An aerial photograph of a city, likely Portland, Oregon, showing a wide river (the Columbia River) flowing through the urban landscape. The river is light-colored and meanders through the city. The surrounding area is densely packed with buildings and streets. The overall tone is sepia or light brown.

*LEGISLATIVE STUDY  
INTERIM REPORT*

*COLUMBIA RIVER CROSSING  
ACCESSIBILITY STUDY*

*PREPARED FOR THE  
LEGISLATIVE TRANSPORTATION COMMITTEE*

*DECEMBER 1988*

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*LEGISLATIVE STUDY*

*INTERIM REPORT*

*COLUMBIA RIVER CROSSING  
ACCESSIBILITY STUDY*

*DECEMBER 1988*

PREPARED FOR:  
LEGISLATIVE TRANSPORTATION COMMITTEE

PREPARED BY:  
INTERGOVERNMENTAL RESOURCE CENTER

IN COOPERATION WITH:  
WASHINGTON DEPARTMENT OF TRANSPORTATION,  
DISTRICT 4 AND HEADQUARTERS  
PARSONS, BRINKERHOFF, QUADE, AND DOUGLAS, INC.

*TABLE OF CONTENTS*

CHAPTER	PAGE
I. INTRODUCTION AND BACKGROUND .....	1
II. NEED FOR ACCESSIBILITY ACROSS THE COLUMBIA RIVER .....	10
III. PRELIMINARY COLUMBIA RIVER CROSSING CONCEPTS .....	16
IV. OREGON AND WASHINGTON TRANSPORTATION DECISION MAKING PROCESSES .....	20
V. PROPOSED PHASE II WORK SCOPE: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY .....	28
VI. RECOMMENDATIONS .....	49
APPENDIX	PAGE
A. DEVELOPMENT OF PROPOSED WORK SCOPE, PHASE II .....	51
B. INTERGOVERNMENTAL RESOURCE CENTER RESOLUTION .....	54

## *LIST OF FIGURES*

FIGURE	PAGE
1. STUDY AREA.....	4
2. PREVIOUS COLUMBIA RIVER CROSSING STUDIES .....	5
3. 1987 AVERAGE ANNUAL WEEKDAY TRAFFIC VOLUMES .....	12
4. INTERSTATE BRIDGE (I-5) HOURLY TRAFFIC VOLUMES .....	12
5. GLENN JACKSON (I-205) BRIDGE HOURLY TRAFFIC VOLUMES .....	13
6. FUTURE PM PEAK HOUR FORECASTS: VOLUME/CAPACITY COMPARISONS .....	13
7. YEAR 2010 POPULATION AND EMPLOYMENT GROWTH .....	14
8. PORTLAND/VANCOUVER METROPOLITAN SUBAREAS .....	15
9. CONCEPTUAL COLUMBIA RIVER CROSSING CORRIDORS .....	18
10. "PROPOSED" LRT SYSTEM .....	19
11. REGIONAL TRANSPORTATION PLANNING PROCESS .....	22
12. WASHINGTON TRANSPORTATION BUDGET DECISION-MAKING PROCESS .....	24
13. OREGON TRANSPORTATION BUDGET DECISION-MAKING PROCESS .....	26
14. WORK FLOW CHART: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY .....	45
15. PROPOSED SCHEDULE: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY .....	47
16. PROPOSED TASK BY TASK BUDGET: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY .....	48

# *CHAPTER I*

## *INTRODUCTION AND BACKGROUND*

# CHAPTER I

## INTRODUCTION AND BACKGROUND

### AUTHORIZATION

This report was authorized by the Washington State Legislature and is defined in the Supplemental Transportation Budget, HB 1701, State of Washington, 1988 Regular Session. The duties set forth by the 1988 Washington State Legislature read: "... a study of the economic feasibility of constructing a bridge across the Columbia River to Oregon..."

The findings of this study are to be transmitted to the 1989 legislative session.

### THE PURPOSE OF REPORT

The purpose of this interim report is twofold. First, to provide an overview of the need for future travel accessibility across the Columbia River based upon currently available information. The second purpose is to present a proposed scope of work for a second phase study which would evaluate the economic, environmental, and engineering feasibility of future accessibility across the Columbia River between Clark County, Washington, and the Portland metropolitan area in Oregon.

Continued economic development in the Portland-Vancouver metropolitan area has resulted in steady increases in travel across the Columbia River (5.3 percent per year averaged over the last 10 years). The increase in traffic volumes are causing major congestion problems on I-5 during the morning and evening peak travel hours. The traffic volumes on I-205 are not causing immediate congestion problems, but are increasing at a very rapid pace. In fact, the traffic is greater today on I-205 than the 1979-80 studies predicted for the Year 2000. Transit volumes crossing the Columbia River are also growing at a fast rate (45% increase from 1985 to 1988 on C-TRAN routes #5, #134 and #76).

If the historical rate of traffic increase is projected forward, northbound evening peak hour capacity on the I-5 bridge would be reached by the year 1991, and on the I-205 bridge, northbound evening peak hour capacity would be reached within a 20 year horizon.

More conservative forecasts based on the Intergovernmental Resource Center's (IRC) and the Metropolitan Service District's (Metro) travel forecasting models indicate that before the Year 2005, traffic on the I-5 bridge would exceed design capacity. Even if the evening peak traffic demand could be spread, the peak congested, stop-and-go traffic period in the Year 2010 would extend for long periods of time.

Today's traffic congestion problems on I-5 and increasing traffic volumes on I-205 are the symptoms of a growing transportation system imbalance between the Washington

portion and the Oregon portion of the Portland-Vancouver metropolitan area. Today's traffic problems are also symptoms of the need to develop a truly integrated future regional transportation system for maintaining mobility across the Columbia River. A better balance between moving vehicles and people must be developed in concert with a future vision for the economic development of land use throughout the metropolitan region, or today's traffic problems will continue to increase into the foreseeable future.

## SCOPE OF THE REPORT

This report is an interim report (Phase I) in response to the 1988 legislative study request. As an interim document, this report includes an overview of need, the identification of associated transportation issues, the transportation decision-making process in Oregon and Washington, and the scope of work for a multi-year study which would complete a detailed examination of the alternatives for maintaining accessibility across the Columbia River. Figure 1 illustrates the study area. The proposed work scope for Phase II is intended to provide the connecting link between the initial Phase I interim report and the Phase II detailed study. The Phase II study is needed to develop a joint Oregon-Washington solution to balance and integrate the long range transportation system connecting the two states.

## EXAMINATION OF PREVIOUS COLUMBIA RIVER CROSSING STUDY FINDINGS

Between 1977 and 1981 the issue of additional Columbia River bridge crossings was examined through several studies. The FHWA study cited support for another Columbia River Crossing as coming from Washington State and local officials and local media. The support resulted from a recognition of existing traffic congestion problems on I-5 between Vancouver and Portland. Other officials and local agencies in Oregon and Washington were conditionally supportive, with some having reservations in regard to neighborhood impacts. The following four studies were conducted within the 1977 to 1981 time period.

- Washington State Legislative Study, 1977-1979.
- FHWA Feasibility Study, 1979.
- Washington State Legislative Study, 1980.
- Final Report of the Governor's Bi-State Task Force on Transportation for the Portland-Vancouver Corridor.

Each of these previous studies are discussed on the following several pages in terms of purpose, major assumptions, findings and how the findings compare with today's information (see Figure 2).

A Bi-State Light Rail Transit Study was completed in 1985 and is discussed at the end of this chapter and in Chapter III.

Figure 1

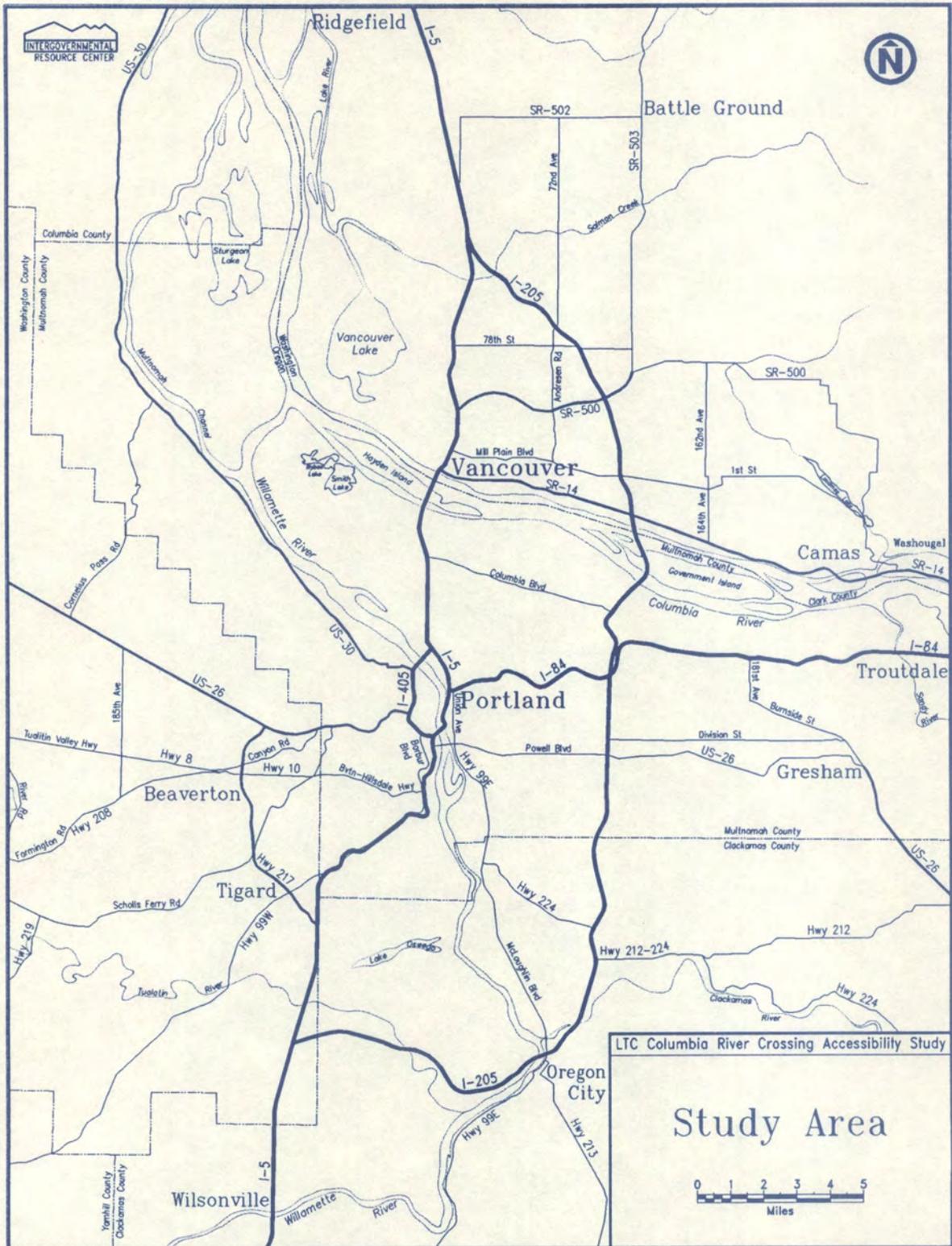
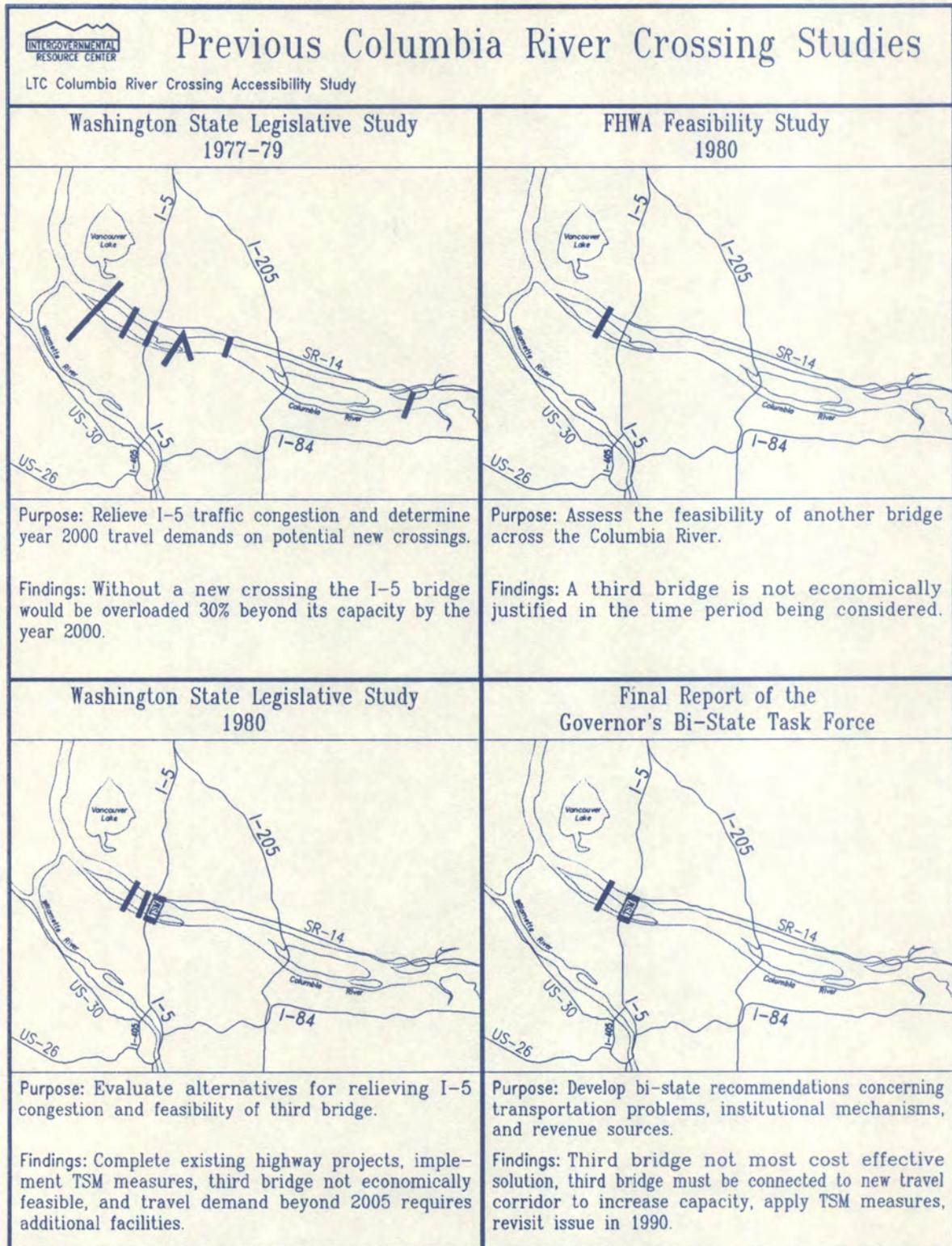


Figure 2



## WASHINGTON STATE LEGISLATIVE STUDY, 1977-1979

### *PURPOSE:*

The purpose of the 1977-79 legislative study was to determine the Year 2000 travel demand on potential new crossings over the Columbia River. The study examined eight river crossings between Longview and the Portland-Vancouver metropolitan areas.

