BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF ESTABLISHING A REGIONAL STRATEGY TO ADDRESS MAJOR TRANSPORTATION CORRIDOR ISSUES	))))	Resolution No. 79-65 Requested by Rick Gustafson

WHEREAS, The MSD Transportation Improvement Program allocates nearly $200 million of Interstate Transfer funds to address regional transportation problems with corridor transitway treatments; and

WHEREAS, The MSD staff is charged with leading cooperative studies which will lead to agreement on corridor policies and projects; and

WHEREAS, The MSD corridor planning activities are to be undertaken within the context of the preparation of a Regional Transportation Plan; and

WHEREAS, The MSD performed a systems analysis of the immediate and long-range problems facing the major regional transportation corridors; and

WHEREAS, The analysis resulted in the development of a regional strategy to address these concerns; and

WHEREAS, This strategy has been coordinated with the local jurisdictions and implementing agencies; now, therefore,

BE IT RESOLVED,

1. That the MSD Council approves the recommendations proposed in the attached report entitled Regional Transportation Corridor Improvement Strategy, as the strategy for addressing major

transportation corridor concerns and directs its staff to undertake efforts required to implement the approved strategy.

ADOPTED by the Council of the Metropolitan Service District this 26th day of July, 1979.

Presiding Officer

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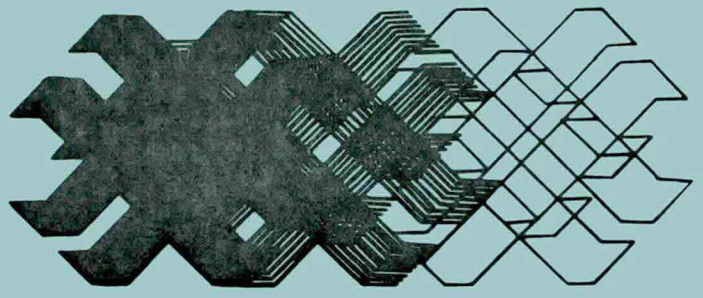
REGIONAL TRANSPORTATION CORRIDOR IMPROVEMENT STRATEGY



Metropolitan Service District

July, 1979

Metropolitan Service District

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Executive Officer

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REGIONAL TRANSPORTATION CORRIDOR IMPROVEMENT STRATEGY

Executive Summary and Recommendations
from
Special Report No. 4: A Systems Analysis of Major Regional Transportation Corridors

July, 1979

Metropolitan Service District
527 S. W. Hall
Portland, Oregon 97201

PUBLISHED BY

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Portland, Oregon 97201

C. William Ockert — Director, Transportation Department

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REGIONAL TRANSPORTATION CORRIDOR IMPROVEMENT STRATEGY

BACKGROUND

The region's major transportation corridors are in trouble and corridor problems are projected to get more severe in the future. Several important opportunities are available to address these concerns. Primary among these opportunities are funds made available from two freeway withdrawals. The region has adopted a policy to direct a major percentage of these funds toward major transportation corridor investments. Nearly $200 million in Federal Interstate Transfer funds are currently earmarked for major corridor improvements.

The MSD staff has completed an analysis of the major transportation corridors in an attempt to quantify existing and future problems and opportunities.[1] A number of strategies are proposed in this report for addressing the corridor issues. These strategies will guide the staff in conducting more in-depth analysis of proposed corridor policies and projects. The staff analyses will lead to recommendations to be included in the upcoming Regional Transportation Plan.

