using barrier berms, silt fencing, temporary detention basins, and hay bales. Release of fuel and other vehicle residues could be contained by fueling and lubricating equipment within berm and membrane-lined areas only, using drip pans, and developing a hazardous waste spill control plan.

The Council finds that erosion can be avoided and floodplains protected by restricting cut and fill to the extent practicable and minimizing the removal of trees and vegetation along stream and river banks. Construction activities within the 100-year floodplain will be temporary and no long-term alteration of floodplain levels will occur. Proper sediment, erosion, and spill controls will be implemented to limit potential adverse impacts on natural hazard areas. Additionally, with appropriate construction precautions, such as identifying the limits of grading, utilizing appropriate construction equipment, and performing revegetation work immediately following construction, the magnitude of short-term impacts and the duration for recovery will be minimized.

7.2.4 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Construction activities may cause temporary disruption (noise, dust, vibration) of scenic and open space or park and recreational areas identified in local comprehensive plans. Project construction activities will have temporary impacts on significant habitat areas for fish and wildlife, including wetlands. In general, local comprehensive plans designate creeks, streams and rivers as significant open space, riparian and fish and wildlife habitat areas.

Temporary construction activities in natural resource areas can be mitigated through a variety of techniques, including erosion control and surface runoff containment using berms, silt screens, hay bales, retaining walls, and fencing. Noise and visual impacts from construction in natural resource areas can be mitigated as discussed previously under Criteria 3 and 4.

Wetlands have been identified within the Portland-Milwaukie Project area. Most are associated with permanent or intermittent streams; others occur in isolated depressions or are associated with roadside ditches. Many of the wetland areas have been channelized, diverted, culverted, and/or surrounded by development.

Short-term impacts to wetland areas include the possible temporary filling of wetlands during grading activities, vegetation disturbance and/or removal within the designated LRT right-of-way, and temporary erosion and sedimentation impacts to off-site wetlands. Permits for fill in wetlands will be required by the Corps of Engineers under the Clean Water Act and by the Division of State Lands under the Oregon Removal-Fill Law. Construction within streams will require permits form the Oregon Department of Fish & Wildlife and local jurisdictions. The Council finds that appropriate mitigation for construction impacts on natural resource areas can be specified as conditions of these local, state and federal permits.

Short-term impacts to vegetation and wildlife in the majority of the three sections will be minor, given the heavily urbanized character of the affected lands. In all cases, revegetation following construction will provide opportunities to mitigate short-term impacts. For this revegetation, native trees, shrubs, and herbaceous plants could be selected for their value in providing food and/or cover for a variety of wildlife species.

The Council recognizes that the creek, stream and river crossings by the Portland-Milwaukie LRT raise several important fisheries issues. Agency concerns with bridge crossings include the potential for water quality degradation during construction, increases in predation rates through shading, hydraulic impacts that create eddies where predators could effectively hide, and habitat disturbance through placement of piers or abutments in near shore areas.

The Council finds that local, state and federal reviews will be associated with in-water work for the bridge crossing of the Willamette River. It further finds that a range of measures are available to mitigate fisheries impacts that can be imposed as approval conditions during the NEPA process or, if reasonable and necessary, through local permitting. Chapter 3.8 of the SDEIS summarizes potential measures, including sediment sampling, erosion and sediment control measures, timing of in-water construction activities, limited operation of equipment in the active river channel, cleaning of all equipment used for in-water work prior to entering the water, no storage or transfer of petroleum products within 200 feet of the active river channels, and weekly inspection of all erosion and sediment control measures to assure proper functioning and effectiveness.

7.2.5 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Construction of the Portland-Milwaukie Project would remove existing vegetation in some locations, causing potential short-term increases in erosion and sedimentation of adjacent waterways and temporary increases in runoff rates. Other water quality impacts could result from release of oil, grease, fuel or hydraulic fluids from construction

equipment. Temporary storage of soil, materials or equipment in a floodplain could aggravate upstream flooding problems during a flood event.

Within the Portland-Milwaukie Segment, the potential for construction related water quality and/or hydrology impacts would be highest at the park-and-ride lots and river and stream crossings. Other areas where soils could be exposed, such as station locations, would require attention to erosion and sediment control. Potential temporary impacts to water quality would also be associated with demolition sites, construction staging areas and construction of concrete structures.