### *MAJOR ASSUMPTIONS:*

The study based its recommendations on 180,000 vehicle trips a day crossing over the Columbia River. The assignment of future year river crossings was conducted without regard for the limited capacities of the supporting arterial street networks. The study recognized that the supporting arterial network would require further evaluation. The forecast of vehicle trips did include a transit mode split assumption of 3% to 6% for all trips.

### *FINDINGS:*

The study found that if no additional crossing facility was provided the I-5 bridge would be overloaded 30% beyond its capacity by the Year 2000.

### *PREVIOUS FINDINGS COMPARED WITH TODAY'S INFORMATION:*

The 1977-79 legislative study forecast 180,000 daily vehicle trips crossing the Columbia River in the Year 2000. In 1987 the number of vehicle trips on an average weekday crossing the Columbia exceeded 166,000. The study also forecast 64,000 vehicles a day crossing the I-205 bridge. The study's Year 2000 forecast is less than the 1987 average weekday volume of 68,000 vehicles a day across the I-205 bridge.

## FHWA FEASIBILITY STUDY

### *PURPOSE:*

The purpose of the FHWA study was to assess the economic feasibility of another bridge across the Columbia River between Vancouver and Portland.

### *MAJOR ASSUMPTIONS:*

The analysis of costs and benefits contained in the study were based on an additional bridge west of the existing I-5 bridge. The analysis assumed a four-lane bridge with a lift span and connections to west 8th/SR-14 in Vancouver and Portland Road/Columbia Boulevard in Portland. Direct user benefits were compared with capital and operating costs. The comparison found that costs exceed benefits.

The FHWA study utilized the Year 2000 travel forecasts from the 1977-1979 LTC Study, but used a higher per lane capacity figure (1,700 veh./lane, LTC Study; 2,000 veh./lane, FHWA Study) to determine future year congestion levels. Because the FHWA capacity figure was greater it resulted in lower levels of congestion projected for the Year 2000 than did the previous LTC Study.

***PREVIOUS FINDINGS COMPARED WITH TODAY'S FINDINGS:***

The Year 2000 forecast for traffic crossing the Columbia River appears to be low, given today's traffic volumes and those forecast for the year 2010. The assumption of capacity on the I-5 bridge (2,000 vehicles per hour per lane) is too optimistic given today's traffic congestion information. The combination of under predicting traffic and over predicting capacity resulted in an analysis of costs vs. benefits that understated benefits.

**WASHINGTON STATE LEGISLATIVE STUDY, 1979-80*****PURPOSE:***

The purpose of the 1980 study was to evaluate alternatives for relieving traffic congestion problems in the I-5 corridor, including the feasibility of constructing a third bridge across the Columbia River.

***MAJOR ASSUMPTIONS:***

The Year 2000 average weekday vehicle trips crossing the Columbia River were estimated to be 181,000 and the average daily transit trips were estimated to be 14,800.

***FINDINGS:***

The study reached the following conclusions: 1) congestion on I-5 is a result of bottlenecks north and south of the I-5 bridge, 2) a third bridge is not economically feasible, 3) completion of existing projects provides a short-term to mid-term solution, 4) additional transportation system management (TSM) define programs are required, and 5) the travel demand on the I-5 corridor beyond the Year 2005 will require additional facilities.

***PREVIOUS FINDINGS COMPARED WITH TODAY'S INFORMATION:***

Currently Columbia River crossing volumes are increasing faster than expected. The 1987 average weekday volume on I-205 was 68,000 vehicles/day as compared to the Year 2000 forecast of only 64,000 vehicles. The study estimated growth in traffic beyond the Year 2000 to be 0.75% per year. Between 1978 and 1987 the average annual increase in traffic over the Columbia was 5.3% per year, while the current forecasts range between 1.7% and 4.0% per year.

The bottlenecks on I-5 north and south of the I-5 bridge discussed in the study have been improved (i.e., widening through Vancouver and the Slough Bridge improvements). Current bottlenecks on I-5 occur at the I-5 bridge and south of the Slough Bridge. The study had recommended that the bottlenecks north and south of the I-5 bridge were the limiting factor and not the bridge itself.

The limited implementation of TSM measures such as ramp metering, variable message signs and park-and-ride facilities in the I-5 corridor have not improved peak hour congestion levels as forecast in the study.

## FINAL REPORT OF THE GOVERNORS BI-STATE TASK FORCE ON TRANSPORTATION FOR THE PORTLAND-VANCOUVER CORRIDOR

### *PURPOSE:*

The Task Force was established by the Governors of Washington and Oregon in order to develop bi-state recommendations concerning transportation problems, institutional mechanisms necessary to implement bi-state policies and potential sources of financing.

### *FINDINGS:*

The study's single major finding was that a third highway bridge is not the most cost effective solution to interstate travel at the time of the study and a third bridge would not increase the capacity for interstate travel unless it were accompanied by a new corridor north and south of the Columbia River. The study also found that TSM projects, such as ramp metering, would control congestion for the foreseeable future. The technical analysis concluded that the region would not have to revisit the question of additional river crossings until 1990.

### *PREVIOUS FINDINGS COMPARED WITH TODAY'S INFORMATION:*

The Bi-State Study forecast 185,000 daily vehicle trips in the Year 2000. The forecast assigned 120,000 daily vehicle trips to the I-5 bridge and 65,000 daily trips to the I-205 bridge. Current traffic data show that the Year 2000 forecast on I-205 has already been exceeded. The forecast of traffic assumed a 50-50 evening peak period split in the direction of travel over the I-5 bridge. In fact, the evening peak hour split today is 60-40 with 60% of the traffic northbound to Clark County. The higher percentage (60%) of traffic returning to Clark County can be expected to lead to more severe traffic congestion problems than anticipated in the Bi-State Year 2000 forecast.

## **SUMMARY**

All four of the studies generally concluded that within the 20 year planning horizon (Year 2000) the construction of a new bridge to increase the capacity for travel across the Columbia River was not needed. The studies directed planning and project development efforts toward transportation system management (TSM) strategies. While TSM measures are important and certainly part of the solution, there are limits as to how much they can achieve over the long term. The studies were focused toward the location of additional bridge crossings and did not adequately address the larger region-wide issue of balancing and integrating the transportation system between the Vancouver and Portland metropolitan areas.

Today, nearly 10 years after the previous studies, several new trends are apparent. The first and most obvious is the more rapid than expected increase in traffic volumes across the Columbia River. Traffic congestion is nearly at the 1982 level which mandated the early opening of the I-205 bridge. These traffic volumes are in part a result of the emergence of major development centers in Washington and Oregon that are outside the previous dominant inner Portland core. The increasing traffic volumes are also the result

of a continued strong increase in the labor market within Clark County that commute to the Portland job market. Differences between Oregon and Washington tax structures are also a contributing factor to high cross-river travel volumes.

All of the previous studies based their recommendations on future year traffic forecasts that given today's information appear low. Hence, the previous study recommendations may fall short of achieving the level of accessibility between the two states that was expected.

In addition to the four studies just discussed, a light rail transit (LRT) study examined LRT feasibility in the I-5 and I-205 corridors. The Bi-State LRT Study (1985) concluded that LRT in the I-5 corridor appeared feasible in the long term. The issue of high capacity transit service should be re-examined in the context of working toward a better modal balance of travel between the two metropolitan areas.

## *CHAPTER II*

# *NEED FOR ACCESSIBILITY ACROSS THE COLUMBIA RIVER*

## CHAPTER II

# NEED FOR ACCESSIBILITY ACROSS THE COLUMBIA RIVER

### INTRODUCTION

Good accessibility between the Vancouver and Portland regions has always been a key to the region's economy and quality of life. The first bridge across the Columbia River was completed in 1917, with its twin structure being completed in 1958. The Glenn Jackson bridge (I-205) was opened in 1982 and provided the second river crossing between the two metropolitan areas. Coordination and cooperation among the local governments and between the two states has resulted in the completion of these two major highway facilities which provide the interstate mobility for the movement of people and goods.

The I-5 corridor is the major highway corridor connecting interstate travel north and south along the west coast. The corridor provides a vital link between freight distribution centers and port facilities that serve not only the the western United States, but markets for trade worldwide. The abandonment of freight rail lines throughout the west has continued to place emphasis on facilities such as I-5 to carry freight on heavy trucks instead of rail.

Today, traffic congestion problems are increasing at an alarming rate, particularly on I-5, but also on I-205. The p.m. peak hour northbound traffic volumes on I-5 are within 10% of design capacity, with long traffic delays becoming a regular occurrence. If traffic volumes continue to increase at the current rate (averaged over the last 10 years), traffic volumes will exceed capacity within the next 3 to 4 years. Today the daily traffic volumes on I-205 exceed the Year 2000 volumes forecast in the previously discussed Columbia River crossing studies.

The continuation of current traffic congestion trends will stop or seriously impair the movement of people and goods between Washington and Oregon. A new balanced, integrated approach is required in order to maintain accessibility between the two states and metropolitan areas.

### CURRENT AND FUTURE TRAFFIC VOLUMES

1987 average annual weekday traffic volumes are illustrated on Figure 3. On an average weekday in 1987, 98,000 vehicles crossed over the I-5 bridge. Today's volumes are slightly less than the 1982, pre-I-205 bridge volumes, that had reached a high of 112,000 vehicles on an average weekday. The I-205 bridge carried 68,000 vehicles on an average weekday in 1987. This volume is higher than the previous 1980 Bi-State Study had forecast for the Year 2000.

Figure 3

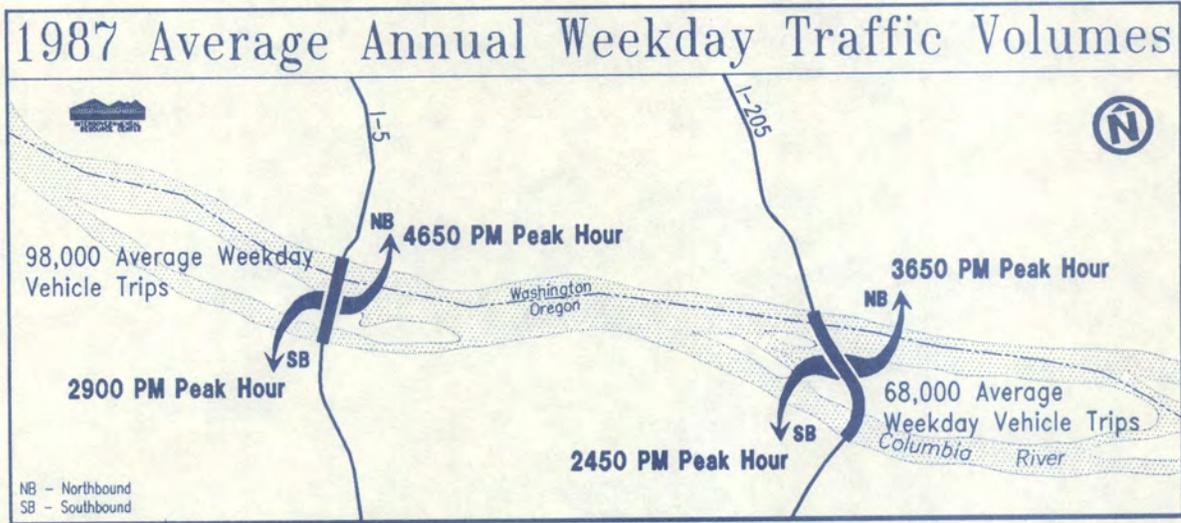
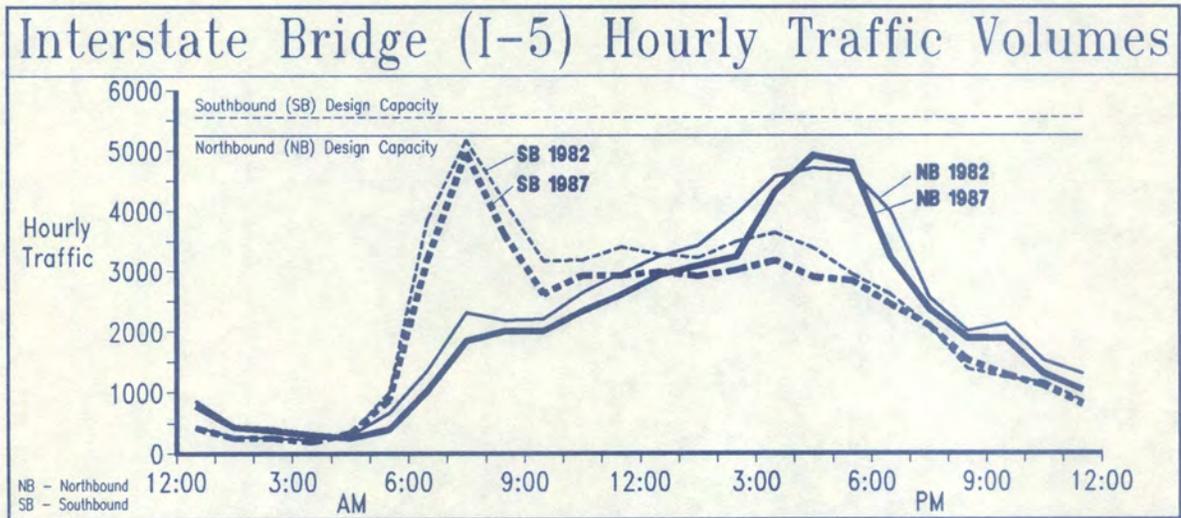


Figure 4



Figures 4 and 5 illustrate and compare the 1982/3 and 1987 hourly volumes across the Interstate (I-5) and Glenn Jackson (I-205) bridges.

