

# A G E N D A

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**METRO**

## Agenda

MEETING: METRO COUNCIL REGULAR MEETING  
DATE: April 9, 1998  
DAY: Thursday  
TIME: 2:00 PM  
PLACE: Council Chamber

| <u>Approx.<br/>Time*</u> |   | <u>Presenter</u> |
|--------------------------|---|------------------|
| 2:00 PM                  | <b>CALL TO ORDER AND ROLL CALL</b>  |                  |
| (5 min.)                 | 1. <b>INTRODUCTIONS</b>   |                  |
| (5 min.)                 | 2. <b>CITIZEN COMMUNICATIONS</b>  |                  |
| (15 min.)                | 3. <b>SOUTH/NORTH LIGHT RAIL UPDATE</b>   | Brandman         |
| (5 min.)                 | 4. <b>EXECUTIVE OFFICER COMMUNICATIONS</b>  |                  |
| (15 min.)                | 5. <b>AUDITOR'S REPORT ON EXPO CENTER<br/>EXPANSION: CONSTRUCTION COST<br/>MANAGEMENT</b>   | Dow              |
| (10 min.)                | 6. <b>MPAC COMMUNICATIONS</b>   |                  |
|                          | 7. <b>CONSENT AGENDA</b>  |                  |
| 2:55 PM<br>(5 min.)      | 7.1 Consideration of Minutes for the March 26, 1998<br>Metro Council Regular Meeting.   |                  |
|                          | 8. <b>ORDINANCES - FIRST READING</b>  |                  |
| 3:00 PM<br>(5 min.)      | 8.1 <b>Ordinance No. 98-735</b> , For the Purpose of lowering<br>the minimum for group discount classification from<br>25 to 20 persons and granting complimentary<br>admission to the drivers and escorts of pre-formed<br>tour groups at Metro Washington Park Zoo. |                  |

- 3:05 PM (5 min.) 8.2 **Ordinance No. 98-739**, Amending the FY 1997-98 MERC Budget and Appropriations Schedule for the purpose of adopting the FY 1997-98 supplemental budget and declaring an emergency.
- 3:10 PM (5 min.) 9.1 **Ordinance No. 98-734**, Amending and Readopting Metro Code 2.06 (Investment Policy); and Declaring an Emergency. Washington
- 3:15 PM (5 min.) 9.2 **Ordinance No. 98-737**, Amending the FY 1997-98 budget and appropriations schedule in the Support Services Fund by transferring \$15,000 from the Administrative Services Department to the Office Of the Auditor and transferring \$4,600 from Capital Outlay to Materials and Services within the Office Of the Auditor to provide funding for conducting an implementation review of the InfoLink project. Morissette
- 3:20 PM (5 min.) 10.1 **Resolution No. 98-2619**, For the Purpose of Authorizing Start-Up Activities for the Transit-Oriented Development (TOD) Implementation Program at Metro. Washington
- 3:25 PM (5 min.) 11.1 **Resolution No. 98-2622**, For the Purpose of Approving Sole Source Agreements for Mark Bradley Research and Consulting, Cambridge Systematics and John Bowman and Associates. Washington
- 3:30 PM (10 min.) 12. **COUNCILOR COMMUNICATION**

**ADJOURN**

**CABLE VIEWERS:** Council Meetings, the second and fourth Thursdays of the month are shown on City Net 30 (Paragon and TCI Cablevision) the first Sunday after the meeting at 8:30 p.m. The entire meeting is also shown again on the second Monday after the meeting at 2:00 p.m. on City Net 30. The meeting is also shown on Channel 11 (Community Access Network) the first Monday after the meeting at 4:00 p.m. The first and third Thursdays of the month are shown on Channel 11 the Friday after the meeting at 2:00 p.m. and the first Sunday and Wednesday after the meeting on Channels 21 & 30 at 7:00 p.m.

**PUBLIC HEARINGS:** Public Hearings are held on all Ordinances second read and on Resolutions upon request of the public. All times listed on the agenda are approximate; items may not be considered in the exact order. For questions about the agenda, call Clerk of the Council, Chris Billington, 797-1542. For assistance per the American Disabilities Act (ADA), dial TDD 797-1804 or 797-1540 (Council Office).

*Agenda Item Number 3.0*

**South/North Light Rail Update**

***First Reading***

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**

*Agenda Item Number 5.0*

**Auditor's report on Expo Center Expansion: Construction Cost Management.**

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**

**Metro**  
**Metropolitan Exposition -**  
**Recreation Commission**

***Expo Center Expansion:***  
***Construction Cost Management***

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**March 1998**

A Report by the Office of the Auditor



**METRO**

1998-10101-AUD

**Alexis Dow, CPA**  
**Metro Auditor**

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**METRO**  
**OFFICE OF THE AUDITOR**

March 6, 1998

Commissioner Gary Conkling, Chair, MERC  
Commissioner Baruti Artharee  
Commissioner George Bell  
Commissioner Ben Middleton  
Commissioner Alice Norris

Re: Audit of Expo Center expansion

Dear Chair Conkling and Commissioners,

The enclosed report describes our audit of construction cost management for the new hall at the Expo Center.

Overall, we found MERC staff generally managed the costs of the Expo expansion adequately. However, some areas can be improved. Our recommendations are summarized in Chapter 4 on page 23 of this report. For your convenience, an executive summary is provided on page 1.

We appreciate the cooperation and assistance provided by MERC staff during our work on this review, and we look forward to continuing our positive relationship with you.

If you have any questions or comments regarding this report, please call me at 797-1891.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Alexis Dow'. The signature is fluid and cursive, with a large, sweeping flourish at the end.

Alexis Dow, CPA  
Metro Auditor

AD:ems

Auditor: Doug U'Ren

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| MERC Chair Gary Conkling  |           |

## EXECUTIVE SUMMARY

The Portland Metropolitan Exposition Center is a consumer and trade show facility. In April 1997, work was completed on a new building that added about 135,000 square feet of exhibit space to the Center.

Metro's Office of the Auditor reviewed the effectiveness of measures taken by Metropolitan Exposition-Recreation Commission (MERC) staff to manage the costs of this expansion. We focused on construction expenditures, which constituted over 85% of the \$13.5 million project cost. MERC obtained construction services using the Construction Manager/General Contractor contracting approach.

We found that MERC staff adequately managed the costs of the Expo expansion. They achieved cost control by hiring a highly experienced general contractor, closely monitoring construction work, and utilizing the services of a construction specialist loaned to the project by Metro. At completion, construction costs were about \$300,000 under budget, and total project costs were slightly under the \$13.5 million project budget.

We engaged the services of a construction cost consultant to evaluate the construction budget, which was also the guaranteed maximum price MERC negotiated with the general contractor. Using a computerized estimating process, the consultant confirmed that the \$12.1 million construction budget was reasonable.

Although overall construction cost management practices were satisfactory, we found several areas where improvements are needed. In particular, we recommend MERC staff improve procedures for documenting construction decisions and for ensuring that prices for indirect construction services are competitive. We also noted inconsistent backup of expenditures reimbursed to the general contractor and recommend better documentation before reimbursement. Lastly, we recommend that MERC: 1) establish guidelines to help staff decide which costs to charge to construction projects, and 2) re-evaluate policies regarding sealed bidding and contract retainages.





## Chapter 1

### Introduction

The Portland Metropolitan Exposition Center (Expo) is a consumer and trade show facility consisting of four buildings that provide approximately 330,000 square feet of exhibit space. Expo is located about six miles north of downtown Portland, immediately west of the I-5 freeway and south of the Oregon Slough of the Columbia River (Figure 1). The site covers nearly 61 acres of land.

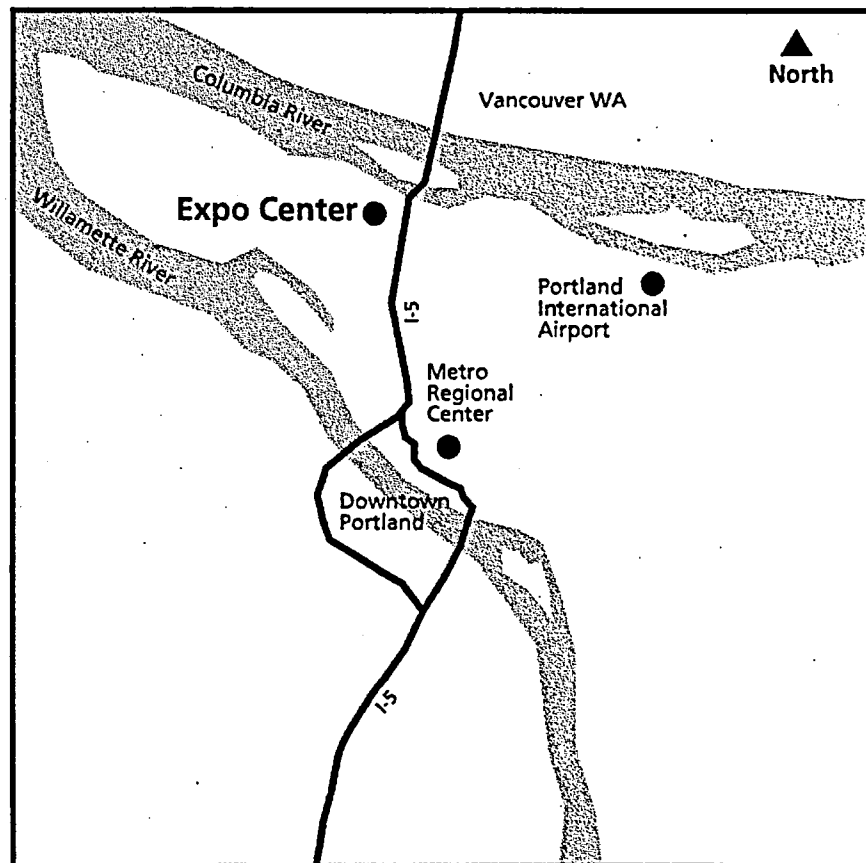


Figure 1. The Expo Center is located north of downtown Portland, Oregon.

**Expo History** Expo's original facilities were constructed by the Pacific International Livestock Association during 1921 and 1922 to accommodate what was to become the west coast's largest livestock exposition. Expo's facilities were used to grade cattle, hold rodeos and conduct livestock auctions. The original Expo building burned down three years after it was constructed but was quickly rebuilt.

Expo continued to thrive through the 1950's. However, the livestock markets changed and in 1965 the Swift Company shut down a packing plant located at the western end of the complex. That same year, Multnomah County purchased the property. The county remodeled the facilities and operated them until 1994, when it transferred management to the Metropolitan Exposition-Recreation Commission (MERC) under the terms of an intergovernmental agreement with Metro. The county deeded Expo to Metro in 1996, though it remains under MERC management.

**Description of Expo Facilities Built Before 1996** Before the most recent expansion, Expo had several halls in three buildings available for consumer and trade shows (Figure 2). The main building contains Halls A and B and two smaller halls. It has an area of 100,000 square feet and consists of four exhibit halls. It is wood-framed, with unpainted plywood walls and floors that are both concrete and asphalt.

Exhibit Hall C is a 60,000 square foot wood-framed building with painted plywood walls and concrete floors. Exhibit Hall D is a 60,000 square foot steel structure built in 1982.

All three buildings described above have limitations that reduce their attractiveness to some potential users. For example, they all have structural columns, which reduce flexibility because exhibits and booths need to be positioned around the columns. Some of the buildings are not well heated, and air conditioning is limited.

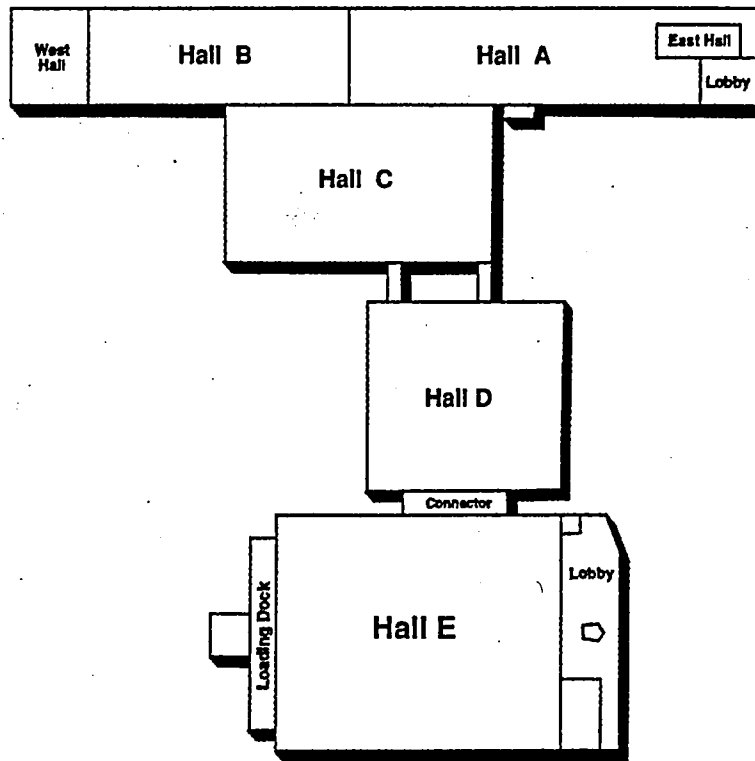


Figure 2. Outline of the Expo Center, including the new hall (Hall E).

**Expo's Newest Building – Hall E**

In 1995, officials from the Smithsonian Institution in Washington, DC, began searching for a facility in the Portland area to host the “America’s Smithsonian” exhibit. This exhibit is a collection of items from the Smithsonian’s museums that was assembled for a national tour commemorating its 150<sup>th</sup> anniversary. They originally tried to book the Oregon Convention Center, but scheduling problems could not be resolved. They also considered renting the existing Expo halls, but the buildings’ limitations reduced their appeal. MERC officials then began considering the option of constructing a new hall. This new hall would meet the needs of the “America’s Smithsonian” exhibition and fulfill a need for additional, higher quality exhibit space that had been identified as early as 1992. In early 1996, MERC and the Metro Council decided to proceed with plans to build the new hall.

With a budget of \$13.5 million, MERC authorized construction of a new 135,000 square foot hall (Figure 3). Groundbreaking took place in June 1996, and the new facility, dubbed “Hall E”,

was substantially completed in March 1997. The first event held in the new hall, the "America's Smithsonian" exhibit, was widely acclaimed and drew 425,000 visitors over 34 days.

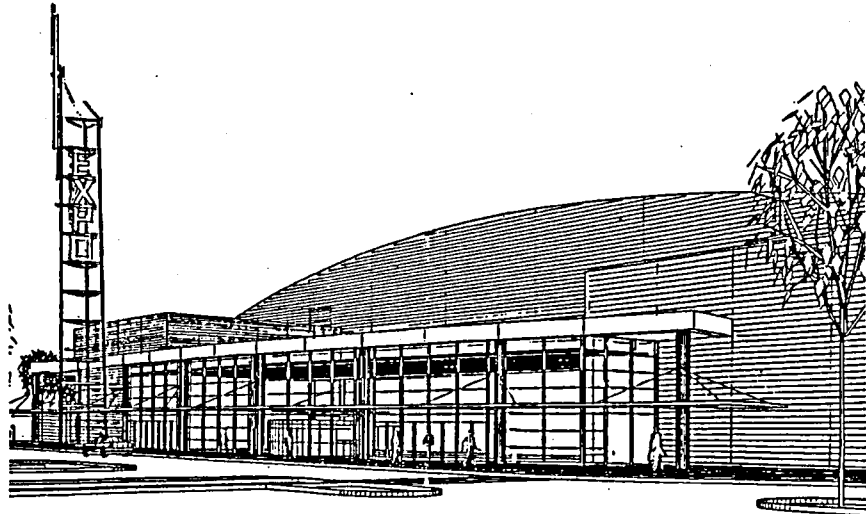


Figure 3. Front view of the new hall at the Expo Center.

Hall E features 108,000 square feet of column-free space, meeting rooms, a large lobby and a 4,500 square foot connector that links Hall E to Hall D (Figure 2). A key element of Hall E's design was five trusses, each about 300 feet long and weighing 159,000 pounds. These trusses allowed the new exhibit space to be free of columns. The Expo expansion project included extensive re-landscaping, paving parking lots, and major improvements to a nearby road.

The City of Portland, in approving a conditional use permit for the Expo expansion, required extensive landscape improvements to Expo but allowed MERC to defer them for up to seven years. No additional building permits will be issued at Expo after seven years unless the landscape changes have been made. We understand MERC used about \$250,000 of Expo expansion project funds to meet the City's requirements. MERC's capital improvement plan indicates that the remaining landscape work, estimated to cost \$1,000,000, will be performed in FY 2002-3.

**The Project Budget** Under the original funding plan, the new Expo hall was financed using the following sources:

| <u>Source</u>  | <u>Amount<br/>(millions)</u> |
|--|------------------------------|
| Transfer from Oregon Convention<br>Center Operating Fund | \$ 9.0                       |
| Privately placed revenue bond<br>(with Intel Corp.)      | 2.5                          |
| Expo Fund Balance  | 1.5                          |
| Loan from Oregon Convention<br>Center Operating Fund     | <u>0.5</u>                   |
| <b>Total</b>   | <b><u>\$ 13.5</u></b>        |

Expenditures were budgeted as follows:

| <u>Expense</u>   | <u>Amount<br/>(millions)</u> |
|--|------------------------------|
| Construction contract  | \$ 12.1                      |
| Architect and engineering fees                                 | 1.0                          |
| Other (construction permits,<br>inspections, 1% for Art, etc.) | <u>0.4</u>                   |
| <b>Total</b>   | <b><u>\$ 13.5</u></b>        |

**Contracts for Architectural and Construction Services** MERC signed two major contracts for the Expo project — one for architectural services and one for construction management. Yost Grube Hall (Yost) provided architectural services. Yost created designs for the new hall for MERC's consideration, produced construction drawings and specifications, helped MERC staff obtain building permits, and assisted the Expo construction management team. MERC's fixed price contract with Yost totaled \$1,030,000. Six minor work scope changes raised the final price of the contract to \$1,062,849.

Hoffman Construction Company (Hoffman) provided construction management services. MERC's contract with Hoffman was cost-plus, with a guaranteed maximum price of \$12,097,432. Hoffman subcontracted nearly all construction work and was allowed under the construction services agreement

to charge MERC for these services at its cost. Subcontract services costs totaled about \$10.8 million.

Hoffman was also allowed to recover all expenditures for the salaries and benefits of Hoffman employees assigned to the Expo project, as well as "general conditions". These general conditions included insurance, field surveying, renting temporary structures, office supplies and equipment, temporary sanitation and other such indirect costs. General conditions and salary costs totaled about \$630,000. Finally, Hoffman was paid a fee equal to 3.2% of all construction costs, which came to about \$365,000.

The design/bid/build method of acquiring construction services is commonly used. It entails hiring an architect to design the project and then awarding a fixed-price contract to the general contractor furnishing the lowest cost bid. There are two drawbacks to this method that can raise costs: 1) sometimes the general contractor cannot easily build the structure as designed, and 2) sometimes opportunities to reduce construction costs through changes in design or specifications are not identified until it is too late to implement them.

MERC's contract with Hoffman used the Construction Manager/General Contractor (CM/GC) approach, which attempts to avoid some of the drawbacks of the design/bid/build method described above. Under the CM/GC approach, the general contractor is selected early in the project. This allows it to ensure the structure can be built as designed, identify cost reduction opportunities and estimate total construction costs.

The CM/GC approach can reduce total construction time by enabling the general contractor to order long lead time materials and begin site work before the architect has completed all designs and drawings. The "fast track" nature of the CM/GC approach was a primary reason why Metro and MERC staff chose it for the Expo expansion project. Early in the project, they estimated it would reduce the time to complete the Expo project by six months, from nineteen months to thirteen. This shortened project schedule enabled MERC to host the "America's Smithsonian" exhibition.

In addition to the construction services agreement, which was signed in May 1996, MERC and Hoffman entered into another agreement in March 1996 for pre-construction services. The amount of that fixed price contract was \$20,000.

**Project Management Team** The team that managed the Expo expansion project met once a week during construction to discuss progress and scheduling issues and to resolve problems. It was composed of:

- MERC's Construction and Capital Projects Manager
- Oregon Convention Center Director (supervises Expo Manager)
- Expo Manager
- Expo Operations Manager
- Metro's Construction Manager
- Representatives of Yost Grube Hall
- Representatives of Hoffman Construction Company of Oregon.

Project team member responsibilities were not clearly defined. However, the MERC Construction and Capital Projects Manager provided overall coordination for the project, and it appears that the Oregon Convention Center Director had primary responsibility for authorizing subcontract awards and approving project expenditures.

**Audit Objectives and Methods** As part of our annual audit plan, we evaluated the effectiveness of measures taken by MERC staff to control the costs of constructing the new Expo hall. Our review focused on such questions as:

- Did MERC establish an appropriate construction budget for Expo?
- Did actual costs remain within the established budget?
- Was the cost reporting system accurate and reliable?
- Were procedures adequate to ensure construction services were acquired at a competitive cost?

We did not begin our audit until after the new hall was completed. This avoided diverting staff's attention from the critical task of getting the new hall built in time to host the Smithsonian exhibit. Our goal was to provide MERC and Metro with information they can use when managing other large construction projects such as the Oregon project under way at the Metro Washington Park Zoo and a proposed project for the Oregon Convention Center. Most of our work focused on issues surrounding construction contract management, as construction costs accounted for more than 85% of total project costs.



Our audit work did not cover the following aspects of the Expo expansion project:

- Whether the size, features and design of the new Expo hall were appropriate
- Whether the general contractor and project architect complied with all contractual and legal requirements applicable to their work on the Expo expansion
- The appropriateness of processes used to select the project architect and general contractor
- The accuracy of cost figures supplied by the general contractor in support of payroll overhead rates charged to the Expo project (the amount paid to the general contractor for these costs totaled approximately \$89,000).

We carried out our work by reviewing MERC and Metro Council actions pertaining to the Expo expansion and by interviewing Metro, MERC and general contractor staff who played key roles in managing the project. We examined cost reports, pay requests, construction logs, subcontract amendments and other documents obtained from MERC staff, Metro's accounting division and the general contractor. We also hired a construction cost consulting firm, Rider Hunt Ackroyd, to determine whether the guaranteed maximum price contained in the construction services agreement was reasonable. The consultant also helped evaluate the process MERC used to control construction cost adjustments.

We were unable to locate a comprehensive set of standards for administering construction contracts with the CM/GC approach. Therefore, we developed most of the standards expressed or implied in this report by identifying the requirements of the construction services agreement and by adapting standards and controls applicable to cost-plus contracts.

Our audit was conducted in accordance with generally accepted government auditing standards.

## Chapter 2

### Project Costs Were Adequately Controlled

In our opinion, MERC implemented adequate management controls over Expo expansion project costs. Key cost controls are listed below.

1. A project budget was established, and reviewed and approved by the MERC Commission and Metro Council.
2. The construction budget, which accounted for nearly 90% of the project budget, was reasonable according to an independent analysis.
3. MERC negotiated a contract with the general contractor that limited expenditures to \$12,097,432, unless MERC authorized a significant change in work scope. No such work scope changes occurred.
4. In general, project costs were properly recorded and cost reports were accurate, providing MERC staff with the information needed to adequately monitor project cost status.
5. All facets of the project, especially construction work, were closely monitored by MERC staff, the project architect, and a Metro construction manager assigned to the Expo project.

#### Expenditures Remained within Project Budget

Project expenditures came in under budget, largely as a result of the management control measures listed above. A comparison of budgeted and actual expenditures through June 30, 1997, are presented below:

| <u>Category</u>  | <u>Budgeted Cost</u><br>(thousands) | <u>Actual Cost</u><br>(thousands) |
|--|-------------------------------------|-----------------------------------|
| Construction services  | \$ 12,097                           | \$ 11,771                         |
| Architect's fee  | 1,030                               | 1,053                             |
| 1% for Art   | 117                                 | 115                               |
| Permits and fees   | 105                                 | 175                               |
| Other (inspections and testing, geo-technical assessment, construction management, etc.) | <u>151</u>                          | <u>190</u>                        |
| Total  | <u>\$ 13,500</u>                    | <u>\$ 13,304</u>                  |

We found net additional costs of \$188,000 that should have been recorded to the project but were instead recorded as general Expo capital expenditures. They included a new, Expo-wide telephone system that was specified in the construction budget and reimbursements to Expo's concessionaire (Fine Host) for concessions equipment installed in the new hall. These costs, netted against two minor costs that should not have been recorded to the project, brought total project expenditures through June 30, 1997 (the end of MERC's fiscal year), to \$13,492,000. No significant additional costs were charged to the project after that date.

**Cost Consultant  
Confirmed  
Construction Budget  
Was Reasonable**

The construction budget was the largest component of the overall project budget and equaled the guaranteed maximum price in the construction services agreement MERC signed with Hoffman. We engaged a construction consulting firm (Rider Hunt Ackroyd) to determine if the guaranteed maximum price MERC negotiated with the general contractor was reasonable. The Rider consultant used a computerized estimating process and concluded that the cost to build the new Expo hall, based on the specifications and drawings used to set the guaranteed maximum price, was about \$12,023,000. Since this amount differed from the actual guaranteed maximum price (\$12,097,432) by less than 1%, we believe the construction budget was reasonable.

**Criteria for  
Identifying Project  
Costs are Needed**

Our review of Expo's capital expenditures indicated that, to a reasonable degree, Expo expansion project costs were properly recorded in Metro's accounting system. As noted earlier, we found expenditures of about \$188,000 that we believe were erroneously recorded as general capital costs rather than Expo expansion project costs. The classification of these costs is somewhat subjective because MERC lacks criteria for deciding what costs to record to projects. We recommend developing such criteria.

## Chapter 3

### Construction Contract Management Processes Were Adequate, but Some Improvement is Needed

Controlling the cost of services provided by the general contractor was a critical part of managing the Expo expansion project since the construction budget constituted nearly 90% of the \$13.5 million project budget.

Actual costs paid to the general contractor (Hoffman) are shown in the following table.

| <u>Category</u>  | <u>Actual Costs<br/>(millions)</u> |
|--|------------------------------------|
| Reimbursed subcontracted services costs  | \$ 10.8                            |
| Reimbursed General Conditions costs  | 0.4                                |
| Construction management fee at 3.2%  | 0.4                                |
| Salaries & benefits of general contractor staff assigned to the Expo expansion project | <u>0.2</u>                         |
| Total paid to construction contractor  | <u>\$ 11.8</u>                     |

“General Conditions” costs included liability insurance, construction bonds, office and construction equipment rental, office supplies, temporary sanitation and surveying.

We reviewed construction management literature and assessed the risks inherent in the construction services agreement. To control construction costs under the CM/GC contracting approach, we determined that the following steps were necessary:

1. Ensure construction services are competitively priced.
2. Ensure only those costs allowed by the construction services agreement are billed to the Expo project.

3. Ensure construction services are provided at cost, as required by the construction services agreement.
4. Ensure contractor is reimbursed only for services actually received.
5. Ensure 3.2% management fee is properly calculated and billed.

**Procedures to Obtain  
Competitive Prices  
from Subcontractors  
Were Generally  
Followed**

The general contractor awarded 42 construction subcontracts for the Expo project. The initial value of work under these subcontracts totaled \$8.0 million and amendments boosted their final cost to \$10.8 million. Many of these amendments were anticipated and they did not increase the \$12.1 million construction budget.

The contract for construction services established the following requirements for subcontracts:

1. The general contractor was required to sub-bid all construction work costing more than \$2,500 unless an exemption from sub-bidding was obtained from MERC.
2. Requests for subcontract bids were to be advertised at least 10 days in advance of bid opening in the Daily Journal of Commerce. They were also to be advertised in at least one other newspaper targeted to reach women- and minority-owned businesses.
3. All bids for subcontract work were required to be sealed.
4. All subcontract awards were to be approved by MERC.

The construction services agreement set a goal for the general contractor to obtain at least three bids for each work package, presumably to help ensure that subcontracted services would be competitively priced.

For the initial \$8.0 million in construction work awarded to subcontractors, we found that MERC and the general contractor substantially followed the subcontract award procedure specified in the construction services agreement. This provided a significant level of assurance that MERC received competitive prices for the initial work awarded to subcontractors.

Forty of the construction subcontracts exceeded the \$2,500 threshold for sub-bidding given in the RFP. The general contractor awarded 31 of them based on competitive bids. These

31 subcontracts comprised over 95% of the initial value of work awarded to subcontractors.

More than 90% of the 40 subcontract awards were based on three or more bids. All but one was awarded to the lowest cost bidder. The single subcontract not awarded to the low bidder was awarded to a Disadvantaged Business Enterprise; the amount of the subcontract was relatively small at \$24,000.

MERC management approved all subcontract awards. This requirement was also listed in the RFP.

**Policies Regarding Sealed Bidding Should Be Re-evaluated**

Although the general contractor usually followed the required procedure for awarding subcontracts, we noted the contractor did not ask potential subcontractors to submit sealed bids as required by the construction services agreement. We checked five subcontract files at the general contractor's office and found that four of the subcontracts had been awarded based on faxed bids rather than sealed bids. We came across no evidence indicating that bid results were affected by this procedural change. However, we believe the sealed bid requirement should have been enforced to provide additional assurance that the integrity of the sub-bid award process was preserved.

MERC may wish to make the subcontract bidding process more efficient by raising the threshold for sealed bids from \$2,500 to \$10,000 or \$25,000. For subcontracts under the increased bid threshold, MERC could assure competitive pricing by requiring the general contractor to obtain and record at least three competitive quotes for each construction service required.

**Better Documentation of MERC's Approval of Subcontract Amendments Recommended**

As noted in the previous section, subcontract amendments processed during the construction of Hall E totaled about \$2.8 million. These amendments affected the amount MERC paid the general contractor but did not raise either the overall construction budget or the maximum price set by the construction services agreement.

*Why Subcontract Changes Occurred*

Considering our analysis of selected subcontract changes and on discussions with MERC staff, we found that subcontract amendments occurred for several reasons.

In order to complete construction as scheduled by March 1997, the general contractor requested bids and awarded subcontract work before the project architect had completed all designs and drawings. MERC signed a construction services agreement with the general contractor shortly before subcontract bids were requested. This agreement contained allowances for building features that had not been designed, and some subcontractors performed the additional work after the designs and drawings were completed.

Unforeseen conditions also resulted in subcontract amendments. For example, the area where Hall E was built had apparently once been a county dump site. Although MERC hired a geotechnical firm before construction to assess soil conditions, the core samples taken by the firm did not fully identify the problem. As a result, the original construction subcontracts did not specify all the excavation and debris removal work that was eventually required. The construction services agreement contained allowances for this unforeseeable expense, as well as others associated with road improvements, site grading and landscaping.

Another subcontract amendment approved overtime labor. This was done to ensure construction work would be completed on schedule.

Some subcontractor bids were less than the general contractor budgeted. MERC used the savings to add extra features to the building. For example, MERC exercised an option to install folding partition walls that can be used to divide Hall E into two smaller exhibit spaces.

### *MERC Established Several Processes to Control Construction Changes*

At the beginning of construction, MERC's Construction Manager established several processes for ensuring proposed changes to construction specifications and costs would receive appropriate review. The processes are summarized below.

Change Proposal Notifications (CPNs). These notices were used by the general contractor to request two types of changes:  
1) scope changes or allowance adjustments that affected the construction contingency fund, which was originally set at

\$420,000; and 2) scope changes that changed the guaranteed maximum price of building the new Expo hall. Notices were prepared by the contractor and routed to MERC staff and the project architect for review. They were signed by the Oregon Convention Center Director (to whom the Expo Center manager reported). The project architect reviewed notices but did not sign them. About 115 notices, with a cumulative cost impact of \$1.6 million, were proposed by the general contractor.

Design Clarification/Variation Requests (DCVRs). These requests were used by the general contractor to obtain interpretations of construction specifications or to request permission to use a different construction method, material or design than originally specified. Requests contained two sections: one section for the general contractor to describe the request or the problem to be solved, and the other section for the architect's response. We were told that MERC's Construction Manager reviewed all requests, but we noted that neither he nor any other MERC manager was required to sign them. Almost 500 requests were processed during the construction of the new Expo hall. Change Proposal Notifications were to be prepared for any approved requests that would increase construction costs; this would ensure proper approval of changes.

Construction Change Directives (CCDs). These directives indicated construction changes desired by MERC or the architect. Directives were prepared by the architect and approved by MERC's Construction Manager. It was our understanding that, if a directive affected construction costs, the additional costs would be authorized through a Change Proposal Notification, assuring proper approval.

#### *Criteria Used to Evaluate MERC's Procedure for Controlling Construction Changes*

Considering our assessment of risks, we concluded that MERC should review and approve all subcontract changes using Change Proposal Notifications or a similar process. The goals of MERC's review should be to:

- Evaluate the need for the proposed subcontract change
- Determine whether the cost of the proposed change is reasonable and fair



- Ensure extra services associated with each change do not duplicate services that have already been included in an existing subcontract.

The project architect or a qualified construction cost analyst could help MERC staff review construction changes that lead to subcontract amendments. Their experience could provide added assurance that the proposed changes are both necessary and reasonably priced.

*MERC Staff Approved Most, But Not All, Changes that Resulted in Subcontract Amendments*

As noted earlier, MERC authorized \$1.6 million of construction changes on Change Proposal Notifications. However, subcontract amendments totaled \$2.8 million, leaving about \$1.2 million in subcontract changes that were processed by the general contractor without MERC's formal written approval. MERC staff likely saw most, if not all, of these changes when they reviewed Design Clarification/Variation Requests and when they participated in weekly meetings that were held by the project team. In order to provide better accountability and further assurance that the subcontract amendments are necessary and cost-competitive, we believe written approval is needed for all changes and decisions that result in subcontract amendments.

When administering future construction projects that are done using the CM/GC approach, MERC should ensure that all subcontract amendments are reviewed and approved, either through Change Proposal Notifications or an equivalent process. MERC staff may wish to ask the project architect or an experienced construction cost analyst to review the notices when this would be cost-effective. This review would provide additional assurance that proposed changes are needed and reasonably priced.

**MERC's Efforts to Ensure Competitive Pricing of Indirect Construction Services Need to be Documented**

MERC paid the general contractor about \$400,000 for general conditions costs incurred during Hall E construction. General conditions were essentially indirect construction services and included the following:

- Liability insurance and contractor's bonds
- Rented construction and office equipment

- Surveyor services
- Office supplies
- Duplication of construction drawings.

We were told that the MERC Construction Manager, with assistance from Metro's Construction Manager, reviewed all categories of general conditions costs and ensured that they were reasonable before the construction budget was forwarded to MERC for approval. We were also told that they reviewed proposed equipment rental rates and found they were at or below market value. However, we were unable to identify the actual steps taken to ensure competitive pricing because the process was informal and no records were kept. Although formally documented price comparisons are not needed for low-cost services, we believe they should be done whenever amounts may be significant. For the Expo project, the services in this category would have included such items as insurance, equipment rental, surveyor and temporary structures costs.

**Increased Effort  
Needed to Ensure  
Construction  
Contractor Provides  
Adequate Support for  
All Expenditures**

Overall, MERC staff implemented adequate controls to ensure that: 1) the general contractor charged the Expo project only for services actually received, and 2) only those costs allowed by the contract services agreement were reimbursed to the contractor.

Although most construction expenditures were well documented, some were not. We tested 40 construction costs reimbursed during the months of July 1996, February 1997 and March 1997. Thirty-two of these 40 expenditures were adequately documented. However, the remaining eight expenditures had incomplete documentation. Thus, we were unable to determine to a reasonable level of certainty if they were billed to the Expo project at the general contractor's cost. Although the contractor provided some documentation to support these eight expenditures, it did not provide copies of invoices or their equivalent showing the actual amounts billed and the vendors' payment terms.

MERC staff should require the contractor to furnish copies of invoices submitted by subcontractors and other vendors before reimbursing costs in future construction projects utilizing the CM/GC approach. This would help assure that services have been billed at cost. This requirement could be waived for low-cost services.

**Costs to be Reimbursed to General Contractor Should Be Reviewed More Critically**

During our tests of construction expenditures and payroll overhead rates, we noted that the general contractor charged about \$19,000 of questionable costs to the Expo expansion project. These costs were allowable under the construction services agreement and approved by MERC staff, but may have been unnecessary. They were not significant in relation to the total cost of constructing the new Expo hall. However, they do indicate the need for MERC staff to more critically review costs billed by general contractors in the future.

The labor time of the general contractor's staff assigned to Expo was charged at actual pay rates plus a 46% overhead rate that covered the cost of payroll taxes and fringe benefits such as medical and pension plans. About 8% of the payroll overhead rate was for the cost of providing a year-end bonus equal to one month's pay. We believe the cost of this benefit should have been disallowed. It is not required by law or labor agreement, and presumably the general contractor would not actually disburse this benefit to employees who leave the company before year-end.

The 46% payroll overhead rate also included 8.20% for social security (FICA) and Medicare health insurance benefits. The actual cost to Hoffman, however, was 7.65%. The estimated overcharge from this item and the year-end bonus totaled about \$7,000.

Hoffman Structures, an affiliate of Hoffman Construction, provided about \$77,000 in services for the Expo project. Hoffman Structures' charges to the project included a 3% management fee. In our view, this management fee should not have been charged to the Expo project. It duplicated a 3.2% management fee already being paid to Hoffman Construction under the terms of the construction services agreement. The estimated overcharge from this item was about \$2,000.

Hoffman Construction set up a temporary office next to the construction site and billed MERC for the costs of operating the office. During our review of these costs, we noted expenditures of about \$10,000 for desks, chairs, a fax machine, photocopier, and a laser printer. MERC staff indicated some of these items were rented, while others were purchased. They stated that some of these items were returned for credit at the end of construction. Since construction work occurred over a relatively

short period of nine months, we believe it would have been more economical to lease most of these items instead of buying them. If the items were needed for MERC's ongoing operations, in our opinion it would have been more appropriate to acquire them using MERC's normal purchasing process.

In future construction projects, we recommend that staff more closely review indirect construction costs to ensure all charges are for services that are both necessary and prudent.

**Management Fee Paid  
in Accordance with  
Construction Contract**

As noted earlier, the construction services agreement allowed Hoffman to charge MERC a fee equal to 3.2% of reimbursable costs for managing the construction of the new Expo hall. We reviewed payments to Hoffman and verified that the total management fee paid (\$364,991) represented 3.2% of total reimbursable construction costs.

We also noted that, by March 1997, Hoffman Construction had requested and received management fee payments totaling \$375,114. This equaled 3.2% of the guaranteed maximum price of the construction services agreement but exceeded the total fee earned to that point by approximately \$15,000. We were told that Hoffman staff believed they were entitled to the full fee of \$375,114 once construction was substantially completed, as it was by March 1997, and they billed the Expo project accordingly. We were unable to determine when MERC staff first identified this error, but the overcharge was not corrected until July 1997, when Hoffman Construction submitted their final construction billing to MERC. It appears that closer review of the contractor's payment requests would have enabled MERC staff to identify the management fee overpayment more quickly.

**Funds Not Withheld  
from Contractor's  
Payments in  
Accordance with  
Construction Services  
Agreement**

MERC's contract with the general contractor stated that "Contractor shall be paid 95 percent (95%) of the determined value of work accomplished...within thirty (30) days after receipt by Owner of Contractor's payment estimate. Owner shall routinely withhold five percent (5%) as Retainage." This provision was aimed at ensuring the contractor would perform all services required under the Construction Services Agreement. Another section of the RFP provided MERC staff with the option to stop retaining funds after 50% of work was completed if work progressed according to schedule.

In practice, MERC withheld only 5% of the value of subcontracted construction services, rather than 5% of all construction costs. Thus, by our calculations MERC retained \$4,000 to \$20,000 a month less than that required under contract terms during the first half of the construction period. We believe there was little risk in this decision, since the contractor was also required to provide a performance bond. We recommend that staff retain funds in accordance with the contract. If the contract's withholding requirement is considered too aggressive, consideration should be given to processing a contract amendment to reduce the requirement.

## Chapter 4

### Summary of Audit Recommendations

In summary, we found that MERC staff generally managed the costs of the Expo expansion adequately. They achieved cost control by hiring a highly experienced general contractor, closely monitoring construction work, and using the services of Metro's construction specialist. Although overall construction cost management practices were satisfactory, we found several areas where improvements are needed.

1. When managing future construction projects using the CM/GC contracting approach, MERC staff should:
  - Document their approval of all changes and decisions that result in subcontract amendments
  - Compare the general contractor's prices and rates for general services to those available from other vendors, and document the results of the comparisons
  - Ensure that the general contractor has provided adequate support for expenditures before reimbursing them
  - More thoroughly review indirect construction services to ensure they are necessary and prudent
  - Consider raising the threshold for sealed bidding, then ensure the required sealed bidding procedure is followed
  - Retain funds in accordance with the contract. If the contract's retention requirement is considered too aggressive, consider processing a contract amendment to reduce the requirement.
2. MERC should develop criteria for staff to use to decide which costs to record to projects.

These steps will help MERC and Metro manage the costs of other large construction projects, such as the Oregon project under way at the Metro Washington Park Zoo and a proposed project at the Oregon Convention Center.

**Consideration of the March 26, 1998 Metro Council Regular meeting minutes.**

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**

# MINUTES OF THE METRO COUNCIL MEETING

March 26, 1998

Council Chamber

Councilors Present: Jon Kvistad (Presiding Officer) Ruth McFarland, Patricia McCaig, Ed Washington, Lisa Naito, Don Morissette

Councilors Absent: Susan McLain (excused)

Presiding Officer Kvistad convened the Regular Council Meeting at 2:08 p.m.

## 1. INTRODUCTIONS

None.

## 2. CITIZEN COMMUNICATION

Mr. John Weigant, 429 N Bridgeton #B, Portland, OR 97217, believed that most of the work that Metro did was excellent, particularly he favored Metro's efforts at a strong policy of growth management. He believed the efforts of growth management were conservative and realistic. He felt that policies to carry out growth management were somewhat lacking. Due to this belief, he had officially registered a protest with the Metro ballot title for the Oregon Convention Center. He noted that Mr. Don MacIntire had also registered opposition to the ballot title. Metro's requirements for a ballot title required an impartial statement and he felt that the one that was published hardly qualified as an impartial statement. He believed that the statement was entirely one sided, filled with misinformation, information subject to interpretation. He felt that the Council needed to know their protester, therefore, he was here to register an opposition to the ballot title. He felt Metro needed to rethink how Metro's policies with the Oregon Convention Center and purpose for economic growth meshed with policies of growth management and the econometric population projection model that equated population growth to jobs and economic growth.

Councilor McFarland asked if Metro had done anything right with the ballot measure?

Mr. Weigant said he believed, judging from the ballot title, that the Oregon Convention Center was a powerful enough economic force in the community that it should be privatized.

Councilor McFarland summarized Mr. Weigant's comments indicating Metro had done hardly anything right.

Presiding Officer Kvistad said that Metro had built a wonderful facility.

Mr. Weigant agreed.

Councilor McFarland noted that what Mr. Weigant suggested was to turn the Convention Center over to private industry and let them run it.



Mr. Weigant said when you make the claim that Metro has had a 2.2 billion dollar economic impact since the Convention Center was built, he did not understand how you could justify this bond.

**3. EXECUTIVE OFFICER COMMUNICATIONS**

None.

**4. MPAC COMMUNICATION**

None.

**5. CONSENT AGENDA**

5.1 Consideration meeting minutes of the March 19, 1998 Regular Council Meeting.

**Motion:** Councilor McCaig moved to adopt the meeting minutes of March 19, 1998 Regular Council Meeting.

**Seconded:** Councilor Washington seconded the motion.

**Discussion:** Councilor Naito suggested changing one of her remarks in the minutes, she had submitted this in writing to the Clerk of the Council. Councilor Morissette clarified the spelling of Mr. Stimson's name.

**Vote:** The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed as amended.

**6. ORDINANCES - FIRST READING**

6.1 Ordinance No. 98-726, For the Purpose of Changing the Name of the Metro Washington Park Zoo to Oregon Zoo.

**Presiding Officer Kvistad** assigned Ordinance No. 98-726 to Regional Facilities Committee.

6.2 Ordinance No. 98-736, For the Purpose of Granting a Yard Debris Reload Facility License to Best Buy in Town, Inc. to Operate a Yard Debris Reload Facility.

**Presiding Officer Kvistad** assigned Ordinance No. 98-736 to the Regional Environmental Management Committee.

**7. ORDINANCES - SECOND READING**

7.1 Ordinance No. 98-731, For the Purpose of Granting a Yard Debris Processing Facility License to Allwood Recyclers, Inc. to Operate a Yard Debris Processing Facility and Declaring an Emergency.

**Motion:** Councilor McFarland moved to adopt Ordinance No. 98-731.

**Seconded:** Councilor Morissette seconded the motion.

**Discussion:** Councilor McFarland said this ordinance had passed out of committee with a 3/0 vote.

Councilor Morissette added that this ordinance was relicensing a recycling facility that had already been in existence.

Councilor McFarland said the franchising of this facility had been delayed, this was not anything new. She recommended a do pass.

Presiding Officer Kvistad opened a public hearing on Ordinance No. 98-731. No one came forward. Presiding Officer Kvistad closed the public hearing.

Councilor McFarland urged the council's support.

**Vote:** The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

## 8. RESOLUTIONS

8.1 Resolution No. 98-2604, For the Purpose of Approving the FY 1999 United Work Program.

**Motion:** Councilor Washington moved to adopt Resolution No. 98-2604.

**Seconded:** Councilor McFarland seconded the motion.

**Discussion:** Councilor Washington said this resolution would approve the United Work Program, continue the transportation planning and work program for FY 1999 as well as authorize the submittal of grant applications to the appropriate funding agencies. This program covered all of the planning and grants for the Portland and Vancouver area such as the federally funded programs, studies to be conducted by Metro, the Regional Transportation Council, TriMet, ODOT, the City of Portland as well as local jurisdictions. Major commitments would continue for the completion of the Traffic Relief Options Study, the congestion pricing pilot project, adopting a Regional Transportation Plan, completing the South Willamette River Crossing study, initiating a Highway 217 corridor and I-5 Bi-state trade corridor study as well as increasing the communication of transportation system performance needs and proposed plans. This program matched the project and studies reflected in the proposed Metro budget submitted by the Metro Executive to the Office of the Metro Council and was subject to revision in the final Metro budget. Approval of this resolution would mean that grants could be submitted and contracts could be executed so work could commence on July 1, 1998 in accordance with Metro established procedures.

Councilor Morissette commented that the work program's over reliance on alternative modes, in his opinion, was too high. There was not enough effort being spent on studies for additional highway projects, road widenings and the like.

Councilor Washington urged the council's support.

**Vote:** The vote was 5 aye/ 1 nay/ 0 abstain. The motion passed with Councilor Morissette voting nay.

## 9. CONTRACT REVIEW BOARD

9.1 **Resolution No. 98-2618**, For the Purpose of Amending the Contract between Metro and David Evans and Associates (Contract No. 904969) for Design and Construction Management Services for the Peninsula Trail in North Portland.

**Main**

**Motion:** Councilor McCaig moved to adopt Resolution No. 98-2618.

**Seconded:** Councilor Washington seconded the motion.

**Discussion:** Councilor McCaig said that this was a rather complex item. The Peninsula Crossing Trail was a \$1.6 million greenspaces bond measure item. In 1995, the project was estimated to cost about \$1.6 million. With interest Metro now had about \$1.8 million in the bank for the entire project. About six months ago there was an amendment before the council to allow Metro to take advantage of some federal funds and replace openspaces dollars with the Springwater OMSI Trail. This was about a \$580,000 switch, Metro took the \$580,000 bond money and leveraged federal dollars to put into the Peninsula Crossing Trail and replaced the Springwater OMSI Trail with bond dollars. In doing this switch, there were increased costs associated with putting federal dollars into the Peninsula Crossing project. The project was still within the \$1.6 million but the \$580,000 that was added to the project were all federal dollars. There was a corresponding contract amendment that went with this switch for \$90,000 which allowed David Evans and Associates to pursue those additional requirements related to the federal dollars now in the project.

This resolution was another amendment to the David Evans contract. Their original contract for the \$1.6 million project was \$122,000, then there was the amendment for \$90,000 related to the switch over of federal dollars, and this was a \$38,000 contract amendment before Council. The \$38,000 contract amendment was related first, to the federal dollars, the David Evans group said that the federal dollars had caused increased permitting, supervisory and documentation requirements and second, some of the increase was simply the cost of the project, some of the design needs were some that they had not anticipated. She had reviewed the documentation and found that there were several items that should have been included in the scope of the David Evans contract and not in this amendment. She said she would be bringing forward an amendment to this resolution.

**Councilor Morissette** asked Councilor McCaig if the federal program was in place when the additional cost of \$90,000 was added?

**Councilor McCaig** said yes.

**Councilor Morissette** summarized that the David Evans group had had an opportunity to estimate what that impact was going to be and at that time their estimate was \$90,000.

**Councilor McCaig** reiterated that she understood Councilor Morissette's question and the answer was that they did have that opportunity and this resolution was an addition to those original costs. She reviewed her amendment. In looking at the \$38,000, there were some costs which she believed were legitimately included within the scope of their finding that the costs exceeded what they believed would be covered with the additional \$90,000. There were some minor items that she felt were nickel and diming Metro and she felt this \$4000 mattered. The two items that she had pulled out were the artists selection of \$3600. They had anticipated it in their original budget but had not included it in their final budget and so now they were requesting an amendment. This did not pass the nod test for her. If they could anticipate it at the time, knew that it must be done but didn't put it in their final budget and now they said they forgot but they would like to get paid for it, she recommended deleting this item. The second piece of the amendment focused on the unanticipated expenses where they were billing Metro \$1,032.76 for printing of mylar maps that they had not anticipated. This also did not pass the nod test when they now had a \$233,000 contract with Metro, they should have anticipated that Metro might need these maps. She indicated that the rest of the increases in cost were appropriate.

**Motion to**

**Amend:** Councilor McCaig moved to amend the resolution by changing the dollar figure reducing the amount of change order #2 by \$4,632.76. The new change order amount will be \$3,500. The new contract total, post order would be \$256,839.60.

**Seconded to**

**Amend:** Councilor Morissette seconded the amendment.

**Discussion:** Councilor Naito indicated that she had had some questions in committee about the artists fees as well. She noted the 1% for the arts which she understood had been anticipated in the \$90,000 figure. She said when this additional money came in, how did it effect the overall project, probably not at all. She thanked Councilor McCaig for her scrutiny of the resolution, it had not made sense to her why there would be additional costs with respect to artists just because Metro had received federal money. The 1% art program was a state run program.

**Councilor McCaig** said this was correct, the price of doing the artist competition had turned out to be a nightmare. There had been many more applications than anticipated, more staff time had been used but they had not included these costs in their original bid. It was part of the original process, there was nothing new as a result of the federal dollars associated with the project. She felt the additional artists and time to review applications was an oversight on David Evans and Associates part when they put the contract together but this was not Metro's responsibility to cover those oversight costs.

**Councilor Washington** clarified with Councilor McCaig that the adjustment would be from \$38,132.76 down to \$33,500.

**Councilor McCaig** said that was her recommendation, eliminating the overview of the artists selection for \$3,600 and \$1,032 of unanticipated expenditures.

**Councilor Washington** asked, based on this letter, was there an assumption that Metro was going to pay the \$38,000?

**Councilor McCaig** said prior to putting forward the amendment, she had made a call to see the extent to which Metro had the ability to negotiate, she assumed we did have that ability and had verified that Metro did in fact have the ability to negotiate the price.

**Vote:** The vote was 6 aye/ 0 nay/ 0 abstain. The amendment passed  
**to Amend:** unanimously.

**Presiding Officer Kvistad** declared that Resolution No. 98-2618 had been amended and would now be Resolution No. 98-2618A. He called for further comments on the motion as amended.

**Councilor Morissette** expressed his concern. The Council had reviewed this contract previously and now the costs had overrun again. He did not doubt that there was a lot of work in putting this project together but when you estimated a project you had to assume you would complete it. He felt the greenspace staff had done a good job of putting these proposals together. They were complicated but when he bid a job he had to live with his mistakes. He appreciated the last amendment that reduced the \$38,000 and he was sure that David Evans deserved much of this adjustment but there were a lot of times when Councilor Morissette had misestimated a bid, he had deserved it too but he hadn't gotten it. He urged the Council not to support the additional money proposed for this group. They had already had their chance to propose their amendment, the rules were laid out, granted the process changes, but that was part of working with government.

**Councilor Naito** said she would support the change order. This was a very important trail and a very exciting project. She believed it was the actions of Metro itself which additionally increased these costs, those could not have been foreseen by David Evans and Associates. She expressed concern as we move forward, because of the nature of the trail itself, they may anticipate even additional change orders coming forward. It was with some hesitation that she supported this proposal but she felt it was a very important project. She thought it was important to move forward with the project.

**Councilor Morissette** said his comments were not at all related to the project, they were to the fact that a bid was made, there was an adjustment made already and now there was another adjustment. He thought it was important that no matter how important a project was, you tried to stay on price. His comments were more to the budgetary process and the cost overruns than they were to the value of the project.

**Councilor McCaig** said, first, the project in 1995 was estimated at \$1.6 million, the project now would be \$1.675 million. Metro was doing very well four years later on a project of this size to be within that sort of framework. Secondly, the testimony that Councilor Naito was referring to was not eliminating the possibility for David Evans to be back. Primarily Metro anticipated that, with a construction project this size as the construction part unfolded (the design piece), it was possible that the Council might see some other change orders to different elements of the project. She thought the majority of these changes would be construction and hopefully not the David Evans contract. She concurred with Councilor Naito's comments, it was a great project. She felt that the Council had some right to expect that there would be some of these kinds of changes to the project and to the scope of these contracts as Metro engaged in something this big. She reminded the Council this was the first time that we had done this type of project. It was her hope that the Council would support this resolution as amended.

**Vote on  
the Main**

**Motion:** The vote was 4 aye/ 2 nay/ 0 abstain. The motion passed with Councilor Morissette and Presiding Officer Kvistad voted nay.

**10. COUNCILOR COMMUNICATION**

**Presiding Officer Kvistad** said that the April 2nd Metro Council meeting was canceled due to a lack of action items. He noted that there had been an item for first reading, the Ethics Ordinance. He had sent this ordinance to both the Auditor and the Executive Officer and had asked them to review it. They would be making comments and return these to the Council, these comments would be sent to the committee and then at that point it would be on the agenda for first reading.

**Councilor McCaig** said she wished to talk about the Budget/Finance calendar schedule. Due to yesterday's meeting she expressed concern that the Council had enough time to get through the rest of the items on the Budget Committee. She suggested adding a half hour instead of adding an entire new meeting day. She suggested starting at 2:30 p.m. for the April 1st meeting instead of starting at 3:30 p.m. This was not possible the week following due to the Regional Facilities Committee just prior to the Budget Committee. Additional time could be added to the end of the meeting on April 8th. The Budget Committee had already agreed to start at 2:30 p.m. on April 15th because this was the day they hoped to complete most of their work. April 22nd was a free day, that was the day she had held open if they needed to schedule another meeting date. She was pretty confident that if a half hour was added on the end of one of the other meetings that the committee would be able to get through the other agenda items. She asked that councilors check their schedule for next week to see if they were available to come in early.

**Councilor McFarland** suggested that April 1st meeting be schedule at 2:30 p.m. and asked for consensus before today's adjournment.

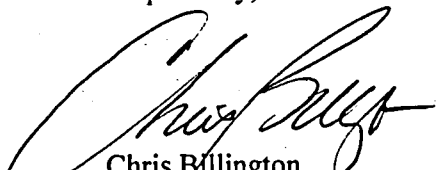
**Presiding Officer Kvistad** said with the agreement of the majority of the council and the assent of the Chair, the Budget Committee would begin at 2:30 p.m. next week.

**Councilor McCaig** said notices would be sent out about the time change and unless council heard differently they would begin the meeting at 2:30 p.m. and would also do a reminder call.

**11. ADJOURN**

There being no further business to come before the Metro Council, Presiding Officer Kvistad adjourned the meeting at 2:35 p.m.

Prepared by,



Chris Billington  
Clerk of the Council

**Ordinance No. 98-735, For the Purpose of lowering the minimum for group discount classification from 25 to 20 persons and granting complimentary admission to the drivers and escorts of pre-formed tour groups at Metro Washington Park Zoo.**

*First Reading*

Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF LOWERING THE ) ORDINANCE NO. 98-735  
MINIMUM FOR GROUP DISCOUNT )  
CLASSIFICATION FROM 25 TO 20 PERSONS ) Introduced by Mike Burton  
AND GRANTING COMPLIMENTARY ) Executive Officer  
ADMISSION TO THE DRIVERS AND ESCORTS )  
OF PRE-FORMED TOUR GROUPS AT METRO )  
WASHINGTON PARK ZOO )

WHEREAS, for many years, the Metro Washington Park Zoo has had a policy granting a 20% discount to pre-formed groups of 25 or more; and

WHEREAS, recent surveys of groups have shown that this number is too high for many of the groups to whom we market the discount; and

WHEREAS, most of our competitors offer a lower minimum; and

WHEREAS, the policy of offering complimentary admission to drivers and escorts of pre-formed groups is a standard practice in the group sales business;

THE METRO COUNCIL HEREBY ORDAINS AS FOLLOWS:

1. The minimum number of persons qualifying for a 20% group discount at the Metro Washington Park Zoo is lowered from 25 to 20, and complimentary admission is offered to drivers and escorts of pre-formed groups of 20 or more;

2. Metro Code Section 4.01.050 is amended to read as follows:

**4.01.050 Admission Fees and Policies**

(a) **Regular Fees**

(1) **Definitions**

(A) An Education Discount is offered to groups of students in a state accredited elementary, middle, junior, or high school, or pre-school/daycare center. Qualifications for education discount include a minimum of one



chaperon/escort, 18 years of age or older, for every five students of high school age or under; registration for a specific date at least two weeks in advance; and the purchase of curriculum materials offered by the zoo, or submission of a copy of the lesson plan that will be used on the day of the visit.

(B) The Group Discount is defined as any group of 2520 or more (including school groups that have not met the advance registration and curriculum requirements for the education discount; groups of students not accompanied by a minimum of one chaperon for every five students shall not qualify for the group discount).

(2) Fee Schedule

|  |        |
|--|--------|
| Adult (12 years and over)  | \$5.50 |
| Youth (3 years through 11 years)   | \$3.50 |
| Child (2 years and younger)  | free   |
| Senior Citizen (65 years and over)   | \$4.00 |
| Education Groups (per student)   | \$2.50 |
| <u>Chaperons/Escorts</u> 18 years or older admitted with education groups (maximum of one per five students) | free   |

Driver(s)/Escorts 18 years or older admitted with groups other than education groups (maximum of two per twenty group members) free

Additional chaperons/escorts 18 years or older in excess of one per five students will receive the group discount adult rate (20 percent discount) \$4.40

Groups other than education groups 2520 or more per group 20 percent discount from appropriate fee listed above

(b) Free and Reduced Admission Passes

(1) Free and reduced admission passes may be issued by the director in accordance with this chapter.

- (2) A free admission pass will entitle the holder only to enter the zoo without paying an admission fee.
- (3) A reduced admission pass will entitle the holder only to enter the zoo by paying a reduced admission fee.
- (4) The reduction granted in admission, by use of a reduced admission pass (other than free admission passes), shall not exceed 20 percent.
- (5) Free or reduced admission passes may be issued to the following groups or individuals and shall be administered as follows:
  - (A) Metro employees shall be entitled to free admission upon presentation of a current Metro employee identification card.
  - (B) Metro councilors and the Metro executive officer shall be entitled to free admission.
  - (C) Free admission passes in the form of volunteer identification cards may, at the director's discretion, be issued to persons who perform volunteer work at the zoo. Cards shall bear the name of the volunteer, shall be signed by the director, shall be non-transferrable, and shall terminate at the end of each calendar year or upon termination of volunteer duty, whichever date occurs first. New identification cards may be issued at the beginning of each new calendar year for active zoo volunteers.
  - (D) Reduced admission passes may be issued to members of any organization approved by the council, the main purpose of which is to support the Metro Washington Park Zoo. Such passes shall bear the name of the passholder, shall be signed by an authorized representative of the organization, shall be non-transferrable, and shall terminate not more than one year from the date of issuance.
  - (E) Other free or reduced admission passes may, with the approval of the director, be issued to other individuals who are working on educational projects or projects valuable to the zoo. Such passes shall bear an expiration date not to exceed three months from the date of issuance, shall bear the name of the passholder, shall be

signed by the director and shall be non-transferrable.

(c) Special Admission Days

- (1) Special admission days are days when the rates established by this Code are reduced or eliminated for a designated group or groups. Six special admission days may be allowed, at the discretion of the director, during each calendar year.
- (2) Three additional special admission days may be allowed each year by the director for designated groups. Any additional special admission days designated under this subsection must be approved by the executive officer.

(d) Special Free Hours. Admission to the zoo shall be free for all persons from 3:00 p.m. until closing on the second Tuesday of each month.

(e) Commercial Ventures. Proposed commercial or fund-raising ventures with private profit or nonprofit entities involving admission to the zoo must be authorized in advance by the executive officer. The executive officer may approve variances to the admission fees to facilitate such ventures.

(f) Special Events. The zoo, or portions thereof, may be utilized for special events designed to enhance zoo revenues during hours that the zoo is not normally open to the public. The number, nature of, and admission fees for such events shall be subject to the approval of the executive officer.

(Ordinance No. 92-412A, Sec. 2. Amended by Ordinance No. 93-505; Sec. 1; Ordinance No. 94-568)

ADOPTED by the Metro Council this \_\_\_\_ day of \_\_\_\_\_ 1998

\_\_\_\_\_  
Jon Kvistad, Presiding Officer

Approved as to Form:

\_\_\_\_\_  
Daniel B. Cooper, General Counsel

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## STAFF REPORT

### CONSIDERATION OF ORDINANCE NO. 98-735 FOR THE PURPOSE OF LOWERING THE MINIMUM FOR THE GROUP DISCOUNT CLASSIFICATION FROM 25 TO 20 PERSONS AND GRANTING COMPLIMENTARY ADMISSION TO THE DRIVERS AND ESCORTS OF PRE-FORMED TOUR GROUPS AT METRO WASHINGTON PARK ZOO

---

Date: March 19, 1998

Presented by: Kathy Kiaunis

#### FACTUAL BACKGROUND AND ANALYSIS

Tour groups are an important market for the Metro Washington Park Zoo. With the completion of the Oregon project, the Zoo hopes to command a much larger share of this market. The marketing plan for the new exhibit seeks an additional 16,000 visitors in this category.

In a recent survey of tour organizers and commercial tour operators, we found that our minimum group size qualifying for a discount is higher than most places, and is detrimental to our ability to attract groups. Twenty people is the industry standard for group discounts, and some attractions offer discounts for groups as small as ten people (National Tour Association, 1995). Twenty-two passenger vans are now commonly used for groups organized by commercial tour operators and for church, youth and senior groups. Commercial tour operators often use this discount as their "commission," and are not as likely to come to the Zoo without it.

The Zoo has offered a 20% discount to pre-formed groups of 25 or more for more than 15 years. We would now like lower the group size eligible for a discount to 20.

The policy of offering complimentary admission to drivers and escorts of pre-formed groups is a standard practice in the group sales business and the Zoo would like to incorporate this provision into the ordinance.

#### BUDGET IMPACT

Reducing the group size requirement for discount admissions will not adversely effect Zoo revenues. It is believed that the impact of reducing the group size requirement will be offset by the increase in the number of total groups attending.

#### EXECUTIVE OFFICE RECOMMENDATIONS

The Executive Officer recommends adoption of Ordinance No. 98-735.

*Agenda Item Number 8.2*

**Ordinance No. 98-739, Amending the FY 1997-98 MERC budget and appropriations schedule for the purpose of adopting the FY 1997-98 Supplemental Budget and declaring an emergency..**

***First Reading***

**Metro Council Meeting  
Thursday April 9, 1998  
Council Chamber**

BEFORE THE METRO COUNCIL

AN ORDINANCE AMENDING THE FY )      ORDINANCE NO. 98-739  
1997-98 MERC BUDGET AND )  
APPROPRIATIONS SCHEDULE FOR )  
THE PURPOSE OF ADOPTING THE )      Introduced by Councilor  
FY 1997-98 SUPPLEMENTAL BUDGET, )      Ruth McFarland  
AND DECLARING AN EMERGENCY )

WHEREAS, Conditions exist which had not been ascertained at the time of the preparation of the FY 1997-98 budget, and a change in financial planning is required; and

WHEREAS, The Multnomah County Tax Supervising and Conservation Commission held its public hearing on the Supplemental Budget of Metro for the fiscal year beginning July 1, 1997, and ending on June 30, 1998; and

WHEREAS, Recommendations from the Tax Supervising and Conservation Commission have been received and acted upon, as reflected in the Supplemental Budget and Schedule of Appropriations; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. That the FY 1997-98 Budget and Schedule of Appropriations are hereby amended as shown in the column titled "Revision" of Exhibits A and B to this Ordinance.

This Ordinance being necessary for the immediate preservation of the public health, safety and welfare, in order to meet obligations and comply with Oregon Budget Law, an emergency is declared to exist, and this Ordinance takes effect upon passage.

ADOPTED by the Metro Council this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

ATTEST:

\_\_\_\_\_  
Recording Secretary

\_\_\_\_\_  
Jon Kvistad, Presiding Officer

APPROVED AS TO FORM

\_\_\_\_\_  
Daniel B. Cooper, General Counsel

## STAFF REPORT

### IN CONSIDERATION OF ORDINANCE NO. 98-739 AMENDING THE FY 1997-98 BUDGET AND APPROPRIATIONS SCHEDULE FOR THE PURPOSE OF ADOPTING THE FY 1997-98 SUPPLEMENTAL BUDGET, AND DECLARING AN EMERGENCY

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Date: March 24, 1998

Presented by: Mark Williams  
Norman Kraft

### FACTUAL BACKGROUND AND ANALYSIS

A supplemental budget is necessary due to unforeseen circumstances that require changes in our financial planning. These Council actions are presented toward adopting a supplemental budget for FY 1997-98. Ordinance No. 98-739 revises the FY 97-98 budget and appropriations schedule to recognize additional revenue of \$27,481 for Oregon Convention Center Project Capital Fund, \$15 for Coliseum Fund, \$1,307,559 for Oregon Convention Center Operating Fund, \$58,486 for Spectator Facilities Operating Fund and \$1,641,060 for MERC Operating Fund.

This Ordinance is presented at this time but is not intended to be adopted until after the Tax Supervising and Conservation Commission (TSCC) conducts a public hearing. TSCC review is required under Oregon Budget Law because total appropriations are being increased by more than ten percent of the value of the fund's adopted expenditures. Specific changes to the budget under this proposal are explained below.

#### *Closure of Former Operating Funds*

In FY 1997-98, the Council created the MERC Operating Fund to account for all revenues and expenditures of the facilities under MERC Management. The former operating funds are to be closed out and the fund balances transferred to the new MERC Operating Fund. In the Oregon Convention Center Operating Fund, the Spectator Facilities Operating Fund and the Coliseum Operating Fund, the actual fund balances are higher than what is budgeted. In order to close out the funds and be in compliance with Oregon Budget Law, it is necessary to recognize the additional fund balance and provide sufficient appropriation authority to make the necessary residual equity transfers to the MERC Operating Fund.

The action increases beginning fund balances and interfund transfer appropriation authority in the following funds. The increased transferred

resources are also recognized in the MERC Operating Fund, however the vast majority is placed in unappropriated ending fund balance.

|   |             |
|---|-------------|
| Oregon Convention Center Operating Fund | \$1,307,559 |
| Spectator Facilities Operating Fund     | \$ 58,486   |
| Coliseum Operating Fund                 | \$ 15       |

*Spend Out of the Convention Center Project Capital Fund*

The FY 1997-98 budget assumed that all that would remain in the Convention Center Project Capital Fund budget was sufficient beginning Fund Balance to pay the final federal arbitrage rebate payment. However, several projects were slightly delayed at the end of the FY 1996-97 resulting in a higher fund balance carryover into FY 1997-98. In addition, the federal arbitrage rebate payment was slightly lower than budgeted. This action requests the recognition of the additional \$27,481 in beginning fund balance and a like amount in capital outlay. It also moves \$3,487 from materials and services to capital outlay, for a total capital outlay appropriation of \$30,968. If approved, this action would allow MRC to completely spend-out the Convention Center Project Capital Fund in FY 1997-98, thereby leaving a "clean" fund to receive the Convention Center Completion bond proceeds if approved by the voters in November, 1998.

*Portland Center for the Performing Arts Labor Costs*

During the preparation of the FY 1997-98 budget, MERC was still in negotiations with IATSE on the Stagehand agreement. The final Stagehand agreement was different than anticipated in the budget and in addition, a policy change in how cleaning services are provided have resulted in increased labor costs of \$467,165. The increased costs are proposed to be funded with the recognition of \$275,000 in additional revenue for reimbursed labor services, \$100,000 transferred from MERC Operating Fund Contingency, and \$92,165 from the increased residual fund transfers from the former operating funds

**SUMMARY OF BUDGET IMPACT**

Specific line item changes and appropriation modifications are provided in Exhibits A and B to the Ordinance. The following is a summary of the changes requested in the Supplemental Budget for FY 1997-98:

***Convention Center Project Capital Fund***

**Resources:**

|                          |                  |
|--------------------------|------------------|
| • Beginning Fund Balance | \$ 27,481        |
| <b>TOTAL RESOURCES</b>   | <b>\$ 27,481</b> |



Requirements:

|                            |                  |
|----------------------------|------------------|
| • Materials and Services   | \$ ( 3,487)      |
| • Capital Outlay (Non-CIP) | \$ 30,968        |
| <b>TOTAL REQUIREMENTS</b>  | <b>\$ 27,481</b> |

***Coliseum Fund***

Resources:

|                          |              |
|--------------------------|--------------|
| • Beginning Fund Balance | \$ 15        |
| <b>TOTAL RESOURCES</b>   | <b>\$ 15</b> |

Requirements:

|                            |              |
|----------------------------|--------------|
| • Residual Equity Transfer | \$ 15        |
| <b>TOTAL REQUIREMENTS</b>  | <b>\$ 15</b> |

***Oregon Convention Center Operating Fund***

Resources:

|                          |                     |
|--------------------------|---------------------|
| • Beginning Fund Balance | \$ 1,307,559        |
| <b>TOTAL RESOURCES</b>   | <b>\$ 1,307,559</b> |

Requirements:

|                            |                     |
|----------------------------|---------------------|
| • Residual Equity Transfer | \$ 1,307,559        |
| <b>TOTAL REQUIREMENTS</b>  | <b>\$ 1,307,559</b> |

***Spectator Facilities Operating Fund***

Resources:

|                          |                  |
|--------------------------|------------------|
| • Beginning Fund Balance | \$ 58,486        |
| <b>TOTAL RESOURCES</b>   | <b>\$ 58,486</b> |

Requirements:

|                            |                  |
|----------------------------|------------------|
| • Residual Equity Transfer | \$ 58,486        |
| <b>TOTAL REQUIREMENTS</b>  | <b>\$ 58,486</b> |

***MERC Operating Fund***

Resources:

|                              |                     |
|------------------------------|---------------------|
| • CHGSVC (Reimb. Srvs-Labor) | \$ 275,000          |
| • Residual Equity Transfer   | \$ 1,366,060        |
| <b>TOTAL RESOURCES</b>       | <b>\$ 1,641,060</b> |

Requirements:

|                               |                     |
|-------------------------------|---------------------|
| • Personal Services           | \$ 467,165          |
| • Contingency                 | \$ ( 100,000)       |
| • Unappropriated Fund Balance | \$ 1,273,895        |
| <b>TOTAL REQUIREMENTS</b>     | <b>\$ 1,641,060</b> |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY1997-1998 Supplemental Budget**

**Convention Center Project Capital Fund**

| ACCT  | DESCRIPTION                       | FY 1997-98<br>Current |                  | FY 1997-98<br>Revision |                  | FY 1997-98<br>Proposed |                  |
|---|-----------------------------------|-----------------------|------------------|------------------------|------------------|------------------------|------------------|
|   |                                   | FTE                   | Amount           | FTE                    | Amount           | FTE                    | Amount           |
| <i>Resources</i>                            |                                   |                       |                  |                        |                  |                        |                  |
| BEGBAL                                      | Beginning Fund Balance            |                       | \$120,000        |                        | \$27,481         |                        | \$147,481        |
| INTRST                                      | Interest Earnings                 |                       |                  |                        |                  |                        | \$3,300          |
| 4700  | Interest on Investments           |                       | 3,300            |                        |                  |                        |                  |
| MISCRV                                      | Miscellaneous Revenue             |                       |                  |                        |                  |                        | \$0              |
| 4890  | Miscellaneous Revenue             |                       | 0                |                        |                  |                        |                  |
| <b>TOTAL RESOURCES</b>                      |                                   |                       | <b>\$123,300</b> |                        | <b>\$27,481</b>  |                        | <b>\$150,781</b> |
| <b>Total Personal Services</b>              |                                   |                       | <b>\$0</b>       |                        |                  |                        | <b>\$0</b>       |
| <i>Materials &amp; Services</i>             |                                   |                       |                  |                        |                  |                        |                  |
| SVCS  | Services                          |                       |                  |                        |                  |                        | 0                |
| 5240  | Contracted Professional Svcs      |                       | 0                |                        |                  |                        |                  |
| IGEXP                                       | Intergov't Expenditures           |                       |                  |                        |                  |                        | \$119,813        |
| 5310  | Taxes (Non-Payroll)               |                       | 123,300          |                        | (3,487)          |                        |                  |
| <b>Total Materials &amp; Services</b>       |                                   |                       | <b>\$123,300</b> |                        | <b>(\$3,487)</b> |                        | <b>\$119,813</b> |
| <i>Capital Outlay</i>                       |                                   |                       |                  |                        |                  |                        |                  |
| CAPNON                                      | Capital Outlay (Non-CIP Projects) |                       |                  |                        |                  |                        | \$30,968         |
| 5720  | Buildings & Related (non-CIP)     |                       | 0                |                        | 30,968           |                        |                  |
| 5740  | Equipment & Vehicles (non-CIP)    |                       | 0                |                        |                  |                        | 0                |
| 5770  | Leasehold Improve (non-CIP)       |                       | 0                |                        |                  |                        | 0                |
| <b>Total Capital Outlay</b>                 |                                   |                       | <b>\$0</b>       |                        | <b>\$30,968</b>  |                        | <b>\$30,968</b>  |
| <b>Total Interfund Transfers</b>            |                                   |                       | <b>\$0</b>       |                        |                  |                        | <b>\$0</b>       |
| <b>Total Contingency and Ending Balance</b> |                                   |                       | <b>\$0</b>       |                        |                  |                        | <b>\$0</b>       |
| <b>TOTAL REQUIREMENTS</b>                   |                                   |                       | <b>\$123,300</b> |                        | <b>\$27,481</b>  |                        | <b>\$150,781</b> |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**Coliseum Fund**

| ACCT   | DESCRIPTION                    | FY 1997-98<br>Current |                 | FY 1997-98<br>Revision |             | FY 1997-98<br>Proposed |                 |
|--|--------------------------------|-----------------------|-----------------|------------------------|-------------|------------------------|-----------------|
|  |                                | FTE                   | Amount          | FTE                    | Amount      | FTE                    | Amount          |
| <b><u>Resources</u></b>                      |                                |                       |                 |                        |             |                        |                 |
| BEGBAL                                       | Beginning Fund Balance         |                       | \$45,000        |                        | \$15        |                        | \$45,015        |
| INTRST                                       | Interest Earnings              |                       |                 |                        |             |                        |                 |
| 4700   | Interest on Investments        |                       | 0               |                        | 0           |                        | 0               |
| <b>TOTAL RESOURCES</b>                       |                                |                       | <b>\$45,000</b> |                        | <b>\$15</b> |                        | <b>\$45,015</b> |
| <b><u>Materials &amp; Services</u></b>       |                                |                       |                 |                        |             |                        |                 |
| SVCS   | Services                       |                       |                 |                        |             |                        |                 |
| 5270   | Insurance                      |                       | 0               |                        | 0           |                        | 0               |
| <b>Total Materials &amp; Services</b>        |                                |                       | <b>\$0</b>      |                        | <b>\$0</b>  |                        | <b>\$0</b>      |
| <b><u>Interfund Transfers</u></b>            |                                |                       |                 |                        |             |                        |                 |
| EQTCHG                                       | Fund Equity Transfers          |                       |                 |                        |             |                        |                 |
| 5810   | Transfer of Resources          |                       |                 |                        |             |                        |                 |
|  | • to Spectator Facilities Fund |                       | 0               |                        | 0           |                        | 0               |
|  | • to MERC Operating Fund       |                       | 45,000          |                        | 15          |                        | \$45,015        |
| <b>Total Interfund Transfers</b>             |                                |                       | <b>\$45,000</b> |                        | <b>\$15</b> |                        | <b>\$45,015</b> |
| <b><u>Contingency and Ending Balance</u></b> |                                |                       |                 |                        |             |                        |                 |
| UNAPP  | Unappropriated Fund Balance    |                       |                 |                        |             |                        |                 |
| 5990   | Unappropriated Fund Balance    |                       | 0               |                        | 0           |                        | 0               |
| <b>Total Contingency and Ending Balance</b>  |                                |                       | <b>\$0</b>      |                        | <b>\$0</b>  |                        | <b>\$0</b>      |
| <b>TOTAL REQUIREMENTS</b>                    |                                |                       | <b>\$45,000</b> |                        | <b>\$15</b> |                        | <b>\$45,015</b> |

**Exhibit A**  
**Ordinance 98-739**  
**FY 1997-1998 Supplemental Budget**

**Oregon Convention Center Operating Fund**

| ACCT                                 | DESCRIPTION                    | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                    | FY 1997-98<br>Proposed |                    |
|--------------------------------------|--------------------------------|-----------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
|                                      |                                | FTE                   | Amount             | FTE                    | Amount             | FTE                    | Amount             |
| <b>Resources</b>                     |                                |                       |                    |                        |                    |                        |                    |
| BEBAL                                | Beginning Fund Balance         |                       | \$4,347,212        |                        | \$1,307,559        |                        | \$5,654,771        |
| LGSBRE                               | Local Gov't Share Revenues     |                       |                    |                        |                    |                        |                    |
| 4130                                 | Hotel/Motel Tax                |                       | 0                  |                        | 0                  |                        | 0                  |
| CHGSVC                               | Charges for Service            |                       |                    |                        |                    |                        |                    |
| 4500                                 | Admission Fees                 |                       | 0                  |                        | 0                  |                        | 0                  |
| 4510                                 | Rentals                        |                       | 0                  |                        | 0                  |                        | 0                  |
| 4550                                 | Food Service Revenue           |                       | 0                  |                        | 0                  |                        | 0                  |
| 4560                                 | Retail Sales                   |                       | 0                  |                        | 0                  |                        | 0                  |
| 4570                                 | Merchandising                  |                       | 0                  |                        | 0                  |                        | 0                  |
| 4580                                 | Utility Services               |                       | 0                  |                        | 0                  |                        | 0                  |
| 4590                                 | Commissions                    |                       | 0                  |                        | 0                  |                        | 0                  |
| 4620                                 | Parking Fees                   |                       | 0                  |                        | 0                  |                        | 0                  |
| 4645                                 | Reimbursed Services            |                       | 0                  |                        | 0                  |                        | 0                  |
| 4650                                 | Miscellaneous Charges for Svc  |                       | 0                  |                        | 0                  |                        | 0                  |
| INTRST                               | Interest Earnings              |                       |                    |                        |                    |                        |                    |
| 4700                                 | Interest on Investments        |                       | 0                  |                        | 0                  |                        | 0                  |
| MISCRV                               | Miscellaneous Revenue          |                       |                    |                        |                    |                        |                    |
| 4890                                 | Miscellaneous Revenue          |                       | 0                  |                        | 0                  |                        | 0                  |
| <b>TOTAL RESOURCES</b>               |                                |                       | <b>\$4,347,212</b> |                        | <b>\$1,307,559</b> |                        | <b>\$5,654,771</b> |
| Total Personal Services              |                                | 0.00                  | \$0                | 0.00                   | \$0                | 0.00                   | \$0                |
| Total Materials & Services           |                                |                       | \$0                |                        | \$0                |                        | \$0                |
| Total Debt Service                   |                                |                       | \$0                |                        | \$0                |                        | \$0                |
| Total Capital Outlay                 |                                |                       | \$0                |                        | \$0                |                        | \$0                |
| <b>Interfund Transfers</b>           |                                |                       |                    |                        |                    |                        |                    |
| INTCHG                               | Internal Service Transfers     |                       |                    |                        |                    |                        |                    |
| 5800                                 | Transfer for Indirect Costs    |                       |                    |                        |                    |                        |                    |
|                                      | • to Support Services          |                       | 0                  |                        | 0                  |                        | 0                  |
|                                      | • to Risk Mgmt (liability)     |                       | 0                  |                        | 0                  |                        | 0                  |
|                                      | • to Risk Mgmt (Worker Comp)   |                       | 0                  |                        | 0                  |                        | 0                  |
| 5820                                 | Transfer for Direct Costs      |                       |                    |                        |                    |                        |                    |
|                                      | • to Support Services          |                       | 0                  |                        | 0                  |                        | 0                  |
|                                      | • to MERC Administration       |                       | 0                  |                        | 0                  |                        | 0                  |
| EQTCHG                               | Fund Equity Transfers          |                       |                    |                        |                    |                        |                    |
| 5810                                 | Transfer of Resources          |                       |                    |                        |                    |                        |                    |
|                                      | • to OCC Renewal & Replacement |                       | 0                  |                        | 0                  |                        | 0                  |
|                                      | • to Expo Center               |                       | 0                  |                        | 0                  |                        | 0                  |
| 5830                                 | Residual Equity Transfer-Out   |                       |                    |                        |                    |                        |                    |
|                                      | • to MERC Operating            |                       | 4,347,212          |                        | 1,307,559          |                        | 5,654,771          |
| <b>Total Interfund Transfers</b>     |                                |                       | <b>\$4,347,212</b> |                        | <b>\$1,307,559</b> |                        | <b>\$5,654,771</b> |
| Total Contingency and Ending Balance |                                |                       | \$0                |                        | \$0                |                        | \$0                |
| <b>TOTAL REQUIREMENTS</b>            |                                | 0.00                  | <b>\$4,347,212</b> | 0.00                   | <b>\$1,307,559</b> | 0.00                   | <b>\$5,654,771</b> |
|                                      |                                |                       | \$0                |                        | \$0                |                        | \$0                |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**Spectator Facilities Operating Fund**

| ACCT  | DESCRIPTION   | FY 1997-98<br>Adopted |                    | FY 1997-98<br>Revision |                 | FY 1997-98<br>Revised |                    |
|---|---|-----------------------|--------------------|------------------------|-----------------|-----------------------|--------------------|
|   |   | FTE                   | Amount             | FTE                    | Amount          | FTE                   | Amount             |
| <b><u>Resources</u></b>                               |   |                       |                    |                        |                 |                       |                    |
| <b><u>Civic Stadium</u></b>                           |   |                       |                    |                        |                 |                       |                    |
| BEGBAL  | Beginning Fund Balance                                  |                       | \$1,226,628        |                        | (\$33,679)      |                       | \$1,192,949        |
| CHGSVC  | Charges for Service                                     |                       |                    |                        |                 |                       |                    |
| 4180  | Contract & Professional Service                         |                       | 0                  |                        | 0               |                       | 0                  |
| 4500  | Admission Fees  |                       | 0                  |                        | 0               |                       | 0                  |
| 4510  | Rentals   |                       | 0                  |                        | 0               |                       | 0                  |
| 4550  | Food Service Revenue                                    |                       | 0                  |                        | 0               |                       | 0                  |
| 4570  | Merchandising   |                       | 0                  |                        | 0               |                       | 0                  |
| 4590  | Commissions   |                       | 0                  |                        | 0               |                       | 0                  |
| 4600  | Administrative Fees                                     |                       | 0                  |                        | 0               |                       | 0                  |
| 4645  | Reimbursed Services                                     |                       | 0                  |                        | 0               |                       | 0                  |
| 4650  | Miscellaneous Charges for Svc                           |                       | 0                  |                        | 0               |                       | 0                  |
| INTRST  | Interest Earnings                                       |                       |                    |                        |                 |                       |                    |
| 4700  | Interest on Investments                                 |                       | 0                  |                        | 0               |                       | 0                  |
| DONAT   | Contributions from Private Sources                      |                       |                    |                        |                 |                       |                    |
| 4750  | Donations and Bequests                                  |                       | 0                  |                        | 0               |                       | 0                  |
| DBTREV  | Bond and Loan Proceeds                                  |                       |                    |                        |                 |                       |                    |
| 4920  | Loan Proceeds   |                       | 0                  |                        | 0               |                       | 0                  |
| 4925  | Cap Lease Obligation Proceeds                           |                       | 0                  |                        | 0               |                       | 0                  |
| EQTREV  | Fund Equity Transfers                                   |                       |                    |                        |                 |                       |                    |
| 4970  | Transfer of Resources<br>* from Coliseum Operating Fund |                       | 0                  |                        | 0               |                       | 0                  |
| <b><u>Portland Center for the Performing Arts</u></b> |   |                       |                    |                        |                 |                       |                    |
| BEGBAL  | Beginning Fund Balance                                  |                       | \$2,541,654        |                        | \$92,165        |                       | \$2,633,819        |
| LGSHRE  | Local Gov't Share Revenues                              |                       |                    |                        |                 |                       |                    |
| 4130  | Hotel/Motel Tax   |                       | 0                  |                        | 0               |                       | 0                  |
| CHGSVC  | Charges for Service                                     |                       |                    |                        |                 |                       |                    |
| 4180  | Contract & Professional Service                         |                       | 0                  |                        | 0               |                       | 0                  |
| 4500  | Admission Fees  |                       | 0                  |                        | 0               |                       | 0                  |
| 4510  | Rentals   |                       | 0                  |                        | 0               |                       | 0                  |
| 4550  | Food Service Revenue                                    |                       | 0                  |                        | 0               |                       | 0                  |
| 4570  | Merchandising   |                       | 0                  |                        | 0               |                       | 0                  |
| 4590  | Commissions   |                       | 0                  |                        | 0               |                       | 0                  |
| 4600  | Administrative Fees                                     |                       | 0                  |                        | 0               |                       | 0                  |
| 4645  | Reimbursed Services                                     |                       | 0                  |                        | 0               |                       | 0                  |
| 4650  | Miscellaneous Charges for Svc                           |                       | 0                  |                        | 0               |                       | 0                  |
| INTRST  | Interest Earnings                                       |                       |                    |                        |                 |                       |                    |
| 4700  | Interest on Investments                                 |                       | 0                  |                        | 0               |                       | 0                  |
| DBTREV  | Bond and Loan Proceeds                                  |                       |                    |                        |                 |                       |                    |
| 4920  | Loan Proceeds   |                       | 0                  |                        | 0               |                       | 0                  |
| 4925  | Cap Lease Obligation Proceeds                           |                       | 0                  |                        | 0               |                       | 0                  |
| EQTREV  | Fund Equity Transfers                                   |                       |                    |                        |                 |                       |                    |
| 4970  | Transfer of Resources<br>* from General Fund            |                       | 0                  |                        | 0               |                       | 0                  |
| <b>TOTAL RESOURCES</b>                                |   |                       | <b>\$3,768,282</b> |                        | <b>\$58,486</b> |                       | <b>\$3,826,768</b> |
|   |   |                       | \$0                |                        | \$0             |                       | \$0                |

**Exhibit A**  
**Ordinance 98-739**  
**FY 1997-1998 Supplemental Budget**

**Spectator Facilities Operating Fund**

| ACCT                                     | DESCRIPTION                                 | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                   | FY 1997-98<br>Proposed |                    |
|--|---|-----------------------|--------------------|------------------------|-------------------|------------------------|--------------------|
|  |   | FTE                   | Amount             | FTE                    | Amount            | FTE                    | Amount             |
| <b>Civic Stadium Operations</b>          |   |                       |                    |                        |                   |                        |                    |
|  | <b>Total Personal Services</b>              | 0.00                  | \$0                | 0.00                   | \$0               | 0.00                   | \$0                |
|  | <b>Total Materials &amp; Services</b>       |                       | \$0                |                        | \$0               |                        | \$0                |
|  | <b>Total Debt Service</b>                   |                       | \$0                |                        | \$0               |                        | \$0                |
|  | <b>Total Capital Outlay</b>                 |                       | \$0                |                        | \$0               |                        | \$0                |
| <b>Interfund Transfers</b>               |   |                       |                    |                        |                   |                        |                    |
| <i>INTCHG Internal Service Transfers</i> |   |                       |                    |                        |                   |                        |                    |
| 5800                                     | Transfer for Indirect Costs                 |                       |                    |                        |                   |                        |                    |
|  | • to Support Services Fund                  |                       | 0                  |                        | 0                 |                        | 0                  |
|  | • to Risk Mgmt Fund-Liability               |                       | 0                  |                        | 0                 |                        | 0                  |
|  | • to Risk Mgmt Fund-Worker Comp             |                       | 0                  |                        | 0                 |                        | 0                  |
| 5820                                     | Transfer for Direct Costs                   |                       |                    |                        |                   |                        |                    |
|  | • to MERC Admin Fund                        |                       | 0                  |                        | 0                 |                        | 0                  |
|  | • to Support Services Fund                  |                       | 0                  |                        | 0                 |                        | 0                  |
| <i>EQTCHG Fund Equity Transfers</i>      |   |                       |                    |                        |                   |                        |                    |
| 5830                                     | Residual Equity Transfer                    |                       |                    |                        |                   |                        |                    |
|  | • to MERC Operating Fund                    |                       | 1,226,628          |                        | (33,679)          |                        | 1,192,949          |
|  | <b>Total Interfund Transfers</b>            |                       | <b>\$1,226,628</b> |                        | <b>(\$33,679)</b> |                        | <b>\$1,192,949</b> |
|  | <b>Total Contingency and Ending Balance</b> |                       | <b>\$0</b>         |                        | <b>\$0</b>        |                        | <b>\$0</b>         |
|  | <b>TOTAL REQUIREMENTS</b>                   | <b>0.00</b>           | <b>\$1,226,628</b> | <b>0.00</b>            | <b>(\$33,679)</b> | <b>0.00</b>            | <b>\$1,192,949</b> |

**Exhibit A**  
**Ordinance 98-739**  
**FY 1997-1998 Supplemental Budget**

**Spectator Facilities Operating Fund**

| ACCT   | DESCRIPTION                                 | FY 1997-98<br>Current |                    | FY 1997-98<br>Revised |                 | FY 1997-98<br>Proposed |                    |
|--|---|-----------------------|--------------------|-----------------------|-----------------|------------------------|--------------------|
|  |   | FTE                   | Amount             | FTE                   | Amount          | FTE                    | Amount             |
| <b>Performing Arts Center Operations</b>     |   |                       |                    |                       |                 |                        |                    |
|  | <b>Total Personal Services</b>              | 0.00                  | \$0                | 0.00                  | \$0             | 0.00                   | \$0                |
|  | <b>Total Materials &amp; Services</b>       |                       | \$0                |                       | \$0             |                        | \$0                |
|  | <b>Total Debt Service</b>                   |                       | \$0                |                       | \$0             |                        | \$0                |
|  | <b>Total Capital Outlay</b>                 |                       | \$0                |                       | \$0             |                        | \$0                |
| <b><u>Interfund Transfers</u></b>            |   |                       |                    |                       |                 |                        |                    |
| <i>INTCHG Internal Service Transfers</i>     |   |                       |                    |                       |                 |                        |                    |
| 5800   | Transfer for Indirect Costs                 |                       |                    |                       |                 |                        |                    |
|  | • to Support Services Fund                  |                       | 0                  |                       | 0               |                        | 0                  |
|  | • to Risk Mgmt Fund-Liability               |                       | 0                  |                       | 0               |                        | 0                  |
|  | • to Risk Mgmt Fund-Worker Comp             |                       | 0                  |                       | 0               |                        | 0                  |
| 5820   | Transfer for Direct Costs                   |                       |                    |                       |                 |                        |                    |
|  | • to MERC Admin Fund                        |                       | 0                  |                       | 0               |                        | 0                  |
|  | • to Support Services Fund                  |                       | 0                  |                       | 0               |                        | 0                  |
| <i>EQTCHG Fund Equity Transfers</i>          |   |                       |                    |                       |                 |                        |                    |
| 5830   | Residual Equity Transfer-Out                |                       |                    |                       |                 |                        |                    |
|  | • to MERC Operating Fund                    |                       | 2,541,654          |                       | 92,165          |                        | 2,633,819          |
|  | <b>Total Interfund Transfers</b>            |                       | <b>\$2,541,654</b> |                       | <b>\$92,165</b> |                        | <b>\$2,633,819</b> |
| <b><u>Contingency and Ending Balance</u></b> |   |                       |                    |                       |                 |                        |                    |
| <i>CONT Contingency</i>                      |   |                       |                    |                       |                 |                        |                    |
| 5999   | Contingency                                 |                       | 0                  |                       | 0               |                        | 0                  |
| <i>UNAPP Unappropriated Fund Balance</i>     |   |                       |                    |                       |                 |                        |                    |
| 5990   | Unappropriated Fund Balance                 |                       | 0                  |                       | 0               |                        | 0                  |
|  | <b>Total Contingency and Ending Balance</b> |                       | <b>\$0</b>         |                       | <b>\$0</b>      |                        | <b>\$0</b>         |
| <b>TOTAL REQUIREMENTS</b>                    |   | <b>0.00</b>           | <b>\$2,541,654</b> | <b>0.00</b>           | <b>\$92,165</b> | <b>0.00</b>            | <b>\$2,633,819</b> |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**Spectator Facilities Operating Fund**

| ACCT   | DESCRIPTION                     | FY 1997-98<br><u>Current</u> |                    | FY 1997-98<br><u>Revision</u> |                 | FY 1997-98<br><u>Proposed</u> |                    |
|--|---------------------------------|------------------------------|--------------------|-------------------------------|-----------------|-------------------------------|--------------------|
|  |                                 | FTE                          | Amount             | FTE                           | Amount          | FTE                           | Amount             |
| <i><u>Interfund Transfers</u></i>            |                                 |                              |                    |                               |                 |                               |                    |
| <i>INTCHG Internal Service Transfers</i>     |                                 |                              |                    |                               |                 |                               |                    |
| 5800   | Transfer for Indirect Costs     |                              |                    |                               |                 |                               |                    |
|  | • to Support Services Fund      |                              | 0                  |                               | 0               |                               | 0                  |
|  | • to Risk Mgmt Fund-Liability   |                              | 0                  |                               | 0               |                               | 0                  |
|  | • to Risk Mgmt Fund-Worker Comp |                              | 0                  |                               | 0               |                               | 0                  |
| 5820   | Transfer for Direct Costs       |                              |                    |                               |                 |                               |                    |
|  | • to MERC Admin Fund            |                              | 0                  |                               | 0               |                               | 0                  |
|  | • to Support Services Fund      |                              | 0                  |                               | 0               |                               | 0                  |
|  |                                 |                              | 0                  |                               | 0               |                               | 0                  |
| <i>EQTCHG Fund Equity Transfers</i>          |                                 |                              |                    |                               |                 |                               |                    |
| 5830   | Residual Equity Transfer-Out    |                              |                    |                               |                 |                               |                    |
|  | • to MERC Operating Fund        |                              | 3,768,282          |                               | 58,486          |                               | 3,826,768          |
| <b>Total Interfund Transfers</b>             |                                 |                              | <b>3,768,282</b>   |                               | <b>58,486</b>   |                               | <b>3,826,768</b>   |
| <i><u>Contingency and Ending Balance</u></i> |                                 |                              |                    |                               |                 |                               |                    |
| <i>CONT Contingency</i>                      |                                 |                              |                    |                               |                 |                               |                    |
| 5999   | Contingency                     |                              | 0                  |                               | 0               |                               | 0                  |
| <i>UNAPP Unappropriated Fund Balance</i>     |                                 |                              |                    |                               |                 |                               |                    |
| 5990   | Unappropriated Fund Balance     |                              | 0                  |                               | 0               |                               | 0                  |
| <b>Total Contingency and Ending Balance</b>  |                                 |                              | <b>\$0</b>         |                               | <b>\$0</b>      |                               | <b>\$0</b>         |
| <b>TOTAL REQUIREMENTS</b>                    |                                 | <b>0.00</b>                  | <b>\$3,768,282</b> | <b>0.00</b>                   | <b>\$58,486</b> | <b>0.00</b>                   | <b>\$3,826,768</b> |
|  |                                 |                              |                    |                               | <b>\$0</b>      |                               | <b>\$0</b>         |



**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**

| ACCT                   | DESCRIPTION                                    | FY 1997-98<br>Current |                     | FY 1997-98<br>Revision |                    | FY 1997-98<br>Proposed |                     |
|------------------------|--|-----------------------|---------------------|------------------------|--------------------|------------------------|---------------------|
|                        |  | FTE                   | Amount              | FTE                    | Amount             | FTE                    | Amount              |
| <b>Resources</b>       |  |                       |                     |                        |                    |                        |                     |
| <u>Resources</u>       |  |                       |                     |                        |                    |                        |                     |
| BGBAL                  | Beginning Fund Balance                         |                       | \$0                 |                        | \$0                |                        | \$0                 |
| LGSHRE                 | Local Gov't Share Revenues                     |                       |                     |                        |                    |                        |                     |
| 4130                   | Hotel/Motel Tax                                |                       | 5,341,475           |                        | 0                  |                        | 5,341,475           |
| CHGSVC                 | Charges for Service                            |                       |                     |                        |                    |                        |                     |
| 4180                   | Contract & Professional Service                |                       | 600,000             |                        | 0                  |                        | 600,000             |
| 4500                   | Admission Fees                                 |                       | 1,332,550           |                        | 0                  |                        | 1,332,550           |
| 4510                   | Rentals  |                       | 3,917,738           |                        | 0                  |                        | 3,917,738           |
| 4550                   | Food Service Revenue                           |                       | 8,730,036           |                        | 0                  |                        | 8,730,036           |
| 4560                   | Retail Sales                                   |                       | 102,900             |                        | 0                  |                        | 102,900             |
| 4570                   | Merchandising                                  |                       | 124,551             |                        | 0                  |                        | 124,551             |
| 4580                   | Utility Services                               |                       | 1,095,109           |                        | 0                  |                        | 1,095,109           |
| 4590                   | Commissions                                    |                       | 303,527             |                        | 0                  |                        | 303,527             |
| 4600                   | Administrative Fees                            |                       | 130,000             |                        | 0                  |                        | 130,000             |
| 4620                   | Parking Fees                                   |                       | 1,583,762           |                        | 0                  |                        | 1,583,762           |
| 4645                   | Reimbursed Services                            |                       | 1,578,699           |                        | 275,000            |                        | 1,853,699           |
| 4650                   | Miscellaneous Charges for Svc                  |                       | 146,458             |                        | 0                  |                        | 146,458             |
| INTRST                 | Interest Earnings                              |                       |                     |                        |                    |                        |                     |
| 4700                   | Interest on Investments                        |                       | 528,708             |                        | 0                  |                        | 528,708             |
| DONAT                  | Contributions from Private Sources             |                       |                     |                        |                    |                        |                     |
| 4750                   | Donations and Bequests                         |                       | 25,000              |                        | 0                  |                        | 25,000              |
| MISCRV                 | Miscellaneous Revenue                          |                       |                     |                        |                    |                        |                     |
| 4890                   | Miscellaneous Revenue                          |                       | 401,143             |                        | 0                  |                        | 401,143             |
| EQTREV                 | Fund Equity Transfers                          |                       |                     |                        |                    |                        |                     |
| 4970                   | Transfer of Resources                          |                       | 0                   |                        | 0                  |                        | 0                   |
| 4985                   | Residual Equity Transfer<br>* from other funds |                       | 9,141,937           |                        | 1,366,060          |                        | 10,507,997          |
| <b>TOTAL RESOURCES</b> |  |                       | <b>\$35,083,593</b> |                        | <b>\$1,641,060</b> |                        | <b>\$36,724,653</b> |