The Council finds that many BMPs for controlling construction-related erosion and sedimentation are available and have been used on past LRT construction projects in the Portland metropolitan area. Potential measures include covering temporarily exposed soils, use of barrier berms, silt fences and temporary sediment basins, as well as special wet-weather rules regarding excavation, dump truck covering and tire cleaning. Protecting existing vegetation along channel banks, or if disturbance cannot be avoided, disturbing banks only during the dry season and re-vegetating as soon as possible would reduce potential water quality impacts. Release of fuel and other vehicle residues could be contained by fueling and lubricating equipment within bermed and membrane-lined areas only, using drip pans and developing a hazardous waste spill control plan.

The Council finds that the information in Chapter 3.9 of the SDEIS (Water Quality and Hydrology) provides a good framework for implementing site-specific stormwater mitigation measures through the NEPA process and/or local permitting, and it incorporates that information by reference herein.

7.2.6 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

Chapter 3.8 of the SDEIS identifies construction impacts such as noise, dust, vibration and limitations on access which could cause temporary adverse impacts to historic resources. Because most of the LRT construction will occur within the public right-of-way, construction impacts are limited and could be mitigated through the measures described in the findings for each section of the project.

Archaeologically sensitive areas generally include shorelines of creeks, the land around natural springs, wetland areas, floodplains, land under existing historic buildings and small parcels of apparently undisturbed land. A professional archaeologist will be on site to monitor construction activities in the identified archaeologically sensitive areas (excluded from the public record for confidentiality reasons).

The Council finds that construction could be managed to minimize disruptions to auto and pedestrian access and use of historic resources. Construction scheduling could be managed to limit disruptions during important seasonal times such as the holiday season. Potential impacts of construction-related ground-borne vibration on historic resources could be mitigated through construction practices. Construction noise could be mitigated in residential areas with historic resources through limiting construction to daytime hours. Advance notice to residents could also help minimize noise disruptions. In commercial areas with historic resources, noise could be limited to after-hours construction.

On balance, the Council finds that construction impacts will be short-term in nature and the FEIS process will provide an opportunity to refine the design and develop mitigation plans to reduce short and long-term project impacts on significant and protected historic resources. Further, the Council finds that a professional archaeologist will be on site to monitor construction activities at all identified archaeologically sensitive areas. Special federal and state statues will apply if any Indian burial sites are encountered during construction of the Portland-Milwaukie Project.

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 08-3964, FOR THE PURPOSE OF ADOPTING A 2008 SOUTH/NORTH LAND USE FINAL ORDER AMENDMENT, TO MODIFY THE PROPOSED ROUTE OF THE PORTLAND-MILWAUKIE SEGMENT OF THE SOUTH/NORTH LIGHT RAIL CORRIDOR, RELOCATE PROPOSED LIGHT RAIL STATIONS, ESTABLISH THE LIGHT RAIL ROUTE BETWEEN SE TACOMA STREET AND SE PARK AVENUE IN MILWAUKIE, AND ESTABLISH NEW STATION LOCATIONS, PARK AND RIDE LOTS, MAINTENANCE FACILITIES, AND HIGHWAY IMPROVEMENTS

Date: July 9, 2008 Prepared by: Mark Turpel

BACKGROUND

Overview

In 1996, the Oregon Legislature enabled the Metro region to approve land use final orders (LUFO) to address the multi-jurisdictional land use aspects of light rail projects in the South/North corridor. LUFOs were found to be appropriate so that potential land use impacts could be more efficiently and consistently addressed. In addition, the LUFO process allows for an expedited land use appeal process. However, the LUFO process does not diminish the need for a light rail project to seek and secure local land use and other permits that may include reasonable and necessary conditions of approval.

It has been the practice of the region to follow approval of a Locally Preferred Alternative (LPA) with consideration of a LUFO action, thereby helping to ensure that the two decisions are consistent. It is proposed that upon favorable consideration of a companion resolution – Resolution No. 08-3959, For the Purpose of Approving the 2008 Portland-Milwaukie Light Rail Project Locally Preferred Alternative and Finding Consistency with the Metro 2035 Regional Transportation Plan – that this 2008 LUFO resolution be considered for approval.