Figure 6 presents future year regional travel model information. The figure compares the 1987, 2005 and 2010 traffic volumes to the design capacity of the two bridges.

Figure 5

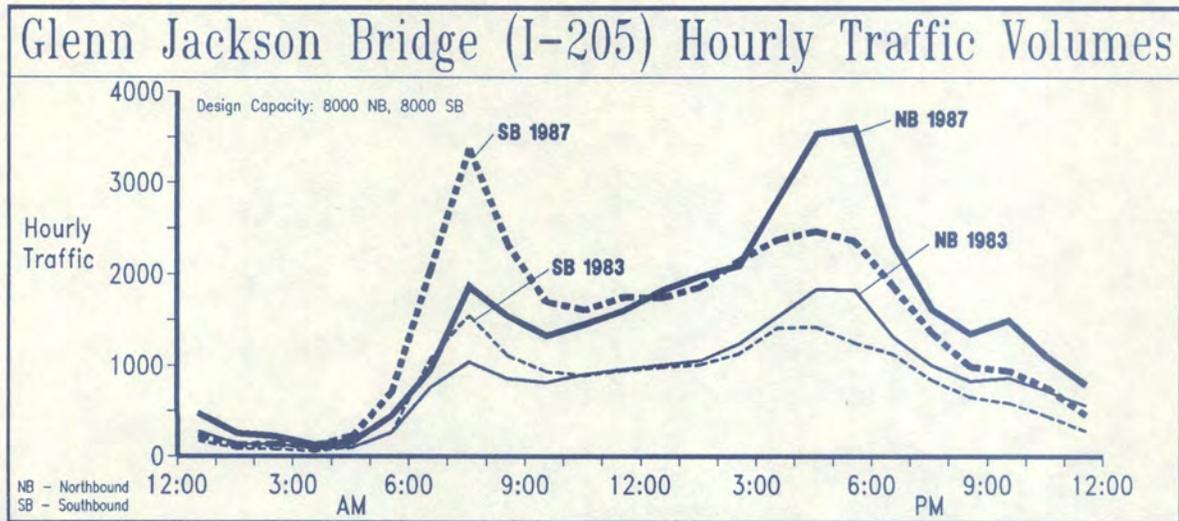
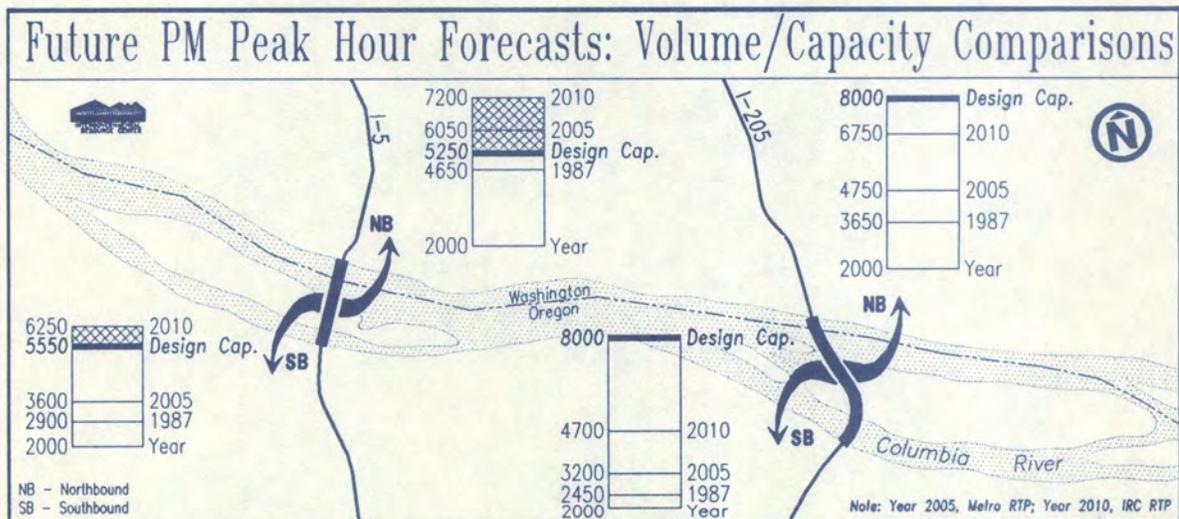


Figure 6



The current traffic information and the future year travel projections identify the need for a solution to maintaining accessibility across the Columbia River. The information presented here does not provide a detailed analysis of need, nor does it provide sufficient information to analyze a wide range of options for maintaining future year accessibility. One of the purposes of the proposed Phase II study is to conduct a detailed needs analysis and identify a set of alternatives based on the needs information.

## WASHINGTON AND OREGON DEVELOPMENT

Both the Vancouver and Portland metropolitan regions anticipate a considerable amount of development between now and the Year 2010. It is expected that the current pattern of development toward suburban centers will continue. Figure 7 identifies the projected Year 2010 estimates for population and employment growth (it should be noted that these estimates are currently being revised and are expected to result in an increase in housing in Clark County as compared employment thereby increasing the demand for cross-river travel). As indicated by the table, the majority of growth and resulting travel is anticipated in the suburban counties of Clark, Washington and Clackamas. Figure 8 provides an index map for each of the subregions.

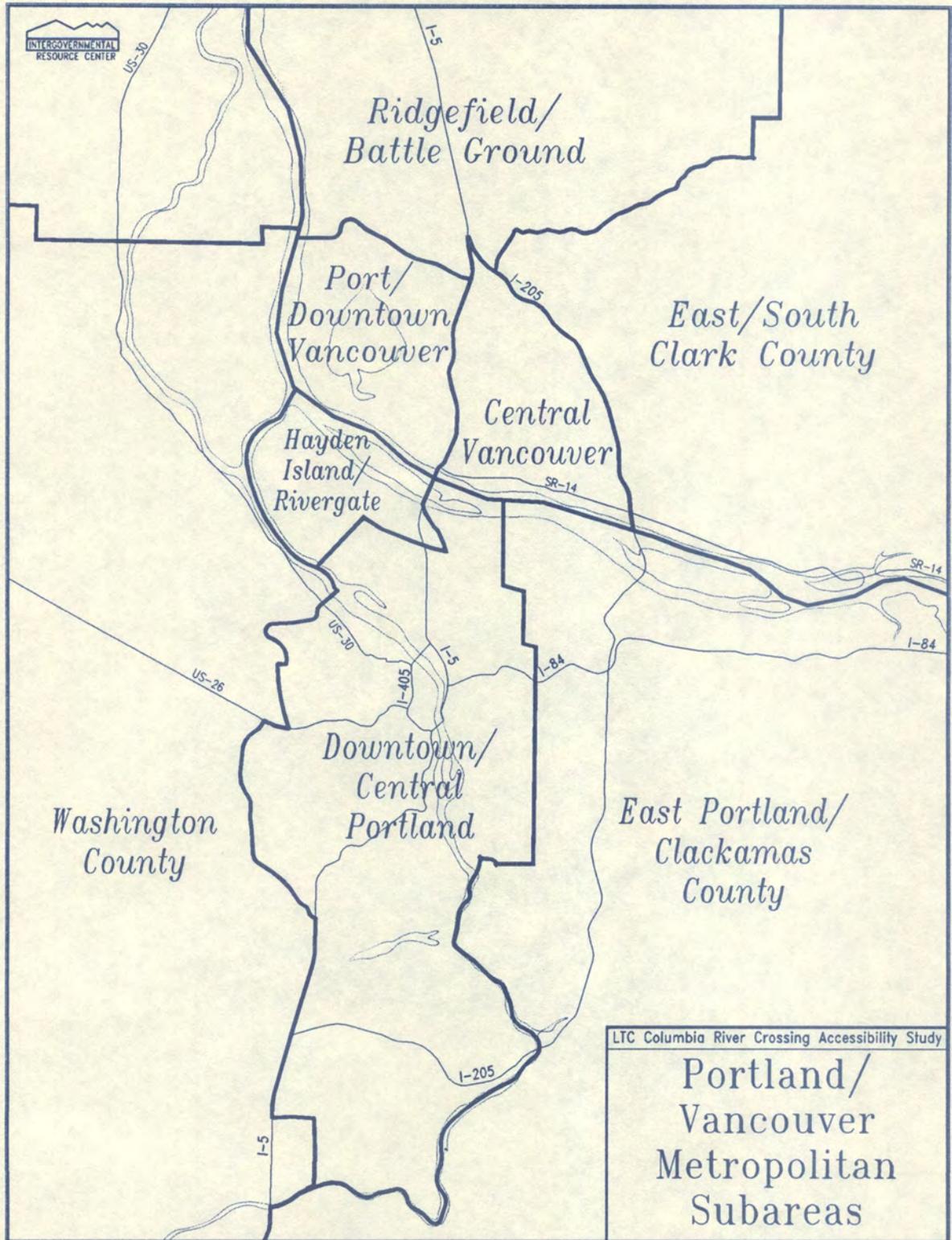
Figure 7

SUBAREA	2010*		1985-2010 GROWTH	
	POP	EMP	POP	EMP
Ridgefield/Battle Ground	43,100	17,600	51%	270%
Port/Downtown Vancouver	43,300	23,700	40%	51%
Central Vancouver	97,000	40,600	63%	97%
East/South Clark County	138,000	48,800	145%	201%
<b>Clark County Total</b>	<b>321,400</b>	<b>130,700</b>	<b>80%</b>	<b>128%</b>
Hayden Island/Rivergate	16,000	14,100	19%	34%
Downtown/Central Portland	438,200	337,900	16%	30%
East Portland/Clackamas	501,500	171,200	16%	46%
Washington County	403,000	240,800	69%	116%
<b>Oregon Total</b>	<b>1,358,500</b>	<b>764,000</b>	<b>28%</b>	<b>53%</b>
<b>Grand Total</b>	<b>1,680,100</b>	<b>894,700</b>	<b>35%</b>	<b>61%</b>

*Note: \*2010 Forecast based on 1984 Metro allocation for Year 2005, and adjusted to 2010.*

The growth estimates are indicative of both the magnitude of future travel desire and the pattern of travel between the Vancouver and Portland metropolitan areas. The I-205 corridor is positioned to serve the travel between the development expected in East/South Clark County and in East Portland/Clackamas County. I-205, as a bypass facility, also serves interstate commerce through the metropolitan area. The I-5 corridor is in a position to serve the travel between the development in western Clark County and the development in both Portland and Washington County. However, given the amount of development expected in Washington County and Central Portland and the travel to/from Clark County the existing capacity of the corridor will be exceeded before the Year 2010. Without a better balance between the future development patterns and the transportation system, congestion problems will continue to worsen.

Figure 8



## *CHAPTER III*

# *PRELIMINARY COLUMBIA RIVER CROSSING CONCEPTS*

## CHAPTER III

# PRELIMINARY COLUMBIA RIVER CROSSING CONCEPTS

### CONCEPTS RECENTLY DISCUSSED

The purpose of this chapter is to provide a general overview of the Columbia River crossing concepts and issues which have been discussed over the last several years. The corridors shown on Figure 9 illustrate these preliminary concepts. This interim report does not provide an evaluation of these concepts, rather that is the purpose of the proposed Phase II study.

#### *WESTSIDE:*

A travel corridor west of I-5 has been discussed previously and was analyzed in the 1979-80 bi-state studies. A crossing west of I-5 would provide some traffic relief to I-5 and would provide direct access to the growth centers in Washington County and the port activities in Rivergate and Vancouver. However, the establishment of a corridor west of I-5 would have an environmental impact to the lowlands around Vancouver Lake and in the Rivergate area. The corridor would also have environmental impacts to the Forest Park area north of Highway 26. (See Figure 9).

#### *EASTSIDE:*

A new travel corridor east of I-205 has also been previously discussed. The concept that has been discussed would extend an improved SR-500 from the Vancouver Mall to Camas/Washougal and across the Columbia River to the Troutdale/Gresham area. The eastside corridor would improve cross river accessibility for the most eastern portions of the Vancouver and Portland metropolitan areas.