**Expenditures**

Personal Services

SALWGE Salaries & Wages

|      |   |      |         |      |   |      |         |
|------|---|------|---------|------|---|------|---------|
| 5010 | Reg Employees-Full Time-Exempt            |      |         |      |   |      |         |
|      | Admissions Staffing Mgr (Admin Schedules) | 1.00 | 36,265  | 0.00 | 0 | 1.00 | 36,265  |
|      | Assistant Fiscal Operations Director      | 1.00 | 49,006  | 0.00 | 0 | 1.00 | 49,006  |
|      | Assistant Security Supervisor             | 1.00 | 29,763  | 0.00 | 0 | 1.00 | 29,763  |
|      | Assistant Ticket Services Manager         | 1.00 | 40,022  | 0.00 | 0 | 1.00 | 40,022  |
|      | Asst. Event Svcs Mgr. or Senior House M   | 1.00 | 40,022  | 0.00 | 0 | 1.00 | 40,022  |
|      | Asst. Operations Mgr. (Asst. Tech Svcs.)  | 3.00 | 138,253 | 0.00 | 0 | 3.00 | 138,253 |
|      | Audio/Visual Coordinator                  | 1.00 | 44,173  | 0.00 | 0 | 1.00 | 44,173  |
|      | Audio/Visual Technician                   | 2.00 | 76,265  | 0.00 | 0 | 2.00 | 76,265  |
|      | Booking and Sales Manager                 | 0.00 | 0       | 0.00 | 0 | 0.00 | 0       |
|      | Building Maintenance Supervisor           | 3.00 | 106,203 | 0.00 | 0 | 3.00 | 106,203 |
|      | Computer Systems Administrator            | 1.00 | 52,389  | 0.00 | 0 | 1.00 | 52,389  |
|      | Construction/Capital Projects Manager     | 1.00 | 61,233  | 0.00 | 0 | 1.00 | 61,233  |
|      | Development Project Manager               | 1.00 | 63,980  | 0.00 | 0 | 1.00 | 63,980  |
|      | Director of MERC Fiscal Operations        | 1.00 | 60,626  | 0.00 | 0 | 1.00 | 60,626  |
|      | Event Coordinator II                      | 4.00 | 144,447 | 0.00 | 0 | 4.00 | 144,447 |
|      | Event Services Manager                    | 2.00 | 92,784  | 0.00 | 0 | 2.00 | 92,784  |
|      | Executive Secretary                       | 1.00 | 41,954  | 0.00 | 0 | 1.00 | 41,954  |
|      | Expo Manager                              | 1.00 | 57,770  | 0.00 | 0 | 1.00 | 57,770  |
|      | General Manager                           | 1.00 | 93,766  | 0.00 | 0 | 1.00 | 93,766  |
|      | Multi-Media/Marketing Manager             | 1.00 | 47,512  | 0.00 | 0 | 1.00 | 47,512  |
|      | OCC Director                              | 1.00 | 87,577  | 0.00 | 0 | 1.00 | 87,577  |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**

| ACCT                           | DESCRIPTION                        | FY 1997-98<br>Current |                     | FY 1997-98<br>Revision |                  | FY 1997-98<br>Proposed |                     |
|--------------------------------|------------------------------------|-----------------------|---------------------|------------------------|------------------|------------------------|---------------------|
|                                |                                    | FTE                   | Amount              | FTE                    | Amount           | FTE                    | Amount              |
|                                | Operations Accounting Coordinator  | 1.00                  | 32,810              | 0.00                   | 0                | 1.00                   | 32,810              |
|                                | Operations Manager I               | 0.00                  | 0                   | 0.00                   | 0                | 0.00                   | 0                   |
|                                | Operations Manager II              | 4.00                  | 213,277             | 0.00                   | 0                | 4.00                   | 213,277             |
|                                | PCPA Director                      | 1.00                  | 76,602              | 0.00                   | 0                | 1.00                   | 76,602              |
|                                | Purchasing and System Supervisor   | 1.00                  | 39,999              | 0.00                   | 0                | 1.00                   | 39,999              |
|                                | Sales Department Manager           | 1.00                  | 55,008              | 0.00                   | 0                | 1.00                   | 55,008              |
|                                | Sales Manager                      | 3.00                  | 129,686             | 0.00                   | 0                | 3.00                   | 129,686             |
|                                | Security Services Coordinator      | 1.00                  | 36,266              | 0.00                   | 0                | 1.00                   | 36,266              |
|                                | Senior Event Coordinator           | 2.00                  | 80,044              | 0.00                   | 0                | 2.00                   | 80,044              |
|                                | Senior Set-up Supervisor           | 1.00                  | 43,009              | 0.00                   | 0                | 1.00                   | 43,009              |
|                                | Set-up Supervisor                  | 5.00                  | 187,039             | 0.00                   | 0                | 5.00                   | 187,039             |
|                                | Stadium Manager                    | 1.00                  | 61,074              | 0.00                   | 0                | 1.00                   | 61,074              |
|                                | Stage Supervisor                   | 1.00                  | 37,171              | 0.00                   | 0                | 1.00                   | 37,171              |
|                                | Telephone System Coordinator       | 1.00                  | 44,085              | 0.00                   | 0                | 1.00                   | 44,085              |
|                                | Ticket Services Manager I          | 1.00                  | 44,196              | 0.00                   | 0                | 1.00                   | 44,196              |
|                                | Ticket Services Manager II         | 1.00                  | 46,392              | 0.00                   | 0                | 1.00                   | 46,392              |
|                                | Ticket Services Supervisor         | 5.00                  | 181,678             | 0.00                   | 0                | 5.00                   | 181,678             |
|                                | Volunteer Coordinator              | 1.00                  | 34,442              | 0.00                   | 0                | 1.00                   | 34,442              |
| 5015                           | Reg Empl-Full Time-Non-Exempt      |                       |                     |                        |                  |                        |                     |
|                                | Accounting Technician              | 2.00                  | 58,501              | 0.00                   | 0                | 2.00                   | 58,501              |
|                                | Administrative Assistant           | 1.00                  | 32,795              | 0.00                   | 0                | 1.00                   | 32,795              |
|                                | Administrative Secretary           | 5.00                  | 152,025             | 0.00                   | 0                | 5.00                   | 152,025             |
|                                | Booking Coordinator                | 2.00                  | 72,530              | 0.00                   | 0                | 2.00                   | 72,530              |
|                                | Capital Projects Assistant         | 1.00                  | 32,016              | 0.00                   | 0                | 1.00                   | 32,016              |
|                                | Electrician                        | 2.00                  | 95,445              | 0.00                   | 0                | 2.00                   | 95,445              |
|                                | Facility Security Agent            | 7.00                  | 186,225             | 0.00                   | 0                | 7.00                   | 186,225             |
|                                | Facility Security Agent Supervisor | 3.00                  | 81,036              | 0.00                   | 0                | 3.00                   | 81,036              |
|                                | Graphic Designer                   | 1.00                  | 29,764              | 0.00                   | 0                | 1.00                   | 29,764              |
|                                | Lead Electrician                   | 1.00                  | 50,067              | 0.00                   | 0                | 1.00                   | 50,067              |
|                                | Lead Engineer                      | 1.00                  | 45,335              | 0.00                   | 0                | 1.00                   | 45,335              |
|                                | Multi-Media Assistant              | 1.00                  | 28,314              | 0.00                   | 0                | 1.00                   | 28,314              |
|                                | Office Clerk                       | 1.00                  | 22,956              | 0.00                   | 0                | 1.00                   | 22,956              |
|                                | Operating Engineer                 | 7.75                  | 335,519             | 0.00                   | 0                | 7.75                   | 335,519             |
|                                | Operations Lead                    | 0.00                  | 0                   | 0.00                   | 0                | 0.00                   | 0                   |
|                                | Operations Lead II                 | 2.00                  | 59,308              | 0.00                   | 0                | 2.00                   | 59,308              |
|                                | Receptionist                       | 3.00                  | 78,330              | 0.00                   | 0                | 3.00                   | 78,330              |
|                                | Secretary                          | 5.00                  | 134,935             | 0.00                   | 0                | 5.00                   | 134,935             |
|                                | Stagedoor Security                 | 1.00                  | 23,821              | 0.00                   | 0                | 1.00                   | 23,821              |
|                                | Stagehands                         | 0.00                  | 0                   | 0.00                   | 0                | 0.00                   | 0                   |
|                                | Ticket Sellers                     | 2.00                  | 51,024              | 0.00                   | 0                | 2.00                   | 51,024              |
|                                | Utility Lead                       | 10.00                 | 294,190             | 0.00                   | 0                | 10.00                  | 294,190             |
|                                | Utility Maintenance                | 2.00                  | 59,831              | 0.00                   | 0                | 2.00                   | 59,831              |
|                                | Utility Maintenance Lead           | 1.00                  | 31,098              | 0.00                   | 0                | 1.00                   | 31,098              |
|                                | Utility Maintenance Specialist     | 4.00                  | 122,918             | 0.00                   | 0                | 4.00                   | 122,918             |
|                                | Utility Technician                 | 1.00                  | 39,636              | 0.00                   | 0                | 1.00                   | 39,636              |
|                                | Utility Worker I                   | 12.00                 | 287,239             | 0.00                   | 0                | 12.00                  | 287,239             |
|                                | Utility Worker II                  | 15.00                 | 395,502             | 0.00                   | 0                | 15.00                  | 395,502             |
|                                | Utility-Grounds                    | 2.00                  | 55,228              | 0.00                   | 0                | 2.00                   | 55,228              |
| 5030                           | Temporary Employees                | 0.00                  | 8,602               | 0.00                   | 0                | 0.00                   | 8,602               |
| 5043                           | Part-Time, Non-Reimbursed Labor    | 0.00                  | 605,475             | 0.00                   | 98,000           | 0.00                   | 703,475             |
| 5045                           | Part-Time, Reimbursed Labor        | 0.00                  | 1,496,908           | 0.00                   | 275,000          | 0.00                   | 1,771,908           |
| 5080                           | Overtime                           | 0.00                  | 118,569             | 0.00                   | 0                | 0.00                   | 118,569             |
| FRINGE                         | Fringe Benefits                    |                       |                     |                        |                  |                        |                     |
| 5100                           | Fringe Benefits                    | 0.00                  | 2,439,701           | 0.00                   | 94,165           | 0.00                   | 2,439,701           |
| <b>Total Personal Services</b> |                                    | <b>155.75</b>         | <b>\$10,231,631</b> | <b>0.00</b>            | <b>\$467,165</b> | <b>155.75</b>          | <b>\$10,604,631</b> |

Materials & Services

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**

| ACCT                                  | DESCRIPTION                                 | FY 1997-98<br>Current |                     | FY 1997-98<br>Revision |                    | FY 1997-98<br>Proposed |                     |
|---------------------------------------|---|-----------------------|---------------------|------------------------|--------------------|------------------------|---------------------|
|                                       |   | FTE                   | Amount              | FTE                    | Amount             | FTE                    | Amount              |
|                                       | <b>Total Materials &amp; Services</b>       |                       | \$13,968,752        |                        | \$0                |                        | \$13,968,752        |
| <i>Debt Service</i>                   |   |                       |                     |                        |                    |                        |                     |
|                                       | <b>Total Debt Service</b>                   |                       | \$719,058           |                        | \$0                |                        | \$719,058           |
| <i>Capital Outlay</i>                 |   |                       |                     |                        |                    |                        |                     |
|                                       | <b>Total Capital Outlay</b>                 |                       | \$2,207,596         |                        | \$0                |                        | \$2,207,596         |
| <i>Interfund Transfers</i>            |   |                       |                     |                        |                    |                        |                     |
|                                       | <b>Total Interfund Transfers</b>            |                       | \$0                 |                        | \$0                |                        | \$0                 |
| <i>Contingency and Ending Balance</i> |   |                       |                     |                        |                    |                        |                     |
| CONT                                  | Contingency                                 |                       |                     |                        |                    |                        |                     |
| 5999                                  | Contingency                                 |                       | 1,121,263           |                        | (100,000)          |                        | 1,021,263           |
| UNAPP                                 | Unappropriated Fund Balance                 |                       |                     |                        |                    |                        |                     |
| 5990                                  | Unappropriated Fund Balance                 |                       | 6,835,293           |                        | 1,273,895          |                        | 8,109,188           |
|                                       | <b>Total Contingency and Ending Balance</b> |                       | \$7,956,556         |                        | \$1,173,895        |                        | \$9,130,451         |
| <b>TOTAL REQUIREMENTS</b>             |   | <b>155.75</b>         | <b>\$35,083,593</b> | <b>0.00</b>            | <b>\$1,641,060</b> | <b>155.75</b>          | <b>\$36,724,653</b> |
|                                       |   |                       | \$0                 |                        | \$0                |                        | \$0                 |

Exhibit A  
Ordinance No. 98-739  
FY 1997-1998 Supplemental Budget

**MERC Operating Fund  
Information Only**

| ACCT                            | DESCRIPTION   | FY 1997-98<br><u>Current</u> |                     | FY 1997-98<br><u>Revision</u> |                    | FY 1997-98<br><u>Proposed</u> |                     |
|---------------------------------|---|------------------------------|---------------------|-------------------------------|--------------------|-------------------------------|---------------------|
|                                 |   | FTE                          | Amount              | FTE                           | Amount             | FTE                           | Amount              |
| <b>Oregon Convention Center</b> |   |                              |                     |                               |                    |                               |                     |
| <b><u>Resources</u></b>         |   |                              |                     |                               |                    |                               |                     |
| BEGBAL                          | Beginning Fund Balance                                |                              | \$0                 |                               | \$0                |                               | \$0                 |
| LGSHRE                          | Local Gov't Share Revenues                            |                              |                     |                               |                    |                               |                     |
| 4130                            | Hotel/Motel Tax                                       |                              | 4,141,475           |                               | 0                  |                               | 4,141,475           |
| CHGSVC                          | Charges for Service                                   |                              |                     |                               |                    |                               |                     |
| 4180                            | Contract & Professional Service                       |                              | 0                   |                               | 0                  |                               | 0                   |
| 4500                            | Admission Fees  |                              | 5,000               |                               | 0                  |                               | 5,000               |
| 4510                            | Rentals   |                              | 1,632,004           |                               | 0                  |                               | 1,632,004           |
| 4550                            | Food Service Revenue                                  |                              | 5,183,308           |                               | 0                  |                               | 5,183,308           |
| 4560                            | Retail Sales  |                              | 102,900             |                               | 0                  |                               | 102,900             |
| 4570                            | Merchandising   |                              | 25,351              |                               | 0                  |                               | 25,351              |
| 4580                            | Utility Services                                      |                              | 990,409             |                               | 0                  |                               | 990,409             |
| 4590                            | Commissions   |                              | 41,927              |                               | 0                  |                               | 41,927              |
| 4600                            | Administrative Fees                                   |                              | 0                   |                               | 0                  |                               | 0                   |
| 4620                            | Parking Fees  |                              | 696,553             |                               | 0                  |                               | 696,553             |
| 4645                            | Reimbursed Services                                   |                              | 271,751             |                               | 0                  |                               | 271,751             |
| 4650                            | Miscellaneous Charges for Svc                         |                              | 34,458              |                               | 0                  |                               | 34,458              |
| INTRST                          | Interest Earnings                                     |                              |                     |                               |                    |                               |                     |
| 4700                            | Interest on Investments                               |                              | 250,000             |                               | 0                  |                               | 250,000             |
| DONAT                           | Contributions from Private Sources                    |                              |                     |                               |                    |                               |                     |
| 4750                            | Donations and Bequests                                |                              | 0                   |                               | 0                  |                               | 0                   |
| MISCRV                          | Miscellaneous Revenue                                 |                              |                     |                               |                    |                               |                     |
| 4890                            | Miscellaneous Revenue                                 |                              | 73,993              |                               | 0                  |                               | 73,993              |
| EQTREV                          | Fund Equity Transfers                                 |                              |                     |                               |                    |                               |                     |
| 4970                            | Transfer of Resources                                 |                              | 0                   |                               | 0                  |                               | 0                   |
| 4985                            | Residual Equity Transfer<br>* from OCC Operating Fund |                              | 4,347,212           |                               | 1,307,559          |                               | 5,654,771           |
| <b>TOTAL RESOURCES</b>          |   |                              | <b>\$17,796,341</b> |                               | <b>\$1,307,559</b> |                               | <b>\$19,103,900</b> |

**Expenditures**

**Personal Services**

**SALWGE Salaries & Wages**

|      |  |      |         |  |   |      |         |
|------|--|------|---------|--|---|------|---------|
| 5010 | Reg Employees-Full Time-Exempt             |      |         |  |   |      |         |
|      | Admissions Staffing Mgr (Admin Schedules)  | 0.20 | 7,253   |  | 0 | 0.20 | 7,253   |
|      | Assistant Fiscal Operations Director       |      | 0       |  | 0 |      | 0       |
|      | Assistant Security Supervisor              | 0.75 | 22,323  |  | 0 | 0.75 | 22,323  |
|      | Assistant Ticket Services Manager          |      | 0       |  | 0 |      | 0       |
|      | Asst. Event Svcs Mgr. or Senior House Mgr. |      | 0       |  | 0 |      | 0       |
|      | Asst. Operations Mgr. (Asst. Tech Svcs.)   | 1.00 | 46,392  |  | 0 | 1.00 | 46,392  |
|      | Audio/Visual Coordinator                   | 1.00 | 44,173  |  | 0 | 1.00 | 44,173  |
|      | Audio/Visual Technician                    | 2.00 | 76,265  |  | 0 | 2.00 | 76,265  |
|      | Booking and Sales Manager                  |      | 0       |  | 0 |      | 0       |
|      | Building Maintenance Supervisor            | 1.00 | 33,673  |  | 0 | 1.00 | 33,673  |
|      | Computer Systems Administrator             | 0.00 | 0       |  | 0 | 0.00 | 0       |
|      | Construction/Capital Projects Manager      | 0.50 | 30,620  |  | 0 | 0.50 | 30,620  |
|      | Development Project Manager                | 0.90 | 57,581  |  | 0 | 0.90 | 57,581  |
|      | Director of MERC Fiscal Operations         |      | 0       |  | 0 |      | 0       |
|      | Event Coordinator II                       | 3.00 | 104,425 |  | 0 | 3.00 | 104,425 |
|      | Event Services Manager                     | 1.00 | 46,392  |  | 0 | 1.00 | 46,392  |
|      | Executive Secretary                        |      | 0       |  | 0 |      | 0       |
|      | Expo Manager                               |      | 0       |  | 0 |      | 0       |
|      | General Manager                            |      | 0       |  | 0 |      | 0       |
|      | Multi-Media/Marketing Manager              | 1.00 | 47,512  |  | 0 | 1.00 | 47,512  |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT                            | DESCRIPTION                        | FY 1997-98<br>Current |         | FY 1997-98<br>Revision |        | FY 1997-98<br>Proposed |         |
|---------------------------------|------------------------------------|-----------------------|---------|------------------------|--------|------------------------|---------|
|                                 |                                    | FTE                   | Amount  | FTE                    | Amount | FTE                    | Amount  |
| <b>Oregon Convention Center</b> |                                    |                       |         |                        |        |                        |         |
|                                 | OCC Director                       | 1.00                  | 87,577  | 0                      | 0      | 1.00                   | 87,577  |
|                                 | Operations Accounting Coordinator  |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Operations Manager I               |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Operations Manager II              | 1.00                  | 56,430  | 0                      | 0      | 1.00                   | 56,430  |
|                                 | PCPA Director                      |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Purchasing and System Supervisor   |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Sales Department Manager           | 1.00                  | 55,008  | 0                      | 0      | 1.00                   | 55,008  |
|                                 | Sales Manager                      | 2.00                  | 83,294  | 0                      | 0      | 2.00                   | 83,294  |
|                                 | Security Services Coordinator      | 0.75                  | 27,199  | 0                      | 0      | 0.75                   | 27,199  |
|                                 | Senior Event Coordinator           | 1.00                  | 40,022  | 0                      | 0      | 1.00                   | 40,022  |
|                                 | Senior Set-up Supervisor           | 1.00                  | 43,009  | 0                      | 0      | 1.00                   | 43,009  |
|                                 | Set-up Supervisor                  | 4.00                  | 153,365 | 0                      | 0      | 4.00                   | 153,365 |
|                                 | Stadium Manager                    |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Stage Supervisor                   |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Telephone System Coordinator       | 1.00                  | 44,085  | 0                      | 0      | 1.00                   | 44,085  |
|                                 | Ticket Services Manager I          | 0.45                  | 19,888  | 0                      | 0      | 0.45                   | 19,888  |
|                                 | Ticket Services Manager II         |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Ticket Services Supervisor         | 0.45                  | 15,548  | 0                      | 0      | 0.45                   | 15,548  |
|                                 | Volunteer Coordinator              |                       | 0       | 0                      | 0      |                        | 0       |
| 5015                            | Reg Empl-Full Time-Non-Exempt      |                       |         |                        |        |                        | 0       |
|                                 | Accounting Technician              | 0.60                  | 15,791  | 0                      | 0      | 0.60                   | 15,791  |
|                                 | Administrative Assistant           | 1.00                  | 32,795  | 0                      | 0      | 1.00                   | 32,795  |
|                                 | Administrative Secretary           | 2.00                  | 65,590  | 0                      | 0      | 2.00                   | 65,590  |
|                                 | Booking Coordinator                | 1.00                  | 36,265  | 0                      | 0      | 1.00                   | 36,265  |
|                                 | Capital Projects Assistant         | 0.50                  | 16,005  | 0                      | 0      | 0.50                   | 16,005  |
|                                 | Electrician                        | 2.00                  | 95,445  | 0                      | 0      | 2.00                   | 95,445  |
|                                 | Facility Security Agent            | 5.00                  | 135,507 | 0                      | 0      | 5.00                   | 135,507 |
|                                 | Facility Security Agent Supervisor | 3.00                  | 81,036  | 0                      | 0      | 3.00                   | 81,036  |
|                                 | Graphic Designer                   | 1.00                  | 29,764  | 0                      | 0      | 1.00                   | 29,764  |
|                                 | Lead Electrician                   | 1.00                  | 50,067  | 0                      | 0      | 1.00                   | 50,067  |
|                                 | Lead Engineer                      | 1.00                  | 45,335  | 0                      | 0      | 1.00                   | 45,335  |
|                                 | Multi-Media Assistant              | 1.00                  | 28,314  | 0                      | 0      | 1.00                   | 28,314  |
|                                 | Office Clerk                       | 0.20                  | 4,656   | 0                      | 0      | 0.20                   | 4,656   |
|                                 | Operating Engineer                 | 4.00                  | 172,911 | 0                      | 0      | 4.00                   | 172,911 |
|                                 | Operations Lead                    |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Operations Lead II                 |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Receptionist                       | 1.00                  | 24,426  | 0                      | 0      | 1.00                   | 24,426  |
|                                 | Secretary                          | 3.00                  | 80,944  | 0                      | 0      | 3.00                   | 80,944  |
|                                 | Stagedoor Security                 |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Stagehands                         |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Ticket Sellers                     |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Utility Lead                       | 7.00                  | 203,085 | 0                      | 0      | 7.00                   | 203,085 |
|                                 | Utility Maintenance                | 2.00                  | 59,831  | 0                      | 0      | 2.00                   | 59,831  |
|                                 | Utility Maintenance Lead           | 1.00                  | 31,098  | 0                      | 0      | 1.00                   | 31,098  |
|                                 | Utility Maintenance Specialist     |                       | 0       | 0                      | 0      |                        | 0       |
|                                 | Utility Technician                 | 1.00                  | 39,636  | 0                      | 0      | 1.00                   | 39,636  |
|                                 | Utility Worker I                   | 12.00                 | 287,239 | 0                      | 0      | 12.00                  | 287,239 |
|                                 | Utility Worker II                  | 13.00                 | 342,769 | 0                      | 0      | 13.00                  | 342,769 |
|                                 | Utility-Grounds                    | 2.00                  | 55,228  | 0                      | 0      | 2.00                   | 55,228  |
| 5030                            | Temporary Employees                |                       | 0       | 0                      | 0      |                        | 0       |
| 5043                            | Part-Time, Non-Reimbursed Labor    |                       | 113,769 | 0                      | 0      |                        | 113,769 |
| 5045                            | Part-Time, Reimbursed Labor        |                       | 255,201 | 0                      | 0      |                        | 255,201 |
| 5080                            | Overtime                           |                       | 45,705  | 0                      | 0      |                        | 45,705  |
| FRINGE                          | Fringe Benefits                    |                       |         |                        |        |                        | 0       |

Exhibit A  
Ordinance No. 98-739  
FY 1997-1998 Supplemental Budget

**MERC Operating Fund  
Information Only**

| ACCT                                  | DESCRIPTION                                 | FY 1997-98<br>Current |              | FY 1997-98<br>Revision |             | FY 1997-98<br>Proposed |              |
|---------------------------------------|---|-----------------------|--------------|------------------------|-------------|------------------------|--------------|
|                                       |   | FTE                   | Amount       | FTE                    | Amount      | FTE                    | Amount       |
| <b>Oregon Convention Center</b>       |   |                       |              |                        |             |                        |              |
| 5100                                  | Fringe Benefits                             |                       | 1,141,376    |                        | 0           |                        | 1,141,376    |
|                                       | <b>Total Personal Services</b>              | 91.30                 | \$4,631,822  | 0.00                   | \$0         | 91.30                  | \$4,631,822  |
| <b>Materials &amp; Services</b>       |   |                       |              |                        |             |                        |              |
|                                       | <b>Total Materials &amp; Services</b>       |                       | \$8,017,891  |                        | \$0         |                        | \$8,017,891  |
| <b>Debt Service</b>                   |   |                       |              |                        |             |                        |              |
|                                       | <b>Total Debt Service</b>                   |                       | \$2,450      |                        | \$0         |                        | \$2,450      |
| <b>Capital Outlay</b>                 |   |                       |              |                        |             |                        |              |
|                                       | <b>Total Capital Outlay</b>                 |                       | \$675,421    |                        | \$0         |                        | \$675,421    |
| <b>Interfund Transfers</b>            |   |                       |              |                        |             |                        |              |
|                                       | <b>Total Interfund Transfers</b>            |                       | \$0          |                        | \$0         |                        | \$0          |
| <b>Contingency and Ending Balance</b> |   |                       |              |                        |             |                        |              |
| CONT                                  | Contingency                                 |                       | 511,668      |                        | 0           |                        | 511,668      |
| 5999                                  | Contingency                                 |                       |              |                        |             |                        |              |
| UNAPP                                 | Unappropriated Fund Balance                 |                       | 3,502,544    |                        | 1,307,559   |                        | 4,810,103    |
| 5990                                  | Unappropriated Fund Balance                 |                       |              |                        |             |                        |              |
|                                       | <b>Total Contingency and Ending Balance</b> |                       | \$4,014,212  |                        | \$1,307,559 |                        | \$5,321,771  |
| <b>TOTAL REQUIREMENTS</b>             |   | 91.30                 | \$17,341,796 | 0.00                   | \$1,307,559 | 91.30                  | \$18,649,355 |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT                   | DESCRIPTION                               | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                   | FY 1997-98<br>Proposed |                    |
|------------------------|---|-----------------------|--------------------|------------------------|-------------------|------------------------|--------------------|
|                        |   | FTE                   | Amount             | FTE                    | Amount            | FTE                    | Amount             |
| <b>Civic Stadium</b>   |   |                       |                    |                        |                   |                        |                    |
| <u>Resources</u>       |   |                       |                    |                        |                   |                        |                    |
| BEGBAL                 | Beginning Fund Balance                    |                       | \$0                |                        | \$0               |                        | \$0                |
| LGSHRE                 | Local Gov't Share Revenues                |                       |                    |                        |                   |                        |                    |
| 4130                   | Hotel/Motel Tax                           |                       | 0                  |                        | 0                 |                        | 0                  |
| CHGSVC                 | Charges for Service                       |                       |                    |                        |                   |                        |                    |
| 4180                   | Contract & Professional Service           |                       | 300,000            |                        | 0                 |                        | 300,000            |
| 4500                   | Admission Fees                            |                       | 187,550            |                        | 0                 |                        | 187,550            |
| 4510                   | Rentals                                   |                       | 280,100            |                        | 0                 |                        | 280,100            |
| 4550                   | Food Service Revenue                      |                       | 1,160,588          |                        | 0                 |                        | 1,160,588          |
| 4560                   | Retail Sales                              |                       | 0                  |                        | 0                 |                        | 0                  |
| 4570                   | Merchandising                             |                       | 14,200             |                        | 0                 |                        | 14,200             |
| 4580                   | Utility Services                          |                       | 0                  |                        | 0                 |                        | 0                  |
| 4590                   | Commissions                               |                       | 51,600             |                        | 0                 |                        | 51,600             |
| 4600                   | Administrative Fees                       |                       | 20,000             |                        | 0                 |                        | 20,000             |
| 4620                   | Parking Fees                              |                       | 0                  |                        | 0                 |                        | 0                  |
| 4645                   | Reimbursed Services                       |                       | 127,674            |                        | 0                 |                        | 127,674            |
| 4650                   | Miscellaneous Charges for Svc             |                       | 112,000            |                        | 0                 |                        | 112,000            |
| INTRST                 | Interest Earnings                         |                       |                    |                        |                   |                        |                    |
| 4700                   | Interest on Investments                   |                       | 50,104             |                        | 0                 |                        | 50,104             |
| DONAT                  | Contributions from Private Sources        |                       |                    |                        |                   |                        |                    |
| 4750                   | Donations and Bequests                    |                       | 25,000             |                        | 0                 |                        | 25,000             |
| MISCRV                 | Miscellaneous Revenue                     |                       |                    |                        |                   |                        |                    |
| 4890                   | Miscellaneous Revenue                     |                       | 74,500             |                        | 0                 |                        | 74,500             |
| EQTREV                 | Fund Equity Transfers                     |                       |                    |                        |                   |                        |                    |
| 4970                   | Transfer of Resources                     |                       | 0                  |                        | 0                 |                        | 0                  |
| 4985                   | Residual Equity Transfer                  |                       |                    |                        |                   |                        |                    |
|                        | * from Spectator Facilities Fund/Coliseum |                       | 1,271,628          |                        | (33,679)          |                        | 1,237,949          |
| <b>TOTAL RESOURCES</b> |   |                       | <b>\$3,674,944</b> |                        | <b>(\$33,679)</b> |                        | <b>\$3,641,265</b> |

**Expenditures**

Personal Services

SALWGE Salaries & Wages

|      |  |      |        |   |      |        |  |
|------|--|------|--------|---|------|--------|--|
| 5010 | Reg Employees-Full Time-Exempt             |      |        |   |      |        |  |
|      | Admissions Staffing Mgr (Admin Schem)      | 0.15 | 5,440  | 0 | 0.15 | 5,440  |  |
|      | Assistant Fiscal Operations Director       |      | 0      | 0 |      | 0      |  |
|      | Assistant Security Supervisor              | 0.10 | 2,976  | 0 | 0.10 | 2,976  |  |
|      | Assistant Ticket Services Manager          |      | 0      | 0 |      | 0      |  |
|      | Asst. Event Svcs Mgr. or Senior House Mgr. |      | 0      | 0 |      | 0      |  |
|      | Asst. Operations Mgr. (Asst. Tech Svcs.)   | 1.00 | 45,469 | 0 | 1.00 | 45,469 |  |
|      | Audio/Visual Coordinator                   |      | 0      | 0 |      | 0      |  |
|      | Audio/Visual Technician                    |      | 0      | 0 |      | 0      |  |
|      | Booking and Sales Manager                  |      | 0      | 0 |      | 0      |  |
|      | Building Maintenance Supervisor            | 1.00 | 36,265 | 0 | 1.00 | 36,265 |  |
|      | Computer Systems Administrator             |      | 0      | 0 |      | 0      |  |
|      | Construction/Capital Projects Manager      | 0.10 | 6,124  | 0 | 0.10 | 6,124  |  |
|      | Development Project Manager                |      | 0      | 0 |      | 0      |  |
|      | Director of MERC Fiscal Operations         |      | 0      | 0 |      | 0      |  |
|      | Event Coordinator II                       |      | 0      | 0 |      | 0      |  |
|      | Event Services Manager                     |      | 0      | 0 |      | 0      |  |
|      | Executive Secretary                        |      | 0      | 0 |      | 0      |  |
|      | Expo Manager                               |      | 0      | 0 |      | 0      |  |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT                 | DESCRIPTION                        | FY 1997-98<br><u>Current</u> |        | FY 1997-98<br><u>Revision</u> |        | FY 1997-98<br><u>Proposed</u> |        |
|----------------------|------------------------------------|------------------------------|--------|-------------------------------|--------|-------------------------------|--------|
|                      |                                    | FTE                          | Amount | FTE                           | Amount | FTE                           | Amount |
| <b>Civic Stadium</b> |                                    |                              |        |                               |        |                               |        |
|                      | General Manager                    |                              | 0      |                               | 0      |                               | 0      |
|                      | Multi-Media/Marketing Manager      |                              | 0      |                               | 0      |                               | 0      |
|                      | OCC Director                       |                              | 0      |                               | 0      |                               | 0      |
|                      | Operations Accounting Coordinator  |                              | 0      |                               | 0      |                               | 0      |
|                      | Operations Manager I               |                              | 0      |                               | 0      |                               | 0      |
|                      | Operations Manager II              | 1.00                         | 46,392 | 0                             | 0      | 1.00                          | 46,392 |
|                      | PCPA Director                      |                              | 0      |                               | 0      |                               | 0      |
|                      | Purchasing and System Supervisor   |                              | 0      |                               | 0      |                               | 0      |
|                      | Sales Department Manager           |                              | 0      |                               | 0      |                               | 0      |
|                      | Sales Manager                      |                              | 0      |                               | 0      |                               | 0      |
|                      | Security Services Coordinator      | 0.10                         | 3,627  | 0                             | 0      | 0.10                          | 3,627  |
|                      | Senior Event Coordinator           | 1.00                         | 40,022 | 0                             | 0      | 1.00                          | 40,022 |
|                      | Senior Set-up Supervisor           |                              | 0      |                               | 0      |                               | 0      |
|                      | Set-up Supervisor                  |                              | 0      |                               | 0      |                               | 0      |
|                      | Stadium Manager                    | 1.00                         | 61,074 | 0                             | 0      | 1.00                          | 61,074 |
|                      | Stage Supervisor                   |                              | 0      |                               | 0      |                               | 0      |
|                      | Telephone System Coordinator       |                              | 0      |                               | 0      |                               | 0      |
|                      | Ticket Services Manager I          | 0.45                         | 19,888 | 0                             | 0      | 0.45                          | 19,888 |
|                      | Ticket Services Manager II         |                              | 0      |                               | 0      |                               | 0      |
|                      | Ticket Services Supervisor         | 0.45                         | 15,548 | 0                             | 0      | 0.45                          | 15,548 |
|                      | Volunteer Coordinator              |                              | 0      |                               | 0      |                               | 0      |
| 5015                 | Reg Empl-Full Time-Non-Exempt      |                              |        |                               |        |                               |        |
|                      | Accounting Technician              | 0.20                         | 5,263  | 0                             | 0      | 0.20                          | 5,263  |
|                      | Administrative Assistant           |                              | 0      |                               | 0      |                               | 0      |
|                      | Administrative Secretary           | 1.00                         | 28,336 | 0                             | 0      | 1.00                          | 28,336 |
|                      | Booking Coordinator                | 0.00                         | 0      | 0                             | 0      | 0.00                          | 0      |
|                      | Capital Projects Assistant         | 0.10                         | 3,203  | 0                             | 0      | 0.10                          | 3,203  |
|                      | Electrician                        |                              | 0      |                               | 0      |                               | 0      |
|                      | Facility Security Agent            |                              | 0      |                               | 0      |                               | 0      |
|                      | Facility Security Agent Supervisor |                              | 0      |                               | 0      |                               | 0      |
|                      | Graphic Designer                   |                              | 0      |                               | 0      |                               | 0      |
|                      | Lead Electrician                   |                              | 0      |                               | 0      |                               | 0      |
|                      | Lead Engineer                      |                              | 0      |                               | 0      |                               | 0      |
|                      | Multi-Media Assistant              |                              | 0      |                               | 0      |                               | 0      |
|                      | Office Clerk                       | 0.15                         | 3,489  | 0                             | 0      | 0.15                          | 3,489  |
|                      | Operating Engineer                 |                              | 0      |                               | 0      |                               | 0      |
|                      | Operations Lead                    |                              | 0      |                               | 0      |                               | 0      |
|                      | Operations Lead II                 | 2.00                         | 59,308 | 0                             | 0      | 2.00                          | 59,308 |
|                      | Receptionist                       |                              | 0      |                               | 0      |                               | 0      |
|                      | Secretary                          |                              | 0      |                               | 0      |                               | 0      |
|                      | Stagedoor Security                 |                              | 0      |                               | 0      |                               | 0      |
|                      | Stagehands                         |                              | 0      |                               | 0      |                               | 0      |
|                      | Ticket Sellers                     |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Lead                       |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Maintenance                |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Maintenance Lead           |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Maintenance Specialist     |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Technician                 |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Worker I                   |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility Worker II                  |                              | 0      |                               | 0      |                               | 0      |
|                      | Utility-Grounds                    |                              | 0      |                               | 0      |                               | 0      |
| 5030                 | Temporary Employees                |                              | 0      |                               | 0      |                               | 0      |
| 5043                 | Part-Time, Non-Reimbursed Labor    |                              | 52,626 |                               | 0      |                               | 52,626 |



**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT  | DESCRIPTION                 | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                   | FY 1997-98<br>Proposed |                    |
|---|-----------------------------|-----------------------|--------------------|------------------------|-------------------|------------------------|--------------------|
|   |                             | FTE                   | Amount             | FTE                    | Amount            | FTE                    | Amount             |
| <b>Civic Stadium</b>                        |                             |                       |                    |                        |                   |                        |                    |
| 5045  | Part-Time, Reimbursed Labor |                       | 155,613            |                        | 0                 |                        | 155,613            |
| 5080  | Overtime                    |                       | 3,190              |                        | 0                 |                        | 3,190              |
| <i>FRINGE Fringe Benefits</i>               |                             |                       |                    |                        |                   |                        |                    |
| 5100  | Fringe Benefits             |                       | 169,842            |                        | 0                 |                        | 169,842            |
| <b>Total Personal Services</b>              |                             | <b>9.80</b>           | <b>\$763,695</b>   | <b>0.00</b>            | <b>\$0</b>        | <b>9.80</b>            | <b>\$763,695</b>   |
| <i>Materials &amp; Services</i>             |                             |                       |                    |                        |                   |                        |                    |
| <b>Total Materials &amp; Services</b>       |                             |                       | <b>\$1,566,653</b> |                        | <b>\$0</b>        |                        | <b>\$1,566,653</b> |
| <i>Debt Service</i>                         |                             |                       |                    |                        |                   |                        |                    |
| <b>Total Debt Service</b>                   |                             |                       | <b>\$18,200</b>    |                        | <b>\$0</b>        |                        | <b>\$18,200</b>    |
| <i>Capital Outlay</i>                       |                             |                       |                    |                        |                   |                        |                    |
| <b>Total Capital Outlay</b>                 |                             |                       | <b>\$429,125</b>   |                        | <b>\$0</b>        |                        | <b>\$429,125</b>   |
| <i>Interfund Transfers</i>                  |                             |                       |                    |                        |                   |                        |                    |
| <b>Total Interfund Transfers</b>            |                             |                       | <b>\$0</b>         |                        | <b>\$0</b>        |                        | <b>\$0</b>         |
| <i>Contingency and Ending Balance</i>       |                             |                       |                    |                        |                   |                        |                    |
| <i>CONT Contingency</i>                     |                             |                       |                    |                        |                   |                        |                    |
| 5999  | Contingency                 |                       | 150,000            |                        | 0                 |                        | 150,000            |
| <i>UNAPP Unappropriated Fund Balance</i>    |                             |                       |                    |                        |                   |                        |                    |
| 5990  | Unappropriated Fund Balance |                       | 663,783            |                        | (33,679)          |                        | 630,104            |
| <b>Total Contingency and Ending Balance</b> |                             |                       | <b>\$813,783</b>   |                        | <b>(\$33,679)</b> |                        | <b>\$780,104</b>   |
| <b>TOTAL REQUIREMENTS</b>                   |                             | <b>9.80</b>           | <b>\$3,591,456</b> | <b>0.00</b>            | <b>(\$33,679)</b> | <b>9.80</b>            | <b>\$3,557,777</b> |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT   | DESCRIPTION  | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                  | FY 1997-98<br>Proposed |                    |
|--|--|-----------------------|--------------------|------------------------|------------------|------------------------|--------------------|
|  |  | FTE                   | Amount             | FTE                    | Amount           | FTE                    | Amount             |
| <b>Portland Center for the Performing Arts</b> |  |                       |                    |                        |                  |                        |                    |
| <b>Resources</b>                               |  |                       |                    |                        |                  |                        |                    |
| BEGBAL   | Beginning Fund Balance                                       |                       | \$0                |                        | \$0              |                        | \$0                |
| LGSHRE   | Local Gov't Share Revenues                                   |                       |                    |                        |                  |                        |                    |
| 4130   | Hotel/Motel Tax  |                       | 1,200,000          |                        | 0                |                        | 1,200,000          |
| CHGSVC   | Charges for Service  |                       |                    |                        |                  |                        |                    |
| 4180   | Contract & Professional Service                              |                       | 300,000            |                        | 0                |                        | 300,000            |
| 4500   | Admission Fees   |                       | 1,140,000          |                        | 0                |                        | 1,140,000          |
| 4510   | Rentals  |                       | 1,060,000          |                        | 0                |                        | 1,060,000          |
| 4550   | Food Service Revenue   |                       | 951,000            |                        | 0                |                        | 951,000            |
| 4560   | Retail Sales   |                       | 0                  |                        | 0                |                        | 0                  |
| 4570   | Merchandising  |                       | 85,000             |                        | 0                |                        | 85,000             |
| 4580   | Utility Services   |                       | 0                  |                        | 0                |                        | 0                  |
| 4590   | Commissions  |                       | 210,000            |                        | 0                |                        | 210,000            |
| 4600   | Administrative Fees  |                       | 110,000            |                        | 0                |                        | 110,000            |
| 4620   | Parking Fees   |                       | 0                  |                        | 0                |                        | 0                  |
| 4645   | Reimbursed Services  |                       | 1,156,274          |                        | 275,000          |                        | 1,431,274          |
| 4650   | Miscellaneous Charges for Svc                                |                       | 0                  |                        | 0                |                        | 0                  |
| INTRST   | Interest Earnings  |                       |                    |                        |                  |                        |                    |
| 4700   | Interest on Investments                                      |                       | 175,000            |                        | 0                |                        | 175,000            |
| DONAT  | Contributions from Private Sources                           |                       |                    |                        |                  |                        |                    |
| 4750   | Donations and Bequests                                       |                       | 0                  |                        | 0                |                        | 0                  |
| MISCRV   | Miscellaneous Revenue  |                       |                    |                        |                  |                        |                    |
| 4890   | Miscellaneous Revenue  |                       | 240,000            |                        | 0                |                        | 240,000            |
| EQTREV   | Fund Equity Transfers  |                       |                    |                        |                  |                        |                    |
| 4970   | Transfer of Resources  |                       | 0                  |                        | 0                |                        | 0                  |
| 4985   | Residual Equity Transfer<br>* from Spectator Facilities Fund |                       | 2,541,654          |                        | 92,165           |                        | 2,633,819          |
| <b>TOTAL RESOURCES</b>                         |  |                       | <b>\$9,168,928</b> |                        | <b>\$367,165</b> |                        | <b>\$9,536,093</b> |

**Expenditures**

**Personal Services**

**SALWGE Salaries & Wages**

|      |   |      |        |   |      |        |   |
|------|---|------|--------|---|------|--------|---|
| 5010 | Reg Employees-Full Time-Exempt            |      |        |   |      |        |   |
|      | Admissions Staffing Mgr (Admin Schedules) | 0.60 | 21,759 | 0 | 0.60 | 21,759 | 0 |
|      | Assistant Fiscal Operations Director      |      | 0      | 0 |      | 0      | 0 |
|      | Assistant Security Supervisor             | 0.05 | 1,488  | 0 | 0.05 | 1,488  | 0 |
|      | Assistant Ticket Services Manager         | 1.00 | 40,022 | 0 | 1.00 | 40,022 | 0 |
|      | Asst. Event Svcs Mgr. or Senior House M.  | 1.00 | 40,022 | 0 | 1.00 | 40,022 | 0 |
|      | Asst. Operations Mgr. (Asst. Tech Svcs.)  | 1.00 | 46,392 | 0 | 1.00 | 46,392 | 0 |
|      | Audio/Visual Coordinator                  |      | 0      | 0 |      | 0      | 0 |
|      | Audio/Visual Technician                   |      | 0      | 0 |      | 0      | 0 |
|      | Booking and Sales Manager                 |      | 0      | 0 |      | 0      | 0 |
|      | Building Maintenance Supervisor           | 1.00 | 36,265 | 0 | 1.00 | 36,265 | 0 |
|      | Computer Systems Administrator            |      | 0      | 0 |      | 0      | 0 |
|      | Construction/Capital Projects Manager     | 0.30 | 18,360 | 0 | 0.30 | 18,360 | 0 |
|      | Development Project Manager               |      | 0      | 0 |      | 0      | 0 |
|      | Director of MERC Fiscal Operations        |      | 0      | 0 |      | 0      | 0 |
|      | Event Coordinator II                      |      | 0      | 0 |      | 0      | 0 |
|      | Event Services Manager                    | 1.00 | 46,392 | 0 | 1.00 | 46,392 | 0 |
|      | Executive Secretary                       |      | 0      | 0 |      | 0      | 0 |
|      | Expo Manager                              |      | 0      | 0 |      | 0      | 0 |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT   | DESCRIPTION                        | FY 1997-98<br>Current |         | FY 1997-98<br>Revision |        | FY 1997-98<br>Proposed |         |
|--|------------------------------------|-----------------------|---------|------------------------|--------|------------------------|---------|
|  |                                    | FTE                   | Amount  | FTE                    | Amount | FTE                    | Amount  |
| <b>Portland Center for the Performing Arts</b> |                                    |                       |         |                        |        |                        |         |
|  | General Manager                    |                       | 0       |                        | 0      |                        | 0       |
|  | Multi-Media/Marketing Manager      |                       | 0       |                        | 0      |                        | 0       |
|  | OCC Director                       |                       | 0       |                        | 0      |                        | 0       |
|  | Operations Accounting Coordinator  | 1.00                  | 32,810  | 0                      | 0      | 1.00                   | 32,810  |
|  | Operations Manager I               |                       | 0       |                        | 0      |                        | 0       |
|  | Operations Manager II              | 1.00                  | 56,749  | 0                      | 0      | 1.00                   | 56,749  |
|  | PCPA Director                      | 1.00                  | 76,602  | 0                      | 0      | 1.00                   | 76,602  |
|  | Purchasing and System Supervisor   |                       | 0       |                        | 0      |                        | 0       |
|  | Sales Department Manager           |                       | 0       |                        | 0      |                        | 0       |
|  | Sales Manager                      | 1.00                  | 46,392  | 0                      | 0      | 1.00                   | 46,392  |
|  | Security Services Coordinator      | 0.05                  | 1,813   | 0                      | 0      | 0.05                   | 1,813   |
|  | Senior Event Coordinator           |                       | 0       |                        | 0      |                        | 0       |
|  | Senior Set-up Supervisor           |                       | 0       |                        | 0      |                        | 0       |
|  | Set-up Supervisor                  | 1.00                  | 33,674  | 0                      | 0      | 1.00                   | 33,674  |
|  | Stadium Manager                    |                       | 0       |                        | 0      |                        | 0       |
|  | Stage Supervisor                   | 1.00                  | 37,171  | 0                      | 0      | 1.00                   | 37,171  |
|  | Telephone System Coordinator       |                       | 0       |                        | 0      |                        | 0       |
|  | Ticket Services Manager I          |                       | 0       |                        | 0      |                        | 0       |
|  | Ticket Services Manager II         | 1.00                  | 46,392  | 0                      | 0      | 1.00                   | 46,392  |
|  | Ticket Services Supervisor         | 4.00                  | 147,127 | 0                      | 0      | 4.00                   | 147,127 |
|  | Volunteer Coordinator              | 1.00                  | 34,442  | 0                      | 0      | 1.00                   | 34,442  |
| 5015   | Reg Empl-Full Time-Non-Exempt      |                       |         |                        |        |                        |         |
|  | Accounting Technician              | 1.00                  | 32,180  | 0                      | 0      | 1.00                   | 32,180  |
|  | Administrative Assistant           |                       | 0       |                        | 0      |                        | 0       |
|  | Administrative Secretary           | 1.00                  | 29,763  | 0                      | 0      | 1.00                   | 29,763  |
|  | Booking Coordinator                | 1.00                  | 36,263  | 0                      | 0      | 1.00                   | 36,263  |
|  | Capital Projects Assistant         | 0.30                  | 9,602   | 0                      | 0      | 0.30                   | 9,602   |
|  | Electrician                        |                       | 0       |                        | 0      |                        | 0       |
|  | Facility Security Agent            | 1.00                  | 26,271  | 0                      | 0      | 1.00                   | 26,271  |
|  | Facility Security Agent Supervisor |                       | 0       |                        | 0      |                        | 0       |
|  | Graphic Designer                   |                       | 0       |                        | 0      |                        | 0       |
|  | Lead Electrician                   |                       | 0       |                        | 0      |                        | 0       |
|  | Lead Engineer                      |                       | 0       |                        | 0      |                        | 0       |
|  | Multi-Media Assistant              |                       | 0       |                        | 0      |                        | 0       |
|  | Office Clerk                       | 0.60                  | 13,642  | 0                      | 0      | 0.60                   | 13,642  |
|  | Operating Engineer                 | 3.00                  | 130,188 | 0                      | 0      | 3.00                   | 130,188 |
|  | Operations Lead                    |                       | 0       |                        | 0      |                        | 0       |
|  | Operations Lead II                 |                       | 0       |                        | 0      |                        | 0       |
|  | Receptionist                       | 1.00                  | 26,952  | 0                      | 0      | 1.00                   | 26,952  |
|  | Secretary                          | 2.00                  | 53,991  | 0                      | 0      | 2.00                   | 53,991  |
|  | Stagedoor Security                 | 1.00                  | 23,821  | 0                      | 0      | 1.00                   | 23,821  |
|  | Stagehands                         |                       | 0       |                        | 0      |                        | 0       |
|  | Ticket Sellers                     | 2.00                  | 51,024  | 0                      | 0      | 2.00                   | 51,024  |
|  | Utility Lead                       | 3.00                  | 91,105  | 0                      | 0      | 3.00                   | 91,105  |
|  | Utility Maintenance                |                       | 0       |                        | 0      |                        | 0       |
|  | Utility Maintenance Lead           |                       | 0       |                        | 0      |                        | 0       |
|  | Utility Maintenance Specialist     |                       | 0       |                        | 0      |                        | 0       |
|  | Utility Technician                 |                       | 0       |                        | 0      |                        | 0       |
|  | Utility Worker I                   |                       | 0       |                        | 0      |                        | 0       |
|  | Utility Worker II                  |                       | 0       |                        | 0      |                        | 0       |
|  | Utility-Grounds                    |                       | 0       |                        | 0      |                        | 0       |
| 5030   | Temporary Employees                |                       | 0       |                        | 0      |                        | 0       |
| 5043   | Part-Time, Non-Reimbursed Labor    |                       | 400,147 |                        | 98,000 |                        | 498,147 |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT   | DESCRIPTION                        | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |                    | FY 1997-98<br>Proposed |                    |
|--|------------------------------------|-----------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
|  |                                    | FTE                   | Amount             | FTE                    | Amount             | FTE                    | Amount             |
| <b>Portland Center for the Performing Arts</b> |                                    |                       |                    |                        |                    |                        |                    |
| 5045   | Part-Time, Reimbursed Labor        |                       | 1,007,477          |                        | 275,000            |                        | 1,282,477          |
| 5080   | Overtime                           |                       | 60,247             |                        | 0                  |                        | 60,247             |
| <i>FRINGE</i>                                  | <i>Fringe Benefits</i>             |                       |                    |                        |                    |                        |                    |
| 5100   | Fringe Benefits                    |                       | 807,191            |                        | 94,165             |                        | 901,356            |
| <b>Total Personal Services</b>                 |                                    | <b>34.90</b>          | <b>\$3,563,738</b> | <b>0.00</b>            | <b>\$467,165</b>   | <b>34.90</b>           | <b>\$4,030,903</b> |
| <b>Materials &amp; Services</b>                |                                    |                       |                    |                        |                    |                        |                    |
| <b>Total Materials &amp; Services</b>          |                                    |                       | <b>\$2,301,273</b> |                        | <b>\$0</b>         |                        | <b>\$2,301,273</b> |
| <b>Debt Service</b>                            |                                    |                       |                    |                        |                    |                        |                    |
| <b>Total Debt Service</b>                      |                                    |                       | <b>\$80,879</b>    |                        | <b>\$0</b>         |                        | <b>\$80,879</b>    |
| <b>Capital Outlay</b>                          |                                    |                       |                    |                        |                    |                        |                    |
| <b>Total Capital Outlay</b>                    |                                    |                       | <b>\$875,000</b>   |                        | <b>\$0</b>         |                        | <b>\$875,000</b>   |
| <b>Interfund Transfers</b>                     |                                    |                       |                    |                        |                    |                        |                    |
| <b>Total Interfund Transfers</b>               |                                    |                       | <b>\$0</b>         |                        | <b>\$0</b>         |                        | <b>\$0</b>         |
| <b>Contingency and Ending Balance</b>          |                                    |                       |                    |                        |                    |                        |                    |
| <i>CONT</i>                                    | <i>Contingency</i>                 |                       |                    |                        |                    |                        |                    |
| 5999   | Contingency                        |                       | 318,867            |                        | (100,000)          |                        | 218,867            |
| <i>UNAPP</i>                                   | <i>Unappropriated Fund Balance</i> |                       |                    |                        |                    |                        |                    |
| 5990   | Unappropriated Fund Balance        |                       | 1,713,772          |                        |                    |                        | 1,713,772          |
| <b>Total Contingency and Ending Balance</b>    |                                    |                       | <b>\$2,032,639</b> |                        | <b>(\$100,000)</b> |                        | <b>\$1,932,639</b> |
| <b>TOTAL REQUIREMENTS</b>                      |                                    | <b>34.90</b>          | <b>\$8,853,529</b> | <b>0.00</b>            | <b>\$367,165</b>   | <b>34.90</b>           | <b>\$9,220,694</b> |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT                   | DESCRIPTION                        | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |            | FY 1997-98<br>Proposed |                    |
|------------------------|------------------------------------|-----------------------|--------------------|------------------------|------------|------------------------|--------------------|
|                        |                                    | FTE                   | Amount             | FTE                    | Amount     | FTE                    | Amount             |
| <b>Expo Center</b>     |                                    |                       |                    |                        |            |                        |                    |
| <b>Resources</b>       |                                    |                       |                    |                        |            |                        |                    |
| BGBAL                  | Beginning Fund Balance             |                       | \$0                |                        | \$0        |                        | \$0                |
| LGSHRE                 | Local Gov't Share Revenues         |                       |                    |                        |            |                        |                    |
| 4130                   | Hotel/Motel Tax                    |                       | 0                  |                        | 0          |                        | 0                  |
| CHGSVC                 | Charges for Service                |                       |                    |                        |            |                        |                    |
| 4180                   | Contract & Professional Service    |                       | 0                  |                        | 0          |                        | 0                  |
| 4500                   | Admission Fees                     |                       | 0                  |                        | 0          |                        | 0                  |
| 4510                   | Rentals                            |                       | 945,634            |                        | 0          |                        | 945,634            |
| 4550                   | Food Service Revenue               |                       | 1,435,140          |                        | 0          |                        | 1,435,140          |
| 4560                   | Retail Sales                       |                       | 0                  |                        | 0          |                        | 0                  |
| 4570                   | Merchandising                      |                       | 0                  |                        | 0          |                        | 0                  |
| 4580                   | Utility Services                   |                       | 104,700            |                        | 0          |                        | 104,700            |
| 4590                   | Commissions                        |                       | 0                  |                        | 0          |                        | 0                  |
| 4600                   | Administrative Fees                |                       | 0                  |                        | 0          |                        | 0                  |
| 4620                   | Parking Fees                       |                       | 887,209            |                        | 0          |                        | 887,209            |
| 4645                   | Reimbursed Services                |                       | 23,000             |                        | 0          |                        | 23,000             |
| 4650                   | Miscellaneous Charges for Svc      |                       | 0                  |                        | 0          |                        | 0                  |
| INTRST                 | Interest Earnings                  |                       |                    |                        |            |                        |                    |
| 4700                   | Interest on Investments            |                       | 42,979             |                        | 0          |                        | 42,979             |
| DONAT                  | Contributions from Private Sources |                       |                    |                        |            |                        |                    |
| 4750                   | Donations and Bequests             |                       | 0                  |                        | 0          |                        | 0                  |
| MISCRV                 | Miscellaneous Revenue              |                       |                    |                        |            |                        |                    |
| 4890                   | Miscellaneous Revenue              |                       | 12,650             |                        | 0          |                        | 12,650             |
| EQTREV                 | Fund Equity Transfers              |                       |                    |                        |            |                        |                    |
| 4970                   | Transfer of Resources              |                       | 0                  |                        | 0          |                        | 0                  |
| 4985                   | Residual Equity Transfer           |                       |                    |                        |            |                        |                    |
|                        | * from Regional Parks & Expo       |                       | 981,443            |                        | 0          |                        | 981,443            |
| <b>TOTAL RESOURCES</b> |                                    |                       | <b>\$4,432,755</b> |                        | <b>\$0</b> |                        | <b>\$4,432,755</b> |

**Expenditures**

**Personal Services**

**SALWGE Salaries & Wages**

|      |   |      |        |  |   |      |        |
|------|---|------|--------|--|---|------|--------|
| 5010 | Reg Employees-Full Time-Exempt                |      |        |  |   |      |        |
|      | Admissions Staffing Mgr (Admin Schedul        | 0.05 | 1,813  |  | 0 | 0.05 | 1,813  |
|      | Assistant Fiscal Operations Director          |      | 0      |  | 0 |      | 0      |
|      | Assistant Security Supervisor                 | 0.10 | 2,976  |  | 0 | 0.10 | 2,976  |
|      | Assistant Ticket Services Manager             |      | 0      |  | 0 |      | 0      |
|      | Asst. Event Svcs Mgr. or Senior House Mgr.    |      | 0      |  | 0 |      | 0      |
|      | Asst. Operations Mgr. (Asst. Tech Svcs. Mgr.) |      | 0      |  | 0 |      | 0      |
|      | Audio/Visual Coordinator                      |      | 0      |  | 0 |      | 0      |
|      | Audio/Visual Technician                       |      | 0      |  | 0 |      | 0      |
|      | Booking and Sales Manager                     |      | 0      |  | 0 |      | 0      |
|      | Building Maintenance Supervisor               |      | 0      |  | 0 |      | 0      |
|      | Computer Systems Administrator                |      | 0      |  | 0 |      | 0      |
|      | Construction/Capital Projects Manager         | 0.10 | 6,129  |  | 0 | 0.10 | 6,129  |
|      | Development Project Manager                   |      | 0      |  | 0 |      | 0      |
|      | Director of MERC Fiscal Operations            | 0.00 | 0      |  | 0 | 0.00 | 0      |
|      | Event Coordinator II                          | 1.00 | 40,022 |  | 0 | 1.00 | 40,022 |
|      | Event Services Manager                        |      | 0      |  | 0 |      | 0      |
|      | Executive Secretary                           |      | 0      |  | 0 |      | 0      |
|      | Expo Manager                                  | 1.00 | 57,770 |  | 0 | 1.00 | 57,770 |

**Exhibit A**  
**Ordinance No. 98-739**  
**FY 1997-1998 Supplemental Budget**

**MERC Operating Fund**  
**Information Only**

| ACCT               | DESCRIPTION                        | FY 1997-98<br>Current |         | FY 1997-98<br>Revision |        | FY 1997-98<br>Proposed |         |
|--------------------|------------------------------------|-----------------------|---------|------------------------|--------|------------------------|---------|
|                    |                                    | FTE                   | Amount  | FTE                    | Amount | FTE                    | Amount  |
| <b>Expo Center</b> |                                    |                       |         |                        |        |                        |         |
|                    | General Manager                    |                       | 0       |                        | 0      |                        | 0       |
|                    | Multi-Media/Marketing Manager      |                       | 0       |                        | 0      |                        | 0       |
|                    | OCC Director                       |                       | 0       |                        | 0      |                        | 0       |
|                    | Operations Accounting Coordinator  |                       | 0       |                        | 0      |                        | 0       |
|                    | Operations Manager I               |                       | 0       |                        | 0      |                        | 0       |
|                    | Operations Manager II              | 1.00                  | 53,706  |                        | 0      | 1.00                   | 53,706  |
|                    | PCPA Director                      |                       | 0       |                        | 0      |                        | 0       |
|                    | Purchasing and System Supervisor   |                       | 0       |                        | 0      |                        | 0       |
|                    | Sales Department Manager           |                       | 0       |                        | 0      |                        | 0       |
|                    | Sales Manager                      |                       | 0       |                        | 0      |                        | 0       |
|                    | Security Services Coordinator      | 0.10                  | 3,627   |                        | 0      | 0.10                   | 3,627   |
|                    | Senior Event Coordinator           |                       | 0       |                        | 0      |                        | 0       |
|                    | Senior Set-up Supervisor           |                       | 0       |                        | 0      |                        | 0       |
|                    | Set-up Supervisor                  |                       | 0       |                        | 0      |                        | 0       |
|                    | Stadium Manager                    |                       | 0       |                        | 0      |                        | 0       |
|                    | Stage Supervisor                   |                       | 0       |                        | 0      |                        | 0       |
|                    | Telephone System Coordinator       |                       | 0       |                        | 0      |                        | 0       |
|                    | Ticket Services Manager I          | 0.10                  | 4,420   |                        | 0      | 0.10                   | 4,420   |
|                    | Ticket Services Manager II         |                       | 0       |                        | 0      |                        | 0       |
|                    | Ticket Services Supervisor         | 0.10                  | 3,455   |                        | 0      | 0.10                   | 3,455   |
|                    | Volunteer Coordinator              |                       | 0       |                        | 0      |                        | 0       |
| 5015               | Reg Empl-Full Time-Non-Exempt      |                       |         |                        |        |                        |         |
|                    | Accounting Technician              | 0.20                  | 5,267   |                        | 0      | 0.20                   | 5,267   |
|                    | Administrative Assistant           |                       | 0       |                        | 0      |                        | 0       |
|                    | Administrative Secretary           | 1.00                  | 28,336  |                        | 0      | 1.00                   | 28,336  |
|                    | Booking Coordinator                |                       | 0       |                        | 0      |                        | 0       |
|                    | Capital Projects Assistant         | 0.10                  | 3,206   |                        | 0      | 0.10                   | 3,206   |
|                    | Electrician                        |                       | 0       |                        | 0      |                        | 0       |
|                    | Facility Security Agent            | 1.00                  | 24,447  |                        | 0      | 1.00                   | 24,447  |
|                    | Facility Security Agent Supervisor |                       | 0       |                        | 0      |                        | 0       |
|                    | Graphic Designer                   |                       | 0       |                        | 0      |                        | 0       |
|                    | Lead Electrician                   |                       | 0       |                        | 0      |                        | 0       |
|                    | Lead Engineer                      |                       | 0       |                        | 0      |                        | 0       |
|                    | Multi-Media Assistant              |                       | 0       |                        | 0      |                        | 0       |
|                    | Office Clerk                       | 0.05                  | 1,169   |                        | 0      | 0.05                   | 1,169   |
|                    | Operating Engineer                 | 0.75                  | 32,420  |                        | 0      | 0.75                   | 32,420  |
|                    | Operations Lead                    |                       | 0       |                        | 0      |                        | 0       |
|                    | Operations Lead II                 |                       | 0       |                        | 0      |                        | 0       |
|                    | Receptionist                       |                       | 0       |                        | 0      |                        | 0       |
|                    | Secretary                          |                       | 0       |                        | 0      |                        | 0       |
|                    | Stagedoor Security                 |                       | 0       |                        | 0      |                        | 0       |
|                    | Stagehands                         |                       | 0       |                        | 0      |                        | 0       |
|                    | Ticket Sellers                     |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Lead                       |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Maintenance                |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Maintenance Lead           |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Maintenance Specialist     | 4.00                  | 122,918 |                        | 0      | 4.00                   | 122,918 |
|                    | Utility Technician                 |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Worker I                   |                       | 0       |                        | 0      |                        | 0       |
|                    | Utility Worker II                  | 2.00                  | 52,733  |                        | 0      | 2.00                   | 52,733  |
|                    | Utility-Grounds                    |                       | 0       |                        | 0      |                        | 0       |
| 5030               | Temporary Employees                |                       | 8,602   |                        | 0      |                        | 8,602   |
| 5043               | Part-Time, Non-Reimbursed Labor    |                       | 23,097  |                        | 0      |                        | 23,097  |

Exhibit A  
Ordinance No. 98-739  
FY 1997-1998 Supplemental Budget

**MERC Operating Fund  
Information Only**

| ACCT  | DESCRIPTION                 | FY 1997-98<br>Current |                    | FY 1997-98<br>Revision |            | FY 1997-98<br>Proposed |                    |
|---|-----------------------------|-----------------------|--------------------|------------------------|------------|------------------------|--------------------|
|   |                             | FTE                   | Amount             | FTE                    | Amount     | FTE                    | Amount             |
| <b>Expo Center</b>                          |                             |                       |                    |                        |            |                        |                    |
| 5045  | Part-Time, Reimbursed Labor |                       | 78,617             |                        | 0          |                        | 78,617             |
| 5080  | Overtime                    |                       | 7,998              |                        | 0          |                        | 7,998              |
| FRINGE                                      | Fringe Benefits             |                       |                    |                        | 0          |                        | 189,639            |
| 5100  | Fringe Benefits             |                       | 189,639            |                        | 0          |                        | 189,639            |
| <b>Total Personal Services</b>              |                             | <b>12.65</b>          | <b>\$752,367</b>   | <b>0.00</b>            | <b>\$0</b> | <b>12.65</b>           | <b>\$752,367</b>   |
| <b>Materials &amp; Services</b>             |                             |                       |                    |                        |            |                        |                    |
| <b>Total Materials &amp; Services</b>       |                             |                       | <b>\$1,784,045</b> |                        | <b>\$0</b> |                        | <b>\$1,784,045</b> |
| <b>Debt Service</b>                         |                             |                       |                    |                        |            |                        |                    |
| <b>Total Debt Service</b>                   |                             |                       | <b>\$617,529</b>   |                        | <b>\$0</b> |                        | <b>\$617,529</b>   |
| <b>Capital Outlay</b>                       |                             |                       |                    |                        |            |                        |                    |
| <b>Total Capital Outlay</b>                 |                             |                       | <b>\$144,000</b>   |                        | <b>\$0</b> |                        | <b>\$144,000</b>   |
| <b>Interfund Transfers</b>                  |                             |                       |                    |                        |            |                        |                    |
| <b>Total Interfund Transfers</b>            |                             |                       | <b>\$0</b>         |                        | <b>\$0</b> |                        | <b>\$0</b>         |
| <b>Contingency and Ending Balance</b>       |                             |                       |                    |                        |            |                        |                    |
| CONT  | Contingency                 |                       |                    |                        | 0          |                        | 105,408            |
| 5999  | Contingency                 |                       | 105,408            |                        | 0          |                        | 105,408            |
| UNAPP                                       | Unappropriated Fund Balance |                       |                    |                        | 0          |                        | 955,194            |
| 5990  | Unappropriated Fund Balance |                       | 955,194            |                        | 0          |                        | 955,194            |
| <b>Total Contingency and Ending Balance</b> |                             |                       | <b>\$1,060,602</b> |                        | <b>\$0</b> |                        | <b>\$1,060,602</b> |
| <b>TOTAL REQUIREMENTS</b>                   |                             | <b>12.65</b>          | <b>\$4,358,543</b> | <b>0.00</b>            | <b>\$0</b> | <b>12.65</b>           | <b>\$4,358,543</b> |

**Exhibit B**  
**Ordinance No. 98-739**  
**Schedule of Appropriations**

|   | FY 1997-1998<br>Current<br>Appropriations | Revision           | FY 1997-1998<br>Proposed<br>Appropriations |
|---|---|--------------------|--|
| <b>CONVENTION CENTER PROJECT CAPITAL FUND</b>                   |   |                    |  |
| Personal Services   | 0   | 0                  | 0  |
| Materials and Services  | 123,300                                   | (3,487)            | 119,813                                    |
| Capital Outlay  | 0   | 30,968             | 30,968                                     |
| Interfund Transfers   | 0   | 0                  | 0  |
| Unappropriated Ending Fund Balance                              | 0   | 0                  | 0  |
| <b>Total Fund Requirements</b>                                  | <b>\$123,300</b>                          | <b>\$27,481</b>    | <b>\$150,781</b>                           |
| <b>MERC OPERATING FUND</b>                                      |   |                    |  |
| Operating Expenses (Personal Services & Materials and Services) | 24,200,383                                | 467,165            | 24,667,548                                 |
| Capital Outlay  | 2,207,596                                 | 0                  | 2,207,596                                  |
| Debt Service  | 719,058                                   | 0                  | 719,058                                    |
| Subtotal  | 27,127,037                                | 467,165            | 27,594,202                                 |
| Interfund Transfers   | 0   | 0                  | 0  |
| Contingency   | 1,121,263                                 | (100,000)          | 1,021,263                                  |
| Subtotal  | 1,121,263                                 | (100,000)          | 1,021,263                                  |
| Unappropriated Ending Fund Balance                              | 6,835,293                                 | 1,273,895          | 8,109,188                                  |
| <b>Total Fund Requirements</b>                                  | <b>\$35,083,593</b>                       | <b>\$1,641,060</b> | <b>\$36,724,653</b>                        |
| <b>OREGON CONVENTION CENTER OPERATING FUND</b>                  |   |                    |  |
| Personal Services   | 0   | 0                  | 0  |
| Materials and Services  | 0   | 0                  | 0  |
| Capital Outlay  | 0   | 0                  | 0  |
| Interfund Transfers   | 4,347,212                                 | 1,307,559          | 5,654,771                                  |
| Contingency   | 0   | 0                  | 0  |
| Unappropriated Ending Fund Balance                              | 0   | 0                  | 0  |
| <b>Total Fund Requirements</b>                                  | <b>\$4,347,212</b>                        | <b>\$1,307,559</b> | <b>\$5,654,771</b>                         |
| <b>SPECTATOR FACILITIES OPERATING FUND</b>                      |   |                    |  |
| Personal Services   | 0   | 0                  | 0  |
| Materials and Services  | 0   | 0                  | 0  |
| Capital Outlay  | 0   | 0                  | 0  |
| Interfund Transfers   | 3,768,282                                 | 58,486             | 3,826,768                                  |
| Contingency   | 0   | 0                  | 0  |
| Unappropriated Ending Fund Balance                              | 0   | 0                  | 0  |
| <b>Total Fund Requirements</b>                                  | <b>\$3,768,282</b>                        | <b>\$58,486</b>    | <b>\$3,826,768</b>                         |
| <b>COLISEUM OPERATING FUND</b>                                  |   |                    |  |
| Materials and Services  | 0   | 0                  | 0  |
| Interfund Transfers   | 45,000                                    | 15                 | 45,015                                     |
| Unappropriated Ending Fund Balance                              | 0   | 0                  | 0  |
| <b>Total Fund Requirements</b>                                  | <b>\$45,000</b>                           | <b>\$15</b>        | <b>\$45,015</b>                            |

**All Other Appropriations Remain As Previously Adopted**



I HEREBY CERTIFY THAT THE FORE  
 GOING IS A COMPLETE AND EXACT COPY OF  
 ORIGINAL THEREOF.  
 EXECUTIVE SECRETARY  
 METROPOLITAN EXPOSITION-RECREATION COMMISSION

## METROPOLITAN EXPOSITION-RECREATION COMMISSION

### RESOLUTION 98-14

Authorizing a Supplemental Budget amendment to FY 1997-98 Adopted Budgets for the following funds:

- Convention Center Project Capital Fund
- OCC Operating Fund
- Spectator Facilities Fund
- Coliseum Operating Fund
- MERC Operating Fund

**The Metropolitan Exposition-Recreation Commission finds:**

1. The estimated Ending Fund Balances at June 30, 1997 used to establish the Transfer of Resources from the FY 1996-97 Operating Funds to the MERC Operating Fund in FY 1997-98 were understated leaving balances in the former funds which need to be transferred.
2. The Convention Center Project Capital Fund's Beginning Fund Balance in FY 1997-98 was understated which prevents fully expending the fund in FY 1997-98.
3. The PCPA's Reimbursed Labor Revenue and Personal Services were under budgeted due to contract negotiations that were not concluded until July 1997 and revisions in costs to implement a program to clean their facilities with an in-house labor versus Temporary Labor.

**Be It Therefore Resolved** that the Metropolitan Exposition-Recreation Commission hereby approves and submits to the Metro Council under the Metro code provisions applicable to FY 1997-98 the following supplemental budget amendments:

**Convention Center Project Capital Fund-**

|                           | Adopted<br>Budget | Amendment  | Revised<br>Budget |
|---------------------------|-------------------|------------|-------------------|
| Total Resources           | \$ 123,300        | \$ 27,481  | \$ 150,481        |
| Total Material & Services | \$ 123,300        | \$( 3,487) | \$ 119,813        |
| Total Capital Outlay      | \$ -0-            | \$ 30,968  | \$ 30,968         |
| Total Requirements        | \$ 123,300        | \$ 27,481  | \$ 150,781        |

**OCC Operating Fund**

|                    | Adopted<br>Budget | Amendment    | Revised<br>Budget |
|--------------------|-------------------|--------------|-------------------|
| Total Resources    | \$ 4,347,212      | \$ 1,307,559 | \$ 5,654,771      |
| Total Requirements | \$ 4,347,212      | \$ 1,307,559 | \$ 5,654,771      |

**Spectator Facilities Operating Fund-**

|                              | Adopted<br>Budget | Amendment   | Revised<br>Budget |
|------------------------------|-------------------|-------------|-------------------|
| Civic Stadium - Resources    | \$ 1,226,628      | \$( 33,679) | \$ 1,192,949      |
| PCPA - Resources             | \$ 2,541,654      | \$ 92,165   | \$ 2,633,819      |
| Total Resources              | \$ 3,768,282      | \$ 58,486   | \$ 3,826,768      |
| Civic Stadium - Requirements | \$ 1,226,628      | \$( 33,679) | \$ 1,192,949      |
| PCPA - Requirements          | \$ 2,541,654      | \$ 92,165   | \$ 2,633,819      |
| Total Requirements           | \$ 3,768,282      | \$ 58,486   | \$ 3,826,768      |

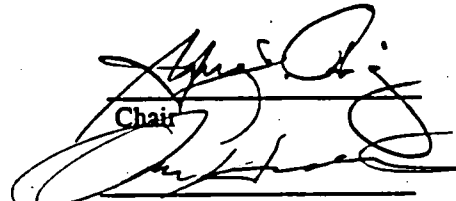

Coliseum Operating Fund-

|                    | Adopted<br>Budget | Amendment | Revised<br>Budget |
|--------------------|-------------------|-----------|-------------------|
| Total Resources    | \$ 45,000         | \$ 15     | \$ 45,015         |
| Total Requirements | \$ 45,000         | \$ 15     | \$ 45,015         |

MERC Operating Fund-

|                              | Adopted<br>Budget | Amendment     | Revised<br>Budget |
|------------------------------|-------------------|---------------|-------------------|
| Total Resources              | \$ 35,083,593     | \$ 1,641,060  | \$ 36,724,653     |
| Total Personal Services      | \$ 10,231,631     | \$ 467,165    | \$ 10,698,796     |
| Total Material & Services    | \$ 13,968,752     | \$ -0-        | \$ 13,968,752     |
| Total Debt Service           | \$ 719,058        | \$ -0-        | \$ 719,058        |
| Total Capital Outlay         | \$ 2,207,596      | \$ -0-        | \$ 2,207,596      |
| Total Contingency            | \$ 1,121,263      | \$ ( 100,000) | \$ 1,021,263      |
| Total Unappropriated Balance | \$ 6,835,293      | \$ 1,273,895  | \$ 8,109,188      |
| Total Requirements           | \$ 35,083,593     | \$ 1,641,060  | \$ 36,724,653     |

Passed by the Commission on March 11, 1998.

  
Chair  
  
Secretary-Treasurer

Approved as to Form:  
Daniel B. Cooper, General Counsel

By:   
Kathleen Pool  
Senior Assistant Counsel

## MERC STAFF REPORT

Agenda Item/Issue: Approval of Supplemental Budget amendment for Fiscal Year 1997-98.

**Resolution No. 98-14**

**Date:** March 6, 1998

**Presented by:** Norman Kraft

Background and Analysis: A supplemental budget amendment is required for the following:

- The Convention Center Project Capital Fund was expected to incur greater expenditures in FY 1996-97 than what actually occurred resulting in a larger Ending Fund Balance at June 30, 1997. The Beginning Fund Balance for FY 1997-98 did not anticipate that possibility thereby under budgeted the fund by \$27,481. In addition there is a recognized savings this fiscal year in budgeted Material & Services in the amount of \$3,487. The combined adjustment for the two amounts would generate \$30,968 that could be applied to capital improvement projects in the Convention Center.
- The creation of the new MERC Operating Fund in FY 1997-98 required the balances of the old operating funds to be transferred to the new fund in FY 1997-98. The budgeted transfer of expenditures and revenues underestimated the actual Ending Fund Balances at June 30, 1997. The supplemental budget eliminates the remaining funds of \$1,366,060 in the old operating funds in this fiscal year and allows these funds to be closed out.
- The supplemental budget includes two adjustments to Personal Services at the PCPA. The first is the result of the Stage Hand Contract which was still being negotiated when the FY 1997-98 budget was adopted and the second is due to the decision to use in-house labor for facility clean up after events. In the past outside temporary labor was used for this purpose. The adopted budget for FY 1997-98 anticipated this transition but actual costs have risen higher than the original forecast. The total impact of these two adjustments should require an additional \$617,165 but has been reduced to \$467,165. This budget amendment consists of the \$92,165 increase in Beginning Fund Balance, \$275,000 increase in Reimbursed Labor Revenue and a transfer of \$100,000 from Contingency. The additional savings of \$150,000 is the result of the cancellation of a mega Broadway show, other lower staffing requirements to date plus savings from vacancies and delayed hiring. This budget amendment has no net impact on the budgeted FY 1997-98 Ending Fund Balance.

### Fiscal Impact:

#### MERC Operating Fund -

While the amendment assumes an increase in expenditures of \$367,165, this amount is offset by additional resources. The Supplemental Budget adjustment results in an increase in budgeted Ending Fund Balance for FY 1997-98.

#### OCC Project Capital Fund -

The Supplemental Budget amendment includes a net increase in budgeted expenditures of \$27,481 which is offset by an increase in Beginning Fund Balance.

The detail of the Supplemental Budget amendment is attached as Exhibit A.

Recommendation : Staff recommends that the Commission approve a supplemental budget amendment for FY 1997-98 as reflected in Resolution 98-14.

EXHIBIT A  
SUPPLEMENTAL BUDGET  
FY 1997-98

| Fund Description                             | Acct. # | Description                          | Adopted<br>Budget | Amendment        | Revised<br>Budget |
|--|---------|--------------------------------------|-------------------|------------------|-------------------|
| <b>Convention Center<br/>Project Capital</b> |         |                                      |                   |                  |                   |
|  | BEGBAL  | Beg. Fund Balance                    | 120,000           | 27,481           | 147,481           |
|  | 4700    | Interest                             | 3,300             | 0                | 3,300             |
|  |         | <b>Total Resources</b>               | <b>123,300</b>    | <b>27,481</b>    | <b>150,781</b>    |
|  | 5310    | Taxes non-payroll                    | 123,000           | (3,487)          | 119,513           |
|  |         | <b>Total M &amp; S</b>               | <b>123,000</b>    | <b>(3,487)</b>   | <b>119,513</b>    |
|  | 5725    | Buildings & Related                  | 0                 | 30,968           | 30,968            |
|  |         | <b>Total Capital Outlay</b>          | <b>0</b>          | <b>30,968</b>    | <b>30,968</b>     |
|  |         | <b>Total Requirements</b>            | <b>123,000</b>    | <b>27,481</b>    | <b>150,481</b>    |
| <b>OCC Operating</b>                         |         |                                      |                   |                  |                   |
|  | BEGBAL  | Beg. Fund Balance                    | 4,347,212         | 1,307,559        | 5,654,771         |
|  |         | <b>Total Resources</b>               | <b>4,347,212</b>  | <b>1,307,559</b> | <b>5,654,771</b>  |
|  | 5830    | Transfer out - Equity                | 4,347,212         | 1,307,559        | 5,654,771         |
|  |         | <b>Total Requirements</b>            | <b>4,347,212</b>  | <b>1,307,559</b> | <b>5,654,771</b>  |
| <b>Coliseum Operating</b>                    |         |                                      |                   |                  |                   |
|  | BEGBAL  | Beg. Fund Balance                    | 45,000            | 15               | 45,015            |
|  |         | <b>Total Resources</b>               | <b>45,000</b>     | <b>15</b>        | <b>45,015</b>     |
|  | 5830    | Transfer out - Equity                | 45,000            | 15               | 45,015            |
|  |         | <b>Total Requirements</b>            | <b>45,000</b>     | <b>15</b>        | <b>45,015</b>     |
| <b>Spectator Facilities<br/>Operating</b>    |         |                                      |                   |                  |                   |
| Stadium                                      | BEGBAL  | Beg. Fund Balance                    | 1,226,628         | (33,679)         | 1,192,949         |
| PCPA   | BEGBAL  | Beg. Fund Balance                    | 2,541,654         | 92,165           | 2,633,819         |
|  |         | <b>Total Resources</b>               | <b>3,768,282</b>  | <b>58,486</b>    | <b>3,826,768</b>  |
| Stadium                                      | 5830    | Transfer out - Equity                | 1,226,628         | (33,679)         | 1,192,949         |
| PCPA   | 5830    | Transfer out - Equity                | 2,541,654         | 92,165           | 2,633,819         |
|  |         | <b>Total Requirements</b>            | <b>3,768,282</b>  | <b>58,486</b>    | <b>3,826,768</b>  |
| <b>MERC Operating</b>                        |         |                                      |                   |                  |                   |
|  | 4645    | Reimbursed Services                  | 1,578,699         | 275,000          | 1,853,699         |
|  | 4895    | Equity Transfers In                  | 9,141,937         | 1,366,060        | 10,507,997        |
|  |         | All other Resources                  | 24,362,957        | 0                | 24,362,957        |
|  |         | <b>Total Resources</b>               | <b>35,083,593</b> | <b>1,366,060</b> | <b>36,724,653</b> |
|  | 5043    | Part-Time, Non-Reimbursed            | 605,475           | 98,000           | 703,475           |
|  | 5045    | Part-Time, Reimbursed                | 1,496,908         | 369,165          | 1,866,073         |
|  |         | All Other Personal Services          | 8,129,248         | 0                | 8,129,248         |
|  |         | <b>Total Personal Services</b>       | <b>10,231,631</b> | <b>467,165</b>   | <b>10,698,796</b> |
|  |         | <b>Total Material &amp; Services</b> | <b>13,968,752</b> | <b>0</b>         | <b>13,968,752</b> |
|  |         | <b>Total Debt Service</b>            | <b>719,058</b>    | <b>0</b>         | <b>719,058</b>    |
|  |         | <b>Total Capital Outlay</b>          | <b>2,207,596</b>  | <b>0</b>         | <b>2,207,596</b>  |
|  |         | Contingency                          | 1,121,263         | (100,000)        | 1,021,263         |
|  |         | Unappropriated Balance               | 6,835,293         | 1,273,895        | 8,109,188         |
|  |         | <b>Total Conting./Uappro. Bal</b>    | <b>7,956,556</b>  | <b>1,173,895</b> | <b>9,130,451</b>  |
|  |         | <b>Total Requirements</b>            | <b>35,083,593</b> | <b>1,641,060</b> | <b>36,724,653</b> |

EXHIBIT A  
SUPPLEMENTAL BUDGET  
FY 1997-98

| Fund Description          | Acct. # | Description                | Adopted<br>Budget | Amendment      | Revised<br>Budget |
|---------------------------|---------|----------------------------|-------------------|----------------|-------------------|
| Information Only:<br>PCPA |         |                            |                   |                |                   |
|                           |         | <b>Total Resources</b>     | <b>8,853,529</b>  | <b>367,165</b> | <b>9,220,694</b>  |
|                           |         | Personal Services          | 3,563,738         | 467,165        | 4,030,903         |
|                           |         | Materials & Services       | 2,301,273         | 0              | 2,301,273         |
|                           |         | Debt Services              | 80,879            | 0              | 80,879            |
|                           |         | Capital Outlay             | 875,000           | 0              | 875,000           |
|                           |         | Contengency/Unappropriated | 2,032,639         | (100,000)      | 1,932,639         |
|                           |         | <b>Total Requirements</b>  | <b>8,853,529</b>  | <b>367,165</b> | <b>9,220,694</b>  |

**Ordinance No. 98-734, Amending and Readopting Metro Code 2.06 (Investment Policy); and Declaring  
an Emergency.**

***Second Reading***

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**

BEFORE THE METRO COUNCIL

AN ORDINANCE AMENDING AND )  
READOPTING METRO CODE 2.06 )  
(INVESTMENT POLICY); AND DECLARING )  
AN EMERGENCY )

ORDINANCE NO. 98-734

Introduced by Mike Burton,  
Executive Officer

WHEREAS, The Metro Code, Section 2.06, contains the investment policy which applies to all cash-related assets held directly by Metro; and

WHEREAS, The Oregon Revised Statutes relating to the investment of public funds requires annual readoption; and

WHEREAS, The Investment Advisory Board has reviewed and approved an amendment to the investment policy; now, therefore,

THE METRO COUNCIL HEREBY ORDAINS:

1. That Metro Code Chapter 2.06 is amended and readopted as written in Exhibit A.
2. This Ordinance being necessary for the immediate preservation of the public health, safety and welfare, in order to meet obligations and comply with Oregon Revised Statutes, an emergency is declared to exist, and this Ordinance takes effect upon passage.

ADOPTED by the Metro Council this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

\_\_\_\_\_  
Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

\_\_\_\_\_  
Recording Secretary

\_\_\_\_\_  
Daniel B. Cooper, General Counsel

CHAPTER 2.06  
INVESTMENT POLICY

Exhibit A  
Inserted text - bold  
deleted text -  
strikethrough  
revised lines - | on  
left border

| SECTIONS | TITLE   |
|----------|---|
| 2.06.010 | Scope   |
| 2.06.020 | Objectives                                      |
| 2.06.030 | Responsibility                                  |
| 2.06.040 | Prudence  |
| 2.06.050 | Investment Diversification                      |
| 2.06.060 | Competitive Selection of Investment Instruments |
| 2.06.065 | Monitoring the Portfolio                        |
| 2.06.070 | Qualifying Institutions                         |
| 2.06.080 | Banking Services (repealed Ord. 97-684 §1)      |
| 2.06.090 | Safekeeping and Collateralization               |
| 2.06.100 | Indemnity Clause                                |
| 2.06.110 | Controls  |
| 2.06.120 | Accounting Method                               |
| 2.06.130 | Reporting Requirements                          |
| 2.06.140 | Performance Evaluation                          |
| 2.06.150 | Policy Adoption                                 |
| 2.06.160 | Policy Readoption                               |

2.06.010 Scope

These investment policies apply to all cash-related assets included within the scope of Metro's audited financial statements and held directly by Metro. Other than bond proceeds or other segregated revenues, the total of funds pooled for investments ranges from \$60 million to \$100 million with an average of \$80 million. Funds held and invested by trustees or fiscal agents are excluded from these policies; however, such funds are subject to the regulations established by the State of Oregon.

Funds of Metro will be invested in compliance with the provisions of ORS 294.035 through 294.048; ORS 294.125 through 294.155; ORS 294.810; and other applicable statutes. Investments will be in accordance with these policies and written administrative procedures. Investment of any tax exempt borrowing proceeds and of any debt service funds will comply with the 1986 Tax Reform Act provisions and any subsequent amendments thereto.

2.06.020 Objectives

(a) Safety. Investments shall be undertaken in a manner that seeks to ensure the preservation of principal in the overall portfolio and security of funds and investments. For securities



## CHAPTER 2.06

### INVESTMENT POLICY

| SECTIONS | TITLE   |
|----------|---|
| 2.06.010 | Scope   |
| 2.06.020 | Objectives                                      |
| 2.06.030 | Responsibility                                  |
| 2.06.040 | Prudence  |
| 2.06.050 | Investment Diversification                      |
| 2.06.060 | Competitive Selection of Investment Instruments |
| 2.06.065 | Monitoring the Portfolio                        |
| 2.06.070 | Qualifying Institutions                         |
| 2.06.080 | Banking Services (repealed Ord. 97-684 \$1)     |
| 2.06.090 | Safekeeping and Collateralization               |
| 2.06.100 | Indemnity Clause                                |
| 2.06.110 | Controls  |
| 2.06.120 | Accounting Method                               |
| 2.06.130 | Reporting Requirements                          |
| 2.06.140 | Performance Evaluation                          |
| 2.06.150 | Policy Adoption                                 |
| 2.06.160 | Policy Readoption                               |

#### 2.06.010 Scope

These investment policies apply to all cash-related assets included within the scope of Metro's audited financial statements and held directly by Metro. Other than bond proceeds or other segregated revenues, the total of funds pooled for investments ranges from \$60 million to \$100 million with an average of \$80 million. Funds held and invested by trustees or fiscal agents are excluded from these policies; however, such funds are subject to the regulations established by the State of Oregon.

Funds of Metro will be invested in compliance with the provisions of ORS 294.035 through 294.048; ORS 294.125 through 294.155; ORS 294.810; and other applicable statutes. Investments will be in accordance with these policies and written administrative procedures. Investment of any tax exempt borrowing proceeds and of any debt service funds will comply with the 1986 Tax Reform Act provisions and any subsequent amendments thereto.

#### 2.06.020 Objectives

(a) Safety. Investments shall be undertaken in a manner that seeks to ensure the preservation of principal in the overall portfolio and security of funds and investments. For securities

not backed by the full faith and credit of the federal government, diversification is required in order that potential losses on individual securities would not exceed the income generated from the remainder of the portfolio.

(b) Liquidity. The investment officer shall assure that funds are constantly available to meet immediate payment requirements including payroll, accounts payable and debt service.

(c) Yield. The investment portfolio shall be designed with the objective of regularly exceeding the average return on 90-day U.S. Treasury Bills. The investment program shall seek to augment returns above this level, consistent with risk limitations described in this policy and prudent investment principles.

Due to Metro's fiduciary responsibility, safety of capital and availability of funds to meet payment requirements are the overriding objectives of the investment program. Investment yield targets are secondary.

(d) Legality. Funds will be deposited and invested in accordance with statutes, ordinances and policies governing Metro.

#### 2.06.030 Responsibility

(a) Investment Officer. The executive officer is the investment officer of the district. The authority for investing Metro funds is vested with the investment officer, who, in turn, designates the investment manager to manage the day-to-day operations of Metro's investment portfolio, place purchase orders and sell orders with dealers and financial institutions, and prepare reports as required.

(b) Investment Advisory Board (IAB). There shall be an investment advisory board composed of five members.

(1) Terms of Service. The term of service for citizens appointed to the IAB shall be three calendar years. The term of appointment shall be staggered so that not more than two members' terms expire in any calendar year.

(2) Appointment. The investment officer shall recommend to the council for confirmation, the names of persons for appointment to the IAB.

- (3) Duties. The IAB shall meet at least quarterly. The IAB will serve as a forum for discussion and act in an advisory capacity for investment strategies, banking relationships, the legality and probity of investment activities and the establishment of written procedures for the investment operations.

(c) Quarterly Reports. At each quarterly meeting, a report reflecting the status of the portfolio will be submitted for review and comment by at least 3 members of the IAB. Discussion and comment on the report will be noted in minutes of the meeting. If concurrence is not obtained, notification will be given to the investment officer including comments by the IAB.

#### 2.06.040 Prudence

The standard of prudence to be applied by the investment officer shall be the "prudent investor" rule: "Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived." The prudent investor rule shall be applied in the context of managing the overall portfolio.

#### 2.06.050 Investment Diversification

(Definitions of terms and applicable authorizing statutes are listed in the "Summary of Investments Available to Municipalities" provided by the state treasurer.) The investment officer will diversify the portfolio to avoid incurring unreasonable risks inherent in over investing in specific instruments, individual financial institutions, or maturities.

##### (a) Diversification by Investment

|  | Percent of<br>Portfolio<br>(Maximum) |
|--|--------------------------------------|
| (1) U.S. Treasury Bills, Notes,<br>Bonds, Strips and/or State<br>and Local Government Series<br>(SLGS) | 100%                                 |
| (2) Securities of U.S. Government Agencies<br>and U.S. Government Sponsored Enterprises                | 100%                                 |

- |     |   |      |
|-----|---|------|
| (3) | Certificates of Deposit (CD)<br>Commercial Banks in Oregon insured<br>by FDIC   | 100% |
| (4) | Repurchase Agreements (Repo's)<br>Maximum 90-day maturity   | 50%  |
| (5) | Banker's Acceptances (BA)   | 100% |
| (6) | Commercial Paper (CP)<br>Issued by a financial institution,<br>commercial, industrial or utility<br>business enterprise.  | 35%  |
|     | For a corporation headquartered in<br>Oregon; A-1 and P-1 only, maximum 90-day<br>maturity; A-2 and P-2, A-1/P-2, or A-<br>2/P-1 only, maximum 60-day maturity. |      |
|     | For a corporation headquartered outside<br>Oregon; A-1 and P-1 only; maximum 90-day<br>maturity   |      |
| (7) | State of Oregon and Local Government<br>Securities with A ratings or better   | 25%  |
| (8) | State of Oregon Investment Pool   | 100% |
| (9) | Market Interest Accounts and Checking<br>Accounts Minimum necessary for daily<br>cash management efficiency   |      |

(b) Diversification by Financial Institution

- (1) Qualified Institutions. The investment officer shall maintain a listing of financial institutions and securities dealers recommended by the IAB. Any financial institution and/or securities dealer is eligible to make an application to the investment officer and upon due consideration and approval hold available funds.

A listing of the eligible institutions shall be held by the investment officer and provided any fiduciary agent or trustee.

- (2) Diversification Requirements. The combination of investments in Certificates of Deposit and Banker's Acceptances as outlined individually at

2.06.050(b)(2)(A) and (C) invested with any one institution shall not exceed 25 percent of the total available funds or 15 percent of the equity of the institution.

(A) Certificates of Deposit - Commercial Banks

No more than the lesser of 25 percent of the total available funds or 15 percent of the equity of the financial institution may be invested with any one institution.

(B) Repurchase Agreements

May be purchased from any qualified institution provided the master repurchase agreement is effective and the safekeeping requirements are met. All repurchase agreements will be fully collateralized by general obligations of the U.S. Government, the agencies and instrumentalities of the United States or enterprises sponsored by the United States government, marked to market.

The investment officer shall not enter into any reverse repurchase agreements.

(C) Banker's Acceptances

Must be guaranteed by, and carried on the books of, a qualified financial institution whose short-term letter of credit rating is rated in the highest category by one or more nationally recognized statistical rating organizations.

Qualified institution means:

- (i) A financial institution that is located and licensed to do banking business in the State of Oregon; or
- (ii) A financial institution located in the States of California, Idaho, or Washington that is wholly owned by a bank holding company that owns a financial institution that is located and licensed to do banking business in the State of Oregon.

No more than the lesser of 25 percent of the total available funds or 15 percent of the equity of the financial institution may be invested with any one institution.

(D) Commercial Paper

No more than 5 percent of the total portfolio with any one corporate entity.

(E) State and Local Government Securities

No more than 15 percent of the total portfolio in any one local entity.

(F) State of Oregon Investment Pool

Not to exceed the maximum amount established in accordance with ORS 294.810, with the exception of pass-through funds (in and out within 10 days).

(G) U.S. Government Agencies

Securities of U.S. Government Agencies and U.S. Government Sponsored Enterprises as defined under ORS 294.035 and/or 294.040. No more than 40 percent of the total portfolio in any one agency.

(H) U.S. Government Treasuries

No limitations

(c) Diversification by Maturity. Only investments which can be held to maturity shall be purchased. Investments shall not be planned or made predicated upon selling the security prior to maturity. This restriction does not prohibit the use of repurchase agreements under ORS 294.135(2). This policy shall not preclude the sale of securities prior to their maturity in order to improve the quality, net yield, or maturity characteristic of the portfolio.

Maturity limitations shall depend upon whether the funds being invested are considered short-term or long-term funds. All funds shall be considered short-term except those reserved for capital projects (e.g., bond sale proceeds).

(1) Short-Term Funds

(A) Investment maturities for operating funds and bond reserves shall be scheduled to meet projected cash flow needs. Funds considered short-term will be invested to coincide with projected cash needs or with the following serial maturity:

25% minimum to mature under three months

75% minimum to mature under 18 months

100% minimum to mature under five years

(B) Investments may not exceed five years. Investment maturities beyond 18 months may be made when supported by cash flow projections which reasonably demonstrate that liquidity requirements will be met. Maturities beyond 18 months will be limited to direct U.S. Treasury obligations.

(2) Long-Term Funds

(A) Maturity scheduling shall be timed according to anticipated need. ORS 294.135 permits investment beyond 18 months for any bond proceeds or funds accumulated for any purpose which the district is permitted by state law to accumulate and hold funds for a period exceeding one year. The maturities should be made to coincide as nearly as practicable with the expected use of the funds.

(B) Investment of capital project funds shall be timed to meet projected contractor payments. The drawdown schedule used to guide the investment of the funds shall evidence the approval of the investment officer and review of the Chief Financial Officer.

(d) Total Prohibitions. The investment officer may not make a commitment to invest funds or sell securities more than 14 business days prior to the anticipated date of settlement of the purchase or sale transaction, and may not agree to invest funds or sell securities for a fee other than interest. Purchase of standby or forward commitments of any sort are specifically prohibited.

(e) Adherence to Investment Diversification.

Diversification requirements must be met on the day an investment transaction is executed. If due to unanticipated cash needs, investment maturities or marking the portfolio to market, the investment in any security type, financial issuer or maturity spectrum later exceeds the limitations in the policy, the Investment Officer is responsible for bringing the investment portfolio back into compliance as soon as is practical.

2.06.060 Competitive Selection of Investment Instruments

Before the investment officer invests any surplus funds, a competitive offering solicitation shall be conducted orally. Offerings will be requested from financial institutions for various options with regards to term and instrument. The investment officer will accept the offering which provides the highest rate of return within the maturity required and within the prudent investor rule. Records will be kept of offerings and the basis for making the investment decision.

2.06.065 Monitoring the Portfolio

The investment manager will routinely monitor the contents of the portfolio comparing the holdings to the markets, relative values of competing instruments, changes in credit quality, and benchmarks. If there are advantageous transactions, the portfolio may be adjusted accordingly.

2.06.070 Qualifying Institutions

The investment officer shall maintain a listing of all authorized dealers and financial institutions which are approved for investment purposes. Written procedures and criteria for selection of financial institutions will be established by the investment officer. Financial institutions must have a branch in Oregon. Any firm is eligible to apply to provide investment services to Metro and will be added to the list if the selection criteria are met. Additions or deletions to the list will be made by the investment officer and reviewed by the IAB. At the request of the investment officer, the firms performing investment services for Metro shall provide their most recent financial statements or Consolidated Report of Condition (call report) for review. Further, there should be in place, proof as to all the necessary credentials and licenses held by employees of the broker/dealers who will have contact with Metro as specified by but not necessarily limited to the National Association of Securities Dealers (NASD), Securities and Exchange Commission (SEC), etc. At minimum, the investment officer and



the IAB shall conduct an annual evaluation of each firm's qualifications to determine whether it should be on the authorized list.

Securities dealers not affiliated with a bank shall be classified as reporting dealers affiliated with the New York Federal Reserve Bank as primary dealers, or meet the criteria for financial institutions.

#### 2.06.090 Safekeeping and Collateralization

All securities purchased pursuant to this investment policy will be delivered by either book entry or physical delivery to a third party for safekeeping by a bank designated as custodian. Purchase and sale of all securities will be on a payment versus delivery basis. The trust department of the bank designated as custodian will be considered to be a third party for the purposes of safekeeping of securities purchased from that bank. The custodian shall issue a safekeeping receipt to Metro listing the specific instrument, rate, maturity and other pertinent information.

Delivery versus payment will also be required for all repurchase transactions and with the collateral priced and limited in maturity in compliance with ORS 294.035(11).

Deposit-type securities (i.e., Certificates of Deposit) shall be collateralized through the state collateral pool as required by ORS 295.015 and ORS 295.018 for any amount exceeding FDIC coverage, recognizing that ORS 295.015 requires only 25 percent collateralization and ORS 295.018 requires 110 percent collateralization when the institution is notified by the state treasurer.

#### 2.06.100 Indemnity Clause

(a) Metro shall indemnify the investment officer, chief financial officer, investment manager, staff and the IAB members from personal liability for losses that might occur pursuant to administering this investment policy.

(b) The investment officer, acting in accordance with written procedures and exercising due diligence, shall not be held personally responsible for a specific security's credit risk or market price changes, provided that these deviations are reported to the council as soon as practicable.

#### 2.06.110 Controls

The investment officer shall maintain a system of written internal controls, which shall be reviewed annually by the IAB and the independent auditor. The controls shall be designed to prevent loss of public funds due to fraud, error, misrepresentation or imprudent actions.

Metro's independent auditor at least annually shall audit investments according to generally accepted auditing standards and this ordinance.

#### 2.06.120 Accounting Method

Metro shall comply with all required legal provisions and Generally Accepted Accounting Principles (GAAP). The accounting principles are those contained in the pronouncements of authoritative bodies, including but not necessarily limited to, the American Institute of Certified Public Accountants (AICPA); the Financial Accounting Standards Board (FASB); and the Government Accounting Standards Board (GASB).

#### 2.06.130 Reporting Requirements

(a) A transaction report shall be prepared by the investment manager not later than one business day after the transaction, unless a trustee, operating under a trust agreement, has executed the transaction. The trustee agreement shall provide for a report of transactions to be submitted by the trustee on a monthly basis.

(b) Quarterly reports shall be prepared for each regular meeting of the IAB to present historical investment information for the past 12-month period. Copies shall be provided to the executive officer and the Metro council.

#### 2.06.140 Performance Evaluation

The overall performance of Metro's investment program is evaluated quarterly by the IAB using the objectives outlined in this policy. The quarterly report which confirms adherence to this policy shall be provided to the Metro council as soon as practicable.

The performance of Metro's portfolio shall be measured by comparing the average yield of the portfolio at month-end against the performance of the 90-day U.S. Treasury Bill issue maturing closest to 90 days from month-end and the Local Government Investment Pool's monthly average yield.

2.06.150 Policy Adoption

This investment policy must be reviewed by the IAB and the Oregon Short-Term Fund Board prior to adoption by the Metro council. Adoption of this policy supersedes any other previous council action or policy regarding Metro's investment management practices.

2.06.160 Policy Readoption

This policy shall be subject to review and readoption annually by the Metro council in accordance with ORS 294.135(b).

## **FINANCE COMMITTEE REPORT**

CONSIDERATION OF ORDINANCE NO. 98-734, FOR THE PURPOSE OF AMENDING AND READOPTING METRO CODE 2.06 (INVESTMENT POLICY; AND DECLARING AN EMERGENCY

-----  
Date: April 8, 1998      Presented by: Councilor Washington

**Committee Recommendation:** At its April 1 meeting, the Committee considered Ordinance No. 98-734 and voted 6-0 to send the ordinance to the Council with a do pass recommendation. Voting in favor: Councilors Kvistad, McFarland, McLain, Morissette, Washington, and Chair McCaig. Councilor Naito was absent.

### **Background**

State law requires that Metro adopt a policy to guide staff in the investment of funds that are in excess of the agency's immediate needs. In Metro's case, include fund unappropriated balances, bond reserves and bond proceeds that are not scheduled for use during the budget year. Metro Code Section 2.06 establishes the agency's investment policies. Because Metro invests in debt instruments with a maturity of greater than 18 months, state law requires that the policy be readopted on an annual basis. In addition, the policy must be reviewed by the state Short-Term Fund Board.

**Committee Issues/Discussion:** Howard Hansen, Investment and Credit Analyst, presented the staff report. He noted that the policy contained in the ordinance contained only one minor technical amendment and that the policy had been reviewed by the Short-Term Fund Board and that their comments had been incorporated in the policy. He noted that the purpose of the amendment was to clarify that if unanticipated cash needs, investment maturities or marking the portfolio affects Metro's ability to meet investment diversification requirements, the investment officer shall bring the portfolio back into compliance as soon as is practical.

Councilor McFarland asked if the types of investments to which the policy applies include the employee's 401(k) plan. Hansen indicated that the policy only applied to agency public funds and did not include the 401(k) plan. McFarland further asked about the types of investments made under the policy. Hansen responded that, as a public agency, Metro is limited as to the types of investments that it can make. For example, funds cannot be invested in stocks. The types of investment instruments that can be purchased include commercial paper, certificates of deposit (CD's) and bankers acceptances.

## STAFF REPORT

### CONSIDERATION OF ORDINANCE NO. 98-734 AMENDING AND READOPTING METRO CODE 2.06 (INVESTMENT POLICY); AND DECLARING AN EMERGENCY

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Date: February 26, 1998

Presented by: Howard Hansen

## FACTUAL BACKGROUND AND ANALYSIS

Metro Code, Section 2.06, contains the investment policy which applies to all cash-related assets held directly by Metro. The major objectives of the policy are safety, liquidity, and yield, with safety of capital and availability of funds as the overriding objectives.

The Oregon Revised Statutes requires annual re-adoption of the investment policy whether or not any amendments are proposed. The last re-adoption by Metro Council took place April 17, 1997.

A housekeeping amendment is proposed by staff. This amendment has been reviewed with and approved by Metro's Investment Advisory Board. The policy containing this amendment has also been presented to the Oregon Short-Term Fund Board for their review. They review and comment on all public agency investment policies. Their comments have been incorporated in the proposed addition to the policy.

The goal of this amendment is to protect the portfolio against unwarranted sale of investments before maturity in the event diversification requirements become out of compliance after an investment transaction has taken place. Compliance can sometimes be violated if investments mature causing a change in the size of the portfolio or a change in the relationship between investment categories.

The full Chapter 2.06, as amended, is attached to the ordinance as Exhibit A, with the amendment paragraph added as Section 2.06.050(e) shown below.

(e) Adherence to Investment Diversification. *Diversification requirements must be met on the day an investment transaction is executed. If due to unanticipated cash needs, investment maturities or marking the portfolio to market, the investment in any security type, financial issuer or maturity spectrum later exceeds the limitations in this policy, the Investment Officer is responsible for bringing the investment portfolio back into compliance as soon as is practical.*

## EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends amendment and re-adoption of Metro Code 2.06 by Ordinance No. 98-734.

*Agenda Item Number 9.2*

**Ordinance No. 98-737**, Amending the FY 1997-98 budget and appropriations schedule in the Support Services Fund by transferring \$15,000 from the Administrative Services Department to the Office of the Auditor and transferring \$4,600 from Capital Outlay to Materials and Services within the Office of the Auditor to provide funding for conducting an implementation review of the InfoLink project.

***Second Reading***

Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber

BEFORE THE METRO COUNCIL

AN ORDINANCE AMENDING THE FY 1997-98 )  
BUDGET AND APPROPRIATIONS SCHEDULE ) ORDINANCE NO. 98-737  
IN THE SUPPORT SERVICES FUND BY )  
TRANSFERRING \$15,000 FROM THE )  
ADMINISTRATIVE SERVICES DEPARTMENT TO )  
THE OFFICE OF THE AUDITOR AND TRANS- ) Introduced by Metro Auditor  
FERRING \$4,600 FROM CAPITAL OUTLAY ) Alexis Dow, CPA  
TO MATERIALS AND SERVICES WITHIN THE )  
OFFICE OF THE AUDITOR TO PROVIDE )  
FUNDING FOR CONDUCTING AN IMPLEMEN- )  
TATION REVIEW OF THE INFOLINK PROJECT )

WHEREAS, Metro recently completed implementation of the general ledger, purchasing and accounts payable modules in the new management information system; and

WHEREAS, additional modules remain to be implemented; and

WHEREAS, a review of implementation procedures and outcomes would identify and assist in the resolution of issues prior to financial statement preparation and implementation of subsequent modules; and

WHEREAS, the Metro Council has reviewed and considered the need to transfer appropriations with the FY 1997-98 budget; and

WHEREAS, the need for a transfer of appropriation has been justified;  
and

WHEREAS, adequate funds exist for other identified needs; now,  
therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. That the FY 1997-98 budget and schedule of appropriations are hereby amended as shown in the column entitled "Revision" of Exhibits A and B to this ordinance for the purpose of transferring \$15,000 from the Administrative Services Department in the Support Services Fund to the Office of the Auditor and transferring \$4,600 from Capital Outlay to Materials and Services within the Office of the Auditor for the purpose of providing funding for an implementation review of the InfoLink Project.

2. This Ordinance being necessary for the immediate preservation of the public health, safety or welfare of the Metro area in order to meet obligations and comply with Oregon Budget Law, an emergency is declared to exist, and this Ordinance takes effect upon passage.

ADOPTED by the Metro Council this \_\_\_\_ day of \_\_\_\_\_, 1998.