There have been three South/North LUFOs approved. The first established the South/North LUFO and the other two were amendments to the original. More specifically, in 1998 a LUFO was approved for the South/North Corridor, which included proposed light rail improvements in the Portland - Milwaukie area. In 1999, an amendment of the South/North LUFO was approved to amend the northern portion of the corridor, establishing the Portland to Expo Center LRT Project. In 2004, the South/North LUFO was again amended to add a two-phase element to the southern portion of the corridor, adding the I-205 alignment and making some changes to the Portland-Milwaukie alignment, including revisions that designated study areas in some locations in Milwaukie where additional LRT alignment analysis was needed.

This proposed 2008 South/North LUFO amendment is intended to address changes from the 2004 LUFO so as to be consistent with the 2008 Portland-Milwaukie Locally Preferred Alternative (LPA). This proposed 2008 LUFO removes the study area designations and revises the LRT alignment, station areas, park and ride lots and adds the Ruby Junction maintenance area – consistent with the 2008 Portland-Milwaukie LPA.

Requirements of House Bill 3478

Section 6(1) of House Bill 3478 requires the Council to "establish the light rail route, stations, lots and maintenance facilities, and the highway improvements for the project or project extension, including their locations." Section 6(1)(a) further provides that the locations for each of these facilities and improvements:

"*shall be in the form of boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements shall be located. These boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route, stations, lots and maintenance facilities, and the highway improvements for which need commonly arises upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement*."

Section 6(2) of the Act addresses amendments to the original LUFO. As relevant to this Portland-Milwaukie LRT decision, it provides that any siting of the light rail route or a station, lot or maintenance facility outside the boundaries previously established in a LUFO, or any new station, lot or maintenance facility,

> *"shall require a land use final order amendment or a new land use final order which shall be adopted in accordance with the process provided for in subsection (1) of this section."*

Section 7 of HB 3478 requires the Council to apply land use criteria established by the Land Conservation and Development Commission ("LCDC") in making decisions in a land use final order on the light rail route, stations, lots and maintenance facilities, and the highway improvements, including their locations, and to prepare and adopt findings of fact and conclusions of law demonstrating compliance with those criteria. These findings, attached as Exhibit C to Resolution No. 08-3964, serve to demonstrate compliance with LCDC's criteria for the modifications selected in this LUFO amendment.

Section 3(1) of HB 3478 provides that the procedures and requirements set out in the Act are the only land use procedures and requirements to which the Council's decisions on the light rail route, the stations, lots and maintenance facilities, and the highways improvements for the Project, including their locations, are subject. Consequently, these findings focus on the matters identified in HB 3478 as land use actions being taken at this time.

ANALYSIS/INFORMATION

This staff report is intended to meet the requirements of HB 3478. This law requires that the LUFO staff report:

> "*…set forth and address compliance with the criteria. The staff report also shall include a description of the proposed boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements shall be located, as recommended by Tri-Met….*"

Rather than duplicate the description of the proposed boundaries as proposed by TriMet, this staff report references the TriMet LUFO application, as attached to the 2008 LUFO resolution as Exhibit B.

Compliance with the criteria are provided in the form of draft Findings of Fact and Conclusions of Law that have been prepared and are attached as Exhibit C to Resolution No. 08-3964, For the Purpose of Adopting a 2008 South/North Land Use Final Order Amendment, to Modify the Proposed Route of the Portland-Milwaukie Segment of the South/North Light Rail Corridor, Relocate Proposed Light Rail Stations, Establish the Light Rail Route Between SE Tacoma Street and SE Park Avenue in Milwaukie,

and Establish New Station Locations, Park and Rider Lots, Maintenance Facilities, and Highway Improvements.

1. **Known Opposition**

The bulk of public comment has been supportive of the Project. However, there are some Project aspects for which there are varying degrees of concern. The City of Milwaukie has expressed a strong preference for a terminus at Park Avenue. However, if sufficient funding cannot be identified for a Park Avenue terminus, a Minimum Operable Segment (MOS) is included in the recommended 2008 LPA and consists of a terminus and park-and-ride at SE Lake Road at the south end of downtown Milwaukie. The City of Milwaukie is very concerned with the potential traffic and parking impacts to the downtown and City associated with the MOS.

With the terminus at Park Avenue, the alignment would cross SE McLoughlin Boulevard south of downtown Milwaukie. An option to cross SE McLoughlin at-grade is opposed by ODOT due to safety and road capacity considerations.