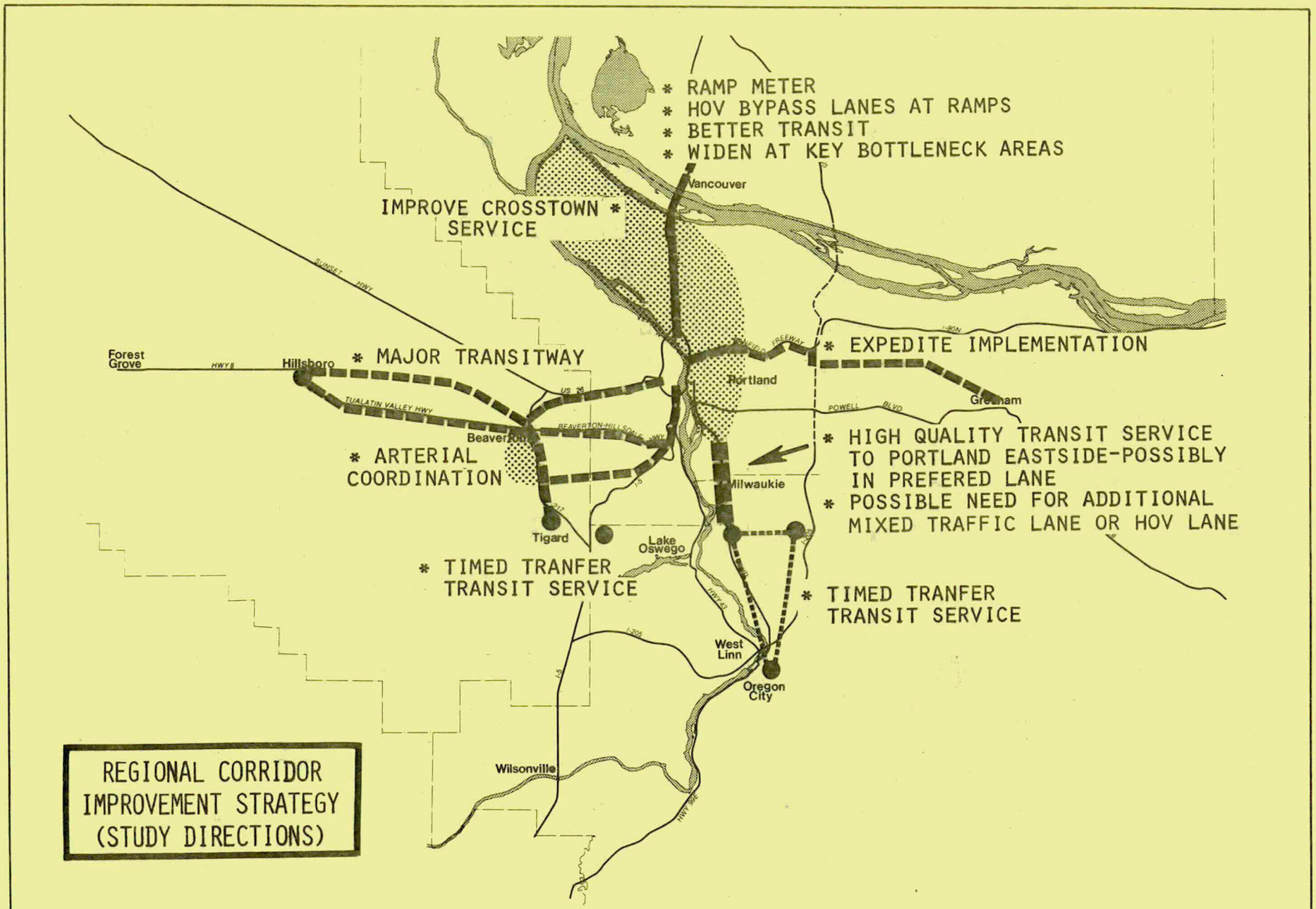
RECOMMENDED IMPROVEMENT STRATEGY

SUMMARY (MAP 1)

MSD will develop and evaluate light rail and busway options between Portland and Washington County. $60 million, in federal funds, are currently reserved for project implementation. MSD and ODOT will develop and evaluate improvement options for McLoughlin Boulevard between the City of Milwaukie and the Union/Grand couplet in Portland. $25 million, in federal funds, are currently reserved for project implementation. ODOT will develop and implement operations improvements in the I-5 freeway between Hayden Island and the Marquam Bridge. $70-$100 million will be available for project implementation. Tri-Met and ODOT are responsible for the implementation of the Banfield Transitway Project. $110 million, in federal funds, are currently reserved for this project. Tri-Met will develop a five year service improvement program. Financing for any recommendations calling for transit service expansion will have to be sought. MSD will prepare and adopt a Regional Transportation Plan to assure that investment decisions make efficient use of regional resources; are coordinated with state, regional and local goals; and are timely.

SYSTEMWIDE

Recommendations	Responsible Agencies
• Develop a regional transportation corridor improvement strategy which reflects the relative priorities of the corridors.	MSD


* RAMP METER
* HOV BYPASS LANES AT RAMPS
* BETTER TRANSIT
* WIDEN AT KEY BOTTLENECK AREAS
IMPROVE CROSSTOWN * SERVICE
* MAJOR TRANSITWAY
* EXPEDITE IMPLEMENTATION
* ARTERIAL COORDINATION
* HIGH QUALITY TRANSIT SERVICE TO PORTLAND EASTSIDE-POSSIBLY IN PREFERED LANE
* POSSIBLE NEED FOR ADDITIONAL MIXED TRAFFIC LANE OR HOV LANE
* TIMED TRANFER TRANSIT SERVICE
* TIMED TRANFER TRANSIT SERVICE
Vancouver
Portland
Gresham
Forest Grove
Hillsboro
Beaverton
Tigard
Lake Oswego
Milwaukie
West Linn
Oregon City
Wilsonville
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TUALATIN VALLEY HWY
BEAVERTON-HILLSDALE HWY
HWY 8
US 26
I-5
I-205
I-84
I-405
HWY 43
HWY 99E
POWELL BLVD
REGIONAL CORRIDOR IMPROVEMENT STRATEGY (STUDY DIRECTIONS)

MAP 1

• Aim corridor policies, projects and programs at specific groups of travelers (or "markets") which are identified as being significant contributors to the priority corridor mobility problems. Prioritize transit and system management solutions including land use measures.	MSD
• Evaluate all highway system proposals, in part, on the basis of their impact on regional corridor mobility.	MSD
EASTERN CORRIDOR	
• Facilitate the timely implementation of the Banfield Transitway Project.	ODOT/Tri-Met MSD
Evaluate the effectiveness of implementing high quality crosstown transit service in the Inner Eastside of Portland, based upon a service improvement date no later than 1985.	Tri-Met
WESTERN RADIAL CORRIDOR	
• Evaluate the effectiveness of implementing either Light Rail or Exclusive Busway service between Portland and Beaverton or Portland and Hillsboro, based upon 1995 benefits and costs and a construction date no later than 1986.	MSD
WESTERN CIRCUMFERENTIAL CORRIDOR	
• Coordinate local plans for the arterial/collector system in the corridor.	MSD
• Evaluate the effectiveness of implementing timed-transfer transit service between Beaverton and Tigard/Washington Square, based on a service improvement date no later than 1985.	Tri-Met
SOUTHERN CORRIDOR	
• Evaluate the effectiveness of implementing timed-transfer transit service between Oregon City, Clackamas Town Center and Milwaukie, based upon a service improvement date no later than 1985.	Tri-Met

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[1]This analysis is documented in Special Report No. 4: A Systems Analysis of Major Regional Transportation Corridors.

• Evaluate the effectiveness of implementing high quality trunk-line transit service between Milwaukie and the Inner Eastside of Portland, based upon a service improvement date no later than 1985.	Tri-Met
• Evaluate the effectiveness of implementing additional (one or two lanes) transit, High-Occupancy-Vehicle or mixed-traffic lanes on McLoughlin Boulevard between the City of Milwaukie and the Union/Grand couplet, based upon 1995 benefits and a construction date no later than 1986.	MSD/ODOT
• Determine the need to evaluate River Transit options between Oregon City and Portland.	MSD