\_\_\_\_\_  
Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

\_\_\_\_\_  
Recording Secretary

\_\_\_\_\_  
Daniel B. Cooper, General Counsel



Exhibit A  
Ordinance No. 98-737  
**Support Services Fund**

| FISCAL YEAR 1997-98                       |   | CURRENT BUDGET |         | REVISION |          | PROPOSED BUDGET |         |
|---|---|----------------|---------|----------|----------|-----------------|---------|
| ACCT #                                    | DESCRIPTION                               | FTE            | AMOUNT  | FTE      | AMOUNT   | FTE             | AMOUNT  |
| <b>Administrative Services Department</b> |   |                |         |          |          |                 |         |
| Personal Services                         |   |                |         |          |          |                 |         |
| 511121                                    | SALARIES-REGULAR EMPLOYEES (full time)    |                |         |          |          |                 |         |
|   | Administrator                             | 0.94           | 90,542  | 0.00     | (10,050) | 0.94            | 80,492  |
|   | Senior Director                           | 0.90           | 79,702  | 0.00     | 0        | 0.90            | 79,702  |
|   | Directors                                 | 1.00           | 81,592  | 0.00     | 0        | 1.00            | 81,592  |
|   | Senior Manager                            | 2.50           | 180,455 | 0.00     | 0        | 2.50            | 180,455 |
|   | Managers                                  | 2.45           | 157,723 | 0.00     | 0        | 2.45            | 157,723 |
|   | Senior Program Supervisor                 | 4.00           | 238,797 | 0.00     | 0        | 4.00            | 238,797 |
|   | Senior Services Supervisor                | 1.00           | 46,941  | 0.00     | 0        | 1.00            | 46,941  |
|   | Program Supervisor                        | 2.00           | 108,466 | 0.00     | 0        | 2.00            | 108,466 |
|   | Associate Program Supervisor              | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Construction Coordinator                  | 1.00           | 58,798  | 0.00     | 0        | 1.00            | 58,798  |
|   | Senior Auditor                            | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Principal Administrative Services Analyst | 3.94           | 224,692 | 0.00     | 0        | 3.94            | 224,692 |
|   | Senior Administrative Services Analyst    | 3.75           | 190,167 | 0.00     | 0        | 3.75            | 190,167 |
|   | Associate Administrative Services Analyst | 1.00           | 45,391  | 0.00     | 0        | 1.00            | 45,391  |
|   | Sr. Management Analyst                    | 1.00           | 39,818  | 0.00     | 0        | 1.00            | 39,818  |
|   | Associate Services Supervisor             | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Assoc. Management Analyst                 | 2.00           | 86,266  | 0.00     | 0        | 2.00            | 86,266  |
|   | Asst. Management Analyst                  | 3.00           | 123,639 | 0.00     | 0        | 3.00            | 123,639 |
|   | Management Technician                     | 1.45           | 45,162  | 0.00     | 0        | 1.45            | 45,162  |
|   | Sr. Public Affairs Specialist             | 1.00           | 53,291  | 0.00     | 0        | 1.00            | 53,291  |
|   | Assoc. Public Affairs Specialist          | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Associate Graphic Design Specialist       | 3.00           | 132,160 | 0.00     | 0        | 3.00            | 132,160 |
|   | Systems Specialist                        | 3.00           | 151,102 | 0.00     | 0        | 3.00            | 151,102 |
|   | D.P. Operations Analyst                   | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Programmer/Analyst                        | 1.00           | 48,358  | 0.00     | 0        | 1.00            | 48,358  |
|   | Senior Accountant                         | 1.00           | 48,369  | 0.00     | 0        | 1.00            | 48,369  |
|   | Assistant Creative Services Specialist    | 1.00           | 41,798  | 0.00     | 0        | 1.00            | 41,798  |
|   | Graphics/Exhibit Designer                 | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
| 511221                                    | WAGES-REGULAR EMPLOYEES (full time)       |                |         |          |          |                 |         |
|   | Administrative Secretary                  | 2.25           | 67,569  | 0.00     | 0        | 2.25            | 67,569  |
|   | Secretary                                 | 1.00           | 22,816  | 0.00     | 0        | 1.00            | 22,816  |
|   | Receptionist                              | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Office Assistant                          | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Administrative Support Assistant C        | 4.94           | 149,530 | 0.00     | 0        | 4.94            | 149,530 |
|   | Administrative Support Assistant B        | 1.00           | 22,434  | 0.00     | 0        | 1.00            | 22,434  |
|   | Administrative Support Assistant A        | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Lead Accounting Clerk                     | 4.00           | 143,236 | 0.00     | 0        | 4.00            | 143,236 |
|   | Accounting Clerk 2                        | 7.00           | 202,976 | 0.00     | 0        | 7.00            | 202,976 |
|   | Program Assistant 2                       | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Program Assistant 1                       | 1.37           | 31,142  | 0.00     | 0        | 1.37            | 31,142  |
|   | Technical Assistant                       | 1.00           | 41,781  | 0.00     | 0        | 1.00            | 41,781  |
|   | D.P. Operator                             | 0.00           | 0       | 0.00     | 0        | 0.00            | 0       |
|   | Technical Specialist                      | 3.00           | 114,405 | 0.00     | 0        | 3.00            | 114,405 |
|   | Reproduction Clerk                        | 2.00           | 58,832  | 0.00     | 0        | 2.00            | 58,832  |
|   | Building Service Worker                   | 0.45           | 11,877  | 0.00     | 0        | 0.45            | 11,877  |

Exhibit A  
Ordinance No. 98-737  
**Support Services Fund**

| FISCAL YEAR 1997-98                       |                                       | CURRENT BUDGET |                  | REVISION    |                 | PROPOSED BUDGET |                  |
|---|---------------------------------------|----------------|------------------|-------------|-----------------|-----------------|------------------|
| ACCT #                                    | DESCRIPTION                           | FTE            | AMOUNT           | FTE         | AMOUNT          | FTE             | AMOUNT           |
| <b>Administrative Services Department</b> |                                       |                |                  |             |                 |                 |                  |
|   | Building Services Technician          | 0.45           | 16,734           | 0.00        | 0               | 0.45            | 16,734           |
| 511225                                    | WAGES-REGULAR EMPLOYEES (part time)   |                |                  |             |                 |                 |                  |
|   | Receptionist                          | 0.63           | 13,041           | 0.00        | 0               | 0.63            | 13,041           |
| 511231                                    | WAGES-TEMPORARY EMPLOYEES (full time) |                |                  |             |                 |                 |                  |
|   | Temporary Support                     | 1.00           | 49,102           | 0.00        | 0               | 1.00            | 49,102           |
| 511235                                    | WAGES-TEMPORARY EMPLOYEES (part time) |                |                  |             |                 |                 |                  |
|   | Temporary Administrative Support      | 0.10           | 1,288            | 0.00        | 0               | 0.10            | 1,288            |
| 511400                                    | OVERTIME                              |                | 23,049           | 0.00        | 0               |                 | 23,049           |
| 512000                                    | FRINGE                                |                | 1,139,383        | 0.00        | (4,950)         |                 | 1,134,433        |
| <b>Total Personal Services</b>            |                                       | <b>72.12</b>   | <b>4,382,424</b> | <b>0.00</b> | <b>(15,000)</b> | <b>72.12</b>    | <b>4,367,424</b> |
| <b>Total Materials &amp; Services</b>     |                                       |                | <b>1,126,419</b> |             | <b>0</b>        |                 | <b>1,126,419</b> |
| <b>Debt Service</b>                       |                                       |                |                  |             |                 |                 |                  |
| xxxxxxx                                   | Capital Lease Payments                |                | 27,232           |             | 0               |                 | 27,232           |
| <b>Total Capital Outlay</b>               |                                       |                | <b>1,088,547</b> |             | <b>0</b>        |                 | <b>1,088,547</b> |
| <b>TOTAL EXPENDITURES</b>                 |                                       | <b>72.12</b>   | <b>6,624,622</b> | <b>0.00</b> | <b>(15,000)</b> | <b>72.12</b>    | <b>6,609,622</b> |

Exhibit A  
Ordinance No. 98-737  
**Support Services Fund**

| FISCAL YEAR 1997-98                   |  | CURRENT BUDGET |                | REVISION    |                | PROPOSED BUDGET |                |
|---------------------------------------|--|----------------|----------------|-------------|----------------|-----------------|----------------|
| ACCT #                                | DESCRIPTION                                  | FTE            | AMOUNT         | FTE         | AMOUNT         | FTE             | AMOUNT         |
| <b>Auditor's Office</b>               |  |                |                |             |                |                 |                |
| <b>Total Personal Services</b>        |  | <b>5.57</b>    | <b>394,617</b> | <b>0.00</b> | <b>0</b>       | <b>5.57</b>     | <b>394,617</b> |
| <u>Materials &amp; Services</u>       |  |                |                |             |                |                 |                |
| 521100                                | Office Supplies                              |                | 2,509          |             | 0              |                 | 2,509          |
| 521110                                | Computer Software                            |                | 3,078          |             | 0              |                 | 3,078          |
| 521111                                | Computer Supplies                            |                | 2,483          |             | 0              |                 | 2,483          |
| 521290                                | Other Supplies                               |                | 7,838          |             | 0              |                 | 7,838          |
| 521310                                | Subscriptions                                |                | 428            |             | 0              |                 | 428            |
| 521320                                | Dues   |                | 3,000          |             | 0              |                 | 3,000          |
| 524110                                | Accounting & Auditing Services               |                | 77,400         |             | 0              |                 | 77,400         |
| 524190                                | Misc. Professional Services                  |                | 18,000         |             | 19,600         |                 | 37,600         |
| 525640                                | Maintenance & Repairs Services-Equipment     |                | 513            |             | 0              |                 | 513            |
| 526200                                | Ads & Legal Notices                          |                | 536            |             | 0              |                 | 536            |
| 526310                                | Printing Services                            |                | 865            |             | 0              |                 | 865            |
| 526410                                | Telephone                                    |                | 1,695          |             | 0              |                 | 1,695          |
| 526420                                | Postage                                      |                | 2,784          |             | 0              |                 | 2,784          |
| 526440                                | Delivery Services                            |                | 165            |             | 0              |                 | 165            |
| 526500                                | Travel                                       |                | 7,500          |             | 0              |                 | 7,500          |
| 526510                                | Mileage Reimbursement                        |                | 1,540          |             | 0              |                 | 1,540          |
| 526700                                | Temporary Help Services                      |                | 3,010          |             | 0              |                 | 3,010          |
| 526800                                | Training, Tuition, Conferences               |                | 5,700          |             | 0              |                 | 5,700          |
| 528100                                | License, Permits, Payments to Other Agencies |                | 309            |             | 0              |                 | 309            |
| 529500                                | Meetings                                     |                | 1,030          |             | 0              |                 | 1,030          |
| 529800                                | Miscellaneous                                |                | 1,030          |             | 0              |                 | 1,030          |
| <b>Total Materials &amp; Services</b> |  |                | <b>141,413</b> |             | <b>19,600</b>  |                 | <b>161,013</b> |
| <u>Debt Service</u>                   |  |                |                |             |                |                 |                |
| xxxxxxx                               | Capital Lease Payments                       |                | 0              |             | 0              |                 | 0              |
| <u>Capital Outlay</u>                 |  |                |                |             |                |                 |                |
| 571500                                | Purchases-Office Furniture & Equipment       |                | 8,606          |             | (4,600)        |                 | 4,006          |
| <b>Total Capital Outlay</b>           |  |                | <b>8,606</b>   |             | <b>(4,600)</b> |                 | <b>4,006</b>   |
| <b>TOTAL EXPENDITURES</b>             |  | <b>5.57</b>    | <b>544,636</b> | <b>0.00</b> | <b>15,000</b>  | <b>5.57</b>     | <b>559,636</b> |

**Exhibit B**  
**Ordinance No. 98-737**  
**Schedule of Appropriations**

|   | <u>Current<br/>Appropriation</u> | <u>REVISION</u>   | <u>Revised<br/>Appropriation</u> |
|---|----------------------------------|-------------------|----------------------------------|
| <b>SUPPORT SERVICES FUND</b>              |                                  |                   |                                  |
| Administrative Services                   |                                  |                   |                                  |
| Personal Services                         | 4,382,424                        | (15,000)          | 4,367,424                        |
| Materials and Services                    | 1,126,419                        | 0                 | 1,126,419                        |
| Capital Outlay                            | 1,088,547                        | 0                 | 1,088,547                        |
| Debt Service                              | 27,232                           | 0                 | 27,232                           |
| Subtotal                                  | <u>6,624,622</u>                 | <u>(15,000)</u>   | <u>6,609,622</u>                 |
| Office of General Counsel                 |                                  |                   |                                  |
| Personal Services                         | 655,656                          | 0                 | 655,656                          |
| Materials and Services                    | 41,856                           | 0                 | 41,856                           |
| Capital Outlay                            | 21,644                           | 0                 | 21,644                           |
| Subtotal                                  | <u>719,156</u>                   | <u>0</u>          | <u>719,156</u>                   |
| Office of Public and Government Relations |                                  |                   |                                  |
| Personal Services                         | 75,758                           | 0                 | 75,758                           |
| Materials and Services                    | 60,427                           | 0                 | 60,427                           |
| Capital Outlay                            | 1,750                            | 0                 | 1,750                            |
| Subtotal                                  | <u>137,935</u>                   | <u>0</u>          | <u>137,935</u>                   |
| Council Office of Public Outreach         |                                  |                   |                                  |
| Personal Services                         | 100,049                          | 0                 | 100,049                          |
| Materials and Services                    | 31,185                           | 0                 | 31,185                           |
| Capital Outlay                            | 8,033                            | 0                 | 8,033                            |
| Subtotal                                  | <u>139,267</u>                   | <u>0</u>          | <u>139,267</u>                   |
| Office of Citizen Involvement             |                                  |                   |                                  |
| Personal Services                         | 61,631                           | 0                 | 61,631                           |
| Materials and Services                    | 22,480                           | 0                 | 22,480                           |
| Capital Outlay                            | 0                                | 0                 | 0                                |
| Subtotal                                  | <u>84,111</u>                    | <u>0</u>          | <u>84,111</u>                    |
| Auditor's Office                          |                                  |                   |                                  |
| Personal Services                         | 394,617                          | 0                 | 394,617                          |
| Materials and Services                    | 141,413                          | 19,600            | 161,013                          |
| Capital Outlay                            | 8,606                            | (4,600)           | 4,006                            |
| Subtotal                                  | <u>544,636</u>                   | <u>15,000</u>     | <u>559,636</u>                   |
| General Expenses                          |                                  |                   |                                  |
| Interfund Transfers                       | 788,762                          | 0                 | 788,762                          |
| Contingency                               | 348,834                          | 0                 | 348,834                          |
| Subtotal                                  | <u>1,137,596</u>                 | <u>0</u>          | <u>1,137,596</u>                 |
| Unappropriated Ending Fund Balance        | 306,414                          | 0                 | 306,414                          |
| <b>Total Fund Requirements</b>            | <u><b>\$9,693,737</b></u>        | <u><b>\$0</b></u> | <u><b>\$9,693,737</b></u>        |

**All other appropriations remain as previously adopted**

**FINANCE COMMITTEE REPORT**

CONSIDERATION OF ORDINANCE NO. 98-737 FOR THE PURPOSE OF AMENDING THE FY 1997-98 BUDGET AND APPROPRIATIONS SCHEDULE IN THE SUPPORT SERVICES FUND BY TRANSFERRING \$15,000 FROM THE ADMINISTRATIVE SERVICES DEPARTMENT TO THE OFFICE OF THE AUDITOR AND TRANSFERRING \$4,600 FROM CAPITAL OUTLAY TO MATERIALS AND SERVICES WITHIN THE OFFICE OF THE AUDITOR TO PROVIDE FUNDING FOR CONDUCTING AN IMPLEMENTATION REVIEW OF THE INFOLINK PROJECT

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Date: April 8, 1998

Presented by: Councilor Morissette

**Committee Recommendation:** At its April 1 meeting, the Committee considered Ordinance No. 98-73 and voted 6-0 to send the ordinance to the Council with a do pass recommendation. Voting in favor: Councilors Kvistad, McFarland, McLain, Morissette, Washington, and Chair McCaig. Councilor Naito was absent.

**Committee Issues/Discussion:** Alexis Dow, Metro Auditor presented the staff report. She noted that as part of the Council's consideration of the proposed budget for her office, the Council requested that she proceed to develop a budget amendment to transfer funds from the Administrative Services Department to her office and move funds within her own budget to provide initial funding related to a review of the implementation of the Infolink project. She concluded by noting that the amendment is in accordance with the Council decision's as to how the Infolink review work is to be financed.

The committee members had no questions.

## STAFF REPORT

CONSIDERATION OF ORDINANCE 98-737 AMENDING THE FY 1997-98 BUDGET AND APPROPRIATIONS SCHEDULE IN THE SUPPORT SERVICES FUND BY TRANSFERRING \$15,000 FROM THE ADMINISTRATIVE SERVICES DEPARTMENT TO THE OFFICE OF THE AUDITOR AND TRANSFERRING \$4,600 FROM CAPITAL OUTLAY TO MATERIALS AND SERVICES WITHIN THE OFFICE OF THE AUDITOR TO PROVIDE FUNDING FOR CONDUCTING A IMPLEMENTATION REVIEW OF INFOLINK, AND DECLARING AN EMERGENCY.

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Date: March 5, 1998

Presented by: Alexis Dow

### FACTUAL BACKGROUND AND ANALYSIS

InfoLink is an integrated management information system consisting of accounting, human resources, purchasing, project costing and contract management functions. Metro initiated this project to avoid Year 2000 problems and to move away from software that is no longer supported by the vendor. The \$2.4 million InfoLink project involves transitioning from a mainframe-based system to a client/server environment.

Three modules have been implemented to date: general ledger, purchasing and accounts payable. Changes required to improve the performance of these modules are proceeding. Additional modules are scheduled for implementation by July 1998. Early savings on purchases of hardware and software have been offset by increased implementation costs; the total budget remains unchanged.

This Ordinance would provide funds for an implementation review. This review has two levels: 1) an applications/business process review, and 2) an evaluation of project status.

The applications/business process review will be conducted on implemented modules that have been functioning for several months. This review will evaluate whether internal controls are in place to ensure complete, accurate, and approved data are entered and accepted for processing, and reports accurately reflect the results of processing. It will also determine if users are satisfied with the performance of the system. Finally, it will assess whether an appropriate implementation plan was utilized to ensure that the applications were properly installed.

The project status review will take a broader look at the InfoLink project. Questions answered by this review include whether the project will be completed within budget and on schedule, and whether Metro will obtain the essential capabilities and benefits that were anticipated when this project was approved.

The funds requested in this ordinance are needed because an outside firm will be hired for this essential work. The staff in the Office of the Auditor requires the additional technical expertise to carry out all phases of this work. One Senior Auditor will be dedicated to this implementation review, providing assistance in non-technical areas.

This implementation review will provide a variety of benefits to Metro. It will provide information on whether the key objectives of the project are likely to be attained using the approaches and resources currently being employed. It will suggest changes if significant roadblocks to complete and successful implementation are found. The applications review will help ensure that data entered into the new system will enable Metro staff to produce accurate and reliable financial and management reports.

### BUDGET IMPACT

This action reduces the Administrative Services Department budget within the Support Services Fund by \$15,000 but sufficient funds remain in that budget for the rest of the fiscal year. This action also transfers \$4,600 from capital outlay to materials and services within the Office of the Auditor budget.

The total request in this ordinance is \$15,000 of additional funding for the Office of the Auditor. The Metro Auditor is contributing remaining funds for this project from existing budget and will also contribute personnel resources with the dedication of a Senior Auditor to this project.

### AUDITOR'S RECOMMENDATION

The Metro Auditor recommends approval of Ordinance No. 98- 737.

*Agenda Item Number 10.1*

**Resolution No. 98-2619, For the Purpose of Authorizing Start-Up Activities for the Transit-Oriented Development (TOD) Implementation Program at Metro.**

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**



BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING ) RESOLUTION NO. 98-2619  
START-UP ACTIVITIES FOR THE )  
TRANSIT-ORIENTED DEVELOPMENT ) Introduced by:  
(TOD) IMPLEMENTATION PROGRAM ) Mike Burton, Executive Officer  
AT METRO ) Jon Kvistad, Presiding Officer

WHEREAS, By Resolution No. 95-2176B \$3 million of Surface Transportation Program funds were allocated for establishment of a Transit-Oriented Development (TOD) Implementation Program; and

WHEREAS, By Resolution No. 96-2279 Tri-Met entered into an Intergovernmental Agreement with Metro to transfer authority to establish and implement a Transit-Oriented Development Program contingent on approval of the Federal Transit Administration; and

WHEREAS, Such a Program will help implement Metro's Region 2040 Growth Concept, both by encouraging higher density and mixed-use development and by reinforcing light rail ridership; and

WHEREAS, The Federal Transit Administration has recently approved Metro's grant request and authorized public review of the Environmental Assessment for the Program; and

WHEREAS, Certain actions are needed to establish a fully operating TOD Program; now therefore,

BE IT RESOLVED, That the Metro Council authorize the following TOD Implementation Program start-up activities:

1. Approve the Transit-Oriented Development Program (Exhibit A) and authorize the Executive Officer to implement the Program consistent with the provisions of this resolution.
2. Adopt findings (Exhibit B) that Program activities warrant

using Request for Proposals and authorize the release of a Request For Proposals (as substantially reflected in Exhibit C) to solicit development proposals consistent with the Program (Exhibit A). The RFP process is to include safeguards for a fair and equitable selection process so that, other than discussions with Program Management staff, applicants and their representatives are not permitted to make any direct or indirect (through others) contact with members of the TOD Steering Committee, Metro Council and management concerning their proposal, except in the course of authorized presentations. Violation of these rules may result in disqualification of the proposal.

3. Designate the existing Congestion Mitigation/Air Quality-Transit-Oriented Development (CMAQ-TOD) Steering Committee to become the TOD Program Steering Committee, with the addition of a Metro Councilor, for oversight of the Program and to approve project sites and projects for implementation.
4. Authorize the Executive Officer to execute Development Agreements with developers on projects resulting from the Request For Proposals approved by the Steering Committee and subsequently approved by the Federal Transit Administration and also to execute Purchase Agreements to acquire sites physically or functionally connected to light rail stations approved by the Steering Committee and the Federal Transit Administration.
5. Authorize the Executive Officer to execute Intergovernmental

Agreements with the Oregon Department of Transportation and the Portland Development Commission to transfer administration of the existing CMAQ-TOD Program to Metro to manage.

6. Authorize the Executive Officer to execute a loan with the Oregon Transportation Infrastructure Bank for \$2.0 million of transit account funds, as a reservation for up to five years, to be drawn down as loans for specific Program projects, subject to approval by the Steering Committee.
7. Require ongoing review of the Program by the Transportation Planning Committee.

ADOPTED by the Metro Council this \_\_\_\_ day of \_\_\_\_\_,  
1998.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

**TRANSIT-ORIENTED DEVELOPMENT  
IMPLEMENTATION PROGRAM**

**Work Plan  
Transportation Department  
Metro  
March 1998**

## INTRODUCTION

This document describes the objectives, activities, and governance of the Metro Transportation Department's TOD Implementation (TOD) Program. The Program will fund land acquisition for eligible TOD projects in station areas along the Banfield and Westside-Hillsboro light rail corridor. Specifically, the Program will operate within one-quarter mile of light rail stations; these station areas are shown on Figure 1.

Projects considered for the Program will exhibit a mix of moderate- to high-intensity land uses, a physical or functional connection to the transit system, and design features that reinforce pedestrian relationships and scale. The Program seeks to increase transit ridership and lessen the risk and costs associated with the construction of TOD projects. To meet these goals and ensure the highest and best transit use, land sales to the private sector may include a "write-down" of land value, if needed, to assist in offsetting cost penalties associated with higher density, mixed-use, and/or strong pedestrian amenities. The write-downs will be determined by an independent appraisal or economic analysis utilizing the "highest and best transit use" approach. The Federal Transit Administration (FTA) recently approved this approach for joint development. The proceeds from land sales will return to the Program for use on another TOD.

## PROGRAM OBJECTIVES & GRANT-FUNDED ACTIVITIES

### Program Objectives

Specific objectives of the Program include:

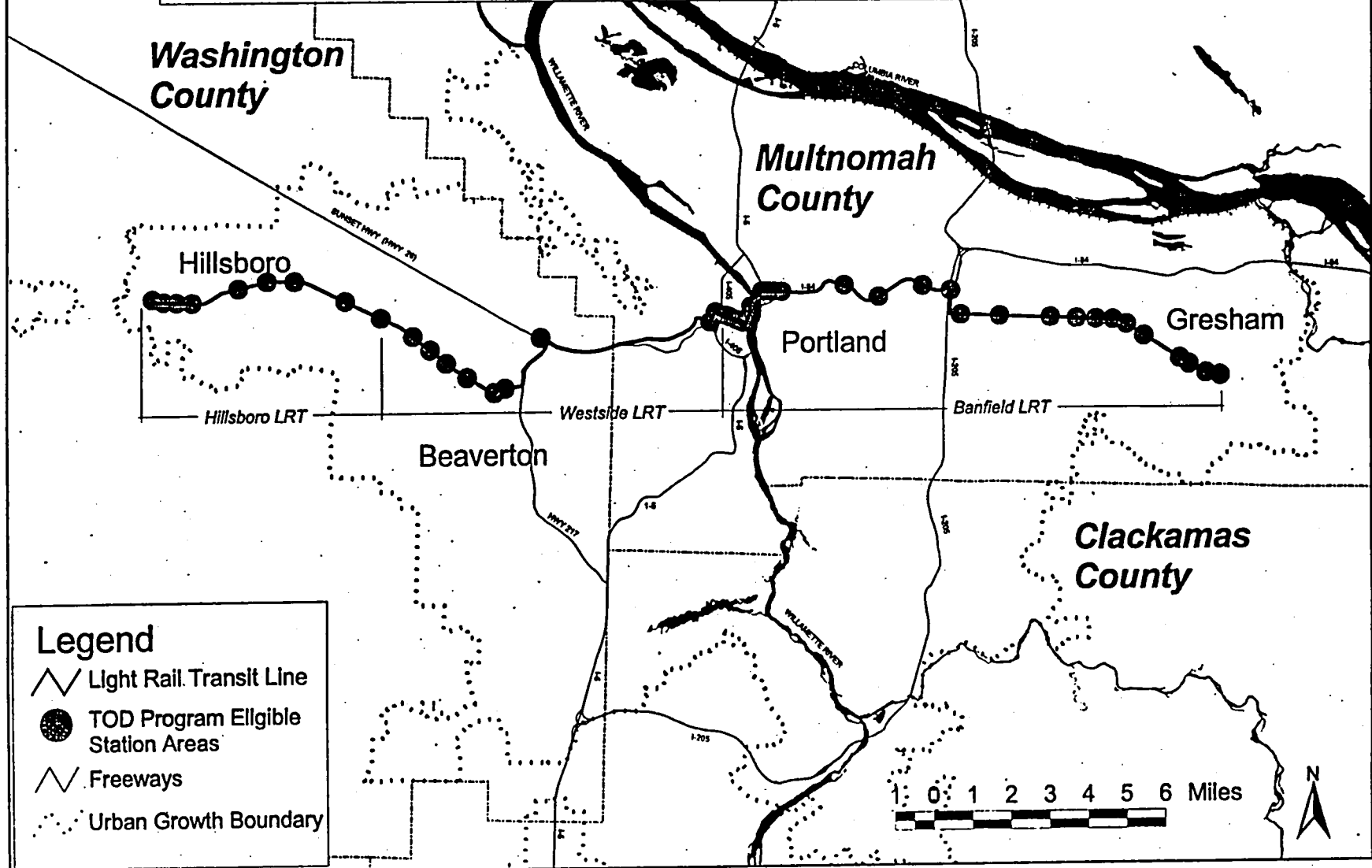
- Causing construction of higher density housing, mixed-use projects (i.e. apartments over retail, office over retail), and destination uses that have a physical and functional connection to transit, through partnerships with the private sector;
- Developing suburban building types with the lowest reasonable parking ratios and highest reasonable floor area ratios (FAR's);
- Increasing the modal share of transit and pedestrian trips within station areas while decreasing reliance on personal automobiles;
- Leveraging and focusing public expenditures within station areas to support Metro's 2040 Growth Concept.

### Grant-Funded Program Activities

Capital budget activities of the program are funded by an FTA grant approved in June 1997. Grant approval is to acquire property physically or functionally connected to light rail stations to encourage TODs. Initial land acquisitions will be within station areas of the Banfield, Westside, and Hillsboro LRT lines. The property will then be sold or leased in parcels with specific restrictions and conditions to private developers for construction of transit supportive development/livable community projects. The funds from the sale or lease of the development sites will be used to establish a revolving capital fund that will maintain an on-going transit-supportive development site acquisition and improvement program.

The TOD Implementation Program is a joint development program. Joint Development refers to a collection of public and private sector partnership techniques, strategies, and development "tools" that can be used to link development to transit stations to increase the efficiency of a mass transit system. The increase can take the form of new ridership (caused by the construction of TODs), new revenue

**Figure 1: TRANSIT-ORIENTED DEVELOPMENT IMPLEMENTATION PROGRAM**  
 Metro Regional Government, Oregon



to a transit agency, or a combination of both. Authority to use FTA funds for joint development are included in the Intermodal Surface Transportation Act of 1991 (ISTEA) and codified under 49 USC 5309, 49 USC 5307, 23 USC 133 (STP) and 23 USC 149 (CMAQ). According to these laws, TOD Program activities are defined as transportation projects provided there is (1) a physical or functional relationship to the transit project; and (2) an enhanced effectiveness of the existing transit system.<sup>1</sup>

Specific joint development tools that may be used by the Program include:

- Site Control (land acquisition and sale) to ensure design and density of a TOD can be determined before the land is developed.
- Pre-development activities to assist in making environmental and programmatic determinations including financial analysis, conceptual design and permit acquisition; these activities do not include the preparation of architectural construction documents;
- Request for Proposals (RFP) to ensure the competitive offering of development opportunities;
- Development Agreements to establish a set of performances by both parties and to protect public interests in the development of the TOD sites;
- Public and Private Co-use of transit station structures, site improvements, or land to reinforce the connection of a TOD to the transit system;
- Air or Subterranean Rights to increase the density, urban character and/or feasibility of a TOD.

## GOVERNANCE

The activities of the TOD Program will be overseen by a number of local, regional, state, and Federal officials and public-private partnership specialists. These include:

- The TOD Steering Committee
- The Federal Transit Administration
- The Metro Transportation Planning Committee

The role of each is described in the following text. A more detailed history of the TOD Steering Committee is provided under the "Other Program Activities" section of this document.

### TOD Steering Committee

Prior to awarding the grant, FTA indicated that Metro was to include Tri-Met and others in the TOD Program. FTA accepted the proposal that the existing Congestion Mitigation Air Quality/Transit-Oriented Development (CMAQ/TOD) Steering Committee be used for this purpose. The CMAQ/TOD Committee was created to allocate \$3.48M of ISTEA funds to projects that could demonstrate innovative ways to address traffic congestion and air quality through TOD projects. Successful projects such as Belmont Dairy, Fairview Village, Steele Meadows, Gresham Central, and The Round at Beaverton all include CMAQ/TOD funding.

Under the TOD Implementation Program, the Steering Committee would become the TOD Steering Committee with responsibility to approve projects within criteria established by the Metro Council.

The Steering Committee would add a Metro Councilor to provide a strong liaison between the Committee and Council. The membership of the Steering Committee is listed below. Metro will provide staff support for the Steering Committee.

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<sup>1</sup>For a full discussion see the memo from FTA Chief Counsel Berle M. Schiller to FTA Administrator Gordon Linton entitled "Statutory Authority in Support of FTA Funding of Joint Development Projects," March 15, 1995.

### TOD Steering Committee

Governor's Office (Chair)  
Department of Environmental Quality (DEQ)  
Oregon Department of Energy (ODOE)  
Department of Land Conservation & Development (DLCD)  
Oregon Housing & Community Services Department  
Tri-Met  
Metro Council  
Oregon Department of Transportation (ODOT)  
Oregon Economic Development Department (OEDD)  
Portland Development Commission (PDC)

Staff: Metro Transportation Department

### **Operating Parameters for Program**

The competitive evaluation criteria of the Request For Proposals to solicit development proposals includes a point based evaluation of a) quality and experience of developer team, b) proposed program, c) connectivity of TOD to light rail, d) business plan, e) timeliness of performances, and certain other minimum qualifications of the proposal. These criteria are the "TOD Proposal Criteria."

The criteria to acquire sites from property owners include a) potential for a physical or functional connection to transit, b) ability to enhance the existing transit system when developed with a TOD, and c) the extent to which the site represents an opportunity to demonstrate TOD Program objectives. These criteria are the "TOD Site Criteria."

Property will be acquired at Fair Market Value as established by the Federal Transit Administration in accordance with policies and regulations under 49 CFR Part 24 (the Uniform Act) using independent certified appraisals and will be sold at the "highest and best transit use" value determined by an independent economic analysis or appraisal approved by the FTA. The highest and best transit use value uses a "residual value approach" in which extraordinary costs of the TOD such as fire and seismic building codes for mid-rise buildings, building over parking or structuring parking, and pedestrian improvements including plazas and promenades, are absorbed by the land value.

### **Federal Transit Administration**

The Federal Transit Administration's grant conditions and Federal funding regulation require the TOD Implementation Program to ensure public participation, identify and mitigate any adverse environmental impacts cause by the Program, and pursue environmental justice. These requirements are to be addressed through the following activities:

- Completion of a programmatic Environmental Assessment (EA)
- Public and agency review of the EA
- Site specific environmental analysis and a Memorandum on Response to Criteria
- Creation of the TOD Steering Committee

### **Program Operation**

RFPs for development projects will be authorized for release by the Metro Council. Metro staff will conduct the technical evaluation of RFP submissions according to the TOD Proposal Criteria, and submit the proposals to the Steering Committee. As soon as practical upon approval by the Steering



Committee, the Executive Officer will provide written notification to the Metro Council of TOD proposals and the Council will have seven (7) days to notify the Executive of a request to review a proposal in executive session. Subsequently, proposals will have appraisals completed, site specific environmental work done (including traffic, wetlands, cultural and historic, and hazardous materials), a Memorandum on Response to Criteria prepared (as required by the grant), and be forwarded to the FTA. Upon approval by the Steering Committee and FTA, the Executive Officer is to execute Development Agreements with developers of successful proposals.

To acquire a site without a developer, Metro staff will evaluate the site using the TOD Site Criteria, and forward recommendations to the Steering Committee. As soon as practical upon approval by the Steering Committee, the Executive Officer will provide written notification to the Metro Council of potential TOD projects and the Council will have seven (7) days to notify the Executive of a request to review a potential project in executive session. Subsequently, projects will have appraisals completed, site specific environmental work done (including traffic, wetlands, cultural and historic, and hazardous materials), a Memorandum on Response to Criteria prepared, and then be forwarded to the FTA.. Upon approval by the Steering Committee and the FTA, the Executive Officer is to execute a Purchase Agreement with the property owners of TOD project sites. The sites will then be planned and parceled, if necessary, and sold for private development with specific conditions at a value determined by an independent economic analysis or appraisal at the "highest and best transit use" method in accordance with guidance by the FTA, as published in the Federal Register, March 14, 1997, or subsequent formal guidance from FTA.

Technical assistance to Metro staff and the Steering Committee will be provided by consultants on a "task order" basis. The disciplines covered by consultant services include:

- Planning & Urban Design
- Environmental
- Development Services
- Real Property Appraisal
- Market Analysis
- Technical Studies
- Land Acquisition, Relocation, Disposition & Escrow Services
- Legal Services
- Architectural & Engineering Services
- Public Process Facilitation

### **Transportation Planning Committee**

The Transportation Planning Committee will review TOD Program activities on a regular basis.

## **OTHER PROGRAM ACTIVITIES**

### **Oregon Transportation Infrastructure Bank**

Upon execution of an agreement with the Oregon Transportation Infrastructure Bank (OTIB) a \$2.0M reservation of transit account funds for up to five years will be available for use by the TOD Program. Funds for individual TOD projects will be drawn down in specific amounts with specific pay-back schedules for each project. Generally, these individual project pay-back schedules would be for 6-18 months with deferred interest; however, a project might borrow OTIB funds for up to the life of the OTIB fund reservation—five years.

This use of both OTIB and TOD grant funds will allow the purchase of larger parcels of vacant or redevelopable land than possible using only TOD grant funds. As outlined in the "Grant Funded Program Activities" section above, after Metro acquires land, plans and designs a TOD, parcels the land (if appropriate), and executes Development Agreements with qualified developers, it will then sell the land at a price established by independent appraisals.

Upon sale, the OTIB will be returned the full amount of money it loaned for the initial acquisition. If the land sale(s) included a land value write down, this would be absorbed by the TOD Implementation Program grant, not the OTIB transit account.

The advantages of OTIB participation include:

- Increasing Metro's ability to affect a greater proportion of development surrounding light rail stations;
- Increasing the opportunity to purchase large tracts at wholesale prices, then parceling it to individual developers, which will further leverage TOD grant funds;
- Increasing the incentive for private developers to participate in public-private partnerships by allowing Metro to carry the land during planning and predevelopment activities;
- Financial participation by OTIB in the building of transit projects with minimal financial risk;
- A short turnaround time for OTIB loans.

#### **CMAQ/TOD Program Administration**

The CMAQ/TOD Program was sponsored by the Department of Environmental Quality (DEQ) and was proposed for CMAQ funding under ISTEA. The germination of the program came from a series of strategies recommended by the Governor of Oregon's Task Force on Motor Vehicle Emissions Reduction. The strategies revolved around demonstrating pedestrian, bike and transit friendly land use options for new construction that reduced auto emissions and traffic congestion. The CMAQ-TOD Program was the region's first effort to directly influence TOD projects with the use of Congestion Mitigation/Air Quality funds. Initiated in 1994-95 with \$3.48 million in federal funds, it has resulted in a number of successful projects including Belmont Dairy, Fairview Village, Steele Park, Orenco Station, Gresham Central, 172<sup>nd</sup> and East Burnside, Buckman Heights, the Round at Beaverton, and Gresham Civic Neighborhood. Six of the above projects have executed Agreements and are completed or underway, with the funding for the last three, Buckman, the Round, and Gresham Civic committed but still pending execution of Financial Agreements. Uncommitted funds as of January 1998, total less than \$100,000.

Funding for the program was from Federal Highway Administration (FHWA) to ODOT, with DEQ the program sponsor. Project solicitation was by RFP with selection determined by the CMAQ/TOD Steering Committee discussed earlier. Staff for the program was by contract with the PDC because of its background and expertise in public-private development projects.

Due to cutbacks in staff, PDC can no longer manage the program and has recommended that Metro assume administrative responsibility for this existing CMAQ/TOD Program, since Metro has expertise in TOD Program issues and Federal funding requirements. This is acceptable to ODOT and DEQ and the proposal is currently being circulated among the other members of the Steering Committee.

Work remaining includes successfully implementing the remaining projects of the Round and Gresham Civic (Buckman is underway), meeting federal requirements for the grant, resolving issues of eligibility as they arise, meeting reporting requirements and producing a summary and analysis of the CMAQ/TOD Program to date.

## EXHIBIT B

### FINDINGS FOR USE OF REQUEST FOR PROPOSALS

The Metro Council makes the following findings that a Request for Proposals (RFP) is the appropriate method of non-standard bid to solicit development proposals for the Transit-Oriented Development Implementation Program:

- 1) that the TOD Program is soliciting proposals for TOD projects that will be constructed, financed, owned, and operated by the private sector; that the TOD Program is not soliciting proposals that will result in an acquisition of a public building, public facility or public site improvement, but rather in a public benefit of a private development, which is more transit supportive with reduced traffic congestion and improved air quality; and, therefore, an RFP is the appropriate procurement process for this program;
- 2) that the use of an RFP will not result in a public cost increase and, in fact, since the value added to the development by the TOD Program will result from acquisition of the site and sale to a developer, will result in savings as compared to a standard bid;
- 3) that the Program is technically complex with a number of criteria and would not be possible using a standard bid process;
- 4) that the unique nature of the Program doesn't translate into use of a more conventional process since the contract result will be a public-private partnership agreement – Development Agreement – in which the development site is purchased with TOD Program funds, then sold to a developer at a value established at the "highest and best transit use", with specific conditions for development;
- 5) that the funding source, the Federal Transit Administration, has agreed that a non-standard bid process is appropriate for use on the TOD Program.

**TRANSIT-ORIENTED DEVELOPMENT  
IMPLEMENTATION PROGRAM**

**Request for Proposals  
for transit-oriented developments (TODs) including mixed-use projects  
with higher density residential, major transit rider attractors,  
and other TOD demonstration projects.**

**March 1998**

**Note: All dates assume release of this RFP on March 27, 1998.  
If this date changes, other dates will change accordingly.**

**For Information Contact:  
Marc Guichard or Phil Whitmore  
Metro Transportation Department  
600 NE Grand Avenue  
Portland, OR 97232-2736  
Phone: 797-1944  
Fax: 797-1794**

**Metro**  
**TRANSIT-ORIENTED DEVELOPMENT IMPLEMENTATION PROGRAM**  
**March 27, 1998**

1. **What is it?** A grant from the Federal Transit Administration has been awarded to Metro for a TOD Implementation Program, to acquire development sites for subsequent sale to developers with restrictions, for constructing demonstration high quality transit-oriented development projects. These projects will feature a mix of moderate to high intensity land uses, be physically or functionally connected to light rail stations and include design features that reinforce pedestrian relationships and scale.
2. **Where does the program apply?** Station areas on the Eastside MAX, Westside, and Hillsboro LRT alignment that are physically or functionally connected to the transit stations are eligible for the Program. Although areas within a quarter of a mile radius could be eligible, the initial project sites should be linked as closely as possible to the LRT stations.
3. **Who may apply?** Qualified development teams with track records in public-private partnerships, higher density residential, mixed-use, destination retail or developers with projects that have used innovative building and financing methods to achieve these results are encouraged to apply.
4. **What is the deadline?** The proposals will initially be received in two rounds. The deadline for Round I is April 24, 1998, and for Round II is May 27, 1998. There may be subsequent rounds for proposals depending on availability of funds.
5. **How does one apply?** Complete the pertinent information requested in Attachment A along with supporting documentation and illustrative sketches as indicated.
6. **Who will make the selection of qualified proposals?** A Steering Committee for the TOD Implementation Program comprised of representatives from public agencies will approve the selection within policy guidance provided by the Metro Council. This Steering Committee was used successfully for the award of \$3.5 million of TOD Projects for the Congestion Mitigation/Air Quality (CMAQ) Program and is comprised of representatives of six state agencies (DEQ, Department of Energy, Oregon Housing and Community Services Department, Oregon Department of Transportation, Oregon Economic Development Department and the Department of Land Conservation and Development); the Governor's Office; Portland Development Commission; Tri-Met and Metro. Metro is the Program Manager and is responsible for technical staff support and implementation. Applicants are encouraged to work closely with the Metro Program Manager in preparing their development proposal.
7. **What is the Program looking for?** The Program is looking for projects in which added public investment will yield transit benefits such as transit compatible land uses, density and/or amenities for a TOD that would not otherwise occur, and that improve transit ridership and non-auto use (walk, bike, etc.). The Program is seeking proposals that will translate into real TOD projects in a relatively short time. These TOD projects are to create places and destinations for transit users with the construction of transit

villages with true neighborhoods, vertical mixed-use including residential over retail and office over retail and destination uses/transit rider attractors that are physically or functionally connected to transit. The transit villages are to be characterized by the creation of a "place" with a rich mixture of uses in close proximity to one another, building massing with minimum set-backs and frequent openings to reinforce pedestrian activity and the use of promenades, plazas, and active uses such as cafes, coffee houses and markets that establish a focal point for the project and destination for transit. The other major transit rider attractors may include destination retail that supports transit, entertainment, retail/entertainment or theme retail.

In addition, single use or single building projects may be included if they function as an activity link to a larger area and/or demonstrate new or innovative ways to increase building density in a livable environment and propose innovative methods of financing complex projects.

Proposal evaluation criteria will be the following and are explained in detail in Developer Proposal section:

- Development Team Qualifications (0-15 points)
- Development Program (0-35 points)
- Connectivity To Transit (0-15points)
- Business Plan (0-20 points)
- Timeliness of Developer Performances (0-15 points)

Responsive Proposals also must meet the following minimum qualifications:

- Financial Capabilities
- Federal Funding "But For" Test
- Compliance with Metro's Functional Plan Parking Ratios
- Realness of Project
- Environmental Justice

## OTHER INFORMATION REGARDING PROPOSALS

March 27, 1998

The TOD Steering Committee is anticipated to announce the selected projects within 30 days of the submittal deadline. Selection will be made at the discretion of the TOD Steering Committee.

Proposals will be evaluated on the completeness and quality of content and responses to the selection criteria described herein. If a development proposal is incomplete or does not meet the criteria, the TOD Steering Committee may reject the proposal or request additional written information. Personal interviews with the top-ranked applicants may be conducted as part of the decision-making process. The interview committee's recommendation will be submitted to the TOD Steering Committee for approval.

In the interest of a fair and equitable selection process, other than discussions with Program Management staff, applicants and their representatives are not permitted to make any direct or indirect (through others) contact with members of the TOD Steering Committee, Metro Council and management concerning their proposal, except in the course of authorized presentations. **Violation of these rules may result in disqualification of the proposal.** The members of the TOD Steering Committee are listed in Attachment C.

Since federal funds are being used for eligible activities, during the period from the date of issuance of this RFP to its submission date, the developer should not engage in activities that may be prejudicial to the environmental assessment including **demolition of historic buildings, wetland modification or relocation activities.** Any such activity may disqualify that proposal.

Use of the TOD Program funds must result in projects that are more transit-oriented than would otherwise be without the funds.

Selected development teams are expected to progress diligently to complete contract funding negotiations, pre-development planning and project construction. If a project does not proceed according to the schedule, the TOD Steering Committee may withdraw its funding commitment.

**The TOD Steering Committee reserves the right to award for less than the amount requested.** Projects for the first round of funding must be "real" private development projects which are well along in the pre-construction process; have site control either by Memoranda of Understanding, option or ownership; a development program; design concept; and a qualified developer. Unless otherwise provided, TOD Program funds not expended within one year of the date of the letter of commitment from Metro may be transferred to other projects of the program.

# GENERAL INFORMATION FOR PROPOSALS

## 1. Additional Information/Clarifications

Metro may require additional information or clarifications needed to understand the selected team's project. Any changes will become part of the final contract.

## 2. Right to Reject or Cancel RFP/Public Records

The Program Manager reserves the right to reject any or all applications upon a good cause findings if it is in the public interest and to not be liable for any cost incurred while preparing or presenting the developer's proposal. All proposals will become part of the public file without financial obligation of the Program Manager, Metro, FTA and other agencies involved in the TOD Implementation Program. The Program Manager reserves the right to cancel this RFP upon good cause finding it if is in the public interest.

## 3. Right to Modify Subsequent Issues of This RFP

The Program Manager reserves the right to change the details of the criteria in subsequent RFPs providing the criteria categories as shown are retained.

## 4. Protests Regarding the Selection Process

Protests concerning the developer selection process must be delivered in writing to the Program Manager within five working days of the postmarked date on the notice of the award. The written appeal must describe the specific citation of law, rule, regulation, or procedure upon which the appeal is based. Metro's appeal procedures will be followed and the outcome of the process is final. Disagreement with the judgement exercised in scoring by evaluators is not a basis for appeal.

## 5. Use of Recyclable Material

Applicants must use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.



**DEVELOPER PROPOSAL**

(THIS FORM IS AVAILABLE AS A WORD PROCESSOR FILE)

**Project Summary**

Project Location

site address:  
city, st., zip  
Station Area:

Project Data

|   |          |
|---|----------|
| parcel size in acres or square feet (attach map):   | _____    |
| proposed total cost of development project:         | \$ _____ |
| proposed value of land to be purchased by Metro:    | \$ _____ |
| proposed value of land sale to developer:           | \$ _____ |
| net funds requested from TOD Implementation Program | \$ _____ |

**1. Development Team Qualifications (15 Points)**

The goal is to have an experienced development team capable of producing the product described in the proposal. Please provide the following information:

**Development firm:**

contact:  
address:  
city, st., zip  
phone:  
fax:

**Architect and/or Engineer:**

contact:  
address:  
city, st., zip  
phone:  
fax:

**General contractor**

contact:  
address:  
city, st., zip  
phone:  
fax:

**Lender**

contact:  
address:  
city, st., zip  
phone:  
fax:

**Supporting documentation:**

**Please provide not more than three pages (8 ½" x 11"), including photos, on the developer's qualifications and track record in public-private partnerships, higher density residential, mixed-use, destination retail, and information on projects that include innovative building and financing methods to achieve results.**

## 2. Development Program (35 Points)

The goal is to create one or a combination of the following:

- Transit Villages that establish “places” through design that include a strong pedestrian environment, transit supportive mixed-use, and higher density residential. A strong pedestrian environment can be achieved with site layout, building massing and street or sidewalk amenities. Ground floor retail, markets, cafes, numerous door and window openings and balconies along the pedestrian areas can help create a transit village, as will pedestrian scaled architectural forms, eye level detail, fountains, promenades, benches, trees, removal of architectural barriers, and other architectural devices.
- Other transit attractors that increase transit ridership and the efficiency of the transit system such as retail, entertainment, retail/entertainment and theme retail;
- Single use buildings that link adjacent development and/or demonstrate innovative ways to increase density at low costs.

Respond to the criteria as indicated. Please note that bonus points are given for density, building height, affordable housing, and transit ridership incentives. Theoretically, a project could score more than 100 points.

1) Describe how the project creates a transit village, a transit attractor, or a single use building, any of which are to be transit oriented.

### 2) Residential Components of the Project:

Total number of dwelling units in the proposed project within ¼ mile of station: \_\_\_\_\_

Total net useable acreage of site: \_\_\_\_\_

(if less than one acre describe in square footage) \_\_\_\_\_

Units per net acre\*:

(bonus of up to three extra points if 50 d.u. acre on residential or 40 d.u. if MXD) \_\_\_\_\_

If the project has multiple buildings, the highest density achieved by one or more buildings: \_\_\_\_\_

Maximum building height (in feet): \_\_\_\_\_

Number of stories including fractions\*:

(up to two bonus points above three stories with an additional point for projects five and above) \_\_\_\_\_

Parking ratio (units/parking space): \_\_\_\_\_

(see Metro Regional Parking requirements, Exhibit 1; points scored for lowest ratio)

\*indicates bonus points

**3) Commercial Components of the Project:**

Total building square footage: \_\_\_\_\_

Square footage by use ( i.e., retail, office, employment, etc.): \_\_\_\_\_

Parking ratio by use: \_\_\_\_\_

(projects receive points for lowest parking ratio)

Site area: \_\_\_\_\_

Building height and number of floors: \_\_\_\_\_

FAR: \_\_\_\_\_

**4) Vertical Mixed Uses:** If the project contains vertically mixed uses, apartments over retail for example, please describe.

**5) TOD Innovations:** Describe any innovative design features that will be employed to increase building and parking density, create MXD, or financing innovations that will assist in providing for financing of complex mixed-use projects.

**6) Linkage:** Describe any relationships of the project to a larger TOD or links to adjacent development.

**7) Provision of Affordable Income Housing\* - Defined as 100% of medium income for sale or lease units. These funds must be provided from other programs (In addition to scoring on this section for any affordable housing, up to two additional bonus points for units 80% of medium income and one additional bonus point for 60% medium income.)**

**8) Provision of Daycare:** Describe the design, size and facilities of the proposed daycare facility.

**9) Transit Ridership\*:** As part of scoring of this section, Metro will evaluate the proposed project's transit ridership potential, with the highest overall ridership gained at the lowest cost per induced rider being factors in this evaluation. Metro will use its own modeling for this evaluation; no additional project information is necessary. Up to two bonus points for transit ridership incentive programs the developer works out with Tri-Met (discounts on monthly passes or promotion of the TOD project on transit advertising, for example).

### 3. Connectivity to Transit (15 Points)

The goals are to increase transit modal split, improve conveniences to the transit patron, and create transit as a focal point of the development. The development project by federal statute for the grant funds is to be physically or functionally connected to transit. Physical is physical; functional is connected by activity. The project must be within ¼ mile of an LRT station, but the program initially is seeking those projects that are adjacent to a station. Functional connectivity can be established with the provision of pedestrian oriented activities, design, and amenities; examples are provided in the previous section under the description of a transit village.

Provide the following information as applicable.

Proximity of project to transit station platform:

Walking distance station to nearest edge of development project (in feet): \_\_\_\_\_

To furthest edge (in feet): \_\_\_\_\_

Describe how the building mass and site layout establish the connection to transit.

Describe any active uses that are proposed along pedestrian corridors (ground floor retail, cafes, markets, etc.)

Describe any other physical connections and devices that will be employed to establish the connection to transit. (plazas, promenades, eye level detail, etc.)

**4. Business Plan (20 Points)**

The goal is to receive the most value for the least dollar expended in responding to TOD Program criteria, to leverage private money with the grant program, to include funding and/or support from other public agencies in the project, and to help Metro meet its local match obligations of the federal grant (10.27%).

FTA's grant to Metro is for acquisition of development sites and sale to developers, with specific conditions for construction of TOD projects, to a land value determined by the "highest and best transit use." This value will take into consideration extraordinary costs, if any, for achieving transit supportive land uses, higher density, mixed-use and good connectivity to transit. Net grant fund expenditures from the TOD Program may be in the form of land value write down and/or funding the "carry" on the land costs for the project. Public funding from the grant is to go for aspects of the development the market would not otherwise support including higher density, mixed-use and improved pedestrian environment. For example, if the market will provide two stories, the Program is interested in three; if it will provide three, the Program wants four, etc. The intention of the TOD Program is to provide funds for these elements and/or types of transit supportive development that would not otherwise occur, not to provide economic incentives to bring overvalued property in line for more conventional, less transit-supportive development.

Project sites will be considered that are already owned and/or optioned by the developer, providing the developer has not completed that action in anticipation of the TOD Program. The Developer may be required to sign a statement attesting the above.

Provide the following information, if applicable.

**1) Financial**

|  |          |
|--|----------|
| Developer's estimate of gross costs of land acquisition for the project<br>(Actual value to be determined by independent appraisal completed by Metro) | \$ _____ |
| Estimated land sale proceeds to Metro:<br>(Actual value by independent "highest transit use" appraisals )  | \$ _____ |
| Estimated net project costs:   | \$ _____ |
| Gross cost of all development  | \$ _____ |
| Anticipated Amount of Mortgage Financing   | \$ _____ |
| Developer's Equity   | \$ _____ |
| Other Public Funds - Subject to verification   |          |
| Local Government<br>(specify source and type)  | \$ _____ |
| State  | \$ _____ |
| State Housing Bond Financing   | \$ _____ |
| Local Match Contributions to Metro - donation of portion of land, eligible<br>planning, environmental and preconstruction activities, etc.             | \$ _____ |
| Describe:  |          |
| Return to Metro, if any, of future position in project<br>for later use in Metro Revolving Fund  | \$ _____ |

2) Land Carry: What are the dates of Metro's "carry" on the land, or the length of time from acquisition by Metro to sale and close of escrow to the developer.

3) Describe other collaboration with local governments and attach related documentation such as development agreements or letters of support.

## 5. Timeliness of Developer Performances (15 Points)

The goal is to have the project under construction as quickly as practical and the developer must be willing to commit in writing to his proposed schedule.

### 1) Developers Proposed Schedule From Date of Selection:

|   |            |
|---|------------|
| Submission of Preliminary Plans<br>(site plan, building elevations, typical floor plan, short form of specifications) | _____ days |
| Submission of Construction Plans  | _____ days |
| Proof of Equity Capital and Mortgage Financing  | _____ days |
| Start of Construction   | _____ days |
| Completion of Construction  | _____ days |

In addition to the above criteria of 1) Development Team; 2) Proposed Program; 3) Connectivity; 4) Business Plan; 5) Timelines of Performances, it is assumed that proposals meet the following minimum qualifications (which may be verified subsequently) for a responsive proposal:

A) financial capabilities (can this project be financed with this developer and this Business Plan?); B) meet the "But For" test for federal funds (are TOD Program grant funds really needed for this TOD Project to move forward? What is specifically gained by the TOD Funds?); C) Compliance with Metro's Functional Plan Parking Ratios; D) Realness (How real is this project and what is its current status regarding site control: option, memorandum of understanding, ownership, property owner as partner?); E) Environmental Justice - (Does the project enhance transportation options for people of all income levels, including existing or future local residents?).

All development proposals selected by the TOD Selection Committee will be evaluated in response to the criteria included in items 1-5 above in the RFP. In addition, Metro will evaluate each of the "initially selected" proposals of the Selection Committee in a Technical Report on Memorandum on Response to Criteria, as required by the grant (See Exhibit 2). The initial selection of the Selection Committee, the Technical Report on Response to Criteria, pertinent environmental site specific environmental studies, if any, the independent acquisition appraisal, review appraisal if required, and the independent "highest and best transit use" appraisal, all will be submitted to the Federal Transit Administration for its approval. Initially selected projects will proceed subject to appraisals, environmental studies and conditions, if any, including Hazmat, wetlands and traffic, and execution of a Development Agreement/Financial Participation Agreement between Metro and the developer.



**DESIGN SKETCHES**

A maximum of four (4) illustrative drawings not larger than 11" x 17" may be submitted to depict the proposed development. These may include site plan, elevations, and illustrative sketches depicting ground level detail, connection of project to transit, street scene activity, pedestrian amenities and other concept drawings for the proposed TOD.

| Table 2 - Regional Parking Ratios<br>(parking ratios are based on spaces per 1,000 sq. ft of gross leasable area unless otherwise stated) |   |  |  |
|---|---|--|--|
| Land Use  | Minimum Parking Requirements (See Central City Transportation Management Plan for downtown Portland stds) | Maximum Permitted Parking - Zone A:                  | Maximum Permitted Parking Ratios - Zone B: |
|   | Requirements may Not Exceed   | Transit and Pedestrian Accessible Areas <sup>1</sup> | Rest of Region                             |
| General Office (includes Office Park, "Flex-Space", Government Office & misc. Services) (gsf)   | 2.7   | 3.4  | 4.1  |
| Light Industrial<br>Industrial Park<br>Manufacturing (gsf)  | 1.6   | None   | None                                       |
| Warehouse (gross sq ft; parking ratios apply to warehouses 150,000 gsf or greater)  | 0.3   | 0.4  | .05  |
| Schools: College/University & High School (spaces/number of students and staff)   | 0.2   | 0.3  | 0.3  |
| Tennis/Racquetball Court  | 1.0   | 1.3  | 1.5  |
| Sports Club/Recreation Facilities   | 4.3   | 5.4  | 6.5  |
| Retail/Commercial, including shopping centers   | 4.1   | 5.1  | 6.2  |
| Bank with Drive-In  | 4.3   | 5.4  | 6.5  |
| Movie/Theater (spaces/number of seats)  | 0.3   | 0.4  | .05  |
| Fast Food with Drive Thru   | 9.9   | 12.4   | 14.9                                       |
| Other Restaurants   | 15.3  | 19.1   | 23   |
| Place of Worship (spaces/seats)   | 0.5   | 0.6  | 0.8  |
| Medical/Dental Clinic   | 3.9   | 4.9  | 5.9  |
| <b>Residential Uses</b>   |   |  |  |
| Hotel/Motel   | 1   | None   | None                                       |
| Single Family Detached  | 1   | None   | None                                       |
| Residential unit, less than 500 sq ft per unit, one bedroom   | 1   | None   | None                                       |
| Multi-family, townhouse, one bedroom  | 1.25  | None   | None                                       |
| Multi-family, townhouse, two bedroom  | 1.5   | None   | None                                       |
| Multi-family, townhouse, three bedroom  | 1.75  | None   | None                                       |

<sup>1</sup> Ratios for uses not included in this table would be determined by cities and counties. In the event that a local government proposes a different measure, for example, spaces per seating area for a restaurant instead of gross leasable area, Metro may grant approval upon demonstration by the local government that the parking space requirement is substantially similar to the regional standard.

At the time of execution of the Development Agreement, a written Memorandum on Response to Criteria will be prepared that evaluates the proposed TOD project within the following criteria: a) location of the land parcel relative to transit; b) existence of a *physical or functional link* between the development and transit; c) ability to *enhance the effectiveness of an existing transit system* (this should examine the proposed benefit to the transit system in terms of overall increased ridership from the project, non-peak demand ridership, and reverse flow ridership); d) costs per induced rider, with the goal that the joint development project is at least 50% more cost effective in costs per induced rider than the transit project which it is to enhance; e) cost penalty of the public purposes of the project determined and an appropriate public finance tool identified to undertake the project (this may be included in the reuse appraisal); f) ability to move the project forward in a timely manner; g) present value of added farebox revenue relative to public funding, less recapture from sale proceeds, if any; h) ability for the project to manage regional growth - the **regional significance** of the project and its effect on congestion mitigation, air quality, and implementation of 2040 goals and objectives; i) leverage of public monies to private monies; and j) opportunity for the project to serve as a model for the region. A specific TOD project need not comply with every criteria; however, the Memorandum on Response to Criteria must examine each criterion. If different from the EA, Metro will review the EA to resolve differences.

**TRANSPORTATION PLANNING COMMITTEE REPORT**  
**CONSIDERATION OF RESOLUTION NO. 98-2619, FOR THE PURPOSE OF  
AUTHORIZING START UP ACTIVITIES FOR THE TRANSIT-ORIENTED  
DEVELOPMENT (TOD) IMPLEMENTATION PROGRAM AT METRO.**

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Date: April 9, 1998

Presented by: Councilor McLain

**Committee Action:** At its April 7, 1998 meeting, the Transportation Planning Committee unanimously recommended Council adoption of Resolution NO. 98-2619. Voting in favor: Councilors Kvistad, McLain and Washington.

**Council Issues/Discussion:** Mr. Cotugno, department director and Mr. Whitmore, project director, carried out the staff presentation for this program, which could include as much as \$6,000,000 in program funding. The program is funded in part through a federal grant and proposed state loan, with the intended goal of increasing high quality transit oriented development projects along (i.e. within 1/4 mile of) metro area light rail stations. These projects would incorporate 2040 land use objectives, such as increased density, mixed use development, and increased access to non-auto transit.

Land acquisition and resale through request for proposals is one tool, among others in this program, to insure that projects are in fact developed. All light rail station areas are eligible for these development projects, while some emphasis will be on developing packages in suburban areas.

Mr. Cotugno pointed out that key steps in the process include:

1. Authorizing implementation of the TOD program.
2. Authorizing Request for Proposals to solicit public/private partnerships and lay out selection criteria.
3. Incorporate into the Metro TOD program, a Portland Development Commission (PDC) Congestion Mitigation/Air Quality TOD program, to form a single regional program. Designating a CMAQ/TOD Steering Committee, with Metro Council representation.
4. Authorize execution of development agreements.
5. Authorize loans from the Oregon Department of Transportation infrastructure bank.

Committee members clarified the role of a Finding of No Significant Impact (FONSI) which relates to environmental impact, and was issued by federal agencies allowing this project to proceed. They also discussed the scope of public hearings, some of which have already been held, and some which have yet to be held. Future hearings will mostly be at the local level, and be project-specific; for example tied to local permitting processes.

## STAFF REPORT

### CONSIDERATION OF RESOLUTION NO. 98-2619 FOR THE PURPOSE OF AUTHORIZING START-UP ACTIVITIES FOR THE TRANSIT-ORIENTED DEVELOPMENT (TOD) IMPLEMENTATION PROGRAM AT METRO

Date: February 27, 1998

Presented by: Andrew C. Cotugno

#### PROPOSED ACTION

It is recommended that the Metro Council authorize the following Transit-Oriented Development (TOD) Implementation Program start-up activities:

1. Approve the Transit-Oriented Development Program (Exhibit A) and authorize the Executive Officer to implement the Program consistent with the provisions of this resolution.
2. Adopt findings (Exhibit B) that Program activities warrant using Request for Proposals and authorize release of a Request For Proposals (RFP) -- subject to the Federal Transit Administration (FTA) issuing a Finding Of No Significant Impact (FONSI) on the Program's Environmental Assessment -- to solicit development proposals. The competitive evaluation criteria of the RFP includes: a) quality and experience of developer team; b) proposed program; c) connectivity of TOD to light rail; d) business plan; e) timeliness of performances; and certain other minimum qualifications and restrictions for a responsive proposal.
3. Designate the CMAQ/TOD Steering Committee for broader representation and oversight of the TOD Implementation Program to meet FTA requirements, with a Metro Councilor added as a liaison between the Steering Committee and Council.
4. Authorize the Executive Officer to execute Development Agreements with developers on TOD projects initially selected through the above-referenced RFP and subsequently approved by the Steering Committee and by FTA, and also to execute Purchase Agreements to acquire sites physically or functionally connected to light rail stations approved by the Steering Committee and FTA.
5. Authorize execution of Intergovernmental Agreements (IGAs) with Oregon Department of Transportation (ODOT) and the Portland Development Commission to transfer administration of the existing CMAQ-TOD Program to Metro.
6. Authorize execution of an agreement with the Oregon Transportation Infrastructure Bank (OTIB) for \$2.0 million of transit account funds, as a reservation for up to five years, to be drawn down as loans for specific TOD projects.

7. Require ongoing review of the TOD Implementation Program by the Transportation Planning Committee.

#### FACTUAL BACKGROUND AND ANALYSIS

Metro's pioneering TOD Implementation Program is the first in the United States to use federal transit funds for these purposes. In mid-January, Metro received the actual grant document from the Federal Transit Administration for the TOD Program. Although the grant is approved, funds have been obligated, a federal project number assigned, and a final certification from the Department of Labor has been issued, certain grant-funded activities cannot commence until completion of a programmatic environmental assessment. Therefore, the release of an RFP for development proposals is subject to the FONSI.

The programmatic EA process is complete. A draft EA document was submitted to FTA; FTA approved the EA for public and agency review on January 21, 1998; the EA was sent to 98 public agencies and others for comment; and a public hearing was held on February 19, 1998 to receive comments. On March 23, 1998, the Federal Transit Administration issued a Finding of No Significant Impact (FONSI).

#### **Request for Proposals**

The Request for Proposals (RFP) is to solicit development proposals for TOD projects that create places and destinations for transit by the construction of transit villages with vertical mixed-use including residential over retail, developments that are transit rider attractors, or single building projects that demonstrate new or innovative ways to increase density in a livable environment.

Criteria to be used for project selection will include the following: 1) quality and experience of developer team, 2) proposed program, 3) connectivity to transit, 4) business plan, 5) timeliness of performances. Minimum qualifications for a responsive proposal will be the following: 1) financial capabilities, 2) meeting the "but for test" for federal funds -- are these TOD funds really needed for this TOD project to move forward?, 3) compliance with Metro's Functional Plan Parking Ratios, 4) Realness -- is the project real and has site control been secured?, and 5) environmental justice.

#### **Project Selection, Development Agreements and Land Purchase Agreements**

Under this resolution, the initial selection of projects will be subject to approval of the existing TOD-CMAQ Steering Committee which consists of representatives from Metro, Tri-Met, Portland Development Commission (PDC), and State of Oregon agencies including Transportation (ODOT), Environmental Quality (DEQ), Housing and Economic Development, Land Conservation and Development and the Governor's Office. Prior to award of the TOD

grant to Metro, FTA indicated that there be a serious effort and mechanism to include Tri-Met and others in the TOD Program. FTA accepted the above Steering Committee as a means to achieve this. It is recommended that a Metro Councilor be added for strong liaison and coordination between the Steering Committee and Council, that the name be changed to TOD Program Steering Committee, and that PDC become a voting member.

TOD projects with developers and sites available from property owners will be initially approved by the Steering Committee, upon recommendation of Metro staff. As soon as practical, the Executive Officer will provide written notification to the Metro Council of potential TOD projects and the Council will have seven (7) days to notify the Executive Officer of a request to review a proposal in executive session. The Executive Officer will execute Development Agreements on the remaining projects when the Metro Council has approved criteria for an RFP; an RFP process to developers has been completed; the TOD Committee has approved the project; an acquisition appraisal has been completed by an independent certified appraiser with a maximum value paid not to exceed the Fair Market Value as established by the FTA; site-specific environmental studies have been completed to satisfy NEPA requirements; a Memorandum on Response to Criteria has been completed by the grant; a "highest and best transit use" appraisal completed by an independent appraisal to determine the re-use value of the property with the TOD development conditions in place (the property shall not be sold for less than this appraised value as determined by the independent appraisal); and the Federal Transit Administration has approved the project. The Executive Officer will execute Purchase Agreements within a Fair Market Value as approved by the FTA, on sites that are physically or functionally connected to transit, enhance an existing transit system and represent an opportunity to demonstrate TOD Program objectives, when approved by the Steering Committee and FTA. These sites, purchased directly from the property owners that do not yet have developers, will then be planned and parceled, if necessary, and sold for development with specific conditions for TOD projects at a value determined by an independent economic analysis or appraisal at the "highest and best transit use" method in accordance with guidance by FTA as currently published in the Federal Register, March 14, 1997.

#### **Metro Assumption Of Existing TOD-CMAQ Program**

The CMAQ-TOD Program was the region's first effort to directly influence TOD projects with the use of Congestion Mitigation/Air Quality funds. Initiated in 1994-95 with \$3.48 million in federal funds, it has resulted in a number of successful projects including Belmont Dairy, Fairview Village, Steele Park, Orenco Station, Gresham Central, 172<sup>nd</sup> and East Burnside, Buckman Heights, the Round at Beaverton, and Gresham Civic Neighborhood. Six of the above projects have executed Agreements and are completed or underway, with the funding for the last three, Buckman, the Round, and Civic, committed but still pending execution of Financial Agreements. Uncommitted funds total less than \$100,000.

Funding for the program was from Federal Highway Administration (FHWA) to ODOT, with DEQ the program sponsor. Project selection was determined by the Steering Committee discussed earlier. Staff for the program was by contract with the PDC because of its background and expertise in public-private development projects. Due to cutbacks in staff, PDC can no longer manage the program and has recommended that Metro assume administrative responsibility for this existing CMAQ/TOD Program since Metro has expertise in TOD Program issues and federal funding requirements. This is acceptable to ODOT and DEQ and the proposal is currently being circulated among the other members of the Steering Committee.

Work remaining includes successfully implementing the remaining projects of the Round and Gresham Civic (Buckman is underway), meeting federal requirements for the grant, resolving issues of eligibility as they arise, meeting reporting requirements and producing a summary and analysis of the CMAQ/TOD Program to date.

#### **Oregon Transportation Infrastructure Bank (OTIB)**

A draft proposal has been submitted to Oregon Transportation Infrastructure Bank to reserve \$2.0 million of transit account funds for up to five years for use by the TOD Program. The OTIB program is a low interest loan program funded through ISTEA, one of ten in the United States. Adding this additional tool to the TOD Program will increase leverage of the available FTA funds and will increase the number of projects that may be undertaken. In addition, it will broaden participation in the program by adding OTIB as a partner. The draft proposal is that security for the OTIB loan will be limited to the value of project sites acquired. Funds for individual projects would then be drawn down from the \$2.0 million in specific amounts with specific payback schedules for each project. Interest and principal payback obligations would not occur until funds for specific TOD projects using OTIB funds were released by the OTIB.

#### **Consultant Selection**

Metro staff has completed its RFP/Q selection process in accordance with Metro contracting code to establish a pool of consultants. Professional services in ten disciplines from appraisals to technical studies now includes 50 qualified consultants to provide services on a "task order basis" for the TOD Program.

#### **EXECUTIVE OFFICER'S RECOMMENDATION**

The Executive Officer recommends approval of Metro Resolution No. 98-2619.



ENVIRONMENTAL ASSESSMENT

**TRANSIT-ORIENTED DEVELOPMENT  
IMPLEMENTATION PROGRAM**

March 1998

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and  
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## ABSTRACT

This Environmental Assessment (EA) evaluates Metro's proposal to implement a Transit-Oriented Development (TOD) Program in station areas along the Banfield and Westside-Hillsboro light rail corridors. The Program will fund land acquisition for eligible TOD projects. Metro will sell or lease the land to developers with conditions for construction of transit-supportive development. These projects will exhibit a mix of moderate to high-intensity, transit-supportive development, a physical or functional connection to the transit system, and design features that reinforce pedestrian relationships and scale. The Program seeks to increase transit ridership, to lessen the risk and costs associated with the construction of TOD projects, and to meet the design and density goals outlined in the Region 2040 Growth Concept. To meet these objectives and ensure the highest and best transit use, it may be necessary to sell the parcels at a price below the fair market value. Metro has received funding from the Federal Transit Administration (FTA) to assist in the Program. This EA provides a broad review of the Program's potential environmental impacts and has been prepared in accordance with FTA procedures. Additional environmental analysis will be performed as individual TOD projects are identified.

## LIST OF ACRONYMS

|      |  |
|------|--|
| ACOE | Army Corps of Engineers                    |
| ASA  | "archaeologically sensitive" areas         |
| BMPs | Best Management Practices                  |
| CBD  | Central Business District                  |
| CNEL | Community Noise Equivalency Level          |
| CO   | Carbon Monoxide                            |
| DEQ  | Oregon Department of Environmental Quality |
| dBA  | A-weighted decibels                        |
| du/a | dwelling units per acre                    |
| EA   | Environmental Assessment                   |
| FEIS | Final Environmental Impact Statement       |
| FTA  | Federal Transit Administration             |
| JWC  | Joint Water Commission                     |
| LRT  | light rail transit                         |
| MAX  | Metropolitan Area Express                  |
| NEPA | National Environmental Policy Act          |
| NRHP | National Register of Historic Places       |
| ODFW | Oregon Department of Fish and Wildlife     |
| OGI  | Oregon Graduate Institute                  |
| OHSU | Oregon Health Sciences University          |
| PMSA | Primary Metropolitan Statistical Area      |
| RFP  | Request for Proposals                      |
| RTP  | Regional Transportation Plan               |
| SHPO | State Historical Preservation Office       |
| TOD  | Transit-Oriented Development               |
| UGB  | Urban Growth Boundary                      |
| VMT  | Vehicle Miles Traveled                     |

## 1.0 INTRODUCTION

The Transit-Oriented Development (TOD) Implementation Program will fund land acquisition for eligible TOD projects in station areas along the Banfield and Westside-Hillsboro light rail corridor. Metro, the directly elected regional government serving the three counties and twenty-four cities in the Portland metropolitan area, will sell or lease the land to developers with conditions for construction of transit-supportive development. These projects will exhibit a mix of moderate- to high-intensity land uses, a physical or functional connection to the transit system, and design features that reinforce pedestrian relationships and scale. The Program seeks to increase transit ridership and lessen the risk and costs associated with the construction of TOD projects. To meet these objectives and ensure the highest and best transit use, it may be necessary to sell the parcels at a price below the fair market value.

The purpose of the Environmental Assessment (EA) is to comply with the requirements of the National Environmental Policy Act (NEPA), Federal Transit Administration (FTA) guidelines, and other regulations regarding environmental permitting and approval for the proposed TOD Implementation Program. Additional analysis will be completed as individual TOD projects are identified.

## 2.0 NEED FOR & DESCRIPTION OF THE PROPOSED ACTION

### 2.1 Background

TOD projects have three fundamental characteristics that enhance transit ridership:

- A mix of moderate to high intensity land uses;
- A physical or functional connection to the transit system;
- Design features that reinforce pedestrian relationships and scale.

The Portland region has long recognized the potential of mass transit and TODs to influence land use patterns, produce more bicycle and walking trips, mitigate traffic congestion, improve air quality, and preserve urban livability. Metro's 2040 Growth Concept and Tri-Met's Strategic Plan both speak to the importance of locating new jobs and housing within walking distance of high quality transit service.

In the past, the region assumed that the presence of a light rail station combined with a station area planning program would be sufficient to ensure that the full potential of transit was realized. However, except for several notable projects in central Portland, few TODs have been built to date.

## 2.2 Need for a Program

In spite of their appeal to public officials and planners, TODs have not been widely embraced by the development community. One reason is that TODs are complex products to design, finance, construct and sell. Compared to typical suburban developments, TODs present significant challenges including:

- Designing retail spaces that are oriented to transit users but do not exclude customers who travel by auto<sup>1</sup>;
- Financing projects that have little track record, no secondary financial market, and higher equity requirements than more typical products;
- Constructing mid-rise buildings that, in order to be profitable, require strategically mixing building materials and deftly coordinating subcontractors;
- Marketing new development products to property owners, investors and end users.

Land use economics are another important factor contributing to the challenges facing TODs. In suburban station areas,<sup>2</sup> where vacant land is more likely to be found, real estate market conditions do not provide strong enough rent or sale premiums to counteract "cost penalties" that may be inherent to TODs. Fire and seismic building codes governing mid-rise buildings, building over parking or structuring parking, and pedestrian improvements including plazas and promenades are three examples of cost penalties associated with TODs in suburban station areas. These added costs can make a TOD financially less attractive than a typical suburban development that could be built in the same location and generate the same rents or sale price. Sometimes the financial difference makes a proposed TOD completely infeasible.

## 2.3 Location of the Proposed Program

The TOD Implementation Program will operate within one-quarter mile of light rail stations in the Portland, Oregon metropolitan region. Grant funding has been approved for possible projects in station areas of the Banfield, Westside and Hillsboro LRT lines. Figure 1 shows the location of these station areas within the metro area.

The Banfield LRT line, the first developed in the region, starts in downtown Portland, crosses the Willamette River and terminates at the Cleveland Avenue Station approximately 15 miles to the east. Its station areas include land within the City of Portland and the City of Gresham. The Westside LRT includes downtown Portland on the east and terminates 12 miles to the west at the Willow Creek Transit Center. The Westside station areas include land within the City of Portland, the City of Beaverton, and unincorporated Washington County. The Hillsboro line is entirely within Washington County and its station areas include land within the City of Hillsboro and unincorporated Washington County. The LRT line begins at the Willow Creek Transit Center and terminates six miles to the west at the Government Center Station in downtown Hillsboro (18 miles west of downtown Portland). All three LRT lines are connected and are entirely within the Urban Growth Boundary (UGB). LRT stations are listed by corridor in Table 1 below.

<sup>1</sup> Even with a transit modal share of 20%, the majority of retail customers within suburban station areas travel by auto.

<sup>2</sup> "Suburban station area," with respect to the TOD Implementation Program, refers to land located within the City of Portland's outer neighborhoods, suburban cities, or unincorporated areas that is also within one-quarter mile of a light rail station platform.

**Table 1: Light Rail Stations by Corridor**

| Banfield LRT               | Westside LRT               | Hillsboro LRT                  |
|----------------------------|----------------------------|--------------------------------|
| Galleria/SW 10th/9th Ave.  | Civic Stadium              | Quatama/NW 205th Ave.          |
| Pioneer Square North/South | Kings Hill/SW Salmon       | Orenco/NW 231st Ave.           |
| Mall/ SW 5th/4th Ave.      | Goose Hollow/Jefferson St. | Hawthorn Farm                  |
| Morrison St./SW 5th Ave.   | Washington Park            | Fair Complex/Hillsboro Airport |
| Oak St./SW 1st Ave.        | Sunset Transit Center      | Washington St./SE 12th Ave.    |
| Skidmore Fountain          | Beaverton Transit Center   | Tuality Hospital/SE 7th Ave.   |
| Old Town/Chinatown         | Beaverton Central          | Hillsboro Central/SE 3rd TC    |
| Rose Quarter TC            | Millikan Way               | Hatfield Government Center     |
| Convention Center          | Beaverton Creek            |                                |
| NE 7th Ave.                | Merlo/SW 158th Ave.        |                                |
| Holladay Park              | Elmonica/SW 170th Ave.     |                                |
| Hollywood TC               | Willow Creek/SW 185th      |                                |
| NE 60th Ave.               |                            |                                |
| NE 82nd Ave.               |                            |                                |
| Gateway/NE 99th TC         |                            |                                |
| E 102nd Ave.               |                            |                                |
| E 122nd Ave.               |                            |                                |
| E 148th Ave.               |                            |                                |
| E 162nd Ave.               |                            |                                |
| E 172nd Ave.               |                            |                                |
| E 181st Ave.               |                            |                                |
| Rockwood/E 188th TC        |                            |                                |
| Ruby Junction/E 197th Ave. |                            |                                |
| Gresham City Hall          |                            |                                |
| Gresham Central TC         |                            |                                |
| Cleveland Ave.             |                            |                                |

Source: Tri-Met 1997

## 2.4 Description of the Proposed Program

The purpose of the TOD Implementation Program is to ensure that some new development in station areas is transit-oriented and promotes density and design goals outlined in the Portland Region 2040 Growth Concept.

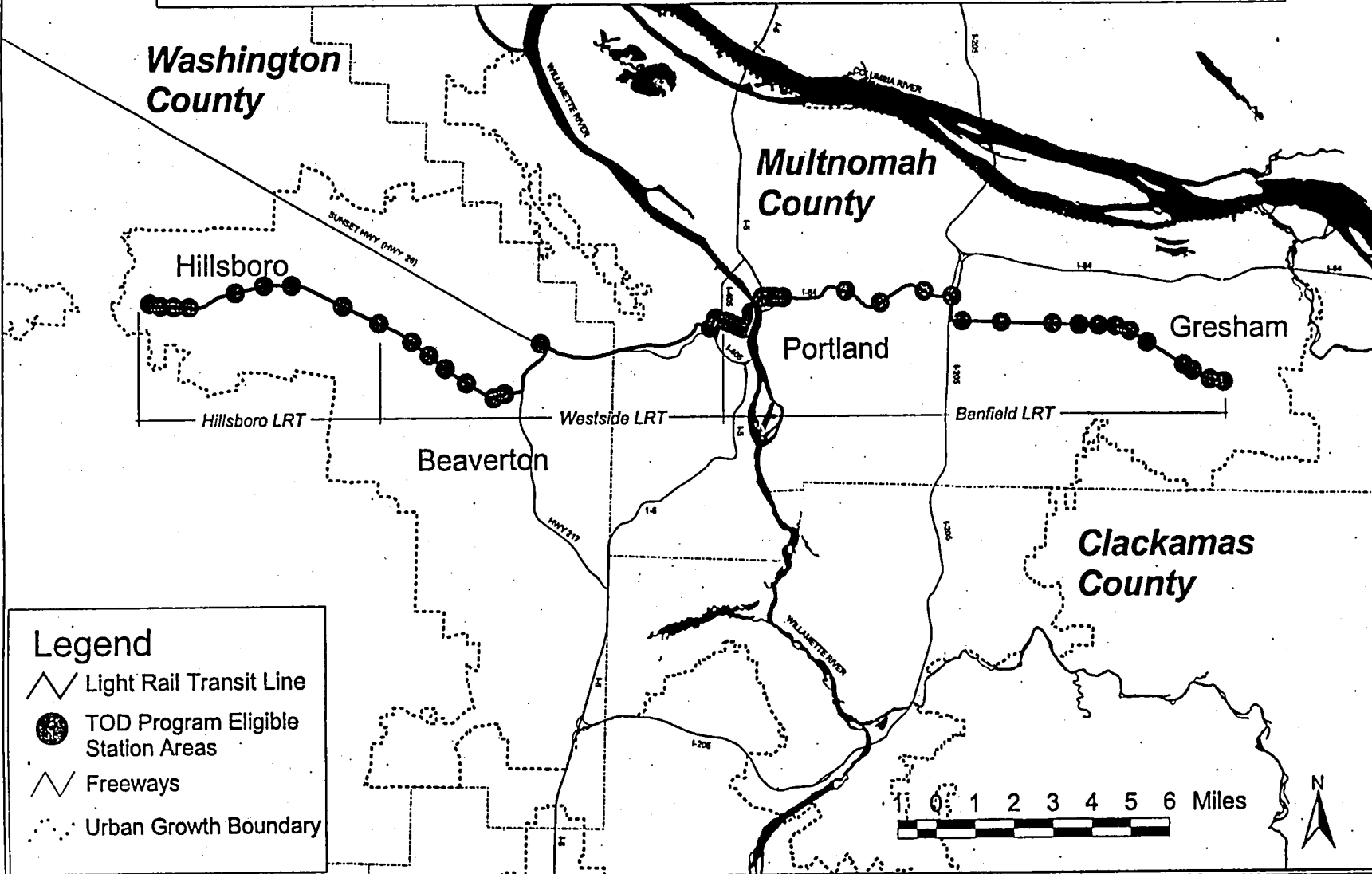
### 2.4.1 Program Objectives

Specific Program objectives include:

- Forming partnerships with the private sector to construct higher density housing, mixed-use projects (i.e. apartments over retail, office over retail), and destination uses that have a physical and functional connection to transit.
- Developing suburban building types with the lowest reasonable parking ratios and highest reasonable floor area ratios (FAR's).
- Increasing the modal share of transit and pedestrian trips within station areas while decreasing reliance on personal automobiles.
- Leveraging and focusing public expenditures within station areas to support Metro's 2040 Growth Concept.

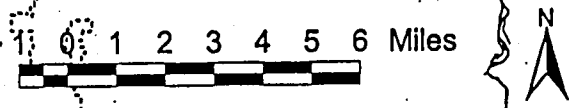


**Figure 1: TRANSIT ORIENTED DEVELOPMENT IMPLEMENTATION PROGRAM**  
 Metro Regional Government, Oregon



**Legend**

- Light Rail Transit Line
- TOD Program Eligible Station Areas
- Freeways
- Urban Growth Boundary



### 2.4.2 Program Administration

Grant approval for Metro is to acquire property physically or functionally connected to light rail stations to encourage TODs. Initial acquisitions will be within station areas of the Banfield, Westside, and Hillsboro LRT lines. The property will then be sold or leased in parcels with specific restrictions and conditions to private developers for construction of transit supportive development/livable community projects. The funds from the sale or lease of the development sites will be used to establish a revolving capital fund that will maintain an on-going transit-supportive development site acquisition and improvement program.

The TOD Implementation Program will use joint development to address the risk and feasibility issues currently dissuading developers from constructing TODs. Joint Development refers to a collection of public and private sector partnership techniques, strategies, and development "tools" that can be used to link development to the transit stations to increase the efficiency of a mass transit system. The increase can take the form of new ridership (caused by the construction of TODs), new revenue to a transit agency, or a combination of both. Specific joint development tools that may be used include:

- Site Control (land acquisition and sale) to ensure design and density of a TOD can be determined before the land is developed.
- Pre-development Activities to assist in making environmental and programmatic determinations including financial analysis, conceptual design and permit acquisition. These activities do not include the preparation of architectural construction documents.
- Request for Proposals (RFP) to ensure the competitive offering of development opportunities.
- Development Agreements to establish a set of performances by both parties and to protect public interests in the sale or lease of TOD sites.
- Public and Private Co-use of transit station structures or land to reinforce the connection of a TOD to the Transit System.
- Air or Subterranean Rights to increase the density, urban character and/or feasibility of a TOD.

Land sales to the private sector may include a "write-down" of land value, if needed, to assist in offsetting cost penalties associated with higher density, mixed-use, and/or strong pedestrian amenities. The write-downs will be determined by an independent appraisal or economic analysis utilizing the "highest and best transit use" approach. The FTA recently approved this approach for joint development. The proceeds from land sales will return to the Program for use on another TOD project.

## 2.5 Related Laws and Programs

The TOD Program supports Metro's regional planning responsibilities and responds to federal, state and local plans, policies, and programs. These include:

- Region 2040 Growth Concept and Regional Framework Plan
- Regional Transportation Plan
- Light Rail Station Area Plans
- Transportation Planning Rule
- Tri-Met Strategic Plan Land Use Goal

### 3.0 ALTERNATIVES TO THE PROPOSED PROGRAM

Two other alternatives were considered before arriving at the proposed TOD Implementation Program. All of these options were evaluated against criteria measuring their ability to implement the Program objectives outlined in Section 2.4.1. The following alternatives were considered.

#### 3.1 No Action Alternative

In this alternative, Metro would take no action. Land within 0.25 miles of light rail stations would develop according to market conditions, current zoning, and development regulations. There would be no revision of comprehensive plans or development codes nor would joint development tools be employed.

#### 3.2 "Planning Only" Alternative

Under this alternative, Metro would initiate, support and advocate transit-oriented planning and other actions such as amending comprehensive plans and development regulations, instigating design review, or providing technical assistance to local jurisdictions and the development community.

Each jurisdiction with planning authority over the station areas would be encouraged to adopt policies and development regulations to encourage transit-supportive development. For example, jurisdictions could provide priority assistance, such as expediting land use and permit approvals and supporting rezoning or other land use actions, to developers who are building projects that meet transit-oriented development principles. Parking requirements could be reduced and higher density and intensity development could be permitted. Regulatory incentives such as density, height, and FAR (floor area ratio) bonuses could also be offered.

A TOD program based on aggressive regulatory requirements, such as relatively high minimum density requirements, prevents an undesirable development from being constructed, but does not cause desired development. This alternative does not reduce the added financial cost and risks associated with TODs nor provide financial incentives to stimulate developer interest.

#### 3.3 Comparison of Alternatives to the Proposed Program

The following chart shows the transformation of the TOD Program objectives, described in Section 2.4.1, to program performance measures and possible performance ranges for all three alternatives.

| TOD Program Objectives  | Derived Performance Measures   | Performance Range (outside of CBD) |
|---|--|------------------------------------|
| 1) Forming partnerships with the private sector to construct higher density housing, mixed-use projects (i.e. apartments over retail, office over retail), and destination uses that have a physical and functional connection to transit | ▪ Project Density<br>Residential<br>Commercial   | 0-80 du/ac<br>0.25-1.5 FAR         |
|   | ▪ Transit Trip Generation<br>(ability to attract destination land uses to station areas) | high, low, none                    |
|   | ▪ Connection to Transit<br>(level of certainty)  | high, low, none                    |
|   | ▪ Vertical & Horizontal Integration<br>(level of certainty)                              | high, low, none                    |

| TOD Program Objectives   | Derived Performance Measures  | Performance Range (outside of CBD)     |
|--|---|--|
| 2) Developing suburban building types with the lowest reasonable parking ratios  | <ul style="list-style-type: none"> <li>▪ Parking Ratios               <ul style="list-style-type: none"> <li>Commercial</li> <li>Residential</li> </ul> </li> </ul>     | 2.0-5.0 spaces/1KSF<br>0-2.0 spaces/du |
| 3) Increasing the modal share of transit and pedestrian trips within station areas while decreasing reliance on personal automobiles | <ul style="list-style-type: none"> <li>▪ Modal Splits               <ul style="list-style-type: none"> <li>Non-Auto trips</li> <li>Transit trips</li> </ul> </li> </ul> | 9-20%<br>3-15%                         |
| 4) Leveraging and focusing public expenditures within station areas to support Metro's 2040 Growth Concept                           | <ul style="list-style-type: none"> <li>▪ Leveraging and focusing public funds (level of certainty)</li> </ul>   | high, low, none                        |

Density measures the intensity of a project's land use. Residential density indicates the number of households within a project and is commonly expressed as a dwelling units per acre(du/ac). Commercial density is discussed in terms of Floor Area Ratio (FAR). FAR measures the usable floor area of the building to the amount of site area the building occupies. Transit ridership is directly related to project density.

Transit Trip Generation represents the extent to which a project generates total transit trips and non-peak time transit trips. If destination land uses such as arenas, regional shopping centers, stadiums, libraries and colleges are located in station areas, they can generate a significant number of transit trips. Non-peak trips can occur during peak times but in the non-peak direction, or during non-peak times in any direction. Projects that generate non-peak trips add farebox revenue to the transit system without impacting operating costs.

Connection to transit describes the extent to which a project is physically or functionally connected to the transit station. Projects with high levels of connectivity make transit ridership more convenient and thus increase ridership.

Vertical or Horizontal integration indicates the extent to which a project has a mix of uses. A mix of uses can increase project density, non-auto modal splits and generate non-peak transit trips. In addition, ground floor retail functions to enhance street level activity and the pedestrian trip.

Parking ratios for residential projects indicate the number of parking spaces per dwelling unit. In commercial projects, parking ratios indicate the number of parking spaces per 1,000 square feet of usable floor area in the building. Parking ratios are generally inversely related to transit ridership because devoting land to parking reduces the amount of land available for transit supportive land uses. Abundant parking also creates a disincentive for people to use transit.

Based on experience from public private partnerships, a transit-oriented joint development program can result in projects with residential densities ranging from 35-80 du/ac, commercial FARs from 0.5 to 1.5, parking ratios ranging from 1.3-1.6 spaces per dwelling unit, and high levels of certainty that projects will have a connection to transit and be vertically or horizontally integrated. Furthermore, joint development tools such as development agreements and intergovernmental agreements, increase the Program's ability to pursue the siting of destination uses in station areas

and to focus other public funds on TODs. The No Action Alternative or Planning Only Alternative is likely to yield lower than joint development levels of multi-family residential density, and the ratio of commercial floor space to site size is likely to be half as high as with the proposed joint development program.

With the Planning Only Alternative instead of the No Action Alternative, parking ratios can likely be lowered by approximately one space per dwelling unit or per 1,000 square feet of commercial space. However, a joint development program offers an opportunity to lower the parking ratios by almost an additional space per unit or per 1,000 square feet. While non-auto trip modal splits for a joint development program are similar to those of the Planning Only Alternative, transit modal splits can double. Additionally, a joint development program provides greater certainty that projects within station areas will have a connection to the transit system and be vertically integrated.

Table 2 is a summary of projected performance by Program Alternative.

**Table 2: Projected TOD Implementation Program Performance by Program Alternative**

| Program Performance Measures                              | Joint Development Program | No Action Alternative | Planning Only Alternative |
|---|---------------------------|-----------------------|---------------------------|
| Density   |                           |                       |                           |
| Multi-Family Residential                                  | 35-80 du/a                | 17-24 du/a            | 17-30 du/a                |
| Commercial  | 0.5-1.5 FAR               | 0.28-0.40 FAR         | 0.4-0.6 FAR               |
| Parking Ratios  |                           |                       |                           |
| Residential   | 1.3-1.6 spaces/du         | 2.0-3.0 spaces/du     | 1.8-2.0 spaces/du         |
| Commercial  | 2.0-3.5 spaces/1KSF       | 4.0-5.4 spaces/1KSF   | 3.0-3.4 spaces/1KSF       |
| Modal Splits  |                           |                       |                           |
| Non-Auto trips  | 9-20%                     | 8%                    | 9-11%                     |
| Transit trips   | 7-15%                     | 3%                    | 4-7%                      |
| Transit Trip Generator<br>(ability to attract)            | high                      | none                  | low                       |
| Connection to Transit<br>(level of certainty)             | high                      | none                  | low                       |
| Vertical & Horizontal Integration<br>(level of certainty) | high                      | none                  | low                       |

Source: Metro (1997)

du/a = dwelling units per acre

FAR = floor area ratio 1KSF = 1,000 square feet of floor area

## 4.0 AFFECTED ENVIRONMENT & ENVIRONMENTAL IMPACTS

This chapter describes the existing social and natural environment within one-quarter mile of stations on existing light rail lines. The discussion provides an understanding of the environment in which the TOD Implementation Program site-specific projects would take place and identifies significant sensitive resources in the light rail station areas. Information from the Final Environmental Impact Statements for the Banfield Transitway Project, Westside Corridor Project, and Hillsboro Extension of the Westside Corridor was used to prepare this section, therefore the discussion is grouped by corridor.

### 4.1 Land Acquisition & Displacements

#### 4.1.1 Existing Conditions

The Program is designed to be implemented within 0.25 miles of light rail stations. Most TOD sites are less than 12 acres in size and are either vacant land or land that is available for redevelopment, such as abandoned or condemned buildings.

#### 4.1.2 Impact Analysis

Overall the program will require few relocations. Follow up documentation will be necessary on a case-by-case basis to determine the impacts of specific TOD projects.

#### 4.1.3 Mitigation Measures

- Any relocations made necessary by TOD projects will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

### 4.2 Land Use, Economic Activity & Zoning

#### 4.2.1 Existing Conditions

The economy of the Portland region is shaped by the Pacific Rim economy and is experiencing considerable growth in population, employment and housing demand. Regional population and employment are concentrated in Multnomah County with the balance of regional population shared almost evenly between Clackamas, Washington and Clark Counties. The areas east of the Willamette River are extensively developed. Close-in, land is dominated by industrial and commercial uses. Further out, land is predominately residential with pockets of industrial and commercial land uses. Within in entire eastside area, some development and redevelopment is converting land to more intense uses. Land within eastside station areas is zoned by local jurisdictions to allow transit-oriented development.

Areas west of the Willamette River are expected to capture between 40% and 50% of the region's growth over the next 20 years. The current demand includes commercial, office, industrial and residential uses. The station areas within the Westside and Hillsboro light rail projects have undergone Station Community Planning to ensure that transit-oriented development is encouraged and allowed.

#### 4.2.2 *Impact Analysis*

The TOD Program is consistent with local zoning and land uses, implements local and regional land use plans, and will have not significant impacts on land use or economic activity.

During construction of a TOD project, a short-term increase in construction-related jobs would occur and would benefit local businesses and materials suppliers. The proposed TOD Program could have long-term benefits for the local and regional economy since it would make more efficient use of prime urban land. In addition, overall public costs may be reduced because urban sprawl would be inhibited. Additional public revenues may be generated as a result of higher assessed value of developed sites as well as increased light rail farebox revenues as a result of increased ridership.

#### 4.2.3 *Mitigation Measures*

- Because no negative impacts are anticipated, no mitigation measures are necessary. To verify this conclusion, however, additional analysis will be conducted as individual projects are selected.

### 4.3 **Air Quality**

#### 4.3.1 *Existing Conditions*

The Environmental Protection Agency (EPA) redesignated the Portland/Vancouver metropolitan area to attainment for ozone in April 1997 and for Carbon Monoxide (CO) in October 1997. The redesignation includes 10-year maintenance plans to address population and transportation growth to protect public health and avoid future air quality violations.

#### 4.3.2 *Impact Analysis*

Analysis indicates that TOD Implementation Program projects will locate land uses within walking distance of transit and each other, lower parking ratios, and decrease Vehicle Miles Traveled (VMT). Therefore, TOD projects are expected to improve regional air quality, as compared to the effects of typical development projects in the metropolitan area. The intensity of land uses associated specific TOD projects, however, could led to a localized CO violation.

#### 4.3.3 *Mitigation Measures*

- A CO hot spot analysis will be performed on intersections within TOD projects that operate at Level of Service (LOS) D, E, or F, or at intersections that would change to LOS D, E, or F due to the construction of a proposed TOD project.

### 4.4 **Noise & Vibration**

#### 4.4.1 *Existing Conditions*

All the light rail station areas are within urban areas. Because the light rail lines parallel arterial and railroad lines, noise levels in the LRT corridors frequently exceed the exterior daytime Community Noise Equivalency Level (CNEL) standard of 65 A-weighted decibels (dBA). Decibels, the units used to measure noise intensity, are weighed in order to approximate the response of the human ear.

There is intermittent vibration from the operation of light rail trains and traffic on adjacent arterial. Noise and vibration levels of light rail operation and rail and motor vehicle traffic on adjacent rail

lines and highways were examined and documented in the Final Environmental Impact Statements (FEIS) for the Westside Corridor Project, Hillsboro Extension of the Westside Corridor, and Banfield Transitway Project.

#### *4.4.2 Impact Analysis*

Short-term noise levels will increase during construction of a TOD project. Noise levels from each development will vary with the type of activity and equipment used. However, TOD land uses are unlikely to produce significant long term impacts. This conclusion will be confirmed with site specific analysis when specific projects are proposed.

#### *4.4.3 Mitigation Measures*

- Construction activities shall be limited to the hours between 7:00 AM and 10:00 PM.

### **4.5 Earth (soils & geology)**

#### *4.5.1 Existing Conditions*

All of the TOD sites and the light rail lines are within the Portland UGB and is zoned for urban development. There is no land zoned for exclusive farm use within the UGB. Figure 2 shows areas of Class 4 soil within the UGB. The National Soil Survey Handbook defines Class 4 soils as those having "very severe limitations that restrict the choice of plants or require very careful management, or both."

Western Oregon is potentially subject to earthquakes. Typically young unconsolidated silt, sand, and clay deposits such as those underlying the TOD sites along the Hillsboro LRT line are associated with greater earthquake damage through amplification of shaking, settlement, liquification, and landslide effects.

#### *4.5.2 Impact Analysis*

In order to avoid damage and loss of life, geologists have determined that buildings in western Oregon should be designed to withstand an earthquake in the range of 5.5 to 6.0, with shaking duration of 10 to 20 seconds and an epicentral distance to the site of six miles.

#### *4.5.3 Mitigation Measures*

- Buildings shall be designed to withstand an earthquake in the range of 5.5 to 6.0 with shaking duration of 10 to 20 seconds and an epicentral distance to the site of six miles.
- If a project is located on Class 4 soil, a permit will be obtained as required by local jurisdictions and the Farmland Preservation Act.

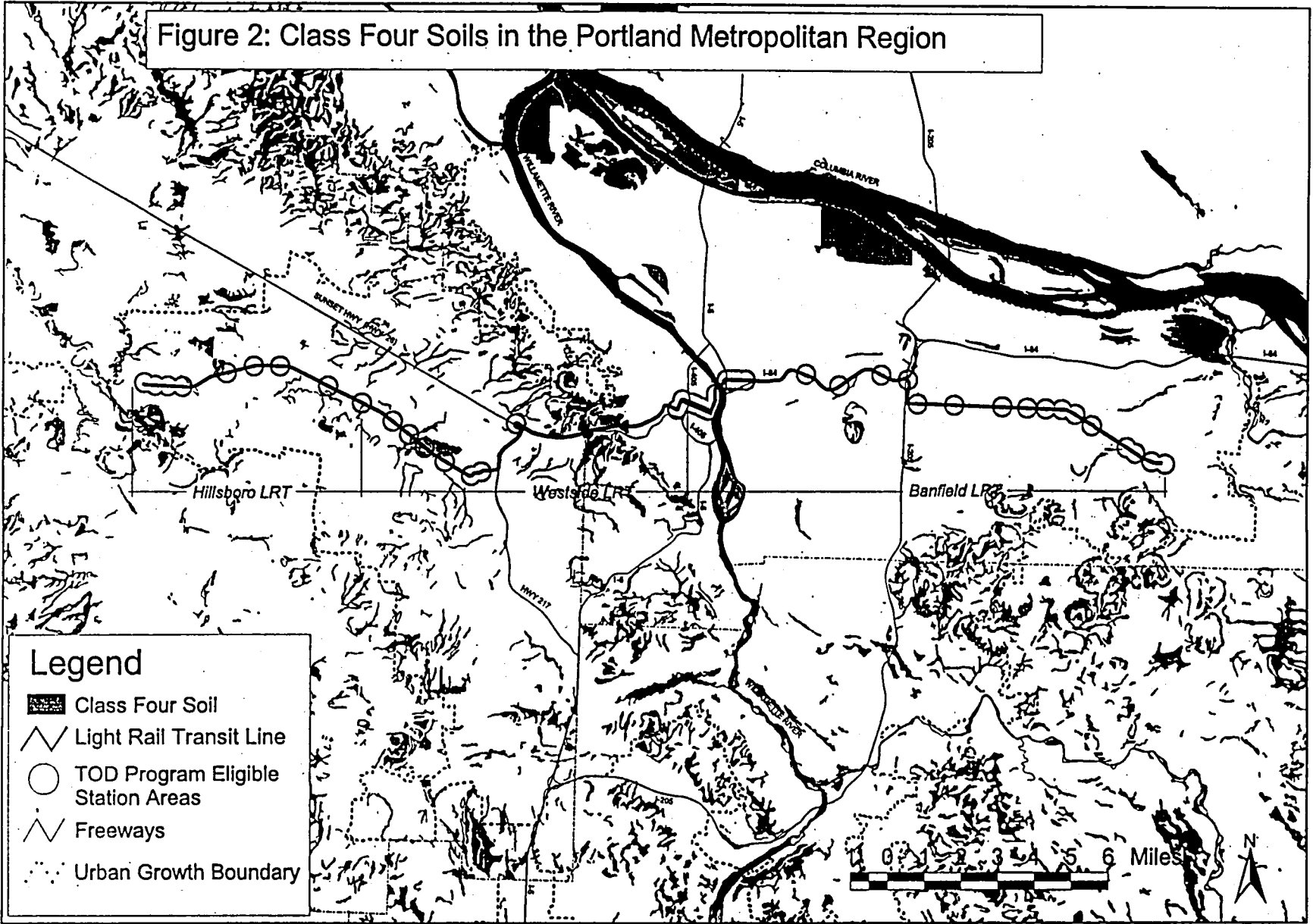
### **4.6 Water Quality**

#### *4.6.1 Existing Conditions*

Most of the light rail station areas are served by public storm drainage systems, not natural channels. The Westside light rail station areas lie within the Willamette River drainage basin that can be divided into two primary sub-basins: an urban basin and a suburban basin. Approximately one-quarter of the light rail station areas drain directly into the Willamette River via the stormwater system maintained by the City of Portland. Water quality in the urban basin is typical of that found



Figure 2: Class Four Soils in the Portland Metropolitan Region



in most urban areas in the United States. Oil, grease, nitrates, phosphates, sediment, and heavy metals have been detected in urban stormwater runoff. The suburban basin is located west of the divide created by the Tualatin Mountains.