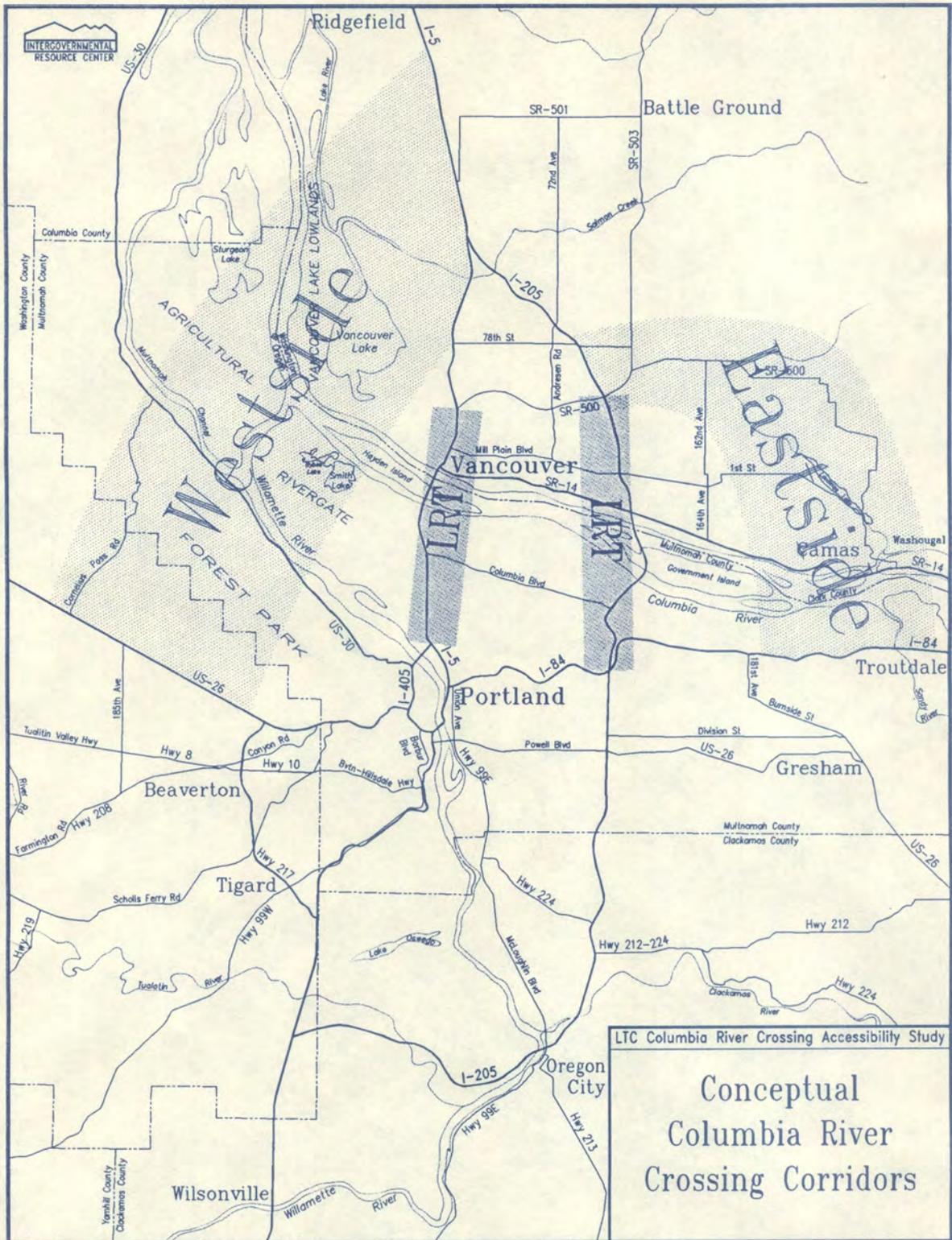
#### *LIGHT RAIL TRANSIT (LRT):*

Light rail transit has been discussed in regard to the I-5 and I-205 corridors. A Bi-State LRT Study was completed in 1985 which examined LRT feasibility in the two interstate corridors. The study concluded that a major expansion of transit would be required in the I-5 travel corridor and that LRT appeared "feasible" in the long-term. The study also concluded that the I-205 LRT link from Vancouver Mall to Airport Way did not appear to be a promising alternative. However, since the study's completion the interest in I-205 LRT has increased and the link into Washington should be re-examined.

Metro's Regional Transportation Plan identifies the I-5 corridor as a long range LRT option, following the 10-year LRT corridors that include Sunset, I-205 to Portland International Airport and Milwaukie. (See Figure 10).

The issue of LRT in either the I-5 and/or the I-205 corridor needs to be reviewed in the context of developing a better modal balance for travel between the Washington and Oregon metropolitan areas.

Figure 9





## *CHAPTER IV*

# *OREGON AND WASHINGTON TRANSPORTATION DECISION- MAKING PROCESSES*

## *CHAPTER IV*

# *OREGON AND WASHINGTON TRANSPORTATION DECISION-MAKING PROCESSES*

### **INTRODUCTION**

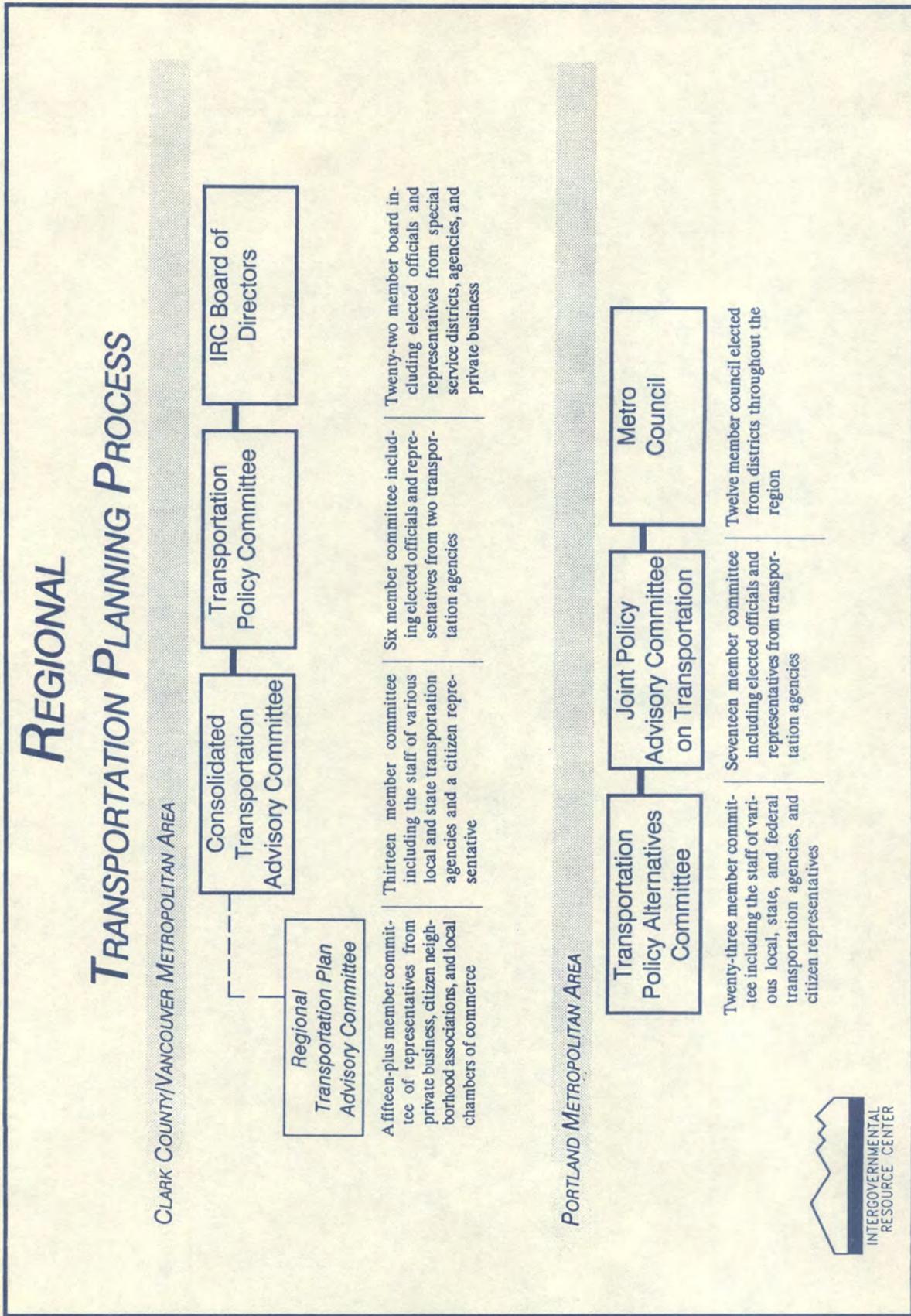
The purpose of this chapter is to describe and compare the Oregon and Washington transportation decision-making process. The chapter first describes the regional transportation planning process in the Vancouver and Portland metropolitan areas, then describes the state transportation budget decision-making process in Washington and Oregon and third, identifies similarities and differences between the two regions and the two states.

### **CLARK COUNTY/VANCOUVER METROPOLITAN AREA REGIONAL TRANSPORTATION PLANNING PROCESS**

The regional transportation planning process in the Clark County/Vancouver metropolitan area is coordinated through the Intergovernmental Resource Center (IRC), serving as the Metropolitan Planning Organization (MPO). Figure 11 illustrates the MPO process and committee structure. The roles of the individual committees are described as follows:

- The 22 member IRC Board of Directors adopts regional transportation plans/policies and endorses the federally funded transportation program of projects.
- The Transportation Policy Committee provides a focal committee for the discussion, development and recommendation of regional transportation issues and policies.
- The Consolidated Transportation Advisory Committee (CTAC) represents the technical element in the decision-making process. CTAC identifies and analyzes regional transportation issues. CTAC also develops technical recommendations and advises the Transportation Policy Committee.
- The RTP Advisory Committee provides for the representation of citizen and private sector interests in the regional transportation planning process. The committee was formed to broaden input in the development of the Regional Transportation Plan. The committee's principal focus is toward development issues and financing regional transportation needs.

Figure 11



## PORTLAND METROPOLITAN AREA REGIONAL TRANSPORTATION PLANNING PROCESS

The regional transportation planning process in the Portland metropolitan area is coordinated through the Metropolitan Service District (Metro), serving as the MPO. Figure 11 illustrates the Portland regional transportation decision-making process and committee structure. The roles of the individual committees are described as follows:

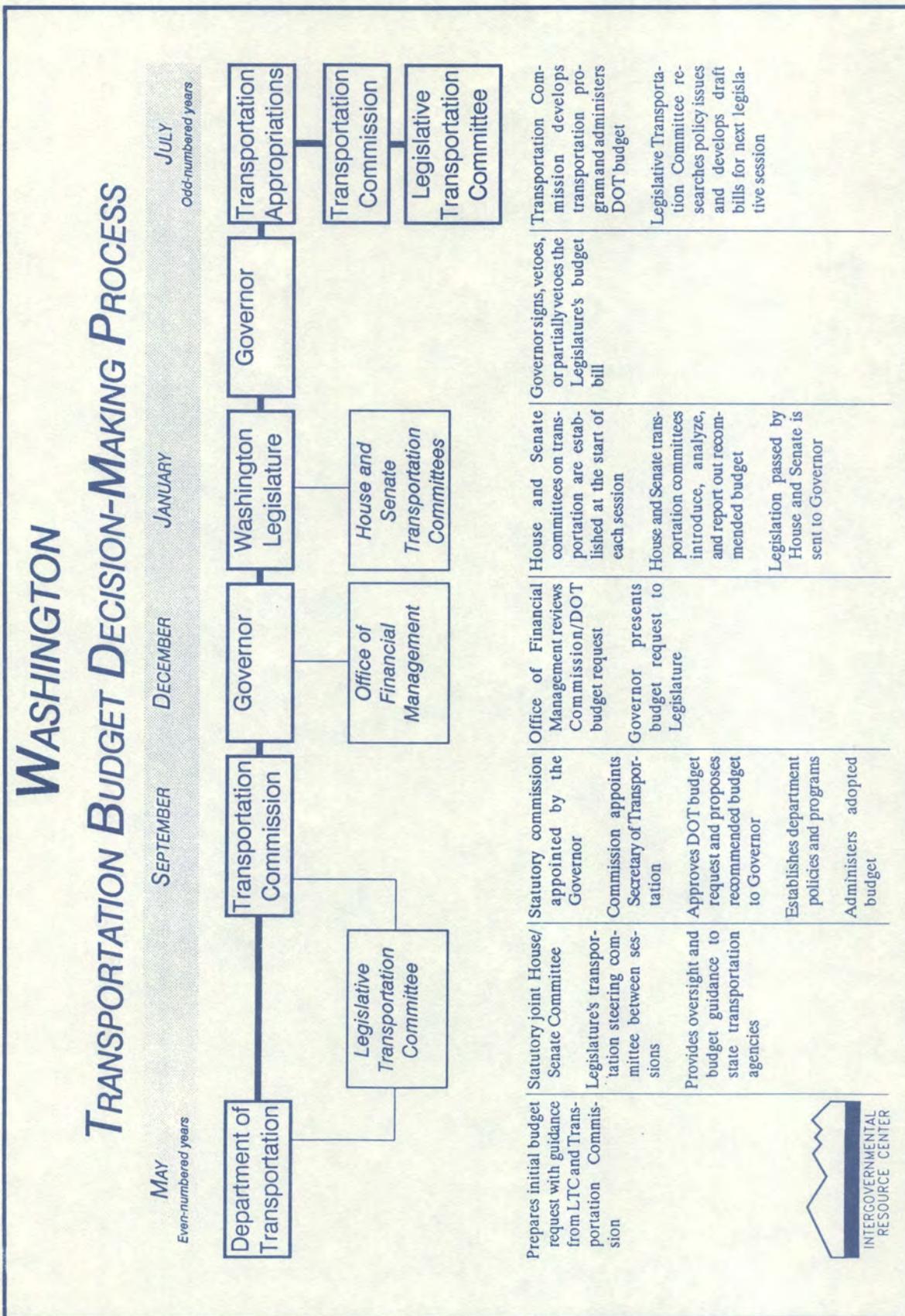
- The 12 member, elected, Metro Council approves transportation programs and the expenditure of federal transportation funds in the region.
- The Joint Policy Advisory Committee on Transportation (JPACT) provides a forum for elected officials and representatives of agencies to decide on transportation priorities and establish the transportation plan for the region. JPACT makes recommendations for funding to the Metro Council.
- The Transportation Policy Alternatives Committee (TPAC) provides input on transportation planning from the technical level.

## WASHINGTON TRANSPORTATION BUDGET DECISION-MAKING PROCESS

Figure 12 illustrates the major participants in the decision-making process for transportation budget issues and identifies the main steps in the process. The process includes the following five major participants: 1) Department of Transportation (DOT); 2) Transportation Commission; 3) Legislative Transportation Committee (LTC); 4) State Legislature; and 5) Governor. The biennial transportation budget process begins with the DOT in May of the even-numbered years. The new budget is executed in July of the following odd-numbered year.

The fact that transportation revenue sources in Washington are generally dedicated has led to a separate budget process for transportation agencies as compared to General Fund agencies. Once the transportation budget has been developed by the department and adopted by the Transportation Commission it is sent to the Governor and the Office of Financial Management (OFM) for revision. The executive version of the budget is sent to the Legislature in two bills: 1) the transportation budget (including DOT and other state transportation agencies); and 2) the General Fund budget. The transportation budget is referred for consideration to the Transportation Committees of both Houses; it does not go through the Ways and Means Committees. The introduction of the transportation budget alternates every two years between the House and Senate. Once the budget bills have passed both the House and Senate they are sent to the Governor for signature. The Governor has authority to line item veto any portion of the budget; his veto can be overridden by a two-thirds vote in each House. After the transportation budget has been enacted into law, transportation agencies, like all General Fund agencies, must submit to OFM their estimated biennial spending plans. OFM and the LTC monitor the expenditures.