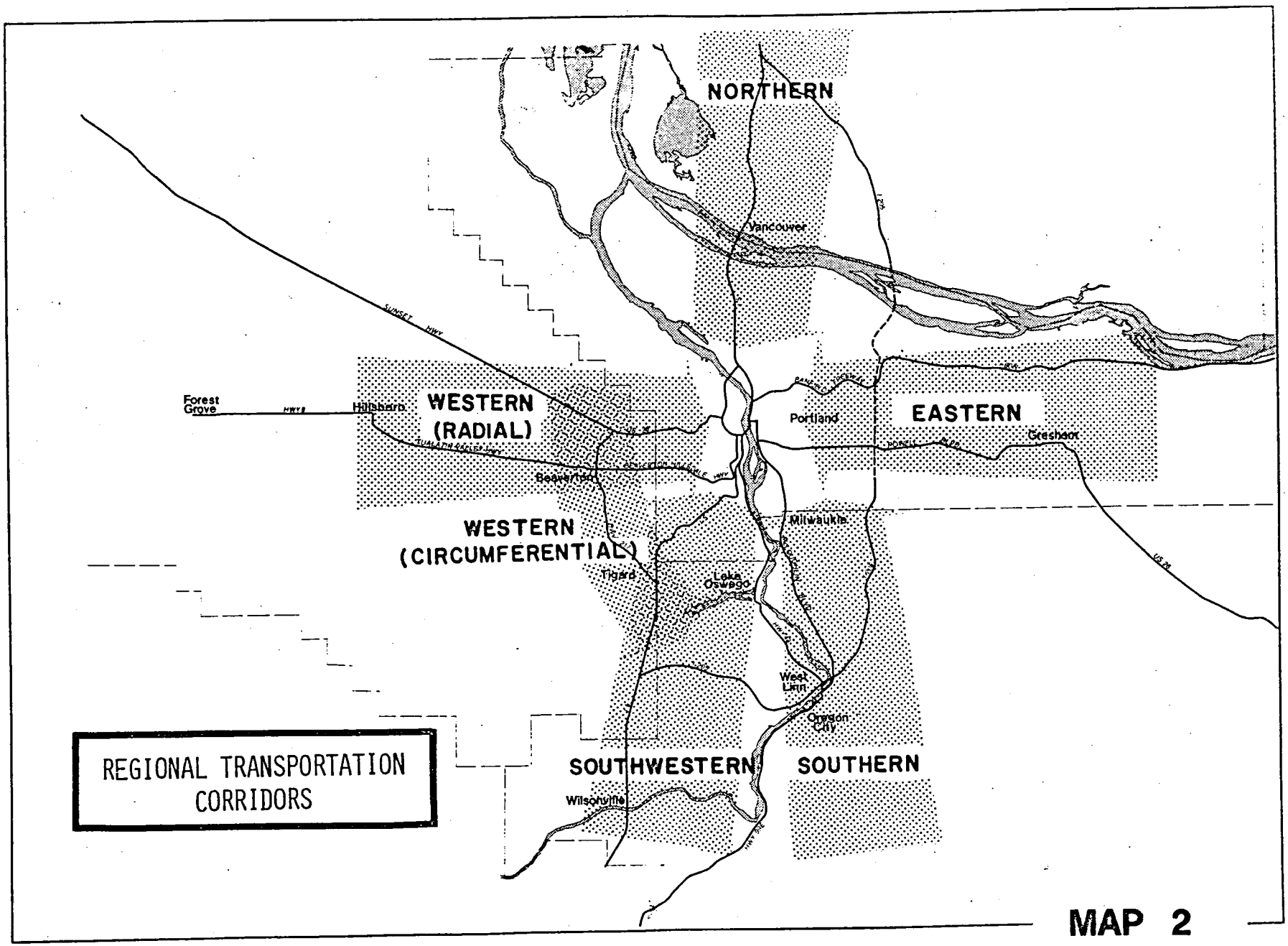
SOUTHWESTERN CORRIDOR

• Evaluate the effectiveness of implementing a branch line between the west-side transitway options to Tigard/Washington Square, based upon 1995 benefits and costs and a construction date of no later than 1986.	MSD
• Evaluate the effectiveness of timed-transfer transit service at Tigard/Washington Square and/or the West Portland Park-and-Ride, based upon a service improvement date no later than 1985.	Tri-Met

NORTHERN CORRIDOR

• Implement ramp metering and High-Occupancy-Vehicle Bypass Lanes at each on-ramp (northbound and southbound) in the I-5 Freeway between Hayden Island and North Broadway.	ODOT
• Evaluate the long-term effectiveness of widening the I-5 Freeway between Hayden island and North Broadway at key "bottleneck" locations.	ODOT/MSD
• Investigate the need for increased access (northbound and/or southbound) to the I-5 Freeway at the Marquam Bridge and/or Columbia Boulevard.	MSD/ODOT
• Evaluate the effectiveness of implementing high quality trunk-line transit service between Vancouver and major industrial and commercial centers in the Inner Northeast side of Portland, based upon a service improvement date no later than 1985.	Tri-Met
• Investigate the role of the I-205 busway within the total context of this revised regional corridor improvement strategy.	MSD

EXECUTIVE SUMMARY AND RECOMMENDATIONS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Beaverton
WESTERN (CIRCUMFERENTIAL)
Milwaukie
Tigard
Lake Oswego
West Linn
Oregon City
SOUTHWESTERN
SOUTHERN
Wilsonville
REGIONAL TRANSPORTATION CORRIDORS
MAP 2

A. SYSTEMWIDE CORRIDOR IMPROVEMENT STRATEGY

1. Problem

Assuming current trends, policies, plans and committed projects, the MSD region is projected to experience larger population and employment growth during the next two decades than during the previous two decades. By 1995, facilities in the regional transportation corridors (Map 2) will be expected to handle more than a 50 percent increase in vehicle volumes. Most of these facilities, many of which are currently exhibiting poor service levels, will be unable to accommodate the forecasted demand.