Water quality in the Tualatin River and some tributaries is affected by high levels of bacteria and excessive algae growth, especially during warm weather. The algae growth, due largely to excessive nutrients (namely phosphorus), depresses dissolved oxygen levels and adversely affects aquatic life, aesthetics, and water-contact sports. Other existing water quality problems in the vicinity include some elevated levels of heavy metals, pesticides, organic chemicals, and suspended solids in certain streams, creeks, and rivers. The Oregon Department of Water Quality (DEQ) has identified Beaverton Creek, Rock Creek, Bronson Creek, and Willow Creek as having water quality limitations.

#### *4.6.2 Impact Analysis*

The majority of the TOD sites will be served by public storm drainage systems. Several of these public storm drain systems discharge into natural drainageways such as the Willamette River and the Tualatin River. All stormwater shall be treated in accordance with the local jurisdiction's stormwater treatment regulations prior to discharge into either a stormwater system or a natural drainageway. This is to prevent impacts to the water quality of receiving streams.

#### *4.6.3 Mitigation Measures*

- All stormwater shall be treated in accordance with the local jurisdiction's stormwater treatment regulations prior to discharge into either a stormwater system or a natural drainageway.
- Water, sewer, and storm drainage systems serving each TOD development shall be designed to comply with all federal, state, and local standards.

### **4.7 Wetlands**

#### *4.7.1 Existing Conditions*

The light rail station areas on the Banfield LRT cross at least 14 wetland areas consisting of three cover types, including palustrine emergent, palustrine shrub, and palustrine forested wetlands. (The term "palustrine" refers to freshwater wetlands dominated by trees, shrubs, and emergent vegetation.) Eight of the identified wetlands are associated with permanent or intermittent streams, and six occur in isolated depressions or roadside ditches.

Twenty-three wetland areas have been identified within the Westside and Hillsboro light rail station areas. Most of the wetlands are associated with permanent or intermittent creeks within the Beaverton Creek Drainage. Many of the creeks are within or near the City of Beaverton and have been channelized, diverted, culverted, and surrounded by development.

#### *4.7.2 Impact Analysis*

In addition to the wetlands identified, there is a possibility for additional wetlands to be located on vacant lands within the one-quarter-mile station area. Wetland impacts and required mitigation will be further analyzed for each site specific TOD site. A wetland reconnaissance will be performed on all potential TOD sites on vacant land within a station area to determine if wetlands are present.

Federal and state policies addressing the protection of wetlands share a common policy objective of achieving protection and conservation of wetland resources. Federal policy specifies that a "no net loss" standard should be used in federal permit decisions. This policy aims to achieve no overall net loss of the nation's remaining wetlands base, as defined by acreage and function, and to restore and create wetlands, where feasible, to increase the quality and quantity of the nation's wetlands resource base. Oregon policy extends beyond the federal policy to integrate statewide planning goals and local comprehensive plans to promote protection, conservation, and best use of wetland resources.

Several federal and state laws and policies governing regulation of wetlands specifically define the term "mitigation" and identify the range of appropriate and acceptable mitigation for impacts to wetlands. Federal laws and policies include Section 404 of the Clean Water Act, the Section 404(b)(1) Guidelines, and accompany memorandums of agreement and regulatory guidance letters. Oregon laws and policies include the Oregon Removal-Fill Law and the Oregon Freshwater Wetland Compensatory Mitigation Rules.

Mitigation as defined by these policies, means the reduction of adverse impacts to a proposed project by considering, in the following order:

1. Avoiding the impact altogether by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
3. Compensating for the impact by replacing or providing substitute resources or environments.

For unavoidable loss of wetlands, mitigation will be conducted in accordance with the Oregon Freshwater Compensatory Mitigation Rules. Mitigation ratios contained in the Rules are as follows:

- Restoration projects -- 1.0 acre for each one acre of impacted wetland;
- Creation projects -- 1.5 acre for each one acre of impacted wetland;
- Enhancement projects -- 3.0 acres for each one acre of impacted wetland.

Wetland creation means to construct a new wetland in an upland (non-wetland) area. Restoration means to re-establish wetland hydrology to an area that was formally a wetland. Enhancement means to improve an existing degraded or low-quality wetland.

#### *4.7.3 Mitigation Measures*

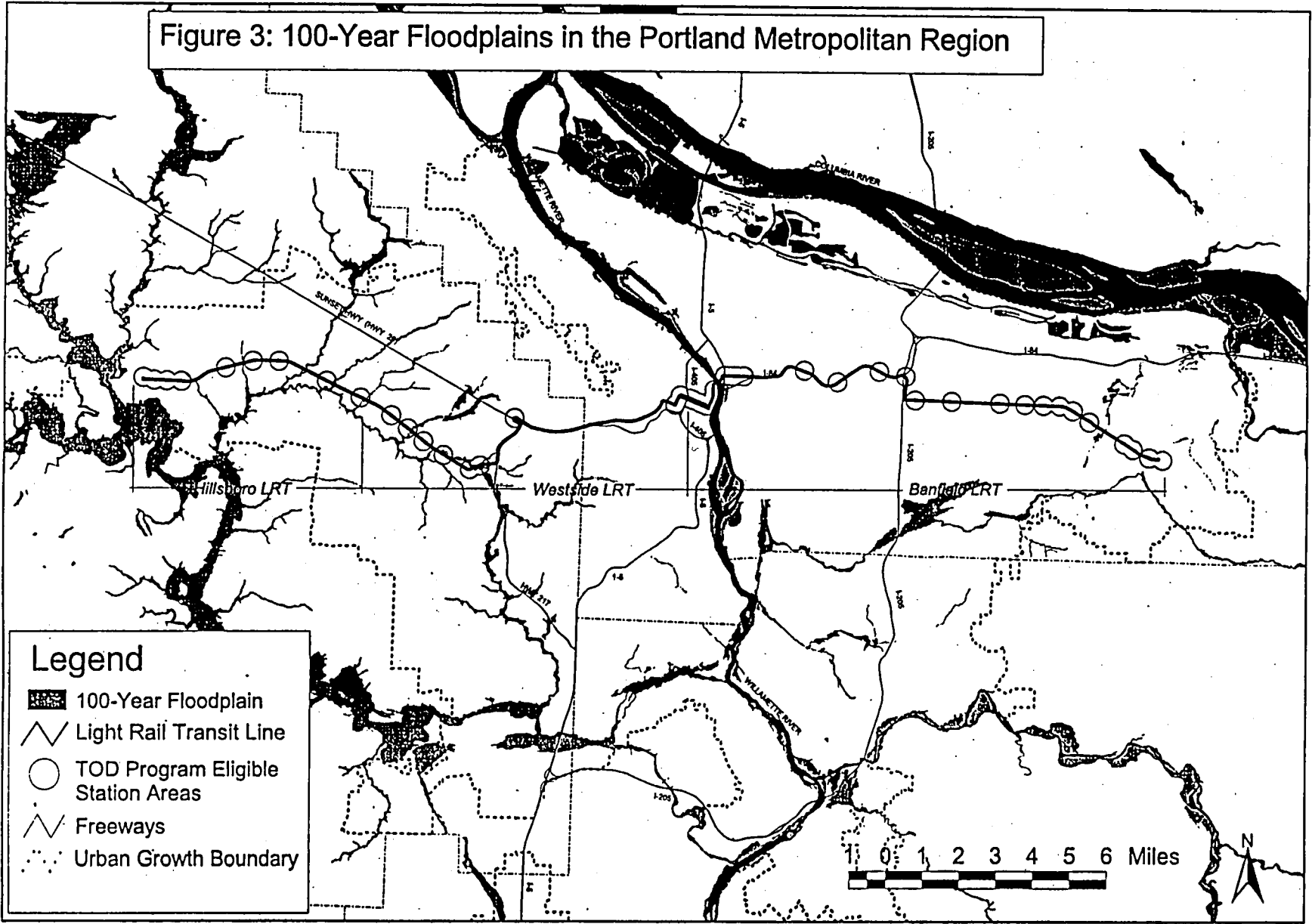
- A wetlands reconnaissance shall be performed on all undeveloped or vacant sites.
- For unavoidable loss of wetlands, mitigation shall be provided to comply with Oregon Freshwater Compensatory Mitigation Rules.

## **4.8 Floodplains**

### *4.8.1 Existing Conditions*

Water resources in the metropolitan region are dominated by the Columbia and Willamette Rivers. Natural drainage patterns in the region are wholly tributary to these two major channels. One hundred year floodplains for the Portland Metropolitan Region are shown on Figure 3.

Figure 3: 100-Year Floodplains in the Portland Metropolitan Region



The Tualatin Basin is subdivided into the Rock Creek and Dairy Creek sub-basins. From east to west, the light rail station areas cross the following tributaries to the Tualatin River: an unnamed tributary to Beaverton Creek, Bronson Creek, Rock Creek, and unnamed tributary of Rock Creek, Orenco Creek (also known as Hawthorn Hollow), Dawson Creek, and Turner Creek. Within the Rock Creek subbasin, the light rail station areas cross three designated 100-year floodplains. Groundwater is generally encountered at shallow depths with seasonal fluctuations between approximately five and 20 feet.

Drainage in the eastern portion of the Banfield light rail station areas is generally to the north. The only two well-defined surface flows present are Fairview Creek and Burlingame Creek. Fairview Creek flows north into Fairview Lake adjacent to the Columbia River, near McGuire Island, with a total drainage area of 5.8 square miles. The drainage area where Fairview Creek crosses Burnside Road near 202nd Avenue is about 2.2 square miles. Burlingame Creek is a tributary to Beaver Creek, which flows northeast into the Sandy River at the eastern edge of the study area. Near First Street and Burnside Road in Gresham, the creek has undergone extensive modification as development has progressed. The creek is contained in culverts in the corridor, with no open channel flows. West of I-205, surface water runoff is channeled to the Willamette River via storm sewers. Drainage from the Banfield Freeway is achieved by a storm sewer located in the center of the facility.

#### *4.8.2 Impact Analysis*

As areas develop, the area coverage of impervious surfaces increases, which results in more surfacewater runoff and less recharge into shallow and medium-depth aquifers. This increase in surfacewater can alter the base flows of streams, causing them to become deeper and wider and more prone to flooding. Surfacewater detention/retention facilities should be constructed to local and federal regulations in order to prevent any increase in runoff rates beyond those for the 25 and 100-year storms on the site before development.

#### *4.8.3 Mitigation Measures*

- Culverts shall be installed in sufficient size, number and location, and at appropriate elevations to maintain natural stream flows and avoid either flooding or draining of wetland and riparian areas.
- Surfacewater detention/retention facilities should be constructed to local and federal regulations in order to prevent any increase in runoff rates beyond those for the 25- and 100-year storms on the site before development.
- Floodplain permits, if required by local jurisdictions, shall be obtained.

### **4.9 Navigable Waterways**

No navigable waterways or coastal zones would be affected by the proposed project.

### **4.10 Ecologically Sensitive Areas**

#### *4.10.1 Existing Conditions*

In biological terms, the light rail station areas are located within the Urban Growth Boundary and can be classified as "urban" habitat, with the relative intensity of urbanization decreasing west and

east of downtown Portland. The existing natural environment has largely been shaped by human use of the land, and humans are everywhere the ecologically dominant species. The existing pattern of vegetation, surface features, and fauna is the result of human modification of the local environment.

Significant wildlife habitat in the Westside light rail station areas includes Sunset Canyon, Tualatin Hills Regional Nature Park (St. Mary's Woods), and Nike Woods. Sunset Canyon is composed primarily of coniferous and mixed forest providing valuable wildlife habitat areas. The Sunset Canyon wildlife area is bisected by the Sunset Highway and bordered by residential development and park facilities with extensive non-native plant species. Tualatin Hills Regional Nature Park, approximately 180 acres located south of the Burlington Northern-Santa Fe Railroad tracks near SW 158th Avenue, is composed of upland mixed, deciduous and coniferous forests, as well as forested and scrub-shrub swamp and emergent marsh habitats. Nike Woods, approximately 100 acres located west of SW Murray Boulevard and north of the Burlington Northern-Santa Fe railroad tracks, comprises oak and ponderosa pine with pockets of forested, seasonal wetland occurring in slight depressions throughout the area. This area provides valuable habitat because of its proximity to Beaverton Creek and the mixture of neighboring vegetative communities, including grassland and oak/ponderosa pine forest.

The Beaverton Creek Drainage serves as a conduit for several creeks within the Westside light rail station areas. The Beaverton Creek Drainage is characterized by poor water quality and minimal stretches of natural stream channels and floodplains. In general, the Beaverton watershed offers a poor habitat for fish species due to its lack of suitable spawning gravels, high flow fluctuation, high temperature peaks in summer, lack of overhanging vegetation, lack of instream cover, and poor water quality.

Logging, agriculture, and urban development have significantly altered the original coniferous forest, oak/ponderosa pine woodlands, and grasslands in the region. Although large expanses of the area are occupied by residential and commercial development, significant natural areas still remain. Thirteen major habitat areas have been identified within the area. Nine are upland habitats and four are wetland habitats.

Resident salmonids, mainly cutthroat trout, are still found within the creeks in the light rail station areas. In the past, Rock Creek was stocked with winter steelhead trout and coho salmon fingerlings, but no fish have been stocked in this area for at least ten years. In addition, there are no indications of significant populations of these species currently using the creek. Several of the streams within the affected area, including Bronson Creek, Rock Creek and Orenco Creek, contain fair to good fish habitat. However, all of the streams in this area are affected by generally poor water quality due to heavy sediment loading from upstream areas.

The light rail station areas include a wide variety of mammal, bird, reptile, and amphibian species, commensurate with the various habitat types found within the light rail station areas. Relatively high numbers and diversity of mammals are likely to be found in the forest and shrubland habitats, such as those within and surrounding the Oregon Primate Center. Also, floodplains along stream channels such as Dawson Creek are likely to have a relatively high diversity of mammals where good cover is available. A diversity of vegetation within the corridor provides habitat for a relatively large number of bird species adapted to living in an urban environment. As with the mammals, the forested and shrubland areas are likely to have the greatest diversity of birds. In addition, grassland

areas provide habitat for several types of raptors, and streams and wetlands provide habitat for waterfowl. Reptiles and amphibians within the corridor are likely to be less diverse than either mammals or birds, although the wetlands and riparian zones provide some suitable habitat.

The original vegetation communities (coniferous forest and a mosaic of ravines associated with grasslands) on the east side of the Willamette River have been highly disturbed by human activities such as logging, agriculture, and urban development. Still, a variety of vegetation is found within the light rail station areas. Six distinct upland vegetation cover types have been identified in the light rail station areas, including grassland, shrubland, deciduous forest, mixed coniferous forest, landscaped urban land, and agricultural fields.

Very few areas of natural habitat remain within the Banfield light rail station areas. Three principal categories are present: barren lands, grasslands, and trees/shrubs/woodlands. Barren lands are defined as those lands which prohibit plant growth, such as areas occupied by buildings or paved surfaces. No food is produced on barren lands, making them the least valuable ecologically. Grassland habitat includes lawns, weedfields, and other broadleaf ground covers. Trees and shrubs are characteristic of many residential areas, where they are closely intermingled as a product of landscaping activities. The existing species in the corridor are a mixture of naturally-occurring remnant individuals and numerous introduced species. Both grassland and tree/shrub habitats, transitional between downtown Portland and the less urbanized east Multnomah County area, occur in relatively small units and support little faunal diversity. East Multnomah County represents more productive habitat, with larger and more clearly defined habitat units supporting more diverse fauna.

#### *4.10.2 Impact Analysis*

With the exception of wetlands, there will be no effect to any habitat identified as a significant natural feature. The only impacts would be associated with creek crossings or wetland impacts. Potential wetland impacts are discussed with Section 4.7.2 of this EA.<sup>3</sup>

#### *4.10.3 Mitigation Measures*

No mitigation measures are necessary.

### **4.11 Endangered Species**

#### *4.11.1 Existing Conditions*

No federally listed sensitive, threatened, or endangered species are known to occur within the light rail station areas. However, species referenced in the Oregon Natural Heritage Database are shown in Table 3.

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<sup>3</sup> This direct reference to the wetlands impact analysis has been added to the draft EA at the request of the Oregon office of the US Fish & Wildlife Service.

**Table 3: Species of Concern in the Light Rail Station Areas**

| Corridor                        | Name                                  | Common Name                   | Federal Status     | State Status           |
|---------------------------------|---------------------------------------|-------------------------------|--------------------|------------------------|
| Westside                        | <i>Rana aurora aurora</i>             | Northern red-legged frog      | species of concern | sensitive-undetermined |
| Westside/Banfield               | <i>Antrozous pallidus</i>             | pallid bat                    | N/A                | sensitive-vulnerable   |
| Westside/Banfield               | <i>Plecotus townsendii townsendii</i> | Pacific western big-eared bat | species of concern | sensitive-critical     |
| Westside                        | <i>Chrysemys picta</i>                | painted turtle                | N/A                | sensitive-critical     |
| Westside/Banfield/<br>Hillsboro | <i>Clemmys marmorata marmorata</i>    | northwestern pond turtle      | species of concern | sensitive-critical     |
| Westside/Banfield               | <i>Aster curtus</i>                   | white-topped aster            | species of concern | listed threatened      |
| Westside/Banfield               | <i>Cimicifuga elata</i>               | tall bugbane                  | species of concern | candidate              |

Source: Oregon Natural Heritage Database

#### 4.11.2 Impact Analysis

TOD developments will have no effect on any listed threatened or endangered species or suitable habitat.

#### 4.11.3 Mitigation Measures

No mitigation measures are necessary.

### 4.12 Access & Transportation

#### 4.12.1 Existing Conditions

All potential TOD sites are within walking distance of light rail station platforms and can access the local and regional street network. Connections to other transportation networks (bicycle, pedestrian, and vehicular) vary from frequent on the Banfield Corridor and within the downtown station areas of Portland, Beaverton, Hillsboro, to relatively infrequent in suburban station areas of the Westside and Hillsboro LRT.

#### 4.12.2 Impact Analysis

The proposed Program will help create strong pedestrian connections between the transit system and land uses within station areas and de-emphasize auto orientation. This decrease of auto orientation will result in less land devoted to parking and vehicular access, slower vehicular speeds, and increased opportunity for safe and efficient trips by transit, walking, and bicycles. In suburban station areas, the high intensity of land use associated with TODs could result in specific projects generating locally higher levels of traffic than if those station areas developed solely in response to market conditions. Thus, individual traffic and parking impacts will need to be analyzed as specific projects are proposed.

#### 4.12.3 Mitigation Measures

- Prior to development of any site-specific TOD project, a traffic-added impact study shall be prepared in accordance with local regulations.



## 4.13 Cultural, Historic, and Archeological Resources<sup>4</sup>

### 4.13.1 Existing Conditions

According to the State Historic Preservation Officer (SHPO), there are 904 Inventory Properties and 275 National Register Historic Places (NRHPs) possibly within the light rail station areas. Inventory Properties are potential National Register eligible properties. According to the state archaeologist, no documented archaeological sites exist on the east side of Portland or within Gresham, however, several sites may exist in the Westside area. An inventory of African American Historical sites was compiled by the Bosco-Milligan Foundation. Twenty-nine sites are located within the light rail station areas. Portions of the Rose Quarter, Convention Center, 7th Avenue, and Lloyd Center station areas are located in or near the Eliot and Irvington Local Historic Districts which were identified in the 1992 City of Portland Albina Community Plan. The Beaverton Downtown Historic District, which encompasses the downtown Beaverton station areas, is listed in the National Historic Register.

A survey of archaeological resources determined that there are no known resources that could be affected by the Hillsboro light rail station areas. Several areas were identified which appear to be archeologically sensitive areas (ASAs), meaning that while no archaeological materials have been confirmed in these areas, a reasonable possibility exists that archaeological materials could be encountered during construction. ASAs include shorelines of draws and creeks, the land around natural springs, wetlands areas, flood plains, land under existing historic buildings on pier foundations and small parcels of apparently undisturbed land.

The Final EISs for the Banfield Transitway Project, the Westside LRT and the Hillsboro Extension of the Westside LRT identified significant historic properties within each station area.

### 4.13.2 Impact Analysis

Development that disturbs the ground to a depth greater than 12 inches at a TOD site may turn up archaeological evidence. In the event that cultural materials are found during construction, all work in that area would cease and the Oregon State Museum of Anthropology, The Federal Transit Administration, and the Oregon State Historic Preservation Office would be notified. Any such archaeological discovery would be evaluated and appropriate and appropriate mitigation measures would be completed before construction resumes. In addition, if any burial sites are found during construction, work would cease and the appropriate agencies would be notified.

For each potential TOD project a reconnaissance survey for archaeological, cultural, or historic resources with the project's area of potential effect will be performed. If potentially significant resources are found, no TOD project may proceed until they are evaluated and a plan for their protection is approved by the SHPO, the FTA and the Advisory Council on Historic Preservation (ACHP). This evaluation will include a background and records search as well as a site visit to collect the documentation required to address Section 106 (as explained in the March 1997 SHPO memorandum regarding Minimum Requirements for Project Proposal Documentation for Non-Archaeological Sites or for Standing Structures).

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<sup>4</sup> This section has been revised in response to comments received from the Oregon State Historic Preservation Office.

#### 4.13.3 *Mitigation Measures*

- When a National Register listed or National Register eligible property is identified within a TOD project's area of potential effect, a protection plan will be formulated and approved by SHPO, the FTA and the Advisory Council on Historic Preservation.

### 4.14 **Scenic Resources (Visual and Aesthetic)**

#### 4.14.1 *Existing Conditions*

The principal scenic resources in the light rail station areas are the mountains surrounding the region (Mount Hood, Mount St. Helens, the Coast Range, the Tualatin Hills, Mount Tabor, Rocky Butte, and Mount Scott); the region's major rivers (the Willamette and the Columbia); and city views (mainly of Portland).

Visual assets in the Westside light rail station areas represent a wide range of urban and natural elements. Downtown Portland offers a diverse urban landscape, including high-density development, street furniture, and historic structures. The Beaverton light rail station areas are dominated by Highway 217, but provide some views of the distant Tualatin Valley and Cooper Mountain.

The eastern Hillsboro station areas are surrounded by suburban planned developments which are usually fenced, allowing views only of the house roofs and indistinct ornamental landscaping. The Orenco area is a historic district of craftsman-style houses and tall trees. The rapidly-developing area to the west consists of large, one-story concrete and glass structures housing organizations like Intel and the Oregon Primate Center. The flat or gently rolling terrain affords views of the Tualatin Valley. The final three light rail station areas are located in downtown Hillsboro, which contains a mix of historic and contemporary buildings and prevents long-range views.

In Gresham, the light rail station areas are characterized by single-family homes and apartment complexes interspersed with commercial strips with advertising signs at major intersections. At the City Hall and Gresham Central stations, land uses intensify: primary uses are industrial and commercial. Mount Hood is prominent from some station areas.

#### 4.14.2 *Impact Analysis*

Scenic resources will not be impacted because all three alternatives will result in development at a particular site. Specific TOD sites will be assessed later. All TOD sites will be designed to appropriate urban design standards.

#### 4.14.3 *Mitigation Measures*

- All development shall comply with local design guidelines and development regulations intended to protect scenic resources.

### 4.15 **Hazardous Materials**

#### 4.15.1 *Existing Conditions*

In most cases, TOD projects will be built on urban land that has been used for many years, therefore some sites can be expected to be contaminated with hazardous substances. Redevelopable

industrial sites may contain hazardous materials, for example asbestos in insulation material and hazardous chemicals in underground storage tanks. Sites of major contamination have been identified and clean-up plans prepared if not executed. Additional information on the Westside and Hillsboro station areas is available in the Hazardous Materials Mitigation Plans of the Final Environmental Impact Statements.

#### 4.15.2 Impact Analysis

All potential TOD sites will be required to have an Environmental Site Assessment performed. Each identified site will be evaluated to assess potential human health, environmental, and liability risks. Hazardous material clearance will be obtained prior to construction of a TOD.

#### 4.15.3 Mitigation Measures

- A Level 1 Environmental Site Assessment shall be conducted for each TOD site to determine the presence of hazardous materials. Sites containing hazardous materials will go through appropriate remediation and obtain clearance from DEQ prior to development.

### 4.16 Environmental Justice

#### 4.16.1 Existing Conditions

On February 11, 1994, President Clinton issued the *Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (Executive Order 12898). This order requires consideration of the different effects of a proposed action on low income, minority, and disabled populations. Any disproportionate adverse effects on these populations must be mitigated by redesign of the projects.

U.S. Bureau of Census 1990 data was used to examine census tracts within one-quarter mile of the light rail stations to determine if minority populations exist. Guidance on the executive order identifies census tracts as acceptable areas for this analysis. The list of tracts is shown in Appendix C. Of the total 1,239,842 people in the Portland Primary Metropolitan Statistical Area (PMSA), nine percent, or 113,100 people were of a minority race/ethnicity. Areas must be identified where either a minority population consists of 50% or more of the total population or where the percentage of a minority population is significantly higher than the group's representation in the greater region. There was only one tract within the three corridor areas which contains a minority population over 50%. Multnomah County Tract 22.02, containing the Rose Quarter Station on the Banfield line, had a black population of 117 people, 53% of the total. The PMSA black population was three percent. Tracts also are identified where the total minority population (the summed population of all of the minority groups) was significantly higher than in the greater region. Table 4 indicates the census tracts in the region with minority populations significantly greater than the regional average. (Significant is determined to be double the PMSA average.)

The Hispanic population in the PMSA was 42,912, or 4% of the total population. In 1990, there were four census tracts in which the Hispanic population significantly exceeded the PMSA percentage. Census tract 22.02 (Rose Quarter) in Multnomah County had a 27% Hispanic population, and census tract 324.03 in Washington County, which contains the Orenco/NW 231st and Hawthorn Farm stations, had a 33% Hispanic population. Tract 22.02 (Rose Quarter), as noted above, was the only tract with a single-group minority population over 50%; it was also the tract, among the light rail station areas, with the highest poverty rate. In 1990, 54% of the residents in the

tract had incomes below the federal poverty level. Multnomah County tract 51, which contains the Old Town/Chinatown station and parts of many downtown Portland station areas, had a 52% poverty rate. Tracts within the light rail station areas with significant poverty rates are shown in Table 5; all but tract 314.02 are in Multnomah County. The data are from the U.S. Census Bureau General Profiles on Income and Poverty. Poverty status in 1989 was 10% in the PMSA.

#### 4.16.2 Impact Analysis

During construction of TODs (as with development under the No Action and Planning Only alternatives) there may be minor (non-significant) effects on minority or low-income populations. However, there would be both short-term and long-term socioeconomic benefits from implementation of the Preferred Alternative. These benefits would extend to the minority and low-income families in nearby communities. Development at TOD sites would not result in the dislocation of any businesses or residents because the sites identified will be on vacant or redevelopable land. Thus, the Preferred Alternative is not expected to result in, ". . . disproportionately high and adverse . . . effects on minorities or low-income families."

**Table 4: Census Tracts with Minority Population Greater than Regional Average:**

| Location/Tract           | Minority Group         | Tract % | PMSA % |
|--------------------------|------------------------|---------|--------|
| <b>Washington County</b> |                        |         |        |
| 325.00                   | "Other"                | 10%     | 1%     |
| 313.00                   | Asian/Pacific Islander | 10%     | 4%     |
| 324.03                   | All                    | 23%     | 9%     |
| 324.03                   | Hispanic               | 33%     | 4%     |
| <b>Multnomah County</b>  |                        |         |        |
| 29.02                    | All                    | 18%     | 9%     |
|                          | Asian/Pacific Islander | 16%     | 4%     |
| 28.02                    | Asian/Pacific Islander | 8%      | 4%     |
| 23.02                    | All                    | 26%     | 9%     |
| 24.00                    | All                    | 23%     | 9%     |
| 55.00                    | All                    | 23%     | 9%     |
| 22.02                    | Black                  | 53%     | 3%     |
| 22.02                    | Hispanic               | 27%     | 4%     |

Source: 1990 US Census

**Table 5: Poverty Rates by Census Tract**

| Census Tract | Total Population | # of Persons Below Poverty Level | Percentage of Population Below Poverty Level |
|--------------|------------------|----------------------------------|--|
| 21           | 2,166            | 546                              | 25%  |
| 22.02        | 220              | 118                              | 54%  |
| 48           | 2,722            | 609                              | 22%  |
| 49           | 2,910            | 989                              | 34%  |
| 50           | 580              | 254                              | 44%  |
| 51           | 1,643            | 860                              | 52%  |
| 52           | 3,363            | 815                              | 24%  |
| 53           | 1,873            | 824                              | 44%  |
| 54           | 864              | 204                              | 24%  |
| 55           | 1,407            | 360                              | 26%  |
| 78           | 1,609            | 323                              | 20%  |

| Census Tract | Total Population | # of Persons Below Poverty Level | Percentage of Population Below Poverty Level |
|--------------|------------------|----------------------------------|--|
| 98.01        | 2,812            | 632                              | 23%  |
| 314.02       | 1,065            | 219                              | 21%  |

Source: 1990 US Census

#### 4.16.3 Mitigation Measures

No mitigation measures are necessary.

#### 4.17 Construction Impacts

There may be short-term water quality impacts during construction. Degradation of water quality may occur due to erosion, sedimentation, and the release of oil and grease from construction equipment. The Oregon Environmental Quality Commission provisions address erosion control in the Portland Metropolitan area during construction, and currently requires contractors to use BMPs to control soil erosion. Typically, this includes the use of silt fencing around the perimeter of a construction site to trap sediment at the site and covering of disturbed areas and gravel entrances. For the Tualatin Basin, Oregon Department of Environmental Quality (DEQ) requirements are that no eroded material leave the construction site.

Short-term noise levels will increase during construction of a TOD project. Noise levels from each development will vary with the type of activity and equipment used. However, TOD land uses are unlikely to produce significant long term impacts. This conclusion will be confirmed with site specific analysis when specific projects are proposed.

In the event that cultural materials are found during construction, all work in that area would cease and the Oregon State Museum of Anthropology, The Federal Transit Administration, and the Oregon State Historic Preservation Office would be notified. Any such archaeological discovery would be evaluated and appropriate and appropriate mitigation measures would be completed before construction resumes. In addition, if any burial sites are found during construction, work would cease and the appropriate agencies would be notified.

##### 4.17.1 Mitigation Measures

- Construction activities shall be limited to the hours between 7:00 AM and 10:00 PM.
- Each project shall prepare and implement an erosion control plan in compliance with DEQ regulations and local standards to prevent soil from leaving the site and to protect water quality in nearby streams.
- During construction, BMPs shall be implemented to minimize erosion, sedimentation, and spills.
- BMPs for construction would include the use of silt fencing, barrier berms, temporary sediment detention basins, vegetative buffers (hay bales), plastic covering for exposed ground, and by timing construction for dry weather. Further requirements might include diapering of all dump trucks to avoid spillage, cleaning of heavy equipment tires and tracks before they are allowed to leave construction sites, and the temporary use of rock in drive entrances.
- Construction in wetlands adjacent to streams shall be conducted during the ODFW's recommended in-water work window.
- Excavated material shall be kept out of wetlands where practicable, and, where not practicable, the material will be placed on construction fabric to facilitate removal and restoration with

minimal impacts.

- The following sediment control practices shall be incorporated around creeks or streams during construction:
  - Construction equipment shall be kept out of the creek;
  - All refueling will be done outside of wetland and creek areas;
  - Construction shall be conducted during the ODFW recommended in-water work period;
  - Spill control BMPs shall be implemented;
  - Creek banks shall not be disturbed;
  - Exposed soils will be kept covered;
  - Re-vegetation of disturbed areas shall begin during or immediately after construction;
  - Water quality shall be monitored during construction to assess turbidity and total suspended solids (or total settleable solids);
  - Silt or construction fences shall be placed around wetland areas and adjacent to streams and their associated riparian areas to reduce erosion impacts on these areas and prevent construction equipment from inadvertently entering these areas; and
  - All areas that will be left bare for more than 15 days within and adjacent to wetland buffers and streams shall be covered with plastic, compost, or straw mulch, and a temporary seeding. A permanent ground cover will be started on these areas within 15 days of completion of final grading.

#### 4.18 Cumulative Effects Analysis

Cumulative effects are the impacts on the environment resulting from incremental impacts of proposed actions when added to past, present, and foreseeable future actions by other agencies, and in adjacent areas. Because the density which may be achieved by the TOD Implementation Program is planned for by the Region 2040 analysis and allowed by local comprehensive plans and development ordinances. No further cumulative effects are anticipated.

## 5.0 LIST OF AGENCIES & ORGANIZATIONS CONSULTED<sup>5</sup>

Advisory Council on Historical Preservation  
AORTA  
Arbor Lodge Neighborhood Association  
Ardenwald/Johnson Creek Neighborhood Association  
Arlington Height Neighborhood Association  
Association for Portland Progress  
Beaverton Committee for Citizen Involvement  
Beaverton Library  
Beaverton Neighborhood Office  
Boise Improvement Association  
Bridgeton Neighborhood Association  
Brooklyn Action Corps  
Centennial Neighborhood  
CENTER Neighborhood Association  
Central Beaverton NAC  
Central Northeast Neighbors  
City of Beaverton  
City of Gladstone  
City of Gresham  
City of Hillsboro  
City of Milwaukie  
City of Oregon City  
City of Portland  
Clackamas County  
Clark County Board of Commissioners  
Columbia Corridor Association  
Columbia Crossings  
Corbett/Terwilliger/Lair Hill Neighborhood Association  
CPO 1 - Cedar Hills, Cedar Mill  
CPO 10 - Laurel, Blooming, Scholls, River Road  
CPO 3 - West Slope, Raleigh Hills, Garden Home  
CPO 6 - Reedville, Cooper Mountain, Aloha  
CPO 7 - Sunset West, Rock Creek, Bethany  
CPO 9 - Hillsboro, Orenco  
Division of NEIS Affairs  
Downtown Area Neighborhood Program  
Downtown Community Association  
Downtown Neighborhood Association  
East Portland District Coalition  
Eastmoreland Neighborhood Association  
Environmental Quality Activities  
Federal Emergency Management Administration

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<sup>5</sup> This list includes agencies, organizations, and interested parties listed in Draft EA Mailing List presented at the public hearing on February 19, 1998. It represents a complete list of agencies, organizations and interested parties contacted during the scoping, drafting, and public review period of the Draft EA.

Federal Highway Administration  
Federal Railroad Administration  
Federal Transit Administration  
Federal Transit Administration - Region X  
Five Oaks Neighborhood Association  
Forest Park Neighborhood Association  
Glenfair Neighborhood Association  
Goose Hollow Foothills League  
Hazelwood Neighborhood Association  
Hillsboro Library  
Hillsdale Neighborhood Association  
Historic Oldtown Association  
Hollywood Neighborhood Association  
Home Builders Association of Metro Portland  
Hosford-Abernathy Neighborhood Development  
HOST Development, Inc.  
Humboldt Neighborhood Association  
Interstate Avenue Business Association  
Irvington Neighborhood Association  
Johns Landing Condo Association  
Kenton Neighborhood Association  
King Neighborhood Association  
Laurelhurst Neighborhood Association  
Lloyd District Community Association  
Lombard North Business Association  
Lower Albina Council  
Macadam Business Association  
Madison South Neighborhood Association  
Maplewood Neighborhood Association  
Montavilla Community Association  
Multnomah County  
Multnomah County Library  
National Marine Fisheries Service  
Neighborhood Green  
North Portland Neighborhood Office  
Northeast Coalition of Neighborhoods  
Northeast Workforce Center  
North-Northeast Business Association  
Northwest Gresham Neighborhood Association  
Northwest NWDA  
Old Town/Chinatown Neighborhood Association  
Oregon Association of Railway Passengers  
Oregon Community Foundation  
Oregon Department of Agriculture  
Oregon Department of Environmental Quality  
Oregon Department of Fish & Wildlife  
Oregon Department of Forestry  
Oregon Department of Land Conservation & Development



Oregon Department of Transportation  
Oregon Department of Water Resources  
Oregon Division of State Lands  
Oregon Economic Development Department  
Oregon Environmental Council  
Oregon Fair Share  
Oregon Geology & Mineral Industries Department  
Oregon League of Conservation Voters  
Oregon Office of Energy  
Oregon Parks Foundation, Inc.  
Oregon State Historic Preservation Office  
Oregon State Library  
Oregon State Parks & Recreation Department  
Overlook Light Rail Committee  
Overlook Neighborhood Association  
Partners for Smart Commuting - Oregon Department of Energy  
Pearl District Neighborhood Association  
Pedestrian Program CAC/WPC  
Peninsula Neighbors, Inc.  
Piedmont Neighborhood Association  
Port of Portland  
Portland Chamber of Commerce  
Portland Community College  
Portland Development Commission  
Portland District Corps of Engineers  
Portland French School  
Portland Garden Club  
Portland League of Women Voters  
Portland Organizing Project  
Portland Public Schools  
Portland State University  
Public Utilities Commission  
Raleigh West-Denny Whitford Neighborhood Association  
Reed Neighborhood Association  
Rockwood Citizens Neighborhood Association  
Rose City Park Neighborhood Association  
Sabin Community Association  
Sellwood-Moreland Improvement League  
Southeast Uplift Neighborhood Program  
State Soil and Water Conservation Commission  
State Water Resources Board  
Sustainable Urban Neighborhood  
The Trust for Public Land  
The Wetlands Conservancy  
Transition Projects  
Tri-Met  
Triple Creek Neighborhood Association  
U.S. Army Corps of Engineers

U.S. Department of Agriculture  
U.S. Department of Commerce  
U.S. Department of Energy, Region X  
U.S. Department of Housing & Urban Development  
U.S. Department of Interior  
U.S. Department of Transportation  
U.S. Environmental Protection Agency  
U.S. Fish and Wildlife Service  
Upper Sandy Business District Association  
Urban Studies & Planning Department  
Washington Cooperative Library Services  
Washington County  
Willamette Pedestrian Coalition  
Woodland Park Neighborhood Association  
Woodstock Neighborhood Association

## 6.0 REFERENCES

Barnack, Anthony, State of Oregon Department of Environmental Quality. Personal Communication. September 16, 1997.

Bosco-Milligan Foundation. August 1995. *Cornerstones of Community: Buildings of Portland's African American History*. Portland, Oregon.

City of Portland Bureau of Planning. October 1990. *Scenic Views, Sites, and Corridors ESEE Analysis and Recommendations: Panoramas—Volume I, Views of the City—Volume II, Views of Mountains—Volume III, Views of Bridges—Volume IV, Scenic Sites—Volume V, Scenic Corridors—Volume VI*.

Fletcher Farr Ayotte, PC. July 1995. *Draft TOD Implementation Program Final Report*.

Metro and Tri-Met. February 1994. *Hazardous Materials Mitigation Plan: Hillsboro Extension of the Westside Corridor*.

Metro and Tri-Met. February 1994. *Wetlands, Floodplains, Water Quality and Storm Water Runoff Mitigation Plan: Hillsboro Extension of the Westside Corridor*.

Metro and Tri-Met. March 1994. *Noise and Vibration Mitigation Plan: Hillsboro Extension of the Westside Corridor*.

Metro. Fall 1996/Winter 1997. *Metro 2040 Framework Update*.

Metro. June 1996. *Capital Grant Application: Regional Revolving Fund*.

Metro. September 1997. *Metro Regional Data Book: Portland-Vancouver Metropolitan Area, 1997 Edition Population & Economic Handbook*.

Metropolitan Service District. September 1992. *Land Use and Economic Impacts Results Report: Hillsboro Corridor Alternatives Analysis*.

National Climate Data Center, National Oceanic and Atmospheric Administration. Personal Communication. September 22, 1997.

Natural Resources Conservation Service, National Soil Survey Handbook, title 622 (Washington, D.C., U.S. Government Printing Office, December 1997).

Oregon Department of Transportation. 1980. *Banfield Transitway Project Final Environmental Impact Statement Preliminary Draft Volume IV: Supplemental Technical Reports*.

Portland Bureau of Planning. February 1992. *Historic Districts in the Albina Community Plan*.

State of Oregon and The Nature Conservancy Natural Heritage Program. September 1997. *Data System Search for Rare, Threatened, and Endangered Plant and Animal Records*.

Tri-County Metropolitan Transportation District of Oregon (Tri-Met). February 1991. *Westside Corridor Project Environmental Impact Statement: Land Use and Economic Development Technical Memorandum #20A*.

Tri-Met. June 1997. *Station Area Development Profiles*.

U.S. Department of Agriculture Natural Resources Conservation Service. December 2, 1995. *Multnomah County Area, Oregon Comprehensive Hydric Soils List*.

U.S. Department of Agriculture Natural Resources Conservation Service. December 2, 1995. *Washington County, Oregon Comprehensive Hydric Soils List*.

U.S. Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service). August 1983. *Soil Survey of Multnomah County, Oregon*.

U.S. Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service). July 1982. *Soil Survey of Washington County, Oregon*.

U.S. Department of Commerce Economics and Statistics Administration Bureau of Census. September 1996. *Current Population Reports Consumer Income P60-193 Money Income in the United States: 1995*.

U.S. Department of Transportation Federal Highway Administration National Highway Institute FHWA-HI-93-038. April 1993. *Project Development and Environmental Documentation Student Workbook*.

U.S. Department of Transportation Federal Transit Administration, Tri-County Metropolitan Transportation District of Oregon, and Metro. March 1994. *Final Environmental Impact Statement: Hillsboro Extension of the Westside Corridor*.

U.S. Department of Transportation Urban Mass Transportation Administration and Federal Highway Administration, and Tri-County Metropolitan Transportation District of Oregon. August 1991. *Final Environmental Impact Statement: Westside Corridor Project*.

U.S. Department of Transportation, Federal Highway Administration and Urban Mass Transportation Administration. August 1980. *Banfield Transitway Project Light Rail Transit Line and Banfield Freeway Improvements: Final Environmental Impact Statement*.

## **7.0 RESPONSE TO COMMENTS**

### **7.1 Urban Design Committee of AIA Portland Branch**

#### *7.1.1 Summary*

The Committee believes that public-private partnerships are essential to achieve higher density and mixed-use development at light rail stations and supports the TOD Implementation Program as proposed.

#### *7.1.2 Response*

No response necessary.

### **7.2 City of Gresham**

#### *7.2.1 Summary*

The proposed Program supports the City's downtown plan and the Gresham Civic Neighborhood District Plan.

#### *7.2.2 Response*

No response necessary.

### **7.3 Tri-Met**

#### *7.3.1 Summary*

Tri-Met is confident the proposed Program will help pursue a number of goals, plans and policies including the Land Use Goal, the Transportation Planning Rule, and station area community plans adopted during the construction of the Westside MAX.

#### *7.3.2 Response*

No response necessary.

### **7.4 Portland Development Commission**

#### *7.4.1 Summary*

PDC recognizes the need to focus public energy and resources to encourage transit-oriented developments to fully realize the potential of the region's light rail system, supports adoption of the EA, and is confident the proposed joint development program represents an effective use of transit funds to support regional and local land use and transportation objectives.

#### *7.4.2 Response*

No response necessary.

### **7.5 State Historic Preservation Office**

#### *7.5.1 Summary*

Since numerous above-ground historic resources have been identified along the corridors, it would

be helpful if the cultural, historic, and archaeological impact analysis (page 20) addressed the potential impacts to these resources in addition to archaeological sites. Generally, SHPO recommends that newer developments avoid identified National Register-eligible and listed properties, or be designed in a way that is compatible with the character-defining features of the individual historic properties or district. SHPO recommends that surveys and consultation with the SHPO be implemented early in the site evaluation process, rather than as mitigation for the project to ensure that the widest range of feasible alternatives are open for consideration.

The terminology on page 20 referencing "National Historical Register Properties," is inaccurate. The correct phrase is properties listed or eligible for listing in the *National Register of Historic Places* should be referred to as "National Register listed" or "National Register eligible" properties.

#### *7.5.2 Response:*

Each site specific TOD site will have a cultural and historic resources reconnaissance performed. This programmatic EA assess the potential impacts that could be caused by implementing the TOD Program. There are no known archeological sites identified on proposed TOD sites. Site specific evaluation will include background and records search as well as a site visit to collect the documentation required to address Section 106 (as explained in the March 1997 memorandum regarding Minimum Requirements for Project Proposal Documentation for Non-Archaeological Sites or for Standing Structures). This information will be submitted to SHPO early in the site evaluation process to determine opportunities and constraints on the development. The proposed development will try to avoid identified National Register eligible and listed properties, or be designed in a way that is compatible with the character-defining features of the individual historic properties or district to the greatest extent possible.

The terminology on page 20 has been corrected and refers to "National Register listed" or "National Register eligible" properties.

## **7.6 U.S. Fish & Wildlife**

### *7.6.1 Summary*

Section 4.10.1 concerning the existing conditions of ecologically sensitive areas mentions the existence of wetlands but the following impact analysis section does not include potential impacts to wetlands.

### *7.6.2 Response*

Potential impacts and mitigations concerning wetlands are presented in Section 4.7 "Wetlands" of the EA. A reference directing readers to that section has been added to the EA.

## **7.7 City of Beaverton**

### *7.7.1 Summary*

Pages 26-27 list agencies and organizations consulted, but the list does not contain the City of Beaverton or its recognized Neighborhood Association Committees (NAC).

### *7.7.2 Response*

The list printed on pages 26-27 in the draft EA was incomplete. The list has been updated and now accurately reflects all agencies and organizations contacted during the scoping, preparation, and comment period of the draft EA, including the City of Beaverton and City of Beaverton NACs.

## APPENDIX A: HEARINGS OFFICER REPORT

The following is a reduced photocopy of the hearings officer report.

### BEFORE THE METRO HEARINGS OFFICER

|   |   |                       |
|---|---|-----------------------|
| In the Matter of Metro's Transit Oriented | ) | February 19, 1998     |
| Development Program - Draft Environmental | ) | Metro Regional Center |
| Assessment                                | ) | Room 370              |

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Metro took public comment at a public hearing on a Draft Environmental Assessment for Metro's Transit Oriented Development Program at 1:00 p.m., February 19, 1998.

Although a hearing is not strictly required for this Draft Environmental Assessment, Metro Transportation staff requested that a hearing be held following the procedures outlined at 23 CFR 771.111 (h)(2)(v), and the Metro Code. The hearing participants were read the criteria contained in 23 CFR 771.111 (h)(2)(v).

A staff report was given by Susan Cunningham. She outlined three program alternatives: (1) joint development program, (2) no action alternative and (3) a planning only alternative. Jon Baker, Tri-Met Real Property Acquisition Manager explained land acquisition guidelines for the project and relocation requirements under federal law.

Four individuals testified on Metro's proposed Transit Oriented Development Program:

George Crandall submitted a letter from the Urban Design Committee of the American Institute of Architects of Portland in support of the program.

Shelly Parini speaking on behalf of Max Talbot, Community Development Director of the City of Gresham read a letter of support from Mr. Talbot into the record.

Michael Kiser representing the Tri-County Metropolitan Transportation District of Oregon testified in support of the program and submitted a letter for the record.

Connie Lively, on behalf of the Portland Development Commission, testified in support of the program.

Before the public hearing on Metro's Transit Oriented Development Program closed, the participants were informed that the public comment period would remain open until March 6, 1998. Thereafter, the public hearing was closed.

After the public hearing, but before the end of the public comment period, two additional letters were received by the Metro Transportation Department.

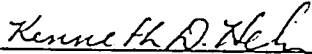
Felicia L. Trader, Executive Director of the Portland Development Commission submitted a letter in support of the program.

Liz Carter, Preservation Specialist for the State Historic Preservation Office, a division of the Oregon Parks and Recreation Department, submitted a comment requesting more information on potential cultural, historic and archaeological impacts connected to Metro's proposed program.

Mike Matteucci, Public Involvement Coordinator for the City of Beaverton, submitted a letter commenting on the city and neighborhood involvement in the Draft Environmental Assessment review.

The public comment period expired on March 6, 1998 with no further comments submitted to the hearings officer or Metro Transportation staff.

Signed this 18th day of March, 1998.

  
Kenneth D. Helm  
Hearings Officer

IAKENTODRPT.01



*Agenda Item Number 11.1*

**Resolution No. 98-2622, For the Purpose of Approving Sole Source Agreements for Mark Bradley Research and Consulting, Cambridge Systematics and John Bowman and Associates.**

***Contract Review Board***

**Metro Council Meeting  
Thursday, April 9, 1998  
Council Chamber**

BEFORE THE METRO CONTRACT REVIEW BOARD

|                                  |   |                        |
|----------------------------------|---|------------------------|
| FOR THE PURPOSE OF APPROVING     | ) | RESOLUTION NO. 98-2622 |
| SOLE SOURCE AGREEMENTS FOR       | ) |                        |
| MARK BRADLEY RESEARCH & CONSULT- | ) | Introduced by          |
| ING, CAMBRIDGE SYSTEMATICS AND   | ) | Mike Burton,           |
| JOHN BOWMAN & ASSOCIATES         | ) | Executive Officer      |

WHEREAS, Metro has been asked by the U.S. Department of Transportation (USDOT) to help complete a demonstration model improvement for travel forecasting; and

WHEREAS, USDOT and the Los Alamos National Laboratories have chosen to use Metro's new travel demand model as one of the bases for their travel demand and module in Transims; and

WHEREAS, Metro has received a grant for \$1,600,000 federal (100%) funds for this demonstration project; and

WHEREAS, The major amount of development of the model was through our Traffic Relief Options (TRO) Study; and

WHEREAS, The model development and computer program application was developed for the Traffic Relief Options Study by Mark Bradley Research and Consulting with advisory services provided by Dr. Moshe Ben-Akiva through a contract with Cambridge Systematics and John Bowman and Associates also contracted through Cambridge Systematics Incorporated; and

WHEREAS, The new Metro model is unique in the United States; and

WHEREAS, Los Alamos needs to make significant modifications to our model before incorporating it into their simulation system; and

WHEREAS, USDOT and Los Alamos have requested that part of

the grant funds be used to contract with the developers; and

WHEREAS, Los Alamos Laboratories and USDOT specifically requested that Metro make available to them the services of the consultant that developed the latest rigorously defined and highly complex Metro model; now, therefore,

BE IT RESOLVED,

That the Metro Contract Review Board hereby accepts the findings in the attached Staff Report and waives the competitive bidding requirement in accordance with Metro Code 2.04:

The Executive Officer is authorized to enter into three sole source agreements:

|  |           |
|--|-----------|
| Mark Bradley Research & Consulting . . . . .                       | \$140,000 |
| Cambridge Systematics -- services of Dr. Moshe Ben-Akiva . . . . . | 20,000    |
| John Bowman & Associates . . . . .                                 | 30,000    |

ADOPTED by the Metro Contract Review Board this \_\_\_\_\_ day of \_\_\_\_\_, 1998.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

EXHIBIT

**PERSONAL SERVICES AGREEMENT**

THIS AGREEMENT is between Metro, a metropolitan service district organized under the laws of the State of Oregon and the 1992 Metro Charter, located at 600 N.E. Grand Avenue, Portland, Oregon 97232-2736, and Mark Bradley Research & Consulting, referred to herein as "Contractor," located at 93 Scenic Road, Fairfax, CA 94930, Federal ID number \_\_\_\_\_.

In exchange for the promises and other consideration set forth below, the parties agree as follows:

1. Duration. This Personal Services Agreement shall be effective April 1, 1998, and shall remain in effect until and including March 31, 2000, unless terminated or extended as provided in this Agreement.

2. Scope of Work. Contractor shall provide all services and materials specified in the attached "Exhibit A -- Scope of Work," which is incorporated into this Agreement by reference. All services and materials shall be provided by Contractor in accordance with the Scope of Work, in a competent and professional manner. The Contractor shall perform such additional work as may be necessary to correct errors in the work required under this Agreement without undue delays and without additional cost. To the extent that the Scope of Work contains additional contract provisions or waives any provision in the body of this Agreement, the Scope of Work shall control.

3. Payment. Metro shall pay Contractor for services performed and materials delivered in the amount(s), manner and at the time(s) specified in the Scope of Work for a maximum sum not to exceed One Hundred Thousand Dollars AND 00/100THS DOLLARS (\$140,000.00).

4. Insurance.

a. Contractor shall purchase and maintain at the Contractor's expense, the following types of insurances, covering the Contractor, its employees and agents:

(1) Broad form comprehensive general liability insurance covering bodily injury and property damage, with automatic coverage for premises, operations and product liability. The policy must be endorsed with contractual liability coverage; and

(2) Automobile bodily injury and property damage liability insurance.

b. Insurance coverage shall be a minimum of \$500,000 per occurrence. If coverage is written with an annual aggregate limit, the aggregate limit shall not be less than \$1,000,000.

c. *Metro, its elected officials, departments, employees and agents shall be named as **ADDITIONAL INSURED**.* Notice of any material change or policy cancellation shall be provided to Metro thirty (30) days prior to the change or cancellation.

- d. Contractor, its subcontractors, if any, and all employers working under this Agreement that are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide Workers' Compensation coverage for all their subject workers. Contractor shall provide Metro with certification of Workers' Compensation insurance including employer's liability. If Contractor has no employees and will perform the work without the assistance of others, a certificate to that effect may be attached, as "Exhibit B," in lieu of the certificate showing current Workers' Compensation.
- e. If required by the Scope of Work, Contractor shall maintain, for the duration of this Agreement, professional liability insurance covering personal injury and property damage arising from errors, omissions or malpractice. Coverage shall be in the minimum amount of \$500,000.
- f. Contractor shall provide to Metro a certificate of this insurance and thirty (30) days advance notice of material change or cancellation. The Contractor shall furnish acceptable insurance certificates to Metro at the time Contractor returns signed contracts. The certificate will specify all of the parties who are Additional Insured and will include the 30-day cancellation clause. Insuring companies or entities are subject to Metro acceptance. If requested, complete policy copies shall be provided to Metro. The Contractor shall be financially responsible for all-pertinent deductibles, self-insured retention, and/or self-insurance.

5. Indemnification. Contractor shall indemnify and hold Metro, its agents, employees and elected officials harmless from any and all claims, demands, damages, actions, losses and expenses including attorney's fees, arising out of or in any way connected with its performance of this Agreement, or with any patent infringement or copyright claims arising out of the use of Contractor's designs or other materials by Metro and for any claims or disputes involving subcontractors.

6. Maintenance of Records. Contractor shall maintain all of its records relating to the Scope of Work on a generally recognized accounting basis and allow Metro the opportunity to inspect and/or copy such records at a convenient place during normal business hours. All required records shall be maintained by Contractor for three years after Metro makes final payment and all other pending matters are closed.

7. Ownership of Documents. All documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produced by Contractor pursuant to this Agreement are the property of Metro, and it is agreed by the parties that such documents are works made for hire. Contractor hereby conveys, transfers and grants to Metro all rights of reproduction and the copyright to all such documents.

8. Project Information. Contractor shall share all project information and fully cooperate with Metro, informing Metro of all aspects of the project including actual or potential problems or defects. Contractor shall abstain from releasing any information or project news without the prior and specific written approval of Metro.

9. Independent Contractor Status. Contractor shall be an independent contractor for all purposes and shall be entitled only to the compensation provided for in this Agreement. Under no circumstances shall Contractor be considered an employee of Metro. Contractor shall

provide all tools or equipment necessary to carry out this Agreement, and shall exercise complete control in achieving the results specified in the Scope of Work. Contractor is solely responsible for its performance under this Agreement and the quality of its work; for obtaining and maintaining all licenses and certifications necessary to carry out this Agreement; for payment of any fees, taxes, royalties or other expenses necessary to complete the work except as otherwise specified in the Scope of Work; and, for meeting all other requirements of law in carrying out this Agreement. Contractor shall identify and certify tax status and identification number through execution of IRS Form W-9 prior to submitting any request for payment to Metro.

**10. Right to Withhold Payments.** Metro shall have the right to withhold from payments due to Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage or claim which may result from Contractor's performance or failure to perform under this Agreement or the failure of Contractor to make proper payment to any suppliers or subcontractors.

**11. State and Federal Law Constraints.** Both parties shall comply with the public contracting provision of ORS Chapter 279, and the recycling provisions of ORS 279.545 - 279.650, to the extent those provisions apply to this Agreement. All such provisions required to be included in this Agreement are incorporated herein by reference. Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations including those of the Americans with Disabilities Act.

**12. Federal Funds Provisions.**

- a. If this payment is to be charged against federal funds, the Contractor certifies that it is not currently employed by the federal government. Contractor further certifies that it is not currently employed by the State of Oregon.
- b. If federal funds are involved in this Agreement, Exhibit "B," Certificate of Consultant, and Exhibit "C" Federal Provisions, including Certification of Involvement In Any Debarment and Suspension, are incorporated into this Agreement by reference.
- c. Contractor shall not be compensated for work performed under this Agreement by any other federal, state or local agency.
- d. This Agreement may be terminated by Metro upon 30 days notice, in writing and delivered by certified mail or in person, if funding from federal, state or other sources is not obtained and continued at levels sufficient to allow for the purchase of the indicated quantity of services. The Agreement may be modified to accommodate a reduction in funds.

**13. Situs.** The situs of this Agreement is Portland, Oregon. Any litigation over this Agreement shall be governed by the laws of the State of Oregon and shall be conducted in the Circuit Court of the State of Oregon, for Multnomah County, or, if jurisdiction is proper, in the U.S. District Court for the District of Oregon.

**14. Assignment.** This Agreement is binding on each party, its successors, assigns and legal representatives, and may not, under any circumstance, be assigned or transferred by either party.

15. Termination. This Agreement may be terminated by mutual consent of the parties. In addition, Metro may terminate this Agreement by giving Contractor ten days prior written notice of intent to terminate, without waiving any claims or remedies it may have against Contractor. Termination shall not excuse payment for expenses properly incurred prior to notice of termination, but neither party shall be liable for indirect or consequential damages arising from termination under this section.

16. No Waiver of Claims. The failure to enforce any provision of this Agreement shall not constitute a waiver by Metro of that or any other provision.

17. Severability. The parties agree that if any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular term or provision held to be invalid.

18. Modification. Notwithstanding and succeeding any and all prior agreement(s) or practice(s), this Agreement constitutes the entire Agreement between the parties, and may only be expressly modified in writing(s), signed by both parties.

MARK BRADLEY RESEARCH & CONSULTING

METRO

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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## **Scope of Work: Model Modification for TRANSIMS Input (IOC-2)**

### **Phase 1: Generation of a base set of activities for testing**

To be completed by end of July, 1998.

Overview: For this phase, the objective is to create sets of households, people and their activities that are at the level of detail required by TRANSIMS. We will need to move to a more detailed level of disaggregation for:

- households - using a full synthetic sample instead of a partial one.
- locations: using street arcs or grid cells instead of zones
- times of day: using short time slices instead of a few periods across the day.
- activity types: separating out school from work, and pick up/drop off from maintenance, at least in some of the models.

In generating the base set of activities, it is proposed that we stick with TAZ-based level of service for now- maybe augmented with some location-specific access/egress information. In the next phase, the more detailed road and transit networks will be ready and we can interface with the TRANSIMS Router.

#### **Task 1.1 Generate location data for base year**

- Agree on level of detail - street segments? (Consultant, METRO, LANL)
- Agree on relevant location types (Consultant, METRO, LANL)
- Agree on variables to be included for each type of location, including walk time to transit services (Consultant, METRO, LANL)
- Generate the data as specified (METRO, LANL)

#### **Task 1.2: Generate synthetic household sample for base year**

- Get and install sampling software from Los Alamos (Consultant, LANL)
- Get and install relevant PUMS household data (Consultant, METRO)
- Agree on spatial detail for marginal targets-census tract, Block Group or TAZ? (Consultant, METRO, LANL)
- Get marginal target distributions from METRO (Consultant, METRO)
- Agree on method for using sample to populate specific street segments.
- Generate the sample and assign to locations. (Consultant)

#### **Task 1.3: Estimate a new structure for time of day models (Consultant)**

- For primary activities, re-estimate models using activity starting and ending times in 15 minute time slices as the dependent variables, with sampling of alternatives.
- For secondary out-of-home activities, estimate models using 15 minute time slices and sampling of alternatives, but conditional on the times for the primary activity.
- Create a model or rules to use for start and end times of activities done as intermediate stops on tours.

#### **Task 1.4: Model more activity types (Consultant)**

- Create models to distinguish school from work and pick up/drop off from other maintenance activities.
- In phase 1, these models can be "post processors" that take predicted activities and



assign them to a more detailed activity type as a function of person and household characteristics. This would not require any changes to the existing models.

**Task 1.5: Agree on data format and definitions for the activity set (Consultant and LANL)**

- Is a single file passed to the Route Planner or multiple file types?
- What pieces of information are passed for each activity?
- What is the precise definition of each piece of information?
- What rules should be used to translate from one model to the other when this is not obvious (e.g. for activity priorities and ranges on start and end times)?
- What is the file format?

**Task 1.6: Adapt the existing activity forecasting software (Consultant)**

- Interface with the new household sample.
- Interface with the new location data.
- Switch to a Monte Carlo framework with a flexible number of "chosen" alternatives.
- Integrate the new time of day models and structure.
- Integrate the new activity type models.
- Integrate the existing intermediate stop location models and work-based tour mode and destination models into the sample enumeration framework. (These will have no logsum "connection" to the other models in this phase, meaning that they can also be run in "post processor" mode and will not increase run time considerably).
- Generate output in the exact format and content required by TRANSIMS.

**Task 1.7: Generate, validate and document the base activity sets (Consultant)**

- Run the software to create a base activity set.
- Compare the results to the household activity survey data along key distributions (activity type, time of day, duration, trip chain complexity, etc.)
- Adjust the models if necessary until the base activity set is satisfactory.
- Document the activity set files and content.

**Task 1.8: Deliver the base activity sets to Los Alamos (Consultant, LANL)**

Visit Los Alamos for a period of about 1 week, in order to:

- Present the activity set and documentation to TRANSIMS team.
- Deal with initial questions during the use of the activity set.
- Get hands-on experience with the Router and other modules.
- Agree on a work plan and schedule for the next phase.

**Phase 2: Integrating the Activity Generator into the TRANSIMS structure**

To be completed by the end of October 1998

Overview: This phase has the following objectives:

- Build in feedback via level of service from the Microsimulator via the Router module.
- Build in options for testing additional feedback from the Route Planner.
- Install and test the software at Los Alamos.

It is more difficult to provide exact tasks or timing on this phase, since it depends on the progress of the network development and the testing of the other TRANSIMS modules.

The consultant will probably need to visit Los Alamos at least twice during this phase, for a week or so each time.

**Task 2.1: Recode software into C++ or C (Consultant)**

At some point during the development, switch from Pascal (Delphi) to either C++ or C, depending on the preferences of Los Alamos and METRO.

**Task 2.2: Integrate calls to the Router Module into the software (Consultant, Los AI)**  
Instead of using TAZ-based level of service files, the code will be adapted to call the TRANSIMS Router in order to get network times, costs and distances. Some testing will be done to see what effect this has on the predicted activity sets. (Note: The models themselves will not be re-estimated using the more detailed level of service at this stage, although that is certainly something we will want to do in a later phase.)

**Task 2.3: Integrate short-term feedback from the Route Planner (Consultant)**

For each household/person, the Route Planner can tell the Activity Generator whether or not the predicted set of activities is feasible given current network conditions. The Monte Carlo procedure can be adapted to use this information in order to select a different set of activities based on the probabilities that have already been calculated. This type of immediate feedback between the modules does not appear too difficult to implement, and can be tested in this phase. Longer-term types of feedback, such as how households might change their home or work locations or decision rules over time to adapt to changing network or land use conditions, will be an important subject for later phases of research.

**Task 2.4: Document the software (Consultant)**

This involves documentation to the point where key areas of code can be changed and adjusted by others who will be using it.

**Task 2.5: Install and test the software at Los Alamos (Consultant, Los AI)**

A visit of about one week to Los Alamos to answer questions during initial installation and testing, and to discuss priorities and schedules for the next phase of research.

Total Estimated Cost of Phases 1 and 2 is \$100,000.00

There is a need to estimate costs for a more uncertain (in terms of definition) part of the work in the out years (1999-2000). This may need amending later, depending on the actual work progress and needs.

**Phase 3: Improving the models**

**Task 3.1: More spatial detail in mode and destination choice models**

**Task 3.2: Different sets of models for more types of activities**

**Task 3.3: Further improvement of the time of day structure and models**

**Task 3.4: A more elaborate structure for the activity pattern model**

**Phase 4: Changing the software**

**Task 4.1: Implementing the new models from phase 3**

**Task 4.2: Changes to run a forecast year instead of base year**

**Task 4.3: Further improvement and testing of feedback structures**

**Task 4.4: Further documentation, installation and visits**

**Total Estimated Cost of Phases 3 and 4: \$40,000.00**

EXHIBIT B

CERTIFICATION OF CONSULTANT (GRANTEE)

I hereby certify that I, \_\_\_\_\_ (name), am the duly authorized representative the firm of \_\_\_\_\_ whose address is \_\_\_\_\_, and that neither I nor the above firm (Grantee) has:

- a. Employed or retained for a commission, percentage, brokerage, contingency fee or other consideration, any firm or person (other than a bona fide employee working solely for me or the above consultant) to solicit or secure this contract;
- b. Agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract; or
- c. Paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above consultant), any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the contract.

I acknowledge that this certificate is to be furnished to the Federal Highway Administration, and is subject to applicable State and Federal laws, both criminal and civil.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

CERTIFICATION OF AGENCY OFFICIAL

I hereby certify that I am the Agency Official of \_\_\_\_\_, and that the above consulting firm or his representative has not been required directly or indirectly as an expression of implied condition in connection with obtaining or carrying out this contract to:

- a. Employ, retain or agree to employ or retain, any firm or person, or
- b. Pay, or agree to pay, to any firm, person or organization, any fee, contribution, donation or consideration of any kind.

I acknowledge that this certificate is to be furnished to the Federal Highway Administration, and is subject to applicable State and Federal laws, both criminal and civil.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

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EXHIBIT C  
FEDERAL PROVISIONS  
METRO

**I. Certification of Noninvolvement in Any Debarment and Suspension**

As a supplement to this proposal, the Contractor on this project shall complete the following certification with regard to current involvement in any debarments, suspensions, indictments, convictions and civil judgment indicating a lack of business integrity.

(Name and Title of Authorized Representative of Contractor)

---

(Signature)

being duly sworn and under penalty of perjury under the laws of the State of Oregon, certifies that, except as noted below,

---

(Name of Firm)

certifies to the best of its knowledge and belief that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from covered transactions by any Federal Department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a government entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

Where the Contractor is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

List exceptions. For each exception noted, indicate to whom the exception applies, initiating

agency and dates of action. If addition space is required, attach another page with the following heading: ***Certification Exceptions continued, Contract Insert.***

**Exceptions:**

Exceptions will not necessarily result in denial of award, but will be considered in determining Contractor responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The Contractor is advised that by signing this contract, the Contractor is deemed to have signed this certification.

**II. Instructions for Certification Regarding Debarment, Suspension and Other Responsibility Matters -- Primary Covered Transactions**

1. By signing this contract, the Contractor is providing the certification set out below.
2. The inability to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The Contractor shall explain why he/she cannot provide the certification set out below. This explanation will be considered in connection with Metro determination to enter into this transaction. Failure to furnish an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when Metro determined to enter into this transaction. If it is later determined that the Contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government or Metro may terminate this transaction for cause of default.
4. The Contractor shall provide immediate written notice to Metro to whom this proposal is submitted if at any time the Contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the Oregon Department of Transportation's Program Section (telephone: 503/986-3400) to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The Contractor agrees by submitting this proposal that, should the proposed covered

transaction be entered into, it shall not knowingly enter into any lower tier covered transactions with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by Metro entering into this transaction.

7. The Contractor further agrees by submitting this proposal that it will include the Addendum to Form FHWA-1273 titled "Appendix B -- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions," provided by Metro entering into this covered transaction without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List published by the U.S. General Services Administration.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Exception for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government or Metro may terminate this transaction for cause or default.

### III. Addendum to Form FHWA-1273, Required Contract Provisions

This certification applies to subcontractors, material suppliers, vendors and other lower tier participants.

Appendix B of 49 CFR Part 29

#### **Appendix B -- Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions**

##### Instructions for Certification

1. By signing and submitting this Contract, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, Metro with which this transaction originated may pursue available remedies, including suspension and/or disbarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this Contract is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal" and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this Contract that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by Metro with which this transaction originated.
6. The prospective lower tier participant further agreed by submitting this Contract that it will include this clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement list.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government or Metro with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions**

- a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal department or agency.



- b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

#### **IV. Employment**

1. Contractor warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for Contractors, any fee, commission, percentage, brokerage fee, gifts or any other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranting, Metro shall have the right to annul this Contract without liability, or in its discretion to deduct from the contract price or consideration or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.
2. Contractor shall not engage, on a full or part-time basis, or other basis, during the period of the Contract, any professional or technical personnel who are, or have been at any time during the period of this Contract, in the employ of Metro, except regularly retired employees, without written consent of the public employer of such person.
3. Contractor agrees to perform consulting services with that standard of care, skill and diligence normally provided by a professional in the performance of such consulting services on work similar to that hereunder. Metro shall be entitled to rely on the accuracy, competence and completeness of Contractor's services.

#### **V. Nondiscrimination**

During the performance of this Contract, Contractor, for himself, his assignees and successors in interest, hereinafter referred to as Contractor, agrees as follows:

1. **Compliance with Regulations.** Contractor agrees to comply with Title VI of the Civil Rights Act of 1964, and Section 162(a) of the Federal-Aid Highway Act of 1973 and the Civil Rights Restoration Act of 1987. Contractor shall comply with the regulations of the Department of Transportation relative to nondiscrimination in Federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are incorporated by reference and made a part of this Contract. Contractor, with regard to the work performed after award and prior to completion of the contract work, shall not discriminate on grounds of race, creed, color, sex or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the contract covers a program set forth in Appendix B of the Regulations.
2. **Solicitation for Subcontractors, including Procurement of Materials and Equipment.** In all solicitations, either by competitive bidding or negotiations made by Contractor for work to be performed under a subcontract, including procurement of materials and equipment, each potential subcontractor or supplier shall be notified by Contractor of Contractor's

obligations under this Contract and regulations relative to nondiscrimination on the grounds of race, creed, color, sex or national origin.

3. **Nondiscrimination in Employment (title VII of the 1964 Civil Rights Act).** During the performance of this Contract, Contractor agrees as follows:
  - a. Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex or national origin. Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notice setting forth the provisions of this nondiscrimination clause.
  - b. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex or national origin.
4. **Information and Reports.** Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to his books, records, accounts, other sources of information and his facilities as may be determined by Metro, Oregon Department of Transportation or FHWA as appropriate, and shall set forth what efforts he has made to obtain the information.
5. **Sanctions for Noncompliance.** In the event of Contractor's noncompliance with the nondiscrimination provisions of the Contract, Metro shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including but not limited to:
  - a. Withholding of payments to Contractor under the agreement until Contractor complies; and/or
  - b. Cancellation, termination or suspension of the agreement in whole or in part.
6. **Incorporation of Provisions.** Contractor will include the provisions of paragraphs 1 through 6 of this section in every subcontract, including procurement of materials and leases of equipment unless exempt from Regulations, orders or instructions issued pursuant thereto. Contractor shall take such action with respect to any subcontractor or procurement as Metro or FHWA may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event Contractor becomes involved in, or is threatened with litigation with a subcontractor or supplier as a result of such direction, Metro may, at its option, enter into such litigation to protect the interests of Metro, and, in addition, Contractor may request Metro to enter into such litigation to protect the interests of the State of Oregon.

## VI. Disadvantaged Business Enterprise (DBE) Policy

In accordance with Title 49, Code of Federal Regulations, Part 23, or as may be amended (49 CFR 23), Contractor shall agree to abide by and take all necessary and reasonable steps to comply with the following statement:

### DBE Policy Statement

**DBE Policy.** It is the policy of the Oregon Department of Transportation that Disadvantaged Business Enterprises as defined in 49 CFR 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Consequently, the DBE requirements of 49 CFR 23 apply to this Contract.

**DBE Obligations.** Contractor agrees to ensure that Disadvantaged Business Enterprises as defined in 49 CFR 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. In this regard, Contractor shall take all necessary and reasonable steps in accordance with 49 CFR 23 to ensure that Disadvantaged Business Enterprises have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of federally-assisted contracts.

The DBE Policy Statement shall be included in all subcontracts entered into under this Contract.

**Records and Reports.** Contractor shall provide monthly documentation to Metro that it is subcontracting with or purchasing materials from the DBEs identified to meet contract goals. Contractor shall notify Metro and obtain its written approval before replacing a DBE or making any change in the DBE participation listed. If a DBE is unable to fulfill the original obligation to the contract, Contractor must demonstrate to Metro the Affirmative Action steps taken to replace the DBE with another DBE. Failure to do so will result in withholding payment on those items. The monthly documentation will not be required after the DBE goal commitment is satisfactory to Metro.

Any DBE participation attained after the DBE goal has been satisfied should be reported to Metro.

**DBE Definition.** Only firms certified by the Executive Department, State of Oregon may be utilized to satisfy this obligation.

**Contractor's DBE Contract Goal**  
**DBE Goal 0 Percent**

By signing this Contract, Contractor assures that good faith efforts have been made to meet the goal for the DBE participation specified in the Request for Proposal/Qualification for this project for this project as required by ORS 200.045.

## VII. Lobbying

The Contractor certifies, by signing this agreement to the best of his/her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor also agrees by signing this agreement that he/she shall require that the language of this certification be included in all lower tier subagreements, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

## STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 98-2622 FOR THE PURPOSE OF APPROVING SOLE SOURCE AGREEMENTS FOR MARK BRADLEY RESEARCH & CONSULTING, CAMBRIDGE SYSTEMATICS AND JOHN BOWMAN & ASSOCIATES

Date: March 4, 1998

Presented by: Andrew Cotugno

### PROPOSED ACTION

This resolution would approve entering into three sole source agreements with the firms and individuals who developed Metro's new model, to enhance and reprogram that model to fit in with the more demanding specifications required by the Los Alamos Transims system.

### FACTUAL BACKGROUND AND ANALYSIS

The U.S. Department of Transportation (USDOT) has a Travel Model Improvement Program to significantly improve travel forecasting models for use in the USA. As a part of this, Los Alamos National Laboratories is carrying out a demonstration model improvement in Portland with the cooperation of Metro modeling staff. The Metro Council approved receipt of the grants for this purpose. USDOT made available to Metro \$1.6 million in special grants to cover its costs and employ needed consultants for specific tasks. These grants do not require a Metro match.

A decision was made by Los Alamos and USDOT to use Metro's newly built travel demand model as one of the bases for their travel demand module in Transims (their transportation micro-simulation modeling system). As a part of the project, they have requested that we make available to them the services of the consultant(s) that developed the model for us. They need to make significant modifications to our model before using it in their simulation system. The model development for us was carried out, in part, through an FHWA task order contract with Cambridge Systematics, with Mark Bradley Research and Consulting as a major subcontractor and, in part, through our Traffic Relief Options Study contract with ECO Northwest. The model development work and computer program application on the latter project was carried out by a subcontractor, Mark Bradley Research and Consulting. A major contributor with the Cambridge Systematics team was John Bowman, who is no longer with them (his MIT thesis formed the basis for the model structure).

The new model developed at Metro is unique in U.S. practice (there are somewhat similar models in Holland and in Sweden).

The primary contract request is for the firm that did all of the model estimation for the Metro model and also wrote the software for application of the model. This is Mark Bradley Research and

Consulting. In preliminary evaluation of need by Los Alamos and Metro, the estimated cost of work by this firm was \$140,000. The initial scope of work is attached.

The two secondary contracts are for technical help and advice to the primary contractor, Metro and Los Alamos, on the theoretical considerations in the development of a more disaggregate version of the model.

1. One contract is for Cambridge Systematics Inc., primarily to obtain the services of Dr. Moshe Ben-Akiva (also of MIT) who is one of the world's leading theorists in this area. This contract is expected to be \$20,000.
2. The third contract is for services of John Bowman & Associates to advise and assist in model estimation as needed. This contract is expected to be \$30,000.

Note that this work is, in part, of a research nature and discoveries made by Los Alamos, Metro and their consultants in the course of the project may lead to a redefinition of work scope and resource allocation.

#### FINDINGS

The Clean Air Act Amendment, the Intermodal Surface Transportation Efficiency Act, and policies specific to Metro and Oregon all dictate that Metro and USDOT conduct transportation analyses to assess performance and environmental impacts. The current analyses are using tools that have recognized shortcomings. The Transims project is part of a multi-year program (in its fourth year) to improve these models. With these improvements, we will more accurately be able to forecast the travel effects of the land use and transportation policies we propose to implement.

For Metro, it gives us the opportunity to carry out the objectives of our model improvement, with a wealth of consultant help we could not otherwise afford. It also pays us for significant staff time to carry out, in large part, many of the tasks already in our program for which we would have had to find other funds, including match. There is a coincidence between the goals of this USDOT project and our own needs.

#### **Not Substantially Diminish Competition**

This is a continuation of a unique body of work already started at Metro. The consultants being sought started this work when it was new (and hence not yet unique) under a normal competitive process. They have made significant progress and have gained experience which is currently unique. It would not be practical to engage in an open proposal process because other consultants do not have the necessary experience of the initial work completed for Metro.

### **Provides Cost Savings**

The Transims project saves Metro money in a number of ways.

Metro and the Transims project share the same vision with regard to model improvement areas. Metro would normally fund model development work through the use of federal funds. Since the Transims funds are dedicated to this purpose and do not affect the normal amount of federal funds dedicated to this region, Metro is able to reallocate current federal funds for other work in the Transportation Department.

The Transims funds do not require local match. Hence, research can be carried out without any draw-down required from Metro revenue sources.

### **Unique Characteristics and Technical Complexities**

The primary objective of the new models is to be able to carry out a micro-simulation of the transportation system on a second-by-second basis. For the highways, it is important to be able to simulate vehicle accelerations, braking, idling, etc. in order to get a realistic modeling of emissions. Current models do not micro-simulate vehicle operations; they just get hourly average traffic flows and average speeds.

Geographic micro-simulation is needed to accurately model pedestrian activities and transit use. The traffic zone-based aggregate model is adequate for calculating the approximate auto flows needed for highway design, but walking is slow and the acuity of detail needs to be at the level of street segment (block) or below. The tools required for this level of analysis are very different than those currently employed for "aggregate area" examination. The technique being developed creates a landscape of individual households and jobs, using complex sample enumeration methods, and considers daily activity and travel patterns explicitly. Current models forecast daily trips (one-way legs of the real travel itinerary; e.g., home to work). The new models consider the way these trips are linked into tours (e.g., home to work to lunch to shop to home) and the specific time schedule for each activity and each travel leg. This new approach is very much more complex than the old and is only possible in light of the computing power now becoming available.

### **EXECUTIVE OFFICER'S RECOMMENDATION**

The Executive Officer recommends approval of Resolution No. 98-2622.

Portland can build a lightrail to Oregon City!

(and so much more)

040998c-01

**L. O. T. I.**

LOOP

ORIENTED

TRANSIT-MALL

INTERMODAL

trackless trolley *lightrail* STREETCAR RAIL.

*HIGH-SPEED RAIL* Commuter-rail AMTRAK

STERNWHEELER *Watern taxi* the bus desiele



## The Walking Communities of 2040

At the turn of the century, leaders finally realized it was necessary to reduce the need for automobile use. In the year 2040 we have learned to adapt to restrictions placed upon driving them. Communities allow redevelopments that create the essential mixed-uses into their neighborhoods. If, within a district, no opportunities for retail or employment are within walking distances, new zoning codes allow their creation. From the most appropriate building, whatever that might be, needed-use redevelopment occur; a house becomes a school, a store, or a restaurant; an office becomes a clinic, a community center, or a bunkhouse. Some houses are actually moved for pedestrian connections, for open space or for farming. A cinder-block building has broken the rule of useless unsightliness. A demolish & salvage festival is held. Be there for the fun.

The most dramatic redevelopments are the asphalt districts. So few automobiles are actually driven, these are the most in need of rehabilitation and people eagerly support their reconstruction. They are used for purposes other than driving on.

Central gathering places in these walking communities of 2040 are served with electric mass transit. Rail systems are commonplace and are often built on unused freeway segments. The types of neighborly transit vehicles which connect to the rail system range from electrically powered varieties to horse drawn. The 20th century diesel and natural gas bus is obsolete.

Old roads still exist. A surprising amount are removed. Communities are still accessible by tired vehicles, but most people prefer their walk, bicycling, and transit system.

Long distance travel by air is very expensive. Regional travel by train is more common. Hospitality towards train-traveling vacationers is not to be missed.

The economic structure of life in 2040 is fundamentally local. Supporting mass transit supports a local economy. Big Box retailers have become distributors to neighborhood merchants. Neighborhood merchants have greater control over suppliers and opt to sell locally produced goods. The global economy went local, globally.

While traveling on the transit system, old folk enjoy repeating a colloquial saying, "Look, there's a gas station. You don't see too many of them anymore."

## Testimony at public hearing March 1998.

I am against the approval of all alternative alignments contained in the DEIS. There is no combination which can accomplish a credible project.

The cooperation between LRT and buses on the Transit Mall is still questionable. This is a major safety & operational consideration. A minor accident will completely shut down the system. Do not trust the computer modeling. Expansion of transit service on the Mall becomes limited, and must eventually split in at least 2 parts, despite Tri-Mets' claim of being able to leave the bus system intact.

Routing the LRT through the new urban center at PSU is an incredible blunder. Think of the Pioneer Courthouse Square; the events held there, concerts, celebrations. Imagine running the MAX line diagonally through the middle of Pioneer Courthouse Square! This is how PSU planners have designed the 2 courtyards of the urban center; a loss of possible uses for such an area. The lightrail runs between the urban centers' new office buildings. This restricted visibility in a public space creates a dangerous, life-threatening situation. This is unconscionable! The urban planners of PSU should be fired for this proposal.

Milwaukie planners are now, finally admitting to the mistakes contained in the Milwaukie Regional Center design proposal. They now admit, the 5 stoplighted intersections on McLoughlin Blvd is not possible, and therefore, the proposed density of the geographically constricted downtown core is not possible. The people of Milwaukie who were forced into recalling their city officers were neither paranoid nor parochial. Their action was justifiable. The only shame is that Mayor Craig Lomnicki refuses to admit the failure of his administration to responsibly handle this transit improvement opportunity. Perhaps the people of Milwaukie will be able to forgive their mayor one day, but probably not before a dutiful apology. The population center of Milwaukie is near the Milwaukie Marketplace. The alignment should remain on the Union Pacific Railroad corridor through Milwaukie, if the line is headed eastward.

Adding, post-measure 32, the segment north of the Rose Quarter to Lombard, is another big mistake. The likely alignment decision is along I-5, less supported in the area, missing the Kenton District. But, the Interstate Ave alignment is not much better, displacing a whopping 150 homes and businesses. The LRT replaces the successful #5 busline, leaving those riders with fewer stops (probably beside the freeway) and longer walks. Net result: decreased ridership. Insufficient ridership will require the Vancouver extension, despite the funding question, and Clark County opposition. The extension may have to shut down.

The Clackamas Town Center area is a mess and needs improvement. However, most traffic into the area does not come from the West. Commuters able to access park-n-rides in the morning, will be less able to exit the area in the afternoon shopping hours. The lightrail should not stop at CTC, nor route east toward Damascus. Only by reaching Oregon City will we have a viable system. This can be done affordably by leaving the lightrail on the Union Pacific Railroad corridor completely, from the Rose Quarter to Oregon City. Clackamastown area can be better served with attractive streetcar or bus connections to the lightrail.

The project has been voted down, by Clark County in 1995, and by Clackamas County and the State of Oregon in 1996. Officials claim overwhelming support for the plan, locally. The truth: support in Washington and Multnomah Counties has decreased from 64% to 54%.

The public was led to believe the lightrail would final destination in Oregon City. Metro has opted for an alignment from Clackamas Town Center which directs the line toward Damascus.

I communicated with Metro councilors that the cost-cutting measures have not changed or improved the project. Some of the cost-cutting can be accurately described as "cost-deferring". Some of the cost-cutting is unacceptable to the affected area residents. The idea of reducing the projected cost overrun allowance is risky. Councilor Washington replied to my communication, "But, the project is now, a new project." This is not true. Every segment and option of the alignments is still included, unchanged.

Metros' public process is a mockery of our democratic system. Only a tiny number of people who have persistently followed the process are knowledgeable about this project. Important details are revealed in bits and pieces. In 1995, the public testimony record publication categorized comments per segment. Each segment from Clackamas Town Center to Vancouver was listed except the downtown Mall segment. Categorizing it revealed the number of comments 40 to 1 against. Overwhelming opposition. I believe the omission was intentional. Metro did not want to have a public record of the opposition!

I am one of the most adamant supporters of lightrail expansion in this area. I oppose this horribly planned project. The citizens have not had their concerns addressed. Finally, never again should we hear anyone from Metro say, "Well, that's your opinion", or "Well, we can agree to disagree on this", or "We must go on", in reply to warnings that this plan is taking us in a direction of disastrous results. Metro does not have a satisfactory record of successful growth management.

Art Lewellan

# LOTi

## Loop Oriented Transit-mall Intermodal

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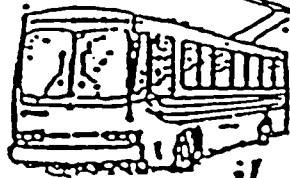
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trackless trolley

Portland can build a lightrail to Oregon City!

(and so much more)

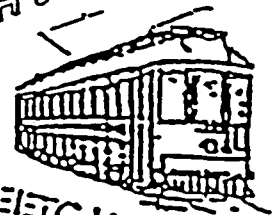


Lightrail

AMTRAK

L. O. T. i.

HIGH-SPEED RAIL



STREETCAR RAIL

Commuter-rail

The 3 basic elements of the LOTi proposal:

1. Eastbank lightrail alignment, SPRR corridor, Rose Quarter to Oregon City.
2. Trackless Trolley electric buses circulating from the Rose Quarter, across the Steel Bridge, up & down the Transit-mall.
3. Streetcar line extension of the Central City Streetcar from 10th & 11th Avenues, across the Hawthorne Bridge, directly to a Water Avenue turn-around, with special access to OMSI.

## *Loop Oriented Transit-mall Intermodal*

A "Trackless Trolley Loop-Circulator" for Portlands' Transit mall, running from a suitable street at the extended southern end, directly to Union Station, across the Steel Bridge to the Rose Quarter.

LOTi vehicles, similar to Seattles' standard and articulated Trolley-buses, eliminate the expensive, disruptive demolition and track-laying process.

These electrical buses cooperate with diesel buses. Current bus routes need not be displaced off the mall to other streets downtown.

LOTi creates conveniently regular transferring on the Mall, to and from the Rose Quarter transfer center.

A conveniently often transfer vehicle operating from the Rose Quarter serves downtown better, and when combined with an Eastbank lightrail alignment, creates there a true, regional, rapid transit, crossroads-hub.

In this way we create less noise & air pollution on the Mall by reducing, not displacing the number of diesel buses there. It accommodates "trans-Mall" users more frequently than lightrail and adds an important transfer vehicle at the Rose Quarter. It has the expandability to include other modes of transportation and recognizes the importance of the Eastbank corridor as a regional consideration. LOTi corrects a major failing of the Tri-Met system: It is the delay waiting for a transfer which transit users object to, not simply transferring. LOTi accomplishes this end most effectively on the central segment of the system.

Portland can build a lightrail to Oregon City  
and so much more

Portland's South/North lightrail proposals are now led by three players. Metro, Buckman & AORTA. The South/North rail project should be built this way! No! This way! No! It is going to be built Metros' way, and only Metros' way! These players are not alone in proposing projects. The route from Clackamastown Center north via I-205 to Gateway has been proposed by many people. Many see the Glen Jackson Bridge route into Clark County as even more supportable by junctioning it into the airport extension. A growing number of people are within no-build groups who have lost faith in the project as laid-out by Metro, oppose densifying stable neighborhoods, or oppose expensive, overly bureaucratic mass transit projects, altogether. They are proposing *anything* but lightrail.

I am not a no-builder. Lightrail can be an ideal component to any mass transit system. My outspoken opposition to the alignment Metro has concocted is based on thorough & critical analysis. I award Metro with a grade of D+ for their so-called "cost-cutting" measures. The + for reassuring the public that lightrail can work, but the less than passing grade for nearly every alteration to the project which leaves it essentially unchanged. The project is now actually worse after Measure 32.

AORTA contends that the costs of routing lightrail on the Transit Mall do not have enough return to justify the investment; that the operational mingling there between lightrail and buses is questionable; that this extremely expensive lightrail plan alone will do nothing to reduce current automobile dependency. I agree

Buckman Neighborhood Association contends there is greater need for transit investments on the east side of the Willamette. I agree, and add that in order to create an improved transit system for downtown Portland, investment on the eastside is essential.

North Portlanders have had their support turned against them in Metros' long-delayed decision to build along I-5, not on the supported Interstate Avenue and Kenton District. The north extension will have a net loss of transit ridership because it has longer walks to fewer stations for the riders of the #5 busline it replaces. Thus, it effectively leaves the region in the unenviable position of forcing Vancouver to accept the project, despite their voter rejection in 1995, despite other viable options.

The directly affected neighborhoods of Milwaukie, Hector Campbell & Harmony Road voted "no confidence" in their mayor and city council when their concerns about the alignment and subsequent development were officially shrugged off as, "the minority opinion". The Milwaukie Democracy Project recall was a victory for Democracy. It was not a "disaster brought on by non-voting Milwaukie citizens".

The list of blunderous flaws along the entire proposed route is unbelievable. However, with true cooperation, (can you say cooperation?), I believe support can be rebuilt in Milwaukie, Railroad Ave & Harmony Road neighborhoods, North & Northeast Portland, in Vancouver and with the many groups who have no confidence in the planning, related land use development aspects or the shenanigans of politicians.

Since the Spring of 1995, an additional, little known, extensively detailed proposal has been presented before Metro council hearings but has received no response or been given any public attention. It includes the very first lightrail alignment to be considered in 1993 that was then supported by Buckman neighborhood, AORTA and others. Two years after Metros' controversial rejection, this original alignment was resubmitted, incorporating two additional transit modes: streetcars & trackless trolleys. In their appropriate application, these broaden the possibilities of cost containment & public/private partnerships, reduce property displacements of home & business (preservative redevelopment), and increase fundamental transit efficiency.

The 1995 proposal is entitled: LOTi Loop Oriented Transit-Mall Intermodal (pronounced lot E, a derivative of Charlotte, a family name). LOTi defends that the *best* way to serve the Mall is not with lightrail, but with trackless trolleys (thank you Ray Polani), serving the entire length of the extended Mall in a closed loop, to and from the Rose Quarter; defends that the South/North lightrail is *best* routed via Water Ave on the east side of the Willamette, directly to the RoseQuarter, enter the East/West line toward town and return at the Galleria turnaround; and defends that the *best*, first extension of the Central City Streetcar is across the Hawthorne Bridge for superior access to the OMSI and Tom McCall Waterfront Park and act as an east-west transfer and circulator.

LOTi realigns the Milwaukie & Clackamastown segments, serving each more effectively with "spur" streetcar rail systems, leaving the S/N entirely on the Union Pacific rail corridor with a final destination of Oregon City. Cost savings reduce required ridership development. Reaching Oregon City guarantees increased ridership. LOTi has evolved into a phenomenal project encompassing 5-7 logical, practical streetcar lines, 9 trackless trolley lines, 6 lightrail lines, high-speed and commuter-rail potential and several highway improvements including a fine Morrison Bridge/I-5 rebuild, an interesting treatment for the Milwaukie-Powell intersection and rebuilding the Ross Island Bridge "mess" as the best option in the "South Willamette River Crossing Study". Not AORTA, not Buckman, not Metro has developed anything near as extensive a regional proposal as LOTi. Maximum advantage: LOTi. Portland must have a public appraisal of LOTi.

If the future of Portland is to be an "International City", we must increase transit ridership between 3 to 6 times, and increase walk/bike trip generation by 10 times. International cities fund successful rail-oriented mass transit with gasoline taxes 10 times what Americans pay. We should increase our basic gasoline taxes initially 15 to 20 cents and that funding go to mass transit. The reality is that any future electric or hybrid automobile cannot possibly solve the multitude of problems related to auto dependency. The future for Portland has hope, as all American cities can derive hope from some progress in urban design advancing here. But until we admit to the abject failure of the automobile-oriented lifestyle, and begin to build efficient electric mass transit systems whose costs can be kept from "out of control" escalation, build them extensively with an unprecedented cooperation between every single American who can participate in a "New American City Renaissance", we will not be able to stop our precipitous decline of environmental degradation and social disintegration.

## LOTi , the cooperative compromise

The South/North lightrail must change. A sincere attempt to rebuild support among concerned citizens who signed a "blank check" with the 1994 bond measure, but do not approve of the alignment is required from Metro, local and state politicians. Until the route is realigned significantly, not just shiftily rearranged, opposition from every position (citizen-led transit advocacy group opposition, fiscal conservatives, no-growthers ), is justifiable. It was people who support mass transit, but are against the impractical, intrusive, & inefficient alignment that brought the failure of Measure 32. Believe it or not, Bill Sizemores' efforts created very little new opposition.

LOTi offers acceptable alignment changes in all regions where discontent still rages. It has always been much more of a compromise than recent alignment proposals. Extremely high costs of routing destructively through downtown Portland, Milwaukie & Clackamas Town Center are avoided, yet each area is better served with low cost, more appropriate vehicles that have greater potential growth patterns and should attract additional private funding.

LOTi offers cost reductions, and because Oregon City is reached, ridership related new development is reduced and spread over a longer distance, perhaps to the degree of an acceptable level. Hello?

LOTi's streetcar line at "Clackamastown" initiates a lightrail line northward via the I-205 corridor and the airport lightrail extension into Clark County via the Jackson Bridge. Portland east county needs an investment in transit running north/south to encourage ridership onto the the junctions at Gateway and Clackamastown. East Portland neighborhoods cannot endure the terrible through-commute that every major E/W corridor has become.

LOTi proposes a commuter-rail system utilizing both B.N. & U.P. Railroad lines north, via the Northwest Indistrict District (Amtrak), & via the short-cut, lovely Swan Island. This creates a commute system from east Clark County to Vancouver with a very flexible route into Portland. These 3-6 transets would be then usable for commuting to Olympia, Salem & other destinations daily. Weekend trips to coastal cities & eastern Oregon are also an attractive possibility. Dropping the newly added, expensive and unproductive lightrail segment north of Rose Quarter gives Vancouver time to further consider two other lightrail routes into Clark County: via Glen Jackson Bridge & yes, Swan Island.

LOTi builds much more than a new lightrail line. Much more. MAX scale lightrail has reached a limitation that is demonstrably resolved with the addition of streetcar scale lightrail vehicles. The trolley-bus vehicle on the Transit Mall resolves the dilemma of transit improvements where existing bus systems must be preserved.



## BENEFITS:

Avoids expensive, controversial bridge crossing of the Willamette.

Avoids expensive reconstruction of the Transit Mall.

Avoids disruptions to transit service & downtown businesses during construction.

Avoids dislocation & dispersal of transit service after construction to 5th, 6th, 10th, & 11th Avenues; proven to be less efficient than the current configuration.

LOTi adds 3 streetcar routes which form the beginnings of *planned*, future rail extensions.

Helps build riverfront improvements on the Eastbank of the Willamette, including "The Promenade".

QMSI will be served at its' front entrance rather than its backside parking lot, or not at all.

**Create** at the Rose Quarter, a *true*, regional, rapid transit, crossroads-hub. The LOTi vehicle accepts transfers from bus routes, both Max lines, serves the entire length of the Mall, and eliminates timing & capacity considerations. At the Rose Quarter junction, Max trains "line-up", side-by-side, *under cover*, ( a 10' to 30' entire length transfer). Transferring downtown at Pioneer Courthouse Square, Max trains are 1-2 blocks apart, *uncovered*, with one street crossing. Downtown train connections and transfers cannot be timed. During rush hours the S/N line can easily enter the E/W line, run downtown and turn around at 11th. The rest of the time (80%), transferring at Rose Quarter, E/W Max can handle the transfers, making both lines more efficient. LOTi arrives downtown sooner than Metro alignments.

Serves the Transit Mall more frequently lightrail's 15 minute operating time ( 2-4 minute operating time ).

Reduces the number of noisy, polluting diesel buses on the Mall and 10th & 11th Avenues.

Piggy-backs investment onto high-speed rail, Amtrak, freight & commuter-rail corridor, a guaranteed, voter-approved destination of Oregon City.

A trackless trolley extension to OHSU is both less expensive & technically superior because the steep ascending and especially descending requires greater traction than rail provides for safety reasons.

Reduces the number of "track-wearing" curves between "Clackamastown" and Rose Quarter. LOTi also reduces the number of stops from 23 to 14. This makes the Max vehicle operate "fast-moving" as it is designed to be. A lightrail that acts like a commuter-rail. The land use goals are not sacrificed; they are improved by the streetcar line extensions further into redevelopable area, *preservatively, not destructively*.

Swan Island, an underated, exceptionally ideal route north must be considered; via Larrabee (an original rail corridor), Interstate (an endorsed future coridor), through the Albina District (development potential), and onto the SPRR corridor (maintenance benefit), and "final destination" at the large employment & active commerce base there; and, at some future date, extend north. Extending through North Portland will unproductively eliminate Vancouvers' option of choosing a Jackson Bridge route. If Portland builds a line to the airport, that route must be reconsidered. Fair, Fareless LOTi Benefit List never stops growing!

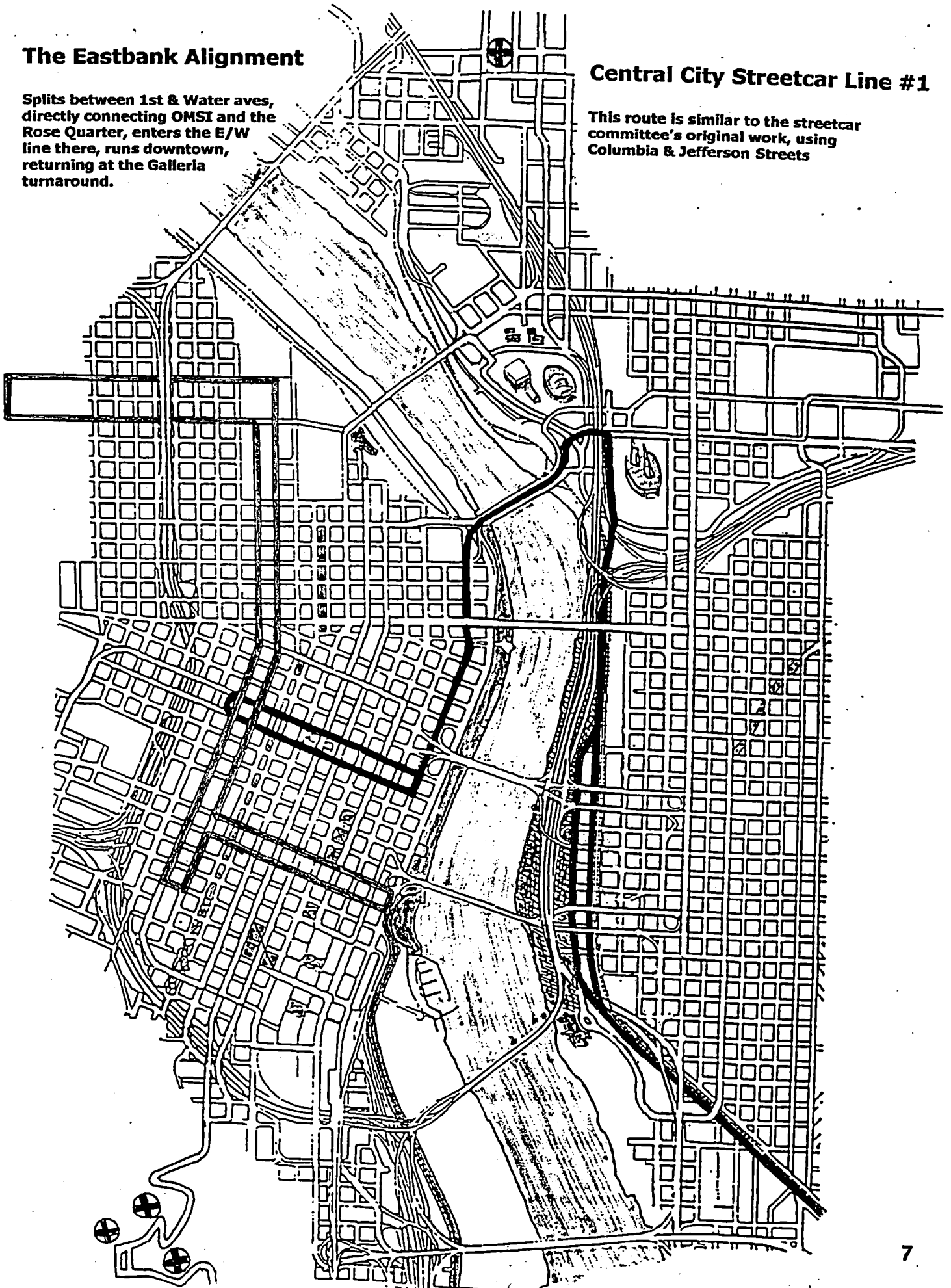


## The Eastbank Alignment

Splits between 1st & Water aves, directly connecting OMSI and the Rose Quarter, enters the E/W line there, runs downtown, returning at the Galleria turnaround.

## Central City Streetcar Line #1

This route is similar to the streetcar committee's original work, using Columbia & Jefferson Streets



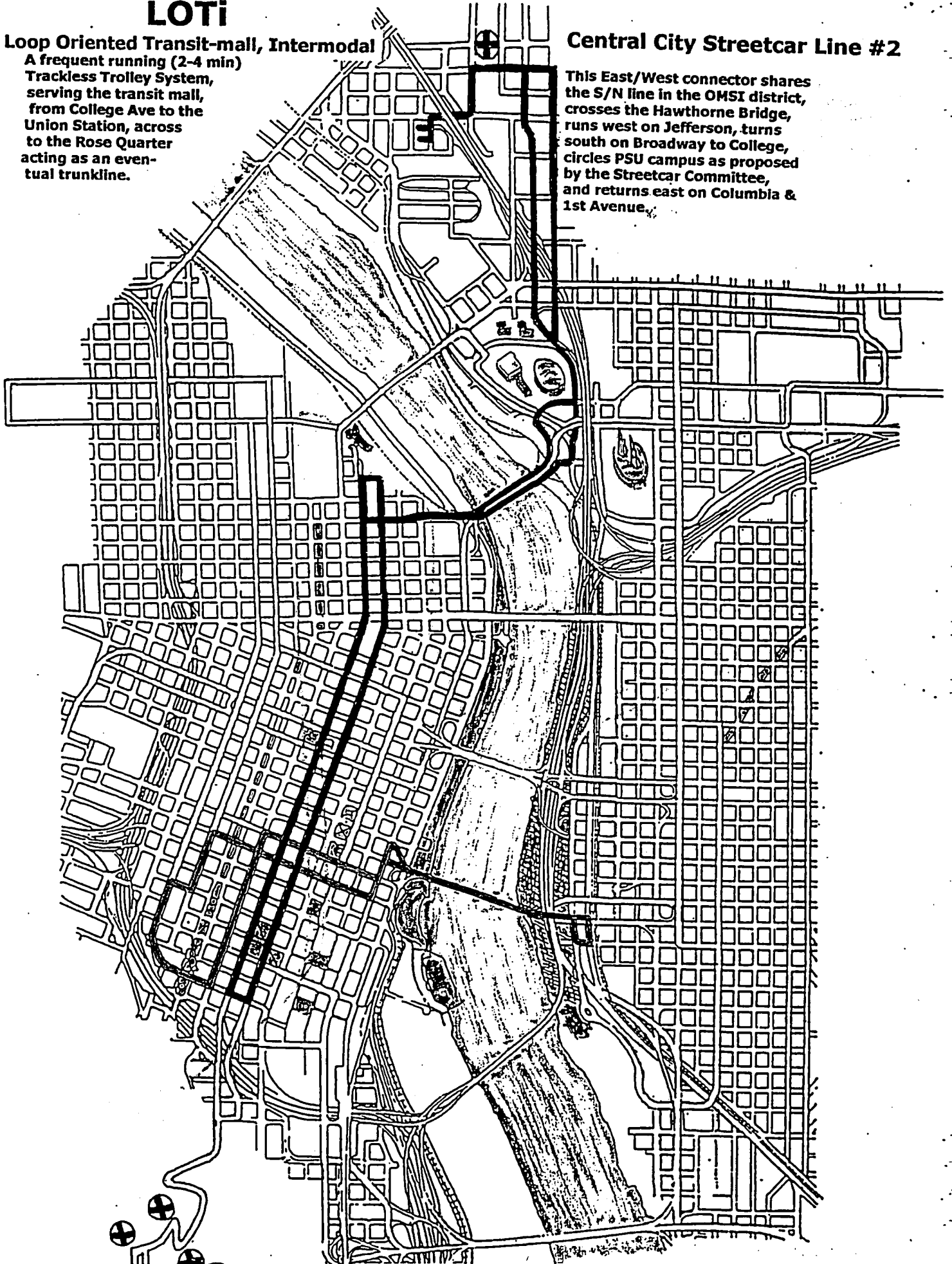
# LOTi

## Loop Oriented Transit-mall, Intermodal

A frequent running (2-4 min)  
Trackless Trolley System,  
serving the transit mall,  
from College Ave to the  
Union Station, across  
to the Rose Quarter  
acting as an even-  
tual trunkline.