Figure 12



The Transportation Commission develops the 6-year highway program, authorizes departmental budget requests, and establishes departmental policies. The Legislative Transportation Committee provides budget guidance to the transportation department and serves as the Legislature's "steering committee" for transportation issues between sessions.

## **OREGON TRANSPORTATION BUDGET DECISION-MAKING PROCESS**

Figure 13 illustrates the major participants in the state transportation budgetary decision-making process. The process includes the following four major participants: 1) Department of Transportation (DOT), 2) Transportation Commission, 3) State Legislature and 4) Governor. The biennial transportation budget process begins with the DOT in the summer of even-numbered years and ends with budget execution in July of the odd-numbered years.

The DOT develops its initial budget request with input and approval from the Transportation Commission. The Commission adopts the departmental budget and submits the request to the Governor's Executive Department Budget and Management Division for review and analysis in light of the Governor's priorities. Following the Governor's review, the DOT budget is incorporated into the state-wide budget recommendation. Then the total recommendation is transmitted to each member of the Legislature.

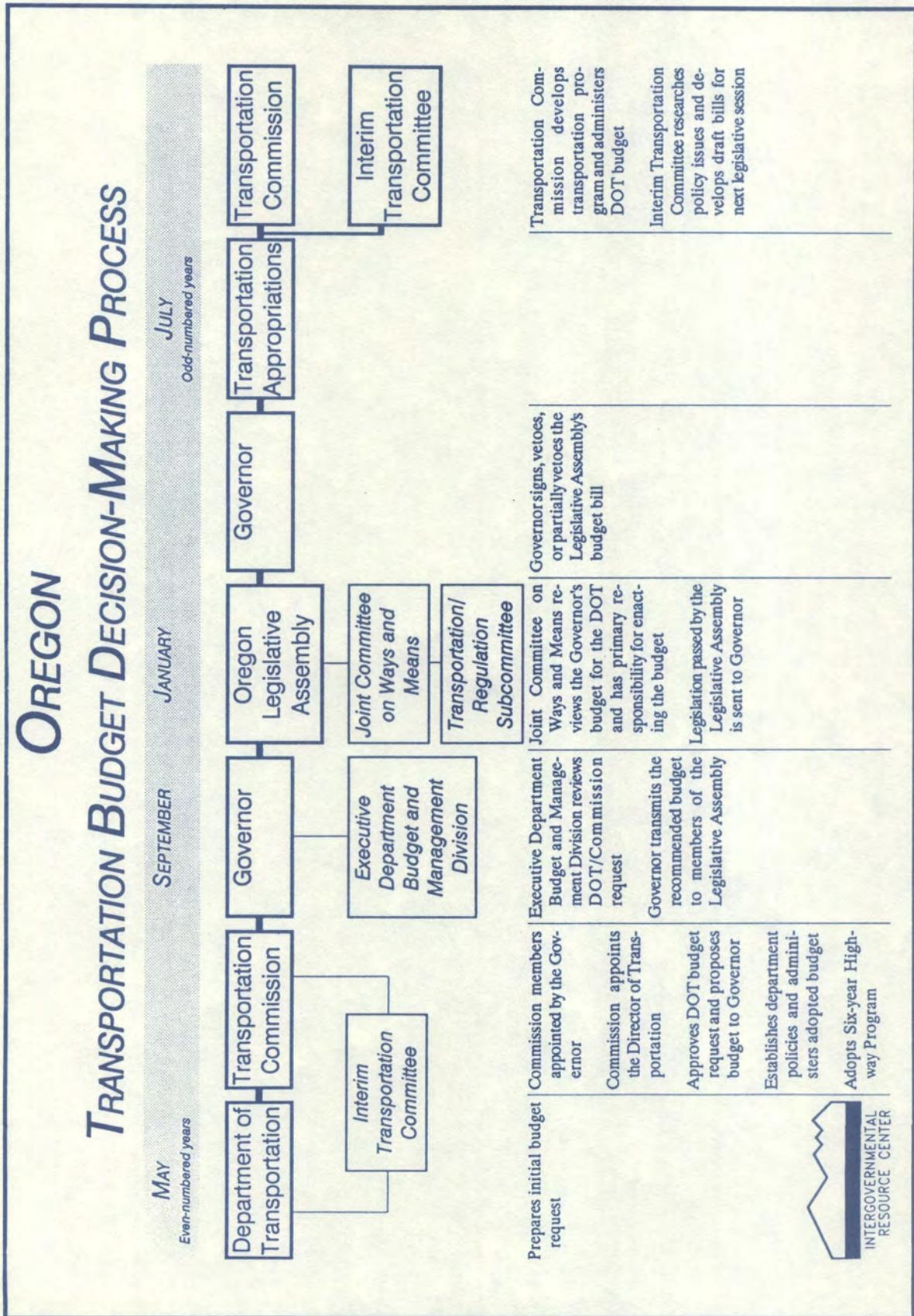
The Joint Committee on Ways and Means initiates legislative hearings on the recommended budget once the Oregon Legislative Assembly convenes in January of odd-numbered years. The Joint Committee operates through eight subcommittees, one of which is the Transportation/Regulation Subcommittee. The Transportation/Regulation Subcommittee is the committee assigned the task of reviewing the Governor's recommended budget and then passes it back to the full Joint Committee. The Oregon Legislative Assembly enacts the final budget bill received from the full committee and forwards it to the Governor for signature. The Governor has the authority to line item veto any portion of the budget.

The Transportation Commission establishes policies for the operation of the department, develops the 6-year highway program, and administers the individual transportation programs. The Interim Transportation Committee researches policy issues between sessions and develops draft transportation legislation.

## **SIMILARITIES AND DIFFERENCES**

The regional transportation planning process in the Washington and Oregon metropolitan areas is very similar. The Federally required continuing, cooperative and comprehensive MPO process involves comparable committee structures. The single most salient difference between the two is that the Metro Council (Portland) includes a directly elected council, while the IRC Board of Directors (Clark County/Vancouver) participate on a voluntary basis. The technical issues in each region vary according to local problems, however, each region utilizes a travel forecasting model as a key analysis tool.

Figure 13



The Washington-Oregon state transportation budget processes are also quite similar in structure. Both states follow a comparable budgetary time schedule and involve the Transportation Commission, the State Legislature and the Governor as major participants in the process. The key differences between the states are in regard to the role of the legislative transportation committees and the internal legislative process which occurs during the legislative session.

*CHAPTER V*

*PROPOSED PHASE II  
WORK SCOPE:  
COLUMBIA RIVER CROSSING  
ACCESSIBILITY STUDY*

## **CHAPTER V**

# **PROPOSED PHASE II WORK SCOPE: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY**

### **INTRODUCTION**

The previous four chapters of this interim report discussed the need for maintaining future accessibility between the Vancouver and Portland metropolitan regions. Today's increasing traffic congestion problems were identified as symptoms of the long term need to develop a balanced, integrated transportation system in order to maintain future mobility between the two states. Conceptual transportation issues were discussed in Chapter III and then Chapter IV presented a comparison between Oregon and Washington in terms of the regional transportation planning process and state transportation budget decision-making process. Both processes in both states are similar; the major differences are in the role of the legislative transportation committees and the internal legislative process which occurs during the legislative session.

The purpose of this final chapter is to provide a connecting link between the interim report (Phase I) and the proposed Phase II Study which is needed to develop a joint Oregon-Washington solution to balance and integrate the long range transportation system connecting the two metropolitan areas.

### **PROPOSED PHASE II WORK SCOPE: COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY**

The purpose of Phase II of the Columbia River Crossing Accessibility Study would be to evaluate the economic, environmental, and engineering feasibility of providing future accessibility across the Columbia River between Clark County, Washington and the Portland metropolitan area in Oregon.

Phase I of the study effort documented the need for further investigation of how future accessibility might be provided over the long term. The establishment of need was based on existing and forecasted traffic volumes as well as demand to capacity relationships in the Interstate 5 and Interstate 205 corridors. Based on past and projected rates of growth across the Columbia River, the conclusion of Phase I is that additional resources should be invested now in order to identify appropriate and acceptable alternatives for maintaining mobility between the greater Vancouver and Portland regions. It is important to emphasize that the identification of appropriate alternatives must begin now if the region is to be in a position to meet the future transportation challenges.

The Phase II study would be accomplished in two parts. The purpose of Part A would be to identify future major transportation corridors based on both 2010 and longer-range

(30-40 year) land use forecasts. This would include a detailed segmentation of needs, including those pertaining to truck, auto, and transit traffic, intraregional versus through (or "interstate") movements; and an analysis of the ability of the existing and committed transportation system to meet these needs. It would also include an assessment of the impact of congestion on economic development in the region both now and in the future.

As land use forecasts beyond 2010 are not available at this time, included in Part A would be the development of a future vision of the region over a longer term horizon, e.g., in 30-40 years. This vision would be based not only on current trends and forecasts, and adopted plans and policies, but on an evaluation of where the communities in the region would like to be and how they would define "quality of life" in the future. The need to develop a longer term vision has been expressed by many agencies and organizations asked to comment on the scope of work for Phase II. Various agencies have articulated that in order to evaluate transportation alternatives, we need to know where the region is going and where we want it to go in the broadest sense.

Other objectives of Part A include: to develop appropriate data bases and technical tools needed for the Part B analysis; to establish a strong community and agency involvement program; and to document environmental land use, economic development and travel constraints and opportunities that will aid in both developing and evaluating alternatives in Part B of the study.

In Part B of the study, alternative approaches to providing future accessibility across the Columbia would be developed and evaluated. It is anticipated that alternatives in corridors to the west of I-5 and to the east of I-205 would be identified. Concepts which include both highway and transit modes, including passenger rail, would be developed. The definition of the alternatives include both the river crossing itself and the supporting arterial street and transit systems on each side of the river.

To make the most of study resources, an initial screening of alternatives would be accomplished to arrive at a reasonable number (e.g., three to six) for more detailed evaluation. A consolidated regional travel forecasting model (one of the tools developed in Part A of the study) would be used to help evaluate alternatives. Evaluation criteria would include environmental, economic and engineering factors.

Because this study would examine both highway and transit alternatives, requirements of at least two different federal funding agencies (FHWA and UMTA) as well as those of state and local agencies will influence the form of the alternatives analysis. At this stage in developing the work scope, it is recommended that the evaluation framework remain somewhat flexible in order to shape it to fit funding agency requirements at a later date as specific alternatives are defined.

Note that while Phase II does not include the preparation of an Environmental Impact Statement, the work program has been structured to include consideration of environmental factors throughout the study process. The results of Phase II would provide the basis for and feed into a draft EIS to be prepared at a later date.

The remaining section of this chapter describes the proposed scope of work for the Phase II: Columbia River Crossing Accessibility Study. Figure 14 provides a work flow

chart for the proposed study. Figure 15 illustrates a proposed schedule for Phase II. The final figure of the report, Figure 16, identifies a task by task budget estimate for conducting the Columbia River Accessibility Study.

***PROPOSED WORK SCOPE:***

The following outline describes the proposed study process to be followed in Phase II of the Columbia River Crossing Accessibility Study. The outline is in a sequence designed to first quantify the location and type of future river crossing demand, to then develop corridor alternatives tailored to serve that demand, and finally to evaluate the alternatives to arrive at a recommended plan for maintaining mobility between the greater Vancouver and Portland regions.

## ***PART A***

### **I. STUDY INITIATION/REVIEW OF GOALS AND OBJECTIVES**

- A. Kickoff meeting of study participants.
- B. Common understanding of study goals and objectives.
- C. Review work program, roles and responsibilities, and schedule.
- D. Prioritize data collection effort.

***EXPLANATION:***

To initiate the study, a kickoff meeting of study participants will be held to review study goals and objectives, review the work program and further define the roles and responsibilities of each agency. The proposed study schedule will be reviewed and refined at this time based on the actual start date and expected timeline for major inputs from individual agencies. As part of this task, priorities for collecting data will be established; not all of the data will need to be collected at the outset of the study since the need for some data is contingent upon the type and location of alternatives to be studied.

***PRODUCTS:***

A finalized set of study goals and objectives, work program and schedule, and priorities for data collection in order to begin the study.

### **II. DATA COLLECTION AND REVIEW**

- A. Existing and future population and employment data.
- B. Adopted land use and transportation plans and programs.
- C. Arterial classification maps.
- D. Transportation improvement programs (TIP's).
- E. Traffic counts for regional freeways and supporting local arterials systems, including bridge volumes.

- F. Existing roadway geometrics, number of lanes, etc.
- G. Previous forecasts of cross river travel demand prepared by the Intergovernmental Resource Center (IRC) and the Metropolitan Service District (Metro).
- H. EIS documents.
- I. Major public and private development plans (e.g., the ports, Portland Development Commission, etc.).
- J. Recent aerial photography and mapping of prospective corridors.
- K. Maps indicating environmentally sensitive areas.
- L. Major utility corridors.
- M. Existing geotechnical data.
- N. Existing right-of-way data in major corridors.
- O. Planning level unit construction cost data available from agencies.

**EXPLANATION:**

The purpose of this task is to collect available relevant data for the Columbia River Crossing Study Area from local jurisdictions and agencies as well as to begin the necessary field work. This task will supplement data collected and documented as part of the Phase I effort already completed.

This task will include an initial identification of environmental issues and concerns in the study area. This will help to provide adequate environmental review during the development and evaluation of river crossing alternatives.

While preparation of a draft environmental impact statement is not part of this workscope, environmental review and documentation will be accomplished throughout the process to support future environmental analyses. As part of this initial task, a background report establishing baseline data on existing conditions will be prepared. An adequate public involvement process throughout the study is critical in order to identify and discuss environmental concerns of the public.

**PRODUCTS:**

The results of the review of existing data will be technical memoranda with appropriate maps and graphics, documenting existing conditions, including travel patterns, deficiencies in capacity, and environmental issues and concerns.

### **III. DEFINITION AND INITIATION OF COMMUNITY INVOLVEMENT EFFORT**

- A. A bi-state advisory committee consisting of two sub-committees -- a Land Use and Environmental subcommittee, and a Technical Transportation subcommittee.

All advisory committee recommendations will be made by the full committee.