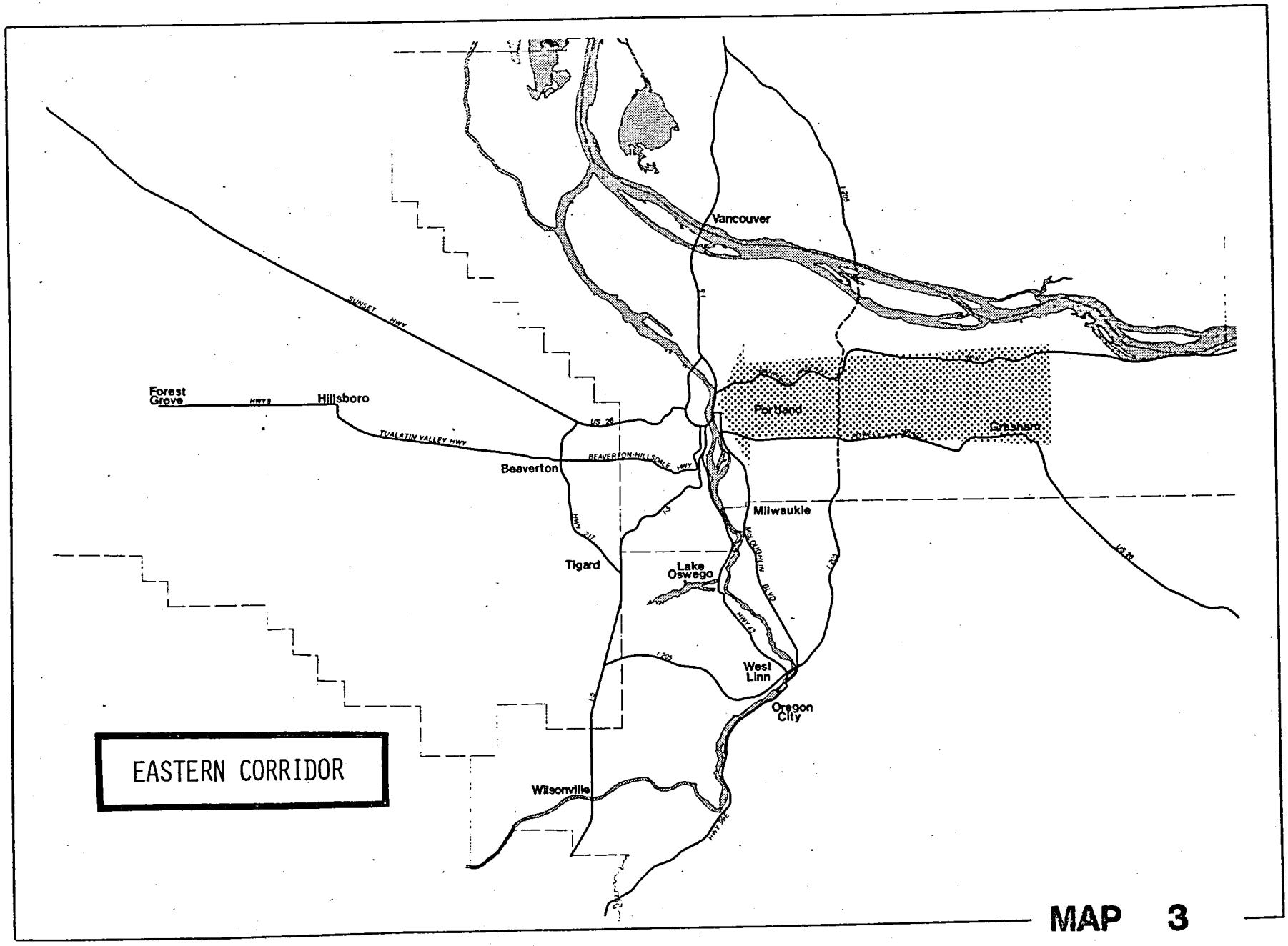
All major residential areas in the region (with the exception of the Vancouver vicinity) are projected to lose access to employment opportunities during the upcoming decades. The new jobs which are locating in each of the region's suburban subareas will not equal the employment opportunities lost to residents as a result of increased congestion, poor service levels and travel delay. The proportion of the region's jobs accessible within 30 minutes from these areas will decrease by at least 20 percent.

The expected deterioration in regional mobility over the next 15 to 20 years will dramatically reduce the range of choices available to the region's residents. Failing to make improvements in these major corridors will not just result in fewer destinations available within reasonable travel times, it will discourage residents from taking desired regional trips. The liveability of the region will be seriously impaired.

Travelers will be forced to take more local trips which will compound local circulation problems and deteriorate local travel speeds. Travelers will be taking shorter trips, but will be spending more time doing so. To make matters worse, people will be developing travel patterns which could not be efficiently served by transit.

2. Improvement Strategy

Recommendations	Responsible Agencies
• Develop a regional transportation corridor improvement strategy which reflects the relative priorities of the corridors.	MSD
• Aim corridor policies, projects and programs at specific groups of travelers (or "markets") which are identified as being significant contributors to the priority corridor mobility problems. Prioritize transit and system management solutions including land use measures.	MSD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Gresham
Milwaukie
I-5
HWY 217
Tigard
Lake Oswego
MACADAM BLVD
HWY 43
I-205
West Linn
Oregon City
Wilsonville
HWY 99E
EASTERN CORRIDOR

MAP 3

• Evaluate all highway system proposals, in part, on the basis of their impact on regional corridor mobility.	MSD

B. EASTERN CORRIDOR IMPROVEMENT STRATEGY

1. Problem

Over one-third of the region's currently congested facilities are part of the Eastern Corridor (Map 3). Some of the region's most severe travel delays are recorded on the Banfield Freeway. Noticeable travel delays occur on many arterials in the corridor. These problems will get more severe, because a 20 percent increase in the corridor's peak volume is expected. This corridor will continue to show the highest potential of all the regional corridors for traffic to infiltrate residential neighborhoods.

By 1995, if the Banfield Transitway Project were not to be implemented, the job access of Gresham residents will diminish by 40 percent in spite of significant increases in East County employment. Ten percent of the East County residents who desired to travel to Portland's Eastside (if current service levels prevailed), would be discouraged from doing so.

One-third of the travel which is causing these problems are work trips made by East County residents which are destined for the "Close-In" Eastside. Work trips to the Portland CBD account for an additional ten percent of the problem.