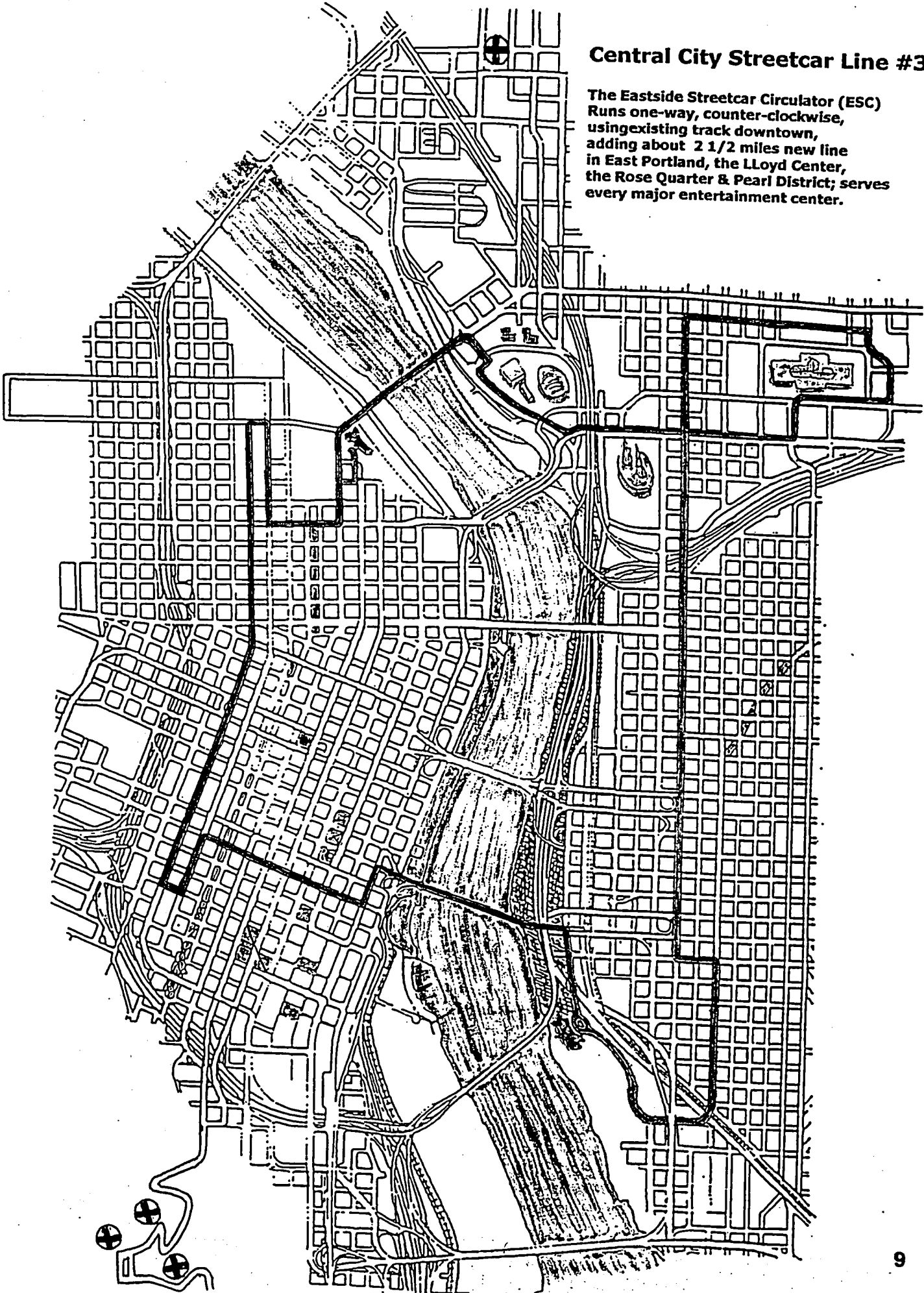
## Central City Streetcar Line #2

This East/West connector shares  
the S/N line in the OMSI district,  
crosses the Hawthorne Bridge,  
runs west on Jefferson, turns  
south on Broadway to College,  
circles PSU campus as proposed  
by the Streetcar Committee,  
and returns east on Columbia &  
1st Avenue.



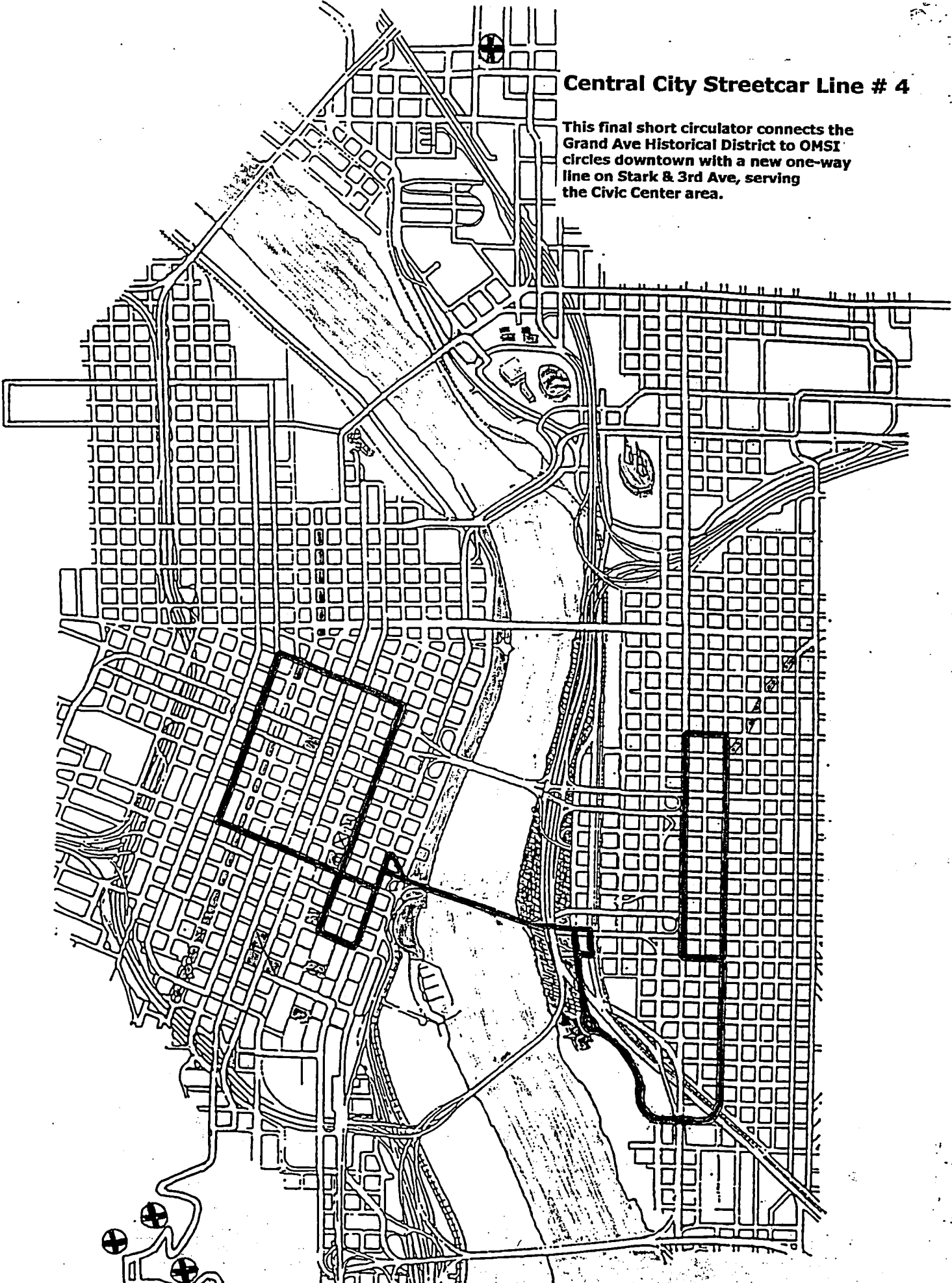
### Central City Streetcar Line #3

The Eastside Streetcar Circulator (ESC)  
Runs one-way, counter-clockwise,  
using existing track downtown,  
adding about 2 1/2 miles new line  
in East Portland, the Lloyd Center,  
the Rose Quarter & Pearl District; serves  
every major entertainment center.



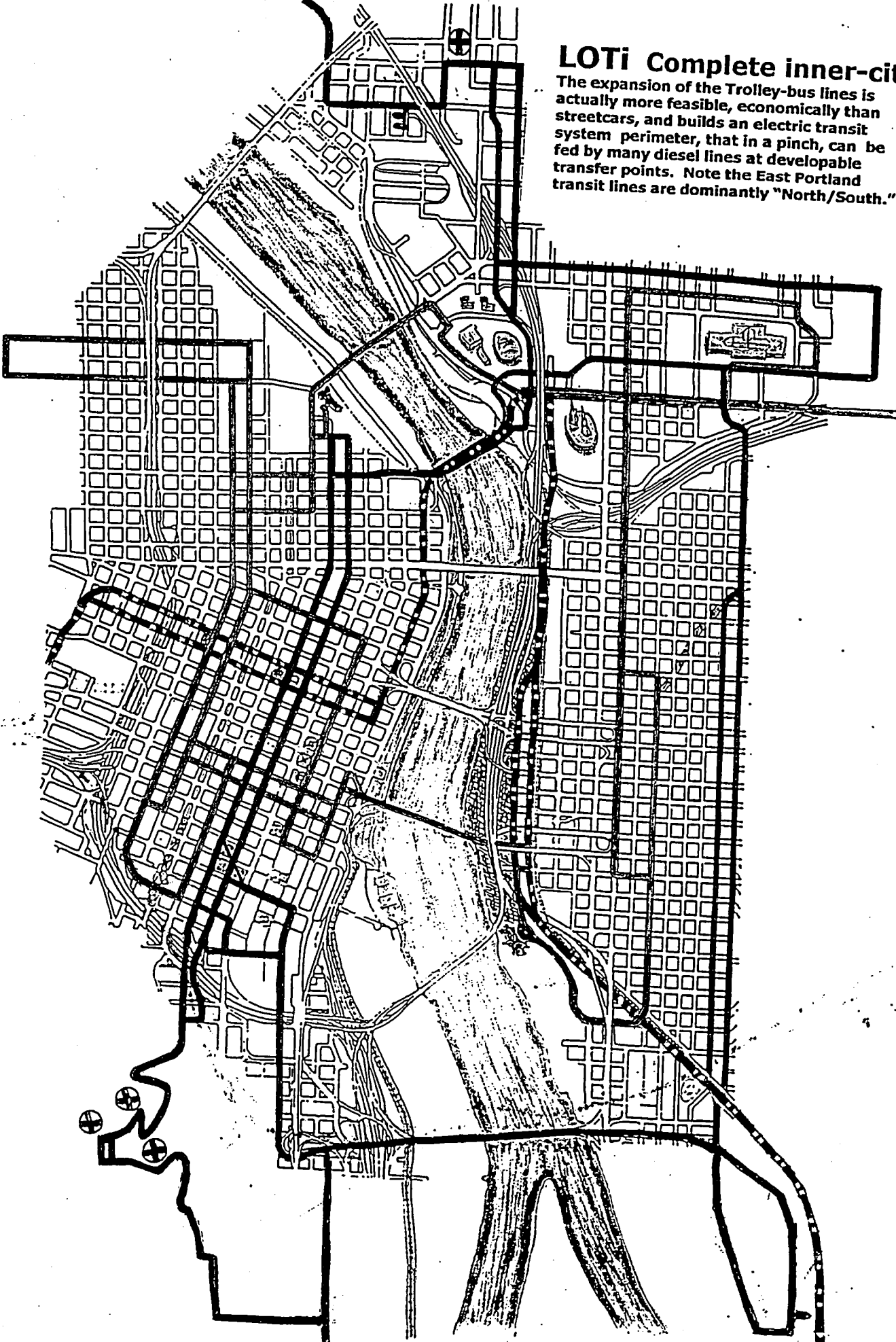
### Central City Streetcar Line # 4

This final short circulator connects the Grand Ave Historical District to OMSI circles downtown with a new one-way line on Stark & 3rd Ave, serving the Civic Center area.



## LOTi Complete inner-city

The expansion of the Trolley-bus lines is actually more feasible, economically than streetcars, and builds an electric transit system perimeter, that in a pinch, can be fed by many diesel lines at developable transfer points. Note the East Portland transit lines are dominantly "North/South."



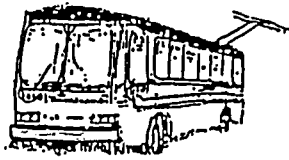
# LOTI

## The Loti

Outlines the 3 Streetcar lines, alignment following the Union construction & displacements, potential, broadens electric

**BONUS**

1 HIGH-SPEED RAIL SYSTEM  
4 COMMUTER-RAIL SYSTEMS



1 TRACKLESS TROLLEY SYSTEM

2 miles

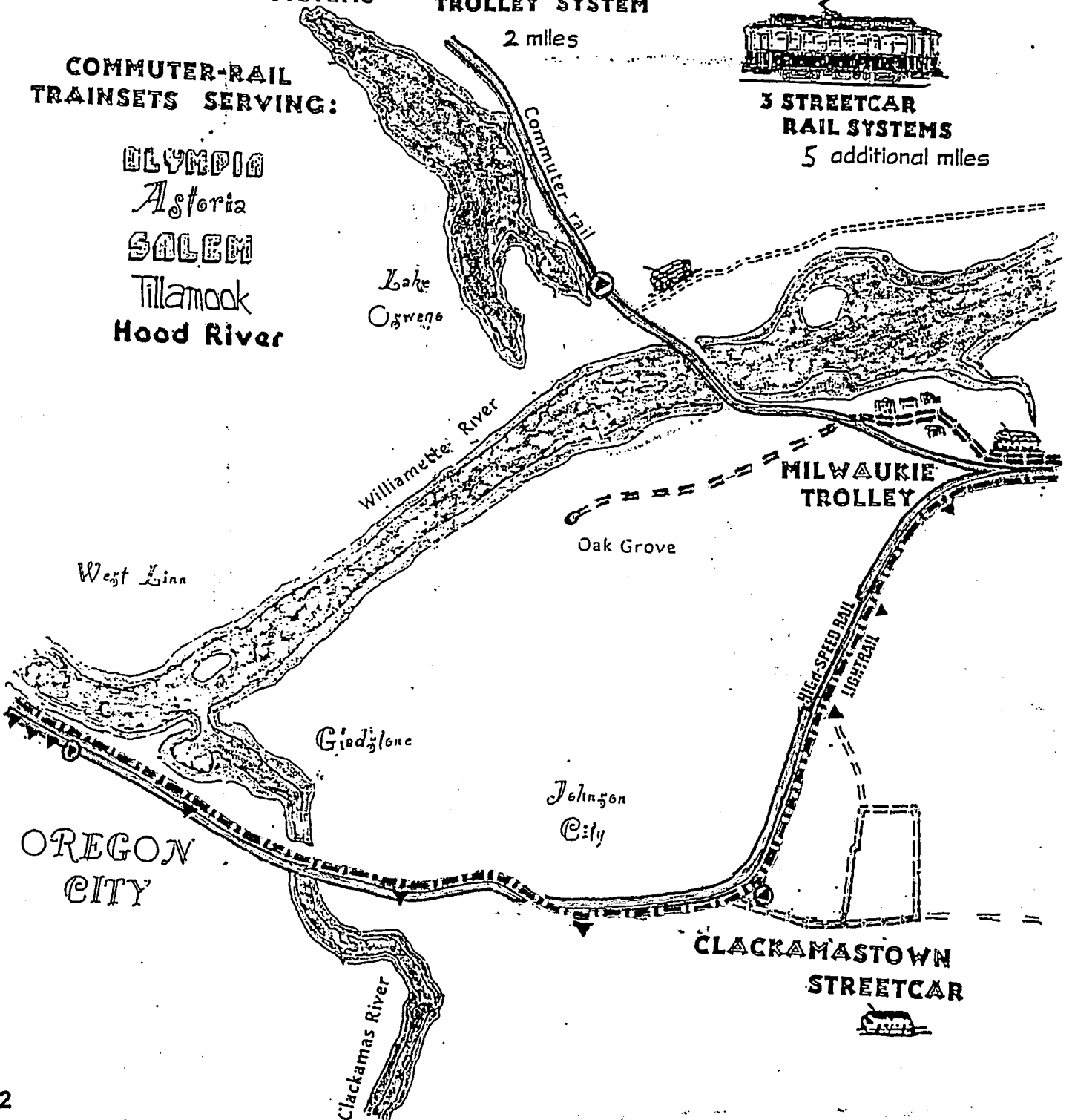


3 STREETCAR RAIL SYSTEMS

5 additional miles

COMMUTER-RAIL TRAINSETS SERVING:

OLYMPIA  
Astoria  
SALEM  
Tillamook  
Hood River



# Regional Plan

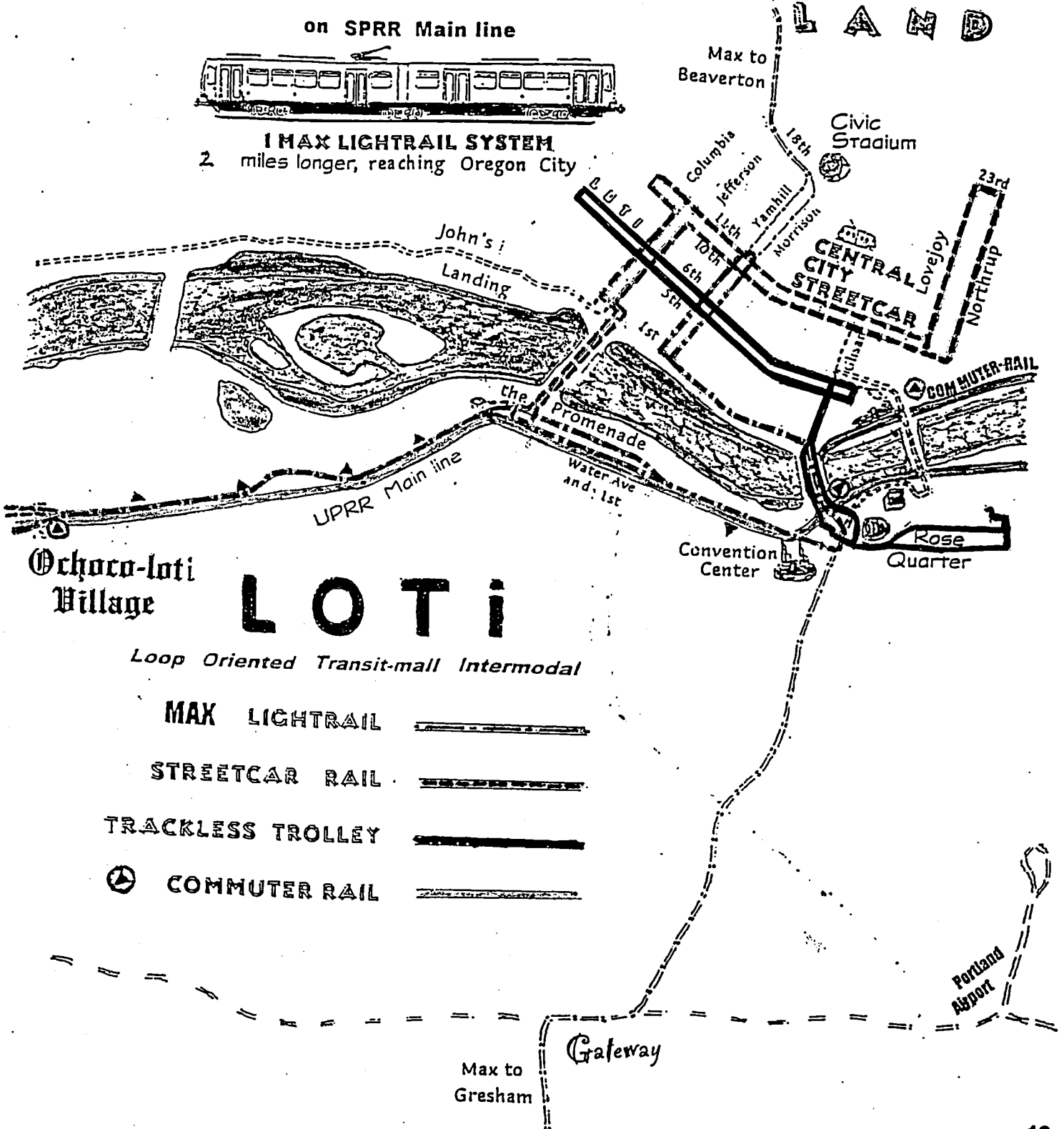
the trolley-bus loop for the Mall, the S/N lightrail Pacific Railroad corridor. LOTi minimizes bridge increases LRT speed efficiency & redevelopment vehicle applicability, offers attractive compromise

P O R T L A N D

on SPRR Main line



**1 MAX LIGHTRAIL SYSTEM**  
2 miles longer, reaching Oregon City



Ochoco-loti Village

**LOTi**

*Loop Oriented Transit-mall Intermodal*

**MAX LIGHTRAIL**

**STREETCAR RAIL**









**TRACKLESS TROLLEY**

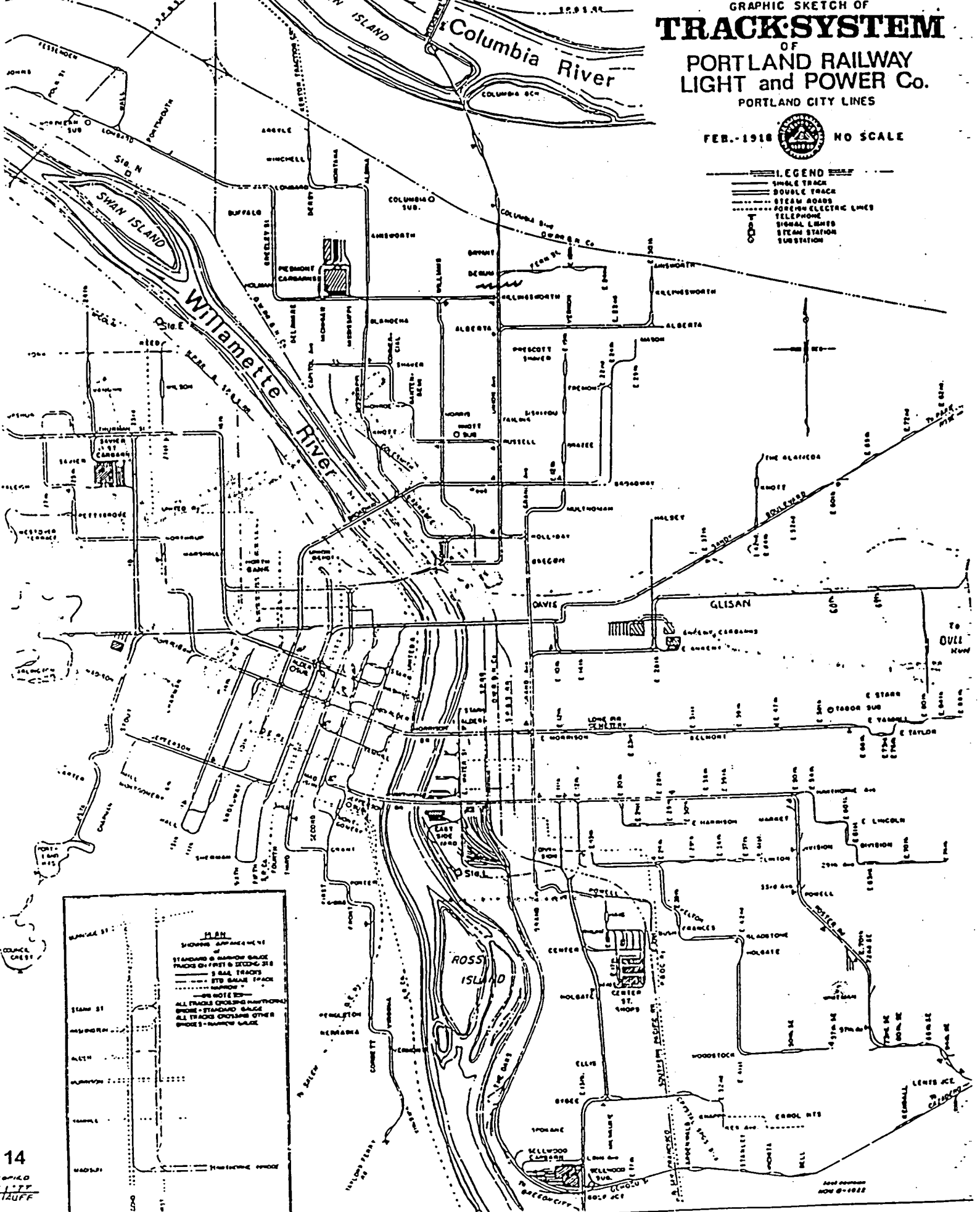
**COMMUTER RAIL**



GRAPHIC SKETCH OF  
**TRACK SYSTEM**  
 OF  
**PORTLAND RAILWAY LIGHT and POWER Co.**  
 PORTLAND CITY LINES

FEB. 1918  NO SCALE

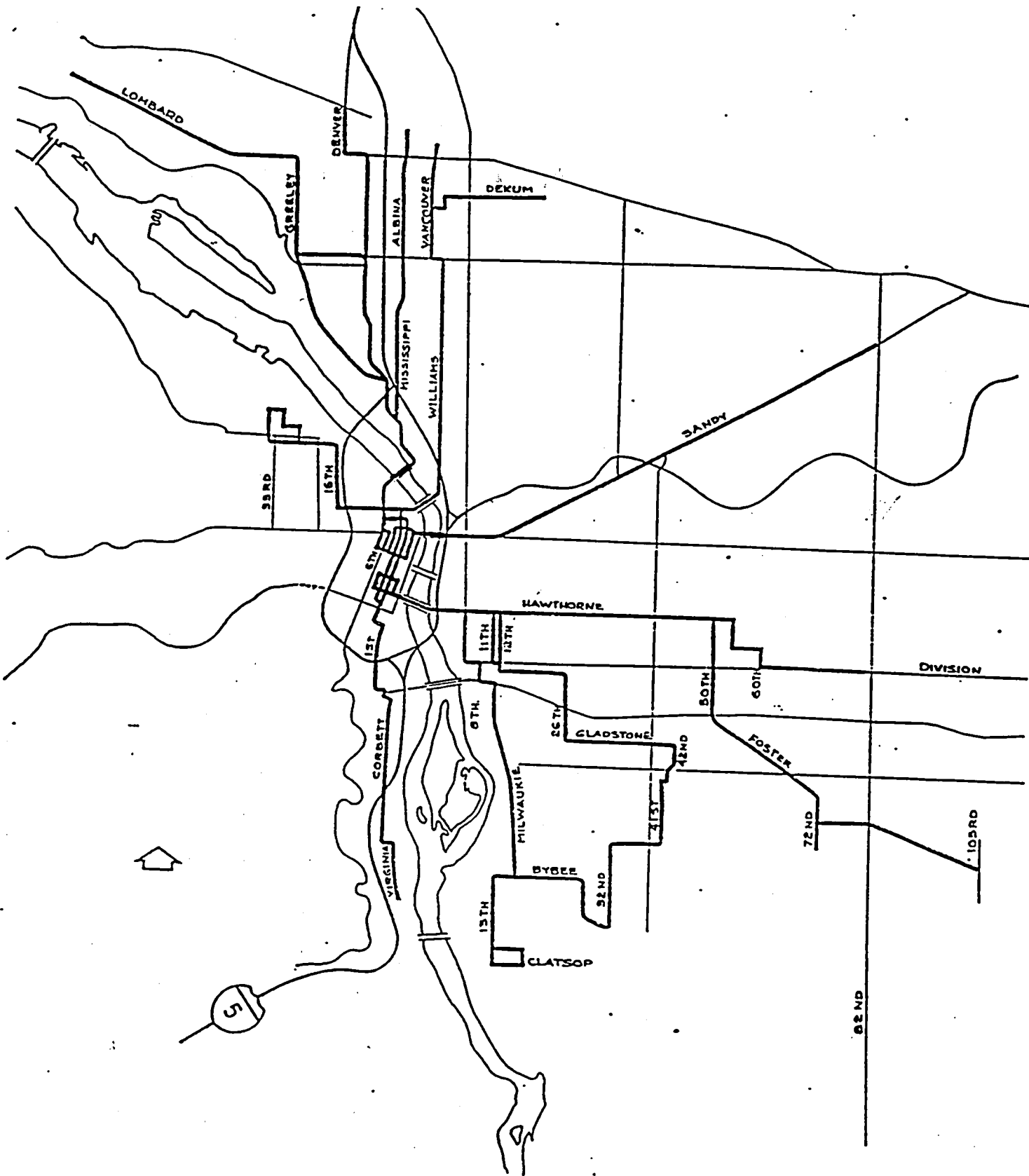
- LEGEND**
-  SINGLE TRACK
  -  DOUBLE TRACK
  -  STEAM ROADS
  -  FOREIGN ELECTRIC LINES
  -  TELEPHONE
  -  SIGNAL LINES
  -  STEAM STATION
  -  TURBINE STATION



**PLAN**  
 SHOWING ARRANGEMENT OF  
 STANDARD & NARROW GAUGE  
 TRACKS ON FIRST & SECOND DEcks  
 & ALL TRACKS  
 & ITS SALLE SPACE  
 & NARROW

**NOTE**  
 ALL TRACKS CROSSED RAILROADS  
 BRIDGE - STANDARD GAUGE  
 ALL TRACKS CROSSING OTHER  
 BRIDGE - NARROW GAUGE

# Trolley-bus System Portland 1951



"Municipal transportation ought to move immediately to a serious consideration of electrically powered buses. There is no reason why buses which travel short distances each day, cannot be developed with electric motors. This development would radically change one of the most annoying of all pollution irritants."

⊕ Robert F. Kennedy, Air Pollution and the Death of our Cities in "Air and Water Pollution", Washington Square Press, 1969

"Based upon likely rates of interest and inflation, the life-cycle costs of trolley busses will be cheaper than those of diesel buses... This condition is true even if 100% of the capital costs are raised by Tri-Met with no federal participation...

. . . .

"Trolley buses consume only about 69 percent of the fuel energy of diesel buses on a mile for a mile basis. Their use of electricity (8.4 million KWH per year) would reduce Tri-Met's fuel consumption by about 756,000 gallons per year. The availability of the necessary electricity does not appear to be a problem in this region for the foreseeable future.

. . . .

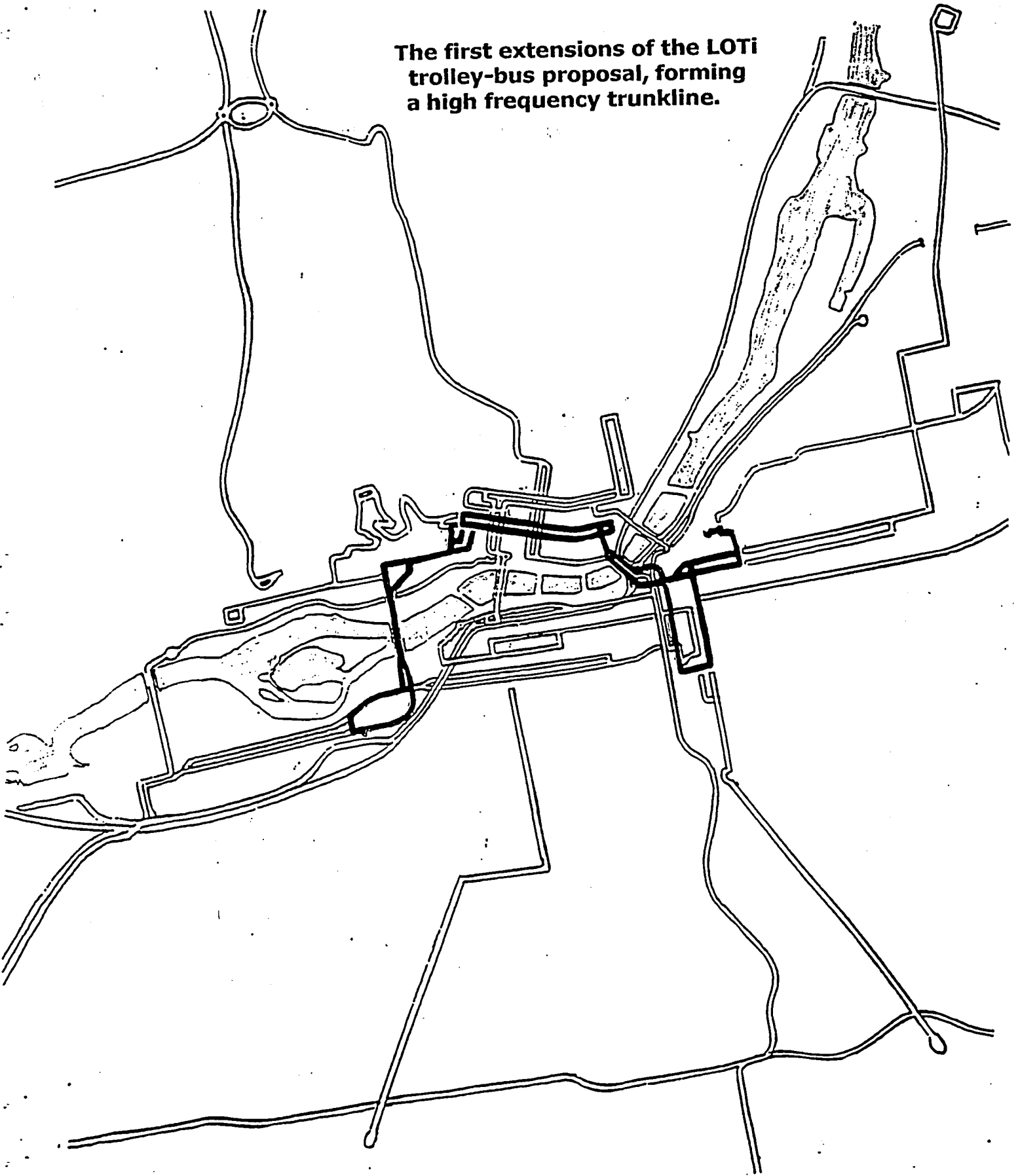
"Trolley buses are from 10 to 30 decibels quieter than diesel buses. Their reinstatement would result in noticeable reductions of noise in several neighborhoods, as well as downtown Portland.

. . . .

"Based upon responses at community meetings and to an on-board survey, public opinion favors trolley buses over diesel buses. The survey of riders... indicated 84% in support of trolley buses due to environmental and/or long term economic advantages. The majority (64%) of those surveyed felt that the environmental advantages of trolley buses outweigh their concern about overhead wire visual pollution."

Tri-Met Transit Development Department,  
Tri-Met Trolley Bus Project, Phase I,  
Summary Report and Staff Recommendation,  
Portland, Oregon, 1982

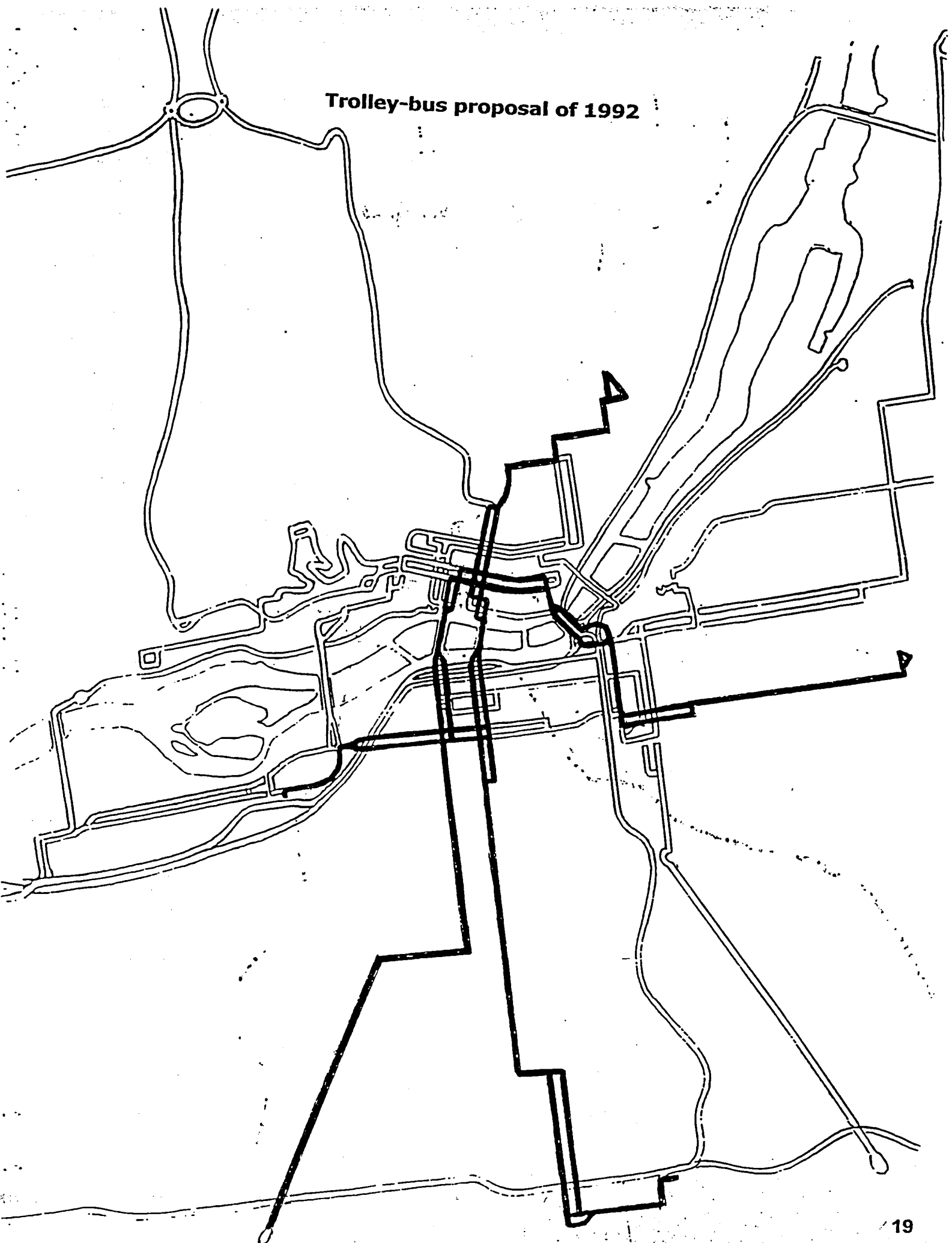
**The first extensions of the LOTi trolley-bus proposal, forming a high frequency trunkline.**



**Trolley-bus proposals of 1976 & 1982**

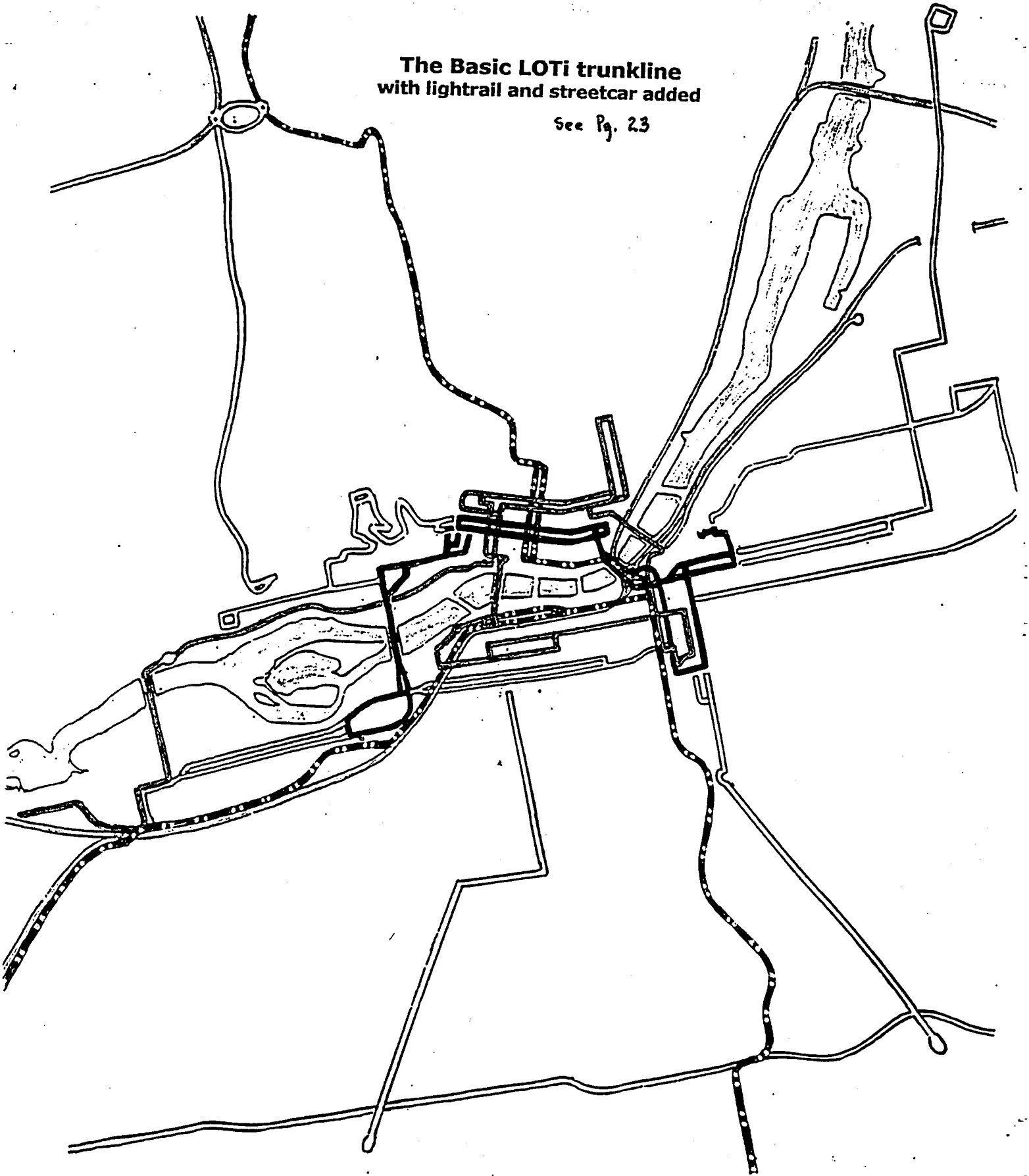


**Trolley-bus proposal of 1992**

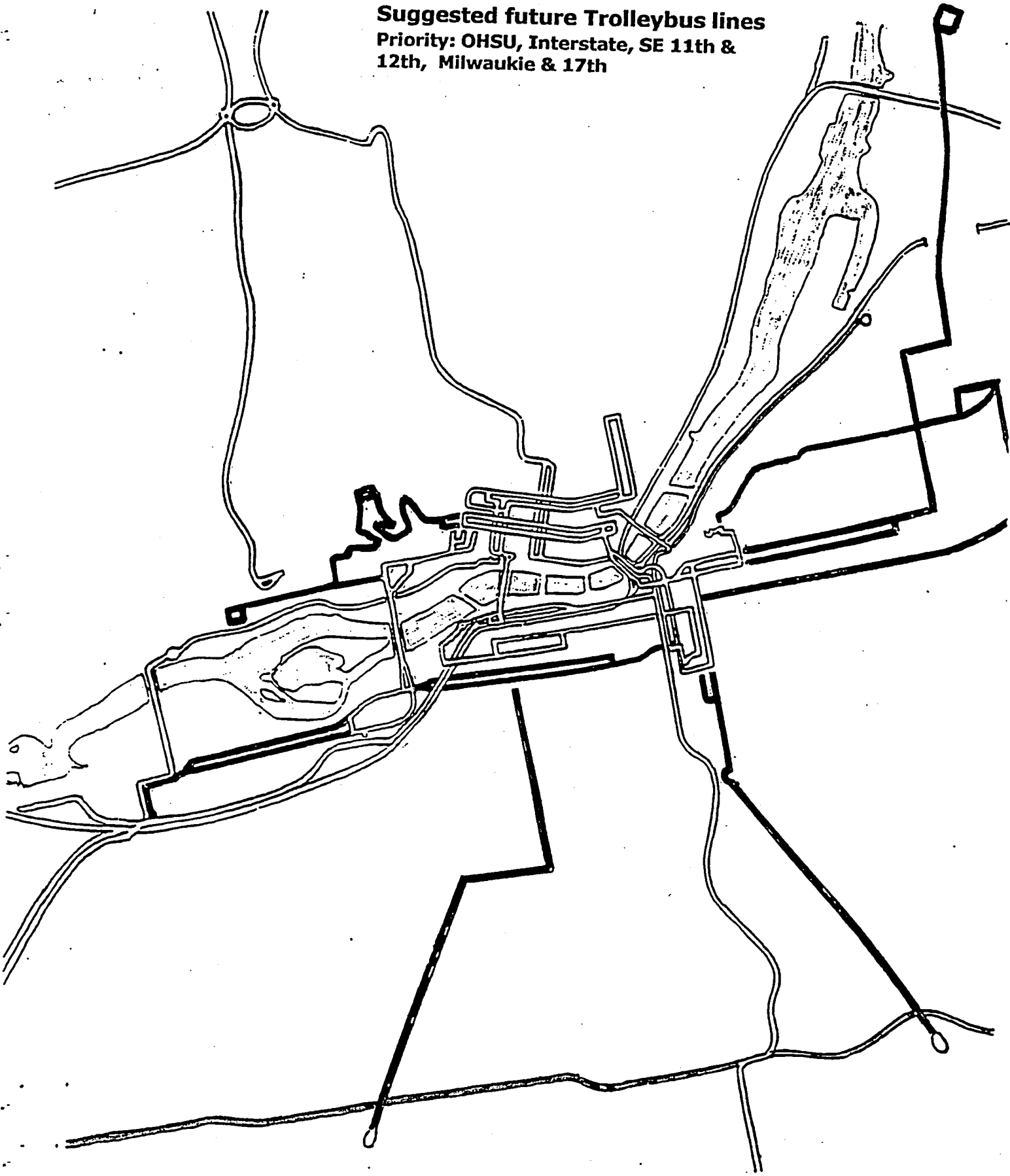


**The Basic LOTi trunkline  
with lightrail and streetcar added**

See Pg. 23



**Suggested future Trolleybus lines**  
Priority: OHSU, Interstate, SE 11th & 12th, Milwaukie & 17th





Transportation Secretary,  
Frederico Pena

Nov. 5th, '97

Enclosed is an "energy conserving" transportation project (LOTi) that may allow Portland to rebuild support for our South/North lightrail extension. LOTi is submitted because I believe that with an improved transportation system, our automobile-oriented industrial base would *require much less energy*. My analysis of the *planned* route for the N/S lightrail extension is that at each end and every point in between, the line is littered with flaw and error, will fail, will do greater harm to our transit system than help. The case I try to make about LOTi, is that it may indeed be an enormous step forward in transit design, particularly for Portland, but also in many cities where need for reform is obvious.

Redirecting industry away from the auto and towards mass transit rail projects can fulfil the promise that "New Urbanism" offers the New American City Renaissance\*

The automobile-dependent transportation system has burdened our economy and people with a fiercely competitive, materialistic, community-destroying, unsustainable, extremely expensive transit mode.

Good mass transit systems that include rail are absolutely necessary & beneficial investment in the structure of sustainable communities. Good mass transit has been actively discouraged by the automobile industry, and this is only a portion of the damage that industry has wrought upon the history of our age. The great conspiracy of the 20th century is the destruction of the rail mass transit system in this country, that has led to the global exploitation of resources, human and natural, to sustain a huge industrial/financial complex.

LOTi has the potential to reignite the popular support of building a "revolutionary model" lightrail system. LOTi is ignored by all organizations to which it has been submitted. Am I like the Jewish engineer in a scene from "Schindler's List" who alerted her German captor to a flaw in the construction of an outpost building, and was executed for her noble desent? I must trust that someone will see the real opportunity of the LOTi proposal and be able to *help* in its promotion.




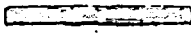
Art Lewellan

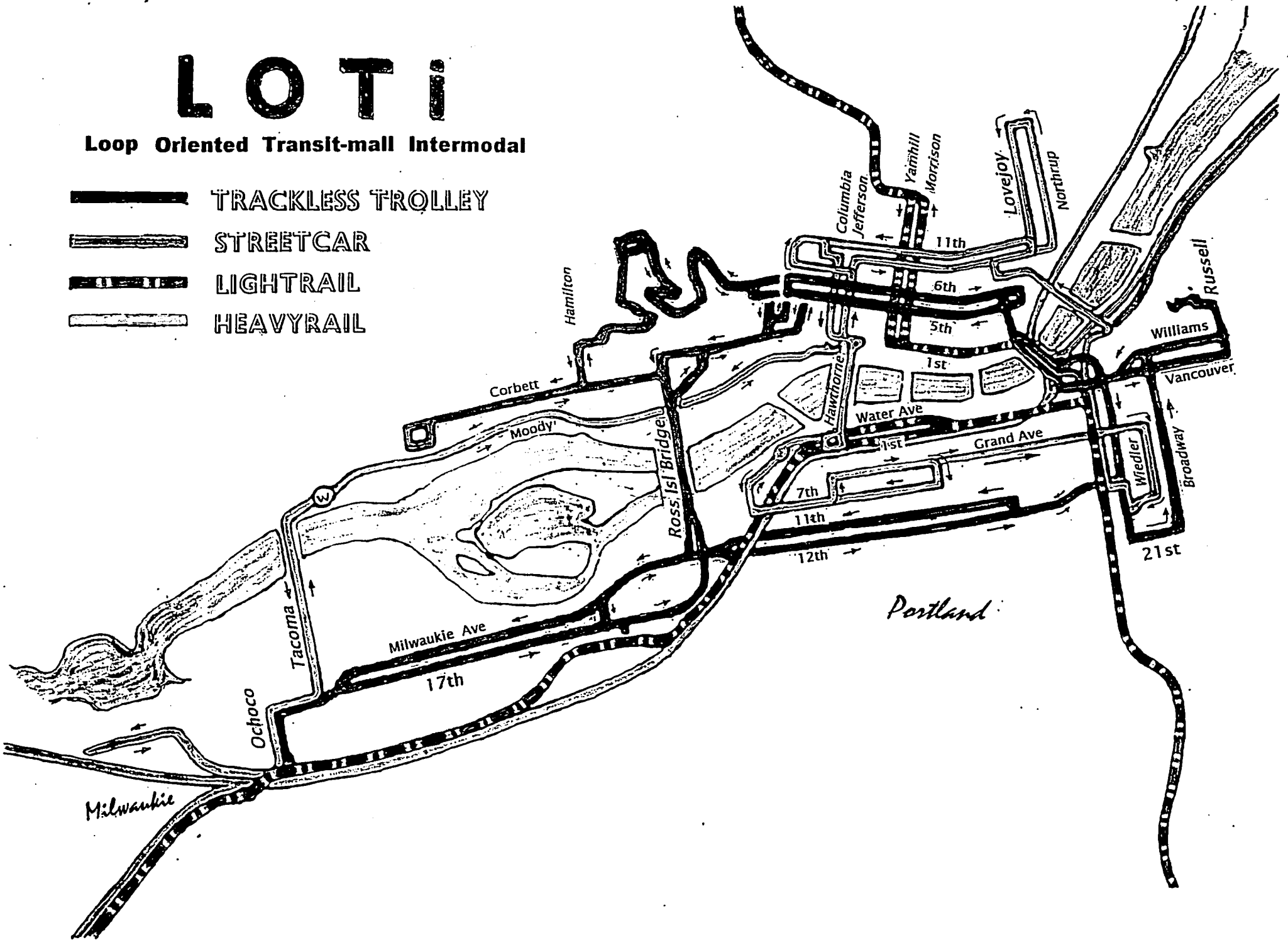
238-4075

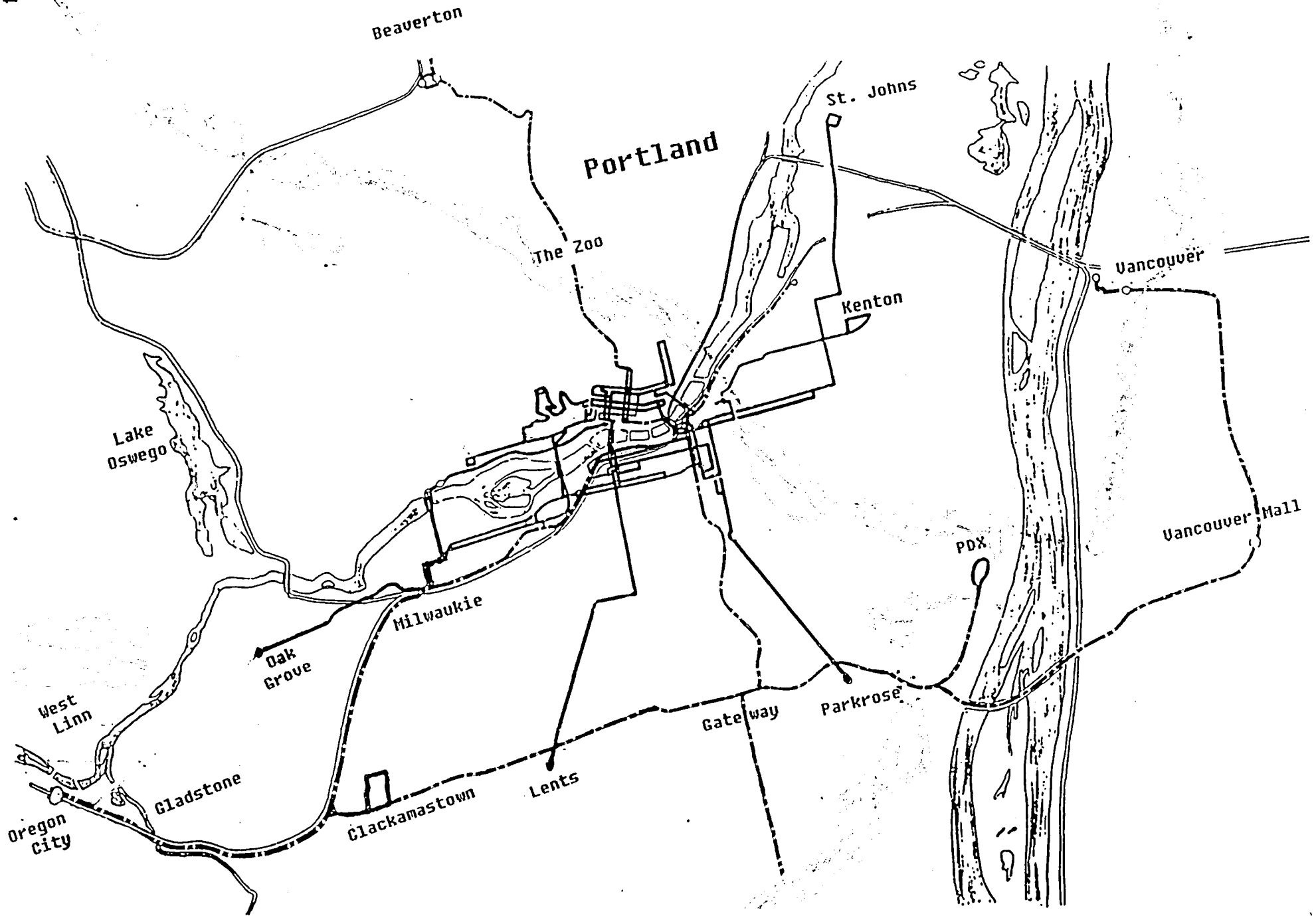
3205 SE 8th #9  
Portland, Oregon 97202

# LOTI

Loop Oriented Transit-mall Intermodal

-  TRACKLESS TROLLEY
-  STREETCAR
-  LIGHTRAIL
-  HEAVYRAIL



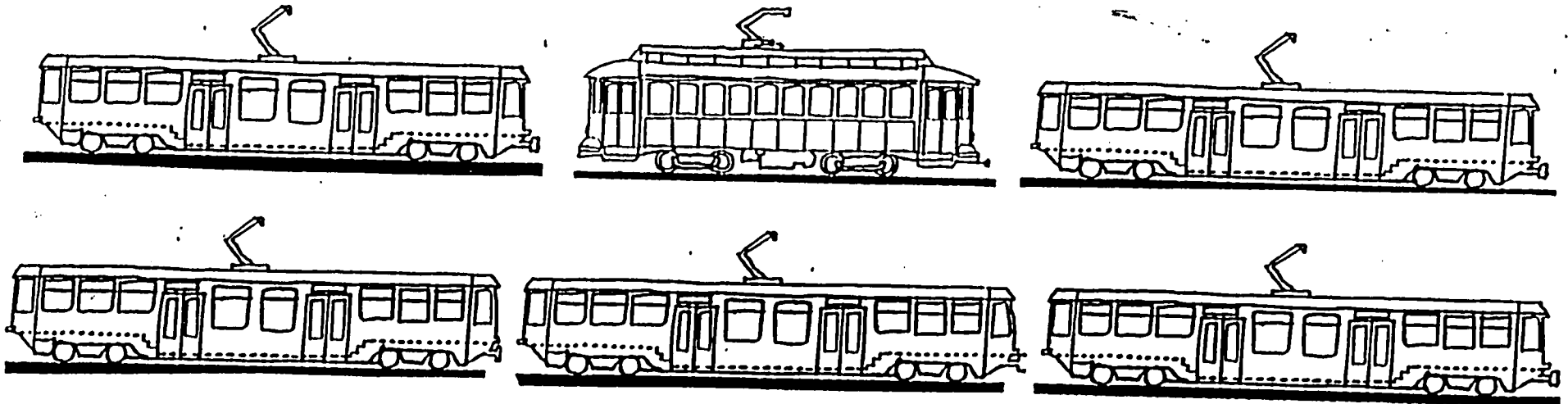


# Rail Transit

- Clean — virtually no local pollution
- Quiet — both inside and out
- Fast
- Smooth riding
- More comfortable
- Easy boarding — walk on, walk off
- Better air conditioned
- Less affected by bad weather
- Safe — all traffic is signal controlled
- — You always know where you can get it
- More frequent, more regular service
- Preferred — typically 1.5 to 2 times the ridership for the same service areas

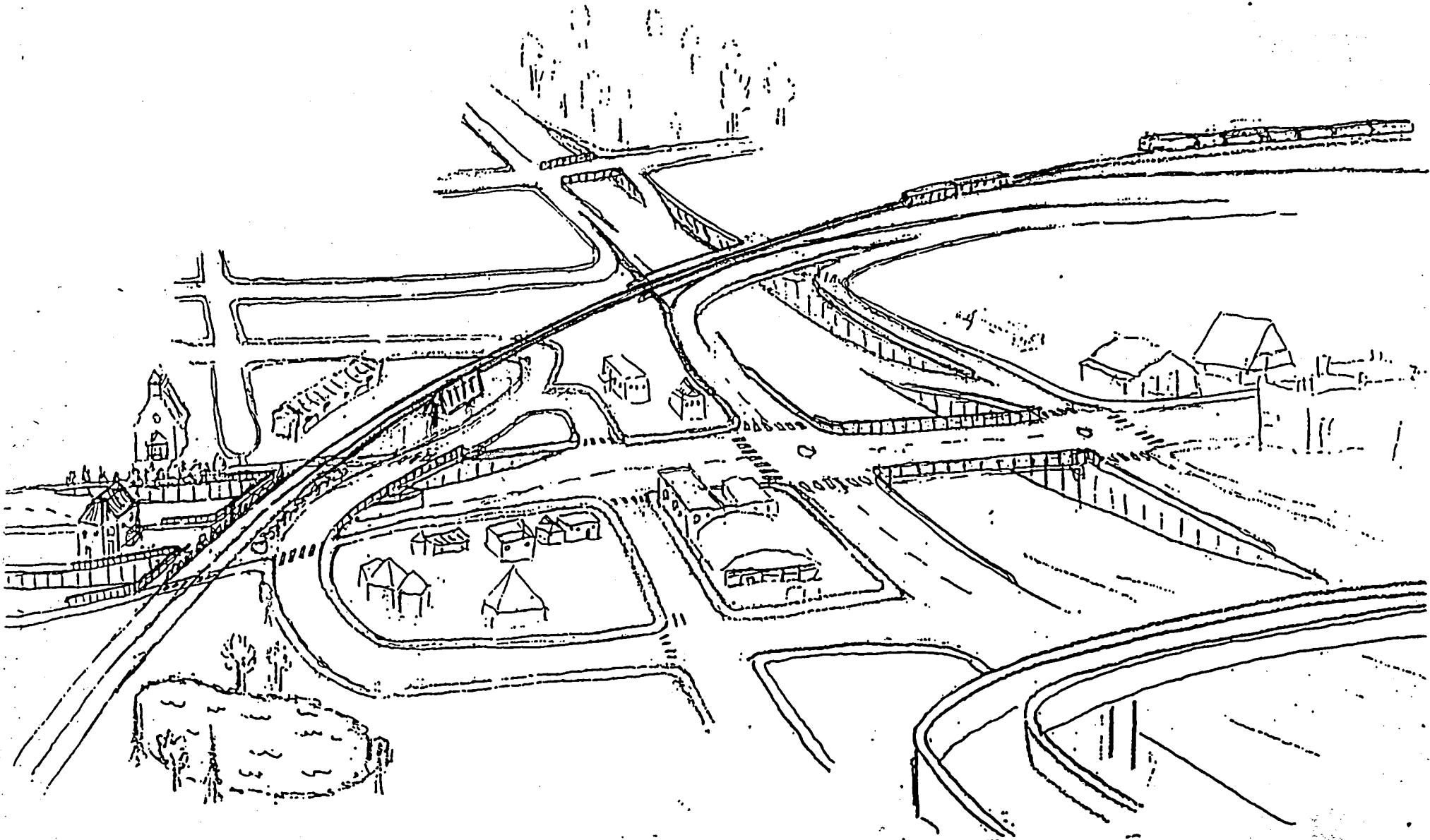
# Buses

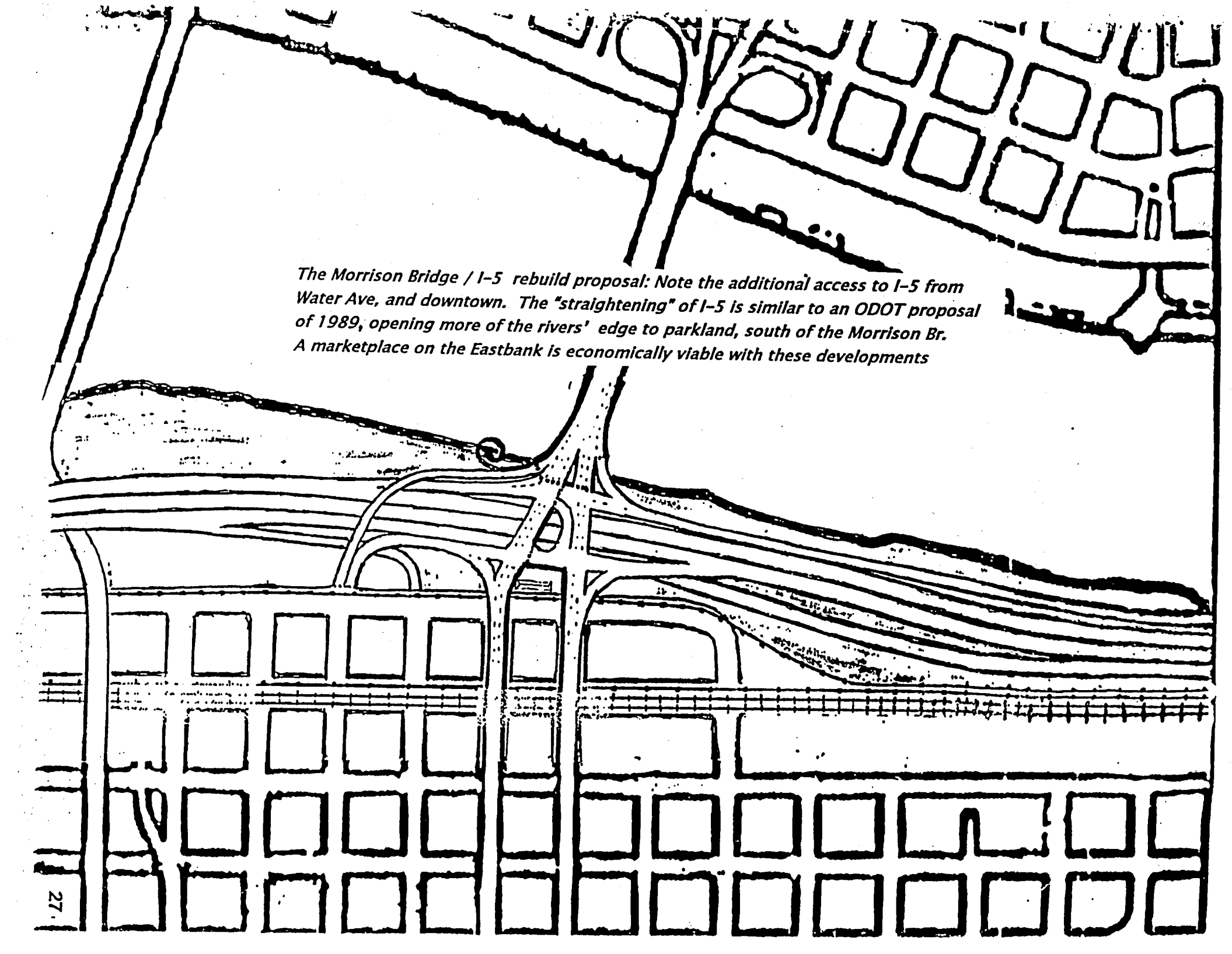
- Pollute the local air and waters *Not Ec \**
- Noisy — loud inside ... busways require "Berlin Wall" sound barriers outside *Not EC*
- Slower acceleration and lower top speeds
- Bump, shake, rattle; rougher starts & stops
- Less room; some seats are hard
- Harder to climb up into *Not Low-Floor*
- Less dependable air conditioning
- More likely late or cancelled in bad weather
- More likely to be involved in accidents
- Routes can be detoured or changed easily; often different at different times of the day *Not EC*
- Off busway traffic can delay the whole route
- Declining ridership even in busway serviced corridors *Not EC*



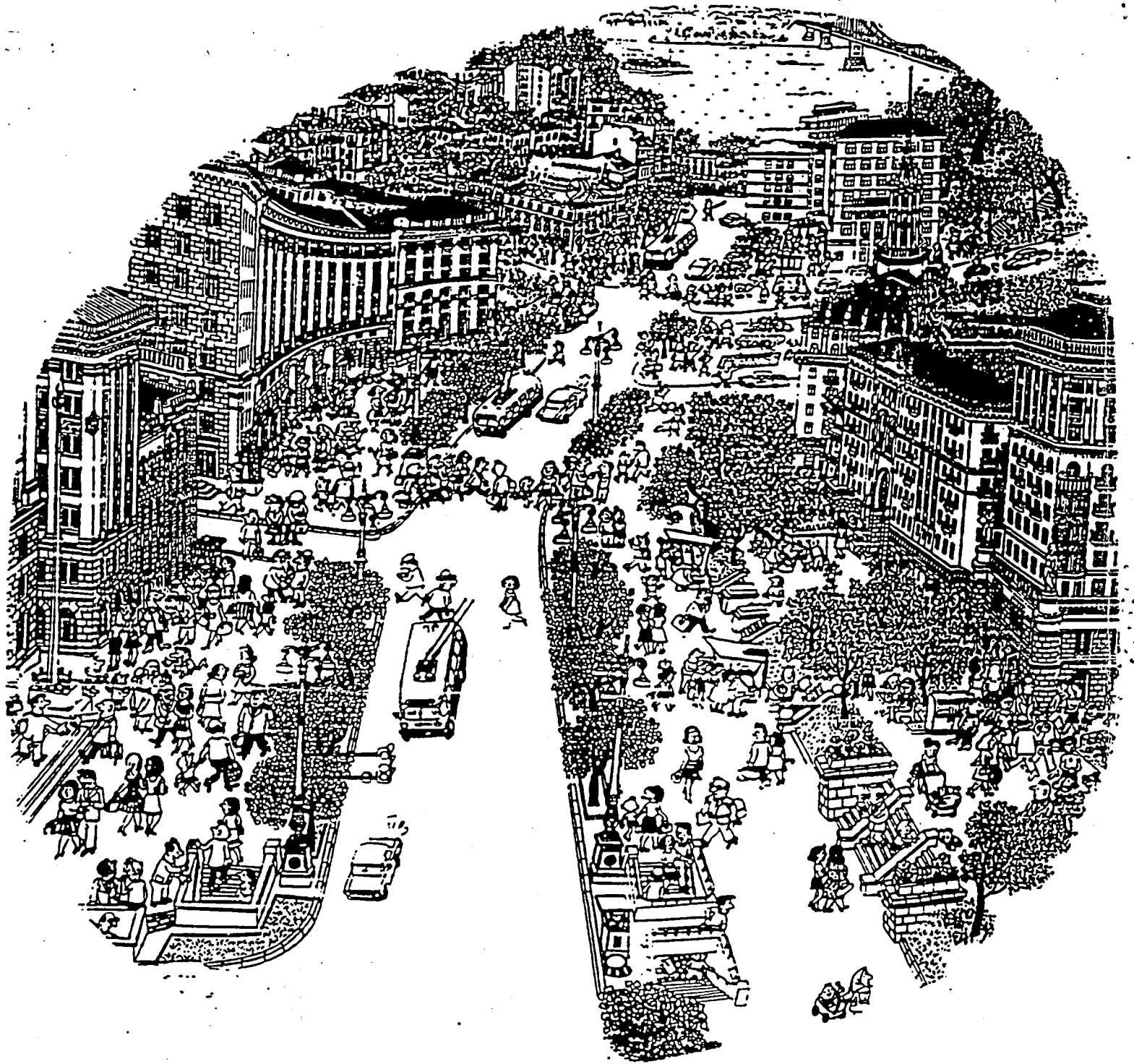
\* Not Ec - Not Electrics

*This is the Milwaukie Avenue overpass, above Powell Blvd on page 3, paragraph 3. The View is looking east from about 8th with the pedestrian footbridge on right, and the restored Brookland Lake on the left. Also, Milwaukie Ave is routed under the rail road at Clinton Street.*



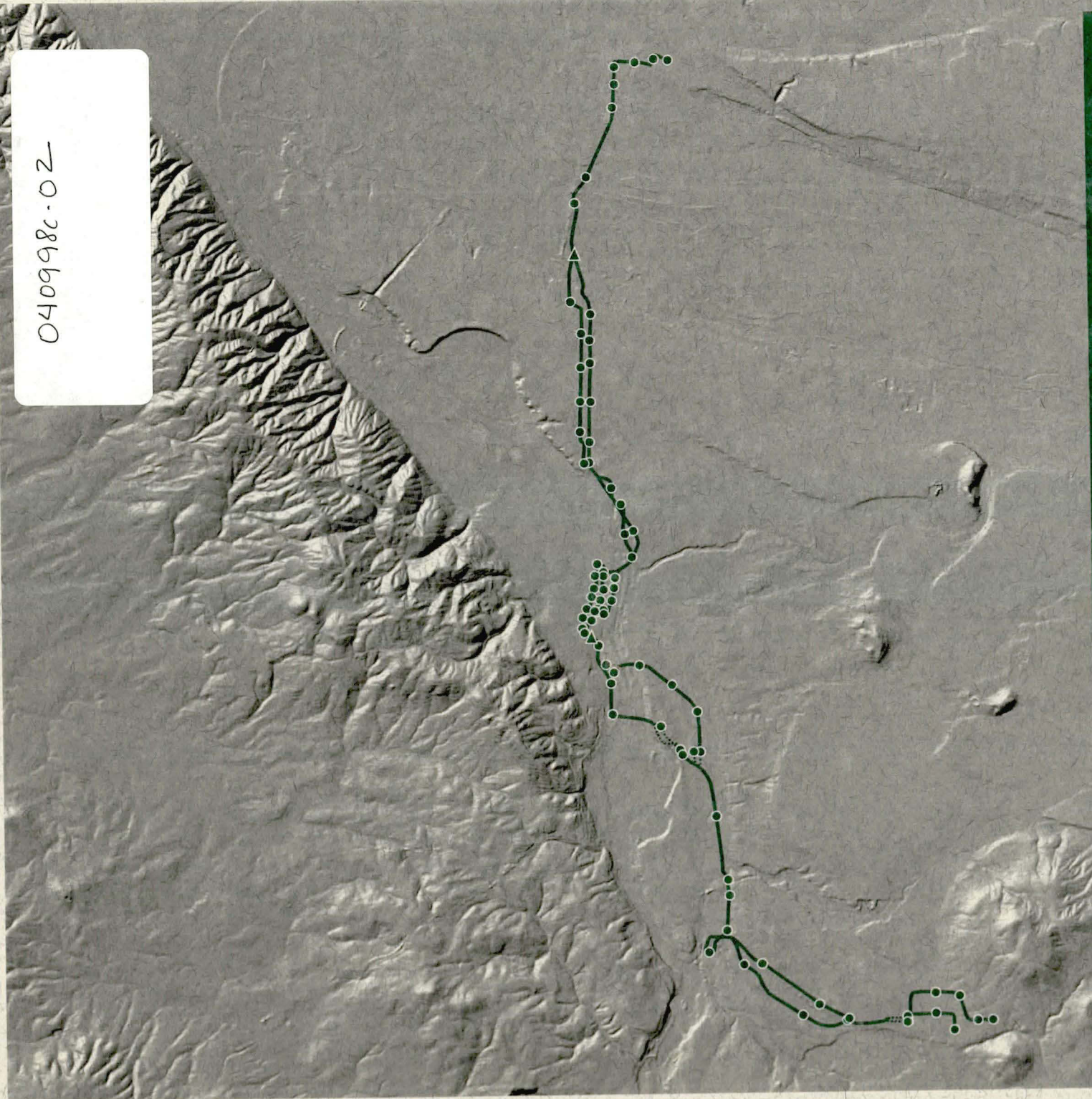


*The Morrison Bridge / I-5 rebuild proposal: Note the additional access to I-5 from Water Ave, and downtown. The "straightening" of I-5 is similar to an ODOT proposal of 1989, opening more of the rivers' edge to parkland, south of the Morrison Br. A marketplace on the Eastbank is economically viable with these developments*



LOTi Trackless Trolleys  
on Portland's Transit Mall

040998c.02



**South**  
**North**  
Transit Corridor Study

# South/North Corridor Project

## Briefing Document

March 20, 1998







# Draft Environmental Impact Statement *Briefing Document*

March 1998

**Metro**

## Foreword

The South/North Draft Environmental Impact Statement (DEIS) was prepared in compliance with the National Environmental Policy Act. The Federal Transit Administration is the lead Federal agency for the DEIS, and Metro and the Southwest Washington Regional Transportation Council are the local lead agencies.

This *Briefing Document* summarizes the significant tradeoffs (advantages and disadvantages) between the alternatives and options evaluated in the DEIS. For more information on the full range of benefits, costs and impacts of the proposed South/North Project, see the full DEIS or the Executive Summary of the DEIS. Copies may be obtained by calling Metro at 503/797-1756.

Public comment on the DEIS is being accepted during the public comment period that is open through April 24, 1998. Comments may be submitted in the following ways:

Mail written comments to: Leon Skiles, South/North Project Manager  
Metro/Transportation Department  
600 NE Grand Avenue  
Portland, OR 97232-2736

Fax written comments to: 503/797-1929

E-mail comments to: southnorth@metro.dst.or.us

Leave a message on the transportation telephone hotline: 503/797-1900

Submit oral and/or written testimony at one of the following public hearings:

Wednesday, April 8, 1998, 5:30 p.m.  
at the Monarch Hotel at 12566 SE 93<sup>rd</sup> Avenue, Clackamas, OR

Monday, April 13, 1998, noon  
at the Oregon Convention Center  
777 NE Martin Luther King Jr. Blvd., Portland, OR

Monday, April 13, 1998, 5:30 p.m.  
at the Oregon Convention Center  
777 NE Martin Luther King Jr. Blvd., Portland, OR

Comments are due to Metro by Friday, April 24, 1998.

The preparation of this report was financed in part by the U.S. Department of Transportation, Federal Transit Administration. The opinions, findings and conclusions expressed in this report are not necessarily those of the U.S. Department of Transportation, Federal Transit Administration.

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Metro Publication No.: 1998-10122-TRN

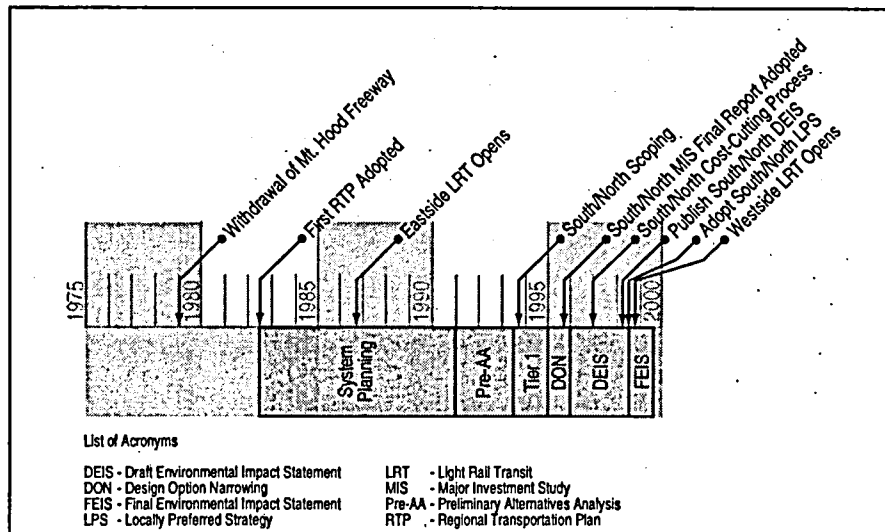
# I Introduction

The purpose of the South/North DEIS is to summarize the benefits, costs and impacts associated with the proposed alternatives, and to provide citizens, agencies and jurisdictions with information needed to make an informed judgement when selecting the preferred alternative to advance into the next stages of project development. The purpose of this *Briefing Document* is to summarize the trade-offs (advantages and disadvantages) between the alternatives and options evaluated within the DEIS.

This section summarizes previous phases of the South/North Transit Corridor Study and the issues to be resolved following the close of the public comment period.

## A. Previous Planning Activities

The need to examine high capacity transit (HCT) options in the South/North Corridor was established over two decades of system and sub-area planning studies. Following is a description of the study stages that have culminated in the development of the DEIS (see Figure 1 for a time line illustrating these project phases).



**Figure 1 - South/North Transit Corridor Study Time Line**

- System Planning Studies.** Since the mid-1980s, there has been a series of major transportation analyses and actions taken that implemented the region's basic policy shift away from constructing radial freeways and toward a greater emphasis on meeting travel demand through improvements in public transit. Between 1984 and 1986, Metro, in cooperation with its regional partners, conducted a Phase I study of transitway alternatives in the region that

recommended that Phase II (i.e., an EIS) studies of light rail be undertaken in the I-5, McLoughlin Boulevard and I-205 corridors. In Clark County, Washington, the *Columbia River Accessibility Study* determined there was a capacity deficiency across the Columbia River, and recommended that a transit solution be pursued rather than another highway crossing.

- Preliminary Alternatives Analyses (Pre-AA).** From 1990 to 1993, Metro and several participating jurisdictions conducted two concurrent Pre-AAs to evaluate and select the priority corridor for the south and north portions of the study area from among the I-5 North, I-205 North, I-205 South and the Milwaukie Corridors. The Metro Council and the C-TRAN Board of Directors found that the Milwaukie Corridor and I-5 North Corridor best satisfied the region's evaluation criteria and goals established for the Pre-AA process. The two priority corridors were combined into the single South/North Corridor.
- Scoping.** In 1993, the South/North Project's Federal Scoping process was undertaken to identify the range of mode and alignment alternatives to be studied further within the project's two-tiered narrowing process. Within Scoping, the high capacity transit alternatives were narrowed to one preferred mode: light rail transit (LRT). When compared to other modal alternatives, LRT was found to provide the highest quality of transit service and the greatest assurance of effective transit system operations. In addition, LRT was found to best meet financial, growth accommodation, land use and environmental sensitivity objectives adopted for the corridor. The Scoping process also concluded by identifying a wide range of alignment and terminus alternatives to be evaluated and narrowed in the Tier I step, prior to initiating the DEIS.
- Tier I - Narrowing of Terminus and Alignment Alternatives.** The alternatives identified in the Scoping process were evaluated within Tier I based upon a wide range of criteria and measures. Adoption of the *Tier I Final Report* in 1994 established a two-phase implementation program for light rail in the South/North Corridor: Phase One would advance immediately into the DEIS, considering light rail alignment alternatives between the Clackamas Town Center (CTC) in Clackamas County and Vancouver, Washington, in Clark County; and Phase Two, with extensions south and north, would be studied further following completion of the environmental process for Phase One of the project.
- Tier I - Design Option Narrowing.** The Tier I Design Option Narrowing process concluded in December 1995, and was used to refine the alignment alternatives selected in the Tier I analysis and to identify the range of length alternatives to be studied further in the DEIS. In downtown Portland, a specific conceptual design for the downtown Portland transit mall alignment was also selected for further study in the DEIS.
- Major Investment Study (MIS).** In November 1995, the Metro Council adopted the *South/North MIS Final Report* that documents the selection of the design concept and scope for the locally preferred alternative for the

South/North Corridor. In April 1996, the FTA concurred that Metro had met the MIS requirements for the South/North Corridor and approved Metro's request to advance the South/North Corridor into preliminary engineering.

- **Tier II DEIS and Cost-Cutting.** Metro began work on the Tier II DEIS in January 1996. The purpose of Tier II is to evaluate the alternatives defined in Tier I and Design Option Narrowing, to prepare and publish a DEIS, to initiate Preliminary Engineering and to select a Locally Preferred Strategy (LPS). The Cost-Cutting process began December 1996 and concluded in May 1997, when the Metro Council adopted amendments to the range of alternatives to be studied in the DEIS to reflect the most promising cost-cutting measures.

## B. Issues to be Resolved

The analysis, preparation and publication of the DEIS represent one phase, albeit an important phase, in the course of the South/North Project. There are numerous issues still to be resolved, and this section addresses some of the more important and immediate landmarks ahead.

### 1. Selection of the Locally Preferred Strategy

The DEIS, related technical documents and comments received during the public review period will provide a basis for local jurisdictions to recommend and adopt a set of length alternatives, alignment alternatives, design options and terminus options that will collectively comprise the Locally Preferred Strategy (LPS). There are many points of view that must be brought to bear on these important decisions. The length alternatives, alignment alternatives, terminus options and design options presented in the DEIS and summarized within this *Briefing Document* offer a wide range of possibilities.

Figure B-1 in Appendix B illustrates the LPS decision-making process. The Project Management Group, Citizens Advisory Committee (CAC), Steering Committee and participating jurisdictions will have the opportunity to develop independent recommendations on project elements to be included in the LPS. The Downtown Portland Oversight Committee will have the opportunity to develop and adopt recommendations relating to the Downtown Portland Segment and alternatives. Those recommendations will be forwarded to the Southwest Washington Regional Transportation Council and Metro's Joint Policy Advisory Committee on Transportation, and to the Metro Council who will adopt the final LPS. Metro will prepare an LPS report that documents the selection and will forward the LPS report to FTA to complete the local decision step of the Federal environmental process.

### 2. Implementation of the Financing Plan

The financial analysis in the DEIS (Section 7.1) shows that the light rail alternatives will require, in varying degrees, significant revenue that is currently not available. The financial analysis also identifies required new levels and proposed sources of revenue. New Federal funds would be secured through the Federal Section 5309 authorization and appropriations cycles and through the normal FTA grant process.

If needed, new local funds will be secured through the execution of a Regional Compact.

Finally, implementation of the financial plan will include completing all Federal NEPA and FTA requirements and the execution of a Full Funding Grant Agreement (FFGA) with FTA. Identification of all items that are considered eligible for Federal funding must be included in the FFGA. In order to construct some associated facilities that would be funded by others concurrently with the light rail project, ODOT and/or local jurisdictions would need additional revenues not currently committed to in the Transportation Improvement Program (TIP) or ODOT's existing Six Year Program. These additional funds must be committed by the appropriate jurisdiction or agency during the periodic updating of the Six Year Program or their local capital improvement plans.

### 3. Completion of the Proposed Mitigation Plans

Design, determination of impact and estimates of costs for any major project such as the South/North Project proceed from conceptual to preliminary to final as the project advances to construction. At this DEIS stage of the process, numerous impacts have been identified and many mitigation measures have already been incorporated into the preliminary design and cost estimates or committed to by the project. Examples include: conformance with applicable state and Federal policy concerning relocation assistance; initial coordination with the Oregon State Historic Preservation Officer (SHPO), Washington State Office of Archaeology and Historic Preservation (OAHP), the Advisory Council on Historic Preservation (ACHP) and other affected parties to ensure compatible design of light rail facilities with historic resources; avoidance, minimization of impacts and appropriate mitigation for impacts to wetland areas; and mitigation for (100-year) floodplain encroachment.

In addition, the South/North Project has identified further ways to mitigate or finalize the mitigation of certain impacts. Examples of areas requiring further study and mitigation commitments include: final designs regarding landscaping and architectural design treatment of project facilities; traffic capacity problems at intersections where there would be significant project impacts on traffic; final definitions (e.g. location, height, extent, type) of noise and vibration mitigation measures for selected alignment alternatives and design options; final wetland replacement plan; selecting the final bridge type and navigational requirements for river crossings; a Memorandum of Agreement (MOA) negotiated between the Project, SHPO, OAHP and reviewed and concurred with by the ACHP; demonstration of compliance with all Federal "Section 4(f)" requirements concerning parklands and historic properties through completion of a formal "Draft 4(f) Statement"; and development of traffic management plans for the construction phase.

Depending on input during the public comment period and on selection of the LPS, the South/North Project will develop a series of more detailed mitigation plans for inclusion in the FEIS.

## II Purpose and Need

This section is intended to set a context for the South/North Transit Corridor Study: What area does the Study cover? Why are we studying the South/North Corridor? What purpose would the Light Rail Transit (LRT) alternative and the various design options serve? How will we evaluate alternatives being studied?

### A. The South/North Corridor

Figure 2 illustrates the South/North Corridor. The corridor is the travel shed extending north from the Oregon City area in Clackamas County, through downtown Portland and into Clark County, north of Vancouver. The corridor is defined in this way because it captures the trips that could benefit from the major transit improvements being evaluated, either on LRT exclusively or fed onto light rail through a system of connecting bus routes and/or park-and-ride lots.

Key activity centers within the corridor help to define the points that LRT should connect. These key activity centers include Oregon City, the Clackamas Regional Center (CRC) area and the downtowns of Milwaukie, Portland and Vancouver. The corridor also includes other important centers such as the Oregon Institute of Technology, Clackamas Community College, the Central Eastside Industrial District, OMSI, the North Macadam Redevelopment Area, Portland State University, the Union Station/North River District, the Rose Quarter, Interstate Avenue, Portland Community College in north Portland, the VA Hospital and Clark College.

In all, the South/North Corridor covers almost half of the metropolitan region. It is characterized by high employment and residential growth (higher than the region as a whole), with the potential for worsening travel and air quality conditions.

### B. Phasing the Development of LRT in the Corridor

One of the most significant outcomes of the analysis to date has been the acknowledgment that the development of light rail in the South/North Corridor would need to take place over several phases, spanning a decade or more. The project's first phase could be as long as the segment between the Clackamas Regional Center in the south, through central Milwaukie and downtown Portland to a northern terminus in Vancouver. The second phase of the project would extend the project south to Oregon City, via either McLoughlin Boulevard or I-205.

Funding and cash-flow limitations would also require that the first phase of the project be built in at least two or three distinct construction segments. Various construction segments and funding options have been studied and are summarized in the DEIS.

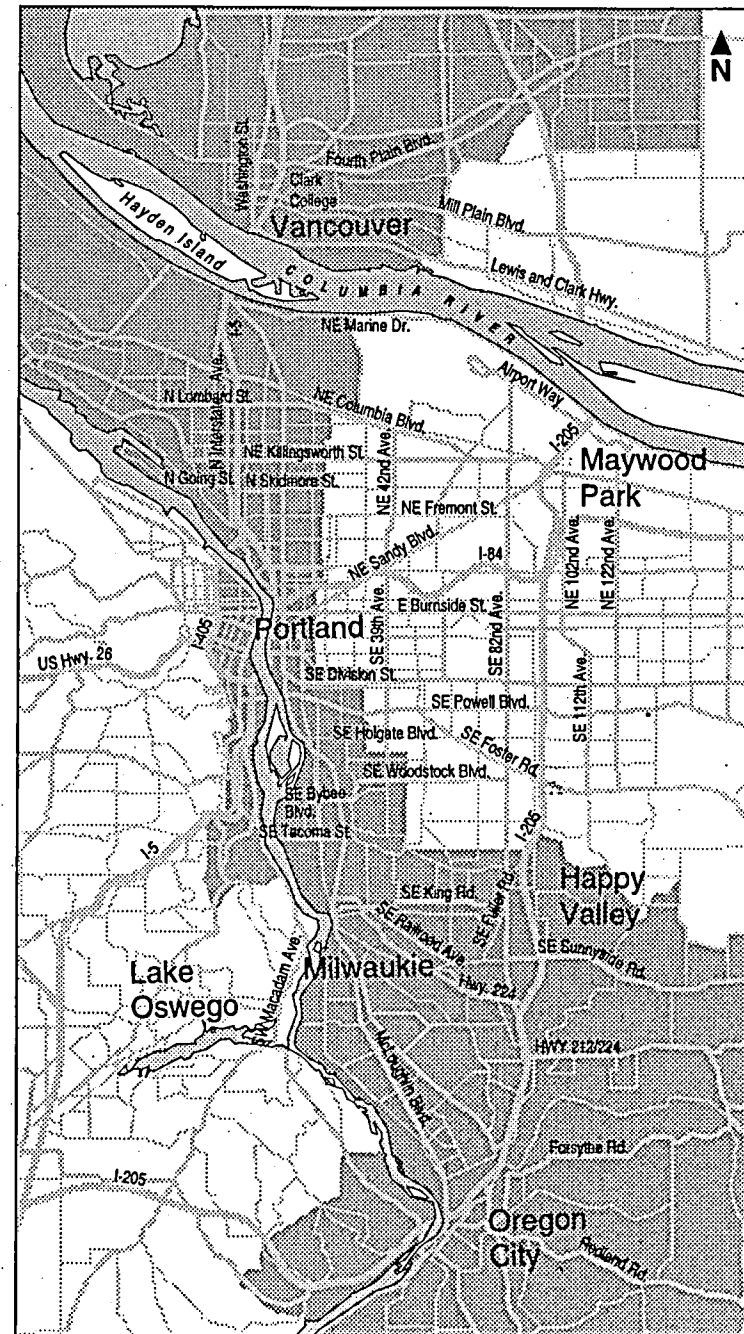


Figure 2 - The South/North Corridor

## C. Purpose and Need

The need to consider light rail transit options in the South/North Corridor was identified through a series of system and corridor studies of transportation problems: growth in the corridor; the growing dependence of the land use and economic development goals of the bi-state region on the implementation of a regional high capacity transit system; capacity and operational deficiencies in the corridor's highway and transit network; and the need to increase the transit system's operating efficiency.

**Growth.** The South/North Corridor is part of the rapidly growing Portland/Vancouver metropolitan region. The South/North Corridor consists of the travel shed connecting the cities of Oregon City and Milwaukie, the Clackamas Regional Center area, the Portland Central City and areas of southeast, north and northeast Portland, and the City of Vancouver, Washington. The population of the region has grown by approximately 45 percent over the past twenty years, from 1,100,900 residents in 1975 to 1,596,100 residents in 1995. The region's employment growth rate, almost 40 percent higher than the national average, increased from 672,800 jobs in 1980 to 995,700 jobs in 1995.

**Link between livability goals and transportation.** Metro's *Region 2040 Growth Concept* and its implementing document, the *Regional Framework Plan*, define the overall pattern and intensity of development within the boundary for the next 50 years. The plan is designed to absorb an additional 720,000 residents into the Oregon portion of the metropolitan region by the year 2040, in part by designating the Portland's Central City as the high-density employment hub of the Portland metropolitan region, and the area around the Clackamas Town Center and the central areas of Milwaukie and Oregon City as Regional Centers. The plan also identifies the regional goal of linking the Central City of Portland to Regional Centers with light rail. In Clark County, the *Community Framework Plan* seeks to concentrate growth in urban centers in the county to reduce reliance on the single-occupant vehicle. Transit expansion and the associated implementation of transit-supportive land uses are also important elements of the region's air quality maintenance plan approved by the Environmental Protection Agency in 1997.

**Transportation problems.** Topographic features, suburbanization, a deficient road network and economic conditions fostering growth in Clackamas and Clark Counties have combined to make congested traffic conditions typical of daily travel to, from and within the South/North Corridor. Population and employment growth in the corridor will produce a 64 percent increase in vehicle miles traveled in the corridor by the year 2015. Increases in travel will lead to a 268 percent increase in the miles of congested roadway in the corridor and to a 720 percent increase in the amount of hours drivers in the corridor must sit in congested traffic. As a result of traffic congestion, transit travel times within the corridor have increased in recent years, requiring Tri-Met to increase service hours, operating costs and the size of

the bus fleet just to maintain a constant level of service, resulting in a loss of operating efficiency.

## D. Goal and Objectives

In response to these problems and opportunities, the South/North Steering Committee has adopted the following goal and objectives for the project:

*To implement a major transit expansion program in the South/North Corridor that supports bi-state land use goals, optimizes the transportation system, is environmentally sensitive, reflects community values and is fiscally responsive.*

1. Provide high quality transit service.
2. Ensure effective transit system operations.
3. Maximize the ability of the transit system to accommodate future growth in travel.
4. Minimize traffic congestion and traffic infiltration through neighborhoods.
5. Promote desired land use patterns and development.
6. Provide for a fiscally stable and financially efficient transit system.
7. Maximize the efficiency and environmental sensitivity of the engineering design of the proposed project.

### III Alternatives and Options Under Study

#### A. All-Bus (No-Build) Alternative

The All-Bus Alternative would include a bus service network expansion compared to existing 1994 Tri-Met and C-TRAN service and 1995 service improvements. Service would be increased on primary transit network trunklines, urban transit routes, commuter express routes and on bus routes serving the Westside MAX light rail line. Annual service level improvements would increase systemwide average weekly revenue vehicle hours by 39 percent by 2015.

#### B. Light Rail Alternatives

Figure 3 illustrates the light rail length and alignment alternatives described below.

##### 1. Length Alternatives

Because the Phase One Project would need to be built as two or more construction segments, the study also includes several alternatives that would be shorter than the Full-Length Alternative from the Clackamas Regional Center to Vancouver. These shorter Length Alternatives are called Minimum Operable Segments (MOS). Specifically, they are options for the first construction segment. These construction segments will play an important role in developing the project's finance plan. The length alternatives evaluated within the DEIS are listed below (note that MOS 3 and MOS 4 were eliminated during the Cost-Cutting process):

- ◆ Full-Length: Clackamas Regional Center to Vancouver
- ◆ MOS 1: Milwaukie Marketplace to Vancouver
- ◆ MOS 2: Clackamas Regional Center to the Rose Quarter Transit Center
- ◆ MOS 5: Clackamas Regional Center to N Lombard Street

##### 2. Alignment Alternatives, Design Options and Terminus Options

###### Clackamas Regional Center Segment

###### Alignment Alternatives:

- ◆ North of CTC
  - 105<sup>th</sup> Avenue
  - CTC Transit Center
- ◆ South of CTC
  - 93<sup>rd</sup> Avenue
  - CTC Transit Center

###### Common Design Options:

- South of Oregon Institute of Technology/Clackamas Community College (OIT/CCC)
- North of OIT/CCC

March 20, 1998

###### East Milwaukie Segment

- ◆ Railroad Avenue/Through Traffic
- ◆ Railroad Avenue/Local Access
- ◆ Highway 224

###### Milwaukie Regional Center Segment

- ◆ Main Street/Tillamook Branch Line

###### McLoughlin Boulevard Segment

- ◆ McLoughlin Boulevard

###### South Willamette River Crossing Segment

- ◆ Caruthers Crossing
  - Moody Avenue
  - South Marquam
- ◆ Ross Island Crossing
  - West of McLoughlin Boulevard
  - East of McLoughlin Boulevard

###### Downtown Portland Segment

- ◆ Full Transit Mall
  - Irving Street
  - Glisan Street
- ◆ Half Transit Mall

###### Eliot Segment

- ◆ Wheeler/Russell
- ◆ East /Kerby
  - Grade-Separated Crossing at NE Broadway/Weidler Street
  - At-Grade Crossing at NE Broadway/Weidler Street

###### Common Design Options:

- Multi-Level Rose Quarter Transit Center
- Grade-Separated Rose Quarter Transit Center

###### North Portland Segment

- ◆ Interstate Avenue
- ◆ I-5
  - Retain Alberta Ramps
  - Modify Alberta Ramps

###### Hayden Island/Vancouver Segment

- West of I-5/Washington Street Design Option
- East of I-5/Washington Street Design Option
- Structured VA Park-and-Ride Lot Terminus Option
- Surface VA Park-and-Ride Lot Terminus Option

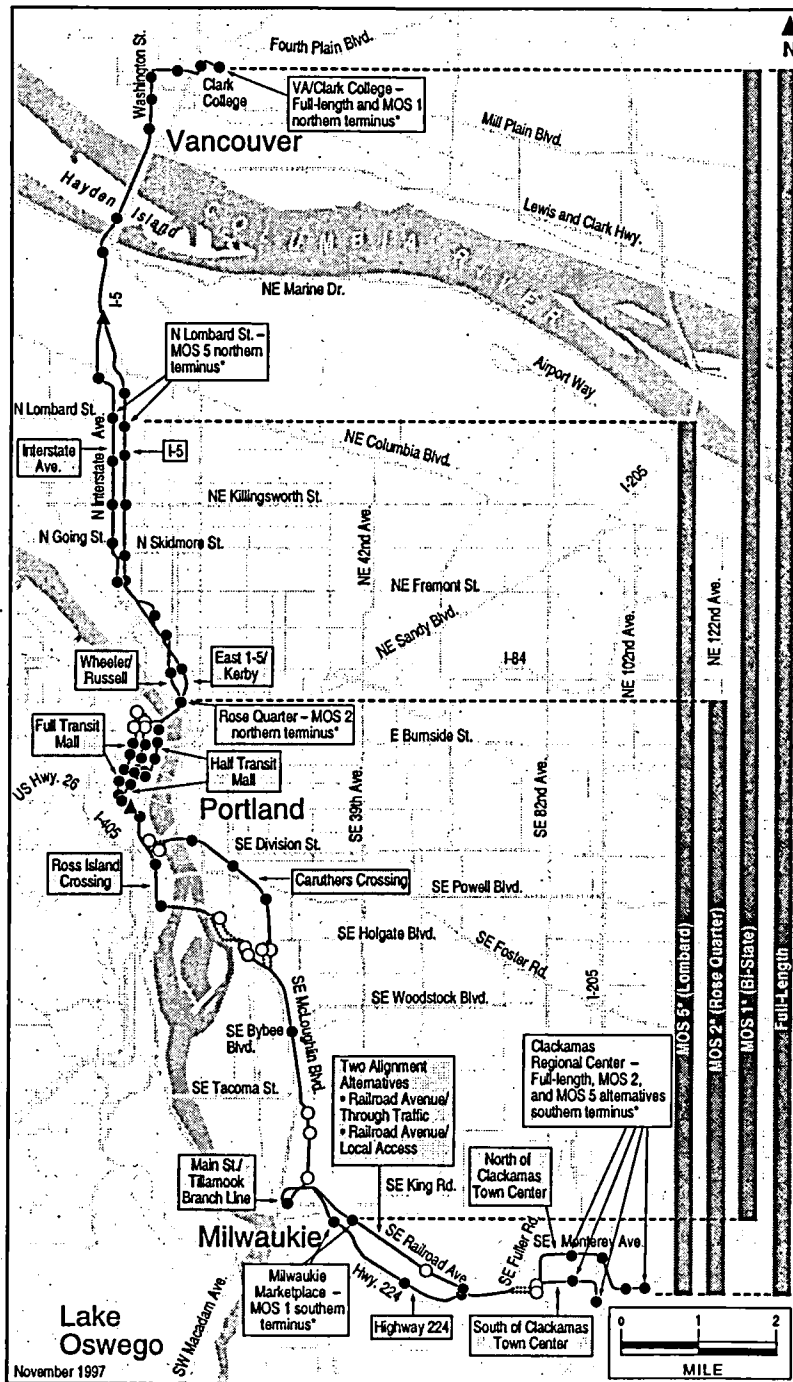


Figure 3 - South/North Light Rail Length and Alignment Alternatives

#### IV A Few Words About the Numbers

Following is a brief discussion about a few key evaluation measures used within the DEIS and this *Briefing Document*.

- Capital Costs.** Capital costs are the costs to construct the project. They are based upon eighteen cost categories, including fixed facility costs, right-of-way, systems, vehicles, contingency and engineering and administration. Capital cost estimates reflect current experience with the Westside/Hillsboro light rail extension.

The DEIS reports capital costs in 1994 dollars and in year-of-expenditure (future) dollars. The 1994 costs form the common basis of the cost estimates and the future dollars are used to prepare and evaluate the project's finance plan. For the comparison of alignment alternatives and design options, this *Briefing Document* uses a range of future year cost estimates that reflect possible different construction schedules for the segment that includes the alternatives and options being compared. This method helps to illustrate the effect that inflation will have on capital costs. In general, these costs are displayed as the difference from the lowest cost alternative or option. Therefore, the low-cost alternative is given a value of \$0, because it is the baseline of comparison.

- Light Rail Ridership.** The DEIS and this *Briefing Document* include forecasts of light rail and bus ridership for the year 2015 (the project's forecast year). Those ridership forecasts are based upon regionally adopted population and employment forecasts for the year 2015 and they are calibrated to reflect current transit travel behavior in the region. Ridership estimates for alignment alternatives and design options included within this *Briefing Document* are presented as the difference from the lowest ridership alternative or option. Therefore, the low ridership alternative is given a value of zero, because it is the baseline of comparison. The comparisons of ridership estimates for alignment alternatives and design options in this *Briefing Document* are based upon the Full-Length Alternative and would generally be lower for the shorter length alternatives (see Section 4.1 of the DEIS for more detail).

- Length Alternatives.** The data included in the DEIS and this *Briefing Document* for the light rail length alternatives are based upon a common set of alignment alternatives and design options. The length alternatives analysis holds the alignment alternatives and design options constant in order to isolate the effects that a change in the length of the project would have. Table C-1 in Appendix C summarizes the alignment alternatives and design options used for the analysis of length alternatives. Changes in the alignment alternatives

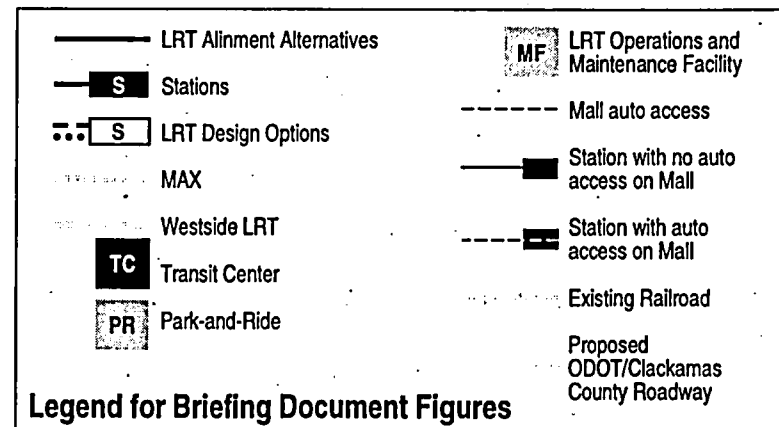


and design options would affect the costs, benefits and impacts of the length alternatives (see Chapters 4, 5, 6 and 7 of the DEIS for more detail).

- **Operating and Maintenance (O&M) Costs.** The O&M costs included within the DEIS and this *Briefing Document* are expressed in 1994 dollars and reflect year 2015 service levels. O&M costs for the South/North Corridor are summarized in Section 2.5 of the DEIS. The O&M cost estimates for alignment alternatives and design options included within this *Briefing Document* are presented as the difference from the lowest cost alternative or option. Therefore, the low cost alternative is given a value of \$0, because it is the baseline of comparison. The O&M estimates in this *Briefing Document* are based upon the Full-Length Alternative and they would be affected by shorter length alternatives (see Section 2.5 of the DEIS for more detail).
- **Developable Land.** An assessment of developable land is included within the DEIS and this *Briefing Document* and is the total of vacant and redevelopable land that would be located within a quarter-mile of a proposed light rail station. Redevelopable land is land that has a current value that exceeds the value of the improvements (buildings) on the land, taking into account surrounding land and building values. Developable land does not include land that has excessive slopes or is within the floodplain. See Section 5.1 of the DEIS for more detail.
- **Light Rail Travel Time.** The DEIS and this *Briefing Document* include estimates of in-vehicle light rail travel times within a segment for each alternative and design option. The travel time is estimated using a model that takes into account dwell (stop) times at stations, maximum operating speeds, the operating environment, track curvature and grade and acceleration/ deceleration rates. Travel times are generally expressed as the time it would take to travel from one end of the segment to the other end using the given alternative and/or design option.
- **Local Traffic Impacts.** Local traffic impacts would generally be associated with worsening levels of operation at intersections within the peak rush hour in the year 2015 compared to conditions that would occur under the All-Bus (No-Build) Alternative. In general, a local traffic impact would occur if the project would cause an intersection that would operate at an acceptable level of service (termed LOS A, B, C or D) under the All-Bus (No-Build) Alternative to operate at a generally congested level of service (termed LOS E or F). An impact would also occur if the project would result in worsening conditions at an intersection that would already operate at congested levels under the All-Bus (No-Build) Alternative. See Section 4.2 of the DEIS for more detail.