Those public comments with concerns or opposition to the project included:

- Concerns about safety and security, noise and traffic congestion in downtown Milwaukie and in proximity to the schools in Milwaukie near the light rail alignment;
- Expressions of support of one alignment or station over other choices (with many writing in support of the Harold Street Station and some expressing a preference that the light rail line would end north of downtown Milwaukie or go to Oregon City or Clackamas Regional Center);
- Questions about the SDEIS document itself (e.g., how the costs were calculated, how noise impacts were assessed, if the analysis of Kellogg Lake was adequate, etc.).

In addition, the Project has received a letter from a law firm stating that it represents the Milwaukie Transportation Coalition and Amajin Consulting. The letter expresses concerns, some of which are similar to those above. The letter cites six comments including: 1) not considering alternative alignments; having some termini alternatives that conflict with the earlier DEIS; inadequate coverage in the SDEIS that the Mayor of Milwaukie owns property in proximity to the Tillamook Branch alignment; no re-examination of a bus alternative that would be less expensive; the light rail alternative is costly and has modest, at best, benefits; and, that reconfiguration of Kellogg Lake would jeopardize salmon habitat.

2. **Legal Antecedents**

State

As noted above, at the State level, HB3478 enacted as Chapter 12 of the 1996 Oregon Laws, provides for South/North MAX Light Rail Project land use final orders (LUFO) to decide:

a. the light rail route for the project or project extension;
b. stations, lots or maintenance facilities; and,
c. highway improvements for the project or project extension.

Metro

Following are actions by the Metro Council which relate to the proposed 2008 LUFO:

Resolution No. 98-2633, For the Purpose of Authorizing the Executive Officer to Execute an Intergovernmental Agreement Establishing the South/North Land Use Final Order (LUFO) Steering Committee (adopted May 14, 1998)

Resolution No. 98-2673, For the Purpose of Adopting the Land Use Final Order Establishing the Light Rail Route, Stations, Lots and Maintenance Facilities and the Related Highway Improvements for the South/North Light Rail Project (adopted July 23, 1998)

Resolution No. 99-2853A, For the Purpose of Adopting a Land Use Final Order Amending the Light Rail Route, Light Rail Stations and Park-and-Ride Lots, Including Their Locations, For That Portion of the South/North Light Rail Project Extending from the Steel Bridge to the Exposition Center (adopted October 22, 1999)

Resolution No. 03-3372, For the Purpose of Amending the South/North Land Use Final Order, to Include the Two Phases of the South Corridor Project Consisting of the Addition of the I-205 Light Rail Transit Project from Gateway to Clackamas Regional Center with the Downtown Portland Transit Mall Alignment, and Modification of the Proposed Light Rail Between Downtown Portland and Milwaukie, Deletion of Plans to Extend Light Rail from Milwaukie to Clackamas Regional Center, and to Reflect the Final Interstate MAX Design (adopted January 15, 2004)

Resolution No. 08-3959, Resolution No. 08-3959, For the Purpose of Approving the 2008 Portland-Milwaukie Light Rail Project Locally Preferred Alternative and Finding Consistency with the Metro 2035 Regional Transportation Plan (under consideration for July 24, 2008)

3. **Anticipated Effects**

Approval of this resolution would advance the Portland-Milwaukie Project by addressing the land use impacts of multiple jurisdictions in one action. Other actions, including preparation of a Final Environmental Impact Statement (FEIS), securing federal funding and a final determination of local match sources remain to be addressed before the Project would be able to advance to construction.

4. **Budget Impacts**

None at this time. This project is included within the Financially Constrained System of the Metro 2035 Regional Transportation Plan and 2008-2011 Metropolitan Transportation Improvement Program. Preliminary engineering and a final environmental impact statement would have to be completed and, after the record of decision about the project is determined, a full-funding agreement with the Federal Transit Administration would need to be approved. Only then would the allocation of Federal and state funds and local matches, be expended.

Funds for the FEIS will be provided through an intergovernmental agreement with TriMet. There have been no Metro General Fund revenue requests, nor are any anticipated.

RECOMMENDED ACTION

Adopt Resolution No. 08-3964, For the Purpose of Adopting a 2008 South/North Land Use Final Order Amendment, to Modify the Proposed Route of the Portland-Milwaukie Segment of the South/North Light Rail Corridor, Relocate Proposed Light Rail Stations, Establish the Light Rail Route Between SE Tacoma Street and SE Park Avenue in Milwaukie, and Establish New Station Locations, Park and Rider Lots, Maintenance Facilities, and Highway Improvements.