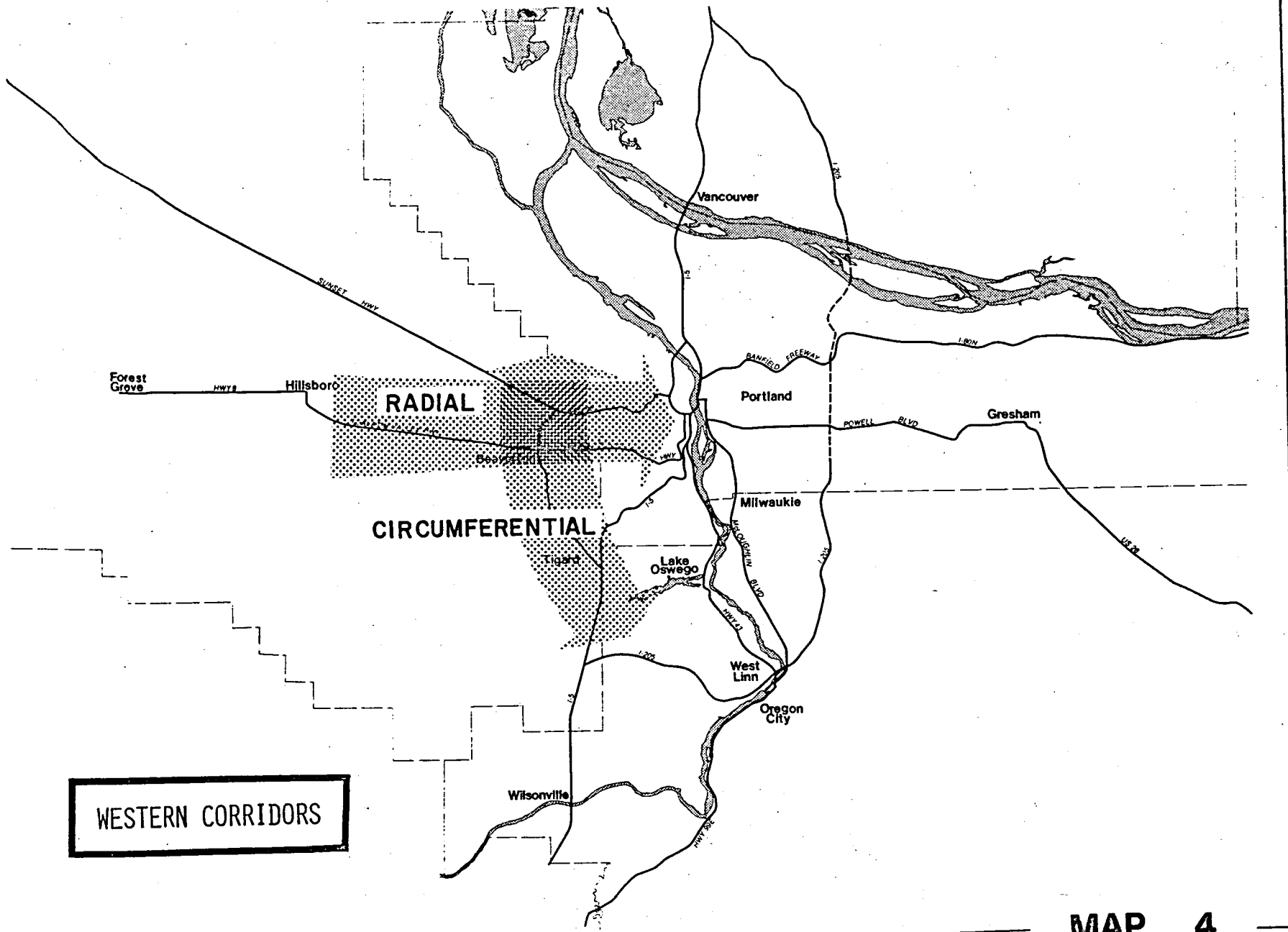
2. Improvement Strategy

Recommendations	Responsible Agencies
• Facilitate the timely implementation of the Banfield Transitway Project.	ODOT/Tri-Met MSD
• Evaluate the effectiveness, based upon a service improvement date no later than 1985, of implementing high quality crosstown transit service in the Inner Eastside of Portland.	Tri-Met

C. WESTERN RADIAL CORRIDOR IMPROVEMENT STRATEGY

1. Problem

The Western Corridor is projected to have dramatic population (+50 percent) and employment (+100 percent) growth. By 1995, the most severe congestion in the region is projected to occur in the Western Radial Corridor (Map 4). Peak-hour traffic volumes are anticipated to increase by nearly 90 percent in portions of the corridor. Congested conditions will grow westward beyond Murray Boulevard.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Lake Oswego
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West Linn
Oregon City
US 99
Wilsonville
HWY 99E
WESTERN CORRIDORS

MAP 4

The worst conditions are expected to occur in Beaverton just west of Highway 217. There, a forecasted 40 percent increase in peak volumes will lead to a 30 percent over-utilization of corridor capacity. Severe travel delays, some travel times increasing by as much as 50 percent, are projected for travel through this area.

Residents of the Western Corridor will experience the most dramatic reductions in job access in the region. In 1995, notwith- standing huge increases in Washington County employment, Beaverton area residents will be able to reach only one-third of the jobs (within 30 minutes) they were able to reach in 1977. Due to the poor service levels, Beaverton/Hillsboro residents will be taking 20 percent fewer trips to the Inner Eastside and Westside portions of Portland than they would desire if current service levels prevailed. This is the second most severe example of deteriorated work trip mobility in the region.

Two-thirds of the travel causing these problems are work trips heading for the Westside and Inner Eastside of Portland. Two-thirds of these trips are destined for locations on the westside of Portland. Fifteen percent of the problem is attributable to work trips heading towards Tigard and Tualatin (circumferential trips).

2. Improvement Strategy

Recommendations	Responsible Agencies
• Evaluate the effectiveness of implementing either Light Rail or Exclusive Busway service between Portland and Beaverton or Portland and Hillsboro, based upon 1995 benefits and costs and a construction date no later than 1986.	MSD