- **Noise and Vibration.** The DEIS and this *Briefing Document* include estimates of the number of structures or facilities that would be impacted by highway noise or light rail noise and vibration. Sections 3.6 and 5.5 of the DEIS provide a more detailed description of how noise and vibration impacts are determined.
- **Neighborhood Impacts.** The DEIS and this *Briefing Document* include a summary of the anticipated impacts of the project on neighborhoods. In general, neighborhood impacts are defined as impacts that would affect the quality of life, cohesion or access to and from or within a neighborhood. Neighborhood impacts generally include displacements, visual, local traffic and noise and vibration impacts. See Section 5.2 of the DEIS for more detail on neighborhood impacts and Section 5.3 for more information on impacts to visual resources.
- **Hazardous Materials Impacts.** Hazardous materials impacts would generally be associated with increased costs and/or schedule delays due to clean up procedures required by regulatory agencies. Within the DEIS, several types of hazardous materials categories are assessed, each with varying degrees of risk (see Sections 3.10 and 5.10 of the DEIS for more information). Within this *Briefing Document*, the alternatives are compared by the number of Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) and Environmental Clean up Site Inventory (ECSI) sites that would impact an alternative by requiring a complex clean up.

Following is a legend for the symbols and terminology used in the maps within this *Briefing Document*:



## V Comparison of the All-Bus and Light Rail Alternatives

Following is a summary of the benefits, costs and impacts of the Full-Length LRT Alternative in comparison to the All-Bus (No-Build) Alternative for the year 2015.

### A. Benefits

#### 1. Transit Benefits

- **Light Rail Ridership.** The South/North Project would carry 68,000 light rail riders on an average weekday in 2015.
- **Transit Ridership.** With South/North LRT, weekday transit ridership in the corridor (bus and LRT) would increase by 37,800 rides in 2015 (30% increase).
- **Downtown Portland.** Weekday transit ridership into downtown Portland from the corridor would increase by 40% with South/North Light Rail, reducing demand for parking in downtown by over 3,700 spaces or 37 floors of parking.
- **New Radial Trips.** With the South/North Project, 49% of new radial trips in the corridor would be taken by transit, compared to 6% with an all-bus system. (A new radial trip is any trip added from today to 2015 and between the corridor and downtown Portland.)
- **Travel Times.** Transit travel times between key activity centers in the corridor during the rush hour would be over 30% faster with light rail than with the All-Bus Alternative. For example a trip from downtown Portland to the Clackamas Town Center would take 28 minutes by light rail rather than 42 minutes by bus, and a trip from downtown Portland to downtown Vancouver would take 27 minutes on light rail compared to 40 minutes by bus.
- **Reliability.** Transit reliability within the corridor would be significantly improved with South/North Light Rail. Approximately 40 percent of the corridor's transit riders would enjoy the reliability of light rail service separated from congested road and highway traffic.
- **Capacity.** South/North Light Rail would carry over 3,000 rides north from downtown Portland during the evening rush hour, the equivalent of 1.5 freeway lanes. The light rail line would have the capacity to carry an addition 3,000 rush hour rides, bringing the capacity of the line to three freeway lanes leaving downtown Portland in both directions.
- **Light Rail System.** The South/North Project, together with the existing MAX line and the Westside/Hillsboro and airport extensions, would establish a light rail system in the region.

## Comparison of All-Bus and Full-Length Light Rail Alternatives

| Characteristic  | All-Bus   | Full-Length LRT |
|---|-----------|-----------------|
| <b>Measures of Transit Service</b>  |           |                 |
| Corridor Place Miles (annual)   | 3,319,800 | 4,870,700       |
| <b>Peak-Hour Transit Travel Time from Downtown Portland to: (in-vehicle)</b>    |           |                 |
| Clackamas Regional Center   | 42        | 28              |
| Milwaukie Regional Center   | 28        | 20              |
| North Portland (N Lombard Street)   | 27        | 17              |
| Downtown Vancouver  | 40        | 27              |
| <b>Measures of Reliability</b>  |           |                 |
| Miles of Separated Right-of-Way   | 1.0       | 20.6            |
| % of Corridor Rides in Protected Right-of-Way                                   | 2%        | 40%             |
| <b>Measures of Transit Ridership</b>  |           |                 |
| Total Corridor Transit Trips  | 125,900   | 163,700         |
| South/North Light Rail Trips  | N/A       | 68,030          |
| % of New Rush Hour Radial Trips on Transit (from 1994 to 2015)                  | 3%        | 49%             |
| % of Trips on Transit to Portland CBD   | 22%       | 31%             |
| <b>Measures of Regional Automobile Travel (reductions)</b>                      |           |                 |
| Vehicle Miles of Travel   | 0         | -213,700        |
| Vehicle Hours of Travel   | 0         | -14,900         |
| Vehicle Hours of Delay  | 0         | -4,500          |
| Congested Lane Miles  | 0         | -16             |
| Reduction in Rush Hour Vehicle Trips  | 0         | -4,200          |
| <b>Rush Hour Automobile Travel Time from Downtown Portland to: (in-vehicle)</b> |           |                 |
| Clackamas Regional Center   | 32        | 31              |
| Milwaukie Regional Center   | 23        | 21              |
| North Portland (N Lombard Street)   | 14        | 13              |
| Downtown Vancouver  | 34        | 31              |
| <b>Reduction in Portland CBD Parking Demand (parking spaces)</b>                | 0         | 3,790           |
| <b>Economic Impact</b>  |           |                 |
| Long-Term Annual Operations Employment  | 1,320     | 1,600           |
| Short-Term Construction Employment (person year jobs)                           | 0         | 14,760          |
| Change in Acres of Developable Land Within ¼-mile of LRT Stations               | 0         | 430             |
| <b>Regional Air Quality (tons/year saved)</b>                                   |           |                 |
| Carbon Monoxide   | 0         | 816             |
| Nitrogen Oxides   | 0         | 138             |
| Nonmethane Hydrocarbons   | 0         | 102             |
| <b>Energy Savings in Equivalent Gallons of Gasoline (weekday)</b>               | 0         | 11,400          |

Notes: All data are for the year 2015 and are weekday unless noted. Place miles is the standing and seating capacity of a transit vehicle multiplied by the number of miles traveled. Data showing change is in comparison to the All-Bus Alternative.

## 2. Highway and Roadway Benefits

- **Auto Travel Times.** Rush hour travel times by automobile between key activity centers in the corridor would be 3 to 9 percent faster with the South/North Project.
- **Congestion.** South/North Light Rail would result in 16 fewer lane miles of congested roadway in the region per day in 2015. Commuters in cars would spend 4,500 fewer hours stalled each day in rush hour traffic.
- **Auto Travel.** Automobile travel in the region would be reduced by 213,000 miles per day.
- **Avoid Cost and Impacts of New Highway Capacity.** The South/North Project would reduce the need to add additional freeway and highway capacity in the corridor, and would avoid the high cost and impacts that would be associated with a major roadway expansion project. For example, ODOT estimated that it would cost over \$3 billion to expand SE McLoughlin Boulevard to a six-lane freeway with improvements to I-405 and Highway 224, which would expand the person-carrying capacity of SE McLoughlin Boulevard by 3,000 persons per hour, compared to the South/North Project's 6,000 person per hour carrying capacity.

## 3. Growth Management

- **Leverage Public Funds.** The South/North Project would attract local private developments to many of the project's station areas (in accordance with local land use plans), leveraging public funds with private investments and helping to meet regional and local goals of attracting higher-use development in major activity centers while preserving existing single-family neighborhoods. For example, since it opened in 1987, over \$1.3 billion in new development has been constructed adjacent to Eastside MAX stations in major activity centers like the Rose Quarter and the Lloyd District, while established residential neighborhoods have retained their original character.
- **Accommodate Growth.** The South/North Project would provide light rail access to over 430 acres of developable land located within the urban area.
- **Urban Design.** The South/North Project is an important tool that would be used by regional and local governments to better serve high-use travel corridors and major activity centers (e.g. offices, manufacturing and retail) that are vital components of our jobs and housing base.

## 4. Economic Benefits

- **Value of Travel Time Savings.** The South/North Project would result in a 4.5 million hour annual reduction in transit, automobile and truck travel times, a

savings valued at \$50 million per year (using Federal standards for the value of travel time).

- **Employment.** Construction of the South/North Project would create approximately 15,000 person-year jobs in the region.

## B. Capital Costs

The Full-Length South/North Light Rail Project would cost from \$2,034 million to \$2,508 million (future dollars) to construct, depending upon alignment alternatives and design options selected (see Section VI for a summary of capital costs for the shorter MOS length alternatives).

## C. Environmental Impacts

The All-Bus and South/North Light Rail Project would result in environmental impacts that are summarized in Table C-2 in Appendix C. The Impacts of the South/North Project would vary depending upon the alignment alternative and design option selected and would include the following for the full-length project:

- **Land Use and Economic:** 1,600 long-term (operations) jobs and 14,760 short-term (construction) person year jobs.
- **Displacements:** 77 business and 333 residential displacements.
- **Air Quality:** A reduction in air pollution by over 1,000 tons per year and would reduce carbon dioxide emissions (a greenhouse gas) by over 37,000 tons per year.
- **Noise and Vibration:** 66 non-mitigated and 15 mitigated impacts.
- **Ecosystems:** 2.87 acres of wetlands filled.
- **Water Quality:** 22,300 cubic yards of fill within flood plains.
- **Energy:** Energy savings equivalent to over 11,000 gallons of gasoline per day in 2015.
- **Hazardous Materials:** Four Comprehensive Environmental Response, Liability and Information System/Environmental Clean-up Site Information sites displaced that would require a complex clean up remediation plan.
- **Historic Resources:** seven historic resources adversely affected.
- **Parklands:** 1.95 acres of parkland used (displaced).

## VI Comparison of Light Rail Length Alternatives

Following is a brief description of the trade-offs between the light rail length alternatives (see Figure 3 on page 6 for an illustration of the length alternatives). Appendix C provides a summary table that includes the criteria and measures for the light rail length alternatives. For more information, see Section 7.2 of the DEIS. Note that the following data are for the year 2015. Capital costs are in future dollars and O&M costs are in 1994 dollars at 2015 service levels.

### A. Full-Length Alternative Compared to MOS 1 (Bi-State)

#### 1. The Full-Length Alternative would have:

- 3.9 additional miles of exclusive transit right-of-way;
- 2,800 more park-and-ride spaces;
- 11,200 more weekday corridor transit riders;
- 11,800 more weekday light rail rides;
- 52,700 fewer daily regional vehicle miles of travel;
- 100 fewer daily regional vehicle hours of delay;
- ten fewer congested lane-miles; and
- 113 more acres of developable land gaining light rail access.

#### 2. MOS 1 would have:

- \$188 million lower capital cost;
- \$5.2 million lower annual year 2015 operating cost;
- fewer ecosystem impacts east of the Milwaukie Regional Center Segment; and
- 101 fewer residential and seven fewer business displacements.

### B. Comparison of MOS 1 (Bi-State) and MOS 5 (Lombard)

#### 1. MOS 1 would have:

- 1.4 additional miles of exclusive transit right-of-way;
- 1,100 more park-and-ride spaces;
- 12,400 more daily corridor transit rides;
- 16,100 more weekday 2015 light rail rides;
- 72 fewer residential displacements; and
- fewer ecosystem impacts east of the Milwaukie Regional Center Segment.

#### 2. MOS 5 would have:

- \$206 million lower capital cost;
- \$0.7 million lower annual operating cost;
- six fewer business displacements;
- 47,500 fewer daily regional vehicle miles of travel;
- eight fewer congested lane-miles of traffic;
- 93 more acres of developable land served by light rail; and
- fewer ecosystem impacts north of N Lombard Street.

### C. Comparison of MOS 2 (Rose Quarter) and MOS 5 (Lombard)

#### 1. MOS 2 would have:

- \$167 million lower capital cost;
- \$2.8 million lower annual operating cost;
- 116 fewer residential; and
- 13 fewer business displacements.

#### 2. MOS 5 would have:

- 3.6 additional miles of exclusive transit right-of-way;
- 5,700 more daily corridor transit rides;
- 12,555 more daily light rail rides;
- 62,600 fewer daily vehicle miles of travel;
- 500 fewer daily vehicle hours of delay;
- six fewer peak-hour congested lane-miles; and
- 76 more acres of developable land with light rail access.

The **Full-Length Alternative** would extend from the Clackamas Regional Center, through Milwaukie, southeast Portland, downtown Portland, north Portland and downtown Vancouver to Clark College.

**MOS 1 (Bi-State)** would extend from the Milwaukie Regional Center, through southeast Portland, downtown Portland, north Portland and downtown Vancouver to Clark College.

**MOS 2 (Rose Quarter)** would extend from the Clackamas Regional Center, through downtown Milwaukie, southeast Portland and downtown Portland to the Rose Quarter.

**MOS 5 (Lombard)** would extend from the Clackamas Regional Center, through downtown Milwaukie, southeast Portland, downtown Portland, to N Lombard Street in north Portland.

## VII Clackamas Regional Center

The Clackamas Regional Center Segment is focused around the Clackamas Town Center (CTC) area, which is designated as a *Regional Center* within Metro's 2040 Plan. The Clackamas Regional Center is expected to experience significant growth in the future, reinforcing its existing characteristics of mixed land uses, including retail, office, commercial, education and single and multiple family housing.

This segment presents three primary issues: 1) Should the alignment run south or north of the Clackamas Town Center between SE 82nd Avenue and I-205?; 2) Where should the line terminate?; and 3) Should the alignment run south or north of the OIT/CCC campuses on SE Harmony Road just west of SE 82nd Avenue?

The Clackamas Regional Center Segment has two alignment alternatives: North of CTC and South of CTC; and four terminus options: North of CTC Transit Center and 105th Avenue Terminus, and South of CTC Transit Center and 93rd Avenue Terminus, respectively (see Figure 4). Two design options are also under consideration within this segment: North of OIT/CCC and South of OIT/CCC. One to three park-and-ride lots would be located within this segment with the Full-Length, MOS 2 (Rose Quarter) and MOS 5 (Lombard) alternatives.

It is important to note that the south terminus options would be for the end point of the Phase One South/North Project. A future extension to Oregon City, via I-205 or SE McLoughlin Boulevard, is proposed and could be accommodated by any of the design options currently under consideration.

### A. North or South of CTC Alignment Alternatives

#### 1. North of CTC Alignment Alternative

With the 105th Avenue Terminus Option, the North of CTC Alignment Alternative would extend light rail west from a terminus station and 900-space structured park-and-ride lot at SE 105th Avenue and SE Sunnyside Road. The light rail alignment would cross over SE Sunnyside Road and run north, parallel to and east of I-205, to a 600-space park-and-ride lot at the New Hope Church. From the church, the alignment would cross over I-205, south of and parallel to SE Monterey Avenue, to the CTC Transit Center. The Transit Center Station would be the terminus of the North of CTC Alignment Alternative with the CTC Transit Center Terminus Option. It would then proceed west, cross SE 82nd Avenue at grade, turn south and run east of, and parallel to, SE 80th Avenue to an at-grade crossing of SE Harmony Road before arriving at a station just east of OIT. The alignment would then proceed west, south of and parallel to SE Harmony Road to the Linwood/Harmony Station and Park-and-Ride Lot.

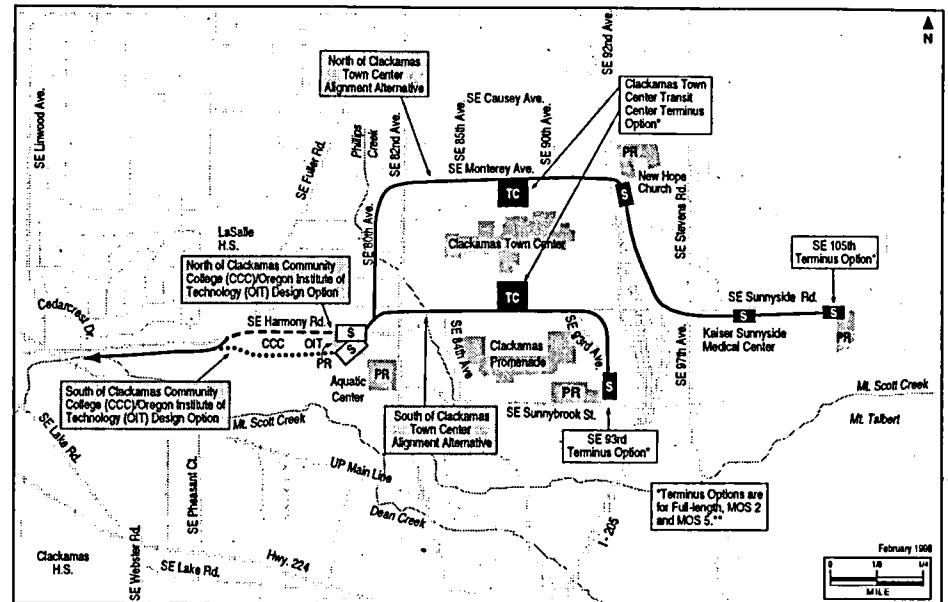


Figure 4 - Clackamas Regional Center Segment

### Advantages:

- With the CTC Transit Center Terminus Option, the North of CTC Alignment Alternative would cost \$3.0 million to \$3.5 million (future dollars) less to construct than the South of CTC Alignment Alternative with the CTC Transit Center Terminus Option.
- With the 105th Avenue Terminus Option, the North of CTC Alternative would have 190 more 2015 weekday light rail rides than the South of CTC Alternative with the 93rd Avenue Terminus Option.
- With the 105th Avenue Terminus Option, the North of CTC Alternative would provide quarter-mile light rail station access to three more acres of developable land than the South of CTC Alternative with the 93rd Avenue Terminus Option (93 acres compared to 90 acres).
- With the 105th Avenue Terminus Option, the North of CTC Alternative would provide quarter-mile light rail station access to 8,380 more jobs and 2,640 more residents (in 2015) than the South of CTC Alternative with the 93rd Avenue Terminus Option (19,310 employees compared to 10,930 employees and 4,520 residents compared to 1,880 residents).

**Disadvantages:**

- With the 105<sup>th</sup> Avenue Terminus Option, the North of CTC Alignment Alternative would cost \$33.1 million to \$39.0 million (future dollars) more to construct and \$607 million to \$1,907 million (1994 dollars) more to operate than the South of CTC Alignment Alternative with the 93<sup>rd</sup> Avenue Terminus Option.
- With the CTC Transit Center Terminus Option, the North of CTC Alignment Alternative would have 85 fewer 2015 weekday light rail riders than the South of CTC Alignment Alternative with the CTC Transit Center Terminus Option.
- With the CTC Transit Center Terminus Option, the North of CTC Alignment Alternative would have 16 fewer acres of developable land with quarter-mile light rail station access than the South of CTC Alignment Alternative with the CTC Transit Center Terminus Option (60 acres compared to 76 acres).
- With the CTC Transit Center Terminus Option, the North of CTC Alignment Alternative light rail travel times in the segment would be one minute and 22 seconds slower to the Town Center than the South of CTC Alignment Alternative with the CTC Transit Center Terminus Option (four minutes and 43 seconds compared to three minutes and 21 seconds).
- Would have high but localized visual impacts along SE 80<sup>th</sup> Avenue and on SE Sunnyside Road just east of I-205.
- Would have six more non-mitigated and two more mitigated noise and vibration impacts than the South of CTC Alignment Alternative (seven and two impacts, respectively, compared to one and zero impacts, respectively).
- One congested intersection, at SE Sunnyside Road and SE Stevens Road, would operate at a worse level of service with light rail, compared to the No-Build Alternative.
- Would result in a net displacement of 200 or 440 more parking spaces in the Clackamas Town Center than the South of CTC Alignment Alternative.
- With the 105<sup>th</sup> Avenue Terminus Option, the North of CTC Alignment Alternative would result in 15 more residential displacements than the South of CTC Alignment Alternative with the 93<sup>rd</sup> Avenue Terminus Option (19 compared to 4).

**Clackamas Regional Center Segment  
Alignment Alternatives and Terminus Options**

| Measure                                       | South of CTC                     |               | North of CTC                      |              |
|---|----------------------------------|---------------|-----------------------------------|--------------|
|   | 93 <sup>rd</sup> Avenue Terminus | CTC Terminus  | 105 <sup>th</sup> Avenue Terminus | CTC Terminus |
| Capital Cost Difference                       | \$52.6 - \$62.2                  | \$3.0 - \$3.5 | \$85.7 - \$101.2                  | \$ 0         |
| O&M Cost Difference                           | \$744,000                        | \$ 0          | \$2,651,000                       | \$607,000    |
| Ridership Difference                          | 1,260                            | 85            | 1,450                             | 0            |
| Developable Land with ¼-mile LRT Access       | 90 Acres                         | 76 Acres      | 93 Acres                          | 60 Acres     |
| LRT Segment Travel Time (minutes:seconds)     | 5:18                             | 3:21          | 8:43                              | 4:43         |
| Net Number of Parking Spaces Displaced        | 140                              | 110           | 580                               | 310          |
| Displacements (business/residential)          | 3/4                              | 3/4           | 4/19                              | 3/6          |
| Noise and Vibration (without/with mitigation) | 1/0                              | 1/0           | 7/2                               | 7/2          |

Notes: Based on the Full-Length Alternative and the South of CCC/OIT Design Option. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. Ridership is 2015 weekday LRT rides. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

- Would have localized neighborhood impacts along SE 80<sup>th</sup> Avenue in the Southgate Neighborhood and on SE Sunnyside Road just east of I-205 in the Sunnyside Neighborhood due to visual, displacement, traffic and noise and vibration impacts.

**2. South of CTC Alignment Alternative**

From an elevated terminus station and 600-space surface park-and-ride at SE 93<sup>rd</sup> Avenue and SE Sunnybrook Street, the South of CTC Alignment Alternative would extend light rail north running east of and parallel to SE 93<sup>rd</sup> Avenue, crossing over SE Harmony Road, and turning west on a structure to the CTC Transit Center on a berm south of the Meier and Frank retail store. The Transit Center Station would be the terminus of the South of CTC Alignment Alternative with the CTC Transit Center Terminus Option. The alignment would then extend west, parallel to and north of SE Sunnyside Road, on a structure over sections of the CTC parking lot and SE 82<sup>nd</sup> Avenue. It would then turn south at SE 80<sup>th</sup> Avenue, crossing SE Harmony Road and entering a station just east of OIT. A 450-space structured park-and-ride lot and a 450-space surface park-and-ride lot would be located near

the station. The alignment would then proceed west, south of and parallel to SE Harmony Road to the Linwood Station and Park-and-Ride Lot.

#### **Advantages:**

- With the 93<sup>rd</sup> Avenue Terminus, the capital cost of the South of CTC Alignment Alternative would be \$33.1 million or \$38.9 million (future dollars) less than the North of CTC Alignment Alternative with the 105<sup>th</sup> Avenue Terminus Option.
- Annual operating costs at 2015 service levels would be \$607,000 or \$1,907,000 (1994\$) less than the North of CTC Alignment Alternative.
- With the CTC Transit Center Terminus, the South of CTC Alignment Alternative would have 85 more 2015 weekday light rail rides than the North of CTC Alignment Alternative with the CTC Transit Center Terminus.
- With the CTC Transit Center Terminus, the South of CTC Alignment Alternative would provide quarter-mile light rail station access to 16 more acres of developable land than the North of CTC Alignment Alternative with the CTC Transit Center Terminus (76 acres compared to 60 acres).
- With the 93<sup>rd</sup> Avenue Terminus, the South of CTC Alignment Alternative would have 15 fewer residential displacements than the North of CTC Alignment Alternative with the 105<sup>th</sup> Avenue Terminus Option (four compared to 19).
- With the CTC Transit Center Terminus, the South of CTC Alignment Alternative light rail travel times would be one minute and 22 seconds faster than the North of CTC Alignment Alternative with the CTC Transit Center Terminus (three minutes and 21 seconds compared to four minutes and 43 seconds).

#### **Disadvantages:**

- With the CTC Transit Center Terminus, the South of CTC Alignment Alternative would cost \$3.1 million or \$3.7 million more to construct than the North of CTC Alignment Alternative with the CTC Transit Center Terminus Option.
- With the 93<sup>rd</sup> Avenue Terminus, the South of CTC Alignment Alternative would have 190 fewer 2015 weekday light rail rides than the North of CTC Alignment Alternative with the 105<sup>th</sup> Avenue Terminus Option.
- High visual impacts due to elevated structures would occur along SE Sunnyside Road and SE 93<sup>rd</sup> Avenue.
- With the 93<sup>rd</sup> Terminus Option, the South of CTC Alignment Alternative would fill 1.30 acres of wetland compared to no acres of filled wetland with the North of CTC Alignment Alternative.

- With the 105<sup>th</sup> Avenue Terminus Option, the North of CTC Alternative would provide quarter-mile light rail station access to 8,380 more jobs and 2,640 more residents (in 2015) than the South of CTC Alternative with the 93<sup>rd</sup> Avenue Terminus Option.
- Would have the fewest number of developable acres with access to a light rail station, 17 fewer acres with a CTC Transit Center Terminus Option and 3 fewer acres with the 93<sup>rd</sup> Avenue Terminus Option.

#### **B. Terminus Options**

The following section summarizes the advantages and disadvantages of a longer southern terminus at either SE 105<sup>th</sup> Avenue or SE 93<sup>rd</sup> Avenue, compared to a shorter southern terminus at the CTC Transit Center.

##### **1. Long Terminus Options at SE 105<sup>th</sup> or 93<sup>rd</sup> Avenues**

#### **Advantages:**

- Would have 1,175 or 1,450 more 2015 weekday light rail rides than the shorter terminus at the CTC Transit Center.
- Would provide quarter-mile light rail station access to 14 to 33 more acres of developable land than the CTC Transit Center terminus options (90 or 93 acres compared to 76 or 60 acres, respectively).
- Would provide 600 more park-and-ride spaces in the southern portion of the corridor.

#### **Disadvantages:**

- Would cost \$49.6 million to \$101.2 million (future dollars) more to construct than the shorter terminus options at the CTC Transit Center.
- Would cost \$744,000 or \$2,044,000 (1994\$) more to operate at 2015 service levels than the CTC Transit Center terminus options.
- The longer terminus option at SE 105<sup>th</sup> Avenue would displace 13 more residents with the North of CTC Alignment Alternative than with the CTC Transit Center Terminus Option (with the South of CTC Alignment the number of displacements would not be affected by the terminus option).
- The longer terminus option at SE 105<sup>th</sup> Avenue would displace 1.33 more acres of wetland with the South of CTC Alignment Alternative than with the CTC Transit

Center Terminus Option (with the North of CTC Alignment no wetlands would be displaced with either terminus option).

- The longer terminus options would result in more visual impacts than the shorter terminus options.

## 2. Short Terminus Options at a CTC Transit Center

### Advantages:

- Would reduce capital costs by \$49.0 million to \$101.2 million (future dollars) compared to the longer terminus options.
- Would reduce annual O&M costs at 2015 service levels by \$744,000 to \$2,044,000 (1994\$) compared to the longer terminus options.

### Disadvantages:

- Would result in 1,175 or 1,450 fewer weekday 2015 light rail rides than the longer terminus options.
- Would provide quarter-mile light rail station access to 14 to 33 fewer acres of developable land than the longer terminus options (76 or 60 acres compared to 90 or 93 acres).

## C. North and South of OIT/CCC Design Options

Both the North and South of CTC Alignment Alternatives have two design options in the vicinity of SE Harmony Road, west of SE 82<sup>nd</sup> Avenue: the North and South of OIT/CCC Design Options. Following is a comparison of the advantages and disadvantages of those options.

### 1. South of OIT/CCC Design Option

With the South of OIT/CCC Design Option the light rail alignment would extend west from the OIT/Aquatic Center Station, south and adjacent to the OIT and CCC campuses, between the existing buildings and the existing parking lots. West of CCC, the alignment would cross the Aquatic Center access road at grade and would proceed west, south of and parallel to the access road and SE Harmony Road, to the Linwood Park-and-Ride Lot.

#### Advantages:

- Would be the least costly to construct, \$3.9 million to \$18.0 million less than the North of OIT/CCC Design Option.

#### Disadvantages:

- Annual weekday O&M costs for 2015 service levels would be \$66,000 or \$187,000 (1994\$) more than with the North of OIT/CCC Design Option.
- Travel time through the segment would be 37 seconds slower than with the North of OIT/CCC Design Option.
- Would displace 51 more off-street parking spaces than the North of OIT/CCC Design Option.
- Would impact pedestrian and auto circulation within the OIT/CCC and Aquatic Center campus.
- Would have moderate to high visual impacts to the south OIT/CCC campus area.

### 2. North of OIT/CCC Design Option

With the North of OIT/CCC Design Option the light rail alignment would extend west from the OIT/Aquatic Center Station, between the OIT and CCC campuses and SE Harmony Road. SE Harmony Road would be relocated north and the light rail line would be constructed generally within the current street right-of-way. The alignment would cross the Aquatic Center access road entrance at grade and would proceed west, south of SE Harmony Road, to the Linwood Park-and-Ride Lot.

#### Advantages:

- Annual weekday O&M costs for 2015 service levels would be \$66,000 or \$187,000 (1994\$) less than with the South of OIT/CCC Design Option.
- Travel time through the segment would be 37 seconds faster than with the South of OIT/CCC Design Option.

#### Disadvantages:

- Would cost \$3.9 million to \$18.0 million (future dollars) more to construct than the South of OIT/CCC Design Option.
- Would displace 15 or 16 more residences than the South of OIT/CCC Design Option (20 or 21 displacements compared to four or six).
- Would have high visual impacts to areas of the Southgate Neighborhood on the north side of SE Harmony Road.
- Would result in six or eight more non-mitigated noise and vibration impacts than the South of OIT/CCC Design Option (9 or 13 compared to one or seven).



## VIII East Milwaukie

The East Milwaukie Segment would provide a light rail connection between the Clackamas Regional Center area and central Milwaukie. The segment is generally bounded to the north and south by established residential areas and bisected by industrial, commercial and retail centers parallel to Highway 224.

The East Milwaukie Segment extends from SE Cedarcrest Drive and SE Harmony Road to just east of the Tillamook Branch Line near Highway 224. The East Milwaukie Segment includes three alignment alternatives: Railroad Avenue/Through Traffic, Railroad Avenue/Local Access and Highway 224 (see Figure 5). With MOS 1 (Bi-State), the light rail line would terminate at the Milwaukie Marketplace at the west end of this segment. There would be two park-and-ride lots within this segment with the Full-Length, MOS 2 (Rose Quarter) and MOS 5 (Lombard) alternatives, and one with MOS 1.

The two Railroad Avenue Alternatives would extend west from the Linwood/Harmony Station, parallel to and north of the existing UPRR freight line, to the Milwaukie Marketplace Station that would be located north of the Milwaukie Marketplace and west of SE 37<sup>th</sup> Avenue. The Linwood/Harmony Station would be next to a 1,300-space structured and surface park-and-ride lot and the Marketplace Station would be next to a 400-space surface park-and-ride lot.

### A. Railroad Avenue/Through Traffic

The Railroad Avenue/Through Traffic Alternative would locate the light rail line between the existing UPRR freight line and SE Railroad Avenue. SE Railroad Avenue would be relocated approximately 40 feet north of its current location. Automobile lanes would be approximately 10 feet wide, with a parallel bike lane in each direction and a sidewalk on the north side of the street.

#### Advantages:

- Would have the second lowest capital cost, \$14.7 million to \$17.4 million (future dollars) less than the Highway 224 Alternative.
- Would have the lowest annual 2015 O&M costs, \$656,000 (1994\$) less than the Highway 224 Alternative (same as the Railroad Avenue/Local Access Alternative).
- Would have the highest weekday 2015 light rail ridership, 415 rides more than the Highway 224 Alternative (the same as the Railroad Avenue/Local Access Alternative).
- Would have the fastest light rail travel time through the segment (three minutes and 15 seconds, same as the Railroad Avenue/Local Access Alternative), one minute and 16 seconds faster than the Highway 224 Alternative.

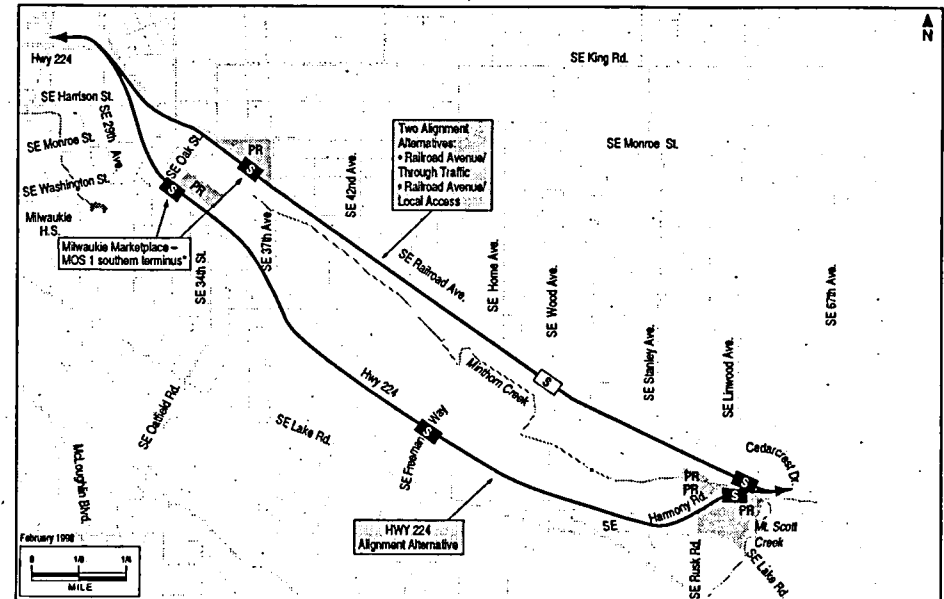


Figure 5 - East Milwaukie Segment

- Would improve SE Railroad Avenue to current street standards, with a sidewalk on one side and a bike lane in each direction. Would also retain current automobile access along SE Railroad Avenue and the street design would help to avoid through-traffic infiltration.

#### Disadvantages:

- Would cost \$18.2 million to \$21.5 million (future dollars) more to construct than the Railroad Avenue/Local Access Alternative.
- Would have the greatest number of residential displacements (97 units), 71 more than the Railroad Avenue/Local Access Alternative and 83 more than the Highway 224 Alternative.
- Traffic operations at SE Railroad Avenue and SE 37<sup>th</sup> Avenue would deteriorate due to travel to and from the 37<sup>th</sup> Avenue Park-and-Ride Lot, compared to the All-Bus (No-Build) Alternative. Traffic operations would also deteriorate at three other intersections, compared to the All-Bus Alternative (SE Harmony Road at SE Lake Road and SE International Way; SE Lake Road at Highway 224 Ramps; and SE 37<sup>th</sup> Avenue at SE Monroe Street).
- Would use approximately one-half of an acre of the 3.12-acre ballfield at Hector Campbell Elementary School, and would adversely affect three historic resources.

- Would have high but localized visual impacts along SE Railroad Avenue.
- Would have localized neighborhood impacts along SE Railroad Avenue due to the visual, displacement, noise and vibration impacts.
- Would have the fewest developable acres with access to a light rail station (43, the same as the Railroad Avenue/Local Access Alternative), 12 acres less than the Highway 224 Alternative.

## B. Railroad Avenue/Local Access

The Railroad Avenue/Local Access Alternative would be similar to the Through Traffic Alternative, except that several sections of SE Railroad Avenue would be removed and replaced with a multi-use path (see Figure 6). Several connecting streets, such as SE Home, Beckman and Stanley Avenues, would be cul-de-saced.

### Advantages:

- Would have the lowest capital cost, \$18.2 million to \$21.5 million less than the Railroad Avenue/Through Traffic Alternative and \$32.9 million to \$38.9 million less than the Highway 224 Alternative (future dollars).
- Would have the lowest annual O&M costs, \$656,000 (1994\$) less than the Highway 224 Alternative (same as the Railroad Avenue/Through Traffic Alternative).

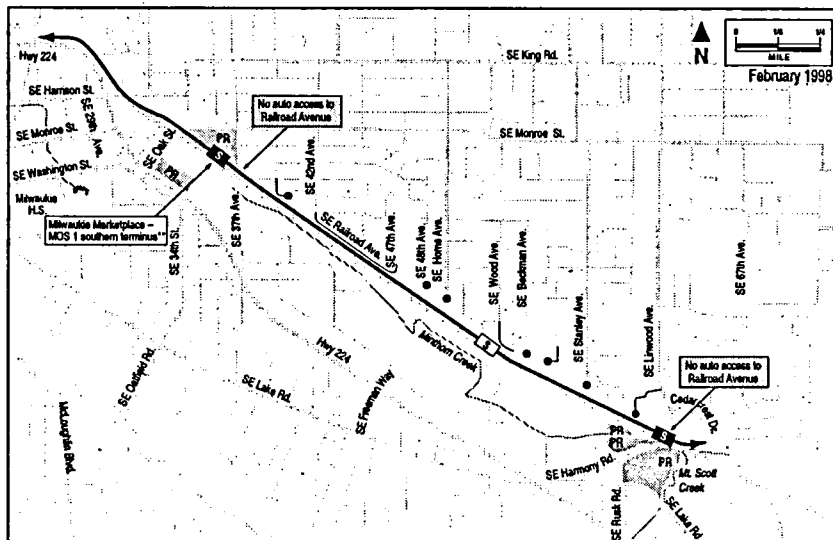


Figure 6 - Detail of Railroad Avenue/Local Access Alternative

| Measure                                       | East Milwaukie Segment |              | Highway 224     |
|---|------------------------|--------------|-----------------|
|   | Through Traffic        | Local Access |                 |
| Capital Cost Difference                       | \$18.2 - \$21.5        | \$ 0         | \$32.9 - \$38.9 |
| O&M Cost Difference                           | \$ 0                   | \$ 0         | \$656,000       |
| Ridership Difference                          | 415                    | 415          | 0               |
| Developable Land with ¼-mile LRT Access       | 43 Acres               | 43 Acres     | 55 Acres        |
| LRT Segment Travel Time (minutes:seconds)     | 3:15                   | 3:15         | 4:31            |
| Displacements (business/residential)          | 6/97                   | 6/26         | 12/14           |
| Noise and Vibration (without/with mitigation) | 18/4                   | 33/0         | 0/0             |

Notes: Based on the Full-Length Alternative. Railroad Avenue Alternatives are based on a Wood Avenue Station. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. Ridership is 2015 weekday LRT rides. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

- Would have the highest 2015 weekday light rail ridership, 415 more rides than the Highway 224 Alternative (the same as the Railroad Avenue/Through Traffic Alternative).
- Would have the fastest light rail travel time through the segment (three minutes and 15 seconds, same as the Railroad Avenue/Through Traffic Alternative), one minute and 16 seconds faster than the Highway 224 Alternative.
- Would have the fewest noise and vibration impacts with mitigation (none), 4 fewer than the Railroad Avenue/Through Traffic Alternative (the same as the Highway 224 Alternative).
- Would have the second fewest business displacements (six), six fewer than the Highway 224 Alternative (same as the Railroad Avenue/Through Traffic Alternative).
- Would have the second fewest residential displacements (26), 71 fewer than the Railroad Avenue/Through Traffic Alternative.

### Disadvantages:

- Would have 12 more residential displacements than the Highway 224 Alternative (26 compared to 14).

- Traffic operations would deteriorate at five intersections, compared to the All-Bus (No-Build) Alternative. Traffic would be diverted from SE Railroad Avenue to SE King Road and SE Monroe Street.
- Would use approximately one-quarter of an acre of the 3.12 acre ballfield at Hector Campbell Elementary School, and would have an adverse affect on two historic resources.
- Would have high but localized visual impacts along SE Railroad Avenue.
- Would have localized neighborhood impacts along SE Railroad Avenue due to the visual, displacement, traffic, noise and vibration impacts.
- Would have the fewest developable acres with access to a light rail station (43, the same as the Railroad Avenue/Local Access Alternative), 12 acres less than the Highway 224 Alternative.

### C. Highway 224 Alternative

The light rail alignment would generally be located north of and parallel to Highway 224, generally within available ODOT right-of-way. The light rail alignment would cross under SE Harrison Street and would include a 400-space structured park-and-ride lot at the Milwaukie Marketplace.

#### Advantages:

- Would have the fewest residential displacements (14), 12 fewer than the Railroad Avenue/Local Access Alternative and 83 fewer than the Railroad Avenue/Through Traffic Alternative.
- Would have the greatest number of acres of developable land with access to a light rail station (55 acres), 12 more acres than either Railroad Avenue Alternative.
- Would provide more direct LRT access to the Milwaukie Industrial Park.

#### Disadvantages:

- Would have the highest capital cost, \$32.9 million to \$38.9 million (future dollars) more than the Railroad Avenue/Local Access Alternative.
- Would have the highest annual O&M costs, \$656,000 (1994\$) more than either Railroad Avenue Alternative.

- Would have the slowest light rail travel time through the segment (four minutes and 31 seconds), one minute and 16 seconds slower than the Railroad Avenue Alternatives.
- Would have the lowest light rail ridership, with 415 fewer weekday light rail rides than the Railroad Avenue Alternatives.
- Traffic operations would deteriorate at four intersections compared to the No-Build Alternative.
- Would have the highest number of business displacements (12), six more than the Railroad Avenue Alternatives.
- Would limit the ability and/or increase the cost to expand Highway 224.

### D. Removal of Wood Avenue Station - Railroad Avenue Alternatives

The Railroad Avenue Alternatives could be constructed with or without a Wood Avenue Station. The previous comparison of alternatives is based upon having a Wood Avenue Station. Following is a discussion of the advantages and disadvantages of removing the Wood Avenue Station from the Railroad Avenue Alternatives.

#### Advantages:

- Elimination of a Wood Avenue Station would reduce capital costs by approximately \$8.0 million to \$10.6 million (future dollars).
- Would reduce annual 2015 O&M costs by \$321,000 (1994\$).
- Would reduce residential displacements by four for the Railroad Avenue/Local Access Alternative and by six for the Railroad Avenue/Through Traffic Alternative.
- Would reduce light rail travel time through the segment by 45 seconds.

#### Disadvantages:

- Elimination of the Wood Avenue station would reduce light rail ridership by approximately 500 rides per weekday (2015).
- Would increase the number of structures impacted by noise and vibration without mitigation by three with the Railroad Avenue/Local Access Alternative and by four with the Railroad Avenue/Through Traffic Alternative (those structures would be displaced with a Wood Avenue Station).

## IX Milwaukie Regional Center

The Milwaukie Regional Center Segment generally encompasses downtown Milwaukie and North Milwaukie to SE Tacoma Street (see Figure 7). The area surrounding Milwaukie central business district is identified within Metro's Region 2040 Plan as a *Regional Center*, with strong economic ties to the Clackamas Regional Center, Oregon City and the Portland Central City. The central area of Milwaukie is expected to experience continuing growth in the future, reinforcing its existing characteristics of mixed land uses, including retail, small office, commercial, government, education and single and multiple-family housing.

One alignment is proposed for the Milwaukie Regional Center Segment (the Main Street/Tillamook Branch Line Alternative). There would be one 900-space surface-level park-and-ride lot within this segment, and the segment includes two of the three potential sites for a proposed light rail O&M facility (see Chapter XIV of this *Briefing Document* for an evaluation of the O&M facility options).

The North Milwaukie park-and-ride lot would be located at one of three sites: Tacoma Street; South of Ochoco; or Hanna-Harvester. Following is a description of the three optional sites and the advantages and disadvantages of each.

### A. Tacoma Street Park-and-Ride Lot

The Tacoma Street Park-and-Ride Lot site would be located between SE Tacoma Street and the proposed Springwater Corridor Trail and between SE McLoughlin Boulevard and the UPRR main line. Automobile access to the lot would be via the SE Tacoma Street overpass and SE Ochoco Street. Pedestrian access from adjacent neighborhoods to the light rail station would be provided with new pedestrian overcrossings of the UPRR main line to the east and SE McLoughlin Boulevard to the west.

Milwaukie Regional Center Segment  
North Milwaukie Park-and-Ride Lot Options

| Measure                                   | Tacoma St.    | South of Ochoco | Hanna-Harvester |
|---|---------------|-----------------|-----------------|
| Capital Cost Difference                   | \$5.4 - \$6.3 | \$1.6 - \$1.9   | \$ 0            |
| Displacements (business/residential)      | 1/0           | 5/0             | 1/0             |
| Hazardous Material Sites (Simple/Complex) | 4/0           | 6/0             | 1/3             |

Notes: Based on the Full-Length Alternative. Cost differences are from the lowest cost alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. See pages 6 and 7 for additional notes.

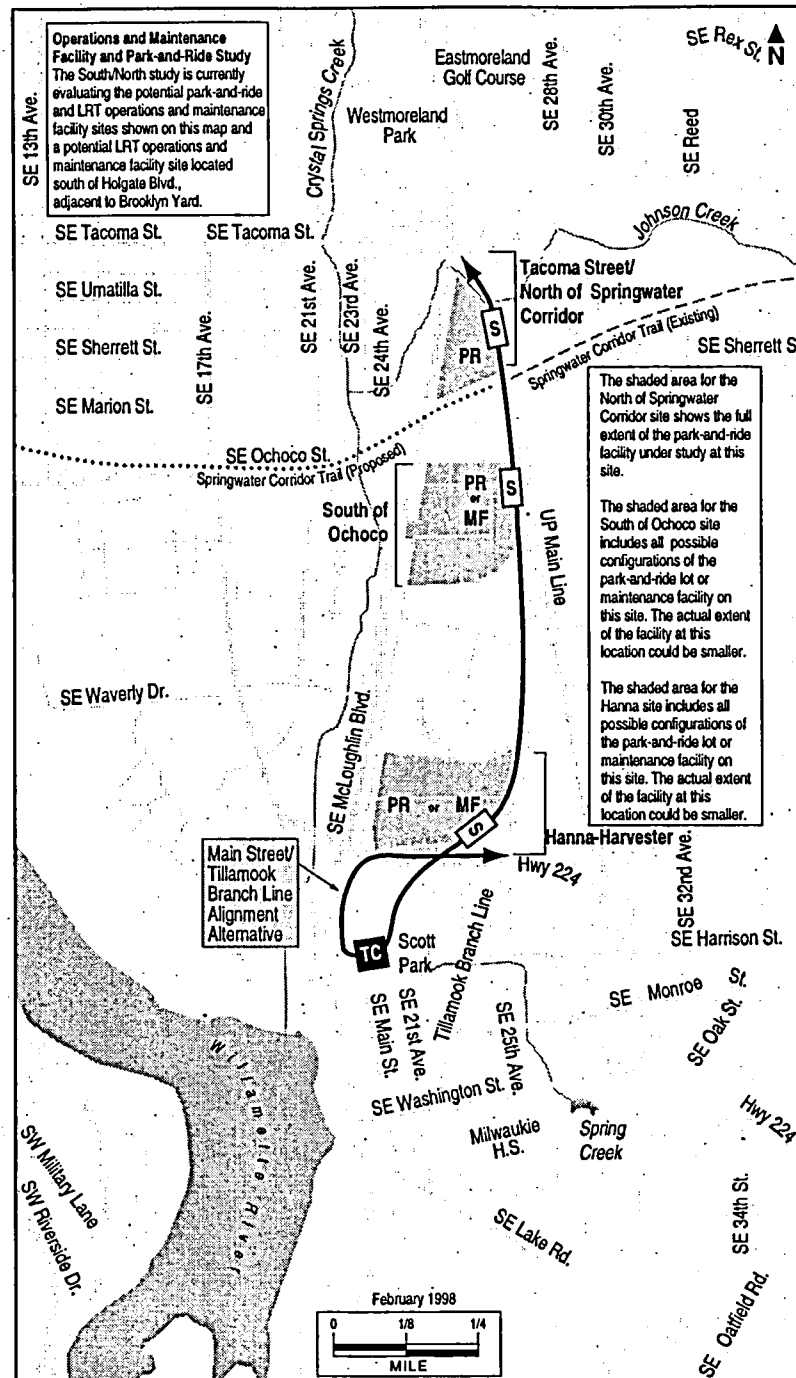


Figure 7 - Milwaukie Regional Center Segment

### **Advantages:**

- Evening egress southbound on SE McLoughlin Boulevard from the park-and-ride lot would be able to use the SE Tacoma Street overpass that would provide park-and-ride lot traffic with a grade-separated crossing of SE McLoughlin Boulevard. As a result, the Tacoma Street Park-and-Ride Lot would result in the fewest local traffic impacts.

### **Disadvantages:**

- Would cost \$3.5 million to \$6.3 million (future dollars) more to construct than the other two park-and-ride lot options.

### **B. South of Ochoco Park-and-Ride Lot**

The South of Ochoco Park-and-Ride Lot would be located south of SE Ochoco Street, between SE McLoughlin Boulevard and the UPRR Tillamook Branch Line. A pedestrian overcrossing of the branch line would connect the light rail station to SE Boyd Street to the east. Automobile access to and from the lot would be via SE Ochoco Street and SE Beta Street.

### **Advantages:**

- Would be the second least costly park-and-ride lot to construct, \$3.8 million or \$4.4 million (future dollars) less than the Tacoma Street Park-and-Ride Lot.

### **Disadvantages:**

- Evening peak-hour traffic conditions in 2015 at the intersection of SE McLoughlin Boulevard and SE Ochoco Street would significantly worsen compared to the All-Bus (No-Build) Alternative.
- Would result in four more business displacements than the Tacoma Street or Hanna-Harvester park-and-ride lot options (five compared to one).

### **C. Hanna-Harvester Park-and-Ride Lot**

The Hanna-Harvester site would be located north of Highway 224, between SE McLoughlin Boulevard and the UPRR Tillamook Branch Line. Automobile access would be via SE Main Street.

### **Advantages:**

- Would be the least costly to construct, \$1.6 million to \$6.3 million (future dollars) less than the Tacoma Street or South of Ochoco park-and-ride lot options.

### **Disadvantages:**

- Would have the greatest risk of cost increases and/or schedule delays due to hazardous materials impacts due to the possibility that three complex site cleanups may be required.
- It would be likely that park-and-ride lot traffic would be diverted to SE Main and Harrison Streets as motorists would seek to avoid the congested intersection of SE McLoughlin Boulevard and SE Milport Street.
- The station associated with the park-and-ride lot would be the furthest away from residential neighborhoods.

## X. McLoughlin Boulevard

The McLoughlin Boulevard Segment extends from SE Tacoma Boulevard in the south to SE Holgate Boulevard in the north (see Figure 8). It is generally characterized by a variety of mixed uses including residential, commercial, industrial and park and recreation facilities. This segment is traversed by two major transportation facilities, SE McLoughlin Boulevard and the existing UPRR freight and intercity passenger rail line.

There is a single alignment within this segment that would run parallel to and between SE McLoughlin Boulevard and the existing UPRR freight line. It would include a station at SE Bybee Boulevard, integrated into the street overpass of the existing rail line and SE McLoughlin Boulevard. The station would be at the surface level (the same level as SE McLoughlin Boulevard) and access from SE Bybee Boulevard would be via stairs and elevator. A design consideration with this alignment is whether to retain or rebuild the existing SE Bybee Boulevard overpass. If the existing overpass is retained, a new pedestrian bridge would be built immediately north of the existing overpass to allow station access from both sides of SE McLoughlin Boulevard. If rebuilt, the approaches to the overpass would be regraded to facilitate station access and bus transfers.

### A. Rebuild Bybee Boulevard Overpass

Following is a summary of the advantages and disadvantages of rebuilding the SE Bybee Boulevard overpass.

#### Advantages:

- Would provide for closer and more convenient bus transfers to the South/North light rail station at SE Bybee Boulevard.

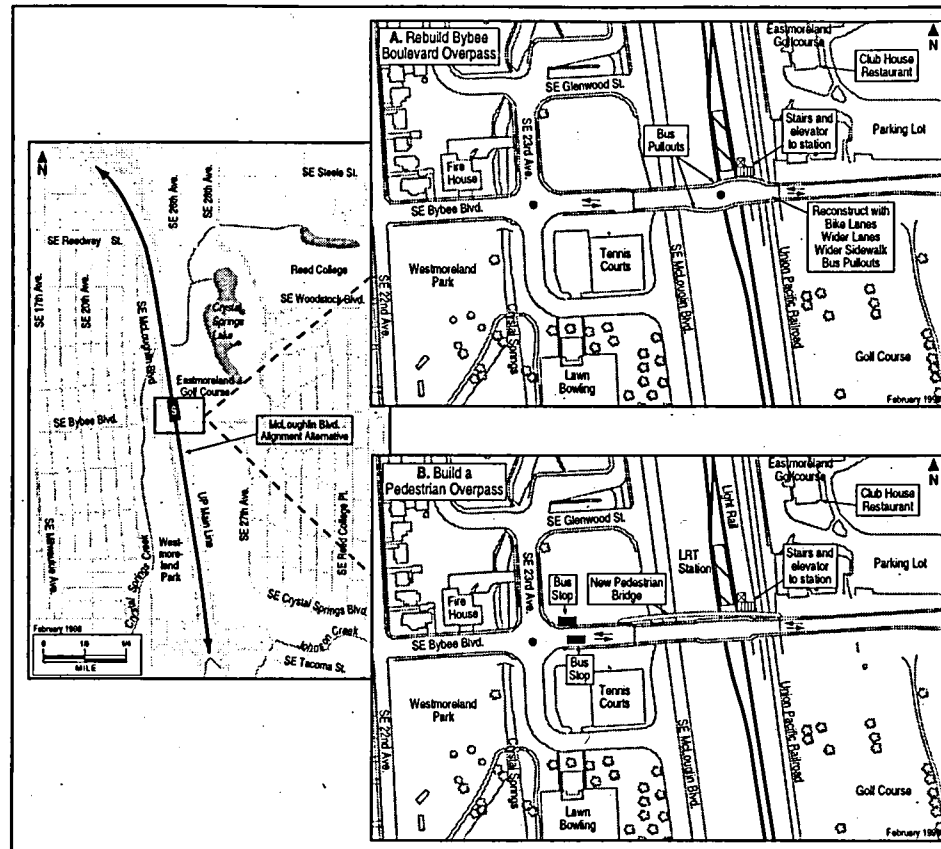


Figure 8 - McLoughlin Boulevard Segment

- Would replace an aging highway structure with a new structure designed to current highway, pedestrian, bicycle and seismic standards.
- With bus pullouts in both directions, would avoid traffic delays due to buses stopping the traffic lane.

#### Disadvantages:

- Capital costs would be \$10.9 million or \$12.9 million more than the option to build only a pedestrian overpass.
- Buses could be delayed pulling back into traffic.

### B. Build a Pedestrian Overpass

Following is a summary of the advantages and disadvantages of building only a pedestrian overpass to the Bybee Station.

#### Advantages:

- Capital costs would be \$10.9 million or \$12.9 million less than the option to rebuild the SE Bybee Boulevard overpass.

- Would provide for an improved pedestrian facility adjacent to SE Bybee Boulevard across SE McLoughlin Boulevard and to the Bybee Station.

#### Disadvantages:

- Bus transfers to and from the South/North light rail station at SE Bybee Boulevard would be more distant and less convenient.
- On SE Bybee Boulevard west of SE McLoughlin Boulevard, the possible increase in the frequency and dwell times of buses stopping could cause eastbound traffic delays.

## XI South Willamette River Crossing

The South Willamette River Crossing Segment generally extends from SE Holgate and McLoughlin Boulevards in southeast Portland to RiverPlace on the southwest edge of downtown Portland. The area contains existing residential communities, both redeveloping and developed commercial centers and valuable natural and community resources.

The South Willamette River Crossing Segment includes two alignment alternatives: the Ross Island Crossing and the Caruthers Crossing (see Figure 9). Each alternative has two design options: the East and West of McLoughlin Design Options with the Ross Island Crossing, and the South Marquam and Moody Avenue Design Options with the Caruthers Crossing. No park-and-ride lots would be located in this segment, and the segment includes one of the three potential sites for a proposed light rail O&M facility.

### A. Alignment Alternatives

Following is a summary of the advantages and disadvantages of the Caruthers Crossing and the Ross Island Crossing Alternatives.

#### 1. Caruthers Crossing

The Caruthers Crossing would extend light rail north from SE McLoughlin Boulevard and SE 20<sup>th</sup> Avenue, west of and parallel to the UPRR Brooklyn Yard, over SE Powell Boulevard, west of and parallel to SE Division Street and the UPRR freight line, to a station south of OMSI where it would cross the Willamette River on a fixed-span, high-level bridge. On the west bank of the Willamette River the light rail alignment would cross under the Marquam Bridge and would run generally west and parallel to SW Moody Avenue (the Moody Avenue Design Option) or it would remain south and parallel to the existing approach ramps to the Marquam Bridge before turning north, east of and parallel to SW Harbor Drive (the South Marquam Design Option).

#### Advantages:

- Would have 1,435 to 2,085 more 2015 weekday light rail rides than the Ross Island Crossing Alternative.
- With the Moody Avenue Design Option, capital costs would be \$0.8 million to \$2.2 million less than the Ross Island Crossing Alternative.
- Would have nine to 26 fewer residential displacements than the Ross Island Crossing Alternative (one compared to 10 or 27).

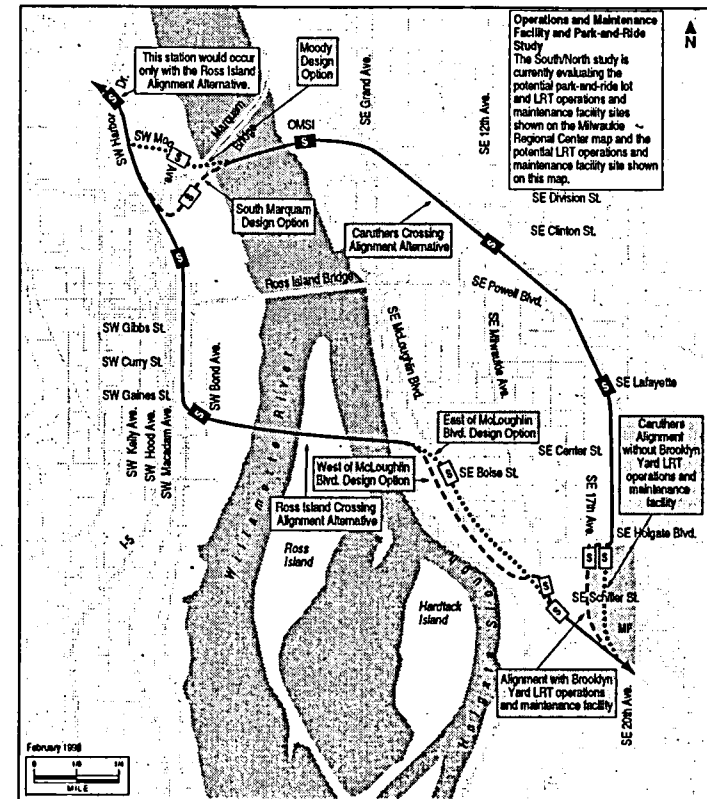


Figure 9 - South Willamette River Crossing Segment

- Would have four to nine fewer noise and vibration impacts without mitigation than the Ross Island Crossing Alternative.
- Would have less potential impact to vegetation, wildlife, wildlife habitat and fisheries than the Ross Island Crossing Alternative.
- Would provide better transit access to east Portland neighborhoods and activity centers than the Ross Island Crossing Alternative.

#### Disadvantages:

- With the South Marquam Design Option, would cost \$6.7 million to \$8.0 million (future dollars) more to construct than the Ross Island Crossing Alternative.
- Would cost \$374,000 to \$490,000 (1994\$) more to operate annually at 2015 service levels than the Ross Island Crossing Alternative.

### South Willamette River Crossing Segment

| Measure                                       | Caruthers Crossing |               | Ross Island Crossing |                    |
|---|--------------------|---------------|----------------------|--------------------|
|   | Moody Avenue       | South Marquam | East of McLoughlin   | West of McLoughlin |
| Capital Cost Difference                       | \$ 0               | \$7.5 - \$8.9 | \$0.8 - \$0.9        | \$1.1 - \$1.3      |
| O&M Cost Difference                           | \$ 485,000         | \$ 490,000    | \$111,000            | \$ 0               |
| Ridership Difference                          | 1,935              | 2,085         | 500                  | 0                  |
| Developable Land with ¼-mile LRT Access       | 80 Acres           | 86 Acres      | 141 Acres            | 130 Acres          |
| LRT Segment Travel Time (minutes:seconds)     | 6:31               | 6:47          | 5:48                 | 5:32               |
| Displacements (business/residential)          | 40/1               | 40/1          | 24/27                | 23/10              |
| Noise and Vibration (without/with mitigation) | 1/1                | 0/0           | 10/0                 | 5/0                |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Ridership is 2015 weekday LRT rides. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

- Light rail travel time through the segment would be 43 seconds to one minute and 15 seconds longer than with the Ross Island Crossing Alternative.
- Would result in 16 or 17 more business displacements than the Ross Island Crossing Alternative (40 compared to 23 or 24).
- Would result in navigational impacts to Willamette River traffic between the Marquam and Sellwood bridges. Measures that would cost between \$1.6 and \$7.5 million (future dollars) would mitigate most navigational impacts.
- Would have a higher risk of hazardous material impacts that could require three complex cleanup procedures compared to one complex cleanup procedure with the Ross Island Crossing Alternative.
- Would provide quarter-mile light rail access to 44 to 61 fewer acres of developable land.
- Would result in traffic impacts to two intersections (at SE Holgate Boulevard and SE 17<sup>th</sup> Avenue and at SE Powell Boulevard and SE Milwaukie Avenue).
- The potential closure of SE 18<sup>th</sup> Avenue and other local streets would adversely affect automobile access to the Brooklyn and Hosford-Abernethy neighborhoods.

- The closure of SE Clinton Street between SE 11<sup>th</sup> and 12<sup>th</sup> Avenues could adversely affect truck travel times and could cause some through automobile and truck traffic intrusion onto local residential streets.
- Would result in neighborhood impacts due to the displacement of businesses and the changes in traffic patterns that could result in traffic intrusions onto local neighborhood streets.

### 2. Ross Island Crossing Alternative

In the south portion of the segment, the Ross Island Crossing Alternative would extend light rail north, generally parallel to and east of SE McLoughlin Boulevard. It would either cross under SE McLoughlin Boulevard south of SE Holgate Boulevard with the West of McLoughlin Design Option or over SE McLoughlin Boulevard at SE Center Street with the East of McLoughlin Design Option. The alignment would cross the Holgate Slough, the north tip of Ross Island and the main channel of the Willamette River, touching down on the west bank of the Willamette River near SW Gaines Street. It would then proceed north, parallel to and east of SW Macadam Avenue and SW Harbor Drive.

#### Advantages:

- Capital costs would be \$6.2 million to \$8.1 million (future dollars) less than the Caruthers Crossing Alternative with the South Marquam Design Option.
- Annual O&M costs would be \$374,000 to \$490,000 (1994\$) less than the Caruthers Crossing Alternative.
- Light rail travel time through the segment would be 43 seconds to one minute and 15 seconds faster than the Caruthers Crossing Alternative.
- Would provide quarter-mile light rail station access to 44 to 61 more acres of developable land than the Caruthers Crossing Alternative (130 or 141 acres compared to 80 or 86 acres).

#### Disadvantages:

- Capital costs would be \$0.8 million to \$1.3 million more than the Caruthers Crossing Alternative with the Moody Avenue Design Option.
- Weekday 2015 light rail ridership would be 1,435 to 2,085 less than the Caruthers Crossing Alternative.



- Would displace 9 to 26 more residential units than the Caruthers Crossing Alternative (10 or 27 compared to one).
- Would result in high visual impacts due to the crossing of the Willamette River.
- Would have localized neighborhood impacts due to the visual impacts and residential displacements.

## B. Design Options for the Ross Island Crossing Alternative

Following is a summary of the advantages and disadvantages of the East and West of McLoughlin Boulevard Design Options for the Ross Island Crossing Alternative.

### 1. East of McLoughlin Design Option

From the south edge of the segment, the East of McLoughlin Design Option would extend north, following the east side of SE McLoughlin Boulevard with a station near SE Center Street. From the Center Street station, the alignment would cross under SE McLoughlin Boulevard and would cross the Willamette River on a new bridge in the vicinity of the northern portion of Ross Island.

#### Advantages:

- Would cost \$0.3 million or \$0.4 million (future dollars) less to construct than the West of McLoughlin Design Option.
- Would provide quarter-mile light rail station access to 11 more acres of developable land than West of McLoughlin Design Option.
- Weekday 2015 light rail ridership would be 500 rides more than with the West of McLoughlin Design Option.

#### Disadvantages:

- Annual O&M operating costs would be \$111,000 (1994\$) more than with the West of McLoughlin Design Option.
- Light rail travel time in the corridor would be 16 seconds slower than with the West of McLoughlin Design Option.
- Would result in 17 more residential displacements than the West of McLoughlin Design Option (10 compared to 27).

- Would have five more non-mitigated noise and vibration impacts than the West of McLoughlin Design Option (five compared to ten). All noise and vibration impacts for both design options could be mitigated.

### 2. West of McLoughlin Design Option

From the Schiller Street station, the West of McLoughlin Design Option would continue north, paralleling SE Milwaukie Avenue for a short distance and would then turn west crossing over SE McLoughlin Boulevard on a new grade-separated structure. The alignment would then proceed along the west side of SE McLoughlin Boulevard to the river crossing (identical in the two design options). There would be no Center Street Station with this design option.

#### Advantages:

- Would result in 17 fewer residential displacements than the East of McLoughlin Design Option.
- Light rail travel times through the segment would be 16 seconds faster than with the East of McLoughlin Design Option.

#### Disadvantages:

- Would cost \$0.3 million or \$0.4 million (future dollars) more to construct than the East of McLoughlin Design Option.
- Would result in high localized visual impacts to the Brooklyn Neighborhood due to the light rail overcrossing of SE McLoughlin Boulevard.
- Would provide quarter-mile light rail station access to 11 fewer acres of developable land than the East of McLoughlin Design Option (130 acres compared to 141 acres).
- Would have 500 fewer weekday 2015 light rail rides than the East of McLoughlin Design Option.

## C. Design Options for the Caruthers Crossing Alternative

Following is a summary of the advantages and disadvantages associated with the Moody Avenue and South Marquam Design Options for the Caruthers Crossing Alternative.

## 1. Moody Avenue Design Option

The Moody Avenue Design Option would extend from the Caruthers Bridge west, under the west end of the Marquam Bridge. The alignment would extend northwest, at grade, parallel to and north of SW Moody Avenue. It would then turn north, running east of and parallel to SW Harbor Drive. An at-grade North Marquam station would be located at SW Moody Avenue and SW River Parkway.

### Advantages:

- Capital cost of the Moody Avenue Design Option would be \$7.5 million to \$8.9 million (future dollars) less than the South Marquam Design Option.
- Would reduce light rail travel time through the segment by 16 seconds compared to the South Marquam Design Option (6 minutes and 31 seconds compared to six minutes and 47 seconds).

### Disadvantages:

- Would have 150 fewer 2015 weekday light rail rides than the South Marquam Design Option.
- Would have six fewer acres of developable land with quarter-mile light rail station access than the South Marquam Design Option (80 acres compared to 86 acres).

## 2. South Marquam Design Option

The South Marquam Design Option would extend southwest from the Caruthers Bridge, generally south of, and parallel to, the Marquam Bridge approach ramps. A second-story light rail station could be integrated into a proposed development just south of the proposed light rail alignment. After crossing SW Moody Avenue at grade, the alignment would turn north, running parallel to SW Harbor Drive. North of SW Moody Avenue, the alignment would head northwest to cross SW Harbor Drive on a new structure.

### Advantages:

- Would have 150 more 2015 weekday light rail rides than the Moody Avenue Design Option.
- Would have six more acres of developable land with quarter-mile light rail station access than the Moody Avenue Design Option (86 acres compared to 80 acres).

### Disadvantages:

- Capital cost of the South Marquam Design Option would be \$7.5 million to \$8.9 million (future dollars) more than the Moody Avenue Design Option.
- Would increase light rail travel time through the segment by 16 seconds compared to the Moody Avenue Design Option (6 minutes and 47 seconds compared to six minutes and 31 seconds).
- The South Marquam Station would be elevated between the Marquam Bridge approach ramp and a proposed mixed-use development.

## VI Downtown Portland

The Downtown Portland Segment is generally bounded by the Willamette River to the East, by I-405 to the south and west and by the Broadway Bridge to the north (see Figure 10). Downtown Portland is characterized by high-density office and retail development, with established and increasing levels of residential development in the south, west and north. It has access via a high level of transit service and numerous freeway and arterial connections. Downtown is currently served by the Eastside MAX light rail line, which opened in 1986 and currently carries over 33,000 rides on an average weekday. A light rail extension west to Beaverton and Hillsboro is scheduled to open in September 1998.

The Downtown Portland Segment includes two alignment alternatives: the Full Transit Mall and Half Transit Mall Alternatives. The Full Transit Mall Alternative includes two design options: the Irving Street and Glisan Street Design Options. No park-and-ride lots would be located in this segment. Bus travel times would be similar to today and light rail travel times through the segment would be approximately 50 percent quicker than bus travel times. In the year 2015 there would be adequate capacity on the transit mall to operate light rail and all forecast bus volumes.

### A. Alignment Alternatives

Following is a summary of the advantages and disadvantages of the Full and Half Transit Mall Alternatives within the Downtown Portland Segment.

#### 1. Full Transit Mall Alternative

The Full Transit Mall Alternative would extend light rail through downtown Portland, generally within the median of SW Harrison Street in the south, and generally within the center lane of the downtown Portland transit mall on SW 5<sup>th</sup> and 6<sup>th</sup> Avenues to either NW Glisan Street or NW Irving Street. Within the central mall, buses would utilize the right lane, buses and light rail vehicles would share the center lane and automobiles would use the intermittent left lane (generally, automobile circulation patterns would remain as they are today). In the north mall, buses and light rail vehicles would generally share the left lane and buses and automobiles would share the right lane.

#### Advantages:

- Would operate with all of the light rail length alternatives.
- Would carry 700 more 2015 weekday light rail rides than the Half Transit Mall Alternative.

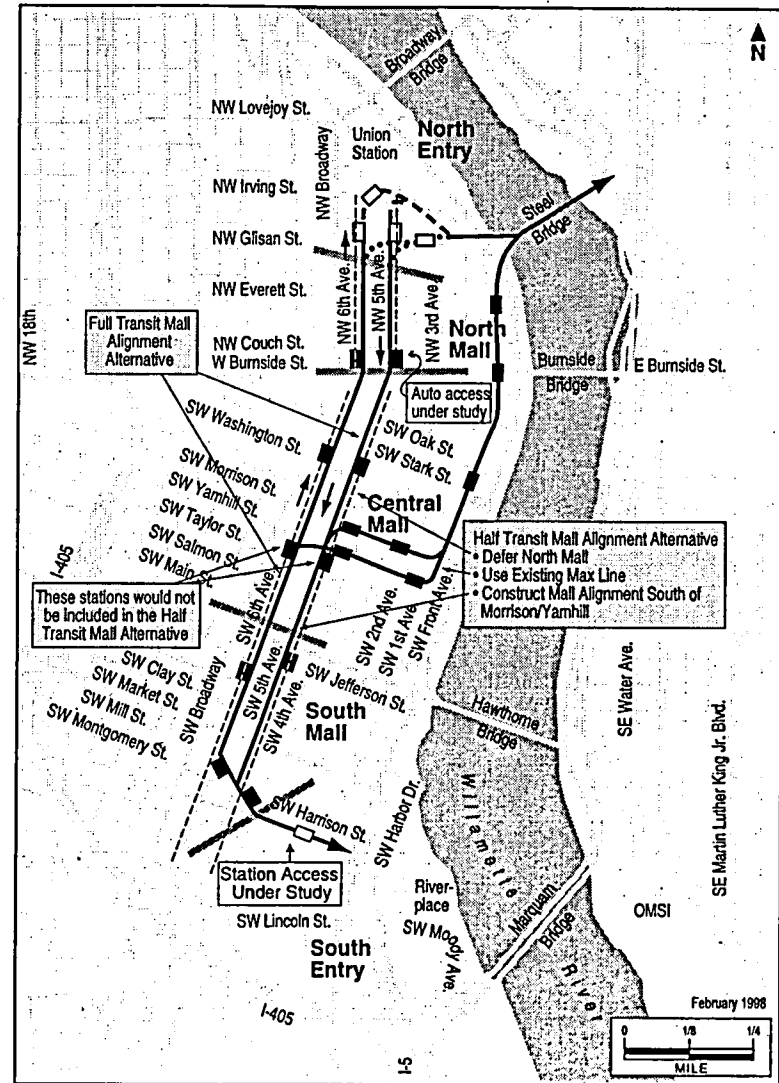


Figure 8 - Downtown Portland Segment

- Would provide direct light rail access to the north transit mall for 11,000 more 2015 weekday rides than the Half Transit Mall Alternative.
- Would provide quarter-mile light rail access to 17 to 21 more acres of developable land than the Half Transit Mall Alternative (73 to 77 compared to 56 acres).
- Would have two fewer noise and vibration impacts (one with or without mitigation) than the Half Transit Mall Alternative (three with or without mitigation).

### Downtown Portland Segment

| Measure                                       | Full Transit Mall |                   | Half Transit Mall |
|---|-------------------|-------------------|-------------------|
|   | Glisan Street     | Irving Street     |                   |
| Capital Cost Difference                       | \$115.1 - \$149.2 | \$131.2 - \$170.1 | \$ 0              |
| O&M Cost Difference                           | \$199,000         | \$376,000         | \$ 0              |
| Ridership Difference                          | 700               | 700               | 0                 |
| Developable Land with ¼-mile LRT Access       | 73 Acres          | 77 Acres          | 56 Acres          |
| LRT Segment Travel Time (minutes:seconds)     | 15:01             | 15:54             | 14:53             |
| Displacements (business/residential)          | 9/60              | 11/0              | 7/0               |
| On-Street Parking Spaces Displaced            | 117               | 106               | 69                |
| Noise and Vibration (without/with mitigation) | 1/1               | 1/1               | 3/3               |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. Ridership is 2015 weekday LRT rides. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

- Would mobilize construction within downtown Portland once instead of twice.

#### Disadvantages:

- Would cost \$115.1 million to \$170.1 million (future dollars) more to construct than the Half Transit Mall Alternative.
- Would cost \$199,000 or \$376,000 (1994 dollars) more annually to operate at 2015 service levels than the Half Transit Mall Alternative.
- Would have two to four more business displacements than the Half Transit Mall Alternative (nine to 11 compared to seven).
- Could have up to 60 more residential displacements than the Half Transit Mall Alternative (60 single room occupant units could be displaced with the Glisan Street Design Option or no residential displacements with the Irving Street Design Option,

compared to no residential displacements with the Half Transit Mall Alternative.

- Light rail travel times would be eight seconds to one minute and one second longer in this segment compared to the Half Transit Mall Alternative.
- Could adversely affect an historic resource (either the Hotel Medford or the Glisan Street Warehouse). Mitigation measures that would change the design of the Glisan Street and Irving Street Design Options could avoid or reduce impacts to these resources. Design modifications to the Glisan Alignment could reduce or eliminate the residential displacements.
- Would impact traffic operations on West Burnside Street at SW and NW 5<sup>th</sup> and 6<sup>th</sup> Avenues.
- Would displace 37 or 48 more on-street parking spaces in downtown Portland than the Half Transit Mall Alternative (106 or 117 compared to 69).

### 2. Half Transit Mall Alternative

The Half Transit Mall Alternative would be similar to the Full Transit Mall Alternative on SW Harrison Street and on SW 5<sup>th</sup> and 6<sup>th</sup> Avenues from Portland State University to SW Morrison and Yamhill Streets, where the South/North light rail tracks would turn east connecting to the existing MAX tracks. South/North and East/West light rail trains would share the existing MAX tracks from that location to

#### Full Transit Mall Alternative North Entry Station Options With Mitigation for Impacts to Historic Resources

| Measure                                     | Glisan Station | Irving Station | Irving Diagonal |
|---|----------------|----------------|-----------------|
| Capital Cost Difference                     | \$0            | \$8.0 - \$10.4 | \$10.8 - \$14.0 |
| O&M Cost (1994\$)                           | \$0            | \$44,000       | \$54,000        |
| LRT Ridership Difference                    | 300            | 0              | 200             |
| Households With 10-Minute LRT Access (2015) | 800            | 900            | 1,000           |
| Jobs With 10-Minute LRT Access (2015)       | 7,000          | 5,800          | 5,800           |
| LRT Travel Time (minutes:seconds)           | 4:11           | 4:24           | 4:27            |
| Displacements (business/residential)        | 8/0            | 8/0            | 9/0             |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. Travel times are between the Burnside Station and the Rose Quarter Transit Center. Ridership is 2015 weekday LRT rides.

the east side of the Steel Bridge. Due to forecast ridership and operating constraints on the shared portion of track, the Half Transit Mall Alternative would only be feasible to 2015 with MOS 2 or MOS 5.

**Advantages:**

- Would cost \$115.1 million to \$170.1 million less to initially construct MOS 2 (Rose Quarter) or MOS 5 (Lombard) than the Full Transit Mall Alternative.
- Would cost \$199,000 or \$376,000 (1994 dollars) per year less to operate than the Full Transit Mall Alternative at 2015 service levels.
- Light rail travel times through the segment would be eight seconds to one minute and one second faster than the Full Transit Mall Alternative (14 minutes and 53 seconds compared to 15 minutes and one second or 15 minutes and 54 seconds).

**Disadvantages:**

- Would provide quarter-mile light rail access to 17 to 21 fewer acres of developable land than the Full Transit Mall Alternative (56 acres compared to 73 or 77 acres).
- Traffic operations on SW Yamhill Street between SW 4<sup>th</sup> and 6<sup>th</sup> Avenues and on NW Everett Street at NW 1<sup>st</sup> Avenue would deteriorate compared to the All-Bus Alternative.
- Would have two more noise and vibration impacts than the Full Transit Mall Alternative (three with or without mitigation, compared to one with or without mitigation).
- Would not be feasible to operate with the Full-Length Alternative or MOS 1 (Bi-State) or to operate beyond the year 2015 with any length alternative due ridership demand and operational constraints on the segment of shared track.

**B. North Entry Design Options**

Following is a comparison of the advantages and disadvantages of the Glisan Street and Irving Street Design Options. The Irving Street Design Option has two station options, the Irving Station Option and the Irving Diagonal Option. The following comparisons reflect potential mitigation through modifications to the light rail alignment designs that would avoid or minimize the use of two historic resources, the Hotel Medford (i.e., the Beaver Hotel) with the Glisan Street Design Option and the Glisan Street Warehouse with the Irving Street Design Option.

**1. Glisan Street Design Option**

The Glisan Street Design Option would extend light rail from the Steel Bridge west, south of and parallel to NW Glisan Street, to a station between NW 3<sup>rd</sup> and 4<sup>th</sup> Avenues. The alignment would proceed west, turning on to NW 5<sup>th</sup> and 6<sup>th</sup> Avenues (see Figure 11).

**Advantages:**

- Would cost \$8.0 million to \$14.0 million (future dollars) less to construct than the Irving Diagonal Station Option.

- Light rail travel time in the segment would be 16 seconds faster than with the Irving Diagonal Station Option.
- Would have 100 more 2015 weekday light rail rides than the Irving Diagonal Option.

**Disadvantages:**

- Would have a light rail station two to three blocks further from Union Station and the River District than the Irving Street Design Option.
- Would displace 11 more on-street parking spaces than the Irving Street Design Option.

**2. Irving Street Station Design Option**

The Irving Street Station Design Option would locate a northbound light rail station on NW 6<sup>th</sup> Avenue between NW Glisan and Hoyt Streets and a southbound station on NW 5<sup>th</sup> Avenue between NW Glisan and Hoyt Streets (see Figure 12).

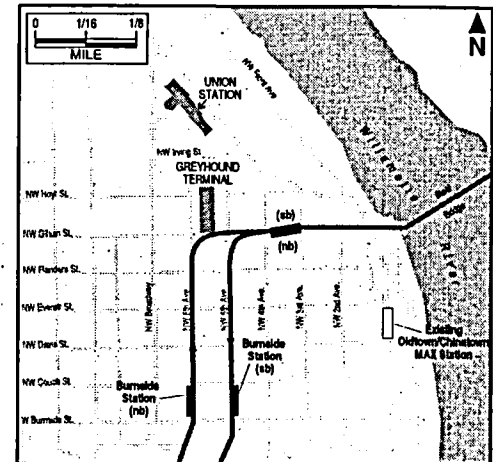


Figure 11 - Glisan Option

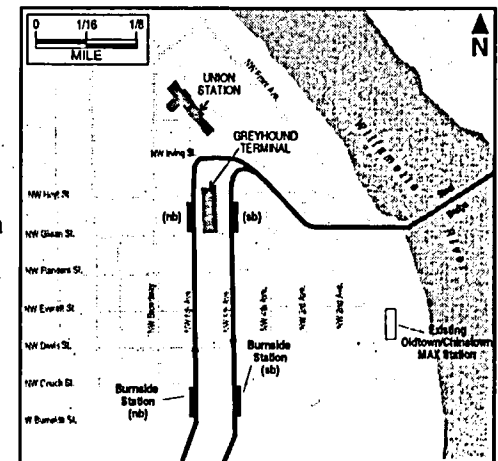


Figure 12 - Irving Option

### Advantages:

- Would locate light rail stations on the existing transit mall.
- Would locate light rail stations adjacent to the Greyhound intercity bus terminal and within one block of the Union Station.
- Would provide the light rail station access to the second highest number of households (900 compared to 800 with the Glisan Street Design Option).

### Disadvantages:

- Would be located approximately one block further away from Union Station than the Irving Diagonal Station.
- Would cost approximately \$8.0 million to \$10.4 million (future dollars) more to construct than the Glisan Street Design Option.
- Would have a station environment less integrated with other modes (intercity bus and rail, potential commuter rail and urban bus).
- Light rail travel time in the segment would be 13 seconds longer than with the Glisan Street Design Option.

### 3. Irving Diagonal Station Option

The Irving Diagonal Station Option would locate a northbound light rail station diagonally between NW Hoyt and Irving Streets east of NW 6<sup>th</sup> Avenue, and a southbound station on NW 5<sup>th</sup> Avenue at NW Hoyt Street (see Figure 13).

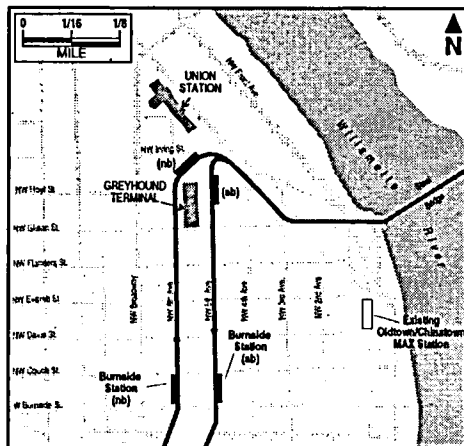


Figure 13 - Irving Diagonal Option

### Advantages:

- Would locate a light rail station closest to the Union Station and the River District.
- Would have the highest light rail ridership from intermodal transfers (intercity bus and rail and potential commuter rail).
- Would have the light rail station with the best integration with other modes of travel (intercity bus and rail, potential commuter rail and urban bus).
- Would provide light rail station access to the highest number of households (1,000 compared to 900 with the Irving Station Option and 800 with the Glisan Street Design Option).

### Disadvantages:

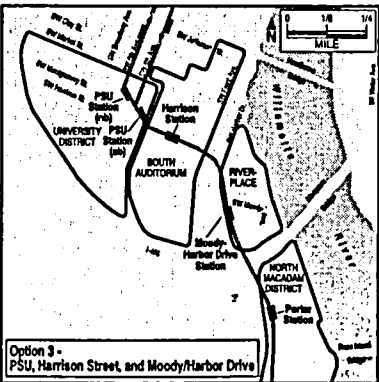
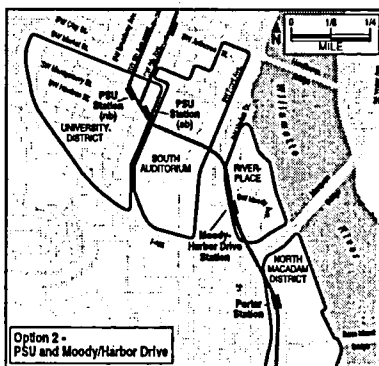
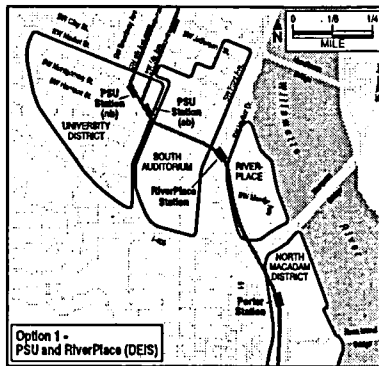
- Would cost \$10.8 million or \$14.0 million (future dollars) more to construct than the Glisan Street Design Option.
- Would have one more displacement than either the Glisan Street or Irving Street Design Options.

### C. South Entry Station Access Study

The South Entry Station Access Study compared various station configurations in the south entry area of downtown Portland with the Caruthers and Ross Island Crossing Alternatives (see Appendix L of the DEIS). The primary objective of the study was to evaluate whether a station should be located on SW Harrison Street.

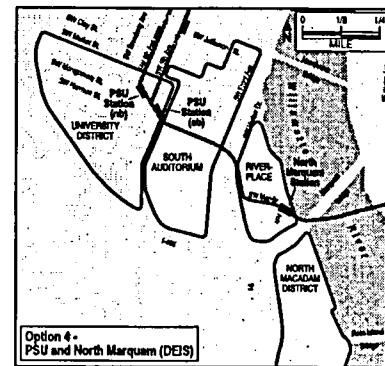
#### Ross Island Crossing Alignment Alternative: Options 1, 2 and 3

- **Option 1**, the option documented within the DEIS, would locate an elevated RiverPlace Station above SW Harbor Drive near SW Harrison Street; would provide five-minute walk access to a light rail station for 17,700 jobs; and 2,200 housing units and would produce and attract approximately 4,350 daily light rail rides.
- **Option 2** would locate an at-grade station serving RiverPlace at the intersection of SW Moody Avenue and SW Harbor Drive. Compared to Option 1, Option 2 would: provide five-minute walk access to a light rail station for 2,600 fewer jobs; provide five-minute walk access to a light rail station for 300 additional residential units; reduce daily light rail ridership by 450 rides; and reduce capital costs by \$0.9 million to \$1.1 million (future dollars).
- **Option 3** would locate a light rail station at SW Harrison Street, between SW 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, in addition to an at-grade station at the intersection of SW Moody Avenue and SW Harbor Drive. Compared to Option 1, Option 3 would: provide five-minute walk access to a light rail station for 2,700 additional jobs and 800 additional residential units; add 27 seconds to light rail, in-vehicle travel time; increase daily light rail ridership by 600 rides; and increase capital costs by \$2.2 million to \$2.6 million (future dollars).

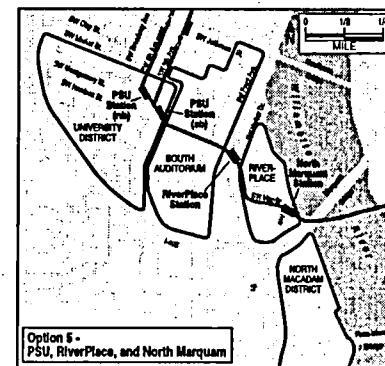


### Caruthers Crossing Alternative and Moody Design Option (Options 4, 5 and 6)

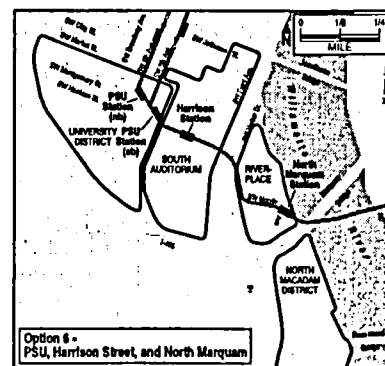
- **Option 4**, the option documented within the DEIS, would locate an at-grade station on SW Moody Avenue (the North Marquam Station); would provide five-minute walk access to a light rail station for 15,700 jobs and 2,700 housing units; and would produce and attract approximately 4,100 daily light rail rides.



- **Option 5** would locate an elevated RiverPlace Station over SW Harbor Drive, near SW Harrison Street, in addition to the at-grade North Marquam Station on SW Moody Avenue. Compared to Option 4, Option 5 would: provide five-minute walk access to a light rail station for 5,000 additional jobs and for 500 additional residential units; add 32 seconds to light rail, in-vehicle travel time; increase daily light rail ridership by 1,000 light rail rides; and increase capital costs by \$5.3 million to \$6.3 million (future dollars).



- **Option 6** would locate an at-grade station on SW Harrison Street, between SW 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, in addition to the at-grade South Marquam Station on SW Moody Avenue. Compared to Option 4, Option 6 would: provide five-minute walk access to a light rail station for 5,300 additional jobs and for 500 additional residential units; add 25 seconds to light rail, in-vehicle travel time; increase daily light rail ridership by 1,050 rides; and increase capital costs by \$3.4 million to \$4.1 million (future dollars).



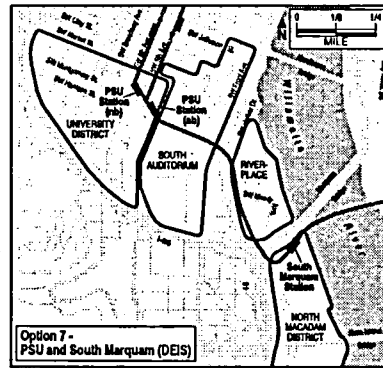
**Summary of South Entry Station Analysis Quantitative Criteria**

| Option   | Alternative/ Design Option | Employment | Households | Travel Time (Min:Sec) | Change in Light Rail Rides | Capital Cost      | Notes: The data in this table is based on the Full-Length and Full Transit Mall Alternatives. "DEIS" notes the alignment and station configuration documented in the body of the DEIS and they form the basis of the change in light rail ridership. Ridership is based on 2015 weekday demand. Capital costs are in future dollars and the range reflects changes that could occur with construction schedules. Capital costs are for a segment between SW 4 <sup>th</sup> Avenue and SW Harrison Street and a common point south of the proposed Brooklyn Yard LRT O&M facility site. Employment and households are for the year 2015 within a 10-minute walk of a light rail station. Travel time would be between the PSU station and the Clinton or Porter Stations. |
|----------|----------------------------|------------|------------|-----------------------|----------------------------|-------------------|---|
| 1 (DEIS) | Ross Island                | 17,700     | 2,200      | 3:52                  | N/A                        | \$349.4 - \$414.4 |   |
| 2        | Ross Island                | 15,100     | 2,500      | 3:53                  | -450                       | \$348.5 - \$413.3 |   |
| 3 (H)    | Ross Island                | 20,400     | 3,000      | 4:19                  | +600                       | \$351.6 - \$417.0 |   |
| 4 (DEIS) | Caruthers/Moody            | 15,700     | 2,700      | 6:01                  | N/A                        | \$348.5 - \$413.3 |   |
| 5        | Caruthers/Moody            | 20,700     | 3,200      | 6:33                  | +1,000                     | \$358.8 - \$419.6 |   |
| 6 (H)    | Caruthers/Moody            | 21,000     | 3,200      | 6:26                  | +1,050                     | \$351.9 - \$417.4 |   |
| 7 (DEIS) | Caruthers/Marquam          | 17,100     | 2,600      | 6:17                  | N/A                        | \$356.1 - \$428.8 |   |
| 8        | Caruthers/Marquam          | 22,200     | 3,300      | 6:51                  | +1,050                     | \$361.6 - \$428.8 |   |
| 9 (H)    | Caruthers/Marquam          | 22,400     | 3,100      | 6:52                  | +1,050                     | \$359.4 - \$426.2 |   |

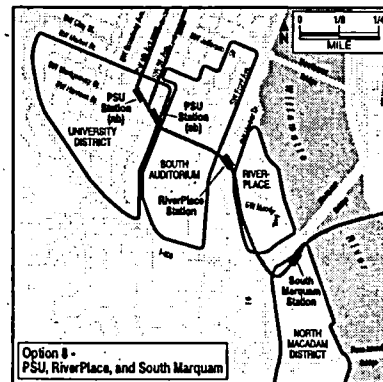
Note: H = would include a Harrison Street Station.

**C. Caruthers Crossing Alternative and South Marquam Design Option (Options 7, 8 and 9)**

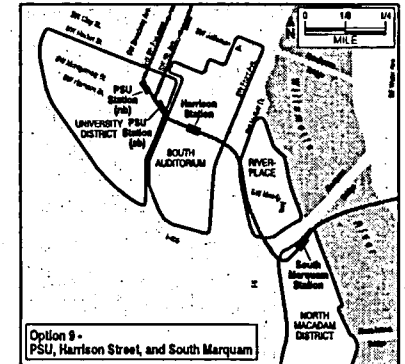
- Option 7**, the option documented within the DEIS, would locate an elevated South Marquam Station (level with a plaza that would be constructed with a proposed mixed-use, private development just south of the alignment) adjacent to the existing Marquam Bridge. Option 7 would provide 5-minute walk access to a light rail station for 17,100 jobs and 2,600 housing units and would produce and attract approximately 4,350 daily light rail rides.



- Option 8** would locate an elevated RiverPlace Station over SW Harbor Drive near SW Harrison Street, in addition to an elevated South Marquam Station. Compared to Option 7, Option 8 would: increase access to 5,100 jobs; increase access to 700 residential units; add 34 seconds to light rail, in-vehicle travel time; increase daily light rail ridership by 1,050 rides; and increase capital costs by \$5.5 million to \$6.4 million (future dollars).



- Option 9** would locate an at-grade Harrison Street Station, between SW 2<sup>nd</sup> and 3<sup>rd</sup> Avenues, in addition to an elevated South Marquam Station. Compared to Option 7, Option 9 would: provide five-minute walk access to a light rail station for 5,300 additional jobs and for 500 additional residential units; add 35 seconds to light rail, in-vehicle travel time; increase daily light rail ridership by 1,050 rides; and increase capital costs by \$3.3 million to \$3.8 million (future dollars).





### XIII Eliot

The Eliot Segment extends from the Steel Bridge in the south to the Edgar Kaiser Medical Facility between N Interstate Avenue and I-5 in the north and it includes the Eliot Neighborhood (see Figure 14). The segment is characterized by a wide mix of uses including an industrial sanctuary, the Rose Quarter, commercial, retail, medical and a mix of low to high density residential development.

Two alignment alternatives are currently under study in this segment: the East I-5/Kerby and the Wheeler/Russell Alignment Alternatives. The East I-5/Kerby Alternative has two design options: the Grade Separated and the At-Grade Crossing of NE Broadway and NE Weidler Street. Both alignment alternatives have a design option for the Rose Quarter Transit Center: the Multi-Level and At-Grade Rose Quarter Transit Center Design Options.

All alternatives and design options within this segment have been developed to accommodate future improvements to I-5 between the N Greeley Avenue ramps in the north and the Banfield ramps to I-5 in the south. MOS 2 (Rose Quarter) would terminate at the Rose Quarter Transit Center and the light rail trains would layover and reverse direction at the existing (but modified) Vintage Trolley Station at NE 11<sup>th</sup> Avenue and NE Holladay Street.

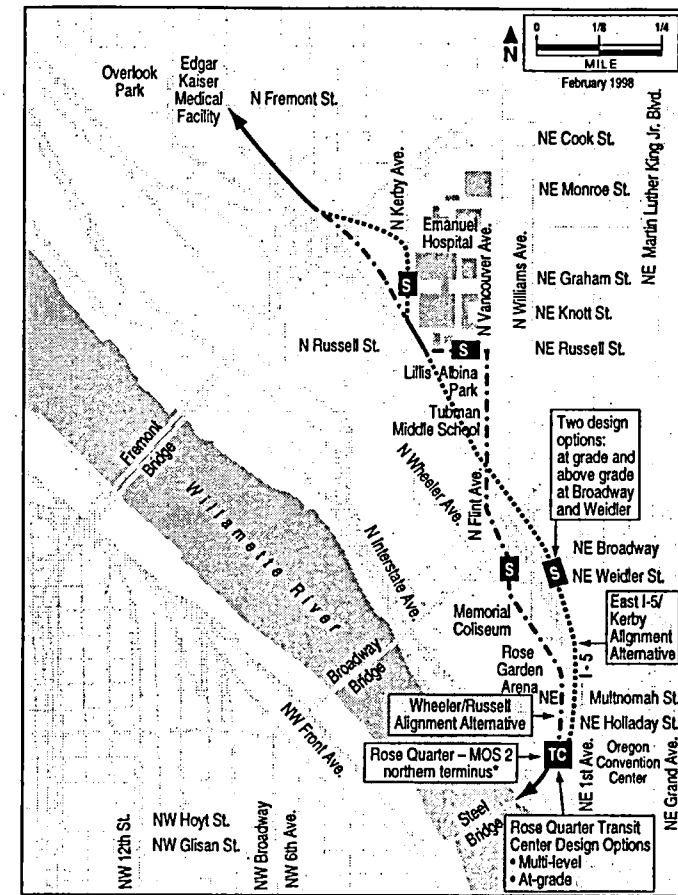


Figure 14 - Eliot Segment

| Eliot Segment<br>Alignment Alternatives and East I-5/Kerby Design Options |                |                 |                 |
|---|----------------|-----------------|-----------------|
| Measure   | East I-5/Kerby |                 | Wheeler/Russell |
|   | At-Grade       | Grade-Separated |                 |
| Capital Cost Difference   | \$ 0           | \$6.0 - \$7.2   | \$16.3 - \$19.4 |
| O&M Cost Difference   | \$ 0           | \$ 0            | \$26,000        |
| Ridership Difference  | 910            | 910             | 0               |
| Developable Land with 1/4-mile LRT Access                                 | 38 Acres       | 38 Acres        | 34 Acres        |
| LRT Segment Travel Time (minutes:seconds)                                 | 5:27           | 5:27            | 6:11            |
| Displacements (business/residential)                                      | 11/26          | 12/26           | 8/16            |
| Noise and Vibration (without/with mitigation)                             | 1/0            | 1/0             | 3/1             |

Notes: Based on the Full-Length Alternative and the Multi-Level Rose Quarter Transit Center. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. Ridership is 2015 weekday LRT rides. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

#### A. Alignment Alternatives

Following is a summary of the advantages and disadvantages of the East I-5/Kerby and the Wheeler/Russell Alignment Alternatives.

##### 1. East I-5/Kerby

The East I-5/Kerby Alternative would extend light rail north from the Rose Quarter Transit Center, parallel to and east of I-5, with a station at NE Broadway and one on N Kerby Avenue at Emanuel Hospital serving the Eliot Neighborhood. There are two design options associated with this alternative, the Broadway/Weidler At-Grade Design Option and the Broadway/Weidler Grade-Separated Design Option. The

alignment would then extend north, parallel to and east of I-5, to an above-grade crossing of I-5 near the Edgar Kaiser Medical Facility.

**Advantages:**

- Would cost \$10.3 million to \$19.4 million (future dollars) less to construct than the Wheeler/Russell Alignment Alternative.
- Would cost \$26,000 (1994\$) less to operate at 2015 service levels than the Wheeler/Russell Alternative.
- Would have 910 more 2015 weekday light rail rides than the Wheeler/Russell Alternative.
- Would provide quarter-mile light rail station access to four more acres of redevelopable land than the Wheeler/Russell Alternative (38 acres compared to 34 acres).
- Light rail travel time in the segment would be 44 seconds faster than with the Wheeler/Russell Alternative (five minutes and 27 seconds compared to six minutes and 11 seconds).
- The Portland Development Commission's North Portland Economic Study found that there would be somewhat greater opportunities for economic development at the stations associated with the East I-5/Kerby Alternative than with the stations associated with the Wheeler/Russell Alternative.

**Disadvantages:**

- Would displace three to four more businesses and ten more residences than the Wheeler Russell Alternative (11 and 12 business displacements compared to eight, and 26 residential displacements compared to 16).
- With the Grade Separated Crossing of NE Broadway and NE Weidler Street, the East I-5/Kerby Alternative would result in high but localized visual impacts on NE Broadway and NE Weidler Street due to the light rail overcrossing of the streets, and from the Lillis Albina Park in the Eliot Neighborhood.
- With the At-Grade Crossing of NE Broadway and NE Weidler Street, the East I-5/Kerby Alternative would worsen traffic conditions at the intersection of NE Weidler Street and NE Victoria Street (the northbound I-5 off-ramp terminus), and at the intersection of N Broadway and N Williams Avenue during the p.m. peak hour, compared to the No-Build Alternative.

- With the At-Grade Crossing of NE Broadway/Weidler Street, traffic queue lengths along N/NE Broadway and N/NE Weidler Street would increase compared to the All-Bus (No-Build) Alternative (with the Grade-Separated Crossing of NE Broadway and NE Weidler Street, traffic conditions in the segment with the East I-5/Kerby Alternative would be similar to the All-Bus (No-Build) Alternative).

**2. Wheeler/Russell**

The Wheeler/Russell Alternative would extend light rail north from the Rose Quarter Transit Center, parallel to and west of N Wheeler Avenue, adjacent to the Rose Garden Arena. Following an at-grade station and crossing of N Broadway and Weidler Streets, the alignment would extend north over I-5 on a new structure, generally in the vicinity of N Flint Avenue. A potential station would be located on N Russell Street, west of N Flint Avenue, serving the Eliot Neighborhood and Emanuel Hospital. The alignment would then extend north, parallel to and east of I-5, to an above-grade crossing of I-5 near the Edgar Kaiser Medical Facility.

**Advantages:**

- Would locate a light rail station in close proximity to the north area of the Rose Quarter, near the Memorial Coliseum.
- Would locate a light rail station closer to the residential area of the Eliot Neighborhood.

**Disadvantages:**

- Would cost \$10.3 million to \$19.4 million (future dollars) more to construct than the East I-5/Kerby Alternative.
- Would cost \$26,000 (1994\$) more to operate at 2015 service levels than the East I-5/Kerby Alternative.
- Would have 910 fewer 2015 weekday light rail rides than the East I-5/Kerby Alternative.
- Would provide quarter-mile light rail station access to four fewer acres of redevelopable land than the East I-5/Kerby Alternative (34 acres compared to 38 acres).
- Light rail travel time in the segment would be 44 seconds slower than with the East I-5/Kerby Alternative (six minutes and 11 seconds compared to five minutes and 27 seconds).

- Would result in two more noise and vibration impacts without mitigation and one more noise and vibration impacts with mitigation, respectively, than the East I-5/Kerby Alternative (one and none, respectively, compared to three and one, respectively).
- Would result in increased spillback of traffic queues due to the proximity of the light rail at-grade crossing to intersections and due to high traffic volumes in the area, compared to conditions with the No-Build Alternative.
- During the peak period of Rose Quarter events, the Wheeler/Russell Alternative would result in conflicts between light rail trains and automobiles exiting parking garages and between light rail trains and pedestrians walking along and across N Wheeler Avenue.

## B. NE Broadway/Weidler Street Design Options

Following is a summary of the Grade-Separated and the At-Grade Crossing Design Options at NE Broadway and NE Weidler Street.

### 1. Grade-Separated Crossing of NE Broadway and NE Weidler Street

With the Grade-Separated Design Option, the light rail alignment would cross over NE Weidler Street and NE Broadway on a new structure. The Broadway Station would be elevated between NE Broadway and NE Weidler Street, with access via stairs and an elevator.

#### Advantages:

- The operation of intersections in the segment would not be adversely impacted by light rail operations and would be similar to conditions with the All-Bus (No-Build) Alternative.

#### Disadvantages:

- Would cost \$6.0 million or \$7.2 million (future dollars) more to construct than the At-Grade Crossing Design Option.
- Would result in high but localized visual impacts on NE Broadway and NE Weidler Street due to the light rail overcrossing of the streets.
- Would elevate the Broadway Station.

### 2. At-Grade Crossing of NE Broadway and NE Weidler Street

With the At-Grade Design Option, the light rail alignment would cross NE Broadway and NE Weidler Street at grade (at the current street level). The Broadway Station would also be at grade between NE Broadway and NE Weidler Street.