1. Land Use and Environmental Subcommittee.
    - Neighborhood Associations.
    - Business Associations and Labor Organizations.
    - Local and State Environmental Organizations/ Groups.
    - Local, State and National Natural Resource Agency Staff.
    - City and County Land Use/Natural Resource Staff.
    - Port Authority Staff.
    - Metropolitan Planning Organization Staff.
  2. Technical Transportation Subcommittee.
    - City and County Transportation Staff.
    - State Department of Transportation Staff.
    - Transit Operators Staff.
    - Legislative Transportation Committee Staff.
    - Metropolitan Planning Organization Staff.
- B. A new steering policy committee with a balance of policy officials from affected jurisdictions and agencies.
1. Washington Policy Committee.
    - Three Clark County Commissioners
    - One City of Vancouver Council Member
    - One City Councilmember from East County Cities.
    - One City Councilmember from North County Cities.
    - A representative of the Governor's Office.
    - A Local State House of Representatives Member.
    - A Local State Senate Member.
    - An Elected Metropolitan Planning Organization (MPO) Member.
    - A Port Authority Commissioner.
    - A Transit Board Member.
    - An Official from Washington State Department of Transportation.

## 2. Oregon Policy Committee.

- One Commissioner from Washington County.
  - One Commissioner from Multnomah County.
  - One Commissioner from Clackamas County.
  - One City of Portland Commissioner.
  - One City Councilmember from the Western Metropolitan Area.
  - One City Councilmember from the Eastern Metropolitan Area.
  - A Representative of the Governor's Office.
  - A Local State House of Representatives Member.
  - A Local State Senate Member.
  - A Metro Service District Councillor.
  - A Port of Portland Commissioner.
  - A Transit Boardmember.
  - Official from Oregon Department of Transportation.
- C. Public meetings held at key points in the study to include presentations followed by written and verbal comments by the public.
- D. A newsletter providing study updates to a list of interested citizens and agencies.
- E. Press releases prepared at key steps in the analysis announcing open houses and presenting study results.
- F. Special presentations to policymaking bodies.

### *EXPLANATION:*

A community involvement program will be designed at the outset of the study to keep agencies, businesses, the natural resource community, and the public-at-large informed. This study affects a large number of jurisdictions and agencies; community involvement in the study from the beginning is critical, ensuring that the recommendations that come out of the study meet the public needs and priorities and that there will be public support for adoption and implementation of the recommendations.

### *PRODUCTS:*

A community involvement program that solicits technical, policy and community input throughout the study, through the use of advisory and policy committees, newspaper articles, newsletters and public meetings.

#### **IV. DEVELOPMENT OF A CONSOLIDATED REGIONAL TRAVEL FORECASTING MODEL**

- A. Review structure of IRC and Metro travel forecasting models (both using EMME/2 software).
- B. Restructure zonal system and networks to analyze cross-river travel issues.
- C. Incorporate mode choice analysis (to address cross-river and Washington side as well as Oregon side).
- D. Calibrate to existing conditions.
- E. Apply model in order to quantify future cross-river travel demand and to evaluate alternative transportation solutions.
- F. Develop a methodology for estimating truck traffic unaccounted for in the model.

##### ***EXPLANATION:***

This task is placed early in the study process because it is a technical effort that needs advance planning. The purpose of this task is to develop a consolidated regional travel forecasting model that will address both highway and transit modes, including light rail transit, and allow analysis of arterial street networks and transit corridors needed to support cross-river travel demand between Washington and Oregon.

A methodology for estimating future p.m. peak period truck traffic across the river will also be developed under this task, in particular, one which addresses heavy truck traffic using the interstate system. This methodology will take into account historical trends, the type of economic development taking place in the region, and how this development relates to other parts of Oregon and Washington.

##### ***PRODUCTS:***

A calibrated and validated travel forecasting model using EMME/2 software with a detailed zonal system and network capable of forecasting auto and transit trips across the river as well as on the supporting street and transit networks. A methodology for estimating future truck traffic would also be a product of this task.

#### **V. BASELINE 2010 POPULATION AND EMPLOYMENT FORECASTS**

- A. Develop Year 2010 forecasts of population and employment forecasts based on adopted land use plans.
- B. Allocate population and employment forecasts to microzones as input into travel demand forecasting model.

##### ***EXPLANATION:***

Year 2010 forecasts of population and employment by small area or microzone will be needed in order to estimate future travel in the region, including river crossings. Future

baseline land use forecasts will also be used for the purpose of comparison in assessing how an additional river crossing might impact the future development (including type, location, and density of land use) of the region.

Metro currently coordinates a four-county population and employment forecasting process. The 2010 forecasts are reviewed by all of the local jurisdictions and consensus is reached. As part of this study, it is recommended that study participants also develop a longer range forecast (e.g., 30-40 years) that addresses long-range land use policies (i.e., when and where the Urban Growth Boundary might be expanded over the long term). This effort is described in Task VI. below.

**PRODUCTS:**

2010 land use forecasts by microzones as input into the travel forecasting model.

## **VI. LONG-RANGE REGIONAL GROWTH TRENDS/SCENARIOS**

- A. Assess long-range growth policies (e.g. when and where the Urban Growth Boundary might be expanded over the long term).
- B. Develop collective “vision” of the region in 30-40 years, taking into account constraints, growth policies and boundaries.
- C. Develop alternative growth scenarios, as appropriate (use Bonneville Power Administration forecasts as a guide).
- D. Assess land use/development impacts of congestion (e.g., of major limitations in cross-river travel capacity.)

**EXPLANATION:**

Since this study will be evaluating major long-term investment alternatives to maintain/improve accessibility across the Columbia River, it is important to consider what the region will be like beyond 2010. Currently, longer-range, e.g. 30 to 40 year forecasts of regional growth are unavailable. It is thus a task of this study to analyze the implications of long-range growth trends based on existing plans and policies as well as to construct alternative growth scenarios.

This task will include both technical and policy elements in identifying possible future development patterns. On the technical side, analyzing the growth potential of different parts of the region from a physical and environmental standpoint will be accomplished. On the policy side, a collective “vision” of the future will be developed based on what the policymakers and the public at large express as desirable regional development patterns. Broad participation in the process to develop this collective vision is recommended.

In order to take into account the uncertainties associated with developing land use projections out to a 30-40 year time horizon, several growth scenarios will be constructed. The transportation implications of different growth scenarios will be tested at at least a sketch planning level to order to evaluate the sensitivity of cross-river accessibility needs to different future development patterns.

How major limitations in accessibility would affect development patterns will also be evaluated. This would include looking at case studies from other regions (e.g., the Puget Sound region) as well as an estimate of likely impacts for the Vancouver-Portland region. This analysis will, in fact, represent one possible future growth scenario--how the location decisions of firms and households might be affected by extreme congestion across existing river crossings.

**PRODUCTS:**

Products of this task include a "vision" of the region 30 to 40 years from now, translated into population and employment forecasts. It will also result in the identifications of several alternative growth scenarios, one of which would be the growth patterns likely to develop if accessibility across the Columbia is highly constrained.

## **VII. DEVELOPMENT AND ANALYSIS OF CROSS RIVER TRAVEL DEMAND**

- A. Estimate major origins and destinations of future interstate travel relative to today.
- B. Identify intraregional versus through or "true" interstate trips.
- C. Estimate composition of traffic: trucks, transit, auto modes.
- D. Analyze future daily vehicular demand relative to daily capacity on I-5 and I-205.
- E. Analyze future peak hour demand relative to peak hour capacity on I-5 and I-205.
- F. Identify expected duration of peak periods.
- G. Calculate levels of service at critical interchanges and intersections on the supporting arterial network.
- H. Estimate daily and peak hour transit volumes in major cross river corridors.

**EXPLANATION:**

Using the regional travel forecasting model developed in Task III above, future baseline forecasts will be developed for 2010 for auto and transit modes. The baseline forecast will be based on a transportation system that includes only those improvements that are now committed. Forecasts of truck volumes on the interstate facilities will be developed outside the modeling process as described above.

This analysis will further clarify the need for and timing of additional capacity across the Columbia, including the type (origin and destination, trip purpose, time of day, etc.) of travel to be served. It will better define the transportation corridors identified in the Phase I effort.

**PRODUCTS:**

Analysis of future baseline travel demand for 2010 with respect to its composition and impact on existing river crossings and supporting network.

## VIII. SUMMARY OF IMPACTS OF CONGESTION ON ECONOMIC DEVELOPMENT AND STATEMENT OF NEED FOR FUTURE ACCESSIBILITY

Based on the results of the above tasks:

- A. Summarize the likely impacts of congestion on economic development in the region.
- B. Provide a detailed statement of need for future accessibility across the Columbia, including a segmentation of need by type of travel (e.g., commuter, truck, and other).

### *EXPLANATION:*

This task draws together all of the analysis of Part A of the study in order to provide clear direction for the development and evaluation of alternatives in Part B. It will provide conclusions as to the type, location and timing of need for additional accessibility across the Columbia based on the 2010 and long-range growth forecasts and associated travel demand forecasts by mode. It will highlight the possible consequences of a policy not to maintain/improve accessibility, specifically, how congestion might affect land use patterns and overall economic development for the region.

### *PRODUCTS:*

A technical memorandum containing a well-defined statement of need for additional accessibility across the Columbia and summarizing possible impacts of congestion on growth and development in the region.

## *PART B*

## IX. DEVELOPMENT/EVALUATION OF TRANSPORTATION SYSTEMS MANAGEMENT (TSM) ALTERNATIVE

- A. Develop and evaluate a TSM alternative with consideration of the following elements:
  1. Additional ramp metering.
  2. Queue bypass lanes for high-occupancy vehicles (HOV's) at major points of congestion.
  3. Additional transit service and park-and-ride lots.
  4. Employer-based incentive programs to promote HOV usage, including flexible working hours, bus pass subsidies, priority parking for HOV's, etc.
  5. Variable message signs to direct traffic to alternative routes to avoid congestion or incidents.

**EXPLANATION:**

A TSM alternative will be developed and evaluated to assess its ability to reduce vehicular demand and possibly postpone at least for a few years the need for additional physical capacity across the Columbia. The components of the TSM alternative will consist of those relatively low-cost improvements that make the most out of the existing bridges and feeder network.

The impact of many TSM measures are difficult to quantify even through the use of the travel forecasting model. However, additional transit service, priority treatments for HOV's that reduce travel time, and park-and-ride lots can be assessed using the model.

**PRODUCTS:**

Development and evaluation of a TSM alternative that can be compared to more costly "build" alternatives.

**X. DEVELOPMENT OF CONCEPTS FOR AN ADDITIONAL RIVER CROSSING**

Possible river crossing concepts to be developed include the following:

- A. Increasing capacity in existing I-5 corridor, including widening.
- B. A new bridge crossing just parallel to or further west of I-5 with both general purpose and high-occupancy vehicle lanes (to initially consider a relatively wide corridor with respect to location);
- C. A new bridge crossing west of I-5 with both general purpose and HOV lanes that provides for conversion of the HOV lanes to light rail transit in the future.
- D. A light rail transit bridge parallel to the existing I-5 bridge.
- E. A light rail transit and high-occupancy vehicle (buses and carpools) bridge parallel to the existing I-5 bridge.
- F. Converting lanes on I-205 to light rail transit lanes.
- G. A new bridge crossing east of I-205 with both general purpose and/or HOV lanes.
- H. A commuter rail line to run on existing railroad rights-of-ways.
- I. Combination of above alternatives.

**EXPLANATION:**

For each of the major transportation corridors identified in Task V, appropriate river crossing concepts will be developed based on the nature of the travel in the corridor, e.g., the mix of auto versus transit/high occupancy vehicle trips, predominance of particular trip purposes (commuter versus off-peak purposes), share of intraregional versus interstate travel, and percent of trucks.

**PRODUCTS:**

A set of alternative concepts within the high demand transportation corridors to be evaluated.

**XI. EVALUATION CRITERIA**

Develop a set of criteria by which to evaluate the river crossing alternatives. Possible criteria include:

- A. Ability to serve future travel demand.
- B. Facilitates intraregional circulation.
- C. Facilitates interstate through traffic.
- D. Promotion of transit/HOV use.
- E. Safety (traffic operations, conflicting movements weaving).
- F. Compatibility with adopted land use plans and some vision of future land policies/plans.
- G. Land use impacts (ROW requirements, relocations, displacements, access).
- H. Environmental quality.
- I. Economic development impacts.
- J. Engineering feasibility.
- K. Costs.
- L. Funding availability.

**EXPLANATION:**

With input from the bi-state advisory and policy committees, evaluation criteria will be developed. These criteria will be used to initially screen a range of alternatives to reduce them to a smaller number for more detailed evaluation.

**PRODUCTS:**

An agreed upon set of evaluation criteria and associated quantitative and qualitative measures.

**XII. INITIAL SCREENING OF ALTERNATIVES**

- A. Sketch plan level modeling of alternatives.
- B. Preliminary assessment of impacts.
- C. Evaluation summary of quantitative and qualitative measures.

**EXPLANATION:**

Based on a sketch planning level evaluation using the criteria developed in Task 8, the advisory committee will be asked to reduced the number of alternatives to a manageable

number that can be studied in greater detail (depends upon the time and resources available). This evaluation should include at a minimum sketch plan level modeling to assess likely river crossings for each alternative.

Two of the alternatives to be retained will be the Committed Network and the TSM alternatives.

**PRODUCTS:**

A reduced number of alternatives to be studied in greater detail, the selection of which will have been endorsed by the technical and policy advisory committees.

### **XIII. REFINEMENT OF ALTERNATIVE DEFINITION**

**A. Refine alignments within corridors based on:**

1. Aerial photographs and/or topographic maps.
2. Soils/geotechnical information (literature search/reconnaissance level information).
3. Channel profiles estimated from available mapping.
4. Bottom sediment and bridge foundation conditions approximated from available data.
5. Maps showing existing land use, environmentally sensitive areas, and hydrologic data.

**B. Define conceptual bridge types based on:**

1. Future travel demand in corridor.
2. Transit versus highway modes.
3. Constraints on approach lane location and sizing.
4. Available horizontal and vertical alignment data.
5. Geotechnical data.
6. Span length capabilities of appropriate bridge types.
7. Channel clearance requirements.