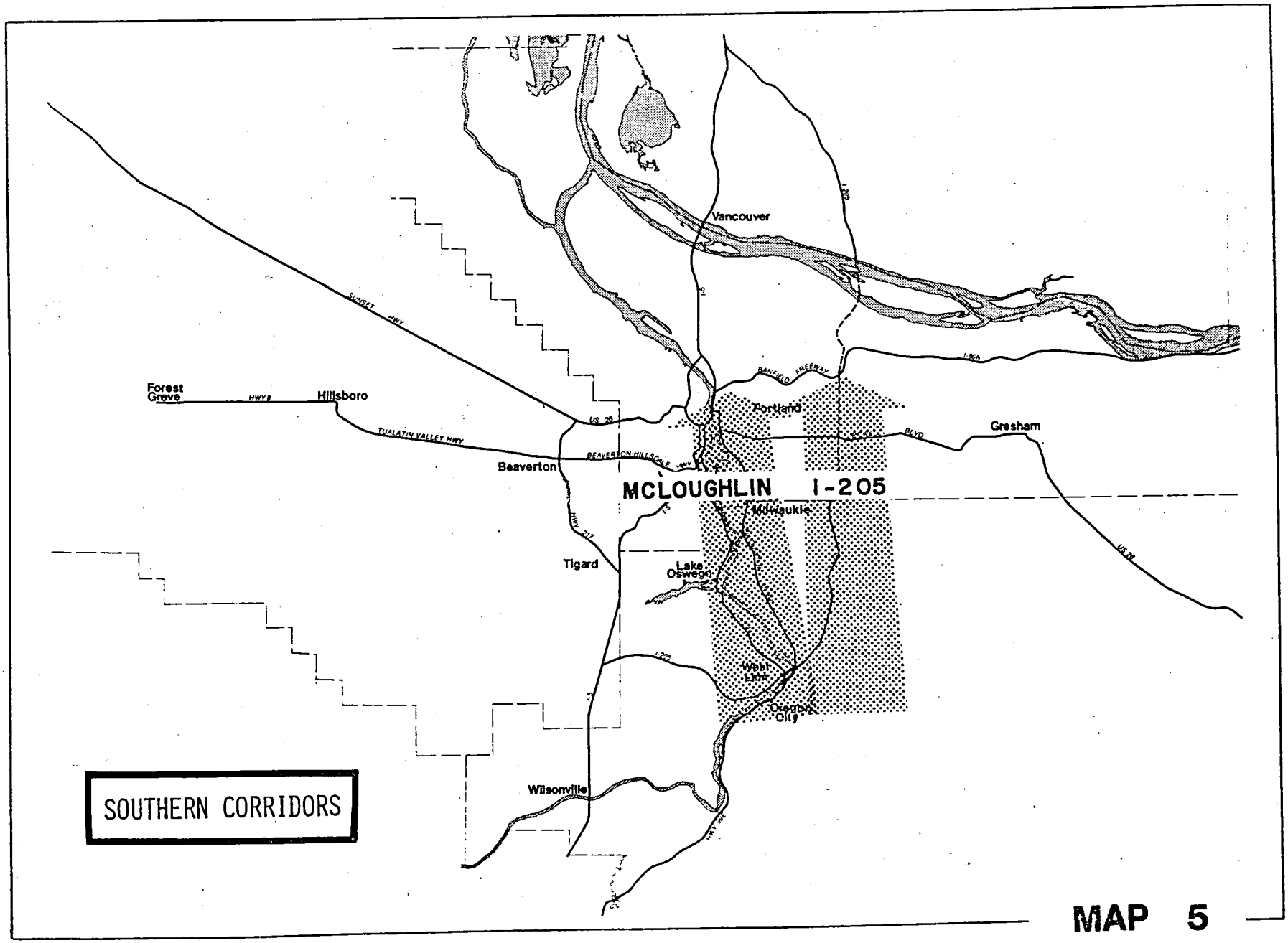
D. WESTERN CIRCUMFERENTIAL CORRIDOR IMPROVEMENT STRATEGY

1. Problem

Less severe problems will exist in the Western Circumferential Corridor (Map 4) than in the Western Radial Corridor. The current problem on Highway 217 is largely attributable to the Denny and Allen intersections. A doubling of traffic volumes by 1995 will more than match the planned increases in corridor capacity expected from the Denny and Allen intersection improvements. Although the Western Circumferential Corridor will continue to exhibit one of the lower total vehicle trip and work trip volumes among the major regional corridors, its facilities will be fully utilized in 1995.

2. Improvement Strategy

Recommendations	Responsible Agencies
• Coordinate local plans for the arterial/collector	MSD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Portland
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Gresham
MCLOUGHLIN I-205
Milwaukie
Tigard
Lake Oswego
West Linn
Oregon City
US 99E
Wilsonville
SOUTHERN CORRIDORS
MAP 5

system in the corridor.

- Evaluate the effectiveness of implementing timed-transfer transit service between Beaverton and Tigard/Washington Square, based on a service improvement date no later than 1985. — Tri-Met