#### Advantages:

- Would cost \$6.0 million or \$7.2 million (future dollars) less to construct than the Grade-Separated Crossing Design Option.
- Would avoid taking one vacant commercial property.

#### Disadvantages:

- Would result in worsened traffic conditions at the intersection of NE Weidler Street and NE Victoria Street (the northbound I-5 off-ramp terminus), and at the intersection of N Broadway and N Williams Avenue during the p.m. peak hour, and would result in lengthened queue lengths compared to the No-Build Alternative.
- The At-Grade Design Option would include a double right-turn lane from the northbound I-5 off-ramp onto NE Weidler Street that would complicate event-related pedestrian access to the Rose Quarter along the southern sidewalk of NE Weidler Street.
- Would result in traffic backup on northbound I-5 exit ramp at NE Weidler Street onto the mainline I-5 northbound during the p.m. peak hour.

## C. Rose Quarter Transit Center Design Options

Following is a summary of the Multi-Level and the At-Grade Rose Quarter Transit Center Design Options.

### 1. Multi-Level Rose Quarter Transit Center

The Multi-Level Rose Quarter Design Option would include a multi-level Rose Quarter Transit Center with the light rail crossing over N Interstate Avenue. With the multi-level design option, the transit center functions (i.e. bus-to-bus transfers, bus-to-rail transfers, pedestrian-to-bus access and pedestrian-to-rail access) would all occur above the N Interstate Avenue street grade with auto traffic below. This design option would also include a grade-separated pedestrian connection between the Rose Quarter Transit Center and the Rose Garden Arena.

**Advantages:**

- Would improve traffic conditions at the intersection of NE Multnomah Street and N Interstate Avenue, compared to conditions under the All-Bus (No-Build) Alternative.
- Would grade separate pedestrian, transit and automobile movements during peak Rose Quarter Events.
- Would improve traffic operations at N Multnomah Street and N Interstate Avenue compared to the All-Bus (No-Build) Alternative (from level of service E to C).

**Disadvantages:**

- Would cost \$24.3 million to \$39.7 million (future dollars) more to construct than the At-Grade Transit Center.

**2. At-Grade Rose Quarter Transit Center**

The At-Grade Rose Quarter Transit Center Design Option would include an at-grade crossing of N Interstate Avenue west of the Rose Quarter Transit Center. With this design option, the transit center functions (i.e. bus-to-bus transfers, bus-to-rail transfers, pedestrian-to-bus access and pedestrian-to-rail access) would all occur at the existing street level.

**Advantages:**

- Would cost \$24.3 million to \$28.0 million less to construct than the Multi-Level Transit Center.

**Disadvantages:**

- Would not separate pedestrian, transit and automobile movements during peak Rose Quarter events.

**Elliot Segment  
Rose Quarter Transit Center Design Options**

| Measure   | East I-5/Kerby |                 | Wheeler/Russell |                 |
|---|----------------|-----------------|-----------------|-----------------|
|   | At-Grade       | Multi-Level     | At-Grade        | Multi-Level     |
| Capital Cost Difference                                   | \$ 0           | \$24.3 - \$28.8 | 10.9 - \$13.0   | \$34.6 - \$41.0 |
| Level of Service at N Multnomah St. and N Interstate Ave. | E              | C               | E               | C               |

Notes: Based on the Full-Length Alternative. The East I-5 Kerby options are based upon the Grade-Separated Crossing of NE Broadway and NE Weidler Street Design Option. Cost differences are from the lowest cost alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. Under the All-Bus (No-Build) Alternative, level of service at N Multnomah Street and N Interstate Avenue would be LOS E.



- With the Modify Alberta Ramps Design Option, compared to the All-Bus (No-Build) Alternative, traffic conditions would deteriorate at the intersections of N Interstate Avenue at N Going and Killingsworth Streets. With the Modify Alberta Ramps Design Option, compared to the No-Build Alternative, the change in the ramp configuration could add up to two minutes in travel time for certain trips destined to or originating within North Portland (approximately 300 to 400 trips in the p.m. peak hour would experience an average increase of approximately one minute in travel time accessing I-5 southbound).

## 2. Interstate Avenue

The Interstate Avenue Alternative would generally locate light rail tracks and stations in the median of N Interstate Avenue. Except at major intersections where the roadway would be widened to accommodate heavy automobile turning movements, N Interstate Avenue would be narrowed from two lanes in each direction to one lane and a bike lane in each direction (traffic would be diverted from N Interstate Avenue to parallel roadways, including I-5, N Denver Avenue, N Greeley Avenue, N Vancouver/Williams Avenues and NE Martin Luther King Junior Boulevard). Left turns and at-grade street crossings would be signalized and would generally be limited to every four to five blocks. Pedestrian crossings of N Interstate Avenue would generally be limited to every two blocks.

| Measure                                       | North Portland Segment   |                          | Interstate Avenue |
|---|--------------------------|--------------------------|-------------------|
|   | I-5 Retain Alberta Ramps | I-5 Modify Alberta Ramps |                   |
| Capital Cost Difference                       | \$6.0 - \$7.0            | \$ 0                     | \$75.2 - \$88.8   |
| O&M Cost Difference                           | \$ 0                     | \$ 0                     | \$739,000         |
| Ridership Difference                          | 1,270                    | 1,270                    | 0                 |
| Developable Land with ¼-mile LRT Access       | 58 Acres                 | 58 Acres                 | 79 Acres          |
| LRT Travel Time (minutes:seconds)             | 9:24                     | 9:24                     | 11:07             |
| Displacements (business/residential)          | 2/107                    | 1/44                     | 29/69             |
| Noise and Vibration (without/with mitigation) | 27/3                     | 32/4                     | 118/118           |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. Ridership is 2015 weekday LRT rides. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

### Advantages:

- Would provide more direct light rail station access to employment and retail centers along N Interstate Avenue.
- Would provide quarter-mile light rail station access to 21 more acres of developable land than the I-5 Alternative (79 acres compared to 58 acres).
- The Portland Development Commission's North Portland Development Workshop concluded that two North Portland light rail stations associated with the Interstate Avenue Alternative would offer slightly better redevelopment opportunities than their I-5 Alternative counterparts (the Going and Portland Boulevard Stations).

### Disadvantages:

- Would cost \$69.2 million to \$88.8 million (future dollars) more to construct than the I-5 Alternative.
- Would cost \$739,000 (1994\$) more to operate at 2015 service levels than the I-5 Alternative.
- Would have 1,270 fewer 2015 weekday light rail rides than the I-5 Alternative.
- Light rail travel times in the segment would be one minute and 43 seconds slower than the I-5 Alternative (11 minutes and seven seconds compared to nine minutes and 24 seconds).
- Would displace 27 or 28 more businesses than the I-5 Alternative (29 displacements compared to one or two).
- Would have 25 more residential displacements than the I-5 Alternative with the Modify Alberta Ramps Design Option (69 residential displacements compared to 44).
- Would have 86 or 91 more non-mitigated noise and vibration impacts and 114 or 115 more mitigated noise and vibration impacts than the I-5 Alternative (118 non-mitigated impacts compared to 27 or 32, and 118 mitigated impacts compared to three or four).
- Traffic conditions would worsen compared to the All-Bus (No-Build) Alternative at the intersections of N Interstate Avenue at N Alberta Street, N Killingsworth Street and N Portland Boulevard.
- Automobile left-hand turns would generally be limited to every four to six blocks, compared to existing left-hand turns generally every other block.
- Would eliminate 93 on-street parking spaces.
- Construction impacts on traffic and local businesses would generally be greater than with the I-5 Alternative.

- Neighborhood cohesion in the Overlook, Arbor Lodge and Kenton Neighborhoods could be impacted because of the change to local pedestrian patterns that would occur from limiting pedestrian access across N Interstate Avenue to approximately every two blocks. This impact would be minimized through the design of the non-signalized pedestrian crossings.

## B. Alberta Ramp Design Options

The following section summarizes the Retain and Modify Alberta Ramps Design Options for the I-5 Alignment Alternative (see Figure 16).

### 1. Retain Alberta Ramps Design Option

The Retain Alberta Ramps Design Option would locate the I-5 light rail alignment west of N Minnesota Avenue between N Killingsworth Street and N Going Street and would retain the existing I-5 southbound on and off ramps at N Alberta Street.

#### Advantages:

- Would retain current automobile access to and from I-5 southbound.

#### Disadvantages:

- Would result in 63 more residential displacements than the Modify Alberta Ramps Design Option (107 displacements compared to 44).
- Would cost \$6.0 million or \$7.0 million (future dollars) more to construct than the Modify Alberta Ramps Design Option.

### 2. Modify Alberta Ramps Design Option

The Modify Alberta Ramps Design Option would remove the existing I-5 southbound ramps from N Alberta Street (instead, motorists would access I-5 south via N Interstate Avenue and N Going Street) and would combine the I-5 southbound off ramps at N Alberta Street and N Going Street into a single ramp onto N Going Street. Between N Killingsworth and Going Streets, light rail would be located between N Minnesota Street and I-5, the right-of-way occupied by the N Alberta Street on and off ramps.

#### Advantages:

- Would cost \$6.0 million or \$7.0 million (future dollars) less to construct than the Retain Alberta Ramps Design Option.
- Would result in 63 fewer residential displacements than the Retain Alberta Ramps Design Option (44 displacements compared to 107).

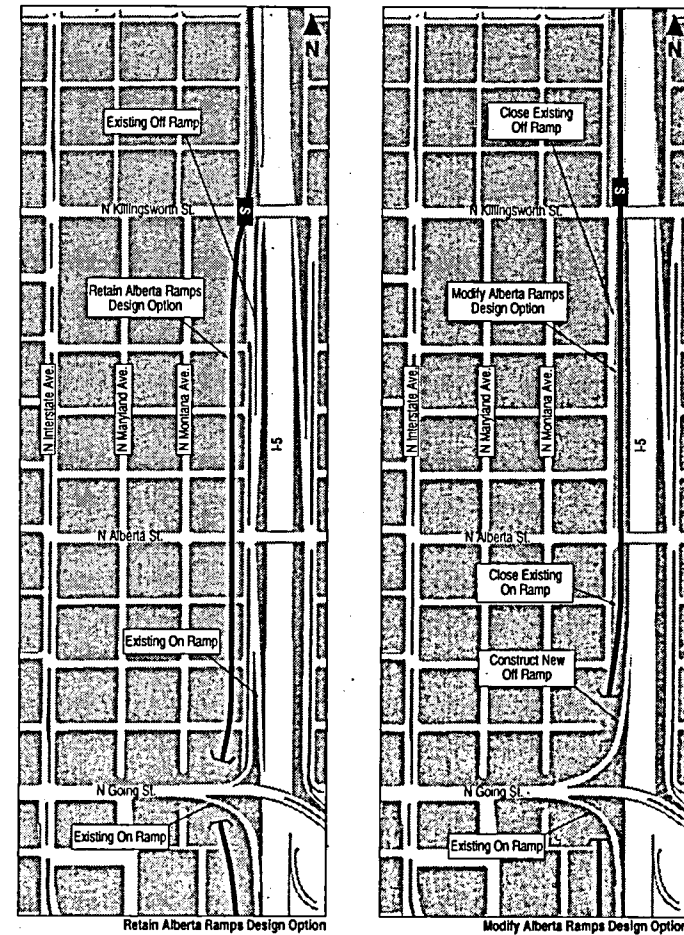


Figure 16 - Alberta Ramp Design Options

- Traffic conditions would improve at two intersections compared to the No-Build Alternative (i.e., the intersections of: N Interstate Avenue and N Alberta Street; N Alberta Street at N Minnesota Avenue).

#### Disadvantages:

- Compared to the All-Bus (No-Build) Alternative, the change in the ramp configuration could add up to two minutes in travel time for certain trips destined to or originating from North Portland (approximately 300 to 400 trips in the p.m. peak hour would experience an average increase of approximately one minute in travel time accessing I-5 southbound).
- Compared to the No-Build Alternative, traffic conditions would deteriorate at the intersections of N Interstate Avenue with N Going and Killingsworth Streets.

## XV Hayden Island/Vancouver

The Hayden Island/Vancouver Segment extends from N Marine Drive north of the Expo Center, across Hayden Island and the Columbia River, through downtown Vancouver to the vicinity of Clark College in Vancouver, Washington. The Hayden Island/Vancouver Segment is characterized by a wide variety of uses and is traversed by several major transportation facilities (see Figure 17). This segment includes the Jantzen Beach retail center, downtown Vancouver and the terminus for the Full-Length Alternative and MOS-1 at the Veterans Administration Hospital and Clark College.

The Hayden Island/Vancouver Segment includes one alignment (I-5/Washington Street) with four design options: the East of Washington Street and the West of Washington Street Design Options; and the Structured Veteran's Administration (VA) Park-and-Ride and the Surface VA Park-and-Ride Design Options.

### A. Washington Street Design Options

The following sections summarize the advantages and disadvantages of the East and West of Washington Street Design Options within downtown Vancouver.

#### 1. East of Washington Street Design Option

With the East of Washington Street Design Option, light rail would operate on the east side of Washington Street. A transit center would be located in the vicinity of W 7<sup>th</sup> Street near the C-TRAN transit center.

#### Disadvantages:

- Would result in one more non-mitigated noise and vibration impact than the West of Washington Street Design Option (two compared to one).

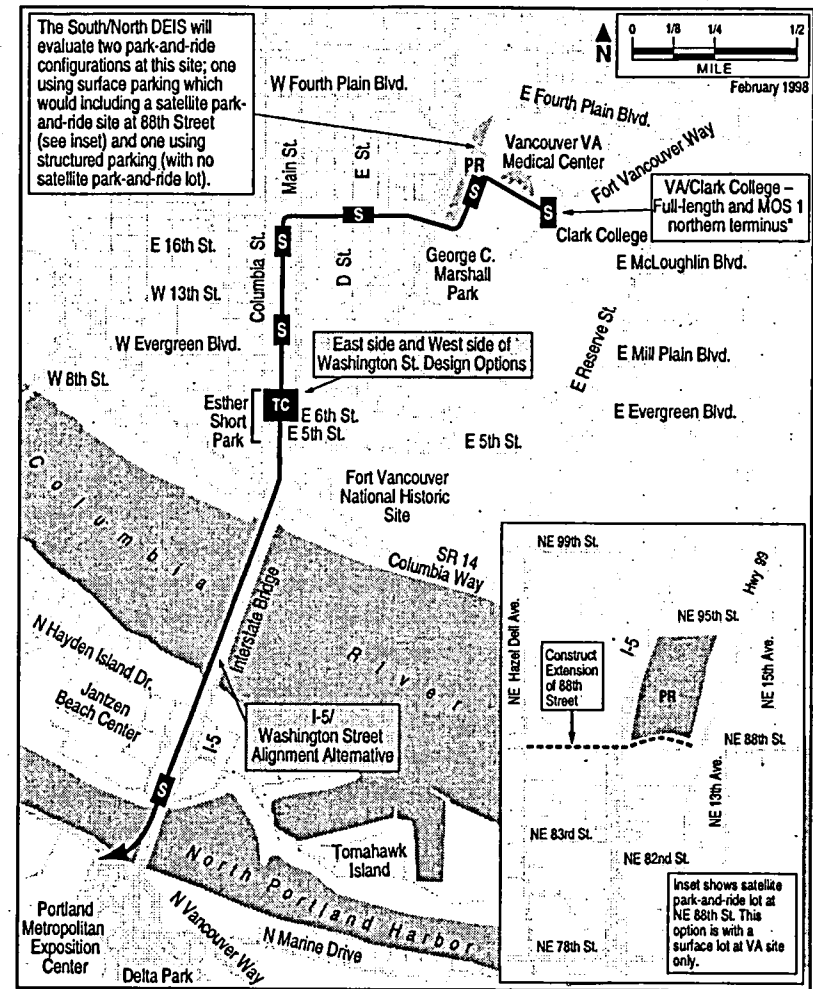


Figure 17 - Hayden Island/Vancouver Segment

### Hayden Island/Vancouver Segment

| Measure                                       | West of Washington Street | East of Washington Street |
|---|---------------------------|---------------------------|
| Capital Cost Difference                       | \$ 0                      | \$2.5 - \$3.0             |
| Noise and Vibration (without/with mitigation) | 1/1                       | 2/1                       |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars. See pages 6 and 7 for additional notes.

- Would cost \$2.5 million or \$3.0 million (future dollars) more to construct than the West of Washington Street Design Option.

#### 2. West of Washington Street Design Option

With the West of Washington Street Design Option, light rail would operate on the west side of Washington Street. A transit center would be located in the vicinity of W 7<sup>th</sup> Street near the Esther Short redevelopment parcel bordered by W 5<sup>th</sup> and 7<sup>th</sup> Streets, and Main and Columbia Streets.



### Advantages:

- Would cost \$2.5 or \$3.0 (future dollars) less to construct than the East of Washington Street Design Option.
- Would result in one less non-mitigated noise and vibration impact than the West of Washington Street Design Option (one compared to two).

### B. North Terminus Park-and-Ride Lot Design Options

The following sections summarize the advantages and disadvantages of the Structured and Surface VA Park-and-Ride Lot Design Options that would be located near Clark College in Vancouver, Washington.

#### 1. Structured VA Park-and-Ride Lot Design Option

This design option would include a station and structured park-and-ride lot (approximately 3,900 spaces) in the vicinity of the VA Medical Center.

#### Advantages:

- Would cost \$423,000 (1994\$) less to operate at 2015 service levels than the Surface VA Park-and-Ride Lot Design Option.
- Weekday 2015 light rail ridership would be 3,890 rides higher than with the Surface VA Park-and-Ride Lot Design Option.

#### Disadvantages:

- Would result in one more non-mitigated noise and vibration impact than the West of Washington Street Design Option (two compared to one).
- Compared to the All-Bus (No-Build) Alternative, traffic level of service at the intersection of E Fourth Plain Boulevard and the northbound I-5 ramps would worsen, and the driveway entrance onto E Fourth Plain Boulevard would operate at congested levels (LOS F).

#### 2. Surface VA Park-and-Ride Lot Design Option

This design option would include a surface park-and-ride lot (approximately 1,000 spaces) in the vicinity of the VA Medical Center. With the surface park-and-ride lot design option, an additional satellite park-and-ride lot (approximately 1,500 spaces) would be developed at NE 88<sup>th</sup> Street, linked to the light rail line by shuttle bus service.

### Advantages:

- Would cost \$47.0 million or \$55.5 million (future dollars) less to construct than the Structured VA Park-and-Ride Lot Design Option.

### Disadvantages:

- Would provide 1,400 fewer park-and-ride spaces within the north portion of the corridor, and 1,500 spaces at the satellite park-and-ride location at NE 88<sup>th</sup> Street would require a bus trip and transfer to access South/North light rail.
- Would cost \$423,000 (1994\$) more to operate at 2015 service levels than the Structured VA Park-and-Ride Lot Design Option.
- Weekday 2015 light rail ridership would be 3,890 rides lower than with the Structured VA Park-and-Ride Lot Design Option.
- Would displace four more businesses than the Structured VA Park-and-Ride Lot Design Option (16 displacements compared to 12).
- Would displace 5.1 acres of wetland compared to no wetland displacements with the Structured VA Park-and-Ride Lot Design Option.

Hayden Island/Vancouver Segment  
VA Park-and-Ride Lot Design Options

| Measure  | Structured VA<br>P&R Lot | Surface VA<br>P&R Lot |
|--|--------------------------|-----------------------|
| Capital Cost Difference                          | \$47.0 - \$55.5          | \$ 0                  |
| O&M Cost Difference                              | \$ 0                     | \$423,000             |
| Weekday LRT Rides                                | 3,890                    | 0                     |
| Displacements<br>(business/residential)          | 12/12                    | 16/12                 |
| Acres of Wetland<br>Displaced                    | 0                        | 5.1                   |
| Noise and Vibration<br>(without/with mitigation) | 2/1                      | 1/1                   |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. O&M costs are operating and maintenance costs at 2015 service levels in 1994 dollars.

## XVI Maintenance Facility

A light rail operations and maintenance (O&M) facility would be located in one of three locations within the South/North Corridor. This section summarizes the advantages and disadvantages of those alternate sites. More information may be found in Appendix G of the South/North DEIS.

There are currently two O&M facilities that serve the 15-mile Eastside MAX light rail system and the 18-mile Westside light rail extension from Portland to Hillsboro: Ruby Junction and Elmonica, located in the Eastside and Westside corridors, respectively. The three alternate sites for a South/North light rail O&M facility are: the Hanna-Harvester and the South of Ochoco sites in the north Milwaukie industrial area located in the Milwaukie Regional Center Segment (see Figure 7), and the Brooklyn Yard site in southeast Portland located in the South Willamette River Crossing Segment (see Figure 9). Note that while most of the combinations of O&M facility sites and north Milwaukie park-and-ride sites would be feasible (e.g., a Brooklyn Yard O&M facility coupled with a Tacoma Street Park-and-Ride Lot), combinations that would place both facilities on either the South of Ochoco site or the Hanna-Harvester site would not be feasible because the sites are too small to accommodate both facilities (see Section IX for a comparison of the north Milwaukie park-and-ride sites).

### A. Hanna-Harvester Site

The proposed Hanna-Harvester light rail O&M facility site would be located just north of Highway 224 in north Milwaukie, between SE McLoughlin Boulevard and the SPRR Tillamook Branch Line.

#### Advantages:

- Would be the second least costly facility to construct, \$.03 million less than the Ochoco site and the same as the Brooklyn Yard site with the Ross Island Crossing Alternative (future dollars).
- Would result in the fewest displacements (four business displacements compared to five or nine).
- Would increase pervious surface area with a resultant decrease in rate and volume of stormwater runoff.

## Maintenance Facility Sites

|                                      | Brooklyn Yard |               | South of Ochoco | Hanna-Harvester |
|--------------------------------------|---------------|---------------|-----------------|-----------------|
|                                      | Caruthers     | Ross Island   |                 |                 |
| Capital Cost Difference              | \$0           | \$5.5 - \$6.5 | \$5.8 - \$6.8   | \$5.5 - \$6.5   |
| Deadheading Cost Difference          | \$0           | \$0           | \$47,000        | \$61,000        |
| Displacements (business/residential) | 5/0           | 9/0           | 5/0             | 4/0             |

Notes: Based on the Full-Length Alternative. Cost and ridership differences are from the lowest cost or ridership alternative. Capital costs are in millions and future dollars. The range of capital cost differences would be due to changes in construction schedules. Deadheading costs are operating and maintenance costs at 2015 service levels in 1994 dollars.

#### Disadvantages:

- Would have the highest annual O&M costs for 2015 service levels, \$14,000 or \$61,000 (1994\$) more than the South of Ochoco site or the Brooklyn Yard site, respectively.
- Would cost \$5.5 million or \$6.5 million (future dollars) more to construct than the Brooklyn Yard Site with the Caruthers Crossing Alternative.
- Would displace three hazardous materials sites that could require a complex site cleanup.

### B. South of Ochoco Site

The proposed South of Ochoco site for the South/North light rail O&M facility would be located in north Milwaukie immediately south of SE Ochoco Street, between SE McLoughlin Boulevard and the UPRR Tillamook Branch Line.

#### Advantages:

- Would result in the second fewest displacements (five, same as Brooklyn Yard site with Caruthers Crossing Alternative).

#### Disadvantages:

- Would have the second highest annual O&M costs for 2015 service levels, \$47,000 (1994\$) more than the Brooklyn Yard site.

- Would have the highest construction cost, \$5.8 million or \$6.8 million more than the Brooklyn Yard Site with the Caruthers Crossing Alternative and \$0.3 million more than the Hanna-Harvester site (future dollars).
- Removal of the Springwater Corridor berm could impact flooding to the south.

### **C. Brooklyn Yard Site**

The proposed Brooklyn Yard site for the South/North light rail O&M facility would be located in SE Portland immediately south of SE Holgate Boulevard, between SE 17<sup>th</sup> Avenue and the UPRR Main Line. The O&M facility would be in the same location with either the Caruthers Crossing or the Ross Island Crossing Alternative, however, the Caruthers Crossing alignment between SE Holgate Boulevard and SE McLoughlin Boulevard would be shifted west from SE 18<sup>th</sup> Avenue to SE 17<sup>th</sup> Avenue to accommodate the Brooklyn Yard O&M site. Therefore, the costs and displacements for the Brooklyn Yard O&M site would vary depending on which South Willamette River Crossing alternative is selected.

#### **Advantages:**

- With the Caruthers Crossing Alternative, the Brooklyn Yard O&M site would have the lowest capital cost, \$5.5 million to \$6.8 million (future costs) less than the other sites.
- Would have the lowest annual O&M costs for 2015 service levels, \$47,000 or \$61,000 (1994\$) less than the South of Ochoco or the Hanna-Harvester site, respectively.
- Would increase pervious surface area with resultant decrease in rate and volume of stormwater runoff.

#### **Disadvantages:**

- With the Ross Island Crossing Alternative, the Brooklyn Yard O&M facility site would have the highest number of business displacements (nine compared to four or five).
- With the Ross Island Crossing Alternative, the Brooklyn Yard O&M facility site would have the second highest capital cost, \$5.5 million to \$6.5 million (future dollars) more than the Brooklyn Yard with the Caruthers Crossing Alternative.
- Would displace one hazardous materials site that could require a complex site cleanup.



## Appendix A

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### *Nomenclature and Acronyms*



## A. LIST OF PROJECT NOMENCLATURE

This *Briefing Document* and the DEIS discuss the South/North Transit Corridor alternatives and options, including the All-Bus (No-Build) Alternative, four light rail length alternatives and several light rail alignment alternatives, design options and terminus options.

The following provides summary definitions of selected study nomenclature, including the types of alternatives and options that define the range of alternatives for the South/North Corridor. More complete descriptions of each alternative and option, are included in Chapter 2 of the DEIS.

**South/North Transit Corridor Study.** The full collection of the studies and processes associated with the proposed South/North Light Rail Project. Those studies and processes include the Preliminary Alternatives Analyses, Tier I Narrowing of Alternatives, Design Option Narrowing, Major Investment Study, Cost-Cutting, DEIS, Locally Preferred Strategy, Final EIS, Preliminary Engineering, Final Design and other steps.

**South/North Alternatives and Options.** Includes all actions being considered in the DEIS, including the All-Bus (No-Build) Alternative and light rail length alternatives (Full-Length and Minimum Operable Segments), alignment alternatives, terminus options and design options.

**South/North Light Rail Alternatives.** Includes the Full-Length Alternative and all MOSs.

**Length Alternatives.** Length alternatives specify alternatives that vary in the designation of south and north terminus points (and thus, the overall length of the project) for the proposed light rail line. Length alternatives other than the Full-Length Alternative are considered to be interim phases of the full South/North Project and are termed Minimum Operable Segments (MOSs).

**Minimum Operable Segment (MOS).** A shorter segment of the Full-Length Alternative that could be successfully operated on an interim or long-term basis and that could be extended to the Full-Length Alternative at a later time. Three MOSs are discussed in this *Briefing Document* and the DEIS (MOSs 1, 2 and 5). MOS 3 and 4 were removed from further study as a result of the Cost-Cutting process.

**Alignment Alternatives.** Alignment alternatives specify the general location of light rail alignment choices within a given segment of the South/North Corridor.

**Design Options.** Design options specify detailed route choices within an alignment alternative.

**Terminus Options.** Terminus options are alternate sites or facility configurations for the northern or southern terminus location associated with a length alternative.

**Full-Length Alternative** – a proposed 21-mile, double-tracked light rail alignment, stations, park-and-ride lots and bus and light rail service improvements that would extend from the Clackamas Regional Center, through Milwaukie, southeast Portland, downtown Portland, north Portland and downtown Vancouver to Clark College.

**MOS 1 (Bi-State)** – a proposed 18-mile, double-tracked light rail alignment, stations, park-and-ride lots and bus and light rail service improvements that would extend from the Milwaukie Regional Center, through southeast Portland, downtown Portland, north Portland and downtown Vancouver to Clark College.

**MOS 2 (Rose Quarter)** – a proposed 12-mile, double-tracked light rail alignment, stations, park-and-ride lots and bus and light rail service improvements that would extend from the Clackamas Regional Center, through downtown Milwaukie, southeast Portland and downtown Portland to the Rose Quarter.

**MOS 5 (Lombard)** – a proposed 16-mile, double-tracked light rail alignment, stations, park-and-ride lots and bus and light rail service improvements that would extend from the Clackamas Regional Center, through downtown Milwaukie, southeast Portland, downtown Portland, to N Lombard Street in north Portland.

**Clackamas Regional Center Segment.** Refers to the segment beginning east of the Clackamas Town Center, extending west along SE Sunnyside and SE Harmony Roads to SE Cedarcrest Drive.

**East Milwaukie Segment.** Refers to the segment extending west from SE Cedarcrest Drive along the UPRR line and SE Railroad Avenue, or along SE Harmony Road and Highway 224.

**Milwaukie Regional Center Segment.** Refers to the segment from where Highway 224 crosses over the UPRR line in Milwaukie, extending north along the UPRR line to SE Tacoma Street.

**McLoughlin Boulevard Segment.** Refers to the segment extending north from SE Tacoma Street along SE McLoughlin Boulevard and along the UPRR line to SE 20<sup>th</sup> Street.

**South Willamette River Crossing Segment.** Refers to the segment from SE 20<sup>th</sup> Street, extending north across SE McLoughlin Boulevard and crossing the Willamette River via a new bridge in the vicinity of either Ross Island or south of the Marquam Bridge to SW Front Avenue and SW Harbor Drive.

**Downtown Portland Segment.** Refers to the segment that extends from SW Harbor Drive and SW Front Avenue through downtown Portland, on SW 5th and 6th Avenues, and across the Willamette River on the existing Steel Bridge to the Rose Quarter.

**Eliot Segment.** Refers to the segment that extends from the Rose Quarter, north along I-5 including the Eliot Neighborhood to the Edgar Kaiser Medical Facility.

**North Portland Segment.** Refers to the segment extending north from the Edgar Kaiser Medical Facility, along N Interstate Avenue and I-5, to the Portland Expo Center, just south of the North Portland Harbor.

**Hayden Island/Vancouver Segment.** Refers to the segment that crosses the North Portland Harbor, Hayden Island and the Columbia River, and extends north through downtown Vancouver to the Vancouver VA Medical Center/Clark College area.

## LIST OF ACRONYMS

AA - Alternatives Analysis  
ACHP - Advisory Council for Historic Preservation  
Btu - British Thermal Unit  
CBD - Central Business District  
CCC - Clackamas Community College  
CCTMP - Central City Transportation Management Plan  
CERCLIS - Comprehensive Environmental Response, Compensation and Liability Information System  
C-TRAN - Clark County Public Transportation Benefit Area Authority  
CTC - Clackamas Town Center  
dBA - A-weighted decibel  
DEIS - Draft Environmental Impact Statement  
ECSI - Environmental Clean-up Site Information  
EIS - Environmental Impact Statement  
FEIS - Final Environmental Impact Statement  
FFGA - Full Funding Grant Agreement  
FTA - Federal Transit Administration  
FY - Fiscal Year  
HCT - High Capacity Transit  
LOS - Level of Service  
LPS - Locally Preferred Strategy  
LRT - Light Rail Transit  
LRV - Light Rail Vehicle  
MAX - Metropolitan Area Express (existing eastside LRT system)  
MIS - Major Investment Study  
MOA - Memorandum of Agreement  
MOS - Minimum Operable Segment  
N - North

NE - Northeast  
NW - Northwest  
NEPA - National Environmental Policy Act  
O&M - Operations and Maintenance  
OAHP - Office of Archaeology and Historic Preservation  
ODOT - Oregon Department of Transportation  
OIT/CCC - Oregon Institute of Technology/Clackamas Community College  
OMSI - Oregon Museum of Science and Industry  
P&R - Park and Ride  
Pre-AA - Preliminary Alternatives Analysis  
ROW - Right-of-Way  
RTC - Southwest Washington Regional Transportation Council  
RTP - Regional Transportation Plan  
SE - Southeast  
SHPO - State Historic Preservation Officer  
SW - Southwest  
TIP - Transportation Improvement Program  
Tri-Met - Tri-County Metropolitan Transportation District of Oregon  
UGB - Urban Growth Boundary (Oregon)  
UPRR - Union Pacific Railroad  
VA - Veterans Administration Medical Center in Vancouver  
V/C - Volume to Capacity Ratio  
VHT - Vehicle Hours Traveled  
VMT - Vehicle Miles Traveled  
YOE - Year of Expenditure  
  
2040 - Region 2040 Growth Concept  
4(f) - Federal Parkland Regulations

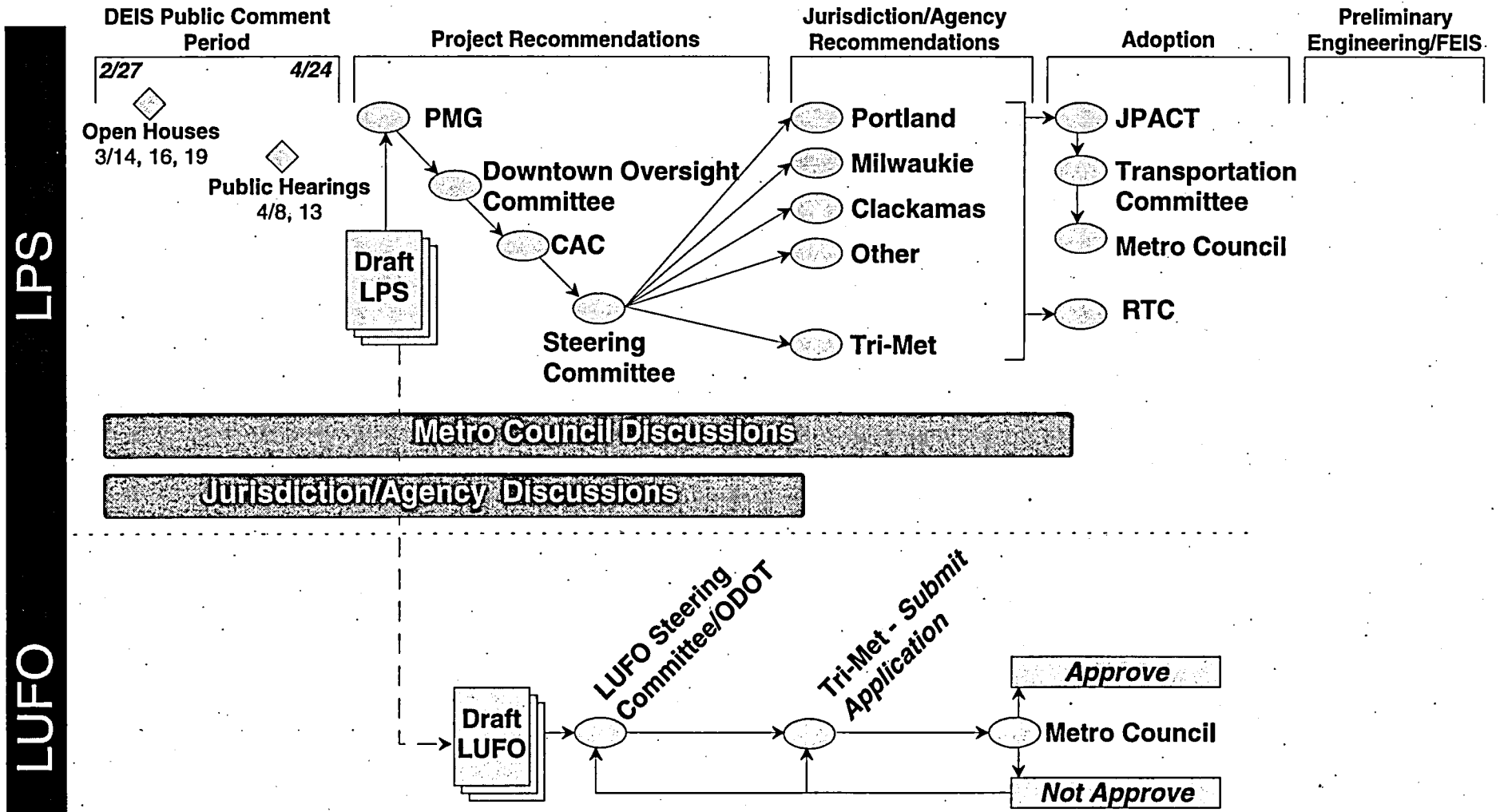


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*Locally Preferred Strategy Decision-Making Process*



**Figure B - 1  
South/North Project  
Locally Preferred Strategy (LPS) and Land Use Final Order (LUFO)  
Adoption Process**





***Criteria and Measures for the All-Bus (No-Build) and  
Light Rail Length Alternatives***



**Table C-1  
Alignment Alternatives and Design Options Used for Length Alternative Analysis**

| <b>Segment</b>                                  | <b>Alignment Alternative</b>         | <b>Design Option</b>  | <b>Terminus Options</b>    |
|---|--------------------------------------|---|----------------------------|
| Clackamas Regional Center                       | South of CTC                         | South of OIT/CCC  | SE 93 <sup>rd</sup> Avenue |
| East Milwaukie <sup>1</sup>                     | Railroad Avenue/<br>Through Traffic  | N/A   | N/A                        |
| Milwaukie Regional Center <sup>2</sup>          | Main Street/Tillamook<br>Branch Line | N/A   | N/A                        |
| McLoughlin Boulevard <sup>3</sup>               | McLoughlin Boulevard                 | N/A   | N/A                        |
| South Willamette River<br>Crossing <sup>4</sup> | Ross Island                          | East of McLoughlin Blvd.  | N/A                        |
| Downtown Portland<br>Eliot                      | Full Transit Mall<br>East I-5/Kerby  | Glisan Street<br>Grade-Separated Broadway/Weidler<br>and Multi-Level Rose Quarter TC <sup>5</sup> | N/A<br>N/A                 |
| North Portland                                  | I-5                                  | Retain Alberta Ramps  | N/A                        |
| Hayden Island/Vancouver <sup>6</sup>            | I-5/Washington Street                | Eastside of Washington Street   | Structured P&R Lot         |

Source: *South/North Definition of Alternatives Compendium* (Metro: February 1998).

<sup>1</sup> With Wood Avenue Station.

<sup>2</sup> With a Tacoma Street park-and-ride lot.

<sup>3</sup> With rebuilding of Bybee Overpass.

<sup>4</sup> Concrete segmental bridge type with a Brooklyn Yard maintenance facility.

<sup>5</sup> MOS 2 is based upon minimal improvements to the Rose Quarter Transit Center and at NE 11<sup>th</sup> Avenue and NE Holladay Street.

<sup>6</sup> Bow-string bridge type for Columbia River Crossing.

**Table C-2  
Evaluation Criteria and Measures – All-Bus and Light Rail Length Alternatives**

| Objective/Criteria                          | Measure  | All-Bus<br>(No-Build)   | Full-Length   | MOS 1<br>(Bi-State)  | MOS 2<br>(Rose Quarter)   | MOS 5<br>(Lombard)  |
|---|--|---|---|--|---|---|
| <b>Provide High Quality Transit Service</b> |  |   |   |  |   |   |
| Light Rail Coverage                         | Increase in population within .25 miles of LRT stations  | 0   | 32,550  | 29,000   | 19,330  | 29,340  |
|   | Increase in employment within .25 miles of LRT stations  | 0   | 102,640   | 90,510   | 74,660  | 87,140  |
| Reliability                                 | Miles of exclusive transit R-O-W   | 1.01  | 20.61   | 16.74  | 11.66   | 15.31   |
|   | % of protected trunkline intersections   | 0%  | 79%   | 84%  | 73%   | 81%   |
|   | % of total corridor passenger miles on exclusive transit R-O-W                                 | 2%  | 40%   | 34%  | 20%   | 22%   |
| Quality of Transfers                        | Ease of transfers  | No transfer by Gladstone - Oregon City to Portland CBD patrons. | Transfer required by Gladstone - Oregon City to Portland CBD patrons. | Clackamas - East Milwaukie to Portland CBD patrons transfer at Milwaukie TC. | Transfer required by Gladstone - Oregon City to Portland CBD patrons. | Transfer required by Gladstone - Oregon City to Portland CBD patrons. |
|   | Ability to site park-and-ride lots   | Does not meet current or future demand for park-and-ride.       | Able to meet corridor demand.   | Does not meet demand in south corridor by 2,800 spaces.                      | Able to meet demand in southern portion of corridor.                  | Able to meet demand in southern portion of corridor.                  |
| Travel Times                                | In-vehicle PM peak transit travel time; Portland CBD to Milwaukie (in minutes)                 | 28  | 20  | 20   | 20  | 20  |
|   | In-vehicle PM peak transit travel time; Portland CBD to Clackamas Regional Center (in minutes) | 42  | 28  | 30   | 28  | 28  |
|   | In-vehicle PM peak transit travel time; Portland CBD to N Lombard Street (in minutes)          | 27  | 17  | 17   | 26  | 17  |
|   | In-vehicle PM peak transit travel time; Portland CBD to Vancouver CBD (in minutes)             | 40  | 27  | 27   | 40  | 40  |
| Transit Ridership                           | Corridor originating transit rides (average weekday)   | 125,900   | 163,700   | 152,500  | 134,400   | 140,100   |
|   | South/North LRT ridership (average weekday)  | N/A   | 68,030  | 56,220   | 27,655  | 40,210  |
|   | PM peak radial trip mode split (Portland CBD to S/N Corridor)                                  | 25%   | 38%   | 32%  | 33%   | 33%   |



| Objective/Criteria  | Measure  | All-Bus<br>(No-Build)                               | Full-Length   | MOS 1<br>(BI-State)   | MOS 2<br>(Rose Quarter)  | MOS 5<br>(Lombard)   |
|---|--|---|---|---|--|--|
| <b>Ensure Effective Transit Operations</b>                                |  |   |   |   |  |  |
| Operating Effectiveness   | Downtown Portland operations   | Transit Mall accommodates forecast bus volumes.     | Full Mall only. Transit Mall accommodates forecast bus and LRT volumes. | Full Mall only. Transit Mall accommodates forecast bus and LRT volumes. | Half or Full Mall. Mall accommodates forecast bus and LRT volumes. | Half or Full Mall. Mall accommodates forecast bus and LRT volumes. |
| <b>Maximize Ability of Transit to Accommodate Growth in Travel Demand</b> |  |   |   |   |  |  |
| Year 2015 Growth Accommodated by Transit                                  | Corridor network expansion capability  | Additional bus service needed to maintain headways. | Capability to double Year 2015 LRT capacity.                            | Capability to double Year 2015 LRT capacity.                            | Capability to more than double Year 2015 LRT capacity.             | Capability to more than double Year 2015 LRT capacity.             |
|   | Corridor passenger miles on transit  | 665,700   | 980,800   | 882,900   | 757,200  | 798,000  |
|   | % of new radial corridor trips on transit                                    | 6%  | 49%   | 32%   | 32%  | 34%  |
| <b>Minimize Traffic and Neighborhood Infiltration</b>                     |  |   |   |   |  |  |
| Highway System Use  | Reduction in regional vehicle miles of travel (from the All-Bus Alternative) | 0   | -213,700  | -161,000  | -50,900  | -113,500   |
|   | Reduction in regional vehicle hours of delay (from the All-Bus Alternative)  | 0   | -4,500  | -4,400  | -3,900   | -4,400   |
|   | Reduction in capacity-deficient lane-miles (Volume/Capacity > .90)           | 0   | -16   | -6  | -8   | -14  |
|   | Reduction in regional p.m. peak-hour vehicle trips                           | 0   | -4,200  | -2,800  | -1,050   | -1,450   |
| Neighborhood Infiltration Relief  | P.M. peak transit ridership at N/NE Portland Boulevard                       | 1,500   | 3,550   | 3,360   | 1,510  | 1,480  |
|   | P.M. peak transit ridership at SE Tacoma Street                              | 910   | 2,230   | 1,340   | 2,100  | 1,930  |
|   | P.M. peak hour/direction LRT ridership at peak-load point                    | N/A   | 3,110   | 2,950   | 2,065  | 2,070  |
| <b>Facilitate Efficient Land Use Patterns</b>                             |  |   |   |   |  |  |
| Support Development Objectives  | Vacant and redevelopable acres served by LRT                                 | 0   | 430   | 319   | 336  | 412  |
| Support Local Policies and Activity Centers                               | # of households within 45 min. of Portland CBD by transit                    | 209,800   | 217,000   | 211,100   | 215,000  | 215,000  |
|   | # of households within 45 min. of Milwaukie CBD by transit                   | 95,000  | 107,400   | 101,400   | 106,500  | 106,500  |

| Objective/Criteria  | Measure   | All-Bus<br>(No-Build)                               | Full-Length   | MOS 1<br>(BI-State)   | MOS 2<br>(Rose Quarter)  | MOS 5<br>(Lombard)  |
|---|---|---|---|---|--|---|
|   | # of households within 45 min. of Clackamas Regional Center by transit                      | 93,500  | 98,300  | 85,900  | 98,300   | 98,300  |
|   | # of households within 45 min. of Lloyd District by transit                                 | 159,900   | 172,300   | 165,600   | 164,900  | 169,000   |
|   | # of households within 45 min. of Vancouver CBD by transit                                  | 88,000  | 126,000   | 126,000   | 88,000   | 88,000  |
|   | Parking spaces saved in downtown Portland   | 0   | 3,790   | 2,030   | 2,120  | 2,220   |
| Support Regional Land Use Policies                                  | Manage urban growth boundary  | Least supportive, increases pressure to expand UGB. | Most supportive, provides most transit capacity to Central City and Regional Centers. | Third most supportive as it serves Clackamas Regional Center. | Fourth most supportive as it does not serve Clackamas Regional Center. | Second best support, serves Clackamas Regional Center and more developable land than MOS 1. |
|   | Support regional air quality plan; Reduction in CO, NO <sub>x</sub> , NMHC (in annual tons) | 0   | 816   | 607   | 177  | 369   |
|   |   | 0   | 138   | 104   | 33   | 70  |
|   |   | 0   | 102   | 76  | 22   | 46  |
| <b>Balance Engineering Efficiency and Environmental Sensitivity</b> |   |   |   |   |  |   |
| Displacements   | Number of residential units   | 0   | 333   | 232   | 188  | 304   |
|   | Number of businesses  | 0   | 77  | 70  | 51   | 64  |
|   | Number of institutions/public facilities  | 0   | 3   | 2   | 1  | 2   |
| Noise and Vibration Impacts   | Number of structures impacted (with - without mitigation)                                   | 0 - 0   | 15 - 66   | 10 - 47   | 10 - 37  | 14 - 60   |
| Wetlands Impacts  | Acres of filled or spanned wetlands   | 0   | 2.96  | 1.61  | 1.52   | 1.52  |
| Park Impacts  | Acres of parkland displaced   | 0   | 1.95  | 1.49  | 0.74   | 0.74  |
|   | Number of parks impacted by noise   | 0   | 3   | 2   | 2  | 2   |
| Floodplain Impacts  | Cubic feet of fill in the 100-year floodplain   | 0   | 22,300  | 9,600   | 21,200   | 21,200  |
| Historic/Cultural Impacts   | Number of impacted or used sites  | 0   | 14  | 8   | 12   | 12  |
| Fiscal Stability and Efficiency                                     |   |   |   |   |  |   |
| FTA Index   | FTA Index   | N/A   | \$8.99  | \$10.34   | \$21.18  | \$15.77   |
| Other Cost-Effectiveness Measures                                   | Operating cost per corridor transit ride  | \$2.24  | \$2.05  | \$2.10  | \$2.34   | \$2.29  |

| Objective/Criteria                  | Measure  | All-Bus<br>(No-Build)  | Full-Length  | MOS 1<br>(Bi-State)  | MOS 2<br>(Rose Quarter)   | MOS 5<br>(Lombard)   |
|-------------------------------------|--|--|--|--|---|--|
|                                     | Operating subsidy per corridor transit ride      | \$1.58   | \$1.34   | \$1.39   | \$1.66  | \$1.59   |
|                                     | Corridor LRT boarding riders per revenue hour    | N/A  | 228.3  | 236.2  | 157.1   | 203.1  |
| <b>Social Equity Considerations</b> |  |  |  |  |   |  |
| Impacts                             | Impacts to low-income or minority neighborhoods  | No adverse environmental impacts to any low-income or minority neighborhood. | Displacements compared to improved transit service proportionate to other neighborhoods. | Displacements compared to improved transit service proportionate to other neighborhoods.   | Displacements compared to improved transit service proportionate to other neighborhoods.  | Displacements compared to improved transit service proportionate to other neighborhoods.   |
| Benefits                            | Benefits to low-income or minority neighborhoods | Does not improve transit access to any low-income or minority neighborhood.  | Improves transit access to the most low-income (19) and minority (14) neighborhoods.     | Improves transit access to 17 low-income and 14 minority neighborhoods, including highest regional concentrations in Eliot, Boise, Humboldt. | Improves transit access to 8 low-income and 6 minority neighborhoods, but not to the highest regional concentrations in Eliot, Boise, Humboldt. | Improves transit access to 15 low-income and 13 minority neighborhoods, including highest regional concentrations in Eliot, Boise, Humboldt. |



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*Future Year Costs and Financial Feasibility Analysis*



## D. FUTURE YEAR COSTS AND FINANCIAL FEASIBILITY ANALYSIS

This appendix summarizes the future year costs and the results of the financial feasibility analysis for the light rail length alternatives.

### D.1 Costs

Table D-1 presents the South/North Light Rail Project capital costs in year-of-expenditure dollars for the light rail length alternatives. The project's capital costs would include all facility improvements and vehicle purchases required by each length alternative in excess of the capital costs that are currently committed and included within the No-Build Alternative. The table includes a range of capital costs for each length alternative because each light rail length alternative has various alignment alternatives and design options, each with different capital costs. The majority of the differences in these cost ranges would be the result of alignment alternatives and design options within Clackamas Regional Center, East Milwaukie, Downtown Portland, Eliot and North Portland segments. Year of expenditure project capital costs would range from the lowest cost length alternative, MOS 2 (Rose Quarter) (\$936 to \$1,228 million) to the highest cost length alternative, the Full-Length Alternative (\$2,034 to \$2,508 million).

As noted previously, system costs include all capital and O&M expenditures by Tri-Met over a 21-year period (between fiscal years 1995 and 2015), except the South/North Project capital costs. The total system cost, summarized in Table D-1, is the aggregate of system capital costs and system operating costs. System operating costs would include all annual transit O&M costs, including the cost of operating the customary increases in transit service hours throughout the transit system that would be required to maintain transit headways and capacity. For the LRT alternatives, system operating costs include costs associated with the phase-in of the South/North Corridor bus network expansion and the O&M costs of the South/North light rail line. System costs would range from \$7,110 million with MOS 2 to \$7,240 million with the Full-Length Alternative (in year of expenditure dollars).

### D.2 Currently Available Revenues

As summarized in Table D-1, under the current project finance plan, up to \$540 million in capital revenues are available for the South/North Light Rail Project, depending on the length alternative; not all sources or amounts would be available for all length alternatives. The currently available project capital revenues consist of the following:

March 20, 1998

Table D-1  
Summary of Project and System Financial Feasibility Analysis

| Finance Plan Element                                |      | Full-Length | MOS 1<br>(Bi-State) | MOS 2<br>(Rose Quarter) | MOS 5<br>(Lombard) |
|---|------|-------------|---------------------|-------------------------|--------------------|
| <b>Project Capital Finance Plan</b>                 |      |             |                     |                         |                    |
| Year of Expenditure Cost                            | Low  | \$2,034.3   | \$1,737.0           | \$935.8                 | \$1,191.0          |
|   | High | \$2,507.8   | \$1,963.7           | \$1,228.4               | \$1,648.6          |
| Available Revenue                                   | Low  | \$540.0     | \$530.0             | \$467.9                 | \$540.0            |
|   | High | \$540.0     | \$530.0             | \$515.0                 | \$540.0            |
| Existing Revenue Need                               | Low  | \$1,494.3   | \$1,207.0           | \$467.9                 | \$651.0            |
|   | High | \$1,967.8   | \$1,433.7           | \$713.4                 | \$1,108.6          |
| Proposed New Start Federal Funds                    | Low  | \$1,094.3   | \$867.0             | \$467.8                 | \$651.0            |
|   | High | \$1,547.8   | \$1,033.7           | \$713.4                 | \$1,108.6          |
| Proposed Regional Compact Funds                     | Low  | \$400.0     | \$340.0             | \$0.0                   | \$0.0              |
|   | High | \$420.0     | \$400.0             | \$0.0                   | \$0.0              |
| Interim Borrowing Need                              | Low  | \$129.7     | \$38.7              | \$39.9                  | \$44.1             |
|   | High | \$480.6     | \$162.6             | \$257.4                 | \$407.5            |
| <b>System Finance Plan:</b>                         |      |             |                     |                         |                    |
| Total System O&M and Capital Costs                  |      | \$7,240     | \$7,140             | \$7,110                 | \$7,140            |
| Total System O&M and Capital Revenues               |      | \$7,350     | \$7,300             | \$7,260                 | \$7,280            |
| Low Year Working Capital                            |      | 2.7         | 2.7                 | 2.7                     | 2.7                |
| Years With Working Capital Below 3.0/2.0 After 1997 |      | 1/0         | 2/0                 | 1/0                     | 1/0                |

Note: MOS = minimum operable segment; O&M = operations and maintenance. Costs are in millions and year-of-expenditure dollars. Low = the cost or revenue that would result from selecting the lowest cost alignment alternative and design option in each segment; High = the cost or revenue that would result from selecting the highest cost alignment alternative and design option in each segment. Interim borrowing estimates are for end-of-year borrowing; peaks within a year are possible, which would increase the amount of credit guarantees that would be required. This issue will be addressed further in the Final Environmental Impact Statement.

- **\$475 Million from Tri-Met Light Rail General Obligation Bonds** approved by Tri-Met district voters in November 1994, subject to the availability of Federal matching funds. The approval authorizes Tri-Met to issue the bonds and to levy ad valorem taxes to repay the debt. For those project alternatives and options that would not require the full bond authority to be used to achieve a 50 percent local match, such as MOS 2 (Rose Quarter), the remaining bond authority that would not be required for the initial construction segment of the project would be reserved for a project segment that would be constructed at a later date.
- **\$55 Million in Flexible Funds** (Surface Transportation Program funds) were approved in January 1997 by the Joint Policy Advisory Committee on Transportation and the Metro Council for the South/North Light Rail Project. Surface Transportation Program funds are allocated to the Oregon Department of Transportation (ODOT) on the basis of a Federal formula. ODOT, in turn, allocates a portion of the funds to metropolitan regions within Oregon by formula.

- **\$10 Million in Tax Increment Funds** approved by the Clackamas County Board of Commissioners, acting as the urban renewal agency for the County, for the construction of the South/North Light Rail Project.
- **Interest Earnings** from the investment of general obligation bond proceeds from the time of issuance until they are expended would likely yield significant interest earnings for the project, even accounting for tax code restrictions regarding arbitrage and spend-down requirements. These funds would be used to establish a capital reserve account, as security for interim borrowing capacity or to fund project capital costs.

System revenues are estimated from a series of sources, each with its own escalation rate. As shown in Table D-1, these revenue sources would provide between \$7.26 and \$7.35 billion (future dollars) cumulatively between FY 1995 and FY 2015, depending on the length alternative. The difference between alternatives reflects differences in passenger revenues and interest earnings. The major sources of available system revenues as shown in Table A-20 include: payroll tax revenues; self-employment tax revenues; State of Oregon in-lieu revenues; Federal Section 5307 Operating and Capital Assistance; and passenger revenues.

### D.3 Existing Revenue Needs

This section discusses the amount of additional project capital revenues and system revenues that would be needed to make each alternative fiscally feasible. As shown in Table D-1, MOS 2 (Rose Quarter) would require \$467.9 to \$713.4 million of additional revenue, depending on the alignment alternatives selected, and MOS 5 (Lombard) would require \$651.0 million to \$1.11 billion in additional funds (future dollars). The Full-Length and MOS 1 (Bi-State) alternatives would require between \$1.21 and \$1.97 billion in currently unavailable funds (future dollars). The table also illustrates that there are currently available system revenues sufficient to cover system costs between fiscal year 1997 and 2015 for all light rail length alternatives.

### D.4 Proposed Additional Revenues

As illustrated in Table D-1, the region plans to meet the project capital revenue needs for MOS 2 (Rose Quarter) and MOS 5 with Federal funds, while the region plans to meet the capital revenue needs for the Full-Length Alternative and MOS 1 (Bi-State) with a combination of Federal and additional regional funds.

- **Section 5309 New Start Funds.** Section 5309 grants are discretionary Federal funds available for bus capital improvements, new fixed guideway transit systems and extensions to existing fixed guideway systems. The amount of New Start authorization that would be needed would vary among the alternatives. Based on the anticipated \$100 million per year Federal appropriation limit, the availability of the additional local funds discussed below (i.e., Regional Compact funds), and the

alignment options selected: MOS 2 (Rose Quarter) would require between \$467.8 and \$713.4 million in New Start authorization; MOS 5 (Lombard) would require between \$651.0 and \$1,108.6 million; MOS 1 (Bi-State) would require between \$867.0 and \$1,033.7 million; and the Full-Length Alternative would require between \$1,094.3 and \$1,547.8 million (future dollars). The authorization of these funds could occur over one (MOS 2) or two (Full-Length, MOS 1 and MOS 5) Federal authorization cycles (typically every five to six years).

- **Regional Compact Funds.** The Full-Length Alternative would require an additional \$400 to \$420 million of funds beyond the Federal New Start funds identified above, and MOS 1 (Bi-State) would require an additional \$340 to \$400 million (future dollars). The exact source of these additional funds is currently unidentified, but could include: flexible transportation funds allotted to Oregon and/or Washington; contributions by local governments that are served by the project; and/or the establishment of a development-related tax, a benefit district and/or other levy or fee, the proceeds of which would be committed to the project.

### D.5 System Fiscal Feasibility Conclusions and Risk Assessment

In this study, an alternative is fiscally feasible if:

- Project capital revenues would be sufficient to meet the needs of the capital financing plan to fund construction of the South/North Project; and
- On-going revenues would be sufficient to meet the estimated total system costs and to maintain a sufficient beginning-year working capital to meet two months of operating costs (the analysis also looks at meeting Tri-Met's goal of maintaining three months of working capital).

A detailed analysis of the capital finance plan concluded with two critical points. First, to keep the project on the optimal construction schedule, independent of Federal appropriations. Most, if not all, of the non-New Start funds committed to the project would be advanced to construct the first construction segment. Second, because all local funds would be expended by FY 2004 and Federal appropriations may not keep up with the project's demand for New Start funds (given the anticipated annual limit of \$100 million on Federal appropriations), the finance plan would use interim borrowing to maintain its optimum construction schedule. Funds that would be borrowed on an interim basis would be repaid with later appropriated New Start funds, but in the interim the project would incur some interest costs.

The fiscal feasibility analysis also found that, provided the project is capable of securing the new Federal and regional capital funding sources, Tri-Met would have sufficient revenues to meet the project capital requirements of all alternatives. Further, Table D-1 summarizes the results of a year-by-year analysis that demonstrates that all light rail length alternatives would meet the minimum standard



of maintaining sufficient beginning-year working capital to meet two months of operating costs.

The most significant risk associated with the funding plan for the South/North Project is the possibility that sufficient New Start funds would not be authorized for the project. In such a case, either: 1) the project and/or the initial construction segment would need to be truncated; 2) additional local resources would need to be added; 3) a contingent commitment of New Start funds would be sought; 4) elements of the project could be re-designed, deferred or deleted to reduce costs or 5) implementation of the entire project could be delayed by several years. Another risk associated with the funding plan for the South/North Project is that even if the project is authorized to receive New Start funds, Congress would not appropriate New Start funds in the annual amounts anticipated in the capital finance plan. To respond to this risk, the South/North Project would seek a provision to permit local and non-New Start funds programmed for later construction segments to be advanced to earlier segments (or earlier years within a segment) and to be reimbursed in the future by New Start appropriations.

In addition to project capital uncertainties, there are uncertainties inherent in the systems analysis. Computer simulations of the impact of various economic scenarios that were statistically correlated to historical data showed that the minimum working capital standard was always met. If short-term system deficits were to occur they could be managed through: additional fare increases; adjustments to the rate of customary service expansions; other operating cost containment measures; and/or enactment of an additional revenue source.



**Appendix E**

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***Visual Simulations***



## E. VISUAL SIMULATIONS

This appendix includes pictures of existing conditions and computer-generated visual simulations that illustrate the appearance of proposed light rail facilities at 27 locations throughout the corridor. The simulations are based upon the current level of design of the proposed light rail alternatives (approximately 5 percent). See Section 2.3.2 of the DEIS for more detail on the definition of the alternatives illustrated in this appendix. These simulations are printed in color within Appendix E of the DEIS.

Many elements of the alternatives depicted in the simulations are included for the purpose of illustration, and do not necessarily represent design decisions made by the project (e.g., materials, finishes, colors, architectural designs, the components of pedestrian and passenger-waiting facilities, etc.). All elements of the design of the light rail facilities illustrated in these simulations may change as a result of further environmental analysis, public comment, funding, engineering and local decision making.

The first step in preparing the simulations occurred by taking photographs of each location from a variety of perspectives. The perspective that would best illustrate both the proposed light rail facility and its surrounding visual environment was selected for simulation. At most sites, photographs were selected that would provide a common perspective that would be experienced by a resident of or a visitor to the location. Aerial views or oblique perspectives were only used in situations where existing dominant features would be significantly altered by the proposed light rail design elements.

Selected views were then digitized and the computerized engineering designs were overlaid on the photographic image. Major elements not included in the engineering drawing (e.g., shelter designs, station layouts, vehicle designs and landscaping, etc.) were then added to produce preliminary visual simulations. Each visual simulation was reviewed by Metro, Tri-Met and the staff of participating jurisdictions to ensure that the simulations are accurate (based upon the current level of design).

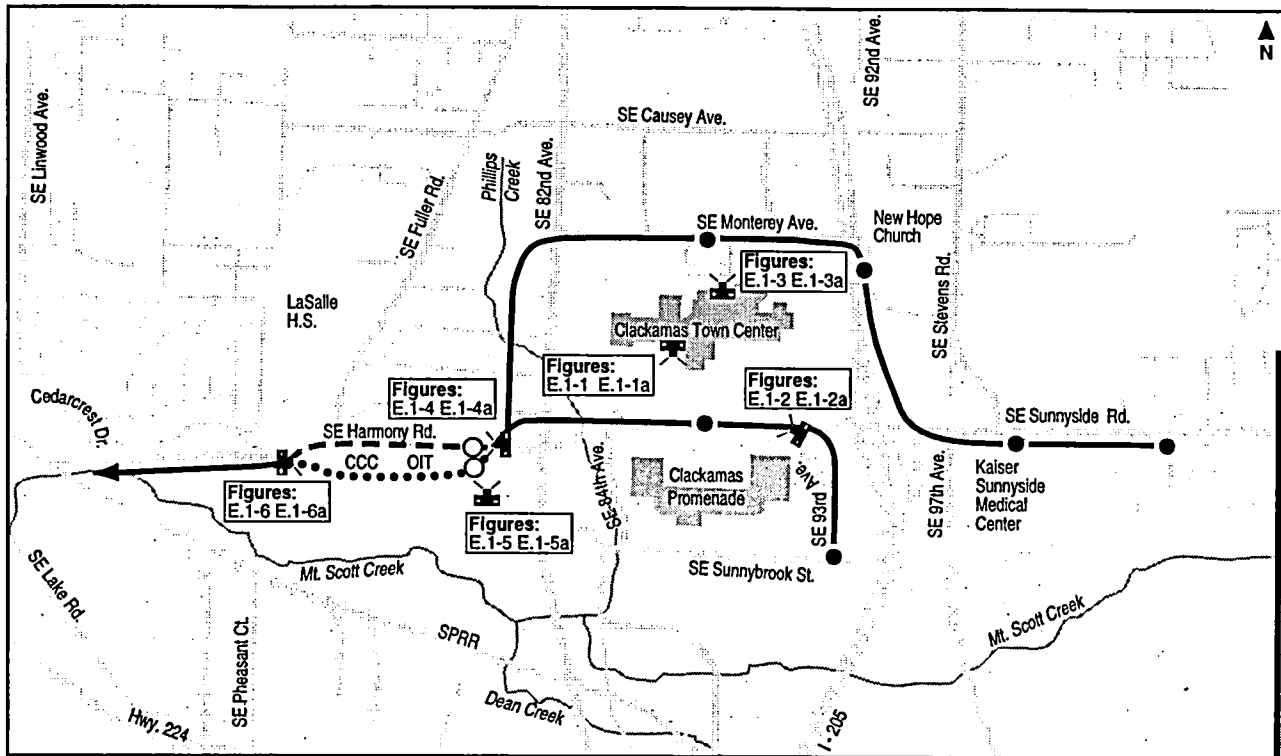
**Table E-1  
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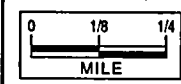




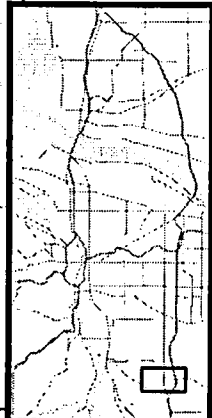
South  
North  
Travel Corridor Study  
METRO

**Figure E.1  
Clackamas Regional Center Segment  
Index Map**

- North of Clackamas Town Center
- South of Clackamas Town Center



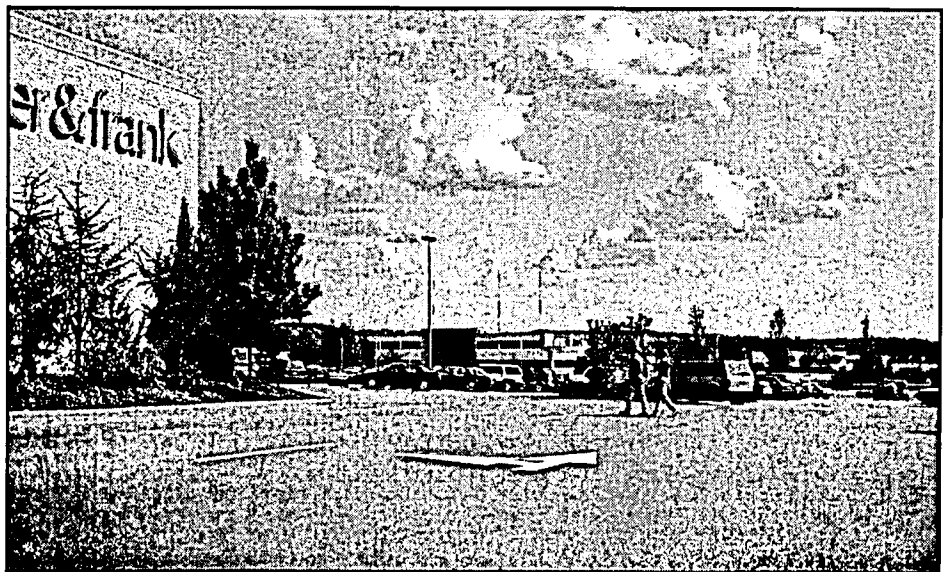
- Visual Simulation View Point\*
- LRT Alignment Alternatives
- LRT Design Options
- Station
- Station Options
- Proposed ODOT/Clackamas County Roadway
- Existing Railroad



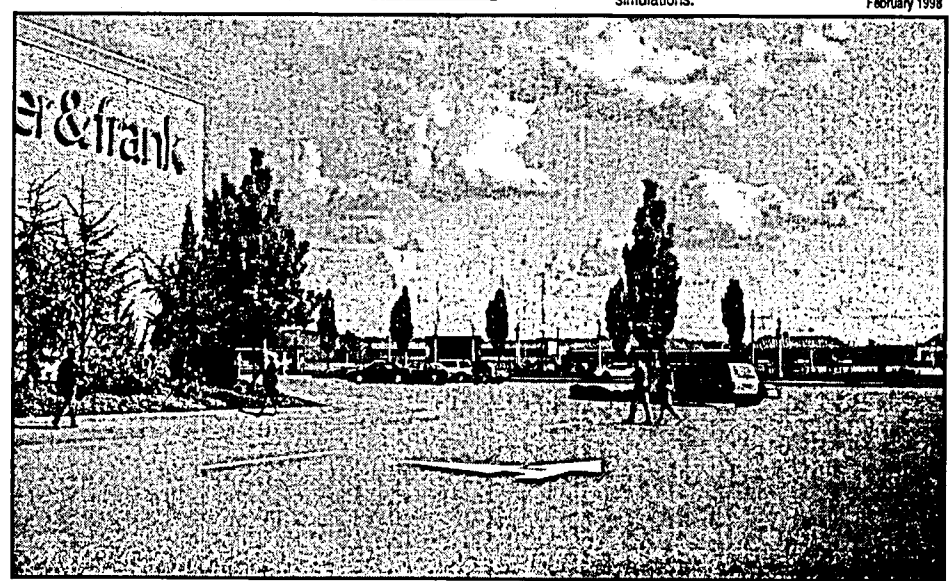
\*Open end of symbol indicates direction of picture.

Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.

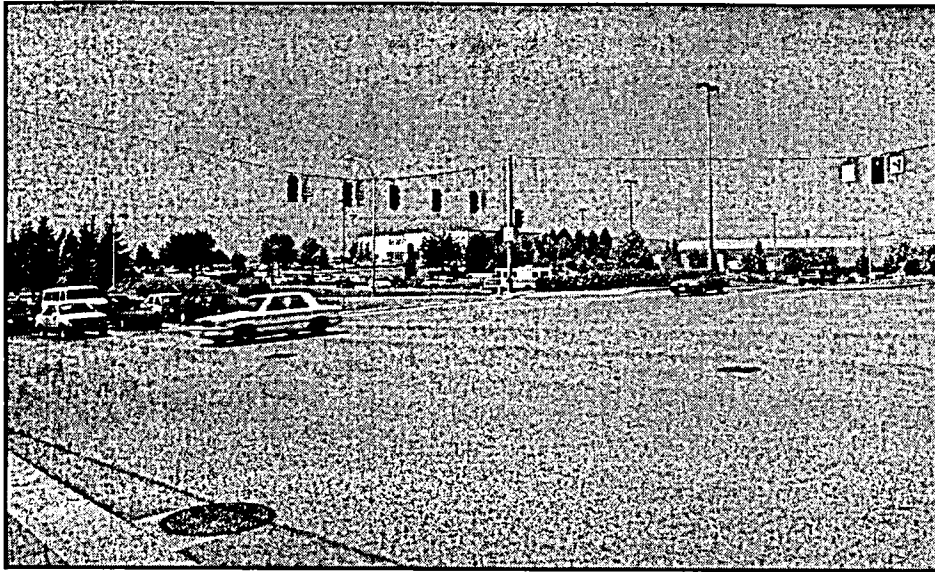
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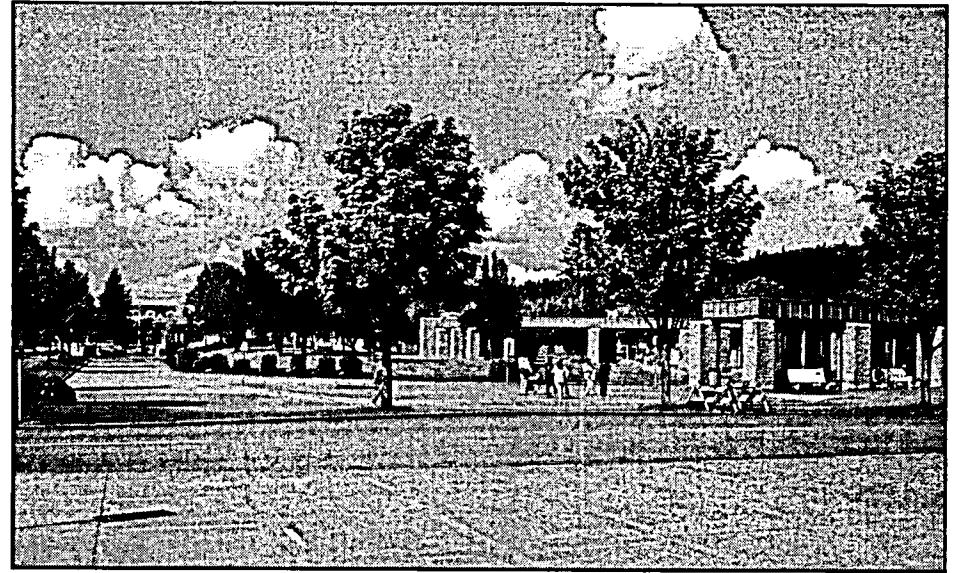
**Figure E.1-1  
Existing Condition**  
• View from CTC, looking south



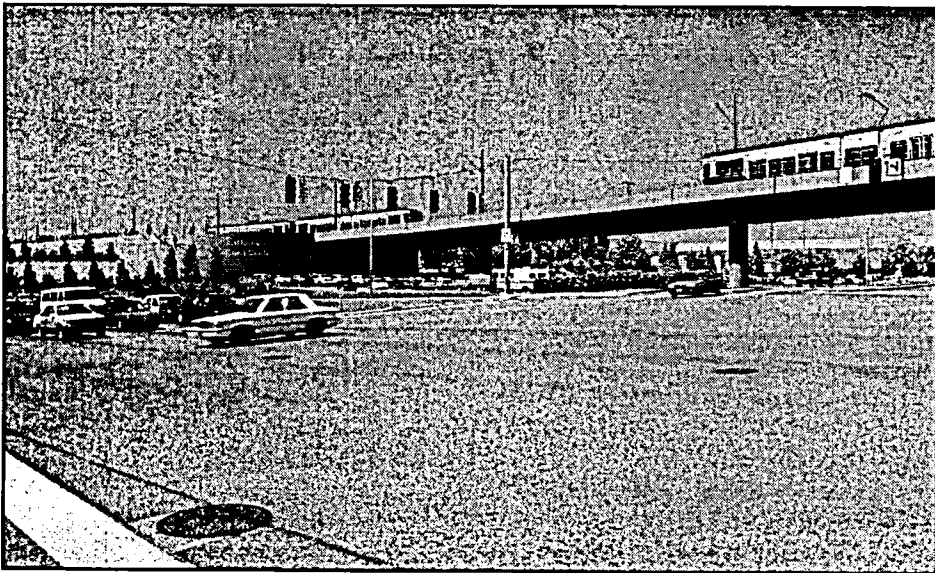
**Figure E.1-1a  
South of CTC Alignment Alternative (Visual Simulation)**  
• View from CTC, looking south to CTC Transit Center



**Figure E.1-2**  
**Existing Condition**  
 • View from SE Sunnyside Rd., looking north to CTC



**Figure E.1-3**  
**Existing Condition**  
 • View from CTC, looking north to CTC Transit Center

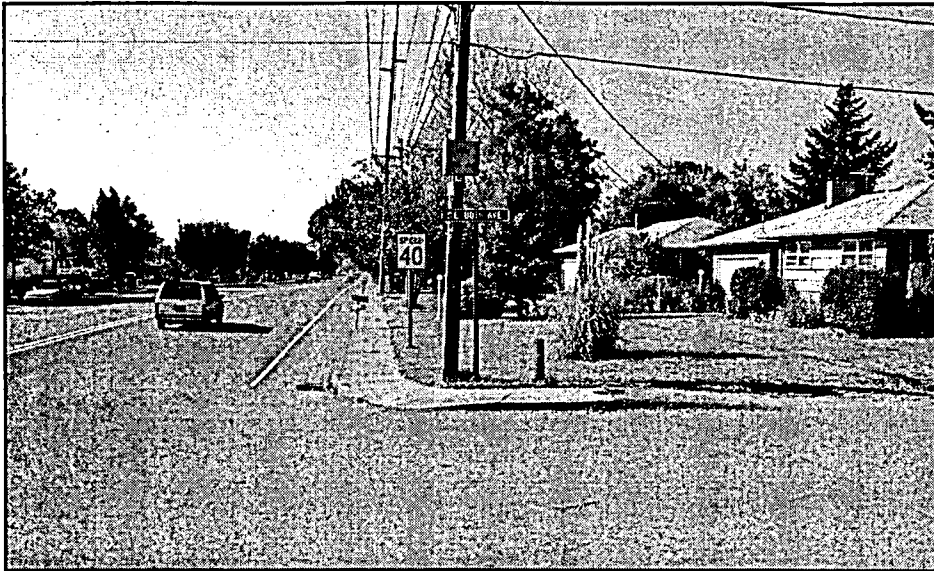


**Figure E.1-2a**  
**South of CTC Alignment Alternative (Visual Simulation)**  
 • View from SE Sunnyside Rd., looking north to CTC



**Figure E.1-3a**  
**North of CTC Alignment Alternative (Visual Simulation)**  
 • View from CTC, looking north to CTC Transit Center

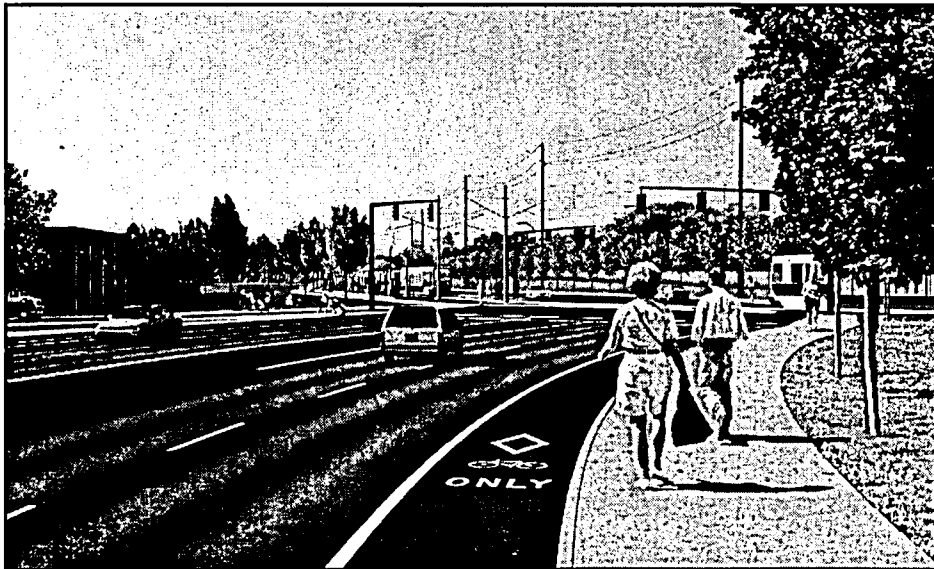
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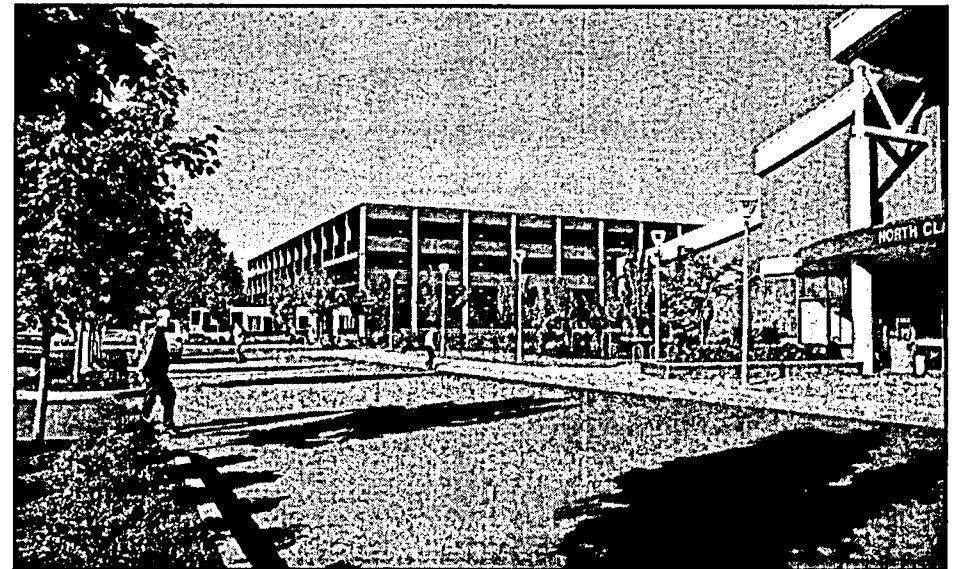
**Figure E.1-4**  
**Existing Condition**  
 • View from SE Harmony Rd., looking west to OIT/CCC



**Figure E.1-5**  
**Existing Condition**  
 • View from Aquatic Center, looking north to OIT/CCC

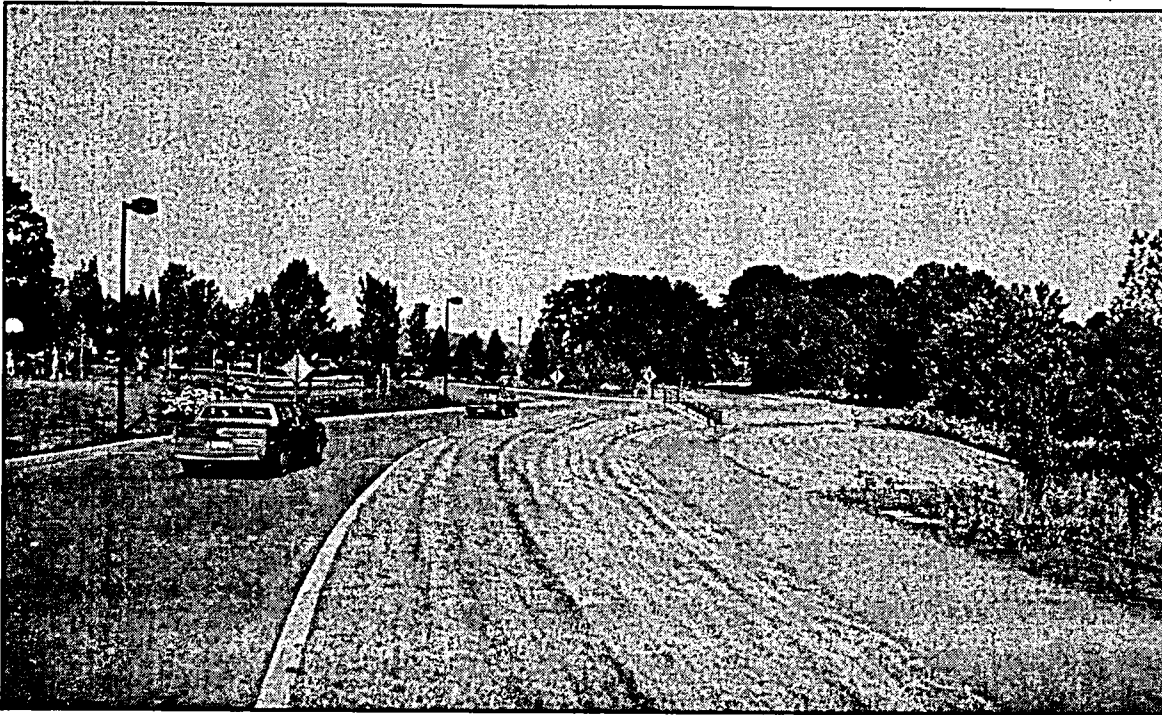


**Figure E.1-4a**  
**South or North of CTC Alignment Alternatives - North of OIT/CCC**  
*(Visual Simulation)*  
 • View from SE Harmony Rd., looking west to OIT/CCC

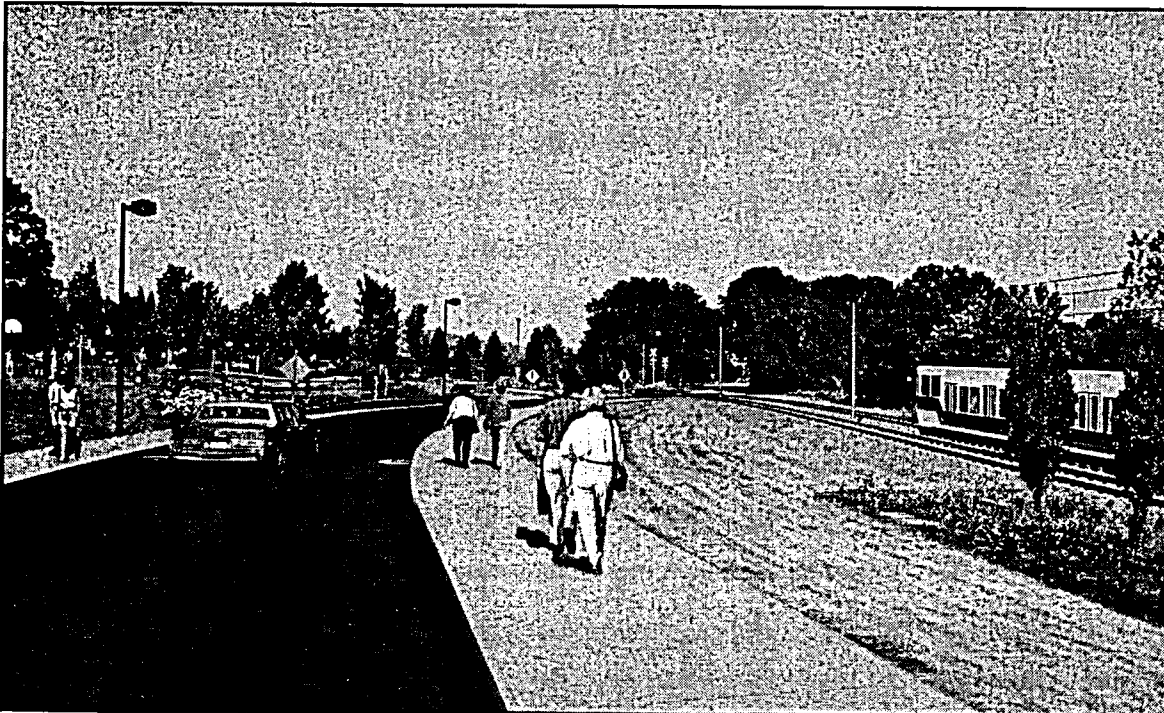


**Figure E.1-5a**  
**South or North of CTC Alignment Alternatives - South of OIT/CCC**  
*(Visual Simulation)*  
 • View from Aquatic Center, looking north to OIT/CCC

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**Figure E.1-6**  
**Existing Condition**  
• View from Aquatic Center access road, looking east to the Aquatic Center



**Figure E.1-6a**  
**South or North of CTC Alignment Alternatives - South of OIT/CCC (Visual Simulation)**  
• View from Aquatic Center access road, looking east to the Aquatic Center

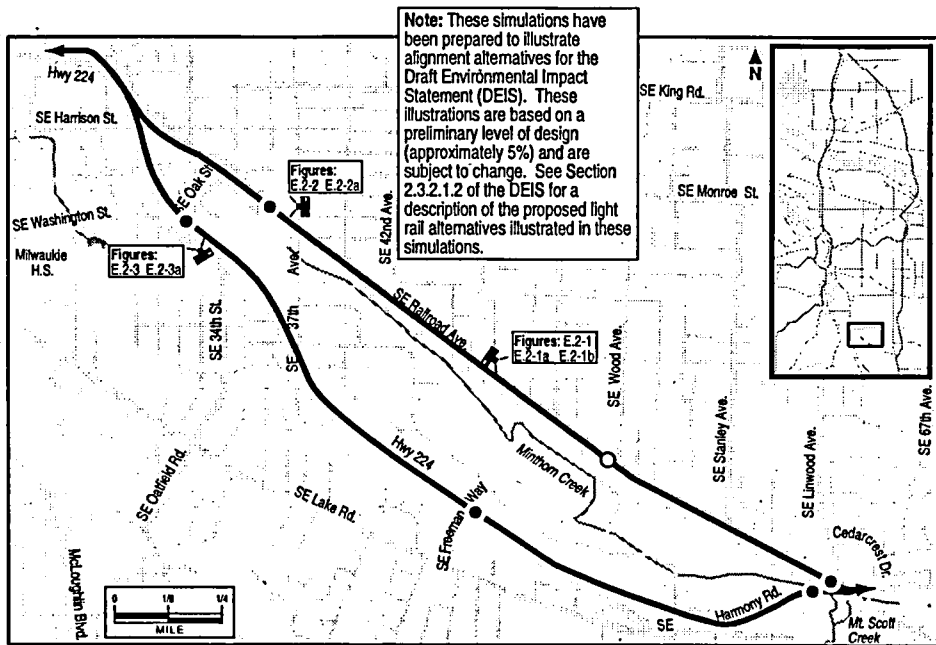


Figure E-2  
East Milwaukee Segment  
Index Map

- Railroad Avenue/Through Traffic
- Railroad Avenue/Local Access
- Highway 224

- Visual Simulation View Point\*
- LRT Alignment Alternatives
- Station
- Station Option
- Existing Railroad

\*Open end of symbol indicates direction of picture.



Figure E-2-1  
Existing Condition  
• View from SE 47th Ave., looking east to Hector Campbell School



Figure E-2-1a  
Railroad Ave./Through Traffic Alignment Alternative  
(Visual Simulation)  
• View from SE 47th Ave., looking east to Hector Campbell School



Figure E-2-1b  
Railroad Ave./Local Access Alignment Alternative  
(Visual Simulation)  
• View from SE 47th Ave., looking east to Hector Campbell School

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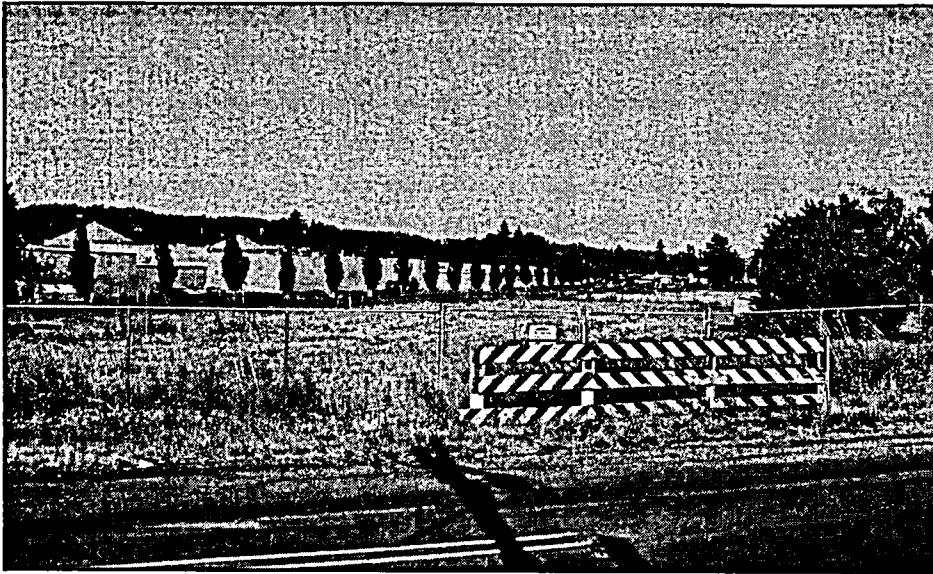


Figure E.2-2  
Existing Condition

- View from SE 37th Ave. and SE Washington St., looking northwest of Milwaukie Marketplace

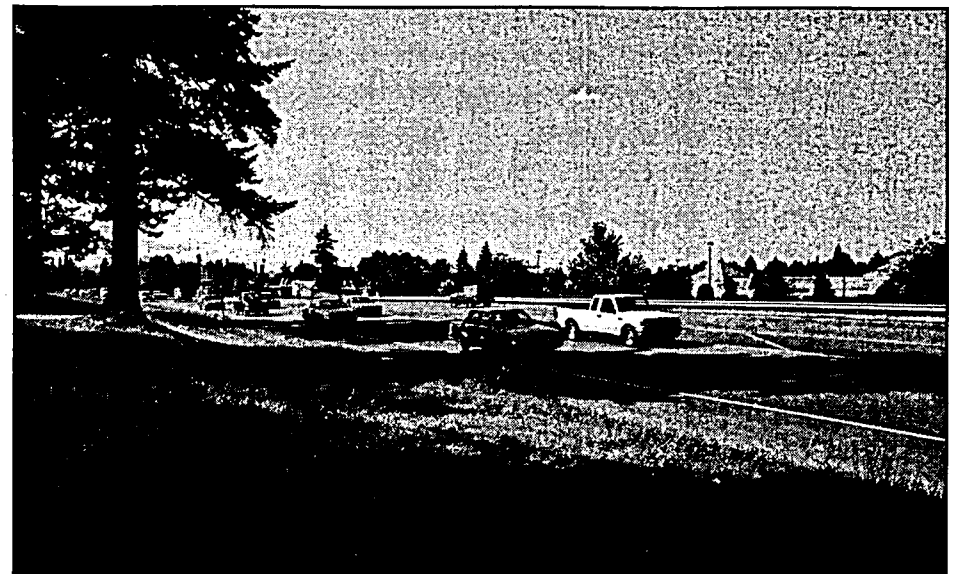


Figure E.2-3  
Existing Condition

- View from Highway 224, looking northwest to Milwaukie Marketplace

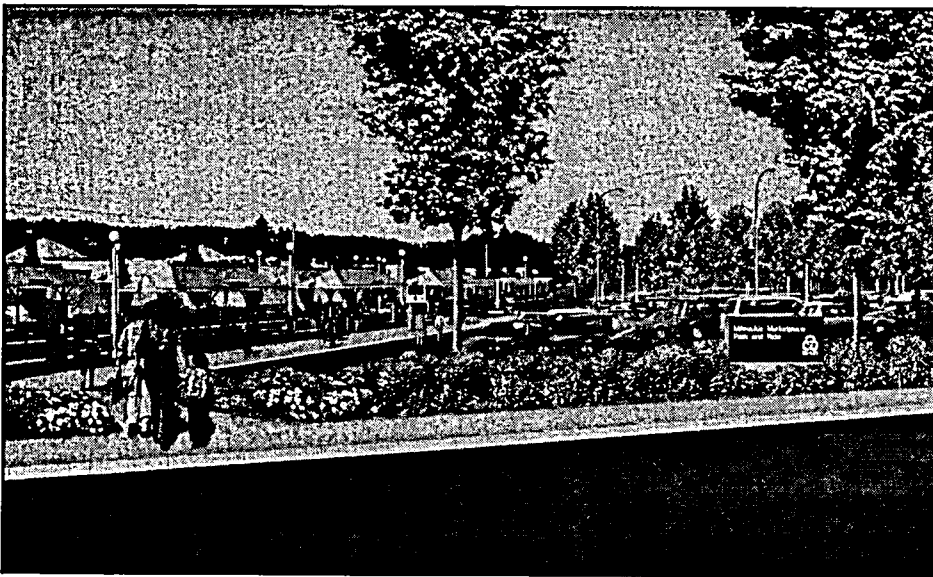


Figure E.2-2a  
Railroad Ave./Through Traffic or Local Access Alignment  
Alternative (*Visual Simulation*)

- View from SE 37th Ave. and SE Washington St., looking northwest of the Milwaukie Marketplace Park-and-Ride Lot

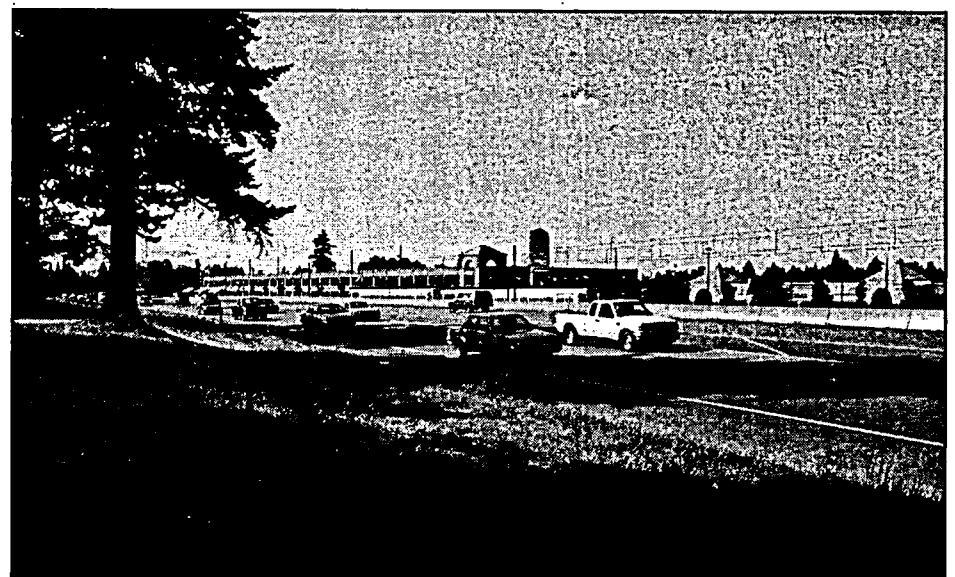
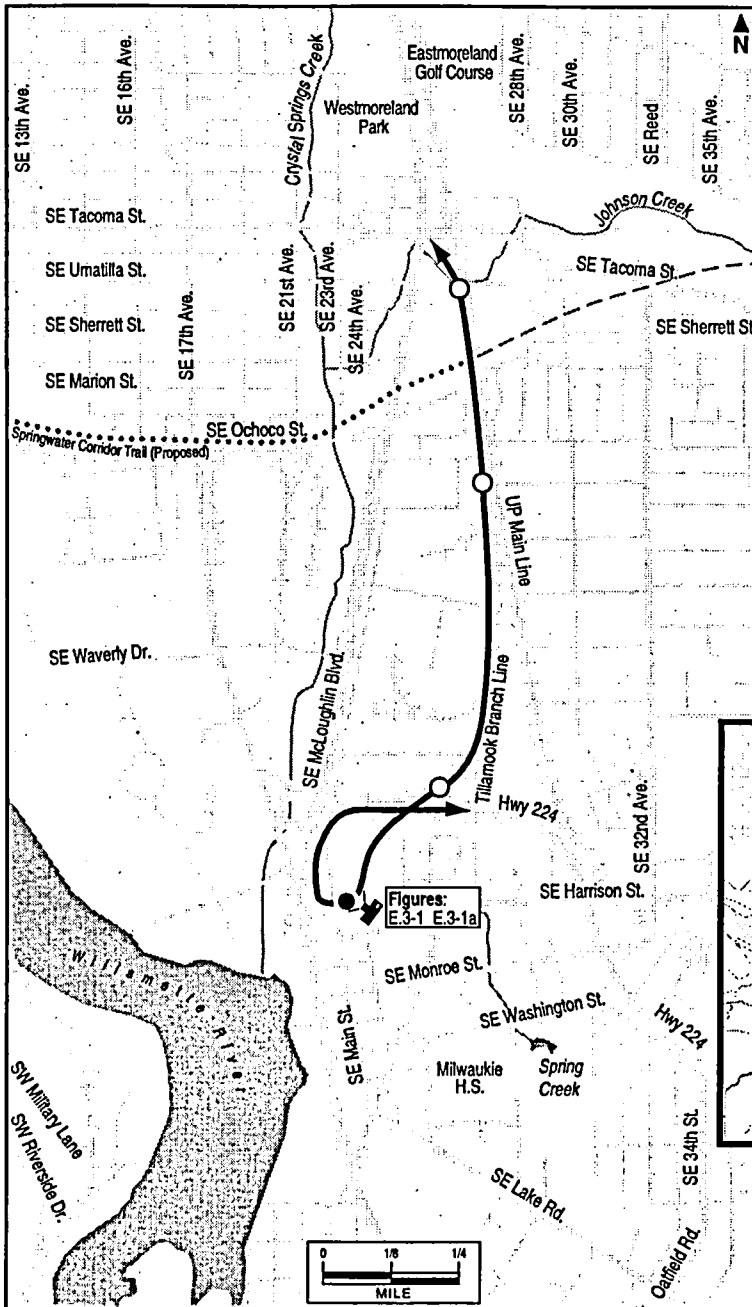


Figure E.2-3a  
Highway 224 Alignment Alternative  
(*Visual Simulation*)

- View from Highway 224, looking northwest to Milwaukie Marketplace Park-and-Ride Lot

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North  
South  
Corridor Study



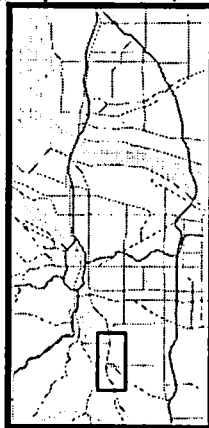
**Figure E.3  
Milwaukie Regional  
Center Segment  
Index Map**

• Main St./Tillamook Branch Line

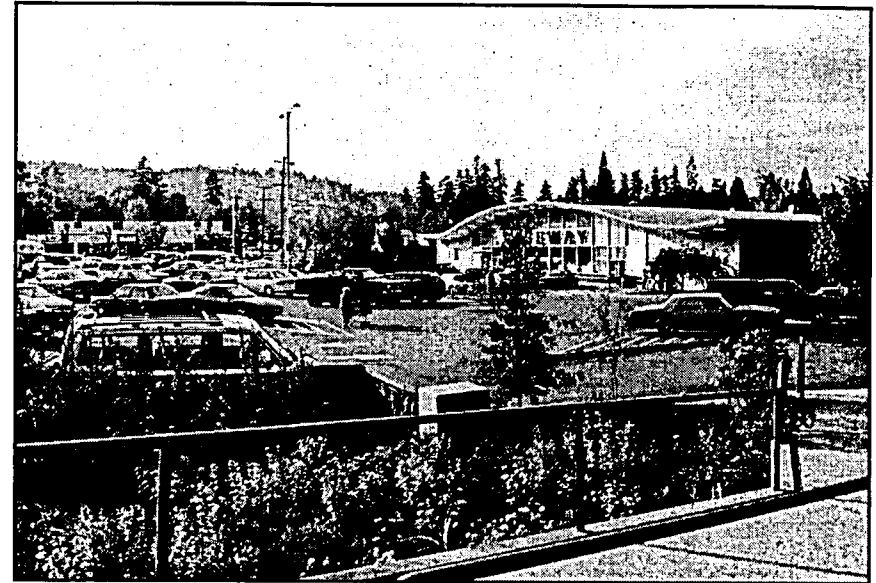
- Visual Simulation Location\*
- LRT Alignment Alternatives
- Station
- Station Options
- Existing Railroad

\*Open end of symbol indicates direction of picture.

Figures:  
E.3-1 E.3-1a

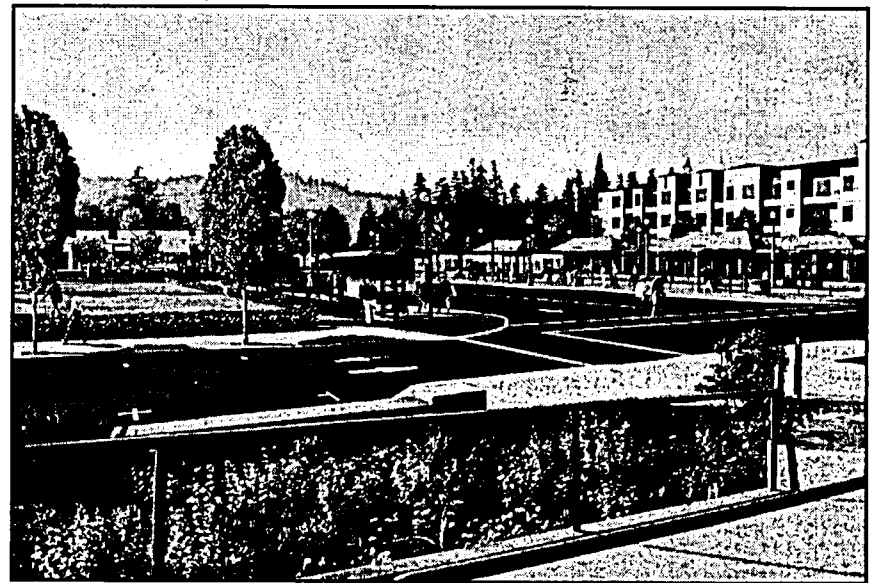


Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.