**C. Refine supporting networks based on:**

1. Identify likely interchange/intersection requirements.
2. Feeder transit service, major transfer locations, park-and-ride lots.

**EXPLANATION:**

The alternatives selected for detailed evaluation will be further refined with respect to alignment within a corridor, conceptual bridge type and size, and supporting feeder street and transit networks. Note that while the alternatives will still be considered conceptual, they will be detailed enough to code into the microzone-based travel forecasting model, to evaluate approximate right-of-way requirements and displacements and to cost out for an order of magnitude comparison among alternatives.

**PRODUCTS:**

Refined definition of each of the build alternatives to include a conceptual alignment, bridge type, and supporting approaches and network. These will be represented on 1"=100' scale drawings or on available aerial photographs.

**XIV. DETAILED EVALUATION OF ALTERNATIVES**

- A. Review requirements of different funding sources:
  1. Federal Highway Administration (FHWA).
  2. Urban Mass Transportation Administration (UMTA).
  3. Other state and local requirements.
- B. Use the policy, technical, and citizen groups to provide guidance and review.
- C. Detailed analysis to include:
  1. Modeling of each alternative to produce highway and transit assignments.
  2. Detailed traffic impact analysis (demand versus capacity).
  3. Impacts on intraregional versus through trips.
  4. Refined order-of-magnitude capital costs, including preliminary engineering, design, right-of-way acquisition and construction costs.
  5. Operating and maintenance costs.
  6. Constructibility and maintenance of traffic during construction issues.
  7. Land use and economic development impacts.
  8. Environmental impacts (air, water, wetlands, wildlife, vegetation, noise, visual quality/aesthetics, energy, etc.)

**EXPLANATION:**

The form of the detailed evaluation of the alternatives will depend in part on the likely funding or mix of funding for implementation. For example, UMTA and FHWA have specific requirements for the evaluation of alternatives. The items listed above would fit into either of their overall frameworks. The policy, technical and citizen advisory groups will help provide guidance on how the alternatives analysis should be packaged. (Note that this draft outline will also be revised based on review comments from these various agencies.)

**PRODUCTS:**

A detailed evaluation of alternatives from which a preferred alternative or course of action can be selected.

## **XV. FUNDING ANALYSIS**

- A. Identify possible sources of funding:
  1. Federal (FHWA, UMTA)
  2. State (Transportation Improvement Board, Rail Development Account, other)
  3. Regional/local options (including Transportation Benefit Districts)
- B. Toll road and other “innovative” approaches.
- C. Assessment of amount and timing of funds from various sources.

### ***EXPLANATION:***

A preliminary assessment of funding options will be completed as part of the alternatives analysis. This analysis will be further refined following the selection of a preferred alternative.

### ***PRODUCTS:***

An assessment of funding options, including federal, state, and local options as well as the evaluation of more innovative approaches such as toll roads.

## **XVI. RECOMMENDATIONS**

- A. Select a preferred alternative or course of action.
- B. Develop policy recommendations related to:
  1. TSM Actions
  2. Land Use Policy
  3. Future Corridor Preservation
- C. Incorporate recommendations, as appropriate, into the regional transportation plan.
- D. Seek endorsement of key policies by local jurisdictions in both Washington and Oregon.
- E. Define a future work program to advance projects and policies.

### ***EXPLANATION:***

The results of the detailed evaluation will be used to select a preferred alternative, to develop policy recommendations, and to identify a future work program, as appropriate. If a future build alternative is the preferred alternative, a work program to complete the environmental analysis and prepare a design report might be developed.

If the TSM alternative is the preferred alternative, policy recommendations would still be needed to reduce travel demand to manageable levels through growth management, strong incentives to increase vehicle occupancies and/or a further extension of peak periods.

The recommendations will be adopted as part of the regional transportation plan. Key policies will also be taken to councils in each local jurisdictions for endorsement (e.g., policies related to preserving right-of-way, developing appropriate land uses to support recommended transportation improvements, etc).

*PRODUCTS:*

A recommended action plan endorsed by the bi-state advisory and policy committees. These recommendations would become part of the regional transportation plan through action by IRC and Metro and taken to local jurisdictions for endorsement.

Figure 14

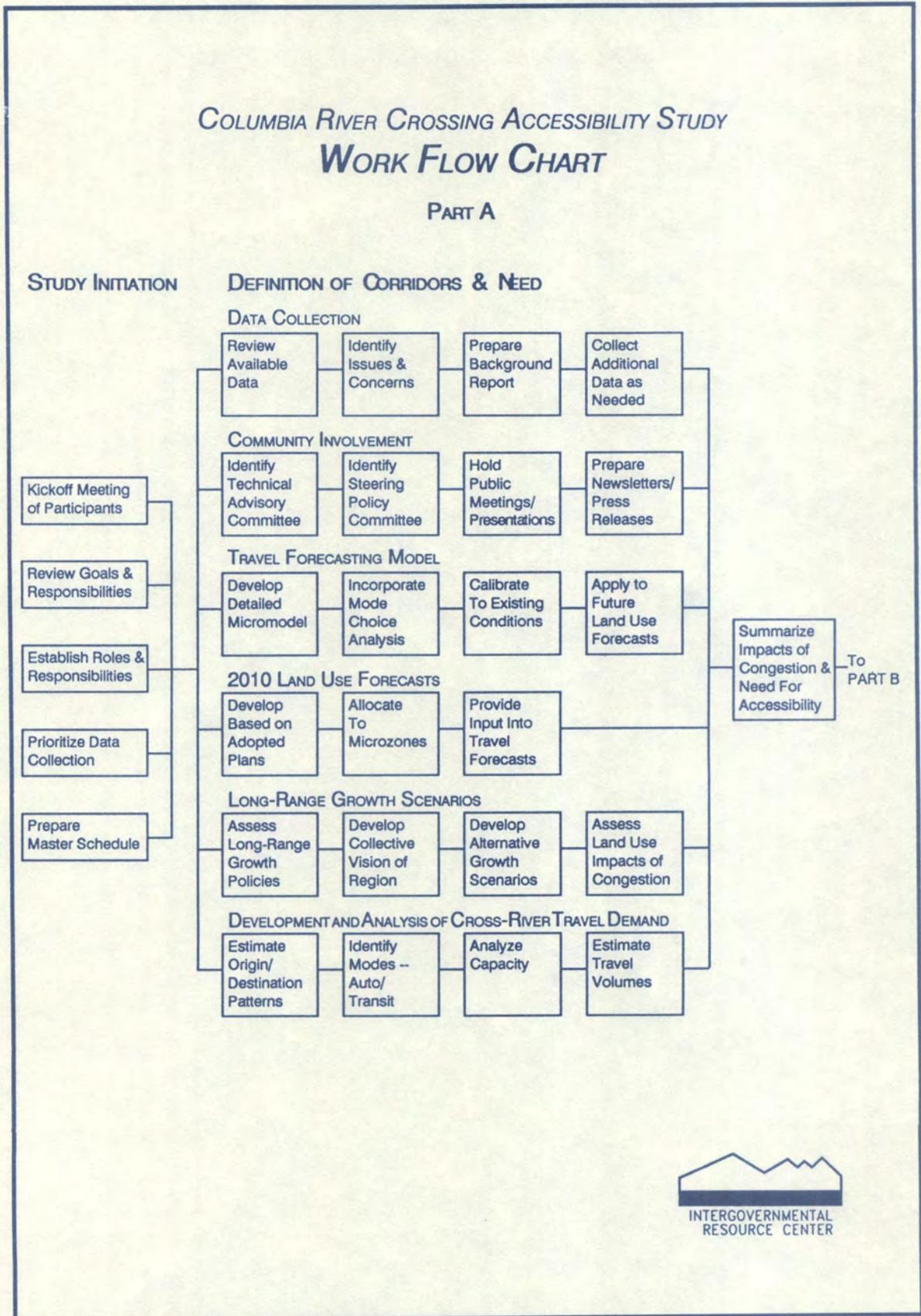


Figure 14 (cont.)

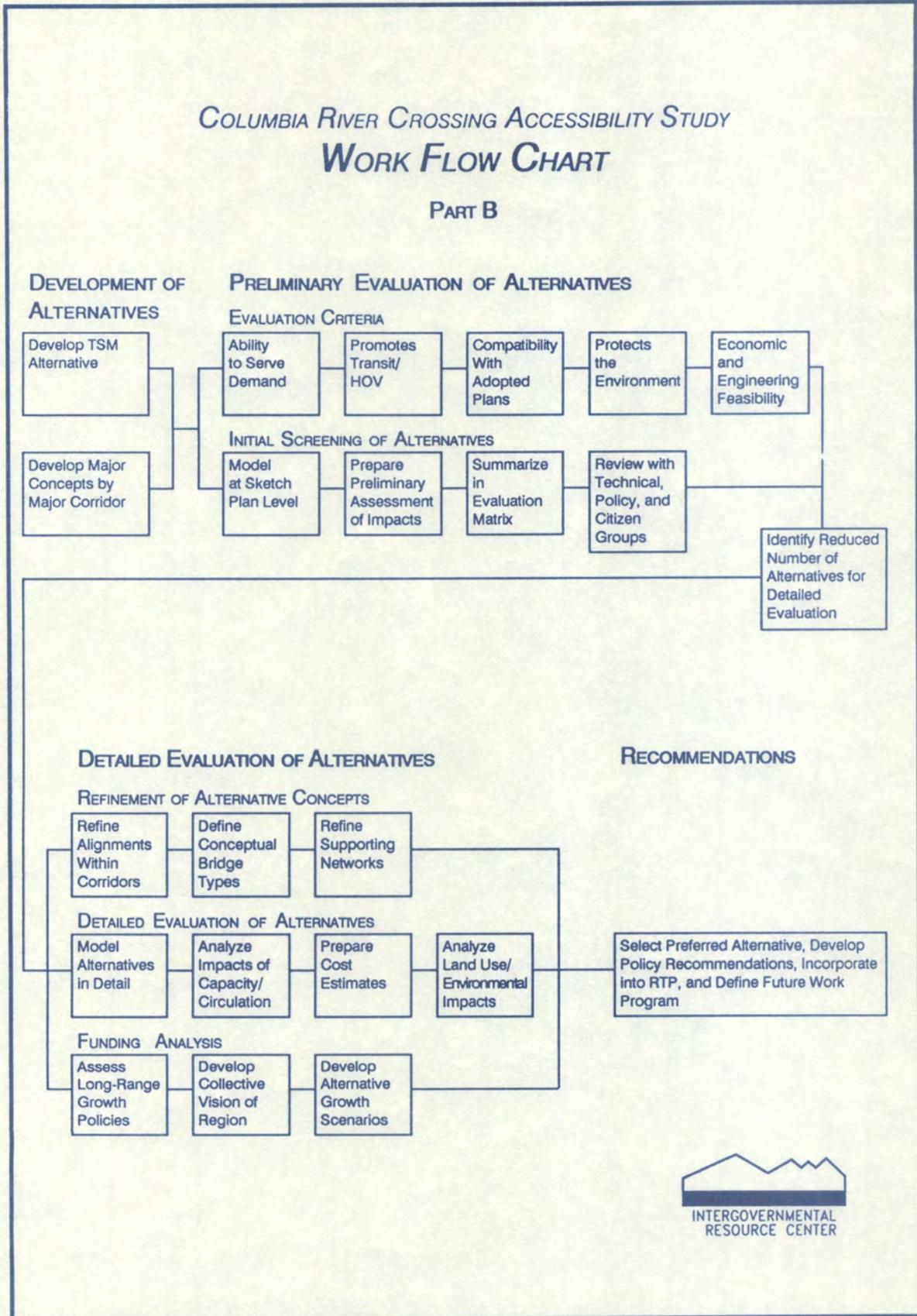
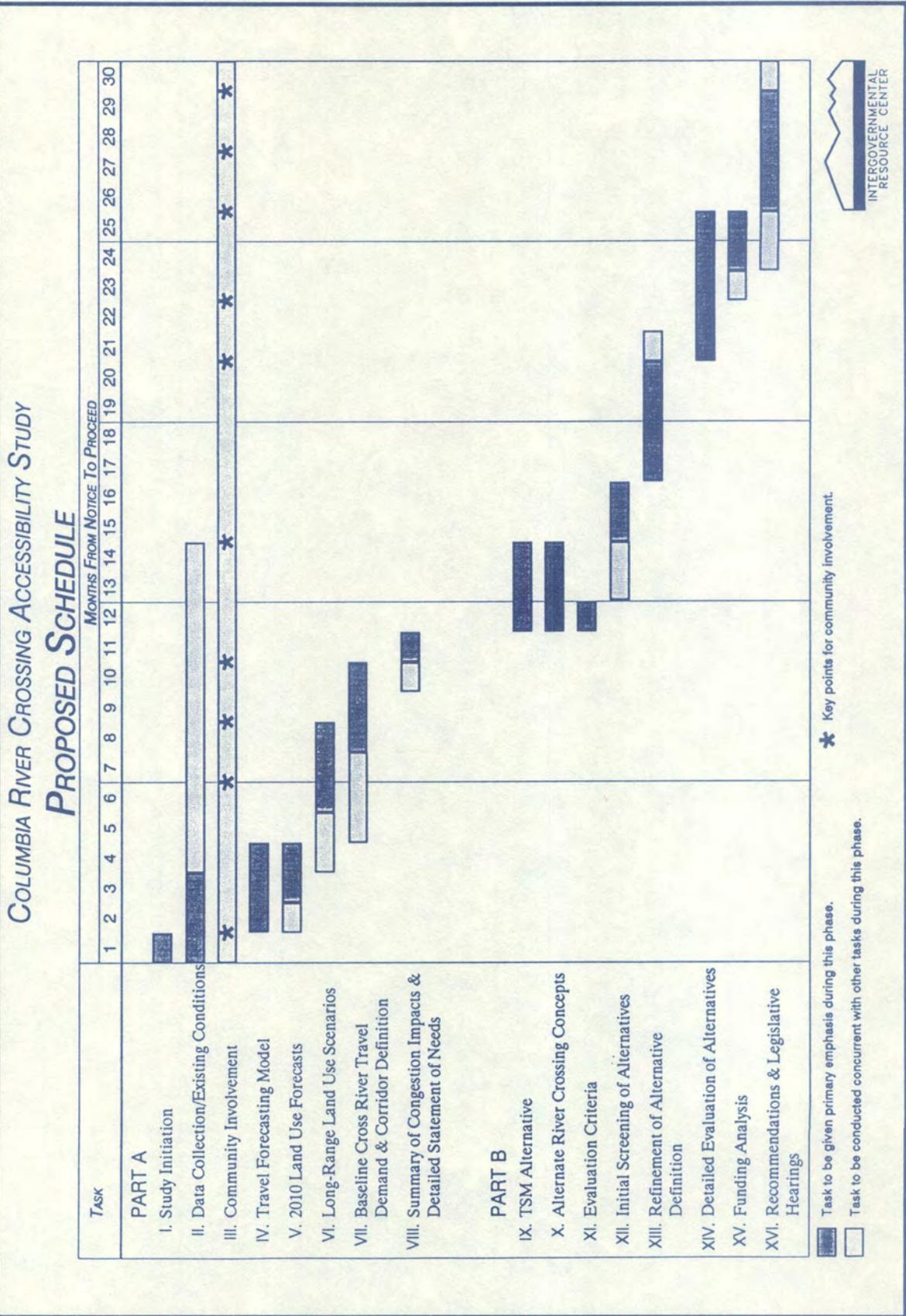