E. SOUTHERN CORRIDOR IMPROVEMENT STRATEGY

1. Problem

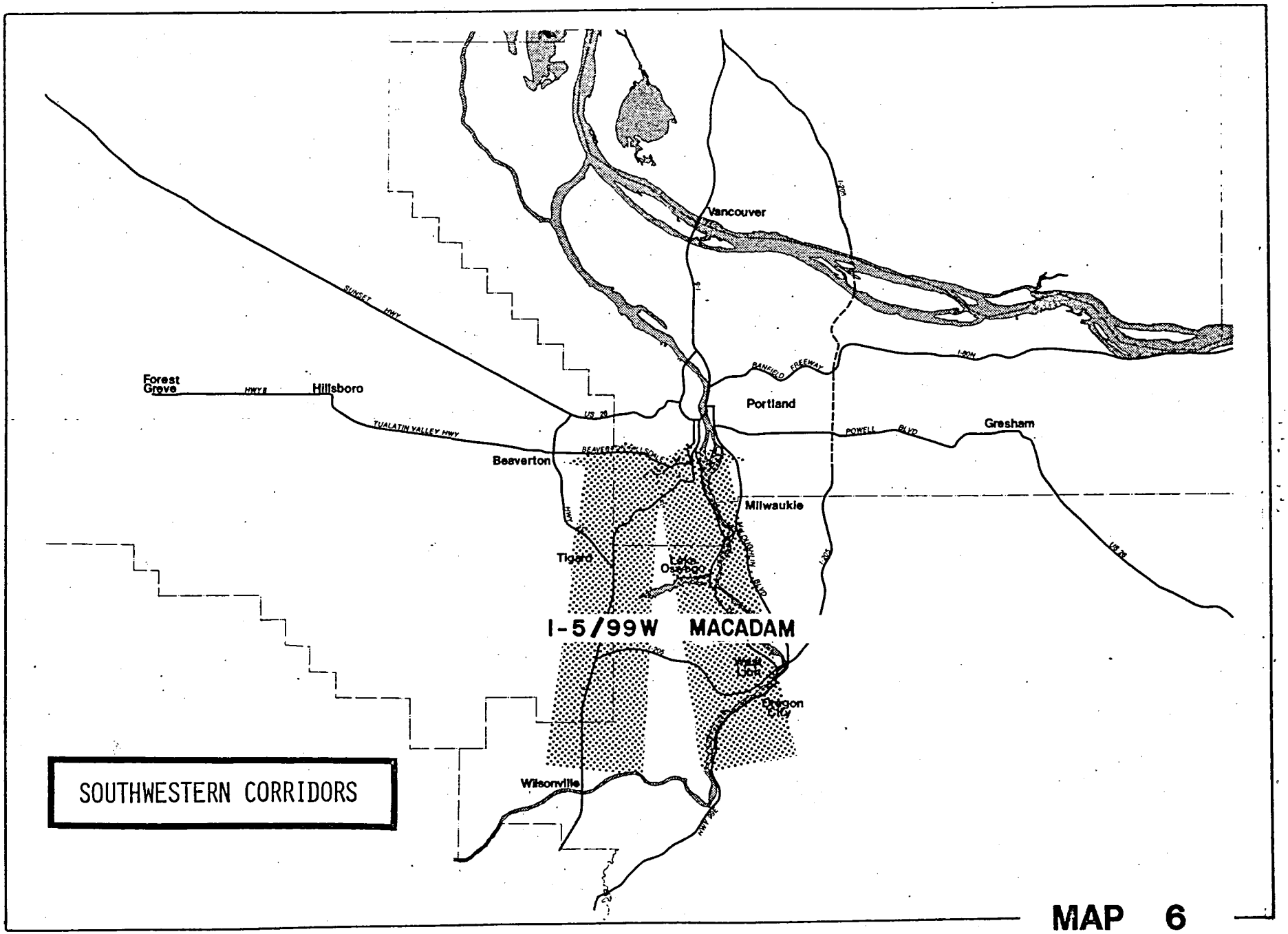
Some of the most severe over-utilization of capacity in the region occurs in the McLoughlin Corridor (Map 5) between the City of Milwaukie and the Union/Grand couplet in Southeast Portland. This portion of the corridor exhibits the third highest potential among regional corridors for traffic to infiltrate residential neighborhoods. Traffic conditions in the southern segment of the corridor are not nearly as severe as in the northern portion. Travel in the McLoughlin Corridor is projected to grow moderately (+25 percent) by 1995. The northern portion will continue to be one of the most capacity deficient links in the regional network.

The deteriorating service levels in the McLoughlin Corridor will cause significant reductions in travel speeds for Milwaukie and Oregon City residents. Job accessibility will be seriously impaired. In 1995, Milwaukie residents will be able to reach only one-third of the employment opportunities they currently can reach. Eastern Clackamas County residents will be taking 17 percent fewer work trips to the inner portion of Portland than they would desire if current service levels prevailed. This represents the region's third most severe example of deteriorated work trip mobility in the region.

The primary contributors to the major problems in the McLoughlin Corridor are work trips produced in Milwaukie (which are 55 percent of the peak trips in the northern portion of the corridor) and work trips attracted to the Inner Eastside of Portland (40 percent of the peak-trips in the northern portion). Work trips originating in the Milwaukie vicinity which are destined for the Inner Eastside comprise roughly 30 percent of the problem. Work trips between the Oregon City vicinity and the Portland CBD will constitute only two percent of the traffic-related problems.

2. Improvement Strategy

Recommendations	Responsible Agencies
• Evaluate the effectiveness of implementing timed-transfer transit service between Oregon City, Clackamas Town Center and Milwaukie, based upon a service improvement date no later than 1985.	Tri-Met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Milwaukie
Tigard
Lake Oswego
I-5/99W
MACADAM
West Linn
Oregon City
Wilsonville
HWY 99E
SOUTHWESTERN CORRIDORS

MAP 6

• Evaluate the effectiveness of implementing high quality trunk-line transit service between Milwaukie and the Inner Eastside of Portland, based upon a service improvement date no later than 1985.	Tri-Met
• Evaluate the effectiveness of implementing additional (one or two lanes) transit, High-Occupancy-Vehicle or mixed-traffic lanes on McLoughlin Boulevard between the City of Milwaukie and the Union/Grand couplet, based upon 1995 benefits and a construction date no later than 1986,	MSD/ODOT