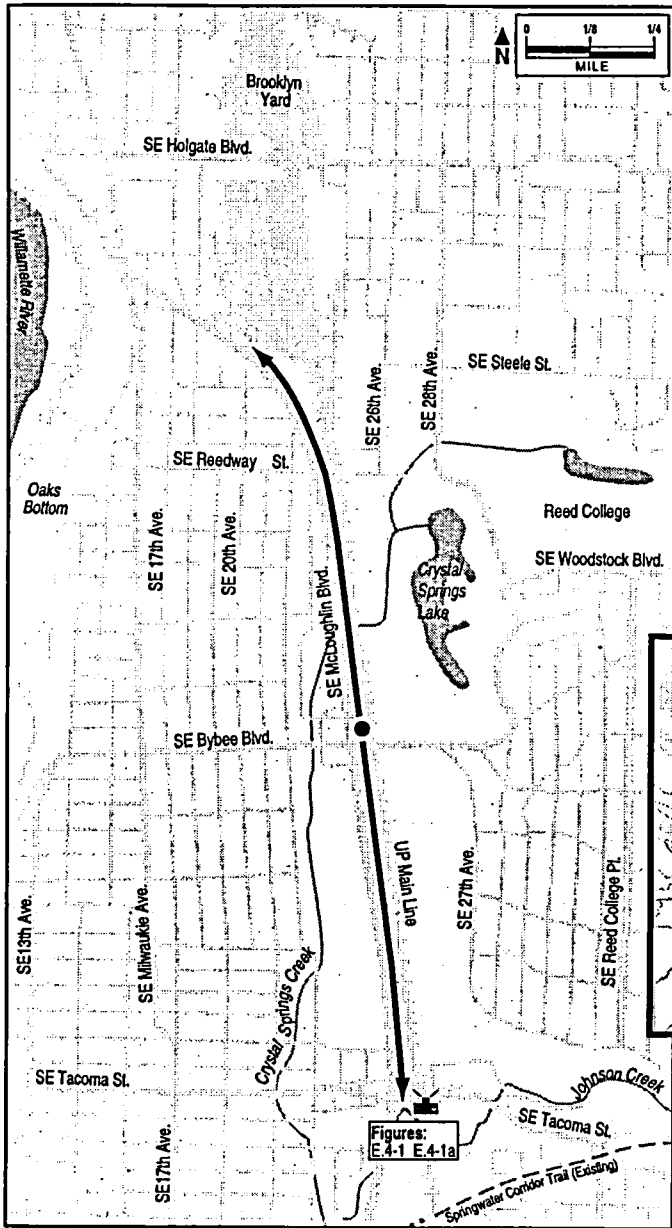
**Figure E.3-1  
Existing Condition**

• View from the Ledding Library, looking northwest



**Figure E.3-1a  
Main St./Tillamook Branch Line Alignment Alternative  
(Visual Simulation)**

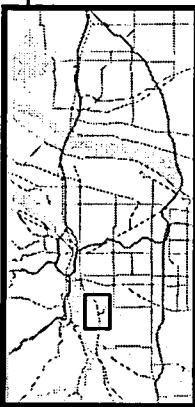
• View from the Ledding Library, looking northwest



**Figure E.4  
McLoughlin  
Boulevard  
Segment Index  
Map**

- Visual Simulation Location\*
- LRT Alignment Alternatives
- Station
- Existing Railroad

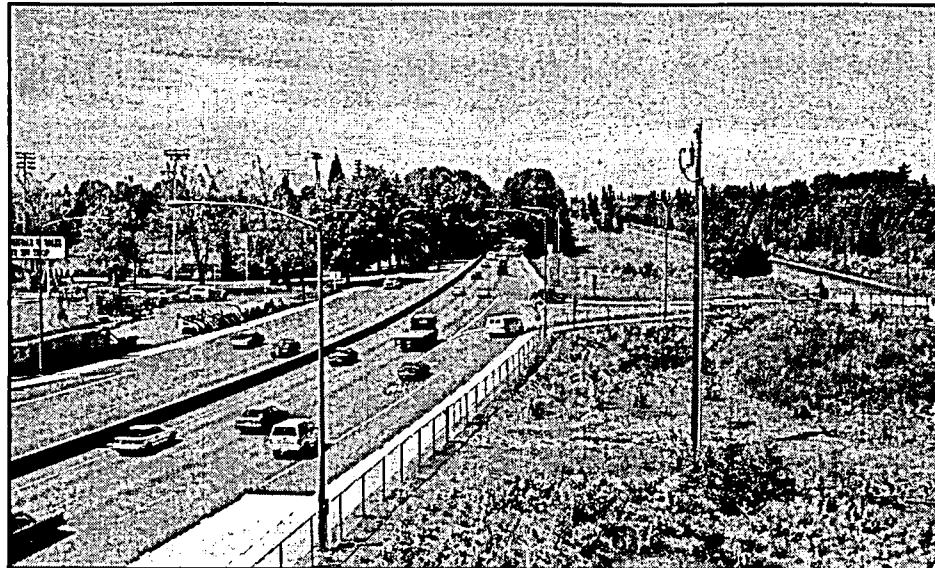
\*Open end of symbol indicates direction of picture.



Figures:  
E.4-1 E.4-1a

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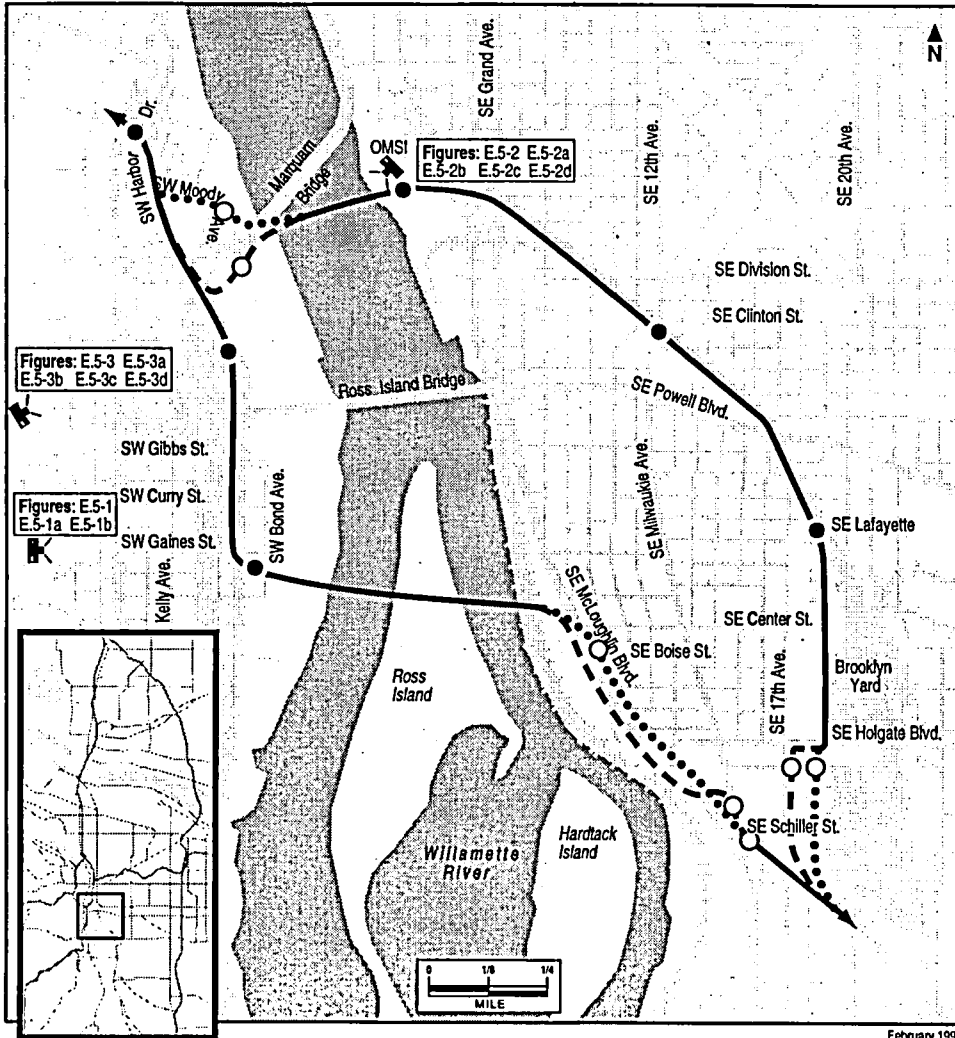


**Figure E.4-1  
Existing Condition**  
• View from SE Tacoma St, looking north



**Figure E.4-1a  
McLoughlin Blvd. Alignment Alternative (Visual Simulation)**  
• View from SE Tacoma St, looking north





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**Figure E.5  
South Willamette  
River Crossing  
Segment Index Map**

- Caruthers Crossing
- Ross Island Crossing

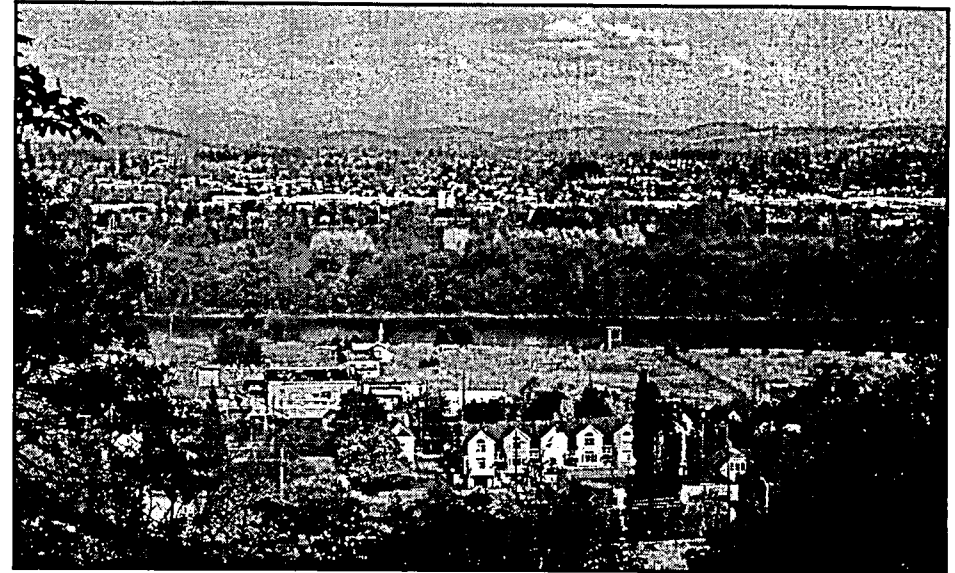
- Visual Simulation View Point\*
- LRT Alignment Alternatives
- LRT Design Options
- Station
- Station Options
- Existing Railroad

\*Open end of symbol indicates direction of picture.

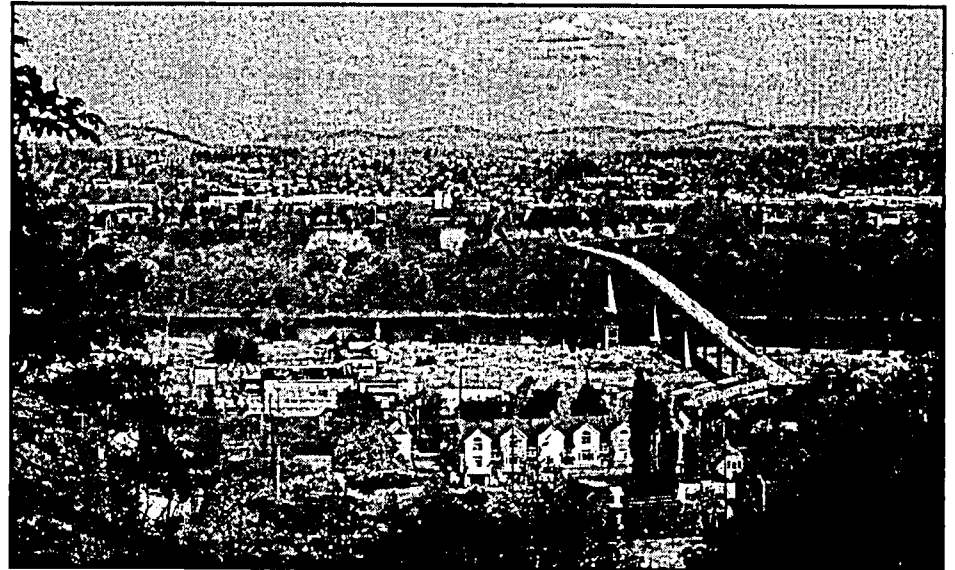
Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.

Bridge types in these simulations are for illustration. Bridge type, size and location will be determined following adoption of the locally preferred strategy, during preparation of preliminary engineering and the Final EIS.

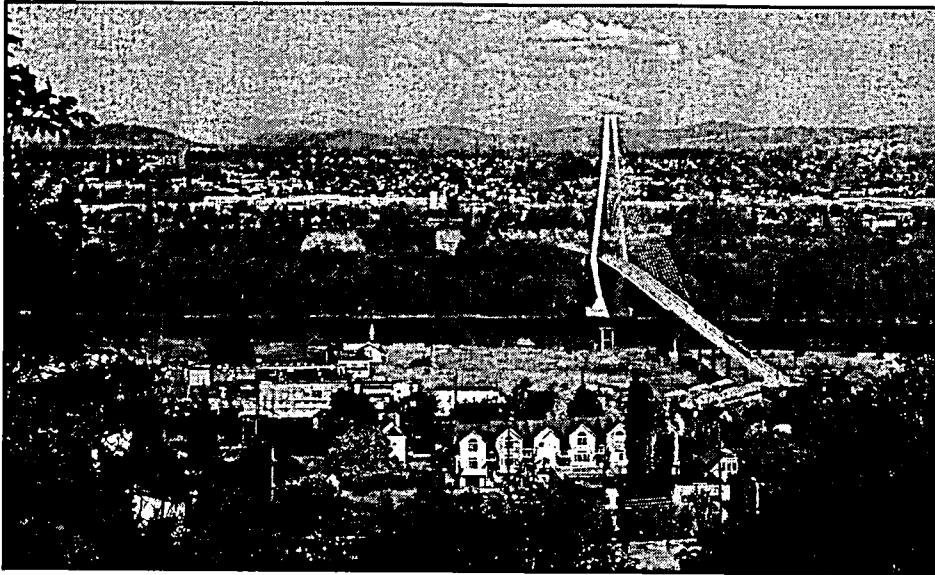
The height of the Caruthers bridge has not been determined. As a result of the cost-cutting process (see section 2.2.7 of this DEIS) the analysis within the DEIS is based upon a 72' vertical clearance (Columbia River Datum - CRD), termed the DEIS Design. These simulations also illustrate the Caruthers Crossing with a vertical clearance of approximately 100' CRD. See sections 2.3.2.1.2, 3.2.7, and 4.4 and Appendix J of the DEIS for more detail.



**Figure E.5-1  
Existing Condition**  
• View from SW Terwilliger Boulevard, looking east

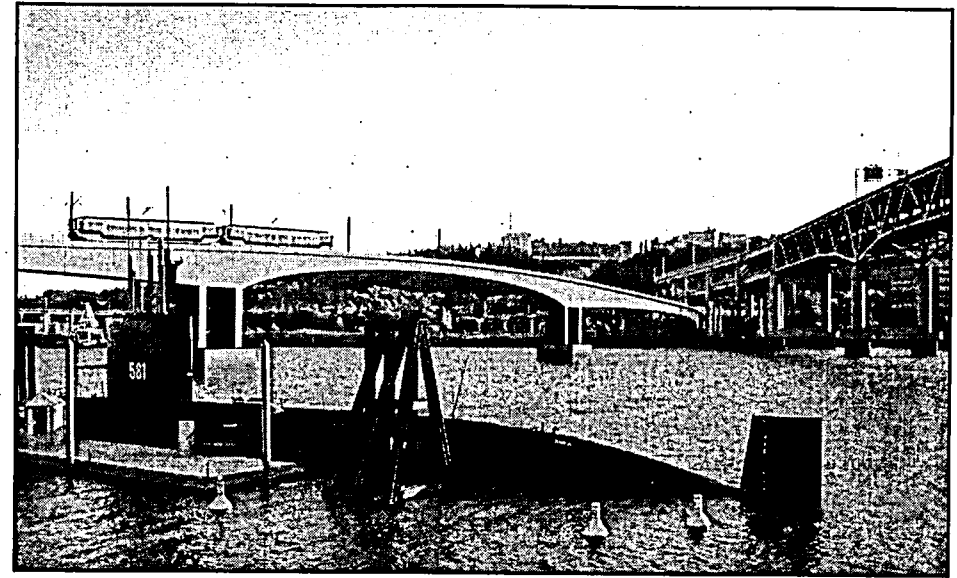


**Figure E.5-1a  
Ross Island Crossing Alignment Alternative: Concrete  
Segmental Bridge (Visual Simulation)**  
• View from SW Terwilliger Boulevard, looking east



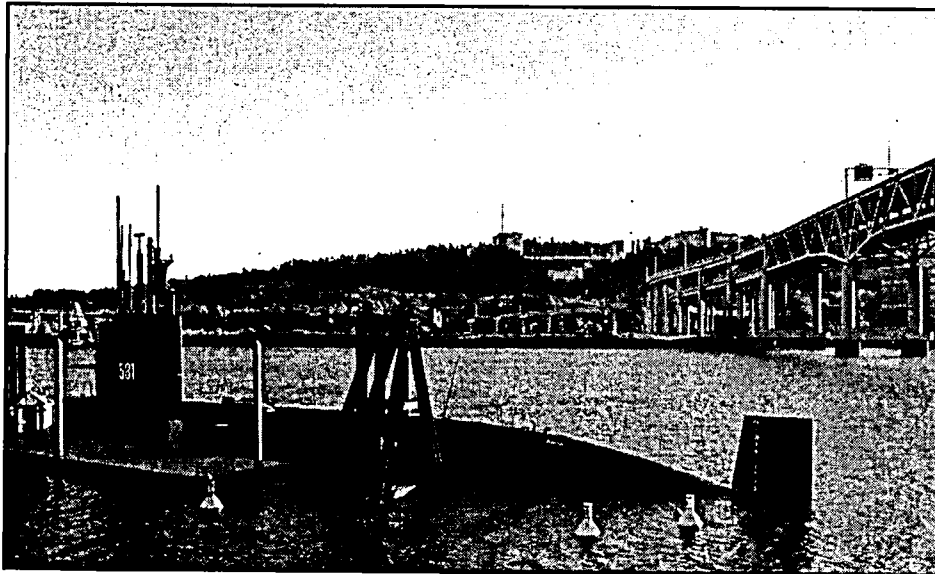
**Figure E.5-1b**  
**Ross Island Crossing Alignment Alternative: Cable Stay Bridge**  
*(Visual Simulation)*

• View from SW Terwilliger Blvd., looking east



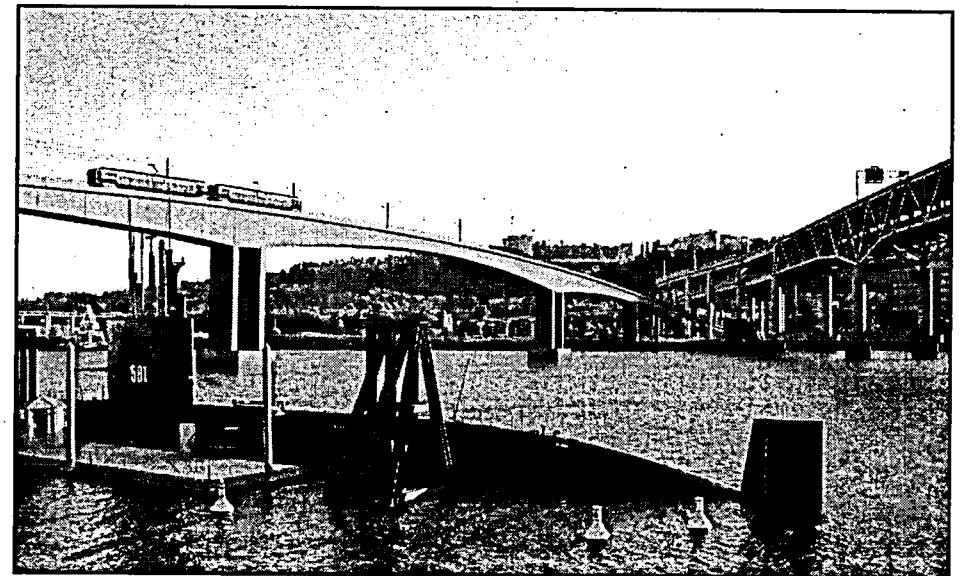
**Figure E.5-2a**  
**Caruthers Crossing Alignment Alternative: Concrete Segmental Bridge DEIS Design**  
*(Visual Simulation)*

• View from OMSI at the Willamette River, looking west



**Figure E.5-2**  
**Existing Condition**

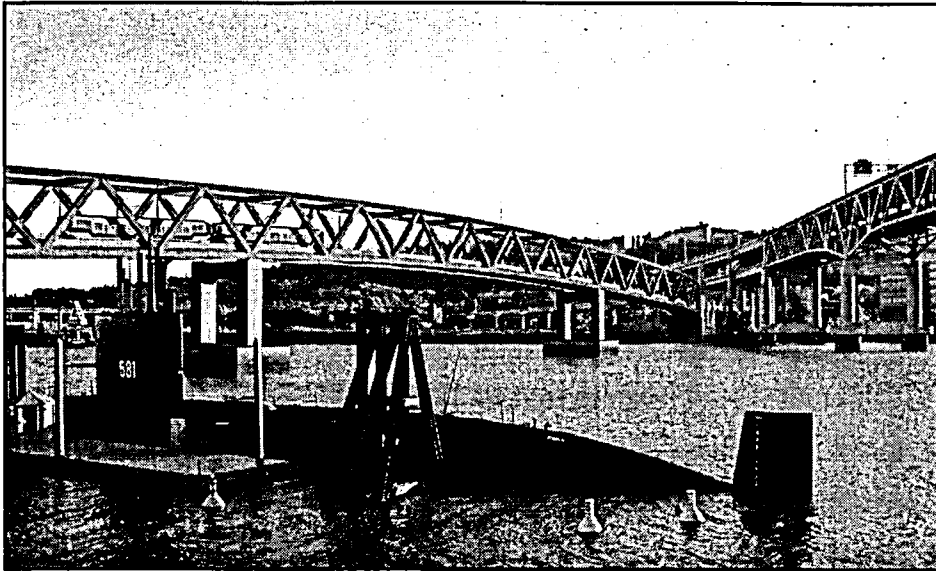
• View from OMSI at the Willamette River, looking west



**Figure E.5-2b**  
**Caruthers Crossing Alignment Alternative: Concrete Segmental Bridge 100' Design**  
*(Visual Simulation)*

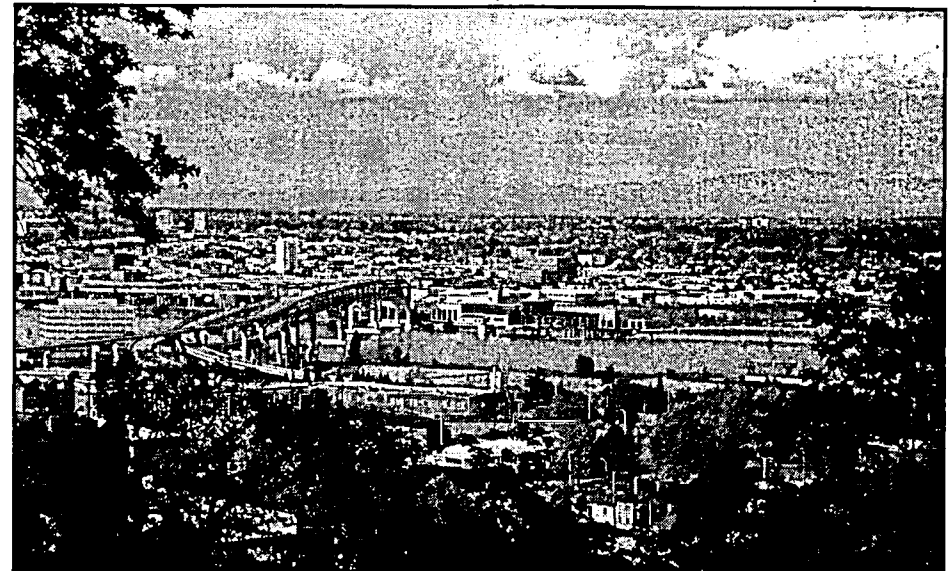
• View from OMSI at the Willamette River, looking west

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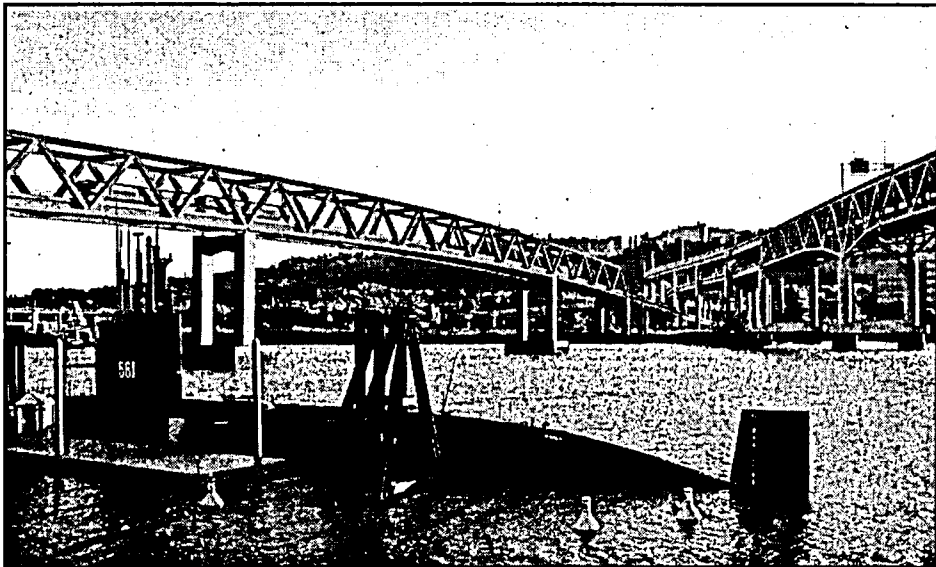
**Figure E.5-2c**  
**Caruthers Crossing Alignment Alternative: Steel Truss Bridge**  
**DEIS Design (Visual Simulation)**

• View from OMSI at the Willamette River, looking west



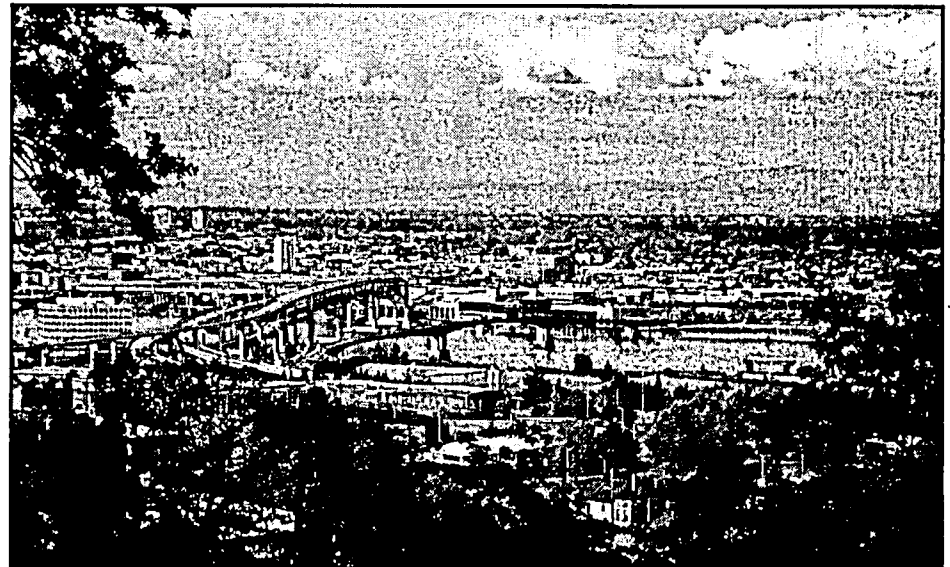
**Figure E.5-3**  
**Existing Condition**

• View from SW Terwilliger Blvd., looking east



**Figure E.5-2d**  
**Caruthers Crossing Alignment Alternative: Steel Truss Bridge**  
**100' Design (Visual Simulation)**

• View from OMSI at the Willamette River, looking west



**Figure E.5-3a**  
**Caruthers Crossing Alignment Alternative: Concrete Segmental**  
**Bridge DEIS Design (Visual Simulation)**

• View from SW Terwilliger Blvd., looking east

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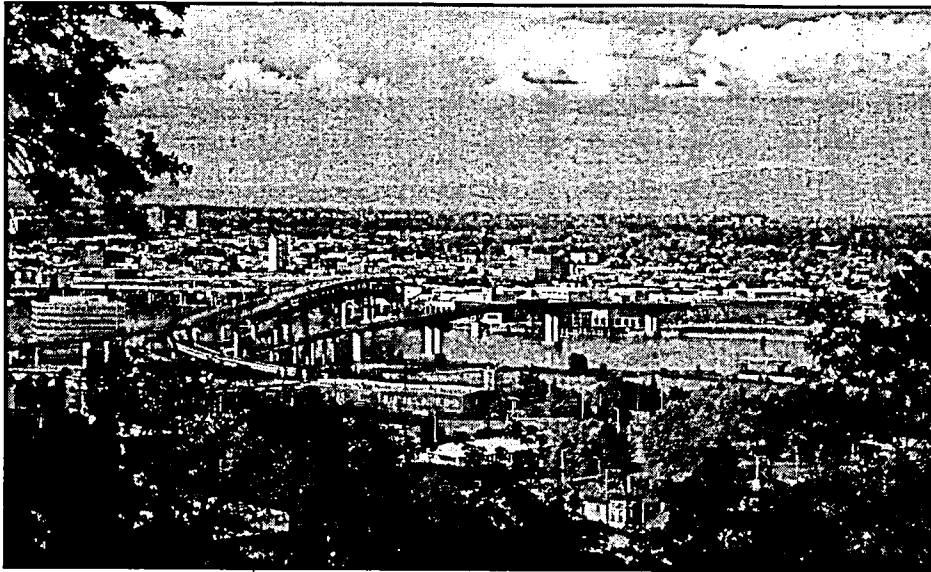


Figure E.5-3b  
**Caruthers Crossing Alignment Alternative: Concrete Segmental  
 Bridge 100' Design (Visual Simulation)**  
 • View from SW Terwilliger Blvd., looking east

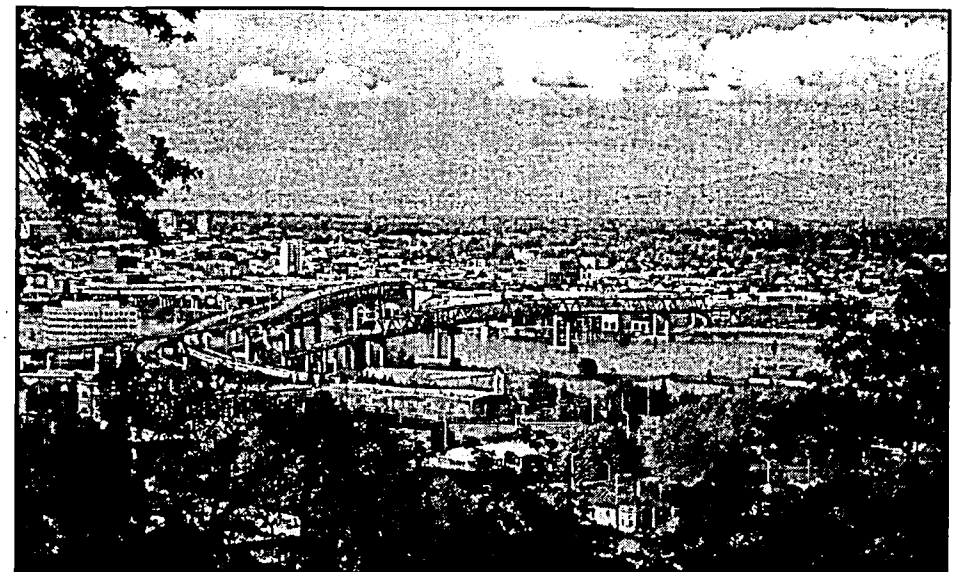


Figure E.5-3d  
**Caruthers Crossing Alignment Alternative: Steel Truss Bridge  
 100' Design (Visual Simulation)**  
 • View from SW Terwilliger Blvd., looking east

February 1998

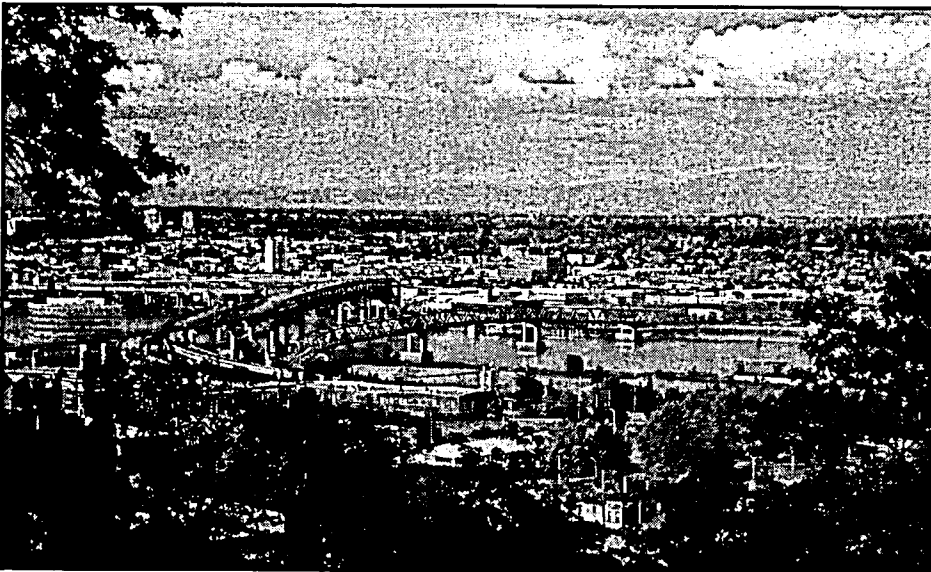
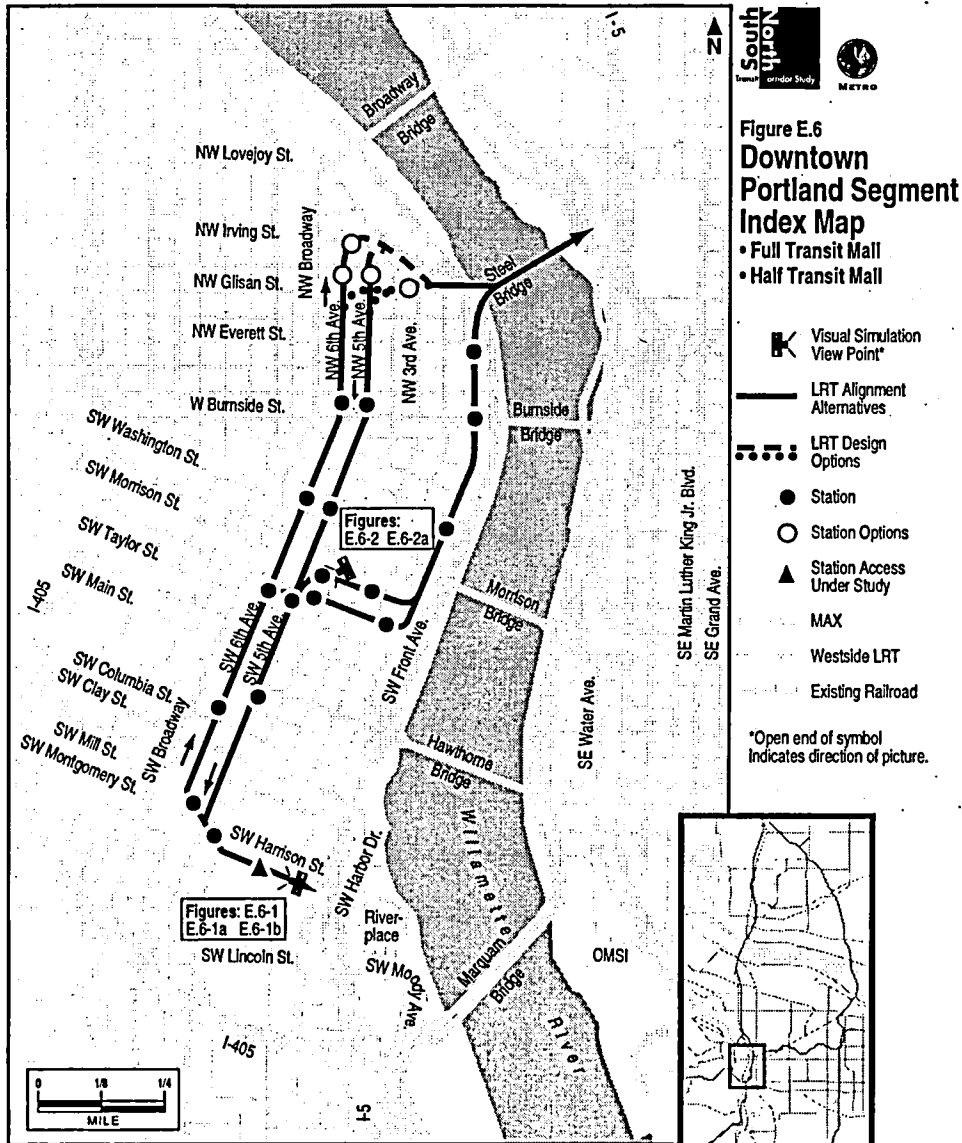


Figure E.5-3c  
**Caruthers Crossing Alignment Alternative: Steel Truss Bridge  
 DEIS Design (Visual Simulation)**  
 • View from SW Terwilliger Blvd., looking east



Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.



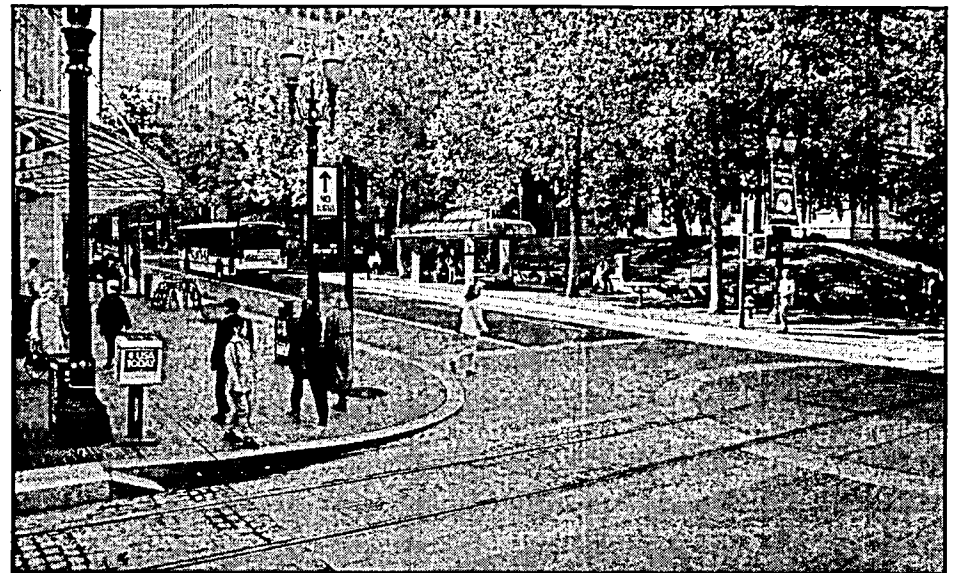
**Figure E.6-1  
Existing Condition**  
• View from SW Harrison St., looking west



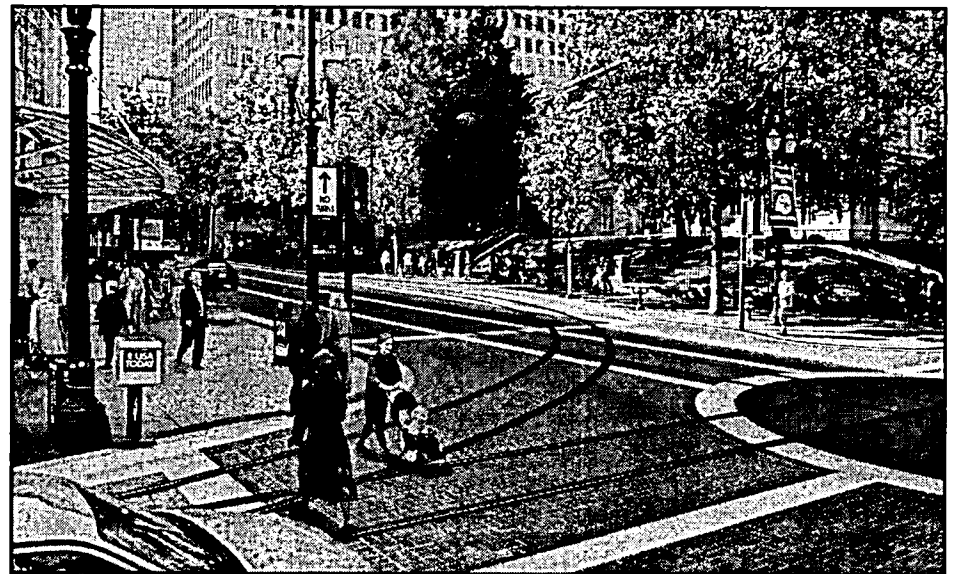
**Figure E.6-1a  
Full/Half Transit Mall Alignment Alternatives: with Harrison St. Station (Visual Simulation)**  
• View from SW Harrison St., looking west



**Figure E.6-1b**  
**Full/Half Transit Mall Alignment Alternatives: Without a Harrison St. Station (Visual Simulation)**  
 • View from SW Harrison St., looking west

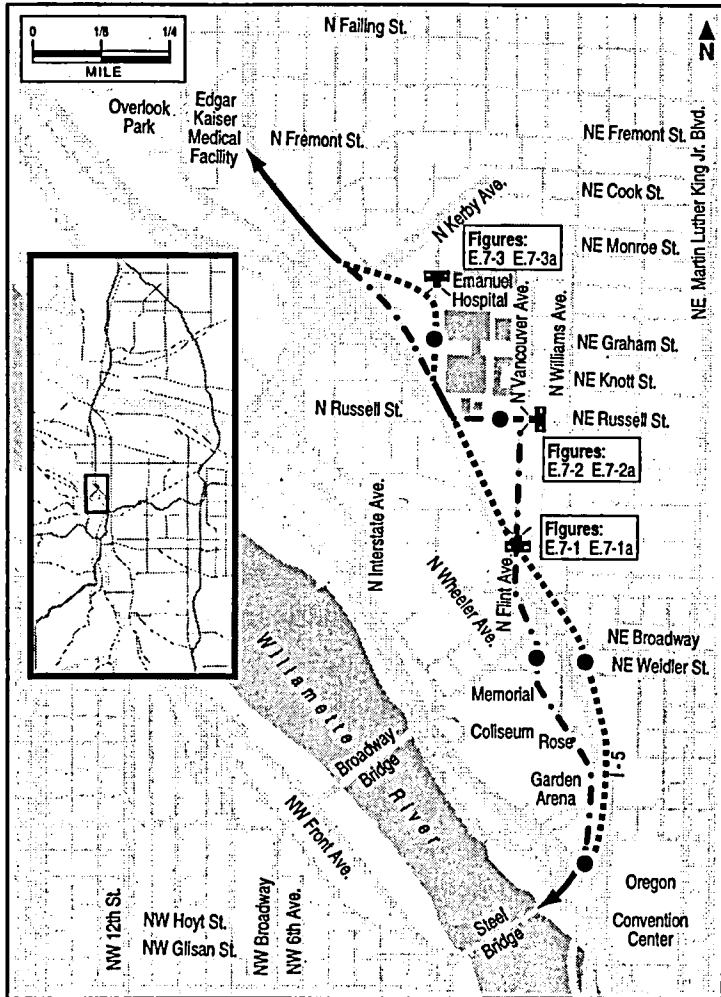


**Figure E.6-2**  
**Existing Condition**  
 • View from SW Morrison St., looking southwest



**Figure E.6-2a**  
**Half Transit Mall Alignment Alternative (Visual Simulation)**  
 • View from SW Morrison St., looking southwest

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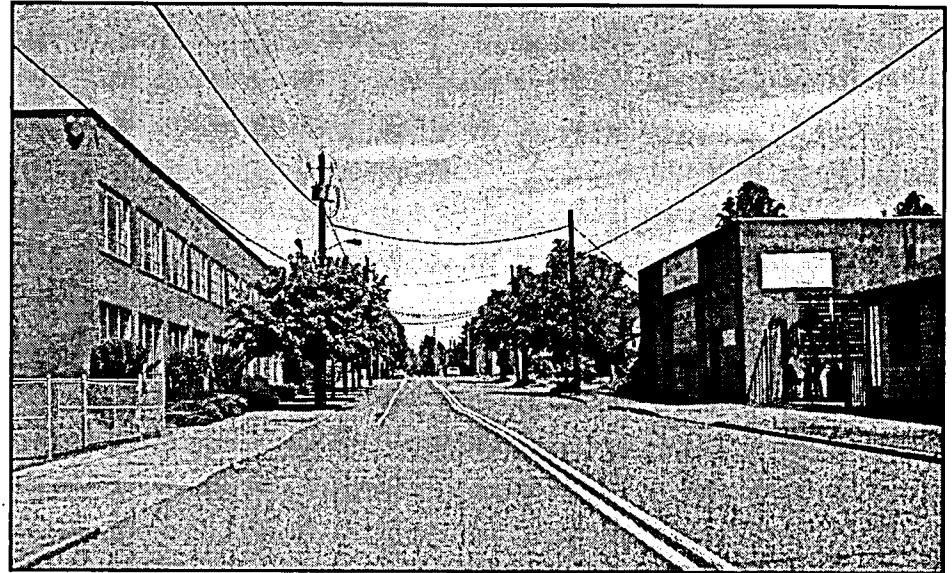
**Figure E.7  
Eliot Segment  
Index Map**

- Wheeler/Russell
- East I-5/Kerby

- Visual Simulation View Point\*
- Wheeler/Russell LRT Alignment Alternative
- East I-5/Kerby LRT Alignment Alternative
- Common Alignment
- Station
- Existing Railroad

\*Open end of symbol indicates direction of picture.

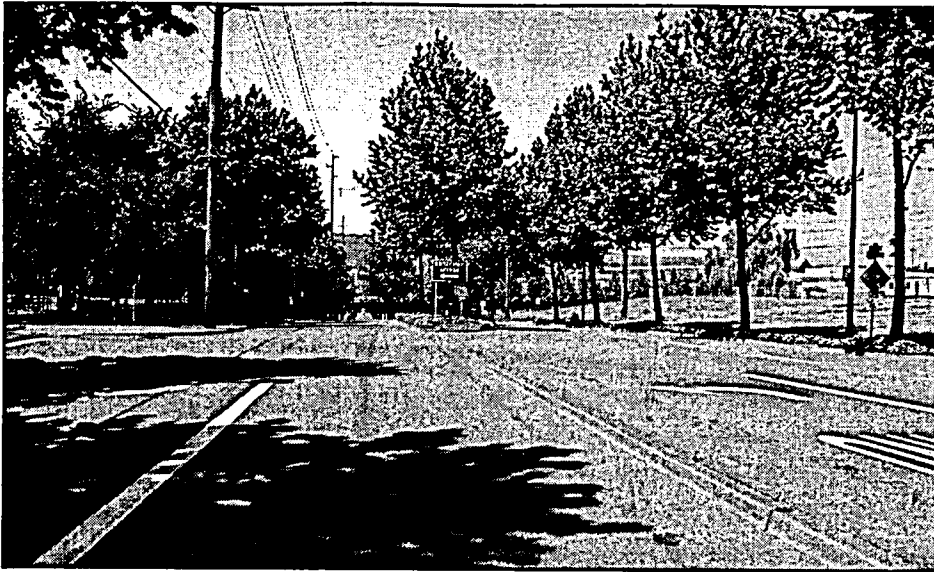
Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.



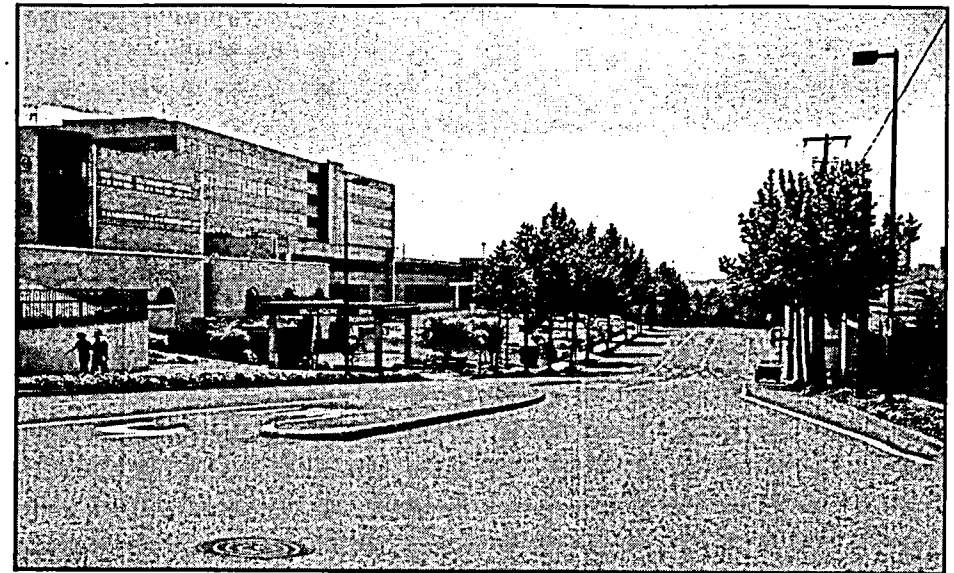
**Figure E.7-1**  
*Existing Condition*  
• View from N Flint Ave. at Tubman School, looking north



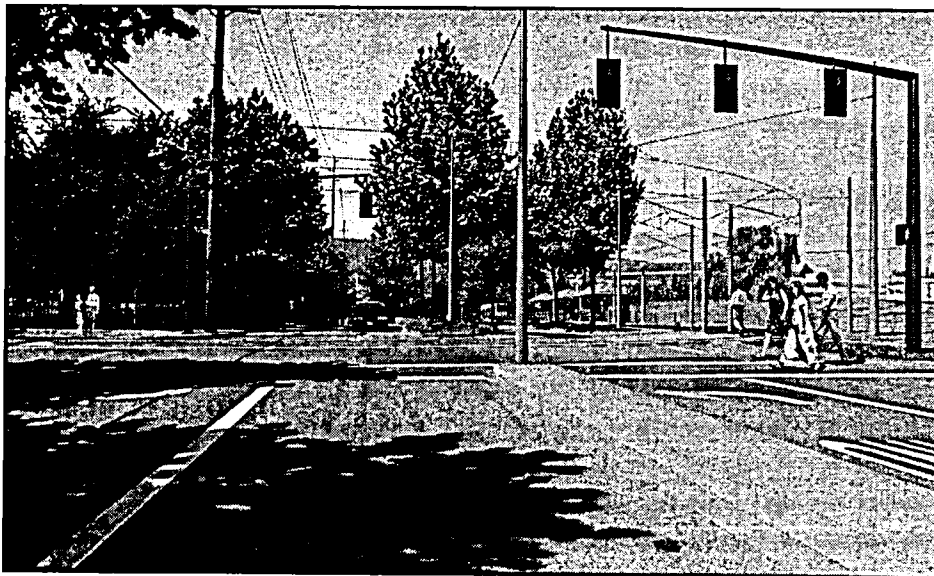
**Figure E.7-1a**  
*Wheeler/Russell Alignment Alternative (Visual Simulation)*  
• View from N Flint Ave. at Tubman School, looking north



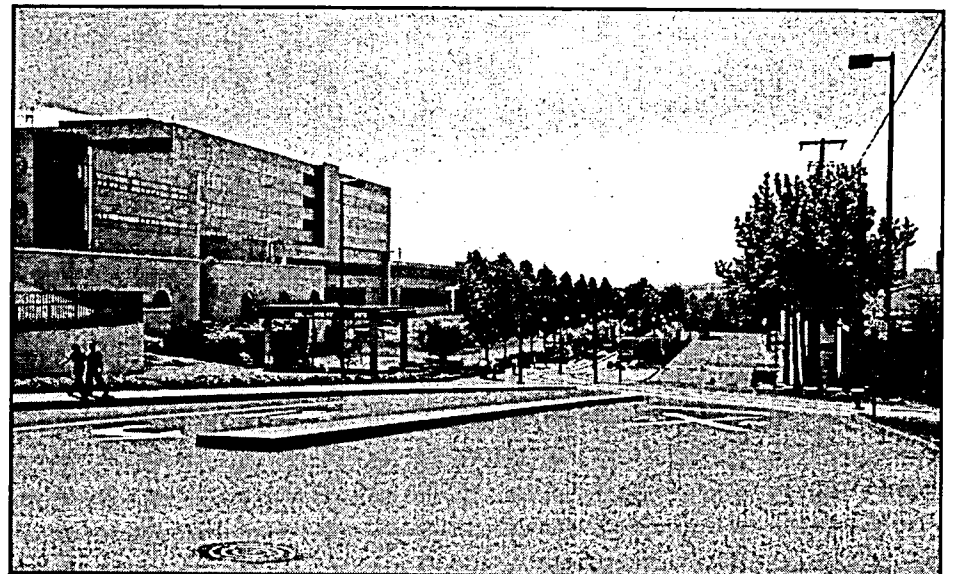
**Figure E.7-2**  
**Existing Condition**  
 • View from N Russell St. at Albina Park, looking west



**Figure E.7-3**  
**Existing Condition**  
 • View from N Kerby Ave. at Emanuel Hospital, looking south



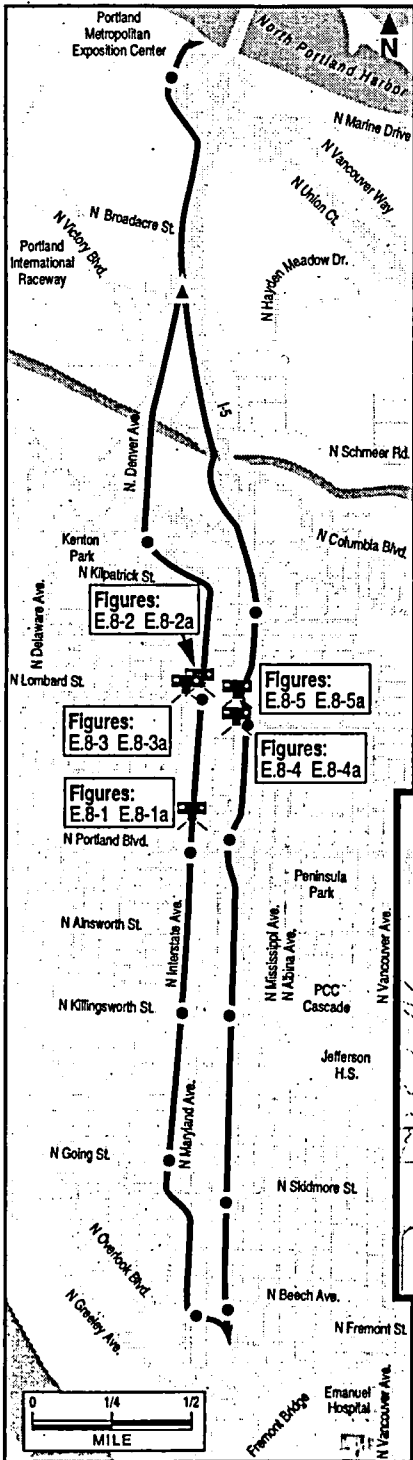
**Figure E.7-2a**  
**Wheeler/Russell Alignment Alternative (*Visual Simulation*)**  
 • View from N Russell St. at Albina Park, looking west to the Russell Station



**Figure E.7-3a**  
**East I-5/Kerby Alignment Alternative (*Visual Simulation*)**  
 • View from N Kerby Ave. at Emanuel Hospital, looking south to the Kerby Station

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**Figure E.8  
North Portland  
Segment Index Map**

- Interstate Ave.
- I-5

Visual Simulation Location\*

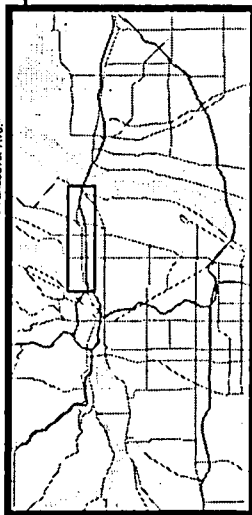
LRT Alignment Alternatives

• Station

▲ Station Access Under Study

Existing Railroad

\*Open end of symbol indicates direction of picture.



Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.

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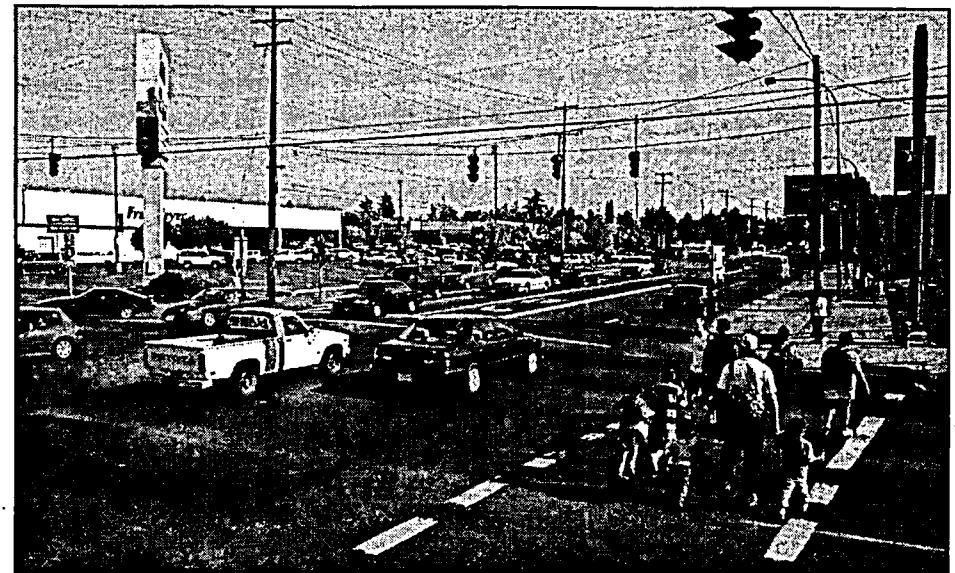
**Figure E.8-1  
Existing Condition**  
• View from N Interstate Ave. at N Dekum St., looking south



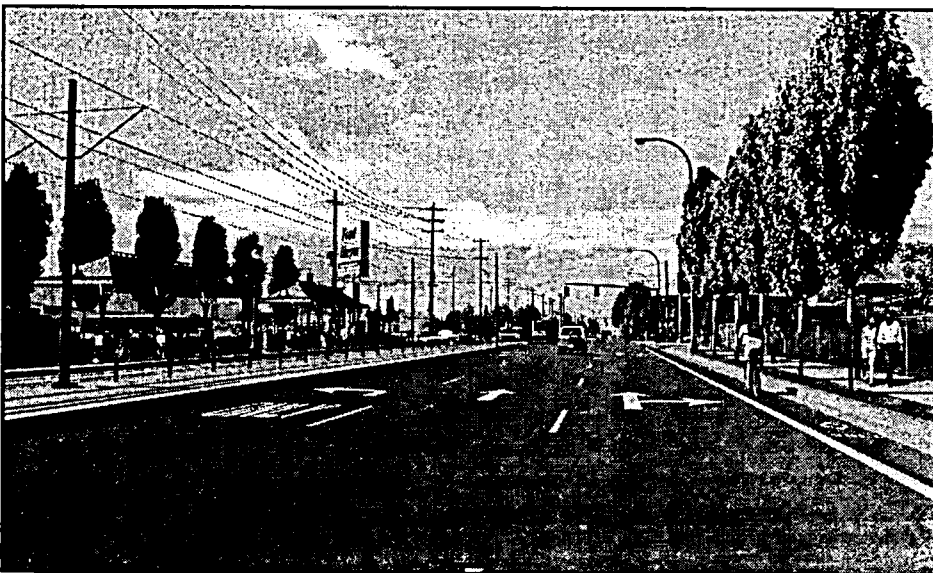
**Figure E.8-1a  
N Interstate Ave. Alignment Alternative (Visual Simulation)**  
• View from N Dekum St., looking south



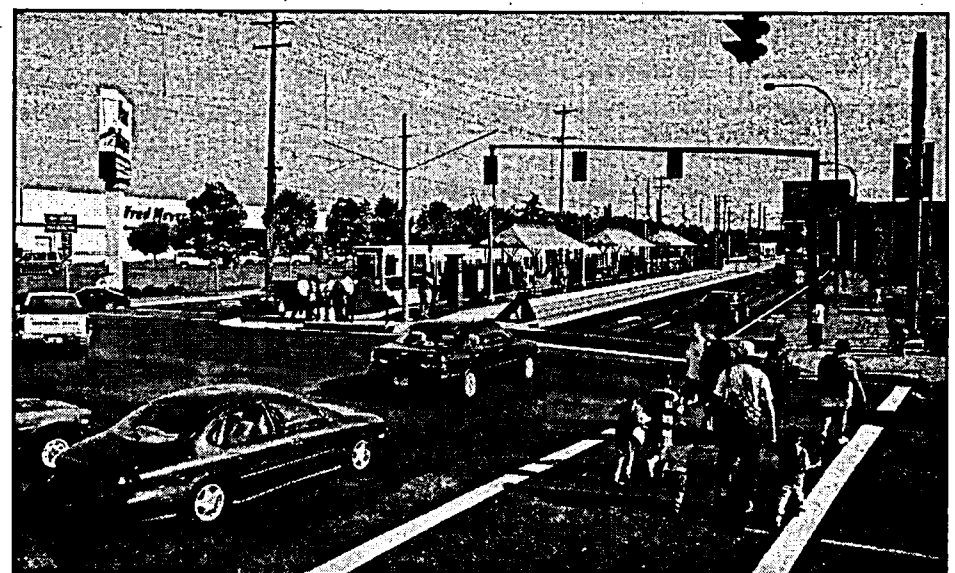
**Figure E.8-2**  
**Existing Condition**  
 • View from N Russet St. (Full-Length, MOS 1), looking south to N Lombard St.



**Figure E.8-3**  
**Existing Condition**  
 • View from N Lombard St. (MOS 5), looking south

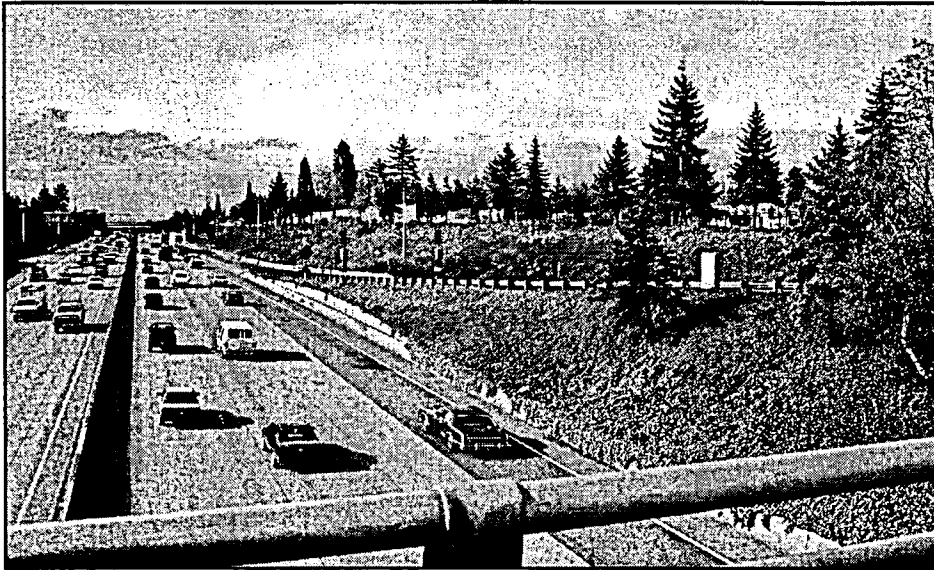


**Figure E.8-2a**  
**N Interstate Ave. Alignment Alternative (Visual Simulation)**  
 • View from N Russet St. (Full-Length, MOS 1), looking south to the Lombard Station

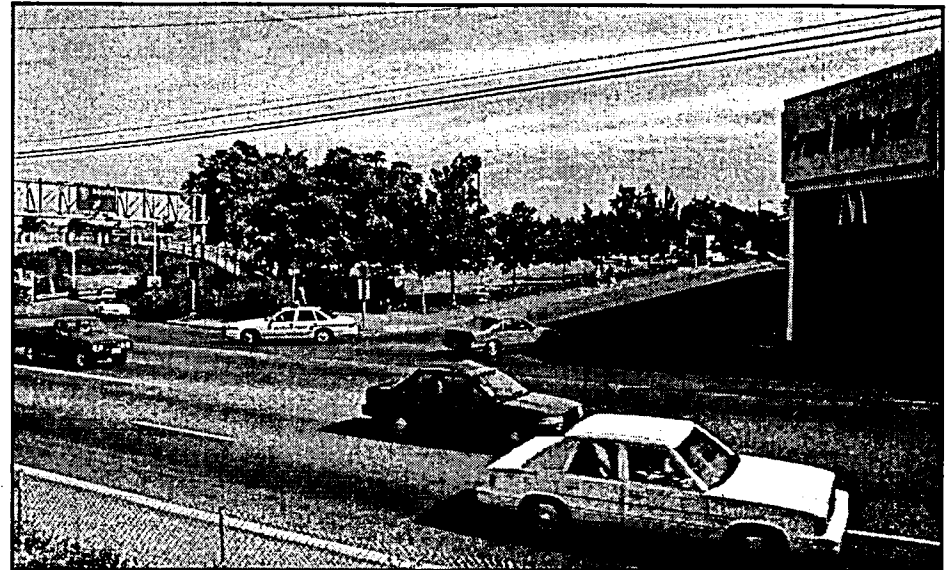


**Figure E.8-3a**  
**N Interstate Ave. Alignment Alternative (Visual Simulation)**  
 • View from N Lombard St. (MOS 5), looking south to the Lombard Station

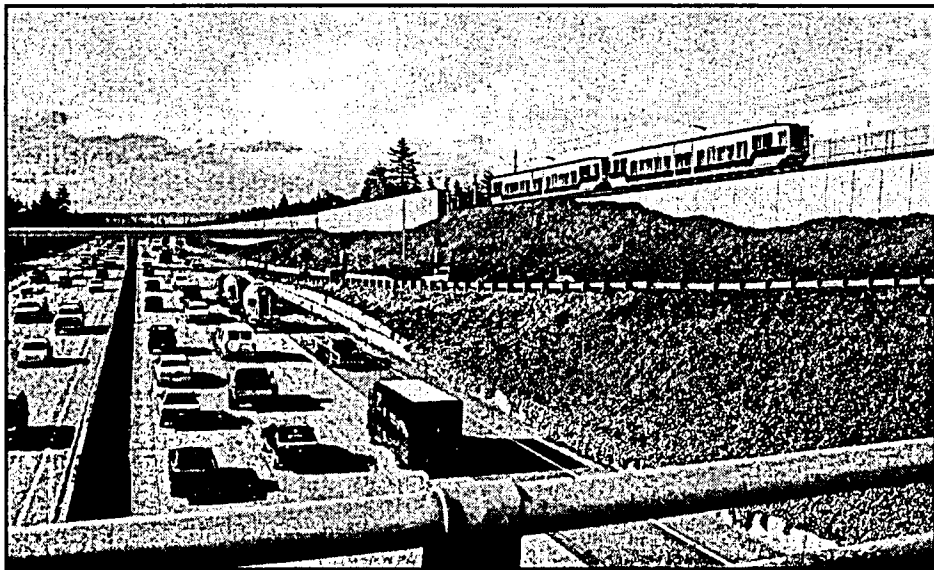
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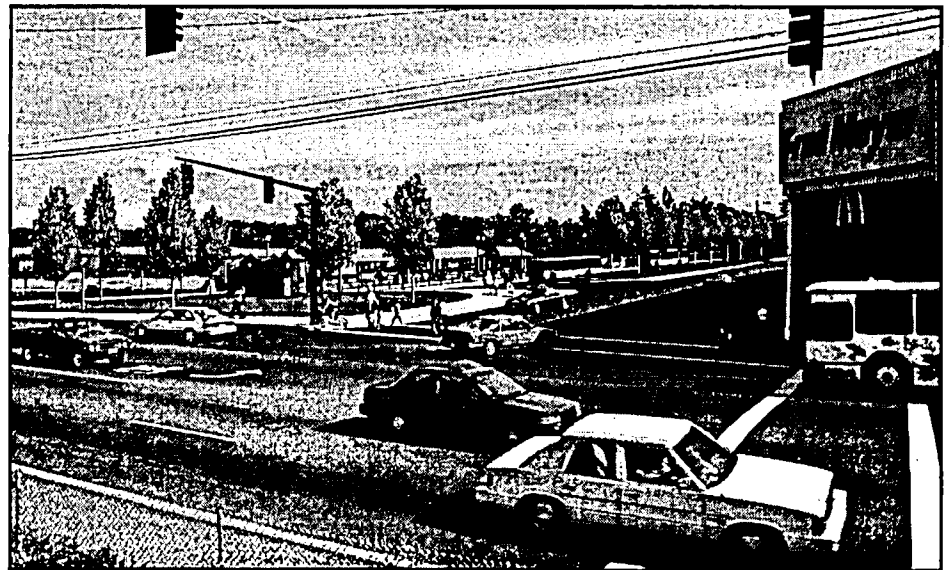
**Figure E.8-4**  
**Existing Condition**  
 • View from N Lombard St. (Full-Length, MOS 1), looking south



**Figure E.8-5**  
**Existing Condition**  
 • View from N Lombard St. (MOS 5), looking south

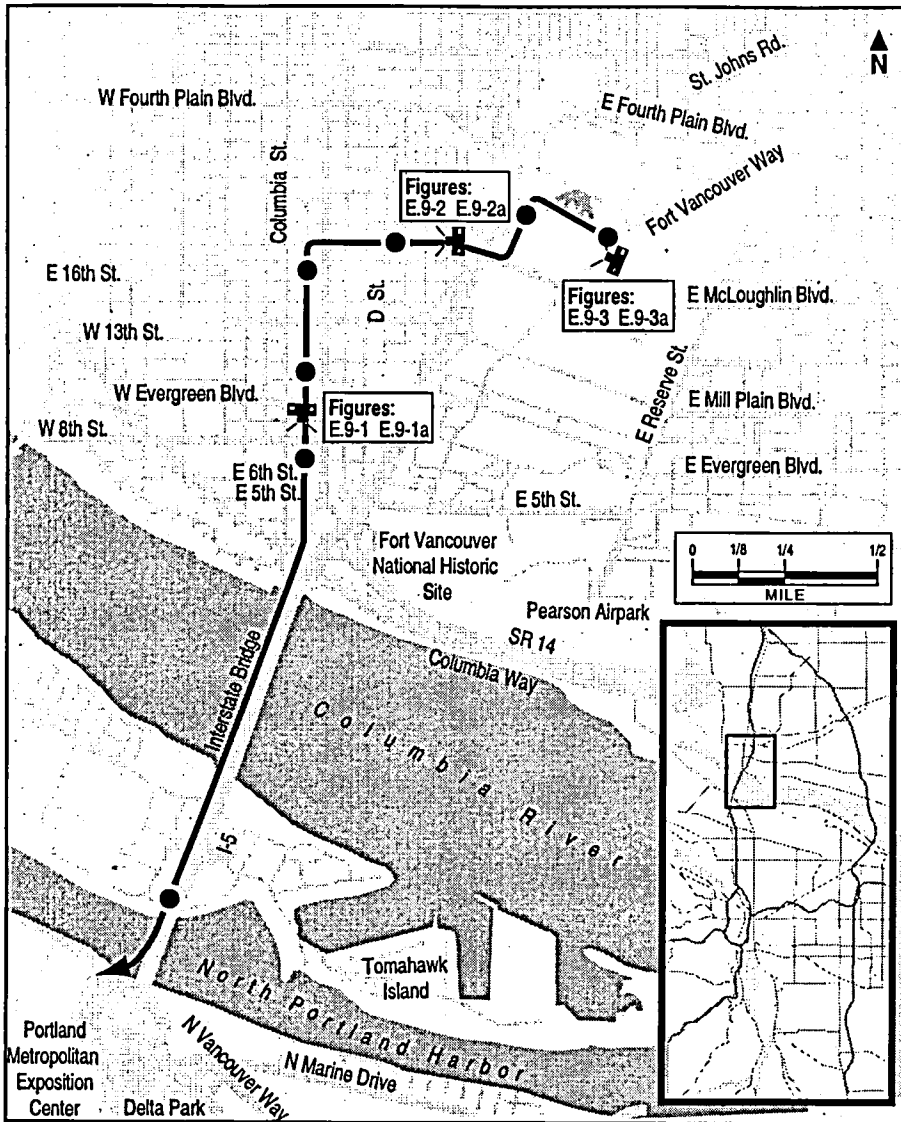


**Figure E.8-4a**  
**I-5 Alignment Alternative (Visual Simulation)**  
 • View from N Lombard St. (Full-Length, MOS 1), looking south



**Figure E.8-5a**  
**I-5 Alignment Alternative (Visual Simulation)**  
 • View from N Lombard St. (MOS 5), looking south to the Lombard Station

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**Figure E.9  
Hayden Island/  
Vancouver  
Segment Index  
Map**

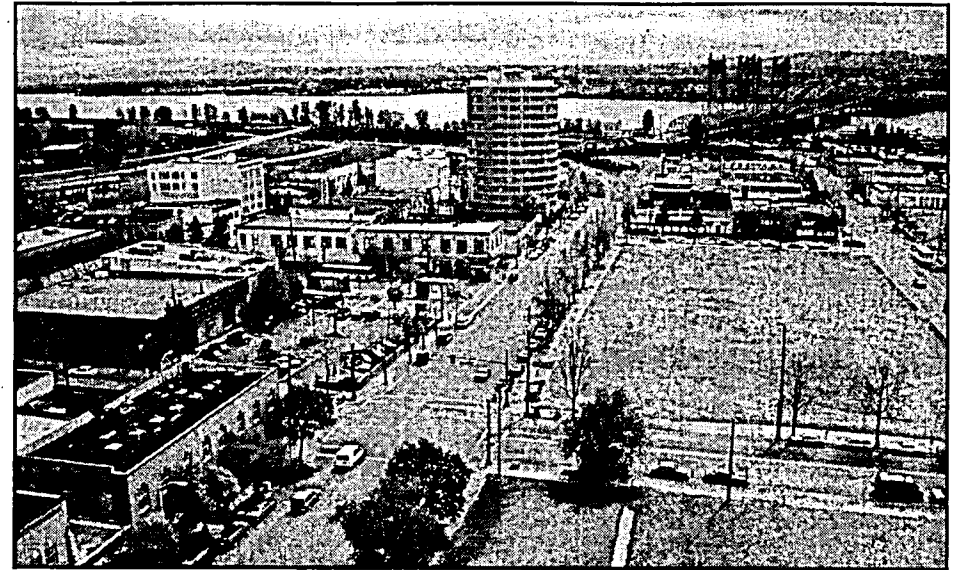
• I-5/Washington Street

- Visual Simulation View Point\*
- LRT Alignment Alternative
- Station
- Existing Railroad

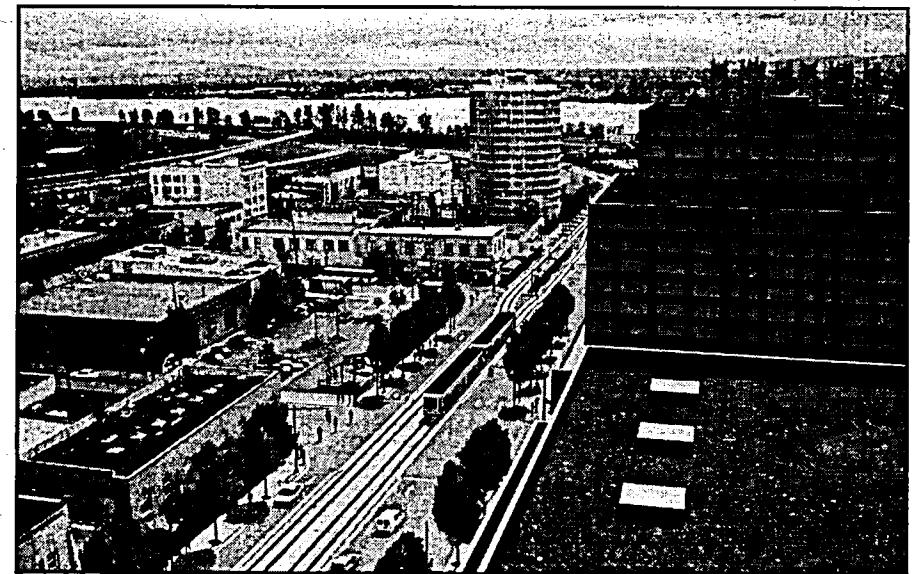
\*Open end of symbol indicates direction of picture.

Note: These simulations have been prepared to illustrate alignment alternatives for the Draft Environmental Impact Statement (DEIS). These illustrations are based on a preliminary level of design (approximately 5%) and are subject to change. See Section 2.3.2.1.2 of the DEIS for a description of the proposed light rail alternatives illustrated in these simulations.

Bridge types in these simulations are for illustration. Bridge type, size and location will be determined following adoption of the locally preferred strategy, during preparation of preliminary engineering and the Final EIS.



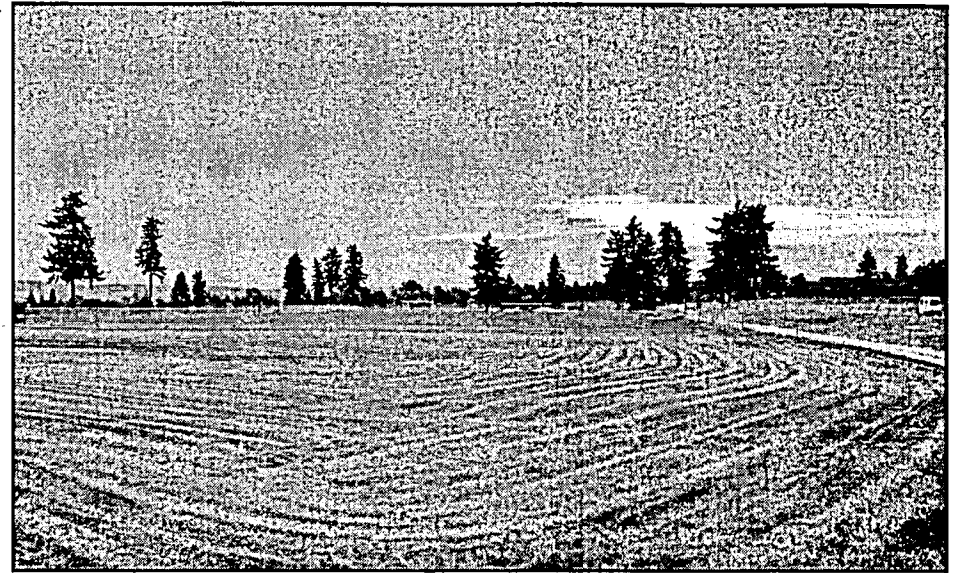
**Figure E.9-1  
Existing Condition**  
• View from Washington St., looking south



**Figure E.9-1a  
I-5/Washington St. Alignment Alternative (Visual Simulation)**  
• View from Washington St., looking south



**Figure E.9-2**  
*Existing Condition*  
 • View from E McLoughlin St. at Arnada Station, looking west



**Figure E.9-3**  
*Existing Condition*  
 • View from Fort Vancouver Way, looking west



**Figure E.9-2a**  
**I-5/Washington St. Alignment Alternative**  
*(Visual Simulation)*  
 • View from E McLoughlin St. at Arnada Station, looking west



**Figure E.9-3a**  
**I-5/Washington St. Alignment Alternative Structured**  
**Park-and-Ride Lot** *(Visual Simulation)*  
 • View from Fort Vancouver Way, looking west

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*Membership on South/North Project Committees*





## **F. MEMBERSHIP ON SOUTH/NORTH PROJECT COMMITTEES**

### **Expert Review Panel (ERP)**

Dr. Carl Hosticka, Associate Vice President, University of Oregon Portland Center, Chair  
Dr. Gordon Shunk, Program Manager of the Urban Analysis Program, Texas Transportation Institute  
Dr. Charles Vars, Professor of Economics, Oregon State University  
Ms. Nancy Michali, Korve Engineering  
Dr. Michael Meyer, Dean, School of Civil and Environmental Engineering, Georgia Institute of Technology  
Mr. William Lieberman, Director of Planning and Operations, San Diego Metropolitan Area Transit Authority  
Mr. Mike Houck, Director, Urban Streams Council  
Mr. Les Miller, Rail Construction Manager, Santa Clara County Valley Transit Authority

### **South/North Corridor Steering Committee**

Councilor Ed Washington, Chair, Metro Council  
Mayor Dan Fowler, City of Oregon City  
Commissioner Charlie Hales, City of Portland  
Commissioner Gary Hansen, Multnomah County  
Commissioner Ed Lindquist, Clackamas County  
City of Milwaukie, Carolyn Tomei, Mayor  
Mayor Royce Pollard, City of Vancouver, Regional Transportation Council  
Kay Van Sickle, Region 1 Manager, Oregon Department of Transportation  
Don Wagner, Administrator, District 1, Washington State Department of Transportation  
Donald S. McClave, Tri-Met Board of Directors

### **South/North Corridor Project Management Group (PMG)**

Richard Brandman, Chair, Metro  
Andrew Cotugno, Metro  
Leon Skiles, Metro  
Dan Bartlett, City of Milwaukie  
Rich Carson, City of Oregon City  
Steve Iwata, City of Portland  
Dave Williams, ODOT  
Mary Legry, WSDOT  
Karen Schilling, Multnomah County  
Dean Lookingbill, RTC  
Karen Haines, City of Vancouver  
Tom VanderZanden, Clackamas County  
Bob Stacey, Tri-Met

### **South/North Corridor Citizens Advisory Committee (CAC)**

Rick Williams, Portland Central City, Business Representative, Chair  
Marc Veneroso, Downtown Vancouver, Residential Representative, Vice Chair  
Bob Elliott, Southeast Portland, Residential Representative  
Brad Halverson, Steel Bridge to Ainsworth, Residential Representative  
Frank Howatt, Ainsworth to the Columbia River, Residential Representative  
Champ Husted, Milwaukie, Business Representative  
Jim Justice, Clackamas County, Business Representative  
Stanley T. Lewis, Downtown Portland, Residential Representative  
Gary Madson, South Portland, Business Representative  
Gina Maloney, Macadam Corridor, Residential Representative  
Michael Mulkey, Milwaukie to Oregon City, Residential Representative  
David Myers-Eatwell, North Portland, Business Representative  
Irene Park, Milwaukie to Clackamas Town Center, Residential Representative  
Larry Quilliam, Clackamas Regional Center Area, Residential Representative  
Tracy Reich, Downtown Vancouver, Business Representative  
Steve Rogers, Northeast Portland, Residential Representative  
Barbara Yasson, Vancouver to 179<sup>th</sup>, Residential Representative  
Retired Members: Lynn Bonner, Karen Ciocia, Jack Conway, Jane Floyd, Giles Gibson, Dorothy Hall, Winzel Hamilton, Bob Hennessey, Thomas Joseph, Betsy Lindsay, Jeff Reed and Delan Redjou.

### **Downtown Portland Oversight Committee (DOC)**

J. Clayton Hering, Chair, President, Norris Beggs & Simpson  
Chuck Armstrong, Epitope, Incorporated (Past Chair)  
Mike Burton, Executive Officer, Metro  
Commissioner Charlie Hales, City of Portland  
Bob Stacey, Executive Director, Policy and Planning, Tri-Met  
Greg Goodman, Vice President, City Center Parking  
Dave Williams, Planning and Development Manager, ODOT  
Patrick Done, Manager, Pioneer Place  
Felicia Trader, Portland Development Commission  
George Pernsteiner, Vice President, Finance & Administration, Portland State University  
Philip Kalberer, President, Kalberer Hotel Supply  
Lisa Horne, President, Downtown Community Association  
Jim Mark, Executive Vice President, Melvin Mark Properties  
Greg Schillinger, Downtown Retail Council  
Richard Michaelson, President, Planning Commission, City of Portland  
Sam Naito, Made In Oregon  
Craig Thompson, Fifth Avenue Suites Hotel

**South/North Corridor Technical Advisory Committee (TAC)**

Sharon Kelly, Metro, Co-Chair  
John Cullerton, Metro, Co-Chair  
Gina Whitehill-Baziuk, Metro  
Jeanna Cernazanu, Metro  
Susan Finch, Metro  
Ted Leybold, Metro  
Randy Parker, Metro  
Dave Unsworth, Metro  
Ed Abrahamson, Multnomah County  
Rich Carson, City of Oregon City  
Maggie Collins, City of Milwaukie  
Gerald Fox, Tri-Met  
Mike Eidlin, Tri-Met  
Michael Fischer, Tri-Met  
Mark Garrity, C-TRAN  
Shari Gilevich, Clackamas County  
Evan Dust, Clark County  
Stuart Gwin, City of Portland  
Bob Hart, RTC  
Steve Kelley, RTC  
Kevin Wallace, City of Vancouver  
Jennifer Ryan, Tri-Met  
Rod Sandoz, Clackamas County  
Ralph Drewfs, ODOT  
Dave Simpson, ODOT  
Gary Westby, WSDOT

**Appendix G**

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*List of Preparers for the DEIS*



## **G. LIST OF PREPARERS FOR THE DEIS**

### **Federal Transit Administration (FTA)**

Helen M. Knoll, Regional Administrator  
Nick Hockens, Community Planner  
Michael J. Williams, Regional Engineer  
Joseph Ossi, Environmental Protection Specialist

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Richard Brandman, South/North Project Director  
Leon Skiles, South/North Manager  
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Sharon Kelly, Transportation Planning Supervisor  
Gina Whitehill-Baziuk, Public Involvement Planning Supervisor  
Dave Unsworth, Senior Transportation Planner  
John Gray, Senior Transportation Planner  
Ted Leybold, Senior Transportation Planner  
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Susan Finch, Associate Public Involvement Planner  
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Shawn Wood, Assistant Transportation Planner  
Skye Brigner, Planning Technician  
Anna Collins Kemp, Secretary  
Jody Kotrlík, Associate Management Analyst  
Jan Faraca, Administrative Secretary  
Cheryl Hart, Office Assistant  
Dawn Lewis, Administrative Assistant  
Keith Lawton, Assistant Director, Technical Services  
Dick Walker, Travel Forecasting Manager  
Scott Higgins, Senior Transportation Planner  
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Jennifer John, Associate Transportation Planner

### **Tri-County Metropolitan Transportation District of Oregon (Tri-Met)**

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Mike Eidlin, CBD Engineering Manager  
Jennifer Ryan, Engineer III  
Tony Mendoza, Planning Manager  
Michael Fisher, Project Architect  
Wilton A. (Bud) Roberts, Engineer V  
Alonzo Wertz, Environmental Permits Coordinator

John Griffiths, Rail Operations Planning Manager  
Sharon Geraci, Right-of-Way Coordinator  
Claire Potter, Financial Analyst  
Larry Blankenship, Utilities Engineer V  
Kathy Blodgett, Secretary  
John Boroski, Planner I  
Kay Dannen, Community Relations Coordinator  
Robert A. Dethlefs, Junior Engineer  
Deneen Everly, Project Control Analyst  
Heather Gonsior, Engineer Intern  
Kim Manley, Project Coordinator  
Lawrence H. Margolin, Junior Engineer  
Leah Nagely, Engineer II  
Lisa Y. Nelson, Engineer  
Garwood Ray Nichol, Engineering Tech II  
Jan Shearer, Community Relations Manager  
Cherrie L. Rutherford, Secretary II

### **Oregon Department of Transportation (ODOT)**

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Doug Marsh, Environmental Specialist

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Anne Sylvester, Transportation Planner  
Bernie Chaplin, Senior Environmental Planner  
Paul Fendt, Engineer  
Pam Gunther, Wildlife Biologist  
David Jennings, Storm Water Engineer  
Dan Kelly, Wetlands Biologist  
Hann Lee, Transportation Planner  
Gary Maynard, Environmental Planner  
Gary Obery, Transportation Planner  
Howard Roll, Transportation Planner  
Mel Sears, Engineer  
Ryan Young, Environmental Planner  
Karen Kulawiak, Environmental Scientist  
Glenn Grette, Fisheries Biologist  
Matthew Boyle, Wildlife Biologist  
Don Weitkamp, Director of Fisheries  
Dan Fisher, Word Processor  
Victoria Garland, Word Processor

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**David Evans and Associates**

Laura Hudson, Vice President of Professional Services  
Luci Hise, Senior Planner  
Chris Cocker, Planner  
Kristina Gifford McKenzie, Planner

**Harris Miller Miller and Hansen, Inc.**

Hugh Saurenman, Vice President  
Yuki Kimura, Senior Consultant  
Lance Meister, Consultant  
Herb Singleton, Consultant

**HNTB Corporation**

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Alan D. Black, Project Engineer  
Andre K. Chandra, Transportation Engineering Intern

**Jones & Jones Architects and Landscape Architects**

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Curtis A. Miller, Senior Associate  
Christine Carlson, Associate

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Lynn Larson, Principal Investigator  
Dennis Lewarch, Senior Archaeologist  
Leonard Forsman, Archaeologist, Researcher  
Jeffrey Robbins, Archaeologist

**Michael Minor & Associates**

Michael A. Minor, President  
Jonathan J. Brown, Technical Consultant

**Newlands & Company, Inc.**

Donald Newlands, Principal

**Shapiro and Associates, Inc.**

Kimberly Demuth, Senior Planner  
Elizabeth Carter, Associate Planner  
Jeff Buckland, Environmental Planner  
Scott Williams, Planner

**TW Environmental, Inc.**

Martha Moore, Environmental Engineer

**Thomas/Wright, Inc.**

Bernard R. Smith, Survey Manager  
Philip A. Turner, Surveyor  
Sacha R. Barkhuff, Design Engineer

**The Larkin Group, Inc.**

Geoff Larkin, Principal

**Steven Siegel & Associates**

Steve Siegel, Principal

**The Underhill Co.**

Mary Jo Porter, Principal

**Andrew Janssen Engineering**

Andrew Janssen, Principal

**Parsons, Brinckerhoff, Quade and Douglas**

Ross Roberts, Lead Transit Planner

040998c-03



**METRO**

April 9, 1998

**TO:** Metro Council

**FROM:** Mike Burton, Executive Officer

**RE:** Wilsonville Prison Alternative Site Consideration

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I regret that I am unable to personally attend today's Council meeting. I have been previously scheduled to speak at the Oregon City Chamber meeting today.

I have asked Randy Ealy of my staff to represent me this afternoon before the Council.

Governor Kitzhaber has indicated to the City of Wilsonville that he is "convinced the alternative site has the potential to be acceptable" and that his consideration is a two-step process: "First, what has been claimed must be proved.....(and) the second step, is to ensure that the alternative site is made legally available to the state for the siting of a prison."

I ask that the Council confirm Metro's participation to date as a facilitator of necessary information to the City of Wilsonville (as they attempt to demonstrate specific legal parameters inherent with making the proposed alternative site available for a state prison) is in compliance with our Resolution 98-2623A encouraging Governor Kitzhaber to consider the identified alternative prison site.

Enclosed please find a copy of Larry Shaw's memo outlining the Wilsonville "Special Need" UGB Amendment Pocess and timeline.

Elaine Wilkerson has appointed Mary Weber, Senior Program Supervisor, to serve a lead management and Mary will also be present today to help answer any technical questions.



**METRO**

**RECEIVED**  
APR 07 1998  
EXECUTIVE OFFICER

**DATE:** April 7, 1998

**TO:** Mike Burton, Executive Officer  
Metro Council

**FROM:** *LS*  
Larry Shaw, Senior Assistant Counsel  
Office of General Counsel

**SUBJECT:** Wilsonville "Special Need" UGB Amendment Process

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Introduction

As an alternative to a state prison on the Dammasch property inside the Urban Growth Boundary (UGB), an alternative prison site on a 40-acre portion of urban reserves at Urban Reserve Study Area (URSA) 42, plus about 90 adjacent acres of "exception" (non-farm) land is being considered. This memo outlines the process for two final land use decisions by Metro that involve three actions to bring the alternative site inside the UGB.

Urban Reserves Amendment - Expand URSA 42 to Day Road

There is no established process for amending Metro's urban reserve designation decision of March 6, 1997 that is still on appeal at the Land Use Board of Appeals. However, the Metro Council has authority to amend its ordinance designating urban reserves by initiating a legislative amendment.

Based on the request of the Governor's Office for an analysis of Metro's approval timelines and consistent with the Metro Council Resolution No. 98-2623A supporting the alternative Wilsonville site, the attached 45-day notice of a legislative amendment to the urban reserves was sent April 3, 1998, to allow the Metro Council to make a final decision on its regularly scheduled meeting of May 21, 1998. This notice only allows a final decision to be made, it does not require any consideration of the proposed ordinance.

Adoption of such an ordinance to amend urban reserves requires compliance with the state's Urban Reserve Rule. The data in the record for the urban reserve designation of URSA 42 needs to be reviewed and updated for the proposed expansion of the urban reserve area north to Day Road. The conceptual plans for the prison site and the factual basis for this "special (land use) need" must be presented in the record of the Metro Council consideration of this ordinance. Like



any ordinance, a noticed public hearing is required for adoption. Supplementary notices to individual property owners not required by law, were done when the 1997 urban reserve decision was completed. Such notices may be advisable prior to final action in this case to seek maximum property owner cooperation in all the steps necessary to site this "special need" land use.

#### Urban Growth Boundary (UGB) Amendment - Resolution and Ordinance

The legislative amendment process for UGB amendments in Metro Code Chapter 3.01 is initiated by the Metro Council. All UGB amendments must come from urban reserves and "first tier" urban reserves, absent a "special need" land use based on a completed urban reserve plan. Metro Code 3.01.012(d), (e). Therefore, preparation of the legislative UGB amendment probably will take longer to prepare.

There is a strategy decision to be made at the outset on the UGB amendment. The legislative amendment could address only the alternative prison site. However, use of the alternative prison site would allow use of Dammasch and adjacent urban reserves for the residential master plan already prepared by Wilsonville. Therefore, the UGB amendment could bring in both the expanded URSA 42 site and those urban reserves in URSA 41 included in the completed Dammasch area master plan.

Both options assume that a condition of approval of the UGB amendment would be actual siting of the prison at the URSA 42 site because that is a key part of the factual basis for the UGB amendment decision.

Notices of a legislative UGB amendment include the 45-day notice to DLCD prior to final hearing and newspaper ad notice at least 45 days prior to the Committee public hearing. Metro Code 3.01.015(b), 3.01.050(a), (b). The Growth Management Committee receives the proposed ordinance after first reading and holds "... as many public hearings as necessary ..." prior to making a recommendation to the Metro Council. The Metro Council takes public testimony at its second reading of the ordinance prior to approval. Metro Code 3.01.015. To allow 45 days notice of the Committee public hearing at the June 2, 1998, an April 14, 1998, notice of public hearing is needed. This would enable the Metro Council to make a decision at its regular meeting on June 11, 1998.

The UGB process must be in two steps because the UGB is at the Metro jurisdictional boundary in Wilsonville. Metro can only act to move the UGB after it has jurisdiction to make that final decision after the Boundary Commission moves Metro's district boundary. The Metro Council would first adopt a Resolution of Intent to move the UGB after Metro gains land use jurisdiction by movement of the Metro jurisdictional boundary. Metro Code 3.01.015(5). The Resolution could become the basis of a petition to the Boundary Commission to move Metro's boundary to add the area(s) proposed for the UGB amendment. After Boundary Commission approval of Metro's jurisdictional boundary change, the Metro Council would have up to 30 days to adopt the UGB amendment ordinance, the appealable final land use decision.

The process can be faster by making a double majority application for the Metro boundary change to the Boundary Commission prior to Metro Council adoption of the Resolution of Intent. By the May 22, 1998, Boundary Commission application, the UGB amendment should be at the staff report level. The Boundary Commission decision on a May 22, 1998, application would be June 25, 1998. The Metro Council could take final action the next day, on June 26, 1998.

There is another alternative to further speed the Boundary Commission process. The annexation of this land to the Metro jurisdictional boundary could proceed ahead of Metro's UGB amendment. If "double majority" application to annex to Metro could be filed by April 24, 1998. That would enable a May 28, 1998, Boundary Commission hearing and decision on moving Metro's boundary. That, in turn, would enable the Metro Council to adopt its final ordinance, instead of a Resolution of Intent, on June 11, 1998. The deadline for any appeal to LUBA would, then, be July 2, 1998.

#### Timelines 1998:

##### **Urban Reserve Amendment**

- April 3: Notice to DLCD
- May 21: Metro Final Decision
- June 11: Deadline for Any Appeal of Metro Final Decision

##### **Urban Growth Boundary Amendment**

- April 14: Notice to DLCD, Newspaper Notice
- May 15: Wilsonville Completion of "Urban Reserve Plan"
- May 22: Double Majority Application to Boundary Commission
- June 2: Metro Growth Management Committee Hearing
- June 11: Metro Council Adopts Resolution of Intent
- June 25: Boundary Commission Hearing and Decision
- June 26: (Special Meeting) Metro Council Ordinance Adoption
- July 17: Deadline for Appeal of Metro Decision

cc: Dan Cooper, Celeste Doyle, Elaine Wilkerson, Mary Weber, Jim Sitzman, Stephen Lashbrook

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## **Expo Center Expansion: Construction Cost Management**

**Audited cost management of Expo Center expansion**

Focused on **construction costs** comprising over 85% of \$13.5 million project cost

**Construction budget was reasonable**

- hired construction cost consultant
- used model to independently estimate costs

**MERC managed costs sufficiently**

- used experienced CM/GC
- monitored construction work
- used Metro's construction specialist

**Audit with an eye toward improvement**

- improve procedures for documenting construction decisions
- ensure competitive prices for indirect costs
- get better documentation before reimbursing CM/GC's expenses
- provide better guidance for staff charging costs to projects
- re-think sealed bid and contract retainage policies

**Audit results will help manage Oregon project and proposed OCC construction**

040998c-05

This response is part of the  
Metro Auditor's report on  
*Expo Center Expansion:*  
*Construction Cost Management*  
and should be included with  
agenda item 5.0.

**Response to the Report**

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**METROPOLITAN EXPOSITION-RECREATION COMMISSION**

March 4, 1998

Alexis Dow, CPA  
Metro Auditor  
Metro Office of the Auditor  
600 Northeast Grand Avenue  
Portland, OR 97232-2736

Dear Alexis:

In accordance with Metro Ordinance 95-610A, this letter is written in response to the draft audit report on the Expo Center expansion. As noted in your draft report, the audit was designed to review the effectiveness of measures taken by Metropolitan Exposition-Recreation Commission (MERC) to manage the costs of this expansion. This letter will address:

- Agreement with the findings and recommendations, or reasons for disagreement
- Proposed plans for implementing recommendations
- Proposed timetables to complete such activities

First of all, MERC appreciates any feedback from the Auditor's Office that helps us to streamline and improve the effectiveness of our operations. As a public entity, we are here to serve the public's interest in the most efficient and cost-effective manner possible. As such, I would like to say that we do not disagree with any of the recommendations included in your report and will outline in this letter how we intend to implement them into our ongoing procedures.

I was pleased to note in your report that, based on your review, you found that MERC staff adequately managed the costs of the Expo expansion. We are committed to running the MERC facilities in the most entrepreneurial manner possible. The Expo expansion was a good example of how a public entity can evaluate an opportunity and design and implement a response to capitalize on that opportunity swiftly and prudently. I commend the Metro Council; MERC Commission and staff for their efforts.

In early 1996 the Metro Council and MERC Commissioners identified the opportunity to host the "Traveling Smithsonian" exhibit and recognized that this provided the ideal

opportunity to proceed with construction of a much needed new hall at the Expo Center. The budget was approved, ground was broken in June 1996, after the intended start date, and the Hall was substantially completed by March 1997 within its approved budget. The new Hall not only successfully housed the Smithsonian Exhibit, but also has successfully enhanced revenues at the Expo Center. The new Hall has served as a catalyst for bringing new events to Expo Center and has allowed existing events to shift to the new hall and to expand providing a "win-win" opportunity for Expo Center and its customers.

While I would certainly view this project as having been a success, we welcome the opportunity to improve on our success. In discussing your report with MERC staff, we have concluded that the recommendations contained in your report, *noted in italics and bold*, are valid and reasonable to implement into our future construction projects as noted below:

### **Summary of Audit Recommendations and MERC's response**

**1. *When managing future construction projects using the CM/GC contracting approach, MERC staff should:***

- ***Document their approval of all changes and decisions that result in subcontract amendments***

As was noted in your report, the Change Proposal Notifications (CPNs) were used by the general contractor for changes that affected scope or allowance adjustments that increased or decreased the construction contingency fund or that affected the guaranteed maximum price of building the new Hall. The CPNs were approved by the Oregon Convention Center (OCC) Director.

Design Clarification/Variation Requests (DCVRs) were used by the general contractor to obtain interpretations of construction specifications or request permission to use a different construction method, material or design than originally specified. If a DCVR resulted in a CPN because it increased construction costs, it was signed by the OCC Director as noted above. If, however, the DCVR did not result in a CPN, it was reviewed and approved by the OCC Director and MERC Construction Manager orally at the weekly construction meeting.

Construction Change Directives (CCDs) indicated construction changes desired by MERC or the architect. CCDs were prepared by the architect and approved by MERC's Construction Manager. If a CCD affected construction costs, the additional costs would be authorized with a CPN as noted above.

All of the above changes were reviewed to evaluate the need for the proposed subcontract change and determine whether the costs were reasonable, fair and not a duplication of costs already covered in existing subcontracts. All changes, however, did not result in written authorization.

On future Construction Manager/General Contractor (CM/GC) construction projects, MERC staff will retain a written record to document that all subcontract amendments have been reviewed by a member of the MERC staff and found to be within the maximum guaranteed price and scope of work as stated in the contract. Additionally, for subcontract changes that result in a major change in scope, MERC will employ a project architect or a qualified construction cost analyst to review the proposed change, if deemed prudent and cost-effective to do so.

- ***Compare the general contractor's prices and rates for general services to those available from other vendors, and document the results of the comparisons***

MERC paid the general contractor about \$400,000 for "general services" costs incurred during Hall E construction. The MERC Construction Manager and Metro Construction Manager reviewed categories of general services costs to ensure they were reasonable before the construction budget was forwarded to MERC for approval. While these review steps were taken, they were not always documented in writing in MERC's records.

We agree that formally documented price comparisons are not needed for low-cost services, but should be conducted whenever amounts may be significant. Future construction contracts will set a threshold for items that are to be considered significant in cost (such as insurance or equipment rental) and establish a procedure to ensure competitive pricing is obtained.

- ***Ensure that the general contractor has provided adequate support for expenditures before reimbursing them***

As is noted in your report, overall MERC staff implemented adequate controls to ensure that: 1) the general contractor charged the Expo project only for services actually received; and 2) only those costs allowed by the contract services agreement were reimbursed to the contractor.

While MERC staff did require documentation for all expenditures before reimbursing them, staff did not always receive a copy of the invoice. For future construction projects, MERC will establish a materiality threshold in the construction contract to establish a requirement for the contractor to furnish copies of all invoices submitted by subcontractors and other

vendors before reimbursing any material costs for projects using the CM/GC approach.

- ***More thoroughly review indirect construction services to ensure they are necessary and prudent***

During your testing of construction expenditures and payroll overhead rates, you noted that the general contractor charged about \$19,000 of costs to the Expo expansion project that you and/or your staff viewed as questionable. These costs, as you note, were not significant in relation to total construction costs (less than one-quarter of one percent of total construction costs) and were allowable under the construction services agreement.

MERC staff assures me that they did monitor these services closely during the Expo project, and will continue to review indirect construction costs closely for future projects to ensure that all charges for services are both necessary and prudent. Additionally, staff has indicated that future contracts will specify the types of indirect costs that can be charged to the project.

- ***Consider raising the threshold for sealed bidding, then ensure the required sealed bidding procedure is followed***

For future CMGC construction projects, MERC will raise the threshold from \$2,500 to \$25,000 for requiring sealed bids for awarding subcontracts. For subcontracted services costing less than the increased threshold, MERC will require the contractor to obtain and record at least competitive quotes for each service required between \$5,000 and \$24,999.

- ***Retain funds in accordance with the contract. If the contract retention requirement is considered too aggressive, consider processing a contract amendment to reduce the requirement.***

MERC staff notes that they interpreted the Construction Services Agreement to require withholding of 5 percent of the value of subcontracted construction services, rather than 5 percent of all construction costs. Your office, however, interpreted the contract to require 5 percent of all construction costs. As your report noted, there was little risk in MERC's interpretation, as the contractor also was required to provide a performance bond.

MERC will ensure that future construction services agreements contain language that more clearly defines retention requirements. Additionally, we will ensure that retention is held in accordance with the construction



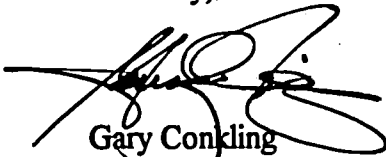
services agreement and will process a contract amendment to reduce the requirement during the project if the retention requirement is considered to be too aggressive.

**2. *MERC should develop criteria for staff to use to decide which costs to record to projects.***

Your report noted that to a reasonable degree Expo expansion project costs were properly recorded in Metro's accounting system. The report noted, however, that about \$188,000 of capital expenditures recorded on Expo's books erroneously were recorded as general capital costs rather than Expo expansion project costs. These costs were for a telephone system and concessions equipment that were for the entire complex rather than just the new hall. Although a portion of the phone system was for the new building, and the portable concessions equipment could be used exclusively for the new building if needed, these purchases were not exclusively for the new hall. However, we will establish criteria for deciding what costs to record to future construction projects.

In summary, I would like to thank you once more for the work you and your staff performed on the Expo audit. Your recommendations will be implemented for future construction contracts as noted above. We will review these proposed changes with the Commission once your final report is released.

Sincerely,



Gary Conkling  
Chair, Metropolitan Exposition-Recreation Commission

cc: Mark B. Williams, General Manager  
Jeff Blosser, OCC Director  
Chris Bailey, Expo Manager  
Faye Brown, Director of Fiscal Operations  
Mark Hunter, Construction Projects Manager