Figure 15



## *BUDGET ESTIMATE*

### *COLUMBIA RIVER CROSSING ACCESSIBILITY STUDY PRELIMINARY BUDGET ESTIMATE BY MAJOR TASK*

<b>PART A</b>	<b>ESTIMATED COST</b>
I. Study Initiation	\$10,000
II. Data Collection/Existing Conditions	\$30,000
III. Community Involvement	\$60,000
IV. Travel Forecasting Model	\$40,000
V. 2010 Land Use Forecasts	\$15,000
VI. Long Range Land Use Scenarios	\$45,000
VII. Baseline Cross River Travel Demand and Corridor Definition	\$45,000
VIII. Summary of Congestion Impacts and Detailed Statement of Need	\$20,000
Part A Subtotal	\$265,000
 <b>PART B</b>	
IX. Transportation System Management Alternative	\$25,000
X. Alternative River Crossing Concepts	\$45,000
XI. Evaluation Criteria	\$10,000
XII. Initial Screening of Alternatives	\$20,000
XIII. Refinement of Alternative Definition	\$170,000
XIV. Detailed Evaluation of Alternatives	\$160,000
XV. Funding Analysis	\$30,000
XVI. Recommendations	\$60,000
Part B Subtotal	\$520,000
<b>TOTAL</b>	<b>\$785,000</b>

## *CHAPTER VI*

# *RECOMMENDATIONS*

## CHAPTER VI

# RECOMMENDATIONS

The purpose of the interim report was to provide an overview of the need for future travel accessibility across the Columbia River based upon currently available information and to present a proposed scope of work for a second phase study which would evaluate the economic, environmental, and engineering feasibility of future accessibility across the Columbia River between Clark County, Washington, and the Portland metropolitan area in Oregon.

Continued economic development in the Portland-Vancouver metropolitan area has resulted in steady increases in travel across the Columbia River. The increase in traffic volumes are causing major congestion problems on I-5 during the morning and evening peak travel hours. The traffic volumes on I-205 are not causing immediate congestion problems, but are increasing at a very rapid pace. Transit volumes crossing the Columbia River are also growing at a fast rate. Depending on the travel forecasting technique, traffic volumes on the I-5 bridge will reach or exceed capacity within the next 3 to 10 years.

These increasing congestion problems are symptoms of a growing transportation system imbalance between the Washington and Oregon portions of the Portland-Vancouver metropolitan area. The conclusion of Phase I is that additional resources should be invested now in order to identify appropriate and acceptable alternatives for maintaining mobility between the greater Vancouver and Portland regions. The proposed scope of work for Phase II presents a bi-state planning study to develop a long range plan for balancing and integrating the transportation system between the two metropolitan areas.

It is also recommended that Phase II should be jointly funded by Washington and Oregon during the 1989 Legislative Session with a report on recommendations to be presented to the two legislatures in January 1992.

## *APPENDIX A*

# *DEVELOPMENT OF PROPOSED WORK SCOPE, PHASE II*

## *APPENDIX A*

# *DEVELOPMENT OF PROPOSED WORK SCOPE, PHASE II*

### **INTRODUCTION**

The development of the work scope for the proposed Phase II study involved a large number of meetings and discussions with agencies, jurisdictions, organizations and individuals throughout the Vancouver-Portland metropolitan area. Even though the time frame for developing the Phase I interim report and Phase II study scope was short (September through November) two joint agencies meetings were held in addition to the individual meetings. The purpose of all the meetings and discussions was to collect the best information possible toward developing the Phase II work scope.

IRC expresses their appreciation to all of those who provided written and oral comments in regard to the Phase I interim report and Phase II study scope.

### **JOINT MEETINGS**

- September 9, 1988 -- The Bi-State Policy Advisory Committee held a meeting to discuss the purpose of the Phase I interim report. The Bi-State Policy Advisory Committee held a meeting to discuss the purpose of the Phase I interim report. The Bi-State Policy Advisory Committee is an eight member committee including elected representatives from the two metropolitan areas. The committee provides a joint IRC and Metro forum to discuss major bi-state issues. The meeting was attended by a wide range of Washington and Oregon interested agencies, individuals and organizations (over 60 people attended).
- October 10, 1988 -- Interested agencies and individuals throughout the metropolitan area met jointly to discuss the first draft of the proposed scope of work for Phase II. The comments and discussion were incorporated into subsequent drafts of the work scope.

## INDIVIDUAL JURISDICTION, AGENCY AND ORGANIZATION MEETINGS

The following list identifies the major jurisdictions and agencies who were contacted during the development of the Phase II work scope. In addition to the meetings, the draft scope of work was mailed to over 80 individuals on two separate occasions and requested their comments.

- Washington Department of Transportation, District 4 and Headquarters
- Clark County
- City of Vancouver
- Port of Camas/Washougal
- Port of Ridgefield
- City of Ridgefield
- C-TRAN
- Metropolitan Service District
- Oregon Department of Transportation, Portland Office
- Tri-Met
- Clackamas County
- Multnomah County
- Washington County
- City of Portland
- Transportation Policy Alternatives Committee, METRO
- Port of Portland
- Clark County Natural Resource Organizations
- Forest Park Neighborhood Association

*APPENDIX B*

*INTERGOVERNMENTAL  
RESOURCE CENTER  
RESOLUTION*

*APPENDIX B*  
*INTERGOVERNMENTAL RESOURCE CENTER*  
*RESOLUTION*



Resolution No. 88-11-02

A Resolution in Support of a Bi-State Planning Study to Develop a Long-Range Plan for Implementing a Balanced and Integrated Transportation System Between the Portland and Vancouver Metropolitan Areas.

**WHEREAS**, the Intergovernmental Resource Center (IRC) has been designated by the Governor of Washington State as the Metropolitan Planning Organization (MPO) for the Vancouver-Clark County metropolitan area; and

**WHEREAS**, IRC as the MPO is responsible for maintaining a continuing, cooperative, and comprehensive transportation planning process that results in plans and programs consistent with the comprehensively planned development of the urbanized area; and

**WHEREAS**, traffic congestion problems on Interstate 5 and rapidly increasing traffic volumes on Interstate 205 are symptoms of a growing transportation system imbalance between the Washington and Oregon portions of the Portland-Vancouver metropolitan area; and

**WHEREAS**, the Legislative Transportation Committee (LTC) of the Washington Legislature has requested a study of the economic feasibility of improving accessibility across the Columbia River to Oregon; and

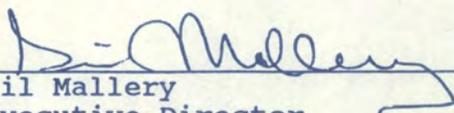
**WHEREAS**, the LTC has requested an Interim Report on the economic feasibility of improving accessibility to Oregon that includes an overview of need, the transportation decision-making process in Oregon and Washington, and the scope of work for a major study to examine the alternatives for maintaining accessibility across the Columbia River.

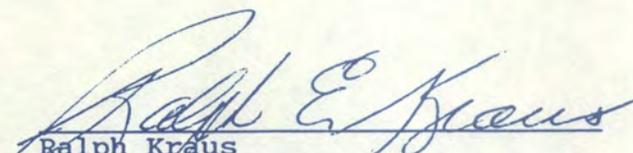
WHEREAS, the proposed study will examine a range of options including transportation system management measures (HOV lanes, ramp metering, increased transit, flexible work hours, etc.), light rail transit, and highway alternatives.

NOW, THEREFORE, BE IT RESOLVED by the IRC Board of Directors that they recognize the need for maintaining accessibility between the Vancouver and Portland metropolitan areas, and that they support a bi-state planning study to develop a long-range plan for balancing and integrating the transportation system between the two metropolitan areas.

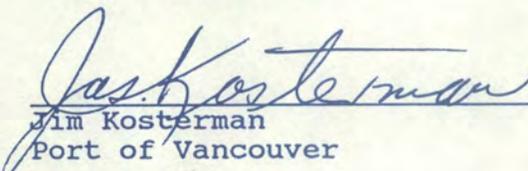
ADOPTED this 3rd day of November, 1988 by the Intergovernmental Resource Center Board of Directors.

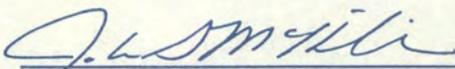
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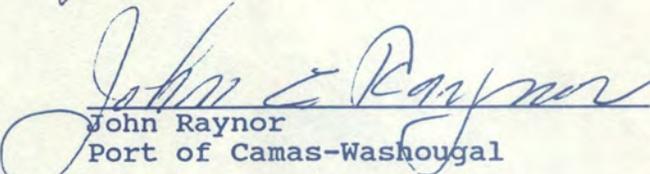
  
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Gil Mallery  
Executive Director

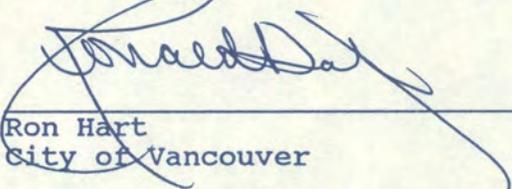
  
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Ralph Kraus  
Town of Ridgefield

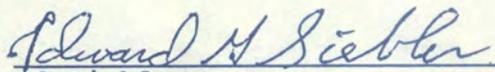
  
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Vaughn Lein  
Clark County Planning  
Commission

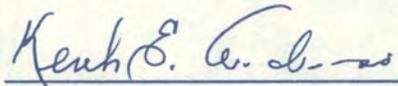
  
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Jim Kosterman  
Port of Vancouver

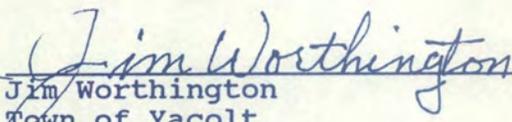
  
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John McKibbin  
Clark County

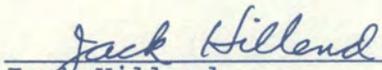
  
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John Raynor  
Port of Camas-Washougal

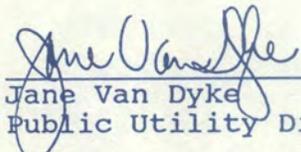
  
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Ron Hart  
City of Vancouver

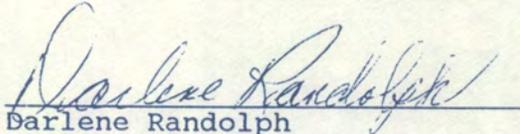
  
\_\_\_\_\_  
Ed Siebler  
Town of La Center

  
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Kent Anderson  
Clark County Conservation  
District

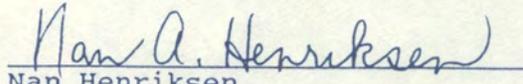
  
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Jim Worthington  
Town of Yacolt

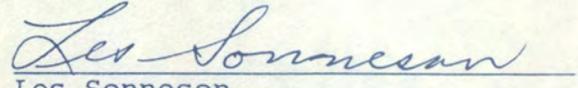
  
\_\_\_\_\_  
Jack Hillend  
Vancouver Planning Commission

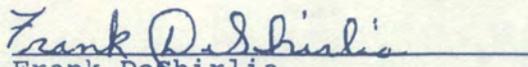
  
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Jane Van Dyke  
Public Utility District

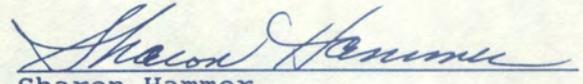
  
Darlene Randolph  
Port of Ridgefield

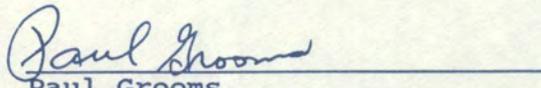
  
Leon Pagel  
Clark County Public Sewer  
District

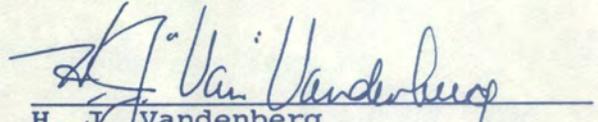
  
Nan Henriksen  
City of Camas

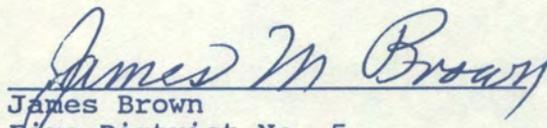
  
Les Sonneson  
City of Washougal

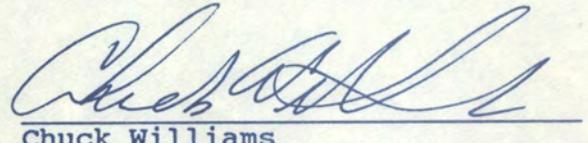
  
Frank DeShirlia  
City of Battle Ground

  
Sharon Hammer  
Fort Vancouver Regional  
Library

  
Paul Grooms  
Southwest Washington Health  
District

  
H. J. Vandenberg  
Skamania County

  
James Brown  
Fire District No. 5

  
Chuck Williams  
Textronix, Inc.

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