F. SOUTHWESTERN CORRIDOR IMPROVEMENT STRATEGY

1. Problem

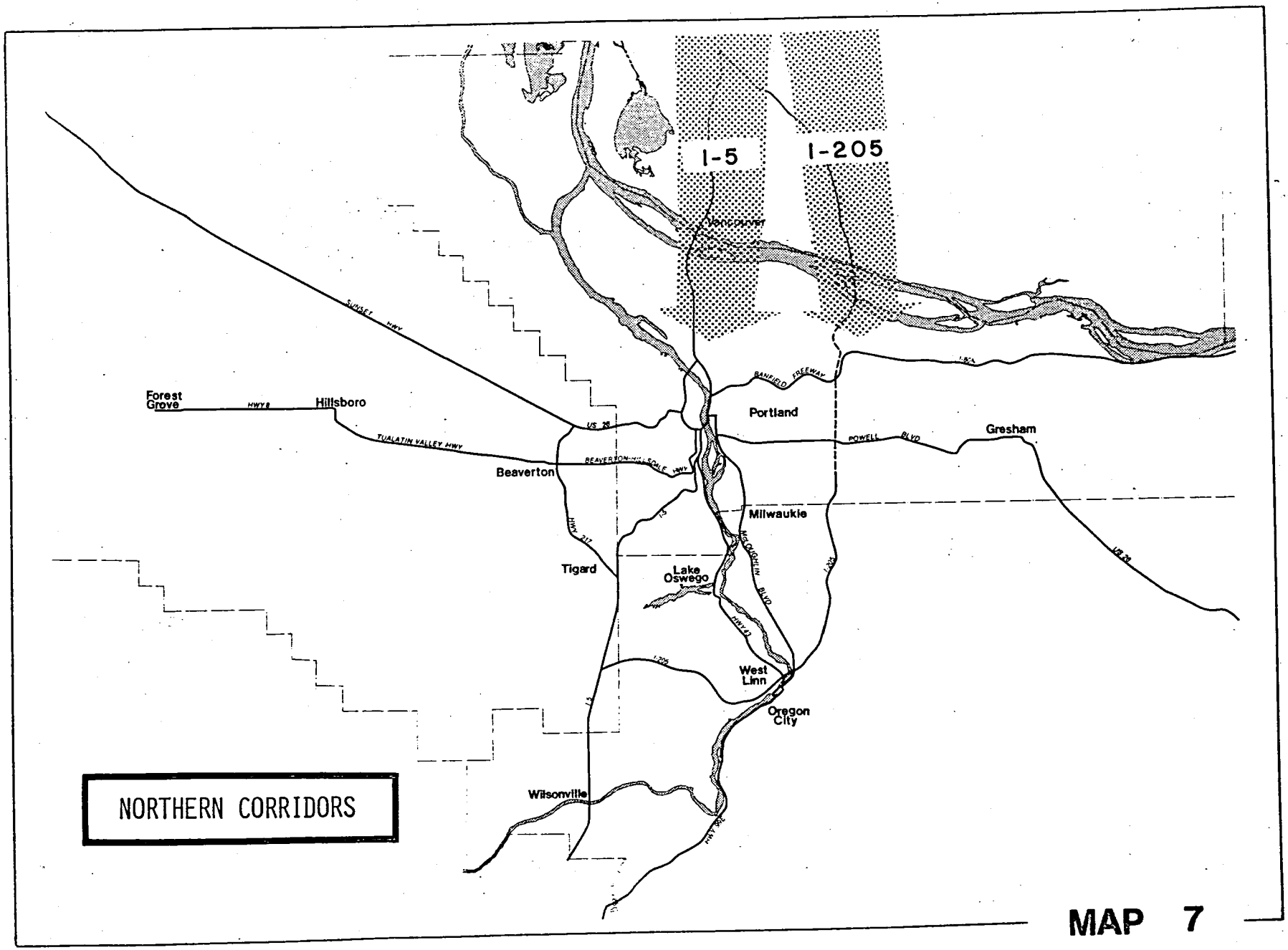
Segments of Macadam Avenue and Terwilliger Boulevard are currently experiencing peak-period congestion and delays. Although Highway 99W is currently experiencing peak-period congestion, the I-5 Freeway still contains unused capacity. By 1995, both the Macadam and I-5/99W Corridors (Map 6) will be subjected to traffic volumes 10 to 20 percent in excess of their capacity.

Significant travel speed reductions are projected for the corridor. By 1995, it will take ten percent longer to travel to the Portland CBD from Lake Oswego, and 40 percent longer from the Tigard vicinity, than it did in 1977. Due to the large increase in employment in the southwest sector, the reduction in job access caused by the deteriorated service conditions would be small compared to other corridors.

The causes of the problems in the I-5/99W Corridor are diverse. Work trips to the west side of Portland constitute one-fourth of the peak trips. Work trips to the Portland CBD represent only 10 percent of the peak trips. This is roughly the same percentage which is attributable to work trips destined to the Inner Eastside of Portland. A strong relationship between travel volumes in the Southwestern Corridor and the Western Radial Corridor was observed. If 1995 service levels in the Western Corridor were maintained at 1977 levels, volumes in the Southwestern Corridor would decrease by 5 to 10 percent. Work trips to Portland's west side make up almost two-thirds of the peak-period problem in the Macadam Corridor.

2. Improvement Strategy

Recommendations	Responsible Agencies
• Evaluate the effectiveness of implementing a branch line between the west-side transitway and Tigard/Washington Square, based upon 1995 benefits and costs and a construction date of no later than 1986.	MSD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Lake Oswego
MCLOUGHLIN BLVD
HWY 43
West Linn
Oregon City
Wilsonville
HWY 99E
NORTHERN CORRIDORS

MAP 7

• Evaluate the effectiveness of timed-transfer transit service at Tigard/Washington Square and/or the West Portland Park-and-Ride, based upon a service improvement date no later than 1985.	Tri-Met

G. NORTHERN CORRIDOR IMPROVEMENT STRATEGY

1. Problem

Peak-period traffic conditions in the I-5 North Corridor (Map 7) are the most severe in the region. Large segments of the freeway are exhibiting 30 or more vehicle hours of delay per mile. Interestingly, this corridor has one of the lower work trip volumes among the major regional corridors.

The completion of the I-205 Freeway, in concert with huge increases in employment opportunities in Clark County, will cause radical changes in the corridor's travel characteristics and problems by 1995. The total daily vehicle volume crossing the Columbia River is roughly projected to double by 1995; each bridge will accommodate about one-half this movement. The daily work trip volume crossing the I-5 Bridge will diminish and become one of the lowest daily work volumes among the major corridors. There will be no noticeable peak-direction on the I-5 Bridge during the peak-hour. Capacity in both directions will be about 70 percent utilized. By 1995, the I-205 Corridor will accommodate more work trips than the I-5 Corridor. The dominant work trip orientation in this corridor will be Oregon residents traveling to Clark County jobs.

Vancouver is projected to be the only major residential area in the region anticipated to offer increased levels of job access in 1995 without any new corridor improvements. This is due more to the large addition of jobs in the area than to improved travel conditions in the corridor.

2. Improvement Strategy

Recommendations	Responsible Agencies
• Implement ramp metering and High-Occupancy-Vehicle Bypass Lanes at each on-ramp (northbound and southbound) in the I-5 Freeway between Hayden Island and North Broadway.	ODOT
• Evaluate the long-term effectiveness of widening the I-5 Freeway between Hayden Island and North Broadway at key "bottleneck" locations.	ODOT/MSD
• Investigate the need for increased access (northbound and/or southbound) to the I-5 Freeway at the Marquam Bridge and/or Columbia Boulevard.	MSD/ODOT

• Evaluate the effectiveness of implementing high quality trunk-line transit service between Vancouver and major industrial and commercial centers in the Inner Northeast side of Portland, based upon a service improvement date no later than 1985.	Tri-Met
• Investigate the role of the I-205 busway within the total context of this revised regional corridor improvement strategy.	MSD